

Water4Crops



## Water4Crops Session; IFAT India 2014 9<sup>th</sup> -10<sup>th</sup> October, Mumbai, India

**“Research And Innovation Cooperation Between EU and India”**



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# EIRC –Euro India Research Centre

- **EIRC Consulting Private Limited** is a research and management consultancy company based in Bangalore, India.
- We have 8 years of organizational experience in participating in research, coordination and support action projects of the FP6 and FP7.
- We have cross-sectoral expertise in industrial & technological segments such as **Information and communication technology, biotechnology, medical equipment, energy, environment, pharmaceutical, and aerospace.**
- **Services offered to Indian & European stakeholders**
  - Developing Partnerships
  - Project Management Consultancy
  - EU FP Awareness Raising
  - Dissemination & communication
  - Liaising and Networking
  - Training & Workshops





- **EIRC** is also the coordinator of the **FP7 National Contact Point (NCP)** network for ICT in India
- EIRC helps the NCP network facilitate the **Indian scientific and research communities** to participate in **European commission projects**.
- **EIRC's projects**
  - Namaste (FP7, First Joint Call Project in the Biotechnology Sector)
  - Synchroniser (FP7, ICT Sector)
  - TOGETHER (FP7, Environment)
  - India Gate (FP7, Capacities INCO project)
  - EUINCOOP (FP7, ICT)
  - Water4Crops
- **EIRC** is the first private organization to have bagged the prestigious **NAMASTE** project as a **Management coordination & dissemination partner** funded by the Department of Biotechnology, Government of India.



# Water4Crops

Water4Crops is one of the largest Euro-India collaborative projects co-funded by the Department of Biotechnology, Government of India and the European Commission

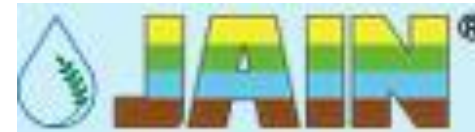
**“Water and wastewater reuse and management”.**

Water4Crops stands for **“Integrating bio-treated wastewater reuse and valorization with enhanced water use efficiency to support the Green Economy in Europe and India”.**

The project brings together an Indo-European consortium of 36 organizations **[14 Indian and 22 European]** belonging to research institutions, universities, large industries and SMEs.



# W4Cs Indian Consortium



The Ugar Sugar Works Ltd.





# EU Consortium: 5 Universities, 8 Research Institutes, 7 SMEs, 2 Consultant Comp.





# AIM

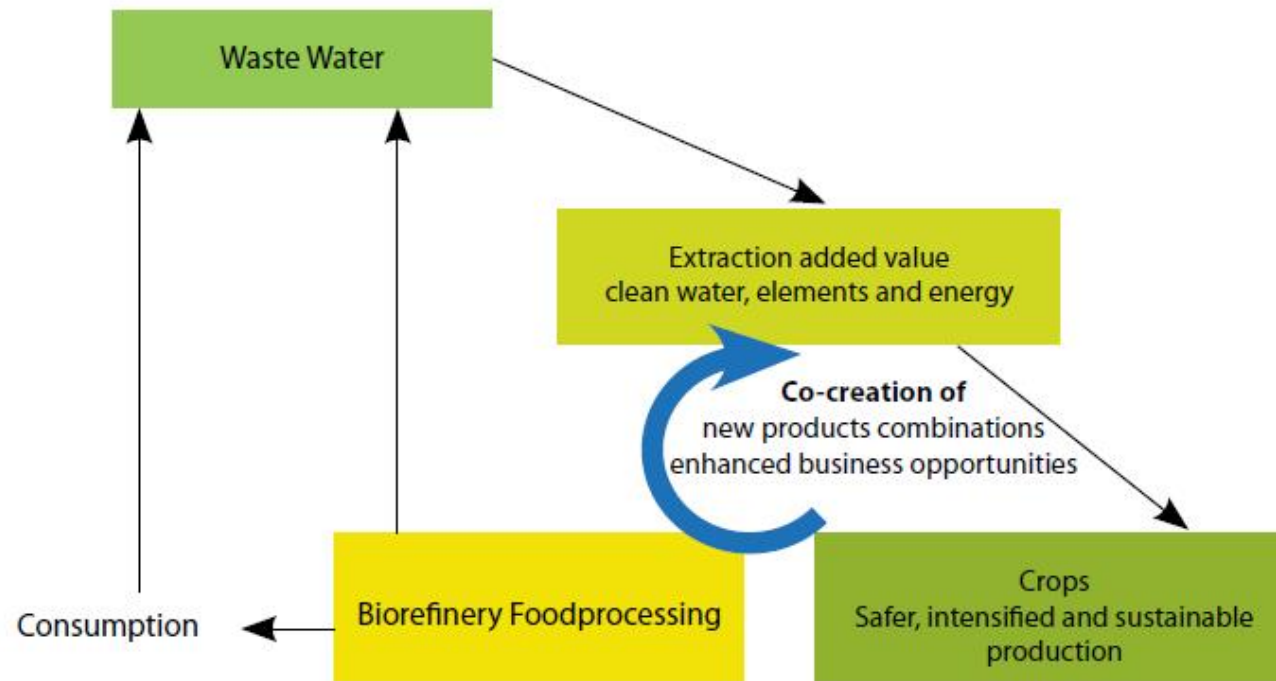
## To provide sustainable solutions through

- Increasing water availability by developing new technologies to treat and reuse wastewater
- Using water more efficiently in irrigation
- Better management of water, land and crops to develop viable, stronger and green economy



# W4Cs Principle

1. Production of clean water and added value elements (organic acids, biopolymers, nutrients & energy)
2. Hygienically safe intensification of crop production
3. Promoting agro-business (e.g. bio-refinery, food-processing)
4. Co-creation of new product combinations (water technologies, breeding, agronomics, agro-food) within the INNOVA platforms to enhance business opportunities







# Work Packages

- **WP1:** Agro-food industry wastewater valorization and reuse
- **WP2:** Municipal wastewater bio-treatment and reuse
- **WP3:** Agricultural water management
- **WP4:** Development of water efficient crop varieties
- **WP5:** Enabling green growth using water treatment and reuse innovations
- **WP6:** Dissemination and technology exchange
- **WP7:** Management & Coordination

# Research & Innovation Cooperation



- EU-India relations regarding research and innovation formally started with the **European Community-India Science and Technology Cooperation Agreement in 2001** (renewed in 2007, and to be renewed again in 2015). An agreement for cooperation in the field of fusion energy research was also signed in 2009.
- The participation of Indian entities (universities, research centres, companies, etc.) in the EU Framework Programmes has been steadily increasing. In the 7th Framework Programme for instance, India ranked 4th in terms of participation (more than 200 projects included Indian participants), and 3rd in total amount of EU financial contribution received (circa 41 M€ went directly to Indian entities).



- According to latest data(2012), India spends 0,8% of its GDP on R&D action and the 20% of its is paid by the private sectors. Foreign corporations R &D centers plays a very important role in research & Innovation in India. They are estimated to be 851 as of 2010.
- Indian government is strongly committed to feed the INNOVATION process in the country and is declared 2010-2020 the **“Decade of INNOVATION”**
- In the Industry sector, **Aerospace, Pharmaceuticals, Transportation, Energy, Water and Waste Water Management.**



# Cooperation Initiatives

## 9 Indian government agencies have been examined and 6 categories of Cooperation Initiatives emerged:

- Bilateral programmes, set up between India and EU members states
- Activities with EU, agreement b/w EU and India
- Fellowship Programme, grants available to researchers to gain experience and complete their training
- Visiting Scientist from abroad Programme(VSAP)
- Specific programmes defined by organization according to their own specificities and needs
- New Indigo Programme, launched by EU members states and India, has a successful “Networking Pilot Programme”(NPP)



## KEY OPPORTUNITIES FOR INDIAN RESEARCH ORGANISATIONS AND INDIVIDUAL RESEARCHERS

### Collaborative research

- Classical collaborative projects under HORIZON 2020 (resulting from "open calls for proposals")
- Collaborative projects resulting from "coordinated calls for proposals" under H2020 (in collaboration with Indian authorities/agencies)
- Collaborative projects resulting from calls for proposals launched by the plurilateral
- INNO INDIGO funding platform (or another ERA-Net project) Collaborative projects resulting from calls for proposals launched by specific EU member states (bilateral cooperation)



## Opportunities for individual researchers / students

- *Marie Skłodowska-Curie Actions* (MSCAs) fellowships under H2020
- ERC grants (*European Research Council*) under H2020
- Evaluation experts for H2020
- Erasmus+ scholarships (especially for Masters' students)

## GITA – Bilateral funding for industrial R&D projects

GITA – the Indian *Global Innovation & Technology Alliance* – is running bilateral industrial R&D funding programmes with several countries including e.g. Spain, Finland and the UK.



# What types of actions (instruments) are available ?

- **Research and innovation actions**

These are the classical collaborative projects, to which most of the funding will be allocated. They are intended to tackle clearly defined challenges, which can lead to the development of new knowledge or a new technology. Such actions typically include a dozen of participants, may have a budget of several million euros, and their typical duration may be e.g. 4 years.

**Who?** Consortia of partners from different countries, industry and academia.

- **Innovation actions**

These projects are more focused on closer-to-the-market activities. For example prototyping, testing, demonstrating, piloting, scaling-up, etc. if they aim at producing new or improved products or services.

**Who?** Consortia of partners from different countries, industry and academia.



## Coordination and support actions (CSAs)

These actions intend to cover the coordination and networking of research and innovation projects, programmes and policies. Funding for research and innovation per se is covered elsewhere.

Who? Single entities or consortia of partners from different countries, industry and academia.

## Frontier research grants – European Research Council (ERC)

These projects are evaluated on the sole criterion of scientific excellence in any field of research, carried out by carried out by a 'Principal Investigator' ('PI') and his/her research team.

Who? Top early-career researchers, already independent researchers and senior research leaders. Researchers (PIs and team members) can be of any nationality and their projects can be in any field of research.

## Marie Skłodowska-Curie Actions (MSCAs)

Funding for international research fellowships in the public or private sector, research training, staff exchanges.

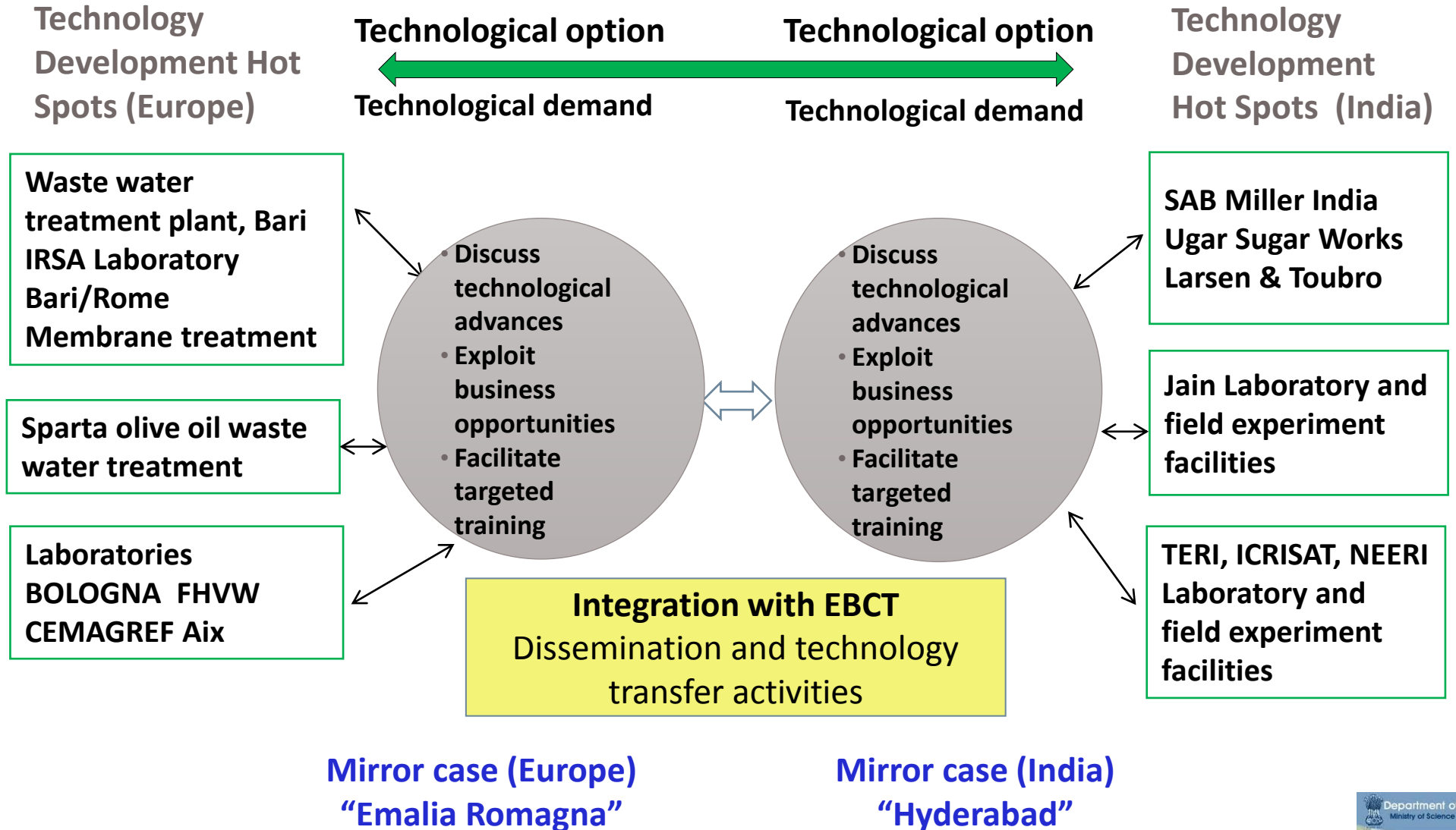




## The MIRROR Cases through the INNOVA Platforms

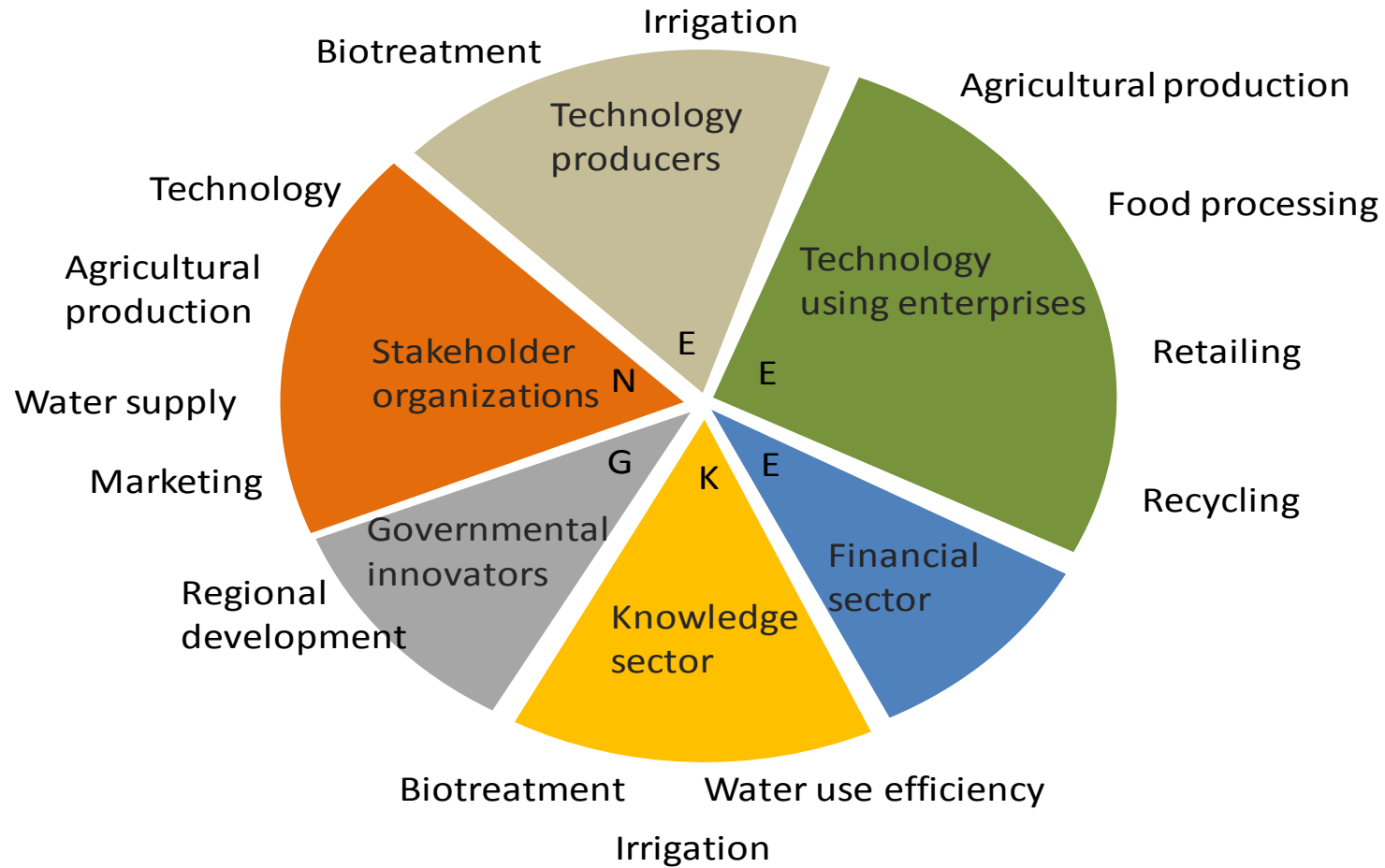
- Transmit stakeholders demands to technology developers
- Reflect the achievements of technology developers to identify new solutions and business opportunities
- Mirror the experience of Europe and India for mutual advancements

# Integration and Exploitation of New Business Opportunities at MIRROR Cases



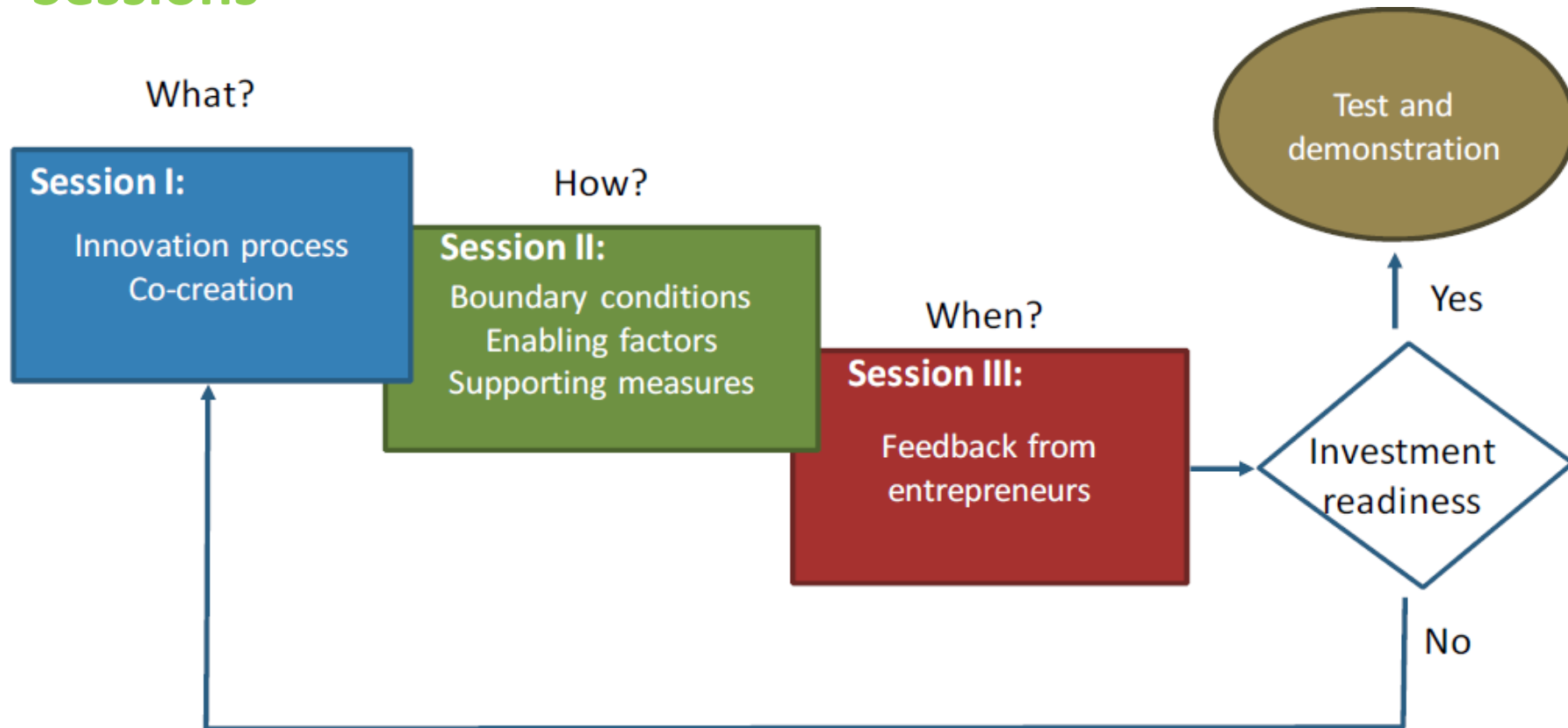
# INNOVA Platform

Targeted Composition of the INNOVA platform at Mirror cases





# INNOVA Platform Sessions



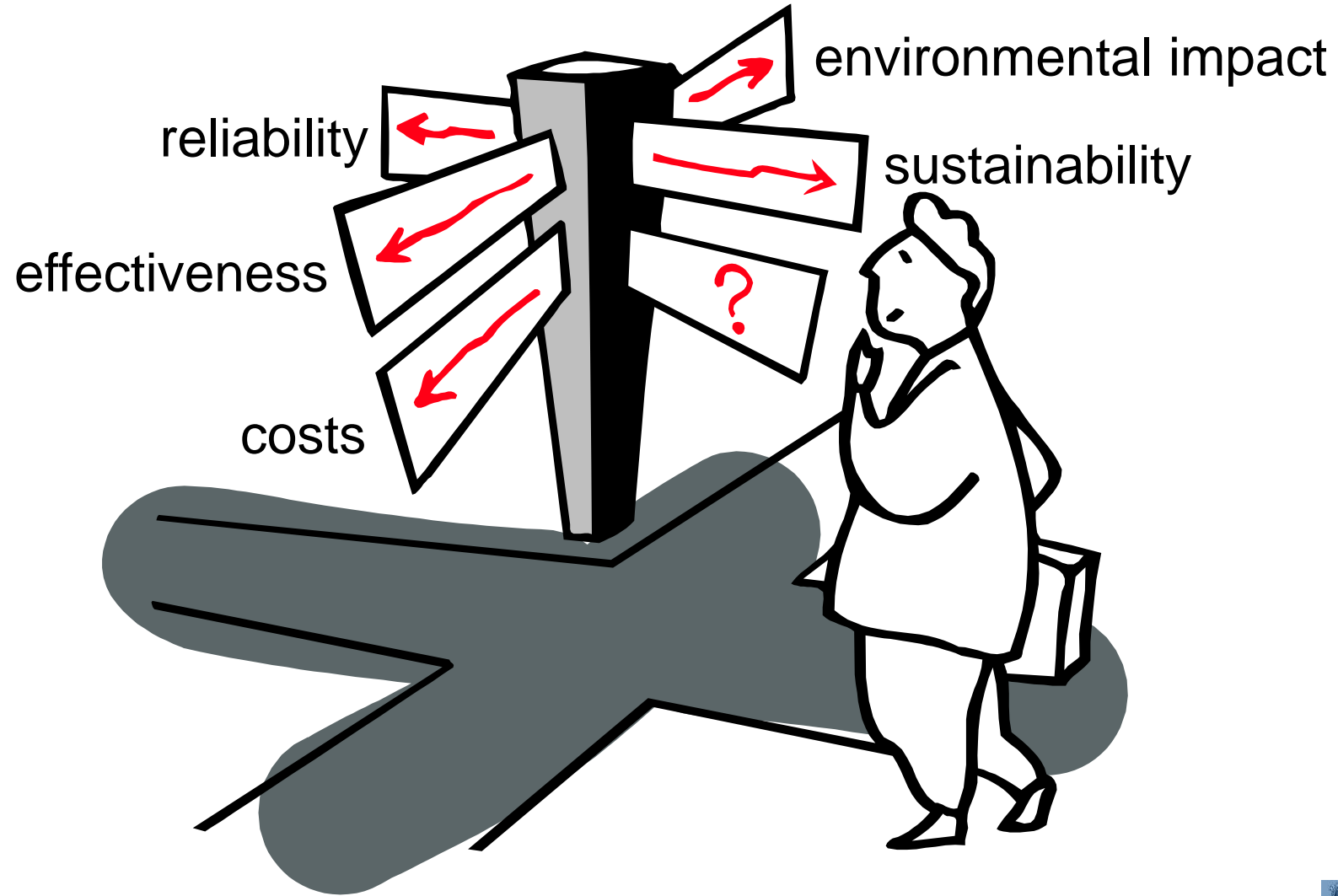


## Key processes for accelerating deployment of technologies by strengthening the innovation system

1. Entrepreneurial activities
2. Knowledge development
3. Knowledge exchange through networks
4. Guidance of the search: setting focus, expectation management
5. Market formation
6. Resource mobilisation
7. Creation of legitimacy/counteract resistance to change



# CONCLUSION





# Thank you

Water4Crops



[www.water4crops.org](http://www.water4crops.org)