

# Halton 50 years.

## Interview with Tarja Takki-Halttunen and Mika Halttunen from Halton Group

INTERVIEWER: ANITA DERJANECZ, REHVA MANAGING DIRECTOR

**Anita Derjanecz:** *Congratulations to Halton's 50<sup>th</sup> anniversary. How did the family company start, and how has it been evolving to what Halton is today?*

**Mika Halttunen:** My father, Seppo Halttunen created the company with his partners in April 1969. Few years later my parents bought out the investors, Halton became a family company and has remained one till today. When my father started the company, Halton was specialized in manufacturing equipment for supermarkets, refrigeration products among others. My father was an entrepreneur with manufacturing background, looking for new product ideas to manufacture. One day, when building a new factory in his previous job, he saw air diffusers being brought to the site, imported from Germany and England. He figured that this may be a good product to manufacture in Finland. That's how our ventilation business started. During the past decades we split the company between me and my brother. My family kept Halton and my brother the supermarket refrigeration company under the name Pan-Oston. I became the sole owner of Halton and invited Tarja and Krista, our oldest daughter as co-owners. Since 1997, Halton has been exclusively specialised in indoor climate.

**AD:** *How did a family business expand to a global company? How much manufacturing do you have still in Europe?*

**MH:** My father started the first international operation in 1978, he opened a factory in Canada. In the 1980's, we launched sales companies outside Finland. Today we are present in 35 countries and will add two more this year, ending up the country count at 37 in 2019. The USA is our largest single market, while Europe is



about half of the whole company. We have production in 9 countries, in Europe we manufacture in Finland, England, France and Germany. Last week we inaugurated our second factory in the USA, celebrating at the same time 30<sup>th</sup> anniversary of Halton USA. Later this year, we'll inaugurate our second factory in China. We have been in China since 2005 and we've been able to make money there, which is not always the case, as this is not an easy market. Our position in certain segments is pretty good in the region. Halton has been in Asia since the 1990's. We started our operations in Malaysia, which probably made it easier to go to China. Malaysia is one of the easiest and most attractive countries to start business in the region. Everybody speaks English and the country is ethnically diverse with three major groups. We relied on our local colleagues to settle in new markets. Our Indian colleague developed business in India, a Chinese colleague started operations in China and trained local people. Malaysia was the centre of our growth in Asia.

**AD: Tell us also about your background and your history at the company.**

**Tarja Takki-Haltunen:** We are both HVAC engineers. Initially, I wanted to become a ship builder, because my father was a director in a shipyard in Finland. I wanted to design big ships. But in the early 1980's the ship-building industry declined, and my father told me this is not a good choice. I was already at the mechanical engineering department, and I gave my father the book about available courses, as I was not sure what to study if not shipbuilding. He looked at the courses and said, well, this H-V-A-C probably works for system designers. This is how I chose HVAC.

We studied under Olli Seppänen's supervision. At that time, Olli started teaching at the University of Technology in Helsinki as a very energetic professor with radically new ideas. He has changed everything in the education of the university. We were in his first class, kind of his Guinea pigs. And the experiment worked out very well, there were many successful people in our class who then pursued excellent professional careers. We were two women with twenty men in that first year.

**MH:** For me, studying HVAC engineering was never a question. We met with Tarja at the university and graduated in 1988. Then we got married and went together to the USA to start our business there. We stayed for 3 years. While expecting our first child, Krista, my father told us that he considers retiring. We agreed that I will take over the entire company as CEO. For this we had to return to Finland.



Simulated operations are carried out in Halton's full-scale operating room at Halton Oy in Kausala.

**TTH:** Mika became CEO at the age of 31, very young if I think of it now. But then, we were young and thought why not? Let's do this.

**AD: What do you consider as key success factors of growing towards a global company? What are the unique values at Halton?**

**MH:** In our mission statement we talk about enabling human well-being in demanding indoor environments. This is our reason of existence. We believe that everyone has the right to a healthy indoor climate.

A key to success was that we aimed at finding niche areas from the beginning. Already my father understood that HVAC is a big industry with major players from the US, Japan, nowadays from China. Competing with them would be a mistake. Instead, we seek niche areas that are difficult enough for smaller companies to compete, and small enough that big companies are not interested in playing there. We have been following this strategy from the start. We strongly believe in being specialist in specific segments. Finland is a too small market for niche areas, but if the market is global, there are no limits for growth. Excellence is another core value at Halton. Our main goal is to become the experts to the experts. Meaning that in these niche areas we want to be so good that we can provide value to the best expert in the world in the field, so they ask questions from us.

**TTH:** Customer-centricity is also our core value. A good example is the health segment, where we sell directly to the end-users. We built in our innovation hub in Kausala a real-scale, fully functioning operation room. We invite surgeons and nurses to visit the operation theatre where we perform simulated operations while measuring indoor air quality. We test new clothing for doctors and demonstrate how their occupational well-being evolves during an operation. We simulate the same circumstances like during an operation, only without the patient. If you talk to end users, your key customers, you can understand their real needs. Right

now, health is probably one of our most important growth engines. The segment grew 70 % in 2018, it will grow 50% this year and the potential is huge. From here, we can expand to the pharmaceutical industry and other related fields. In Europe, most hospitals were built in the 1960's and we expect a massive wave of hospital construction and renovation in the coming years.

**AD: What are the important challenges, market trends and opportunities on the way towards a sustainable future with healthy indoor environments?**

**TTH:** Indoor climate and wellbeing is a much more rounded subject than other fields. There are still many problems people face regarding indoor climate, which we couldn't solve. Just recently a Finnish paper brought a controversial article about mould in buildings. Some doctors claim that mould is not the real problem for health, as everybody exposed to it develops antibodies in their immune systems, while only few of them develop symptoms of respiratory diseases. I think that the article was quite controversial, as it diminishes the users' experience. Occupant satisfaction and wellbeing should be much more appreciated. We shall measure indoor climate performance based on the satisfaction and feedback of the people using the building. Engineers like to measure everything with numerical indicators and complicated formulas. But at the end of the day what matters is how people perceive the indoor environmental quality.

**MH:** And we must respect individual differences and provide individual indoor climate. Technology should find better ways to make sure that each person has a possibility to affect indoor environment. This is the trend and the direction where we must go.

**TTH:** At a certain point of my career, I left Halton to start a company called Indoorium. Our mission was to save people in office buildings from deteriorated indoor environmental quality. We localized the UC Berkeley occupant satisfaction survey first time for Finland, which became a mainstream IEQ assessment tool. Those years I learned that if more

than 30% of the occupants complain about IEQ, there is always a technical problem. And as the end-users were able to indicate the locations of their workplaces it was easy to see that the complaints accumulated to certain floors and zones. It became also obvious that our sector doesn't care about its customers as much as other industries. If in the car industry 30% of customers wouldn't be satisfied with a product, you could not sell that car. But in buildings this is not a big deal. Unfortunately, this doesn't seem to have changed much in the past 20 years.

**MH:** In general, I see the market trends in our industry optimistic. There are many drivers that create opportunities for us, I see the future of our industry very positive. We focus on well-being. What can be a more noble way to run a business than providing health and well-being.

**TTH:** Climate change is the biggest challenge we face. We must prevent and mitigate it. At the same time, we must improve indoor climate in buildings, while the outdoor environmental conditions are getting worse. This is the key challenge we must deal with. Energy efficiency can have only limited impact. It may happen that we save energy but deteriorate indoor environmental quality. And this, of course, we should never do, because buildings are for people. If we can solve the dilemma of producing CO<sub>2</sub> free energy, then we can use the necessary amount of sustainable energy to create better indoor climate.



Halton received a special REHVA award at the REHVA AM2019 Gala Dinner in Bucharest commemorating their 50<sup>th</sup> anniversary and to thank the company for their longstanding support.

**AD: Healthy buildings and comfort gained more attention among EU policy makers and in the revised EPBD. Digitalisation and building automation even more. Can ICT provide better solutions for individual demand control?**

**MH:** The starting point must always be the building user who we serve. The definition of user-centred performance criteria is of key importance. ICT and new technology may help, for instance we can now measure, monitor and predict how systems operate. However, first we must ensure that the basic components function as they should. Even in Finland, where we believe that we know what we are doing, HVAC systems do not work properly. Yesterday, we had an interesting discussion about demand-based ventilation with Dr. Risto Kosonen, our former colleague, now a professor at Aalto University. He found that in 8 of 9 buildings, demand-based ventilation was not functioning properly. And now they talk about digitalisation and AI. But the basic systems still do not operate as they should. And the systems can become too complicated.

**TTH:** I agree. We must never start from the technology, but from the customers' need. Things will become more complicated if you add more technology. Nowadays, for example, people start valuing more natural ventilation. I don't know if this is a threat, it can certainly be a health hazard in urban environments, and we must be careful. If systems get more and more complicated and the image of our industry is that these complex systems never work, than customers will naturally favour simpler technologies.

**AD: You provide solutions in demanding environments like health, professional kitchens or marine industry. Tell us about a latest innovative product solution and how you developed it.**

**TTH:** From 2013, we started to develop strategically the health segment, I oversaw the process for 5 years. We organised a business plan competition within Halton and the Board evaluated the plan on the health segment as the best. We chose 4 specific spaces to focus on, allocated resources and organised the work differently than before. Dr. Kim Hagström, who has been working in the field for 10 years, was a key expert in the process. Skanska, a major customer was constructing the Karolinska hospital near Stockholm at the time, and we decided to develop an entirely new system with them. We had the necessary knowledge and technologies to serve this sector, still it was a big effort to build a whole new business segment. It took 2 years to come out with new products. Today, we offer turn-key operating rooms with specialised ventilation

solutions for ultraclean operating environments called Halton Vita solutions.

We realised that our customers prefer the end-result delivered instead of dividing the process in components. This was a learning curve for us. From a component provider we became an integrator who coordinates all contractors in the process. This is a paradigm shift, we are not a supplier like other companies in this industry, but we sell the hospital owner 50 operating rooms as a turn-key delivery. And this way you can guarantee the quality of the end-result. The next phase may be that we will sell the operating room air as a life-cycle service, which may change the whole industry. I believe, it is possible to sell the clean air. And then you can guarantee the quality as a life cycle service, which will make lower quality companies disappear from the market. That's why we talk about the end-result so much. We want to measure it and sell it.

**Halton is among the very first supporting companies of REHVA. What values do you see in the REHVA network? What can you suggest REHVA to serve better our industry?**

**MH:** Of course, REHVA's mission is appealing for us. Coming from a small country, we strongly believe in international cooperation. Partnerships are natural with this background. Olli Seppänen has been very important in sharpening the focus and scope of REHVA, reaching towards a role like ASHRAE. In the US. The vision has been very good, being a leading organisation to foster



The Halton Vita OR Space solution for clean and ultraclean operating environments is based on the controlled dilution principle, which provides the required air cleanliness and recovery time for the whole operating space. In the controlled dilution principle HEPA-filtered air is introduced into the room in a carefully controlled manner, effectively displacing and diluting air impurities.

our industry in good ways. We had several excellent experts who were involved in the work of REHVA. We hope, that this direction continues, and this focus gets even sharper in the strategy. I've been in the Board of Directors of Eurovent Association for three years now. There, we also try to understand what's going on in Europe for the future. The American common market is so much simpler, and it is much easier for ASHRAE to take a leading role there. Of course, it depends also on money. It is very important that Eurovent and REHVA work together to make European industry stronger. Especially now, if we consider how the geopolitical situation is changing recently. We have lost the idea of free trade and markets. We go back to closed blocks both geopolitically and economically. The walls are going up again, we have China, Europe and USA as separate blocks. Coming from a small country, we are for free trade, and this is not the trend in the coming decade. Being part of the EU can help a lot in handling this situation. This is essential for us.

**AD: Tarja, you are vice-Chair of Halton and with Krista, your daughter you are two women in the Board. How do you see the situation of women in STEM areas and in this male dominated industry?**

**TTH:** Our daughter is also in the STEM field, but we have never pushed her towards it. I think, the most important thing is how fathers talk to their daughters about STEM areas, fathers can encourage their daughters to follow. At least in my case, my inspiration was my father. He was an engineer and I thought, this is cool. I want to do something like that. Men should notice the big potential in female engineers and women in tech and should promote women. In the company we should have plans on how to drive the company towards more diversity and inclusion. Not only in terms of gender, but all aspects, religion, ethnicity, sexual orientation, and so on. In diverse teams, the understanding of different possibilities is much better, and the quality of decisions improve on the long term.

Also, we should encourage women to take more executive positions. There is still this prejudice that women become experts, while men oversee the business. It shouldn't

be that way. Women are sometimes very cautious if they want to take this path. We should encourage more women to take leadership roles, and then the situation can change. Hopefully, I have been a role model in this family company, but it can't be just one person. We don't have enough women in executive roles. The United Nations' "He for she" campaign is also relevant in the building industry. People in power choose who to promote and whose careers are enhanced. The people in power are still mostly men in our field.

**AD: Mika, your band has played at the REHVA Awards Dinner and we had a very good party. Tell us about the Ärräpää Orchestra, and its long history of entertaining HVAC professionals.**

**MH:** I've always loved music and started to play guitar at 11, in Kausala. In 1975, we started a band, because my older brother collected money for a school trip and organised a party and we were the cheapest band around. This was our first show. The name of the band has changed several times, and we were on and off during these years. After we made some records in the 1980's, everybody got occupied with their family and lives, we were occasionally playing for ourselves. Twenty years ago, Halton was celebrating 30 years' anniversary and our sales manager in Finland had the idea to organise a surprise performance at a customer party. We had three performances for



Ärräpää Orchestra playing at the REHVA Gala Dinner in Bucharest during the Annual Meeting 2019.

customers, and it was a blast. We wanted to continue and played in small clubs in Finland. We played at the Healthy buildings conference in 2000 invited by Olli Seppänen. Then the marketing teams of other countries heard about it and invited us. The next concert was in the USA in 2001 when the President of Halton USA organised a party for customers during an ASHRAE show. Romania is the 17<sup>th</sup> country where the band played.

Often, we organise with our local sales departments shows as side events in small clubs, like in 2008 after the Indoor Air Conference in Copenhagen. Last June we celebrated Halton Japan 20-years, we played in a

beautiful club in Tokyo. They had a full recording gear installed, so we recorded the gig and released our album Made in Japan, which we distributed during the show at the REHVA Gala Dinner. If you did not receive a copy, you can find us on Spotify and YouTube. We enjoy a lot these shows. I keep telling our marketing people, when it is getting annoying, you must tell us, and we stop. Until now there are always new countries to play in. People take life too serious many times, especially in business. But you must have fun. Besides family, the most important part of our life is work. While spending so much time at work, why don't you have fun? Don't take everything so serious. ■



## Tarja Takki-Halttunen

- Co-owner and Vice Chair of Board in Halton Group
- She has been serving Halton Group in many executive roles: Director of New Ventures Business Area, Director of Business Development Program, and Director of Logistics and Information Systems
- She founded Indoorium Oy and was HVAC Consultant at EKONO Oy
- She is Board and Executive Committee member in Technology Industries of Finland, Board member in the Confederation of Finnish Industries and in 3 technology start-up companies
- Born in 1962
- Former volleyball and flute player, likes golf, sailing, and knitting



## Mika Halttunen

- Owner and Chairman of Board in Halton Group
- He took over the company from his father, Seppo in 1992 and became CEO and President of Halton Oy, then CEO of Halton Group
- He was conference President of CLIMA2007 - Wellbeing Indoors, in Helsinki
- He has held board positions in many HVAC related associations in Finland and is Vice-President of Eurovent Association
- Born in 1960
- Plays blues & rock in Ärräpää Orchestra and is Chairman of FC Lahti



- Tarja and Mika both graduated as engineers at the Helsinki University of Technology majoring in HVAC technologies under Professor Olli Seppänen's supervision
- After graduation they started together Halton's Indoor Climate business in the USA
- Tarja and Mika are married since 1988 and have 3 children