제7차 세계물포럼
7th World Water Forum

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Contents

• Introduction
• Goals and objectives
• Framework
  ➢ Main focus
  ➢ Special programs
    (White Papers, High Level Panels, World Water Challenges)
• Roadmap

"Water for our Future"
Significance of the 7th Edition of World Water Forum

Water For Our Future

A Turning Point Forum with Implementation + SDGs Contribution

A Bridging Platform of Science to Water Issues

Sharing Water Challenges & Responses
Forum Components

- **Main Components**
  - Thematic Process
  - Political Process
  - Regional Process

**Science & Technology Process** *(New)*

- **Other components**
  - Citizen’s Forum (Youth, Gender, etc.), Expo & Fair, Prize, Side-Event, etc
Goal and Objectives

The goal for the 7\textsuperscript{th} World Water Forum – STP is to promote innovation in the water sector building on sound and effective linkages between science, technology, policy and practice. The objectives of 7\textsuperscript{th} World Water Forum – STP are:

(1) To improve the understanding of the role of science and technology in innovating the water sector, covering leading edge, state of the art and appropriate science and technology development and application;

(2) To develop guidance on the use of science and technology to implement and innovate water policies and realities, building on world-wide know-how and lessons learnt;

(3) To create market and network opportunities for water problem owners and science, technology and engineering solution providers;
## Conceptual Overview

### Science and Technology Process Commission

<table>
<thead>
<tr>
<th>SPECIAL PROGRAMMES</th>
<th>MAIN FOCUS AREAS</th>
<th>Forum Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Papers</td>
<td>Efficiency</td>
<td>6-18 Forum sessions</td>
</tr>
<tr>
<td></td>
<td>Resource Recovery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smart Technology</td>
<td></td>
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<tr>
<td></td>
<td>Climate Change</td>
<td></td>
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<td></td>
<td>Ecosystem Services</td>
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<td>WEF* Nexus</td>
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</tbody>
</table>

### SPECIAL PROGRAMMES

- **White Papers**
  - Efficiency
  - Resource Recovery
  - Smart Technology
  - Climate Change
  - Ecosystem Services
  - WEF* Nexus

  6-18 Forum sessions

- **High Level Panels**
  - Synthesis of Main Focus Areas
    - Basis for discussions and recommendations by CEO Innovation Panel
  - 2 high level panel plenary sessions

- **World Water Challenges**
  - Each Main Focus Area
    - Basis for call for solutions and recommendations for replication and up-scaling
  - Exposure in EXPO on podiums and Presentations

*WEF: Water, Energy and Food*
Main Focus for Innovation Areas

Main focus 1: Efficient water management

Demonstration of the efficiency of water management in both short and long-term benefits for water users, society, and the environment at large, including:

- Urban water efficiency
- Agricultural water efficiency
- Industrial water efficiency
- Energy efficiency in water and waste water system
Main Focus for Innovation Areas

Main focus 2: Resource recovery from water and waste-water systems

Increasingly, water and waste-water systems are recognized as potential sources of recovering water, energy, nutrients and other materials. Resource recovery from water and waste water systems is now a rapidly developing field focused on,

- Water re-use and recycling technologies
- Energy recovery and production from water and waste water cycles
- Nutrients recovery from waste water

Main Focus for Innovation Areas

Main focus 3: Smart Technology for water management

Smart Technology (ST) is bridging the ‘division between the water and ST sectors will be important in the development and (wide-scale) application of new smart technologies in the water sector, such as:

- Urban and Irrigation water management and ST
- Integrated and intelligent river basin water management and ST
- Design and implementation of smart water grids
- Water resources management and Big Data management and cross matching with water tools and needs by decision aid tools
- Access to data and data quality and transferability
Main Focus for Innovation Areas

Main focus 4: Climate change and natural disasters

Climate change is predicted to have a range of serious consequences, such as floods and droughts, which are major natural disasters involving loss of life and the destruction of property.

- Climate change prediction and risk assessment
- Drought analysis and management
- Urban floods and resilience
- RS and GIS application for water-related composite hazards
- Water disasters – early response, forecast and information dissemination
Main Focus for Innovation Areas

Main focus 5: Understanding and managing ecosystem services for water

Ecosystems provide valuable services underpinning water security and the sustainable management of water resources.

- The science and technology of natural and green infrastructure management
- The economic valuation of ecosystem services for water
- The payment for ecosystem services for water quality and delivery
Main Focus for Innovation Areas

Main focus 6: Large scale optimization of the Water, Energy and Food nexus

Nowadays, in terms of tools and technology two areas seem to be the most developed in the field of ‘optimization of the water, energy and food nexus’:

- High impact activities to reduce water footprint in food production
- Exploring water – energy nexus in key areas such as:
  a) more efficient desalination
  b) oil / gas water footprint
- Multi-purpose reservoir operation technology
- River basin modelling and decision support systems

Sources:
White Papers: strategic insight and foresight

- The main areas will be developed covering leading edge, state of the art and appropriate science and technology development and application
- High quality ‘science, technology and innovation’ reports will be prepared by the leading experts
- For each main focus area, a STP Design Group (DG) will be formed to produce the report and lead other activities
- Case-based presentations and practical exchange of information will be the significant features of these sessions
- They will combine strategic insight based on practical cases and foresights relevant for policy-making and investments.
CEO Innovation Panel

CEO Innovation Panel : Bringing together business leaders from the water sector and beyond – promoting innovation in water;

- To promote and create momentum around innovation in the water sector
- To discuss the effective ways of water innovations
- To encourage new relationships between water-related and other stakeholders to increase awareness in and beyond the water industry and a stepping stone for international cooperation
World Water Challenges: linking problem owners with solution providers

- For each of the defined STP World Water Challenges, **problem owners will be invited to submit specific cases and situations** that are emblematic for the defined challenge and that need to be addressed urgently.
- For each of the STP World Water Challenge, **solution providers will be invited to submit proposals to tackle the defined situation**.
- These proposals will be reviewed and **the finalists will be selected to present their solution at the 7th World Water Forum**.

**Note:** A direct connection with the 7th World Water Forum – **Regional Process** will be made here. This could include a **tailored session for the specific solutions on urgent water issues by regions** so as to promote the involvement of various stakeholders.
# Roadmap toward 2015

<table>
<thead>
<tr>
<th>Special Programs</th>
<th>2014</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Feb</td>
<td>Mar</td>
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<tr>
<td><strong>White Papers</strong></td>
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<td><em>Registration &amp; Confirmation of Design Groups</em></td>
<td><em>Submission of the 1st draft of White Paper (online review)</em></td>
<td><em>Submission of the 2nd draft of White Paper (Evaluation committee meeting at Lisbon, IWA World Water Congress)</em></td>
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<td><em>Ratification of the criteria of invitees &amp; procedures</em></td>
<td><em>Start Contacting the 1st list of invitees</em></td>
<td><em>Pre-meeting with relevant organizations (Singapore)</em></td>
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<td><em>Design the online system &amp; Active promotion</em></td>
<td><em>Open the online system for proposal Encourage participation (public, private entities)</em></td>
<td><em>Organize the judging committee for final competition</em></td>
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Thank You