CERRE Seminar

Protecting the future of water

Brussels, 11 July 2019

we help cities and industries optimize water management, recycling and waste recovery

our fields of activity

Engineering, design and construction of treatment infrastructure

Smart and sustainable management of the water cycle, smart water solutions

Smart solutions to shape tomorrow's cities

Recycling and waste recovery to produce new materials and energy

key figures

€15.9 billion
turnover in 2017

88,576
employees

on **5**
continents

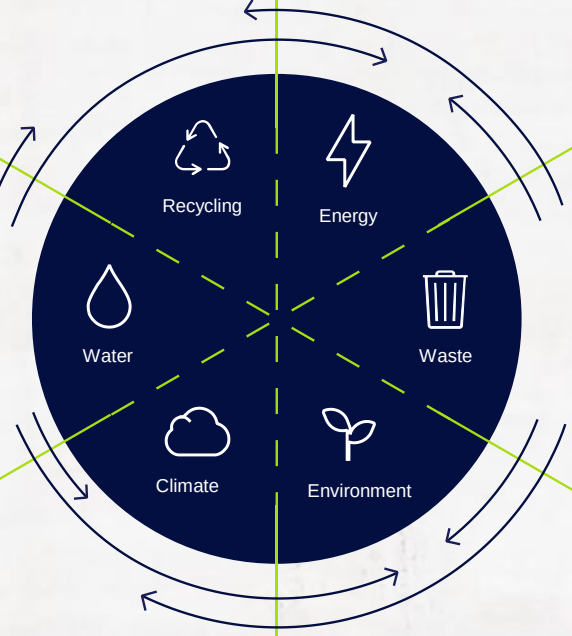
€92 millions
invested in R&D

27.4%
of women in management

4.3 million
tonnes of secondary raw materials produced

1.3 billion
cubic meters of alternative water produced

6.7 TWh
of renewable energy produced



300 million
cubic meters of drinking water produced from sea water

32 million
people benefiting from waste collection services

7.4 billion
cubic meters of drinking water produced

3.4 million
tonnes of hazardous waste treated

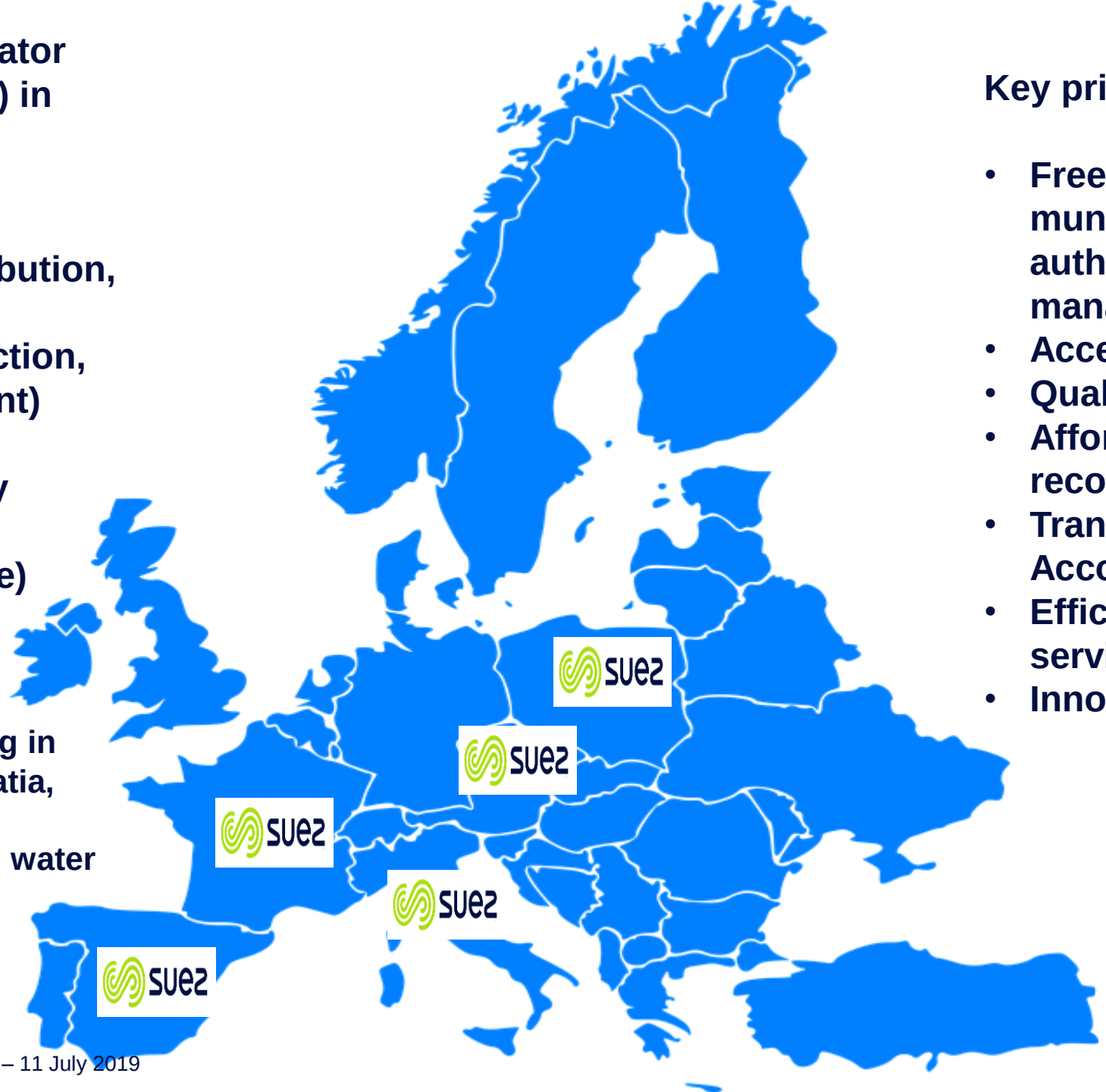
9.4 million
tCO_2e avoided

4.8 billion
cubic meters of wastewater treated

Suez as a water operator (directly or indirectly) in Europe

- **Drinking water** (production, distribution, networks)
- **Wastewater** (collection, networks, treatment)
- **Sewage treatment** (spreading, energy recovery, biogas/biomethane)

+ Technical assistance, construction, smart technologies, consulting in Denmark, Sweden, Croatia, Romania, Switzerland
+ Business-to-business water technologies across Europe



Key principles & drivers

- Freedom of choice of municipalities / local authorities for the management model
- Access to water for all
- Quality of water
- Affordability / cost recovery
- Transparency & Accountability
- Efficiency of operations & services
- Innovation

tackling a challenge we all face: increasing water scarcity

growing global population and rampant urbanization

60% of the 8.5 billion people on earth will live in cities by 2030

41 mega-cities with more than 10 million inhabitants by 2030

Growing demand with decreasing resources

World need for water will exceed by **40%** the available quantities by 2030

The volume of urban waste will increase by **70%** by 2050

Earth Overshoot Day1 earlier each year

1990	2000	2010	2018
December 7	November 1	August 21	August 1

1-The date when humanity has consumed all the resources the planet is capable of regenerating in a year.

Climate change effects on water banks and population

By 2035, **40%** of the world's population will live in water-stressed areas if we do not act to secure water resources

taking on the 4 key challenges of protecting water

1. developing access to resources for everyone

by supplying people with drinking water that is essential for health

7.4 billion cubic meters
of drinking water produced

2. protecting resources and the ecosystem

by helping cities and industries to improve the quality of their discharge (wastewater), recover sludge as energy, recover nutrients (phosphorus)

by tackling pollutants (microplastics, pharma residues, endocrine disruptors, heavy metals, pesticides) in a combined approach at source and with additional end-of-pipe treatment

taking on the 4 key challenges of protecting water

3. optimizing the use of resources

by improving resource management through digital solutions

by generating significant economic and environmental savings for our customers

3.9 millions
smart sensors sold

22% of customers
equipped with remote reading meters

4. producing new resources

by developing alternative water resources: REUSE, aquifer recharge, desalination

1.3 billion **cubic meters of alternative water produced**

Some references in Europe

Dijon, France

Designing the smart city of tomorrow with acconnected control centre enabling 24/7 management and surveillance of urban infrastrucrues (drinking and wastewater networks, leaks, prevent floods and storm overflow).

Smart city

Milan San Rocco, Italy

SUEZ set up a plant treating wastewater to be reused for the culture of rice in the Milan surroundings. In dry periods, all recycled wastewater is used to irrigate 22,000 hectares of crop fields.

Water REUSE

Herning, Denmark

Solving problems with heavy struvite formations in digester and pipes at wastewater treatment plants, SUEZ managed to develop a phosphorus recovery technology. PhosphoGreen enables the production of a high value fertilzer (struvite) with a ROI around 7 years.

Nutrient recovery

Some references in Europe

Ostrava, Czech Republic

SUEZ deployed “ON’connect™ coach” which helps households track their daily water consumption, the breakdown of different usages and compare their consumption with that of similar households. The application also provides customised indicators and assesses potential savings by changing equipment or usages.

Digital

Barcelona, Spain

After experiencing a drop in its natural water reserves and facing hydric stress, the Catalan authorities entrusted SUEZ with the construction of the largest desalination plant in Europe, and gained a drinking water production capacity of 200,000 m3/day.

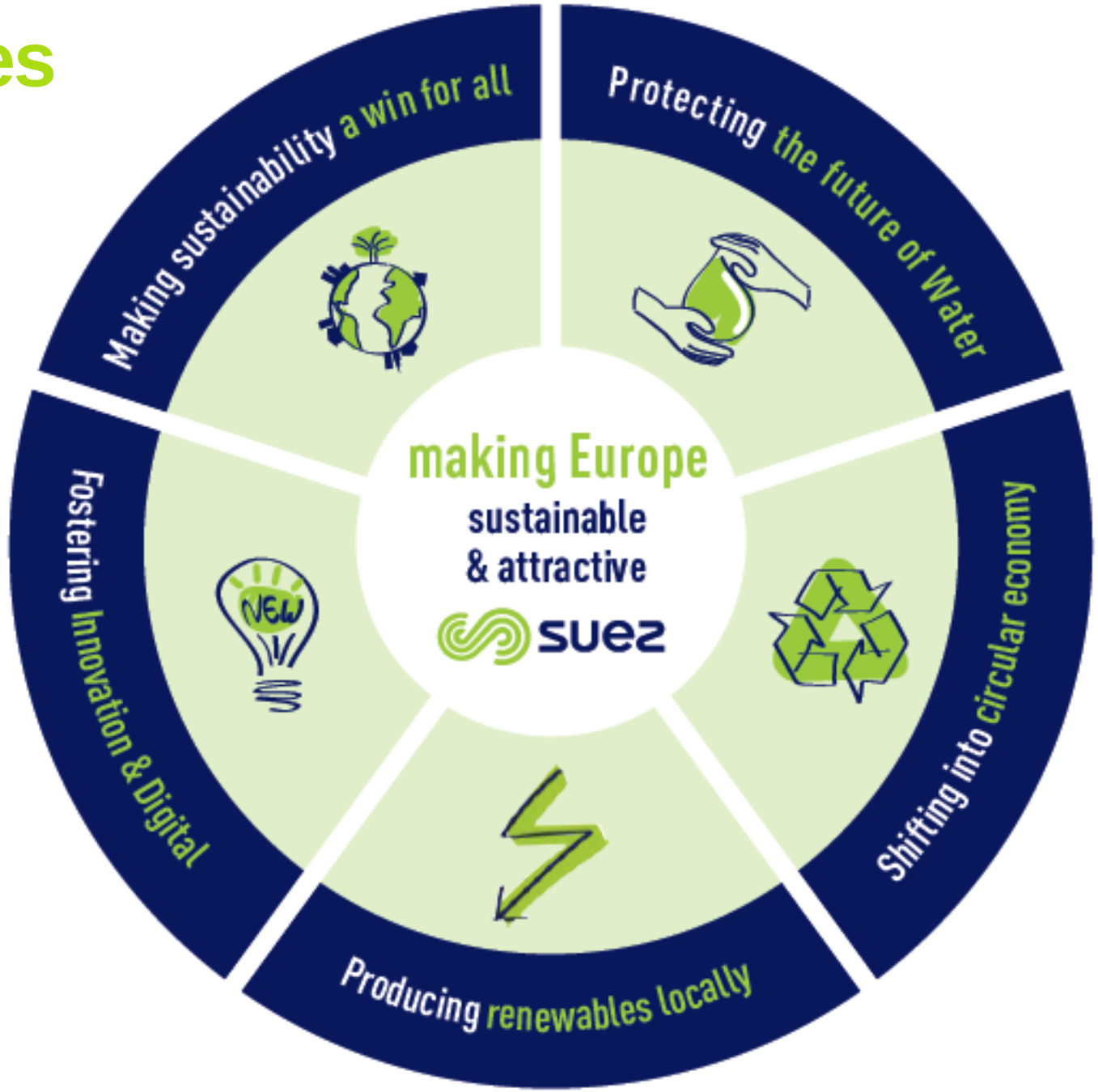
Desalination

Marseille, France

In 2019, SUEZ inaugurated the biggest biomethane plant produced from wastewater. The plant will produce biomethane for 2,500 homes equivalent to 8,000 inhabitants. In the future, the biomethane will also serve as biofuel for public transport. This project result from cooperation bewteen different actors from the territory (municipality, Water agency, Region).

Biomethane

Our priorities



UPCOMING WATER LEGISLATION

WATER FRAMEWORK DIRECTIVE

A robust Water Framework Directive, including the Groundwater and Environmental Quality Standards Directives, protects our water resources and the environment, keeping our groundwater, rivers and lakes free from pollution. We want policies that reflect the Cost Recovery Principle. The directive's ambitions should be maintained after 2027 and the communication of progress should be improved. All EU legislation or policies – particularly on nitrates, pesticides and REACH – need to be better coordinated and implemented.

DRINKING WATER DIRECTIVE

Water is essential for life. Our drinking water should remain of high quality and affordable for everyone. Operators advocate for the protection of water resources in order to reduce the level of purification treatment required in the production of drinking water and related costs for consumers.

URBAN WASTE WATER TREATMENT DIRECTIVE

How we treat our waste water impacts greatly on the quality of water resources. Contaminants must be prevented from entering sewers through the strict application of the Control at Source Principle in order to keep water affordable. This will also facilitate resource recovery and the Circular Economy, for which the EU needs to open the market to recovered materials. If pollutants do enter the water cycle the Polluter Pays Principle must be applied.

BATHING WATER DIRECTIVE

Clean bathing water is good for health, is necessary for our environment and promotes tourism. The quality of our waste water services has a direct impact on all this. The directive is a good example of successful implementation and will continue to deliver tangible results for years to come.

WATER REUSE REGULATION

The reuse of treated waste water reduces water scarcity and will be increasingly important in a changing climate. We want appropriate and affordable quality standards so that reclaimed water can be used in agricultural irrigation. This guarantees consumer protection and offers sustainable water management options to keep resources for drinking water production.

COMMON AGRICULTURAL POLICY

Agriculture and water are intrinsically linked, and both impact each other. The Common Agricultural Policy should contribute to keeping our water resources free from agricultural pollution. Payments to farmers must be conditional on compliance with environmental legislation. Sustainability tools and ecoschemes must be made attractive to farmers.

Thank you very much for your attention.

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