Food: Challenges/Trends/Issues

- Food security (geo-political)
- Nutrition security (health)
  - -> proteins: plants – animals (fish)?
  - -> individualised diets (infants, old people, sports, ...)
- Food safety (health, trade and economy)
- Land, sea, cities, ..., Mars?
- Climate change: water, temperature, pests, diseases, ...?
- Sustainability: People, Profit, Planet?
Water: Challenges/Trends/Issues

- **Quantity (availability: place and time)**
  - Climate Change -> Droughts -> Migration -> Refugees?
  - Water storage and irrigation -> Ecology?
  - Heavy rainfall -> flooding -> damage?

- **Quality**
  - Agriculture, drinking water, industry, nature, tourism, ...
  - Salinity, nutrients, new pollutants, ...

- **Sustainability: People, Profit, Planet?**
Water @ Wageningen

Nature and Ecosystem Management

Food and Biobased Technology

Society and the Circular Economy

WATER & FOOD

MARINE

URBANIZATION

WATER

Quality & Quantity
Water @ Wur: Our strengths

To perform an:

- integrated transdisciplinary (= together with stakeholders) system approach,
- combining fundamental and applied expertise from the social, natural and technological sciences.
- we combine expertise in many temporal and spatial scales, i.e. ranging from field to global level.
Wageningen University & Research: a World-class profile

“Great scores for Wageningen University”

Shanghai Ranking's Global Ranking of Academic Subjects 2016 - Environmental Science & Engineering

<table>
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Teacher of the Year 2016: Roel Dijksma, ESG
Water@Wageningen:

1. Water-Food-Energy-Biodiversity NEXUS

- Global to Field modelling
- Delta – Hinterland: River Basins
- Water stress – Yield (drought – floods – quality effects)
- Water Nexus, Lumbricus
- Cross Sectoral Solutions
2. Water in an Urbanizing World

- Climate Change: Floods, Droughts, Urban Heat Islands
- Water Safety, Provision, & Quality
- Resource Efficiency
- Nature Based Metropolitan Solutions
3. Sustainable use marine environment

- Blue Growth
- Coastal Eco Productivity
- Corridor North
- Integrated Solutions, Protection biodiversity, sustainable seafood provision, responsible maritime activities
4. Water Quality

- Macro > Micro > Nano..
- Ecology & Technology
- River Basin to Coast to Coast to Ocean
- Climate & Circular Economy Induced
- Delta plan Knowledge impulse for Water quality and freshwater
Water Facilities @ Wageningen

- Kraaijenhoff van den Leur Lab for Water and Sediment Dynamics
- Sinderhoeve
- AgriFarm
- AlgaePark
- MoDuTech Lab