# CEWP PI Lot 5 BUSINESS PROGRAM

# Technology Cases and Company Presentations



December 2022

## 1. Introduction to the Business Program and its activities

The Overall objectives of the CEWP Business Program have been to:

- Present State-of-the-Art-Solutions
- Identify Market Barriers and Innovation Needs
- Facilitate Relation-building and Partnerships

The original plan was to achieve this via side-events organized at selected Water Technology Expos. However, this plan was severely hampered by the endemic and instead a number of webinars have been organized. Altogether, an estimated 173 company technology presentations have been given during the Business Program events and webinars during 2018-2022. A total of more than 1.750 attended the events.

This report presents selected technology cases- presenting State-of-the-art-solutions developed by European water technology companies in section 2. A list of events and, titles of presentations and names of presenters in the CEWP Business Program events as well as links to reports which provide further results of the events is presented in section 3 of this report. The list focus on company presentations. Readers of the report may use this material as a basis for relation and partnership building.

Further readers are encouraged to read an additional report (CEWP Final Business Program Report, December 2022) presenting the final results of the business program. This report has its focus on drivers and regulation in the Chinese water market, technology demands, opportunities and market barriers. This report is available on the CEWP web-page https://www.cewp.eu.

Additional List of knowledge-based products, which are also available on the CEWP web-page is:

#### Market Reports:

- A comprehensive introduction to the Chinese Water Tech Market.
- An overview presentation of the Chinese Water Tech Market.
- Background paper on water use efficiency in the European Food and Drink sector 2019
- The CEWP China Water Market and Technology Outlook Report 2021

Summary Reports and PPTs:

- Reports and PPTs of Business Program Events and Webinars (In total 15 events and webinars, several with 2 or even 3 different sessions, so actually a total around 25 unique events)

## 2. Selected Technology Cases

The following technology cases presents challenges, solutions and benefits of water technologies applied in the Chinese water market. The cases have been forwarded to the CEWP Business Program and the descriptions are as they have been presented by the companies submitting the case description. Most of the companies are already active in the Chinese water market and hereby showcase for inspiration examples of business approaches which have been successful.

# Municipal, Urban wastewater and sludge treatment Cambi helps Beijing Drainage Group (BDG) to upgrade the sludge management strategy to meet sustainable and carbon neutralization goals

Challenges in conventional sludge management for BDG

BDG has faced the issues for sludge management, including increasing sludge amount, limited space, expensive cost in drying, and banned in landfill and incineration. BDG was seeking a sustainable treatment solution.

Solution: CambiTHP Advanced Anaerobic Digestion with biogas energy recovery and biosoil beneficial use as the lowest carbon solution

Cambi thermal hydrolysis process functions as pre-treatment of sludge before anaerobic digestion called CambiTHP Advanced Anaerobic Digestion. The raw sludge is dewatered to 15-18%DS and feed to THP system in which sludge is cooked for 20-30 mins by steam to 150-165°C. Organic matter is hydrolyzed and rapid pressure drop in flash tank for steam explosion to disintegrate cells and fibers. After THP, the sludge changes in characteristics with more soluble organic matter, lower viscosity, fully pathogens kill, so High Solids Anaerobic Digestion (HSAD) is applied with short HRT to achieve high organic conversion to biogas, high dry solids (DS%) dewatering and exceptional quality of treated sludge, now called biosolids (or biosoil) of Class A for safe land use.



Cambi is a world leading Thermal Hydrolysis Process technology provider for enhancing the conversion of municipal sludge to biogas, using a unique pretreatment method, called Thermal Hydrolysis Process. Cambi was established since 1989, now well established in global market (www.cambi.com). Cambi has delivered and contracted 81 projects serving to 110 million population globally including big cities such as Oslo, Copenhagen, London, Manchester, Dublin, Washington DC, San Francisco, Athens, Beijing, Chongqing, Hong Kong, Singapore, Sydney, Seoul, etc.

| Benefits: compact solution, biogas energy<br>use, and biosolids (biosoil) beneficial land<br><u>use</u><br>BDG has shifted sludge management<br>strategy since 2016 to "1-5-1" strategy, e. g.,<br>ONE solution, FIVE projects, and ONE<br>route for biosoil to land. Five projects treat<br>6000 t/d sludge, require 60% less space,<br>produce 60% more biogas, generate 90<br>million KWH per year, produce 50% less | Cambi Group HQ<br>Skysstasjon 11A, Asker, Norway<br>T: +47 66 77 98 00<br>F: +47 66 77 98 20<br>Email: <u>office@cambi.com</u><br>Cambi Environmental Technologies (Beijing) Co. Ltd<br>Room A 2307 Eagle Plaza, 26 Xiaoyun Rd.,<br>Chaoyang, Beijing<br>P: +86 10 5108 8208<br>E + 486 10 5108 8208 |
|---|--|
| 1   |  |
| 1 /   |  |
|   | Room A 2307 Eagle Plaza, 26 Xiaoyun Rd.,   |
| produce 60% more biogas, generate 90  | Chaoyang, Beijing  |
| million KWH per year, produce 50% less  | P: +86 10 5108 8208  |
| but High Quality Biosolids (biosoil) used in  | F: +86 10 5108 8206  |
| forestry and landscaping in Beijing and   | Email: info@cambi-china.com  |
| surrounding areas (e.g. Olympics fields).   |  |
| BDG becomes the first water utilities   |  |
| company in China to announce carbon   |  |
| neutralization target.  |  |
|   |  |
|   |  |

#### Urban Water Implementing ISO 55000 in Capital Eco-pro Group

Capital Eco-pro Group, one of China's 首创环保集团 largest environmental groups, operates public-private partnerships (PPP) water companies all over the country. To further enhance the reliability of its service to municipalities across China, Capital Eco-pro Group launched a project to optimize its Asset Management system, based on the ISO 55000 international standard. Siveco China's advanced management 观看视频案例 concepts were applied to the company's specific situation, aiming to set a new About Siveco China benchmark for maintenance management in Siveco Group (founded in 1986) and Siveco China the Chinese water industry, ensuring public (2004) is a pioneer in the development of Smart safety, sustainability and optimizing assets Technologies for the Operation & Maintenance of lifecycle cost, by developing a systematic environmental projects, with a focus on mobile approach to asset management and enforce solutions "for the worker of tomorrow". Clients it across all companies. include Beijing Environment, Capital Water, Everbright, Hong Kong EPD, Hong Kong Drainage Services Department, Suez NWS, Veolia, Zhongshan Water etc. The system was then first deployed in Yuyao Contact us Capital Water. The Smart O&M ensures the Siveco China Head Office feedback loop between strategy, execution, J20, Zao Fong Universe Building, 1800 Zhong Shan and analysis. It became a showcase of Road (W), Shanghai 200235 practical result-driven digitalization of O&M Tel: 4006 300 213

provides an overview of the project and a

testimonial.

in Capital Group. The video case study Email: info@sivecochina.com

#### Sludge treatment solution for urban sewage treatment plant DEWA chain scraper system, a solution for Wenzhou wastewater treatment plant.

We have delivered high quality, globally competitive, efficient and long-lasting solutions across different industries and municipalities globally to over 90 countries since 1986. All our equipment is made in Finland from the best available materials under ISO 9001 certification. We value and respect our partners and customers and strive to serve them with quality on a long-term basis, striving to create lasting value in an economically, environmentally and socially sustainable way. Chinese market is Dewaco's biggest and fastest growing market. Wenzhou WWTP project is a perfect example case to present. Capacity was doubled to 400,000 tons per day in addition to be more environmentally friendly and odorfree. This wastewater treatment plant is partly underground. For this challenging project we delivered 24 pcs of 2-layer chain scraper systems that helped to solve the challenges with space limitations in a partly underground plant construction. 2-layer chains scraper system were installed in rectangular basins which are on top of each other.

To present the business opportunities that our equipment offer, we would like to mention company Atal Engineering. ATAL Eng. is one of our five resellers in China. This large company is one of the leading Chinese electrical and mechanical engineering groups. Based on the successful and profitable projects, they have developed DEWA Chain Scraper Systems and related services to be one of their actual business lines, stretching outside of the typical contractor role.



We give a promise for the cleaner future. Dewaco Ltd offers equipment under DEWA brand for water, wastewater and sludge treatment, as well as for the drying of various biomasses. Our main products are chain scraper systems, belt filter presses, gravity belt thickeners and accessories for these applications

We give a promise for the cleaner future by offering globally competitive and proven, high quality, efficient and long-lasting equipment for water, wastewater and sludge treatment under our DEWA brand. We make sure our customers are satisfied, and as a proof we have delivered equipment to over 90 countries since 1986.

DEWA resellers in China: https://dewaco.fi/sales/ Dewaco Ltd, Raviratti 3, 23800 Laitila, Finland Telephone: +358 2 461 800 E-mail: sales@dewaco.fi Smart and comprehensive water supply and waste-water network solutions for water companies of all sizes.

#### Challenge:

Global leakage problem - A 30% network leak means about 30% more water to be pumped in the network = 30% higher energy consumption. At the same time as billions of people are without clean drinking water.

#### Solution:

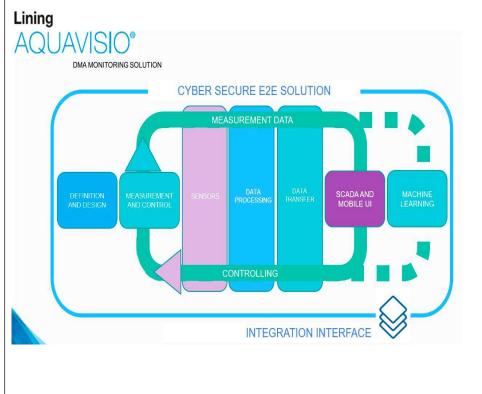
Lining AQUAVISIO DMA is a smart and cost-efficient comprehensive solution for water supply and wastewater networks – for water companies of all sizes. All parts of the system are designed to work seamlessly together and the solution is custom-built for client needs, resulting in a predictive, smart, secure and easy-to-maintain solution.

When we specify and design a Lining AQUAVISIO system, we take a holistic approach to the system from software to secure data transfer and processing. Lining AQUAVISIO DMA is SaaS software, and therefore we can offer a highly cost- efficient system with automation and remote control solutions that actually save time. Lining AQUAVISIO solutions are turnkey solutions. Using the Lining AQUAVISIO DMA is always secure. You can enjoy peace of mind because security is built-in to all Lining AQUAVISIO solutions.

#### **Benefits:**

The Lining AQUAVISIO system learns as it goes, detecting any irregularities early and helping optimize network waterflow and water supply reliability and energy efficiency. And if failures or irregular events occur, the system automatically helps limit any damage by directing waterflow to areas where it causes minimal economic or other damage. The Lining AQUAVISIO DMA generates alerts on even the most minor irregularities across the system, making it possible to investigate not only potential leaks but also other early-stage incidents before any major damage occurs. Lining AQUAVISIO keeps a watchful eye even when you and everyone else are asleep.

Lining AQUAVISIO DMA is SCADA-system-independent software, which allows the water utility to get real-time information about leaks in the water supply network and the amount of non-revenue water, as well as leaks in the wastewater network and the costs caused by leaks. During 2023, AQUAVISIO will become part of the global SAP STORE, but it is also possible to buy it as an independent system.



#### About Lining:

Oy Lining Ab has specialized in technical solutions for clean- and sewage lines and plants. For over 60 -years has our operations been based on reliability, efficiency and innovation. We are the market leader in our field with a market share of more than 50%. Oy Lining Ab is part of the international technology and industry business group Indutrade, which includes more than 200 companies in about 30 countries.

#### www.aquavisio.fi

Head of International Sales, erik.johnsen@lining.fi

#### Urban sewage treatment, smaller footprint

#### Organica FCR solution has 60% smaller footprint, Lower Opex, Odorless and Beautiful Look & Feel

#### Challenges

Due to today's "Urban Expansion", more and more sewage plants will be built in City center close to residential buildings. As the new sewage plants design should meet the overall planning of urban sustainable development. Therefore, footprint, odor, noise and landscape are the great challenges to meet the requirement.

50MLD Hongling Road Sewage Plant, footprint of 17013.51m2, is located at the upper reaches of Malan River in Dalian City.

When this project was initiated, government received many complaints from residents, all of which are related to unfriendly appearance environment, poor odor and excessive noise of the sewage plant.

#### Solutions

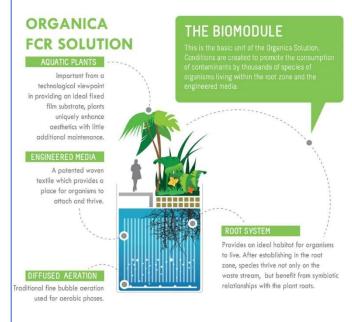
Conventional Activated Sludge process is a common solution in China. However, with all above disadvantages, it doesn't fit to the sewage plant that is built next to residence community.

Organica FCR solution can solve the above problems and challenges. FCR process constructs aquatic ecological food chain through natural and artificial methods, and uses microorganisms, protozoa and micro animals that attached to plant roots and artificial carrier surfaces to remove pollutants in sewage and realize deodorization simultaneously by taking advantage of the characteristics of the process.

Landscape reconstruction to realize a modern sewage plant of Botanical Garden-Like Look & Feel.

#### Benefits

Beside complying to the strict effluent limits, as a result of Organica FCR unique ecological diversity, our client will enjoy the following benefits at same time:



#### Organica Water

Organica Water is a global provider of innovative solutions for the treatment and recycling of wastewater. The Organica FCR solution is an Integrated Fixed-Film Activated Sludge (IFAS) system utilizing a fixed bed biofilm that grows on root structures, all housed in a compact, odorless, botanical garden-like facility. The resulting solution offers a significantly reduced physical footprint, zero "psychological" footprint, and lower operational and infrastructure costs when compared to other activated sludge-based wastewater treatment solutions.

#### Contact us

No.333,Tianyaoqiao Road,Xuhui District, Shanghai 200030

Phone No:18521077720

#### Urban Water – Sponge City Stockholm Royal Seaport City – Climate Resilience and Storm Water Management Solutions

| Challenges:                                   | The experience in Stockholm and Royal Seaport is     |
|---|--|
| With climate change, cities around the world  | also successfully adapted in our projects in Jinan,  |
| face enormous challenges with increased       | China; where a city level green and blue network     |
| frequency of extreme weather conditions       | system has been planned to enhance the resilience to |
| creating elevated health and safety risks and | climate change.                                      |
| exacerbated challenges to handle floods and   |  |
| droughts                                      |  |

#### Solutions

Sweco has developed a stormwater strategy with framework and guidelines for the new developed part of Stockholm called Royal Seaport. Sweco's work included detailed assessment and modelling of the hydraulic conditions and design of a blue-green network making best possible use of the natural conditions. The successful sponge city strategy requires an integrated system approach from large scale blue -green network to detailed solutions and "natural" measures like green roofs, rain gardens, green belts and wetlands combined with other, more "artificial" measures, for example underground infiltration and retention tanks. Implemented in a smart way, this not only prevents flooding but also purifies the stormwater and decreases pollution load on rivers and groundwater resources. Key strategies are to restore space for water and people and to re-introduce nature in the cities!

#### Benefits

When you look at the stormwater solutions in the Royal Seaport you will be surprised how simple and small - but precise they are. The overall strategy is just – "Let nature do the work". The "Blue-Green Infrastructure" approach is of particular importance in securing a sustainable future and generating multiple benefits – not only for resilient storm water management but also in the environmental, ecological, social and cultural spheres.



#### About Sweco

Sweco is Europe's leading architecture and engineering consultancy. With 18,500 architects, engineers and advisors, we offer our customers the right expertise for every project and carry out projects in 70 countries annually throughout the world for over 130 years.

For over 20 years Sweco has promoted the sustainable development with focus on urban planning, water, environment and building design projects in China. Sweco has implemented several major projects in Shandong, Hainan and Yangzi delta areas, but als o in e.g. Hefei, Shenzhen, Changchun, Nanjing, Beijing etc

#### Contact

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#### Urban water

#### Sponge cities minimize losses and maximize benefits from water

#### Challenges

Flooding, extreme drought, heat and related water quality problems disrupt living and working in many cities. Damage of these natural phenomena is increasing, due to climate change, ongoing urbanization, urban densification and increasing economic interdependencies. Moreover, part of our existing water infrastructure is aging, consequently resulting in an increasing risk of failure.

Protection against exposure to flooding, drought and heat is to be improved, damage of related natural disasters to be minimized, and recovery and adaptive capacity strengthened. Design, implementation, operation and maintenance of effective and attractive solutions asks for new skills, regulations, organization, financing structures, as well as tools to support the complex planning and decision-making process.

#### Solutions

Creating sponge capacity – water detention and retention - is essential in the fight against flooding, drought, heat, subsidence and poor water quality. The required capacity of the sponge can be assessed and solutions to create this capacity defined with the help of hydrological and hydraulic modelling. A wide variety of nature-based, blue-green and grey solutions is available to realize this capacity, while bringing a wealth of ecosystem services for both society and urban ecosystems. An effective set of solutions that maximizes the benefits while minimizing the potential damage however depends on local conditions and preferences. They should fit the available space and the governance context. Tools support decision makers in this selection and planning process are available.

#### Benefits

Vegetation and visible water make the built environment resilient, legible, attractive. The sponge capacity created with blue-green-grey solutions reduces both exposure to and impact of flooding, drought, extreme heat and related problems with water quality and land subsidence.



Backyard garden Nutshuis, The Hague

#### **About Deltares**

Deltares is an independent institute for applied research in the field of water and subsurface. Throughout the world, we work on smart solutions, innovations and applications for people, environment and society. Managing densely populated and vulnerable areas is complex, which is why we work closely with governments, businesses, other research institutes, universities and NGO's at home and abroad. Deltares

#### Contact:

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### 3. CEWP Business Program events and list of company presentations

#### The CEWP Business Program has organized a number of events during 2018-2022.

List of events and webinars:

- May 3<sup>rd</sup>-5<sup>th</sup>, 2018, IE Expo, Shanghai, China
- June 27th-28th, 2018, CWEC Expo, Shanghai, China
- November 7th, 2018, side-event at HLM, Beijing, China
- December 4th, 2018, SLUSH, Helsinki, Finland
- April 12<sup>th</sup>-13<sup>th</sup>, 2019, Qingdao, China
- April 14<sup>th</sup>, 2019, IE Expo, Shanghai, China
- November 5<sup>th</sup>-6<sup>th</sup>, Aquatech, Amsterdam, Netherlands
- November 8th, 2019, side-event at HLM, Guimaraes, Portugal
- November 7<sup>th</sup>-8<sup>th</sup>, 2019, Business Expo, Guimaraes, Portugal
- November 11th-12th, EUPIC Twin Fair, Chengdu, China
- November 13th-14th, EUPIC Twin Fair, Qingdao, China
- March 16<sup>th</sup>, 2021, webinar
- March 30<sup>th</sup>, 2021, webinar
- April 29<sup>th</sup>, 2021, webinar
- May 18<sup>th</sup>, 2021, webinar
- June 2<sup>nd</sup>-4<sup>th</sup>, 2021, Aquatech, Shanghai, China
- June 9th, 2021, MWR Expo, Wuhan, China
- November 2<sup>nd</sup>-4<sup>th</sup>, 2021, Aquatech, Amsterdam, Netherlands
- March 29<sup>th</sup>, webinar
- April 19<sup>th</sup>, webinar
- May 24<sup>th</sup>, webinar
- September 13th, Side event IWA World Congress, seminar and webinar
- November 3<sup>rd</sup>, MWR Water Security Business Program, webinar
- December 12<sup>th</sup>, webinar
- December, 15<sup>th</sup>, Asia-Pacific Smart Water Utilities Summit, Singapore

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Most of the events included company presentations of State-of-the-art technologies which had already been demonstrated and could meet demands in the Chinese and European markets. In the following table these companies have been highlighted, including the expert which made the presentation during the event. In addition the table also show active links to the outcomes of the event- with more detail on the title of the company presentation, summaries of technology performance and often also the slides which was presented.

Table 1: Date, venue, theme, presentations, speakers at the event and their affiliation and links to invitations and outputs of events, with additional information of the content of the presentations and results of discussions

| 2018  |                             |   |  |
|---|-----------------------------|---|--|
| Date and venue                                      | Theme                       | Presentations, company names and presenters   | Links  |
| May 3-5 <sup>th</sup> 2018                          | Business                    | Presentations, company names and presenters<br>Presentations gave examples of how European Companies have   | Invitation:  |
| IE Expo   | opportunities               | succeeded in the Chinese market   | https://www.cewp.eu/ac   |
| Shanghai  | for European companies in   | Presentations made by:  | cess-chinese-market-<br>water-technologies   |
|   | China                       | Veolia, Dr. Chen Xiaohua, Process & Application Director  | Outputs:   |
|   |                             | APAC Municipal/Engineering Director SEA & Australia   | https://www.cewp.eu/bu   |
|   |                             | Municipal   | siness-workshop-ie-  |
|   |                             | SUEZ Asia, Mr. Olivier Ramus, Managing Director for Water   | expo-shanghai-2018-  |
|   |                             | Industry  | how-do-water-business-   |
|   |                             | Ijinus, Mr Olivier Le Strat, President<br>NKE, Mr. Jean-Claude Le Bleis, President  | <u>china</u>   |
|   |                             | France Water Team, Mrs Emilie Fillol  |  |
|   |                             | Nalco Water Greater China, Dr. Jian Kun (JK) Shen, Director   |  |
|   |                             | Marketing   |  |
| June 27 <sup>th</sup> -28 <sup>th</sup>             | Rural Water                 | AVA Green, Mr. Uwe Kuhnle, CEO<br>Presentations gave examples of State-of-the-art Technologies  | Outputs:   |
| 2018  | and Business                | and business opportunities in the Chinese market.   | https://www.cewp.eu/ce   |
| CWEC Expo,  | opportunities               |   | wp-access-program-   |
| Qingdao   | for European                | Presentations made by:  | activities-cwec-   |
|   | companies in<br>China       | Guillaume Gimonet, Siveco   | <u>qingdao-international-</u><br><u>water-conference</u>   |
|   | China                       | Marco Beros and Lisha Wang, European Investment Bank  | water-conference   |
|   |                             | Haihe River Water Conservancy Commission  | https://www.cewp.eu/ce   |
|   |                             |   | wp-held-several-events-  |
| November 8 <sup>th</sup> ,                          | PPP                         | Dresontations gave examples on Annoutralities and   | during-qingdao-water<br>Outputs:   |
| 2018  | PPP                         | Presentations gave examples on Opportunities and<br>Challenges of PPP in Water Sector"  | https://www.cewp.eu/ce   |
| Side-event at                                       |                             |   | wp-high-level-meeting-   |
| Annual High-  |                             | Opening speeches were followed by Chinese and European PPP  | day-1-closes-  |
| level Meeting,                                      |                             | professionals and companies, including China Public Private   | successfully   |
| Beijing   |                             | Partnerships Center and Dayu Water-saving Group.  |  |
|   |                             |   |  |
| December 4 <sup>th</sup> ,                          | Digitalization              | Presentations gave examples on how digitalization has changed   | https://www.cewp.eu/re   |
| 2018  |                             | the water tech market in China and Europe   | gistration-now-open-   |
| Side-event at SLUSH,                                |                             | Several professionals from the sector shared their views and  | <u>business-event-</u><br>digitalization-water-  |
| Helsinki  |                             | visions on future of ICT revolution in the water sector. As a part  | slush-helsinki-4th-  |
|   |                             | of the evening, b2b matchmaking meetings are arranged to bring  | december   |
| 2010  |                             | ideas to practice.  |  |
| 2019<br>Date and venue                              | Theme                       |   | Links  |
| April 12-13 <sup>th</sup>                           | Industrial                  | The event presented European state of the art technologies in   | Invitation:  |
| 2019  | water use                   | the industrial water market segment   | https://www.cewp.eu/bu   |
| Qingdao   |                             |   | siness-event-industrial-   |
|   |                             | Presentations made by:  | water-use-food-sector  |
|   |                             |   | Outputs:   |
|   |                             | Paul Wang, VP of Siveco in China  | Outpuis.   |
|   |                             | Paul Wang, VP of <b>Siveco</b> in China<br>Mr. Wang Baogang, Manager of Product Management and  | https://www.cewp.eu/in   |
|   |                             | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, KSB SE&Co  | https://www.cewp.eu/in<br>formation-meetings-  |
|   |                             | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b>   | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-  |
|   |                             | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a  | https://www.cewp.eu/in<br>formation-meetings-  |
|   |                             | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b>   | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-  |
|   |                             | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members   | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-  |
| April 14 th 2010                                    | Industrial                  | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members<br>Mr. Alexandre Aceldy, Technical manager of <b>NKE</b><br>instrumentation a French company.   | http://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019  |
| April 14 th 2019<br>Shanghai IE                     | Industrial<br>water use and | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members<br>Mr. Alexandre Aceldy, Technical manager of <b>NKE</b><br>instrumentation a French company.<br><i>The vents presented challenges of industrial water sector, reuse</i>  | http://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019  |
| April 14 th 2019<br>Shanghai IE<br>Expo, side event |                             | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members<br>Mr. Alexandre Aceldy, Technical manager of <b>NKE</b><br>instrumentation a French company.   | http://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019  |
| Shanghai IE   | water use and               | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members<br>Mr. Alexandre Aceldy, Technical manager of <b>NKE</b><br>instrumentation a French company.<br><i>The vents presented challenges of industrial water sector, reuse</i><br><i>and recirculation with examples from the European and</i><br><i>Chinese water markets</i>                  | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019<br>Invitation:<br>https://www.cewp.eu/bu  |
| Shanghai IE   | water use and               | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members<br>Mr. Alexandre Aceldy, Technical manager of <b>NKE</b><br>instrumentation a French company.<br><i>The vents presented challenges of industrial water sector, reuse</i><br><i>and recirculation with examples from the European and</i>  | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019<br>Invitation:<br>https://www.cewp.eu/bu<br>siness-event-industrial-<br>water-use-food-sector             |
| Shanghai IE   | water use and               | <ul> <li>Mr. Wang Baogang, Manager of Product Management and<br/>Business Development, KSB SE&amp;Co<br/>Mrs. Zhu Yanjing of IVL China<br/>Ms. Ida Henriksen, Danish Water Technology Group a<br/>membership organization with 70 members<br/>Mr. Alexandre Aceldy, Technical manager of NKE<br/>instrumentation a French company.</li> <li>The vents presented challenges of industrial water sector, reuse<br/>and recirculation with examples from the European and<br/>Chinese water markets</li> <li>Presentations made by:</li> </ul> | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019<br>Invitation:<br>https://www.cewp.eu/bu<br>siness-event-industrial-<br>water-use-food-sector<br>Outputs: |
| Shanghai IE   | water use and               | Mr. Wang Baogang, Manager of Product Management and<br>Business Development, <b>KSB SE&amp;Co</b><br>Mrs. Zhu Yanjing of <b>IVL China</b><br>Ms. Ida Henriksen, <b>Danish Water Technology Group</b> a<br>membership organization with 70 members<br>Mr. Alexandre Aceldy, Technical manager of <b>NKE</b><br>instrumentation a French company.<br><i>The vents presented challenges of industrial water sector, reuse</i><br><i>and recirculation with examples from the European and</i><br><i>Chinese water markets</i>                  | https://www.cewp.eu/in<br>formation-meetings-<br>qingdai-and-ie-expo-<br>shanghai-april-2019<br>Invitation:<br>https://www.cewp.eu/bu<br>siness-event-industrial-<br>water-use-food-sector             |

|  |  | Dr. Palle Lindgaard-Jørgensen, IN-Water<br>Mr. Liam Jazcii, EU SME Centre   | <u>qingdai-and-ie-expo-</u><br>shanghai-april-2019  |
|--|--|---|---|
| November 5 <sup>th</sup> 2019                    | China Water<br>Market                    | The event provided an overview of the Chinese Water<br>Market providing facts, trends, opportunities, do's and  | Invitation:<br>https://www.cewp.eu/ne   |
| Amsterdam<br>Aquatech Expo<br>sideevent          | Outlook                                  | dont's  | wsletter-upcoming-<br>cewp-events   |
|  |  | Presentations made by:  | Outputs:<br>https://www.cewp.eu/ch<br>inese-water-market-dos-<br>and-donts  |
|  |  | Henrik Dissing, CEWP Business Programme   |   |
|  |  | Liam Jaczii, EU SME Centre, Beijing   |   |
| November 6 <sup>th</sup><br>2019<br>Amsterdam    | Launch of<br>Urban Water<br>2020 Program | The event launched the Urban water program and provided<br>an overview of planed activities.  | Invitation:<br>https://www.cewp.eu/ne<br>wsletter-upcoming-   |
| Aquatech Expo<br>sideevent                       | 2020 110gruin                            | Presentations made by:  | cewp-events   |
|  |  | Henrik Dissing, Program Manager, CEWP:  | Outputs:<br>https://www.cewp.eu/la  |
|  |  | Gerard de Vries, Program Manager, <b>CEWP</b> ,   | unch-urban-water-2020   |
|  |  | <b>Rijkswaterstaat:</b><br>Liam Jaczii - Business Development Advisor, <b>EU SME</b>  |   |
|  |  | Centre, Beijing:  |   |
| November 2019<br>Guimaraes                       | Ready for<br>China                       | The event outlined the Business Program industrial water<br>sector segment, including and overview of planned activities  | Invitation:<br>https://www.cewp.eu/ta   |
|  |  | Presentations made by:  | ke-part-cewp-business-<br>and-innovation-<br>program-2019-market-   |
|  |  | Program Manager, Henrik Dissing, CEWP   | segment-theme-<br>industrial-water-use-<br>your   |
| November 11-<br>12 <sup>th</sup> 2019<br>Chengdu | The Chinese<br>market for<br>industrial  | The event presented State of the art Technologies in the industrial water sector segment  | Invitation:<br>https://www.cewp.eu/bu<br>siness-event-industrial-   |
| EUPIC Twinfair                                   | water use and technology,                | Presentations made by:  | water-use   |
|  | B2B and<br>Matchmaking                   | Liam Jazcii, EU SME Centre,<br>Zhou Haichuan, Green Water IOT<br>Palle Lindgaard-Jørgensen, IN-Water  | Outputs:<br>https://www.cewp.eu/sit<br>es/default/files/files/Fin   |
|  |  |   | al%20Draft%20Report<br>%20from%20EU%20C<br>hina%20Water%20Dev   |
|  |  |   | elopmner%20Forums%<br>20in%20Chengdu%20a  |
|  |  |   | nd%20Qingdao%20No<br><u>vember.pdf</u> (this version<br>will be changed as it is<br>in had change)                |
| November 13-<br>14 th 2019                       | Industrial<br>water use and              | The event presented European and Chinese innovative<br>Technology cases on industrial water use   | in bad shape)<br>Invitation:<br>https://www.cewp.eu/bu  |
| Qingdao<br>EUPIC Twinfair                        | technology,<br>B2B and                   | Presentations made by:  | siness-event-industrial-<br>water-use   |
|  | Matchmaking                              | Mrs Helen Ding, <b>KSB Group</b> a joint venture between Germany  | Outputs:  |
|  |  | and Chinese partners  | https://www.cewp.eu/sit   |
|  |  | Yan Wen, <b>Drausy Germany</b><br>Liu Xiaying. Director of <b>Natureherit Design and Consult B.V.</b><br>Liu Na, <b>Hainext</b> .Technical expert of Overseas Environmental   | es/default/files/files/Fin<br>al%20Draft%20Report<br>%20from%20EU%20C   |
|  |  | Yan Wen, <b>Drausy Germany</b><br>Liu Xiaying. Director of <b>Natureherit Design and Consult B.V.</b>   | es/default/files/files/Fin<br>al%20Draft%20Report   |
|  |  | Yan Wen, Drausy Germany<br>Liu Xiaying. Director of Natureherit Design and Consult B.V.<br>Liu Na, Hainext.Technical expert of Overseas Environmental<br>Services<br>Mr. Li Zhiwai, Senior R&D Engineer of Qingdao Spring Water | es/default/files/files/fin<br>al%20Draft%20Report<br>%20from%20EU%20C<br>hina%20Water%20Dev<br>elopmner%20Forums% |

| March 16 <sup>th</sup><br>2021<br>Webinar   | Water<br>management<br>in<br>development<br>of Blue-Green<br>cities | The event presented experiences and technologies to support<br>Water Management in development of Blue Green Cities.<br><i>Presentations made by:</i><br>Lykke Leonardsen, C40<br>Chen Liqun, CAUPD, China Academy of Urban Planning and<br>Design<br>Mads Terkelsen, Rambøll<br>Fredrik Ohls, SWECO<br>Jeroen Rijsdijk, Arcadis<br>Frans van de Ven, Deltares<br>Simone Padoan, EEGEX<br>Carina Almeida, Aqualogus<br>Chris Zevenbergen, IHE Delft<br>Liam Jia, EU SME Centre | Invitation:<br><u>https://www.cewp.eu/bu</u><br><u>siness-webinar-water-</u><br><u>management-</u><br><u>development-blue-</u><br><u>green-cities</u><br>Outputs:<br><u>https://www.cewp.eu/w</u><br><u>ebinar-blue-green-cities</u>   |
|---|---|--|--|
| March 30 <sup>th</sup> 2021<br>Webinar      | Efficiency of<br>Urban water<br>infrastructure                      | The event presented examples on how the efficiency of Urban<br>Water Infrastructure can be improved<br><i>Presentations made by:</i><br>Henrik Dissing, CEWP<br>Xiaochang Wang, IWA Greater China<br>Yuanchao Xu, China Water Risk<br>Luis Faísca, Aguas de Portugal<br>WÖsten Ekengren, IVL<br>Søren Carsten Nielsen, Krüger-Veolia<br>Hai Zhao, AVK<br>Laura Varotto, IWS  | Invitation:<br>https://www.cewp.eu/bu<br>siness-webinar-<br>efficiency-urban-water-<br>infrastructure<br>Outputs:<br>https://www.cewp.eu/ef<br>ficiency-water-<br>infrastructure-<br>presentations   |
| April 29 <sup>th</sup> 2021<br>Webinar      | Smart water<br>management<br>in the whole<br>urban water<br>cycle   | The event presented examples on how smart Water<br>management the whole Urban Water Cycle<br>Presentations made by:<br>Henrik Dissing, CEWP<br>Bruno Lhopiteau, Siveco China<br>Helena Alegre, LNEC, PT<br>Olli Kaukala, Keypro, FIN<br>Helika Jorgensen, IP SME Helpdisk<br>Xiao Li, Scan, AUT<br>Michael Sommer, Sommer GmbH, AUT<br>David Yang, Kamstrup, DK<br>Toni Laurila, Sensmet, FIN  | Invitation:<br>https://www.cewp.eu/bu<br>siness-webinar-smart-<br>water-managing-whole-<br>urban-water-cycle<br>Outputs:<br>https://www.cewp.eu/s<br>mart-water  |
| May 18 <sup>th</sup> 2021<br>Webinar        | Carbon<br>Footprint in<br>the urban<br>water sector                 | Carbon Footprint of the Water Sector<br>Presentations made by:<br>Tia Haavisto, SWECO, FIN<br>Jingjing Ma, NORDIC Group, CN<br>Jingquan Lu, Danish Export Association, DK<br>Mads Warming, Danfoss, DK<br>Joao Mugeiro, Wakaru, PT<br>Riccardo Pancolini, CIB Unigas, ITA  | Invitation:<br>https://www.cewp.eu/bu<br>siness-webinar-carbon-<br>footprint-water-sector<br>Outputs:<br>https://www.cewp.eu/ca<br>rbon-footprint  |
| June 2-4 th<br>2021<br>Aquatech<br>Shanghai | Digitalization,<br>Circular<br>Economy                              | Digitalisation of the Water Sector in China<br><i>Presentations made by:</i><br>Guillaume Gimonet, Operations Director, <b>Siveco China</b><br>Matias Zubimendi, <b>China IP SME Helpdesk</b><br>Jason Jie, <b>KRÜGER A/S</b>  | Invitation:<br>https://www.cewp.eu/di<br>gitalisation-water-<br>sector-aquatech-china-<br>2021<br>https://www.cewp.eu/di<br>gitalisation-water-<br>sector-join-seminar<br>https://www.cewp.eu/jo<br>in-seminar-about-<br>circular-economy-and-<br>water-sector-aquatech-<br>china-2021 |

| June 9, 2021<br>MRW Expo,<br>Wuhan               | Urban water-<br>sponge cities,<br>waste water<br>treatment,<br>water reuse,<br>leakage     | The event presented examples of water management in various<br>water systems like: river basins, water resources, groundwater<br>etc.<br><b>Presentations made by:</b><br>Huang Yan, Deputy Chief Engineer of <b>Changjiang Water</b><br><b>Resources Commission, MWR</b><br>Anabela Rebelo, <b>Portuguese Environment Agency</b><br>Yang Xiaoru from <b>General Institute of Water Resources and</b><br><b>Hydropower Planning and Design, MWR</b><br>Xu He, <b>Senior Engineer of HWCC</b><br>Bjørn Jensen of <b>GEUS, Denmark</b><br>Liam Jia, <b>Operations Manager of EU SME</b><br>Benoit Fan, Technical Director for <b>Veolia China Municipal</b><br><b>Water &amp; BES</b><br>Chen Miaodang, Sales Director of <b>Hungary Organica</b> | Outputs:         https://www.cewp.eu/aq         uatech         Invitation:         https://www.cewp.eu/ce         wp-business-exchange-         meeting         Outputs:         https://www.cewp.eu/re         view-cewp-business-         exchange-meeting |
|--|--|---|--|
| November 2-4<br>rd 2021<br>Aquatech<br>Amsterdam | China Market<br>Outlook  | Zhu Qian, General Manager Assistant of Austria SOMMER<br>Ivan Melnikov, Chief Representative China of Watergen<br>Lu Lin, Senior VP Beijing huitu Technology Co., Ltd<br>Jiayan, Product Manager of Shanghai Hangzheng Instrument<br>Equipment Co., Ltd<br>The event presented and got feed-back on the report "China<br>Water Market and Technology Outlook 2021" which was<br>prepared by CEWP<br>Presentation made by:<br>Henrik Dissing, CEWP   | Outputs:<br>https://www.cewp.eu/ch<br>inese-water-market-<br>and-technology-<br>outlook-2021-side-<br>events-aquatech-<br>amsterdam  |
| 2022   |  |   |  |
| Date and venue                                   | Theme  |   |  |
| March 29 <sup>th</sup> 2022<br>Webinar           | Roundtable-<br>CEWP<br>Market and<br>technology<br>outlook                                 | The event presented and got feed-back on the report "China<br>Water Market and Technology Outlook 2021" which was<br>prepared by CEWP<br><b>Presentation made by:</b><br>Henrik Dissing, <b>CEWP</b>  | Invitation:<br><u>https://www.cewp.eu/in</u><br><u>dex.php/webinar-series-</u><br><u>chinese-market-rural-</u><br><u>water-technologies-0</u><br>Outputs (se et stykke<br>need i teksten):<br><u>https://www.cewp.eu/in</u>                                  |
|  |  |   | dex.php/webinar-series-<br>chinese-market-rural-<br>water-technologies   |
| April 19 <sup>th</sup> 2022<br>Webinar           | Water supply<br>and<br>wastewater<br>infrastructure<br>in small-<br>medium sized<br>cities | The event presented examples on how digital tools can support<br>regional water management and monitoring<br>Presentations made by:<br>Fenjuan Hu, <b>NIRAS:</b><br>Luca Bovo, <b>Sommer</b> :<br>Herbert Chan, <b>Uros</b>   | Invitation:<br><u>https://www.cewp.eu/ap</u><br><u>ril-19th-webinar-small-</u><br><u>scale-water-supply-and-</u><br><u>wastewater-</u><br><u>infrastructure-small-</u><br><u>medium-cities-and</u>   |
|  |  | Bruno Lhopiteau, Siveco:<br>Jingjing Ma, Nordiq Group:<br>Peder Gregersen, Center for Recycling: DTI, DK<br>Dion van Oirschot, Rietland:  | Outputs:<br>https://www.cewp.eu/in<br>dex.php/small-scale-<br>infrastructure-rural-<br>areas<br>Extra output:  |
| M of the opposite                                |  |   | https://www.cewp.eu/w<br>hite-paper-small-scale-<br>water-supply-and-<br>sanitation-rural-areas  |
| May 24 <sup>th</sup> 2022<br>Webinar             | Improving<br>water quality   | The event presented examples on how digitalization ocan<br>improve monitoring of water quality  | Invitation:<br>https://www.cewp.eu/w<br>ebinar-digitalization-   |

|   | with better<br>data                                  | Presentations made by:<br>Toni Laurila, Sensmet, FIN<br>John McGrath Aquamonitrix<br>Ole Larsen, DHI<br>Flemming Effersø, SkyTem, Denmark<br>Hans Peter Rauch, Geoverde  | water-quality-         management-data-         generation-value-         creation         Outputs:         https://www.cewp.eu/w         ebinar-improving-         water-quality-         management-better-data |
|---|--|--|---|
| September 13 <sup>th</sup> .<br>Side-event IWA<br>World<br>Conference                           | CEWP<br>Program<br>Business<br>Program<br>results    | The events presented results of the CEWP Business Programm<br><b>Presentations made by</b><br>Henrik Dissing, <b>CEWP</b><br>Palle Lindgaard-Jørgensen, <b>IN-Water</b><br>Jesper Karup Pedersen, <b>COWI</b>  | Outputs:<br>https://www.cewp.eu/c<br>ewp-at-iwa-event   |
| November 3 <sup>rd</sup> ,<br>MWR Water<br>Security   | CEWP<br>Business<br>Program<br>outcomes              | The event presented results of the CEWP Program and business<br>cases<br>Presentation made by:<br>Henrik Dissing, CEWP<br>Tang Junxiang, WILO China Ltd.<br>Leonard Ng. Keoh Poh, Ramboll<br>Liu Fengyu, China United Communication Group, Ltd   | https://www.cewp.eu/<br>water-security-<br>business-exchange-<br>meeting-cewp-2022  |
| December 12 <sup>th</sup><br>Lot 1 Program<br>event   | LOT 1 and<br>CEWP<br>Business<br>Program<br>outcomes | The event presented results of LOT 1 including the CEWP<br>Business Programme<br><b>Presentations made by:</b><br>Henrik Dissing, <b>CEWP</b><br>Juha Pohjala, <b>Masinotek</b> , Finland<br>Tero Auvinen. <b>Lining Indutrade Group</b> , Finland<br>Bruno Lhopiteau, <b>Siveco</b> , France<br>Hans Peter Rauch, <b>Geoverde OG</b> , Austria<br>Di Deng, Cambi, <b>Chin</b> a |   |
| December 15 <sup>th</sup> ,<br>Asia Pacific<br>Smart Water<br>Utilities<br>Summit,<br>Singapore | CEWP China<br>Market<br>Outlook                      | The CEWP China Market Outlook Report was <b>presented</b> by Henrik Dissing, <b>CEWP</b>   |   |