Experts gather at VietWater Expo
Finnish water project in Bac Kan
Success story of Vinh City
Cooperation in Vietnam
30 years of Finnish-Vietnamese cooperation in water management

The tale of Finnish Water

On the surface: Bac Kan Training Group convened again, Ba Be, Carp, Visit of MIH to Finland; The terms; Water experts come together at VietWater

Brief history of the cooperation in water management

Smart Water projects

Success story of Vinh City

Work at full pace in Dien Bien Phu

Sales activities in Vietnam

Customer satisfaction measured in Cho Ra

Bac Kan project completed

Water in a Vietnamese kitchen

Bubbles: Econet’s strong man Matti Leppaniemi, Intern Trung Toan; Chopstick holder
Story about Finnish Water

Finnish water: the name was impressive in the minds of Ha Noi people who had gone through the most difficult period after reunification. In the 1980’s, a public tap water was installed on every street, road and alley of Ha Noi, and the long line of people queuing with buckets and basins to get water from the public water tap is an unforgettable memory.

At the time, kids like me also helped their parents to queue for water at the end of a school day. Finding a place to store water was an arduous struggle for adults, as both children and parents brought water home whenever they could find it.

The story of the arrival of Finnish water was a hot daily topic for people living in my area at the time. Children did not understand why adults were so eager and expectant about clean water, but we also felt the happiness of grandparents, parents and families, when standing in the queue for water was no longer the biggest concern among the many difficulties of the period of subsidies.

Finland, a country that did not care about the political system of Vietnam, has continued its efforts in supporting the Vietnamese people with access to clean and hygienic water since the ‘80s. Finnish water has been a well-known trademark in Vietnam in terms of advanced quality and technology. In addition, that brand name is also in the minds of Ha Noi people like me, that is sincere appreciation for the valuable assistance of Finland to Vietnam during the post-war period until now. Finland still continues to assist Vietnam by bringing clean water and environmental sanitation to all areas of Vietnam in order to help people improve their lives.

For me, it is also a matter of pride to become a member of the Econet Group, a group of leading companies in Finland specializing in the water know-how, manufacturing, consulting and construction in the water and environmental sectors. Econet has and will continue to cooperate with local partners and develop in Vietnam, to bring clean water and sanitation to the people of Vietnam.

Quynh Le Nhu
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Quality and technology are combined in Finnish water know-how.
Vietnam is urbanising rapidly, and this is creating demand for developing services and infrastructure. The economy of this densely populated country is growing fast, which manifests itself in improved quality of life of people, but at the same time puts pressure on the environment. From the point of view of continued economic growth, it is important that the natural resources of the country are used sustainably.

The objectives of the cooperation are based on Vietnam’s own development plans. The long-standing cooperation is gradually evolving from development cooperation, implementing various projects, into a showcase of public-private partnerships, which can subsequently work even without any development cooperation funding. In all projects, Finland has been emphasising the significance of good governance.

Training is an important aspect throughout the entire life span of any project. Only one of the water sector projects – WSPST – is still underway, and will expire in 2016. This means that next year the efforts shall be targeted towards ensuring sustainability of the previously achieved results, for instance by contributing towards the training of individuals responsible for the management of water supply companies.

For thirty years Finland has been providing development aid to Vietnam. In 1985, Finland started supporting the construction of the Ha Noi water management system. Finland’s reputation as a cooperation partner is excellent: we are seen as a skilful and reliable donor.

Vietnam strives to become a leading country in the field of high technology. Vietnam’s economy grows at the rate of 5–8 per cent a year.

The population number of the capital city Ha Noi exceeds that of Finland.

30 Years of development efforts in Vietnam

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Finnish water know-how on the world map!

Econet Ltd was the Finnish representative in the European Business Awards, i.e. the award for the top business in entire Europe in 2014 – 2015. The goal of this international competition is to acknowledge the top businesses, and to start a discussion on the operating methods of business communities.

During the voting period last winter, Econet was selected to be the Finnish representative among the finalists. These businesses competed for the award in The BP Target Neutral Growth Strategy series, and the top business in Europe was also announced.

www.businessawardsEurope.com

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Did you know that Finland started supporting the construction of Ha Noi’s water management system in 1985?

Increasingly thirsty

On World Water Day, a UN report predicted that water consumption will increase quicker than the population growth rate. With current water consumption volumes, there will be a 40 per cent deficit of water in 15 years. Over the past few decades, the speed of demand has doubled compared to the population growth rate.

According to the report, the increased income levels and the rising living standards of the middle classes are increasing water consumption at an unsustainable pace. Among other things, the report suggests clear legislative and institutional rules that would guarantee sustainable management of water resources.

Preliminary dewatering

The DEWA BTN belt thickener is a preliminary de-watering device, separating water from the sludge with the help of gravity. From the thickener, the sludge can be directed to various further treatment processes, such as digestion. Before the dewatering, binding agents such as polymer are added to the sludge slurries. After this, the sludge and the polymer are mixed, to achieve the best possible dewatering result. Sludge dewatering should not be mixed up with solidification. The dry matter content of the sludge as it enters the thickening equipment usually varies between 0.5 – 1 per cent. After the dewatering process, the dry matter content is generally about 5 – 8 per cent.

Making New Zealand cool

In spring 2014, Econet Vatten & Miljöteknik AB delivered cooling towers to New Zealand.

The project involved one of the pulp mills on North Island, which needed increased cooling capacity for its wastewater treatment plant. The task of cooling towers is to lower the temperature of untreatable wastewater before its biological treatment.

Econet has extensive experience with cooling towers designed particularly for the paper pulp and paper industry, which is why the client ordered cooling towers from Econet in Sweden, for a paper pulp and paper factory in New Zealand.

Econet's staff on location was monitoring the installation process.

In the field of water management, the development cooperation of Finland and Vietnam began three decades ago.
Ba Bể National Park

The Ba Bể Natural Park in Northeast Vietnam is situated in the province of Bác Kạn in the Đông Bắc region, at about 240 kilometres from Ha Noi. The park was founded in 1992, and it was the eighth natural park established in Vietnam.

Ba Bể - meaning “eight bays” – is a formation of three lakes stretching for about eight kilometres in total. The breathtakingly beautiful area features mainly rainforest with over 550 plant species growing there. The lakes are inhabited by over one hundred freshwater fish species. In addition to other animals, the rainforest is a home for the extremely rare Vietnamese salamanders and Burmese pythons. Any hunting in the area is prohibited, but villagers are allowed to fish in the lakes.

Limestone mountains rise to the height of up to 1 554 metres. The best way to get to know the area with all its waterfalls and cave systems is to take a boat trip across the lakes.

Did you know that...
the portion of agriculture in Vietnam’s gross national product is 21 per cent; for industry it is 41, and for services it is 38 per cent?
Did you know that nearly 80 per cent of the population of Vietnam still live in rural areas?

Did you know that impure water should be boiled for at least one minute so that it would be potable?

Did you know that ... Vietnam’s economic growth is fast, 5–8 per cent a year?

Did you know that ... at an altitude of more than two kilometres, impure water should be boiled for at least three minutes so that it would be potable?

**Demand of water measuring devices**

According to a UN report, the global water reserves are in danger of reducing by 40 per cent over the course of the next fifteen years. This is the result of increasing urbanisation, population growth, as well as the ever-growing water demand in the industrial sector.

It is estimated that by the 2050’s, two thirds of the world’s population will be living in cities, and water demand is expected to increase by 55 per cent. As the volume of food production increases, it is estimated that the water demand will quadruple in order to feed the entire population of our planet.

According to a UN report, investments in the range of 15 – 30 billion dollars to developing countries could lead to 60 billion dollar returns per annum.

70 per cent of the world’s largest companies have experienced a shortage of water in some way, either in their factories or in the production chain, as a study carried out by Deloitte Consulting discovered in 2013. Therefore, there is plenty of demand for devices for measuring water consumption.

**Did you know that ...**

**Vietnam’s economic growth is fast, 5–8 per cent a year?**

**Did you know that ...**

**Impure water should be boiled for at least one minute so that it would be potable?**

**Carp**

*Cyprinus carpio*

The carp is a large freshwater fish of the Cyprinidae family. It is one of the top three most extensively bred fish species in the world.

The carp originates from Asia, from where it has spread widely to the East and to the West. In China, carps were bred already before the current era. Currently, carps can be found on all continents. In some places, carps have become a threat to native fish species, which is why the carp is considered to be one of the most harmful invasive species in the world.

Ornamental carps were originally ordinary carps bred for food, but these carps later changed colours. This fish is easy to domesticate. It weighs several kilos and it may live for as long as an average person.

Carps are very popular and well-known in Vietnam, thanks to a folk tale. On 23 December, Vietnamese people often buy carps and then release them to a river or a pond, after saying a prayer. People believe that this makes the Three Kitchen Gods bring them good fortune and success for the next year.

**Bac Kan Training Group assembled again**

Bac Kan town officials in charge of the sewage side of things visited Finland in 2014 to become acquainted with the work of Econet, Slimes and Dewaco. The group met up again when Econet’s executive secretary, Anita Seppälä, travelled to Bac Kan from Finland. The members of the group had fun catching up while enjoying good food and drinks.

**Did you know that ...**

**Impure water should be boiled for at least one minute so that it would be potable?**

**Did you know that ...**

**Vietnam’s economic growth is fast, 5–8 per cent a year?**
Thanks to the development of breeding technologies, the percentage of farmed fish among the global fish output is truly considerable. According to the estimates of FAO, the Food and Agriculture Organization of the United Nations, nearly 50 per cent of all fish used for human consumption comes from aquaculture.

More oxygen produces more kilos
For many fish farming facilities, water is the limiting factor to the growth of fish.

As the fish continue growing, a point is reached when water taken from a river, for example, no longer contains enough oxygen. Installed in the breeding tanks, Waterix® aerators will considerably increase the amount of oxygen available for the fish. Normally, aerators are used only at the stage when the fish are growing, and the naturally occurring oxygen in the tank is no longer sufficient. When the oxygen concentration becomes too low, the fish will stop eating. Aerators are mostly used only during a few months every year. However, fish farms have benefited significantly from using aerators, and for Finnish fish farms, for example, the investment payback period has been under two years.

Preventing excessively high water temperatures
For some fish, particularly those of the salmon family, high water temperatures lead to problems. The fish will start to eat less, and gradually, not at all. This, in turn, will lead to the growth of fish slow-
Advantages achieved in fish farming by using Waterix equipment:
- adds oxygen to the breeding tanks
- removes carbon dioxide from the breeding tanks
- removes ammonia from the breeding tanks
- prevents excessive water temperatures
- keeps the breeding sack or pond unfrozen during winter

Additional benefits:
- fitted with floats, so there is no need for extensive infrastructure
- quick and easy installation
- low maintenance

The investment payback period is two years.

Project Manager Anders Nyman is currently the only Finnish person on site at the Dien Bien Phu project. He talks about the current situation on site and how he feels about life in Vietnam in general.

Econet as the main contractor for the project has largely completed the design of the sewer network and canal component. Our client has approved the design and we have just started the construction work. At the moment, we are in cooperation with our sub-contractor mobilizing more resources for the implementation of the network and canal works. We are in the process of finalizing the design of the wastewater treatment plant and auxiliaries and expect to start implementation in the near future.

There are some things that make working with this project interesting and rewarding. First of all, Dien Bien Phu City is, for a relatively small city, an interesting city, where, for historical reasons, many cultures from all around Vietnam and local ethnic cultures mix. For instance, I have not seen a street like Nguyen Chi Thanh in Dien Bien Phu City with so many different cuisines from everywhere represented anywhere else in Vietnam. To a certain extent, the city feels bigger than it is. The project itself is rewarding as it will truly benefit the residents of Dien Bien Phu. I am also blessed with having good colleagues and a good relationship with the Project Management Unit.

Sewer projects in general are usually challenging, as is this project. This stems from a variety of reasons, starting from the fact that due to its very nature, work necessitates close proximity to the public and sharing the site with people using the roads for travelling. The long gap between developing the feasibility study and implementation will also undoubtedly create some challenges as the conditions may have changed. I expect some stretches of the sewer where we have fairly deep excavations to be the most challenging technically.

I graduated from Helsinki University of Technology in 2000, majoring in water supply engineering. However, it should be said that it was not always easy to build a CV for working abroad. This is a challenge for many young engineers who want to work abroad. And it is only getting tougher as the bilateral projects are getting fewer and smaller. From a professional point of view, Vietnam is interesting as there are, and will be for years to come, lots of water and sanitation projects, and as an engineer it is rewarding to see something concrete being built at the end of the day. Along the way in Vietnam, I have also met my Vietnamese fiancée, and chances are that we will continue to stay in Vietnam as Vietnam feels like a second home to me now.
30 years of Finnish-Vietnamese cooperation in water supply and sanitation

Ha Noi’s water treatment project was implemented between 1985–2001.
Finland and Vietnam established diplomatic relations in 1973, and development cooperation between the countries in the water sector started in 1985. This was also when Finland started exporting water sector expertise to Vietnam. Until the early 1990s Finland was the key supporter of the Vietnamese water sector.

At the beginning of the 1980’s, the water supply situation was particularly poor in Vietnam. Even in the largest cities, people did not have adequate access to water, and under no conditions was this water suitable for drinking as such. The capacity of the water treatment plants was inadequate and the distribution networks were in a lamentable state. There were no water meters, based on the available pump capacity data and running times it was estimated that water losses generally reached to about 70 percent.

Usually, the pressure level in the water network was below the street level. People were forced to stand in lines to scoop water from open pools situated along streets. Some people had installed small pumps in such pools in order to lead water through plastic hoses to their homes. Although treated at the water treatment plant, water in the open supply system was completely unprotected against pollution. The situation was made even worse by the fact that wastewater and storm water mixed in the combined sewer systems, flooded in the streets during and after heavy rainfall.

Therefore, many people living in apartment buildings were forced to carry all water they needed to their homes, and thus water was used frugally. For this reason, poorly flushed sewer systems in buildings got clogged easily, and inhabitants had to resort to different emergency solutions.

The financial status of water utilities was fragile as well. There were no water meters at all; instead, the volumes of water consumed were based on assessments and agreements made with consumers. Only a nominal fee was charged for water. Industrial facilities and businesses paid more – because of larger consumption volumes and higher tariffs per cubic metre – while residential consumers paid just a little or not at all. As a result of financial hardships and inadequate maintenance, the dilapidated utilities were in a bad shape.

**The Ha Noi project was the largest**
When the Ha Noi water management project was launched in 1985, the city had a population of about 800,000. Since then Ha Noi has grown and expanded considerably: today the number of inhabitants of the city is estimated at about seven million.

The Ha Noi water supply project was implemented in four stages between 1985 and 2001. Initially the main goal was to increase the water production capacity. The second stage involved rehabilitation and construction of distribution network, maintenance, the institutional capacity of the water utility. Towards the end of the project the work was focussed on capacity building of the organisation and the personnel of the water utility.

The Ha Noi project is the most extensive of all Finland’s cooperation projects in the water sector: the total aid provided by Finland amounted to about 85 million euros. The outputs of the project included increasing the daily water production capacity to 240,000 cubic metres per day, nearly 400 kilometres of new water supply pipelines, almost 150,000 water meters, as well as overall modernisation of the utility. As an added benefit of the project, a number of Vietnamese specialists in the field have improved their skills and risen to high positions in the water utility and other organisations.

**Haiphong success story**
The water supply and sanitation programme backed by Finland was launched in Haiphong in 1990. The problems in water supply were rather similar to those faced by Ha Noi, but due to a combination of heavy rainfall and strong tides in this seaside city, drainage and sewerage were even more challenging.

The programme in Haiphong was also implemented in four stages between 1990 and 2004. At the initial stage the project was mainly focussed on planning, development of institutional and individual capacity of the staff of the water utility, as well as on small-scale rehabilitation. The resources for investment in Haiphong were far lower than in Ha Noi. Finland supported the project by contributing in total about 27 million euros. Since the United States lifted their embargo in 1994, considerable amounts of capital started to flow into Vietnam, increasing...
investments in water supply and sanitation. When the World Bank began financing investments, inter alia, in Ha Noi and Haiphong, Finland began supporting investment projects implemented with credit funding from the World Bank, by financing Finnish expertise in the field of investment planning and supervision of construction work. In addition to water supply, the project in Ha Noi included development of sewerage and waste management facilities.

Headed by highly competent management and benefiting from Finnish expertise, the Haiphong Water Supply Company evolved from an organisation constrained by technical and economic problems into a utility, which has earned both domestic and international recognition. The World Bank has singled it out – along with Singapore – as an example of a well performing Asian public water utility in its publication entitled "Characteristics of Well-performing Public Water Utilities".

**Finnish expertise is welcomed**

The Ministry of Construction of Vietnam, the authority responsible for developing urban water supply and sanitation at the national level, has solicited Finnish expertise to assist in developing urban water supply and wastewater management strategies in 1993–1996. These strategies outlined the path of gradual transition from the planned economy model towards market economy. The strategies proposed measures for improving sector efficiency, cost recovery, streamlining administrative responsibilities as well as for improving the situation with the environment and public health. These strategies were used in the Prime Minister’s decisions for the orientation of urban water supply and wastewater management.

Vietnam has particularly welcomed foreign support to sector investments. However, it has been interesting to note that beside such aid, Finnish intangible backing, for instance in preparing the above mentioned strategies and in drafting water supply legislation has also been highly appreciated.

**Small Towns: sustainability is the key**

Since 2004 Finland has been supporting water supply and sewerage projects in the northern provinces of Vietnam under Water and Sanitation Programme for Small Towns. This programme has been divided into three phases. At the start (2004–2009) the project involved 14 towns in four provinces: Haiphong, Thai Binh, Hung Yen and Bac Kan. During the second phase (2009–2013) the programme expanded into another four more provinces –

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*In a tight competitive situation, you need good relations and competitive investment instruments.*
As Vietnam has developed, it has risen to the level of middle-income countries.

As Vietnam has developed, it has risen to the level of middle-income countries. Cao Bang, Ha Giang, Tuyen Quang and Yen Bai. Altogether 22 water supply systems and 19 wastewater systems were built in 26 small towns. More than half of them have been have been completed in the third phase of the programme (2013-2016). The programme will provide about 30,000 households with access to piped water supply, and wastewater from nearly 10,000 households will be led off to be treated at new wastewater treatment plants.

The third phase of the programme is focussed particularly on the sustainability of the facilities built, and on ensuring their long service life. The management and the operating staff of the operators are provided with training in financial management, human resources management and environmental matters, as well as in developing customer relationships and marketing of services. Additionally, support is provided to the central government – the Ministry of Construction and Vietnam Development Bank – in matters related to the creation of improved development and operating conditions for water utilities. During the last year of the programme the Vietnamese will increasingly assume full responsibility of all the sub-areas of the programme. This programme marks the end of Finnish grant aid in the water sector in Vietnam because Vietnam has graduated into the category of middle-income countries and, hence, is no more considered an eligible recipient of such aid.

Concessional credits and non-governmental organisations

Concessional credits provided by Finland have been and still are being used to implement water and wastewater projects in Soc Son, Tam Ky, Thai Binh, Haiphong, Hung Yen, Vinh, Bac Kan and Dien Bien Phu. These projects include water and sewage facilities and storm water pumping stations.

In cooperation with its Vietnamese partner organisation, a Finnish non-governmental organisation has promoted hygiene education among ethnic minorities in Lao Cai.

What next?

Within thirty years, more than one hundred Finnish water sector experts will have worked in Vietnam. Respectively, a large group of Vietnamese specialists have worked alongside their Finnish colleagues, some of them have also studied in Finland, and a much larger number of these specialists have visited Finland to learn about the industry. The cooperation has resulted in strong and close relationships both at an organisational as well as at an individual level.

Finnish water – Nước Phần Lan – is a well recognised and appreciated concept in North Vietnam. The fact that properties are situated within the "Finnish water" services area has boosted their value. Finnish Water Forum, whose membership includes Finnish water businesses, public administration institutions, research institutions and non-profit associations, has registered the Nước Phần Lan trademark, which may be used to market Finnish water expertise and products across Vietnam.

Competition in the water sector in Southeast Asia and Vietnam is intense. In addition to high-level expertise and high-quality products, it is essential to continually keep up relationships and offer competitive financing instruments. Unfortunately today Finland does not have access to such financing instruments, instead we give our competitors an edge in this aspect.
Finnish-funded water supply and wastewater treatment projects in Vietnam

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<tr>
<td>Ho Chi Minh City</td>
<td>2005</td>
<td>Biological waste treatment by anaerobic digestion, Feasibility study and process consulting</td>
<td>DOSTE, Department of Science, Technology and Environment, HCMC</td>
<td>Econet Ltd</td>
</tr>
<tr>
<td>Son Tay-Hoa Lac-Xuan Mai-Mieu, Hanoi</td>
<td>2004</td>
<td>Water supply project, project and process consulting</td>
<td>Soil and Water Ltd / Son Tay-Hoa Lac-Xuan Mai-Mieu municipalities</td>
<td>Econet Ltd</td>
</tr>
<tr>
<td>Thai Binh Town</td>
<td>2000–2001</td>
<td>Thai Binh Water Supply Project</td>
<td>The People’s Committee of Thai Binh Town</td>
<td>Econet Ltd</td>
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</tbody>
</table>

The total value of Finnish funding is about 185 million euros, of which about 40 million is of concessional credit.
Clean water is a valuable natural resource and – should the current trends continue – will become even rarer in the future. It is possible to affect the production of clean household water at the distribution stage by minimising losses.

Text and photos Keypro Oy

The international Water-M project addresses water distribution problems by applying technology and research. The project is aimed at developing new products and services to support water management. The corner stone of the project is making use of open interfaces to combine data, the different systems in a more versatile manner. Seamless flow of information between programmes brings different tools together and speeds up, for instance, the process of receiving error data. In addition to Finland, the participants of the Water-M project are France, Romania and Turkey. The project was launched in 2014, and is still ongoing.

Open interfaces play the key role

In terms of geographical and network data the Water-M initiative brings to the markets the long-awaited transparency and competition. Web solutions based on open source code and open standards will be playing an increasingly pivotal role in the near future. One of such solutions is KeyAqua, a network data solution developed by Keypro Oy, a member of Finland’s consortium, which provides – along with management of geographical position and features data – a variety of features for using open measurement data and conducting map-based analyses identified in the aims of the Water-M project. Besides, KeyAqua is also highly recognised for its SMS messaging features and the mobile user interface, which boosts productivity of field work. For example, leak and pressure measurements results are transmitted directly to the pipeline supervisor’s tablet device in the field, and are displayed in the accurate location on a real map. KeyAqua is already used for water management purposes by more than 60 network owners in Finland.

Remote reading saves time and efforts

In the Water-M initiative, Keypro Oy is cooperating with partners to make the current solution even more innovative. One of the examples of such cooperation is the pilot scheme with the Kymen Vesi water company, in which Keypro, along with two other Finnish consortium members – Econet Oy and remoteMX Oy – is developing a unique cloud-based measurement solution, where measurement data are transmitted directly to the customer’s network data system. The data produced through this pilot scheme is further refined and researched by Oulu University.

Kymen Vesi is a Finnish water management company, which produces good quality household water for a population of about 72 000 people, applying the highest environmental standards. The water supply network of Kymen Vesi features about 800 kilometres of water pipes, including trunk lines, and a matching network of wastewater pipelines. Uninterrupted water distribution is ensured through continuous monitoring and control.

To date, altogether 24 Econet remotely read water meters have been installed at the border of ten cooperatives in the Kymen Vesi environment. Moreover, KeyAqua is also highly recognised for its SMS messaging features and the mobile user interface, which boosts productivity of field work. For example, leak and pressure measurements results are transmitted directly to the pipeline supervisor’s tablet device in the field, and are displayed in the accurate location on a real map. KeyAqua is already used for water management purposes by more than 60 network owners in Finland.

Water balance reveals leaks

The most recent project researches the water balance in a precisely specified area within the region serviced by Kuopion Vesi. Another purpose of the research is to test Econet’s newest ultrasonic pressure and flow meter. In this case data are also read and used in the Keypro’s KeyAqua system.

The regional water balance is established in the researched area. An ultrasonic pressure and flow meter will be installed in every property within the area. By comparing the volume of water passing through the area against the volume of water consumed by the properties, it is possible to detect any possible leaks.

Measuring data on maps

Open interfaces make it possible to visualise and analyse water measurement data directly in a browser based web solution. In addition to geographical position and features data management, the KeyAqua network data solution developed by Keypro Oy also offers a possibility to display the open measurement data on a map. Locating leaks and pipeline damages, monitoring consumption and billing becomes more efficient when data can be tracked in the same system that contains other data of the water network. It is most likely that measurement data will be seen in the future as self-evident records within the rest of the network data.
Earlier, Vinh City was like any other typical Vietnamese city with regard to consumption of water. Households were using water from wells or precipitation water that was never purified or filtered. Well water was used in the industry, too. Untreated water had negative impacts on health and the environment.

The idea of building a water management plant in the Vinh region was first proposed at the turn of the millennium. The driving force behind the idea was NAWASCO, the waterworks of the Nghe An province. After the completion of various official processes, it was possible to proceed to the tendering phase in 2007. Econet Ltd. was involved in the tender from its outset, and was awarded the contract, as its bid complied with the technical requirements and proposed the best price. At the end of 2010 the cooperation agreement was signed with NAWASCO, and finally it was possible to begin the construction of the plant.

It was intended to build a water treatment plant and a water supply network of about 240 kilometres for the Vinh City. Econet acted as the general contractor and was also responsible for the planning of the project. In addition to Econet’s own project manager and designer, local subcontractors were recruited to implement the construction project. The required equipment and parts from Finland were delivered by sea. Freight forwarding was handled from Econet’s head office in Malmi, Helsinki.

**From design to implementation**
The project faced a number of challenges at the construction stage. First there were geological problems. Support structures were redesigned and the location of the underground pipelines was changed. A lot of additional work was carried out.

The construction phase coincided with the worst stage of the recession, which affected the business of...

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**Vinh City – Success story of Finnish water-related expertise**

The warranty term of the Vinh City water treatment plant expired at the end of May. The plant is now running at an increasing capacity, and is producing clean water for as many as 200,000 people of Vinh City, the surrounding townships and the rural areas around the clock and every day.

Text and photos Eija Öhrnberg

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The water treatment plant of the Vinh area serves nearly 200,000 inhabitants.
subcontractors and slowed the process down. There were also difficulties with financing. The project was delayed by 18 months vis-à-vis its initial two-year schedule.

– There were many challenges during the construction period, Nguyen Xuan Thang, the CEO of NAWASCO reminisces.

– It was necessary to alter the original project plan and the capacity also needed to be increased. The economic recession affected the project’s progress as well as its subcontractors.

Delays in financing and in the delivery of supplies are commonplace at Vietnamese worksites. However, good negotiation skills and a vision of the common goal helped to move forward with the project.

– We achieved the desired end result through hard work and are now extremely satisfied. Good diplomatic relationships also contributed towards bringing the project to completion. We also hope that we shall be able to continue the development efforts with the support of the Finnish state.

Multiplier effects of clean water
The new water treatment plant has taught people to appreciate the value of clean water. However, the price for water still raises discussions, in particular because well and rain water used earlier had been free. Now the price for water is established on the basis of consumption and the level of income. For the time being, fees charged to consumers are not yet covering the water treatment costs. Nevertheless, most customers are happy to pay for having clean running water available around the clock.

Besides households, the industry also benefits from the new water treatment plant. This, in turn, has a positive impact on the state of the environment.

Clean water raises the quality of life of people and helps in their daily chores. Moreover, clean water prevents the spreading of infectious diseases and reduces medical expenses. The availability of water has a significant impact on the position of women – they do not need to spend time on fetching water or purifying it. Household chores, traditionally handled by women, are much easier when there is always running water available.

From now on, the plant will be operated by a subsidiary of NAWASCO, Vinh City Neighbourhood Water Supply Inc., established earlier this spring. The company is cooperating with Econet in the field of training. The management of the operator company consists of three individuals who were all involved in the project at the construction stage of the plant. The total number of staff the plant employs is 54.

What makes Vinh a success story
Nguyen Huu Thuan, the project manager of NAWASCO was engaged with the project for the entire construction period of the water treatment plant, being responsible for the progress of the project from the customer’s side. Now Thuan is spending his last days at the worksite, as he is retiring on a well-deserved pension.

Having lived in the Vinh area for his entire life, Thuan himself has seen how the availability of clean water affects the development of a region. Thuan is visibly proud of this new water treatment plant.

Furthermore, the power of cooperation at NAWASCO cannot be underestimated. Any questions raised in the course of the project were resolved by negotiations, correct decisions led to the best possible end result.

– People who were making the decisions about the Vinh water treatment plant have turned it into a success story,” summarises CEO Thang.
Mr. Nguyen Duc Trung, Deputy Director of the Dien Bien Department of Construction, describes the background, the ongoing project and the current work process of the project:

- The representative of the project owner is the Project Management Unit of Dien Bien Provincial Construction Work. Investment objectives are to improve the existing drainage system to reduce the impacts of flooding in the inlying area of Dien Bien Phu City and to construct a new domestic wastewater system to reduce the pollution caused by domestic wastewater.

  The scope of the investment includes the construction of a sewerage network covering the central parts of the city as well as the construction of a wastewater treatment plant. The sewerage network and its auxiliary work include the primary, secondary and tertiary networks, HDPE gravity culvert, various manholes and chambers and several pumping stations across the city.

  The main components of the wastewater treatment plant, which has a capacity of 10,000 cubic metres per day, include a preliminary treatment system, an aeriation tank, two sedimentation tanks, sludge gravity thickening tank, sludge treatment building as well as a UV-disinfection unit. In addition to process-related buildings, a two-floor administration and operation building, a substation and a single-floor control house, as well as a guard house are included in the project. The levelling area will be 30,000 square metres and the total land area 9.6 hectares.

  The total investment is 274,335,000,000 VND (11,673,800 EUR). The project is funded with two resources: a concessional loan from Finland amounting to 235,235 million VND and a counterpart fund of Vietnam in the amount of 39,100 million VND.

  Apart from the items stated above, the Finnish main contractor Econet Ltd, who is implementing the EPC project, takes responsibility for training, transferring technology and instructing the owner about project operation, management and bringing the work into operation.

  The project was planned to start on July 2 2007, pursuant to the government’s approval of list of projects using Finnish concessional loan in the cities of Dien Bien Phu and Pleiku. In May 2015, the contractor started the construction in Thanh Binh Ward. The section which is expected to be completed first is the stream C12 and its embankment from pumping station no. 1 to the Nam Rom River. The project is scheduled to be completed over 700 days and expected to be brought into use in 2016.

  To date, the cooperation between the owner, Project Management Unit, main contractor Econet and sub-contractor has been good, and the time schedule is basically ensured. In spite of being a foreign entity, Econet Ltd is proving to be an experienced and competent contractor in implementing projects in Vietnam. The owner PMU and Econet regularly arrange progress meetings to discuss the project issues and timely handle arising matters.

  When the project is completed in 2016, the majority of domestic wastewater from households in four of the seven wards will be collected and treated before being discharged to the environment. Flood and pollution in several areas will be minimized after the main channels in the city are dredged and embanked. The population in the city (about 75,000 people) will benefit from the project. In addition, the success of the project is the premise for the development of the entire wastewater treatment system in particular and the infrastructure in general in Dien Bien Phu City.
Sales work in Vietnam

Which cultural aspects should be taken into consideration?

Anh Thu Tran Minh

Once, when I was talking about sales work in Vietnam with a colleague of mine, he reminded me about how a few decades ago, when he was working as a project manager in Hanoi, a keen Vietnamese man was trying to arrange a meeting with him, proposing collaboration. My colleague did not think this unknown Vietnamese person was credible, and he rejected his meeting requests many times. One day, he remembered that a spectacularly successful sales representative of their company in China had similarly attempted to see the company’s project manager, and had had to face rejections several times before he got to speak to anyone. The tenacious Vietnamese returned again one day, he was received, and that meeting was the beginning of concessional credit project deliveries to Vietnam by a certain large Finnish contractor. At least we learned that sales-oriented people share some behavioural models, regardless of their cultural background.

So, what kind of cultural differences do the Finnish and the Vietnamese have? Let us start with greetings. However experienced in Vietnamese culture you may be, dear reader, you may well be surprised that shaking hands in Vietnam is not a traditional Vietnamese way of greeting someone. French and Portuguese sailors introduced handshaking to Vietnam in the 19th century. Until then, the people in Vietnam greeted each other by looking into the eyes, nodding and smiling. Even to this day, the Vietnamese do not necessarily always shake each other’s hands, and Vietnamese women in particular do not reach their hand out on their own initiative. However, when people do shake hands in Vietnam, it is permitted and recommended to shake hands with everyone, women and men. There is no point in making any assumptions about a Vietnamese person’s upbringing or character, depending on the firmness or the lack of their handshake, unlike most Finns do.

During a handshake, a Vietnamese person will not say their name, because in Vietnam it is not customary to introduce yourself. In Vietnam, you are introduced by someone who knows you and the other person. A round of introductions at the start of meetings and gatherings is not a Vietnamese tradition. On request, the leader of a delegation will most likely make introductions on behalf of the entire group. Often, people use only first names during introductions. Full names are used during formal and festive occasions. The use of a first name does not necessarily denote familiarity. The Vietnamese have few family names, but they have a countless number of first names, which helps to distinguish people who have the same family name.

Familiarity or formality is expressed by different forms of address. These are used to express the speaker’s relationship within the hierarchy of a family, organisation and society. The forms of address are different for women and men. The forms of address are also used to express the speaker’s age compared to the conversation partner’s: younger – older. This is a sign of respect. Furthermore, form of address are used to express feelings and emotions: upset – loving. This is one of the most complicated things in the Vietnamese language and culture.

Forms of address are important for the Vietnamese also because it is not customary to address or greet somebody without specifying whom you are talking to. In other words, it is not polite to say simply “Thank you!”, or “Good morning!”; instead, you have to say “thank you” or “good morning” and a form of address, or your conversation partner’s first name: “Thank you Pekkal”, or “Good morning teacher!”.

Vietnamese people do not usually respond to compliments with words of gratitude: instead, they smile, and comment on the matter. For example, if someone says you have nice new glasses, you can skip the thanks and say the following, instead: “Yes, my wife helped me pick a pair.” Neither do the Vietnamese people have a habit of thanking for a meal; instead, it is customary to praise how delicious the food was.

It is polite to present and receive business cards or gifts with two hands and a nod. It is not polite to throw business cards on a table, or urge your business partners “to help themselves”.

Once, at the end of a visit by a Vietnamese delegation, the Finnish host said to me that “there are small gifts for everyone on that table, help yourselves.” I suggested to him, in Finnish, that it would be more polite towards the guests to hand everyone their present separately. The Vietnamese guests were delighted to receive gifts that were handed to them personally. The value of these gifts would have decreased unnecessarily if the guests had had to “simply help themselves”.

I may well list many more cultural differences, but is it worth studying and adhering to them? If you think you have fumbled with any of the above-mentioned things, you need not worry too much. There has probably been no irreparable damage. You can count on Vietnamese people on being understanding of foreigner’s different etiquette.

Vietnam was a vassal state of China for 1000 years, and of France for 100 years. The Vietnamese people have been able to learn many good things from these strong cultures, without integrating into either of these. In Chinese, people do not address each other in the complicated way of the Vietnamese, although the Vietnamese language was written with the same characters as Chinese. In Chinese, as in many other languages, there is only one word for “I” and one word for “you” that is used when speaking. However, the Vietnamese did not adopt everything: for example, during the one thousand years of Chinese occupation, the Vietnamese never accepted the custom of binding women’s feet.

People involved in the Vietnamese business life are most likely used to meeting foreigners, and they do not recoil at foreign manners. As a matter of fact, foreigners are expected to act as foreigners, and not be familiar with Vietnamese customs.

I encourage you, dear reader, to trust yourself when working with Vietnamese people. You can be yourself, without trying to adhere to Vietnamese customs, or to speak Vietnamese. Of course, it is definitely good to know and understand cultural differences, but you do not need to know how to adhere to them. If you want to increase your confidence, you can start your first meeting by apologising to your Vietnamese partners for any mistakes you may make, as you are unfamiliar with the Vietnamese culture. If you have not internalised the customs of a foreign culture, or if you are not particularly familiar with them, or if they don’t come to you naturally, you may come across as pretentious, hindering your credibility.

You may well garner some sympathy, of course.
The project supports the goals set by the Vietnam's development plan, by fostering water supply and sanitation services of small towns in eight provinces in North Vietnam, so that after the project is completed, the towns would be willing and capable of handling and developing the services in a cost-effective manner.

In Cho Ra this project is particularly important for women: their life and housekeeping have become much easier and the quality of potable, washing and watering water has improved considerably. The survey was carried out with the help of three representatives of the local women's organisation, who selected the suitable families to participate in the polling.

The customer satisfaction survey concerning the functioning of the wastewater network was carried out at the end of May in the town of Cho Ra. Teams consisting of representatives of the women's organisation, a consultant and employees of the water treatment plant visited altogether one hundred households, focusing on measuring the respondents' satisfaction with the water and wastewater management services. AQ is outlining some of the comments made by the respondents of the survey.

The cleanliness of water is particularly important for children.

One water point could serve a number of households.

An outdoor toilet could be shared by several households.

Bào Thị Thào (right) took out a micro-loan to connect to the water supply and sewerage network. She is satisfied with the services and pays the fees charged to a family of five, because she wants the environment to stay clean. In her opinion, it is now especially easy to organise parties.
Results of the 2015 survey

**Water Management Project:**
94% of the respondents (a total of 17 respondents) are satisfied. Men are more satisfied than women (men 100%, women 83%). 88% of the respondents think that the quality of water is good. 88% of the respondents are aware of who is responsible for the services and whom to contact in case there is a problem. 92% say that the service is provided round-the-clock and that there have been no major disruptions of service.

**Wastewater Project:**
89% of the respondents (57 consumers of the service) are satisfied. Men are more satisfied than women (men 92%, women 89%). 97% consider the cost of building the connection reasonable. 84% of the respondents know who is responsible for the services and whom to contact in case there is a problem. 100% would be prepared to pay for wastewater treatment in the future.

**Background data of the respondents:**
39% of the persons polled were women, and 61% were men. The average age of the respondents was 51. 84% of the persons polled were members of the Tay ethnic minority, 6% belonged to the Kinh ethnic group, 5% to the Nung minority and 4% to the Dao minority. 8% of the respondents have elementary level education, while 92% have secondary level or higher education. The most common occupation among the respondents was ‘civil servant’, with 24% of the respondents, with the second most common occupation being agriculture – 21%.

Satisfaction surveys were carried out during door-to-door visits in May.

Lâm Thọ Thỏt (the woman in the front left), the chairperson of the Cho Ra Women’s Union and Nguyễn Văn Thọch, the chairperson of the Town People’s Committee, speak about the background of the Small Towns’ Water Management Project.

The drain of the household of Ma Vịnh Lào (left) is connected to the same sewer as another household’s. Pipes that are too small cause problems, and therefore the family are not satisfied with the sewerage services. There is a lot of lime in the tap water, and sometimes water has a stench of chlorine, but they are rather satisfied, as the water supply system makes everyday chores much easier, particularly for women.

More than 90 per cent of the respondents of the water survey, and nearly 90 per cent of the respondents of the wastewater survey were satisfied with the services provided.

Trần Văn Học has been connected to the water supply and sewerage network, but he thinks that the monthly fee is too high. Nevertheless he believes that it is important to make use of the services provided. There have been odour problems in the region, but now the situation has improved.

Hoàng Văn Bọ (in the middle) follows the example of the community: the house has running water and is connected to the sewer. In his opinion the best things are the continuity of the water supply, and the fact that the environment stays clean. He also appreciates that the village community provides information about water-related matters.
Finnish water to the Bac Kan Area

Pham Cong Lap, the manager of the water facility of the city of Bac Kan, describes the ongoing water treatment and sewerage project, and Pham Van Tien, the head of the Public Works Department, talks about the background of the project.

Text and photos Eija Öhrnberg

The Water Supply and Sewerage Project of the city of Bac Kan includes upgrading, renovation, and extension of the existing water supply system. At the moment, more than 85 per cent of the households, which corresponds to about 5,000 households, are connected to the existing system. After the completion of the project, the number of households connected will rise to over 90 per cent. This means that 1,000 new households will be connected to the water supply system.

– The piping and peripheral systems have already been completed. The household connections were delayed a little, since we had to wait for the customs clearance of imported materials. Materials imported in keeping with the schedule arrived to Bac Kan in June and Econet completed the installation of the materials within a month, Pham Cong Lap says.

– Econet’s contract period amounted to 18 months, with the period expiring in April 2015. However, we needed more time for operation training, as well as for the inspection and repair of possible leaks. Because of this, the works were handed over to the customer in mid-June 2015, by which time 1,000 new households had been connected to the water supply system.

– The project has not been a major investment for the city, but an extremely important one, since it gives access to clean water to a greater number of households.

– In the course of project implementation, we gladly learned from Econet’s experience and about technologies related to the water supply sector. The technologies used for wastewater treatment and the prevention of leaks were of special importance, since we will need them in the future.

The Finnish Government has financed a lot of projects in Vietnam, especially in the water sector. Finland’s interest rate subsidy agreement has meant a lot for the poor towns in the Bac Kan area.

– I am grateful for the co-operation between the governments of Finland and Vietnam, since this allows poor areas to take advantage of the benefits resulting from the project. It has been shown that the investments have been efficient and the funds have been used for the right purpose. At last, Finnish water is flowing in the Bac Kan area.

Pham Van Tien continues:

– The overall Bac Kan water supply and sewerage project consisted of two parts: water supply and wastewater treatment. As concerns wastewater treatment, the objective was to renovate the Nong Thuong and Thi Xa streams, in order to protect the city from flooding. In addition, 39,000 metres of sewage system pipes (diam. 200-355 mm) were installed and a wastewater treatment plant built with a surface area of 6.5 hectares and a first stage processing capacity of 3,000 cubic metres per day. After the completion of the second stage, the capacity increased by additional 3,000 cubic metres per day.

The water supply and sewerage project of the city of Bac Kan comprises providing access to clean water and sewerage, as well as the renovation of two streams. Together, these measures will contribute to reducing pollution in the city. After the completion of the wastewater project, 4,500 households will be connected to the sewerage system.

– By now, 40 per cent of the contractual works have been completed. Construction works of the sewerage system piping and wastewater pumping stations, and the renovation of the two streams are currently in progress, and planning works will soon be completed. Econet’s contract expired last April. The contract extension establishes 31 June 2016 as the deadline for the achievement of all of the objectives in the wastewater section.

After the project is completed, it will greatly influence the life of the people residing in the area. It will improve the quality of life, reduce pollution, and increase labour productivity.

– The Finnish Government has financed a number of projects in Vietnam, which have had a major impact on the life of Vietnamese people. We are extremely grateful and have a great respect for the co-operation between our two states.

It feels great when the project is going smoothly.

Antti Partanen tells about his own experience as a project manager at Bac Kan.

– Econet’s role in Bac Kan was to act as the general contractor who would engage a required number of subcontractors, in order to bring the project to completion. Econet delivered equipment purchased from Finland, along with its own equipment. It took 1.5 months to have the supplies shipped to the destination in a sea container. Customs clearance took another 1.5 months, so the total delivery time was 3 months.

As a project manager, my task was to monitor the fulfillment of the contract, to supervise the work of subcontractors and designers, and to make sure that the finances of the project stay within the budget. The projects involve visits to Finland where decision-makers get to learn about the cooperation partner’s skills and capacities. This serves to strengthen the reliability of the cooperation partner. The same also happened with the Bac Kan Training Group, when they visited Finland in the spring of 2014.

In addition to the project manager, the staff of the project included Pekka Korkeila, who was involved in the project during its planning phase, and Vesa Jouhki who handled freight forwarding from Finland, while the entire staff at the head office provided support to the project.

The best part was when two years after the contract was concluded, the work was going smoothly, and it did not entail just shuffling papers around. It felt great to conquer adversities and to get the project running.

It took a long time to have the initial designs approved. Approval can take from three months to one and a half years. It was necessary to find appropriate subcontractors for every job, which also proved to be challenging.

What made life in Bac Kan special is the family. The local wife and the son who is yet to reach his first birthday. Giving birth there was an emotional experience. Local Highlanders, who represent an ethnic minority, complement the richness of our life with their own language and culture.

Bac Kan

Project name: Backan water treatment and sewerage project
Client: DoC (Department of Construction, wastewater) and Backan Water Supply Co (water facility, domestic water)
Region: the city of Bac Kan, Vietnam
What was done: water supply pipelines and administrative building; as well as sewerage pipelines, pumping stations, a wastewater treatment plant and canals.
When: August 2013 – June 2016 (estimated)
Project value: 8.2 M€ (wastewater 6 M€, domestic water 2.2 M€)
The role of water in the Vietnamese kitchen

The kitchen is the beating heart of the home in Vietnam, just like in Finland.

Three good spirits live in Vietnamese kitchens, and their task is to protect the people from bad spirits and to tell the heavens news of people’s lives, both their good and bad deeds.

According to the lunar calendar, every year on 23 December, Vietnamese people use incense and offerings to send the kitchen spirits to heaven to report. New Year celebrations are considered to start on this day, when the spirits of the kitchen are sent on a reporting journey to the heavens, and the celebrations continue by welcoming the spirits back on 30 December, the day before New Year’s Eve.

The following story about the three good kitchen spirits is well-known in Vietnam. A long time ago, there lived a husband and a wife who were very poor. They loved each other very much, but they became distant from each other when they were trying to make a living. Over time, the woman met another man, got married, and lived a very happy life with this other man.

One day, when the man was away from home, a beggar came to their door, who did not want to cause any problems from the forest with his catch. The beggar remained in the haystack. The beggar did not escape, she jumped into the flames. The woman noticed that the beggar had not died, he jumped into the fire, too.

At that moment, the master came home, a beggar came to their door, who invited him in to sit down. They talked about their lives. She offered him food. She invited him in to sit down. They talked about their lives. She offered him food.

The woman still loved this beggar. She invited him in to sit down. They talked about their lives. She offered him food. At that moment, the master came home, a beggar came to their door, who invited him in to sit down. They talked about their lives. She offered him food.

The woman noticed that the beggar had not escaped, she jumped into the flames. At that moment, the master came home, a beggar came to their door, who invited him in to sit down. They talked about their lives. She offered him food.

The heavens were moved by the affection and loyalty between the spouses, and their spirits were restored to the world, to inhabit the kitchen of every home, protecting people. When cooking food, the pot must be kept upright on three supports, whether pieces of wood, coal, or stone.

When it comes to water in the kitchen, the risk of the fire being extinguished is avoided as much as possible, as some people believe it brings bad luck. Some Vietnamese use feng shui and arrange the kitchen so that the tap is not even pointing in the direction of the stove. Without water, there is no kitchen; without water, there is no eating or celebrating.

In the Vietnamese language, a celebration and party has the same word, ăn, and it means eating. A Vietnamese person eats a party, ăn tiệc, just like they are celebrating it. A Vietnamese person could also say they are eating the New Year, ăn tết; and likewise, eating a wedding, ăn cưới, when they mean that they are celebrating the New Year or a wedding.

Everyday greetings also involve asking about eating. Friends ask each other “Have you eaten?” when they meet. If someone tells you that you have gained weight, it is meant as a compliment – you are doing well, you have had plenty to eat. However, this act of politeness has become less popular in Vietnam today, because being overweight has become a common health problem.

Vietnamese do not cope very well with too much water and sometimes there really is too much of it. The worst famine in the history of Vietnam occurred during World War II, in 1944 – 1945, when up to two million people died. The war made the destruction wreaked by the drought and the subsequent floods even worse. Drought and heavy downpours, storms and floods afflict Vietnam every year. Fortunately, in the Vietnamese climate, it is possible to harvest rice crops up to three times a year. Indeed, some Vietnamese people have wondered how there can be enough food in Finland, if harvesting takes place only once a year.

The role of water in the Vietnamese kitchen is emphasised through rice, which needs a lot of water in order to thrive. Vietnamese people eat rice at breakfast, lunch and dinner, and as snacks, which are prepared in a wide variety of ways. In the Vietnamese language, a celebration and party has the same word, ăn, and it means eating. A Vietnamese person eats a party, ăn tiệc, just like they are celebrating it. A Vietnamese person could also say they are eating the New Year, ăn tết; and likewise, eating a wedding, ăn cưới, when they mean that they are celebrating the New Year or a wedding.

Water also plays a role in the kitchen spirits’ annual reporting journey to the heavens and back, because the kitchen spirits ride on a fish, a particular species of fish known as the carp (cá chép in Vietnamese). The carp is known as the jumping fish, and some of these can jump so high that according to our beliefs, they turn into dragons. The carp is a very common fish, particularly in Northern Vietnam. People make carp soup, too.

There are at least eight words for rice in the Vietnamese language. A Vietnamese person believes they would not have had a proper meal unless they had rice. Potato or bread would not substitute for rice, even though they eat plenty of those foods when abroad.

The role of water in the Vietnamese kitchen is also highlighted through soup. During festive meals, with seven or ten courses, there must always be one soup. The soup does not need to be meaty; often, the Vietnamese enjoy light, clear vegetable broths with their meals. A light clear broth could even be a substitute for a drink offered with a meal. According to traditions, drinks need not be offered with meals, but rather, water or tea is offered at the end of a meal.

The Vietnamese like to offer meaty soups as snacks or light meals on their own. Just thinking about these makes the mouth water. There are dozens of varieties of Vietnamese soups, typical of various parts of the country. The most famous is definitely phở, which is also served in the metropolises of the world, and which has recently become a trendy food in Helsinki, too.

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Econet was born at the beginning of the 2000’s, when the environmental construction unit of Skanska was reorganised due to the company’s strategic change of direction. Econet Engineering Ltd – today Econet Ltd – was established at the beginning of 2002 through a demerger from Scanska arranged as a management buy-out. Juha Kontturi and Kauko Pakarinen joined me in this new venture.

Originally our operations were focussed on industrial process and plant design, in particular on wastewater treatment facilities of the pulp and paper industry, which were subsequently followed by equipment deliveries and installation supervision services. In addition to Finland, projects were also implemented in Sweden, Brazil and China. Our first “very own” project was the performance of warranty work and obligations at the Skutskär pulp mill in Sweden.

International focus has been Econet’s strategy from the outset, and we have always set our sights on continued growth. In 2007 the turnover amounted to 4 million euros and the company employed a staff of 9, by 2012 the turnover had reached 17 million euros and the number of staff – 46, whereas in 2014 the turnover was 21 million euros and the payroll listed as many as 78 employees.

After a couple of years in business we included acquisitions and mergers into the range of our operating strategies. In 2005 Econet acquired a 100 per cent interest in Dy Slamex Ab, which has been delivering equipment for water, wastewater and sludge treatment and purification of industrial process water since 1982.

Econet has been consistently pursuing growth through business acquisitions in order to ensure that the company’s resources and skills are strengthened with every acquisition. At the same time, the range of services has grown from design and consultancy to plant contracting projects, and engineering, manufacturing and maintenance of process equipment for water and wastewater treatment.

Adding the engineering business to our operations was the latest significant step on our company’s growth path. Our objective is to continue making use of the benefits offered by our own manufacturing capacities for the advantage of the entire Group.

Throughout this spring, much effort has been contributed to strategies in the corner office at Malmi, Helsinki. I believe that strategy is particularly important, seeing that it is indeed the key for the development and internationalisation of our business. One cannot grow in a managed way without a strategy.

Representing Finland in the steering group of the European Innovation Partnership on Water of EIP, I have always tried to highlight, in particular, Finland’s challenges in the water industry. In our country, the development is trending towards regional water management facilities. This trend is supported by the achieved economies of scale, reliability requirements as well as by management of investment and operating costs.

Clean water is a rapidly decreasing natural resource. Population growth, urbanisation, depletion of existing sources of raw water, environmental pollution and changes in food production are such global challenges that the water industry is faced with. Water demand is in rise, and therefore one could assume that the need for water industry experts will also be rising. Water saving technologies and intensifying water treatment, as well as water related research and management will become the areas of the water industry where more expertise and entrepreneurship will be needed.

The CEO enjoys being near water even during his time off, as his holiday home is situated at the seaside in Southwest Finland. During summer times, his free moments are spent fishing, playing golf, motorcycling and tending the garden of his holiday home.
New Smart Water solutions

Econet Ltd has become involved in a growing sector of the water industry, i.e. providing smart solutions for water management.

Antti Herlevi

Smart Water

Smart Water business is developing at the same pace as the more commonly known internet of things or devices (IoT), and the business related to this.

In Econet, the business operations in this field were started in one specific area: the remote reading of water meters, and the relevant comprehensive management of information. A similar revolution already occurred with the power grid over 2006 – 2013. Currently, practically all power meters can be read remotely in Finland and in Sweden.

The meter monitors energy consumption on an hourly basis, which makes it easy to manage every household’s own power consumption. The billing is based on actual power consumption, and not on the previously familiar calculation estimates. Furthermore, the power company will obtain information about the working condition of the network, as well as being able to monitor and control HYPERLINK “https://fi.wikipedia.org/wiki/Alykas_sahköverkko” a smart grid.

This change is mainly still ahead as far as water management is concerned, but it is definitely coming, the question is simply: how quickly? Econet wants to be a part of this development, and to provide genuine remote monitoring of real estate properties and of the grid, and in the next phase, of apartments as well. The purpose and the goal here is to make the best use of networks, making the operations of the water facility more efficient, for example by optimising maintenance works and using automatic billing, as well as by locating leaks. Consumers can monitor their own water consumption, and discover hidden leaks in their own home. Network leaks are a very big problem all over the world, which means that a vast quantity of water and power is literally going down the drain. In Finland, there is plenty of water available, so the problem of leaks has not been tackled with the same determination as is inevitable in drier countries. However, the production and distribution of clean water through a water facility requires energy, therefore, any prevention of leaks means direct savings for the water facility, and for consumers, too.

One of Econet’s strategies regarding the new measurement solutions is to provide open interfaces between devices so that the client can choose a cost-efficient complete solution consisting of devices from various suppliers. Econet’s first own device is an affordable meter which works in a GPRS network, for the remote monitoring of the water consumption of the grid and real estate properties. The Econet Smart Cellular Unit, the ESCU meter transmits alarms and measurement results to the Econet Smart service, or to the customer’s own server to be stored and distributed to other involved parties. The consumer can monitor their water consumption with a mobile device, for example. The meter has been developed in collaboration with VTT. Work is still ongoing for developing different versions of this device, to suit each customer and market.

Get leaks under control

The leaks in water networks are a world-wide problem, and sufficient measures have not yet been taken everywhere. Econet provides solutions for this problem by developing a new kind of meter in collaboration with VTT, which contains pressure and flow measurement in the same sensor. The meter will be compact and affordable, and it will have an integrated wireless data transmission system included in the same package. This meter together with a calculation algorithm developed for this purpose form a leakage sensor service which will make finding leakages in networks considerably easier. This makes it easier to search for leaks, and repairs can take place faster, which will amount to substantial savings for water facilities and customers.

Global water industry experts come together in Vietnam

VietWater, which will be held in November for the seventh time already, is expected to bring to Hanoi over 9,000 specialists and visitors from around the world. VietWater 2015 offers a possibility of getting to know the latest technologies in areas such as water storage, sanitation, water resources management, energy efficiency and purification. More than 3,000 exhibitors from 32 countries have registered to participate in the event.

Finnish Water Forum (FWF), Tekes, UM and TEM are organising the Finland’s third participation in the VietWater event. Four organisations have registered to the joint stand of Finland.

On 25.11.2015 Team Finland will organise a seminar “Doing Business with Finland” held during the Expo, at which Tekes, UM, TEM and Team Finland, as well as the participating businesses will discuss their activities and different Finnish financing instruments, such as BEAM and IPP.

Renewable Energy Vietnam and Energy Efficiency Vietnam will take place alongside the Expo. The meeting on renewable energy in Vietnam will discuss practical examples of the use of hydropower, bioenergy, solar power, wind power and geothermal energy. The energy efficiency event, in turn, will bring together industry specialists and decision makers to hold joint discussions on Vietnam’s energy efficiency and its future plans.

Come and visit Vietnam’s largest water industry event, in order to establish new contacts, find new cooperation partners, project ideas and tender invitations!

More information about the Expo is available at www.viетwater.com, while information about participation in the event can be received from Anh Thu Tran Minh, the chairperson of South East Asia Working Group of FWF, at attm@anthurium.fi, tel. +358 40 707 6534

Econet is exhibiting at the stand K106 together with Dewaco, Slamex and W-Rix.
MIH (Millenium Investment Company Limited) is a company established in 2011, with the head office in Ha Noi, Vietnam. MIH learned about the business of Dewaco at the VietWater 2014 trade fair, and the company wished to start importing DEWA products for the Vietnamese market.

During the stay in Finland the representatives of the MIH Group were impressed by the Finnish nature, people and smooth traffic. The group spent their first night in Turku, where Econet invited the participants to a dinner at a Scandinavian restaurant “Harald”. The food was excellent and we greatly enjoyed the opportunity of discussing cultural differences between Finland and Vietnam.

The next day the group got a warm welcome at Dewaco’s workshop in Laitila. Timo Veijanen and the company’s staff were extremely friendly and smiling. Negotiations were successful, and the first ordered unit is expected to arrive in July.

On the third day of a great visit I took the guests to a tour in Helsinki. We went shopping to the Kamppi shopping mall, and walked to the Dome Church. The weather was sunny and warm. Everyone was happy with the trip, and took a lot of photos. It was a fine visit. Our guests wished that they could spend more time in Finland.

The mobile sludge dewatering plant consists of a trailer mounted container housing the dewatering system built therein. The system comprises, among other parts, a polymer unit, a belt leachate press, pumps, and automatic equipment and pipelines. The user just needs to hook the plant to the power and water supply systems, and the it is ready to go, wherever it is.

Dewaco has been delivering sludge treatment equipment to Vietnam since early 2000, the mobile plant ordered now is the first of its kind delivered to Vietnam.

A farewell lunch in Vinh

Nguyen Huu Thuan, NAWASCO’s technical project manager responsible for the implementation of the water treatment project in the city of Vinh, retired in June. As is customary in Vietnam, all festivities include great meals. In the Vietnamese language, the word “celebrate” means the same as the word “eat”. Thuan’s retirement was also celebrated with a shared meal, when colleagues and business partners gathered to have lunch at a beach restaurant.

Vinh is located on the coast, so the lunch included plenty of fish and crustacean foods. The menu also included other local specialities, such as snake and larvae. However, we concentrated more on more familiar taste experiences, such as delicious cooked lobsters, mussels, and grilled prawns.

Finland is active in the EIP

The European Innovation Partnership or EIP is a forum organised by the EU, which strives to find development opportunities for the innovations in the water industry, keeping European and global markets in sight. Matti Leppäniemi, Econet’s Managing Director, is the only person representing SME-s in the Steering Group of the EIP, and Econet’s Antti Herlevi is a member of the EIP Task Force.

The role of EIP is to improve the emergence of water-related innovations and new business operations by providing funding from EU framework programmes, as well as to establish various action groups related to different subject areas. The Task Force strives to promote the development of the water industry by identifying the best practices and developing recommended measures and communication strategies.
Crafting with Econet

Chopstick holder

*Make a hat that can double as a chopstick holder!*

1. Get a sheet of paper, smaller or larger, depending on whether you would like to make a hat that can double as a chopstick holder, or simply a hat-shaped chopstick holder, for which a napkin would be enough, for example.

2. Fold the sheet double on the shorter side.

3. Take the sheet folded in two, fold its corners towards the middle, as shown on the image. Make small folds in the outermost corners.

4. Fold the edge of the longer side upwards so that the corner folds remain on the inside.

5. Fold the corners of the opposite side upwards in the same way.

6. Make sure that the folds are neat.

7. Open the fold from the middle.

8. Press the sides of the hat against each other, and bend the section upwards mid-way, for the brink of the hat.

9. Open the fold from the middle again.

10. Lift the edges upwards. The hat-shaped chopstick holder is ready!

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Intern from Vietnam

Trung Toan Don’s brother worked for a Finnish project carried out in Vietnam. The brother told Trung many interesting things about the distant land, where it was possible to study business management, marketing and logistics in English. In 2011 the young man, who is 22 years old today, packed his bags and ended up at the Lahti University of Applied Sciences. Later it became possible to apply for financing to further the studies, and Trung took an interest in this opportunity. He spent altogether three and a half years in the Lahti University of Applied Sciences.

In spring Trung heard through his acquaintances that Econet was looking for Vietnamese employees, and he was able to get an internship position for six months. Trung likes the many-faceted nature of his job description: communicating between Finnish and Vietnamese employees, producing various analyses, assisting in drafting contracts and handling financial matters. In particular Trung likes translating and interpreting jobs, which he has done quite a few.

The young man likes living in Finland, and not just because he has a Finnish girlfriend. Trung especially likes how friendly Finns are, and he likes Finnish summers and how much light there is then. Although he misses Vietnamese cuisine and its spices, he has also developed a particular taste for Finnish berries.

Trung’s plans include further studies in economics at the Aalto University, and perhaps applying for Finnish citizenship. After that he intends to travel, and to get to know new people and cultures.
Water treatment technology
with decades of experience

www.econetgroup.fi