

# INDUSTRY LEADERS FORUM 2017: DECOUPLING GROWTH FROM ENVIRONMENTAL IMPACT

*Xander de Bruine\**

■ Industry Leaders are rethinking their institutional approach to water management. Industrial Water systems will have to meet the water-resource challenge and a new circular perspective. The Industry Leaders Forum 2017 organized a dialogue on key areas for redefinition, action and investment to secure growth while maintaining water resources. Both leaders from industrial water users and investors implement a 'roadmap of change' in optimal resource efficiency and transition. The shared challenge seems to be the path to decouple their global growth from environmental impact by focussing on local conditions and water availability

■ With 2017 being kick off year for progress and achievement of UN Sustainable Development Goals, businesses now more than ever identify, measure and value their impacts and dependencies on nature. Industries are leaving inward water risk strategies but now rather aim for collaboration, industrial symbiosis and bigger systems that will close resource loops with highest efficiency, zero waste and emissions.

As Hans-Ulrich Buchholz, Head of Environmental Compliance L'Oréal explains: "L'Oréal (89.000 employees worldwide with over 42 factories in 140 countries) is committed to reducing by 2020 the environmental footprint of its plants and distribution centres by 60%, from a 2005 baseline. The group's key criteria for industrial performance includes reducing CO2 emissions in absolute terms, cutting water consumption, reducing waste per unit of finished product, and shrinking the transport footprint."

## Efficiency performance and targets

L'Oréal compared their performance in 2016 with 2005 and found an impressive decline in footprint at carbon level of minus 67% with 15 Carbon Neutral Sites, Water intensity decline of 48% and waste intensity decline of 35%. Only from water intensity perspective this means water savings between 2005 and 2016 of 3.5 million m<sup>3</sup> which is an equivalent of 1.5

years of operational water consumption. A reference for further improvement the 2020 target is set on 60% reduction for as well carbon, water and waste.

L'Oréal is not an example by it's own as Laurent Babikian, Director Investor Engagement at Carbon Disclosure Project (CDP) explains. CDP provides data for decision makers to guide the process towards sustainable financial water management. With impressive disclosure contributions from world leading companies like L'oreal and Unilever – receiving triple A scores in the 2016 CDP Global Water Report – the organisation has established itself as key reporting initiative on water related impacts in industries.

CDP's Water A list has grown from 8 companies in 2015, 25 companies in 2016 towards 73 companies in 2017. The Financial community is taking water disclosure seriously. This data is needed, for investors and their risk assessment. Especially in times stocks index are based on climate change and disclosing companies are outperforming the crowd index over 4 years by 6% it should be taken seriously.

## Local context based water targets

Laurent Babikian: "Investment firms have already begun to use the SDGs as the basis for their Environmental, Social and Governance (ESG)

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analysis framework, putting pressure on companies to demonstrate how they are engaging and measuring achievements towards SDGs.” For example: investment in oil and gas is declining rapidly, the need for International agreement on water is crucial because of a lack of international guiding governance. Leading companies practice a holistic view of water at river basis level and across their value chain. Companies are critically aware of the fact that they share water supply on regional level and for that reason the SDG approach is key in order to bridge the expected 40% gap in 2030 between supply and demand for water.

The awareness for businesses that sharing of water supply on regional level is guiding sectors to a new perspective on water stewardship: context based water targets and a common understanding of risks and objectives in either local catchment, city or industrial zone. Collaboration with local stakeholders with scientific backup information on local contextual conditions and needs are aligned with local public policy objectives.

### Water costs and benefits

There is money to gain with strategy on local context based targets combined with circular approach to the water-energy nexus. Businesses realize that water scarcity, regional shortages and water-stress will ultimately lead to regional economic degradation and even geopolitical conflicts. It is a must to change water system management over the next ten years to meet the water-resource challenge and a new circular perspective on water management by high target setting.

“Currently cost of water however is too low which makes water not a pressing issue from a cost perspective”: explains Lydia Whyatt Managing Director from Resonance Asset Management. As Whyatt developed a water and resource recovery infrastructure investment proposition for the Asset Management company the water infrastructure fund of Resonance Asset Management globally invests in greenfield and retro-fit industrial water treatment and resource recovery infrastructure assets in Europe, Australia, China and S.E. Asia, and is currently expanding into Americas.

### Decision making and responsibility

With costs of water not being a pressing issue this ultimately results in too many decision makers within a company working on risk related water technology issues. Ultimately the key Return on Investment (ROI) drivers for funds and the Industrial Water User are the potential recovery of resources (energy, nutrients, metals, or specialist chemical substances used in manufacturing processes), and technology upgrades that improve plant efficiency and reduce operating costs. A so-called Build Operate Transfer (BOT) model where a third-party solution provider delivers the solution, the fund invests in the technology and the risk of technology is taken away from the corporate client by a mediator between corporate and solution provider. An outsourced model where the corporate environment can steer on strategy and deliverables without risk and or need for technical knowledge.

### Accountability and reporting

While businesses are critically aware that water security means investment in water infrastructure and or hydrologic systems a distance sometimes exists between strategy, responsibility and ability to implement sustainable circular water management systems in the corporate environment. Stewardship in principle is taking care of something that one does not own, water risk factors are often outside the sphere of influence of industries or responsibilities and cost taking is not well defined. Corporate Water Risk can be addressed internally (efficiency, wastewater...), but mitigation of most involve other actors are outside the sphere of influence, examples are:

- **PHYSICAL RISK** generally manifests through actions of other water users in the catchment, land use, and the effects of climate variability.
- **REPUTATIONAL RISK** generally manifests itself through tensions and conflict around local water resources (operation sites).
- **REGULATORY RISKS** could manifest through licenses to operate, water rights, allocation, the price of water and waste discharge, quality standards, etc

As Arjen Hoekstra, Professor in Water Management at Technology University of Twente stated: the Food & Beverage Industry is responsible for 90% of the world water problems because of their dependence on agriculture. The question remains: Who is responsible for both water quantity (consuming less) and water quality (polluting less) within the supply chain knowing that the majority of companies do not directly engage with their suppliers?

According to Hoekstra there are some success stories to mention regarding product transparency for water-intensive products like food and cotton. But best of all there is an increasing demand from consumers and NGOs, with initiatives to develop apps to show the sustainability of the water footprint of products. But what is efficiency? There is no benchmark. How much energy is used in parallel to how much water is used (water-energy nexus)? What are the trade-offs between the different domains of sustainability?

To answer these difficult questions a water accounting framework should be consistent across different entities using one footprint guideline. It should also be consistent with the past to know if you are efficient or not. You have to be able to measure what you have done in the past.

Another difficult matter in reporting and accountability is: who needs to report? In some case when farmers started to report, automatically they were held accountable for water consumption.

### **Product footprint innovation**

Water sustainability criteria in investments decisions can be a powerful tool to spend money more sustainable. CDP is a success story from that perspective. This is about promoting 'water disclosure' by companies to support investors. This however doesn't break the deadlock on accountability for water pollution. It seems that consumers who drive the food and beverage industry should be informed about their (water) footprint in order to have industries design new and affordable products.

Frank Goossensen, Director Water Europe, Arcadis explains water management issues in the pharmaceutical sector and the importance of sustainable designed low footprint products: "The main driver is to secure a license to operate and reduce costs of products." But: innovation is slow due to regulation. Which innovation will set the pace for post 2017 period? Goossensen: "5% of the innovation will be on site at production plants to realize "0 emission of Active Pharmaceutical Ingredients (API's)" with state of the art technology, Plants will maximize reuse and accelerate implementation of state of the art technology with selected partnerships. However 95% of the innovation will be achieved after usage by innovation in product development on reduction of environmental impact after usage to lower discharges (as long term contribution).

### **VALUE CHAIN FINANCE**

Besides circular product innovations, individuals, organizations and companies have to go beyond their traditional silos and develop more partnerships and interactions. The financial sector for example should focus on collaborative projects to utilize the value chain. As Ambika Jindal, Vice President, Sustainable Finance, ING Wholesale Banking explains: "A lot of corporates are able to manage the water footprint of their own activities, but find it challenging to address the water footprint of their supply chain, usually farmers. While the first image that comes to mind is small farmers with no ability to attract commercial finance to improve their operations, commercial banks could be challenged to think of the mid-sized farmers. They often live in regions like the US where we can provide commercial finance. They manage established businesses who need a reason and finance to improve their water efficiency."

### **Financial solutions for shared challenges**

Also the Local context based water targets do provide opportunities industry players work around a river basin, where they share their water source. They therefore depend on each other's actions and share common challenges. "A river basin approach from financial service perspective therefore would make sense": according to Jindal. "Different industry players

work together to resolve basin issues and commercial banks could play a role in this field of basin actors to contribute in engagement, financial solutions and to accelerate water services.” Technical companies, utilities and water experts often lack commercial finance expertise and knowledge on designing solutions which remain commercially viable and even attractive. Financing actors need to know more about the expectations of different industries and the type of financial strength required like the expected return period. Commercial banks can use its expertise to work with them and ensure from the start, solutions are designed to be scalable, commercially viable and profitable. Also understanding each other’s constraints and each other’s expertise areas is key to finding better solutions.

### **License and freedom to operate**

In conclusion it was stated at the Industry Leaders Forum 2017 that decoupling global growth from environmental impact needs clear focus on local conditions and water availability. Circular Economy (CE) therefore needs proper (local) geographic planning and clustering of similar sectors right next to each other. Creating a bigger system that combine loops of different systems in order to achieve industrial symbiosis. The future of efficient water use as part of a circular approach needs investments made in technologies adapted to local conditions and serving an holistic approach including all environmental vectors. CE is a great business model because there will be money generated on both sides of the spectrum. It just needs to be coordinated!

The local conditions should improve with the help of local governments open to create the circumstances to close loops and overseeing systems from above. This means that local government needs freedom to operate and facilitate investments in technologies in terms of water use, sanitation and energy generation with impact on future Industrial water use related to circular economy and on the cutting edge of water treatment, recovery and energy reduction. Fully equipped to close the loop and act as a positive water contributor for the region of operational plants. The motto of 2020 will be “produce high quality water on site”.

### **AIWW Summit 2018**

At the end of 2018, the Amsterdam International Water Week (AIWW) Summit 2018 will be organized on Thursday 15 November in Rotterdam, The Netherlands. This summit will be organized as an intermediate event to serve as a momentum to come together as an AIWW community enabling the global delegates to build on the partnerships and agenda for AIWW 2019. In addition the Nine Amsterdam Agreements established in November 2017 and breakthrough solutions will be discussed with a focus to contribute to the Sustainable Development Goals on global, regional and local scale with a European perspective. High on the action-agenda at this summit: resource recovery, circular water cycle, effective ecosystems for water sources, scaling funds for water services and data management for monetized results. Participants for this summit are invited to develop leadership in governance and rethink value of water (and/or crisis), local water availability as a driver for future investments linking water project finance to growth investment and monetize impact. ■

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Note: The *Industrial Leaders Forum 2017* held at Tuesday 31st October hosted a series of keynotes and round table discussions for cross sector professionals from finance, consultancy, technology providers, utilities, NGO’s and the industrial sector representing a.o.: Evides Industries, Arcadis, Shell, Intel Corporation, Water Footprint Network, Wetsus, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Intercontinental Hotel Group (IHG®), ING Sustainability, QStone Capital, PepsiCo, Heineken, Xylem, Global Reporting Initiative, Atkins, World Waternet, Vitens-Evides, Nijhuis Industries, World Wildlife Fund (WWF), World Economic Forum (WEF), Technology University of Twente, Resonance Asset Management, L’Oréal and Carbon Disclosure Project.