A university's experience in linking innovation and international collaboration to facilitate change in the healthcare eco-system

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UNIVERSITĀTE

VITA BREVIS ARS LONGA

Content of the presentation

- Aim of the presentation

- Brief overview of Rīga Stradiņš University (RSU)

- Domestic context

- Universities and innovation

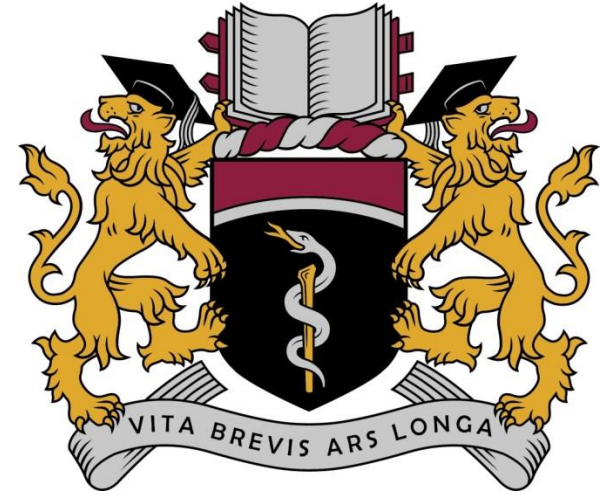- RSU's experience with EIT Health RIS

- Summary

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Aim of presentation

■ To discuss the **experience of RSU** in the promotion of **innovation** in the domestic **healthcare eco-system** through an **international partnership**

Brief overview of RSU

- Established in **1950**

- **3rd largest** public university in Latvia

- **9100 students** from **over 50 countries** at **all levels of study**

- 68 programmes of study in **health** and **social sciences**

- **9** faculties, **5** research institutes, **12** laboratories, **1** medical education technology centre, **1** technology transfer office

- **Research priority areas** - oncology, occupational and environmental health, infectious diseases and immunology, regenerative medicine and tissue bioengineering

Domestic context

Healthcare in Latvia

- **Life expectancy** 3rd shortest in the EU
- The EU's highest **avoidable mortality** rate, mostly due to cardiovascular diseases and cancer
- **Risk factors:** smoking, alcohol consumption and obesity
- Health system **underfunded** – **5.8%** of GDP (EU avg - 9.9%)
  - » Health expenditure per capita – 1,071 EUR (EU avg – 2,797 EUR)
  - » 57% of health spending publicly funded (EU avg - 79%)
- High **barriers to healthcare access:** financial barriers, quotas and waiting times, geographic coverage
- **Unmet medical needs** fourth highest share in the EU
- Understaffed **health workforce**, especially nurses
- Large income, education and gender **disparities**

Innovations in Latvia

- **Moderate Innovator** (24th out of 28 countries)

- **GDP spent on R&D** – 0.5% (EU avg - 1.96%)

Strongest dimensions
Innovation-friendly environment - broadband penetration and opportunity-driven entrepreneurship
Finance & support – venture capital expenditures

Weakest dimensions
Firm investment – R&D expenditure in the business sector, enterprise provided ICT training
Innovators – SME products/process, marketing/organisational and in-house innovations

European Innovation Scoreboard 2018
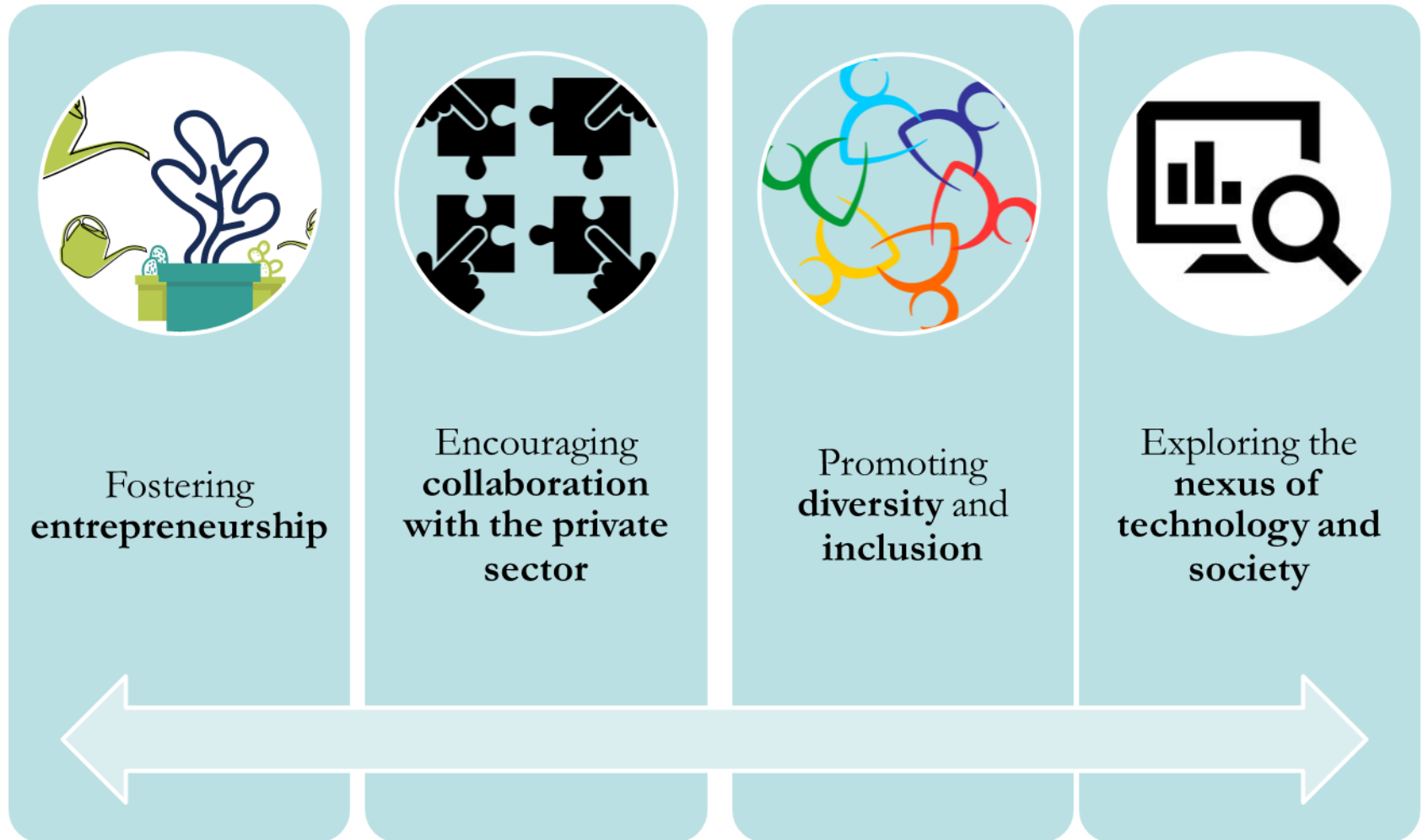
Universities and innovation

While we [universities] retain our core mission of educating the next generation and cultivating new forms of knowledge, universities must also embrace our ever-expanding role in **driving innovation** and **catalysing economic development**.
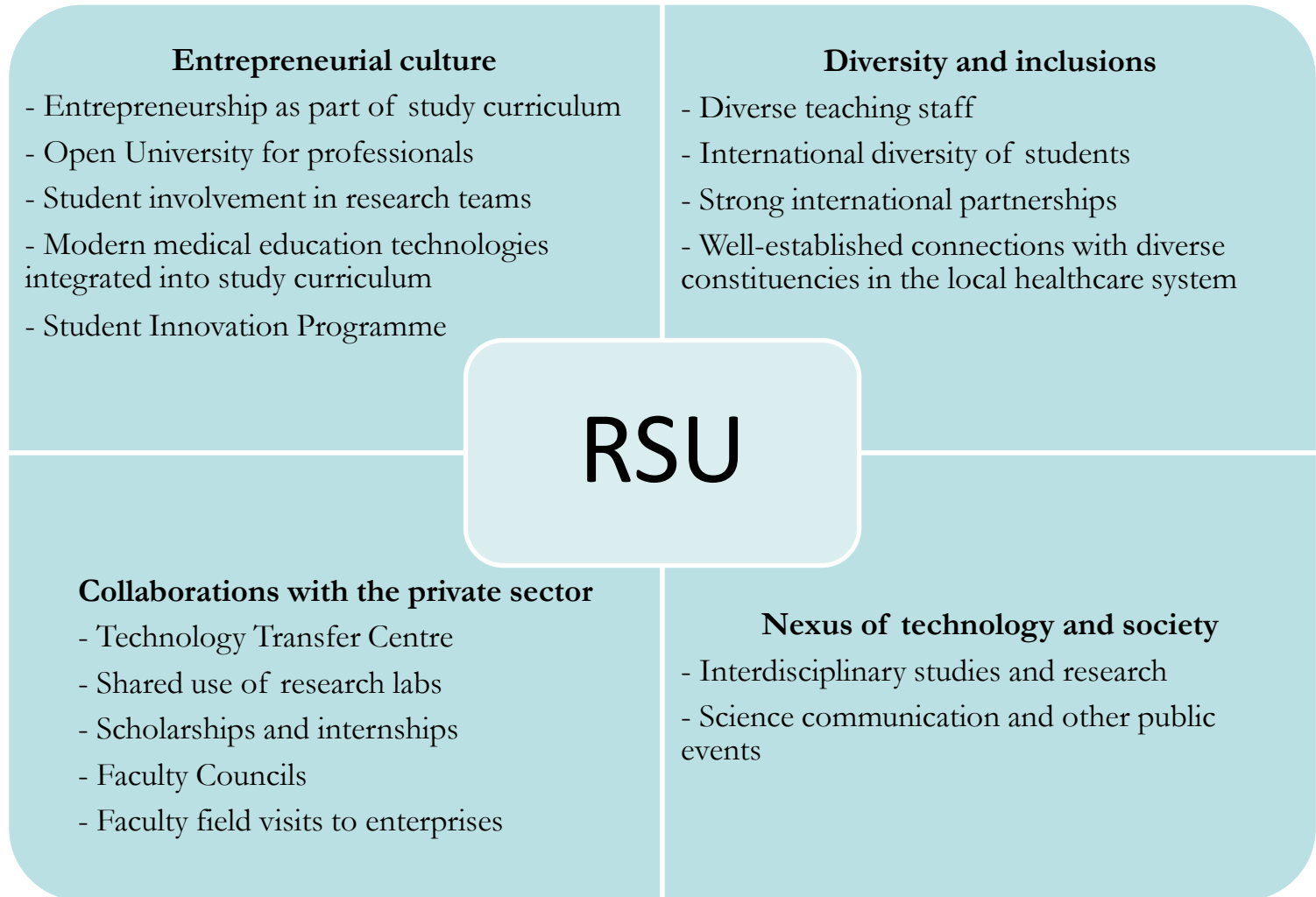
Dr. Farnan Johanian
President, Carnegie Mellon University
World Economic Forum 2018

Roles of the university in innovation
(Johanian, 2018)

Fostering **entrepreneurship**

Encouraging **collaboration** with the private sector

Promoting **diversity** and inclusion

Exploring the **nexus of technology and society**

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RSU and innovation

Entrepreneurial culture

- Entrepreneurship as part of study curriculum

- Open University for professionals

- Student involvement in research teams

- Modern medical education technologies integrated into study curriculum

- Student Innovation Programme

Diversity and inclusions

- Diverse teaching staff

- International diversity of students

- Strong international partnerships

- Well-established connections with diverse constituencies in the local healthcare system

RSU

Collaborations with the private sector

- Technology Transfer Centre

- Shared use of research labs

- Scholarships and internships

- Faculty Councils

- Faculty field visits to enterprises

Nexus of technology and society

- Interdisciplinary studies and research

- Science communication and other public events

RSU's experience with EIT Health

EIT Health Regional Innovation Scheme (RIS)

- Initiative by the **European Institute of Innovation and Technology** (EIT)

  » To bring together the Knowledge Triangle - academia, research and business - through various Knowledge and Innovation Communities (KIC)

- RIS, introduced in 2014, as part of the Health KIC to boost innovation in European countries and regions that are classified as «**modest and moderate innovators**»

- **Designated hubs** as local connectors

- Hubs encourage **cooperation within the actors of local knowledge triangle** to facilitate the development of local competencies and resources for better output

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EIT Health RIS

Tartu Biotechnology Park (Estonia)
Rīga Stradiņš University (Latvia)
Lithuanian University of Health Sciences (Lithuania)
Medical University of Gdańsk (Poland)
DEX Innovation Centre (Czech Republic)
T-Systems (Slovakia)
Institute of Transdisciplinary Discoveries – University of Pécs (Hungary)
Asociatia INIT & Freshblood HealthTech Community (Romania)
Ljubljana University Incubator (Slovenia)
University of Zagreb (Croatia)
National Documentation Centre (Greece)
Consorzio Arca (Italy)
University of Évora (Portugal)
University of Porto (Portugal)

Number of RIS hubs: **14**

■ **Key challenges**
» To promote healthy living
» To support active aging
» To improve healthcare

■ **Actions**
» Engagement in education and business creation programmes
» Asset mapping and mentoring
» Project development
» Local eco-system development and action planning
» Best practice observation

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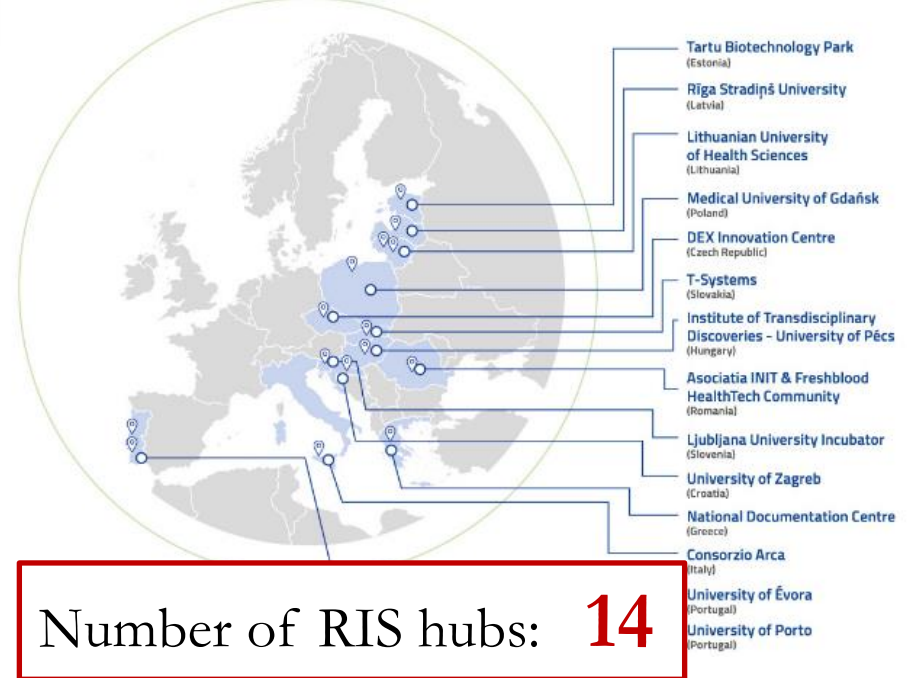
Internal stakeholders: Setting-up an institutional structure

Obtaining support within the institution
Senior management
Strategic units/individuals at the University

Exploring the institutional resources
Innovation-minded units and individuals
Areas of expertise
Existing and possible collaborations
Ideas and opportunities
Ties with other stakeholders

Developing a working structure
Creating teams and dividing responsibilities
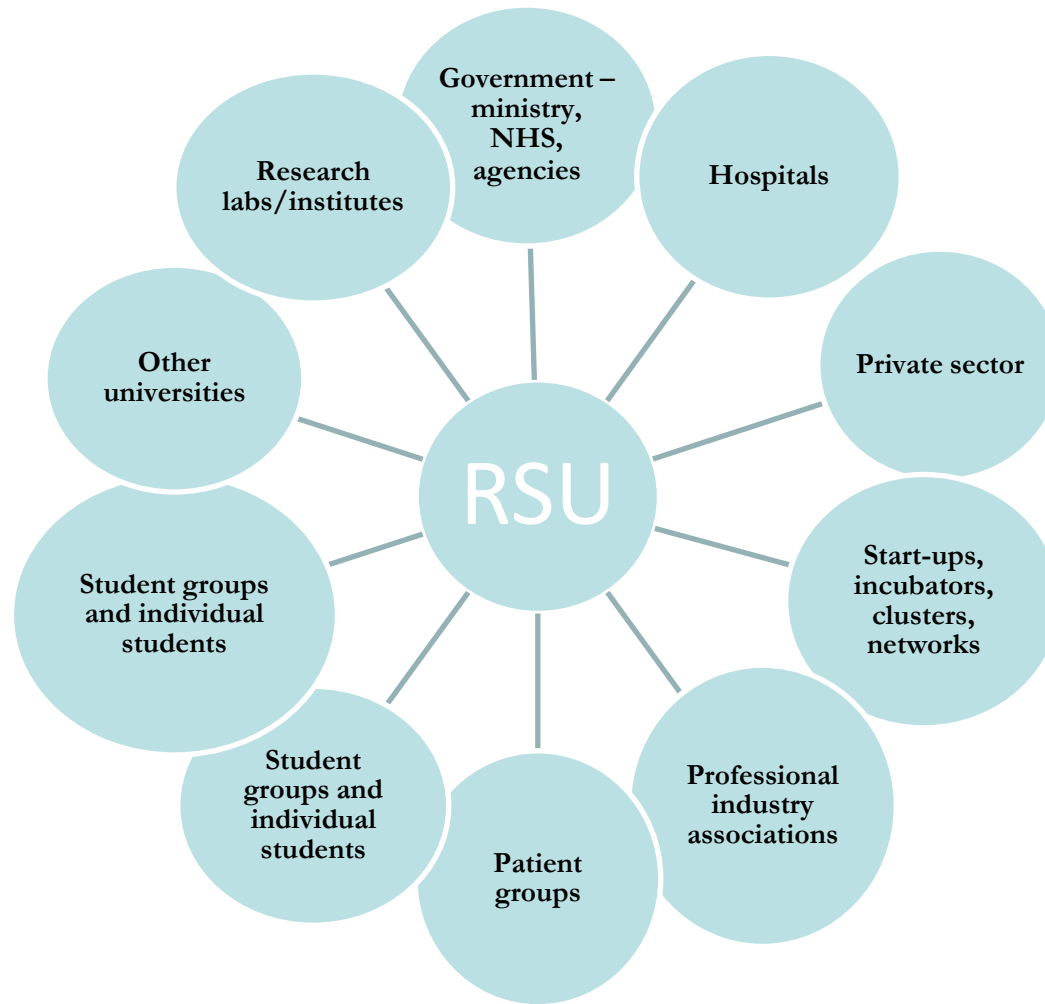Establishing internal channels of communication
Administration of the project
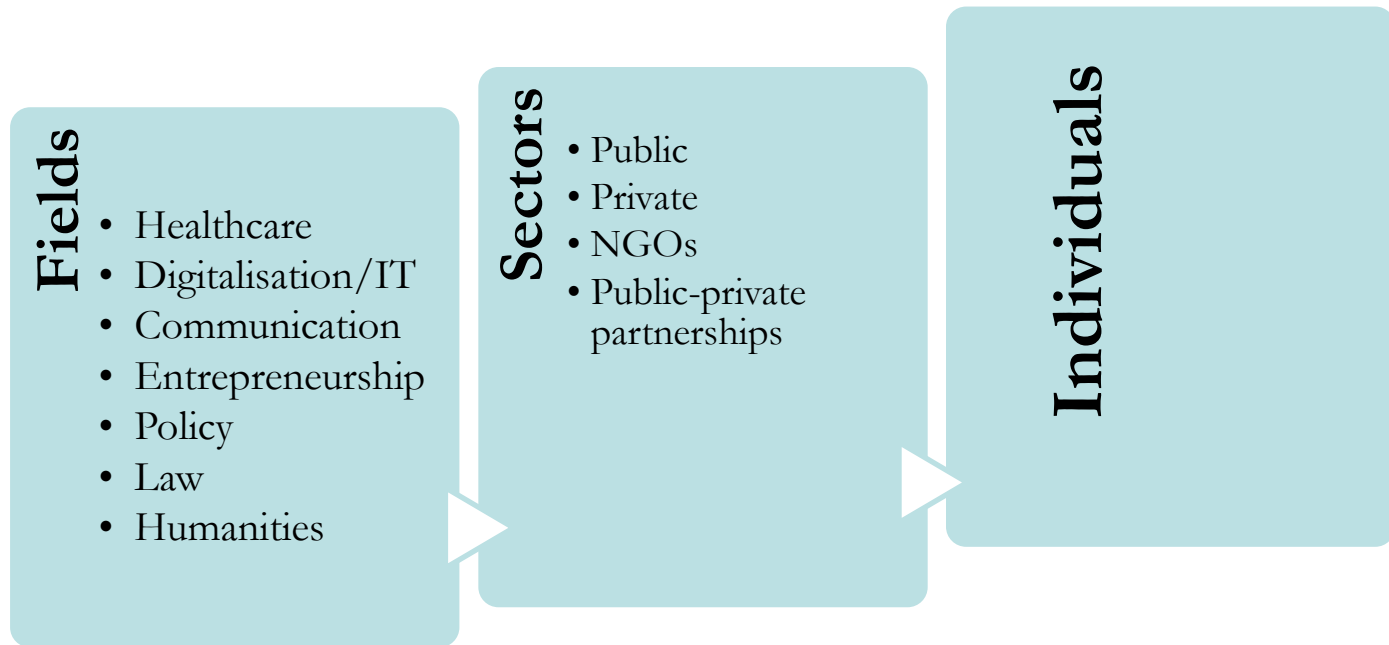Strengthening the entrepreneurial culture

Internal stakeholders - lessons learned

- **Institution-wide** initiative

- Many separate parts, but not a **well-connected system**

- Understanding of **institutional assets** (e.g., expertise, contacts, prior projects, etc.)

- Mediating **different organisational cultures**

- Language and the international component

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Diversity of external stakeholders (1)

Central node: RSU

Surrounding nodes:
- Government – ministry, NHS, agencies
- Hospitals
- Private sector
- Start-ups, incubators, clusters, networks
- Professional industry associations
- Patient groups
- Student groups and individual students
- Student groups and individual students
- Other universities
- Research labs/institutes

Diversity of external stakeholders (2)

Fields
- Healthcare
- Digitalisation/IT
- Communication
- Entrepreneurship
- Policy
- Law
- Humanities

Sectors
- Public
- Private
- NGOs
- Public-private partnerships

Individuals

External stakeholders:
Understading the national eco-system

DIRECT BENEFICIARIES

ENABLING PARTNERS

Identifying key stakeholders and assessing their needs
Mapping key stakeholders
Understanding their needs
Identifying ways to engage them

Soliciting resources - contacts and networks, decisions and policies, expertise, channels of communication, logistics

Engaging in collaborative tasks – organising mutual events, disseminating information, etc.
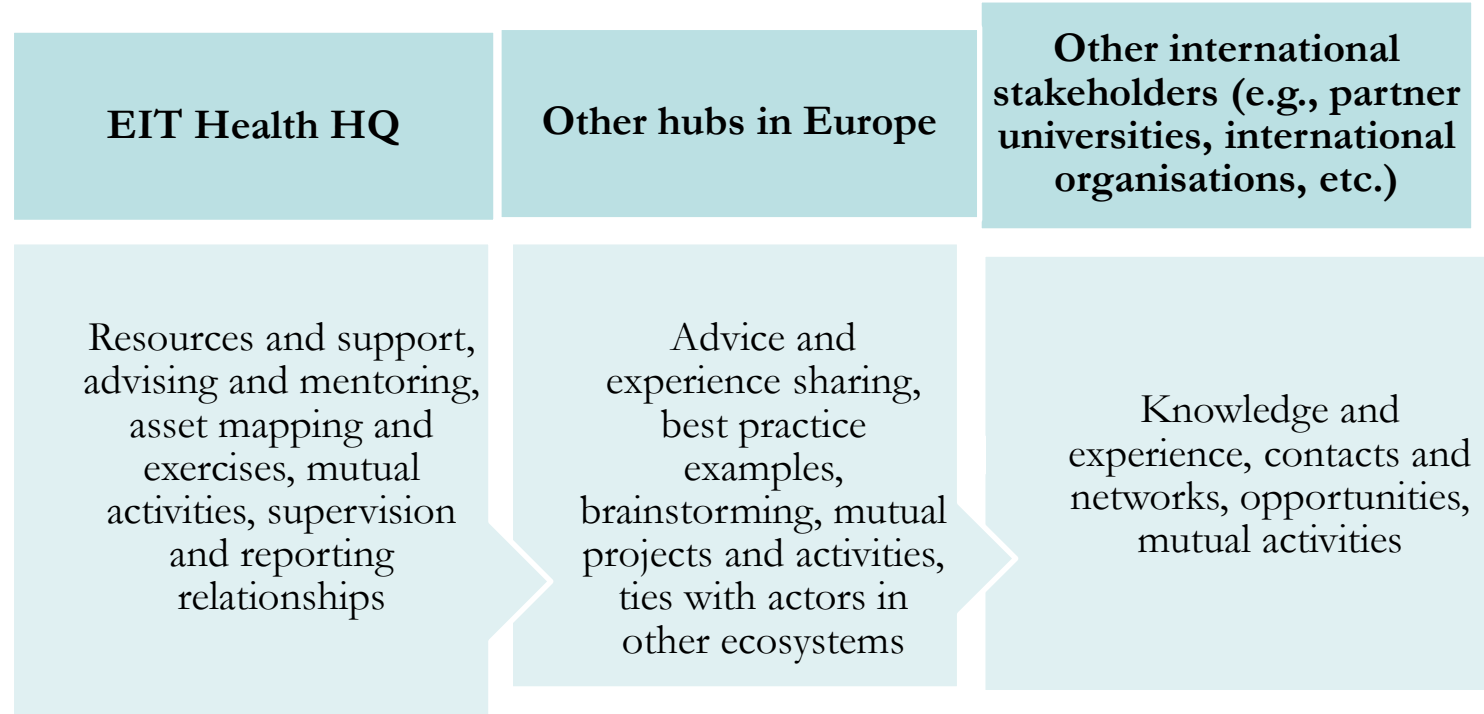
Serving as a connector
Establishing ties between direct beneficiaries, introducing beneficiaries to enabling partners and vice versa, connecting external stakeholders with *EIT Health* and other RIS hubs

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External stakeholders – lessons learned

- Different stakeholders have **different needs** and **approaches to communication**

- **Diversity of institutional cultures** that need to work together

- **Long-term relationships** result in trust that extends to other activities

- Significant part of work involves **new partnership building**

- **Standing out from the competition**

International stakeholders: Creating international networks

EIT Health HQ	Other hubs in Europe	Other international stakeholders (e.g., partner universities, international organisations, etc.)
Resources and support, advising and mentoring, asset mapping and exercises, mutual activities, supervision and reporting relationships	Advice and experience sharing, best practice examples, brainstorming, mutual projects and activities, ties with actors in other ecosystems	Knowledge and experience, contacts and networks, opportunities, mutual activities

International stakeholders - lessons learned

- Expanding the *horizon -* new mindset

- A new set of **resources**

- Provides a **frame of reference** and enhances **international competitiveness**

- Potential for an **access to international investors** and **markets**

- **Intercultural competencies** and **language**

Some examples

Student hackathon: *Break the Health Code!*

- **Theme**: reaching underprivileged social groups with health messages

- Problem issue identified by the **NHS**

- **Interdisciplinary teams**: health, communication, IT, policy, business, etc.

- Involvement of **professional mentors** and **jury**

- **Organisers** – Ministry of Health, NHS and RSU

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Business Creation Programme Roadshow

Information about the EIT Health business creation programmes and opportunities for networking

Design thinking methodology workshops

A series of workshops for public and private sector healthcare professionals

FORTH innovation training programme

An intensive train-the-trainer course on an innovation methodology

Summary

Gains for the university (and the eco-system)

- Promotion of the **entrepreneurial culture** at the institution and eco-system

- A better **understanding of institutional assets and asset gaps**

- Additional **resources**

- Strengthening of the **institutional position** in the local eco-system

- **New partnerships** at home and abroad

- **International expertise**

- **Integration in the European networks**

Some challenges

- How to measure the **effectiveness of the activity**?

- How to overcome **differences in institutional cultures** and **individual worldviews**?

- How to successfully **combine technical innovations with the social component**?

Dr. Ana Mari Cauce
President, University of Washington
THE Asia Universities Summit 2016

At its core, innovation is not simply a proxy for technology. It's not a device or an application or a startup: it's a mindset. It's a philosophy for how to approach problems in new ways, through the eyes of different and diverse people, some of whom have been invisible or ignored for generations.

Thank you!