

Realising the **European** Open Science **Cloud**



Engaging the private sector

About roadblocks & success stories in the uptake of EOSC services

Speakers: EOSC-hub/ EOSC DIH - Sy Holsinger (EGI)
EOSC-DIH Business Pilots - Marcin Próciennik (PSNC)
EUH4D - Daniel Alonso Roman (ITI, EUH4D)
Semantic Web Company - Martin Kaltenböck

Chair: Marieke Willems (Trust-IT)

Housekeeping rules

- The sessions will be recorded and made available afterwards.
- Please stay muted and keep your video off during presentations.
- You can ask your questions in the chat throughout the session.

Agenda

- **EOSC DIH in the wider Digital Innovation Hub Landscape** - Sy Holsinger (EGI)
- **EOSC DIH Success stories** - Marcin Płóciennik (PSNC)
- **Engaging the private sector. About roadblocks & success stories in the uptake of EOSC services**
 - **Discussion panel:**
 - EOSC-DIH Business Pilots - Marcin Płóciennik (PSNC)
 - EUH4D - Daniel Alonso Roman (ITI, EUH4D)
 - Semantic Web Company - Martin Kaltenböck (SSHOC)
- **Recommendations**

Speakers



Sy Holsinger
EGI



Marcin Płóciennik
PSNC



Daniel Alonso
ITI, EUH4D



Martin Kaltenböck
Semantic Web
Company
SSHOC



Realising the **European**
Open Science Cloud



EOSC Digital Innovation Hub (EOSC DIH)

Digitizing Industry through the EOSC

Sy Holsinger, EGI Foundation
EOSC DIH Coordinator

Content Outline

- Background to Digital Innovation Hubs (DIH)
- EOSC Digital Innovation
 - Brief Overview
 - Results to date
 - Future Plans
- Specific Business Pilots in follow up presentation by Marcin Plociennik

EC Digital Innovation Hub Initiative

Background and landscape

Digital Innovation Hub

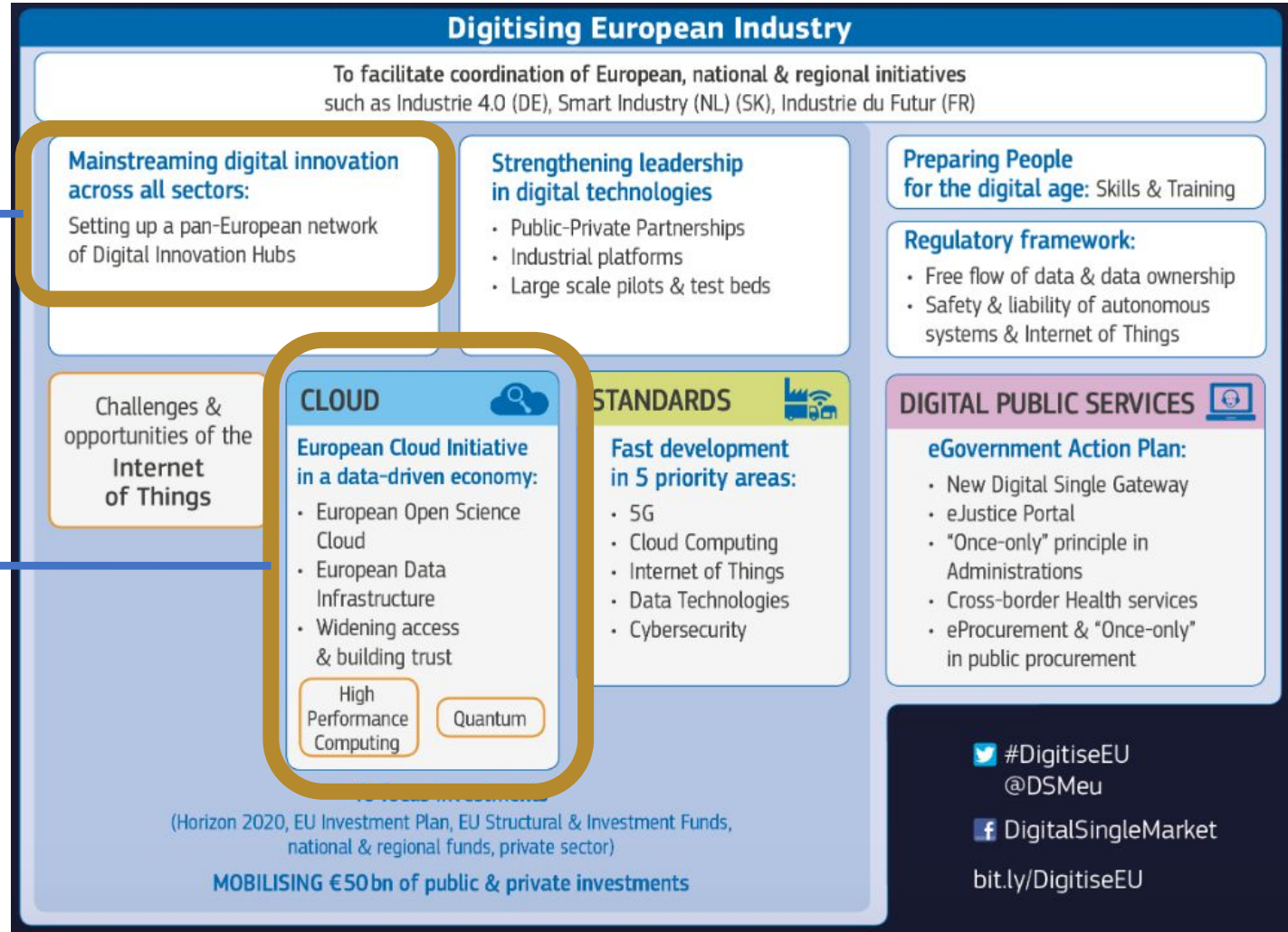
EC definition

What is a Digital Innovation Hub?

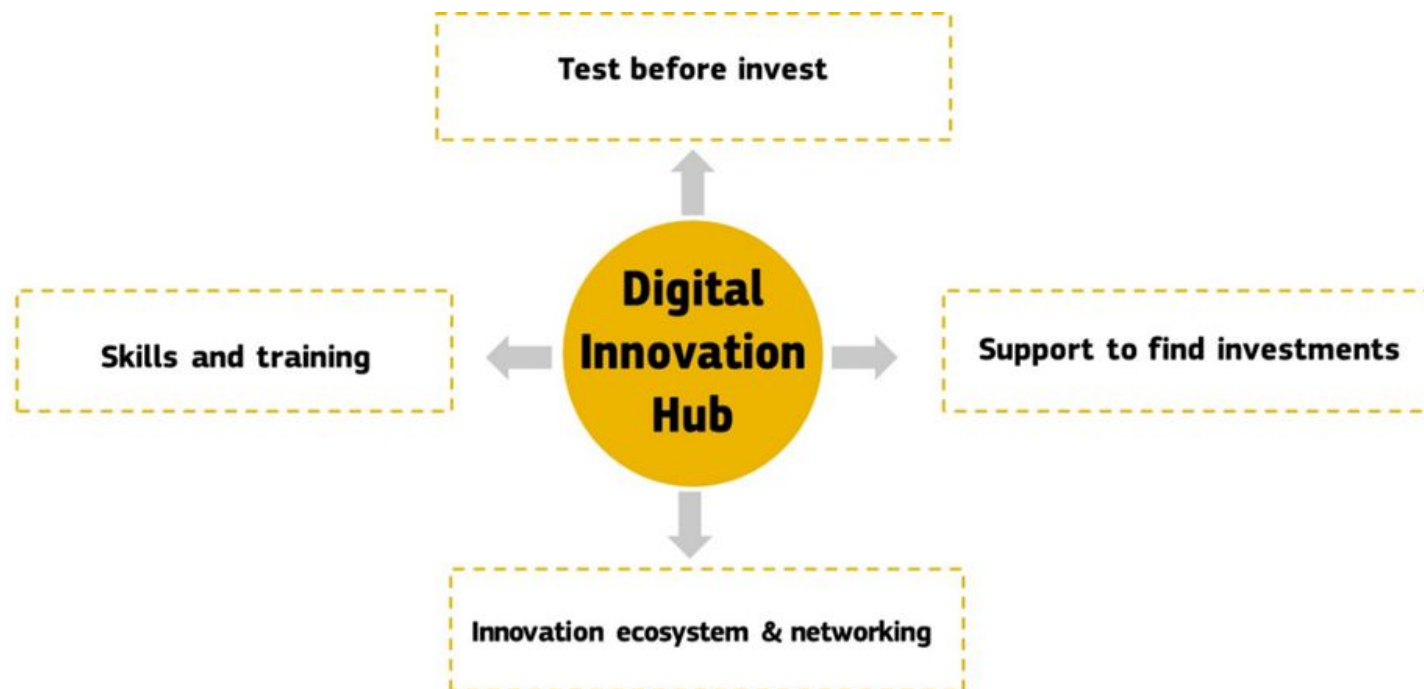
An **ecosystem** of start-ups, SMEs, large industries, researchers, accelerators and investors that fosters the creation of partnerships to stimulate **innovation**.

Created the EOSC DIH

EOSC identified as a key component



DIH Service Needs



<https://ec.europa.eu/digital-single-market/en/digital-innovation-hubs>

DIHnet Project

SMART SPECIALISATION PLATFORM

European Commission / Smart Specialisation Platform / Tools / Digital Innovation Hubs

Home S3 Platform Sections Tools News Events Knowledge Repository

Digital Innovation Hubs

Search: Enter any search term

Countries: None selected

Evolutionary Stages: 1 selected

Technical Competences: None selected

Services Provided: None selected

Focus on TRL: None selected

Market sectors: None selected

SEARCH

ES Contact us in the following email: JRC-B3-DIH@ec.europa.eu

Click on the following link if you want to propose new HUBs.

Register to the DIHNET.EU Community the interactive community of the JRC DIH catalogue to find more information and to connect with other DIHs.

Hub Name	Location	Country	Contact	Phone	Email	Website
Aachen DIH Center for Robotics in Healthcare	Pauwelsstraße 30, 52074, Aachen	Germany	Univ.-Prof. Dr. med. Rolf Rossaint			

<http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool>

DIHNET.EU

COMMUNITY HOME ABOUT US EXPLORE NEWS CONTACT

Digital Innovation Hub Networks

DIHNET.EU project

DIHNET.EU: EU supports the collaboration among Digital Innovation Hub Networks across Europe

The DIHNET.EU project enables the coordination of European, national and regional initiatives directly supporting the digital transformation and Digital Innovation Hubs (DIHs). The project aims to create a sustainable pan-European network of networks, with a focus on regional DIHs.

DIHNET.EU will create a pan-European network of DIHs

DIHNET.EU will boost DIHs collaboration

DIHNET.EU will offer services and tools to DIHs

DIHNET.EU invites you to join the DIHs community

EOSC Digital Innovation Hub

Overview, Results, Future

Role of Industry in the EOSC

Customer

Making use of existing EOSC services



Provider

Offering services to EOSC



Partner

Co-development



Procurement

Participate in the procurement framework



EOSC-hub kick started the DIH



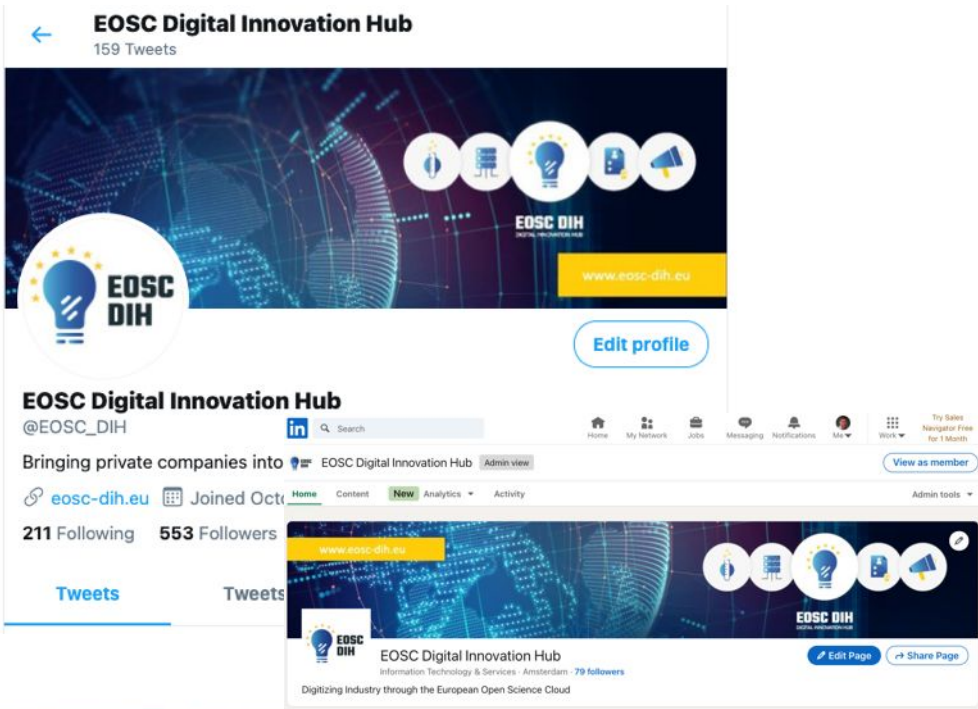
- Build on the EC initiative to **onboard industrial partnerships** within the **EOSC**
- **Joint effort** from years of individual e-Infrastructure industry engagement programs
- Focused on (not limited to) **start-ups and SMEs** and **pre-commercial** activities
- Started with **6 business pilots** selected during project preparation, **18 to date!**
- To **persist beyond** the life of the **EOSC-hub** project

Driven



Realising the European Open Science Cloud

Dedicated Website and Branding



WHAT IS THE EOOSC DIH?

EOOSC DIH is an international and multi-partner cooperation that supports companies in easily accessing the digital technologies and services offered by the EOOSC. It combines 4 main pillars to help companies become more competitive: Pilot design and co-design, Technical access, Training & support and Visibility.

WHAT IS THE EOOSC?

EOOSC is the European Open Science Cloud, a supporting environment to accelerate the transition to more effective Open Science and Open Innovation in a Digital Single Market by removing the technical, legislative and human barriers to the re-use of research data and tools, and by supporting access to services, systems and the flow of data across disciplinary, social and geographical borders.

[MORE ABOUT US](#)

SERVICES

PILOTING & CO-DESIGN

Pilots/Proofs of Concepts
Service/Product design
PaaS/SaaS Integration
Performance Verification
Testing

[LEARN MORE](#)



TECHNICAL ASSETS

Compute (IaaS, PaaS, Cloud)
Storage (On-prem/Cloud)
Data Management
Research Data
Tools & Applications

[LEARN MORE](#)



eosc-dih.eu

#RealisingEOSC



16-19 November 2020 - EOOSC-hub, FREYA and SSHOC

Piloting & co-design

- Pilots/proofs of concepts
- Service/Product design
- PaaS/SaaS Integration
- Performance verification
- Testing

Technical access

- Compute (HTC, HPC, Cloud)
- Storage (Online/Archive)
- Data management
- Machine Learning / AI
- Open Research data
- Tools & applications



EOSC DIH
DIGITAL INNOVATION HUB

Training & Support

- Technical consultancy
- Service management
- Commercialization and business coaching
- Brokerage to funding and opportunities

Visibility

- Media Exposure
- Participation to events
- Promotional print material
- Inclusion in marketplace
- Networking

Industry Collaborations

Various Stages of Development

Partnerships



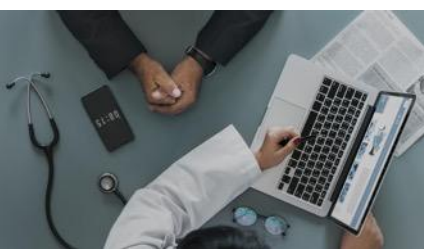
Networks & DIHs

Providers

Other



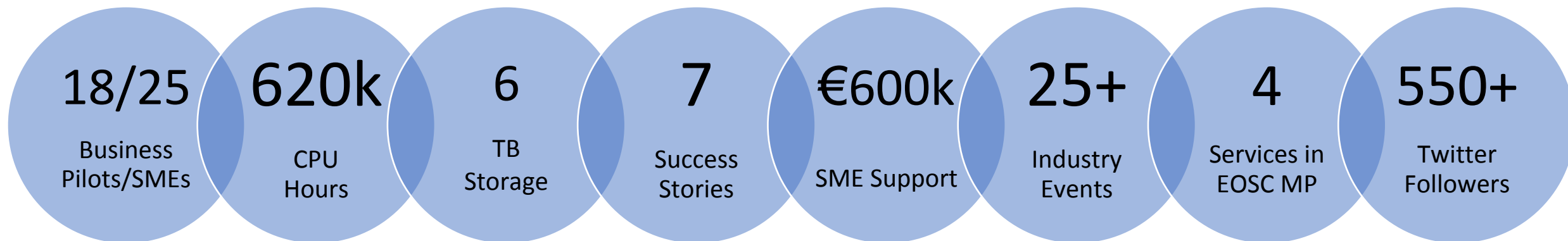
Our Business Pilots (18)



Further details in follow up presentation by Marcin Plociennik

- **Business Pilots**
 - Finalize ongoing pilots
 - Prepare an updated version of the Success Story Brochure
 - Onboard new pilots and establish partnerships to extend our service offering
- **EOSC DIH Operation and Expansion**
 - Finalize EOSC DIH Terms of Reference for the medium-term sustainability model for post-project
 - Coordinate with the EOSC governance initiatives and contribute to strategic documents
 - Further develop online platform to coalesce a community of industry participants, experts, innovators, and funding bodies
- **Future Support**
 - In-kind effort from DIH participants and partnerships
 - EC funded projects i.e. INFRAEOSC-03 (under negotiation); EUHubs4Data (see session panel); others
 - Investigate membership model for longer-term sustainability

EOSC DIH in Numbers



EOSC DIH Partners



 eosc-dih.eu

[@EOSC_DIH](https://twitter.com/EOSC_DIH)

business@eosc-dih.eu

EOSC DIH Team

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Digitizing Industry through the EOSC

Marcin Plociennik, PSNC
EOSC DIH Business Pilots Coordinator

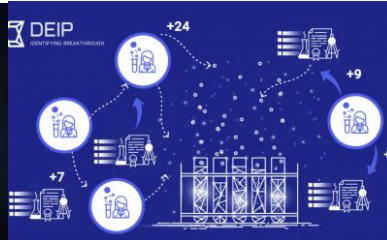
Content Outline

- Overview of the pilots
 - Initial and finalized pilots
 - Running pilots
- Example pilots
 - Different support models
- How to become a pilot
- Organization of the support
 - Support mechanism
 - Support types
 - Lessons learned

Overview of the pilots

Pilot landscape

Our Business Pilots (18)



Pilots with success stories

- Initial pilots that helped to define the DIH, and it's operation
- Success stories
 - DataFurn: Furniture enterprise analytics.
 - DS-DRACO: A cloud framework for state-of-the-art Space Weather data.
 - ACTION Seaport: Smart-port technologies for improved safety and operations.
 - Guardomic: Bot mitigation engine.
 - VAMOS: Analysing sports performance through a cloud hosted platform.
 - CyberHAB: Using data cloud services to manage harmful algae blooms.
 - Kampal: Artificial Intelligence for rare disease diagnosis.

Current pilots

- Different domains, different requirements, different support type
- Running pilots
 - MUON: Tomography for large industrial equipment
 - KNOWCO4EOSC: Knowco collabwith platform integrated with the EOSC.
 - IBISA: Crop loss assessment stress test.
 - BIGcoldTRUCK: Big data analytics for cold chain logistics optimization in refrigerated trucks.
 - Erasmus Play: Accommodation search engine.
 - DEIPDASFD: Decentralized Assessment of FAIR datasets.
 - ESAX: Enhancing the Scalability of the Axyon platform.
 - BI Insight: Business Intelligence, Artificial Intelligence and Big Data technologies.
 - DCP: Dynamic resource allocation and accounting in a digital marketplace.
 - BBC R&D: Video coding and compression.
 - NetService: Blockchain for university certificates.

Example pilots

Different support models

Support models

- Identification of the requirements
- Support models:
 - Resources: Computing/storage support
 - Example: DataFurn, Muon, BBC R&D: Video coding and compression
 - Providing technological expertise
 - Example: Knowco4EOSC, IBISA, Erasmus Play
 - Co-design using EOSC-hub services
 - Example: Cyberhab, DCP
 - Support and co-development with other project
 - Example: BI Insight, BIGcoldTRUCK, DEIPDASFD

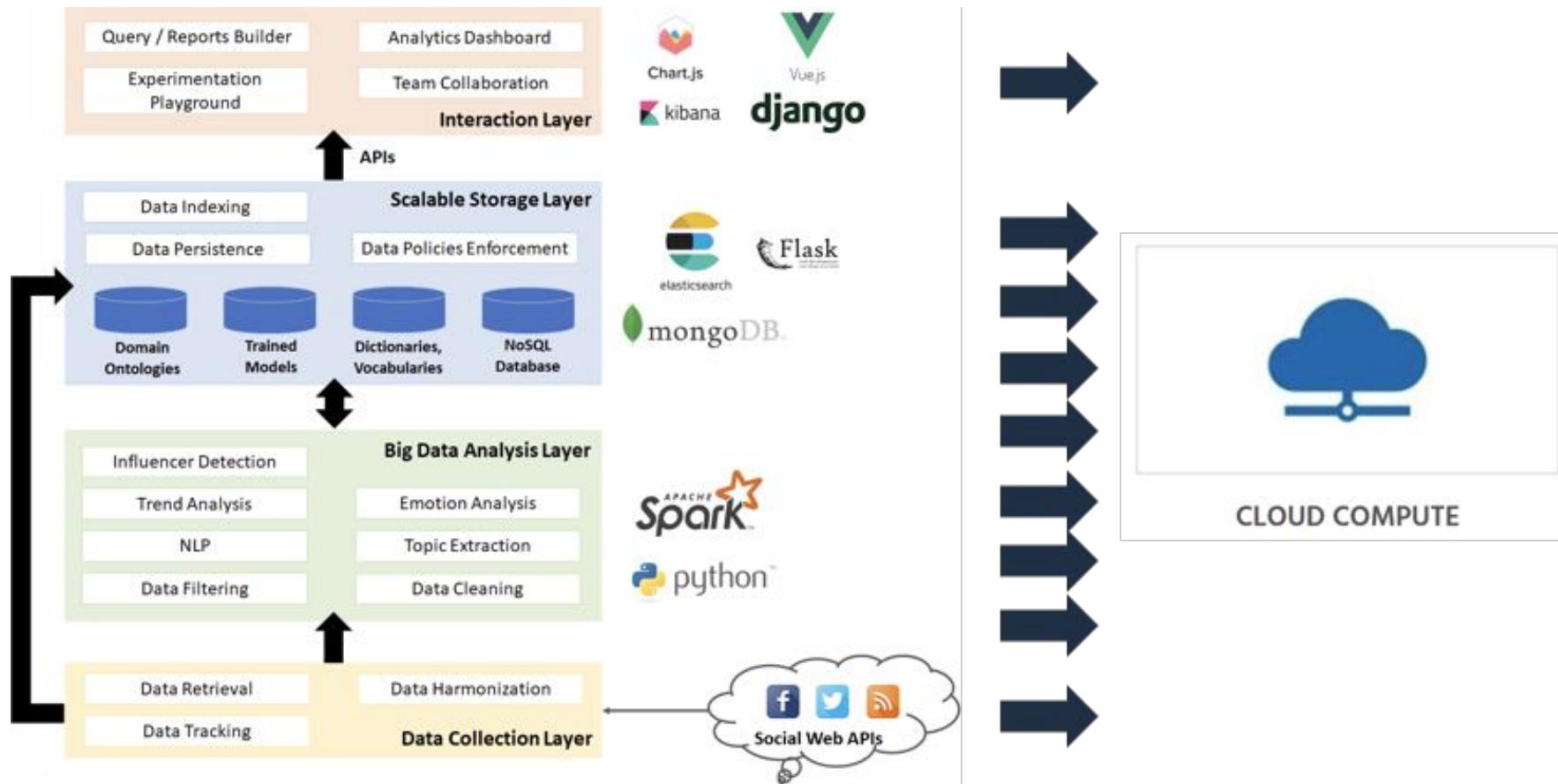


- The furniture industry still suffers from several inherent challenges preventing it from leveraging the tremendous data deluge our world witnesses
- ... Generic social media analytics tools monitor the global trends and do not provide actionable insights to the domain's SMEs
- ... The furniture SMEs online presence is limited and therefore the current content is biased towards larger brands
- ... Trend prediction methods cannot easily distinguish between promotional and genuine content while facing significant difficulties when it comes to image recognition

- To **early identify emotions and predict trends** about furniture products-services in online discussions
- To unveil **"hidden" furniture product-service topics/features**, enriching and validating ideas based on the wisdom of the crowd
- To **monitor brands** and get inspiration for the design of innovative products-services bundles



DataFurn and EOSC services



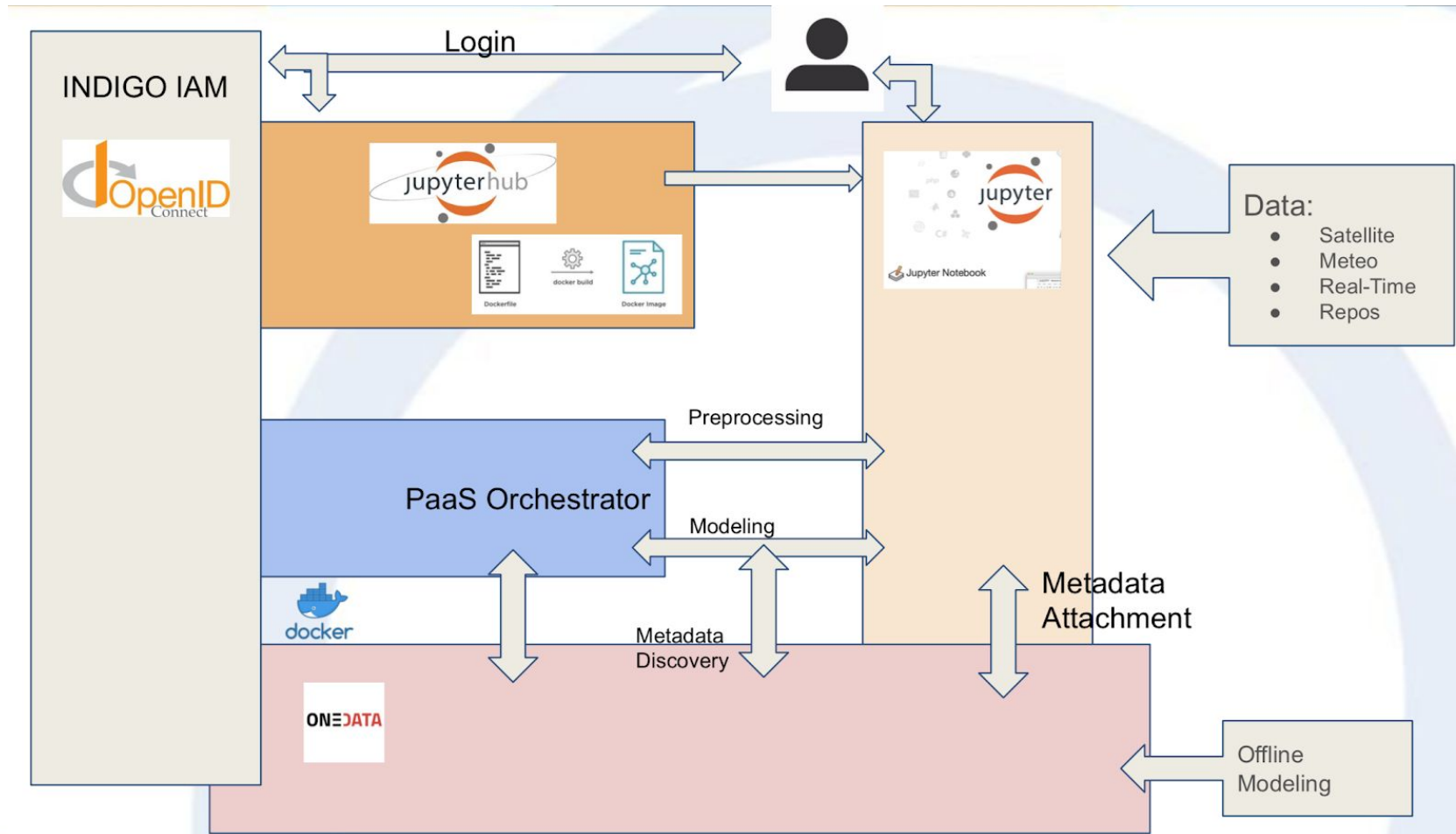
Cyberhab pilot

- Addressing proliferation of toxic microalgae
 - Red tides at sea
 - Cyanobacterial HABs (Harmful Algal Blooms) in inland waters
- Serious and costly environmental and socioeconomic impacts
- Impacts on services such as provision of drinking water and recreational water activities
- Cloud technologies can support management
 - Use of Big Data
 - Computational Modeling
 - Data Lifecycle management
- A complete environment is needed to deal with the data volume and computing requirements

The combination of Data Cloud Systems and Cyber Infrastructures as a whole would pose new possibilities of early reactions and new or more efficient designing of protection strategies and treatment systems against the sanitary and economic impacts of these events.



Co-design using EOSC services



EOSC DIH Pilot Artificial Intelligence and Big Data technologies pilot

Data explosion – let's go digital

BI Business Intelligence
Insight

Huge data volumes – storage and processing issues

Unstructured data – takes a human to extract knowledge

Data silos – locked in departments and workstations

Dark data – unused for insights and business decisions

Digital transformation - Enterprise Content Management

Information Hub – information flow across organization

Centralized access - data democratization

Automated knowledge extraction – leverage AI/ML/NLP

No-brainer search - google-like search



Projects in the partnership



- Use of EOSC infrastructure and services through voucher
- Launching a demo version of the biECM in the cloud
- Validating the potentials of the services created in the DEEP Hybrid Datacloud and investigating possible integration
- Plans for onboarding in EOSC marketplace



How to get involved

- Open calls
 - Attract wider community
 - Target specific areas
 - Vouchers and/or direct funding
- Join our community
 - Establish a partnership
 - defining specific engagement areas
 - Contribute expertise in a specific field/area
- Ask us through webpage
 - If you have a pilot idea
 - If you want to kick start engagement
 - Join our forum
- Collaboration with other projects
 - Being an exploitation channel for EOSC projects!!!!
 - Defining long term collaboration scope and agreements

Email
business@eosc-dih.eu

Name:

Surname:

Name of the organisation:

Type of the organisation:

Country of the organisation:

Email:

Message:

<https://eosc-dih.eu/partnerships/> 13 + 12 = **SEND**



Organization of the support

Overview and lessons learned

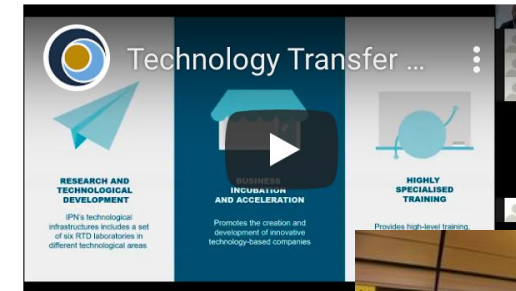
Support mechanisms

- Communication channels
 - Trello boards
 - Status meetings
 - Technical meetings with the required experts
 - Website: forum, newsletter
- Community forums
 - Networking
 - Innovation workshops
- Webinars
 - Marketing, exploitation, IPTR, technology transfer models
- Events participation
 - Success stories promotion
- Publishing success stories

Technology Transfer Models Webinar

24.09.2020

[Download presentation](#)



EOSC Digital Innovation Hub - Lighting Talk - EC DIH WG (Brussels, April 2019)



Support type

- Technical support
 - Support of the architecture definition
 - Which EOSC services to use, how/which services to combine
 - Bridging the pilots and providers of e-infra and services
- Marketing, communication, exploitation
 - 1-to-1 meetings with experts
- Webinars
 - General EOSC webinars
 - Dedicated webinars basing on the community needs
- Funding opportunities
 - Open calls in the area of computing
 - Help finding partners and building consortia

What's after the pilot

- Pre-commercial agreements
- Commercial agreements
- Join our community
 - Networking
 - Community meetings
 - Funding opportunities
 - New common initiatives
 - Partnerships
- EOSC DIH as long term initiative not bound to one project!

Lessons learned

- From EOSC perspective
 - EOSC is a moving target, that does not help
 - EOSC/projects buzzwords and terminology sometimes not clear
 - Availability/reliability of the services and resources - industry has high expectations
 - Always comparing EOSC with commercial offers and services
- From DIH perspective
 - We are dealing with innovators and their added value services
 - High overhead in orienting SME's to what is a complex environment in the research landscape - you need to learn how things work in academic
 - Working with SME's and their diversity, going from 6-18 it is not about marketing/dissemination, it's more how to organize support and find expertise needed, when each have different support requirements
- We need to scale in operation

EOSC DIH Partners



 eosc-dih.eu

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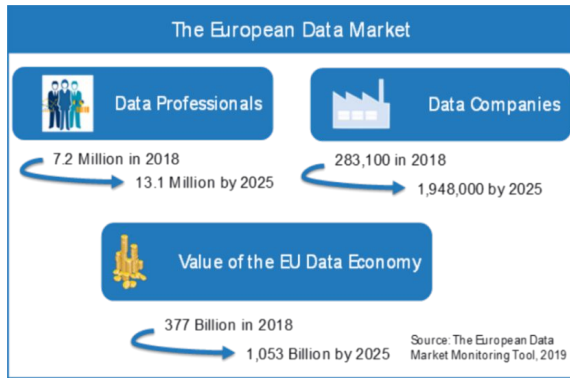


EUH4D
EUROPEAN FEDERATION OF
DATA DRIVEN INNOVATION
HUBS

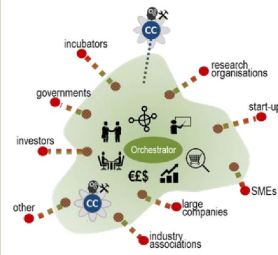
European Federation of Data Driven Innovation Hubs

Engaging the Private Sector. About roadblocks and success stories in
the uptake of EOSC services – Nov 18

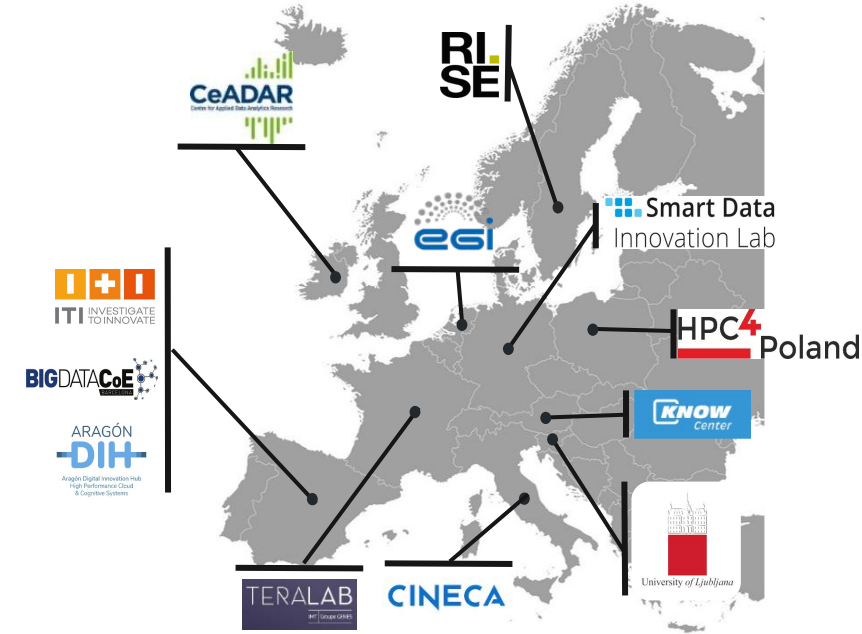
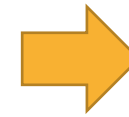
Daniel Alonso (ITI, BDVA i-Spaces Chair, project coordinator)



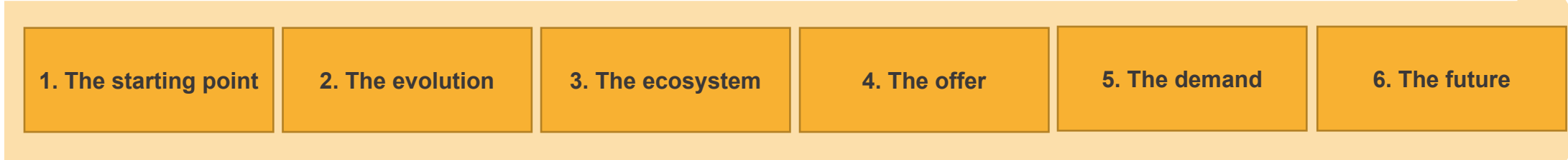
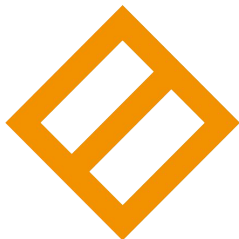
- #### Digital Innovation Hub
- Organised to provide services to industry
- Access to competence centres
 - Development of innovation ecosystem
 - Brokerage
 - Access to finance
 - Market intelligence
 - Training and education
 - Incubator/mentoring services



- #### Competence Centre
- Competencies in digital technologies
- Provide access to infrastructure and technology platforms
 - Provide digitisation and application expertise
 - Support experimentation in real-life environments
 - Support fabrication of new products
 - Demonstrate best practices
 - Showcase technologies in pilot factories, fab-labs



Reference federation in Europe for Big Data cross-border experimentation and innovation, providing a complete pan-European catalogue of data sources and services to foster data driven innovation at local and regional level



EUHUBS4DATA

EUH40

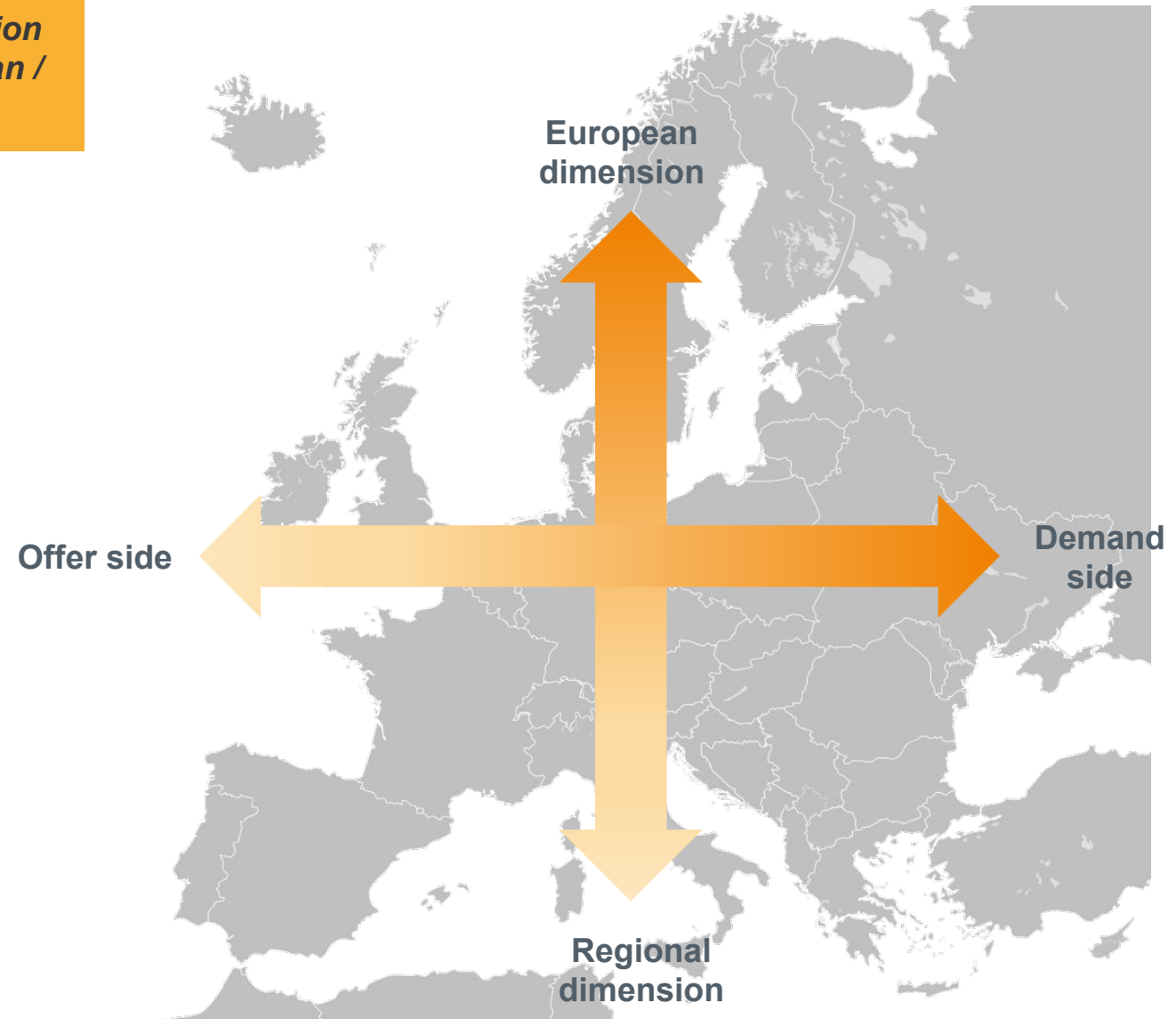
EUHubs4Data offers an environment for data driven innovation and experimentation based on collaboration among European / regional DIHs and other European initiatives


Offer side:

- To bring together services, datasets, tools, assets from European initiatives
- To leverage results from European projects (starting by BDV PPP projects, but open to others ...) and include their assets in the federated catalogue
- To develop interoperability models (now based on IDSA) to provide a data space, also compatible with other initiatives (i.e. Gaia-X, ...)

Demand side:

- To bring this offer closer to the respective ecosystems through the DIHs of the federation
- To support regional SMEs and small actors in the adoption of data driven technologies
- To provide financial support during the project (cascade funding), technical and business support in the form of services





EUH40
EUHUBS4DATA

1ST OPEN CALL
Submission of applications for
participate in Big Data
experimentation.

STARTS SOON!

www.euhubs4data.eu

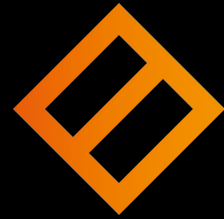
<https://www.linkedin.com/company/68779050/>

<https://twitter.com/EuHubs4>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 951771





www.euhubs4data.eu

Engaging the private Sector

About roadblocks & success stories in the uptake of EOSC services

For those who have just started or are starting to market their resources to industry. How should we move forward with regard to outreach, onboarding, partnering with existing DIH, other H2020 projects or similar initiatives?



Marcin Płóciennik
PSNC



Daniel Alonso
ITI, EUH4D



Martin Kaltenböck
Semantic Web Company
SSHOC



Engaging the private Sector

About roadblocks & success stories in the uptake of EOSC services

What are the biggest barriers to uptake of services by the private?



Marcin Płóciennik
PSNC



Daniel Alonso
ITI, EUH4D



Martin Kaltenböck
Semantic Web Company
SSHOC



Engaging the private Sector

About roadblocks & success stories in the uptake of EOSC services

Collaborating with a DIH? How can we gain that confidence you need to collaborate with a DIH?



Marcin Płóciennik
PSNC



Daniel Alonso
ITI, EUH4D



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Semantic Web Company
SSHOC



Engaging the private Sector

About roadblocks & success stories in the uptake of EOSC services

What are the opportunities out there & support available?



Marcin Płóciennik
PSNC



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ITI, EUH4D



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Engaging the private Sector

About roadblocks & success stories in the uptake of EOSC services

Your 1 main recommendation to foster engagement with the private sector for uptake of EOSC resources.



Marcin Płóciennik
PSNC



Daniel Alonso
ITI, EUH4D



Martin Kaltenböck
Semantic Web Company
SSHOC



Thank you!

Marieke Willems
m.willems@trust-itservices.com

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 Open Science **Cloud.**



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