eit European Institute of Innovation & Technology

World –Class Research & Innovation Culture

Copenhagen – 25 June 2012

PRESENTATION BY

- Climate-KIC, Dr. Daniel Zimmer

Climate – KIC

Innovating for low carbon prosperity
and climate resilience

EIT Conference, Copenhagen 26 June 2012

Daniel Zimmer
Director Innovation

Climate change and innovation
Context

- Climate Change perceived as a medium term issue

- Mitigation and adaptation issues: very different communities

- Knowledge- and academia-driven in many areas

- Connections with several other environmental issues (energy transition, resource scarcity …), which provide opportunities

- Markets not mature in general; few exceptions such as re-insurance

- Important drivers: civil society, local governments: Regions and Cities are important KIC partners

Climate change and innovation
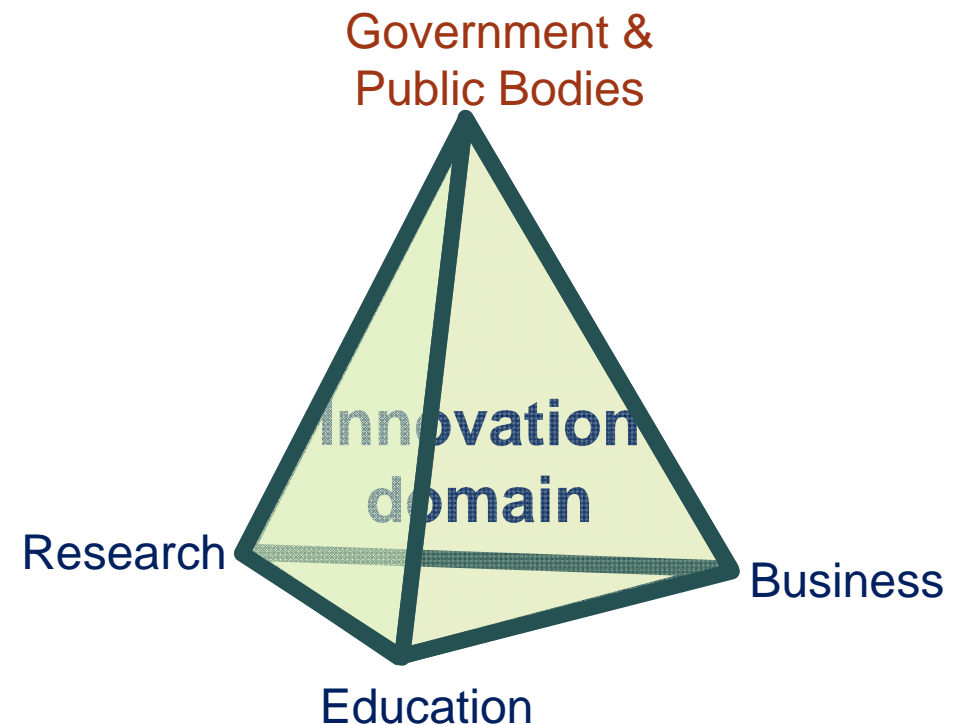## Approach

Our triangle is a pyramid

Our 110 partners span top:
- Universities (28)
- Research institutes (14)
- Business (29), SMEs (22)
- Regional and local governments (14)
- NGOs(3)

We bring together all the actors of the innovation pyramid .....

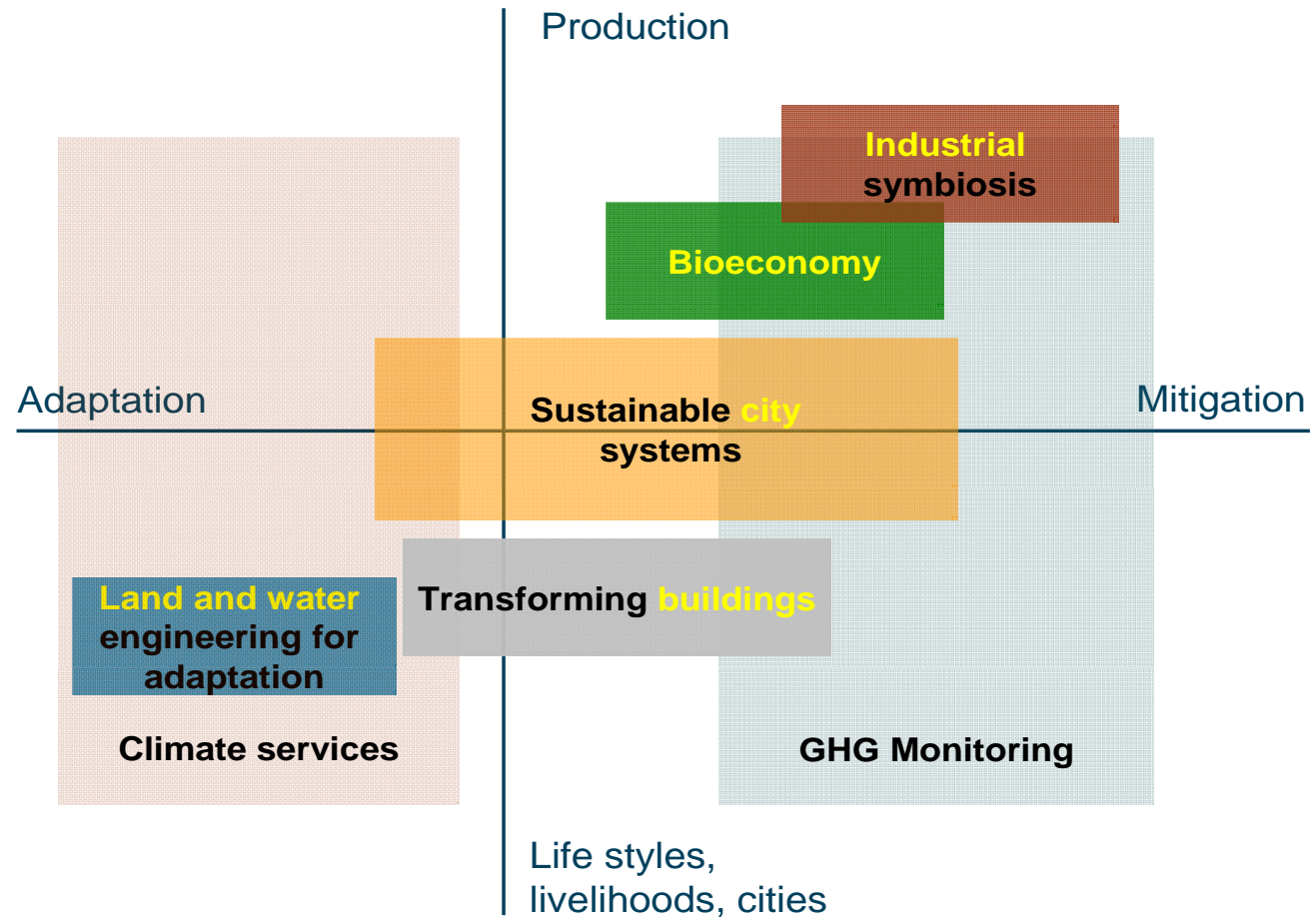...and integrates these with our three pillars:
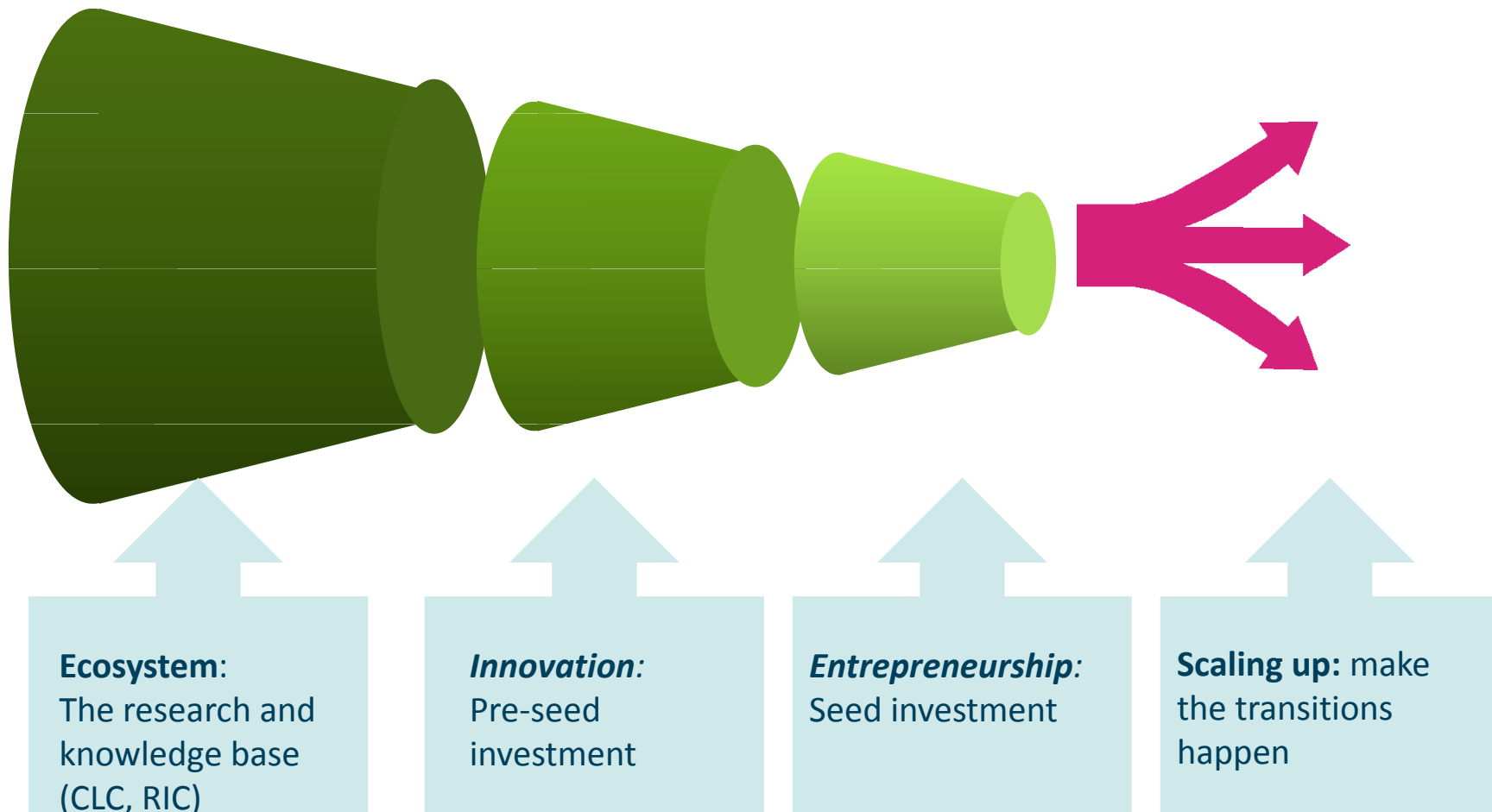- Innovation
- Entrepreneurship
- Education

Government & Public Bodies

Innovation domain

Research

Business

Education

Climate change and innovation
Approach

- we are connectors

- we priviledge systemic innovation

Production

Industrial symbiosis

Bioeconomy

Adaptation

Mitigation

Sustainable city systems

Land and water engineering for adaptation

Transforming buildings

Climate services

GHG Monitoring

Life styles, livelihoods, cities

eit Knowledge & Innovation Community

Climate-KIC

Climate change and innovation
Approach

Ecosystem:
The research and knowledge base (CLC, RIC)

Innovation:
Pre-seed investment

Entrepreneurship:
Seed investment

Scaling up: make the transitions happen

Climate change and innovation
Developing tools and scaling up innovation

3 exemplary projects

- OASIS: developing an open-source catastrophe model for the insurance sector

- SMART URBAN WATER: developing new services from interoperable sensors and interconnected data

- Neighborhood demonstrators: developing new Business/Finance/Community Structures for scaling up innovation

Climate change and innovation
Developing tools: OASIS

1. Create a **professional community**: re-insurance, SMEs, academia engaged in a company

2. Develop an **open source catastrophe model** which:

   - Increases transparency
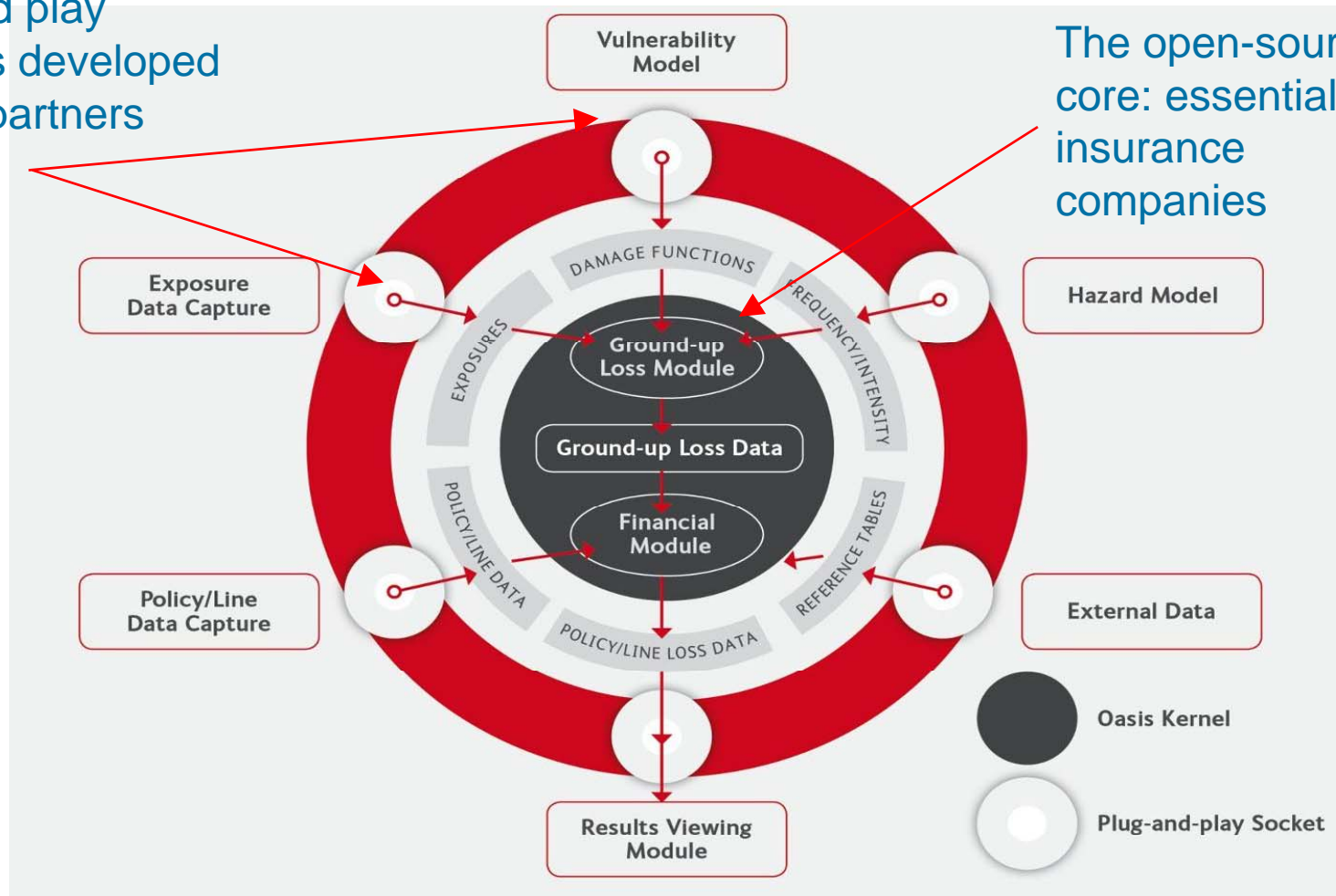
   - Helps new knowledge to be included

3. Involve **KIC partners** specialized in climate related risk management

Climate change and innovation
Developing tools: OASIS

Plug and play modules developed by KIC partners

The open-source core: essential for insurance companies

Climate change and innovation
Developing tools: Smart Urban Water

A **key objective**: develop new services by facilitating interoperability of information production

A **secondary objective**: develop pervasive low cost sensor networks

Spinn-off created
DisdroMetrics

A first application related to water in cities
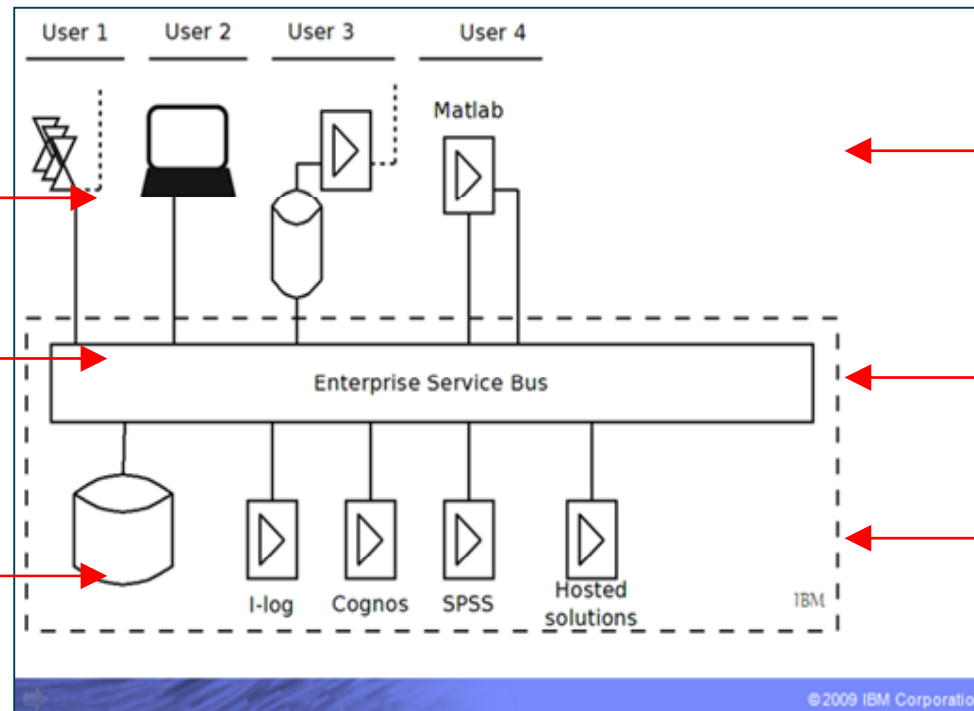
Where rainfall is measured

Where most people live

Climate change and innovation
Developing tools: Smart Urban Water

Develop new services and connect to end-users

Ensure interoperability

Produce data (using a.o. pervasive sensors and information from it

KIC partners, new start-ups

Integrator tool (developed by IBM)

KIC partners

User 1   User 2   User 3   User 4

Matlab

Enterprise Service Bus

I-log   Cognos   SPSS   Hosted solutions   IBM

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New projects in preparation: develop this approach for other climate variables, develop interface for geolocalisation

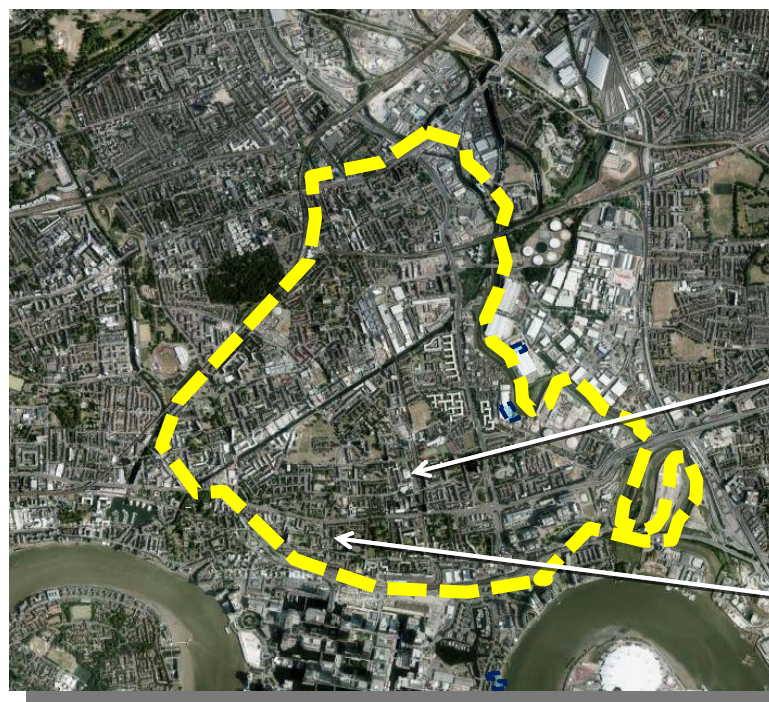# Climate change and innovation
Scaling up innovation: Neighborhood demonstrators

Our tools

- Analysing innovation with public authorities in regions

- Climate market accelerator

- Demonstrator and living labs networks

- Platform: making the transitions happen

<u>One example</u>: developing new Business/Finance/Community Structures for scaling up building retrofit and renewable energy development

Bromley-by-Bow and Poplar – east London

Global review of best practice finance/business structures & proposal for local application

Smart Communities Plan assessing "community resilience" and set up of community owned projects

Pilot established for community budget consolidating different funding streams

Climate change and innovation
Conclusions and questions

- How to design the process?
  - Combine technology-push and user-driven approaches
  - Analyse/benchmark existing innovation initiatives regarding success and impact
  - Q. how can we move toward more open innovation initiatives in Europe?
- How should public bodies and innovative companies complement each other?
  - Public bodies should develop a stable and enabling environment (remove barriers, change procurement rules, develop innovative financing schemes…)
  - Demonstrators and awareness raising should help convince politicians and decision makers
  - Q. how to select priorities?

Thank you for your attention

"The future is here, it's just not evenly distributed yet", *William Gibson*