Science & Technology Process

Accelerating innovation in water management and services

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President, The International Water Association
Vice President, CH2M Hill
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CHALLENGES & OPPORTUNITIES

• Water Can Become a Constraint on Other Sectors or an Enabler of Change
• Transformational Innovations Typically Come From Outside of Water
• Innovation in the Water Sector Occurs Just Like in Other Sectors
• Social, Cultural, and Political Factors, Along with Economics, Determines Adoption
• Let’s focus on some major opportunities
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Water Innovations follow classic S-Curve

![Diagram of technology adoption lifecycle](image-url)

- **Inventors**: Like New Things, Fund Research
- **Early Adopters**: Seek Advantage, Copy Leaders
- **Early Majority**: Seek Advantage, Leaders
- **Late Majority**: Adopt Out of Necessity, Avoid Disadvantage
- **Laggards**: Adopt to Survive

7th World Water Forum
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FOCUS

• Major opportunities to innovate

• Accelerating innovations in water

• Connecting Science & Technology with public demand and business opportunities

• Support from opinion leaders and decision makers for water science, technology and innovation
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STRUCTURE

WHAT?

6 Main Focus Areas:
• Water Efficiency
• Water & Resource Recovery
• Smart Technology
• Climate Change & Disasters
• Ecosystem Services
• Water, Energy and Food Nexus

HOW?

4 Special Programs:
• White Papers
• High Level Panels
• World Water Challenges
• EXPO
Main Focus Area 1: Water Efficiency

- Urban water efficiency
- Agricultural water efficiency
- Industrial water efficiency
- Energy efficiency in water and waste water systems

Main Focus Area 2: Water & Resource Recovery

- Water re-use and recycling technologies
- Energy recovery and production from water and waste water cycles
- Nutrient recovery from waste water
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MAIN FOCUS AREAS (II)

Main Focus Area 3: Smart Technology
- SMART-TECH & Urban water and Irrigation
- TECH for intelligent river basin management
- Design and implementation of smart water grids
- Water management and Big Data

Main Focus Area 4: Climate Change & Disasters
- Prediction and risk assessment
- Drought analysis and management
- Urban floods and resilience
- Water disasters – early response, forecast and info
Main Focus Area 5: Ecosystem Services

- Science and technology of natural and green infrastructure management
- Economic valuation of ecosystem services for water
- Payment for ecosystem services for water delivery

Main Focus Area 6: Water, Energy and Food Nexus

- High impact activities - water footprint in food
- Exploring water – energy nexus in key areas
- Multi-purpose reservoir operation technology
- River basin modelling and decision support systems
# Science and Technology Process Framework

## MAIN FOCUS AREAS

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<th>Efficiency</th>
<th>Resource Recovery</th>
<th>Smart Technology</th>
<th>Climate Change &amp; Disasters</th>
<th>Eco System Services</th>
<th>WEF Nexus</th>
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<td>EXPO and Citizens Space</td>
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<td>6 Main Focus areas = 6 EXPO Neighborhoods and 6 podiums debates and presentation of technology solutions</td>
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**Forum Feature**

- 6-18 Forum sessions & 12 sessions at EXPO podiums
- 2 High Level Panel plenary sessions
- Exposure in EXPO on Podiums and Presentations
- EXPO Mosaic of Main Focus Areas, Neighborhoods & Pavilions
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## Design and Session Groups

### WHAT?

6 Main Focus Areas:
- Water Efficiency
- Water & Resource Recovery
- Smart Technology
- Climate Change & Disasters
- Ecosystem Services
- Water, Energy and Food Nexus

### WHO?

6 Design Groups
- 2-3 org. lead
- 2-3 org. lead
- 2-3 org. lead
- 2-3 org. lead
- 2-3 org. lead
- 2-3 org. lead

Session Groups
- 2 sessions
- 2 sessions
- 2 sessions
- 2 sessions
- 2 sessions
- 2 sessions
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PROCES & TIMELINE

WHAT?

Activities:
• Framework Consultation
• Framework Finalization STP&ISC
• Design Groups set-up
• Session Groups set-up
• Products & Sessions Drafts
• Products Final
• Sessions Finalization

WHEN?

Timing:
• Feb 2014
• March 2014
• March 2014
• July 2014
• September 2014
• December 2014
• January 2014
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2nd Stakeholder Meeting

WHAT?

• Framework Consultations - content
• Coordination with Thematic, Regional, Political processes
• Initial expression of interest for Design Groups
• Initial expression of interest for Session Groups
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2nd Stakeholder Meeting
Consultation Process

WHAT?

6 BREAK-OUT SESSIONS – Main Focus Areas

- Water Efficiency
- Water & Resource Recovery
- Smart Technology
- Climate Change & Disasters
- Ecosystem Services
- Water, Energy and Food Nexus
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2nd Stakeholder Meeting
Consultation Process

HOW?

Room Plenary 1: Introduction per Main Focus Area
Table Exercise 1: Defining the Main Focus Areas – Sub topics
Room Plenary 2: Presentation of Sub topics
Table Exercise 2: Content of Main Focus Areas – Sub topics
Room Plenary 3: Expressions of Interest
Room Plenary 4: Wrap Up
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2nd Stakeholder Meeting

WE WANT TO:

HEAR YOUR VIEWS
GET YOUR INPUT
HAVEN'T YOUR INTEREST

THANK YOU!