



Policy Learning Platform Peer Review

“Structuring Centres of Excellence and Centres of Competence in Bulgaria”

Peer inputs – Sessions 4

Sofia, 18 June 2019



**Interreg
Europe**

European Union | European Regional Development Fund



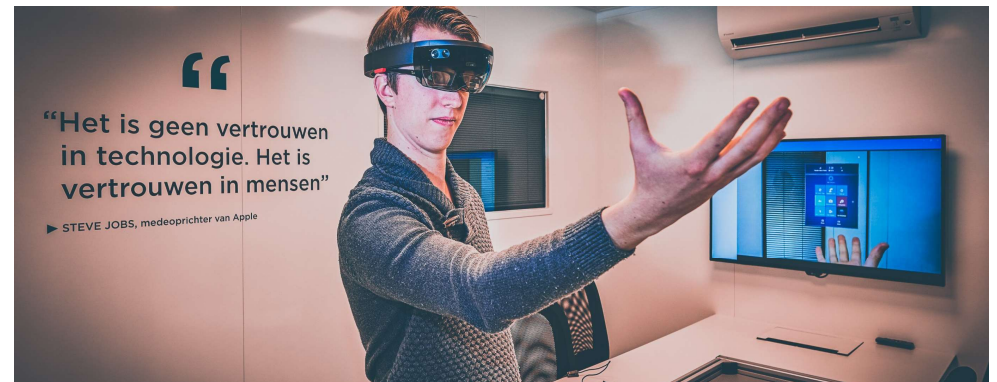
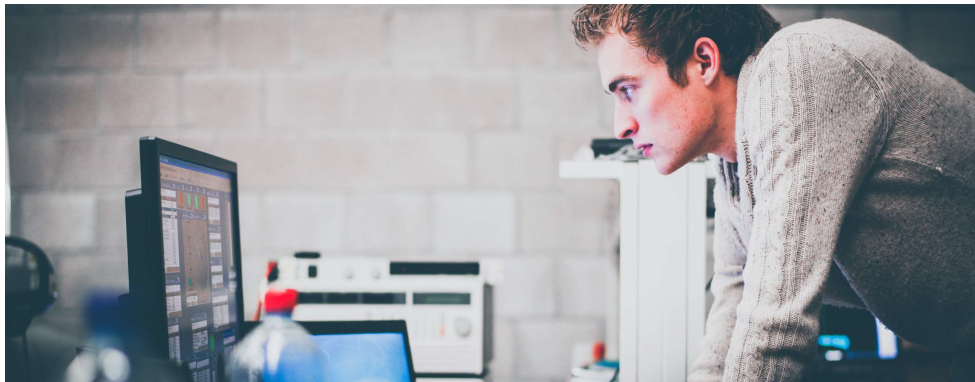


Flanders Make

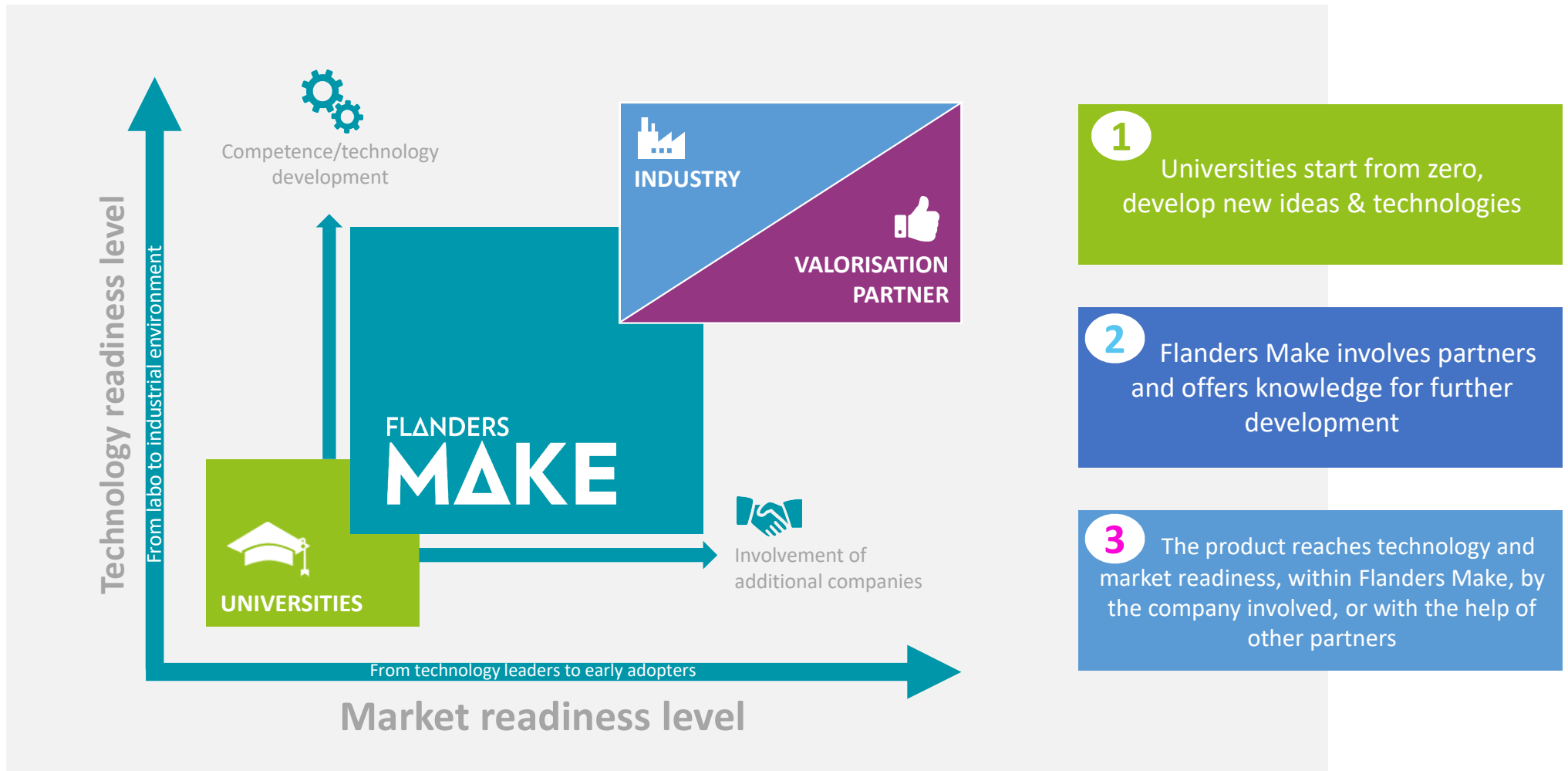
GER VAN DEN KERKHOF

1. Flanders Make

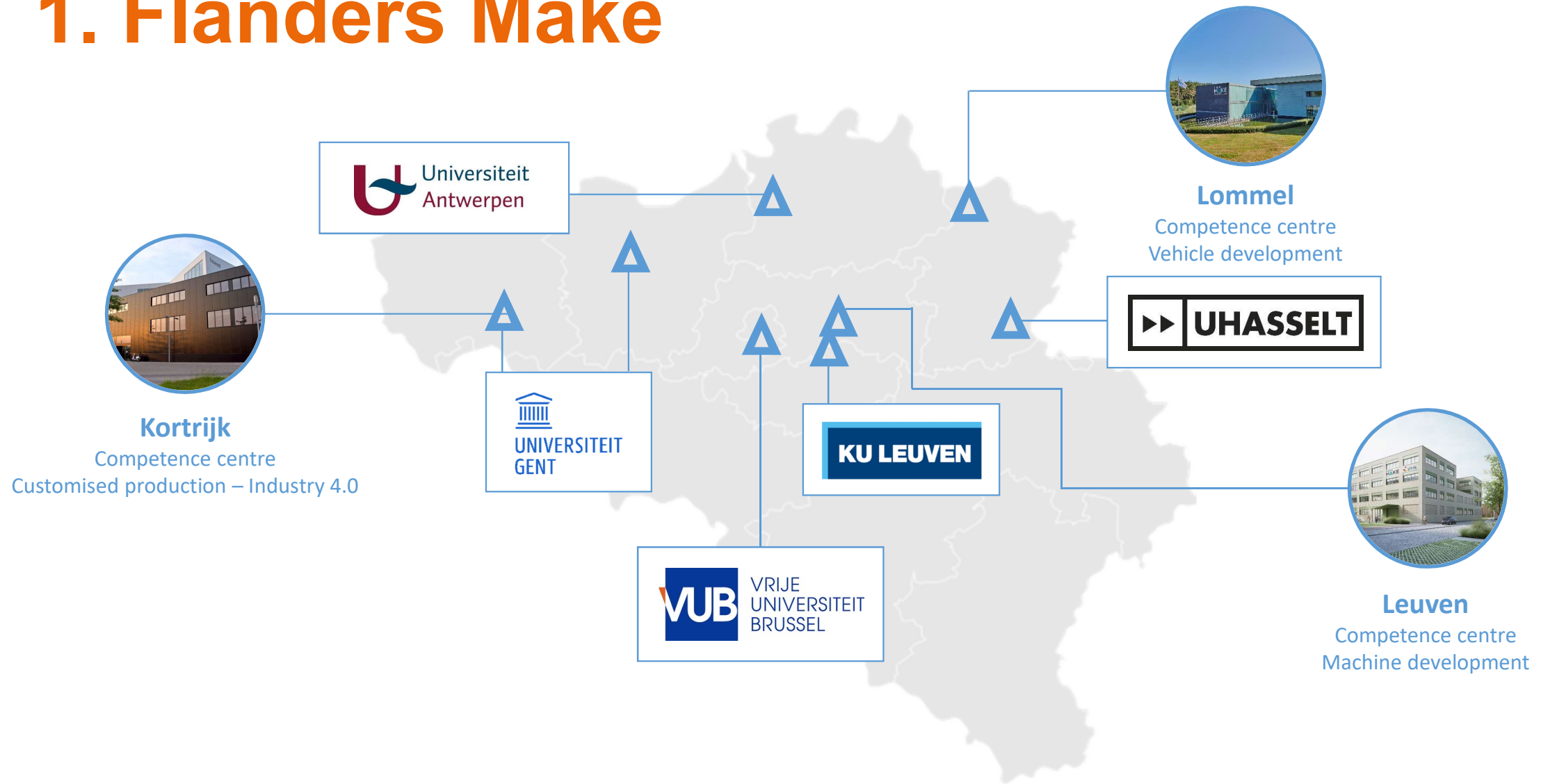
- Strategic Research Centre Mfg Industry (RIS3 strategy Flanders)
- Strengthen the LT competitiveness of the mfg industry
 - Production, Machines, Vehicles
 - Pré competitive research, optimisation of products and processes, testing and validation, bi-lateral research projects
 - Develop, transfer and disseminate knowledge – I4.0 related!
- 8 locations in Flanders, 500 researchers, started in 2014
- Financially supported by Flemish Govt and industry



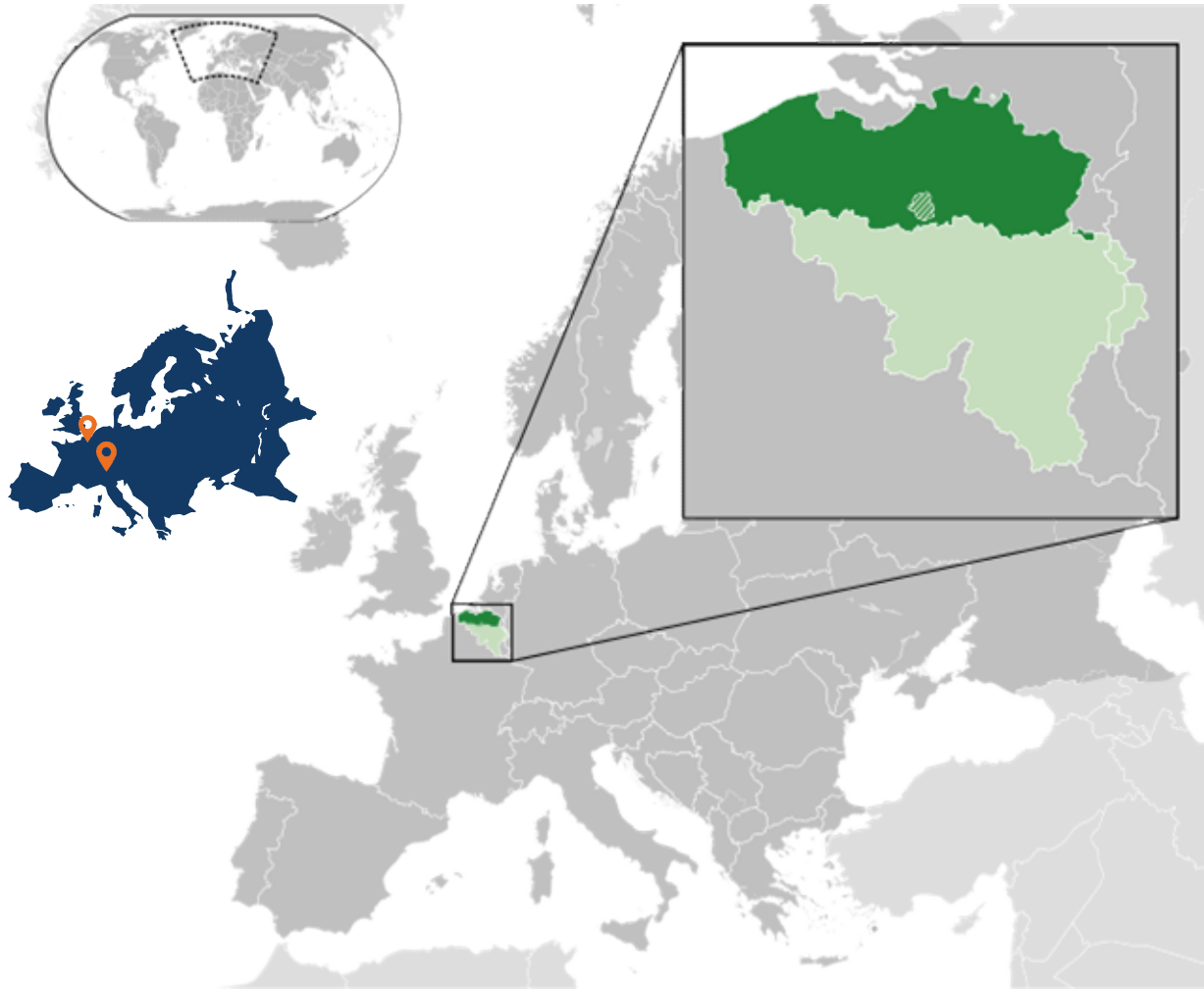
1. Flanders Make



1. Flanders Make



2. The region Flanders



- Northern part of Belgium
- 5 provinces, 7,9 mio inhabitants
- Language = Dutch
- Capital Brussels, complex govt structure
- Strong industry (LCs and SMEs)
- R&D intensity 2,46% of GDP (2016)
- Total R&D spending € 5,92 bio
- Main exports: pharma, chemicals, transport eq and machines, but also:



and



2. The region Flanders (industry)

Picanol, v/d Wiele



Jan De Nul, Deme



Punch Powertrain



AB Inbev



ARKITE

Barco



Van Hool



Case New Holland



Tenneco Automotive



proceedix

E-Trucks



Bekaert



Cartamundi



Janssen Pharmaceuticals, Thrombogenics



Soudal



Pickit
ROBOT VISION MADE EASY

3. The innovation ecosystem in Flanders

- Flemish Smart Specialisation Strategy (RIS3)
 - Focus on 6 thematic « spearhead » domains
 - Logistics, Health, Medical, Nano technology, Eco technologies, Social
 - Both top-down and bottom-up approach
 - Ownership @ MA (Flanders Innovation and Entrepreneurship)
- 1. Semi-permanent initiatives – top down
 - SRCs (4x): iMec, VITO, VIB, Flanders Make
 - LT Government commitment
 - Sector based « longer term » research, strong industry involvement



3. The innovation ecosystem in Flanders

2. Mid to long term initiatives – mainly bottom up

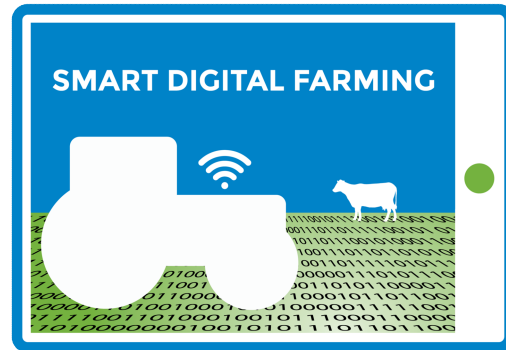
- Spearhead Clusters (6x): Food, Materials, Energy, Chemicals, Logistics, Blue economy
- Companies in the drivers seat; clear financial commitment
- Initiate, facilitate and follow-up active and concrete collaborations
- Ambitious, larger scale activities
- Lifespan max 10 years – max € 500k/year funding – 50% private investment



3. The innovation ecosystem in Flanders

3. Short term initiatives – bottom-up

- Innovative Company Networks (16x)
- Companies in the drivers seat; financial contribution to the ICN
- Smaller scale activities; short term results
- Lifespan max 3 years – max € 150k/year funding – 50% private investment



B·HIVE

3. The innovation ecosystem in Flanders

4. The Flemish Universities (5x)

- Brussels, Louvain, Ghent, Antwerp, Hasselt





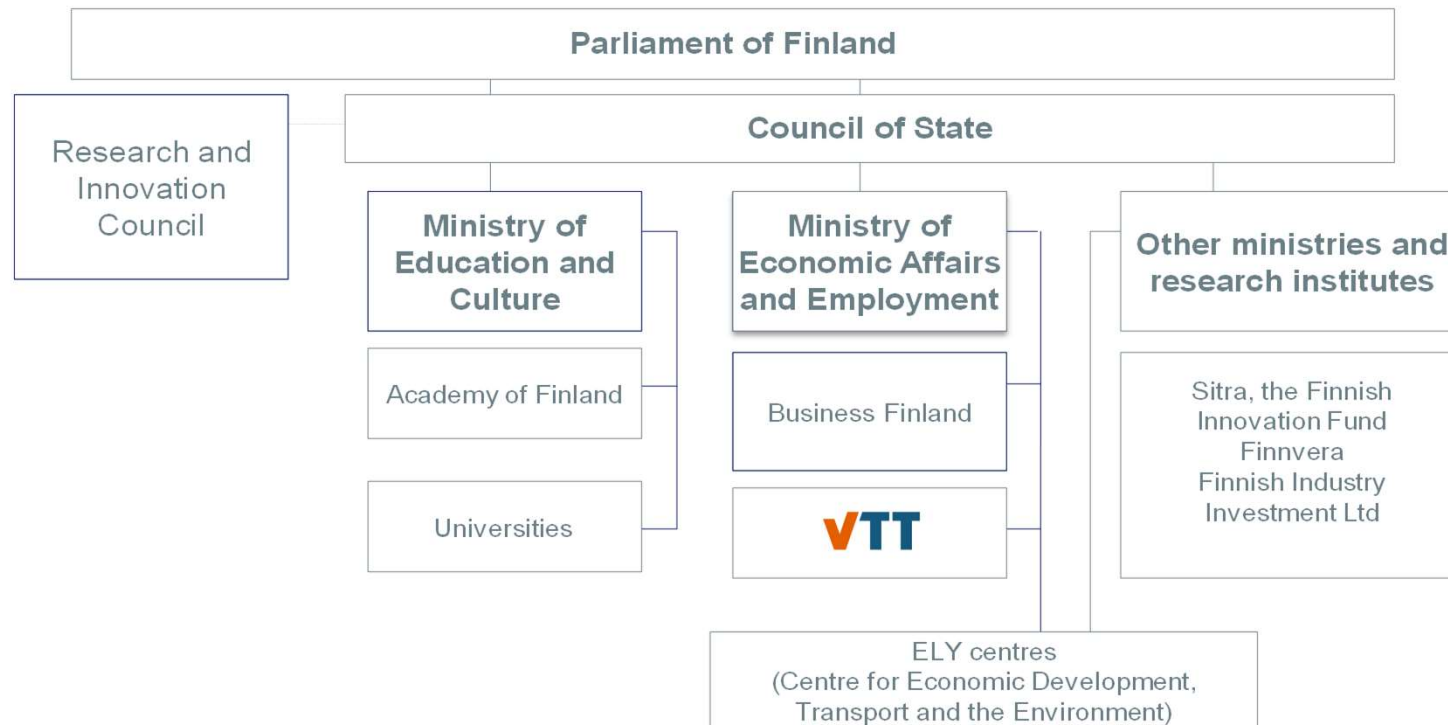
VTT

TECHNICAL RESEARCH CENTRE OF FINLAND

LEENA SARVARANTA

1. VTT Technical Research Centre of Finland

Public decision makers, financiers and R&D performers



2. VTT's regional context



VTT on the map

Personnel by location (31.12.2018)

	VTT Group	Parent company
Espoo	1,442	1,434
Oulu	272	272
Tampere	239	239
Jyväskylä	76	76
Kuopio	11	11
Other locations	20	20
Total	2,049	2,041

VTT's marketing and networking offices
Brussels (Belgium)



3. CoEs and CoCs in Finland



- **Innovation partner** to companies
- Finland's **biggest single actor in EU's framework programmes**
- Participates in ca. **30 national technology programmes** (Business Finland, Academy of Finland)
- **Strategic partnerships** with main universities
- Participates in **two Academy of Finland Centers of Excellence and in four Flagship Programme**

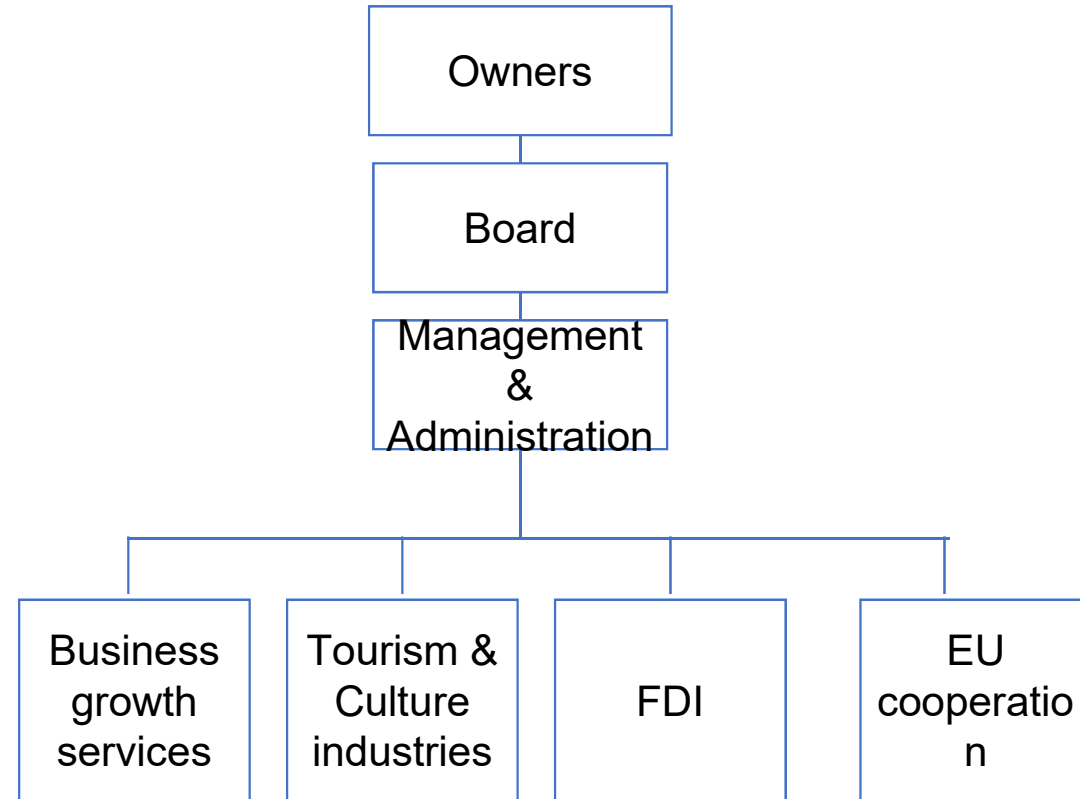
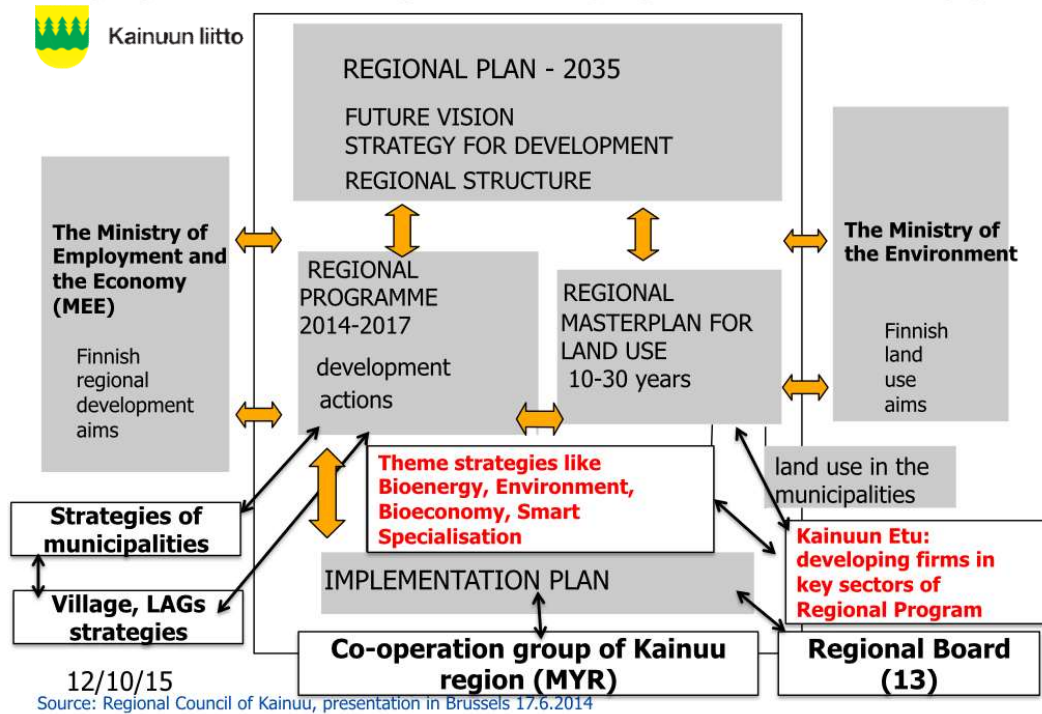


KAINUUN ETU OY


NINETTA CHANIOTOU

1. Your Organisation: Kainuun Etu

REGIONAL DEVELOPMENT SYSTEM IN KAINUU

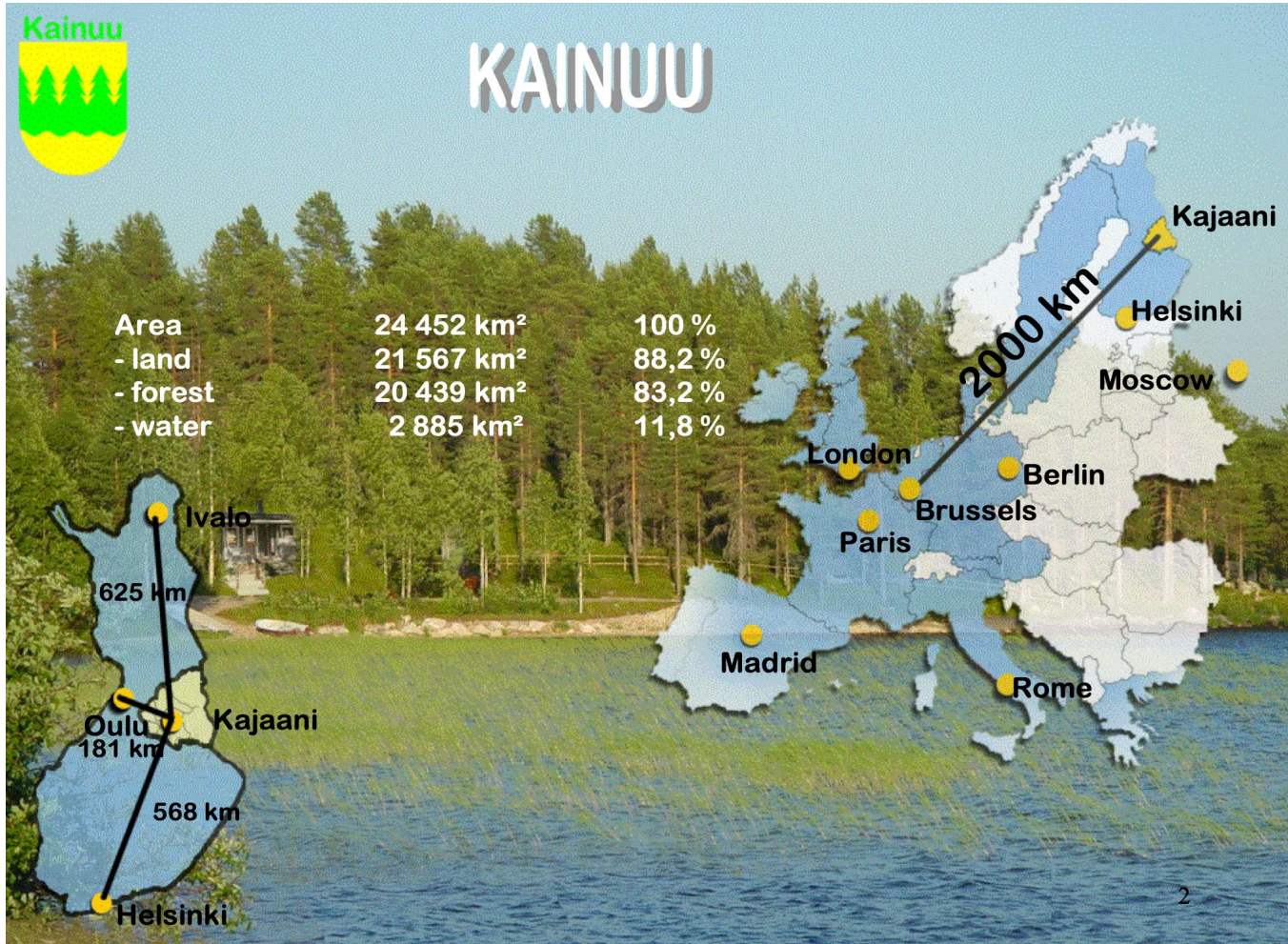


1. Your Organisation: Kainuun Etu

- I have worked in three organisations that have affinities with Centres of Competence: Kainuun Etu and Lahti Science Park in Finland; and the Development Company of the Athens Chamber of Commerce and Industry in Greece.
 - KAINUUN ETU: Kainuun Etu is a public equivalent company owned by the municipalities of Kainuu region. Its purpose is the economic development and competitive growth of the region and its businesses. KE was established in 1989 and, since then, its objectives are regularly updated to reflect regional policy priorities. KE has a staff of 24; the turnover in 2017 was 3 600 000€; all work, following reforms of the public sector in 1999, is project-based. About 25% of the turnover comes from EU interregional, transnational and cross border cooperation schemes (Interreg, CBC, H2020).
- 

2. Your Regional Context: Kainuu

- Administrative structure



2. Your Regional Context: Kainuu



The economy

- GDP: 27160 € per inhabitant (2016)
- Number of enterprises: 4109
- Technology industry covers more than 50 % of the total export in the region.
- Clusters of strategic importance: Bio-based forest economy, renewable energy, food & agri-, nature-based welfare services (green care & nature tourism)

The following have been selected a priority fields for economic development:

- Tourism and services
- Technology industry: ICT and electronics fields, data centre expansion, gaming
- Metal industry
- Bio-based economy and bio-mining
- Mechanical timber processing
- Development of timber construction
- Bio-energy (biofuels)
- Agriculture (e.g. local produce and organic products)
- Mining (mining, stone dressing, industrial minerals)

Strategies guiding bio economy activities

- Kainuu Programme 2018-2021
- RIS3 Strategy
- Kainuu Bio-based economy Strategy 2015 -2020
- Regional Forest Programme 2016-2020
- Kainuu Berry masterplan.

Strategies guiding metal and mineral industry activities

- Kainuu Programme 2018-2021
- RIS3 Strategy
- Kainuu Mineral Resource Action Plan 2019-2025

Strategies guiding agriculture and food production

- Kainuu Programme 2018-2021
- RIS3 Strategy
- Kainuu Land and Food Sector Thematic Program 2014-2020
- Kainuu Berry masterplan

Tourism strategy 2018-2021

Mining strategy 2019 - 2025

3. The CoE and CoC in your Region

In Kainuu there are 3 Centres of Competence:

- **Kantola industrial estate and Woodpolis centre of competence**; industry driven: development of wood processing industry in Kantola industrial estate is the long-term goal of the Kuhmo city. The need to diversify from the saw-mill industry towards the new types of demand. <https://www.interregeurope.eu/policylearning/good-practices/item/136/kantola-industrial-estate-and-woodpolis-centre-of-competence/>
- **Unit of Measurement Technology (MITY) - University of Oulu, as regional specialisation infrastructure**; research driven: industrial valorisation of the berry ingredients in traditional and emerging applications. <https://www.interregeurope.eu/policylearning/good-practices/item/146/unit-of-measurement-technology-mity-university-of-oulu-as-regional-specialisation-infrastructure/>
- **Vuokatti professional Winter Nordic sports, leisure and learning education cluster (VPWNS)**; research driven: combining knowledge from biomechanics, exercise physiology and science of sport coaching and fitness testing. <https://www.interregeurope.eu/policylearning/good-practices/item/141/vuokatti-professional-winter-nordic-sports-leisure-and-learning-education-cluster/>.

3. The CoE and CoC in your Region

CENTRES OF COMPETENCE	CHARACTERISTICS						
	Research (R) or Industry (I) driven	Status	Funding sources	Main tool	Location of activities	Multiplier effect	Challenge
Kantola	I	Public equivalent	85% projects 15% budget	Master plan	Regional & national	Wooden sustainable construction industry Diversification & specialisation	Returns to scale: size of national market; size of cluster small Strategic linkages with Centres of Excellence (cost factor)
MITY	R	Public	85% projects 15% budget	Berry ingredients research programme of the University of Oulu	Regional, national, international	IPR, innovative products, scientific outputs	Returns to scale: regional economic base small
VPWNS	I	Public	85% projects 15% budget	University of Jyväskylä research programme based on global professional sports industry trends	Regional, national, international	Innovations & specialised education (Ph.D.s) Strengthening professional sports cluster in Vuokatti	Returns to scale: regional economic base small



MINISTRY OF THE ECONOMY AND INNOVATION OF THE REPUBLIC OF LITHUANIA

TADAS TUMENAS

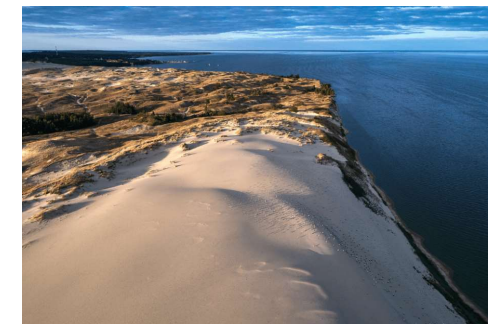
1. Lithuania

Short facts:

- 2,8 million population
- Capital – Vilnius
- Member of WTO, EU, Eurozone and NATO

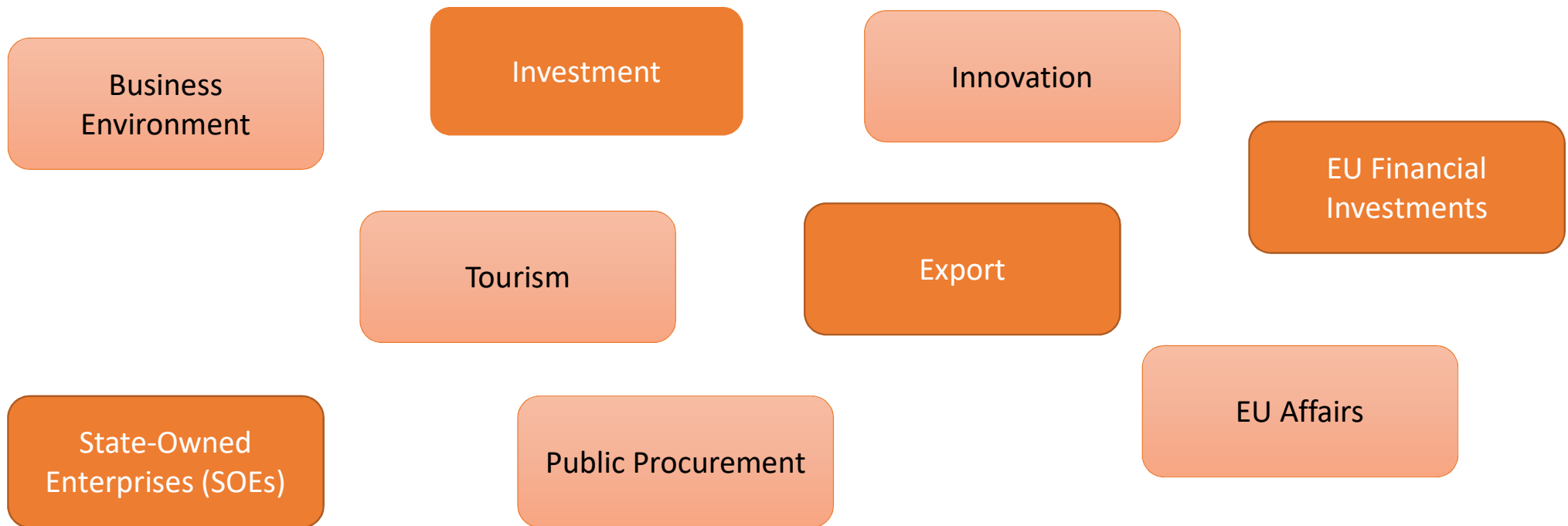
LT performance:

- 13th freest economy in the world (2018)
- 14th globally for ease of doing business (2019)
- 1st in Europe for mobile 4G coverage
- 3rd in the EU for share of STEM bachelor graduates
- 2nd in the EU for % of population with higher education
- 13 in the EU in the DESI (Digital economy and Society index)
- Moderate innovator according to EIS 2018

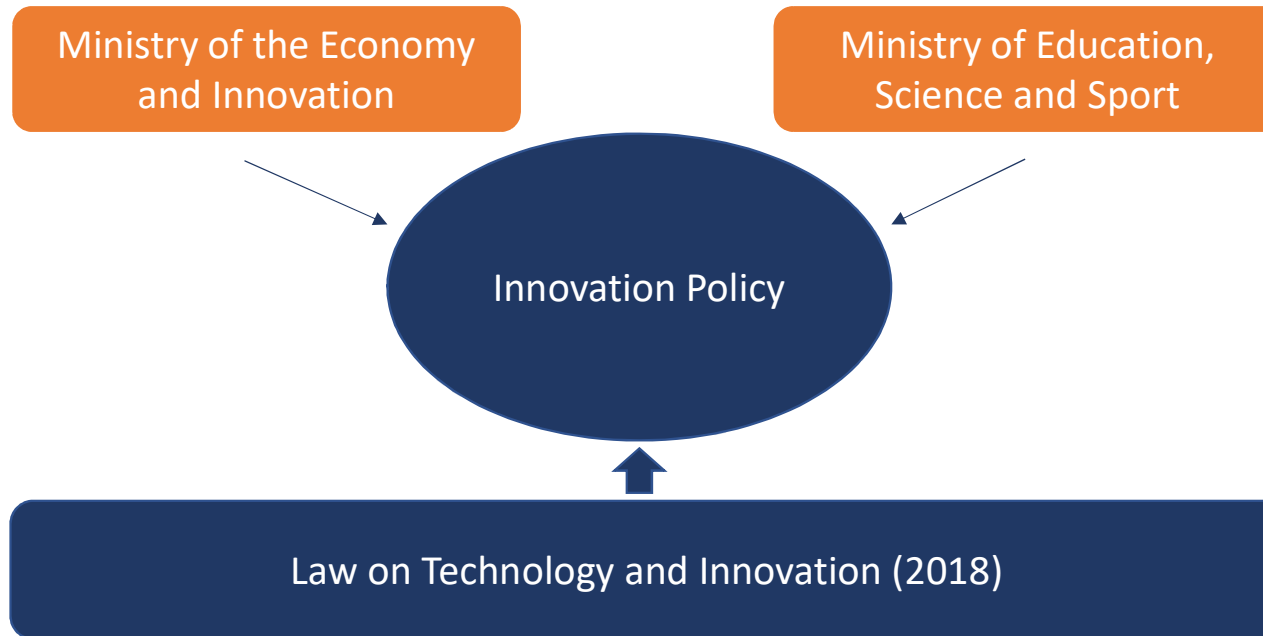


2. Ministry of the Economy and Innovation

The Ministry of the Economy and Innovation is responsible for handling government business in the following areas:



3. Innovation Policy



4. CoCs in Lithuania

- Centers of Competence (CoC) – 9:
 - ✓ Vilnius University – 2
 - ✓ Vilnius Gediminas Technical University – 3
 - ✓ Center for Physical Sciences and Technology – 1
 - ✓ Lithuanian University of Health Sciences – 2
 - ✓ Kaunas University of Technology – 1

5. CoEs in Lithuania

- Centers of Excellence (CoE) – 3:
 - ✓ Center of Excellence of IT Science and Technology for the IoT and Smart Living Systems (InnoTeam) (Kaunas University of Technology, Vilnius Gediminas Technical University, State Enterprise Center of Registers, Linköping University, Interactive Institute Swedish ICT)
 - ✓ Center of Excellence in Science and Technology for Healthy Ageing (Health-Tech) (Kaunas University of Technology, Lithuanian University of Health Sciences, Vilnius University, Lund University, VTT Technical Research Center of Finland)
 - ✓ Center of Excellence of Creative and Cultural Innovation” (InnoCult) (Vytautas Magnus University, Kaunas University of Technology, Politecnico DI Milano)

Coordinator of Centre of Excellence in Science and Technology for Healthy Ageing

(Teaming phase 1, project HEALTH-TECH, No 664339)



4 STRATEGIC RESEARCH AND INNOVATION TOPICS



Mechanisms for age-related diseases



Biomarkers for age-related diseases



Diagnostics and monitoring technologies for age-related diseases



Regenerative technologies for age-related diseases

Integrating Lithuanian Expertise:

Kaunas University of Technology

Lithuanian University of Health Science

Vilnius University



Supported by Advanced Partners:

Lunds University

Teknologian Tutkimuskeskus VTT



Coordinator of Centre of Excellence of the Internet of Things

(Teaming phase 1, project Innolteam, No 763805)



3 STRATEGIC RESEARCH AND INNOVATION TOPICS



Interface and interaction design approaches for Smart Environments



Cybersecurity aspects



Data analysis and visualisation

Integrating Lithuanian Expertise:

Kaunas University of Technology

Vilnius Gediminas Technical University

State Enterprise Centre of Registers



Supported by Advanced Partners:



Linköping University



Interactive Institute Swedish ICT

Partner of Centre of Excellence for Cultural and Creative Innovations in Lithuania

(Teaming phase 1, project InnoCult, No 763748)



4 MAIN OBJECTIVES OF THE PROJECT



CCI
ecosystem
dynamics



CCI
(Re)volutionary
competence,
attitudes and skills



CCI open
innovation
process



CCI digitalisation

Integrating Lithuanian Expertise:

Vytautas Magnus University



Kaunas University of Technology



Supported by Advanced Partner:

Politecnico Di Milano





THANK YOU!

Peer inputs – Sessions 4

Sofia, 18 June 2019



**Interreg
Europe**



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