

# Interview with Mr. Jyri Luomakoski, Chief Executive Officer of Uponor Corporation

INTERVIEWER: ANITA DERJANECZ, REHVA MANAGING DIRECTOR



**AD:** *Congratulations to UPONOR for its 100-years anniversary! How has the company started, in the year after Finnish independence? What do you see as key factors of being successful and growing over the past 100 years?*

JL: The original company started as a carpentry workshop producing furniture and interior elements for offices and homes. Indeed, it was founded in the first year of Finnish independence, in a period of civil war. In the late 30's of the past century, a new company was established that produced cast iron products and household appliances aiming to make better life for people, a mission followed till today. In the 40's the company switched metallic pipes for the construction sector, a whole new product group. In the 60's Uponor commenced producing plastic pipes, and in the 70's it launched the production of PEX pipes for radiant heating and water systems. Uponor got stock listed in the late 80's and has become a global manufacturer with a wide range of hot water, heating and cooling system products.

## Jyri Luomakoski

- Born in 1967.
- MBA, President and Chief Executive Officer at Uponor Corporation since 2008.
- Acted as CFO in 2002- 2008.
- He has been serving Uponor since 1996.

We have been a stock listed company for more than three decades, and we have one industrial investor as the largest shareholder. Thanks to that we have the stability to invest in long-term plans and research. We enjoy the luxury that Uponor is not a stock company focusing on quarterly figures only. The company has changed its profile a few times from a carpentry workshop to a global HVAC manufacturer. I see the key of success in the continuous strive to be at the frontline of change instead of being a follower. If I look to the future from the perspective of our 100-years history, I expect within the next decade the same magnitude of change as what occurred in the past 70-80 years. Change is much faster today due to digital technologies.

**AD: What do you see as the most important technology trends that influence UPONOR and the HVAC market in general?**

JL: Digitalization, AI and data science will dramatically change our industry. And it is an excellent tool to answer the increasing demand for sustainability, energy and resource efficiency. This is a new era. We must make sure that we use the scarce resources, whether energy, or drinking water for the right things and minimise waste. Digitalisation is useful to drive sustainability and efficiency. It enables that building technologies and construction sector components are designed and used efficiently. For example, with the current smart data analysis technologies we can develop new solutions to monitor the use of domestic hot water and optimise the operation to the most efficient and sustainable levels.

Prefabrication is another important technology we are exploiting. The integration of systems, and the necessity to comply with a more demanding regulatory framework increase the complexity of works in the construction process. Prefabrication has a big impact on ensuring consistent quality while coping with the complexity of regulatory and common-sense efficiency requirements. They also help in preventing that this complexity results in budget or time overrun during the construction and installation works. Uponor wants to be an active change driver in this field as well, being the disruptor and not the disrupted.

**AD: Uponor has some testing and production facilities for prefab modules. Can you tell us about them?**

JL: We have several facilities. In Sweden we started on a greenfield building preconfigured manifold stations, while in Finland we have a manufacturing facility for bigger modules and complex wall elements integrating

HVAC and electrical components. Initially this technology was meant to facilitate building refurbishment, but now we have a lot of new construction where the developers figured that it is accelerating also new construction projects and makes the maintenance and life cycle cost management more transparent. Beginning of 2016 we acquired two German companies that were active in the prefab area, developing modules with integrated fresh water stations and heating circuits. The modules are developed to avoid heat loss and decrease the risk of legionella, improving hygiene and energy management aspects of the systems at the same time.

In the drinking water and plumbing area, it is striking to me that hygiene is not sufficiently considered. For example, I was told that in Germany, a country with no speed limits on its highways, more people die as consequence of pneumonia caused by legionella than in car accidents. Consider how many billions the automotive industry is investing in car safety technologies, while in building technologies we miss such a high investment in research for safety and hygiene. We see a clear need here and there are opportunities in the prefabricated technology to supply these needs, which is fantastic. Prefabricated modules have clear interfaces, and it is easier to integrate sensors and tools to monitor hygiene requirements and water waste. Without data you just have a black box, knowing that you are wasting energy somewhere. But what you can measure, you can manage. With proper data measurement and analysis, these problems can be identified and solved.

**AD: How does Uponor find these new ideas and technologies coming from different disciplines?**

JL: We have a continuous process of scouting and screening start-up technologies and even crazy sounding ideas to find spearheading innovations. We were screening start-ups for example at the SLUSH Fair in Helsinki, which is the world's leading start-up event in the tech sector. There, we met UWater, a company we have worked with for a few years, then we ended up buying it. UWater developed a new digital monitoring concept to diagnose microbes and particles in flowing water, suitable for the prevention of legionella among others. This is especially important for higher risk groups, for example elderly people with lower immune resistance. If you notice these bacteria after contamination, it is too late. But if you monitor it in the network online, you can immediately send an alert to suggest cooking the drinking water or disinfecting the water system and prevent the disease. This company was working with laser holography and they figured

that you can see different shapes in the flowing water if there are certain bacteria or particles present and diagnose microbes. This is a relative basic technology if you come from the tech side, but for HVAC professionals it's beyond the usual field of ideas.

Another good example of a spearheading innovation is the company Phyn, which is a joint venture of Belkin and Uponor. Belkin is originally producing computer peripherals and is the second largest router manufacturer. We met them at the Consumer Electronics Show (CES) in Las Vegas, where we sent our scouting team to look for new ideas and technologies. Belkin acquired the IPR of machine-learning algorithms back then, initially meant for electrical devices in smart homes. Typically, people from the field of electronics are afraid of water, while electronics is an area where plumbing and HVAC sector professionals feel uncomfortable. This was though a perfect marriage, a joint venture owned now 50-50 % by both partners. Belkin has access to the talent in electric engineering and machine learning, while we have excellence in the building and HVAC engineering side. By merging the knowledge of the two sides, we could develop a new product. We launched it at CES in January and received 2 innovation awards! I was amazed by the fact that one of the big tech magazines, *digit*, awarded our Phyn Plus smart water device as one of the most interesting innovations of the show, together with tech companies such as LG, LENOVO and Samsung. It makes me especially proud that we won also an official CES award in the category "technology for a better world", which is very much close to our heart. The design was also awarded, because the product looks nice, not like a traditional plumbing device. It is very flattering to get recognised in a completely different domain, not at an event with HVAC or pipe manufacturers.



Phyn Plus smart water assistant, awarded at CES2018.

**AD: How do you see the trend of going cross-disciplinary? How far do you need to reach in the future? Do you have any strategy on that?**

JL: Yes, digitalisation means that we will need computer scientists, and electrical engineers. We have a software development team, but I don't think we will produce the electronic equipment. We have always had contract manufacturers who produced the hardware on which we run our software developed in-house. For energy and water efficiency, a better understanding of the consumption is a key factor. It may be that most of our heating and water networks are wrongly dimensioned and could be designed more efficiently if we would have a perfect view of the need. Data analysis, and data science is a fast-growing field, where we want to be in the front, driving the change and define the new solutions. Therefore, we want to grow in computer and data science, beside the traditional mechanical and chemical engineering. That's why I made my blunt statement, or threat as you wish, to our four thousand Uponorians recently: the speed of change will accelerate, and the magnitude of change will be the same as what we saw in the past century.

**AD: How much does Uponor invest in research? Do you have your research centres in Finland or also abroad? REHVA and UPONOR work together in some European research projects. What is the value of public funding for you?**

JL: Uponor is committed to drive the change and we recognise that we can't do it without investing in research. Generally, we invest 2% of our revenue in R&D, but with the Phyn joint venture last year the company surpassed this significantly. Our investment in R&D was at record height in 2017. Around 100 development engineers work in our technology and R&D organisations. Some of them are based in Finland, but the biggest hubs are in Sweden, Germany, and the US. We never believed that all the wisdom would reside in the country of the headquarters.

I think there is value in public funding, especially to finance research where you take big risk. These are usually the cases which may result in disruptive innovations. However, public funding is tied up with a quite high level of bureaucracy. And we also know that the speed of change is sometimes faster than what a public funding framework can handle. Today it is more fashionable to fail fast if things are not moving into the right direction, but public funding projects, in my experience, may become shackles, where you must push through an original plan instead of being able to change it.



**AD: UPONOR has been a true supporter of REHVA for 12 years, and you are among the few companies that pro-actively participate in our activities. What values do you see in being part of the REHVA “family”? What do you expect form REHVA in the future?**

JL: It is important to recognise the significant value of the huge network which REHVA has within Europe. As a consequence, REHVA has a very good reputation in contact with EU institutions, and the policy makers us very important for our sector – even if they sometimes also add to the complexity of the business. However, as we say in Finnish, it is better to be at the table eating than on the table being eaten. We also value the information services that REHVA has been developing for the sector via publications and events, and to contribute to this with our humble resources makes sense for us.

**AD: How do you see EU regulations for the HVAC sector? Are they an opportunity or a burden?**

JL: EU regulations are both a burden and an opportunity. The biggest problem from economic point of view is that we deal sometimes with 27 different regulations, either because the EU directives were implemented in different ways or, especially in the field of drinking water, because there are strong, sometimes protectionist national regulations. This has an enormous impact on our products, when we cross borders. Europe is not yet a united market. I was recently in the UK at an investor forum and I was asked why Uponor’s profitability is so much better in US than in EU? I said it is because the US is the same market, while the EU is de facto 27 different markets. There is different scale efficiency in US thanks to their united market. We need common smart regulation in the EU, and we should act as a united market to have a level playing field for our industries and increase our competitiveness globally. This would bring economical advantage both to the industry and to the society.

**AD: REHVA plans to launch a new initiative called “REHVA Next Generation” targeting freshly graduated engineers and young professionals across Europe. A part of this idea is to create links between companies and professionals to develop their skills and professional career. What are your experience with the young generation of engineers? Would UPONOR be interested in joining such an initiative?**

JL: Our industry is rather conservative, and a bit inbound. We know on the other hand that our future customers are from the younger generation. It’s clear that

we need young professionals to understand their needs. But also, we need un-biased, un-contaminated minds for the new technological developments. This is a question of survival. Generally, we are open and interested in this REHVA initiative, and we are of course interested to hear more about the details as the initiative develops.

Just let me share with you what we do at Uponor. We just launched the 4<sup>th</sup> round of our international trainee programme, where we select 5-10 trainees, fresh MSc graduates who typically studied abroad. This is 2-years programme, where the trainees spend 4x6 months touring around the company to get a broad introduction into the company and our business. We have had very good experience with this initiative and received 800 applications in the latest round. We also arrange an annual business boot camp, where we select 20-30 talents each year, including some participants from the trainee programme. They must survive on their own in receiving management training; the aim is to train future leaders. As a word of warning, the workload you need for such an initiative is very high.

**AD: Can you tell us about your story at Uponor?**

I joined Uponor in 1996, more than 20 years ago after a career in the IT / software business and logistics. I started as controller, then became corporate controller, and joined the executive leadership team in 1999 as the CFO. The Board of Directors appointed me deputy CEO in 2002. I took over as CEO in 2008 when the global financial crisis started. Adjusting and reshaping a company working for the construction sector was a hard job. Back then, 75% of the new residential construction market disappeared only in the US, but we got the bottom line in black all the time throughout the crisis. When I look back at my 20 years at Uponor I see a tremendous change. When I joined, Uponor was an infrastructure piping company with some building technology. Today three quarters of our business is related to advanced building technologies.

**AD: How do you see the future?**

As a society we need to focus on and invest into solutions that are sustainable, whether in the built environment, or in mobility, or in any other field. And we must make sure that we leave this world to the next generation not in worse condition than inherited, but in a better shape, in a shape we can be proud of. This is our responsibility. Helping our customers and helping the industry as such to drive this change is our key role and a clear opportunity for Uponor. ■