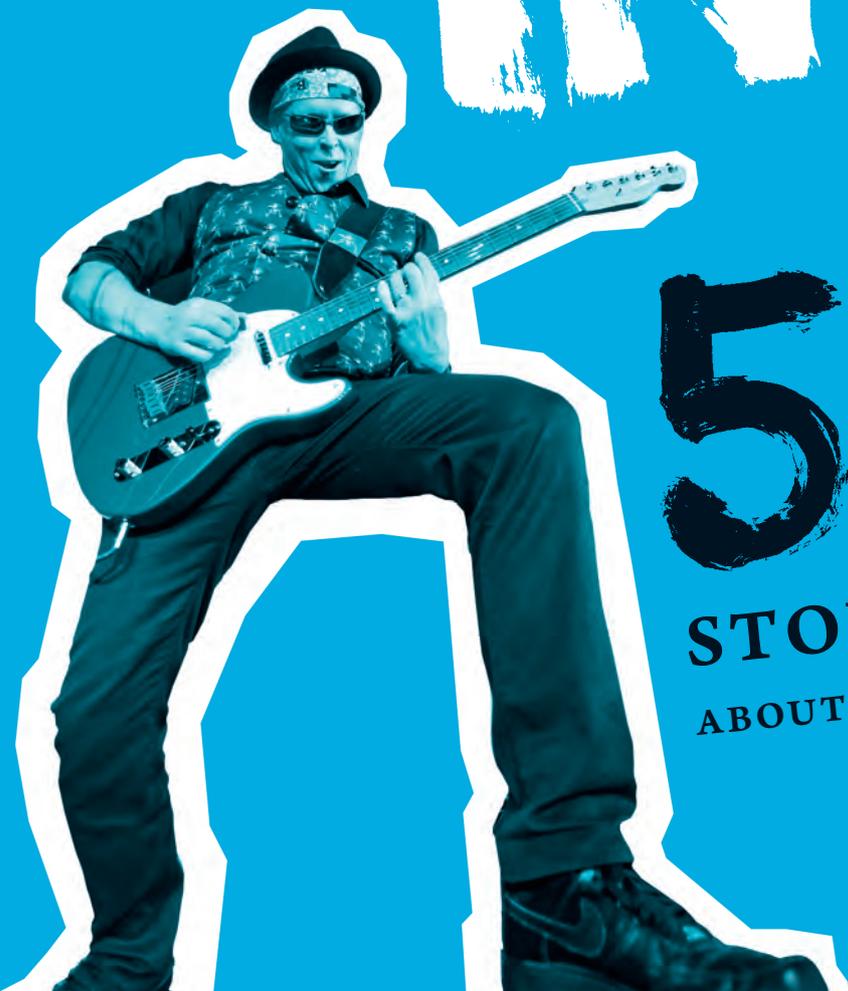


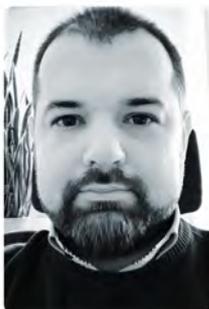
PEKKA LÄHTEENMÄKI + TERHO PUUSTINEN

BREATHE IN



50

STORIES
ABOUT HALTON



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STORIES

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Table of contents

1. PRINTING

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Preface	9
Kausala	13
Seppo	19
Almost Like Hilton	30
Go to Canada, Young Man	32
The Minister of the Interior	36
Races are Won with Heart	38
Love Story	42
Little Factory in the Heartland	50
Distributed Wisdom	54
Capture Jet	61
The Foreigner	65

A Perfect Marriage	71	A Hospital Gave Birth to a Business	172
No Alcohol, Just Wine	78	In Her Majesty's Service	177
1992	80	Buy My Dang Vacuums	180
From Hippie to Sales Guru	91	The Cold, Hard Truth	184
A Swing and a Miss	94	Duty Calls	189
Gorilla Arms	98	Slow Partnerships, Fast Partnerships	190
Heaven and Hell, Engineer Style	103	A Very Little About Russia	197
Mr. Lee	108	If It Isn't Right	199
Sharizan's Education	113	Suzuki-san	201
Bunk Inspection	117	Emergency in the Hood Shop	204
From Slave to Entrepreneur	120	Stepping into the Contractor's Shoes	210
Brainwashing in America	129	Eggplants and Marketing	214
Principles x 2	133	171 Medalists	217
Buying Wimböck	135	Modesty HQ	224
The Sheikh's Palace	142	Why Zero is a Good Goal	226
Sleepless in India	147	Yes, We Can	230
You Know It Yourself	151	Rocking the Company	241
The Dragon has Red Eyes	154	So, What Next?	246
From Crisis to Growth	160	Afterword	251
M.A.R.V.E.L.	167	Halton: The First 50 Years	259

Preface

My father, Seppo, founded Halton when I was 8 years old. I remember vividly how shocked I was when my parents told us we were moving away from Lahti. I was going to be so impossibly far away from my friends, my school, and my play. My world changed. Our family life was turned upside down.

In Kausala, we found a new home, new surroundings, and new friends. It was a good place to grow up. Including for Halton. From Kausala, we launched out into the world and became a global company that operates in 35 countries.

And I became an entrepreneur, too, following in my father's footsteps. A family company becomes an integral part of the entrepreneur's life, touching almost everything. Listening to my parents' stories at the kitchen table and on long walks with my father trained me in the ways of entrepreneurship.

This year Halton celebrates fifty years of existence. The history of a company is made up of an enormous number of different events and stories. The history of a company is a history of people. A company is its people.

When we thought about how to celebrate this anniversary year, our new CEO, Kai Konola, had the idea of 50 stories from 50 years. Stories that would describe our company's history, culture, and values in the words of its people. As a reminder to all us old folks and as a lesson for all the young and future people of Halton. And maybe they'll even be of use to people outside the company. What an awesome idea!

Our intention was to compile different stories and not necessarily publish them as a book. We found an excellent duo to collect the stories in Pekka Lähteenmäki and Terho Puustinen. As the individual stories began to come in, we became inspired to turn them into a real book.

However, we didn't want to do a traditional business book where management recounts how their brilliant strategy was created and how skillfully it was implemented. A solemn account that chronologically describes the company's victorious march through the storms of the world. Instead, we wanted to tell you what really happens at Halton. Without exception, success stems from unrelenting striving, working day in and day out, and countless failures and mistakes.

As we publish this book, I would like to express my heartfelt thanks to our customers and our numerous stakeholders, because their trust in our work has made the development and growth of Halton possible. In this book, stories long and short carry the reader from the beginning of time to the present day, consciously breaking the traditional chronological format. Some important years we recount in exact detail, some more routine years we may not mention at all. The content of the book is designed to serve both the voracious reader and the browser. If you don't have the time to read the whole thing, read the short stories and the captions!

I also want to thank everyone at Halton and their loved ones. Without their commitment and daily efforts, Halton would not exist.

I extend my warmest thanks to Pekka and Terho for their enthusiastic and positive attitude towards our stories.

Thank you to everyone who contributed to telling and collecting these accounts. We're publishing 50 stories now, but thousands upon

thousands will remain untold. Perhaps their turn will come next time. This is our testimony now—as best we can tell it, in all of our voices, with no secrets.

Helsinki, March 2, 2019

MIKA HALTTUNEN

Chairman, Halton Group

Kausala

The land that would later be called Finland experienced a violent birth. As the morning rays of high culture dawned in more temperate climes, a thick ice sheet still covered the area. The movement of the ice ground ancient mountain ranges into hills, crushing the iron bedrock into gravel and carving out valleys, hollows, and holes that would later form lake bottoms.

Then the climate warmed. The edge of the ice began to retreat northwards. The winds carried seeds, which fell on the wet, warming soil and sprouted. After the plants came animals, and following the animals came humans.

Southern Finland only escaped the ice some 12,000 years ago, and, once freed from the weight of the glaciers, the land began to rise. The stone-age Finns were nomads, hunters, and fisherfolk. From the east came the Finno-Ugric tribes, from the south the Germans. The place that would later come to be known as Kausala, and which much later was chosen as the home of Halton, was a border area even then.

The inhabitants of southern Europe knew nothing of the Finns back then. The first known mention of the residents of this periphery was in the Roman historian Tacitus's *Germania*.

The Fenni are astonishingly wild and disgustingly poor. They have no arms, no horses, no homes. They eat wild plants, dress in skins and sleep on

the ground. Their only hope is in their arrows, which, for lack of iron, they tip with bone.

In this description, Tacitus captures something essential about the Finnish soul. Finns adapt to difficult conditions, they cherish freedom, and they seem content with their lives.

*Yet they count their lot happier than that of those who groan over field labour, sweat over house building and venture in hope and fear their own and other men's fortunes. They care for no one, man or god, and have gained the ultimate release: they have no needs, not even for prayer.*¹

In the year 1100, only a few patches of southern Finland were settled. The climate was still cold, and the fluctuations in the seasons were brutal.

Nature favored the most able, the strongest, and the most persistent individuals.

The great powers of East and West met for the first time in Finland in the 1200s. Sweden was spreading Christianity to the east and expanded its power past Kausala to the Kymi River, beyond which stood the soldiers of Novgorod.

Sweden skillfully exploited the weakness of Novgorod—until Moscow and Novgorod united to become Russia.

From this arose a centuries-long struggle which the powers of northern Europe would repeatedly attempt to settle by means of peace as well as war.

The role of the Finns in all of this was not much to speak of. Finland was a target for raids, a battlefield, and a poor border region, and the subjugated people had no chance of open resistance. But even men of great

¹ TACITUS. *Germania*. Trans. Harold Mattingly, revised J. B. Rives. Penguin Books, 2009. Page 57.

power had respect for humble common sense, which is expressed brilliantly in this comment from local peasants in the early 1500s:

A dog that is dragged into the forest will never bark at a hare.

Kausala was founded when King Gustav Vasa began to shore up the defenses of his eastern border and the administration of his empire. Gustav's court believed that church services should be increased in the restless borderlands. Divine protection would be necessary whether the enemy came from the east or the south, as both the Danes and the Russians were rampaging along the shores of the Baltic at the time.

For this reason, the parish of Hollola was divided to form a new parish named Iitti. Records first mention a village in Iitti called Kausansaari in 1558, noting the existence of two houses. This later became Kausala.

Gustav Vasa built Sweden into a successful empire and won the loyalty of the Finns. However, later Swedish kings would overestimate their own power and abilities. Amassing forces on the southern shores of the Baltic resulted in a compromised defense of their northern flank, and the Russians made repeated incursions into Finland. Endless wars, epidemics, famines, and taxes battered the Finns. When the barley and rye ran out, bread was made from pine bark or lichen.

Located on the road between Turku and Vyborg, Kausala experienced repeated looting, destruction and disorder during the eighteenth century. Liquor made men wild, and rough justice prevailed. More faith was placed in magic than science.

Sweden suffered complete defeat to Russia in the war that ended in 1809, and Finland fell under Russian administration.

At first, the tsars treated the Finns with relative clemency. The beneficial effects of this broad autonomy culminated in the 1860s when a law was passed that guaranteed the freedom to conduct trade, and Finland created its own currency, the *markka*. One of Europe's most wretched and backward countries began to develop, and Russia had no intention of standing in its way. By helping themselves, the Finns also helped the empire, just so long as they focused their energies on their work and remained loyal to the tsar.

Progress steamed into Iitti in the 1860s when a train line was built from Riihimäki along the Salpausselkä ridge to Kausala, Vyborg, and finally St. Petersburg. Soon after this, two itinerant schoolmasters were hired in the parish. Educated people subscribed to newspapers and wrote letters. A lending library was set up for the common folk. Previously a backwater known only for its particularly noisy market, Kausala began to develop into the economic center of the Iitti region due to its location along the tracks.

The next great leap forward took place in 1872 when a paper mill was set up in the south-east corner of Iitti parish, in the village of Kuusankoski. Around this time, the Kymi River became the premier source for raw timber in the Nordic countries, as Finland began exporting wood and wood products to other countries. Gradually, intellectual, technical, and administrative progress began to turn into economic success. Decision-makers believed in the power of education and participation. The prerogatives of the nobility were reduced, the rights of working people improved, and women were granted the right to vote—a first for Europe.

Stability also supported population growth. By 1910, the population of Finland had risen to three million souls, tripling in barely a century. The capital city of Helsinki enjoyed a high standard of living and most of the best entertainments of the age, like any other major European city. However, freedom was still lacking.

The opportunity for independence came in the final act of the First World War, when Russia grew tired of fighting and fell into chaos. Soon after the October Revolution, Finland proclaimed its independence but soon descended into its own civil war, which ended in a bloody defeat for the red forces. However, before long, hard work, industrial development, and forestry in particular began to lift Finland out of the shadows of the Civil War. A hospital, the Oma-Pohja Cooperative, and the Kansallis-Osake-Pankki bank came to Kausala. The municipality of Iitti celebrated its 400th anniversary in August 1939.

However, this fortune was short-lived.

A new war began on the first of September, when Germany attacked Poland. A few months later, the dictator of the Soviet Union, Joseph Stalin, ordered his armies to march on Finland.

Over the course of the Second World War, Finland waged two distinct wars against the Soviet Union, losing both and giving up its easternmost territories. While retaining their independence, Stalin dictated ruthless peace terms on the defeated Finns.

What the dictator could hardly have known was that the reparations paid to the Soviet Union would trigger unprecedented industrial growth in Finland. The humiliated people decided that their country would rise from the ashes through work. The legend of Finnish grit—*sisu*—born in the frozen hell of the Winter War continued in peacetime.

Finland built up its heavy industry, and the devices, machines, and vehicles it produced were used to pay the final bill for freedom. A housing boom also ensued to create homes for the Finns evacuated from the areas of Karelia ceded to the Soviets. Sawmills provided lumber and carpentry shops made doors, windows, and kitchen furnishings. Iitti was one of the locations designated for Karelian resettlement, leading to population growth of 30 percent in the 1940s as industry also expanded. By the end of the decade, the Kausala Virvoke beverage factory, three dairies, a caulk factory, the Kausala Terä hand saw factory, and the Kii-tokori coachworks were all operating in Kausala.

However, in the following decade, Iitti began to decline. The number of agricultural jobs dropped as machinery began to displace humans and horses. Iitti's political leaders understood that they were facing a fight for survival. If there were no jobs, the working-age population would move to the cities, and local services would collapse.

The municipality of Iitti began to zone areas it owned for industrial and residential apartment block construction. A special industrialization committee was set up, and the politicians decided to build production facilities for industrial enterprises, providing them with turn-key premises.

Strong economic development in Finland supported Iitti's efforts,

which primarily benefited Kausala. The Helsinki shirt manufacturer Palo-Paita was the first medium-sized company to shift its operations to Kausala, in 1965. These municipal investments were of crucial importance when Halton, founded by Seppo Halttunen, started operations in 1969 in Tillola, a sandy heath smoothed flat during the ice age. Iitti built a complete industrial hall for Halttunen, who had a lot of ideas but not much money.

Some local politicians considered such solutions irresponsible—a generous gift to a capitalist who would only be expected to exploit the proletariat—but as the years passed, the discordant voices faded. Halton repaid Kausala many times over for what it had received.

Lofty ideas, the technical sophistication developed in the post-war years, the persistence of the quiet Finnish engineer, and the industriousness of small-town workers quickly propelled Halton to success as one of the most prominent companies in the domestic metal fabrication industry and laid the foundations for an international breakthrough.

Halton is one of the companies that was instrumental in producing the well-being that has allowed Finland to become one of the most advanced nations in the world. In 2018, on the eve of Halton's 50th anniversary, the United Nations named Finland the happiest country on earth.

Seppo

Seppo wasn't a good engineer; he could barely change a light bulb. But with customers, he was phenomenal. A risk-taker par excellence, he was a tough leader and a sensitive soul, confused by the conflicting emotions he evoked. He was a man of the forest who built a world-class business from nothing.

Seppo Halttunen founded Halton in 1969. At the age of forty, he had already enjoyed a successful career working for Strömberg, Wärtsilä, Huurre, and Asko-Upo, some of Finland's biggest metal processing companies at the time. The idea of establishing his own company matured at Upo's factory, where Seppo worked as the technical director on the refrigeration equipment line. Seppo knew that the factory's ventilation equipment came from abroad and concluded that it could be manufactured in Finland.

Seppo had almost everything a successful man needed, but he wanted more power and greater freedom. Seppo Halttunen wanted independence.

In his opinion, the large companies he had worked for were organized incredibly ineffectively. He believed he could create a new company that would do pretty much everything better. This idea made him very restless. However, a small, young company would be ill-advised to make the

same things as big, established companies. It would have to strike at a narrow market segment it could dominate by becoming the best in that sector. And it would have to set its sights internationally from the start, so the vagaries of the domestic economy wouldn't hurt it too much.

Seppo had a discussion about the future with his wife, Evaliisa, came to a decision, and resigned from his job. The family's summer cottage was sold, and all the money they made was put into the new company. The municipality of Iitti then began constructing an industrial facility for them in the village of Kausala, along the highway linking Lahti to Kouvola.

SEPPO HALTTUNEN was born in August 1927 in Southern Ostrobothnia, in the municipality of Ähtäri, in the village of Myllymäki. His parents, Yrjö and Martta, had a small farm and two children, Seppo and their first-born, Esko.

The wounds of the Civil War still stung in Ähtäri, where the labor movement had always had a strong footing, thanks to industry and the railways. However, after independence, a period of development began that brought electricity and primary schools to the area. Seppo did well in school. He was most excited about sports, skiing in the winter, and competing in track and field in the summer.

Life at home was meager and contentious. Seppo's father had such a taste for liquor that the boys had to eat gruel more often than their mother would have liked. Eventually their parents' relationship disintegrated, and on the verge of the Winter War their paths diverged. The boys left with their mother. His family's departure sent Yrjö into a further downward spiral, and he drank away all his possessions. Seppo realized that he would be forced to build his own future. The framework of a Lutheran-Calvinist philosophy began to emerge.

Seppo's only memento from his childhood home was a copper pan, which he recovered from a cousin who had managed to buy it at auction.

Seppo was too young for the war, but Finland needed labor, especially for the production of munitions. Young Seppo's career path thus be-

gan in 1942 at the Strömberg machine shop school, which lasted four years. After trade school, Seppo landed a job in the city of Vaasa, where he was employed as a work inspector. Studies continued alongside work, though, and young Seppo graduated first as a machine technician and later as an electrical engineer. Work related to war reparations ensured relatively safe incomes for Strömberg employees for years to come.

In addition to work and school, Seppo also participated in sports, more and more seriously as time went on. A place on a team with a coach opened up in 1949 when the lanky blond youngster ran the 800 meters in a time of 2:03.08. Soon the local newspaper started to take note of the promising newcomer running for Vaasa Vasama athletics club. Enska, a columnist for the *Vaasa* newspaper, wrote about him:

In Halttunen, Vaasa at long last once again has a good middle-distance man. This boy is a real "horse", as his teammates remarked after the 800-meter relay. Halttunen has enthusiasm, and as he polishes his powerful running style, his results are sure to improve. This will not be the last we hear of him.

Enska was right. Seppo improved his performance astonishingly quickly and soon clocked a new record of 1:55.07. His training load increased drastically, going from three practice sessions per week to ten. Unfortunately, Seppo's progress quickly hit a wall, his body unable to cope with the grueling interval training.

Seppo would not become the middle-distance star at the Helsinki Olympics that his coach, Armas Valste, had hoped. Instead, his sports career ended in 1952, the same year the Olympics came to Finland.

However, competition experience was valuable capital, which Seppo directed at his work. Later in his business life, when hard times came, he would remember the final stretch of the 800 meters: the lactic acid,

Seppo would remember the final stretch of the 800 meters: the lactic acid, the taste of blood in his mouth, and the battle of wills.

the taste of blood in his mouth, and the battle of wills. Nothing could be harder than that final expanse of track that lasted a small eternity.

THE FIRST Halton factory rose on the sandy heath of the terminal moraine of Salpausselkä in just six months. For its first product, Halton chose mobile shop refrigeration units. Seppo Halttunen jumped with both feet into this business, which was expanding quickly and could provide cashflow for the new, indebted company.

The migration of Finns from the countryside to the cities had thinned out the network of rural shops, so the retail supply chain was supplemented by mobile shops built on bus platforms, whose number grew explosively in only a few years.

Urbanization and a rise in living standards also helped in the selection of Halton's second product range, modular bar furnishings. Ventilation equipment manufacturing began a little later.

Halton's first few months took Seppo to the limits of his strength and abilities. The factory manager and his foremen had to train nearly all of their workers, set up the machinery, plan new products, build a distribution network, handle sales and marketing, and deliver products on time to customers—all alongside their plans to expand production. The first expansion came in early 1970. Halton gained access to another industrial hall, which was called the Sikalanmäki factory. Not even a year had passed since they had begun operations.

When Halton's first fiscal year ended in August 1970, the financial statements showed that Seppo had come out victorious over the entrepreneur's first death trap. Invoices exceeded what had been budgeted for, profits were reasonable, and their cash position was "relatively good." The staff had grown to 31 employees.

Halton's first annual report was written primarily to the company's investors and drew a picture of a new company whose management plans were executed in a controlled manner, as predicted, and were actually better than anticipated. However, chaos reigned within the walls of the factories each day.

There were constant shortages, whether the question was of money, people, or expertise. Sales were strong. Production fell behind, and delivery times grew longer. Major customers threatened to cancel their orders if Halton did not deliver what it had promised. However, Seppo kept his composure. The founder of the company was like a heavily loaded freight train that built up speed, barreling forward and arriving at the station on time. The job was done. The task was handled. The problem was solved. To his worried wife he said:

"We're facing some headwinds, but we'll overcome it. We'll get through this somehow."

Scarcity didn't break Halton. Instead, it was like an invisible whip that drove the young company on toward optimum efficiency. Seppo also drew his own bow to breaking point. At the end of Halton's second financial year, the founder's blood pressure had risen so high that the doctor ordered two weeks of bed rest at Kuusankoski Hospital.

Evaliisa was terrified. This was all they needed. Would her husband's work be the death of him?

"Listen," Seppo said as he left for hospital. "You know Ahti Mikkola from Kesko? Ahti will buy from you while I'm away. You'll do fine with him."

Even though her husband meant well, his words had exactly the opposite effect of what he had intended. Evaliisa's worries only deepened.

"Buy from me? Have you gone mad?"

OF COURSE, Halton had others that were more qualified as salespeople than Evaliisa. The employees at the small company knew each other well and helped each other out. Their pride in the company was high. The company survived Seppo's sick leave, and Seppo recuperated at Kuusankoski.

After his return, Seppo decided to find a more sustainable way of doing his job, and he got better at it each year. In the late 1970s, as Halton began to achieve more balance amidst its explosive growth, Seppo was often getting home by five o'clock. Rather than sitting down to eat, he

would change into his tracksuit and head back out the door. His outings were long, up to three hours spent roaming the heaths of Kausala. The man who returned was always cheerful. Endurance exercise became Seppo's medicine, and it was a drug he couldn't live without.

Seppo also consciously focused on spending time with his staff members during working hours and in his free time.

Delegation turned out to be his great strength: As a leader, he encouraged his workers to take responsibility and make decisions. The details of the technical problems didn't interest him—those could be left to the

technicians and engineers to worry about. Managers had to learn to solve their own problems independently as Seppo traveled in the field. After returning to Kausala from a successful sales trip, he rallied his troops:

“Decisions have to be made, so make decisions!”

Seppo dedicated many times more resources to staff training and product development than competing metal fabrication companies. The middle-distance runner always seemed to be leaning in and racing ahead where no one expected. Moving into

the international market also began before Halton was really ready. Orders began coming in from abroad, but when the phone rang in the office, people rushed around trying to look busy to avoid answering it. Very few knew how to handle technical issues in English, let alone any other languages.

However, Seppo also had another, darker side. At times, he vented the pressures of work in less than delicate ways.

As a leader, Halttunen could deal with disappointments caused by bad decisions, just so long as the same mistakes weren't made repeatedly. However, indecisiveness in his subordinates made him see red. He had no patience for excuses or shirking, and he never hesitated to give

feedback publicly if he felt it was necessary. However, his criticism was always directed at the managers rather than the workers.

Seppo is Seppo, the workers said quietly to each other when a dressing-down of some manager finally ended.

Thus, a legend was born. As the years passed, the founder of Halton became a figure who was both close and distant, frugal and generous, liked and feared, an optimistic pessimist who believed in the best and prepared for the worst.

Seppo said himself that he tried to be good to his cleaners and tough on his managers. And when someone dared to address Seppo as Director Halttunen, he replied that the “director” died in Berlin in 1945. In Finnish, the word for the director of a company was also used for “führer,” a fact Seppo could not abide. Few understood how much Seppo thought about his employees' welfare. He was moved by the great joys and sorrows of human life—when someone close to him was born, fell ill, or died. At the time, only his family were aware that Seppo was a man who knew how to cry.

FRUGALITY MARKED the life of the Halttunen family in the 1970s. In the first year of Halton's operations, Seppo slashed his own salary to one third of what he had earned in his previous job at Upo.

As a father, though, he was kind. In matters of child rearing, he preferred to leave it to his wise wife. But when their two boys Juha and Mika bought a new goalkeeper's glove for ice hockey with their own money, Seppo ordered them to return it to the store. In his opinion, the glove was too expensive. Buying a new one was wasteful.

In the early years of the company, the president of Halton drove such bad cars that they became a subject of conversation. A run-down Toyota Crown finally gave way to a Vauxhall Victor, which soon broke down on the village road. With the help of some taxi drivers, Seppo managed to get the car into second gear and drove the Victor straight to a car dealership that sold Volvos. The time for a Mercedes would not come until much later.

Seppo is Seppo, the workers said quietly to each other when a dressing-down of some manager finally ended.

The young company matured and developed on nearly every front. Production was expanded repeatedly, exports to Europe began, and the first foreign plant was built, in Canada. The 1970s oil crisis turned out to be of benefit to Halton because it accelerated demand for energy-efficient building technology.

In 1981, Halton expanded its operations into completely unfamiliar territory: recycling. In addition to ventilation equipment and checkout counters, bottle return machines entered the product line. This was a product category where competitors thought Halton could never succeed. However, after some teething problems, recycling became big business for the company.

In one way or another, its founder's boldness showed in everything Halton did during that time. Seppo built a product research and development center in Kausala that was enormous in relation to the size of the company.

When he found that he lacked the language skills he needed for his sales trips abroad, Seppo addressed the shortcoming in his usual way: by studying the languages he needed. A private tutor was called to his home in Kausala, who helped Seppo learn to speak English, Swedish, and German. An English engineering student was flown in and assigned to help the staff become comfortable speaking English and especially using technical terms with fluency.

The following milestone in the transformation of Halton came with the sale of their retail fixtures business to G. W. Sohlberg in 1985.

Around this time, Seppo Halttunen's success had begun to attract attention in Helsinki. The company's turnover had exceeded the 100-million-markka level (about 33 million euros in present-day value) and half of that was coming from abroad. The company's profitability was excellent: In the early 1980s, net profit was approximately 20 percent of gross turnover. This result was more than six times greater than the average in the metal fabrication industry in Finland at the time.

The *Talouselämä* business magazine named Seppo Halttunen businessman of the year in 1985, and two years later, President Mauno

Koivisto awarded Halton a coveted presidential export prize. The tall boy from the village of Myllymäki had reached the top. However, Seppo never forgot his humble roots or the people who had helped him.

"I know the life of a working man," the businessman of the year said in an interview with *Talouselämä*.

"Employers should understand that clear grievances must be remedied. Workers must feel some responsibility for the continuation of their jobs. A constant cycle of exploitation is in no one's best interest."

Comments like this were pure Seppo. When Halttunen accepted the export prize from President Koivisto, standing by his side was his chief shop steward, Esa Sundberg. This was a message to Halton staff. Seppo saw himself as rowing in the same boat as his employees. However, he didn't limit his gratitude to pretty words. A good example of his sincerity came when he distributed a portion of the proceeds from the sale of the retail fixtures business to the employees of the company. No one had expected such a bonus, and this incident was forever etched in the minds of everyone concerned.

Even at the apex of his career, Seppo thought a great deal about what his workers, suppliers, and customers thought of him.

He bought a smaller Mercedes even though he could have bought a bigger one. He strove to maintain his image as a man of the people and succeeded relatively well, even though the company prospered, and his personal wealth grew. Seppo accepted the honorary title of industrial counselor bestowed on him, but he used it consciously only once, in trying to reach his daughter after repeated unsuccessful attempts when she was in the hospital's maternity ward.

"This is Industrial Counselor Halttunen speaking. Could you please connect me with my daughter, Eevamaria Halttunen?"

THE OPTIMIST and the pessimist continued to battle in Seppo's mind in the late 1980s. However, these contests usually turned out in the optimist's favor, and the pace of decision-making remained at least as brisk as it ever had been.

Halton established sales offices in Sweden, Norway, and the Netherlands. A factory was built in the United States. The domestic market heated up. The group's turnover rose to more than 200 million markka. A decision also had to be made about handing over the reins to the next generation, since the founder's retirement was fast approaching. Seppo planned to transfer management of the company to his sons when he turned 65 in 1992.

Some thought they could already see signs of euphoria in the approach of their 60-year-old leader. Seppo seemed to think they would succeed at everything. He heard the warnings about the Finnish economic crisis that was coming, but he didn't pay them any heed and did nothing to cover his back.

"Seppo, I'm so damn scared this is all going to end," one of the Halton managers said in 1990, when the first signs of the downturn began to show.

"Nothing is going to end," Seppo replied. "Just make better products!"

Halton expanded its business by completing a major acquisition in France in 1989, even though Seppo knew full well that if a crisis did hit, laying off the French workers would be difficult. In 1991, Halton opened a sales office in Belgium. A few months later, the Soviet Union collapsed, and the Finnish economy ran aground.

Trade with Russia collapsed first, then the domestic market followed. The Finnish markka couldn't withstand the shock, which had grown into a perfect storm. The currency was devalued in November 1991. With its large debts, Halton was forced to record huge losses, because it hadn't hedged its foreign currency loans against the devaluation. The founder of the company found no comfort in the fact that countless other Finnish companies had hit the same wall.

Seppo had piloted the company he created to success and cleared a lane into the international market, but he made a serious mistake in the final stretch of a brilliant career. Halton was in crisis when Seppo handed over leadership of the group to his sons in early 1992. Mika was assigned responsibility for the group's largest business area, ventilation,

along with the duties of president of Halton Oy. His big brother, Juha, took over Halton System Oy, the recycling arm of the business, and the retail furnishings operation in North America.

At only 31 years of age, Mika Halttunen soon had an unpleasant project land on his desk. There was no option left but to begin laying off employees, among them far too many familiar, capable people.

Almost Like Hilton

M

any companies change their names, but Halton has always been Halton. What does the name mean? Nothing really.

Halton was chosen as the name for the company because it was powerful, it evoked trust, and it was easy to pronounce in different languages. Halton was pleasing to the eye and the ear, just like Hilton.

The company's founder, Seppo Halttunen, and his coworkers also considered other names. One of the tongue-in-cheek options suggested was Halttunen Sheet Metal Works.

That would have been an instant classic. The same products, the same strategy, and the same frenetic activity, but with that name?

At least it would have led interested parties straight back to where it all began—metal fabrication. In the same way the name Bayerische Motoren Werke once evoked a Bavarian engine shop.

At some point, presumably by the 1980s, the owners of Halttunen Sheet Metal Works would have made some attempt to modernize the

company name. One option they would have considered would have been an acronym. The management team would have said that it was a natural solution because it maintained a connection to the past. HSMW. Where would that be today? Almost like BMW!

Go to Canada, Young Man

Aspirations were high from the beginning. Seppo Halttunen wanted to put Finnish products and his Finnish company on the world map.

Exports to Sweden and Norway started in 1971, two years after the company's first factory had started production in Kausala. The same year, Halton presented its products at trade fairs in Stockholm and Moscow. Leading experts in the Soviet Union studied Halton's ventilation technology, but deals were only made for one of the bar counters made at the Sikalanmäki factory. That went to Tashkent, the capital of the Soviet Republic of Uzbekistan.

In 1974, Halton products were exported to the UK, France, and Belgium. Three years later, Halton made headlines by signing million-markka deals in Iran and Libya. An even bigger sensation came in 1978: Halton founded a subsidiary in Canada and started building a factory in Peterborough, Ontario. It would be Halton's first business unit outside of Finland.

Why Canada? Sweden would have been closer. Or the economic miracle of the West German economy, an enormous potential market for a young, growing Finnish company.

The decision to go to Canada has remained a mystery, even to Seppo Halttunen's inner circle. Some suspect that Seppo was afraid of communism and wanted to form a bridgehead on the other side of the Atlantic to ensure the company's future in case the revolution rolled into Finland. Perhaps the family could have moved to Canada if business in Finland became impossible.

Many Finnish entrepreneurs at that time were concerned about the political power of the Left, which in the most extreme scenario could have led to the socialization of private property. The Finnish Social Democrats did not publicly disavow the goal of socialization until the early 1980s.

Of course, Halton planned its expansion into Canada as carefully as possible at the time, in cooperation with the Finnish Foreign Trade Association. The objective in Peterborough was to begin producing mechanical checkout counters and railing systems for retailers. The new company could also market ventilation equipment made in Kausala to Canadian and American customers. The factory location was good: it was situated near Toronto and within reach of a population of ten million people.

In their research, it became clear that Halton could not operate under its own name in Canada. The reason was that, as chance would have it, there is a region in Ontario also named Halton. Therefore, the new company was renamed Oston Ltd.

Oston's first factory was a mere 17,000 square feet. The early days were very difficult. The man chosen as factory manager was not at all up to the task, so Seppo Halttunen's right-hand man, Juha Elf, was flown in to help, but he didn't know any English. Elf took along a dictionary and learned the rest the hard way. According to a story recorded in Halton's 25th anniversary history, Elf accidentally bumped into a lady in the revolving door of a local department store and politely apologized in his broken English:

“Kiss me!”

Juha Elf worked day and night, and lost 35 pounds (16 kilograms) in six months. It didn't help that getting sales off the ground turned out to be more difficult than expected. When word began to trickle out of Canada about the bankruptcy threatening the factory, Seppo Halttunen decided to fly across the Atlantic himself to remedy the situation.

The Oston salespeople had a big problem: no one would listen to them. Oston was an unknown company that produced strange products. Catching the attention of customers was very difficult, and there was an even longer way to go to gain the market's trust.

Seppo ultimately spent six months in Ontario, working side-by-side with the factory staff and the salespeople. According to one story, he spent several hours at a time over two or three days sitting in the lobby of one important customer before he was let in—apparently out of pity.

Sales began to pick up, and the threat of bankruptcy faded. Operations in North America stabilized and set the stage for the next steps of international expansion. Seppo Halttunen said later that those experiences in Canada were critical. It was a trial by fire and an acid test, which Halton won. If they could direct business in Canada from Kausala, they could do the same in many other countries.

In the early 1980s, business was going so well in Canada that they expanded the Peterborough factory. However, conquering the US market didn't work so well from the north. So, in 1982, Pan-Oston Co. was founded in Pittsburgh, Pennsylvania to market Oston and Halton products. The first factory was set up in Glasgow, Kentucky, a few years later. At first that also produced checkout counters.

Halton's international expansion accelerated in the 1980s. New sales offices were established in Sweden, Norway, the Netherlands, the UK, and Denmark. In the early 1990s, Belgium's and Germany's turns came.

In the 1990s, the Canadian factory began producing checkout counters under the Pan-Oston name. However, the company faced major difficulties in 1994 when the relationship between factory management and the local trade union soured. Small differences of opinion grew into

a serious conflict, and the result was a strike that lasted several months. Untold numbers of alarmed faxes crossed the Atlantic. The connection between Kausala and Peterborough continued to cool when the leadership of the Halton Group threatened to close the factory.

But ultimately, the wrinkles were ironed out and production began again. However, restoring trust proved to be difficult, and the Halton board began to consider terminating checkout counter production. This took place in 1997 with the transfer of ownership of the Halton checkout counter business to Seppo Halttunen's oldest son, Juha.

Pan-Oston continues to operate in the same market, under the same name, in the same locations in Ontario and Kentucky. It manufactures various fixtures for supermarkets and technical trade needs. Nowadays the company is owned by Houchens Industries, which is also based in Kentucky. Whatever the original reason for Halton's Canadian adventure, the work didn't go to waste.

If they could direct business in Canada from Kausala, they could do the same in many other countries.

The Minister of the Interior

“ I’d been on a tour as a peace keeper in Cyprus. When I came home to Finland, I became an entrepreneur driving a sewage pumping truck. One day I pulled into the Halttunens’ driveway to pump the septic tank of their new house. Seppo saw me, came to the door and got straight to the point:

What the hell are you doing? Erkki, you’re going to quit this shit truck thing right now and come to work at Halton. Get rid of the shit truck.

And so I did. Seppo was looking for a partner to handle financial administration, and I was his man. We had a very good relationship. We discussed every major decision and felt great trust in each other. When money was tight at Halton, we shared a room when we were traveling, sometimes even a bed. We always went for a walk before turning in, even after late dinners. Seppo’s drive to exercise was incredible.

Seppo was also an assertive leader. He knew how to give orders, and he gave clear assignments. He didn’t ask us if a task was OK with us or whether we had time to do our jobs. We’d work 48 hours straight if that’s

what it took. Seppo relied on work, diligence, and learning. He demanded constant change, so no one would get bored in the company. Sometimes we’d barely started to learn one thing when it was time to move on to something new. There was always a queue of new projects. The tail of the snake moved to a different direction the head ordered.

When I retired, I gave a speech at my going-away party. I directed my words at Seppo:

I’ve always been loyal to you, for twenty-eight and a half years. Only once did I violate this principle.

It all started when Seppo was going on a trip abroad. He’d turned down a certain project and said clearly that we weren’t getting involved.

When Seppo was away, my subordinate told me that we couldn’t give that response to the customer. We had to soften it and say that we were still studying the proposal. Once we were sure, we’d give them our answer. You wouldn’t believe the uproar when Seppo got back. His familiarity toward me completely disappeared:

I’m the one who makes the decisions here. I am the president of this company. I gave you precise instructions, and you deviated from them.

After that, I never strayed from the instructions Seppo gave. Things mostly went well. And Seppo was well liked among the factory staff. I’m especially proud that there were never any strikes at Kausala during the time Seppo and I worked together. Well, maybe there was a one-day strike, and it was really our fault in management. We didn’t handle something well, and communication broke down. But we were able to negotiate a resolution. Everyone understood that neither side would be helped by leaving work undone that had to be finished.”

ERKKI NIEMINEN served as the CFO and vice president of Halton from 1971 to 1999. The company staff called him the Minister of the Interior. Erkki passed away in August 2018, a few months after this interview.

Races are Won with Heart

Potatoes, pork, and brown gravy—fried pork gravy was a staple food in the Tolmunen household in the 1970s, just like in hundreds of thousands of other Finnish homes. It was tasty, filling, and inexpensive. Variety came from swapping the pork with sausage. Or serving the potatoes with white sauce.

An engineering innovation had recently revolutionized potato cooking in the Tolmunen kitchen. Instead of submerging the potatoes in boiling water, they were placed in the pot on a steel trivet with feet that kept the potatoes above the boiling water below. So, the potatoes were steamed, not boiled.

Around the edges of the circular base were hinged blades that automatically adjusted to different sizes of pot. It was like a steel round of swiss cheese with three feet. When the steamer basket wasn't in use, the blades folded in, so it would take up as little storage space as possible.

The Halton Kausala factory was three kilometers from the Tolmunen home, a newish row house. Arvi Tolmunen came home for lunch one

day to find his son playing on the living room floor with the potato steamer. Suddenly, Arvi had a flash of inspiration. If you took the feet off and put that in a ventilation duct, you'd have a simple damper that could control the air mass and pressure flowing through the duct!

At the time, in late 1975, only one full-time employee was working on the Halton design team. His name was Erkki Aalto, and he was simultaneously completing an engineering degree at Helsinki University of Technology. When Juhani Häsä and Arvi Tolmunen joined Erkki on the team in early 1976, its effectiveness grew exponentially.

Halton's new product developers were young and inexperienced but eager men with practical minds. Arvi had finished elementary school and done some training courses, including one at Halton. The most important of these was a three-year technical shop supervision certificate, which he completed in his spare time. According to Arvi, growing up on a farm also required a lot of ingenuity.

"But to become an inventor," he mused. "How can I put this... a word like that feels too fancy for someone like me. I don't know if I'm much of an inventor."

The best inventions are very simple, though, and the road from invention to commercial product requires a lot of work. Arvi Tolmunen, Juhani Häsä, and their design group had to solve many problems before the new damper could be offered to customers. The functionality of the blades and hinges had to be ensured, and they needed a solution for controlling the damper from outside the duct.

But by the end of 1976 it was ready, and Halton named it the PRA. The product was so unique that they immediately applied for patent protection. None of their competitors could match it. Their dampers required large amounts of space outside the duct, while Halton's innovation slipped right inside. The ability to measure airflow was also a technological advancement.

Customers quickly gravitated to this novel-looking damper and realized its innovative benefits. The PRA was one of the products that allowed Halton to begin its entry into the European ventilation market in

the late 1970s, and the idea turned out to have exceptional durability and longevity. Production of updated PRA dampers continues to this day.

Arvi Tolmunen worked at Halton for nearly 40 years before retiring. He's never counted how many patents he's been involved with, but he guesses that his name shows up on about ten different patents. Arvi ended up in metal fabrication because it suited his character so well.

"I was a little shy and indecisive about choosing a career. My cousin tried to push me into a career in the army, but I knew that wasn't for me. I was too nice and gentle for that. I could stand at attention with everyone else, but standing at the head of the line is more demanding. It requires assertiveness. In my Halton vocational courses, we worked on cold, unfeeling metal, which we had to fashion into different products. That felt more interesting and more natural than trying to mold people's characters."

Arvi says that solving problems with products requires an open, curious, positive mind. He's often compared the strokes of inspiration an inventor experiences to making music.

Arvi says that solving problems with products requires an open, curious, positive mind. He's often compared the strokes of inspiration an inventor experiences to making music. It's like the composer Lasse Mårtenson says: You can think of all music as already existing. You just have to find it. It takes a man or a woman, a heart and a brain.

"The best ideas come from the heart, and the brain develops the technical solutions to make those ideas a reality. Since people don't have an internal organ that determines their attitude, we might as well call that our heart."

Arvi emphasizes that in addition to the heart and brain, you also need a group united by the same attitude. Most Halton inventions were a re-

sult of close teamwork. No product ever came to fruition thanks to one person's individual contemplation.

More than a million units of various versions of the PRA have been produced. This wouldn't have been possible without Halton constantly improving the product. Refinements of the damper's internal mechanism by the Kausala design team began in the first years of its life cycle. Adjustment using a toothed bar was significantly more accurate than the first version. The operation of the blades was improved so the damper could work as smoothly as possible. All unnecessary friction was removed.

Manufacturing methods were streamlined so more of the product could be produced, faster and more profitably. A special tool was acquired for shaping the blades, which did its part of the work without human guidance. The worker who was freed up from blade shaping was moved to a task where his expertise could be better utilized. Productivity increased. Profits grew. With that income, Halton hired more Arvi Tolmunens for research and development, and their ideas resulted in even more new products.

Today the strengths of the PRA are mostly the same as the benefits of the first version of the invention. The PRA takes up a very small amount of space. It's easy to install, precise to adjust, and almost silent in use. Halton makes many sizes of airflow damper, the largest of which has a diameter of 1000 millimeters and weighs about 20 kilograms.

"I don't remember any of Halton's competitors trying to make anything like it," Arvi Tolmunen says. "That certainly would have led to a brouhaha. The PRA is so different in appearance and technology from everything else. Everyone leaves it alone."

Love Story

Down the back of his neck he had a small snippet of hair like a braid. Probably an old rocker, who'd cut his hair but left a little memento for himself. This was Tarja Takki's first observation of Mika Halttunen, but that was all. Mika was just a nice school friend among other nice school friends.

Tarja and Mika were studying HVAC technology in Otaniemi in Espoo, at Helsinki University of Technology, now part of Aalto University. Both participated when the HVAC students traveled to the United States for a three-week study trip at the beginning of their fifth year. It was 1985.

At that time, airplane tickets were unbearably expensive. Student stipends were small, so they had to scrape together travel funds the old-fashioned way, by working. Jobs included the new beach sauna in Otaniemi, where Tarja did brazing of copper pipes. That was an easy task for a woman who had learned welding in her summer job at the Vuosaari shipyard and worked as a plumbing supervisor for the Helsinki City power company at the age of 20.

There was a great program planned for the trip. However, soon after their arrival in the United States, it became apparent that while some of

the group were interested in the intended subject, others' enthusiasm was focused solely on having fun. Mika Halttunen, who was the tour leader, tried to keep order and get the hung-over group to their scheduled excursions with appropriate decorum. But as the students greeted their hosts, the stench of stale booze still hung in the air.

Mika was ashamed of his friends' behavior, but Tarja was more irritated by their fussy trip leader, who was upset over nothing.

"I asked him what business of his it was," Tarja says. "Everyone on the trip was an adult! He couldn't order them around!"

Mika disagreed, and sparks flew as Mika and Tarja, both of whom are quite tall, stared each other down. But there was something more in those sparks. Mika liked Tarja's directness, and she was beautiful. Tarja noticed how intelligent Mika was, and she thought he looked cute, especially when he was angry.

"Mika and I were able to speak on the same level. Almost. How do you fall in love with someone? Being with him was just so easy."

According to Tarja, Mika is strong but sensitive, more of an introvert than an extrovert, even though he enjoys being with people.

"He spends a lot of time thinking before he makes a decision. He trusts people to the bitter end, sometimes longer than he should. Then he says that this is just business, and we'll fix whatever needs fixing."

"Mika's strategic ability was at a high level, even when he was young. It seemed like he'd internalized the Halton strategy at his mother's breast or on his father's knee. What to do and what not to do."

HEALTHY AND safe indoor air everywhere it's needed: This idea has carried Halton through two perilous times, including the financial crisis of 1991 and the 2008 crash. According to Tarja, it still carries the company forward.

Tarja is a straightforward engineer and a straightforward feminist. She decided when she was young that she would be a leader. As a young woman she wanted to demonstrate what she could do through her work. Tarja's feminism wasn't and isn't a matter of degrading men—it's about

promoting everyone's capacity to grow according to their abilities and stretch the limits of their own potential.

"Sometimes people have asked me how I've been able to survive among all these men. That question surprises me. Maybe I don't see my coworkers as men or women so much as different people."

Tarja's father, who was also an engineer, directed production at the Vuosaari shipyard in Helsinki, and her mother was a nurse. Tarja wanted to be a shipbuilder like her father.

"It was 1982. I was in my first year in the engineering department at Helsinki University of Technology, where I'd applied to become a shipbuilding engineer. However, my father said that the future of shipbuilding looked really bad in Finland, and he warned me away from it. I was practically ready to slit my wrists at that point. What was I supposed to study?"

Heating, piping, and air conditioning, her father replied, guessing that women would have an easier time getting work in HVAC design. So Tarja ended up in HVAC and ultimately as Mika Halttunen's life partner.

Tarja did her thesis work for Ekono, which is now a part of the Ram-boll Group. Her project dealt with surgical operating room ventilation solutions. Tarja also supplemented her HVAC studies with a minor in information systems.

AT SOME point Tarja's skills came up in conversation at Halton. As he prepared to hand the torch over to the next generation, Seppo Halttunen decided that Tarja could join the family business. However, Seppo made a serious miscalculation. He proposed that Tarja should be the head of training.

"My father-in-law was a charismatic man who sometimes said some pretty chauvinistic things. At first, I just kept my mouth shut until Seppo started asking how a woman was supposed to plan and draw HVAC systems for buildings. I didn't hold back at all. I said that you weren't supposed to draw them with your penis."

Seppo Halttunen didn't usually condone this sort of language, but he took a different attitude toward his future daughter-in-law. Tarja felt

that Seppo gradually began to admire her courage. He still exercised his power by making Tarja take a set of psychological tests for regular hires. Tarja did well on them. Mika also had to go through the same tests, with equally good results. Afterwards, Mika said they were the last tests the two of them would ever take.

Tarja finished her thesis work and organized the couple's wedding over the summer of 1988, while Mika had already started working in the United States. Early on they decided to arrange their marriage in a way that combined professional ambitions with family life. Before the wedding, Seppo approached Tarja in a very different way than the time before:

"Tarja, could we talk? Could I ask you to join Mika in the US? Two pairs of eyes see more than one."

Tarja thought this was a good suggestion and quit Ekono. Tarja's former supervisor said to Seppo later that there was no way Ekono could compete with Halton's unique recruiting methods—i.e., marriage.

At that time, Halton was a small player in North America. The production units in Ontario, Canada, and Kentucky specialized in making and selling retail checkout counters, and they weren't doing anything on the ventilation side yet. Mika had wanted to go back to the United States ever since his year as a foreign exchange student. When Halton began planning to start an indoor air business in the United States, Mika immediately wanted to be involved.

The first potential product group was kitchen hoods, which they'd just begun making in Europe. In order to speed up market entry, Halton purchased a local hood production line in Tennessee, also hoping to get customer contacts in the deal. It quickly became apparent, however, that there weren't any. They would have to find their own clients.

Mika's start in America was different than what he'd imagined.

At first, Halton hood sales operated in Pittsburgh, Pennsylvania, out of the same office where the checkout counter sales manager and his two assistants worked. Marie and Madeleine watched the young Finnish entrepreneur for a month and then turned on the sales manager. He'd been

embezzling money from Halton. The mess was quickly straightened out, though. Seppo Halttunen's right-hand-man, Erkki Nieminen, the company's CFO, took the first possible flight to the United States, set up the necessary investigation, and fired the sales manager.

In Pittsburgh, everything was big for the young Finns except their apartment. The crowning moment of each week for Tarja and Mika was the Friday special at Little Caesars: two pizzas for the price of one. They would drive home with the pizza and wash it down with red wine.

Tarja was 26 years when she started making the rounds of the American engineering firms. Her goal was to sell a new way of thinking to professional kitchen designers. Everywhere she went, Tarja would draw illustrations of why American hoods didn't work and why Halton's European model was better.

illustrations of why American hoods didn't work and why Halton's European model was better.

"The way you do it is fine, but you're doing it wrong. This picture shows how you should do it. Why do you swirl the air in the hood instead of removing the dirty air from the kitchen?"

"Their drawings contradicted the laws of physics. They were circulating

the air in the name of energy efficiency. They called them energy-saving hoods, which was nonsense. They could have just left the whole hood off and connected the supply and exhaust ducts. We knew we had a chance to succeed in this difficult market because our product was superior."

Tarja and Mika worked hard, but at first, they couldn't land a single contract. Their personnel choices still weren't hitting the mark, because the first sales manager for the hoods turned out to be hopeless. He had a peculiar way of explaining every phone call he had in detail to his co-workers. And all the intervening time was taken up telling other stories.

Tarja was responsible for launching hood manufacturing at the Glasgow factory in Kentucky, where the checkout counters were already be-

ing made and where personnel challenges were already being experienced.

When the company purchased the production line, with it came a certain engineer who was honest but very slow. Halton needed him, though, because he was the only one who actually understood anything about the product. The Kentucky dialect was very difficult to understand. When Tarja couldn't understand what one foreman was saying, she asked him to explain in a different way. Apparently, this was too much to ask, because he just repeated the same words, only shouting.

Mika and Tarja moved near to Glasgow in the spring of 1989. Their belongings fit into two cars, Mika's white BMW and Tarja's red Chevy Corvette. The Friday pizza night tradition continued, giving the young couple an opportunity to review the week's events and prepare for Seppo's Sunday phone call.

"We worked out our answers for Seppo so we'd be ready when he called. We had to have our responses done by Saturday at the latest, because he called on Sundays. Seppo always started the same way, asking about the weather and how we were feeling. But those were just pleasantries. Really he wanted to know whether we had any deals."

Some of Halton's management team in Finland thought the operation in the United States was a mistake. Many of Seppo's subordinates believed Halton was just burning money in the US. Mika and Tarja were well aware of this. There were people in Kausala who didn't approve of opening operations in America.

"What are they even doing there? That's what people were asking. But Mika and I decided that we weren't going home with our tails between our legs. It may be that Seppo let his own son try for longer than he would have let anyone else."

Seppo Halttunen listened to their explanations, but then his patience ran out. Halton's founder flew across the Atlantic to find out for himself what was getting in the way of the business.

"Before long he was standing there at the conference table. He spent a while looking at the papers and then said, 'This is not a business.' He

**"The way you do it is fine,
but you're doing it wrong.
This picture shows how
you should do it."**

would make more profit if he put his money in the bank. Then Seppo threw the papers across the table, which landed in Rick's lap."

Rick Bagwell had just been hired. He and another newcomer, Phil Meredith, seemed reliable. Tarja later heard from Rick how Seppo's outburst had been received:

"Rick decided that would never happen to him again."

Afterwards it turned out that recruiting Rick and Phil was a crucial turning point in Halton's American business. The business found a di-

rection and a logic. Sales picked up, because Rick already had good contacts in the industry. Tarja also began receiving calls. The design firms she had visited before asked her back. The engineers had realized that Halton's solutions worked better than the local products. Halton's hoods started ending up on drafting boards.

Tarja and Mika only sped up, beginning to plan the purchase of a largish company in California. That would have brought the rise of Halton in the 1980s to its climax. Fortu-

nately for those thirty-year-old buyers, the acquisition was canceled at the last minute when it was revealed that the company's land was badly contaminated.

"That deal probably would have killed Halton," Tarja says. "It would have been too much for us to handle right before the recession hit in the early 90s."

Tarja and Mika's adventure in America ended in the summer of 1991.

Tarja was expecting their first child, and the due date was September 1991. They also knew that Seppo's time leading the company was coming to an end. He would give up control at the beginning of 1992 when he turned 65. Seppo tried to hide his fatigue, but his close friends could

already see the first signs of surrender in the old entrepreneur. It was time for Mika and Tarja to return to Finland.

According to Tarja, impatience is one of the main reasons European companies have failed in the United States. A small and disruptive product line—no matter how technically superior it is—needs time to break down the defenses of the solutions currently dominating the market. Straightforward marketing, persistent footwork, courage, and flexibility can lead to success in the US just as much as in Europe. But first you have to fail an excruciating number of times.

"What did I learn in America? That anything is possible. Truly anything. It all depends on you. This has always felt like a refreshing and reinforcing idea."

"That deal probably would have killed Halton," Tarja says. "It would have been too much for us to handle right before the recession hit in the early 90s."

Little Factory in the Heartland

“ In 1988, a new factory came to Glasgow, Kentucky, where I lived. I thought there might be opportunities to get ahead there. After an interview, I landed a job in the Halton factory welding shop. I was 21 years old, and there were thirteen employees at the factory.

I soon noticed that the working environment was very different from the previous factories I'd been employed at before. The atmosphere was friendly, there was cooperation between management and the employees, and the supervisors kept the employees up to date about the company's financial situation. We knew what we needed to accomplish and strived to work harder because we knew that our success depended on it.

Upper management could often be found on the shop floor helping to assemble products or give instruction as needed. This was out of the ordinary and still is if you compare it to a lot of companies in this area.

Most often there are divisions between management, the office staff, and the factory workers. This was not so at Halton.

I don't know if that was the European influence or if it was because we needed everyone's full commitment to get the product finished. Mika Halttunen and Tarja Takki started the factory with a very hands-on style. That created a culture that has remained to this day. Management is still closely involved in manufacturing.

At first, I worked in the welding department, doing prep work and spot welding for the manufacture of checkout counters for retail and grocery stores. Soon after we also started manufacturing kitchen hoods. At first the work was pretty chaotic. We had a lot of new employees who weren't used to this kind of freer management style. But it encouraged employees to be more active, to ask more questions, and do more.

A couple of years after I was hired, I became pregnant with my first and only child. I was working in the shipping and receiving department and this position required a lot of heavy lifting I was unable to do because of my pregnancy. I was asked if I would be interested in an entry level office position doing data entry and general office work. I accepted this position and I continued in the same job as a full-time employee for Halton Company when I returned to work after eight weeks of maternity leave. However there have been several times I have also worked on the shop floor when extra hands were needed. That's the Halton way. We're flexible.

In 1997, Halton moved about 50 kilometers away to Scottsville. That also meant a move for myself and my young son Jerry. Moving to the new factory has been one of the highlights of my career. All the employees at that time were very much involved in moving to the new facility, from machine placement to choosing the color of paint for the offices and factory. It was a very exciting time for us.

Today I am a project manager for the Marine division. I manage the projects from sending out bids to the customers, processing purchase orders, logistics and after sales service. We now have approximately 140 employees in our Kentucky facility,

Coinciding with the new facility in Scottsville my son Jerry started school. As we had relocated to be near the new Halton facility and were no longer close to our family, I was allowed to bring Jerry to the office in the afternoons when it was necessary for me to stay extra hours to complete work. Jerry could often be found doing his schoolwork in my office or the break room. Halton is a very family-friendly company, I often see our employees' children in the break room or in the offices with their parents still today.

The most difficult years for this factory were during the crash in the early 2000s. We had to reduce the workforce, and the future seemed uncertain. On the office side, we took alternating furloughs, traded jobs, and kept the company going. It took six months before the situation started to get better. That felt far too long. The 2008 financial crisis was another difficult time. The thing I remember most from then is people's kindness. We had employees who took voluntary unpaid leave because they were in a good financial situation.

That time also showed what a good company Halton is. The company promised to take back all the old workers, and when the situation improved, they were offered full-time jobs again. Some other companies just put a list of names up on the wall. If your name wasn't on the list, you didn't have a job anymore.

Jerry landed his first part-time job at Halton working after school in a program between Halton and the local high school when he was 16 so he could earn his own money. After graduating, he worked at other facilities where he gained additional experience and was then fortunate enough to get a permanent job on the Halton factory assembly shop floor. Halton was Jerry's first choice. I am very proud of my son. I love being able to take a quick break from my workstation to go and ask how he's doing.

In August, we started laying the foundations for a new production and research building here in Scottsville. The factory is going to produce air purification and air handling equipment. The new factory is a ten-minute drive from my office.

Jerry's job is moving there, which will open up new opportunities for him. I'm very excited for him and grateful for the opportunities Halton has offered, but I'm also going to miss seeing him in our work environment on a daily basis. In a conversation with one of the managers, I jokingly asked if there might be an office for me at the new facility and was told with a laugh that it was time to let go a little of my son."

TERESA GILLENLINE is a project manager at Halton Marine in Scottsville, Kentucky, USA.

Distributed Wisdom

Centralized or decentralized? Which is better? Great leaders and those aspiring to be great leaders have pondered this question throughout the ages. Do we concentrate power in the capital or do we decentralize administration to the provinces and states? Should we centralize our strength in the main office or spread it out in subsidiaries?

This same question has often bedeviled Halton, too. A good example is product research and development. The answers have varied over the years, except in the beginning. Then everything was in one place: in the product development center in Kausala.

THE CABINS on a cruise ship are kept at a pleasant 22.5 degrees Celsius. The sofas are blue, the floors tiles of the bathrooms are gray, and the air is fresh. When the sliding door of the balcony opens, tropical heat and humidity waft in, even though the cabin is currently located closer to the North Pole than the equator.

The Halton research and development center in Kausala boasts a real cruise ship passenger cabin. Using it, engineers test how ventilation systems work with a Caribbean climate outside the glass door. In the neighboring room, a team might test how the ventilation of the office of a financial services company will work when the sun shines on one wall of the building. When a customer decides to launch a test like this, a deal is almost certain.

Halton built its research and development center in Kausala in 1984. At the time, this investment of eight million markka, or 3.5 million dollars in current value, was big for a company the size of Halton—dangerously big.

Some began to call it the bankruptcy laboratory, because they feared it would drag the company under. However, over the years this unofficial name has taken on a new meaning. Without the know-how and innovation introduced by the research and development center, Halton never could have succeeded as an international company. If Halton hadn't taken the risk of building the bankruptcy laboratory in the 80s, it may easily have experienced a real bankruptcy in the recession of the early 90s.

Back then, Halton's laboratory was unique in Europe and perhaps in the entire world. Nowadays the competition has similar facilities, but Kausala's capabilities still stand up well to any comparison. The research facility is 1,500 square meters, with a ceiling that can be raised from normal room height up to 10 meters.

Before completion of the center, research was carried out in a corner of the Kausala factory behind chipboard walls. The space was full of random junk, and staff could never take customers there. Once there was an embarrassing situation when a Japanese customer climbed a ladder and peeked over the partition. What he saw presumably did not live up to his expectations. There wasn't anything super-secret, just a jumble of pipes and other parts.

Completion of the new, shiny, ultraclean facility was an enormous leap forward. Seppo Halttunen wanted the space to stay in tip-top condition, so all loose materials had to be collected every night. That wasn't

always easy, since product developers had often spent all day enthusiastically whittling new product models out of wood and sheet metal.

In the new measurement lab, Halton was able to test how efficient and quiet the products really were for the first time. These new, precise measurements revealed that in many cases product information provided to clients had been overly optimistic. The products weren't as good as they'd thought. Overnight they had lost some of their performance. How would the company tell the customers?

Management decided to update all of the information in the sales brochures at once, which resulted in a flood of customer inquiries. How could Halton's products suddenly be worse than the competition? The answer was that Halton doesn't comment on competitors' products, but that it had begun measuring its own products more accurately. Now they were definitely correct.

The result was surprising. Customer confidence in Halton increased. Sales grew. Many customers concluded that they could rely more on Halton's numbers than the claims of its competitors who lacked bankruptcy laboratories. The investments of 1984 gave Halton a ten-year head start, and this centralized model for product development worked wonderfully for several years.

HOWEVER, A creeping change began, primarily caused by Halton's business acquisitions and internationalization. In 1989, Halton purchased the French company Anemotherm, and an R&D center was built in France in 1991. Another step was the establishment of a factory in Malaysia in 1996, and the next year, another factory went up in Scottsville, Kentucky.

By the end of the millennium, Halton product development was being guided by a global research and development team, which was responsible for big product concepts and innovation. Individual products were still designed at the small product development units at the factories, though. This resulted in a hybrid approach that combined elements of centralization and decentralization.

However, this era ended in 2000 when a high-level policy decision was made to decentralize Halton business activities into strategic business areas: Foodservice, Marine, and Indoors (which was later renamed as Buildings). Each would have its own factories and its own resources for research and development. At first there was also a fourth business unit, although it was very small. Halton Solutions was a group of about twenty researchers in Kausala who were given free rein to develop new ideas. In practice, their time was almost entirely taken up by the traditional indoor air business, so Halton Solutions only lasted six months. When it folded, it took with it the last vestiges of centralization. Product development moved closer to the market, and the era of decentralization began.

RESEARCH AND development isn't just about tools or facilities. It depends on people's know-how, connections to the academic world, and collaboration.

So far throughout its history, Halton has employed a dozen engineers with doctoral degrees. One of the most recent dissertations on indoor air technology was done by Halton development manager Panu Mustakallio, who graduated from Helsinki's Aalto University in 2018.

Completing his doctoral dissertation while holding down a day job was a seven-year project. In addition to his degree, Mustakallio's work also resulted in numerous scientific publications. Mustakallio and other Halton employees have made significant contributions to the scientific literature on ventilation. They are moving the industry and the science it relies on forward, but they are also benefiting the business. When the effectiveness of a new technology or solution is proven in a scientific publication, this enhances the company's credibility with customers.

For employees, scientific work provides the opportunity to increase their expertise and network with the best researchers in the world. Work being done by scientists frequently leads to new and interesting product ideas for Halton. For example, the basis for Halton's operating room solution came from the academic world.

The greatest beneficiary is the client, though, who gets practical products that are based on the very latest science.

Collaborative research projects with universities and public innovation funding have also been important for Halton. In Finland, important research partners for Halton include Aalto University and Turku University of Applied Sciences (the former Turku division of the Institute of Occupational Health), which studies the effects of ventilation on test subjects. In Denmark, an important partner is the Technical University of Denmark or DTU, in Germany RWTH Aachen University, and in France the University of La Rochelle. In the United States, Halton has collaborated with Western Kentucky University and has also had connections with such renowned universities as MIT and Berkeley.

One sign of the close cooperation with the academic world is that Halton's CTO Risto Kosonen moved to Aalto University in 2015

to take a position as a professor of HVAC technology.

Research collaboration and expertise allow Halton employees to influence the development of the industry through standards. An example of this are the European ventilation standards for hospitals, which have been influenced by Halton's Kim Hagström, Director of the Healthcare and Laboratories Unit. Hagström has also played a central role in getting the Health unit up and running.

The first research publication for many of these experts has been a thesis written for Halton. The company offers students the opportunity to pursue degrees that often open doors to the workplace.

IN MANY manufacturing companies, research and development resources are assembled in one large unit, where researchers bang their smart heads together and spin off ideas. This kind of centralized mod-

el can be effective for producing new products if the unit's atmosphere favors bold innovation.

Halton's distributed model has other advantages, though. The company understands local markets, which allows it to serve them better. In Malaysia, they consider the needs of the Asian market and best practices for making products at the Malaysian factory. But how could anyone in Malaysia know what their colleagues or competitors are developing in the United States?

Official structures and coordination were limited in the early 2000s at Halton. Cooperation between the best minds in the company was largely based on personal relationships and correspondence between the individuals in charge of product development. Decentralization increased when Halton acquired Vent Master in 2005 and Wimböck in Germany a year later, both of which brought new R&D centers with them.

This created the current structure of the Foodservice division. Product development is carried out in France, the United Kingdom, Germany, Malaysia, China, Canada, and the USA. In addition, there is the Marine division's Lahti factory, where kitchen products are developed for ship galleys.

GRADUALLY, CONCERN began to grow at Halton that too much overlapping product development work was being done. As a result, in 2012, Halton took a step back toward coordination. The company wanted to ensure that information was being shared and that not too much work was being wasted. Foodservice product research and development was reorganized. The lead role fell to the Americans, who have the most advanced laboratory facilities in the industry at the moment. However, the decentralized product development centers at the factories continued their work as before. The Halton Group also set up an innovation workgroup, which shares R&D results between Marine, Foodservice, and Buildings.

How does information sharing work in such a decentralized structure? In Foodservice, the research staff meets face to face once a year,

The first research publication for many of these experts has been a thesis written for Halton.

and there are monthly remote consultations between R&D employees. The Malaysians participate at nine at night, the Americans at seven in the morning, and the Europeans at a slightly more convenient time.

A good example of this decentralized operating model is the MobiChef mobile cooking unit launched in 2014. The inspiration for the MobiChef first came from a Finnish customer, who shared their idea with Olli Sipilä. Sipilä then handed it off to Christian Hirschmann, who leads product development in Malaysia. First the product developers held remote meetings. Next, they called in the sales team and some customers. Finally, Christian received direction from Andrey Livchak, Director of Global R&D, who basically said, “*Just do it.*” Then Christian built the MobiChef prototype in the little innovation unit that works in conjunction with the Malaysian factory.

At first the product was only approved in Asia. If the MobiChef had been publicized immediately in all markets, product production and the cash flow it generated would have been delayed for years.

Later, a second version of MobiChef was developed for the US market and a third for Europe. The most stringent requirements apply to MobiChef stations for use on cruise ships, which are built at the Marine factory in Lahti, Finland.

Even after a little additional centralization, Halton product R&D remains very decentralized. Digitalization, artificial intelligence, and cloud services are gradually transforming this approach as well. Software can be duplicated easily for different markets. There’s no reason to develop it in different places. If products are linked to cloud services, they are connected anywhere in the world. In a digital world, centralization may offer new benefits for Halton product development that were never possible before.

Capture Jet

Steam rises from two boiling pots. It circles under the range hood but does not escape, disappearing quickly in the Halton product development center in Béthune, France. A specialized camera captures the action, and the steam is displayed on a screen as a highlighted ripple. Halton’s customers see this same phenomenon again and again. Kitchen professionals all over the world experience it even more concretely.

This revolving vortex that boosts steam and smoke removal is created by Capture Jet technology, one of Halton’s most important innovations. The effect is apparent when Marketing Director Benoît De Rycker turns off the Capture Jet function. A moment later, the steam begins to escape the hood and mix with the air in the room.

The secret behind the technology is a small auxiliary electric fan, which blows air from small holes surrounding the hood and directs the steam like an invisible shepherd. Capture Jet technology is now found in all Halton hoods. Without it, the Halton Foodservice business would be nothing like it is. There are some Capture Jet imitators nowadays, because the patent for the invention is no longer in force.

The roots of Capture Jet date back to the early 1980s in Kausala. At the time, Halton had a positive problem resulting from the economic boom. The basic business—manufacturing ventilation products—was

extremely profitable. Many shareholders would have been happy simply to take their dividends. But Seppo Halttunen didn't want or need a big dividend payout. He preferred to reinvest his profits in business activities.

However, Seppo didn't have a clear idea of what those activities should be. So, he gave the company's young engineers a task to visit customers and find out what they wanted. When they knew their customers' needs, Halton could develop new products for them. At the time, this group of young lions included Olli Sipilä, who would later rise to upper management. On one customer visit, Olli asked an HVAC designer whether he had any concerns or requests. He didn't, other than to complain that kitchens were horrible places! They were such hopeless cases that he didn't even offer design services for them, and if he did, there were always massive complaints. Olli thought this was an obvious problem. And this was what he reported to Seppo.

The Kausala team began looking into the matter. Seppo gave a lot of power and freedom to the young engineers. They would have resources, but that also meant producing results. Soon they realized that an air jet produces an amazing improvement in the suction power of an exhaust hood. The precision of the suction also improves, which means that not as much air has to be removed from the kitchen as before.

The University of Lappeenranta calculated the benefits of Capture Jet, and a patent application was filed for the technology in 1986. The workgroup included Erkki Aalto, Reijo Villikka, Arvi Tolmunen, Seppo Vartiainen, Kaarlo Korhonen, Jorma Pekkinen, and Esa Sundberg. The leader of the research project, Erkki Aalto, was known for developing unique perspectives on the biggest questions in life and work. If someone asked if there was life after death, Erkki would reply by asking the speaker whether there is life before birth.

Capture Jet had a life after birth, even though the product wasn't an instant success.

Olli Sipilä found the first customer for the new product in a restaurant in the city of Kouvola, about 20 kilometers from Kausala. The deal

was really easy. The owner of the restaurant was interested in anything new and demanded this new miracle hood for his restaurant. Immediately he called the contractor doing the renovations and asked whether he'd ordered the exhaust hoods yet. Fortunately, he hadn't. The first Capture Jet sale was a reality.

After this, sales became more difficult. The new product also required internal sales, because Halton's sales force found it easier to market the old products. The competition also took note of Halton's new territorial conquest. According to later stories, their reaction was one of amusement: why would anyone want to waste time on kitchen ventilation—what a miserable business!

For a while it seemed like they might be right. However, the situation gradually changed.

Capture Jet's commercial success resembles the life cycle of many other industrial products.

The basic product, the exhaust hood, serves as a platform to which new features are constantly added. First came fire prevention systems, then more progressive models began offering M.A.R.V.E.L. energy-saving technology.

Copying is also a part of many successful products. For example, at the big kitchen fairs, you can see exhaust hoods produced in China that have a familiar line of air holes running around them. But does air come out of them, and if it does, how does that affect the operation of the hood? Both are important questions for any buyer considering purchasing a copycat product.

New models of Capture Jet can be viewed at the Béthune factory in France, where the director, Jean-Pierre Riquart, is showing off the lat-

Copying is also a part of many successful products. For example, at the big kitchen fairs, you can see exhaust hoods produced in China that have a familiar line of air holes running around them.

est top-of-the-line model. It has the R&D team's latest wave of pleasant, energy-efficient lighting, a UV grease removal system, a fire prevention solution, and the M.A.R.V.E.L. system. The Béthune factory makes 70–100 units a week. In addition to France, Halton also manufactures the product in the United States, Canada, the UK, Malaysia, China, Brazil, and Germany.

Hood prices range from \$1000 to more than \$10,000, depending on power, size, and equipment. Additional features add more steps to the production process. For example, the UV system has to be tested, and naturally it has to pass the tests. Capture Jet remains one of the most important features of the Halton line of exhaust hoods.

Jean-Pierre Riquart looks for the little blue fan in the top of a giant new hood. That's what makes the jet of air. However, it's more than just a fan and a set of holes—the power of the system has to be carefully calibrated.

Capture Jet is also an enabling technology. Because of it, not as much air has to be removed, meaning that less has to travel through the hood. The lower the speed of the air flow, the greater the effectiveness of the UV grease removal.

A small fan makes a big difference.

The Foreigner

Andrey's start wasn't easy. The first weeks were confusing, sometimes downright strange. The Finns didn't talk much, and Andrey didn't either because his English was broken. The Finns even placed this scientist from Moscow in the farthest corner of the lab, because some had gotten it into their heads that he might be a Soviet spy.

But Andrey didn't belong to the KGB intelligence apparatus. He was an ordinary Soviet citizen, if you can call a third-generation engineer with a doctorate that, who specialized in ventilation ordinary, and he only had one employer: The R&D laboratory that Halton had built in the middle of the forest.

Andrey Livchak's first contract was only for eight months. The year was 1989, and the Soviet Union was still restricting the activities of its citizens abroad, even though *glasnost* had already melted away some of the shackles of the communist regime.

Halton's owner, Seppo Halttunen, had noted Andrey's expertise and inventiveness when the Russian had the opportunity to make his first business trip to Finland. One of the group's many destinations was Kausala. Seppo knew that in his homeland Andrey was one of the leaders in his field despite his young age, and was already the deputy head of the ventilation technology institute at a civil engineering research cent-

er in Moscow. Conversations in Kausala indicated that this researcher from Moscow had a lot to offer Halton.

In the 1980s, the Soviet Union was competing with the United States for world domination. The country was investing enormous resources in science and technology. In many technical fields, such as missile technology, the Soviet Union achieved equal or even better performance than the capitalist powers of the West.

News about the achievements of researchers working on civilian topics spread very quickly in the Soviet Union, because everything was published and shared. What one person had invented belonged to all. Centralized planning replaced competition. What worked well for advancing science and the military didn't work so well for the economy. Competition with the advanced military of the United States, but lack of competition within the country and dependence on fossil fuel as the main source of exports was killing the Soviet economy from within. Lack of competition provided no incentive to implement the latest developments in science and technology, improve productivity, or come up with new, competitive products for the civilian market. Communism included some beautiful ideas, but they didn't work.

The country that had sent the first man to orbit the earth couldn't produce enough toilet paper for its citizens. There was enough money and prices were low, but there was a shortage of everything. Andrey's parents were both engineers, but his mother spent two hours every day standing in line for groceries.

Andrey and his colleagues in Moscow quickly recognized the attraction of competition during the early years of perestroika when they were granted permission to enter into partnerships with new private companies. The money was welcome, but the work was missing what Andrey longed for: the creativity associated with new product development.

Soviet leaders succeeded in freeing their people, but they lost their power. Andrey saw that forces pulling in different directions were beginning to break his country apart. Month by month, events in society became wilder and less predictable.

So, Andrey decided to focus on his work at Halton, on solving product development problems and winning the trust of his Finnish colleagues. His first task was to develop a new sound attenuator for indoor ventilation solutions. Gradually the reserved engineers became friendlier. The foreigner became a member of the team.

By the time the Soviet Union finally disintegrated, Andrey Livchak had become one of Halton's most prestigious product developers. In December 1991, the leaders of Belarus, Ukraine, and Russia founded the Commonwealth of Independent States. The General Secretary of the Communist Party, Mikhail Gorbachev, resigned. The Soviet Union was cast onto the ash heap of history.

Andrey decided to move to Finland permanently and brought his wife, Kate, and three-year-old Denis to Kausala. While in Finland, another son, Max, would also join the family. In this tiny Finnish village, no one had to stand in line for anything.

However, the collapse of the Soviet Union seriously undermined the economy of Finland, and Halton did not survive without damage. At the time, Seppo Halttunen said that his company was like a train that had reached the top of a hill and was on the downhill track. The speed was increasing. The brakes were heating up, and even the engineer couldn't see where the hill ended and the valley floor began.

The efforts of Andrey and the other Halton employees bore fruit, though. Halton was saved. Stability returned.

For the next few years, Andrey was able to concentrate completely on his work in Kausala. With many innovations, such as Capture Jet technology, Halton was able to develop technically superior products. But sales were weaker than expected at first, because they didn't know how to market this advanced technology with sufficiently convincing argu-

The country that had sent the first man to orbit the earth couldn't produce enough toilet paper for its citizens.

ments. Andrey and the other product developers actively participated in these discussions, and gradually the situation improved.

The Livchak family settled in well in Finland. The dark side of their quiet, safe life began to grate on his wife, though, since she hadn't been able to find a job in Kausala. So, the Livchaks began to consider moving somewhere bigger.

That chance presented itself in 1998. The Halton R&D center in the United States needed a director, and Andrey wanted to take on the challenge. Halton's small laboratory was located in Kentucky. It wasn't Silicon Valley by any means, but Kentucky would provide the Livchaks an entry into American culture and business, which would be a source of enormous opportunities. It would also be a complete change of landscape.

The beginning was not easy in America either. The cultural differences were significant, and Andrey took a while to get used to the southern accents of the two technicians who worked in the lab. Some of his local colleagues also found Andrey's accent difficult, but they stopped complaining when he hired a Chinese engineer whose accent was even stronger.

Once, while Andrey was driving alone near the factory, Andrey heard on the radio that a local man had been taken to jail because he'd gone onto someone's land to pick mushrooms without permission.

"What the hell is going on here?" the new immigrant muttered to himself.

Later he realized that the mushrooms in question weren't the kind he and his friends used to pick in the woods in Finland. These were illegal hallucinogenic mushrooms that grow in cow dung.

But life went on in the United States, and the Livchaks fulfilled their own American dream. Andrey became an American citizen. He has played a decisive role as Halton has risen to the top of the world in ventilation solutions for professional kitchens.

The young doctor of engineering from Moscow built the theoretical foundation for many later Halton technological innovations while

he was in Finland. In the United States, he and his team worked even more closely with customers so product development could meet client needs even more precisely and quickly, while designing solutions that can still be produced profitably.

Capture Jet, M.A.R.V.E.L. and many other innovations have ensured that no professional working in the field will ever mistake Halton for a copycat sheet metal bender. The future generations of Halton innovations will be even more advanced than ever. Intelligent algorithms will draw even more utility out of raw materials.

According to Andrey, the most important thing in product development is the people. The group has to be the right size, and the work has to be done with heart. Motivation and energy need to be maintained, and everyone has to have the same interests as the leadership of the company. In his view, an individual product developer is a project manager who has to keep his eye on what happens at the end of the project and what the shortest route is from start to finish. What can be created along the way that is so ingenious that copying it will turn out to be too difficult and costly for the competition? You should never agree to develop me-too products, especially not in a company like Halton. But if you're an innovator, others are bound to copy you.

Imitation shouldn't be feared—in a way, it's just a normal part of doing business. As they say in Asia: *Imitation is the sincerest form of flattery*. If someone copies your product, it means the product is good.

Of course Halton uses patents to protect its intellectual property and currently holds more than 300 patents and patent applications in 23 countries. Andrey knows full well that if the ability to innovate fades, the competition will catch up and ultimately overtake the previous fore-

What can be created along the way that is so ingenious that copying it will turn out to be too difficult and costly for the competition?

runner. The only guarantee of success is to continue on your chosen path and raise the bar you've set as the technological leader.

What is the most dangerous killer of a product developer's motivation?

"Routine," says Andrey. Engineers have an easy time hiding behind routines, but routines corrode disruptive thinking—ideas that change the world. If routines are combined with modest risk tolerance and endless problem-centered reflection, the pace slows, and the mill grinds to a halt. It goes like in the old Russian proverb: *The man who does nothing makes no mistakes.*

Halton has managed to avoid this problem, but Andrey is in a constant internal discussion about risk. Am I being bold enough? Or am I being too cautious?

Andrey Livchak is one of the hundreds of people whose thinking, energy, and activity shape Halton's corporate culture every day. Moscow, Kausala, and Kentucky, or Russians, Finns, and Americans are all equally good—if we're talking about the significance of nationality. Black, brown, or Caucasian? Muslim, Jewish, or Christian? Hetero or gay? Tea or coffee? Differences in culture, identity, and preferences are interesting and important, but almost all inhabitants of earth are united by a desire to do work that has a purpose.

Andrey says this is the main reason why he has thrived for nearly three decades in the ranks at Halton. His team has been able to develop ventilation solutions that use energy more efficiently and are safer, more inspiring and of higher quality. If his grandchildren ever ask Andrey what he did for work, he can say he did work with a noble purpose.

Nowadays Andrey is thinking about how he can help customers in 2020 and what the world will be like in 2030. That is sooner than most people think. Big cities are growing bigger, automation is increasing, and busy urbanites are using more and more services. Many things change, some more or less in the way that product developers anticipate and some in ways that surprise them completely. But people will always love good food and clean air.

#Buildings #France #Crépy #corporateacquisitions #everydaylife
#internationalization #Béthune

A Perfect Marriage

A factory whistle blows on the outskirts of the medieval town of Crépy-en-Valois, signaling the end of the lunch break. Workers slip past the reception desk back to their stations at the Halton factory. Some live so close they went home to eat.

Pierre Raulin returns to his wide welding table where long aluminum corner moldings lie waiting. Pierre places a welding mask on his head and begins work on the precise seams. These aluminum parts are for air distribution grilles, which are some of the products traditionally manufactured at Halton's Crépy factory. A moment later, he removes his mask and sets the corners of the pieces provided by the subcontractor next to each other. They deviate slightly.

"These should fit perfectly. I always send ones like this back as defective," Pierre says.

The Crépy factory north of Paris makes airflow dampers, grilles, and diffusers to connect to building ventilation ducts. Halton has managed

to pull off a trick in France that has been difficult for many companies: expanding through corporate acquisitions. In 1989, Halton acquired the French company Anemotherm, the market leader in its home country. Anemotherm is remembered well at the Crépy and Béthune factories, because people enjoy long careers here. Pierre Raulin started work in Crépy 35 years ago, before Halton's acquisition. His first job was for two months, but that stretched into a lifelong career.

"I've been given more responsibility, so I've stayed here. Most of all I like my colleagues. Money isn't important," Pierre says.

He started out as an assistant, but now he has seven people working under him and responsibility for grille production from welding to painting. Life at the factory has changed a lot.

"Now we work harder. We worked hard before, but the pace has accelerated significantly. Before there was more time."

According to Pierre, there's a good atmosphere at the factory. Workers go on excursions together to the amusement park or restaurants. If there are disagreements, they're small. Many Germans or Finns may have the impression that strikes are common in French factories. Those are mostly organized in big companies, though. There has never been a strike at Halton's Béthune or Crépy factories.

"Halton moves forward," Pierre says.

You don't have to look far for signs of it. During Pierre's interview, his factory was setting up a new painting line, which is several dozen meters long.

Nowadays nearly a tenth of Halton's turnover comes from France. Business is profitable and growing. Looking back, it's easy to see that Halton's French initiative was a success. However, when it was initiated, the acquisition was a daring gamble with all the makings of a major catastrophe.

Anemotherm's acquisition launched Halton into the internal European market in one fell swoop. In 1989, France belonged to the European Community, which Finland didn't join until 1995. The acquisition increased Halton's turnover by 60 million markka, which meant a quar-

ter more than previous sales. In today's money, that's over \$19 million (€17 million).

At the time of purchase, Anemotherm was a very profitable company. It produced products under license from the American company Anemostat and developed its own products. Back then, there was very little competition in the market. Expenses were kept under control, and margins were high.

However, Halton's and Anemotherm's corporate cultures were very far apart in 1989. At Anemotherm, absolutely all the strings were in the hands of the managing director. Seppo Halttunen held authority, too, but he also knew how to delegate to his subordinates.

After the acquisition, the first Halton representative to visit France was Olli Sipilä, who immediately ran into the language barrier. The people who worked in the office were older, and only one of them spoke any English, and Olli didn't speak French. The rooms were dark. Baguettes and wine lay on the desks. The discussions were short.

Anemotherm also seemed old-fashioned in the eyes of Georges Gaspar, a young Frenchman. He began working at the company headquarters outside Paris in 1993, four years after the acquisition.

"The main office was really dark and dusty—not a very comfortable working environment. The warehouse was downstairs, and the office upstairs," says Georges, who now directs the Halton Foodservice business.

The windows of the long, narrow building were set in the short end walls, leaving many of the offices without any windows at all.

"I was lucky because I had a room with a window. The office had one or two computers," Georges remembers.

The language barrier and unfamiliar corporate culture didn't stop Seppo Halttunen from making big decisions, though. Soon after the acquisition, he sent Olli Sipilä to find a new place for a factory in France. Seppo's idea was that Halton could introduce its own products alongside Anemotherm's and make them in a new factory—now that the way into this new market was open.

Olli remembers driving around the French countryside “like a madman.” A location was selected in Béthune, in the north of France, near Lille. Whether by luck or skill, the location has turned out to be excellent. The drive to Calais and the English Channel is only an hour. Belgium is even closer. The clock tower in Béthune has stood in the center of the square since 1346. When you climb the tower, in good weather you can see all the way to Belgium. Driving from Béthune to Paris only takes two hours.

A good location didn’t help this corner of France in the early 1990s, though. North-east France is one of France’s most densely populated areas, but the collapse of large-scale industry has been punishing for the

region. First the coal mines were shut. Then the textile industry moved.

In addition to the location, Béthune was attractive for Halton due to low land prices and corporate subsidies. The factory was built in 1991 surrounded by fields, a few kilometers from town. The new manufacturing facility didn’t revolutionize life in Béthune, but France did revolutionize Halton.

BEFORE THE French acquisition, Halton was a deeply Finnish company. Around this center of gravity orbited a few sales company satellites and the small business in North America.

“France revolutionized our indoor air operations. Suddenly we had four factories here and a strong position in the EU’s internal market,” says Mika Halttunen at the Béthune R&D center.

“We made the decision about Béthune in the growth frenzy of the late 1980s, and it turned out to be quite difficult. The market collapsed in Finland, and soon the same thing happened in France.”

In Finland, the company turned over every stone searching for cost savings. They didn’t engage in large layoffs in Béthune, though, because Halton had committed to employing 50 people at the factory in return for government subsidies. However, that meant they had to make more changes elsewhere. Halton closed one small factory in the center of Paris and moved the head office to Béthune. One of the factories was purchased by the factory management, and that unit became a Halton subcontractor.

After this reorganization, two factories remained in France, in Béthune and Crépy. Developing operations in these locations kept the company busy throughout the 1990s. The modernization project was first led by Pierre Boone, who hired a young, fresh sales team and brought the company culture up to date. France still remained in the red until the end of the decade, though. The situation was aggravated by increased competition for Anemotherm’s core products, which had enjoyed larger margins in the past. Seppo Halttunen used to say that France never makes a profit. There wasn’t much left of the enthusiasm surrounding the acquisition.

Mika Halttunen recalls that even the chief shop steward of the Béthune factory was surprised by Halton’s perseverance.

“We’re wondering how long Halton will overlook these losses. How long are you going to be willing to stay?” the shop steward asked.

In the late 1990s Halton appointed Olli Sipilä to fix the French operation. Pierre Boone had been an active leader—so active that Olli decided to terminate many ongoing development projects.

At the same time, Marine product manufacturing was growing quickly at the Lahti factory, which meant that exhaust hood production could be moved to France. Turning this hopeless business into a profitable venture unexpectedly began to look possible. The first profitable year came like a thief in the night in the early 2000s, just before the introduction of the euro.

Olli placed a single one-franc coin in an envelope and sent it to Seppo Halttunen in Finland with a short note: *Here’s that franc of profit from France, finally.*

“France revolutionized our indoor air operations. Suddenly we had four factories here and a strong position in the EU’s internal market.”

The following year, Olli Sipilä promised the management team a bonus. He promised to send the French managers to Malaysia to see Georges Gaspar, who had just moved there. The condition was one million euro in profits. The management team went to Malaysia. Since then, France has never returned a loss.

Olli still isn't entirely sure why the French company turned profitable. One possible explanation is a policy you might call essentialism. An end was put to all frenetic activity, and distractions were removed. People were allowed to focus on what was essential to their success.

EMMANUEL BIZIEN parks his car on the main street of Crépy-en-Valois. Emmanuel is responsible for Halton's Buildings division sales in Western Europe. Living in Paris now, Emmanuel has been a part of the story of Halton in France since 1997. As a young engineer, he got his first job at Halton and moved to Crépy-en-Valois. He never could have imagined that he would still be working at Halton twenty years later. The thought of changing jobs became increasingly difficult, though, as he was given more responsibility and his career progressed.

Emmanuel believes that the marriage of Halton and Anemotherm has been a perfect match. Anemotherm's manufacturing wasn't up to Halton standards at first, but there was a lot of expertise in the company.

"The business culture was all about being close to the customer and selling from expert to expert, like we still do now. That high level of competence is still visible," Emmanuel says.

As head of Buildings division sales, Emmanuel has experienced firsthand how Anemotherm's old market position, which was based on air distribution equipment, has changed drastically. Back in 1985, Anemotherm delivered air distribution equipment measuring over two kilometers in length to the Louvre. But in the new millennium, that kind of mass market disappeared.

"Competition became more and more intense in air distribution equipment. We had to focus, so we moved into a niche market that wants good features and comfort in buildings."

Now Crépy's products are very tailored and its strength is its flexibility. The factory doesn't make large production runs. It manufactures products tailored to architects' wishes, which means a lot of the work is highly-skilled tasks like welding. Architects have a lot of power in French construction.

"The French and the Finns complement each other really well. The French are often agile and flexible, while Finns are precise and systematic," Emmanuel says.

The Crépy factory's top specialty is now variable air volume (VAV) systems. A subcontractor provides Halton with specialized electronic damper controls that allow remote ventilation control. Buildings are relying more on digital technology, so their airflows need to be controllable remotely, possibly from the other side of the world.

According to Emmanuel, Halton sales in France have been boosted by large office building projects like those going up in the La Défense district of Paris. Contemporary ideals such as well-being and flexibility are at the forefront in these investments. A good example is the new Le Sextant office building.

"The idea is that a conference room can be placed anywhere in the building, and the ventilation system will be ready. That was a big project for us. We delivered 1600 VAV units for it."

The work day in Crépy ends, and Emmanuel begins his drive home to Paris. Expanses of grain and root vegetable fields divide the charming small town from the chic French metropolis. The next morning there is a meeting with a real estate investor. The hope is to sell the customer a Halton solution.

"We're presenting the investor with a solution that includes chilled beams, acoustic products, and AVA radiation panels. It's a concept we developed in France."

No Alcohol, Just Wine

Heikki Rinne and Asko Pesonen had high hopes for the meeting. They had invited all the salesmen from Anemotherm to a meeting near Paris. The Finnish duo were visiting each country holding strategy sessions, so the sales force would understand how to sell Halton technology. This would be the day when Halton corporate culture came to France. However, the very first words uttered at the meeting brought out a cold sweat on Heikki's forehead. He realized that none of the French salesmen understood English.

"One guy spoke a little," Heikki recalls. "And we had two hours reserved for the meeting!"

Halton had purchased Anemotherm, which employed about 150 people, in 1989. The acquisition was a crucial step into the Central European ventilation market. At that time, Heikki Rinne, future CEO of the Halton Group, was a consultant for the company.

The French division is now one of Halton's most successful. However, on this trip, Heikki and Asko encountered a clash of European cultures. There was wine at breakfast. Lunches lasted two hours, and there

was even more wine. Mornings went pretty well. But then came the afternoon, and fatigue set in.

"The guy who knew some English in particular had a terrible afternoon," Heikki recalls. "I went to the managing director and asked him to leave out the alcohol next time we had a meeting like this."

The managing director, who was an elegant gentleman, agreed without hesitation:

"Yes, mister professor. No problem!"

The next morning there was wine at breakfast. At lunch there was even more wine. In the afternoon, its effects were apparent. Heikki Rinne was forced to take the matter up again with the director.

"*Monsieur*, did you discuss the alcohol issue?"

"Yes. No alcohol. Only wine!"

1992

A CEO's first hundred days are always challenging. Mika Halttunen doesn't remember anything about his. The family had a sweet little baby, Krista. They'd just moved from the United States to a new home and a new start at the family business, which was in chaos. The whirlwind of events plunged the 31-year-old leader into stormy waters.

Halton's business collapsed when confidence in the Finnish economy vanished, and the country's government had to devalue the markka. Construction on Halton's home turf hit a brick wall. Finland's total output fell by as much as 6.5 per cent in 1991, and this frigid north wind also numbed the Western European economy.

Halton had become known for paying its employees' salaries regardless of what happened, and the company hadn't fired anyone in twenty years. The staff had been able to rely on Seppo Halttunen finding a way out of any difficult situation. Halton had won export awards, becoming one of Finland's most profitable companies and growing into the largest manufacturer of air distribution units in the Nordic countries. They would survive this, too.

But Seppo was out of the picture. He had transferred responsibility for the company to his sons and left with Eevaliisa to travel the globe. The tour would take several months.

The message was clear: We're done.

Seppo has retired. He hasn't abandoned the company he created, he's continuing as the chairman of the board. But he won't be reachable for a while. Don't even try. You'll survive. You have to survive.

Mika Halttunen began as President and CEO of the largest unit in the Halton Group, the indoor air business Halton Oy, on January 1, 1992. His older brother Juha took the reins of the recycling and retail furnishings business.

Negotiations with the union about downsizing were completed on January 17. Mika was forced to lay off 60 people from the company's home factory in Kausala, which was nearly one third of the staff.

This news was received with shocked silence at Halton. How could it be possible that a company that had suffered from chronic labor shortages two years earlier was now in such hot water? Was this really the same company that just a little while ago had bussed workers to the factory from neighboring communities? The Halttunen family firm that had marched from victory to victory for so many years?

No one threw any eggs, torched any cars, or organized any strikes in Kausala. Management told the workers frankly that the company was in serious danger. The ones who had to leave were bitterly disappointed. The ones who got to keep their jobs decided to do their best.

Seppo Halttunen's right-hand-man, Erkki Nieminen, the vice president of the company, shouldered huge responsibility in the negotiations with the union and elsewhere over the following months. He supported Mika the same way he had supported his father. Erkki's contribution was invaluable. However, it did not remove the constricting feeling around Mika's throat.

He remembers one moment on the main street of Kausala during the haze of 1992: A former company employee comes walking down the street. He doesn't say anything. He doesn't wave or even give a nod. Instead, he crosses to the other side of the street. That is a very typical Finnish way of protesting—and is very effective.

Mika knew nearly all of the employees. He'd roamed the factory since

he was a little boy and worked in the warehouse and on the production line in the summers. Mika suffered deeply from the layoffs, but he had no choice.

Halton had taken on significant debt in the late 1980s to expand its factories and acquire other companies, and hadn't protected its loans against devaluation of the markka. As late as April 1991, with signs of the Finnish economic catastrophe already in the air, Halton had taken out a new loan for \$14 million (€12.2 million) from Postipankki, a Finnish commercial bank.

Finland devalued the markka in November, and the value of its foreign loans rose by nearly a quarter in one night. Countless small companies went under, and a large number of bigger companies also experienced serious trouble. Including Halton.

MIKA AND Juha Halttunen, Erkki Nieminen, and other Halton leaders had to spend 1992 focused on rescuing the company.

Most investments and new development projects had to be canceled. The most significant exception was the expansion of business in Malaysia, which was only postponed. Supervision of subsidiaries was intensified. Halton conducted an assessment of its real estate assets that could be sold. The group's operations were divided to increase productivity, and processes were streamlined. Efforts to increase exports were boosted, since the home market was dead. Negotiations with lender banks took up an increasing portion of management's time and energy.

Seppo Halttunen realized that he couldn't step aside after all. The board Seppo chaired met frequently and dealt with matters that in normal circumstances would have fallen to the executive management team. In August 1992, the Halton board's minutes noted that during the *autumn and at the end of the fiscal year, no loss-making months would be accepted.*

But even Seppo's typical unyielding strength could not solve Halton's problems. Fires were breaking out everywhere. Once a firm hand had been applied to Finland, the board was forced to focus on solving prob-

lems in Norway, Denmark, Sweden, France, and America. The bleak situation was crystallized in the Halton annual report for 1992/1993 this way:

The operating year was overshadowed by the continued deepening of the domestic downturn and by uncertainties surrounding foreign markets. Although business in the group was evaluated relative to the downturn in the economic cycle, results for the entire Halton Group were worse than expected.

The group's business was separated into three divisions: indoor air (Halton Oy), recycling (Halton System Oy), and Pan-Oston's retail furnishings. Indoor air accounted for 64 percent of gross sales. Retail furnishings and recycling each brought in about a sixth of group sales.

The recession in construction deepened in Finland in 1993, punishing the business being led by Mika Halttunen. The markets also declined in Sweden and Norway. Anemotherm, which had been acquired in France before the recession, suffered from gross overcapacity. Halton had built a new factory in Béthune, northern France, and was committed to retaining all of the old company's staff in exchange for government subsidies. But the group had no clear idea about how to increase sales.

Pressure grew. Cash flow repeatedly fell short of forecasts. At the end of 1993, Halton's management had to accept that the group's liabilities had grown by 50 percent in two years.

In their meeting in April 1994, the Halton Group board of directors found that the company's liquidity was running out. Receivables cycled slowly, financing expenses were too high, and too much money was tied up in warehouses. Seppo said in that meeting that "we're not setting a specific time frame, but the turn for the better has to happen within six

But even Seppo's typical unyielding strength could not solve Halton's problems. Fires were breaking out everywhere.

months.” According to him, the financiers were “extremely nervous and short-sighted.” The board’s analysis of threats and risks for each division made for tough reading:

Indoor air

- Decrease in turnover
- Relative increase in fixed costs
- Heavy balance sheet

Recycling

- At risk threshold for continuation
- New products risky

Retail furnishings

- Increase in fixed costs
- Is it wise to continue in this business at all?

In other words: Halton was in deep trouble. The company’s owners were considering abandoning two businesses and concentrating the group’s resources on the largest unit, namely ventilation and air conditioning. The journey through the valley of death had already lasted three years.

Of course, none of this was reported to outsiders. Halton celebrated its 25th anniversary in the fall of 1994 in Kausala and published a book to mark the occasion. The final words were: *With 25 years of Halton behind us, the sky is blue and full of opportunities.* The only reference to the expansion that had taken the company to the brink of destruction was a quote borrowed from Veikko Huovinen’s novel *Havukka-ahon ajattelija* about foresight:

It means thinking about things ahead of time and imagining the situation so vividly that when it happens, your path is clear. Few men are blessed with such wisdom. If you have it, cherish it! But there are two serious problems with foresight: The situation might not happen at all or it might happen in another way. But if you can account for that, the world is yours!

It was clear to Halton’s management that hindsight is significantly easier and more popular than foresight. Many things should have been left undone in the 1980s or done differently. But now they were where they were, and they had to adapt.

In June 1994, Halton’s Chief Financial Officer, Tapio Vihersaari, reported to the company’s board of directors that the company till was still empty. Only one sympathetic financier remained, the Finnish bank KOP. In Vihersaari’s opinion, the terms of foreign loans had become intolerably stringent.

In August he said that liquidity remained tight. According to him, debt and foreign exchange management had to be brought under control so that this “insane bleeding” could be staunched. The board’s minutes recorded that profitability still hadn’t improved. Deterioration of the company’s finances had ended, though, and the turn for the better had happened.

Corrective measures continued, and all possible solutions were reviewed. Personnel at Kausala were given a list of thirty items they could influence. These instructions stated: **YOUR CONTRIBUTION WILL DETERMINE THE FACTORY’S RESULTS.**

Halton’s management believed in the survival of the company but could not know how long the difficulties would last. A few years later, it became apparent that the most difficult months of Halton’s history were during 1994, the anniversary year.

However, the efforts of the company’s management and employees gradually began to bear fruit. Tommy Jernberg, who was in charge of operations in Sweden, managed to breathe life into air distribution equipment sales and also tended to Denmark alongside his regular work. Sweden became Halton’s biggest market and patched over the losses in other units. According to Mika Halttunen, the work of Tommy and the Swedish team may have saved Halton.

Juha Halttunen succeeded in significantly increasing sales in retail furnishings, but profitability missed expectations after a strike at the factory in Canada. Halton’s management tried to solve the problem by

threatening to close the factory and move checkout counter production to Kentucky. The strike lasted for two months, and when it finally ended, other worries replaced it. Between 1992 and 1995, turnover for retail furnishings tripled, but profits hovered close to zero.

In the recycling business, which mostly meant bottle return machines, Halton's profitability was burdened by technical problems with machines that had been delivered to customers. There was too much to fix. The machines being produced by Halton's toughest competitor, the Norwegian Tomra Corporation, operated more reliably.

This observation led to increasingly serious conversations about the future of the recycling business. Technology was developing quickly and required investments that Halton couldn't afford. A serious decision was on the horizon. Should Halton continue in the bottle return business or give it up?

HALTON'S RECOVERY took much longer than anyone would have hoped. One of the factors that contributed to the difficulty of the recovery was related to the company's generational change.

Seppo Halttunen had decided that his sons could continue to develop Halton in partnership. Work it out together, he had said. However, this proved to be a miscalculation. Mika's and Juha's views increasingly diverged, and disagreements surfaced in the Halton Group board. The situation came to an end in early 1995 when Juha announced that he would relinquish all his duties at Halton. Executive duties for all group companies immediately shifted to Mika. Soon Heikki Rinne was chosen to lead the recycling and retail furnishings businesses.

Juha's departure was a big blow to the family, but it clarified the management of the business. Mika's position was strengthened. His vision brought clarity to Halton.

Seppo's Halton had been a strong Finnish export company, but Mika's Halton would be a global firm that happened to be born in Finland. It would manufacture, develop, and sell products locally, as close as possible to its customers. It would decentralize and no longer expose itself

unreasonably to downturns in any one economy.

Seppo's Halton had been a company built around a very centralized management model, but Mika believed in delegating power and decision-making. He gave space to Olli Sipilä, Rick Bagwell, Georges Gaspar, Ville Laine, and many of his other able subordinates. Their success soon proved that this was a wise approach.

As he created something new, Mika still strove to hold on to the valuable lessons his father had taught him. One of them was that the size of a business unit shouldn't exceed 100 people other than in exceptional cases. Seppo thought that the strongest sites were ones where everyone knew each other, and Mika agreed.

Another important strategy was related to the choice of battlefields. Seppo had emphasized that growth companies should focus on product groups that would be too small to be of interest to large companies and too difficult to attract small firms. There was no point trying to compete with little sheet metal workshops.

THE DIRECTION of Halton's business gradually took a turn for the better in 1995. The big investments in product development at the end of the previous decade began to yield results. The sale of kitchen hoods based on Capture Jet technology accelerated. The turning point had come, even though management and the owners didn't realize it yet. In August 1995, Halton's auditor Göran Lindell said at a meeting of the board of directors that he was still worried about the company's situation.

Meetings always started the same way: Seppo Halttunen lectured on threats to the European economy and demanded rigorous efforts from

Seppo's Halton had been a company built around a very centralized management model, but Mika believed in delegating power and decision-making.

the executive leadership to improve Halton's profitability. After Juha's departure, this pressure focused on Mika.

At the beginning of 1996, Seppo assessed that general risks were growing, instability dominated the currency markets, the situation in Finland had become "cemented," Germany had "stiffened," and the whole of the European economy was in a "critical state." Sermons about cost consciousness from this former optimist became so familiar in the company that some people began calling the founder Seppo the Pessimist.

Mika wasn't happy with Halton's situation either, though. The company was aiming for growth but couldn't seem to get it started. Mika began to suspect that the group's structure was strangling growth. The symptoms were increasingly palpable, and they had nothing to do with the market situation or the company's tight financial situation. Information wasn't flowing. Quality problems were being resolved too slowly. Sales was grumbling, business was getting bogged down, and "operations seemed marked by a certain disorganization." Mika found himself sitting in meetings about meetings that would organize future meetings.

Could the situation change if every business had its own factory and R&D operation? What if business executives could act freely and quickly—ignoring the rest of the company to focus on working with their own customers? The group's management wouldn't need to intervene in subsidiary businesses other than to outline strategy and manage the chosen business area portfolios.

Seppo's aging changed Halton's leadership dynamics in the latter half of the 1990s. As he approached his 70th birthday, he gradually

made way for Mika and began considering inviting people from outside the family and the company to join the board. The Halton board moved toward a more strategic role once the company's profitability improved—partially due to its own actions and partially supported by

positive market developments. The European economy recovered, and the rapid rise of Nokia's mobile phone business revitalized the Finnish economy, which many had begun to dismiss.

In 1996, Halton changed its accounting period to the calendar year, and the ten-month numbers that resulted were almost as good as the previous twelve months. There was just as much profit. Finland and the UK were positive surprises, and Halton fire dampers made a breakthrough in large ocean liners.

In 1996, Halton took a major strategic step by launching its business in Asia. A sales company was established in South Korea. Air distribution equipment manufacturing began in a joint venture in Malaysia, which Halton had been working on since the late 1980s.

Internal reorganization also paid off. After being sent to France, Olli Sipilä found a solution to improving that unit by moving the Paris headquarters operations to Béthune and concentrating production in Béthune and Crépy. France began returning profits, as did the United States.

Preparations to implement Halton's strategic decisions proceeded in 1996. The fastest growing sectors of the indoor air business, Marine and Foodservice, were reorganized as independent operations or SBAs (Strategic Business Areas). Establishing that structure was one of the most important decisions in Halton's history. Marine and Foodservice took up their new roles with verve, and their newfound independence became a fuel for explosive growth.

Beginning in 1997, Gerhard Wendt, a heavy-hitter who spent years as the president of the KONE corporation, also began participating in Halton's strategic decision-making as a member of the board. Wendt encouraged Halton executives and board members to engage in more active risk-taking.

"Decisions have to be made. Make decisions!"

And soon decisions were being made. In June 1997, Halton's board of directors gave their blessing to the sale of the recycling business to the company's most formidable competitor, Tomra. Part of the 100 million markkaa, approximately \$26 million (€23 million) in current values, of

Mika found himself sitting in meetings about meetings that would organize future meetings.

the sale was paid in cash and part in Tomra public stock. In the following year, their value grew significantly as the stock market rose sharply both in Norway and in Finland. Same year the Halton retail fixtures business was sold to their previous director, Juha Halttunen. In conjunction with this sale, Juha gave up his ownership stake in the Halton Group.

Markets were developing favorably almost everywhere. Malaysian operations stabilized, and a new production facility was brought online in the United States, located in Scottsville, Kentucky. The many events of 1997 also included the move of the Halton Group headquarters from Kausala to Vantaa.

Halton had escaped the shadows and entered the light of day after five years of fighting. The spring sun was dazzling and warm. Seppo Halttunen's burden was also lifted. Privately he admitted to Mika that he no longer had the energy to worry about Halton as much as he should as chairman of the board. He wanted to give up his position and cede all authority in the company to Mika:

"I don't feel like going to meetings anymore. You take over now."

The generational shift was finally complete. Halton had maintained its capacity through difficult years and avoided committing any errors out of panic. The central core of product research and development was preserved, and significant investments were made in sales, even during the worst years of the recession.

Divesting itself of two businesses increased Halton's strategic room to operate, strengthened the balance sheet, and freed up resources to feed new sources of growth. The company's new corporate structure began to take shape, and a new culture developed. The strengths of the SBA structure were quickly visible. Courage conquered fear. Investments were made, and preparations for interesting acquisitions began. Halton had found the means to take it back to the top of the industry.

Challenges abounded in the business, but funding was no longer a problem. The new concerns were those typical of boom times as prices of materials, components, and subcontractors increased. And these had to be resisted as long as possible.

From Hippie to Sales Guru

A Hindu *sadhu* leisurely made his way in the dusty heat of the day. When the holy man reached a village, people showed the esteemed traveler their respect by giving him gifts and food. The *sadhu* had abandoned all his possessions, desires, and responsibilities. This stripped-down way of life interested the local people. A white man from a wealthy Western country also walked with the *sadhu*. He was a twenty-something Swede named Bengt Samuelsson.

Bengt had come to seek answers to life's greatest questions. A strange restlessness had come over him after high school at home in Sweden. What was the purpose of life? Where could truth be found? Maybe in one of the religions of the world? There were options to spare in India, but which of them would offer happiness and peace?

These were the thoughts swirling in the young man's mind as he left to tour Asia. It was the late 1960s, and the hippie movement was in its prime. Bengt spent time in Goa, as did many other hippies and wander-

ers. There were also many American war veterans around, who had survived Vietnam physically but were spiritually lost.

Bengt traveled for the winter and then returned to Sweden in the summer to work. He also earned money by selling objects he had bought while traveling to merchants he knew in the old town of Stockholm. Sometimes Bengt toured European countries, like Greece and Italy. Once, he bought a cheap car and drove through Turkey, Iran, Afghanistan, and Pakistan to India. Along the way he saw the good and bad sides of various religions. Bengt didn't find the meaning of life in a temple, a church, or a mosque, though. And he didn't even find enlightenment in the company of the sadhu. Bengt saw how the sadhu turned into something entirely different outside the villages. The holy man became a cheerful wag.

"Dignity and holiness were a sort of act for him. But he also didn't do anything bad to anyone, and people were happy with him," Bengt recalls nearly half a century later.

These years of traveling that began after high school lasted for nearly a decade. Then Bengt returned from Asia, cut his hair, and became a driver

for a couple of years for a retired businessman in the south of France. Only then did he finally come home to Sweden—and found a completely new unconventional career. He pulled on a chimneysweep uniform and began sweeping Swedish chimneys. But when they wouldn't give him his own chimney sweeping area, it was time to find a new job.

The next stage began in 1991. Bengt's girlfriend saw a vacancy announcement in

a newspaper: A company named Halton was looking for a salesman. The application period had passed a month ago, so the opportunity was probably already gone. But his girlfriend encouraged Bengt to call anyway, and Bengt hit a hole in one. The former seeker of truth made a

Bengt pulled on a chimneysweep uniform and began sweeping Swedish chimneys.

good impression on Tommy Jernberg, who was acting as the managing director of Halton's Swedish subsidiary.

"He saw a super salesman in me," Bengt says.

Soon it turned out that Tommy's intuition had been right. The new salesman got along well with the customers, and results started rolling in despite Bengt joining Halton at the most difficult possible time. Sweden sank into a recession in 1991. Halton employees in Sweden went without bonuses for the first time in a long time, but that was nothing compared to the misery in Finland. The entire company was in danger of collapse because of the Finnish recession and the collapse of trade with Russia.

But the decline in Sweden only lasted a year, and things began looking up in 1992.

That was lucky for Bengt Samuelsson and Halton. In 1995, Halton's Swedish subsidiary posted record-breaking sales of 13 million euros. Mika Halttunen has said afterwards that Sweden saved Halton. The saviors also included a former hippie who had found his purpose in life in providing people with better ventilation.

Bengt Samuelsson emphasizes two very different issues in sales: relationships and technical knowledge.

He nurtures relationships by spending time with customers on the golf course, during factory tours, and at dinner. Then he also does his best to give customers quick technical answers, which isn't possible without understanding HVAC technology yourself.

"I'm lucky, because I think I have both skills: technical expertise and interpersonal skills," Bengt says.

As a salesman, he's been able to do the same thing as the Indian sadhu: help his neighbors. But the acting required has been minimal.

"Usually people don't get jobs that fit them," Bengt said. "I'm lucky, because this job suits me. I like helping people with their problems."

A Swing and a Miss

If you want to read about hit products, we don't recommend this chapter. This story also isn't worth reading if you want to hear about perfectly polished innovations that the market instantly demands. Instead, this is a story about interesting products that weren't good enough to succeed. Designing top products also requires failures. Without the misses, you don't find the hits.

Most weak products are quietly buried during development. Halton has managed to shepherd a few failed innovations all the way to the market, though. These cases include products such as Comfo, ASA, and Combo.

Good innovations often stem from solving a problem. That's what happened with the Halton Comfo. The problem was the working conditions for industrial workers and the quality of the air they were breathing.

For example, hand soldering in the electronics industry generates harmful gases. Adhesives and other chemicals also cause harm to workers. In the worst case, heavy metals can end up in their lungs.

Developed in the 1980s, the Halton Comfo removed harmful substances from workstations. The device sucked exhaust air from in front of the worker and blew the fresh "protective air" down from above. During the development of the Comfo, Halton employees worked in concert with the Finnish Institute of Occupational Health, among other collaborations. Studies used sensors to measure how effectively the Comfo removed impurities. In addition, the impact of employee movements on air quality and system performance were tested. The results were good. The technology worked, so it was decided to introduce the product to the market.

Halton's sales team and management were excited. Many had great confidence in the Comfo. However, sales results were a bitter disappointment, and only a few Comfo units were sold. It was a complete flop and had to be abandoned.

Halton analyzed the results and found several reasons for the failure. One was that Halton had to market the product to an entirely new customer base. Instead of real estate developers, they were selling a product to industrial companies, especially to the end users working in specific facilities. Halton didn't have the right contacts in these industries.

Another problem was the timing. The Comfo should have been pitched to customers just as they were planning to invest in production capacity.

Third, the market for the product was probably quite small and was shrinking. Soldering and other manual work in factories was on the decline. However, Halton may have been able to find a niche if some things had been done differently.

THERE ARE a lot of awards in the conference room at the Halton factory in Kausala. One of the most significant awards is the European Innovation Award, which Halton received for the ASA air flow damper.

Developed in the early 1980s in Kausala, the idea for the ASA was a stroke of genius. The ASA was a damper that automatically kept air flow steady in a duct. The desired level could be adjusted by rotating a

knob, and then the airflow would remain constant, even if the air pressure in the ductwork changed or someone opened a window. This gravity-based damper could equalize the air flow without any monitoring or adjustment. Halton's perennial hit product, the PRA, could also adjust air flow but not automatically.

The ASA remains an example of a product of the culture of innovation that began to flourish at Halton in the 1980s. However, there was one serious problem with the ASA: it was unstable. If one damper started to move uncontrollably, the disequilibrium spread to all of the other dampers in the ductwork. Halton R&D was unable to overcome this problem. The system just didn't work.

The story of the ASA was thus cut short, with Halton giving up on it only a year after it had received the innovation prize. A decision was made to abandon the ASA. The Finnish subcontractor who made the

plastic parts for the device received a phone call: destroy all the molds.

Even though Seppo Halttunen was hungry for innovation and knew full well the risks involved, the failure of the ASA was a great disappointment. One day, this frustration led to an uncomfortable situation during a briefing for the staff. With everyone listening, Seppo placed the blame for the ASA debacle on its designers: The problem was that it was a bad prod-

uct. However, Seppo said not a single word about management's miscalculation. Obviously, this failure to take responsibility didn't go over well.

Halton also produced reverse vending machines from 1982 to 1997. Among the most advanced products in the business was the Combo, which was launched in 1992.

About the size of three refrigerator freezers, the Combo could accept bottles and cans, because its laser scanner could differentiate between

soft plastic, glass, and aluminum. Such a versatile device saved space in stores. It identified products from their barcodes, separated the different materials into their own compartments, smashed the plastic bottles and cans, and divided them into different bags. The device even noticed if someone tried to put in a full bottle or can. No competitor had such a versatile combination device.

The Combo was developed and manufactured in Finland at a factory in Heinola. There were big plans for the Combo. The intention was to produce it in France as well, where there was free capacity at the Béthune plant.

New bottle return machines were exported on an expedited schedule to the United States. However, malfunctions soon began to appear. The device didn't recognize bottles well enough or they got stuck.

The problem was that the Combo was not only a high-performance device, it was also very complicated. The handling of different types of bottles and cans within the machine proved to be more problematic in practice than in testing. The product was unrefined, so changes had to be made quickly. That was difficult, though: Some of the machines were already in production or in the warehouse, others were already in use and many were in transit across the Atlantic Ocean. As a result of feverish improvements, several different versions of the Combo were produced in a short amount of time, each of which required physical changes. But then version control failed. To make matters worse, the advanced barcode scanner, which Halton had first attempted to develop in-house but later purchased, also began acting up.

These problems damaged the Combo's reputation. In late 1993, Halton quietly retired the Combo. The history of bottle and can return at Halton ended in 1997 when the company sold the entire recycling operation to its Norwegian competitor, Tomra.

The story of the ASA was thus cut short, with Halton giving up on it only a year after it had received the innovation prize.

Gorilla Arms

The fire started at two in the morning on deck three. The car and passenger ferry MS *Scandinavian Star* was en route from Oslo, Norway to Frederikshavn, Denmark.

The fire spread quickly upwards. The flames couldn't ignite the steel and asbestos, but the melamine sheeting used to decorate the interior of the ship burned rapidly, releasing toxic fumes. The stairways passing through the ship acted as chimneys, increasing the intensity of the fire. The ship's captain, Hugo Larsen, attempted to close the fire doors on Deck 3, but they failed to respond to commands from the bridge. Then Larsen ordered the crew to shut down the ship's ventilation system to slow the spread of the blaze. However, this contributed to the passage of smoke into the passenger cabins. When the situation began to look hopeless, the captain activated the fire alarm and launched an evacuation of the ship. Twenty-four minutes had elapsed since the start of the fire.

One hundred and fifty-nine passengers died on April 7, 1990 on the *Scandinavian Star*. In addition to the incompetence and recklessness of the crew, a key reason for the large number of victims was the melamine. The firefighters found victims with no burns who appeared to be sleeping—carbon monoxide and other poison gases had killed them. Many

of those who succumbed in this fashion probably didn't ever hear the fire alarms, because there were too few of them.

According to accident investigators, the fire was started by a Danish truck driver who died himself. However, the work of the Oslo police investigation team was later questioned when it was revealed that several fires had occurred previously on the ship. According to one report, some crew members had set them for insurance money.

One of the firefighters who investigated the hellscape of the *Scandinavian Star* was a good friend of Henrik Hansen, a Danish marine engineer.

The incident also deeply touched Henrik, an old sea dog himself, who had just landed a job with Halton and was the first employee at the new Copenhagen office. Henrik didn't know much about indoor air yet, but he knew plenty about ships and seafaring. As he spoke with his friend, he realized how terrible the fire prevention systems were on many ships, since when their metal parts heated up, they allowed smoke to spread.

"The fire dampers weren't airtight in a fire, so smoke still passed through them. I suggested that we could develop a fire damper for ships that wouldn't just stop fire, it would also stop smoke," says Henrik, who is now the Business Development Director of Halton Marine.

Design of the new fire damper was quickly completed at the Halton factory in Lahti, Finland. In 1993, Henrik received a prototype from the Finnish engineers, which did indeed stop fire and smoke.

Now it was time for the hard work of sales. Henrik decided to start presenting the new product to customers immediately. It helped that he had good relationships in the industry, and the years he'd spent at sea were a big advantage. There was only one problem: The device was a cumbersome lump of metal that weighed 66 pounds (30 kg).

FOR HIS first sales trip, Henrik Hansen set his sights far from Copenhagen. The destination was Toronto. The reason for the distance was the need to win approval from a highly credible client. The Canadian Coast Guard was just such a potential customer, and Henrik happened to have an "in" there. And even better, the Canadians were ordering new ships.

“They loved the product,” Henrik says.

A deal was made on the very first trip. If the product was good enough for the Coast Guard, then why not for everyone else? Soon Halton was awarded a contract to deliver fire dampers for four cruise ships being built by the Fincantieri shipyard in Italy.

“I traveled all around the world with that fire damper. That’s why I have these gorilla arms. I’ve carried it for more miles than I can remember,” Henrik says.

The fire damper went with him to airports, security checks, rest-rooms, taxis, and of course customer offices. Carrying the device to a shipyard was easy in a car. But shipyard parking lots are often far from the front doors of their offices. If the day was hot, Henrik couldn’t make it without taking breaks.

“I’ve hurt my leg so many times with that stupid lump of metal. It doesn’t have any handles, so I had to carry it under my arm. I tried to wrap metal cables around it for a while. Then I got a cardboard box, but I still had to carry it the same way.”

When deals started coming in, the Halton leadership concluded that what Henrik had been up to might turn into a good business.

“Mika Halttunen said that maybe you should focus solely on the marine industry. He gave me free rein,” Henrik says.

That was just fine with this former engineer. He got along great with sailors, and none of them wore ties around their necks cutting off their circulation.

“And besides, I understood ships better than buildings, so it was perfect for me.”

BUT THE limits of one person’s time and skills were quickly reached, even though he was highly qualified. So, Henrik hired new colleagues with skills to complement his own. Having people who understood computers and excelled at organizational tasks allowed Henrik to focus on staying in motion. He would eventually travel as far as Brazil and China demonstrating his heavy device. Maybe things could have been

handled more easily, but would the results have been as good?

“I don’t believe in paper and 3D drawings. We had to show people how the thing worked. They had to see it for themselves.”

There was demand for Halton’s know-how in other places aboard ships, too, such as in the galleys, the kitchens. At the time, one of Halton’s competitors was providing hoods for that segment, but the inflexibility of this company was causing problems for shipyards. The competitor’s hood was controlled by a large, old-fashioned control panel that took up a tremendous amount of space on a cramped ship. The advantage of Halton’s hoods was their modern electronic PLC controllers, which fit into small spaces.

“Halton was already good at making exhaust hoods, but we had to start making them for ship galleys. So, the R&D team in Lahti got to work and we entered the segment,” Henrik says.

This all goes to show how Halton’s expansion in the Marine business occurred in part by chance. Often opportunities opened up because other companies’ technology was old or of insufficient quality.

This was also the case at the end of the 1990s, when Halton jumped into ship cabin ventilation. The shipyard in Saint-Nazaire in France was building a cruise ship for Renaissance Cruises, but in the home stretch, the project ran into problems: The noise level in the cabins was too high, and the cruise line demanded repairs.

The ventilation system had been implemented using a variable air volume (VAV) system, and there was a company in France that had excellent expertise in silent VAV solutions: Anemotherm, who had been working on VAV systems since the 1950s. And as luck would have it, Halton had purchased Anemotherm in 1989.

“I don’t believe in paper and 3D drawings. We had to show people how the thing worked. They had to see it for themselves.”

“There isn’t much space on ships, and the air flows at a high rate through the ducts. That’s why there’s so much noise if the ventilation isn’t done properly. Our French colleagues had a tremendous amount of expertise in noise reduction, though. They did excellent work,” Henrik Hansen says.

The noise level in the cabins was rectified, and Halton immediately received additional orders, allowing the Marine business to expand again. This time making sales didn’t require traveling with a fire damper in tow, but Halton didn’t completely give up lifting heavy things.

“We still take fire dampers with us to client visits sometimes. You have to show people how the products work.”

#marineindustry #shipyards #puzzles #Marine #Lahti #Finland

Heaven and Hell, Engineer Style

The harder things are, the more interesting they get. The greater the technical problems an industry front-runner solves, the more likely it is to be able to differentiate itself from the competition. Good companies like competition—and do their best to be out ahead of the toughest battles for position.

Halton has always kept its distance from easy, cheap metal bending. Halton holds steel and aluminum in such high regard as raw materials that they have always striven to refine them into products that maximize their value relative to their price by weight. This is why Halton expanded its ventilation business into the marine, offshore, defense, and nuclear power industries.

Finnish shipyards have been among the best in the world since the 1980s. However, Halton’s first major marine industry customer did not come from Finland. It came from Italy.

The Fincantieri shipyard, which makes huge cruise ships, had a problem in 1997 that it had to solve. One of Fincantieri's preferred suppliers had gained too strong a position as the ship galley vendor at the shipyard. The Italians felt that the representatives of this vendor behaved arrogantly, responding slowly and providing poor service.

A representative of the shipyard had heard about Halton's reputation for quality from an agent at a Finnish company in Italy, and Halton's team was invited to a meeting at the Monfalcone shipyard. The Finnish team included Tommi Rantanen, who worked as a customer service engineer. During the meeting, the Finns learned that the Italians were completely fed up with their current vendor. The hosts expressed their point very directly:

"If you start to develop us a self-cleaning water wash hood, this will be your ship."

The vessel under construction at the Fincantieri shipyard was not just any ship. It was the *Grand Princess*, the new flagship of Princess Cruises, which, when completed, would be the world's largest and most expensive cruise ship. Tommi Rantanen didn't know exactly what a self-cleaning water wash hood would be like, not to mention how Halton would build it. But he liked the mood at the Italian shipyard and saw a great opportunity.

So Halton's R&D team got down to work. Along the way they discovered, among other things, that the hood fire dampers had to be connected to the ship's alarm systems. Tommi spent a total of three or four months on the unfinished cruise ship, even though his family had just had their first child. And while Finns at home were lighting their Midsummer bonfires, Tommi was solving installation problems in the ship's cramped air ducts.

However, the work progressed, and the ship's maiden voyage approached. Everything seemed to be in order. But then Tommi's phone rang. It was Halton's local agent calling. Out of breath, he reported some terrible news:

"I just got a call from the shipyard manager. He says they're tearing out all the Halton hoods. The inspectors won't certify them. The ship-

yard is in a bad spot... They're going to have to rush-order hoods from another company."

This news floored Tommi. The agent didn't know what had gone wrong, and Tommi couldn't imagine how a problem of this magnitude could have been overlooked. Receiving a red card from the health inspector was a complete disaster. Stunned, he hung up the phone. A couple of minutes later, it rang again. It was the Halton sales director.

"What the hell is going on down there?"

All Tommi could say was what he'd just heard. Next, the technical manager from the shipyard called:

"Rantanen. Are you at the hotel? We're coming to see you with the inspector. He's going to interview you. We're going to videotape it for evidence."

The interview lasted an hour and a half, with Tommi sweating the whole time. In an attempt to follow the instructions he'd been given by his colleagues, he offered the Italians beer. That turned out to be a bad idea. The interviewers became even more angry.

Eventually their expressions began to soften. The inspector pointed to the video camera and, with a broad smile, said, "Tommi, congratulations, you're on candid camera!"

It had all been an elaborate practical joke, an unforgettable acknowledgment that Tommi had become one of their most trusted partners. Halton had passed Fincantieri's strict screening procedures and would be granted the contract as the galley hood vendor. The hoped-for breakthrough had become a reality.

A FEW years later, Finnish shipyards also started to call for tenders. Halton had found a new source of growth by starting to do things that it hadn't previously known how to do. Soon products manufactured by Halton were being purchased by all the shipyards that build cruise ships, from France and Germany to Japan. In addition to the galley business, cabin ventilation units developed by Halton's French laboratory also entered the fray.

Then, on a cool September morning in 2001, terrorists flew two jets into the Twin Towers.

Halton's leadership had begun working on a new strategy before the New York terror attacks. But after 9/11, the company realized that the threat of terrorism would freeze orders for ships. The ventilation business would need to look elsewhere for customers. This could be a long recession.

Their evaluation was correct: For two and a half years, not a single order for a luxury cruise liner was made anywhere in the world. At least the ships ordered before the terror attacks were completed, though. 2002 was a good financial year for Halton, but 2003 was worse, and 2004 was a disaster. Relief didn't come until the following year, when Halton began to win its first contracts with oil and gas exploration companies in the offshore industry. The cruise ship business then perked up temporarily, until it collapsed again in 2009 after the financial crisis.

By then, Tommi Rantanen was the head of Halton Marine. Tommi and his closest colleagues felt like everything was coming to an end. The silence was stunning. But it also provided an opportunity to explore new ideas. Tommi and his team went out and found new customers in the defense and energy industries. Halton believed that the ventilation solutions developed by the company for the marine industry could also be suitable for navy ships. More new segments were discovered in wind and nuclear power plants.

FOR A long time, Halton Marine's spearhead product has been the FDB family of fire dampers that comes in numerous versions to meet different needs. A fire damper has to remain tight when it's cold. Then it has to open with perfect reliability when combustion gases fill the space. In the event of a fire, gases often kill more people than flames.

Progress in the offshore industry required changes to the fire dampers developed for cruise ships. Flange sizes had to be changed and components replaced. Valves, electric boxes, actuators, shafts, and bearings—everything had to be explosion-proof.

The testing of new offshore products is always thorough and demanding. One oil drilling platform may have 300–1500 fire dampers. No component of any fire damper mounted on an oil rig can be allowed to give off the slightest spark under any circumstances. If a damper does not work, drilling must be stopped. Because of the extreme technical requirements, an offshore damper can cost up to ten times what a luxury cruise ship damper does, even though the requirements for cruise ship dampers are tough, too.

Nuclear power plants have their own requirements, as do wind power facilities and naval fleets. The latter typically want shock-tested technology—relatively simple yet extremely robust solutions. Modern warship technology has to continue to operate, even if a missile explodes at the bow of the ship and the explosion pressure wave kills most of the crew.

Halton has received certification for its products from NATO as well as for the fleets of the UK, France, Spain, Sweden, and India. The Halton Foodservice factory in Kentucky began making products for the US Navy to fulfill requirements of the Buy American program.

Fleet, nuclear power, and offshore are good examples of customer segments that require exceptional patience to work with. Product approvals take forever. Projects may start years before deliveries begin.

Oil price fluctuations used to rock Halton, but this influence has been mitigated. When offshore cools down, cruise ship construction accelerates. Even in the energy industry, it's better to rely on two playing cards than one. The nuclear power crisis has turned in favor of the wind power business.

Established family businesses are well placed to succeed in such industries. Halton has given up its narrow focus on supplying components for building ventilation to become more stable. Analyzing performance from one quarter or year may be interesting, but data from multiple years are even more fascinating. When there's a lot of work, you expand. When the markets collapse, you contract. You keep good people working and accept lower returns.

What next? Outer space? Why not?

Mr. Lee *

** Name has been changed*

There were also a lot of good things about Mr. Lee. He seemed enthusiastic and proud of his business. As a businessman in South Korea, he had been awarded several patents, and he lectured at a university. But those who have been in business with Mr. Lee for a bit longer have seen another side of him. Things you might not immediately notice.

Mr. Lee seemed like an ordinary Korean business man. He ran a trading company in Seoul that imported ventilation equipment from Western companies. Lee even helped Halton enter the Korean market in 1993.

The business was small, but Halton's investments in Korea were also small. However, interest grew in the 1990s, and Halton's leadership visited Seoul several times.

Mr. Lee's import agency had an office in the middle of Seoul. The area was a labyrinth of narrow lanes, with all the signs for the small shops in Korean. None of the Finns could read them, but what they could see was Lee's staff sitting in their offices wearing their overcoats when the weather turned cold. They were told this was nothing out of the ordinary. In the 1990s, not all of the buildings in South Korea had central heating.

The local business world was a maze for the Finns. Without knowing Korean, they couldn't understand Lee's patent applications or the lec-

ture papers he proudly presented to his visitors. However, the pictures were clearer: some of them had been taken directly from Halton materials or academic papers produced at Halton.

The first suspicions about Mr. Lee's operation surfaced: It looked like he was blatantly copying other people's work and presenting it as his own. Another strange thing was that Mr. Lee told different facts to different people about everyday events. No one could have two different ages, for example. At least one had to be untrue.

And it was also a little strange that Mr. Lee carried a long Asian sword in his car and showed it off proudly to the Finns.

However, collaboration continued, some deals were signed, and Mr. Lee ordered merchandise from Finland. However, looking back, it wasn't entirely clear whether he was reselling it under his own name or Halton's. No one could ask Mr. Lee's clients, because they didn't speak English, and the language skills of the office staff were just as weak.

The person who dealt with Mr. Lee the most was the Asia director for Halton at the time, Olli Sipilä. Olli soon concluded that changes had to be made to Halton's business in Korea. There were two options: Either enter into deeper cooperation with Lee or end collaboration completely. There wasn't much time for reflection, since Halton's finances were still tight following the recession in Finland.

Halton decided to join forces with Lee. The business partners would set up a joint venture, which was a common way to operate in a new market. Afterwards, Olli described his attitude as opportunistic. Korea wasn't an important enough market for him to invest more time in it. Everything that came out of operating in the country was a bonus.

In accordance with Lee's wishes, ownership of the joint venture was divided equally, so neither party had absolute control. Through a holding company structure, Finnfund, an export finance company owned by the Finnish government, was also a partner. This is a fairly common model used by Finnish companies to expand their operations into new markets. Korea wasn't a unique situation for Halton. For example, in the Malaysian and Mexican markets, joint ventures have worked wonderfully.

However, an equal ownership model has an inherent challenge: How will disputes between partners be resolved?

Mr. Lee did not see any problem. What could cause any conflict, he asked? If and when Halton wished to do wise things, he would of course agree. And who would want to do anything unwise, anyway?

When the joint venture began, Mr. Lee was excited about the project and motivated to do business. At Halton, the mood was also better than before: This is finally going to happen! And Halton did land promising deals in South Korea. A large delivery went to the SsangYong automobile factory. That and other deals ensured that Halton would make back its investment in Korea. But Mr. Lee wanted more: He desperately wished to build a production facility in his home country. He even presented potential factory sites to Halton's leadership.

However, no production operation was set up in Korea. In 1997, the Korean economic crisis began, which was short but deep. As a result of the crisis, cooperation with Mr. Lee also turned sour.

Strange problems began to emerge, for example in the recruitment of employees for the joint venture. Mr. Lee hired people but fired some just a few weeks later. He let one sales manager go after only three days.

"He wasn't the right man for the job," was the explanation.

Olli Sipilä decided to take a more active role in recruitment. Soon they found a sales director who seemed talented and also spoke English. Olli visited the man's home and spent a nice evening with his family. But when he got home to Kuala Lumpur, there was a fax waiting from Mr. Lee. The apparently qualified sales director had been dismissed.

The turning point in the relationship between Halton and Mr. Lee occurred at a meeting in Seoul. Olli Sipilä asked Lee how deals were really made in Korea. Lee explained that the product had to stand out from the competition to get a good price for it.

Of course.

Then Lee added that you also needed to pay the buyers a little.

Of course.

Making a deal meant negotiating with the purchaser about the price.

Of course.

Then you ask the buyer how much of the money for the deal he wanted for himself. This was standard practice in South Korea.

Olli was shocked. His expectations about Mr. Lee's morality had never been particularly high, but this was worse than he could have dreamed. Lee was paying bribes to clients off the books. Halton was involved in a corrupt enterprise. Any possibility for misunderstanding vanished when Mr. Lee proudly produced the book where he recorded the bribes and double accounting.

Olli's decision was made. They were done. Halton notified Mr. Lee that the joint venture would be shut down. Of course, Lee expressed deep disappointment. There would be no factory in Korea.

Soon afterwards, a surprising event occurred in the Korean office. Thieves broke in, stealing the accounting files and computers. Then the surprises continued, as Mr. Lee refused to give up. He wanted to sue Halton, meaning a long and difficult legal battle.

However, there was a third party in the joint venture, Finnfund, which had the authority of the Finnish state behind it. The parties gathered to hash out the dispute at a law office in Helsinki. Before the meeting, the Halton team encouraged the Finnfund representative to play the role of a strong authority figure. And so he did.

The man from Finnfund took the seat at the head of the table. To one side sat Mr. Lee, to the other Mika Halttunen and Olli Sipilä.

"As a representative of the Finnish state, I am extremely disappointed in your actions," the Finnfund man thundered. "I'm fed up with this. I want this to end, now."

Mika Halttunen has described the performance of the export finance company representative as Oscar-worthy. Finnfund didn't actually have much say in the matter, but Lee bought the act hook, line, and sinker.

Mr. Lee hired people but fired some just a few weeks later. He let one sales manager go after only three days.

The dressing-down caused a surprising change in Mr. Lee's behavior. In the face of this supposed government authority, he not only humbled himself but also seemed to display regret.

"Yes, I am very sorry," he said to the Finnfund representative, and that was the end of the joint venture.

Halton learned many valuable lessons in South Korea. One of them is that any partner's background must be thoroughly vetted. If the partner doesn't seem to share your values, it isn't a good idea to work together. One important warning sign is always the poor treatment of employees.

"If there's no love at the beginning of the relationship, you shouldn't get married," Sipilä says.

Halton's operations in Korea were put on hold for years after the dissolution of this joint venture. However, the company didn't give up. Halton did projects in Korea now and then, and in 2009 returned permanently to the country, which is one of the most interesting markets in Asia. The decision to set up a subsidiary in Korea came after finding a person Halton could trust to start the operation. And this time, Halton holds full control.

Sharizan's Education

What do you want to be when you grow up? This is a familiar question, and parents ask it of their children in Malaysia, too. When young Sharizan Amir was asked this question in the 1980s, he had a clear answer. His dream was to study architecture.

The Amirs' home city, Kuala Lumpur, was already a metropolis of a million inhabitants in the early 1980s, a jigsaw puzzle of cultures and religions with a rapidly growing population. The father of the family was a driver and the mother kept house. And there was plenty of housekeeping to be done, because the family had 13 children. Sharizan was toward the tail end, with four younger siblings.

But the dreams of childhood don't always come true. Sharizan had to give up his dream at the age of 11 when his father died. The family's life in the big city was never one of luxury, but after Sharizan's father's death it became more difficult. His mother supported the family by selling food at a stand on the side of the road, and she received a widow's pension from the Malaysian state.

After secondary school, it was clear that Sharizan had to go to work quickly and start earning a living. Fortunately, the Malaysian economy was growing at a staggering rate of 10% in 1995, so jobs were available no matter what your schooling. Sharizan got a job at a factory that produced electronic components for televisions. Then he became an office runner.

But soon he found an even better job. A new Western company opened a factory in Kuala Lumpur to make ventilation products. Its name was Halton.

Sharizan Amir was placed on the factory floor to pack Halton's finished products, which were in high demand in the growing markets of Asia. The young man was successful at work, and soon he began to gain more responsibility. Eventually he was assigned the task of scheduling deliveries with the truck drivers.

Work was going well, but Sharizan began to feel like he could do much more. So, he decided to start studying CAD software outside of work.

First, he did a ten-hour work day at the factory, ending at six in the evening. After this, he began his evening studies, three times a week. On these nights, he didn't arrive home until eleven o'clock at night. But after six months, he received his first AutoCAD programming certificate.

Then bad things started to happen in the Malaysian economy, which also affected Halton. The rapidly growing Asian Tigers plunged into a deep economic crisis in 1998. The Malaysian economy also collapsed, and GDP fell by over seven percent in one year. Production in the construction sector fell by a quarter. That sent Halton's brand-new factory straight into the red.

COMPANIES OFTEN draw quick conclusions in such situations. Many wind down their activities when they encounter difficulties. However, Halton decided to stay in Malaysia, and Sharizan Amir's job continued.

He began to work in many positions all over the factory, using his new skills by filling in for design engineers, purchasers, and warehouse workers. In 2005, he became a line manager.

Former colleagues were very accepting of Sharizan's advancement. However, this new responsibility was not easy at first. Young subordinates didn't always follow instructions, and if problems arose, the new manager was the one with ultimate responsibility. Sharizan solved these problems by talking them through and giving further instructions, up to the point of hand-holding if necessary.

However, Sharizan Amir was not done, not by a long shot. In 2012, he decided to begin a three-year production management course on the weekends. His superiors and the Halton leadership encouraged him to take the courses, which Halton supported financially. During one semester, he was forced to interrupt his studies, but it was for a good reason: his family had a second son.

"Fitting together school, work, and family is very, very difficult. However, I wanted to do it for the good of my career and for the company," Sharizan says.

His studies also included English, since previously he knew almost no English at all.

"English was also difficult for me, but I forced myself to learn. Not everyone has the opportunity, so I tried to learn as much as I could. That was also a good thing for my family and my subordinates."

Hard study has produced results that are visible in Sharizan's career path. Line management responsibilities were replaced in 2015 by factory production planning and management work.

"Maybe I've also been a model for other employees," Sharizan says.

And yet, few workers take this educational path, even though Halton encourages it. Sharizan has a few explanations for this

Most of the workers at the Malaysian factory have their own apartment, car, and family. The level of orders and workload at the factory

Sharizan solved these problems by talking them through and giving further instructions, up to the point of hand-holding if necessary.

varies, creating opportunities for overtime, which form an important source of additional income for workers. There are always a lot of needs in any family, so any extra income is always quickly allocated. However, extra work at the factory takes up time and energy that could be used for studying.

The development of Kuala Lumpur has been tremendous over Sharizan Amir's lifetime. Unskilled migrant workers and skilled white-collar workers alike have streamed in from abroad. The city's population has increased more than seven-fold to 7.5 million.

The Malaysian factory is one of Halton's most multicultural sites. The dominant religion in the country is Islam, but it's a moderate version. A small Hindu shrine also decorates the yard of the Halton factory and sees frequent use.

Sharizan Amir's enterprising spirit has lifted him out of poverty. Things are so good that he's able to help his 70-year-old mother, who lives nearby. However, he's done all this for more than a career and money. He's also been working for his childhood dream.

"I didn't become an architect, but I know how to do demanding design work on computers, and I work closely with product designers. I feel like I've mostly achieved my dream after all."

The Shakedown

Picture 1. Intermediate storage of product moving to assembly. Slightly disorganized due to different shapes and loose individual pieces.

Picture 2. Disorganized appearance of storage of parts going to assembly. Obvious risk of damage.

Picture 3. Prototype area disorganized, partly as a result of nature of work. This is not always understood by the customer, who will rely on general perception.

There is no shortcut to the top. An industrial production facility must continuously refine its operations in order to improve rather than lose production efficiency, quality, and delivery reliability. An inspection carried out at the Halton factory in Lahti, Finland in August 1996 revealed a number of weak points—or challenges, as we call them now:

Picture 4. Area obviously in the process of some sort of change. Extremely disorganized appearance.

Picture 7. Quality principles neglected around quality control station.

Picture 10. A sticker reading "Keep Area Clean and Orderly" was placed correctly, but the area itself seems problematic in terms of order.

Picture 11. Chopping station does not appear to be anyone's responsibility, so cleanup and scraps are not being dealt with.

Being rushed is a poor excuse, because disorder makes it difficult to do high quality, systematic work. Rushing creates additional mess, and mess create rushing. This is also a question of occupational safety. Any company striving for high quality constantly has to intervene in this spiral. The aim of inspections is to create a positive feedback loop of order, efficiency, and safety:

Picture 13. Plate shear area very well organized. Considering the nature of the work, exceptionally well organized (+++)

Picture 14. Very well-organized edging press workstation (+++).

Picture 15. Overall appearance of workstation that handles many different parts found to be tidy (++)

Times were exceptionally interesting at the Lahti factory in 1996. The factory was starting to deliver fire dampers to marine industry customers. After a tough struggle, Halton had been able to work its way out of the dark depths of the recession of the early 1990s and was hungry for growth in new areas.

The comments from a document found in the archives of Anu Nyman, director of Halton Marine, show that the inspector was also concerned about future customer visits to the factory. Guests at the factory could be forgiven for thinking that things were exactly as they looked.

So, the ruthless inspection had a remarkably good purpose. The inspector in charge even made the rounds of the clerical offices. At one workstation, papers covered the desk and had a “slightly congested effect” on the inspector. Another clerical worker’s organization was “moderate, even allowing some free space to work.”

The biggest shortcomings were related to disorder around shared machines and workstations in the factory, as well as the locations of waste bins. People took reasonably good care of their own areas, but those that no one in particular was responsible for received less attention. However, the factory was bright and colorful, and the corridors were clean.

That’s how things were in the 20th century.

Halton, along with many other manufacturers, has continued to make strides in factory organization, and in October 2018, the Halton Marine

team was awarded the prestigious Halton Diploma for implementing a demanding 5S project. Of course, anyone involved in manufacturing at Halton or anywhere else will tell you that challenges remain. The world isn’t perfect, but it is improving.

5S is a methodology developed in Japan for work organization and standardization that aims to eliminate waste from workplaces and improve quality and safety.

5S stands for *seiri, seiton, seiso, seiketsu, and shitsuke*, i.e., sort, set in order, shine, standardize, and sustain. Workstations are sorted—that is, unnecessary items are removed. Item storage and labeling is systematized. Shine means cleaning up, constantly. Best practices such as the use of tools are standardized. Monitoring ensures that agreed standards are upheld.

From Slave to Entrepreneur

A long, rocky road ended when Halton sold its bottle return vending machines to the Norwegian company Tomra. The sale, which took place in 1997, gave Halton more room to maneuver and freed up the leadership for a strategic discussion: Now that we have some money, what do we do next and how?

Long plane trips provided ample time for lengthy conversations. Mika Halttunen, Olli Sipilä, and Heikki Rinne argued about the advantages and disadvantages of two very different strategic approaches. One was centralized and the other decentralized. In a centralized functional model, the group's product development director would be responsible for product development, the production director for production, and the sales director for sales. In the decentralized alternative, business units would be set up around the world to operate as independently as possible. They would be companies within a company.

Olli Sipilä's position took shape quickly. In his opinion, the difference was as clear as that between communism and capitalism. He thought

that if a factory can only be a factory, it's a bit like a slave. It waits for orders, and it reacts, but it doesn't ever act before someone gives it an order. Olli remembered his own experience in France from a few years earlier:

"Who are our customers?" he had asked the Béthune factory customer service manager soon after being appointed head of the troubled French subsidiary.

"We don't have customers," was the answer.

Ah. Olli listened politely, but inside, he was horrified. Now he was in deep. Another insight came when a Halton employee working on Marine sales turned to Olli:

"Could you take a look at a new brochure? It's being published in English, and you probably must speak that pretty well."

"Sure, I can have a look," Olli replied. "I'll at least be able to see if something is really wrong. But why don't you send it to Marketing? They have translators and editors to handle this sort of thing."

"We can't send it there. If it goes to the group, they'll say we can't do it at all. That's why we have to sort of do it in secret."

This was all they needed. The company had successful, enterprising people, but they were afraid that their main office would get in the way of what they were trying to do. That had to change, fast. People had to be given the opportunity to take responsibility for their work.

The rest of the Halton leadership and the board of directors understood Olli's reasoning. The board began preparing to separate the group's customer base into three strategic business areas (SBAs).

Commercial Buildings was by far the most powerful Halton division, with its foundation built on providing ventilation solutions for large-scale construction projects. This was where it had all started. At the apex of this range of products were chilled beams, which had grown from zero to a business of \$23 million (€20 million) in little more than ten years.

Marine & Offshore split off into its own area because it had a very different customer base. *Catering* (the name was later changed to Foodservice) was a niche that fit perfectly with Seppo Halttunen's philosophy:

too small for the big companies and too difficult for the small companies. Imitators could watch Halton's tail lights disappear into the distance as their R&D team developed new "bells and whistles" for kitchen hoods.

THE SBA split took place in 1999. In the beginning, turnover for Commercial Buildings was \$57 million (€50 million), Catering was \$13.8 million (€12 million), and Marine was \$4.6 million (€4 million).

At the time, Halton's corporate leadership was also burdened by a new enterprise resource planning system, which required as much endurance from its builders as the famous Saint Isaac's Cathedral in St. Petersburg.

The transition to the SBA model was not easy for Halton. In almost all companies, new strategies require more time to implement than their designers anticipate. There are a variety of challenges in product groups and profit centers, which are more operational than strategic in nature. No strategy will pay the promised dividends if the executive in charge of implementation is an incompetent leader, or if a qualified leader is forced to lead an operation in a country where the economy is teetering on the verge of collapse.

Fortunately for Halton, Malaysia recovered quickly from the Asian economic crisis. However, a joint venture in South Korea had to be wound down.

At the time, Halton's corporate leadership was also burdened by a new enterprise resource planning system, which required as much endurance from its builders as the famous Saint Isaac's Cathedral in St. Petersburg, which took 40 years to construct and has since become an idiom in Finnish for drawn-out construction projects. Halton started its ERP project in 1999. When the work was finally completed in 2003,

costs had overrun by 80 percent and the estimated time had been exceeded by two years.

However, Halton's big picture looked good from the outside at the turn of the new millennium. When Finland's leading business magazine, *Talouselämä*, published its traditional list of the 500 largest Finnish companies in 2000, Halton had climbed to number 323. *Talouselämä* rated the company's financial management at a nine out of ten.

Turnover totaled \$100 million (€88 million), and profit before extraordinary items was \$4.5 million (€4 million). However, growth had stagnated, and profitability had fallen short of targets.

At the June meeting of the board of directors in Lahti, the matter was expressed very directly: the overall situation is not good, not even satisfactory. The performance budget was getting out of hand, and fixed costs were too high. However, the group's new structure had begun to work. Operations were becoming more focused. The leadership wanted to give the three strategic business areas clear frameworks within which they could operate even more freely.

The board decided that Commercial Buildings would focus on Europe in the coming years. The strong demand for cooling beams would be exploited, especially in Germany, Italy, and Eastern Europe. At this meeting, Foodservice and Marine received a wider sphere of influence, turning them into global businesses. Foodservice would expand with international operators such as hotel chains. Marine would expand its offerings to European shipyards and also offer its products to the offshore industry. Naval fleets were identified as a new customer segment.

Matters that united the different business areas were defined as customer proximity, value-adding technology, and Total Halton Quality. That meant constant improvement and thorough evaluation of all business activities.

The future looked promising for a while. However, in September 2001 something happened that nobody could have predicted. Terrorists flew two passenger aircraft into the twin towers of the World Trade Center in New York, completely destroying them. Fear spread across the world.

Nations initiated countermeasures, and airports and shipping terminals tightened security. Some people continued their lives as before, but millions changed their travel plans or canceled trips altogether. The September 11 terrorist attacks drastically reduced the number of cruise ship passengers, among other things. Shipowners almost completely stopped investments in new vessels.

THE DOWNTURN in the cruise business weakened Halton Marine's sales and profitability for two years. The slowdown in economic growth was also reflected in the development of Commercial Buildings. The confidence of Halton's leadership in its own strategy endured these difficulties well. Mika Halttunen wanted to become chairman of the board and give up his duties as CEO, so he asked Heikki Rinne to take over.

Heikki Rinne had moved to the United States a couple of years earlier to take the helm of a startup company. However, the tech boom had cooled, and working as CEO of Halton would offer the opportunity to implement his strategic vision with proper resources. Mika moved to the board and took on the role of chairman from his father, who had abandoned his seat. The second phase of the generational shift at Halton was complete.

Heikki Rinne was a natural choice to lead Halton. He knew the company so well through past work on the board, and Mika trusted his strategic thinking. Heikki's philosophy was that the group leadership should design the strategy and then pass that vision on to the business areas and units, which would manage the rest. The SBA leaders would take ownership of their growth and profitability. They would make the products their customers needed, with features as necessary. In one country there might be an emphasis on design, in another on energy efficiency, and in a third on ease of production.

Heikki used to say that he was really bad at worrying, but he felt better knowing that dozens of other people were worried.

"I didn't make many decisions," Heikki recalls. "I often said that I could decide this, but you'll be responsible for it. So, what should we

do? Should I decide, or should you? I thought our people would make higher profits with their own bad decisions than they would make with my good decisions."

The new chairman of the board thought the same way. Mika's policy was that Halton doesn't punish mistakes. He thought the company made too few of them, and it wouldn't necessarily be a bad thing if they made more. Mika might voice his opinions, but he would place the views of the heads of the units above his own:

"I don't believe in that investment, but we've done worse things with our money. If you want to spend the money, then spend it."

The directors' instructions were preferably short and vague than long and detailed. A good example of this kind of guidance was a discussion in which Mika Halttunen asked Olli Sipilä to take over the leadership of Foodservice. Olli thanked Mika for the honor and asked, "What do you want from Foodservice?"

"Well, it should be bigger. Make it bigger."

"OK. That's easy. All I have to do is buy Wimböck and Vent Master."

WIMBÖCK AND Vent Master were strong in technical solutions where Halton was not as strong. Wimböck was successful in Germany and Vent Master in the UK—in countries where Halton had not achieved as much as they would have liked. They would be a perfect match for Halton.

At first, Olli was just joking. Of course, he didn't think he could just go out and buy the competition, and he didn't have a clue whether the owners of said companies were interested in selling. And if they were, at what price.

The Halton Group's sales declined by more than ten percent in 2003, although Foodservice performed reasonably well. The Marine business was still underperforming, and Commercial Buildings faced stiff competition. However, Halton's leadership saw growth opportunities both in new market areas and new product categories. The first acquisition carried out under Heikki Rinne was completed in late 2003 when the

Finnish air filter manufacturer Clairia was incorporated into the Halton Group. The idea was to form a fourth SBA around it, the business idea being to sell clean indoor air.

Next, Halton began to strengthen Foodservice. The opportunity for this opened up almost by accident: Olli Sipilä had been researching the competition in his segment and realized that Vent Master might actually be ripe for acquisition.

Some time earlier, Mika Halttunen had approached the American parent company of Vent Master, Enodis. Back then, the answer was an absolute no. However, Olli thought the situation might have changed. From the information he had collected, he saw that Enodis, which was a publicly traded company, had expanded its operations rapidly but failed to keep control of the situation. Cash flow was low. Olli deduced that that the company would have to cut loose some dead wood.

Mika decided that now was the time to act. He called the CEO of Enodis, Dave McCulloch, and asked if Enodis would be interested in selling Vent Master's British business.

"Why don't you buy both?" McCulloch replied. "Take Canada, too."

FOR HALTON, Vent Master was real coup. Halton had been a promising growth company in kitchen ventilation but still only one of many. Following the Vent Master deal at the beginning of 2005, Halton became one of the leading European companies in the industry, strengthened its position in Britain, and returned to Canada. Vent Master had valuable technology for air purification, and system delivery expertise. Vent Master sold customers complete projects where Halton only offered hoods.

After the acquisition of Vent Master, Halton became "the world's largest international kitchen ventilation company." In 2006, this position was further strengthened by the transfer of ownership of the German family company Wimböck to Halton.

This transfer was similar to the Vent Master acquisition. Internally, Wimböck was on the verge of collapse, even though things seemed fine outwardly. The family who owned the company was happy to begin ac-

quisition talks, and then matters proceeded quickly. Soon they were former owners. The company had become a burden for the Wimböck family, so selling to Halton was a relief.

Wimböck's technology and market position almost perfectly fit Halton's plans. The designers at Wimböck were masters of ventilated ceilings for kitchens, the finer points of which the developers at Halton did not yet understand nearly as well. With the help of Wimböck, Halton also gained a leading position in the German market. The deal was also a good thing for Wimböck employees. They knew that Halton would be a more reliable paymaster than Wimböck, which had been on the brink of bankruptcy.

THE BENEFITS of Halton's SBA strategy continued to emerge during 2005–2006. After a lot of hard work, the Marine business had managed to gain the confidence of customers in the offshore industry. The cruise ship business picked up, as did construction. As a result of sensible acquisitions, operational successes, and global economic growth, Halton's sales improved in leaps and bounds: turnover rose 33 percent in 2005, 18 percent the next year, and around 17 percent in 2007. By then, sales volume was at \$170 million (€148 million). One of the highlights that year was cooling beams, which doubled their sales.

Mika Halttunen's vision had been realized under Heikki Rinne's leadership. The Finnish export company had become a global group. Halton had almost doubled in size in four years and balanced its structure. The risks associated with overwhelming reliance on one industry had been reduced. The SBAs were able to operate independently, throwing off the shackles of tight control and exercising independent creativity.

The deal was also a good thing for Wimböck employees. They knew that Halton would be a more reliable paymaster than Wimböck, which had been on the brink of bankruptcy.

Marine and Foodservice had developed so rapidly that the share of the traditional indoor air business had fallen to less than 50 percent of Halton's sales. Eight years earlier, it had been 75 percent.

The global economy continued to look good in 2007. Nations were not fighting each other, but were instead focusing on trade. The economy was seeing strong growth, and central bankers were ensuring that balance was maintained. There were some disturbances in the derivatives market. But they did not exceed the news threshold in industrial companies like Halton.

The leaders of the company started looking toward new goals, setting their sights on 2015.

Brainwashing in America

The young Halton engineer Georges Gaspar received an offer in 2000. It wasn't tempting, though. If he's completely honest, it wasn't even interesting.

Olli Sipilä, Halton's director, asked Georges to serve as Customer Service Director in Béthune, France. Georges had many reasons to resist the request. First, it sounded like a demotion. Georges was responsible for the air diffusers business at the Béthune plant, which was successful and looked like the future. Foodservice, in contrast, was the smallest of the product lines. The sales team didn't even want to sell its products, because there were quality issues and all sorts of other nuisances.

However, Olli didn't give up.

"Help me. We have to fix Béthune's customer service," he said.

Things weren't going well in Béthune. The plant had overcapacity and poor profitability. The future of the factory was at stake, and that would also affect the future of the entire company. Halton had become exclu-

sively an indoor air company in 1997. It had sold all of its bottle and can return production facilities to concentrate on indoor air.

The Marine air operation had been separated into its own division, but the company still needed additional focus.

There seemed to be opportunities in kitchens. The kitchen ventilation business in the United States was growing, and now the same pivot needed to happen in Europe—and that would require Georges Gaspar. Olli knew he was qualified and a good fit, but first one thing had to happen: Olli had to convince Georges of the possibilities of the kitchen business. Mika Halttunen instructed Olli and the director of the US subsidiary, Rick Bagwell, to introduce Georges to the new business.

“Brainwash him,” Mika said.

THE CAPTURE Jet hoods had been developed in Kausala in the 1980s. However, sales had grown slowly. Customers didn’t understand the benefits of the hoods. Halton couldn’t figure out how to communicate them.

In the 1990s, Halton was still selling its exhaust hoods in the same way as its other indoor air products: through HVAC contractors. There was a better route, though. Kitchens for high-end hotels and restaurants were designed by kitchen consultants.

But Halton had thought that only HVAC engineers understood the company’s technology well enough to appreciate it. Kitchen hoods were being made by the same companies that made the other equipment for professional kitchens. But from Halton’s point of view, kitchen appliance manufacturers didn’t care much about indoor air quality and didn’t know how to design good ventilation systems. That wasn’t their core business. Wait! Didn’t care? That’s an opportunity!

“We realized that if we offered our expertise on the kitchen side, voilà!” That’s where it took off, when we realized this,” Mika Halttunen says.

Halton also got inspiration for a change in thinking from conversations with American clients.

Halton moved the technical system research and development of professional kitchens to the United States because the most dynamic cus-

tomers in the business were there. Marine production was seeing strong growth at the Lahti factory in Finland in the 1990s. That was why kitchen product manufacturing could be moved from Lahti to Béthune.

But Béthune had a problem with quality control and customer service. A change had to happen. Someone had to catch the vision in France and see the potential of the kitchen business.

KITCHEN VENTILATION and metal hoods—OK, but why are they so important? Georges Gaspar couldn’t understand. However, he gritted his teeth and accepted the assignment. But he told Olli Sipilä that after this job, he wanted to work abroad. “Deal,” Olli replied.

The first assignment was pleasant. In 2001, Georges had to travel to the island of Capri to attend a conference of the Foodservice Consultants Society International (FCSI). There were 150 people in attendance, and Georges knew no one.

“I started talking to them, and it became clear that they all had massive projects going on, big hotels and big kitchens. I realized that they were all potential customers,” he says.

The consultants complained to Georges that the ventilation of kitchens was a very difficult area for them because there was so little information and expertise in the field.

“I began to realize that these were the right customers for us. If we served them right, we could do good business.”

Georges began to warm up to the kitchen segment. Then came the second stage of the brainwashing: Olli sent Georges to the United States for two weeks.

WELCOME TO America, the land of opportunity!

It was seven o’clock in the morning in New York when Rich Catan, a Halton sales director, got into motion. Every day, Rich met with four or five kitchen industry consultants. He delivered energetic, brilliant performances, like only an American salesman can. His work days ended at eight in the evening. Sales rolled in. Georges traveled everywhere with Rich.

“He was very inspiring and pleasant. I saw what he did, what the presentations were like, and heard what questions the customers asked. It opened my eyes. He received great feedback from customers. That did brainwash me a bit,” Georges recalls.

The other half of his trip he spent at the Scottsville factory with Rick Bagwell.

“That was also very inspiring. He assured me that this was a good business and we could grow it. I came back to Europe full of energy,” Georges says.

First, he put their marketing materials in a stylish, modern package: a DVD. That appealed to the salespeople, whose time the different Halton products competed for. Georges also reformed customer service at the Béthune factory based on what he’d learned in America.

“Halton compared delivery times, customer service speed, and quality at the different factories. Béthune was at the bottom of the list. But in two years, we were on top. Olli and I were able to turn things upside down.”

The salespeople began calling completely new kinds of clients. They met with consultants who only designed kitchens.

“The competition came from the cooking side. They had expertise in steel, but we understood the entire ventilation system. We used that to get a competitive edge. That was the key to success.”

Georges Gaspar turned out to be the right choice for a difficult job. Foodservice also turned out to be the right strategic choice. Béthune was no longer a nuisance for Halton. Sales of kitchen ventilation products took off in the United States and a little later in Europe. Halton had found a new business area where it could differentiate itself from the competition. Focus was found. And what about that other thing they talked about? The foreign assignment promised to Georges?

In January 2003, he moved with his family to Malaysia. His new assignment: launch the kitchen business in Asia.

Principles x 2

- 1 The market guides our operations, combining the interest of the customer and Halton.
- 2 Halton is innovative.
- 3 A high level of ethics and morality in all our activities.
- 4 We follow the norms and laws of society everywhere.
- 5 We feel responsibility for the environment.
- 6 Decentralization of business and minimal bureaucracy.
- 7 Leadership by example.
- 8 Developing participatory systems.
- 9 We make independent decisions and take responsibility for them.
- 10 We trust the individual employee.
- 11 We value work and results.
- 12 Our communications are honest and active.
- 13 The goals of the individual employee and the competitiveness of the company are ensured in a positive atmosphere.
- 14 We also develop through continuing education.

CORNERSTONES OF Halton's corporate culture as recorded in 1992 in conjunction with the first generational handoff.

- We serve the customer.
- We are trustworthy and have high ethics.
- We work and accomplish together.
- We are continually learning and improving.
- We have a positive and proactive attitude.

CORNERSTONES OF *Halton's corporate culture in 2004, as formulated by Mika Halttunen.*

#Germany #corporateacquisitions #strategy #Wimböck #Foodservice #secrets

Buying Wimböck

A lone stranger arrived late in the evening in the Bavarian Alpine village of Reit im Winkl. Only a few people there knew his business. The hotel receptionist asked the man where he was from. Oh, all the way from Finland? The young woman mentioned that she knew the names of some of the Finnish ski jumpers. But that wasn't all she knew:

"So, are you one of the ones who are buying Wimböck?"

The guest was rendered speechless, because it was true. Olli Sipilä, director of Halton's Foodservice division, had come to Bavaria to negotiate a deal to buy a competitor that was Reit im Winkl's main employer. But that was supposed to be top secret.

OLLI SIPILÄ had been placed at the helm of the Foodservice kitchen ventilation business in 2000. His task was to grow the business segment, and acquisitions were one of the ways to do that. Expansion had begun in 2005 when Halton purchased the British company Vent Master. Included in the deal were Vent Master's Canadian and US businesses.

Wimböck was another interesting target. The only problem was that the company was unlikely to be for sale. It was a family business, and control of the company had recently shifted to the second generation of owners, with Peter Wimböck at the head. Halton did not believe that the new leader would warm to an offer. He was only forty years old, and his company seemed successful.

However, rumors had reached Olli's ears. Customers had hinted that Wimböck might be in trouble. That sounded strange because Wim-

böck's products were top quality and innovative, and the company was a tough competitor for Halton. However, the rumors were soon confirmed.

"Would you like to buy them out?" Olli Sipilä asked Mika Halttunen.

In response, Mika authorized Olli to inquire about the purchase. This scenario could finally open up a path for Halton to achieve a leading position in Germany.

Halton was number one in the industry in hoods, but Wimböck knew ventilated ceilings better. It was strong in its domestic market, where Halton was weak. The companies would be an excellent combination.

WIMBÖCK WAS known not only for its products, but also for its great Christmas parties. They began during the day with speeches, *glühwein*, and a gift lottery. Jolly singing echoed from the slopes of the Alps until three in the morning. However, early in the 2000s, the celebration had taken on an unfortunate feature: members of the staff were paying for it out of their own pockets. The company did not participate in the party or support it financially.

Olli Sipilä didn't know this when he called Heinz Ritzer, the technical director of the factory, in spring 2006 to ask him to arrange a meeting with Peter Wimböck. There was more that Olli didn't know, too. That same spring, the wages of Wimböck employees were, on average,

two months late, and the company was having serious trouble paying its suppliers. The financiers had placed the company under heightened observation. A bank representative was monitoring the activities of the board of directors.

However, Olli knew Ritzer from meeting at a trade fair in Singapore. He also knew the tragic history of the Wimböck family.

The company had been founded by Peter Wimböck's father, who had been a Munich-based HVAC contractor. An inventive entrepreneur, he had noticed that hotel kitchens in the Alps needed better ventilation. This was how the Wimböck factory ended up in such a unique place, in a small village at the base of the Alps that depended primarily on tourism. However, the Alps proved fateful for the entrepreneur. A pilot, he died in a plane crash in the mountains.

The founder of Wimböck had been a dominating figure whose shoes the next generation found difficult to fill. However, even after the plane crash, the workers maintained their neighborly, can-do Bavarian spirit. The staff wanted to help the owners in their difficult situation.

Like his father, Peter Wimböck was an inventive leader, but he often made decisions impulsively. Once Peter called his executives from Israel and announced that the company was going to change strategy. Wimböck would expand into supermarket checkout counters.

It didn't matter that checkout counters were stock goods in a tightly competitive market. At the owner's order, space was made in the Reit im Winkl factory for the checkout counters, which began to arrive from a subcontractor in Israel. But they never found a market for them.

The checkout counters and other adventures ate away at Wimböck's cash reserves. Over time, it became increasingly clear that the company had leadership problems. However, due to the commitment of its staff, it was able to survive for a surprisingly long time before going into crisis.

THE MEETING between Halton's leadership and Peter Wimböck was quickly arranged. The owner of Wimböck soon expressed his desire to come to Finland. Officially the arrangement was to come and get ac-

Wimböck was known not only for its products, but also for its great Christmas parties.

quainted with Halton's operations and factories. Wimböck toured the Lahti and Kausala factories, but Olli Sipilä did not bring up the acquisition. The sale of a family company was a delicate subject. Not until the car ride back to Helsinki did Olli carefully mention that it would soon be possible to talk with Mika Halttunen and Heikki Rinne about opportunities for collaboration.

"I never thought you invited me here to look at factories," Peter Wimböck replied.

He had always been clear about what would be discussed in Finland. In Helsinki he met Mika, who got straight to the point. Would Peter like to sell the company?

"Yes, very much," he replied.

Instead of being sad, he seemed relieved. The meeting was short and casual, lasting only an hour. The actual negotiations were then quickly launched.

Peter Wimböck returned to Reit im Winkl and told his inner circle that Halton would be willing to buy the company. The main feeling among the whole group was one of relief.

A COPY of Halton's analysis of the Wimböck acquisition in March 2006 contains many hand-written questions in the margins: Who owns half of the Middle East subsidiary? When did these cumulative losses occur? What would a turnaround program for the company mean? The last note added to the document was a challenge:

"This business should be doubled."

Olli Sipilä began to study the company more closely and found that its financial situation was even tighter than supposed. They only had a couple of thousand euros in the bank. In retrospect, it seems that bankruptcy was only days away.

Because of their tight situation, Wimböck did not want to conceal the start of negotiations—quite the reverse. Wimböck was losing its greatest strength due to unpaid wages: its skilled staff. A number of installers were leaving the company. Heinz Ritzer estimated that as many as

half of the staff were already headed out the door. He began to visit all of the managers to beg for patience:

"Just wait another week or two. Halton is interested in buying us."

The negotiations were easy. Actually, too easy. It was strange for the Finnish executives, who were used to hard bargaining, that Wimböck seemed to agree to anything. The only problem was finding an agreeable price. The company was heavily indebted, but the owners still had to make something on the deal.

By May 2006, everything was ready. *Tekniikka&Talous* ("Technology & Economy") magazine in Finland reported on the acquisition of Wimböck by Halton this way:

The agreement opens up Halton's distribution network to Wimböck solutions and strengthens Halton's position as an international market leader... The company has a turnover of \$13 million (€11.5 million) and 86 employees. Wimböck provides Halton with new positions in the German and Japanese markets.

After the deal, Mika Halttunen suggested changing the name of Wimböck to Halton, but Olli Sipilä wanted to proceed more cautiously. Wimböck was a second-generation family business just like Halton. Olli placed himself in the position of the Bavarians and asked: how would Halton's staff feel if the company were bought? Then he decided to move from France to Reit im Winkl to be closer to the company he had bought.

When he spoke to the German-Austrian staff, he described what they were doing as being like forming an all-star team for the European Football Championships. Halton, Vent Master, and Wimböck were a dream team.

Peter Wimböck was allowed to continue as managing director, and the Reit im Winkl factory was provided with financing that was used for salaries and new metalworking machinery. No one would have to pay for the Christmas party anymore. Staff parties would be held four times a year to improve morale and trust.

The employees of Wimböck welcomed Mika Halttunen as a savior. The workers were surprised when the new owner even walked the fac-

tory to shake hands. However, results did not improve. Larger changes had to be made. In early 2008, Olli Sipilä proposed to Heinz Ritzer that he take over as managing director. That is a great responsibility, especially in Germany.

Olli sought to inspire the future leader:

“Heinz, you can’t do anything wrong. Look at me! I was Halton’s worst leader ever, and everything has still gone well.”

Heinz agreed and accepted the new responsibility. Peter Wimböck left.

Then the in-depth analysis began. For many months, Heinz and Olli pondered what was wrong with Wimböck. Was the factory in the wrong place? Did the company have the wrong employees? Was there a problem with the products?

Gradually it became clear that all of these things were fine. Something else was wrong: pricing and attitude.

Olli wondered aloud why the products just weren’t profitable. The factory seemed efficient and the accounting systems were enviably precise. They revealed the harsh truth: Wimböck had to raise prices by as much as 30%. But why hadn’t that been done earlier if it was so obvious? Why were their prices as low as those of competitors, who clearly produced lower quality goods?

TO ITS customers, Wimböck was one of the best brands in the industry. However, the company’s sales representatives did not value their own products as highly. They considered them to be standard products with a set market price. Peter Wimböck had laid out a strategy that called for the company’s products to be sold at a price per square meter that could not be exceeded.

So, Olli Sipilä and Heinz Ritzer decided to raise prices. This horrified

the workers and made Olli and Heinz nervous, too. The risk seemed huge. Would this set off a fall in revenue and decimate the customer base? Had Wimböck stepped onto a path of self-destruction?

“Do you know what you’re doing?” one of the managers asked Olli.

He said he did. What he didn’t say was that it made cold sweat run down his spine.

Then something amazing happened. Wimböck didn’t lose contracts due to increasing prices, and the company’s profitability began to improve. The first positive result came in 2009. By the next year, profitability was quite good. Wimböck’s products were worth their new, more expensive price. And when the prices rose, the sales reps had to give more convincing arguments for the merits of their products. The range of product offerings also improved as Wimböck began to take advantage of the Halton network and patents.

The Wimböck name became history in early 2008 when the company became Halton Foodservice GmbH. The employees were relieved, yet again. The reactions of the customers and the local administration were also surprisingly positive. The name change demonstrated Halton’s commitment to a company whose future had long been uncertain.

Ever since, no one has worried about their jobs at the Reit im Winkl factory. When Halton took over, there were about 80 employees. Now there are more than 140.

IT TOOK a while for the Finns to learn all the secrets of Wimböck, but they eventually did. One of the mysteries was the premature revelation of the acquisition. How on earth did that hotel clerk discover that Olli Sipilä was one of the Finnish buyers?

Olli has a theory:

When Mika Halttunen and Halton’s then-CEO, Heikki Rinne, first visited Reit im Winkl in April 2006, they rented a car in Hamburg. The registration plates of the car revealed that it was from the city where Halton maintained the registration of its German subsidiary. The workers had just put two and two together.

“Heinz, you can’t do anything wrong. Look at me! I was Halton’s worst leader ever, and everything has still gone well.”

The Sheikh's Palace

It was April 2006 when Azzam Hunjul decided to send an email to Finland from Canada. The recipient of the message was the owner of Halton, Mika Halttunen.

Azzam and Halttunen had shaken hands once, a few months earlier. Mika and the other Halton leaders had been visiting Canada to meet the staff at Vent Master, which they had just acquired. The visit dispelled fears among the acquired company's employees, since Halton hardly would have purchased professional kitchen ventilation businesses in USA, Canada, and the UK just to shut them down.

When Azzam drafted his message, he was thinking about the opportunities the new owner of his company could offer. For some time, he had been considering moving closer to his homeland in the Middle East.

"A lot was happening there. There were a lot of hotels under construction in Dubai. The Burj Khalifa was already going up, and other countries in the region like Qatar were following suit," Azzam says.

He had investigated what kind of business Halton had in Dubai and learned that the company operated through an agent there. By Azzam's

estimation, Halton didn't have the market share there that it should have. In his message, he expressed his opinions about what was happening in Dubai and the Middle East:

I could move to Dubai and set up our own office there. I speak Arabic, and I come from the region. Maybe I could do something good for Halton.

It was Friday in Canada when Azzam pressed the Send button. Mika's response came on Sunday:

Your idea is very interesting.

Hunjul had presented his idea at the right time. Halton had tried to enter the Dubai market through an agent, but the collaboration hadn't gone well, and it was coming to an end. Mika asked Olli Sipilä to explore the new idea, as he had done so often before. A month later, Olli flew to Canada to meet Azzam. Then they started thinking about how to set up an office.

Just three months later, Azzam Hunjul stepped out of a plane at Dubai International Airport. He was met by the merciless Arabian sun, which produces daily temperatures in excess of 100 °F (40 °C). Canada couldn't have been farther away.

"I'd never worked alone before, and I'd only visited Dubai once," Azzam recalls.

But in reality, the most important thing was contacts, and he already had those. He was also almost home.

AZZAM HUNJUL was born in 1971 on the West Bank in Palestine. The First Intifada of the Palestinians against Israel began at the end of 1987, when Azzam was 16. His hometown, the historic city of Nablus, which had 150,000 residents, was the scene of many bloody riots.

"It was a tragedy. Many of my friends were shot," Azzam says.

Azzam's father didn't want his son to stay in the troubled West Bank. Immediately after high school, Azzam managed to move to Jordan, where he studied engineering at the University of Jordan. That was also where he found the first job of his career. Soon the young engineer received a more attractive offer, though: Azzam landed a position with

the American ventilation company Carrier in Saudi Arabia. He did sales work, was given responsibility over other employees, and established a family.

“My goal was to get to a country that would be good for me, my future, and my children. Many of my friends were trying to move to Canada then. So, I did too.”

Having a job with a North American company paved the way, and in 2002 Azzam and his family moved to Canada, which he thought was one of the best places in the world to live and work.

His old hometown of Nablus had become the scene of even more bloody clashes, because the Second Intifada had begun. The news reports on the television were shocking, but Azzam still dreamed about

moving closer to his old home. The acquisition of Vent Master by Halton offered him the opportunity.

SO, IN 2006, the familiar sand and asphalt of the Arabian Peninsula burned under Azzam’s feet. The task was to set up Halton’s Dubai operations and start making deals. Soon, Azzam found a small office in the Jebel Ali Free Trade Zone, which is located on the outskirts of Dubai a few miles from the artificial Palm Islands.

“My first job was to understand the market.

At first my office was my car and my computer. Fortunately, I had contacts here, so I could understand who the key players were and who the decision-makers were,” Azzam says.

He collected the contact details of the most important consultants and contractors and began to meet with them. Family relationships and friendships also proved to be very important. Azzam knew people from his time in Saudi Arabia. Many entrepreneurs in the construction and real estate businesses were from Jordan, Palestine, or Lebanon.

“They might know my cousins or someone else I knew. They knew I was alone and trying to build something. Many thought that since we came from the same area, they should help me out. That was a big help,” Azzam says. “We met, we sat down, sometimes we went outside and smoked *shisha*—you know, *hubbly bubbly*.”

Conversations around the hookah pipe and hard work visiting potential clients’ offices yielded some small deals. However, at the beginning of 2007 something happened that changed everything. One day, Azzam was meeting with the leader of a well-known Jordanian construction company.

“We have this big project, and we want to give it to you,” he said.

The project was large, an order worth more than five hundred thousand dollars (half a million euros). More importantly, however, was what the building was—a new palace being built by the United Arab Emirates Minister of Finance and Industry, Dubai’s second-in-command, Sheikh Hamdan bin Rashid Al Maktoum.

The Palace of Sheikh Hamdan, as it is known, is a landmark in Dubai. As big as a hotel, it has many kitchens. The guests at meals are important power brokers. The palace project has been a golden reference in later negotiations with hotels for Azzam.

“It was a good deal, which turned me upside down and opened my eyes. I realized that I should focus on big deals,” Azzam says.

Soon after, he received a large order from Qatar for a set of five hotels. His old relationships were also important in winning that one. There was a Jordanian man working on the project who had been taught English by Azzam’s father. The Jordanian was not a decision-maker on the project but was able to introduce Azzam and Halton to the right people. Business was on a roll. Soon Azzam’s family also moved to Dubai.

THAT WAS a good start. In 2007, Azzam was able to report turnover of \$1.1 million (€1 million) in the Middle East. But by 2017, turnover was \$13.8 million (€11.5 million), so business has grown tenfold in ten years. The Dubai Expo 2020, enormous hotel projects, and growing tourism

“We met, we sat down, sometimes we went outside and smoked *shisha*—you know, *hubbly bubbly*.”

have made this possible. Recently, Halton received orders for the kitchens in some new soccer stadiums, since Qatar is preparing to host the 2022 World Cup.

The road hasn't always been smooth, though. Often projects have been postponed for normal economic or political reasons.

"I'm not worried if some projects are delayed. I just think of them as future business activity. But while we're waiting for them, we have to look for new deals."

Sleepless in India

It was the monsoon season in India, and Gunalan Ganesan was feeling miserable. On the streets of Bangalore he saw garbage and poverty. The heat and noise blended into a distressing cultural nightmare. And the bad mood didn't just come from his nose or between his ears. It came from his stomach.

"I couldn't eat spicy food, even though I'm a native Indian," Gunalan recalls. "I had stomach problems. I was in shock. I wasn't used to anything like that."

Yes, an Indian. Gunalan Ganesan was born and raised in Malaysia, but his roots were in India.

In 2008, when he was assigned to start Halton's operations in India, he thought he was returning to the homeland of his great grandfather. And besides, Gunalan already knew how to speak Tamil, which is spoken widely in southern India. What a great opportunity!

But then it came again—the train that ran right by his apartment. The rumbling and screeching of the rails made it difficult to sleep, and the calls to prayer from the nearby minarets didn't help either. The area had

seemed quieter and cleaner than many others. And the office/apartment was cheap. It wasn't until after moving in that Gunalan noticed that the train track ran only 60 feet (20 meters) away. India was starting to feel like a mistake in every way.

Business was difficult. Once Gunalan flew from Bangalore to Delhi at five in the morning to meet a big hotel developer.

"I was on time and waited. I hadn't eaten breakfast. They offered me tea. I waited more. They encouraged me to go to lunch and come back."

Later in the afternoon the developer finally agreed to see Gunalan. Then he announced that the price was too high. He could pay for the metal by the pound.

"I said that was disrespectful. They had to understand what was inside the equipment. I returned to Bangalore on the last flight of the day." More and more often came the grim thought that maybe he was finished. Gunalan thought he should give up.

"It is too hard. I would just say I'd had enough. If Halton didn't accept that, I would leave the company."

Gunalan felt lonely in Bangalore, and it wasn't only a feeling. He was completely alone in India. All of his old colleagues and bosses who had trusted him so much were still in Kuala Lumpur. From the beginning, he'd been given a lot of responsibility. Usually in Malaysian companies you get less of it and more slowly than he did.

Telling his colleagues that he was giving up wouldn't be easy.

However, in the couple of months he'd been there, Gunalan had actually acquired more than a phone and a bank account. He had succeeded in creating his first partner and customer relationships in the chaos of India. And that gave him courage. He decided to talk about his feelings with some of his new business partners.

"You've seen India in a bad light," his local acquaintances told him. "Don't look at the details. Take a step back and see the big picture."

Gunalan took two days off and considered what he wanted. He thought about India. It was undeniably true that India was developing. Living standards were improving, hotels were rising on the shore-

lines and in the city centers. Those would need Halton's ventilation solutions—or products from the competition. Gunalan also called his father and asked for advice.

"If your company has given you an opportunity, that means they believe in you," he said. "Maybe you should believe in yourself, too."

Maybe. Yes, maybe. Gunalan, the first university-educated child in his family, determined to do his best.

"I thought that I could prove something here. Or leave and prove to everyone that I had accomplished nothing. I decided to stay."

Gradually Gunalan learned. He learned to find mild food suitable for his stomach. He learned to watch Bollywood movies with customers. He also learned to adapt to the loneliness and bring his colleagues closer with a kind of mental trick.

"I had pictures of my colleagues in my room. I know that sounds crazy now. But that gave me the feeling that I wasn't alone, that they were with me here. That helped psychologically. I knew that I had a good team in Malaysia. The factory, customer service, management—they were all behind me."

The first deals he landed also brought emotional support. One of the first customers was the owner of a hotel in Puna, with whom Gunalan got along very well.

"I started to do all of his projects. He invited me to a party, and we got to know each other. He started to introduce me to other hotel owners, and not just as a maker of exhaust hoods. He told them, 'call these guys if you have problems with your ventilation. They know what to do.' That helped a lot. I learned that if partners like you, they'll really support you."

So, customers started to call and ask for advice. The hotel owner introduced Gunalan and Halton to consultants who designed kitchens.

"I had pictures of my colleagues in my room. I know that sounds crazy now."

These relationships were nurtured during off-work hours, and at some point, the consultants began designing kitchens using Halton solutions. That even led to builders who had considered Halton too expensive to start buying their products. Even the hotel developer who kept Gunalan waiting in that lobby for so long wanted to meet. He had chosen a competitor's cheap hoods for his hotels and run into trouble. Now landing a deal for Halton hoods was easy.

"I understand that everyone wants to do their projects as cheaply as possible. Of course. But they don't understand the trouble you can get into with ventilation," Gunalan says.

Gunalan Ganesan spent a total of three and a half years in India. After returning home, he was put in charge of the Malaysian unit. He misses a lot of things from India, especially his friends, even though the difficult start wasn't promising. He thinks Indian hospitality is beyond compare.

Halton now has more competition in India, because the competitors have also woken up to the opportunities in the world's second most populous country. However, the size of the market ensures that there is plenty of work to do.

"We could have a factory there the same size as in China in a while. I was already dreaming about that back when I was in India."

You Know It Yourself

Large buildings with all of their rooms, floors, and long corridors can easily make young people feel small. Words that should be said can go unuttered. Sometimes you fail to open your mouth when you should speak up.

Anna Gagneur, who started working at Halton in 2013, knows full well what hierarchy means and the effect it can have in certain places. However, this Finnish engineer's ideas about hierarchy are mostly based on what she's heard from friends. Halton doesn't have hierarchies.

Everyone is given as much responsibility as they want. Sometimes even a little more. The primary task of supervisors is to encourage team members to make decisions instead of the bosses making them for the team. Sometimes at Halton, a boss will refuse to give his or her own opinion, even when it is requested:

"The idea is that you can do it yourself. You know this work best, and you can make the decision."

Christian Hirschmann, who joined Halton in 2008, enjoys this kind of culture. Christian, who lives in Kuala Lumpur, the capital of Malay-

sia, says that Halton's people act like members of a global family. Everyone can be a leader.

Christian was born and grew up in a small Alpine village in Tyrol, Austria. He studied to be an HVAC engineer and then decided to move abroad to learn and experience the world. He applied for a job at Hal-

ton and expressed his desire to go to Malaysia. Since then, Christian has played a crucial role in making Halton's MobiChef a success in the Asian market.

MobiChef is a compact kitchen unit that can be easily moved from one place to another—even to places where there are no ventilation flues or grease traps. It can be used almost anywhere.

At the beginning of 2010,

Christian's team realized that making food at grills and other mobile cooking stations was dirty work. During frying and grilling, smoke, greasy vapors, and odors are absorbed into the cook's clothing, skin, and lungs. The Halton team in Malaysia wanted to solve this problem and clean up the cooking environment. They had a dream: When a professional using the MobiChef returned home, his spouse would ask—sometimes with a little jealousy—whether he had gone to work at all since he didn't smell of cooking.

Christian was responsible for MobiChef's product development and marketing. He says that Halton's decentralized, uncomplicated way of working had a critical impact on success. The MobiChef could be developed quickly with local capabilities while utilizing the best parts of the global network. The prototype was built at the factory where it would

They had a dream: when a professional using the MobiChef returned home, his spouse would ask—sometimes with a little jealousy—whether he had gone to work at all since he didn't smell of cooking.

be produced, and customer feedback was used to quickly improve the product.

Now, MobiChef is also being manufactured at Halton's factories in France. Christian acts as a kind of godfather of the product, promoting its spread across the world through the various Halton units.

Anna Gagneur's experience is similar. Anna's first responsibility at Halton was for field service tasks, i.e., processing and handling service requests and warranty claims related to products. She was assigned a team of four technicians, who flew wherever she instructed.

Handling complaints is the front line of customer care. The customers who call are disappointed, frustrated, and maybe even angry.

Anna says she made a lot of mistakes at first. She reacted too quickly, didn't consider the whole picture well enough, or acted before thinking. As a result, the efforts of her small team were sometimes tied up dealing with minor issues. Preparedness to solve larger problems was weakened.

Anna speaks naturally and openly about her mistakes. She had to make them so she could learn a core principle in this work and the rest of life: calm down. No one's life is in danger. Let's find out together whether we can handle this problem. If not tomorrow, then the day after tomorrow.

The Dragon has Red Eyes

Seppo Halttunen traveled to China for the first time with a Finnish trade delegation in the late 1980s. China had opened its doors to foreign companies, and the country's economy was seeing strong growth. Behind the reforms stood Deng Xiaoping, a great man of small stature. To Deng, it didn't matter if a cat was white or black, as long as it hunted mice.

China made a big impression on Seppo. After returning to Finland, he summarized his impression to his right-hand man, Olli Sipilä:

"We need to get into China. The market there is huge. You can't understand how big, though, because you haven't been there."

It was true. Olli didn't know anything about China, and he hadn't spent any time thinking about it. Halton was focused on the Finnish and northern European markets. *So, I have to go to China now?* Olli thought he might just choose to forget about that.

This tactic worked for years. It wasn't until the late 1990s that China crept back onto Olli's agenda when Halton's factory in Malaysia start-

ed to export kitchen ventilation components there. The path forward opened up as if by accident. As some of the five-star hotel chains that were Halton clients began expanding into major cities in China, they wanted the same solutions as in their hotels in other Asian metropolises. They wanted the same designers and the same functional, easy-to-use technology. So Halton basically got a free ride into China.

It was a small but good start. The next step was taken a little faster, when Halton decided to build a factory in China in 2008, an initiative pushed by the group's Marine business.

China had become an industrial manufacturing superpower, and the leadership of Halton Marine concluded that shipbuilding would gradually shift there, including more demanding vessel types. Luxury liners had always been built in Europe, but next they would be constructed in Korea and then in China. The same phenomenon would also be seen in the offshore industry.

Halton Marine started a small-scale assembly operation in the Wao Gao Qiao Free Trade Zone. Freedom from duties sounded good, but importing goods into and out of the region proved to be complicated as the operation grew. So, Halton moved to Lingang, which is located near Shanghai.

The ground floor of the new factory was taken up by Marine division machines and assembly. A little later, Halton Foodservice took over the second story, followed by the indoor air operation a couple of years after that.

The launch of Halton Marine in China was brilliant. High oil prices were driving demand for oil rigs and gas tankers. Business was so hot that Halton began to consider setting up another factory in Guangzhou, the most important city in southern mainland China. Foodservice, for its part, continued smoothly along the track that had opened up earlier through Malaysia. When the price of oil collapsed again, Marine activity froze but growth in Foodservice was strong. The dream of another factory had to be shelved, though, at least for the time being. Capacity seemed sufficient.

In 2016, the number of personnel in Lingang approached one hundred, near the size of unit Seppo Halttunen had considered ideal. Big enough to be efficient and small enough for everyone to know each other. However, interpersonal cooperation didn't work as well in China as the group headquarters wanted. Resources had to be increased and operations developed, but in what direction? There were three different perspectives, and someone needed to coordinate the activities of Marine, Foodservice, and indoor air business. Olli Sipilä was appointed to the position.

"The units were quite different, and they didn't communicate much," Olli says. "They needed a big-wig from the head office with enough capacity to keep order and act as a referee when needed. Usually in these situations the issues are small, not big, but small issues can turn big."

Olli Sipilä moved to Shanghai and took over the helm of Halton's Chinese business. He found that the problem was mostly a matter of natural and logical friction: The leaders of the units were committed to their own activities and considered their goals to be more important than cooperation with neighboring units. The matters on the coordination agenda were mundane but important, such as managing production at the factory, salaries, and travel policies.

Olli made sure that little issues didn't turn into big ones. The dynamism of the Chinese impressed him: their reaction time, speed, and will to move things forward. If Halton requested a sample from a contract manufacturer, it arrived later the same day.

In his gut, Olli could feel the turmoil of China as 1.3 billion people marched out of poverty and toward the middle class. Shanghai had become a more expensive place for Western companies than Kuala Lumpur. In the early 2010s, it was normal for wages and add-on costs to grow at ten percent each year. But China also offered value for money: The universities were churning out a new generation of engineers and future business leaders who were skilled, ambitious, and daring.

Olli Sipilä has also experienced the gray area of Chinese business culture, which we call corruption in the West. Halton has survived these

potential entanglements by taking a clear path. The solution is high ethical standards:

"We've decided we will not be corrupted, even though the authorities have a lot of different ways to cause us headaches. We've been told we need to take people out to karaoke more often or give more gifts, but I don't know how much we've lost or gained from that. We've defined how expensive business gifts or dinners can be to keep them within normal limits. We don't give money. If that means we lose business, then we lose business."

Another big problem is copying. Olli tells a story about a company operating near Guangzhou, whose strategy was to copy all the best kitchen appliances and then sell them at a lower price. Of course, they copied their kitchen ventila-

tion solution from Halton. The copycat firm was successful for a while—until a competitor appeared who copied the copies even more cheaply.

Olli says that hiring lawyers in China is almost pointless. The chances of winning are limited.

Tens of thousands of major Western companies have invested heavily in China, but profitability has been difficult to achieve. Halton is a positive exception. According to Sipilä, the company has made profits in China every year, and all investments have been financed by local cash flow. However, the pace of growth has remained more moderate than expected. Halton needs to get inland from Beijing and Shanghai, to the second-tier cities. The greatest growth is coming from the places that aren't so developed yet.

What prevents Halton from going there? What's slowing them down?

"We've defined how expensive business gifts or dinners can be to keep them within normal limits. We don't give money. If that means we lose business, then we lose business."

One good guess is culture. Olli Sipilä believes that, despite all of their good attempts and localization of business operations, Halton still hasn't found the key to the heart of the Chinese business culture. The companies designing five-star hotels or oil drilling equipment are mostly Western, and Halton and other similar companies do well with them. But the four-star range is much more difficult. That is dominated by companies owned in China, which buy products from Chinese manufacturers.

Guanxi, connections. It isn't that Western companies can't gain the trust of the Chinese—it just isn't clear how to build that trust. The *Harvard Business Review*, one of the world's most prestigious business management publications, has given an interesting assessment:

In the West, the basic assumption is trust if certain boundary conditions are met. In China, the starting point is mistrust. I will only trust you once you are worthy of it.

Qiang da Chu tou niao. Early birds are shot. Business can only be done once confidence has been achieved.

Within the circle of *guanxi*, almost unlimited trust prevails. But outside of it there is no trust at all. Only once assurance is received that the outsider is not a threat to anyone within the *guanxi* network but rather strengthens the network, can they be admitted. After that, things move very fast. *Yi Yan Ji Chuk, si ma nan Zhui*. Once a promise is made, it cannot be pulled back, not even by four horses.

The Chinese spend a lot of time making these assessments. When a Western businessman is ready to ink a deal, the Chinese partner is still evaluating the other person's character, values, and purposes.

Olli Sipilä's assignment in China lasted two years.

Olli scoffs at his colleagues who take a quick trip to China and return saying they understand the country. He says he mostly understands how little he understands about China. How differently the Chinese perceive life and business and how often big-shot Western leaders embarrass themselves in their conversations with local partners. Some of the question marks may be solved later. However, some things may remain a mystery forever.

“You tell a story to someone in China. He nods kindly and gives you a serious look. Then he says, “The dragon has red eyes.”

From Crisis to Growth

There was something odd in the air when Halton's board of directors gathered in Kausala just before Midsummer. Stock prices had been falling all around the world in early 2008. On the Helsinki Stock Exchange, they had fallen by a quarter from their high point. The media had been writing about the risks of US subprime loans for a year.

Yet many believed that the worst of the downturn was over. They didn't know what was coming. Only a few months remained until the most dramatic phases of the financial crisis would commence, most dramatically with the collapse of Lehman Brothers.

However, Halton had already put on the brakes. Cost-cutting was under way. Investments had been postponed. This wasn't a result of unbelievable farsightedness, it was because of the ownership structure of Halton as a family company. Mika Halttunen's sister Eevamaria Halttunen gave up her ownership, and the company was completely taken over by Mika's family.

So, the Halton board had to consider how the company would buy back its stock from Eevamaria. The purchases needed to be financed from the company's cash flow, which would put the firm in a tight position.

There was also another matter keeping CEO Heikki Rinne up at night, which unfortunately hit the same nerve:

Long-time CFO Kristian Nummelin had just received an attractive offer and moved to Stockmann, a Finnish department store company. Chief financial officers change from time to time, but if Heikki could have chosen the timing, he wouldn't have chosen this. Janne Pukkila, the internal hire selected as the new CFO, was not yet very experienced, but he was adapting to the new position quickly. Janne was presented to the board in this same Midsummer meeting.

The numbers suggested that Halton was going strong on the eve of the financial crisis. In 2007, the company's turnover had jumped by nearly a fifth to \$170 million (€148 million). The only unit suffering losses was Wimböck, which Halton had just acquired. America and Malaysia were growing fast.

But the growth was concealing problems, too. Despite the growth, Halton's margin had only grown a little, to \$9.7 million (€8.5 million). Moderate concern can be sensed between the lines of the board meeting minutes: "So far the markets only show sporadic signs of a slow-down in growth."

The signs were sporadic, but they were already visible. Soon, more would surface. Lehman Brothers filed for bankruptcy on September 15, 2008, and the financial markets descended into chaos. Across the globe, companies canceled investments and moved to protect their assets. Consumers afraid of losing their jobs canceled vacation plans and postponed automobile purchases.

The Halton board of directors met to analyze the situation on October 12. Stock prices on the Helsinki exchange had fallen by more than a third since Midsummer, and the losses continued. The board's nerves could withstand the market pressure, because they had projected strong

growth for the next year, along with an almost two-fold increase in profits. However, during the meeting they also discussed the potential consequences of a complete failure of that projection. The company could

react quickly, for example by moving to a shortened work week.

Witnessing the development of the global financial crisis was difficult for Halton, which was already experiencing its own, self-inflicted financial crisis.

The company's equity ratio had previously been at a good level, 50%. But the ownership rearrangements of 2008 dropped that to 32%, in the gray zone between weak and satisfactory. Financing expenses more than

doubled in a year. Strict terms—covenants—were written into new bank loan contracts. There was a risk that the value of the assets secured by the loans would fall so low because of the economic crisis that something would have to be sold.

“There was a genuine fear and possibility that we wouldn't survive,” says then-CEO Heikki Rinne.

According to the covenants of the loans, Halton could invest up to \$4.6 million (€4 million) per year. In practice, investments were much smaller. The company switched to a policy of frugality.

During the financial crisis, many companies concentrated their decision-making in their head offices, but Halton did exactly the opposite. It held on to its SBA structure and decentralized responsibility for savings to the leadership of the business units.

“We have to get through this, but you decide how to do it,” Heikki told the leaders of the units.

And so, the unit heads made their own decisions about cost savings. Fixed costs fell quickly, but the savings also had a downside. Postpon-

ing investments left a long-term mark on the company. Halton would later suffer the consequences.

In 2009, in the darkest moments of the financial crisis, Halton made a record profit: a net operating income of more than \$19 million (€17 million), which was even higher than the wildly optimistic goal that had been set when budgeting. Sales prices did not fall, and raw material price reductions improved profitability. Foodservice's profits were at a record high. High financing costs of around \$4.6 million (€4 million) turned out not to be a problem. Fears of triggering painful loan covenants turned out to be unwarranted.

VENTILATION FOR buildings, kitchens, and ships is a post-cyclical industry. When a construction project starts during a boom, Halton only gets the resulting business after a long lag. But as the work progresses, at some point the building needs a ventilation solution from Halton or a competitor. Those orders are made despite any recession because the building needs to be completed.

As a result of this logic, Halton's difficulties did not begin until 2010. Marine's sales began to fall due to lower oil prices and declining construction deliveries. However, Halton did not record losses in any year following the financial crisis. At its worst, operating profit fell to \$5.7 million (€5 million) in 2011, but even then, the company's profitability was at the same level as before the financial crisis. Halton had proven to be durable even with cold winds howling through the economy. However, there was no room for complacency.

At the end of 2011, Halton defined new must-win battles:

- More effective customer relationships
- Growth in emerging markets
- Improvement in chilled beam profitability

Training and development projects were implemented for customer relationship management, resulting in deepened connections. The Food-

Financing expenses more than doubled in a year. Strict terms—covenants—were written into new bank loan contracts.

service unit pressed ahead with strong growth, especially in emerging markets. Success was found in Asia, America, and even France.

An attempt was made to improve the profitability of the Buildings business by identifying segments where it could specialize: hotels, hospitals, and offices. And success came. For example, Halton was quickly able to improve chilled beam profitability in the Scandinavian hotel market.

“However, we didn’t focus enough on difficult segments to really get them off and running,” Heikki Rinne says.

The Buildings unit was marked by a certain strategic ambiguity.

With tight cost controls and customized products, it still managed to remain profitable, even though those profits weren’t much to brag about.

Targets were still set high. In 2011, Halton’s turnover totaled \$195 million (€170 million), but the company envisioned doubling this by 2015.

Halton quickly rose from the depths of the financial crisis. In 2012, revenue began to see good growth again, and operating profit nearly tripled to €15 million (€13 million). Halton sales expanded in the developing nations of Southeast Asia and the Middle East, and gradually in China and South America as well. For these growth markets, Halton went with its niche weapons, Foodservice and Marine. M.A.R.V.E.L. and other innovations sold well. Orders flowed into Marine from the oil and gas sector, because fossil fuel prices had begun to rise again.

The decentralized power of the business units had produced good results. Chief Executive Officer Heikki Rinne considered an even more advanced model, which would have turned the group into only a holding company. However, the holding company model was not adopted during Heikki’s term, which ended in January 2016. After having led Halton for 13 years, he turned his attention to working as a member of the board.

THE CEO chosen as Heikki’s successor had strong experience in global business and fresh eyes, but of course the perspectives weren’t the same.

Kai Konola had previously led the weather measurement business

area at Vaisala, a publicly traded Finnish company. Prior to that, Kai had a long career at Nokia in sales and marketing leadership and at Nokia Siemens Networks as director of strategy. He had strong experience in two areas that Halton needed to develop: digitalization and service businesses. Kai had seen how to succeed in services and how to fail. He thought he could bring a useful perspective to Halton’s future solutions.

Nokia and Vaisala are global, publicly listed companies that have centralized production. They are very different cases from the global Halton, which has diversified production and management to the extreme.

“It came as a surprise to me that they were doing so many things in so many places. The idea was that after reaching sales of about four or five million euros, it was time to start thinking about a local factory,” Kai Konola recalls.

Halton’s model clashed with the new leader’s experiences and preconceptions. Kai’s own view was that efficiencies are achieved by centralizing activities.

“And that’s probably true. But the feeling of local ownership, power, and responsibility is the big thing at Halton that I couldn’t afford to damage. Local empowerment comes from the ability to run product development and production locally,” Kai says.

On the other hand, there is also pressure at Halton to do more things together. Especially digitalization and services are things that are worth using shared resources on. During Kai Konola’s time, Halton has, in a few respects, taken a step toward a more centralized operating model, for example in digitalization, services, and product development.

Halton had revamped its strategy a few years before Kai came on board, so he didn’t immediately start making any big changes. Instead, he began clarifying group strategy related to services. The question was: what do service business activities mean for Halton?

“Local empowerment comes from the ability to run product development and production locally.”

Halton chose Foodservice as the unit to focus on first in developing services. The unit was given a simple “cookbook” that reviews the principles of growth of a service business. This theme has developed rapidly, especially at Halton’s UK unit. Bob Welham, operations and service director in the UK, was chosen to disseminate service-related expertise throughout the group. Bob’s job is to link up colleagues around the world who are developing services, so Halton doesn’t have to invent the same wheel over and over again.

Digitalization is also an area where centralization will yield gains. Code that does a certain job doesn’t need to be written multiple times. The decentralization of issues related to data processing and systems slows down operations. It also increases costs.

Kai Konola noted that the company he leads has six or seven different ERP software systems. His conclusion was that Halton needs shared tools and processes. However, reforms have to be carried out carefully. Changes can’t be so overwhelming that employees shift their focus from customer work to developing internal activities.

M.A.R.V.E.L.

In the beginning there was the MC8. It was a PLC controller, a small computer of the type that controls production lines, machines, and equipment in factories all over the world. The controller was from Moscow, and it was a good product because it had managed to break into the US market. From there it was discovered by Halton, which began to work with the engineers at MCTA who developed it.

The US economy was growing rapidly in the early 2000s. Google, Facebook, and Amazon became technology giants. Thousands of smaller technology companies grew up in their shadow and then disappeared.

One example was an American company called Current Energy, which started in 2007. Current Energy had an owner with deep pockets, the family of the billionaire Ross Perot. This Texas businessman had sought the US presidency twice as an independent candidate. In his best showing, Perot received one fifth of the votes on election day. In business he was more successful, though.

Current Energy sold solutions for controlling all aspects of energy consumption in a building, such as heating, ventilation, and even lighting. To do this, it bought MCTA, which also meant they owned the MC8.

Cooperation between Halton and Current Energy continued, and more comprehensive products were built up around the MC8 control-

ler. Halton developed algorithms to adjust and control fire dampers, exhaust ducts, UV systems, and infrared sensors in kitchens. This led to an innovation that became Halton's second most important product in the 2000s.

At first it was known by the name Restaurant Heat System. The genius of the system was that it could have multiple hoods connected to it. They could all operate at different power levels, even though they were connected to the same exhaust duct. This produced huge energy savings. In competing systems, turning up one hood meant increasing the draw from all of them.

The Restaurant Heat System won Halton's internal innovation competition in 2009 and received a new name: M.A.R.V.E.L. This acronym comes from precise engineering-speak: Model-paced, Automated, Regulation of Ventilation Exhaust Level.

With this name, Halton launched a new product for kitchen ventilation on the global market. The beginning was difficult because Current Energy was in serious trouble in the aftermath of the financial crisis. The company lacked focus, and business started to falter. Current Energy had become very important to Halton, so it had to decide whether

it would watch its partner's struggle for survival powerlessly or take the situation into its own hands.

The latter option won out. Halton's board of directors authorized the CEO to begin negotiations for the acquisition of Current Energy in August 2010. By the beginning of 2011, the deal was completed.

"We had already launched the M.A.R.V.E.L. system and received orders. We wanted to con-

trol the system and to be able to expand it. The deal was 90 percent about the M.A.R.V.E.L. system," says Rick Bagwell, President of Foodservice Halton Americas.

At the heart of M.A.R.V.E.L.'s success is energy savings, which come from only the necessary volume of air being exchanged. This requires quick reaction times from the system. In the M.A.R.V.E.L. system, an infrared sensor monitors surface temperatures, i.e., cooking. The heat of cooking immediately affects the ventilation.

Some competing products reacted to the heat of the exhaust air. A cook might well fry a whole basket of French fries and toss them in salt before a system like that reacts.

The acquisition of M.A.R.V.E.L. and Current Energy meant a leap into the digital world for Halton, which gained about a dozen programming and digital technology experts, as well as a cloud services unit located in Dallas. The United States also emerged as the clear center of Halton's digital research and development. The American business moved into a new phase.

When Halton founded a factory in the United States in 1988, the main product was checkout counters. Production of Foodservice products (i.e., exhaust hoods) began in a corner of the checkout counter factory in 1989. Long-term Halton employees remember well how difficult the start was in the USA. Orders were such a rare treat that workers cheered around the fax machine when they came in. For years the operation was small and loss making. The Foodservice business made its first profit in the United States in 1994. Since then, there hasn't been a single negative year.

Energy saving was at the heart of Halton's kitchen business even before the invention of M.A.R.V.E.L.

In the 1990s Halton had to fight against what was called a "short circuit hood." The devices were marketed as energy-saving, but in reality, they recirculated the heat into the kitchen and required cooling using air conditioning machines. Today, energy-consuming short circuit hoods are completely banned.

The genius of the system was that it could have multiple hoods connected to it. They could all operate at different power levels, even though they were connected to the same exhaust duct.

Halton's strongest growth in the United States occurred during the years before the financial crisis.

The reason behind the growth was a change in thinking. Halton's employees were engineers and mostly made deals with engineers. However, most of the business in the market was being done through Foodservice consultants. After the acquisition of Vent Master, Halton brought in employees who had networks and experience of working with industry consultants.

The results were dazzling. Halton's sales in the US almost doubled in two years to \$57 million (€50 million) in 2008. However, after this dizzying boom came the financial crisis, which caused a deep recession. Restaurant investments recovered slowly. Halton needed seven years in the United States before recovering from the crisis and returning to 2008 levels.

The US is still a very important market for Halton. In 2017, Halton's turnover in the United States was \$63 million (€55 million), or about a quarter of the group's global sales. The US unit has also played a strong role in Foodservice product development and the development of digital services.

M.A.R.V.E.L. systems can now be monitored remotely from Dallas. All systems are remotely monitored for at least the first year, or longer if the customer wants.

"The system warns the customer if the carbon dioxide levels in the kitchen air rise too high, or if the temperature sensor reveals that the refrigerator door is open," Rick Bagwell says.

The systems also have odor-removing filters now. Sensors alert the remote monitoring service of the need to change filters. These new remote services are Halton's first steps into the Internet of Things. And this has all been possible because of the acquisition of Current Energy.

M.A.R.V.E.L. is no longer a new system, but it is still developing and being applied to new situations. The MC8 controller at the heart of the machine can still accept a lot of new data. For example, it's possible to connect sensors to the system to monitor food storage temperatures.

A restaurant could share this information with health inspectors at any time.

"The opportunities are enormous," says Rick.

The key to the competitive edge M.A.R.V.E.L. holds isn't microprocessors like the MC8 or its sensors. There are plenty of similar devices on the market. According to Rick, the difference is in the intelligence of the algorithms and what data is collected and utilized. Artificial intelligence and machine learning are opening up even more opportunities. That's why Rick says he's a little jealous of the younger generation.

"Developments over the next 25 years are going to be unbelievable!"

A Hospital Gave Birth to a Business

A doctor glides through a large lobby on a scooter. On a quiet June morning in Stockholm, a few family members sit on light-colored wood benches next to patients in wheelchairs in the Nya Karolinska Solna Hospital. The lobby is dominated by a 36-foot (11-meter) modernist painting by Andreas Eriksson named *Stenbrottet*.

The hospital itself is like a work of art, too. It is one of the most advanced in the world, the largest in the Nordic countries, and extremely environmentally friendly. The building's climate emissions are zero, meaning its carbon footprint is neutral.

The hospital's ventilation system is also advanced. Guests encounter Halton products as soon as they enter the parking structure, which has long duct runs in the ceiling with Halton dampers controlling airflow. In

the kitchen next to the lobby are Halton exhaust hoods, and the conference rooms have Halton diffusers, chilled beams, and exhaust air grills. New innovations can also be found in the auditorium, where fresh air enters from below the seats.

However, the most important invention relates to operating rooms. The research and development required for these products created an entirely new business area for Halton. Coincidence played a big role in this move.

UGH, THIS customer visit was a waste of time, thought Bengt Samuelsson, the director of Halton's Swedish subsidiary, as he returned in frustration from a 2009 meeting with the designers at Sweco AB.

Bengt didn't really know anyone at Sweco, but he was trying with poor success to establish relationships. There was a good reason to try.

The engineers at Sweco had been handed a gigantic project. The project name was NKS, Nya Karolinska Solna. The project progressed and the next year the construction company Skanska won a tender for the construction phase. It was a contract of about \$1.6 billion (€1.4 billion) and the biggest deal in Skanska's history.

Things were going slowly as Halton put out feelers to try to get involved in the project. Bengt Samuelsson did not yet realize that he had begun to work a deal that would take on historic proportions for Halton as well.

When Skanska landed the construction contract, it initiated a large invitation to tender. Halton received inquiries for products in five areas: air distribution units, cooling beams, diffusers, fire dampers, and grilles. Skanska also asked for offers from as many as 70 other suppliers. It was extraordinary that the construction company was managing the procurement itself and not leaving it to a subcontractor.

Halton made it into the second round of 20 suppliers and then into the third round of 10. The assumption was that orders would be divided between five suppliers. However, as discussions continued, Bengt Samuelsson made a proposal to Skanska's leadership: Wouldn't it be more

worthwhile to make a deal with one supplier? That would reduce Skanska's procurement workload.

Skanska soon adopted this same line of thinking. Yes, everything would be purchased from one supplier. Two strong global competitors made it into the home stretch with Halton. All of them could deliver the whole package. The date of decision approached, and the tension rose. This deal would total several million euros and mean lots of additional work.

Bengt's phone rang at 8 a.m. one morning in October 2011. Skanska had one more question: Could Halton commit itself to the same price level for additional sales beyond the initial contract? Yes, Bengt replied. An hour later, the phone rang again. Halton had won the competition. It received the entire order.

"It felt incredible. And at the same time very exciting and nerve racking," Bengt recalls.

Halton won because the quality of the package was good, and the price was low enough. The products had extensive environmental and other certifications, and there was strong technical support. The R&D center in Kausala also played an important role.

As a result of the tough price competition, the deal only left a small margin for profit. However, Bengt believed that the order would yield further contracts for more specialized products with higher margins. That turned out to be truer than he had imagined.

IN THE beginning, the Nya Karolinska Solna was just like any other building for Halton. The company would deliver the same diffusers and air distribution equipment for the public spaces, meeting rooms, and patient rooms that it delivered for any office.

However, hospitals also have spaces with extremely demanding ventilation requirements, namely operating rooms. The doctors who work in them are constantly concerned about particles in the air—especially particles in excess of five microns, which can carry bacteria from one place to another. In one square meter of normal room air there are tens

of millions of particles above five microns. But in clean room air, there can only be four or five particles total.

Traditionally, indoor air purity in operating rooms has been ensured using various laminar solutions. These direct clean air down onto the operating table from above.

However, the air isn't that clean everywhere in the operating room. When people move around during an operation, the air mixes.

This phenomenon was studied in 2008 by a Swedish professor named Johan Nordenadler. In his dissertation, he presented multiple solutions for operating room ventilation. His preferred solution was to mix the air so that all the air in the room was brought to the same level of purity.

In 2012, Professor Nordenadler was working as project manager for Karolinska's technical hospital equipment procurement. His employer was the Stockholm County Council (SLL), which is responsible for organizing healthcare in the region. SLL did an analysis of what kind of ventilation solution to develop for the new operating rooms. Flexibility and innovation were of great importance.

Nordenadler's model won. The roots of his innovation were in academic research and work done within a public sector organization, SLL.

HOWEVER, NO such air mixing ventilation solution had ever been built for an operating room. So, Bengt Samuelsson suggested to Skanska that Halton could model its operation in Kausala. This would eliminate the risk that the solution might not work in practice.

Tarja Takki, head of Halton's indoor air business, approved the construction of a model operating room in Kausala. The costs were shared between Skanska and Halton, and the room remained for Halton to use.

Above all, the tests at Kausala investigated how well Halton's new

However, the air isn't that clean everywhere in the operating room. When people move around during an operation, the air mixes.

mixing air diffusion was able to purify operating room air according to Nordenadler's design. The results were excellent, and the solution worked like it should. This result was also significant for Halton's business. Kausala had now constructed a completely new kind of solution for operating room air purification.

However, this ventilation solution was not yet a finished product. There had to be safety tests, certifications, and design work. Someone also had to decide how to make it and then actually produce it.

THE FRUITS of this collaboration between Johan Nordenadler, Nya Karolinska Solna, and Halton saw the light of day in June 2015 with Halton's launch of the Halton Vita OR Space ventilation system.

The advantage of the product is that staff can move about freely in the operating room, which increases the flexibility of the space and improves efficiency. The air is cleaned faster and a new operation can be started sooner. Ventilation can be adjusted for each operating room, which saves energy. Also, the air flowing into the room does not cause a draft, which was a typical problem in traditional operating rooms. Doctors and nurses working in those would often end up with stiff necks from having cold air blown on them.

In conjunction with the launch of the operating room solution, Halton also introduced products for the indoor air needs of laboratories, isolation rooms, and hospital pharmacies.

The big contract with Karolinska Hospital thus gave Halton a whole new line of business in the healthcare segment. Various specialty products and additional work have gradually increased the value of the NKS project to \$5.7 million (€5 million). More is coming, too, since a hospital specializing in eye surgery is set for construction next to Karolinska and will also include operating rooms.

The joint innovation between Halton and Karolinska gave birth to a product that is ahead of its time. The EU is currently preparing a new standard for operating room ventilation. Halton stands ready to meet these new, more stringent requirements.

In Her Majesty's Service

The crazier the project, the more enticing it is. This principle connects each of Halton's business areas in 2019: Buildings, Health, Foodservice, and Marine. The world's leading indoor air technology company has supplied ventilation systems to the world's tallest building, the largest stadium in Texas, Moscow's Sheremetyevo International Airport, the Rijksmuseum, which contains the artistic treasures of the Netherlands, and submarines for the British Royal Navy. What's good enough for the queen is good enough for most anyone else.

But no more about that, since most information about British submarines is secret. The Burj Khalifa (Khalifa Tower), a Dubai landmark, the pride of the local emirate, and a tourist magnet is a much easier case, even though it is the superlative of superlatives:

Formerly known as Burj-al-Dubai, the Khalifa Tower is the world's tallest building and has quickly become one of the world's most famous structures. Completed in 2010, the height of this giant is 2,717 feet (828 meters). There are 162 floors. Rents are among the most expensive in the world, and at the foot of the tower lies the world's largest network of fountains.

Halton provided ventilation systems and kitchen hoods to five restaurants at the Armani Hotel in the Burj Khalifa. One unique characteristic of the hoods is their oval shape.

The Armani Hotel belongs to the business empire of the Italian fashion guru Giorgio Armani, and it is one of Dubai's finest hotels. There are 160 rooms and suites, along with 144 residences. It went without saying that this project would aim for five-star standards.

The Armani Hotel's restaurant project was challenging for Halton because skyscraper building involves many complexities, and the 2008 financial crisis caused delays in the project. A wide range of different actors participated in the design, construction, and use of the Armani Hotel, and coordinating their work wasn't easy.

Azzam Hunjul, who directs Halton's business in the Gulf region, said that the Halton team adopted patience as the underlying principle of everything they did.

"We took a deep breath and decided that we would not give up in any situation. We always took the role of coordinator when it was needed. We didn't say this or that thing wasn't our concern. We thought that if someone had to deal with something, the system vendor would be the one to handle it. The project turned out wonderfully. Everyone was very pleased."

Azzam says that Halton won the Armani Hotel for three reasons: 1. The ability to deliver unique solutions in confined spaces, as demonstrated by many previous demanding projects. 2. High energy efficiency of the technology. 3. Long lifespan of the system and low maintenance costs.

The architects who design the most important and finest properties

in the metropolises of the world emphasize the value of unique and elegantly styled solutions.

Customization is one of the strengths of the Buildings division, says its head Anu Saxén.

"Halton is one of the few companies that can tailor products and systems. We're very qualified in that area. We have extremely good technical skills, and we can solve problems that others can't."

Halton Buildings designed and manufactured chilled beams modified to match the twisting shapes of the Generali Tower in Milan, which was completed in the spring of 2018. Zaha Hadid, one of the most prestigious architects in the world, wanted them like this because the entire 607-foot (170-meter) skyscraper is gently warped.

For the new airports in Muscat, Oman, and Abu Dhabi in the UAE, Halton delivered enormous displacement ventilation units. They had exceptionally high demands placed on their external appearance.

The special features of the ventilation at the Helsinki Music Centre included exceptionally demanding acoustic design. Of course, at the Rijksmuseum in Amsterdam, special attention had to be paid to controlling air flow and humidity. The museum underwent a major renovation in 2003–2013, and Halton played a key role. The most famous work in the museum is Rembrandt's *Night Watch*, a priceless work of art completed in 1642.

The well-being of a painting is a very, very different starting point from how Halton usually approaches design. According to Anu Saxén, designs are usually based on the human experience. That's even more essential than energy efficiency:

"Smart buildings are places where people can do well. Buildings are built primarily for people, not for saving energy. We can influence how people get along in buildings and how productively they can work in them. So, we can influence people's happiness. For me that feels really good."

Buy My Dang Vacuums

Pertti Värtö was a tough businessman. He had circled the world many times, selling his central vacuum cleaners in 50 countries, including China and Saudi Arabia. In 2009, after so many years of traveling, the founder of Puzair company was ready for a change and decided to retire. Värtö turned to Mika Halttunen:

“Buy Puzair from me. You should get into this business.”

Mika thought there was good sense in Värtö’s idea. Halton could also improve indoor air by using central vacuum cleaners. Small particles could be collected to prevent spreading them through the ventilation for the users of the building to breathe. Puzair had also developed suction-based waste transportation systems. Maybe that know-how could also be useful. Halton could gain new perspectives on system deliveries. The company wanted to climb up the value chain—the role of component manufacturer no longer felt sufficient.

Halton considered the vacuum deal for quite a long time, longer than a year. Then Puzair became a part of Halton in August 2010.

“I thought it was a great thing,” Mika Halttunen recalls in 2018. “That we should definitely buy it. But no one else was excited.”

The core of the vacuum business gradually came into view—or rather, its lack. The new owners got the impression that Puzair’s systems had been sold freely here and there, wherever the staff happened to land deals. There was no focus. As a result of the winding down of Pertti Värtö’s efforts, new sales had almost entirely dried up.

But the big picture still looked promising. Halton just had to choose one battle to win and focus there. The new Halton Puzair had six employees when the company began building it into a business unit with the prerequisites for exponential growth:

“We’re going to conquer the Asian market with this system,” said the new leader of Halton Puzair, who had been brought in from outside.

That was good to hear for Halton’s owners and CEO Heikki Rinne. However, that new executive moved to another employer after only eight months on the job at Halton. Shortcomings also appeared in the skills of Puzair’s old employees, and one after another they all exited the building. Their duties were transferred to other Halton employees.

At the time, Puzair was part of the indoor air business area, which was led by Halton’s second main owner, Tarja Takki, who firmly believed in the potential of clean indoor air. Tarja was shocked when she realized the dire straits Puzair was in. It looked like Halton had made a terrible mistake. Heikki Rinne was ready to draw what seemed like the inevitable conclusion.

“Maybe we should end this,” he suggested to Tarja and Mika.

However, the trio decided to explore further options that could provide Puzair a way forward. One possible solution was to move the unit to the Halton Marine business group. The logical reason was that Puzair had once managed to sell vacuum systems to Tallink for their ferries. Strategic competitive advantage shimmered on the horizon in shipbuilding.

However, Marine didn’t want the vacuums. The technology was unfamiliar, and the possible synergies the group leadership saw seemed

like distant dreams. Top-down instructions lit a fire in no one. Puzair had become an outcast that no one wanted, an embarrassing subject that people preferred to avoid.

When Marine didn't open its doors, Tarja and Puzair's people decided that they would start selling vacuums to the shipbuilders and shipyards themselves. They could directly approach the same customers that Marine worked with on a daily basis.

This sent a somewhat brash message, but there were no other options. Fortunately, the gamble paid off. Puzair's ship sales began to go so well that they attracted attention in Marine. The Puzair team also found a completely new application for their technology: evacuating anesthetic gases and air contaminants from laser surgery from hospital operating rooms.

Puzair's entrée into hospitals actually came about by accident. Janne Tulivuori, a salesperson and project manager at Halton Marine, was giving a hospital a bid for a central vacuum cleaner system when the hospital representative asked why Halton couldn't also handle local exhaust

needs for the operating rooms.

"Oh yeah, we have that too," Janne replied with confidence-inspiring self-assurance.

At the time, there was only one viable supplier of these solution in the market. Halton managed to complete a competitive alternative within a few months. The Halton Vita Extract (VEX) is a complete turnkey system for removing anesthetic gases and other surgical fumes.

Once again, Halton found that often the best ideas come from the customer. VEX systems have already been sold to several Finnish hospitals.

The Puzair story shows that patience is difficult in business. A family business can be more patient than a publicly traded company, but not

even the most patient family company can stand by and watch as a business loses money year after year.

An impatient owner or executive may give a death sentence to an acquisition that does not live up to expectations, even if the problems are due to the leader's own lack of focus on the new undertaking. The newcomer is just as lost as an immigrant from a distant land whom no one has time to integrate properly into the new culture.

Puzair finally found a home at Halton, though, and the system now operates under the brand Halton Pro Clean. Sales and manufacturing moved to the Marine business area in 2017. Nowadays, vacuum production takes place at Halton's factory in Lahti, Finland, next to the legendary kitchen hood shop.

Puzair had become an outcast that no one wanted, an embarrassing subject that people preferred to avoid.

The Cold, Hard Truth

White flakes fell from the clouds, floating down onto the car windshield and gradually melting. Tarja Takki sat in her car in front of the Alepa grocery store in Munkkiniemi, Helsinki, watching the destruction of the snow crystals and listening. She didn't want to be on this call.

"Our people in the Kausala lab refused to falsify their results," the voice on the other side said.

"But when the results went to the client, they'd been altered. Our internal investigation is complete. The findings are clear."

Tarja turned off the car but left her seatbelt on. The breath of Halton's second owner condensed as fog on the car windows. Dark thoughts ran through her mind. Rage, anger, and shame. Damn it to hell. How could this happen in our company? We have top-rate employees, so how could someone stoop to something like this? And how do we sort out the mess? Nothing good can come of this.

TARJA TAKKI started as the managing director of the new SBA Halton business area (which was later renamed as Buildings) in spring 2012. Halton was looking for a stronger growth cycle for its traditional business: ventilation components. Since the financial crisis, it had faced tough challenges just like every other construction supply company. Competition was fierce, volume fell below expectations, and customers were focusing on price in their purchasing decisions.

SBA Halton was born when the Clean Air and New Ventures units, which were previously independent, were merged with Buildings. Tarja had been in charge of New Ventures.

Tarja didn't think reorganizing the indoor air business would be enough to whip it into shape. It needed reinvention, which is a completely different affair. They needed to step out of the role of a high-quality component supplier and into the role of a solutions provider selling well-being, not products. They had to find new ways to stand out from the competition. They had to decide on the segments where Halton could become the best in the world.

Strategy work was done carefully. At the beginning of the effort, they decided on the customer segments where Halton would try to place itself at the top of the value chain, selling solutions directly to the property owners and user organizations. At the end of the team competition, Halton's board decided that these segments would be high-end offices and healthcare facilities. Components would be placed in a third segment, which would serve wholesalers and distributors as usual. The Halton product development center in Kausala would become the Halton Innovation Hub, where they would construct new, unique test environments.

This new work inspired Tarja. The scale was bigger than ever before, but the nature of the work was very familiar. Issues large and small landed on the managing director's desk—opportunities, threats, and problems. One of these had to do with a major construction company, a long-term Halton customer. The string of events began to unravel when Anu Saxén, who worked under Tarja, approached her boss one day:

“Hey, Tarja. I have something to talk to you about.”

“Shoot. What’s on your mind?”

“Are you aware that we’ve been lying to an important customer?”

“Excuse me, what? What did you say?”

“My team has been wondering for a while how to tell you this...”

“OK. Tell me more. We have to get to the bottom of this.”

AT THE time, Anu was in charge of Building’s turnkey projects business. Halton had previously signed a multi-year contract with a major customer for transactions worth more than \$25 million (€22 million). The deal included chilled beams with capacities that had been measured in Halton’s certified laboratory in Kausala.

The documents based on those measurements and provided to the customer showed that Halton’s beams were just as effective as corresponding products from Halton’s most important competitors.

However, it later turned out that these documents were not original. Halton’s laboratory measurements had shown that beam output was about a quarter below the target. The difference between Halton’s products and those of the main competition was 12 percent—if the benchmark used was the one the competitor self-reported. But in any case, Halton’s customer had been given information that conflicted with reality. Someone or some group of people had acted improperly. Halton had lied.

In the early 2010s, the design philosophy for Halton’s chilled beams was output and comfort optimization. Airflow can be increased, but when speed increases, the people using the space can experience it as draft. Halton’s designers didn’t want to manufacture products that produced more chills than well-being. Output was important, but even more important was human comfort.

However, ventilation designers and contractors saw the issue somewhat differently. For any given space, the designers defined a specific required cooling power, and estimated permanent and variable heat sources such as computers, lighting, and people. They calculated the required

number of beams. If a manufacturer offered a lower cooling power per beam, the designer had to fit more beams into the same space.

So, a designer working for a contractor could very well say that well-being was important, but your cooling beam output is too small. We would have to buy and install more of them.

Tarja Takki took Anu Saxén’s first contact very seriously. Whether this was an accident or a deliberate act, whoever was responsible had to be found so it wouldn’t be repeated. Halton CEO Heikki Rinne and the board gave this unpleasant task to two trusted employees who worked outside of the indoor air business. The pair then proceeded to interview every Halton employee who worked with the customer. The outcome of the investigation was as bad as it could be.

Halton’s laboratory had done the measurements correctly. However, the sales staff for chilled beams had falsified the results after Kausala’s experts refused to manipulate them. The pressure to compete had grown too great. The people responsible had been afraid that Halton would lose the big deal if the output of the chilled beams was lower than the competition. They fought for the company using the wrong means.

Tarja hadn’t wanted to believe the worst of her people, but she had prepared for it. She made her decision quickly: We’ll tell the customer what Anu just told me. We’ll admit what happened. This wasn’t an error. It was fraud. We’ll bear the consequences, whatever they may be.

Tarja was ready to travel to the client’s headquarters to make an apology. However, the sales director of the local subsidiary preferred to handle the matter himself.

“I can accept that you’re forcing me to be the bearer of bad news to the customer,” he said.

We’ll admit what happened. This wasn’t an error. It was fraud. We’ll bear the consequences, whatever they may be.

“But I don’t want a delegation from Halton’s headquarters in Finland to march into my customer’s headquarters.”

The sales director and the managing director of the subsidiary handled the difficult task as agreed. The customer representatives listened to Halton’s story and then ordered the Halton representatives out of the conference room. The customer’s team wanted to hold a brief crisis meeting.

The results were swift. The customer representatives were angry, but they said they respected Halton’s honesty. However, it would be wrong if there were no consequences. Halton had to suffer. The customer demanded that the previously agreed prices for the chilled beams be cut by 12 percent.

Halton accepted the proposal immediately. That meant saying goodbye to the profits for the deal, which had already been negotiated down into painful territory. The cost of the deception was \$3.4 million (€3 million).

Halton’s laboratory staff heaved a sigh of relief, as did Halton’s leadership and owners. They had taken a risk that could have ended a relationship with an important customer. However, that risk did not materialize, and collaboration continued.

Honesty is a pretty word. Values are important, but they mean nothing if a company acts against them. The Halton employees who solved the case of the chilled beams showed what honesty really means.

Duty Calls

“**T**he call came like an alarm. Our customer, Rudolf Otto Meyer, didn’t mince his words: We had to get someone to Hawaii, fast. Apparently, Halton’s fire dampers weren’t working.

A cruise ship with Halton technology aboard was approaching Honolulu harbor. This sounded strange, because there usually weren’t any problems with these electric dampers. But the job sounded interesting, so I went along myself.

I arrived in Honolulu a couple of days before the ship. I had to get used to the time-zone change, after all.

The waiting was pleasant. Then the large, beautiful ship arrived, the Norwegian Star. The ship then departed immediately for a five-day cruise to the Kiribati archipelago. I went along.

We inspected a few fire dampers with an HVAC engineer from the Norwegian cruise company. Very quickly it became clear that the fault was not in the dampers but in the ship’s automation system. Figuring this out took us five or six hours.

I spent the rest of the time enjoying the cruise and the ship’s amenities. Kiribati was such a nice place—I could go again.”

Project Manager OLLI LEHTINEN, Halton Marine

Slow Partnerships, Fast Partnerships

It was eight o'clock in the evening, and the party venue was too quiet. The opening ceremonies of the joint-venture Halton Refrin factory were beginning in São Paulo, Brazil, but it was raining, and there was no sign of the guests. This was disappointing, since more than 300 invitations had gone out to partners and clients. Wasn't the new company interesting to its customers? Wasn't it important to them?

It was February 2015. According to the schedule for the opening ceremony, the speech from the chairman of the board, Mika Halttunen, was almost set to start. The speaker waited anxiously, wanting to get going. However, Marcelo Vale, the managing director of the joint venture, per-

sueded his partner to wait. Maybe people were just stuck in São Paulo traffic because of the heavy rain.

"Don't worry, take a little more time. Let's wait an hour, eat, enjoy the party, and then the place will be full of people," Marcelo said.

That sounded overly optimistic. Still, Mika Halttunen decided to rely on local knowledge and wait. Halton had decided to rely on the same local knowledge in 2014 when it launched the joint venture with the Brazilian company Refrin.

FOUNDED IN 1979, Refrin is a family-owned company that has been successful in basic ventilation products such as ducts. In 2017, the company generated sales of approximately \$6.9 million (€6 million).

Refrin could well have become a Halton competitor in the Brazilian market, as in 2012, Halton and Refrin had similar plans. Years earlier, Refrin had made its first kitchen hoods.

"In 2012, we decided to focus more on kitchen ventilation, to grow and to build a new factory," says Marcelo Vale.

The leadership of Refrin met Georges Gaspar, director of Halton Foodservice, in Brazil and the talk turned to a possible collaboration. Both parties saw a lot of opportunity right away.

"The technology and solutions were interesting, but maybe even more important was that we got along so well with everyone on their team," says Marcelo Vale.

It is noteworthy that the first discussions about the partnership took place at the end of 2012. Just a few months later, Halton and Refrin participated in a trade fair together in Brazil, even though the companies had not even signed a partnership agreement yet.

It was easy for both to see the benefits of setting up a joint venture. Refrin was able to offer ready-made business in basic kitchen ventilation products at low cost. Halton brought new technology and more advanced kitchen products to meet the desires of demanding customers in energy saving, design, and safety.

Marcelo Vale, one of the sons of Refrin's founder, took the lead in the

joint venture. His brothers Mauricio and Marcos continued at the head of Refrin. From the Halton side, the joint venture was led by Ismo Manninen for the first two years.

“He played a key role in bringing Halton’s culture into this company. That was very important,” Marcelo says.

The joint venture’s new factory opened in São Paulo at the end of 2014. The plan was to bring the business into the black within three years. However, chance intervened in these plans.

The price of oil collapsed in 2014, and the Brazilian economy took a sharp downward turn. Another blow came quickly when a corruption scandal shook the country’s largest oil company, Petrobras. Investments stopped. In 2015, the Brazilian economy contracted by almost 4 percent. The same direction continued the following year.

Many joint ventures don’t survive this sort of thing, and Halton Refrin had been launched quickly. Would the partners’ patience hold out?

The answer to this question can be found from another Halton partner, in Mexico. It’s a story about the endurance of the partnerships Halton builds.

IN MEXICO, this relationship developed in stark contrast to the one in Brazil: as slowly as possible. There, Halton’s partner was the family company Innes

Aire, whose products have brought relief to Mexicans from high temperatures for 60 years. The son of founder George Innes, Luis, was introduced to Mika Halttunen at a trade fair in the 1990s.

The leaders knew each other, but there was no cooperation. However, Mexico gradually began to interest Halton. One explanation is that this market opened when the North American Free Trade Agreement (NAFTA) came into force in early 1994. Mika Halttunen visited Mexico

with President Martti Ahtisaari’s export promotion team, and, in 1999, Halton approached Luis Innes with an acquisition bid.

“This company is part of me. If I sell it, I’ll hurt myself,” Luis replied at the time.

Business cooperation did not progress, but the relationship remained warm. A decade passed. Both businesses changed. Luis Innes, George’s son, invited his long-time friend Alvaro Migoya to join the Innes Aire board and to become a co-owner. They reformed the company. Now and then the new leadership ran into a new phenomenon: projects that were planned and specced in Europe. They required European equipment.

Luis Innes and Alvaro Migoya met Halton’s leadership at a trade fair. In 2008, they contacted Mika Halttunen.

“We suggested that we could represent Halton’s products in Mexico. Things progressed quickly. Next, the US director of Halton, Rick Bagwell, got in contact with us, and a new story began,” Alvaro says.

RICK SAW the opportunity for a natural division of labor between the Americans and Mexicans. The Halton Scottsville plant in the United States had begun to focus on Foodservice products, but the factory also supplied air distribution equipment and cooling beams.

“They wanted to relocate that production and asked us to produce them for the North American and Mexican markets. We started to manufacture products for export, too,” says Alvaro.

Innes Aire became a subcontractor for Scottsville. Next, Rick suggested to the Mexican executives that they should look at the market for Foodservice products.

“Rick is a great guy and is excited about opportunities. He talked about how different the Foodservice business is, where technology and well-being are combined,” says Alvaro.

Halton shared plans and information with Innes Aire about kitchen products and the market, even though they hadn’t entered into a formal partnership yet. With Halton’s support, Innes Aire produced its first hoods at its own factory for the Mexican market. The subcontractor had

Many joint ventures don’t survive this sort of thing, and Halton Refrin had been launched quickly. Would the partners’ patience hold out?

entered a new business. The next step was taken in 2012 when the partners set up a joint venture to market and sell kitchen ventilation products. Halton now owns the majority of Halton-Innes.

“Our team sells kitchen products that can be delivered from any part of the Halton network. And Innes can also produce them,” says Alvaro Migoya, who now leads the joint venture.

Currently the company employs nine people and has a turnover of approximately \$2.5 million (€2.2 million).

Cross-border trade and the threat of tariffs were at the forefront in 2018. However, things are not black and white. Halton’s products have typically moved from less expensive Mexico to the US market, but now that trend has reversed. Halton manufactures premium kitchen products in its US factory and exports them to Mexico.

One of the biggest deals for Halton-Innes was with Audi’s enormous factory in Mexico. A production facility that employs thousands of people, the factory received kitchen ventilation ceilings that were produced at the Reit im Winkl plant in Germany. Cooperation was better than competition for both companies.

“Without Halton, we wouldn’t have understood this business opportunity. And Halton would have had a more difficult time entering the Mexican market without us,” says Alvaro Migoya.

So far, the joint venture has bought products from the Innes factory. However, it is possible that the joint venture will start its own production in the future if volume increases sufficiently. The joint venture has also done deals in Peru and Chile, where it has one employee.

“A partnership must have mutual trust and shared values. We do, and I believe that’s why we’ve succeeded,” says Alvaro.

Migoya and Innes have another joint investment with Mika Haltunen. He joined in as an owner of the Finnish FC Lahti soccer team with a small investment.

AT THE same time Halton was growing in Mexico, the economy continued to suffer in Brazil. How would the young joint venture survive?

“Our team has learned to be stronger in the face of all these challenges. We have a fantastic group,” says Marcelo Vale.

After starting from nearly zero, the joint venture’s turnover grew 46 percent in 2016 and more than 20 percent in 2017, even though Brazil’s economic development has been weak. In 2018, the target is a turnover of \$2.1 million (€1.8 million). Halton Refrin has many important projects underway, for example in hospitals. However, the most significant part comes from restaurant chains, where business has remained relatively strong even during the downturn.

“Refrin’s products are important in getting cooperation started with clients. When we introduce them to more advanced Halton products, they often decide to order them, too,” Marcelo says.

Although Halton Refrin is a joint venture, Marcelo sees the company as an important member of the Halton network. The secret of success is hard work and networking between other Halton units, especially North America.

“Everyone is very supportive and interested in our potential. Halton has a culture and energy that is difficult to explain. Big Halton often feels small, and the atmosphere is very friendly,” says Marcelo.

The two-brand strategy seems to work in Brazil. The joint venture’s sales were initially 80% Refrin products, but now the share of Halton and Refrin products is equal. The original goals have not yet been reached, but Marcelo Vale believes that Brazil will be the next source of growth for Halton. The country needs safe and energy-efficient ventilation solutions.

“Halton has a culture and energy that is difficult to explain. Big Halton often feels small, and the atmosphere is very friendly.”

A local view helps to create the right situational awareness and action plan in a culture that is very different compared to Europe and North America. That was exactly what happened at the Halton Refrin factory opening ceremonies. Marcelo was right. Everything went fine in the end. The people who were stuck in traffic arrived late, but ultimately about three hundred people attended.

Brazilians love music and dancing. To the surprise of the audience, the chairman of Halton climbed on stage and picked up a guitar.

“Mika started a fantastic rock ‘n’ roll show with his band. People loved it,” Marcelo says.

According to him, customers still remember the name of the band, Ärräpää, with wonder. In Portuguese, the letter R is pronounced like H in Finland, so Refrin is pronounced Hefrin. All those rolling Rs stuck in everyone’s memories.

“It was fantastic! Hopefully we’ll get them back here again.”

A Very Little About Russia

The price of oil had started to rise when Vladimir Putin took over in 2000. Order came to Russia, and Russia got rich. Western European companies found that a new, prosperous market was quickly developing on the Eurasian continent.

Halton’s indoor air business named Russia one of its priorities for future growth in 2005. Over the next couple of years, the topic of Russia repeatedly featured in Halton’s board meetings. Exports to the East were good, with Halton delivering ventilation components to Moscow’s Sheremetyevo International Airport and the Russian State Energy Agency. Beginning manufacturing in the country within a few years was considered likely.

In 2007, the minutes recorded that “the Russian project is progressing, but no decisions have been made.” In December of the same year, the board recommended a “faster implementation of the Russian strategy” and called for a “concrete action plan” from the Halton executive leadership.

The board wanted to pick up the pace. However, the executive leadership dragged their feet. The chairman of the board, Mika Halttunen, felt that he had been nagging them about Russia for years, but the executives never accomplished anything.

In August 2008, things suddenly changed. Russia attacked Georgia, which had been seeking NATO membership. The war lasted five days, with 800 soldiers and civilians losing their lives. Relations between East and West cooled. Everyone who had been doing business with Russia was forced to evaluate how the confrontation would affect future engagement. How would goods and money flow? What protection would there be for assets invested in Russia? And so on.

Shortly afterwards, boardrooms across the world were hit by the tsunami of the international financial crisis. The price of oil plummeted, and the Russian ruble collapsed. Corporate decision-makers prepared for difficult times and reduced risk exposure across the board.

The waves of the financial crisis also rocked Halton. However, they did not paralyze the company's ability to operate. In December 2008, Halton's board of directors decided to move forward with a factory investment in China. Small machine investments to increase efficiency would be made in Germany. But Russia had fallen off the agenda completely.

The economic crisis weakened sales. Relations between East and West continued to deteriorate. In 2014, Russia annexed Crimea from Ukraine. The US and EU punished Moscow by imposing sanctions on Russian companies and individuals. Russia reacted with counter-sanctions. The price of oil began to fall. The ruble collapsed once again.

Many Western companies that had invested in Russia once again had to evaluate whether they could withstand more severe risks or whether they should withdraw and write off their losses before they grew bigger.

Halton had no such problem. The caution shown by the company's executives had been wise.

Connections between people have been preserved, and Halton still exports goods from Finland to Russia. But larger moves await more peaceful times. Russia is so close and yet so far away.

If It Isn't Right

If it isn't right, don't do it. If it isn't true, don't say it. Treat others as you would like to be treated.

These principles work in relationships between businesses, just like people. Fair play is the foundation of trust. Building trust takes years, but trust can be lost in a second.

The word pair *trust* and *ethics* is one of Halton's five values. Halton's values reflect the company's idea of right and wrong. They help make decisions and guide in the right direction, whether it's about small decisions or big strategic choices, pleasing the customer, or compliance with laws and human rights.

Customer focus has retained its place for 50 years at the forefront of Halton's values. The customer is important. The customer is king. In order for the company to be successful with the customer, employees need to understand the customer's real needs and real problems. This often requires extreme dedication to making the customer's life easier.

Teamwork, continuous learning, and a positive attitude will help Halton employees succeed in customer service.

If everyone working in the company decides to make small changes that improve operations, small changes will have a big impact. It is fun to work with self-starting, solution-oriented and positive people.

Disappointment is part of everyday life in every business. No person, team, or company is perfect. Maintaining a positive attitude is sometimes difficult, but finding solutions to problems often happens through positive thinking. Taking action works better than worrying.

#Japan #Foodservice #partners #continuity

Suzuki-san

“ I’ve been in a kitchen consultant for nearly 40 years, but my motivation still comes from the same things. When the kitchen of a fine hotel is completed, I can think that I designed this. It isn’t a question of money but of results and satisfied customers. That’s the best thing.

I studied kitchen design at the University of Las Vegas. I ended up as an entrepreneur because my father-in-law did kitchen design for hotels. I joined his company. He designed kitchens for 200 five-star hotels all across Asia.

I met the Halton team for the first time at a Foodservice convention in Singapore in the 1990s. Halton had just opened a factory in Malaysia, and we went there. It was very small back then.

Halton’s greatest strength is that in most foreign companies, the managing director changes every seven years. But Machii-san has been leading Halton in Japan for a very long time. Olli-san and Georges-san have spent their whole lives working at Halton. This is also the Japanese way. Careers are long.

I have a strong connection to Halton. I know Mika-san and his wife. It’s like a family connection, and that’s why it’s very important to me.

THE OLYMPIC Games are coming to Tokyo in 2020. A lot of hotels are being built, and I don't have time for projects outside Japan. Now I'm designing a lot of Marriotts and Hiltons. I recommend Halton to international hotels because of safety, energy efficiency, and appearance.

Some customers emphasize safety, others cost. If a customer is only looking for the cheapest product, we cannot persuade him to invest in quality.

Well-being is very important for these hotels, as is safety. What percentage of grease is extracted? How clean is the exhaust duct? If the duct is clean, the risk of fire is reduced.

The hotels are very tall, 60 stories, and they have a thousand rooms. If there is a fire in the kitchen, panic will ensue. Another challenge in Japan is earthquakes. That's why building and fire regulations

are strict. Halton's products fulfill them the best—but the price of the products is very high.

SOME CUSTOMERS emphasize safety, others cost. If a customer is only looking for the cheapest product, we cannot persuade him to invest in quality.

I expect eco-friendliness from Halton. They accomplish that with the M.A.R.V.E.L. system, which has automatic power adjustment. That means money savings.

Everyone complains nowadays that kitchens are too hot. The environment has to be made pleasant or no one will want to work in kitchens anymore. When we started working together, in the 1990s, things were different. Halton's quality wasn't always very good, but now problems are rare. I can tell Halton what the market is demanding. For example, the MobiChef is a pretty new product. I said that it wasn't good enough. So they changed it quickly.

Kitchens are changing. Nowadays less food is being deep-fat fried, and steaming is becoming more common because it is healthier. That has to be taken into account in the design.

Now I'm working on the Japan offices for Google, Apple, and Facebook. These companies don't want a standard employee cafeteria. Quality, appearance, energy saving—everything must be better than in a hotel. And the kitchens must meet stringent energy requirements.

The salaries of Google, Apple, and Facebook employees are high. These young single engineers eat an average of 1.7 times a day in the employee cafeteria. They will complain if the food is bad, because in their free time they eat in five-star restaurants.

In the future, Halton will need to continue to innovate and develop new technology. Which is what they've been doing.

I've visited Finland twice. Georges Gaspar once showed me a picture of the small factory founded by Mika's father. It was so small, and now the company is the biggest in its industry. That only took 50 years. Unbelievable!"

SHIGERU SUZUKI is one of Japan's leading professional kitchen consultants and a long-time Halton partner.

Emergency in the Hood Shop

Two thousand and eighteen began much like any other year in Lahti, Finland. January's work at the Halton Marine factory was going well. The staff were going about their lives as normal.

The color code of the system that tracks the balance between orders and production in the hood shop was green: situation under control. The workers in the hood shop felt that they could easily produce what their customers needed.

However, by the end of the month, the balance began to change.

The sales team kept entering more and more orders into the system. Orders delayed in the fall were now going through. And then some customers wanted to move forward orders planned for later in the year. First the color codes in the hood shop turned yellow. Then they blazed bright red.

Halton Marine supplies kitchen hoods for galleys on cruise ships, car

ferries, and oil rigs. Nearly every hood made in Lahti is a different, customized product.

The stainless steel required for the different sections of the hood is cut, and then the sections are welded together and sanded at the seams. Next comes seam painting, surface cleaning, component installation, and wiring. The work requires expertise, attention to detail, and quickness. The assembly of a product this complex is too demanding to turn over to robots.

The Lahti hood shop operates very independently. The team watches the trend of orders and delivery deadlines, and adjusts their work accordingly. When there's more work to do, they work more. The managers don't have to cajole anyone, let alone issue commands.

"No one has to say anything to us," says Petri Tuominen, who works in the shop. "We predict the upcoming situation ourselves. We look at the next week and make sure we don't get too backed up. And if we have to stretch, we stretch."

Being flexible comes naturally to Petri, as natural as the oatmeal he eats every morning. According to him, no one in the hood shop is forced to work overtime. At the end of each shift, the team agrees amongst themselves when to start work the next day. Of course they clear any overtime with their supervisor.

"The way I look at it is that we're kind of like individual entrepreneurs who make sure that pieces leave the factory when they're supposed to. Why do I have to wait for a manager to come tell me what I already know?"

In February 2018, Petri had to commit all his time and energy to the job, as did his coworkers Timo Puustinen, Juha Kirjavainen, Jouni Huoli, Jani Ahlstedt, and Adam Kody, a Somali-Finn whom his colleagues call Aatu.

The hood shop started work at four in the morning when necessary and worked long shifts in order to keep their weekends free. The hours passed quickly, but the prolonged effort tired the men out and tried their nerves. People cursed more in the shop than normal. However, produc-

“My nightmare was a laser cutting machine breaking down. People can be flexible, but machines can’t.”

tion rose to a new high and remained there until it rose yet again to a second new record.

In a normal week, the shop puts out 20 or 30 hoods. The factory’s production manager, Pekka Kyllönen, knows that they can always manage 40 units if the following week will be calmer. But February exceeded these limits considerably, with the total output for the month hitting 227 units.

The suppliers were stretched, too. “Where is all of this going?” one steel supplier asked in amazement. In the first three months of 2018, the hood shop produced more hoods than in the entire previous year, and that wasn’t a bad year by any means.

PEKKA KYLLÖNEN was confident in the performance and judgment of the men in the hood shop but carefully monitored the team’s morale to avoid wearing anyone out completely. Occupational safety is his responsibility. Pekka also seeks to ensure that the pressure doesn’t get too high.

“I told them not to focus too much on the big picture. The numbers for a week or a month looked terrible, so I encouraged them to think about short-term goals. How many do we have to make today? OK, you have to do three pieces. Can you do that? Yes, you can.”

Pekka’s second concern was the supply of components and his third was the machines.

“My nightmare was a laser cutting machine breaking down. People can be flexible, but machines can’t. We ran our lasers a crazy number of hours early in the year, and I knew it was just a matter of time before something broke. I was also afraid we’d run out of components.”

The components held out, and the people kept their spirits up, even though the emergency in the hood shop lasted a full eight weeks. But when the biggest logjam was cleared, one of the laser cutting machines

did in fact give out. The fault in the machine took longer to fix than anyone wanted, leaving it standing idle for two weeks.

The loss of the laser was not the catastrophe it would have been in February, though. They could handle this challenge, too. The customers received their hoods as agreed, and they didn’t have to know the effort that went into producing them. That wasn’t their concern.

LAHTI IS located in a very good place for a company producing goods for the Finnish market. The drive to the only metropolitan area in the country is a leisurely hour, and there are good routes in every other direction, too. In Finnish terms, Lahti offers workers affordable housing, short commutes, and excellent opportunities for outdoor recreation, berry picking, and other important Finnish leisure activities.

For Halton Marine, however, Lahti doesn’t offer any particular advantage. If anything, the opposite is true. Anu Nyman, director of Halton’s Lahti unit, and Pekka Kyllönen, factory manager, have to build the facility’s competitive advantage on other things.

“Quality, flexibility, and short delivery times are our things,” Kyllönen says.

“People can’t be forced to stretch, but they are willing to do it if their employer genuinely cares about them and treats them fairly. We have managers but no hierarchy. We work together. The guys in the hood shop do what needs doing without being asked. I don’t have to sneak around and look over their shoulders to make sure product goes out the door.”

Kyllönen constantly talks with his employees about the needs of their customers. He reminds them that no one has to buy anything from Halton. Keeping customer confidence high is the responsibility of everyone in the company, especially the factory workforce.

“We have a lot of customers who tell their contractors that they want to buy from Halton and that the products have to be made in Lahti. The duty to take extremely good care of that kind of relationship lands on all of us. Don’t come and work for us if you can’t tolerate change or in-

security. The work we're doing at our factory and how much of it we're doing changes every day."

THE OVERLOAD in Lahti continued from February to March before calming down and finally ending in April. The hood shop broke all previous records. The wild hours everyone worked were appropriately compensated, but otherwise no one made a big deal about it. This is all part of the Finnish attitude of keeping your feet planted firmly on the ground.

Work continued as normal until it picked up again. Variation in work load is a part of life. Everyone takes a turn at being a hero, and everyone enjoys the greater than normal satisfaction brought by high performance in their own way:

Pekka Kyllönen drives home, steps into the sauna he built in the yard at his house, and loads the heater stove with wood. An hour later, the sauna is ready for bathing. Pekka usually enjoys being in the sauna for a long time, up to an hour and a half. Occasionally he comes out on the terrace to cool off, takes a dip in a cold tub of water, or dives naked into a snow bank. He alternates hot and cold, with a frosty beer to round out the relaxed mood.

"It takes you into a completely different world. Gratitude comes to the surface. I think things are fine. This is the life."

Petri Tuominen drives home, opens the door of his townhouse apartment, and switches on the heat in his electric sauna. Half an hour later, Petri is already enjoying the steam. After lingering in the sauna, he first opens a can of beer and then turns on the radio. The station is playing *Puhelinlangat laulaa* ("The Telephone Lines are Singing"), a popular call-in show Yle Radio has been broadcasting since 1972.

"I sit on the terrace and just listen. That makes me happy. The day is suddenly done. All the rushing is over. Of course, that leaves a bit of a vacuum, but it passes quickly."

Petri enjoys the warm atmosphere of the radio show, which plays a lot of old favorites and new, surprising things too. Whenever someone

calls in with a song request, they can also send greetings to their friends or family. The presenters roll with whatever happens and handle any unexpected excitement with style and grace.

"I've called in plenty of times myself," Petri says with a grin.

Stepping into the Contractor's Shoes



On the blue sheet of the operating table in the Halton product development center lies a patient. Raimo Parkkila, head of the Halton research center, introduces the other characters in the room.

“The large white barrels are the operating staff, i.e., the doctors. The shorter barrels are people sitting down, and the anesthetist is the one sitting there,” Raimo says.

The patient is actually a plastic dummy, and the doctors don't resemble people much either. Each standing person is modeled by a round white metal tower heated by three light bulbs. One hundred watts is like the heat output of one adult.

Welcome to Inoroom! A fully functional operating room has been built in the Kausala product development laboratory. At its heart is a diffusing ventilation device with high-performance HEPA filters installed in the ceiling above the operating table.

“When air passes through the HEPA filter, 99.95% of the particles are removed. The air is constantly being purified. The filter change interval is 5–7 years,” Raimo explains.

Inoroom doesn't only contain advanced Halton technology, because this mock operating room represents a unique joint venture between several Finnish companies. Inoroom has lamps, an operating table, and workstations from the hospital fixtures manufacturer Merivaara. All around are wall and ceiling structures from Hermetel, which produces clean rooms and refrigeration rooms.

Together, these three companies sell Inoroom as a complete, turnkey solution. Companies are rarely capable of such close cooperation. The success of Inoroom was demonstrated in 2017 when it earned the Finnish Association of Civil Engineers RIL prize. This recognition is awarded annually to one high-quality, innovative building or building concept that demonstrates Finnish construction expertise. In the final stretch of the competition, Inoroom edged out the giant renovation of the Parliament building in Helsinki.

Hospital staff from all around Europe regularly visit the Inoroom suite in Kausala to perform simulated surgeries in order to test things like the effect of clothing on air purity.

But how and why did the Inoroom solution come into being? The story connects to this same clean room in Kausala.

THE HUGE order for the Nya Karolinska Solna Hospital in Stockholm required that Halton conduct tests that led to the decision to build a new mock operating suite in Kausala.

Interest in operating rooms had already been sparked at Halton before the Stockholm project.

“We had just decided to focus on healthcare spaces. There had already been some initial talk of setting up an operating room in Kausala to build expertise in the area,” says Ismo Grönvall, product manager for Halton’s Health segment.

Halton had no previous experience of building operating rooms. Fortunately, there was a lot of know-how close by.

In Orimattila, less than an hour’s drive from Kausala, stands the headquarters of Hermetel, a provider of clean rooms. Even closer, in Lahti, is Merivaara, which manufactures operating tables and lights for operating rooms. A third company in the field was the engineering firm Granlund, which designs hospitals.

Juha Ritila, product director for modular element panels at Hermetel, and Jukka Vasara, Granlund Kuopio’s CEO, had previously considered collaboration:

Wouldn’t it be great if Finland started exporting an operating theater solution that met all the latest standards? But who could lead such a project?

The pieces started to fall into place in 2013 when Halton requested an offer from Hermetel to construct an operating room. The first meeting between representatives of Halton, Merivaara, Granlund, and Hermetel about this new collaboration occurred the follow-

ing year. However, the project still needed a leader. Then Mikael Sokolnicki, marketing director for Halton Buildings for the Nordic Region, heard about the project.

“The project sounded really interesting, so I raised my hand and said I could be involved. Then I went and introduced myself to the CEOs of the other companies,” says Mikael.

He describes Inoroom as an internal startup for the three companies, Halton, Merivaara, and Hermetel. They commercialized the idea together, and in June 2015 the project was ready for its launch at the Hospital Technology Fair in Turku.

Finding the first open-minded customer took a year. The financial giant OP Financial Group purchased Inoroom operating rooms for its hospital chain, Pohjola Hospital, in a deal publicized in November 2016.

“The start has been great. More than ten operating rooms are already in use and have been delivered to different customers. We’re still doing a lot of trust building with customers. That’s been helped by having three companies with brand credibility and a history,” Mikael says.

INOROOM HAS meant a jump up in the value chain for Halton and its partners. In a way, Halton has taken on the mantle of a contractor and the responsibility for the entire project for years to come. According to Mikael, there have also been worries associated with this. What will Halton customers say? And what about the contractors?

“In these projects with a narrow area of expertise, we’ve moved above the ventilation contractor, in a way right up alongside the general contractor. We’re competing with ventilation contractors. So far, it’s been quite painless, though. The fears have been unfounded.”

Mikael Sokolnicki has found that there is space in the construction industry for a supplier who takes complete responsibility for indoor air quality. Customers are interested in modular construction. However, the budgetary frameworks of public sector customers are very tight.

“Our price to quality ratio has to be better than traditional construction,” says Mikael.

The next challenge is to bring the concept to the international market. Inoroom implements the strategic step that Halton wanted to take. Instead of equipment and services, Halton is selling high-quality indoor air.

Wouldn’t it be great if Finland started exporting an operating theater solution that met all the latest standards? But who could lead such a project?

Eggplants and Marketing

Camille Delcroix sets foie gras balls on sticks in oil to fry. The Halton MobiChef mobile cooking station sucks away the steam and fumes of the cooking, so they don't bother the dozens of invited guests crowding around. Halton has invited them to celebrate the grand opening of a unique display kitchen at the Béthune factory.

The young chef is now one of the best known in France since winning the 2018 season of the popular *Top Chef* France competition two weeks ago. However, today, Marc Meurin, a chef who holds two Michelin stars, bears the main responsibility for the delicious cuisine. Camille Delcroix is working as his assistant.

The power dynamic is clear. Meurin leads the kitchen orchestra. He doesn't shout or gesticulate as he inspects each stage of the work and dispenses instructions. The others listen carefully. The work is done with quiet focus. Delcroix sets mango balls with sour Japanese yuzu juice in small serving dishes as a starter. Soon, the servers bring the guests a succulent red tuna, accompanied by eggplant caviar and a sharper *new wave* sauce.

Absolutely delicious! But why did Halton invest in a million-dollar designer kitchen full of the company's latest kitchen ventilation technology? Of course, it's about marketing, but that's not all. Events like this provide Halton with customer feedback that it can utilize in product development. The company believes in *co-creation*, product development with customers.

Immediately behind the kitchen wall are robust air handling units and air purification equipment. Next to them is a door into the kitchen product R&D center, which measures and verifies the efficacy of Halton's ventilation systems. Marketing, cooking, and R&D are in perfect symbiosis here.

Benoît de Rycker, who is responsible for Foodservice marketing in Europe, adjusts the kitchen ventilation features using a large display panel in the show kitchen. Special camera images show the guests how fumes escape from the hood when the Capture Jet function is turned off.

The kitchen lighting suddenly changes from warm to cold. The meringue desserts, Paris-Brest pastries, and other delicacies begin to look pale. Then the lighting is adjusted back to a warm yellow, and the chefs' creations look delicious once again. Behind the counter, the chefs repeatedly open the large oven where small chicken legs are broiling. The smoke can't be allowed to trouble the party guests, and it doesn't.

Today the space is full of kitchen consultants and developers. All functions and settings can be changed in this show laboratory. The customer understands best what a technology means when they can see, hear, and smell for themselves. The guests listen carefully as the chefs talk to them about commercial kitchens.

CHEFS ARE accustomed to tolerating difficult working environments. Even in high quality restaurants, the staff often work in poor conditions. The message from Halton is that things can be made much better.

In France, top chefs are huge celebrities. Marc Meurin's and Camille Delcroix's cooking is interrupted a few times when guests want to pose for group pictures with the masters.

A celebrity chef acts naturally as a brand ambassador for ventilation equipment. Chefs have enormous power in major restaurants, and they can demand the products they want there—just as surgeons influence the choice of operating room ventilation.

The chatter among the guests quiets suddenly when Marc Meurin speaks. He describes the Halton kitchen as *formidable* and praises it as a place to work. Camille Delcroix is also satisfied when the cooking ends. His clothes don't smell after this shift, and the kitchen was not oppressively hot, both of which are unusual. Delcroix was especially surprised by the power of the Halton MobiChef cooking station. He didn't smell the hot oil at all.

Camille Delcroix may well remember Halton when choosing future solutions for the kitchen in his own restaurant. Before that, however, he wants to learn and improve his skills under a master chef.

How did it feel to win the *Top Chef* competition?

"It was as amazing, incredible. I felt like I had won the World Cup," Delcroix says.

And he already has his sights on his next goal, which really is the world championship for chefs. Next, he hopes to win the title of *Un des Meilleurs Ouvriers de France*, which is awarded in a competition held every four years. Another option is the international *Bocuse d'Or* competition, which is held in Lyon every other year.

Only the best is good enough.

171 Medalists

She has organized the office in an efficient and precise manner. One of her important strengths is that she takes responsibility. She does not have to be asked to do so. She also closely monitors the use of money, as if the money were her own. And one more quality: She always remains calm and in a good mood, which has a positive effect especially in the time-sensitive situations that are common in the office.

This describes Els Bartolomivis, financial assistant in Halton's Belgian subsidiary. The words are from a congratulatory speech given in 2015 by Etienne Poncelet, Els's supervisor at the time, as he presented her with the Halton Medal. He also received this award, but that was back in 2003. These recognitions aren't an everyday occurrence, after all.

In a picture taken at the event, Els smiles, holding flowers and her medal. Around her stand 14 of her coworkers, and Halton's then-CEO, Heikki Rinne. The group celebrated Els's award by visiting the Bokrijk Open Air Museum and having dinner. It was a memorable day.

"The medal was a great surprise, which I appreciated very much. For the first two years, I kept it in my living room," says Els, who started working in Halton in 1995.

The Halton Medal demonstrated how much her colleagues value her and the other recipients. *Scientia Ars Voluntas Acriter Agendo*—knowl-

The owner, Seppo Halttunen, believed that success depended on people's expertise and cooperation, and the new prize was aimed at people who had contributed to Halton's success with exceptional merit.

edge, skill, will, grit, and hard work. These words are engraved on each medal, which was designed by the Finnish artist Osmi Nyström.

The first medals were awarded in 1986 during a period of growth at Halton. The owner, Seppo Halttunen, believed that success depended on people's expertise and cooperation, and the new prize was aimed at people who had contributed to Halton's success with excep-

tional merit. Managers nominate people who have shown diligence, professionalism, and an exceptional ability for cooperation, after which the Halton board makes the final selection.

The very first medals were presented to Juha Elf and Heimo Salonen, who were central to the launch of the Canadian project. Early medal recipients also include Tommy Jernberg, Managing Director of the Swedish subsidiary, product development director Erkki Aalto, Halton's long-time CFO, vice president Erkki Nieminen, and product developer Arvi Tolmunen, along with the company founder, Seppo Halttunen. Some of the medalists also worked in the recycling business, which has since been sold. Once the award was also given to an outsider, Harri J. Heikkilä, the mayor of Iitti.

Halton medalists have had to show their commitment and expertise through years of work. It is noteworthy that the chairman of Halton's board of directors, Mika Halttunen, did not receive the award until 2003. It was a natural moment because he had just stepped down as CEO.

During the past 50 years, one gold-plated Halton Medal has also been awarded. It was presented to long-time CEO Heikki Rinne upon his retirement.

MEDALS, PENANTS, and other public tributes were more common in companies a few decades ago.

Nowadays, many companies have given up on distributing awards and moved to performance bonuses alone, which aren't even always announced to the recipient's colleagues. However, it seems that public recognition is of much greater importance to those who receive it than cash bonuses. A public award is a carefully considered recognition from one's colleagues and superiors.

In 2001, the board awarded three medals. One went to Rob Boosbom, who currently works as the director of the Dutch subsidiary.

"I remember it like it was yesterday. I knew it was something special. And the medal was really recognition for the whole team—this is all teamwork, after all. It was a message that we did something right," Rob says.

The reasons given for the award included Rob's success in leading his unit according to Halton's values and achieving good results. Important themes were teamwork, a motivational atmosphere, ethics, positivity, and customer focus.

"We got some new sales staff. We started to work more as a team and focus on the right customers," he says.

This means that sales were directed less at contractors and engineers and more at property owners and builders.

A TOTAL of 171 Halton Medals have been awarded. In addition to the medal, the award includes a prize of \$3,400 (€3,000). Initially, the principle was that no more than three medals should be distributed in Finland and three in other countries of operation. Halton has grown, however, and so has the number of medals. Since 2000, more than ten medals have been awarded in some years.

The medalists work in many different positions. In 2018, for example, medals went to Tomasz Kilian, Managing Director of the Hungarian subsidiary, Ismo Lunkka, who works in metal cutting in the Lahti factory, Maria Schmid-Dagn, a project manager in Foodservice in Ger-

many, and Toni Suhonen from Lahti, who coordinates galley installation and maintenance.

The award has had a big impact on people, regardless of their specific jobs.

“I was surprised and moved,” says Phil Gibson.

“I was very proud. Gobsnacked, actually. It was made even more impressive that the award was presented by Mika Halttunen, who is a person I respect a lot, as well as Rick Bagwell and Andrey Livchak, who are real heroes around Halton.”

Phil works in the UK as the European R&D director for Foodservice. Previously, he worked as the managing director of Vent Master, and in 2019 he will complete a whopping 54 years in the industry. At Halton, he has overseen the adoption of ultraviolet emissions control technology, built a new service unit in Rochester, England, and helped launch Halton’s business in the Middle East. The reasons for his award mention Phil’s great contribution to the entire field.

Another recipient who, like Phil, was surprised and moved by the award, was Petri Tuominen, who works in the Lahti factory assembly shop and as an occupational safety officer.

“It’s such a great thing to be honored with an award like this. It encourages the award winner and increases everyone’s motivation, because it shows that everyone should always do their best,” Petri says.

Throughout his career, Petri has always been happy to take on occupational safety tasks and last-minute assignments abroad. Challenging jobs are always interesting.

RECIPIENTS OF the Halton Medal often have a long career behind them, but the company also seeks to reward new employees. So, since 1988, Halton has also awarded the Halton Certificate of Merit, also known as the Halton Diploma. The award is worth \$1700 (€1,500), and is presented in recognition of exceptional performance, such as the successful completion of an important project.

The company’s executive board makes the determination for this

award. For nearly ten years there was a hiatus in their presentation, but then the tradition was revived in 2003. Diplomas have usually been distributed to teams, so in recent years winners have made up a rather large group, up to twenty each year. In 2016, several employees from the Hungarian unit received the award: Anikó Geri, Tamás Klettner, Mónika Laurenczy, Melinda Szokolczi, László Bejczy-Kovács, and Andrea Veres.

The justification for their award was an SAP project carried out in Hungary, which required many employees to work long hours.

“I received the award for the adoption of SAP in our financial system. There wasn’t a lot of time to implement it,” says Mónica, the head accountant for Halton’s Hungarian subsidiary.

“I was in shock. It was a very unexpected recognition from my superiors in front of all of my colleagues.”

Finance coordinator Mervi Korhonen, who handles accounts receivable in Lahti, received the Halton Diploma in 2014.

“It warmed my heart. The work I’d done had been noticed. And the award event was great. Receiving the Halton Diploma is a sign that people care about us as employees,” Mervi says.

She particularly remembers Mika Halttunen’s statement that the company wouldn’t exist without good employees.

“You can be pretty open here. You can be honest on the job, and you can tell your managers what you think. And that goes both ways.”

LIKE MANY other organizations, Halton also recognizes employees for the number of years they have dedicated to the company. In Finland, Halton employees receive a certificate from the Central Chamber of Commerce of Finland for round number years of service. After the tenth

“You can be pretty open here. You can be honest on the job, and you can tell your managers what you think. And that goes both ways.”

year, the employee is sent on a cruise to Sweden. When they finish 20 years, they go with a group of coworkers to tour the Halton factories in France. And when they get up to 30 years, they can head to America or Malaysia, which of course also includes a tour of the local Halton unit.

Auvo Vepsä, a machine operator at the Kausala factory, will never forget his visit to Scottsville, USA.

Very well he also remembers one shorter trip, a walk to a mailbox in 2015. He went to his mailbox as usual and found that the mail carrier had brought a letter with the company's logo on the front. As Auvo walked inside to open the letter, many thoughts raced through his mind. At the time, Halton was negotiating a potential downsizing. They wouldn't deliver that kind of bad news in a letter, would they?

Certainly not. Instead, the letter included a surprise invitation to receive the Halton Medal at the awards ceremony arranged annually at the Kausala factory.

"I can't really describe in words what the Halton Medal means. It's a recognition of the work a person has done and a long career," Auvo says.

From his bookshelf, he quickly retrieves the document with the board's reasons for giving him the award.

Auvo Vepsä has been an integral part of Halton's growth and prosperity for 30 years. ... Auvo's specialty is the unbiased adoption of mechanical production solutions. In his calm but efficient style, he has set a good example for how to achieve goals. Auvo has also selflessly assisted other Halton employees to succeed in their work.

Auvo Vepsä retires in spring 2019. He has been at this 50-year-old company for 43 years. Auvo is the person who knows many of the machines in the Kausala factory best. On the eve of his retirement, he is trying to pass on the quirks and finer points of adjusting each machine to his coworkers, who are sure to include some future medal winners.

IN ADDITION to medals and diplomas, there is also a third prize at Halton, the Presidential Award. These awards are presented for good performance and achievements as a member of a team.

Among recent recipients of this award is Pawel Ryszewski from Poland. He received the prize in 2018 for achieving exceptional sales numbers in the Buildings business area.

"We received a lot of good orders. We were able to move to more challenging products, and I like to believe that I contributed to that," Pawel says.

According to Pawel, one of the factors behind those good numbers was closer cooperation with customers.

"One thing I've changed is that we work more closely with technical experts in the planning stage now."

Halton's awards include a principle of global equality: The prize money is always the same number of euros, which are then converted into the appropriate local currency. In some countries, this means higher purchasing power, in others lower. Many award winners say they have used the money for home furnishings, on their families, or for a vacation. The money can be used for fulfilling any small dream the employee may have.

Pawel Ryszewski says he used his \$860 (€750) of prize money in an exceptional way: for charity.

He donated the money to buy one of the windows for the new church for his congregation in Zabk, near Warsaw. His award, earned through hard work, will leave a permanent mark on his community. Pawel paid it forward.

Modesty HQ

If only you knew how small the group is that leads Halton. It doesn't take long to list the human resources at the headquarters in Helsinki.

The group leadership consists of three people: the CEO, the chairman of the board, and the executive assistant. Finance has two people. Development and strategy has one. Communications has one. Guest reception has one. Of course, handling global IT issues is much more complicated. That's why there is a grand total of three professionals who work on that.

And that's it. The entire headquarters staff fits comfortably in a modest office on the fifth floor of a standard office building. The materials and furnishings used in the office are understated. However, attentive guests may note the perfectly clean walls and floors, and the remarkably fresh air.

The same floor of the building also houses some of the leadership of Buildings, as well as the Finland sales staff. The other floors of the building house other companies, and downstairs is an Asian restaurant.

"I doubt the headquarters of a global company could be much smaller," says the executive assistant, Anne Koskela-Marie, with a laugh.

Life at Halton's headquarters is quite peaceful. They hold meetings, host European and Asian guests, meet with consultants, bankers, auditors, and lawyers, and arrange events for engineering students. Now

and then they sit down for coffee and sweet rolls together, and sometimes—when there's a really good reason—they pop open a bottle of champagne.

Anne Koskela-Marie has previously worked for several large Finnish companies, such as Glaston, a glass machine manufacturer, Hartwall, and Volvo Auto. She is one of the Halton employees who makes things happen. The executive assistant has both official and unofficial power, which she uses for the benefit of the company and the people who work in it.

Her official duties include organizing the executive leadership's time. Anne organizes meetings, gathers fragmented issues into larger portfolios, and ensures that as many things as possible go smoothly between headquarters and the foreign subsidiaries. If she has to push or cajole a little, she tries to do it in such a way that everyone involved understands why and can accept the nudging without feeling railroaded.

The executive assistant's informal duties include encouraging, explaining, double-checking, building bridges, and taking care of other people's worries.

"I act as a listener and a message bearer when needed," Anne says. "It would be great to be telepathic, but anticipation is helpful, too. There are situations in every company where following the official hierarchy is not the best solution. For example, if I see that one of our people has too much work, I can communicate that forward."

Anne's phone is on 24/7. If the CEO or the chairman of the board calls after hours, Anne always answers. She can trust that her superiors won't call for no reason. If someone else calls, she may take a moment to consider whether it's an emergency or a "pocket-dial."

Anne says that good group spirit can help sort out most things. According to her, colleagues at Halton encourage each other, and receive help when they ask for it. Friends say thank you. Messages receive responses. Decisions are made quickly.

"I just make a decision. People will tell me if it doesn't work for them. If someone disagrees, then we'll talk!"

Why Zero is a Good Goal

Four million trees is a lot of forest. And a lot of carbon dioxide is also bound up in trees. That's how much energy and resulting carbon dioxide emissions Halton estimates the hoods it manufactured in 2017 saved.

Energy saving has been at the heart of Halton's products for a long time. The energy savings of the company's products that are already out in the world are many times higher than in the example.

However, last year Halton began tracking the effects of its activities on the environment, on stakeholders, and on society even more carefully. This year, Halton will publish its first corporate social responsibility report.

To ramp up for this, the company began collecting data in 2017. These numbers show, for example, that Halton's factories produced 2,064 tons of waste, 90 percent of which was recycled or reused. That's a good start.

HOWEVER, THERE is one big "but." The first time you create a report like this, not everything will be perfect. So, the numbers are still miss-

ing data about waste from the factory in China. And the Malaysian factory didn't provide figures for reuse and recycling.

Information about pay equality is only available for Finland. It reveals that in some jobs, men receive a few percent more in compensation, while in others women earn more. The situation seems good, but more information is needed.

"Waste hasn't been weighed everywhere, and not all markets have the same recycling opportunities," says Hannu Hallila, who compiled the report with Communications Manager Susanna Hovi-Skrifvars.

At the beginning of 2019, Hannu started a new job as Halton's director of corporate responsibility.

Halton isn't compelled to produce this report, because corporate social responsibility reporting is only required in Finland for publicly traded companies. The real impetus behind the report is Halton's new strategy, which increases the importance of corporate responsibility.

"Through corporate responsibility, we can make our operations better for the environment and society. And corporate responsibility is also becoming a more important requirement for customers," Hannu says.

Creating the report was a big effort for the Halton Group's limited administrative team. Hundreds of hours of work went into it at headquarters alone. However, improving the business is always easier with good information about the current state of things.

"If you don't measure things, you can't direct them. We show customers that we want to be a responsible business and do things right. At the same time, we're also showing our staff and the outside world what kind of a company we're working at," Hannu says.

ENVIRONMENTAL RESPONSIBILITY is not a new thing for Halton. Responsible, sustainable operations have been in the DNA of this family company since the days of Seppo Halttunen. But now is the time to take it a step farther. In addition to environmental benefits, Halton expects to benefit its image and ultimately its business.

“We can still gain a competitive edge from sustainable development, but how? Human well-being is still the number one thing for us, but producing a good indoor climate while staying carbon-neutral would be sweet.”

“We have to anticipate the future and see environmental responsibility as an opportunity. There will continue to be buildings, but their ventilation systems will have to be zero emission,” says Tarja Takki, vice chair of Halton’s board of directors.

In the past, Halton has gained a competitive edge from the low energy consumption of its products. For example, the LEED environmental certification for buildings awards extra points for using Halton solutions. However, Tarja

Takki believes that the competitive advantage available from achieving energy savings in products is diminishing. Halton has to go farther.

“We can still gain a competitive edge from sustainable development, but how? Human well-being is still the number one thing for us, but producing a good indoor climate while staying carbon-neutral would be sweet,” says Tarja.

So, there shouldn’t be any compromise in indoor air quality, but ventilation must also be produced more cleanly. One possibility that Halton has considered over the years is expanding their solutions into clean energy production in buildings.

Halton now also needs to consider how the company could become carbon-neutral in its own production. The new report offers information on this topic, such as by listing the energy sources used by each factory. The German factory uses completely emission-free hydroelectric power from the Alps. In France, nuclear power plays a major role.

“I’m particularly interested in the circular economy now. Another interesting question for Halton is how we could improve the utilization rate of our facilities,” Tarja says.

A company with operations the size of Halton’s also has an impact through its purchases. In 2017, the company began to rate suppliers based on social and environmental criteria. Suppliers who comply with ISO 14001 environmental standards receive priority. At the same time, Halton began to identify subcontractors who may represent risks.

The reporting provides information on how much salespeople are driving, which affects the fuel consumption of their work. Should they maybe be driving electric cars or using biofuels? What kind of charity does Halton do around the world? How is the company contributing to communities?

The more information that is accumulated, the better Halton will be able to set new goals to improve its activities.

“We can’t toot our horns yet about everything we do. But we’ve also never been careless,” says Hannu Hallila.

Yes, We Can

It's already well into the January day, but the sun has barely managed to rise enough to light the streets of Helsinki. An international team of 22 key executives from Halton's business areas has gathered in a hotel conference room in the city center. From the board of directors, chair Mika Halttunen and recently appointed vice chair Tarja Takki are in attendance.

Everyone is on time, including the Americans who took the risk of booking a same-day flight. CEO Kai Konola rises and raises his voice.

"Good afternoon! Welcome to Helsinki, travelers. A city that offered 16 hours of light last month. Thank you for bringing us a little sun," Kai says.

Thus begins a laborious half-year strategy definition process for the Halton leadership, which is intended to carry the company all the way to 2025. Four consultants from Talent Vectia are also present to guide and spar with the Halton team in their strategic planning.

After the CEO, the chairman of the board takes a turn. Mika tries to rouse enthusiasm in the conference room:

"My long-term experience is that planning for the future is one of the most fun things we do. It all starts with vision and enthusiasm. If we believe *yes, we can*, then we will be able to create the future. It's all open to us."

Of course, after the planning comes implementation.

"That's Kai's responsibility," Mika says to laughs from the group.

Everyone in the room knows that soon they'll also have to define their own goals for the coming years. In this strategic planning exercise, fine tuning won't be enough—the bar has been raised too high for that.

"The board of directors has set us a goal of more than doubling the company's turnover. Now we need to identify the opportunities in our businesses to get us there," Kai says.

A projector displays the process on the wall. The first step is to evaluate and select new sources of growth, and to explore existing business areas. The evaluation should result in a portfolio that can generate a turnover of \$573 million (€500 million) in 2025.

Then they develop strategic growth plans for the selected areas.

Halton's existing business structure is ten years old and may also change as a result of the new strategy.

"First we consider goals and strategy. Then we discuss what the right structure will be," Kai says.

AT THE beginning of the meeting, Mika Halttunen takes the audience back to the early days of Halton. He reminds them that many of their core ideas still come from the principles that Seppo planted in the organization and its culture.

Seppo stressed that everything should start with the customer and customer service. Without the customer, there is no business. The customer must also be front and center in this strategy development process. They have to remember the importance of inspiring people, of giving responsibility, of motivation and learning.

According to Mika, Seppo also emphasized focus. Halton operates in niche areas. The units work independently but in cooperation.

"A decentralized organization, responsibility rather than hierarchy, and trust in people," Mika says, listing more of Halton's core operating principles.

On the projector screen, Mika displays a depiction of Halton's operations in terms of an added value ladder. Initially, the company was a component supplier, and it still is to some extent. However, they have advanced beyond components to systems and solutions. In the end, the company wants to deliver integrated solutions and offer experiences.

Halttunen says that the point is not whether the target is \$600 million or \$527 million. Those are just numbers.

"The point is that we want to explore opportunities and look for ways to grow much larger. We want to see our challenges with new eyes. We've never been as strong financially as we are now," Halttunen says.

Halton's turnover is higher than ever. The last time the group's equity ratio was this high was before the 2008 financial crisis. Parts of the group are growing rapidly, and the market shows a lot of potential.

A strong balance sheet means that Halton can also implement its strategy through investments or acquisitions. But above all, this is about a way of thinking.

"I like stretching goals because they force me to think differently. If you have an idea for growth, test it with the customer as soon as possible. Because I'd really prefer to hear an outside opinion. If you can bring the customer onboard, that speeds up the idea generation process," Tarja Takki says.

THE PURPOSE of the day is to crystallize ideas into new growth opportunities for each segment.

So, they get down to work.

The group is now divided into tables by business areas and assigned to evaluate the opportunities for growth in their strategic business area (SBA). Based on their discussion, each group develops a shared view about what the SBA's turnover could be in 2025 and what will make that growth possible.

After the conversation, yellow sticky notes begin to appear on the wall. Two hundred million euros for Buildings, 300 million for Foodservice, 120 million for Marine. Then an additional 100 million appears in

the Blue Ocean column. The concept comes from the book *Blue Ocean Strategy* by W. Chan Kim and Renee Mouborgne. In a blue ocean strategy, the idea is to get as much distance as possible from the cutthroat competition that is turning the ocean red.

The lower columns are filled with growth facilitators. In the Buildings unit, these include megatrends like the increase in the health industry and end results like selling good indoor air to customers. Under Foodservice they place market growth and expansion into new markets. In Marine, opportunities come from new technology and acquisitions.

There is a lot of group work on the schedule, but today is just the beginning. Over the coming months, the new opportunities for growth they identify will be developed into business cases. After a portfolio analysis, development of the strategic plans will come. The board of directors will then make the final decision about how to invest in each opportunity.

Portfolio analysis may sound dry, but the conversation at the tables is not. Unconventional ideas about how Halton might expand fly every which way.

If Marine can sell products for ships, could it also sell them for trains? Rail transport investments in Asia are huge. And what about the food industry or wind turbines? They need ventilation, too.

Heikki Hiltunen, CEO of iLoq, a company that makes electronic lock solutions, has been invited as a guest speaker. He talks about iLoq and the rapid growth and strategic choices made at his previous workplace, Vacon, a manufacturer of AC drives. Halton's CEO has experience with

If Marine can sell products for ships, could it also sell them for trains? Rail transport investments in Asia are huge. And what about the food industry or wind turbines? They need ventilation, too.

even faster paces and larger scales. Kai Konola saw the growth of Nokia mobile phone networks from the inside.

“It was a rapidly changing environment. In that situation, you can’t chase every opportunity for growth. It’s critical to find the right people to help you scale the business and succeed,” Kai says.

Halton’s executive workshops and discussion in Helsinki last two days. This work is just the beginning, though. Next will come a flurry of Skype meetings and face-to-face conferences. Each leader will have to find the means for extracting increased growth from their own business. How will that be possible?

THE SAME familiar faces fly to Helsinki again in March. This time, they gather in a conference room at an airport hotel. Strategic planning has reached the halfway point.

“Sixty-eight days have passed since our launch meeting,” says Kai Konola.

“I counted, and that’s 1,632 hours. Time is flying. I know it’s out of the ordinary to do so much in addition to your normal work. A big thanks to all of you, but we aren’t quite done yet.”

The aim of the meeting is for the business units to finalize suggestions for how they can grow in their current businesses and suggestions for new areas of growth. The projector screen shows the growth targets each business unit has chosen. Next to them are selected market megatrends and the actions that will make the goals possible.

“These are the things we’re shooting for. After this meeting, we’ll take a closer look at means for achieving those ends,” Kai says.

Offerings could be expanded beyond ventilation.

“It’s a big deal if we say that *enabling well-being* is more than air.”

This is a big conceptual change. On the kitchen side, the company has already incorporated lighting into its hoods that enhances the attractiveness of food. Next, they can introduce lighting to offices that enhances well-being. Halton has started cooperation with a Finnish startup company named Light Cognitive on just that topic.

Consultants from Talent Vectia interview each business unit leader in front of the gathering. For weeks, the groups have been holding weekly meetings, either in person or over Skype, which isn’t always easy for people living on different continents.

What is the general feeling in the group?

“There was some talk in the beginning that this would be a lighter version of strategic planning. I’ve done these exercises before, and I’m sorry, but this doesn’t feel any lighter than before,” says Tommi Rantanen, who has just begun as head of the indoor air business.

“It’s challenging to do strategy and our day-to-day work at the same time. We have to keep up people’s motivation.”

The Marine folks have managed to outline their ideas for changing their operating environment with clients, too.

“This has been hard work, of course, on top of everything else. But people have told some good jokes, and the atmosphere has been good. It’s been motivating,” says Sami Piirainen, director of SBA Halton Marine.

Sami is happy to report that the opportunities from growth in Marine may be larger than initially estimated.

A guest speaker has also been invited to this meeting. This time it’s Aaro Cantell, owner of Normet, a mining machinery manufacturer, who has spurred strong growth in his company. To top off the day, a relaxing evening program has been planned: a visit to a nearby aviation museum and, of course, dinner.

THE NEXT day is spent in mixed groups from the different units in a “learning café” seminar, where they can present their portfolios to the other teams and receive comments.

Large sheets of paper full of graphical presentations and numbers are hung on the walls of the conference rooms. One interesting figure illustrates how much you need to invest in a new opportunity to yield a certain amount of new business.

The next big step is the development of draft strategic plans, which

are supposed to be complete by the end of May. So, there is still a final sprint ahead.

“Thank you so, so much. It’s painful to move toward clarity on such big issues. But as you know, no pain no gain,” says Kai Konola at the end of the second day.

Kai then announces that the kickoff event for the new strategy will be in September in France.

“We’ll gather 70 colleagues, important team members. We’ll develop the ideas even more. The goal is that everyone understands what this strategy means for them. We’re investing in a global team,” Kai says.

“And the most important thing: next week there are no Skype meetings. Take a vacation,” says the consultant from Talent Vectia, Kati Järvi. “Can I see some smiles?”

Once again, it’s time to travel home. Some have hundreds, others thousands of miles to travel.

THE GRASS grows green in northern France in late May. The breakfast table at the hotel in Béthune is full of baguettes, croissants, and marmalade. Once again, Halton leaders from all over the world gather around a table. First there’s small talk, and then the conversation turns to the strategy or, really, how to implement it.

“I’ve been spending my weekends on this,” admits Gunalan Ganesan.

“You too?” asks Anu Saxén.

“The Skype meetings are at a difficult time for me, so I join from home. The kids always wonder why Dad is talking to the computer,” Gunalan says.

Gunalan, or Guna, as everyone calls him, directs Halton’s business in Malaysia. Anu leads the Buildings unit.

The clock is ticking, so breakfast has to be finished quickly. The shut-

tle bus will be leaving the hotel parking lot soon for the Béthune factory, where the strategic planning will continue.

At the beginning of the meeting, Kai Konola asks Gunalan to relate a story about how a deal he thought had been lost was won back by Halton. After the story ends and everyone applauds, they get down to work.

“Today, imagination meets numbers,” Kai says.

The aim is to go through the data behind the business unit targets more carefully. What numbers will achieve the growth targets they’ve set? How profitable will the growth be? What kind of investments will be needed? Which investments are most effective for bringing growth?

For example, the growth potential of the Foodservice business has been assessed separately for each customer segment and service. There are some interesting areas for growth, but in many of them the margins are tight.

“We need to provide the customer with a better solution, better return on investment, and more energy savings. Then we can get better margins. If we’re just one supplier among many, there’s no sense in being in the business,” says Georges Gaspar.

The Marine unit expects growth on land, for example in the industrial sector.

“The good thing about servicing those kinds of installations is that they don’t move around like ships,” says Sami Piirainen, the new head of the unit.

In many business areas, the direction is toward larger deliveries.

“We need to use the skills of our personnel more efficiently. Could we use our service staff from the kitchen side on ships?” Sami asks.

There are also acquisitions in the plan. There have been attractive targets under consideration, but so far, they haven’t panned out due to the prices. The upswing in the economy is making acquisitions difficult. The targets have to be companies that Halton will be able to expand significantly after the acquisition. Two plus two has to equal five.

Buildings has made progress in integrated solutions, for example in cleanroom solutions for hospitals. Strong growth is expected from the

“It’s painful to move toward clarity on such big issues. But as you know, no pain no gain.”

Health segment, for example from operating room solutions, in the coming years.

Many units have fears that fixed costs will rise too high. They have to figure out how to grow while simultaneously putting the brakes on fixed costs. That's a big challenge.

"Have we thought about how digitalization across segments could improve margins?" asks Rick Bagwell, President of Foodservice Halton Americas.

They'll be thinking about it soon. Digitalization is one of the topics on the agenda.

"We have to make choices. For the next few minutes, I want you to think in terms of the group as a whole. What could be an investment that 80% of the business areas see as their own?" Kai Konola asks.

Then the gathered group of unit directors engages in a rigorous and critical discussion of the level of Halton's current digital expertise and where it needs to be. No one needs to pretty anything up here.

"What expertise do we have in the company, and what are we outsourcing? We need to own our important intangible digital assets, so we don't end up in a situation where vital expertise suddenly ends up being owned by some software company instead of us," says Niina Keskinen, Supply Chain Director for the Buildings unit.

There are many opportunities, but first you need to master basics like data management.

"We've been talking about moving toward selling an end result. That means it's critical that we can collect data and have access to it," says Anu Saxén.

AT THE Béthune meeting, a concrete decision about digitalization is made. The company needs someone to take a hard look at the digital expertise and projects in Halton's different units from the perspective of the group. What know-how already exists, how can skills be shared across the corporate group, and what does the group need more of?

They need a digital evangelist. Andrey Livchak, Director of Global R&D, is assigned the task.

Halton's real opportunities gradually come into focus. The numbers make the visions more concrete.

"Looks good," says Kai Konola.

"Tomorrow morning we'll sit down with the executive team and consider our final proposal for the board's June meeting."

Expanding the company will also mean a rapid increase in the number of employees.

"In 2022, we will be a winning team 2,200 strong. Foodservice alone will have 1,500 employees if everything goes well. We're going to need a lot of new knowledge, so people will need training."

And truly, this is about people, not just numbers. A great strategy isn't useful unless the entire company is on board. One important thing hasn't been addressed yet, though, namely the implementation of the strategy. Ideas that are floated include strategy coffee breaks or informal discussions over beer, to give people a relaxed atmosphere to talk about the strategy and come up with ideas.

"We've already started monthly information sessions for production employees, where we tell them little parts of the strategy," says Sami Piirainen from Marine.

According to him, Marine is also planning a seminar on the new strategic plan. Implementing the strategy will also be part of management training, meaning that supervisors who have been trained will spread the word to teams and individuals. That will be followed by personal conversations.

"What does this mean for me? That's the question that will open the way for personal development, so people can see that they can grow along with the company. For example, what kinds of opportunities can something like the Internet of Things open up for employees?" Sami says.

Marine has invented a great name for its training: BOSS, for *building outstanding supervisory skills*.

“We’ve licensed it for the Marine unit, but you can use it for a small fee,” he jokes.

The Halton strategic plan also needs a good name.

“Now its name is Strategy 2025. I’m sure we can come up with something better,” Kai Konola says, at which someone immediately pipes up. It’s Gunalan Ganesan.

“Mission 500,” he suggests, referring to the goal of €500 million in revenue.

“Mission 500, I like it,” says Rick Bagwell.

At the end of the meeting, Kai Konola plays Halton’s new advertising video, which shows off some of the most impressive projects the company has completed. Images of the Eiffel Tower, the Sydney Opera House, Cape Kennedy, luxury cruise liners, and hospitals flash on the screen. So much has already been achieved. And Mission 500 is possible, too.

Next comes the time for the board to make its decisions. It has the final word about Halton’s new strategy.

#communityrelations #corporateculture #thegoodlife
#entertainment #arrapaaorchestra

Rocking the Company

It’s a Monday evening, June 2018, in Helsinki, the capital of Finland. Happy chatter fills the spacious banquet hall of the historic Presidentti Hotel. Guests from all over the world enjoy slow-roasted pork and Arctic charr as they converse. Some of the guests wonder aloud whether the sun ever goes down in Finland in the summer. Outside it’s so bright you can easily see to read.

In the center of the hall is a short platform with a bunch of different instruments crammed onto it. Onto the stage steps a man with a black wide-brimmed hat, dark glasses, red shoes, and a red guitar under his arm.

The man looks at his audience with a modest intensity. He knows that entertaining the guests is more important than capturing their undivided attention. If the visitors are in the middle of a conversation, they need to be able to finish it. These people, who have traveled here for the Roomvent & Ventilation Conference, are among the most influen-

tial players in the global ventilation industry. Halton is one of the main sponsors of the conference.

“Thanks for coming! And thanks for giving us the opportunity to play for you. When Professor Olli Seppänen organized this same gala dinner here in Helsinki in 2000, he asked me if I still had ‘that band of mine.’

‘Yeah, of course. We can come play. We just have to arrange it,’ I said.

‘OK, good deal. But we can’t pay you anything,’ he said.

‘OK. That’s fine. We’ll be there,’ I replied.

The same thing happened tonight. We hope you like the music!”

This isn’t a new thing for Mika Halttunen. The chairman of the board of Halton has appeared with his band in Dubai, Orlando, São Paulo, Shanghai, Singapore, Tokyo, and Reit im Winkl in Germany. Music is a great source of strength and inspiration for Mika. It creates a special bond between him and the musicians who play with him, all of whom are from the area around Kausala.

Talk less. Play more. That’s the spirit of the evening. Give it everything you’ve got. Let’s see if we can get them dancing.

**Talk less. Play more.
That’s the spirit of
the evening. Give it
everything you’ve got.**

MIKA HALTTUNEN was born in 1960. When he was a little boy, he adored a Finnish children’s music group named Saukki and the Little Squirrels, a local copy of Alvin & Chipmunks from America. In the Little Squirrels’ most popular song, they sang, *Yeah, yeah, yeah, we’ve got a rock band and we’re the biggest hit around.*

Then came Uriah Heep, Creedence Clearwater Revival, Slade, the Electric Light Orchestra, and Bruce Springsteen. The boy grew into a young man, and the man grew long hair.

Mika received his first guitar as a gift from his father. Seppo brought it for him from the Soviet Union, as a souvenir from a business trip. Mika played his first show in 1975 with his brother Juha and some friends.

When the Halttunen boys were in high school, they played their first paid gig.

A high-energy stage show was at least as important a component of a concert as the music itself back then.

Mika and his friends jumped and ran around the stage, and smashed Mika’s Soviet guitar at the climax of one set as dramatically as The Who ever destroyed their instruments. In Kausala, the boys were usually treated as heroes, but in the nearby Kuusankoski, the atmosphere was sometimes one of suspicion or even hostility. Those were days when competing males from neighboring villages were quick to turn to their fists to settle disputes, especially after liberally imbibing alcohol.

Seppo was a big supporter of Mika’s and Juha’s music hobby. The busy entrepreneur drove the brothers to Lahti for guitar lessons, and a drum set joined the guitars in the family home, although at their mother’s request it was screwed to the floor in the boiler room.

Seppo himself was a traditionalist who preferred short hair, and he would tease his long-haired sons.

“When you go out, just to be safe put a note on your back that says you don’t have breasts!”

The brothers’ band continued playing into the 1980s, and in 1984 they issued their first single under their own label. The band’s name was Roxette. Mika tried to get Roxette on the radio stations’ playlists, visited record companies, and got to know many of the big names of Finnish rock music, like Pedro Hietanen, who had just started as the director of EMI’s Finnish subsidiary.

The pinnacle of Roxette’s success was one play on *Levyraati*, which was the most popular music program on the TV at the time in Finland. The competition was tough, and Roxette received the second lowest score from the judges that evening.

Mika realized that music wasn’t the career for him. Work in the family business had a stronger draw on him. A couple of years later, Mika’s eyebrows rose as he saw a Swedish band named Roxette rise to international success with Per Gessle and Marie Fredriksson headlining. Their re-

cord label was EMI just like Mika's. Was the name a coincidence? Maybe, maybe not.

Mika's relationship with music has remained very passionate.

The family teases him for always having to play music in the background. But music is so powerful. It stirs emotions and calms troubled minds. It can make your knees weak or strengthen a weary back. It can fill your eyes with tears or fill your heart with joy. That's why Mika plays whenever he can. Music has also been harnessed to support Halton marketing, resulting in such lesser-known crazes as Capture Jet Man, who defeats Stainless Steel Box Boy with his traditional ventilation technology in a piece written and composed by Mika. The song's words woke Mika up in the middle of the night on a business trip to Malaysia and wouldn't leave him alone until he wrote them down. That's how legends are born.

Not everyone recognizes Mika Halttunen when he's on stage, but that doesn't bother him. On the contrary, the stories make him smile.

"Who is that singer?"

"That's Halttunen, the chairman."

"Oh, really? Can't be our chairman."

MIKA R. Halttunen's singing voice is higher than you might guess from his speaking voice. The audience enjoying the show at the Presidentti Hotel finds that it's an excellent fit for songs by John Fogerty, Joe Cocker, ZZ Top, Bryan Adams, and Eric Clapton.

Half an hour has passed since the start of the show. The singer and the crowd dancing in front of the stage are so hot that the hotel's ventilation system gives up. Someone manages to open the large windows, though. They are ventilation experts, after all.

"Bad Moon Rising." Mika talks about how well the words to this song fit this day and age. It's almost like Fogerty was singing about climate change, isn't it?

One hour in: The artist goes down on his knees, arches his back, and grimaces, either from pain or pleasure, or perhaps both. The crush in

front of the stage grows so large that people start shifting tables out of the way.

An hour and a half in:

"Summer of 69... That summer seemed to last forever... Those were the best days of my life."

Fifty years have passed since the summer of 1969. The United States sent Apollo 11 to the moon, and Halton built its first production plant in Kausala. But Bryan Adams wasn't singing about that, he was singing about sex, free love, and a new cultural revolution.

"Sultans of Swing." The band's guitarist, Harri R. Sakki, launches into a guitar solo that holds up incredibly well compared to the original. Drummer Ismo R. Kivinen, bassist Immo R. Turunen, and keyboardist Petri R. Haapio handle their parts just as well as Dire Straits, too. No one in the audience has any idea that the drummer is in a bit of a fog since he's running a high fever—the show must go on, after all.

Then the set is done—until the audience demands that the leading ventilation industry rock band play one last song to round out such a pleasant evening.

"Rockin' all over the world! And I like it, I like it, I like it, I like it. I li-li-like it, li-li-like. Here we go, rockin' all over the world!"

So, What Next?

What makes a person stop and think? What kind of thinking leads to action and what to resistance? How are values structured?

“Philosophy is the foundation of everything,” says 27-year-old Krista Halttunen, the latest owner and board member of Halton.

Krista’s parents have transferred ten percent of the company’s shares to her as the oldest child in the family. The first phase of another generational succession has been completed. Through her ownership and board work, Krista is getting a feel for the day-to-day life of an entrepreneur and will then decide if this is her thing. The same fate probably awaits her younger brothers, Alekski and Joel, but before then the parents still have time for many good conversations with the boys.

Krista has successfully completed a demanding course at the University of Oxford in theoretical physics and philosophy, and completed the first job of her career with the Boston Consulting Group. Two years as a strategy consultant meant a huge amount of work in an action-oriented corporate culture, great experiences, and encounters the value of which is incalculable. Not every young woman has held discussions with factory managers about how to improve operations at their plant.

But Krista wanted something more and different. She decided to go back to school, quit her job, and started a course in environmental technology and energy policy at Imperial College London, with the goal of another master’s degree. At the same time, Krista is also studying Halton, something that shouldn’t have had anything to do with her. She was supposed to do something else.

KRISTA WAS a very shy child. She enjoyed spending her time with books and a few friends. At school she had perfect grades, succeeding in subjects as diverse as languages and math.

The Halttunen family lived in an elegant and spacious apartment on the bay in Helsinki’s Munkkiniemi, but otherwise Krista, Alekski, and Joel’s lives were similar to that of their other peers. Mika Halttunen and Tarja Takki raised their children in an atmosphere that emphasized modesty. Another important family value was freedom, and a third was trust. The children were given very little money, but there were no curfews. If someone didn’t want to clean their own room, they didn’t have to. Mom would just close the door. Out of sight, out of mind.

“I realized really late what my parents do,” Krista says. “Of course, I knew that they did a lot of work. They talked a lot about it, and sometimes they were stressed. I just thought it was normal for parents to talk about work at home. But they didn’t want to call attention to the fact that they owned a big company. I didn’t really realize that until later.”

Krista didn’t talk to her classmates about Halton, even once she’d figured out what it was.

“I thought it was probably better not to talk about it. I was maybe even a little embarrassed. At least I didn’t want to make a big deal about it. If someone asked me what my parents did, I said they were engineers.”

Halton is not Facebook, Google, or Nokia. Still, the scale of Halton shocked Krista. The company sells more than \$230 million (€200 million) in products and services every year, solves thousands of customer problems in 30 countries, and provides jobs for more than 1,500 people.

“Halton is a way of life for my parents. They turn their visions into reality through the company. They prefer enjoying the independence of being entrepreneurs to being a small part in someone else’s system.”

According to Krista, her parents’ ownership policy can be summed up in one word: responsibility. Mika Halttunen and Tarja Takki think that they have a responsibility to their employees and to the founder of the company, Seppo Halttunen, to keep Halton healthy.

“They think that the company’s money belongs primarily to the business, not to the owners. The money produced by the company should be invested in the company. They think it’s immoral to take so much money out of a company that the company suffers. And I agree.”

KRISTA HALTTUNEN’S development into a third-generation entrepreneur has been a slow and perhaps extraordinary process. When she was a teenager, she didn’t think she needed to do what her parents did. However, Mika and Tarja were patient. When Krista was 19 years old, Mika managed to lure her to a Family Business Association cookout that was full of next-generation family business entrepreneurs.

“It was the first time I heard people my own age talking openly about entrepreneurship. I hadn’t met anyone like them before. I realized that a lot of them lived completely different lives from me. I realized that this whole other world existed. That this was another way to live.”

Mika Halttunen brought up the approaching generational change at Halton when Krista graduated from Oxford. The principle is simple: It’s best to transfer the parents’ shares to the next generation in a controlled and long-term manner so that the company and its young owners don’t get hit with excessive taxes.

Mika started talking about the position opening up on the board when Krista was working as a strategic consultant.

“Dad said I should join the board because it would be a good side venture,” Krista says. “I talked to him a lot and gradually understood the value of the opportunity he was offering. I would have been crazy not to jump at it. I told myself that I could get to know Halton better, but that

it still wouldn’t lock me into anything in the future.”

Krista has met a lot of people who work for Halton. She says that the openness and authenticity of the staff have made an impression on her. The company’s values inspire confidence, and it works with interesting things. The products and services developed by Halton improve the quality of the air in buildings, ensure their safety, and improve energy efficiency.

“I’m proud of the company and its story. My grandfather, who only spoke Finnish in the beginning, built an international company that has remained faithful to its core values. Halton has its feet on the ground and a persistent attitude. The company has attracted good people and encouraged them in the right way.”

The longevity, sustainability, and flexibility of the family business inspire Krista. Halton doesn’t have the problem of being forced to place the well-being of its owners over the well-being of its customers or staff.

“I mean the situation where a company has to keep its market value as high as possible during every quarter. A company in Halton’s situation may have to make important investments that will take years to return a profit but are still worth it.”

KRISTA HALTTUNEN has now attended a number of Halton board meetings. At the first one, she didn’t say a word. At the second session, she finally opened her mouth.

“I try to ask questions instead of haranguing the other board members. I believe that I can bring new perspectives to the board. I’m about 30 years younger than the other members. And I can talk straight to my father if a situation comes up that requires straight talk.”

“I’m proud of the company and its story. My grandfather, who only spoke Finnish in the beginning, built an international company that has remained faithful to its core values.”

How can Halton be transformed? What will be kept? What will be discarded? Where will investments be made? What will happen over the next 50 years?

“I hope that Halton will have the courage to change along with the world, even if that means moving into areas that are completely new to us. I want Halton to maintain its most important values. And for Halton to support people’s enthusiasm at least as well as before. That we’ll remember to give talented people space.”

Krista pauses. Then she smiles and continues. There’s no point making any more detailed predictions about Halton’s future. Everything is so complicated. But the big trends, the ones that a company searching for sustainable success has to pay attention to, those are as clear as can be:

In the Western world, young people have a different relationship to work and property than their parents. Climate change is affecting the whole world, and the environmental problems caused by economic growth are particularly acute in emerging economies. Pressures related to corporate responsibility are growing everywhere. The circular economy is challenging consumer culture.

“Climate change is taking us into a world that will be more than two degrees Celsius warmer. Europe’s population is shrinking, and Africa is exploding. Poverty is decreasing proportionally but increasing absolutely. I hope we can come up with a better way to use the earth’s resources and a more balanced way to live.”

“I hope we can share work and well-being more sensibly than before. We understand that we don’t necessarily need to slave away as much as before. We already have so many good things.”

Afterword

“The idea to set up my own company started back at Huurre in the early 1960s. But I couldn’t find a product I believed in. Then I did. The air distribution units at the Nastola factory were being imported from Germany and the UK and I thought: Why couldn’t we make them in Finland?”

SEPPÖ HALTTUNEN IN A BOOK CELEBRATING THE 25TH ANNIVERSARY OF THE COMPANY, WRITTEN BY KALEVI LAALO (1994)

“Halton marked the first product development cooperation between us (the HVAC technology department) and the business world... It was pioneering work.”

HELSINKI UNIVERSITY OF TECHNOLOGY PROFESSOR OLAVI VUORELAINEN ABOUT THE RESEARCH COLLABORATION LAUNCHED BY HALTON IN 1970 WITH THE SUPPORT OF THE FINNISH INNOVATION FUND.

“Seppo came and asked me what he should make. He was developing an interest in an exhaust air valve. I told him it was a very competitive product and asked whether he would be able to keep up. I gave him two samples.”

ERKKI KIRJAVAINEN, REPRESENTATIVE OF ONNINEN HVAC WHOLESALER. IN THE LATE 1970S, HALTON DEVELOPED THE URA EXHAUST VALVE, WHICH WAS MORE ADVANCED THAN ANY OF THE COMPETITION.

“Halton’s employees were very close to each other in the first few years. We even went on summer vacations together. We went all over the country, even all the way to Åland. The company hired a bus, and it didn’t cost us workers much. I remember like it was yesterday when we were in Mariehamn and this one cleaner got the shock of her life when [Vice President] Erkki Nieminen jumped into the swimming pool naked. It was early in the morning, and the cleaner had already started her work. But Erkki just climbed out of the pool like nothing special was happening.”

JOUKO AHOLA, ONE OF HALTON’S LONGEST-RUNNING EMPLOYEES. HE JOINED THE COMPANY IN 1975.

“Sometime in the late 70s, Juha (Halttunen) rushed into the Kansanmäki factory and asked for a job for the summer. I was surprised. Couldn’t he arrange that kind of thing with his father?”

JUHA ELF’S RECOLLECTION OF HOW JUHA AND MIKA HALTTUNEN HAD TO APPLY TO WORK AT HALTON JUST LIKE EVERYONE ELSE.

“The mood at Halton R&D in Kausala in the 1980s was very high-flying. We even considered things like whether earth has gravity or if it’s really a pushing force from above.”

PEKKA VUORIMAA, FORMER DIRECTOR OF HALTON RESEARCH AND DEVELOPMENT

“Does anyone have anything against walking?”

SEPPO HALTTUNEN IN FRANKFURT IN 1989 AFTER AN HVAC CONVENTION, TO THE HALTON PARTY AS THEY LEFT FOR A RESTAURANT.

“You’re so rich, even your hair is made out of leather now.”

A HALTON EMPLOYEE TO SEPPO AT A CHRISTMAS PARTY

“Our goal has always been to find customers the products they need. We can’t leave them with choices they aren’t satisfied with.”

HALTON AB MANAGING DIRECTOR TOMMY JERNBERG IN HALTON’S 25TH ANNIVERSARY BOOK (1994)

“We have to set up a separate business unit for our customers in the marine industry. They won’t take us seriously otherwise. Set up a new company and call it Halton Marine!”

GERHARD WENDT, HALTON BOARD MEMBER (1997)

“The year was 1996 and I’d just started as an export secretary at Halton. We were preparing for Halton’s first major deliveries to the marine industry. They were TRH boxes headed for the Grand Princess cruise ship under construction at the Fincantieri shipyard. I had recorded the dimensions of 500 boxes wrongly, with the width and length mixed up, and I didn’t realize it before I got a phone call from Italy that I’ll never forget: Listen, Anu, these boxes don’t fit into the duct at all. That was when my real schooling started. It’s been very rewarding.”

ANU NYMAN, DIRECTOR OF HALTON MARINE LAHTI BUSINESS UNIT

“I had been at Halton for a few weeks as a production manager when I walked into the workshop and saw a blond guy standing in front of the offices. One foot was on the platform and he had his arms crossed over the chest. He was clearly observing. I didn’t know him, and I was surprised that a stranger was in our workshop. I asked him who he was and what he was doing there. The answer was direct: *Mika Halttunen*. I don’t remember what he said his title was, but I asked him again what he was doing there. I might not have understood what he said, but a few hours later I realized that it was our CEO, Mika. For a moment I said quietly to myself that

this could be my first big mistake. Whenever I see Mika, I remember that moment and I smile.”

PASCAL MARTIN, HEAD OF HALTON SHANGHAI, WHO PREVIOUSLY WORKED FOR HALTON CRÉPY IN FRANCE

“The 2005 acquisition was probably the best thing that ever happened to this company. The focus and autonomy that Halton has offered us is incomparable. I had never seen such focus on investment or people before, and since then we have gone through a tremendous transformation.”

MICHAEL IANELLO, CONTROLLER, HALTON CANADA (FORMERLY VENT MASTER)

“The shipping customer had ordered a container of fire dampers and other stuff, but it was lost somewhere. They ordered a new shipment from us. Apparently the same driver brought the shipment because he took the container to the same place. And then they found the lost container. That’s one way to double sales!”

HENRIK HANSEN, DEVELOPMENT DIRECTOR, HALTON MARINE

“The most impressive experience at Halton happened in 2008 when the financial crisis hit. Instead of laying people off, Halton chose to continue work, which allowed everyone to stay on the job. It really touched me because, in my culture, we believe that there are ups and downs in people’s lives, and that as a team we should share both the ups and downs.”

CHRIS YAN, CANADA

“What is finer than seeing industrial counsellor-level leaders who take care of their health and their appearance? At the meetings, they demand rye bread with the coffee, at lunch they want fruit and salad, and they run up and down the stairs at the company like all the Halttunens with their coat-tails flapping in the wind. Own-

ers like them create the kind of atmosphere of teamwork that motivates and inspires all the other staff.

PERTTI HARTIKAINEN IN A DISSERTATION ON THE HALTON GROUP’S LEARNING HISTORY (2009)

“I had just landed at Bangalore Airport from Mumbai when a customer called from Mumbai. I said I’d come soon and took the next flight back. They were surprised how quick I was. I’ve done that a few times. Customers remember when their expectations are exceeded.”

GUNALAN GANESAN, HALTON FOODSERVICE REGIONAL DIRECTOR FOR ASIA

“When you throw people into new places, they’re sure to mess up. I’ve always admired Halton for the fact that this company has the patience to see if people thrown into new jobs will keep their heads above water. I hope that the company never loses this spirit.”

ANU SAXÉN, DIRECTOR OF HALTON BUILDINGS

“What really separates Halton in my opinion is how we work together as a family and take care of things, no matter what the risk. We put our wise heads together and achieve our goals as one.”

DEWAIN MEADOR, MACHINE SHOP LEADER, HALTON USA

“I received some interesting feedback from a French customer. You Finns are so incredibly honest, he said, sort of surprised. So we are, I replied. We keep our promises. That may sound like an obvious thing, but it isn’t at all. That’s part of Halton Marine’s competitive edge.”

ANU NYMAN, DIRECTOR OF HALTON MARINE LAHTI BUSINESS UNIT

“My first Christmas party at Halton was really memorable. It made a big impression on me how much effort the company made to

show how much each employee meant to it. I hope I get to spend many more years with this company.”

DICKIE MARTIN, TEAM LEADER, HALTON USA

“A real man tests in production. Sometimes you just have to put the hammer down and see if the machines can keep up.”

PEKKA KYLLÖNEN, PRODUCTION MANAGER, HALTON MARINE

“I see Mika Halttunen maybe once or twice a year. We always hug when we meet. Sometimes the whole group joins in!”

JEFF HILBERT, SALES DIRECTOR, HALTON USA

“Now we have to shut ourselves away in a room with all these papers and crack open some Red Bull.”

SAMI PIIRAINEN, MARINE DIRECTOR BEFORE THE FINAL PUSH ON THE 2018 STRATEGY DEVELOPMENT

“I had a crisis with my health, cancer. Halton treated me like a human being and not like a broken cog in a huge business machine. I felt respected and supported. I am very grateful, because that doesn’t happen very often in work life. So, happy 50th anniversary, Halton! I can’t wait to see what the future brings.”

ROBYN HUEZO, BUYER, HALTON INDOOR CLIMATE SYSTEMS, TORONTO

“In my more than 37 years of experience, I had never worked for such a humane, united and fun company.”

ERNESTO LOPEZ, HALTON-INNES, MEXICO (2019)

“Before joining Halton, I was running my own company. And I can honestly say that the feeling has remained the same—it’s just like running my own company. I like the culture, the people, and Halton’s products. I believe that such a feeling will lead to success!”

ONUR G. ÇAKIR, HALTON TURKEY (2019)

“1969 was a great year—Halton was born then and so was I! Twenty-six years later, my career path brought me to Halton, and I haven’t regretted one day. Great bosses and mentors, great colleagues—actually more friends than colleagues and one big family. I’ve liked it very much.”

GRAHAM STEDMAN, HALTON PRODUCTS LTD. UNITED KINGDOM (2019)

“At Halton, I see an innovation democracy, which means that product development is not exclusive to anyone. Everyone has the right to be involved. Even the board isn’t in its ivory tower and can listen to the entire staff. As I’ve toured each unit, it’s been great to see how Finnish openness works in a global company. It starts with values.”

ARI AHONEN, MEMBER OF THE HALTON BOARD

“It’s always great to experience how closely we work together so we can achieve a place in customers’ hearts.”

ANONYMOUS

“We were at a trade show in Switzerland when a customer mentioned us in a conversation with other potential customers. Halton does not do everything right, of course, but we always move logically toward a good conclusion.”

HEINZ RITZER, REIT IM WINKL

“If a business consultant walked into Halton, he would probably downsize the business and invest in the more profitable, risky areas. But that would be contrary to the whole Halton philosophy, in which the country managers lead their units like their own company. That’s been at the heart of our success. The owners are patiently building a company that does great things like revolutionizing air conditioning in hospitals. That is a significant civic undertaking.”

TOMI LAAMANEN, MEMBER OF THE HALTON BOARD

“Halton gives us an opportunity to improve people’s well-being, which is one of the basic necessities of our lives.”

YOSHIO MACHII, HALTON CO. LTD. JAPAN

“Success is easier in a family business like Halton with a committed and enthusiastic staff. The products we have developed for Food-service are born of a passion for food, and the benefits of Halton’s solutions quickly become clear to the customer.”

HENRIK LILJA, HALTON A/S

“Companies become what people want them to become. Halton emphasizes entrepreneurship and responsibility. Those principles have helped the company grow and prosper.”

MATTI RUOTSALA, MEMBER OF THE HALTON BOARD

Halton:

The First 50 Years

August 23, 1927 Seppo Halttunen is born on a small farm in Ähtäri. His childhood is meager. His parents divorce, and his mother raises the children alone.

April 3, 1969 The new company Halton Oy is registered with the government. The founding shareholders are Seppo Halttunen, Esa Hannula, and Pentti Koskela.

May 1969 The roofing celebration is held at the Kausala factory. The first products are mobile shop furnishings. They are delivered to the customer at the end of July.

1970 The URA exhaust air valve is developed in cooperation with Helsinki University of Technology. Sales are made immediately.

1971 Halton takes part in trade fairs in Sweden, Norway, the Netherlands, and the Soviet Union. The company sells a bar counter in Tashkent in the Soviet Union.

1974 Export deals are signed in the UK, France, and Belgium. Air distribution product income exceeds the shop furnishings volume.

1975 The staff constructs a summer cottage in Iitti, with support from Halton.

1976 The Iiris air flow controller is introduced. It will become company's best selling product ever.

1978 The Oston subsidiary and a checkout counter factory are established in Ontario, Canada.

1979 Halton receives a proposal to establish a joint venture in Saudi Arabia. The company decides the risk is too high.

1979 Halton's turnover reach nearly \$11.5 million (€10 million) in current values. Air distribution units bring in two thirds of sales and shop furnishings one third. There are over 100 employees.

1981 Store furnishings are separated into the Halrox Corporation.

1983 The first bottle return machine is completed and a new recycling business is launched.

1984 The new product development center in Kausala costs about \$4 million (€3.5 million) in current values. That is nearly one third of gross revenue.

1984 Halton patents Capture Jet technology, which takes the energy efficiency of kitchen hoods to a new level.

1985 The Finnish store furnishings business Halton-Trade is sold to G.W. Sohlberg.

1985 *Talouselämä* ("Business Life") magazine selects Seppo Halttunen as Businessman of the Year.

1987 Halton is given an export award by the president of Finland.

1988 Halton starts production of store furnishings in the United States, in Kentucky. Mika Halttunen and Tarja Takki head the professional kitchen ventilation business launch.

1989 Halton purchases the French air distribution equipment firm Anemotherm and builds a factory in Béthune. This provides the company with production facilities in the European Community.

1991 Mika Halttunen and Tarja Takki return from the United States.

1991–1993 Economic recession in Finland increases the debt of the Halton Group. The company faces a financial crisis and CFO Juha Paanila resigns.

1992 Halton is divided in two: Mika Halttunen leads the indoor air company Halton Oy, and Juha Halttunen takes over the recycling machine company Halton System and Pan-Oston, the store furnishings group.

1994 Halton celebrates its 25th anniversary in Kausala. Turnover is \$128 million (€108 million) and operating profit \$6.2 million (€5.4 million). There are over 1000 employees.

1994 Turnover in Sweden becomes Halton's largest. Good results in Sweden prop up the entire group.

1995 Finland joins the European Union. Halton establishes a joint venture in Malaysia with Ali Bawal and his Hamodal Group and opens a factory near Kuala Lumpur.

1995 Juha Halttunen resigns and Mika Halttunen becomes CEO of the group. Heikki Rinne starts as a member of the board of directors and as CEO of the recycling and shop furnishings business.

1996 A new three-person management team (Halttunen, Rinne, and Viheraari) begins work. The goal is to improve Halton's competitiveness.

1996 Halton's earnings improve and dividends are increased.

1997 Gerhard Wendt, ex-CEO of Kone, joins the board. Wendt encourages the company to take more risks.

1997 Halton sells its recycling business to Tomra in Norway and its shop furnishings business to Juha Halttunen. The deal gives Halton room to maneuver and opens the way for later acquisitions.

1997 Halton moves from Glasgow in Kentucky to new premises in Scottsville.

1997 Divestments have reduced Halton's turnover to approximately \$98 million (€86 million). The company's board of directors considers an IPO but concludes that Halton will remain a family business.

1998 New CFO Kristian Nummel begins work.

1998 Halton's board considers expanding its business into the Baltics, Eastern Europe, Singapore, and Australia.

1998 The Internet becomes a new marketing channel for Halton. A list of customer references is posted online.

1998 The Asian economic crisis causes stinging losses in Malaysia. The board considers winding down operations.

1999 Halton begins adoption of a new SAP ERP system. The project is named *Allegro*.

1999 The group moves to a three strategic business area (SBA) model: Marine & Offshore, Catering, and Commercial Buildings.

1999 The owners don't get above themselves. Halton's earnings improve, but only a tenth is distributed in dividends.

1999 Malaysia recovers, but the South Korean joint venture is shut down due to the partner's unethical activity.

2000 Nearly 90 percent of Halton's turnover of \$96 million (€84 million) comes from Europe. Indoor air makes up 70 percent, Foodservice 20, and Marine 10 percent.

2000 Heikki Rinne leaves Halton and moves to the United States as CEO of a startup company.

2001 Tarja Takki establishes Indoorium, a company specializing in indoor air services. Halton considers investing.

2001 Professor Tomi Laamanen joins Halton's board of directors.

2002 The new SBA organization begins. Halton's current mission and corporate structure begins to emerge.

2002 Mika Halttunen resigns as CEO and becomes chairman of the board. Heikki Rinne takes on the role of CEO, and Seppo Halttunen leaves the Board.

2003 The SAP project is finally completed. Allegro's schedule ran over by two years and the budget nearly doubled.

2003 The group's turnover stumbles by one fifth to \$87 million (€76 million). Marine is in trouble.

2003 Halton acquires the Finnish company Clairia, which manufactures ventilation filters.

2004 Tough competition weakens the situation of the indoor air business. The company's board of directors encourages the executive leadership to look for new sources of growth, including in Russia and China.

2005 Halton buys the British company Vent Master and becomes the market leader in kitchen ventilation worldwide.

2005 Halton Marine's offshore and navy segments grow at a rapid pace as the price of oil climbs.

2005 Halton's revenue increases by 33 percent to \$123 million (€107 million)—partly due to Vent Master sales. Operating profit doubles to nearly \$14 million (€12 million).

2006 Halton buys the German company Wimböck, a leading manufacturer of kitchen air conditioning ceilings. At the same time, Halton makes a serious entry into the Japanese market.

2007 Buildings picks up momentum: sales of chilled beams double. However, Indoor's share of total group turnover has fallen below one half.

2007 Strategy work towards 2015 begins.

2008 Halton becomes fully owned by Mika Halttunen and Tarja Takki. Eevamaria Halttunen's shares are bought out just before the financial crisis. The implementation of the arrangement constricts Halton's financial situation.

2008 CFO Kristian Nummelin changes job. Janne Pukkila is named as his successor.

2008 Halton's board projects that the general economic situation will deteriorate due to the financial crisis in the United States. The company prepares to cut costs.

2008 Despite the economic crisis, Halton builds a factory in China and invests in new machinery in Germany. Other investments are postponed.

2008 The crash of the Russian economy puts an end to Halton's plans in the country.

2008 Halton makes a record high turnover of \$196 million (€171 million). Operating profit rises to \$18.9 million (€16.5 million).

2009 Halton resumes operations in South Korea.

2009 Revenue falls to \$170 million (€148 million), but profitability is pleasantly surprising. Affordable raw materials increase operating profit to \$19.4 million (€17 million).

2010 M.A.R.V.E.L. kitchen ventilation technology is launched.

2011 Halton buys Current Energy in Texas and acquires expertise in digitalization and cloud services.

2012 The economic crisis comes to an end. Revenue reaches \$192 million (€168 million) and operating profit over \$15 million (€13 million).

2013 Halton's founder, Industrial Counselor Seppo Halttunen dies at the age of 85 from long-term illness.

2013 The joint venture Halton-Innes starts operations in Mexico.

2015 The joint venture Halton Refrin starts operations in Brazil.

2015 Halton launches the Inoroom operating room together with partner companies.

2015 Halton sells its Clean Air business.

2016 Heikki Rinne resigns as CEO after 13 years but continues on Halton's board of directors. Kai Konola starts as the new CEO.

2016 The Halton Marine plant is expanded in Lahti.

2017 Halton acquires the French company Diffus'Air. The acquired company offers turnkey kitchen ventilation solutions and employs 20 people.

2017 Halton Group reaches \$235 million (€205 million) in gross revenue and \$17 million (€15 million) in operating profit.

2017 Krista Halttunen joins the Halton board.

2018 Tarja Takki steps down as head of Buildings and becomes the vice chair of the board.

2018 Halton establishes a sales subsidiary in Chile.

2018 A renovated R&D center and show kitchen for customers is opened in Béthune, France.

2018 The cornerstone is laid for the new Halton production building in Scottsville, United States.

2018 Halton's updated strategy focuses on strong growth. By 2025, the company will aim at a turnover of \$573 million (€500 million).

2019

50 years have passed since Halton was founded. The company operates in 35 countries and employs nearly 1600 people.



Seppo Halttunen, an electrical engineer, founded Halton in 1969. In 1987, Halton received the Finnish Presidential Export Award, which Seppo accepted along with his chief shop steward Esa Sundberg (left) and Vice President Erkki Nieminen.

Arvi Tolmunen realized that the concept used in a hinged trivet for cooking potatoes could also be utilized in ventilation. Subsequent research and development resulted in the legendary PRA regulator in 1976, which Halton still produces.



In the 1970s, Halton International made export deals with companies in countries such as the UK, France, and Belgium. After ten years in business, Halton had a staff of 100 and a turnover of approximately \$11.5 million (€10 million) in current values.

In the early stages of its operations, Halton manufactured furnishings for mobile shops, but ventilation products were soon added to the line.





Seppo Halttunen and Eevaliisa Nieminen married in 1958 and traveled to the Aulanko spa in Hämeenlinna for their honeymoon, as was customary at that time. Their official honeymoon portrait was taken at the Rose Valley Pavilion at Aulanko.

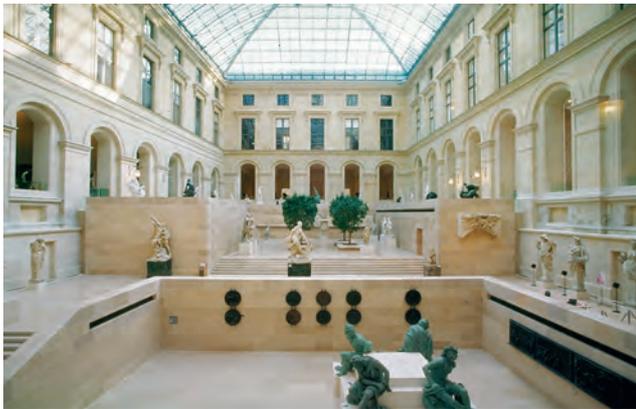
“We’re facing some resistance, but we’ll overcome it. We’ll get through this somehow.” This was what Seppo Halttunen said to his wife when she was concerned about Halton’s growing pains. Seppo was right. By the time Seppo turned over his chairmanship of the board to his son, Mika, in 2002, Halton’s revenue had risen to nearly \$114 million (€100 million).



Halton’s current majority shareholders, Mika Halttunen and Tarja Takki, experienced their own higher education in entrepreneurship in the late 1980s in the United States. Mika took the reins as Halton’s CEO in 1992.

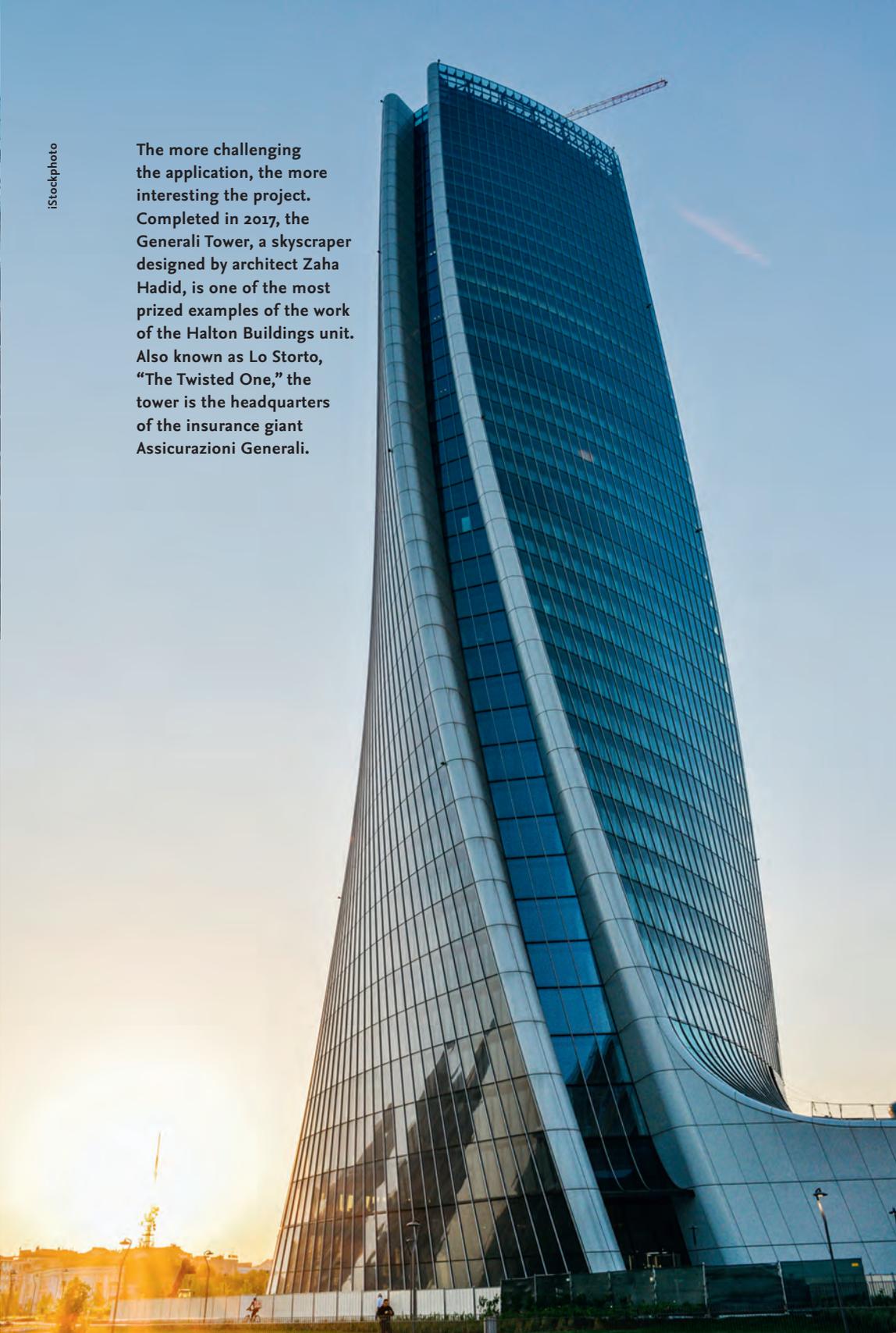
Mika and Tarja have three children, Krista, Aleksi, and Joel, and they have recently begun the company’s second generational handoff.





Halton has supplied ventilation components and systems to numerous art museums, including the Rijksmuseum in Amsterdam and the Louvre in Paris. Halton became the leading company in the French ventilation market as a result of a corporate acquisition in 1989.

When he retired, Arvi Tolmunen was given a gold-plated PRA in recognition of his exceptional work and long career with Halton.



The more challenging the application, the more interesting the project. Completed in 2017, the Generali Tower, a skyscraper designed by architect Zaha Hadid, is one of the most prized examples of the work of the Halton Buildings unit. Also known as Lo Storto, "The Twisted One," the tower is the headquarters of the insurance giant Assicurazioni Generali.



Henrik then and Henrik now. Henrik Hansen was one of Halton Marine's top salesmen in the 1990s. He is currently the company's Business Development Director.



Halton Vice President Erkki Nieminen was Mika Halttunen's right-hand man during the difficult years of the 1990s.

Heikki Rinne served as President and CEO of the Halton Group from 2002 to 2015. One of Heikki's key strategic principles was the decentralization of decision-making power to place it as close as possible to the customers.

Rick before and Rick today. Halton's operations in the United States took off when Rick Bagwell was hired as country manager.



Shigeru Suzuki is one of Japan's leading professional kitchen consultants and a long-time Halton partner. With Suzuki is Kai Konola, CEO of the Halton Group, who took over leadership in 2016.



Halton has supplied kitchen ventilation systems to numerous five-star hotels in China. The picture shows the Shanghai Shangri-La.



The MobiChef is a compact kitchen unit that can easily be moved from one place to another—even to places where there are no ventilation flues or grease traps. Celebrity chef Alex Nurmi is hard at work.



Two Michelin-star chef Marc Meurin (right) led the kitchen orchestra when Halton organized a customer event for French kitchen professionals in May 2018 at the Bêthune factory.



A stylish kitchen unit at the headquarters of AXA in Brussels.



Sari Buddas and Marjo Rantala worked in chilled beam assembly in 2018.



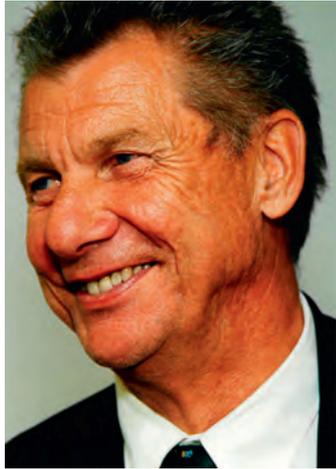
Enjoying work at the Kausala factory in the summer of 2018. Niko Kozmin and his father Aleksandr installing a motor.



Bengt Samuelsson has been Halton's country manager for Sweden since 2009.



Emmanuel Bizien has worked as Halton's commercial director in France since 2013.



The Swedish subsidiary's profits supported the entire Halton Group in the early 1990s, when Tommy Jernberg worked as country manager.



Heinz Ritzer was Olli Sipilä's most important colleague as Halton turned Wimböck into a world-class company after its acquisition.



Andrey Livchak started in Kausala 1989 and soon became one of Halton's most prestigious product developers. Andrey currently leads the global R&D.



Sharizan Amir is one of the driving forces behind Halton's Malaysian design team.



The devastating fire of the *Scandinavian Star* in 1990 spurred the development of marine fire safety and opened the way into a new business for Halton. Halton Marine's first product was a reliable ventilation fire damper.



© Crown Copyright 2012

Halton Marine has supplied ventilation fire dampers for many cruise ships, including the Royal Caribbean *Symphony of the Seas*, the world's largest passenger cruise ship. Another important customer is the UK's Royal Navy. The nuclear submarine pictured here is *HMS Ambush*, which entered service in 2013. The *Ambush* utilizes Halton ventilation components.



iStockphoto



In 2018, Poland regional sales manager Pawel Ryszewski received the Halton Presidential Award for exceptionally good sales figures.



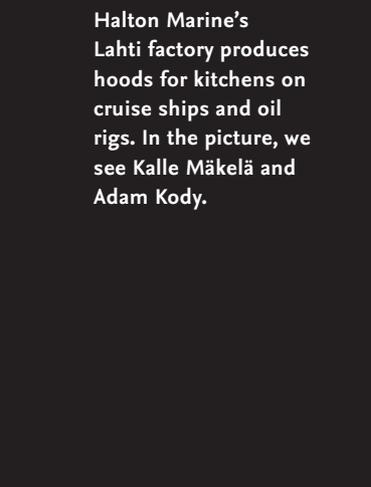
Teresa Gillentine works as a project manager at Halton's factory in Scottsville, Kentucky. Her son, Jerry, works at the same factory.



Petri Tuominen (left), Pekka Kyllönen, and their colleagues ensure that the Lahti factory supplies its hoods on schedule.



Azzam Hunjul has increased Halton sales in the Middle East ten times over.



Halton Marine's Lahti factory produces hoods for kitchens on cruise ships and oil rigs. In the picture, we see Kalle Mäkelä and Adam Kody.



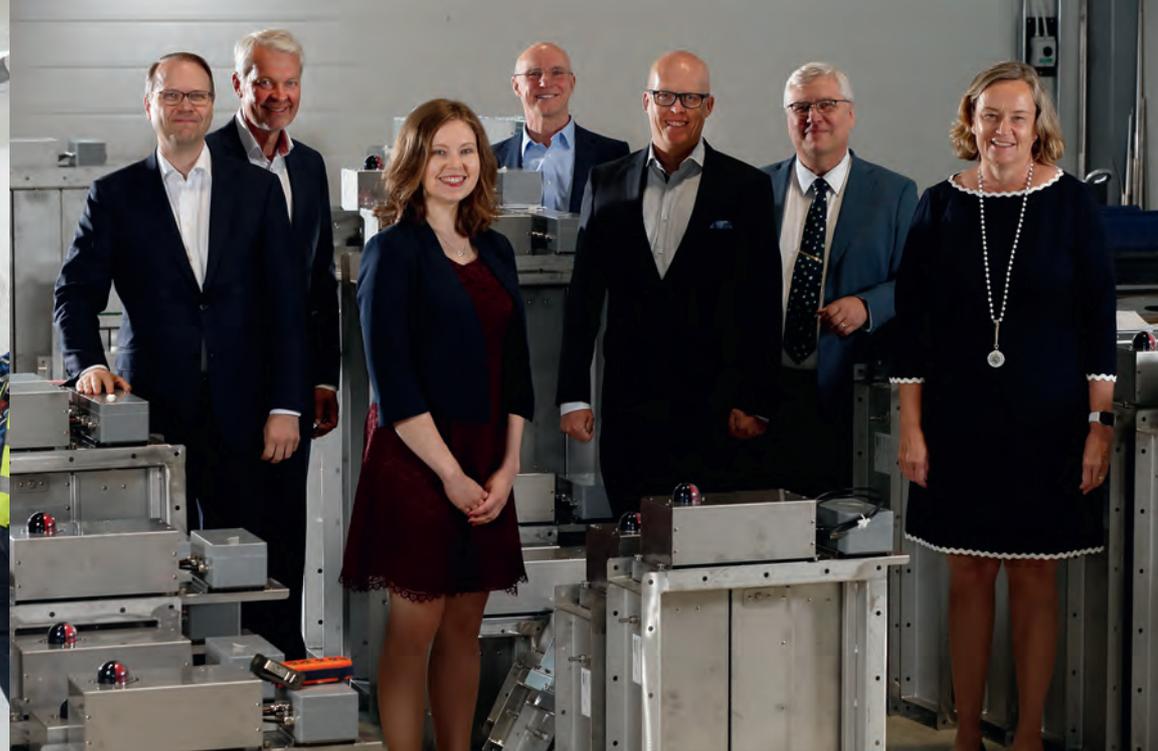
Anu Nyman leads the Halton Marine business unit in Lahti. Production was expanded under Anu's leadership in 2015.



Petri Juosila has worked extensively in management positions at Halton since the 1990s. He played an important role in launching the Health business unit.



The new Inoroom operating suite was presented to the staff of the Nya Karolinska Solna Hospital in Stockholm in 2016 at the Innovation Hub in Kausala.



The Halton board in 2019: Tomi Laamanen (left), Matti Ruotsala, Krista Halttunen, Heikki Rinne, Mika Halttunen, Ari Ahonen, and Tarja Takki.



Kim Hagström holds a Doctor of Science in Technology degree and is the father of Halton's Health business.



Risto Kosonen, also a Doctor of Science in Technology, has been one of the Buildings unit's innovators. Nowadays he serves as a professor at Aalto University.



A third "Halton doctor," Panu Mustakallio has worked as a product research and development manager, among other assignments.



The Halton Group's management team in 2018: Sami Piirainen (director, Halton Marine), Kai Konola (CEO, Halton Group) and Tommi Rantanen (director, Buildings and Health). In the back are Rick Bagwell (director, Halton Americas), Georges Gaspar (director, Halton Foodservice), Janne Pukkila (CFO, Halton Group), and Hannu Hallila (HR director, Halton Group).



Tarja Takki (left) started SBA Halton (which was later named as Buildings and Health) in 2012. Anu Saxen was one of her closest subordinates.



Anna Gagneur, one of Halton's promising future leaders, has been directing field service operations.



Anne Koskela-Marie serves as an executive assistant at Halton's headquarters in Helsinki.



In April 2017, Halton's "Breathe In" customer event brought industry leaders together in London.

Christian Hirschmann, from Austria, is developing the MobiChef business in Kuala Lumpur, Malaysia.

Ganesan Gunalan, from Malaysia, led Halton's operations in India for three and a half years.



During the first decade of the 21st century, this trio planned and implemented a number of investments that made Halton a more global company: Heikki Rinne, Olli Sipilä, and Mika Halttunen.





One plus one is three! Mika Halttunen and Joaquim Vale opened a joint venture at the Halton Refrain plant in São Paulo, Brazil, in February 2015.



Where it all began. Over the decades, Halton's Kausala factory has been expanded several times, and the company is still one of the largest employers in the litti area. The Halton Group's turnover surpassed \$230 million (€200 million) in 2017.



Halton began construction of a new plant in Scottsville, Kentucky, in autumn 2018. Designed to produce innovative air handling systems, the factory opened in the spring of 2019, 50 years after the company was founded.

As a young man, Mika Halttunen dreamed of a career as a rock star, but instead he became a rocking family entrepreneur. Halton's customer events often culminate in a concert put on by Halttunen's Ärräpää Orchestra.





Healthy and safe indoor air everywhere it's needed. Talented people can turn good ideas into functional, technical solutions, but big races are won with heart.

This is the story of Halton's journey from humble beginnings to global success—as best we can tell it, in all of our voices, with no secrets.

Halton 50^{years}

