General recommendations for EU China water innovation

Presentation at Strengthening China Europe Water Innovation Cooperation: results of the project PIANO

Josh Weinberg, Stockholm International Water Institute, SIWI
ENEA Office, Brussels, May 15, 2018





What have we observed? Some broad insights

- Europe has many water innovations to offer China and has strong history of water innovation
- Strong drivers for water technology and innovation in China, and fast growth of innovations/ technologies from Chinese firms
- Rich history of EU-China water cooperation, strong current partnerships and networks in water/environment sector
- Mechanisms for research cooperation and exchanges have opened, improved and are more functional
- Multiple objectives of cooperation and their synergies vs. trade-offs not always clear



Productive vs effective cooperation

- Rich history of productive cooperation on water in EU-China AND will continue via e.g. CEWP.
- Key question: How to define effective cooperation moving forward?
 - Economic growth and commercial opportunities?
 - Sustainability?
 - Political relations equity?
 - Knowledge advancement?



Water innovation cooperation opportunities

LEARN

- Knowledge exchange and dialogue where challenges are generic to the sector and shared by both sides:
 - Policy and regulatory coherence to drive innovation
 - Models for PP and PPPs to stimulate innovation and uptake of new technologies
 - Public procurement processes as innovation drivers

EARN

- Matchmaking/brokering and innovation hubs
 - Expand and improve existing support systems and networking for matchmaking and business services for EU solution providers with highly viable, market ready technology.
 - Increase investment to address brokering capacity gap and business model for brokering services.

INCUBATE & INNOVATE

- Demonstration pilots and incubation facilities in China, which can later be scaled in Europe and further across the country if successful:
 - The priority technologies and solutions to be developed and tested can be driven by supply and demand, but can also be guided by the proposed topical structure of the PIANO SRIA.



Investment pathways for water cooperation

Highest Commercial opportunity

Prioritize doing business and making money now

Primary objective: **GROWTH AND COMPETITIVENESS**Optimize return in public investment to enable European water companies to bring technologies into market.

Weakness: Scope of potential innovations to be tested will be limited, influence upon and learning from Chinese science/policy dialogues lessen over time.

Prioritize both, expand China bound cooperation and business support investment

Primary objective: **EXPANSION**Maximize return on all objectives in China.

Weakness: Requires more resources to invest

Lowest priority on science and diplomacy

Reduce or maintain current activities for business support, science and policy cooperation

Primary objective – RESOURCE REALLOCATION/SAVING Focus on European and other markets considered easier for uptake and development of water innovations.

Weakness: Reduces potential for innovation development, uptake and commercial opportunities for Europe in China

Highest priority on science and diplomacy

Challenge-driven: Valuing innovation potential, science diplomacy as priority outcome for cooperation

Primary objective: INNOVATION AND INFLUENCE
Develop, innovate and test solutions to water challenges applicable in Europe, China and globally.

Weakness: Translation of investment in European innovation and science into commercial opportunities for EU business less certain/efficient and may be 'hit-or-miss'.



Recommendations for improved cooperation

Improve by optimizing and expanding existing structures and practices

- 1. Consider water as a formal component of future EU-China RIA agenda
- 2. Better exploit existing RIA infrastructure
- 3. Improve connections between member states and Chinese RIA infrastructure
- 4. Coordinate EU water innovation support systems with Chinese counterparts
- 5. Align visions with the Global Goals, and consider future collaborations on global water innovation challenges



Recommendations for improved cooperation

Develop a two track water technology innovation strategy for Europe in China, and a two track water innovation dialogue

<u>Track 1</u>: Support commercialization of water technologies with high TRL that can compete within the Chinese market, through more investment in <u>brokering and business support</u>

- Expanding and improving existing support systems and networking for matchmaking and business services for EU solution providers with highly viable, market ready technology.
- High TRL + viable commercial potential.
- Addressing brokering capacity gap and also valuation/business model for brokering services.

<u>Track 2:</u> Support for innovation with mid-level TRL through <u>pilots/demonstration and incubation</u> (decision point on weight of commercial viability)



Two track framework for water innovation dialogue

Track 1: Dialogue of water policy drivers of innovation

- Primary objective is learning on both sides
- Operates at EU and member state level.
 - Regulatory coherence and knowledge exchange over impacts of reforms on water management, innovation, and water sector business.

Track 2: Dialogue on innovation policy drivers relevant for water

- Separate internal process for dialogue on joint issues: IPR, Water Innovation Strategy, Procurement, FYP for STI, etc., and issues for EU lobbying, positioning
- Maintain processes for dialogue for standards/ Standardization issues with improved input provided (if assessed as needed).



Summary Recommendations

- 1. EU and its member states should build upon existing networks, institutions and partnerships for EU-China water cooperation: CEWP, ASEMWater, ENRICH/DRAGONSTAR+ etc.
- 2. EU should consider adding or integrating a two track water technology innovation promotion strategy in China
- 3. EU and its member states can support this strategy within its wider EU-China water cooperation, and facilitate effective dialogues on innovation and water.
- 4. Overall implementation of this strategy would focus on four main areas: (1) brokering and support services for commercialization of EU water technologies; (2) demonstration pilots and incubation facilities (driven by the PIANO SRIA); (3) knowledge exchange and dialogue water/environmental policy drivers for water innovation; and (4) Dialogue on innovation policy drivers relevant for water.
- 5. Moving forward, there is need to review priority objectives and trade-offs for investment in support for innovation development or immediate commercial opportunities.
- 6. Current networks, dialogues and strategies need to consider and adapt to Chinese government restructuring





josh.weinberg@siwi.org

