

WATEC AU'S CENTRE FOR WATER TECHNOLOGY

WATEC IN SHORT ([HTTPS://WATEC.AU.DK/](https://watec.au.dk/))

Why WATEC?

Who is WATEC? - See also <https://watec.au.dk/>)

What is WATEC?

How WATEC works?

AGRO and WATEC?

How can WATEC survive?

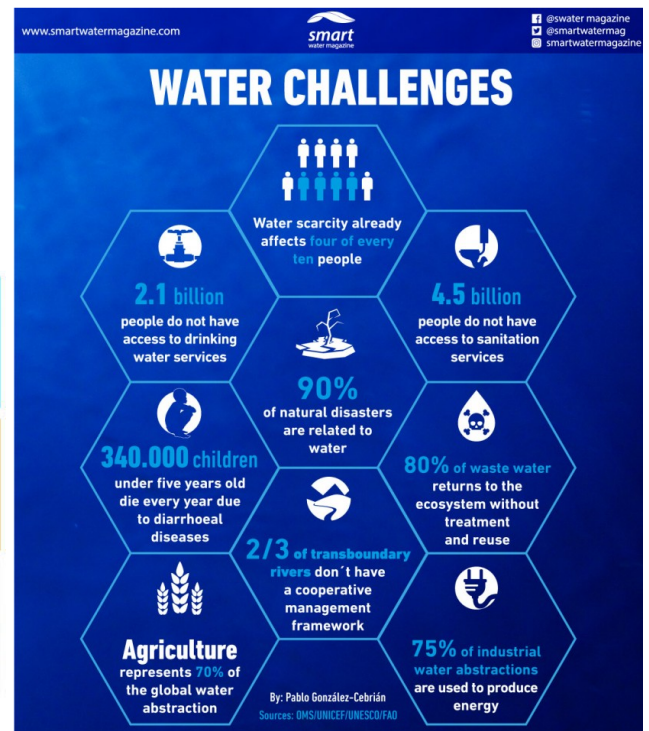
WHY WATEC

The intention of WATEC it is to unite and strengthen the part of aquatic research at AU that is focusing on water technologies.

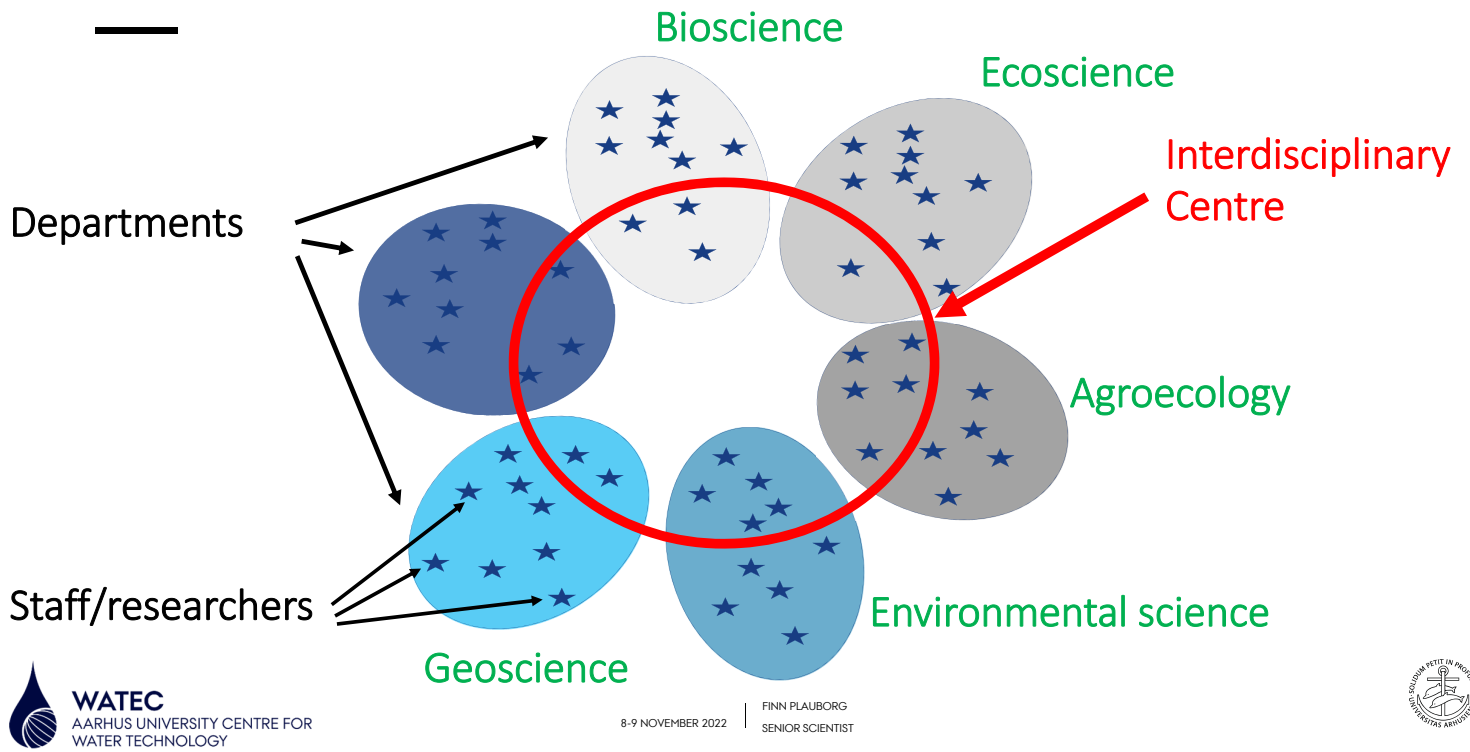
These technologies include development of sensors for analysis of water chemistry and flow, technologies for treatment of wastewater and agricultural run-off, analysis and removal of micropollutants in wastewater and groundwater, restauration and creation of limnic environments, and mapping of groundwater resources.

WHY WATEC

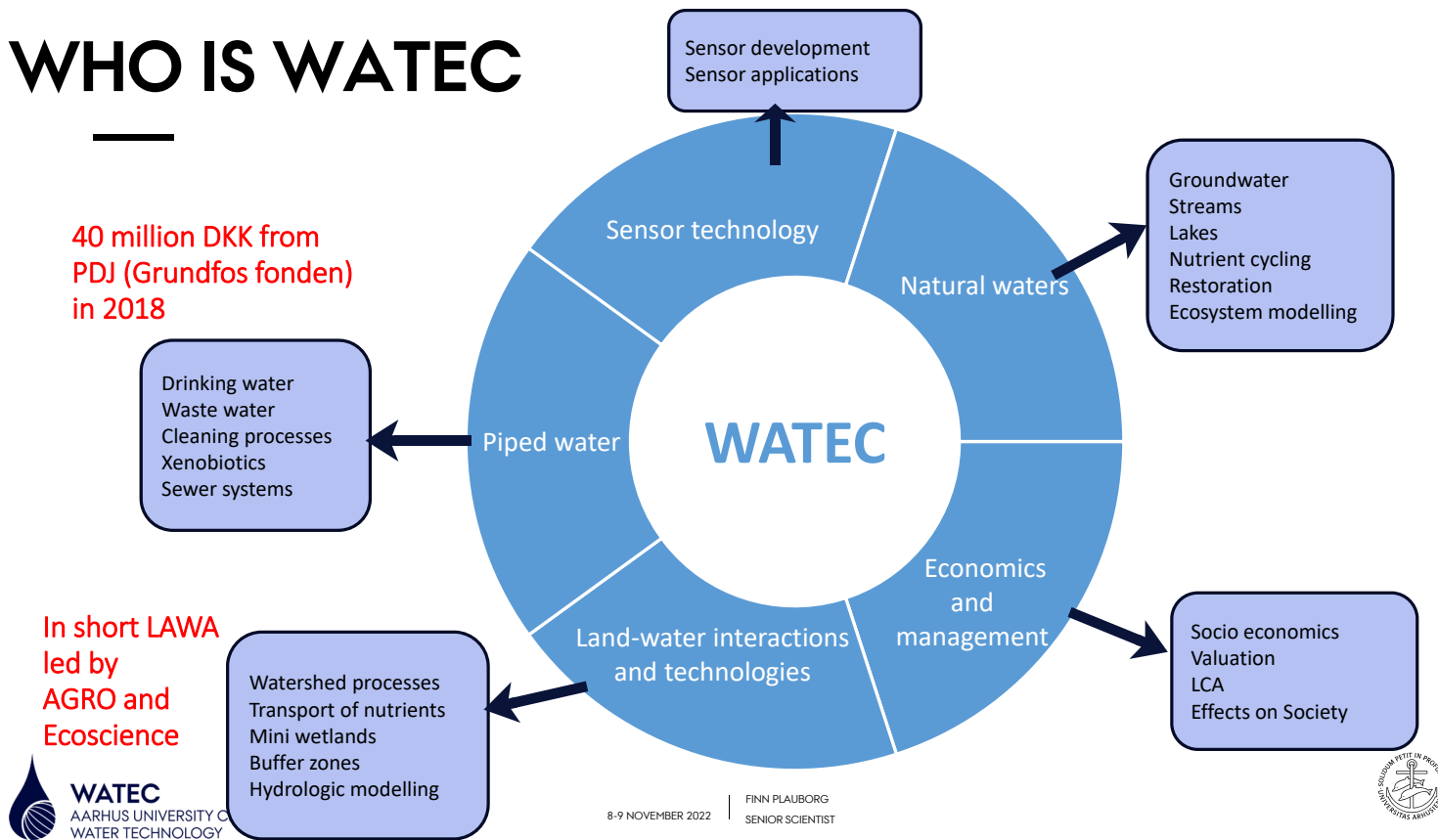
SUSTAINABLE DEVELOPMENT GOALS



WHO IS WATEC



WHO IS WATEC



WHO IS WATEC

MISSION

WATEC will develop sustainable water management and technology, contribute to graduate and postgraduate education and facilitate research at the highest level for the benefit of society and industry.

VISION

WATEC strives to be an internationally highly recognized research centre delivering breakthrough water technologies to society and industry.

WHAT IS WATEC

- Comprise staff employed at the involved departments
- Are not legal entities
- Do not offer educational degree programs
- Governed by
 - Board (heads of departments and deans)
 - Steering group
 - Head of centre/centre manager
- Assisted by
 - Advisory board
- Income from base funding from the faculties and 10% of research grant overhead ?

WHAT IS WATEC

- Research infrastructures

INFRASTRUCTURE – LONG-TERM LAKE MESOCOSMS



INFRASTRUCTURE - ARTIFICIAL STREAM FLUMES



INFRASTRUCTURE- BIOREACTORS



Klik for at tilføje tekst

Bioreactor facility at Skannerup



Woodchip bioreactor test centre

INFRASTRUCTURE - HTL



INFRASTRUCTURE - WATERLAB

Dr. Zongzu Wei, ass. professor
Dr. Leendert Vergeynst, ass. professor
Dr. Thomas William Seviour, ass. professor

Affiliated with WATEC

Research laboratories for:

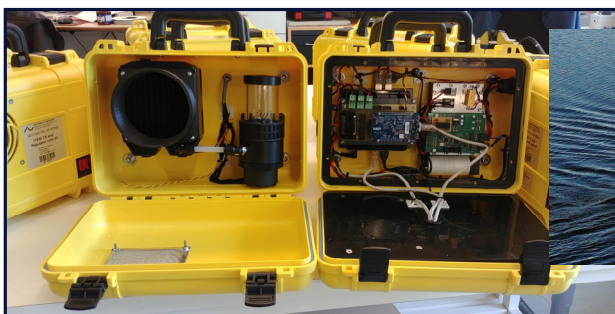
- Micropollutants and toxicology
- Advanced oxidation processes
- High-rate activated sludge
- Biofilm and environmental technology



INFRASTRUCTURE - NON-TARGET SCREENING FOR POLLUTANTS



INFRASTRUCTURE - GEOPHYSICAL EQUIPMENT



INFRASTRUCTURE - SENSOR LAB

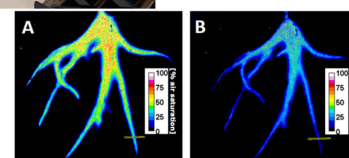
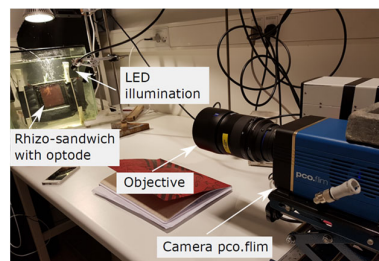


World leading Laboratory in the development and application of microsensors

- Multiple pA-meter including dedicated field meters
- Several potentiostats

Chemical imaging infrastructure

- Ratiometric camera systems
- Lifetime based imaging
- Hyperspectral imaging



HOW WATEC WORKS

Activities to foster interdisciplinary collaboration:

- Increase internal knowledge about water related activities and competencies found in other departments.
- Bring researchers together for exchange of ideas and mutual inspiration.
- Assist AU researchers in creating contacts to external partners with different scientific or commercial background.
- Branding of WATEC/AU to external stakeholders (industry/companies, authorities, foundations).

HOW WATEC WORKS

Activities to foster interdisciplinary collaboration (continued):

- Seminars
- Annual meetings
- Bringing together young researchers
- Supporting PhD students
- Grants to projects (focus on collaboration across disciplines) **In 2022 600.000 DKK**
- Project-oriented meetings/workshops for researchers from different departments
- Initiating contact to /collaboration with other AU centres (DIGIT)

HOW WATEC WORKS

Activities to foster interdisciplinary collaboration (continued):

- Meetings with private companies and utilities
- Active member of important national water fora (Danish Water Forum, Water Valley Denmark, CLEAN – the Danish environmental cluster; DI Vand (Danish Industry))
- Presence at and co-hosting conferences and workshops
- Presence at match-making events (BioMatch, DI Vand, "Company night")
- Recruitment of a business developer through grant from Poul Due Jensen Foundation
- Mediation of contact to external partners to the WATEC researchers

HOW WATEC WORKS

SEEKS TO CREATE ADDED VALUE FROM OUTREACH ACTIVITIES



Den Danske Vandklynge



novonordiskfonden



kamstrup



NIRAS



I-GIS



AALBORG UNIVERSITY
DENMARK



25 OCTOBER 2021

PETER HENRIKSEN
HEAD OF CENTRE



AGRO AND WATEC

- LAWA has at present 33 affiliated researchers. All WATEC departments are represented
- LAWA and WATEC have been represented at international workshops and conferences, latest IWA and the XXI N workshop. Next 10th Nov at Grundfos Prize event
- AGRO has received three WATEC PhD scholarship in the period 2018-2021, In total 1.5 mill. DKK
- AGRO has received WATEC grants in period 2018-2022. In 2022 100.000 DKK

HOW CAN WATEC SURVIVE?

WATEC – RESEARCHERS AND REVENUES

WATEC: 109 associated researchers, annual revenue approx. 3 mio. DKK

Table 5B.1 Economic Overview

Amount in 1000 DKK

| | Accounts | | | | | Expected | | | Total |
|---|----------|-----------|--------------|--------------|--------------|--------------|--------------|------------|---------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | |
| Finance Act revenue | 0 | 0 | 2.700 | 3.400 | 2.900 | 2.500 | 758 | 0 | 12.258 |
| Other revenues (incl. granted overhead) | 0 | 40 | 0 | 42 | 241 | 415 | 873 | 812 | 2.423 |
| REVENUES TOTAL | 0 | 40 | 2.700 | 3.442 | 3.141 | 2.915 | 1.631 | 812 | 14.681 |

In comparison:

Department of Ecoscience: approx. 275 employees, annual revenue 270 mill. DKK.



WATEC
AARHUS UNIVERSITY CENTRE FOR
WATER TECHNOLOGY