

EUROPEAN UNION



Committee of the Regions



## EU Policies: Regional Innovation Ecosystems in Implementing Smart Specialisation (RIS3)

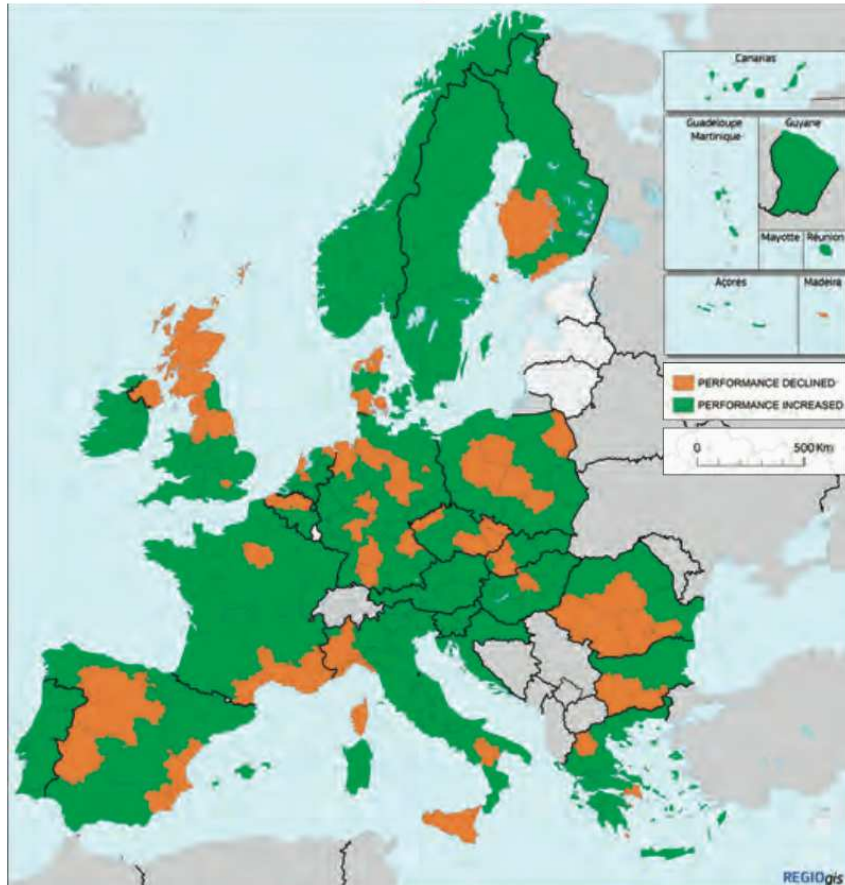
**Markku Markkula**

President of the European Committee of the Regions CoR

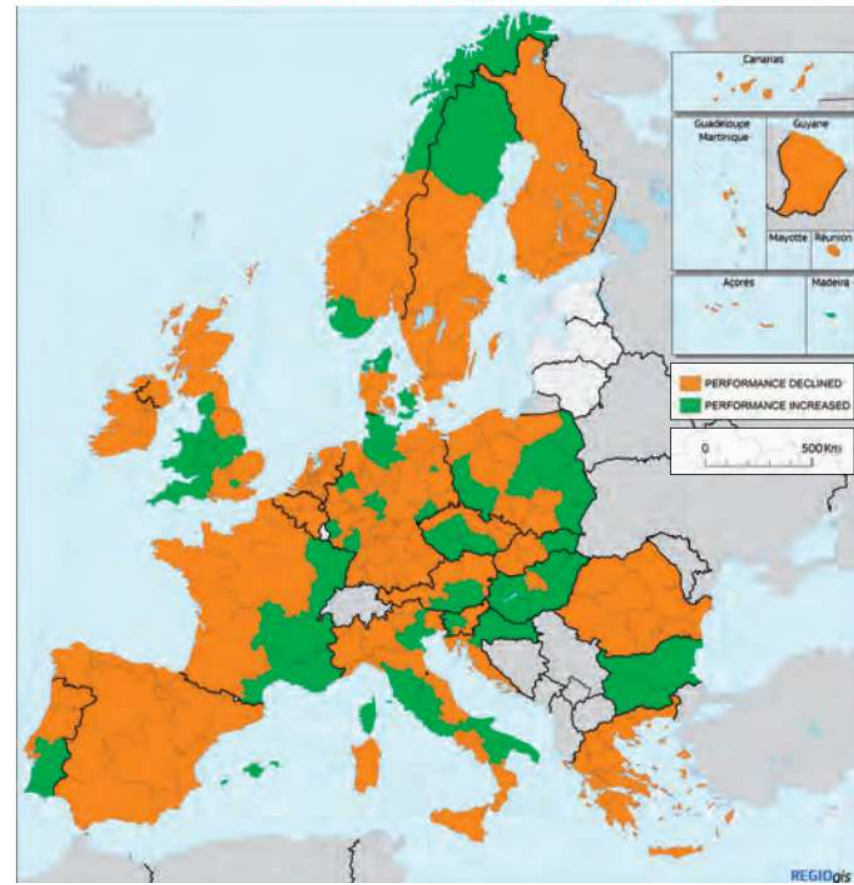
[markku.markkula@cor.europa.eu](mailto:markku.markkula@cor.europa.eu)

# Innovation Performance Declining in Europe (2008-2010) → (2014-2016)

Performance change RII2008-RII2010



Performance change RII2014-RII2016



Regional Innovation Scoreboard 2016: Innovation performance in 214 regions in the EU.

Green = Performance Increased; Orange = Performance Declined;



## What is the European Committee of the Regions?

CoR is an EU-Institution, part of the EU decision making process, representing cities and regions. Plenaries in Brussels 5-6 times a year: 350 elected members (+350 alternates).

## CoR Priorities 2015-2020, number 1: Creating Jobs and Sustainable Growth → New European Mind-set for Entrepreneurial Discovery

**A bottom-up movement** is needed to stimulate targeted investment into real economy and trigger an exchange of best practices. **A new entrepreneurial spirit** combined with **a functioning Digital Single Market** and **Smart Specialisation** could lead to new skills and knowledge, innovation and employment. The CoR highlights the following measures:

- Boosting the research and innovation capacity of the regions and bridging the digital and innovation divide between them;
- Boosting the entrepreneurial spirit;
- Creating the right conditions for digital networks and services to flourish;
- Removing key differences between online and offline worlds;
- Stimulating leading interregional networks;
- ...

More: [www.cor.europa.eu](http://www.cor.europa.eu)



# System Approach → Regional Innovation Ecosystems & Bench-learning: **Collaboration for Pioneering Societal Innovation**

EU pioneering  
bottom-up activities  
driving the change.

**Entrepreneurial  
Mindset**

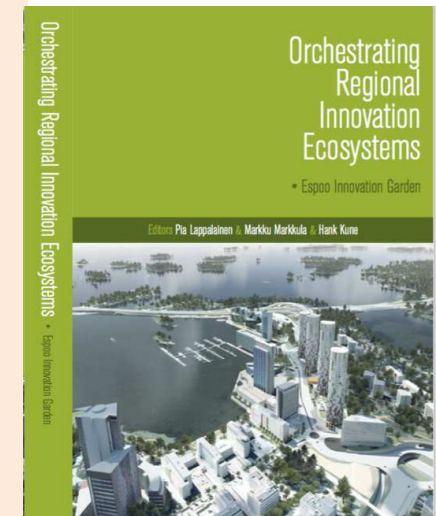
**Deeper  
Understanding  
of Innovation**

**Real life & Real  
Case  
Approach**

## **What do we need for success (this is my story): The systemic journey to innovation is a 3-act drama**

1. An innovation ecosystem audit is required → What are the main innovation drivers: anchor companies, university focus areas, etc.? What new capabilities need to be built?;
2. The context and main instruments for the innovation ecosystem must be understood: → Co-create processes, more foresight and customer insight, concepts;
3. The impact of innovation ecosystem must be carried out by generating significant sources of value → Co-create bottom-up mentality with tools, talent, resources and modes of collaboration.

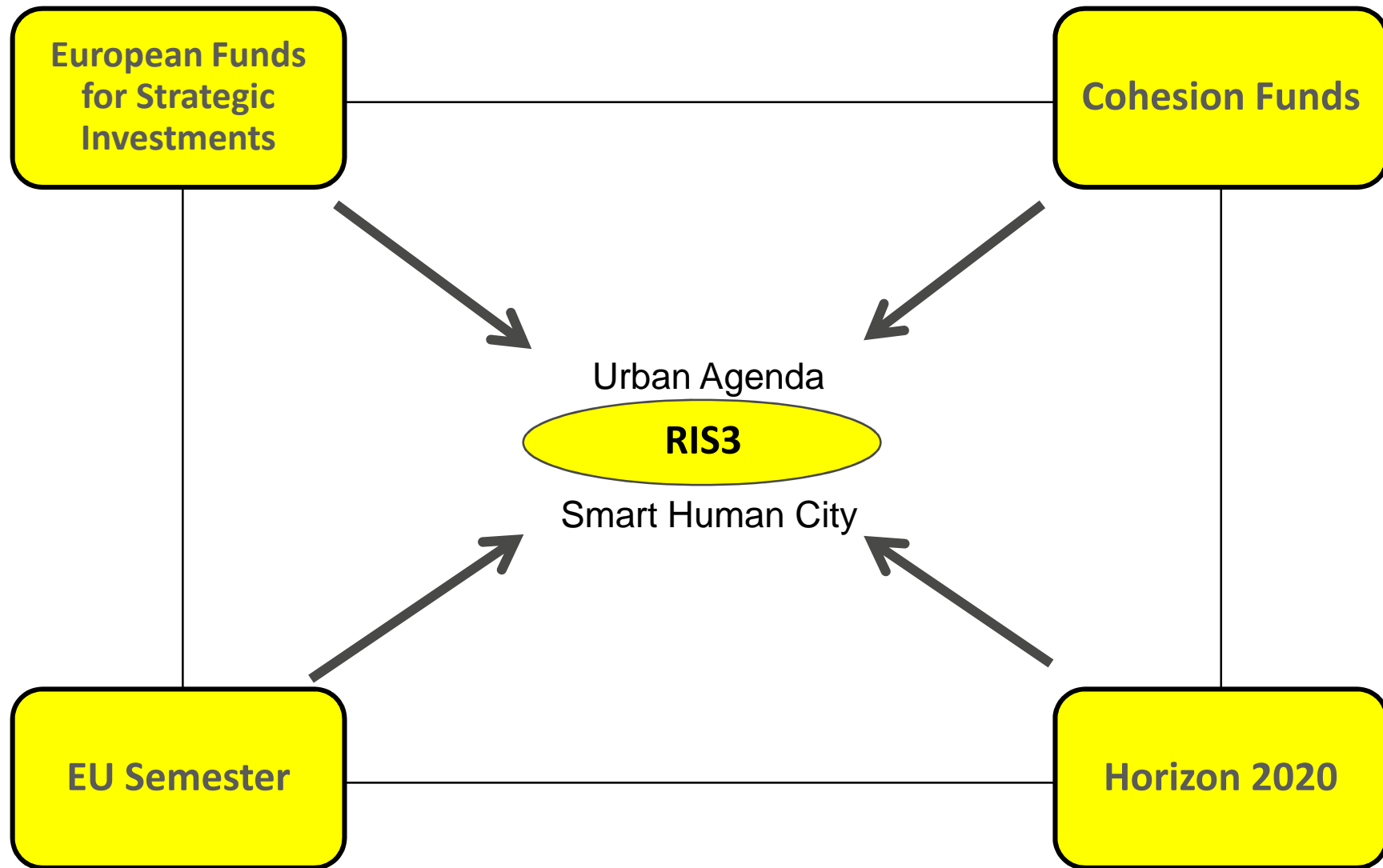
Orchestrating Regional  
Innovation Ecosystems  
– Espoo Innovation  
Garden, 2015



Download:  
[urbanmill.org](http://urbanmill.org)

**Markku Markkula**  
Aalto University

# Implementing Europe 2020 by the Major EU Instruments



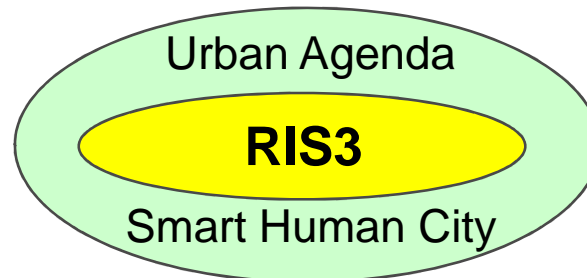
# Renewing the Policy: Boosting Regional Growth and Jobs through the Major EU Initiatives

**EFSI: Connecting investments with networks & RDI infrastructures**

**ESIF: Connecting government with citizens, business & universities**

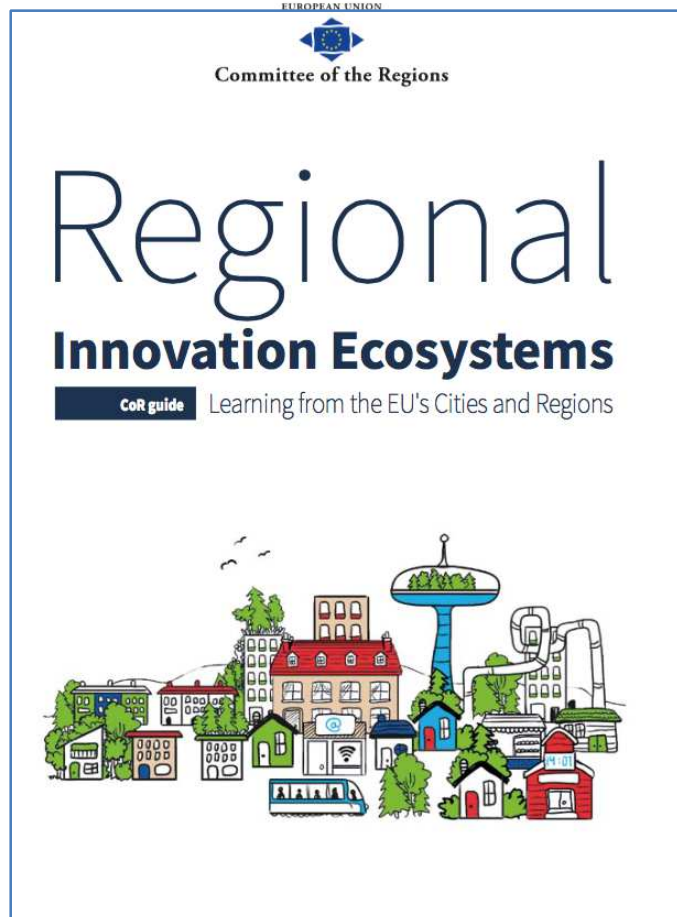
**Semester: Connecting EU institutions with cities & regions**

**H2020: Connecting tangibles & intangibles with people & ideas**





# From Bench-marking to Bench-learning



In order to overcome its current challenges, Europe must establish a culture of co-creation and break its boundaries by moving towards entrepreneurial discovery, open innovation, experimentation and action.

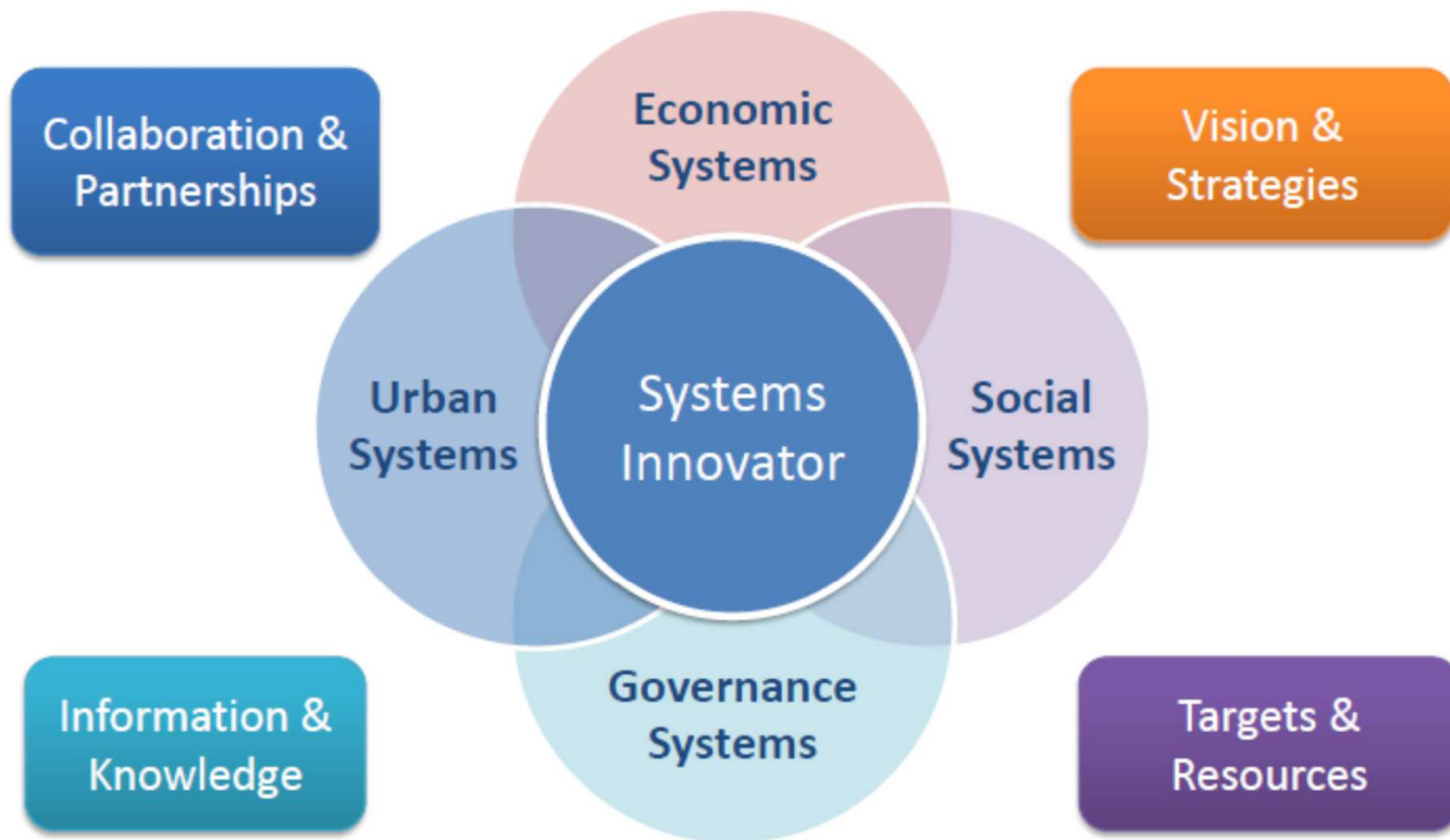
This publication seeks to stimulate bench-learning between regions and cities, sparking new ideas and fundamentally stirring economic development.

Presenting some of the most inspiring projects across the EU, this book offers readers an opportunity to understand and explore how Europe's cities and regions are breaking new ground in regional development.

**Download the CoR Guide:**

<http://cor.europa.eu/regional-innovative-ecosystems>

# The New Role of Cities as a Systems Innovators



Richard Tuffs, ERRIN



CoR focus on pioneering cities & regions:

# Developing Regional Innovation Ecosystems



Digitisation and globalisation drive change, and convergence towards digital services is speeding up. Regions and cities need to encourage regional innovation ecosystem development. The activities feature the following characteristics:

1. Innovation communities operate **as ecosystems through systemic value networking** in a world without borders.
2. Innovation strategies focus on **catalysing open innovation** and encouraging individuals and communities towards an **entrepreneurial mindset** and effective use and creation of new digitalised services.
3. Innovation is often based on **experimenting and implementing demonstration projects** by partnerships, using the best international knowledge and creating new innovative concepts.
4. **Creative processes** can show what is **the European Value Added** and how to reach that through the bottom-up movements.

# Grand Challenges & Special Role of Universities



## What is RIS3?

*(National/Regional) Research and Innovation Strategies for Smart Specialisation that are:*

- integrated,
- place-based,
- economic transformation agendas;

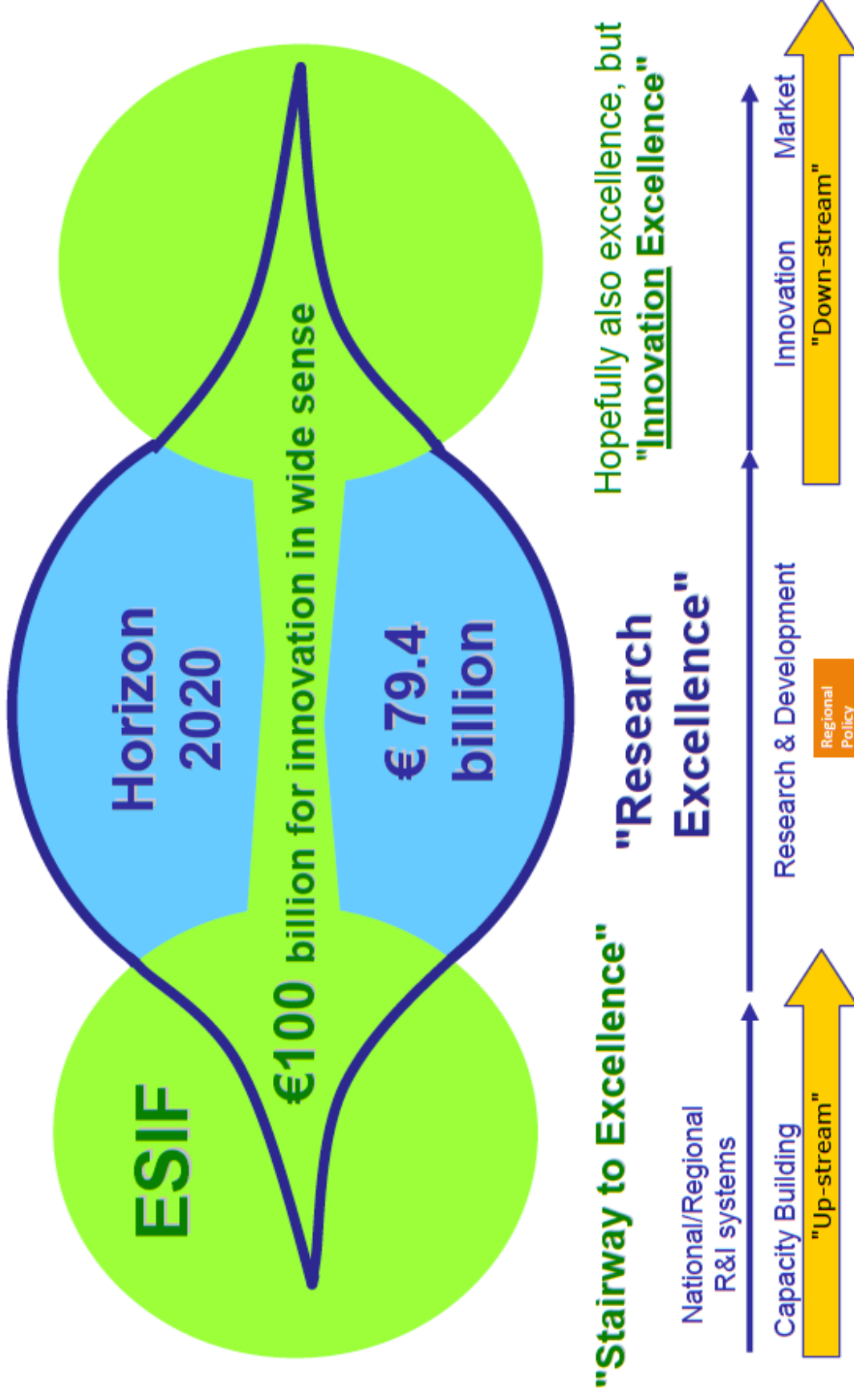
These are **multi-annual strategies** defining a policy-mix and budgetary frameworks focusing on **a limited number of priorities** to stimulate smart growth.

# RIS3 six key methodological principles

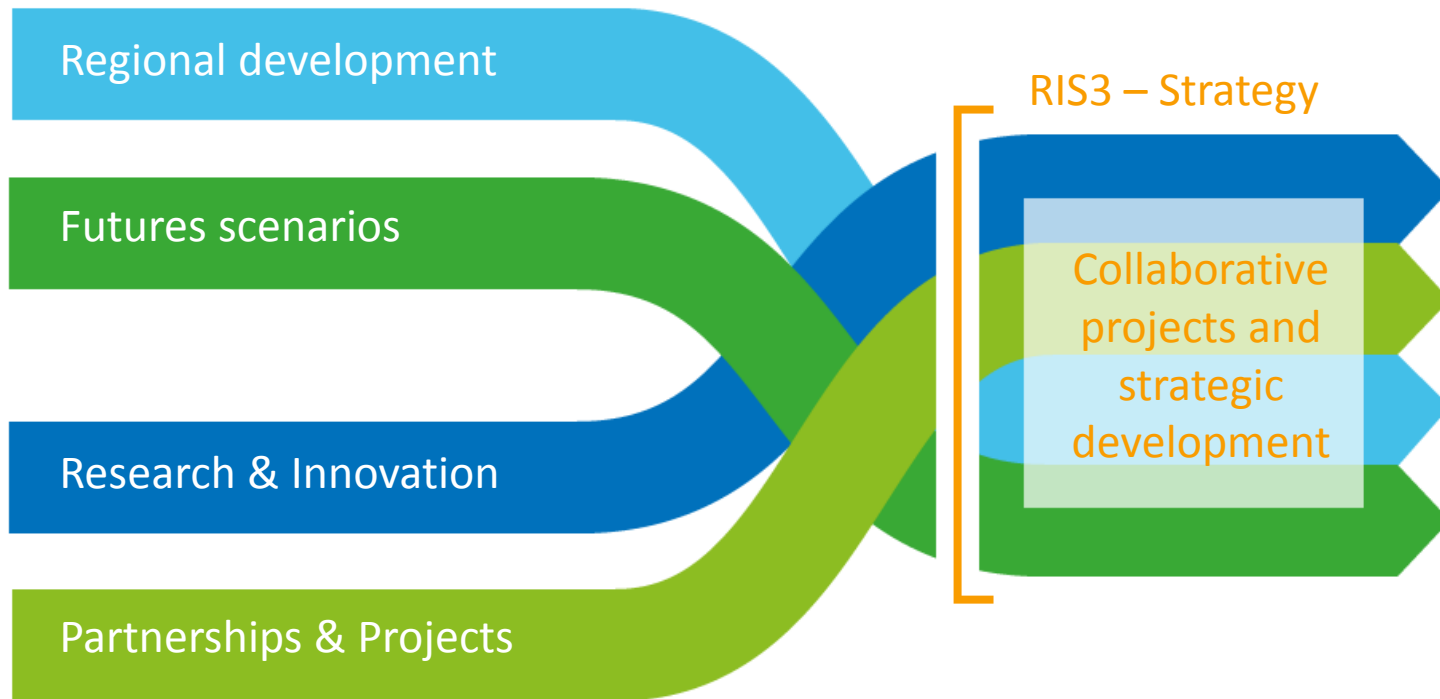
- ✓ **Based on public-private partnership** and consensus ... in the design, implementation, monitoring and follow-up
- ✓ **Integrated and multidisciplinary**: not only technology considerations but also issues regarding human capital, research and education, training, management, finance, marketing...as well as policy co-ordination among regional policy, technology policy, industrial policy, R&D and education policy and competition policy.
- ✓ **Demand-led and bottom-up**: focusing on firm's innovation needs, SMEs in particular, broad involvement of R&TDI regional actors.
- ✓ **Action-oriented**: action plan with policy-mix and road-map with clearly identified projects
- ✓ **European dimension**: inter-regional cooperation and benchmarking of policies and methods.
- ✓ **Incremental and cyclical**: the exercise is dynamic and has to be reviewed in the light of previous experience and on-going results and developments.



## Overall concept for complementarity: Emphasis of programmes

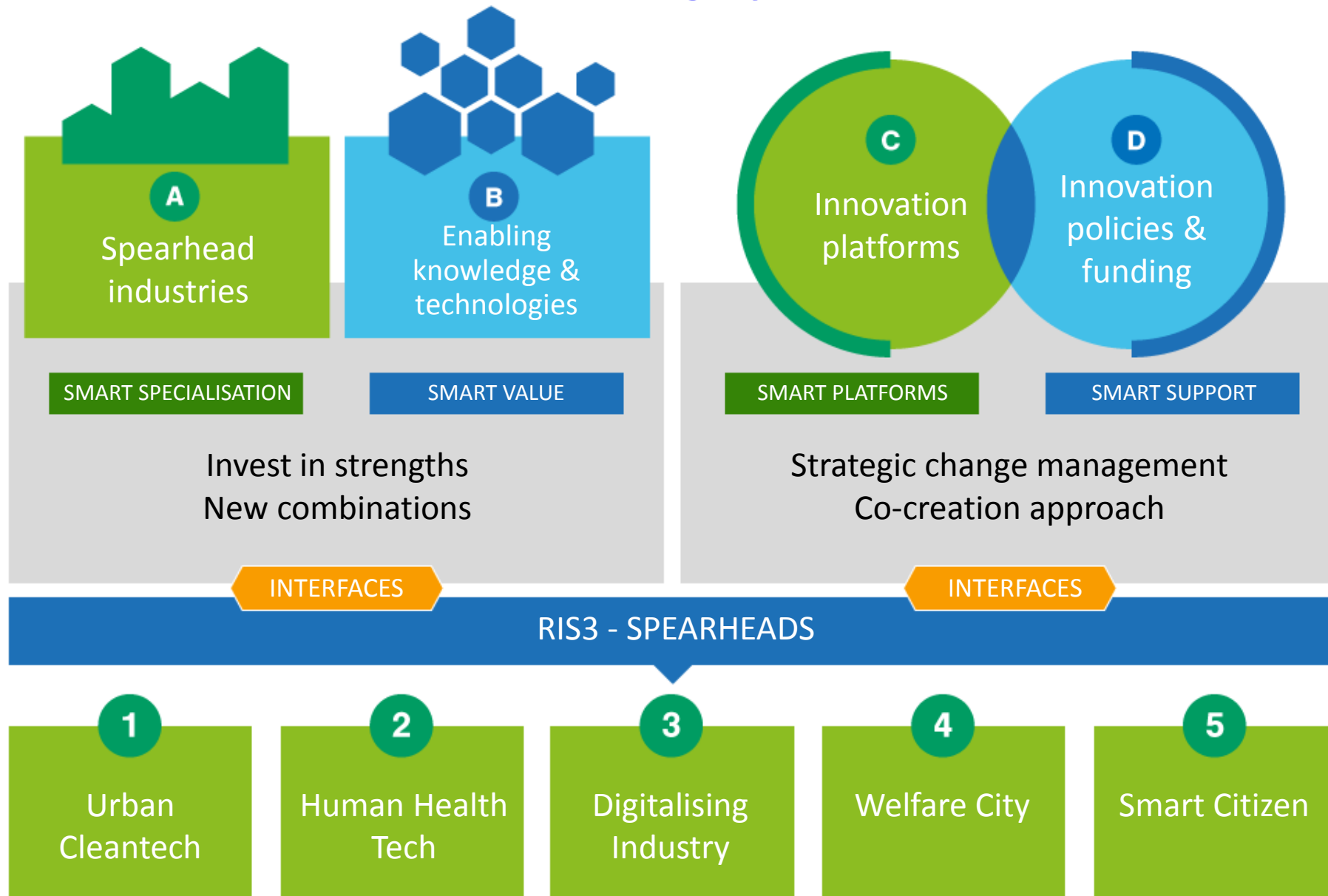


Smart Specialisation (RIS3) in the Helsinki Region:  
**Systems Approach in Co-Creating the Economic  
Transformation Agenda**





# RIS3 Is an On-Going Systemic Process

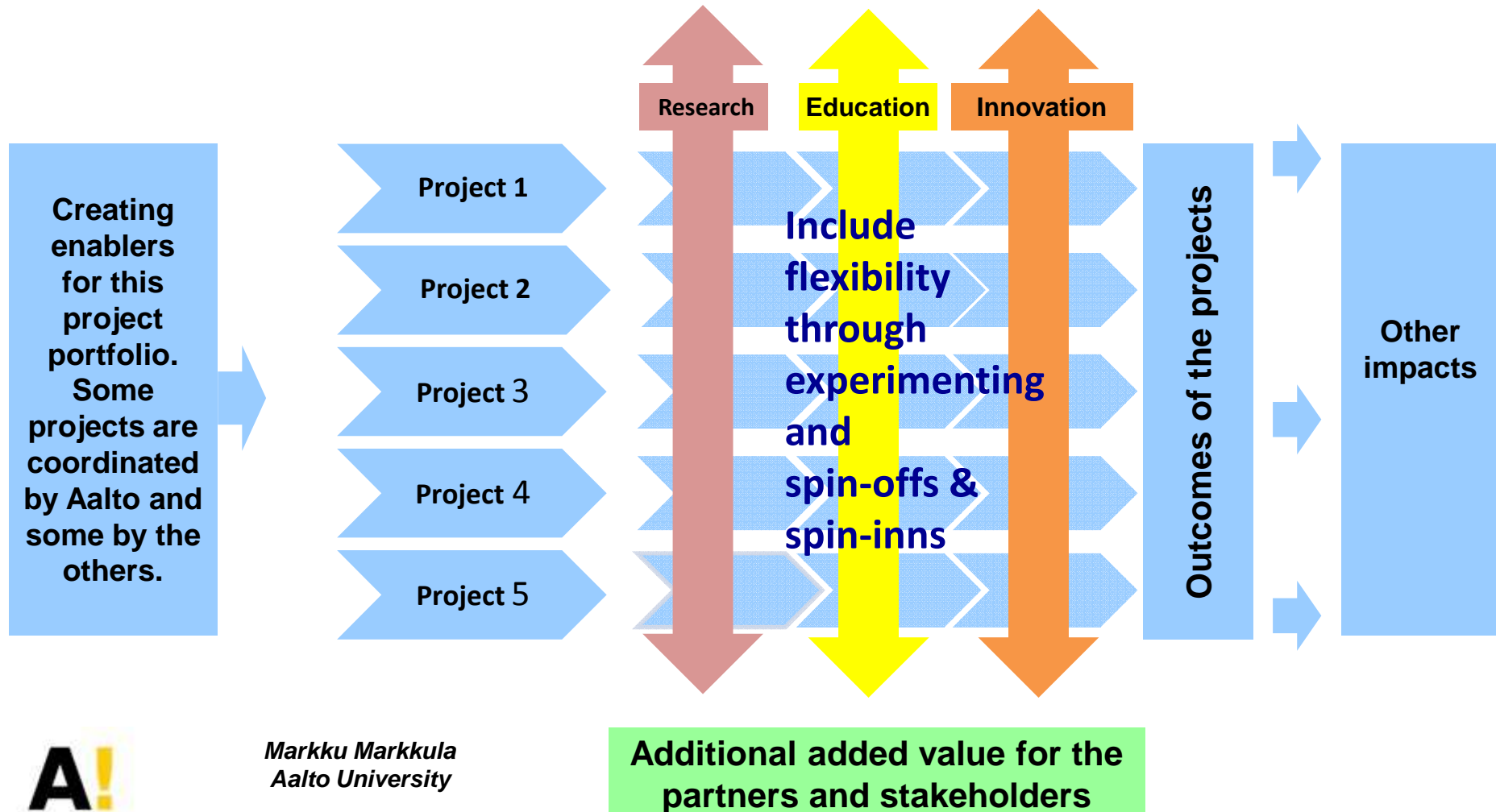


All Permeating Drivers of Change: Digitalization & Open Innovation Platform

## Helsinki Region RIS3

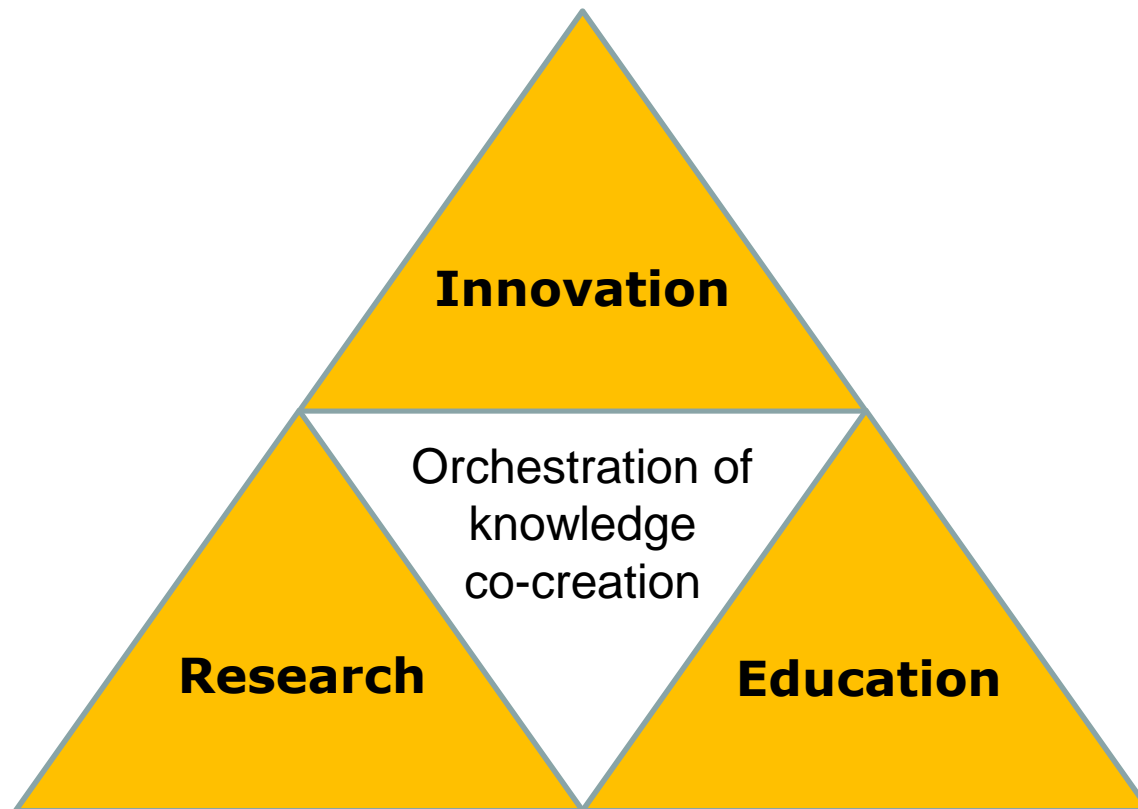
**Mega-Endeavour  
(orchestrating a  
project portfolio of  
each spearhead)**

We need concepts  
to increase synergy.



# Knowledge Triangle

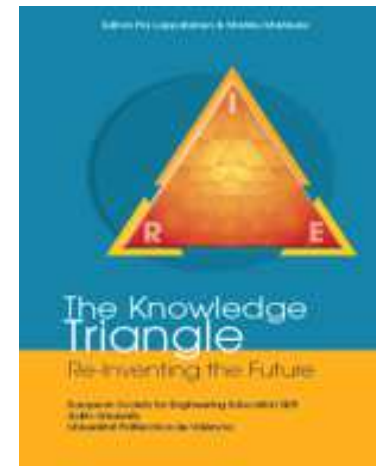
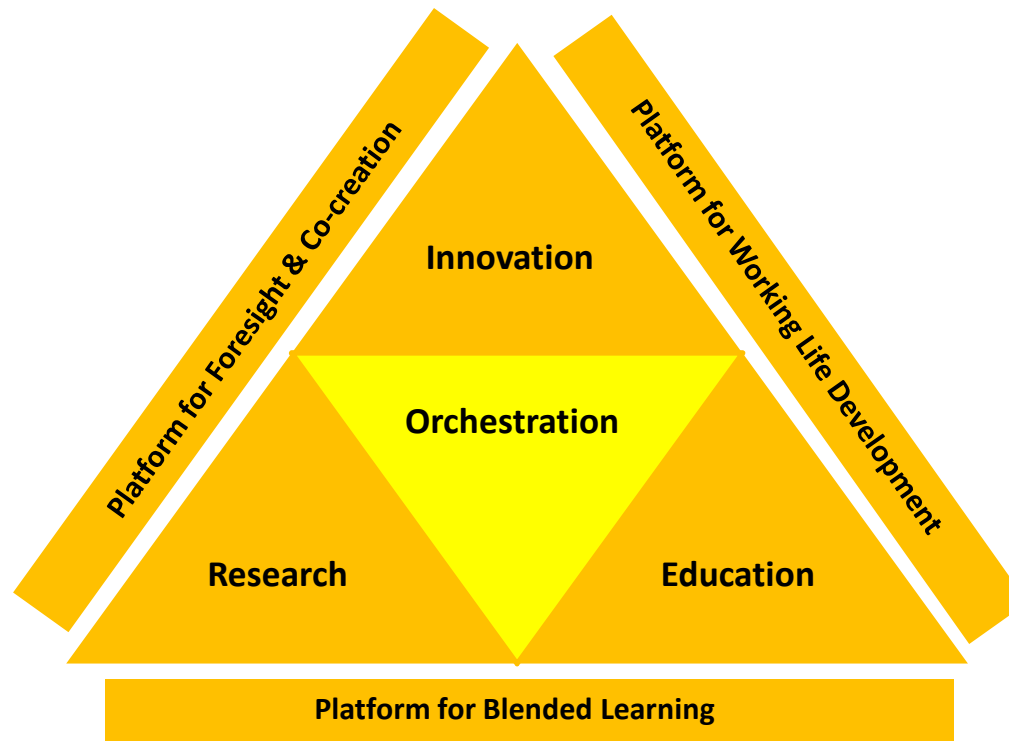
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# For this change we need to implement the Knowledge Triangle: **Create Synergy between Research, Education and Innovation and Experiment All through Real Life Cases**

## Special need to focus on:

- A. Value creation based on better use of intangible assets
- B. New processes and methods for university-industry collaboration
- C. **Systemic change and societal innovations**



Download the KT book:  
<http://urbanmillblog.files.wordpress.com/2013/11/kt-book-2013.pdf>

## Benefits are evident:

**For students**  
**For teaching staff**  
**For researchers**  
**For working life professionals**

# We should use more knowledge provided by universities. Message from 2009:

## Creating Next-Practice Innovation Platforms

- CENTRAL CHALLENGE
  - To question through the operational sustainability lens the dominant logic behind research, education, innovation, and business today.
- COMPETENCIES REQUIRED
  - Knowledge of how renewable and non-renewable innovation resources affect dynamics of production, developer, and innovation based **networks in local and global ecosystems** (global competition, local engagement).
  - The expertise to **synergize research, education and innovation practices, business models, technologies, and regulations** in collaboration between university, industry, and public sector.
- BREAKTHROUGH OPPORTUNITIES
  - Building **platforms** for collaboration between multidisciplinary research, education and innovation operations that will enable customers and stakeholders to manage innovation energy and resources in radically different and unique ways.
  - Developing **concepts** and technology that won't need resources in categories traditionally associated with them, such as institutionalized structures, strictly planned projects without any tolerance of uncertainty, or technological solutions which, at the worst, freeze operational sustainability.
  - Designing **operational and funding concepts** that will allow university, industry and public sector **to use the innovation opportunities** produced as a by-product of knowledge co-creation.



European  
Commission

## RIS3s 2015: Encourage transnational cooperation

### Challenge:

Match-making between  
bottom-up RIS3 thematic  
platforms and EU level  
platforms, initiatives and  
networks



**Platform for transversal issues**  
(governance, monitoring, intervention tools ..)

**EIPs**

**Cluster  
networks  
COSME**

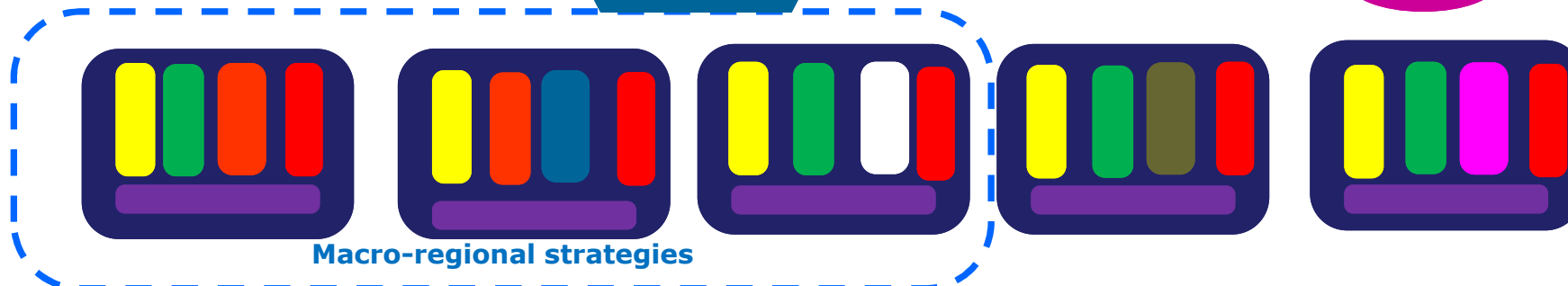
**ERA-  
Nets**

**INTERREG**

**EUREKA**

**EIT-KICs**

**JTI,  
PPPs**



Macro-regional strategies



## Cities in the Spotlight: Renewing and Strengthening EU's Urban Agenda



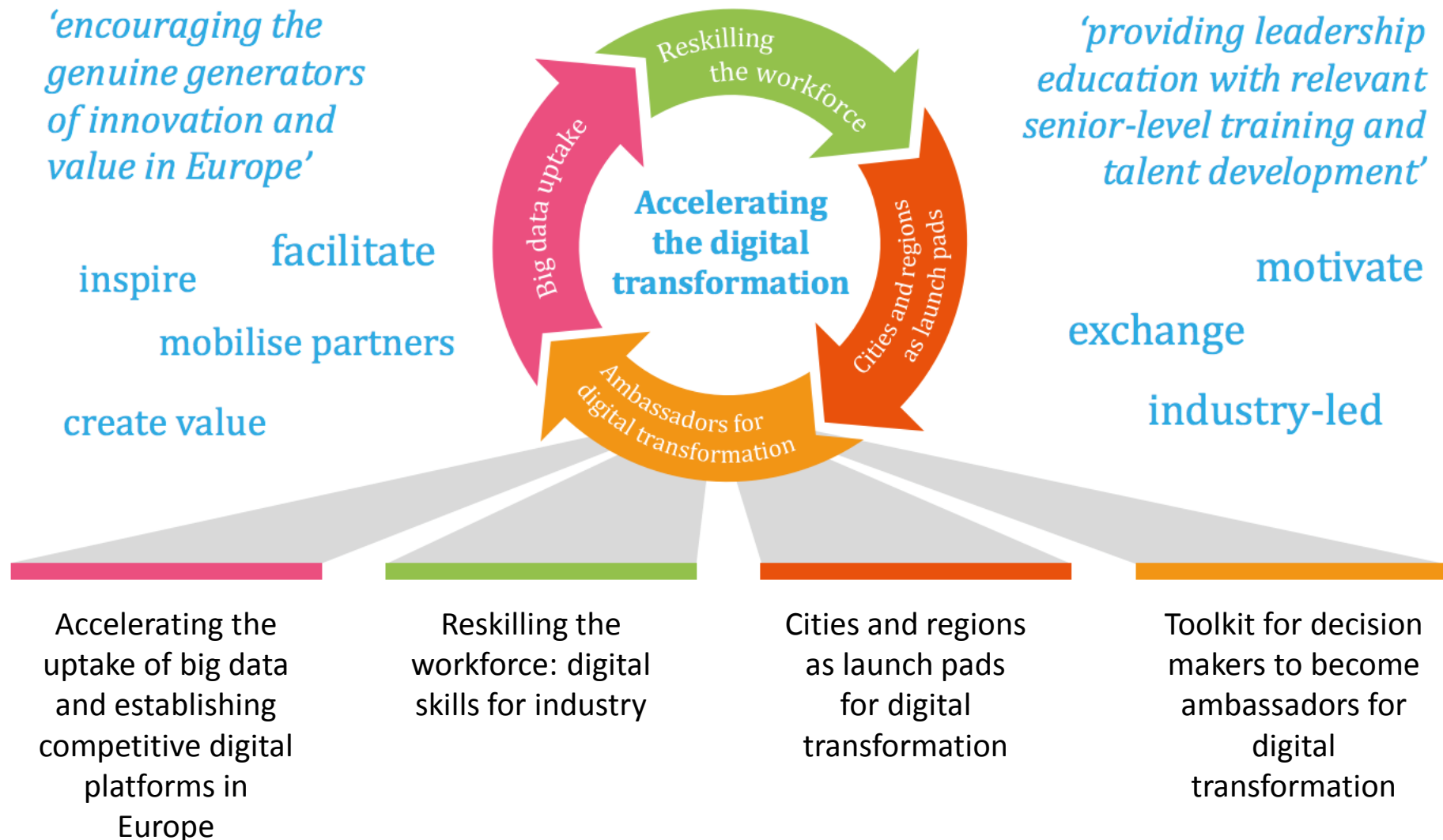
Source: Lambert van Nistelrooij, MEP

Cities and urban areas are becoming more important

- as engines of economic growth and employment,
- as breeding grounds for art, culture and creativity and
- as the place for innovation and start-ups.

Around  $\frac{3}{4}$  of 500 million EU citizens live in urban areas. But also problems and societal challenges often accumulate in cities.

# Accelerating the Digital Transformation: Blueprint Recommendations



# Engaging the “shakers and makers” of the digital ecosystem

## Mayors & Presidents of regional councils

Engage all actors in the definition of the digital transformation strategy of the city or region

## Citizens & NGO representatives

Encourage the prototyping and testing of new digital solutions to improve the community

## CEOs of SMEs

Adopt and invest in digital technologies to innovate and improve your competitiveness

## Entrepreneurs & founders of start-ups

Lead the way by innovating, creating and applying new digital technologies

## Cluster managers

Organise networking events and provide spaces for people to meet and encourage knowledge exchange between members and digital companies

## Social partners

Mobilise all stakeholders in the reskilling of the workforce

## Creative & cultural actors

Explore, create and entertain with digital technologies

## Investors

Provide capital to finance the required local technology infrastructure

## Journalists

Raise awareness about the unprecedented opportunities offered by digital technologies

## City managers

Create an entrepreneurial spirit in their public administration to seize digital opportunities

## Researchers & academics

Conduct fundamental and applied research on digital technologies and their impact on society, the economy and the environment

## Managers of intermediary organisations

Provide guidance, inspiration, open spaces and digital tools to support local firms and entrepreneurs in their digitalisation efforts

**Ambassadors  
for digital  
transformation**



# Aalto University Research Focus Areas

## *ICT & digitalisation*

98 professors  
47 recruitments  
65 M€ Aalto budget  
50 M€ ext. funding

## *Global business*

85 professors  
51 recruitments  
40 M€ Aalto budget  
15 M€ ext. funding

## *Advanced energy*

20 professors  
13 recruitments  
15 M€ Aalto budget  
10 M€ ext. funding

## *Human-centered living environments*

25 professors  
19 recruitments  
20 M€ Aalto budget  
5 M€ ext. funding

## *Arts & design*

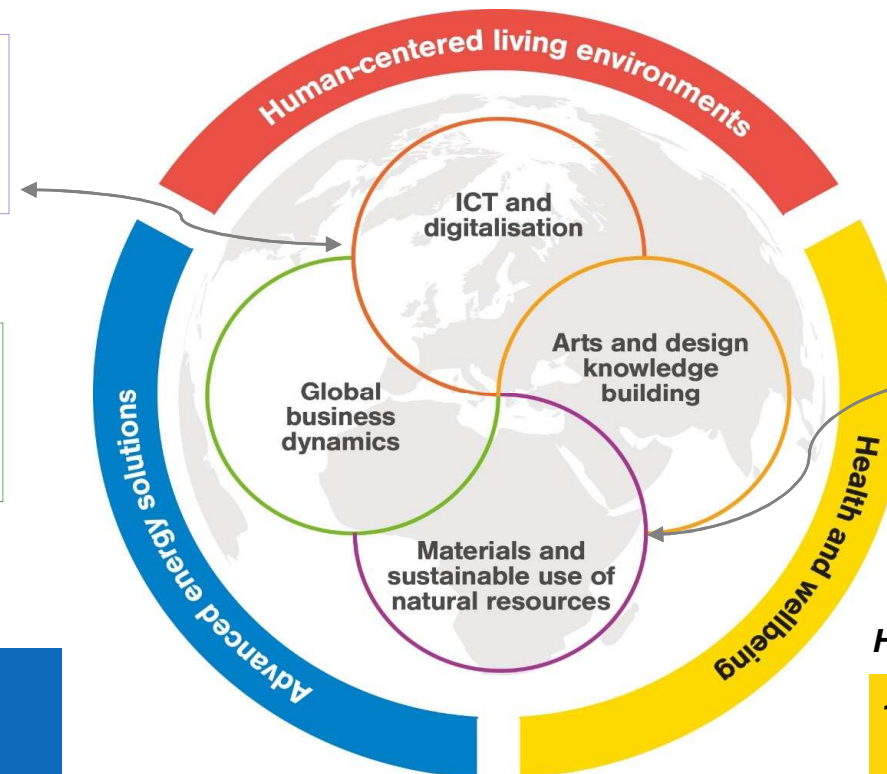
28 professors  
25 recruitments  
20 M€ Aalto budget  
5 M€ ext. funding

## *Materials & resources*

61 professors  
36 recruitments  
45 M€ Aalto budget  
30 M€ ext. funding

## *Health & wellbeing*

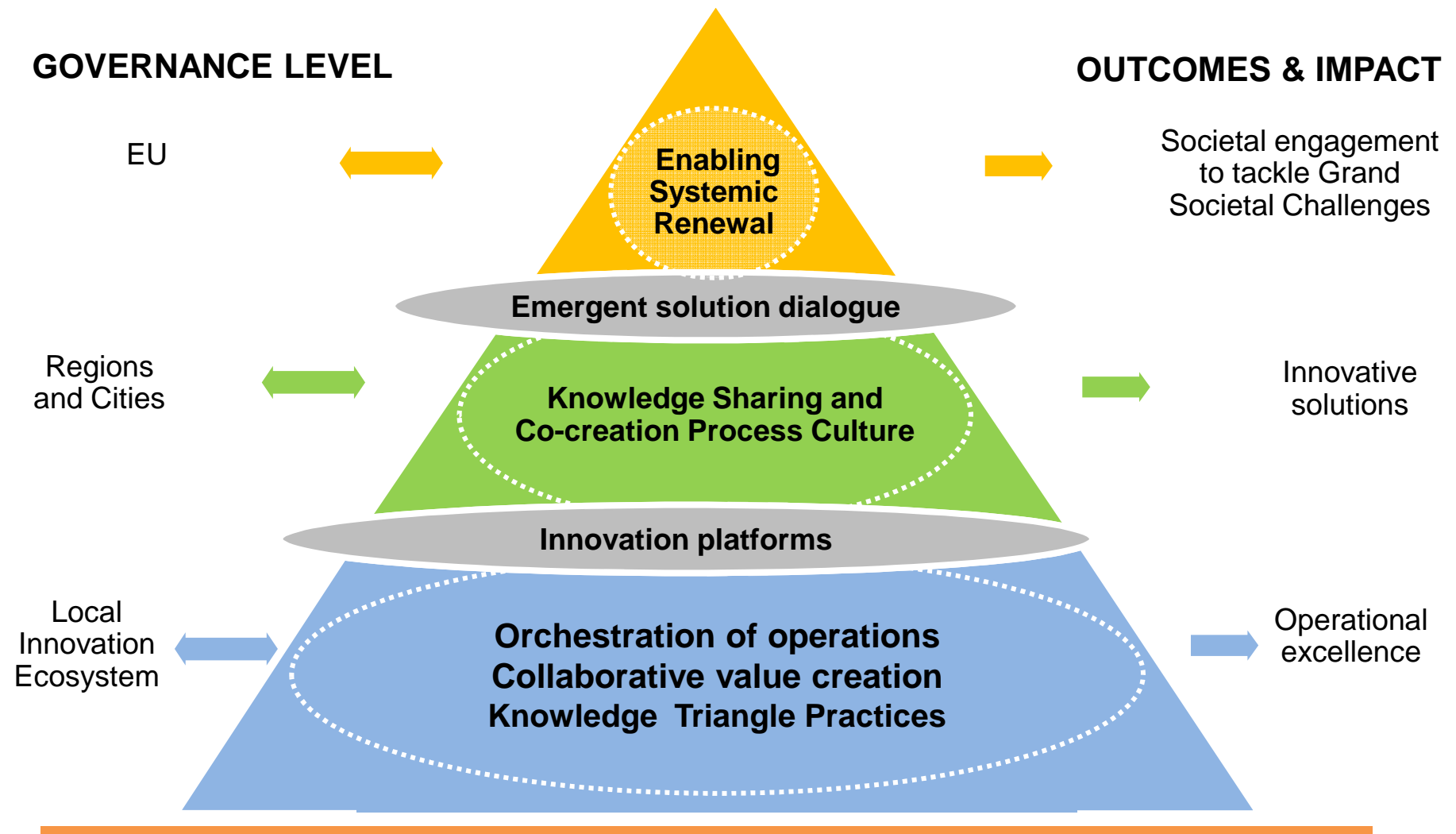
14 professors  
9 recruitments  
10 M€ Aalto budget  
5 M€ ext. funding



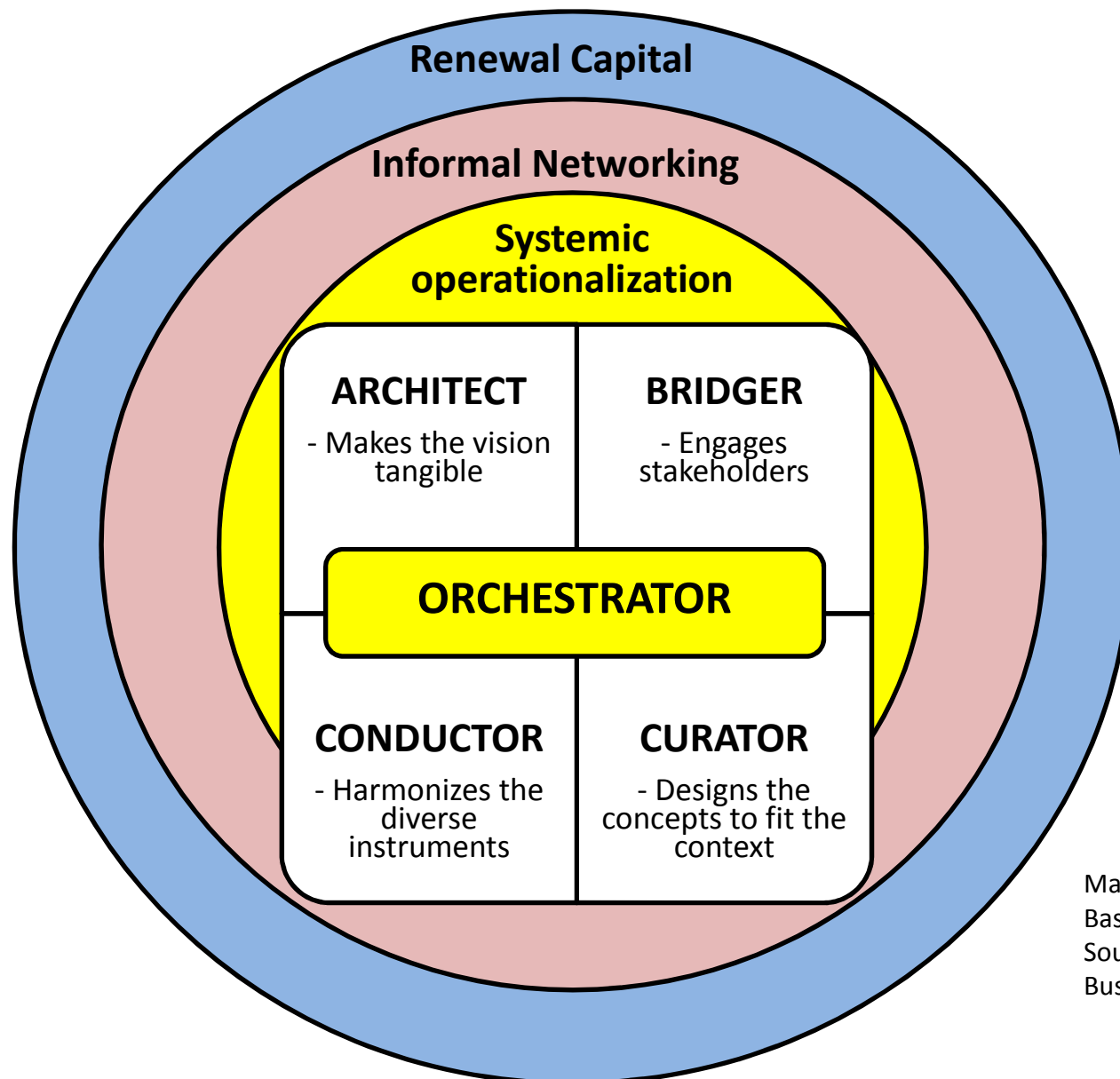
The Aalto University strategy is to build excellence by focusing its activities on seven key research areas to reach world-class results by 2020:

- the four core areas of competence: ICT and digitalization; Materials and sustainable use of natural resources; Arts and design knowledge building; Global business dynamics;
- the three multidisciplinary themes: Advanced energy solutions; Human-centered living environments; Health and wellbeing. These themes are the core of our cross-cutting research agenda and the consequent societal impact.

# The Concept in Increasing Renewal Capital



# Different Roles Are Needed in Orchestrating Regional Innovation Ecosystem



Markkula, Kune & Tukiainen  
Based on ACSI Espoo 2015,  
Source also Johan Wallin,  
Business Orchestration, 2006



## Conclusions:

# RIS3 Means New Options for Universities

In Europe's journey for transformation, we all – every city and every region, as well as every university – have to be pioneers, to explore new ways for the future of our societies. The concept of Smart Specialisation opens up new opportunities also for universities, above all:

1. Universities should act **as the knowledge base in defining and implementing regional RIS3 strategies**;
2. Universities can and should focus more on societal challenges and as a result, **broadening the innovation base for tackling these challenges**;
3. Universities need to strengthen their role as natural **platforms for entrepreneurial discovery**;
4. Universities have a crucial role in **creating regional innovation ecosystems** to be based on the co-creation culture and the network of innovation hubs;
5. Universities can be key actors in creating the new culture for **multi-financing** and project portfolio management (i.e. **orchestration**).

## Conclusions:

# Recommendations to the Regional Policy-Makers

### 1. Focus on entrepreneurial spirit and value creation processes

- Co-create the discovery mind-set via open innovation 2.0 & societal innovation learning camps.
- Network with international research and business communities (not only the players from your own region & Member State).

### 2. Implement RIS3 by involving all key stakeholders (Quadruple Helix)

- Strengthen your region's RDI capacity building, including research and innovation infrastructure, Living Labs etc. to increase the use of EU instruments.
- Create governance mechanisms to optimize synergies, since substantial parts of the H2020 budget will be delegated to public-public-partnerships and public-private-partnerships, i.e. EIPs, JTI, ERA-Nets etc.

### 3. Use RIS3 for the regional economic transformation

- Focus on building European partnerships through H2020, INTERREG, Macro Regions.
- Increase synergies between different financial instruments and actors in the RIS3 development and implementation processes.

### 4. Speed-up the strategic political decisions

- Focus more on R&D and innovation and co-creating the culture of experimenting, piloting and scaling-up to broad use around Europe ... and move to action.
- Create concepts for local collaboration and European partnerships.