

7th ASEM Sustainable Development Dialogue

Budapest, Hungary
11-12 September, 2018

ASEM Collaboration Mechanism for Research, Development and Innovation in Water

Presented by

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Outline

- 1. Water Innovation Mechanism in EU and China**
- 2. Welcome to ASEM WATER**
- 3. What We Have Done**
- 4. Challenges and Requests**

Section 1 Innovation in Water Mechanism in EU and China

1. Joint Programming Initiative on water (JPI)
2. European Innovation Partnership on water (EIP)
3. Water Supply and Sanitation Technology Platform (WssTP)
4. European Water Association (EWA)
5. China-Europe Water Platform (CEWP)
6. Research Development and Innovation in China

1

Synergism among JPI, EIP and WssTP

| Agency Perspectives | JPI | EIP | WssTP |
|------------------------|--|---|--|
| Feature | <ul style="list-style-type: none"> ➤ End-User Involvement ➤ RDI Agenda & Activity Harmonization ➤ Supporting Leadership | <ul style="list-style-type: none"> ➤ Innovative Tool & Policy Seeking ➤ Innovation Dissemination | <ul style="list-style-type: none"> ➤ Innovative Methodology ➤ Innovative Technology ➤ Decision-Making |
| Difference | <ul style="list-style-type: none"> ➤ RDI ➤ 2P (Public - Public) ➤ Action on Agenda ➤ Calls for Proposal | <ul style="list-style-type: none"> ➤ Innovation ➤ 3P (Public – Private - Public) ➤ Mix of Implementation Mechanism | <ul style="list-style-type: none"> ➤ R&D Platform ➤ Industry - Public ➤ Fundamental Research |
| Complementarity | <ul style="list-style-type: none"> ➤ JPI: Innovation ➤ EIP: Policy & Tools ➤ WssTP: Technology & Methodology <p style="text-align: right;">Independently Existed without Overlapping</p> | | |
| Similarity | <ul style="list-style-type: none"> ➤ Affiliate to EU ➤ Share Key Stakeholders ➤ Among Industry, Research Group, Policy-Makers & Water-Users | | |

Section 1 Innovation in Water Mechanism in EU and China

2

Sustainable Development – Paris Agreement



Target 6.3
By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and increasing recycling and safe reuse globally

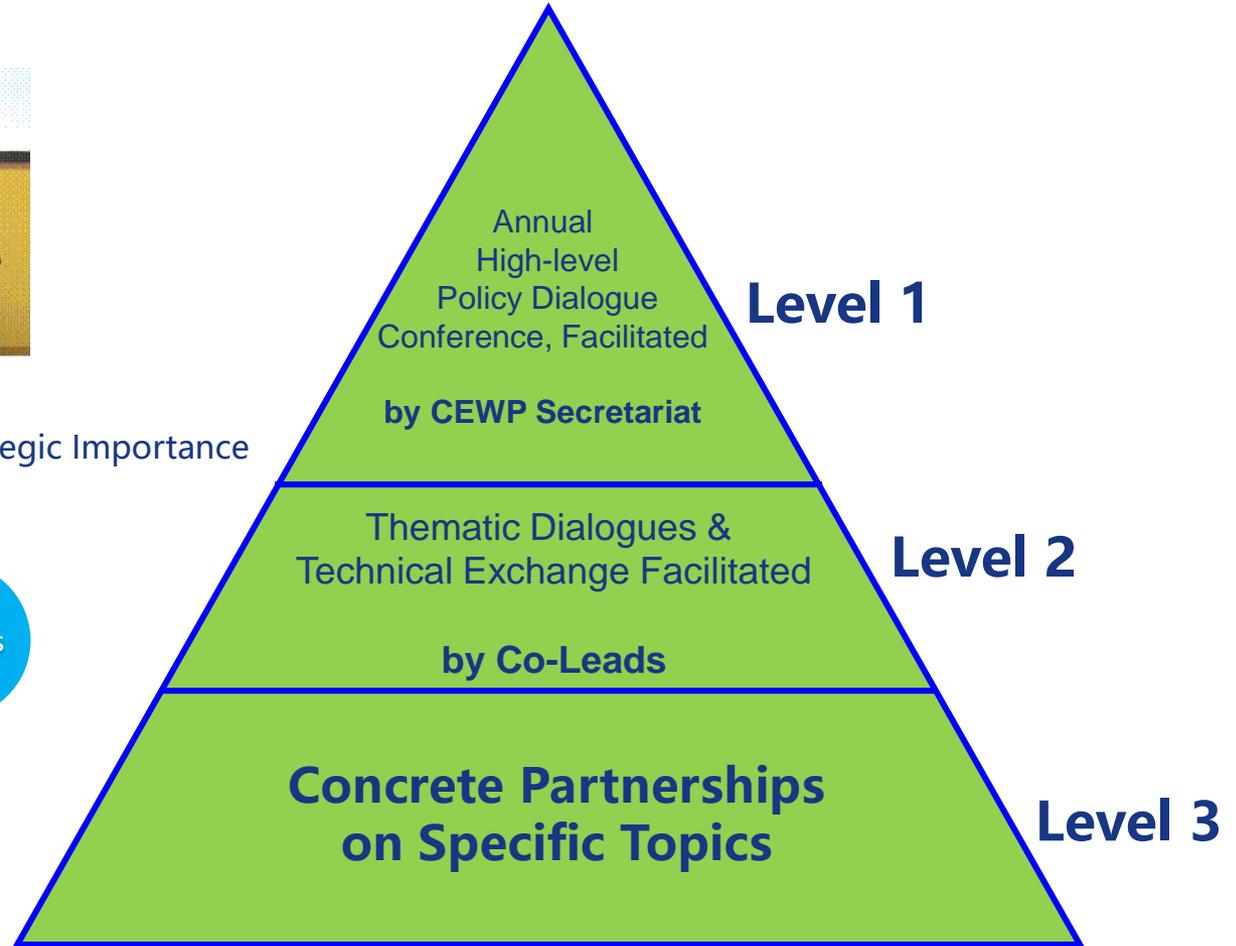
3

China Europe Water Platform (CEWP)



China & Europe

Promote Water Policy Dialogue of Strategic Importance



4 Research Development and Innovation in China

RDI Investment on Water Governance by MOST



Investments in R&D
 **2.11%**

Volume of R&D
 **\$249B**

High-tech Incubators
 **7533**

Patent Application Growth
 **20%/y**

Session 2 Welcome to ASEMWater

ASEM Water Resources Research and Development Center

- 💧 A member of ASEM Family
- 💧 Research & Development
- 💧 Science & Technology Cooperation
- 💧 Public & Non-profit
- 💧 International Organization in Water Resources



They noted China's initiative to establish an ASEM Water Resources Research and Development Center in Hunan



Statement

Ceremony



Strengthening S&T Cooperation on Water Management

Changsha Declaration

FP6: Multi-stakeholder Platform Proposal for ASEM S&T Cooperation on Sustainable Water Use

Change

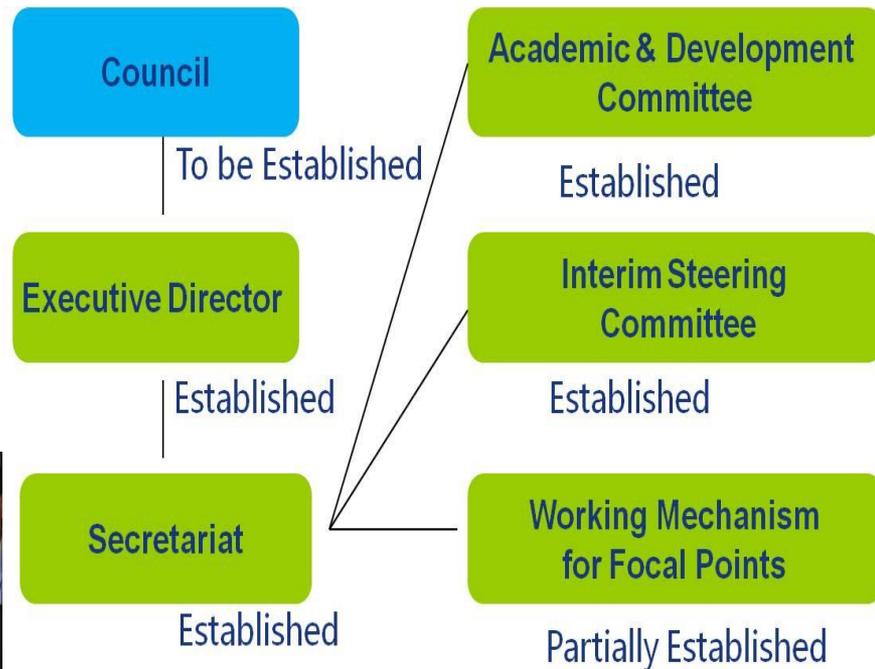
Framework of the ASEMWater

(25 members from 17 ASEM members)



Chairman: Liu Yanhua

Counselor, State Council, P.R. China,
Academician, International Academy of
Sciences for Europe and Asia



Five Vice-Chairmen

Session 3 What We Have Done

- 💧 **ASEM Networking**
- 💧 **Innovative Bases**
- 💧 **Multi-level Cooperative Mechanism**
- 💧 **Strengthen Joint Research**

1 ASEM Networking



Strategic Partner
💧 58

Focal Point
💧 80+



Expert & Scholar
💧 400+

Strategic Partner:



Focal Point:



Strengthen Talents Exchange



150+ Representatives
Visit Mutually
for Cooperative Partnership;



300+ Experts
Visit Mutually
for Academic Exchanges;

50+ Conferences
in Water Security Industry
for Technology Transfer



2

Innovative Bases



Aquatic Ecology Observation in Big Lake

Lead Partner: HPAF, ASEMWater;
 Consortia Members: CEH, HU;



Water Environment Monitoring in Deep Lake

Lead Partner: ASEMWater
 Consortia Members: CEH, LBERI, HU



National Engineering Technological Center of **Heavy Metal Pollution Control**

Lead Partner: CSU, ASEMWater; Consortia Members: BRGM, HAU

2 Innovative Bases



Joint Centre for Arid Region with Turpan Government, China
Joint Centre for East Europe with ECSE, Romania

2 Innovative Bases



ASEMWater Dongting Lake Eco-station

Space-Sky-Ground Information Network for Data Produce and Development

Beidou Satellite
($\geq 20\text{km}$)

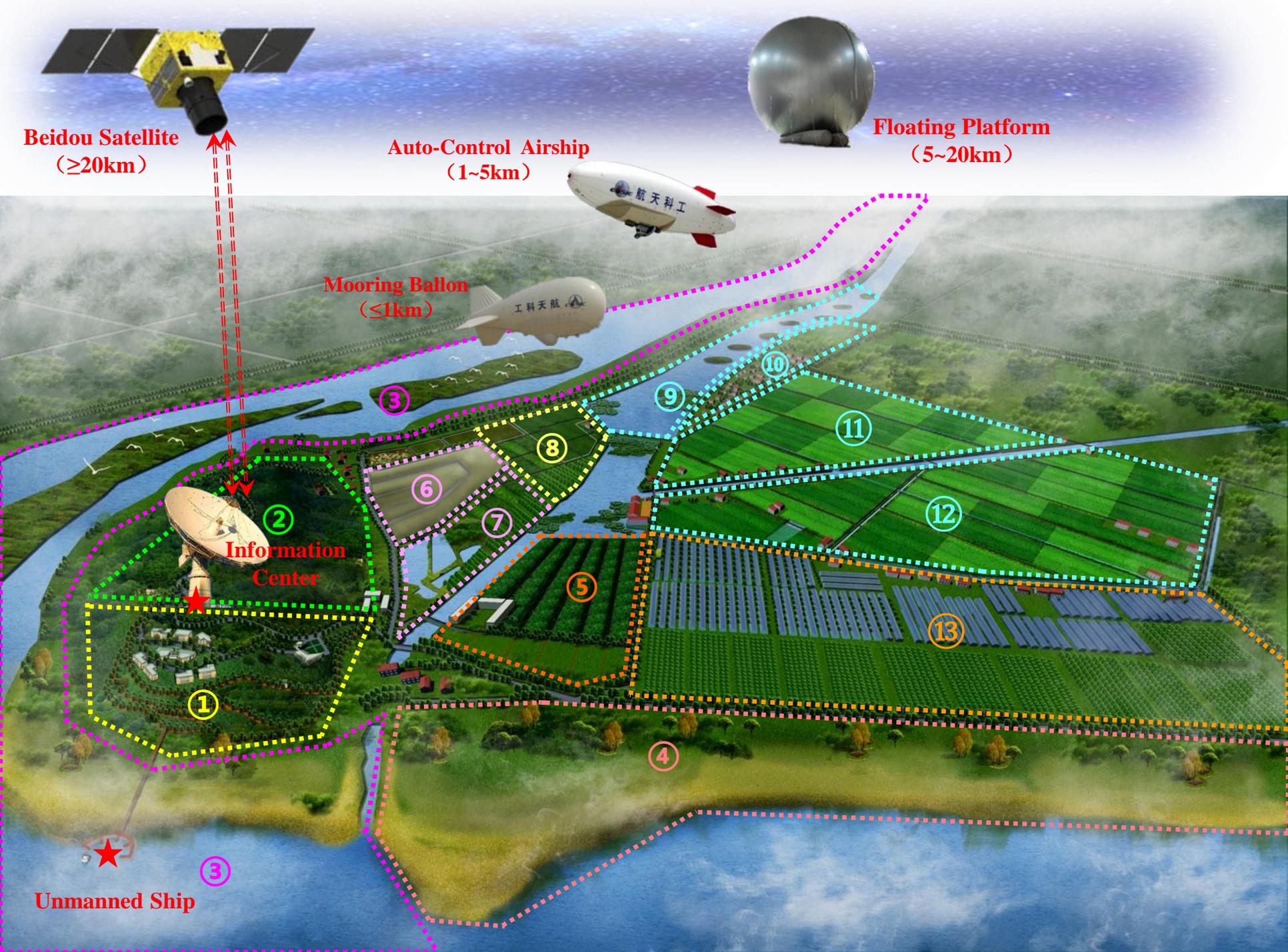
Auto-Control Airship
($1\sim 5\text{km}$)

Floating Platform
($5\sim 20\text{km}$)

Mooring Ballon
($\leq 1\text{km}$)

Information Center

Unmanned Ship



University:

Innovative Research & Technology Development



CSU



HNU



NUDT



HUNNU



HUNAU



CSUFT



HNCU

Enterprise:

Achievement Transfer & Transformation



CASIC



Hongdong
Photoelectricity



SPATIOMAP



HNAC

Platform:

International Cooperation & Information Sharing



ASEM WATER

3 Multi-level Cooperative Mechanism

ASEM
Seminar

Talent
Exchange

Knowledge
Dissemination

Joint
Research

To Deepen capacity building, knowledge innovation and academic exchange

ASEM Seminar



| | |
|-------------|------|
| Participant | 300+ |
| ASEM Member | 18 |
| Matchmaking | 60+ |
| MoU | 1 |
| Proposal | 1 |

11 International seminars served as a high-level platform for policy dialogues, information sharing, experience exchanges, project collaboration and pragmatic cooperation among ASEM members;

Session 4 Challenges and Requests

Chinese Initiatives



Sponge City

Promote the building of sponge cities and launch low-carbon pilot zones

River Chief

The appointment of local government heads as chiefs of the country's rivers and lakes

Integrated River Basin Management

Coordinate conservation, water management and related resources

Session 4 Challenges and Requests

Chinese Initiatives



National S&T Program for Water Pollution Control and Treatment

Belt and Road
Strategic Cooperation in the field of water resources between countries along the Belt and Road routes

Session 4 Challenges and Requests

Element

Technology Base

Hunan Provincial Dongting Lake Institute

Ecology
Wetland, foresty

Environment
Control & Monitor



Proposal

Conservancy
Security Warning

Bio-diversity
Habitat

Intelligent Agriculture
Customization, traceability

An **All-space & All-time Ecological Surveillance System**
with **All Directions, No Dead ends & Stereoscopic View**

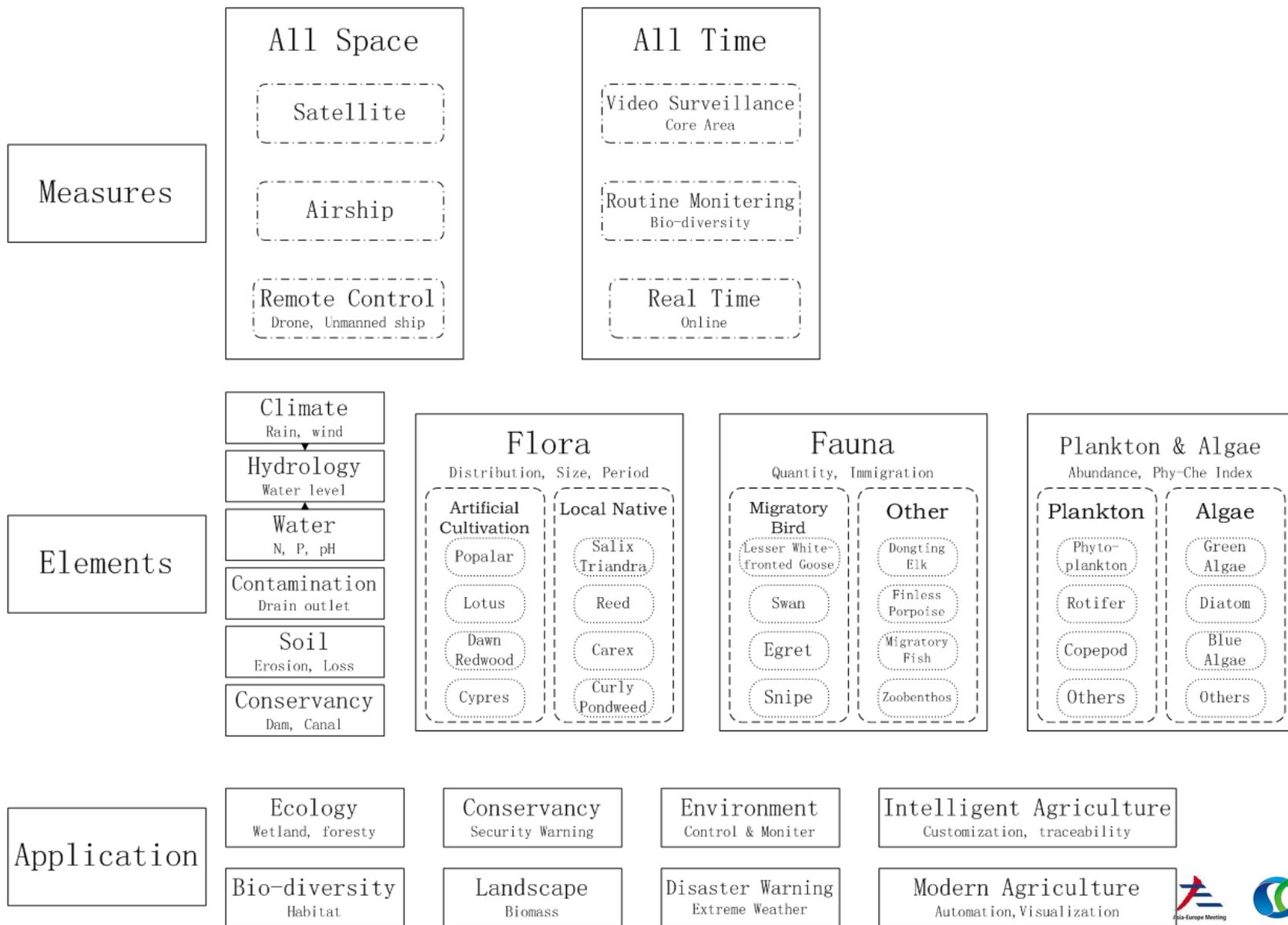
Landscape
Biomass

Disaster Warning
Extreme Weather

Modern Agriculture
Automation, Visualization

Drone, unmanned ship

Online



Session 4 Challenges and Requests

Challenges:

- Strengthening the Capacity-Building & Services
- Promoting the Cooperation Between Governments
- Expanding Industry Cooperation
- Addressing Common Issues & Sharing Mutual Benefits

Requests:

- Supporting the establishment of **ASEM Network for Science, Technology and Innovation Cooperation in Water Resources & Hunan Provincial Dongting Lake Institute** to promote the collaboration including best practices and information sharing, policy recommendations, etc.

Thank you

for your attention!



Creating Partnership for Achieving
Water S&T Innovation!

The Secretariat of ASEMWater

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