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THE INDUSTRIAL WATER CANVAS

Water is omnipresent in the Flanders-Dunkirk region and has enabled the urban and economic development of our territory. Since the middle of the 20th century, many industries have been established, which consume a lot of water for their manufacturing process.

The recent announcement of future industrial projects will necessarily lead to an increase in water needs. This will lead to additional pressure on the resource, amplified in a context of global warming. This suggests that in the relatively near future, water could run out, even in a polarized area! Hence the need for a real paradigm shift for better integrated water management.

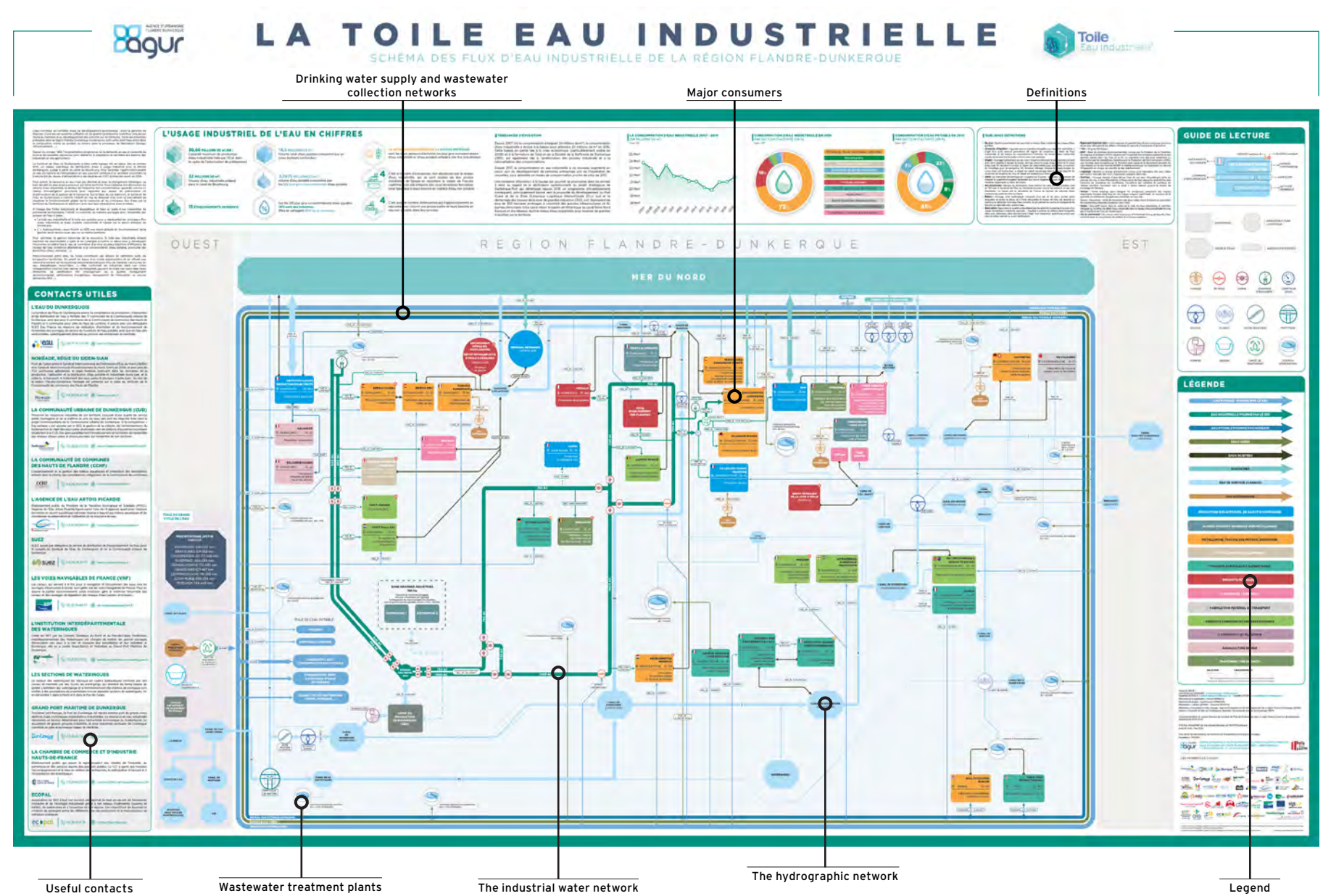
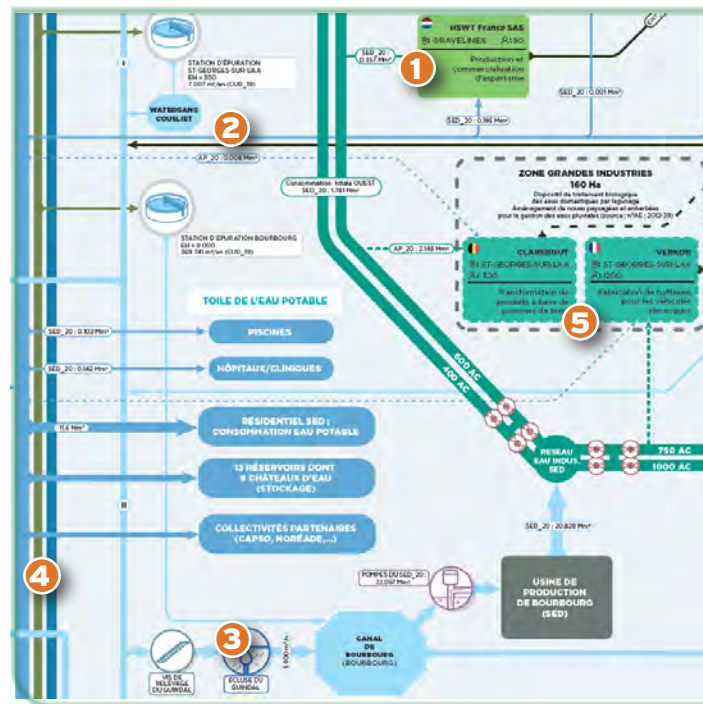
To meet this challenge of optimizing water management, the Syndicat de l'Eau du Dunkerquois has worked alongside AGUR and all the water stakeholders to develop a tool that will enable it to visualize the main water flows consumed by the industries : the Industrial Water Canvas.

INDUSTRIAL WATER CANVAS

The Industrial Water Canvas was implemented in 2021 by the AGUR, with the support of the Dunkerquois Water Syndicate and the Artois Picardie Water Agency. It covers the perimeter of the Flandre Dunkerque SCOT, the area of competence for industrial and/or drinking water supply of the Dunkerquois Water Syndicate and Noréade, within the department of Nord, spanning from north to south between the coastal front and inland Flanders and from west to east between Audomarois, Calaisis, and Belgium.

Its goal is to provide at a glance the key information regarding the available water resources, industrial water usage within this area, its main flows, consumers, projects, etc.

The representation is in an open system, meaning that it includes the main exchanges with neighboring territories. Thanks to this simplified representation, local actors can better understand the water-related issues and identify circular economy opportunities to be seized.



- 1 The canvas includes «entities,» corresponding to the largest water-consuming industries within the territory. They are described by their name, the nationality of their group, their location, their staff size, their main activity sector, and their classification (SEVESO low or high threshold).
- 2 Water flows are materialized by colored arrows, both entering and exiting each entity.
- 3 «Logistic entities» are also included, such as wastewater treatment plants connected to the wastewater collection network, equipment (pumps, basins, valves, chlorination units, etc.), and water evacuation structures (locks, lifting screws, etc.).
- 4 Local networks are represented as well (potable water supply of the Dunkerquois Water Syndicate and Noréade, wastewater collection).
- 5 Future projects (entities or flows) are represented by dotted lines.



FOR THOSE WHO WISH TO GO DEEPER



Tool's benefits

Officially presented on February 25, 2022, the Industrial Water Canvas has identified opportunities to be seized and synergies to be put in place to contribute to the circular economy. This tool is the basis for industrial ecology studies carried out in particular by the Syndicat de l'Eau du Dunkerquois, in partnership with local stakeholders (Epiflex project, study on the recovery of non-conventional water, etc.).

Interconnected with the other AGUR Canvases, the Water Canvas also provides a solid argument to support industrialists in their choice of location, by offering them an overview of the Dunkirk industrial ecosystem (material flows, water and energy resources, know-how, etc.).



Three Water Canvases promoted at the UN

The Industrial Water Canvas is the first step in a more global approach. In addition, two other Canvases are currently under construction to complete the offer in terms of water resources: the Drinking Water Canvas and the Hydrosystem Canvas. With their success, the Canvases are now being emulated : other territories have expressed their interest in having similar tools that allow for foresight, strategy and federating the stakeholders. These ecosystem approaches also found an echo at the 101st ASTEE Congress held in Dunkirk last June.

Very soon, AGUR will intervene to promote these tools, in prelude and during the next United Nations Conference on Water which will be held in New-York from March 22 to 25, 2023.

At the invitation of Carola Hein, professor-researcher at the University of Delft in the Netherlands, the Agency has in this context written a contribution in the Blue Paper. This biannual Blue Papers journal explores the historical roots of water-related structures and practices, in order to assess what has worked in the past, what has not and how to engage with the legacy of the past.



Links & Resources

VIDEO Industrial Water Canvas presentation seminar, February 2022, AGUR :

<https://www.youtube.com/watch?v=hIM5z3q-c6A&t=3530s>

Jean-François Vereecke & Sandrine Deveycx, «The (Water) Canvas, as a Tool For Analysis, Interpretation and Planning of Water Territories and Heritage», in *BLUE PAPERS Water & Heritage for Sustainable Development*, 2022 (Vol.1 No.1), p106-113

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