

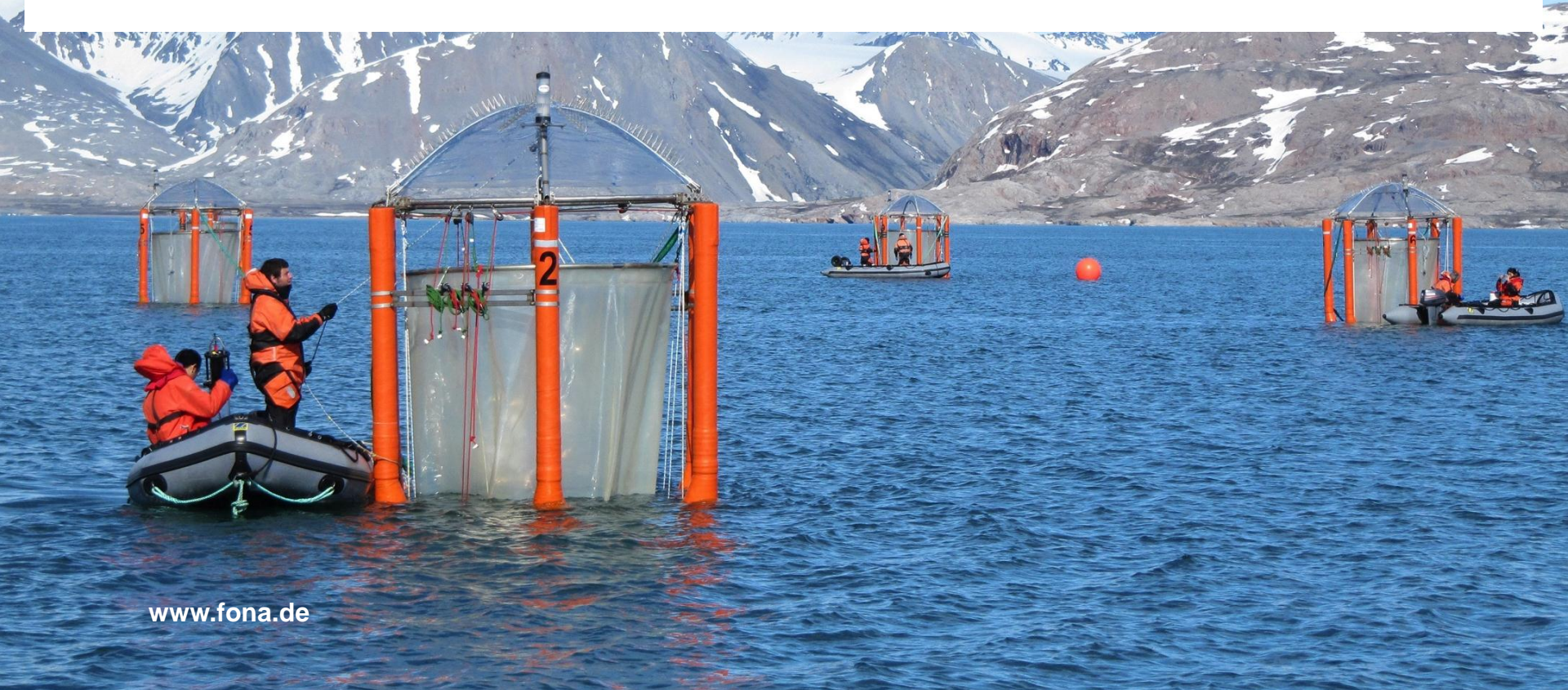


Federal Ministry  
of Education  
and Research



**FONA**  
Research for Sustainable  
Development  
BMBF

# Water and Climate Change in the International Cooperation of the BMBF



# Content

- **BMBF Framework Programme „Research for Sustainable Development“ (FONA) with a focus on Water and Climate Research**
- **International Research Cooperation in Water and Climate**
  - **EU**
  - **International**
  - **Bilateral**

# FONA: Framework Programme Research for Sustainable Development

- **Framework Programme since 2005:**
  - **FONA<sup>1</sup>:** 2005 to 2009; 1.43 billion Euro funding for 3.493 projects
  - **FONA<sup>2</sup>:** 2010 to 2014; 1.81 billion Euro funding for 2.867 projects
  - **FONA<sup>3</sup>:** 2015 to 2019; 2,1 billion Euro estimated budget
- **Thematic priorities:**
  - Earth system and geo-technologies; **climate**; energy; **sustainable resource management (including water)**
- **Research foci:**
  - global responsibility, societal challenges, inter- and transdisciplinary research, effective implementation of research results; establishment of international networks

# FONA<sup>3</sup>: Framework Programme Research for Sustainable Development

## FONA<sup>3</sup> at a glance

- **Three flagship initiatives:**
  - Green Economy
  - City of the Future
  - Energy System Transformation (Energiewende)
- **Four sectors of prevention research:**
  - Maintaining and enhancing **quality of life** and competitiveness
  - Using **resources** intelligently and efficiently
  - Protecting **common assets**: climate, biodiversity and the ocean
  - **Education** & research: working together for sustainable development

Water and Climate are key topics in all flagship initiatives and all sectors of prevention research!

# Water Research in FONA

## Sustainable Water Management Strategy (NaWaM) – Subject Areas



Risk Management of Emerging Compounds and Pathogens in the Water Cycle” (RiSKWa, IV/2011)



Smart and Multifunctional Infrastructural Systems for Sustainable Water Supply and Disposal“ (INIS, II/2013)



Future Oriented Technologies and Concepts for an Energy-efficient and Resource-saving Water Management” (ERWAS, II/2014)



Regional Water Resources Management for Sustainable Water Protection (ReWaM, II/2015)



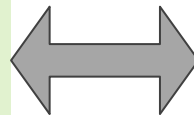
Future Oriented Technologies and Concepts for the Increase of Water Availability by Water Reuse and Desalination“ (WavE, I/2016)



# Climate Research in FONA – Part of National Strategies

## National Strategies

- National Sustainability Strategy
- Energy Concept and the transformation of the energy system
- Mobility and Fuels Strategy
- German Adaptation Strategy
- Hightech Strategy



## Research Strategies

- Framework Programme Research for Sustainable Development (FONA)
- 6<sup>th</sup> Energy Research Programme for an environmentally sound, reliable and affordable energy supply
- Internationalisation Strategy

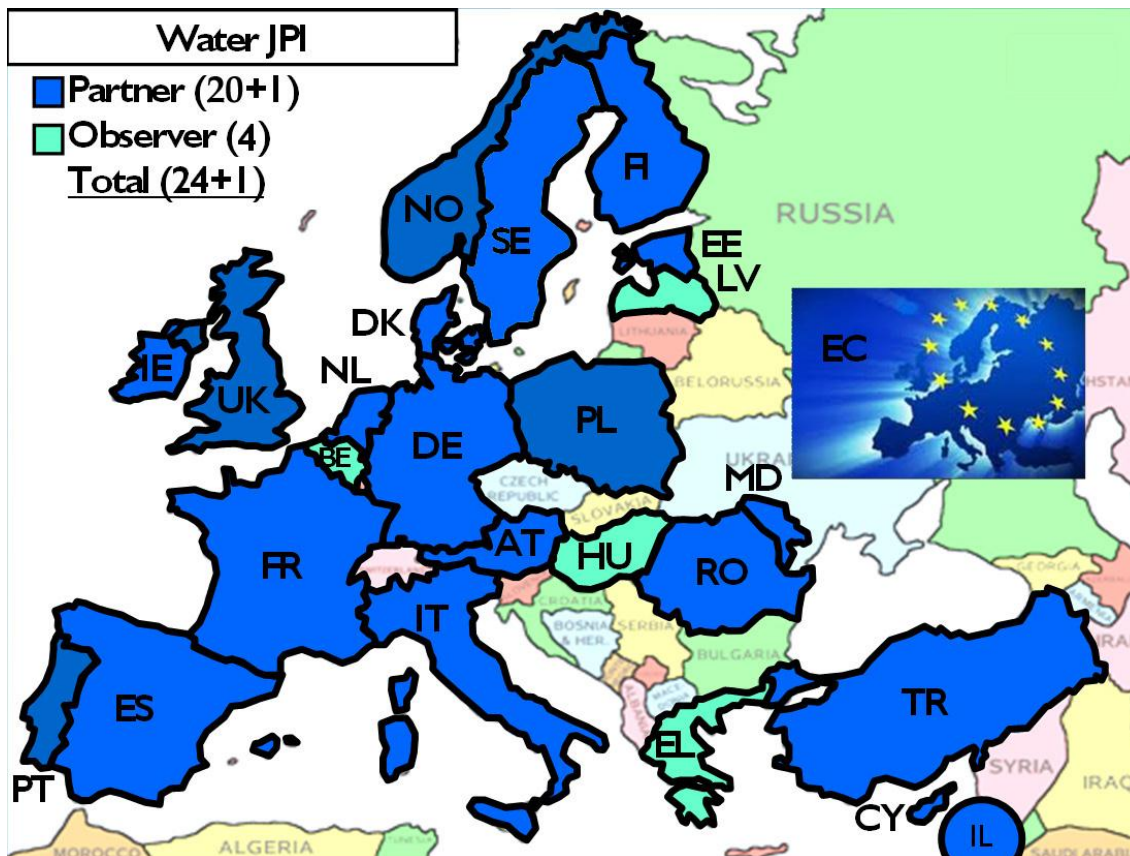


- voluntary partnership between EU Member States
- coordinate national research programmes
- implement joint research calls
- 15 member states, 2 observer countries + EU COM

### JPI Climate modules:

- Climate predictability on decadal timescale
- Science for quality climate services
- Understanding societal transformation
- Integrated assessment tools for enhanced decision-making
- Cross-sectoral assessment of climate change impacts





- 20 members, 4 associated states + EU COM
- Goal: Find solutions for societal challenges in the field of water
- Pilot Call „Emerging water contaminants – anthropogenic pollutants and pathogens” in November 2013: seven joint projects
- WaterWorks 2014 Cofunded Call (evaluation phase)



**EU:** **EIP Water**  
Boosting opportunities – Innovating water

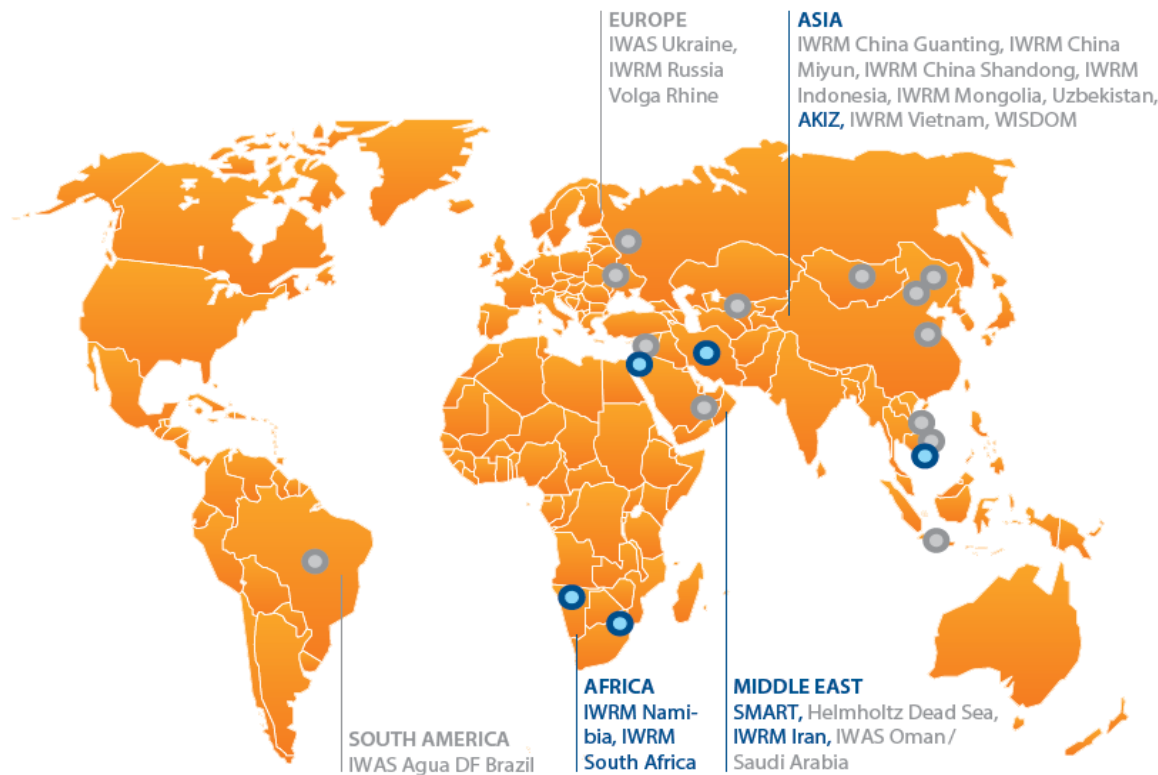
## European Innovation Partnership (EIP) on Water

- Initiative for the development of innovative solutions to address European and global water challenges.
- Creation of market opportunities for these innovations, both inside and outside of Europe.
- Goal: to speed up innovations that contribute to solving societal challenges, enhance Europe's competitiveness and contribute to job creation and economic growth
- 29 Action Groups to identify and overcome barriers to innovation, e.g. „City Blueprints“/ „Energy and Water Works“/...
- <http://www.eip-water.eu>





# International Water Cooperation



● ongoing projects

● completed projects

- Started 2006
- 17 Joint projects
- 113 German partners
- 130 International partners
- Consideration of the entire catchment area
- Interlinkages between Water, Land, Energy

# International Climate Cooperation (I)

## Research on Global Urbanization

**“Cities are where the battle for sustainable development will be won or lost”** - High Level Panel on the Post-2015 Development Agenda

- Cities consume upward of **75% of the world's energy**
- Cities produce about **80 % of climate-wrecking gases**
- **70 % of the world's** population will live in cities in **2050**

**International agenda process** to identify **key topics** in sustainable urbanization

- World Urban Forum, Medellin 2014: Discussion with city officials and urban stakeholders
- Expert contributions of e.g. World Bank, UN HABITAT, Cities Alliance
- German-Chinese conference on Sustainable Urbanization in Shanghai 2015
- Asian-Pacific Week 2015: Workshop



# International Climate Cooperation (III)

## International Responsibility

### Future Mega Cities / Rapid Planning

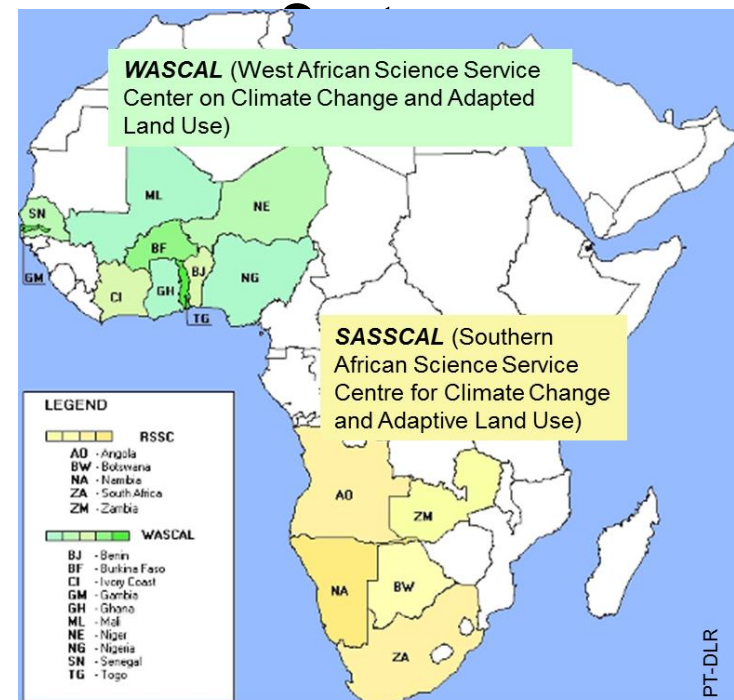


RAPID PLANNING



Innovative Solutions for  
Climate- and Energy-Efficient  
Urbanisation

### Regional Science Service



## International Climate Cooperation (II)

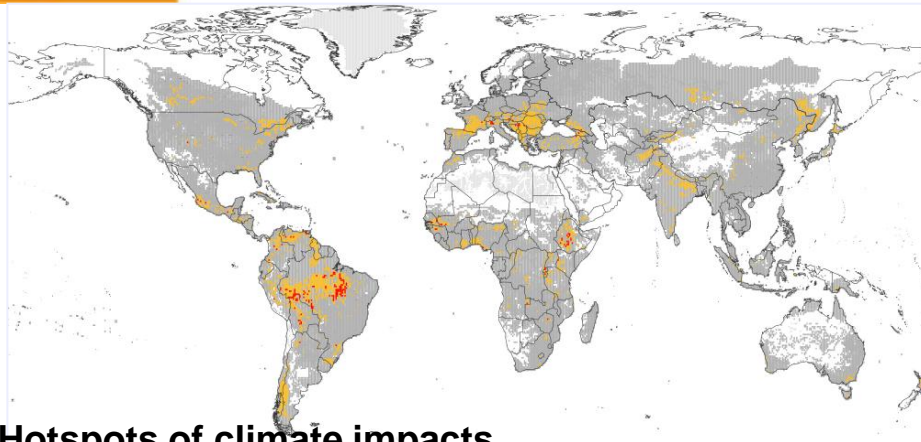
### Integrated Assessment for Climate Politics & Innovation

Integrated Scenarios and decision support / Climate change triggering innovation



#### ISI-MIP

Cross-sectoral  
global impact assessments



Hotspots of climate impacts

#### Economics of Climate Change

Assessing costs, risks and opportunities of response options





## Bilateral Cooperation: Poland

### Call for proposals in Polish-German Sustainability Research ("STAIR")

- Polish Partners: Ministry of Science and Higher Education; National Centre for Research and Development
- First round in 2012; 14 project consortia funded
- 2<sup>nd</sup> call round **currently open: till 30 November 2015**
- Goal: Strengthen SME technology transfer
- **Topics:**
  - Energy efficiency and climate protection
  - Resource efficiency
  - Sustainable water management
  - Social-ecological research

# Dziękuję! Merci!

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