EUROPEAN CLUSTER CONFERENCE 2024

7-8 MAY 2024, BRUSSELS

#EUClusterConference







SKILLS

#EUClusterConference









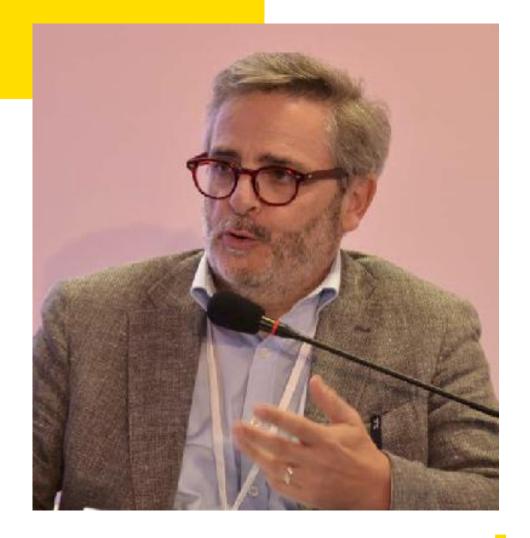
Alain Tubiana

- International expert in cluster management
- Head of Master programme in Cluster Management University of Strasbourg
- Member of the European Commission Expert Group on clusters
- Member of the board of directors France Clusters 2010-2019
- ...and past cluster manager









EUROPEAN CLUSTER CONFERENCE 2024

Agenda

- 1. Why skills?
- 2. Skills for the future
- 3. Clusters and Skills









Change drivers

Ageing population

Technological disruptions

Climate change
Industrial reshoring
COVID pandemic

Skills mismatches









Reskilling and upskilling

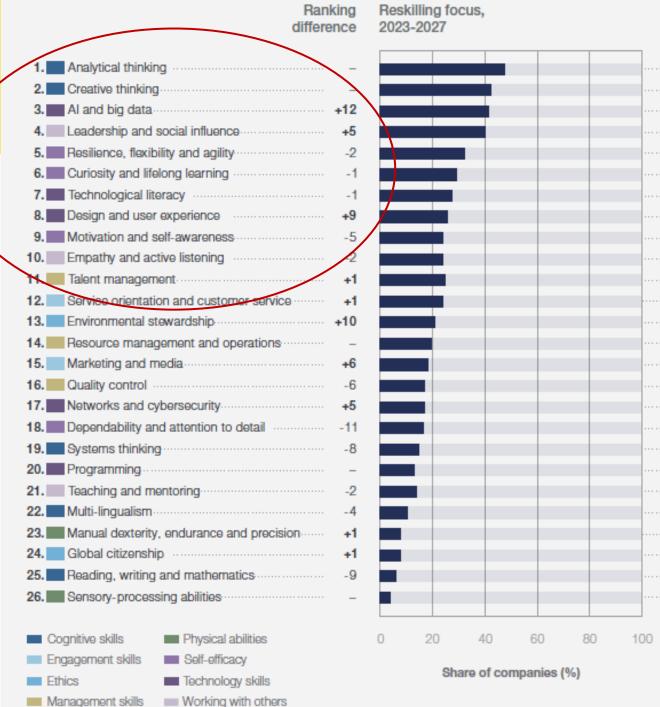
- World Economic Forum
 Future of Jobs Survey 2023
- 803 companies 11,5 m jobs

7 out of 10 first skills are soft skills



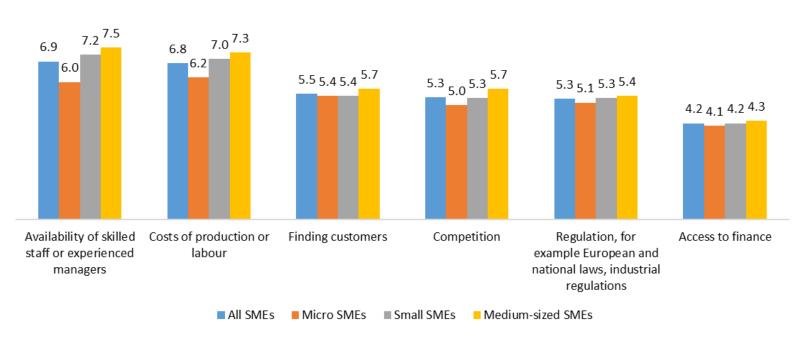






99,8% of European companies are SMEs

24.3 millions SMEs (non financial business)





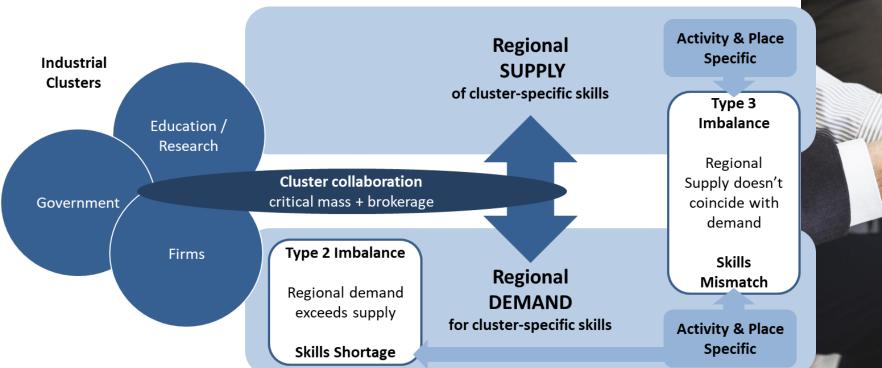








Role of Cluster Organisations





James Wilson - Orkestra









What about cluster managers skills?











Credo

To sum up, the issue of skills cannot be tackled without taking into account how companies are organised and managed. Organisations need to be less vertical, capable of combining complementary skills in a project-based approach. This also implies a profound change in the way we hire people (skill-based approach versus diploma) and manage (empowerment).

Cluster organizations, because they are knowledge nodes, are the best place to put on the same path, companies, universities, research lab, VET providers and governments, in a learning journey to develop the European economy through skills.











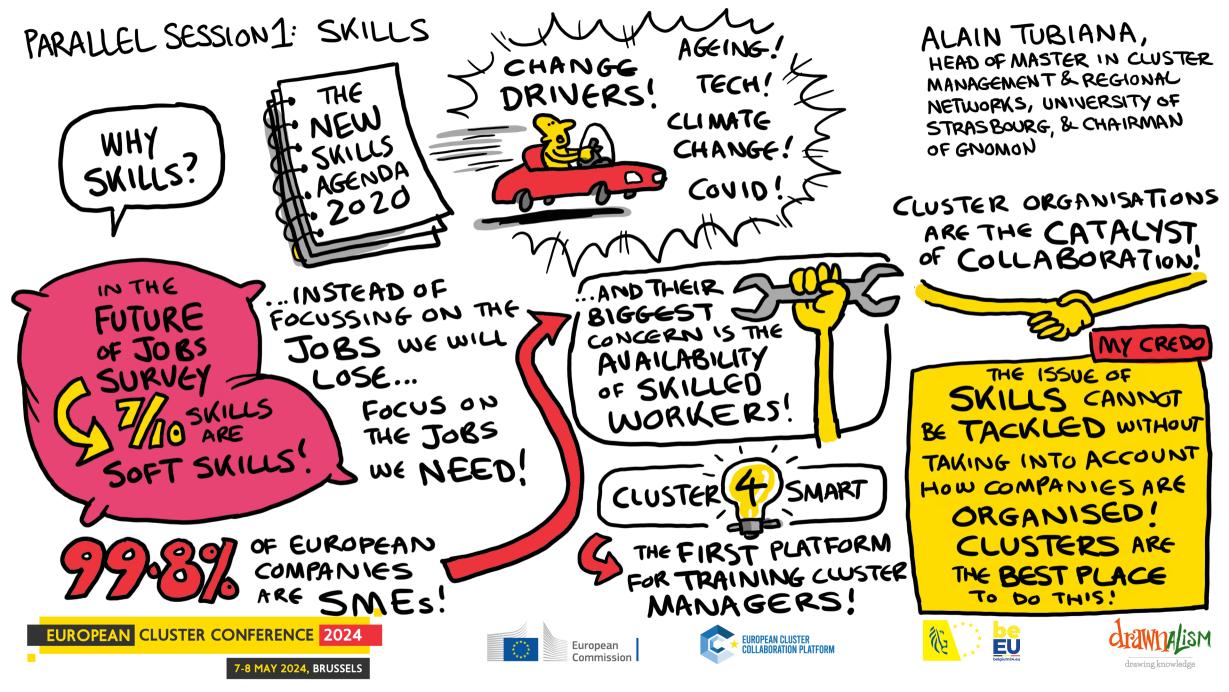
Thank you











PARALLEL SESSION 1: SKILLS

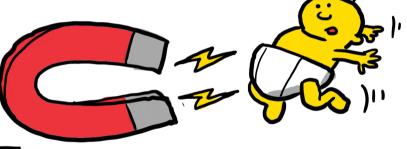
















BE ATTRACTIVE FOR THE NEXT GENERATION!













EDUCATION

& TRAINING!











WHAT WHO CAN
BEST HELP CUSTERS
SUCCESSFULLY
DELIVER IN THE NEXT
FEW YEARS?



TRAINING STAFF ON A. I. TOOLS!



LONG TERM PARTNERSHIPS!













Funding

Minna Martikainen, Professor and President of the University of Vaasa















Vision:

The University of Vaasa is internationally recognised as a high-impact research university.



Brand promise:

Significant and meaningful



Research platforms:

- ▶ Digital Economy
 - ► InnoLab
- ► Vaasa Energy Business Innovation Centre VEBIC



Mission:

The University of Vaasa creates and disseminates knowledge to advance sustainable business, energy and society through innovative and high-quality research and education that address global challenges.

► Marketing & Communication

► Technology & Innovations

Sustainable Business, Energy, and Society

Strategic focus areas:

- Business Management
- ► Energy Transition & Technology
 - Governance & Society

Values:

- ▶ Courage
- **▶** Community
- ► Responsibility



Our response to global challenges

Our research contributes to solving complex societal challenges through science.

Our strong basic research in specific fields and multidisciplinary research platforms work together to address challenges across disciplines. We promote multidisciplinary, interdisciplinary and cross-disciplinary research.

Our key themes are sustainable business, energy and society.

Our research also serves the region's leading energy and environmental technology competence centre.





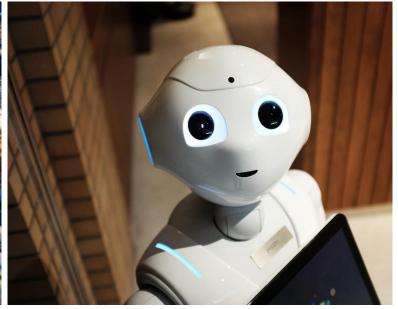
1. Our response to global challenges – making a sustainable impact











What happens on a heating planet?

What makes a good city?

What is the future of work?









ESG
Environment, Social and Governance

Green Financing

Sustainable Business for the Future



Though # 1





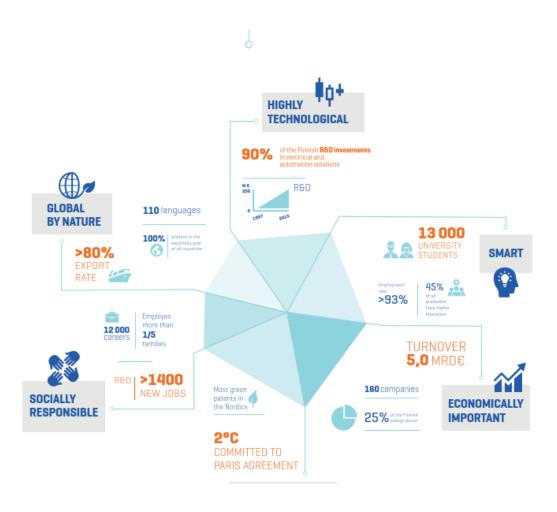
See Yourself and Your Role

- Clusters are a) the connector and b) "pre-market place"
- Rules for attracting funding is always the same
 - Private or public
 - Need and supply of the funds meet in the "market"
- What is your role and value added in this "game"?
- What is your value added in solving global challenges and problems
 - One thought and sentence
 - Convince the financer in a one minute
 - How do YOU do IT?
 - WHY SHOULD YOU be important?
- Plan big enough with long trends
- Do You have right skills?





EnergyVaasa is the leading energy technology competence centre in the Nordic countries



4 Major Global Energy Sector Companies Wärtsilä, ABB, Hitachi and Danfoss + Hundreds SMEs

EnergyVaaasa is an economically significant region with more than 200+ companies in the energy industry.

These companies employ 13,000 people, 25% of all employees in the Finnish energy industry.

The combined annual turnover of these companies is €6 billion, 80% of which comes from exports.

The region's export sales account for up to 25% of all Finnish energy technology exports. Vaasan yliopisto

The university - Open and international community

- Our community consists of 5,000 students
- 4,5% of our students and 20% of our staff have an international background
- We have over 10,000 alumni around the world
- We are ranked among the world's top 400 universities in the prestigious Times Higher Education ranking for 2023
- As an internationally accredited university, we guarantee high-quality education and good employment opportunities

















Momentum

BY THE UNIVERSITY OF VAASA

- A partnership program that gives your organization access to the vast resources of the university.
- We bring together the insights of both the business and academic worlds, helping your business become the business you know it could be.



Universitiesand innovation

The role of universities in society is to lead science and innovation on a broad spectrum. Instead of looking at bringing single products to market, the core task of universities is to study opportunities in science and technology in their early stages of development.

New and exciting things happen when free and independent thinking takes place without the time constraints and financial obligations of the business world.

Innovation & Foresight

Scientific Advances

Technological Development

Business & Market Insights









Vaasa Energy Business Innovation Centre (VEBIC) – boosting energy innovations



30+ partner companies and organisations



Average annual turnover 2019-2022: 2,9 Meur



Programme & Project managers: 5 Senior advisors: 1



Research Groups: 3 Research laboratories: 3 (ICE, Fuel, FREESI)

PARTNERS in different research programs

- ABB
- Citec
- Danfoss
- Leinolat
- VEO
- Wapice
- Wärtsilä Finland
- Vaasan Sähkö
- Pohjanmaa Chamber of Commerce
- Business Finland



Thought # 2.





Right Skills and Connections!

Clusters

- Are you positionig yourself clear enough so that ideas of new investments find you?
- Do You have enough and right skills to provide the next step and the access to private funding?

Businesses

- WHAT is Your main Ecosystem? Main partnerships? Clusters closest of your needs?
- Distance partnerships vs global networks
- FIND Your strength in the cluster

FOR BOTH right Skills and mindset is needed

Skills of financing, entrepreneurial and find right connecting partners





Energy Transition – ESG – Green Financing

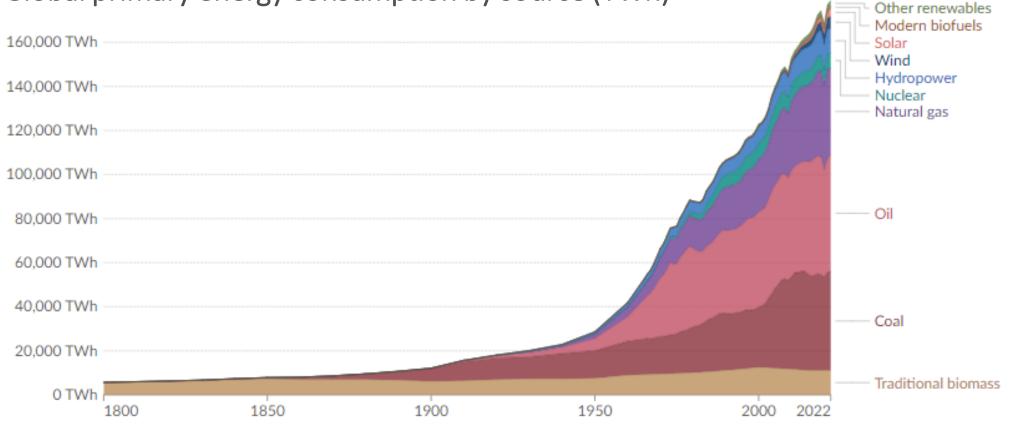


- By Suvi Karirinne, Dr. Director of VEBIC, University of Vaasa
- By Tatiana King, Associate Professor, University of Vaasa
- By Timothy King, Professor, University of Vaasa



Energy Transition – "We have had energy transitions before..."

Global primary energy consumption by source (TWh)

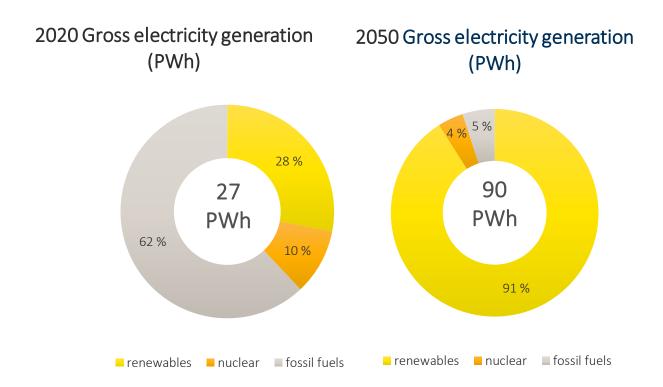


Data source: Energy Institute - Statistical Review of World Energy (2023); Smil (2017), https://ourworldindata.org/global-energy-200-years' [Online Resource]

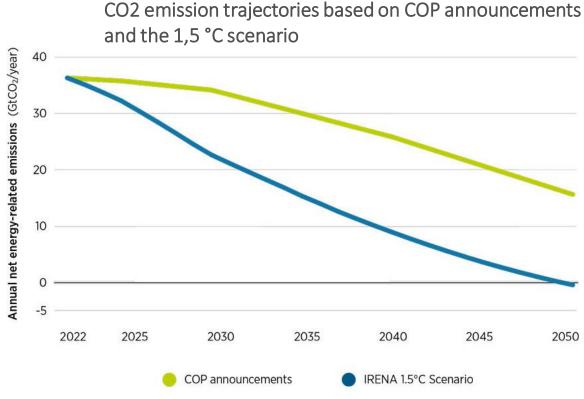


"...and we're having one now"

Power generation needs more than triple by 2050 in the 1,5 °C scenario



Data source: IRENA – World Energy Transitions Outlook 2023 (https://www.irena.org/Energy-Transition/Outlook)



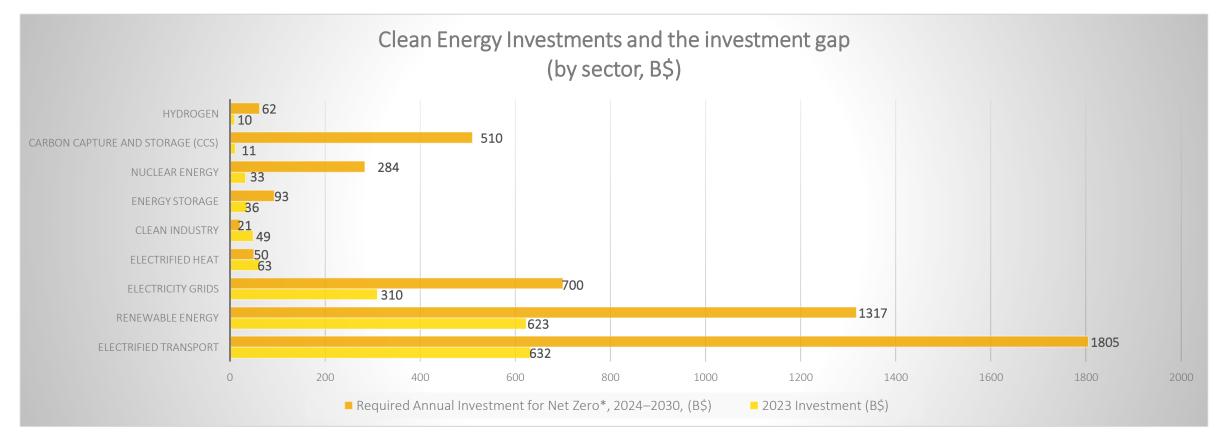
Notes: COP announcements trajectory calculated based on data from: (Meinshausen et al., 2022).

COP = Conference of the Parties (United Nations Climate Change Conference); GtCO₂ = gigatonne of carbon dioxide.



"But we're spending less than needed"

the \$3 Trillion Clean Energy Investment Gap



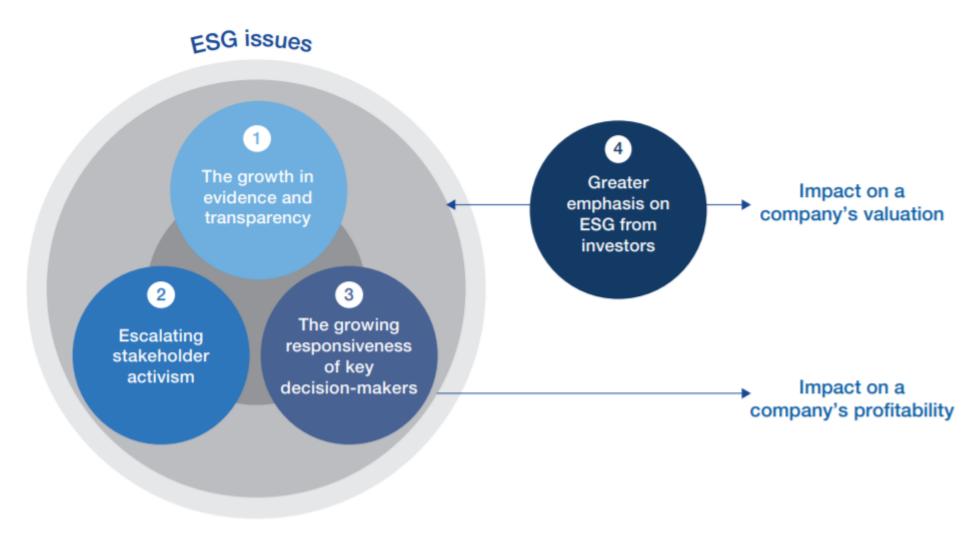
Source: BloombergNEF (BNEF) Net-Zero 2050 scenario



Climate-related Regulations – ESG (environmental, social and governance reporting)

- "Climate action failure" represents the single most important long-term threat (World Economic Forum, 2022)
- The announcement of the Financial Stability Board (FSB) regarding its taskforce on Climate Related Financial Disclosures (TCFD).
 - Organizations should describe how climate-related issues serve as an input to their financial planning process, the time period(s) used, and how these risks and opportunities are prioritized
 - What are the actions of the management bodies in banks and companies to respond to climate risk disclosure?
- Incoming regulatory requirements in Europe (since 2023) and U.S. (March 2024).
 - The percentage of significant banks disclosing material exposures to climate and environmental risks rose from 36% to 86% (Third assessment report of ECB, 2023)
 - Domestic and foreign entities must disclose climate information (Form 10-K) in the annual report (SEC, 2024)





Source: World Economic Forum and BCG

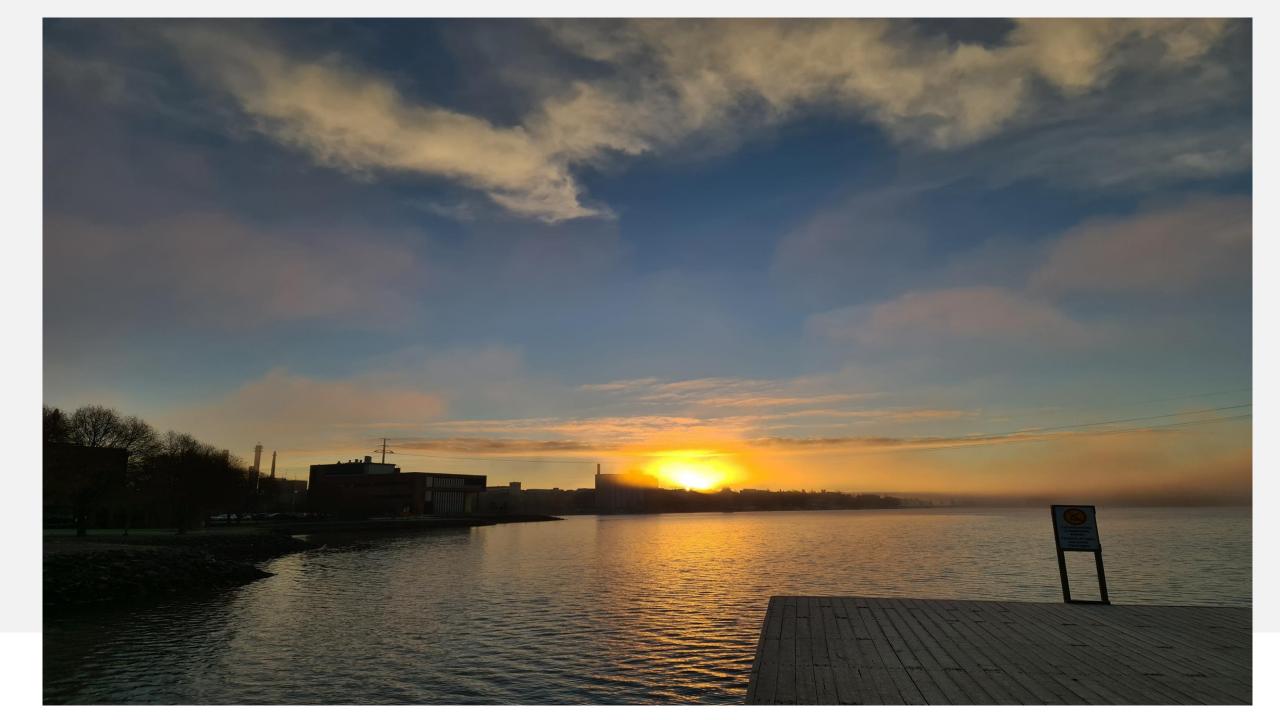


Financing the Energy Transition

- Energy transition cannot be possible without key changes in attitudes and substantial investments!
 - To support investment, there needs to be substantial overhaul in investment preferences and how money flows around the globe, which is where 'green financing' comes in.
- Green financing relates to "any structured financial activity a product or service that's been created to ensure a better environmental outcome. It includes an array of loans, debt mechanisms and investments that are used to encourage the development of green projects or minimize the impact on the climate of more regular projects. Or a combination of both" (World Economic Forum, 2020)







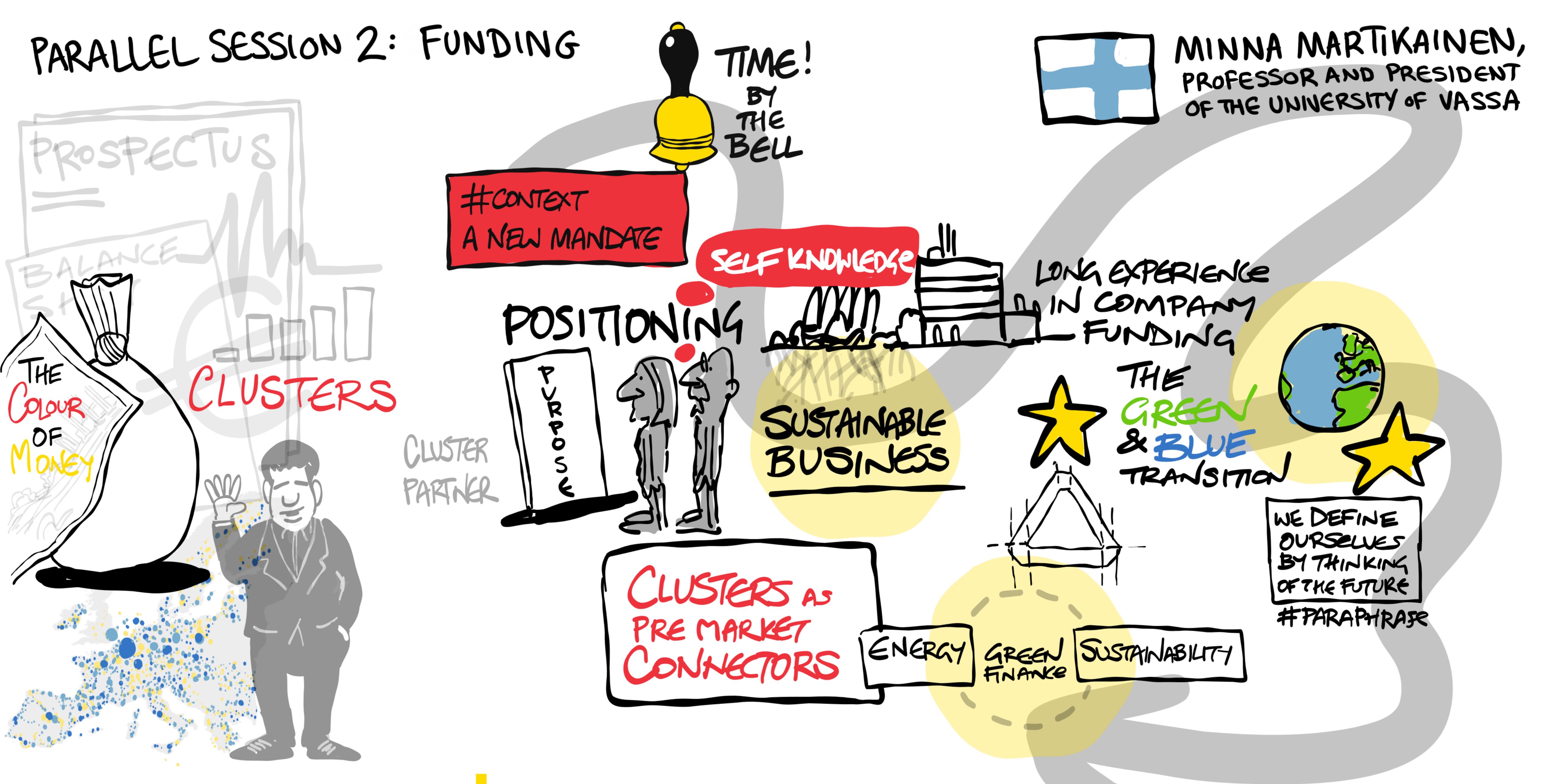
Come see the main events in Finland

Slush 20-21.11.2024, Helsinki

Energyweek 17.-20.3.2025, Vaasa









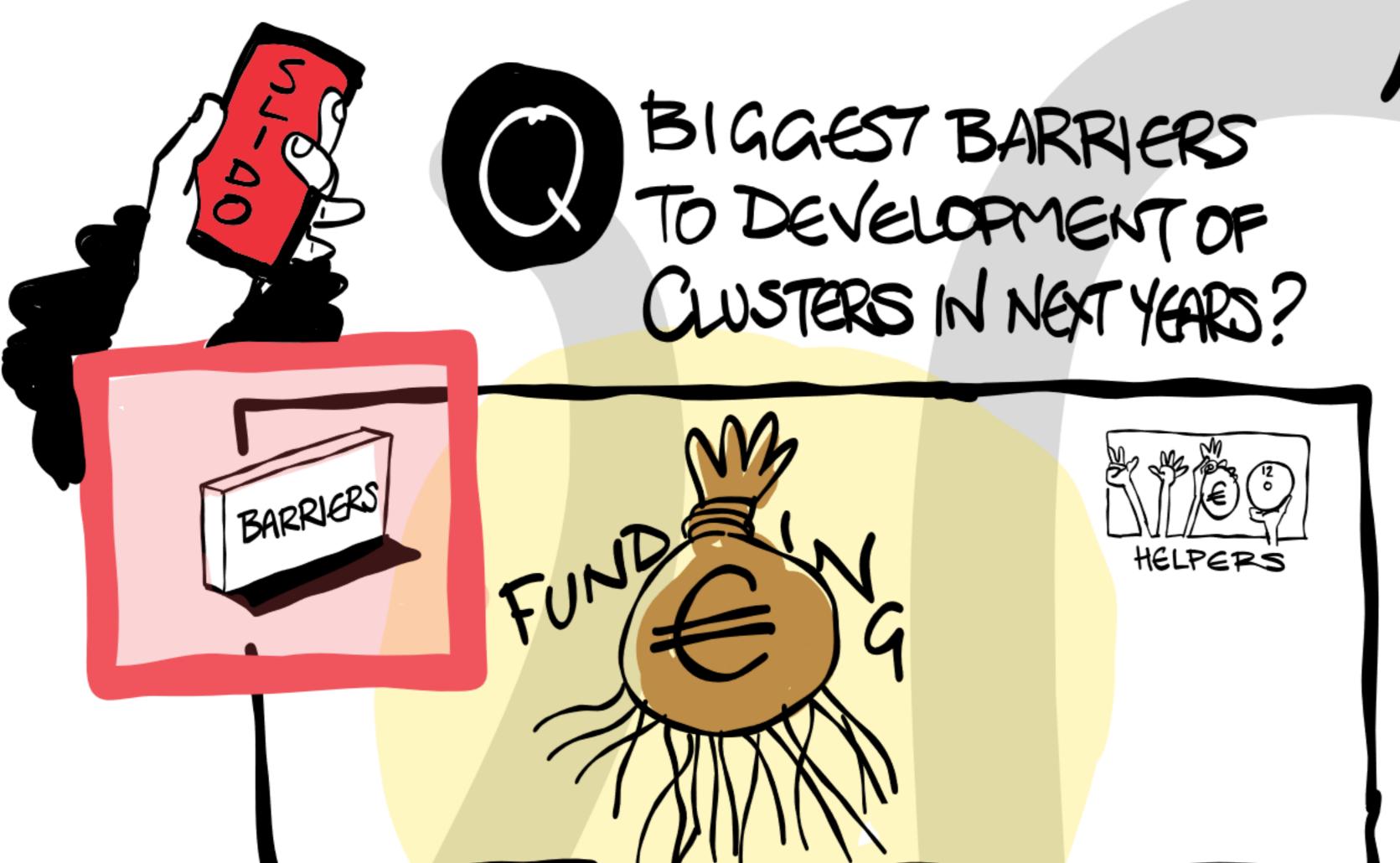








PARALLEL SESSION 2: FUNDING







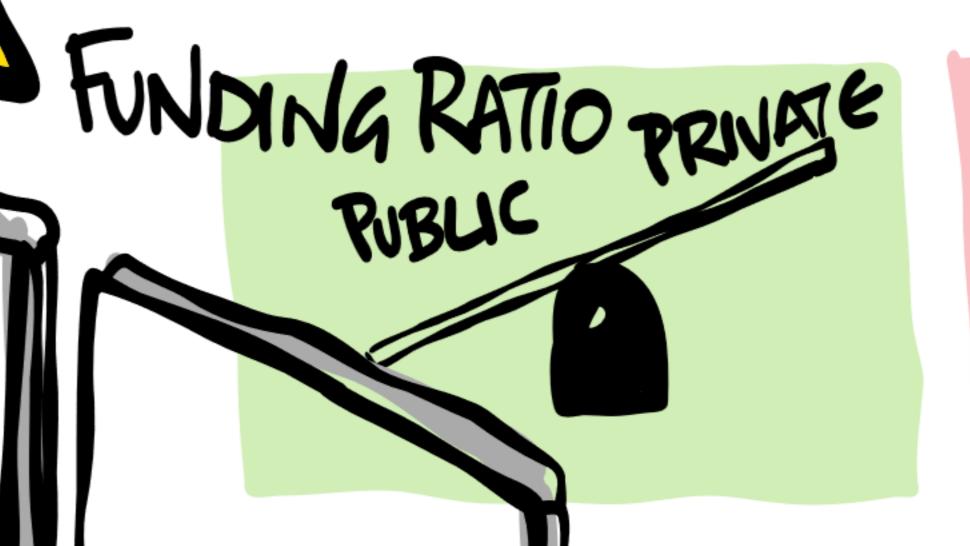
BETWEEN



OF FUNDING

OPPORTUNITES (ACCESS)



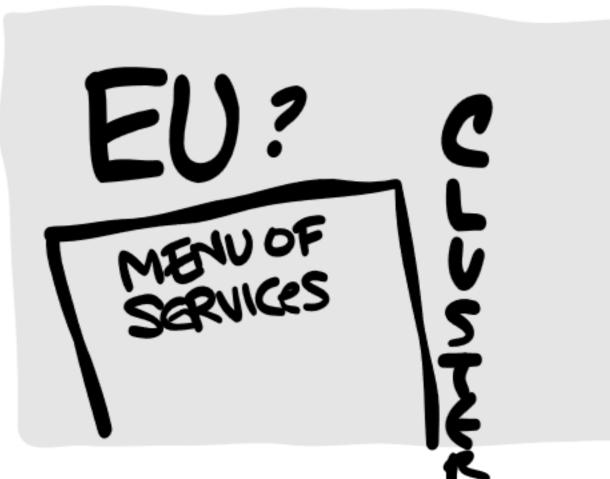


MEMBERSHIP

FAILURE TO CREATE ADDED VALUE FOR CLUSTER MEMBER

CLEAR PROPOSITION LPURPOSE)





EUROPEAN CLUSTER CONFERENCE 2024

DNE IDEA

PERGROUP

7-8 MAY 2024, BRUSSELS

OF4)

Plour

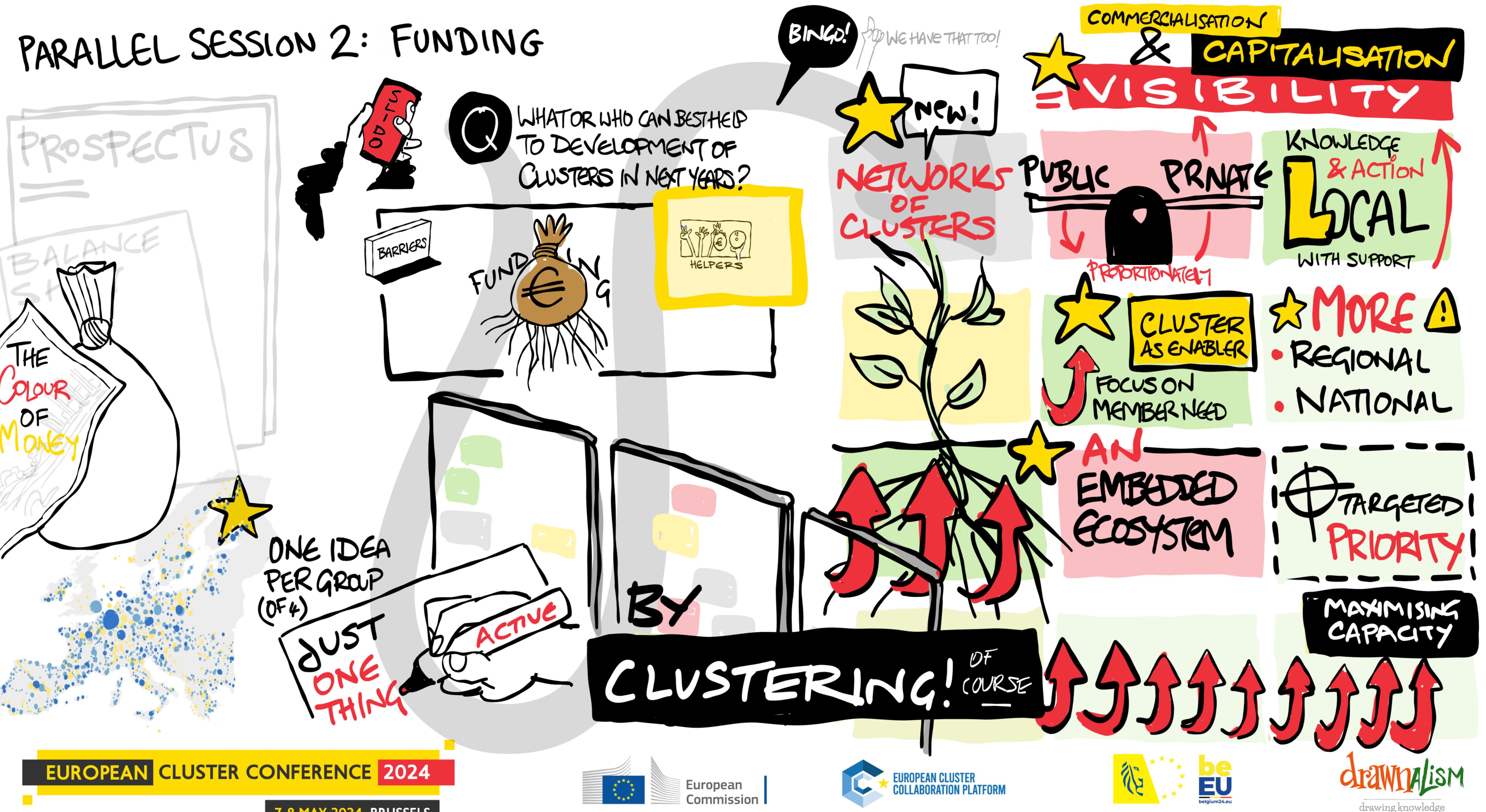












7-8 MAY 2024, BRUSSELS



Technology

Andrew Lynch, Chief Innovation Officer, Irish Manufacturing Research









Irish Manufacturing Research

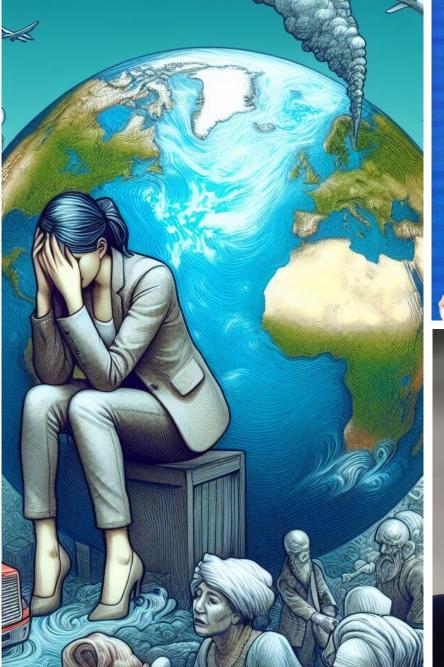
www.imr.ie

Andrew Lynch Chief Innovation Officer









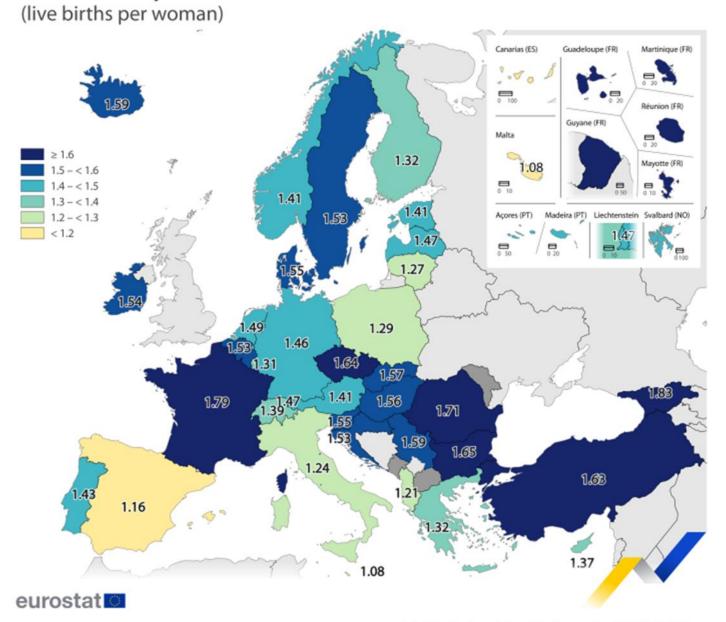




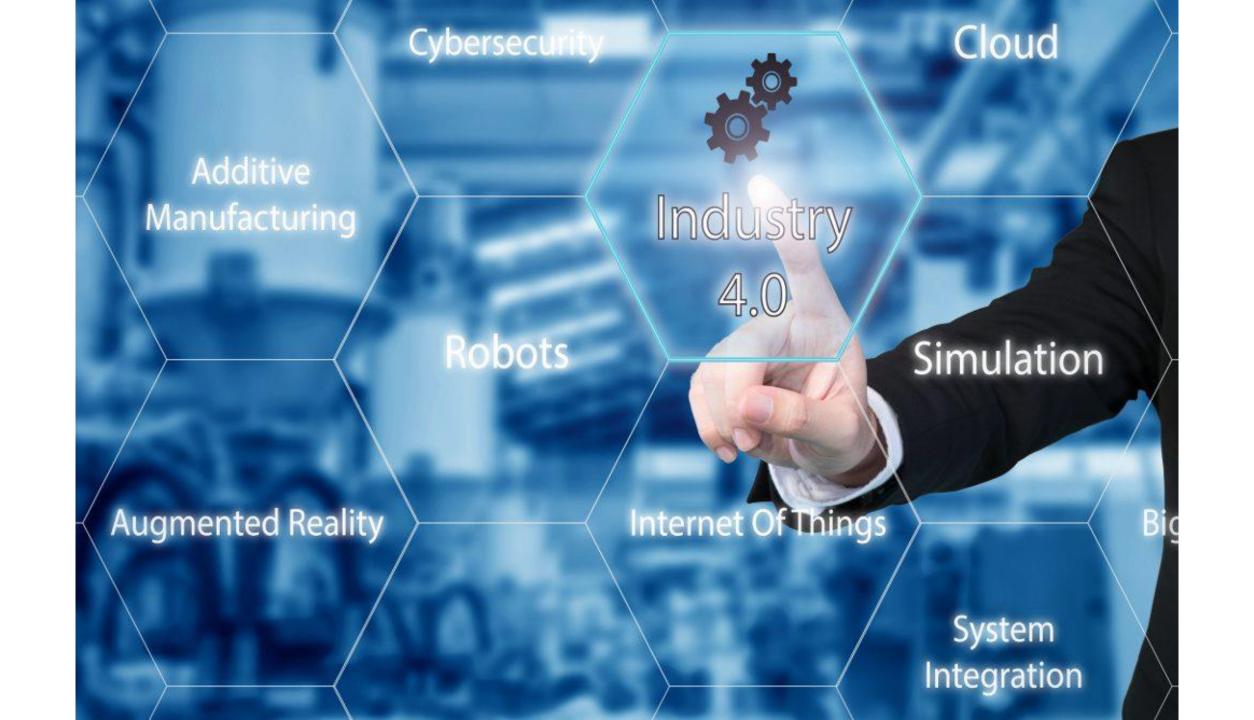




Total fertility rate, 2022





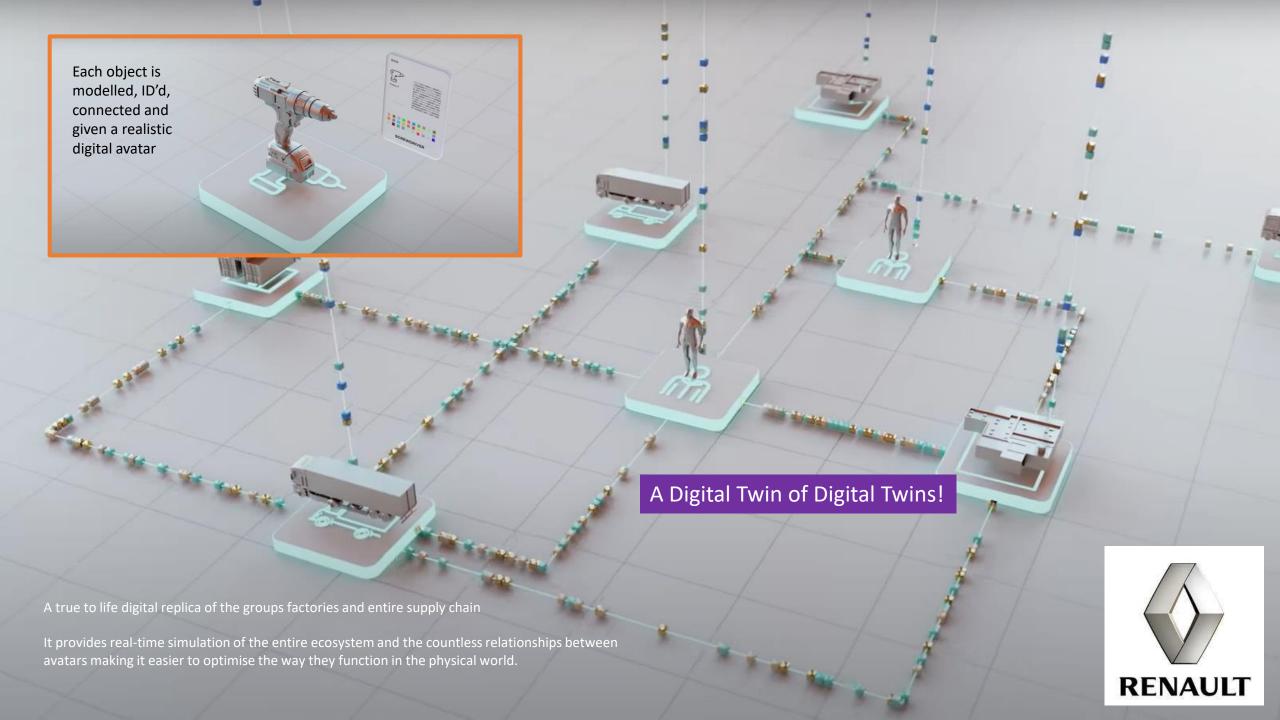






While real-life applications of the consumer metaverse are still developing, industrial metaverse use cases are purpose-driven, well aligned with real-world problems and business imperatives.





Digital twins reduce costs and time to market

McKinsey estimates that digital twins can enable 60%
REDUCTION
IN TIME TO
DEPLOY NEW AI

MB - 307

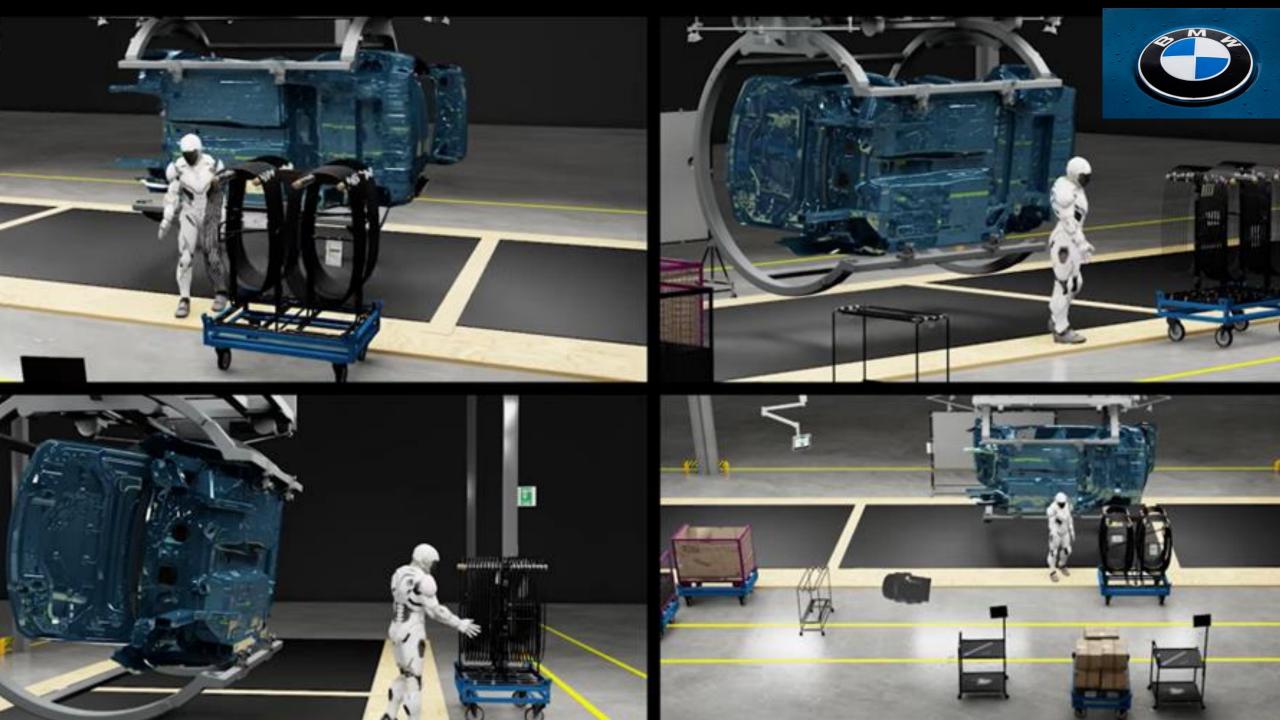
MB - 529

SCANINING ...



15%
REDUCTION IN CAPITAL AND OPERATING EXPENSES

Source: Compiled by MIT Technology Review Insights, based on data from "Digital twins: The foundation of the enterprise metaverse," McKinsey, 2022.













Real world Right NOW





~Thank you

Andrew Lynch
Chief Innovation Officer
andrew.lynch@imr.ie
www.imr.ie



