

RESEARCH TO REALITY

DIGITAL SOLUTIONS TO
EUROPEAN CHALLENGES



Flanders
State of the Art



Wallonie
service public
SPW

innoviris
.brussels
we fund your future



Unlocking Synergies

RESEARCH
TO **REALITY**

Unlocking Synergies – setting the scene

Walter Van de Velde
DG CNECT

Digital Decade Compass

Skills

ICT Specialists: 20 million + Gender convergence

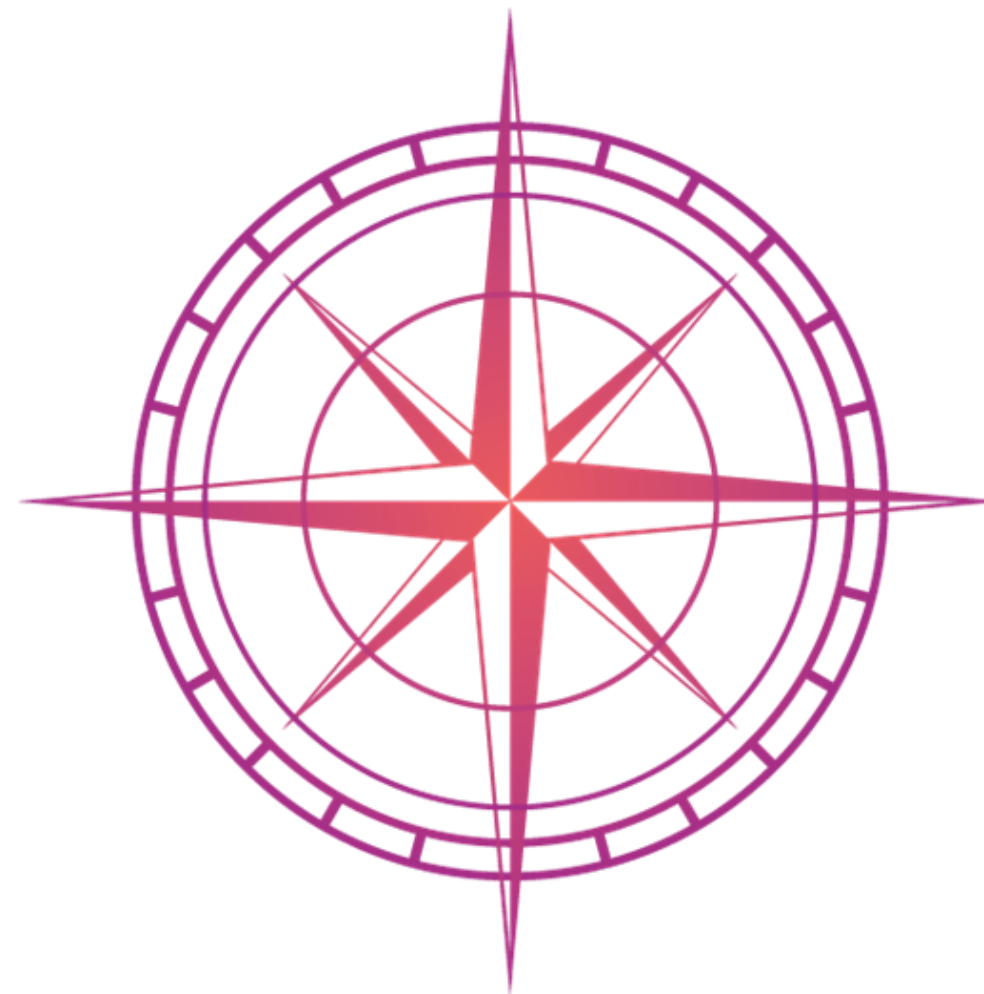
Basic Digital Skills: min 80% of population

Government

Key Public Services: 100% online

e-Health: 100% availability medical records

Digital Identity: 80% citizens using digital ID



Infrastructures

Connectivity: Gigabit for everyone, 5G in all populated areas

Cutting edge Semiconductors: double EU share in global production

Data – Edge & Cloud: 10,000 climate neutral highly secure edge nodes

Computing: first computer with quantum acceleration

Business

Tech up-take: 75% of EU companies using Cloud/AI/Big Data

Innovators: grow scale ups & finance to double EU Unicorns

Late adopters: more than 90% of European SMEs reach at least a basic level of digital intensity

Digital Decade Compass

Skills
 ICT Specialists: 20 million + Gender convergence
 Basic Digital Skills: min 80% of population

Infrastructures
 Connectivity: Gigabit for everyone, 5G in all populated areas
 Cutting edge **Semiconductors**: double EU share in global production
Data – Edge & Cloud: 10,000 climate neutral highly secure edge nodes
 Computing: first computer with quantum acceleration

Government
 Key Public Services: 100% online
 e-Health: 100% availability medical records
 Digital Identity: 80% citizens using digital ID

Business
 Tech up-take: 75% of EU companies using Cloud/AI/Big Data
 Innovators: grow scale ups & finance to double EU Unicorns
 Late adopters: more than 90% of European SMEs reach at least a basic level of digital intensity

DIGITAL EUROPE

- EU-Wide deployment
- Strategic capacities
- Advanced digital skills
- Testing Facility

Complemented by Structural Funds, InvestEU, RRP efforts, IPCEI...

Capacity, Uptake & Use-cases



CONNECTING EUROPE FACILITY

- Strategic Backbones
- Fixed + Wireless Connectivity

HORIZON EUROPE

- Preparing/maturing technology & progress (AI/Quantum...)
- By-design regulatory compliance (e.g. privacy friendly, unbiased AI)
- Leading & best in-class (e.g. strategic open autonomy, quantum)
- Prosperity, people & planet lens (green tech, societal challenges, industrial lead...)

Digital: A top-down view on synergies

Complementary programmes	Prepare	Deploy	Connect
Example topics with synergies	HORIZON EUROPE	DIGITAL EUROPE	CONNECTING EUROPE FACILITY (Digital)
Secure Quantum Communication	<ul style="list-style-type: none"> *Structuring partnerships for Quantum Comm. *Strategic research Quantum Communication *Quantum encryption & future quantum network 	<ul style="list-style-type: none"> *Secure QCI European Industrial Ecosystem *Deploy advanced national QCI systems *Deploy large-scale QKD testing/certification 	<ul style="list-style-type: none"> *Cross-border connections *Interconnection with the space segment * Links with SOCs
European Common data infra. and services	<ul style="list-style-type: none"> *Tech. for compliance, data mgt, trading, monetizing, exchange and interoperability * Data exploitation methods, extreme data mining.. *Innovation for Media, including eXtended Reality 	<ul style="list-style-type: none"> *Smart middleware for cloud federation/data spaces *Large scale pilot/market place cloud-to-edge *Data Spaces Support Centre/Public Sector Open Data for AI and Open Data Platform 	<ul style="list-style-type: none"> * Cross-border and national cloud-to-edge infrastructure interconnections among socio economic drivers
Supercomputing and Quantum	<ul style="list-style-type: none"> *EuroHPC JU: Coordinates and boost Europe's scientific excellence and industrial HPC *Maturing exascale & hybrid computing capabilities, innovation and uptake of HPC, skills pipeline... 	<ul style="list-style-type: none"> *Acquiring/operating: Petascale /Pre-exascale and/or Exascale /Quantum supercomputers *Investing and cooperating in HPC national competence centres and HPC & Quantum skills 	<ul style="list-style-type: none"> *Cross-border Terabit connectivity and service provisioning between nodes of the pan-European HPC infrastructure

Digital Europe

Deployment of advanced digital technologies.

Horizon Europe

Education, research and innovation for digital and industrial technologies, including in space - Cluster 4; Contribution to digital across all clusters.

CEF Digital

Broadband and 5G roll out; 5G for major transport paths, including TEN-T; Digital backbone networks for neighboring territories; Digitalisation of transport and energy networks; Feasibility studies.

Creative Europe

Accelerate the digital transition of cultural and creative sectors; Digitalisation for audiovisual and news media; Skills for audiovisual professionals in support of the digital transition

Single Market Programme

Synergies and complementarities with the DEP in green and digital transition, economy and business; Digitalisation of SMEs and start-ups

EU4Health

Enabling health spaces, digital tools and services in support of digital transformation in health.

Recovery and Resilience Facility

20% of the national recovery and resilience plans for digital actions.

Erasmus+

Support to the implementation of Digital Education Action Plan (2021-2027):

- digital education ecosystem;
- digital skills;
- European Digital Education Hub.

Space Programme

EuroQCI → Secure Connectivity Programme (Space Programme) flagship for access to secure satellite communications services, for governmental communications and commercial use)

Justice Programme

e-Justice projects for improving the effectiveness and accessibility of the justice systems; Digital skills for legal professionals.

European Regional Development Fund

Mostly Policy Objective 1: promoting innovative and smart economic transformation and regional ICT connectivity; 25-85% contribution from regions and MS to Policy Objective 1.

European Social Fund+

Mainstream and upscale innovative technologies and solutions in the areas of employment, social security coordination, social inclusion, education and training for digital skills.

European agricultural guarantee fund; European agricultural fund for rural development

Digitalisation in agriculture and rural areas under National CAP Strategic Plans with Digitalisation Strategies, (e.g. smart farming, training and advice in digitalization, smart villages, and Broadband rollout in rural areas)

Big Data for CAP monitoring.

Invest EU

Deployment of technologies and services contributing to DEP:

- artificial intelligence;
- quantum technology;
- cybersecurity and network protection infrastructures;
- the internet of things;
- blockchain and other distributed ledger technologies;
- advanced digital skills;
- robotics and automatisations;
- photonics.

National and regional programmes and private initiatives

**Synergies: there is no
magic... yet**

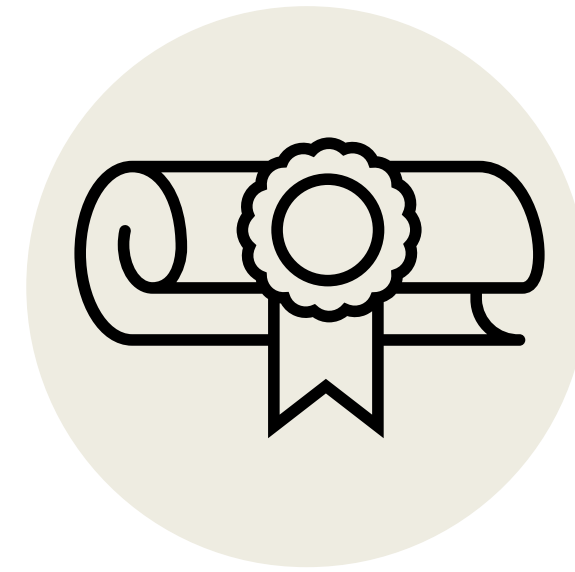
Types of synergies



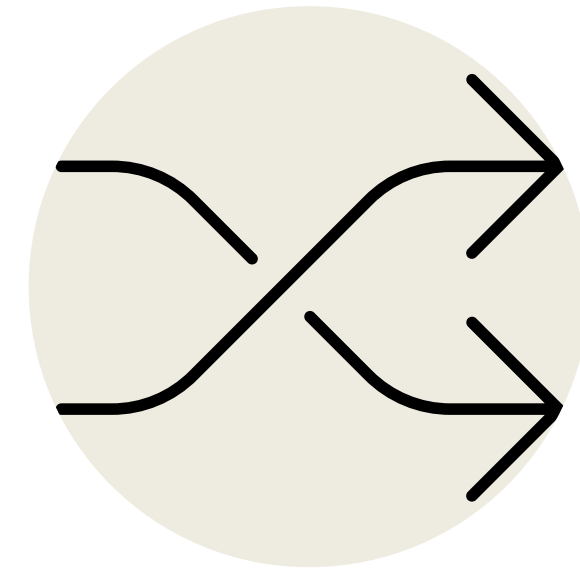
Complementary funding: Bringing together funding from different programmes in the same project



Sequential funding: Successive projects that build on each other (upstream / downstream)



Alternative funding: Taking up high quality project proposals from other programmes, (e.g. SoE)



Transfer of funding

Maximising the quality, quantity and impact of R&I investments

Higher R&I spending

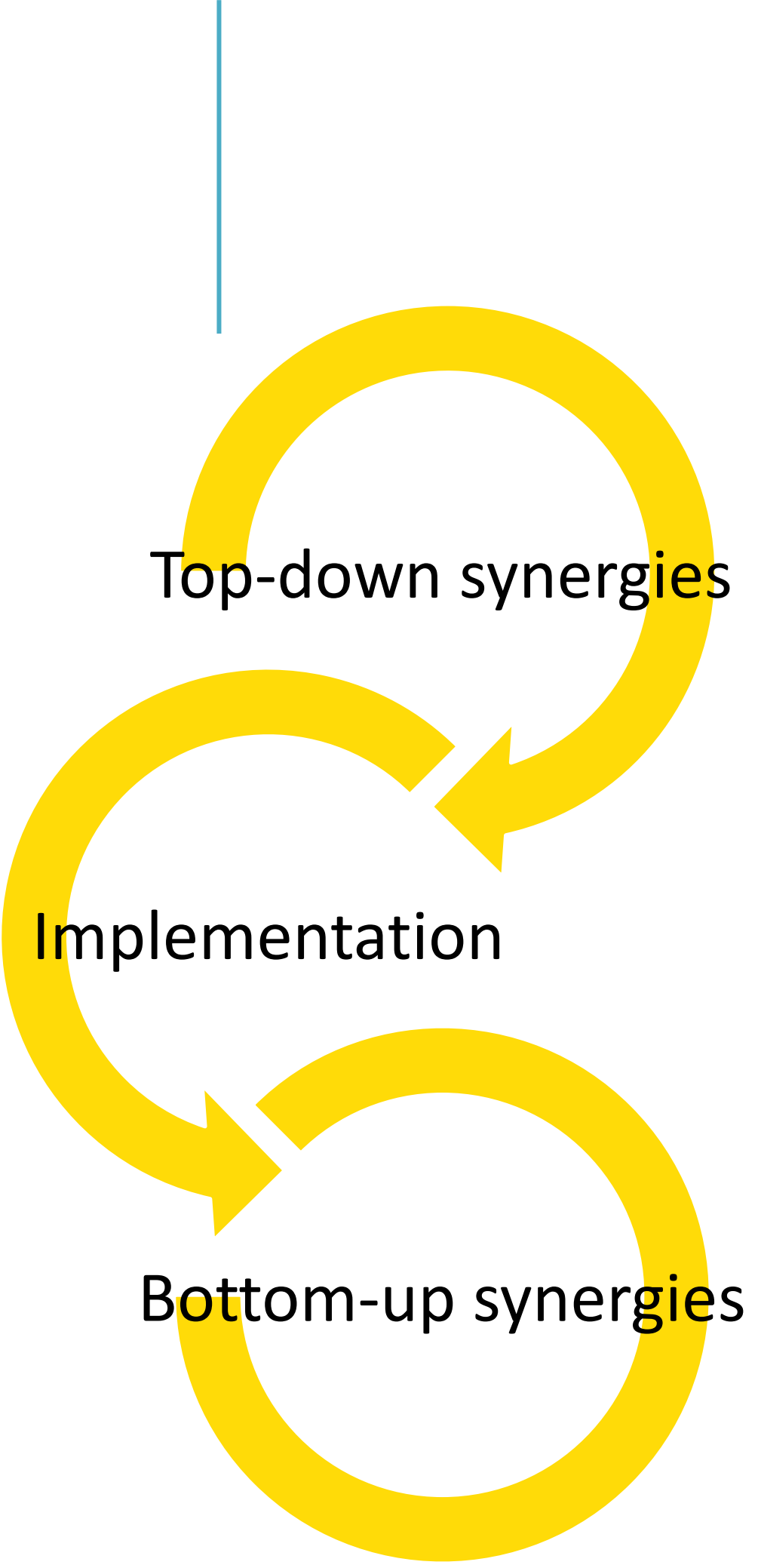
*What public funders
want to achieve*

Greater effectiveness of programmes and investments
(EU, national and private), to exploit research results

Fostering evidence-based policy making programming

*What stakeholders
want to achieve*

An accelerated innovation cycle



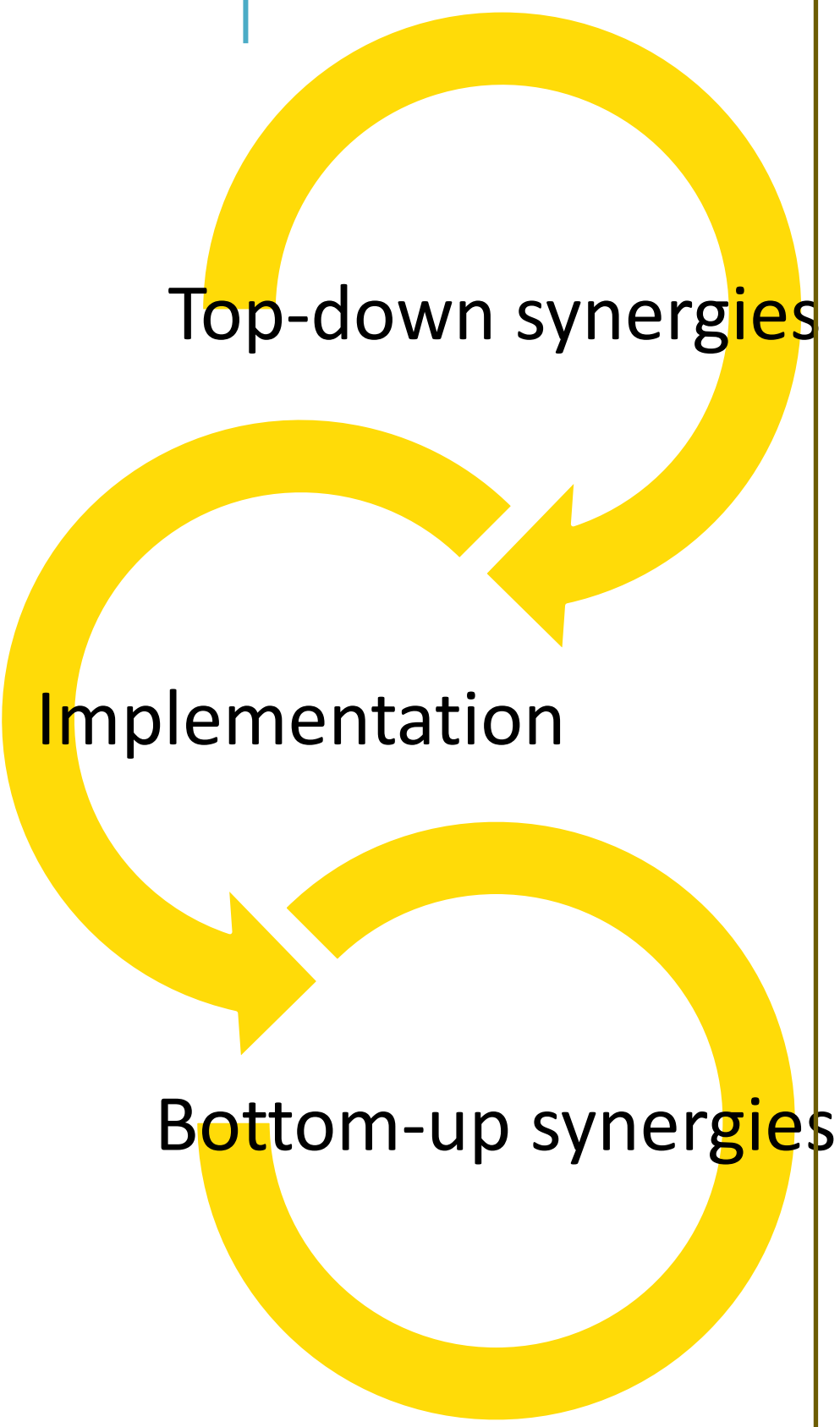
Creates expectations
of what stakeholders
will do



Trust matters



What stakeholders
actually do



Strategic Programming / Overarching narrative

- Intervention logic / programme design

Operational Implementation

- Rules for Participation, eligible items, funding rates;
- Provisions for combined funding (HE, DEP, Common provisions for Funds (GDPR, ESF+,...), RRF, State-Aid (GBER))

Organisational alignment and capacities / action level synergies

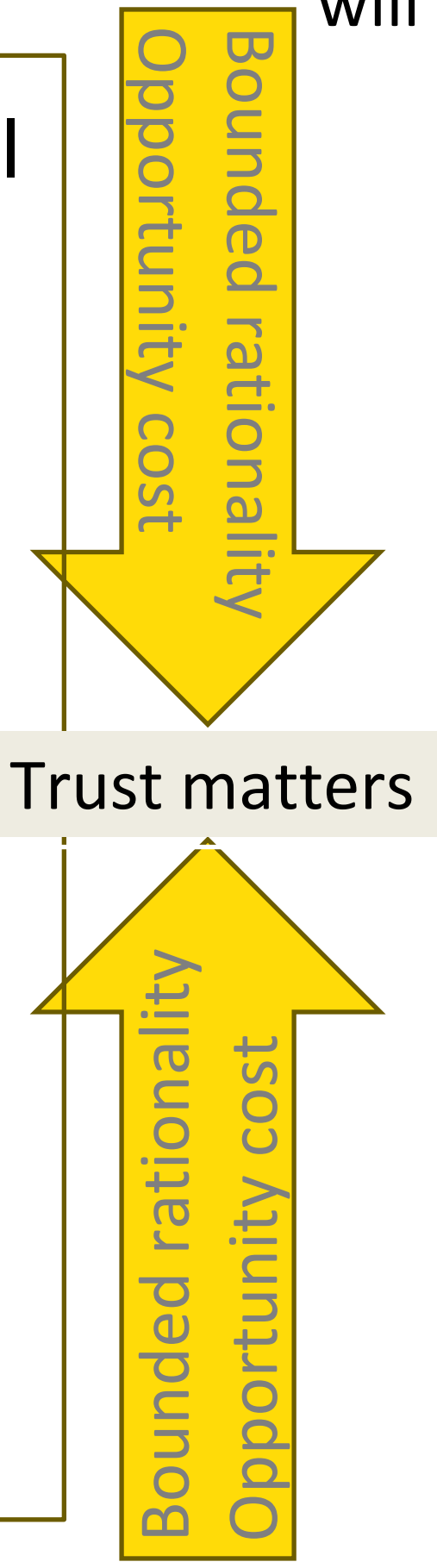
Individual objectives, mind-set and incentives / individual level synergies

Thematic/sectorial Policy initiatives (Chips, AI, Cyber, Data,...)

Partnerships and multi-country collaboration (legal status)

Interfaces and Support (NCPs, EDIH, support in MS/AC)

Creates expectations of what stakeholders will do



What stakeholders actually do

Opportunities and challenges

Opportunities in top-down synergies

- ‘Synergies by design’ (e.g., for co-funding)
- Explicit signposting of calls (and incentives)
- Building bridges (passerelles) within and between programmes

Challenges

- Complexity of the funding landscape
- Different eco-systems and expectations (even if only perceived ones)
- Variable funding rates, non-coordinated timeline
- Complexity of the legal aspects: GBER, Common provisions, RRF funds, ERDF and Smart Specialisation Strategies
- Silo-fication through programmes (resulting in closed or less permeable eco-systems around TRLs)

Opportunities in bottom-up synergies

- need to understand expectations/incentives/mind-set
- exploring diverse funding opportunities and instruments (e.g., equity)
- cross participation in programmes
- synergies from ‘asset sharing/trading’ within and between actions (e.g., IP, prototypes, dominant designs, emerging standards, data, computing power ...)

Synergies are hot!

Synergies Network: current focus

Identify best practices of existing synergies with potential for replication

Promote synergies in the current MFF programmes

Prepare the best conditions for synergies for future (post-2027) programmes

Strengthen the expertise and capacities of stakeholders to implement opportunities for synergies and combine various funding sources

Exploit the potential of data to foster synergies

Strengthen cooperation between bodies responsible for R&I policy and those for Cohesion policy programmes

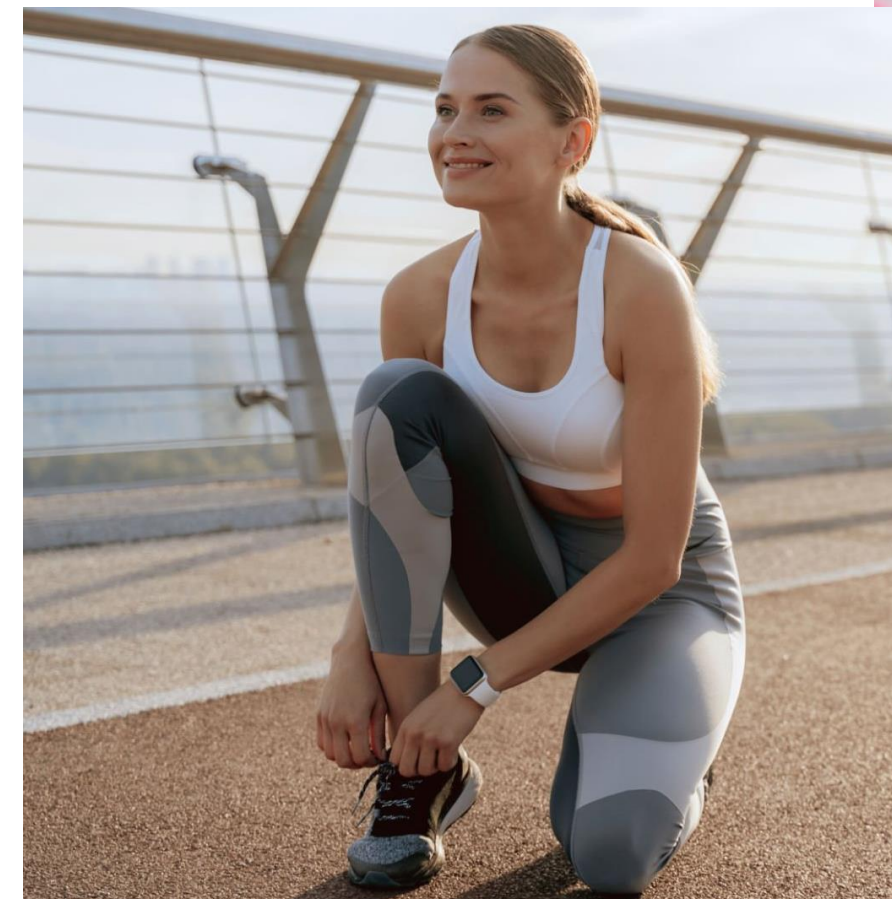
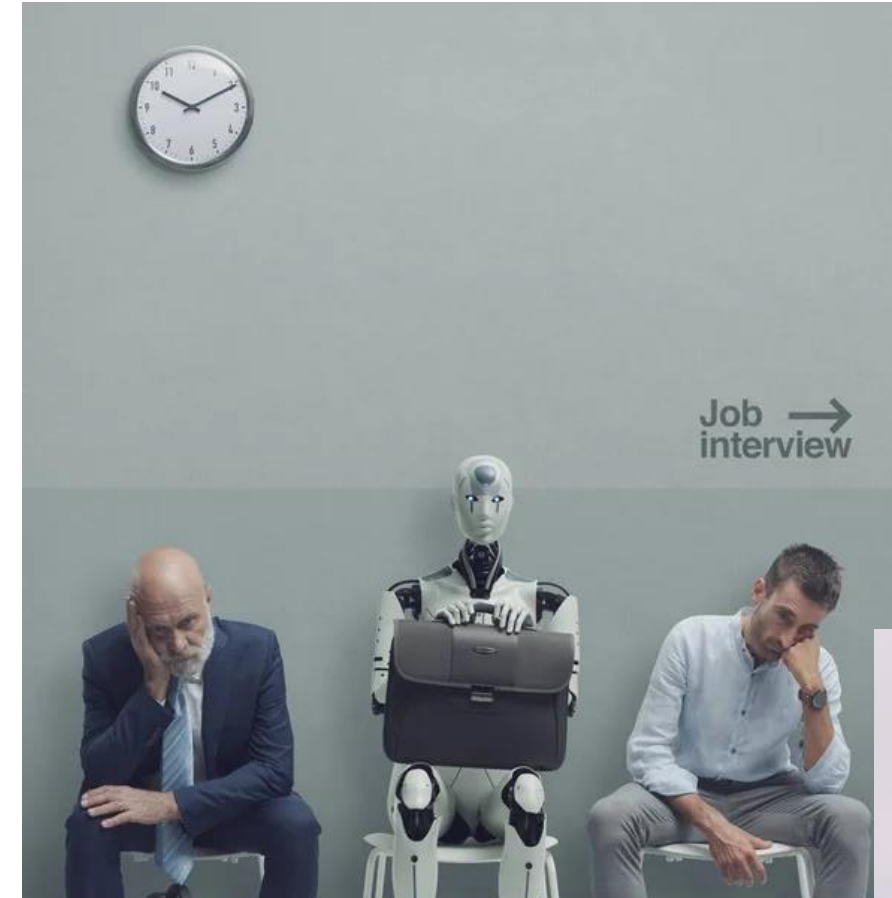
Thank you

Unlocking synergies
dr. Nienke Schutte
Sciensano

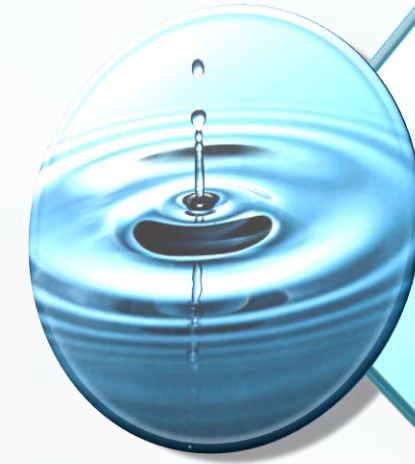
Sciensano & EU



Topics & Synergies



Future Topics



Impact



Outreach



Lobby

Ideal-ist HE-CL4 Digital NCP network

Services for NCPs and proposers – using synergies



synergy



Brokerage events



Full proposal check & Project idea check



Toolbox for proposers



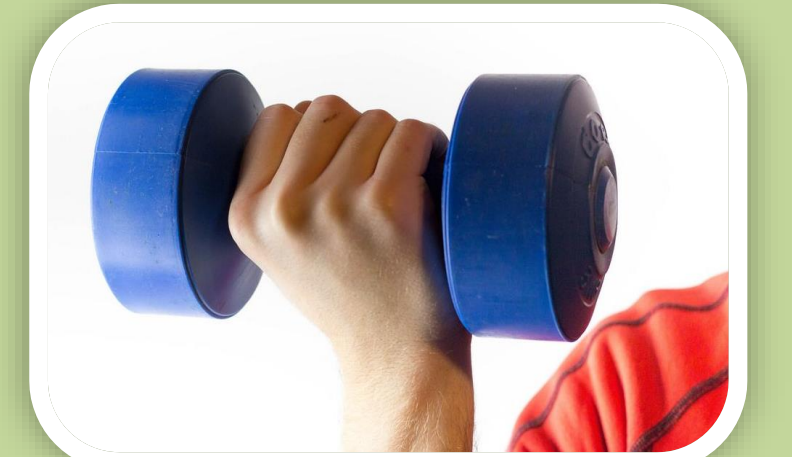
Personalised weekly notification

synergy



Topic Tree

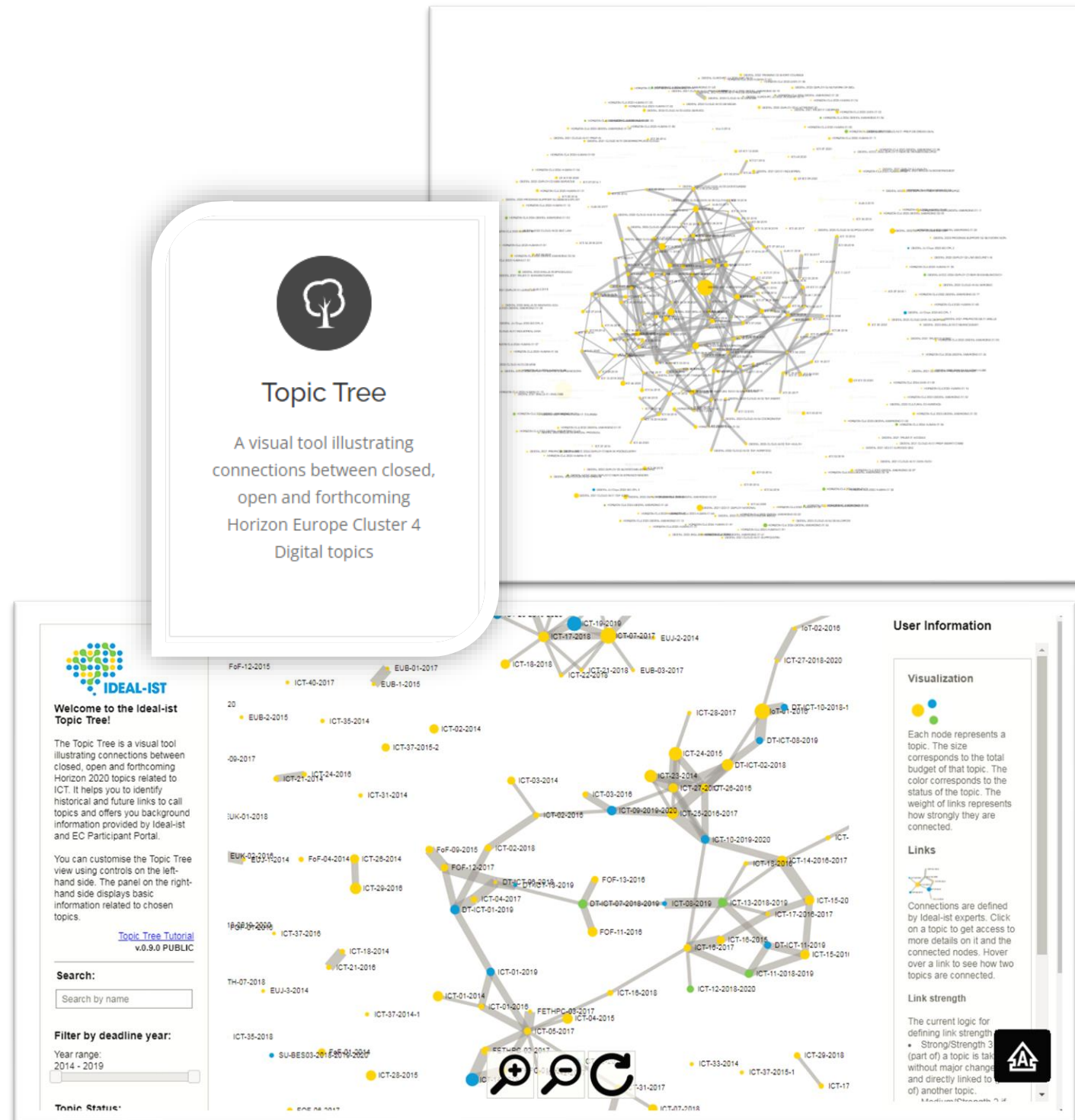
synergy



Trainings & Webinars

BEST PRACTICE EXAMPLE

Ideal-ist TOPIC TREE

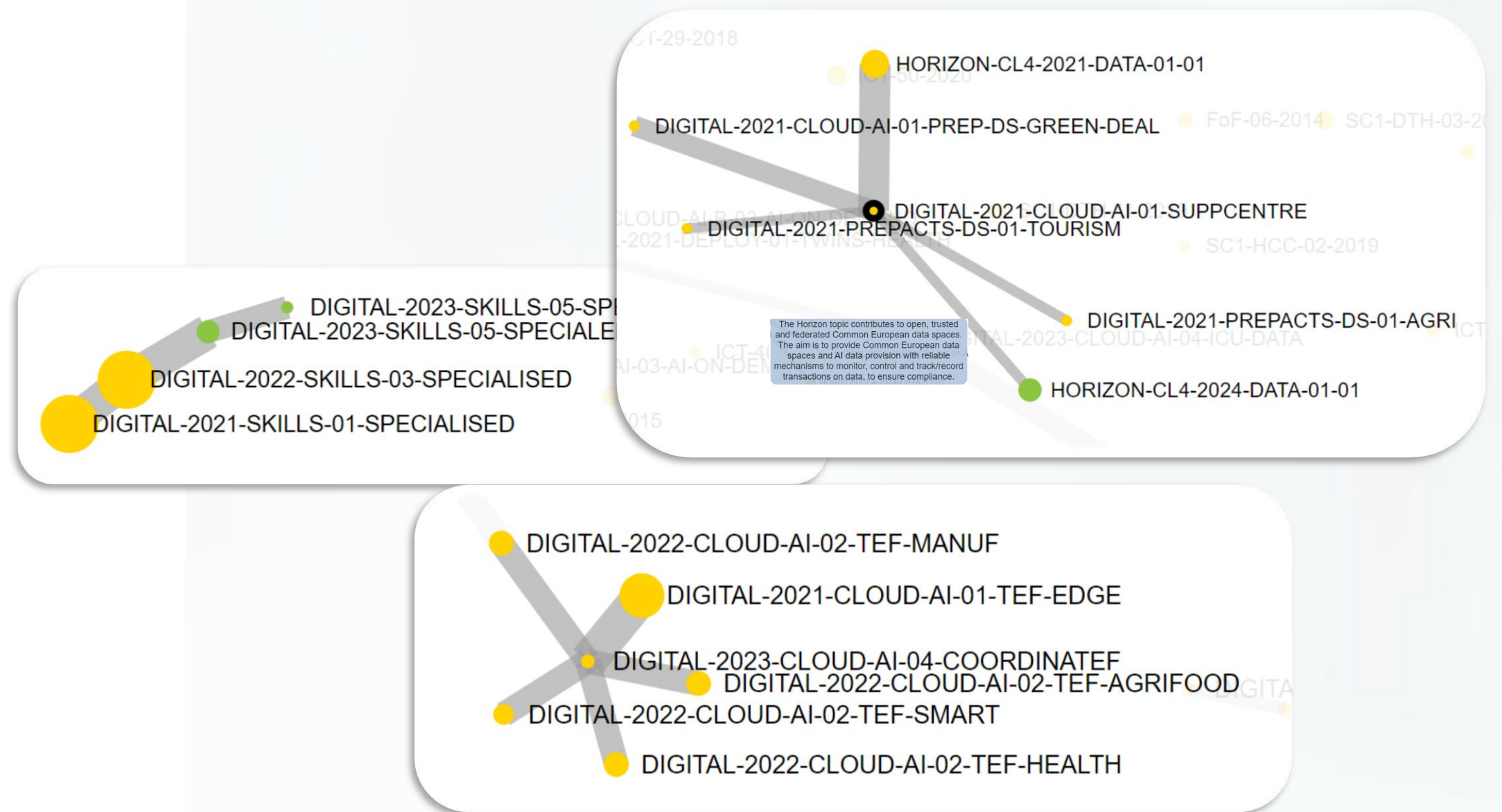


<https://www.ideal-ist.eu/topic-tree>

integrates and links DIGITAL related funding options from CL4, Digital Europe etc.

allows sharing NCP knowledge

helps proposers finding the right topics in other funding programmes





TRACY example: from research to development

Nikos Avgerinos
Performance Technologies S.A.



TRACY - a big-data analyTics from base- stations Registrations And Cdrs e-evidence sYstem

INFO

Topic: DIGITAL-2022-DEPLOY-02-LAW-SECURITY-AI

Project duration: 24 months



Co-funded by the
European Union

IDENTITY

TRACY is an innovative **digital forensic and investigation platform** to identify suspects (in relation to time and space) of serious organized crimes and terrorism in dense urban areas.

Criminal acts become more and more technologically sophisticated.

Advanced ML algorithms applied on Electronic communication Service Providers (ESPs) **Mobile Signaling Data (MSD)**.

Significantly advance the process of **LEAs** investigations and prosecutions.

Provide further identification of persons for whom there was no suspicion of involvement in a terrorist act or serious crime prior to the evaluation and should therefore be further examined by the competent authorities (Intelligence Led Policing (ILP)).

TRACY - a big-data analyTics from base- stations Registrations And Cdrs e-evidence sYstem

INFO

Topic: DIGITAL-2022-DEPLOY-02-LAW-SECURITY-AI

Project duration: 24 months

SCOPE

Close the gap between prototypes and real products that could be used by LEAs after the finalization of the project.

Technology Readiness Level (**TRL**) expected 8-9

A platform with **proven functionality in operational environments** and offering a significant assistance in LEAs.

TRACY was designed to build on synergies and collaboration with other initiatives.



Co-funded by the
European Union

TRACY - a big-data analyTics from base- stations Registrations And Cdrs e-evidence sYstem

INFO

Topic: DIGITAL-2022-DEPLOY-02-LAW-SECURITY-AI

Project duration: 24 months

SYNERGIES IN TRACY

Technology transfer between ROXANNE (H2020 - Real time network, text, and speaker analytics for combating organized crime) and TRACY projects.

Common partners: IDIAP, KEMEA, Hellenic Police.

Build on ROXANNE outcomes and expand in use of non-content data (metadata) for investigation of large criminal cases.

TRACY will feed ROXANNE with data to use its visual analysis and network analysis modules.



Co-funded by the
European Union

TRACY

THANK YOU !

For more information please visit:

 Visit <https://www.tracy-project.eu>

 Follow <https://www.linkedin.com/showcase/tracyprojecteu>



RESEARCH
TO REALITY

Bringing research results to the market

Case of EDIH-EBE



EDIH-EBE

European Digital Innovation Hub,
Energy in the Built Environment



**How does this Hub
bring research
results to the
market?**

**How do we
support them in
innovation
efforts?**

- **Building upon legacy**
- **Opening up access under favourable conditions**
- **Directly engaging & servicing companies**

**How is the Hub
educating
researchers on the
reality of
companies?**

- **Researchers / Thematic Experts in Expert Pannels**
- **Two-way relation**

Unlocking Synergies – national approach

Merve Karaman

Dutch Ministry of Economic Affairs and Climate Policy



Dutch Digital Economy Strategy

*Working towards a resilient
and thriving digital economy*

The Netherlands is one of the top-3 digital economies in Europe*. Our Digital Economy Strategy is based on 5 pillars aligned with the European Digital Decade targets *-and on some topics with an increased level of ambition-*:

- › Pillar 1: Accelerating the digital transition in the **SME sector**
- › Pillar 2: Promoting digital **innovation** and **skills**
- › Pillar 3: Creating the right conditions for well-functioning **digital markets and services**
- › Pillar 4: Maintaining and strengthening a secure, reliable and high-quality **digital infrastructure**
- › Pillar 5: Strengthening **cybersecurity**

With overarching topics on **sustainability** and **strategic autonomy**



- › DIGITAL Europe contributes to **strengthen** our Digital Economy Strategy and the **digital transition** of the Netherlands towards the European Digital Decade targets.
- › **Bottom-up role:** inform, inspire and motivate businesses, organizations and other stakeholders to collaborate, participate and innovate.
- › This is **unique** within the Member States and associated countries.
- › Goal and intention is to **unlock synergies** by delivering **transparency** and **clarity** beforehand as much as possible.
- › **Collaboration** RVO and the Ministry of Economic Affairs:
 - Netherlands Enterprise Agency (RVO) is the executing body and in contact with the field
 - Matchmaking processes
 - Application support
 - External communication to stakeholders
- › Collaboration with **other Ministries**.

National co-funding

The Netherlands has EUR 75 million budget for national co-funding on DIGITAL topics



Path to national co-funding



Unlocking Synergies

RESEARCH
TO REALITY