



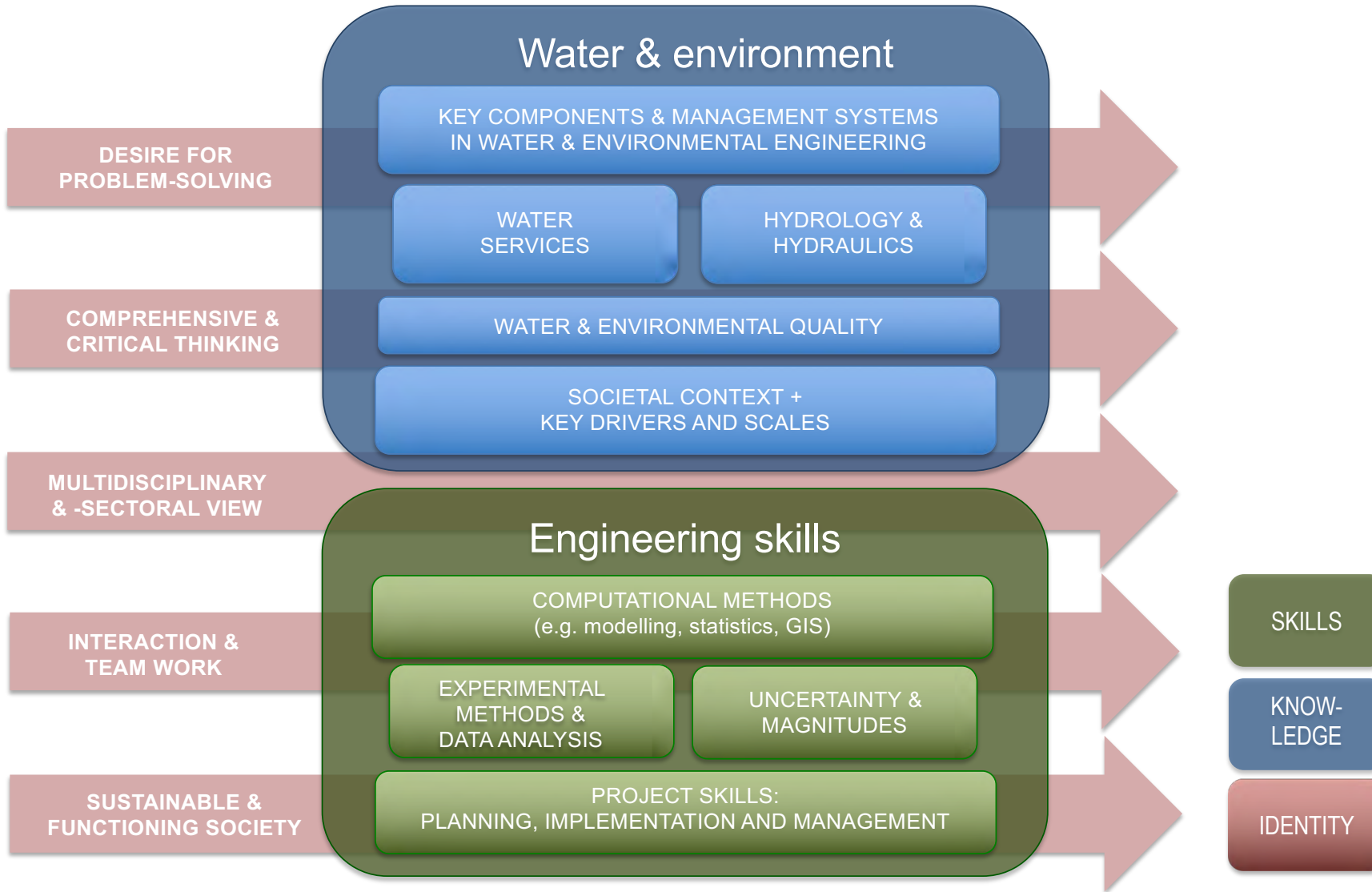
WAT COMPETENCES?

*COMPETENCES AND RELATED INTENDED LEARNING OUTCOMES (ILOs)
OF MASTER'S PROGRAMME IN WATER AND ENVIRONMENTAL ENGINEERING
AT AALTO UNIVERSITY, FINLAND*

<https://into.aalto.fi/display/enwat>

June 2019

COMPETENCES



ILOs: knowledge

Our graduate is able to:

- 1) Recognise the key **components and management systems in water and environmental engineering**, and understand the relevance of **sustainability** for the field
- 2) Understand the principles of the **hydrological cycle** and movements of water in natural and built environments
- 3) Define and differentiate the main sections of **water services and environmental services**, with focus on the treatment of water and waste water
- 4) Understand the key principles of **water and environmental quality**
- 5) Identify the **societal context** relevant to the water and environment, and comprehend the different **scales** and key **drivers** applicable to water and environmental engineering

ILOs: skills

Our graduate is able to:

- 1) Apply **key computational methods** related to water and environmental engineering
- 2) Understand relevant **experimental methods and data analysis** processes, including the use of data archives
- 3) Comprehend **uncertainty and different orders of magnitude** related to the measurements, data analysis and modeling
- 4) Recognise and analyse the main components of water- and environment-related **planning, implementation and management processes, and use related basic project skills**

ILOs: identity

(i.e. general
working-life skills)

Our graduate:

- 1) Is motivated and has a desire for **problem-solving**
- 2) Thinks in a **comprehensive and critical manner** about his/her work and field
- 3) Maintains a **multidisciplinary and -sectoral view** related to water and environmental engineering
- 4) Is able to work as a part of a team and has relevant skills for **interaction and communication**
- 5) Promotes a **sustainable and functioning society**