

# Data Spaces Symposium

March 13, 2024 | 15:30

Data spaces for the green deal, energy  
and agribusiness



**Moderator:**  
Panos Ilias  
ILVO



**Nevena Raczko**  
IDC



**Reinhold Achatz**  
IDSA



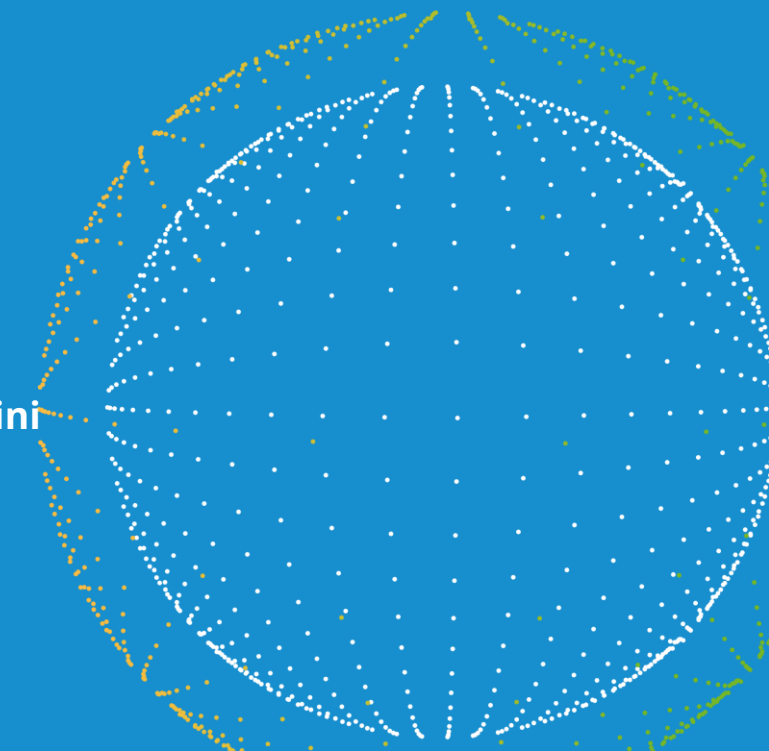
**Thomas Gomez**  
AgDataHub



**Antonello Monti**  
RWTH Aachen  
University



**Massimo Bertoncini**  
Engineering



# Data Spaces Symposium

GREAT Project |  
Green Deal Data Space – CSA



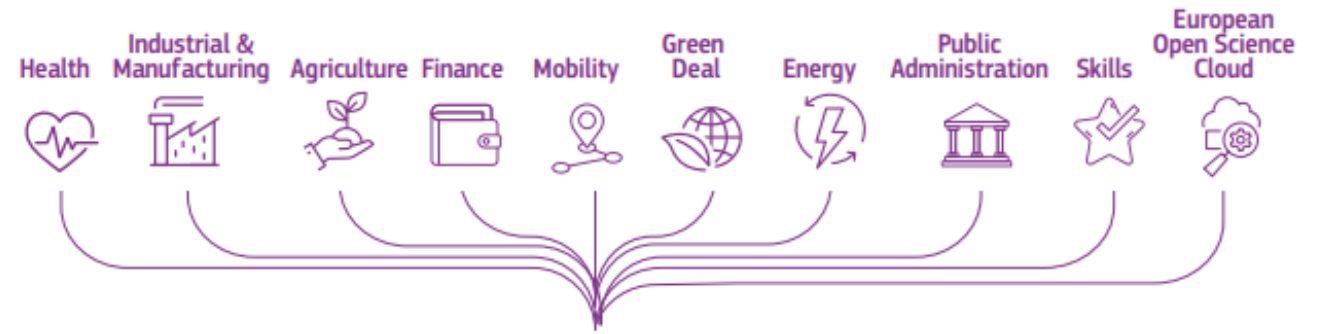
**GREAT**  
Green Deal Data Space

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Nevena Raczko  
Senior Consultant



# GREAT | The Green Deal Data Space



## Green Deal Data Space

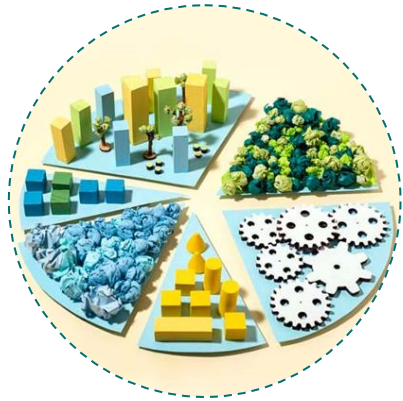
A federation of data ecosystems enabling policy makers, businesses, researchers and citizens, from Europe and around the world, to jointly tackle climate change.

- Duration: 20 Months
- Running: September 2022 – April 2024
- Consortium: 11 Partners 3 Associated Partners
- Funding: Digital Europe Programme (CSA)

- Technical tools for data pooling and sharing
- Standards & interoperability (technical, semantic)
- Sectoral Data Governance (contracts, licenses, access rights, usage rights)
- IT capacity, including cloud storage, processing and services



# Key Achievements & Outcomes



Community of Practice



Technical Blueprint



Governance & Business Models



High Priority Data Sets



Roadmap

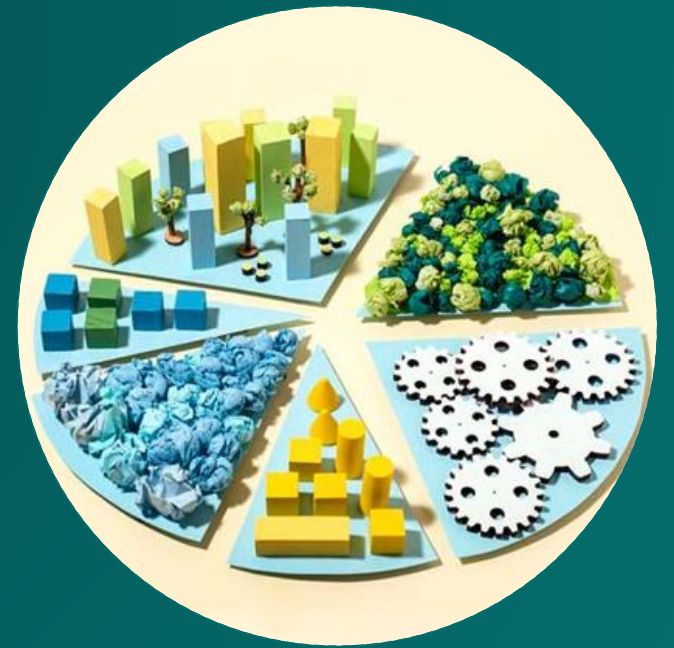
## Strategic EGD Actions





# Community of Practice

## *GDDS*





# Public Deliverables

<https://www.greatproject.eu/>



Initial Blueprint of the  
GDDS Reference  
Architecture



Governance  
Requirements



Prioritized Data Sets  
& Gaps



Roadmap

# Data Spaces Symposium

## Green Deal Data Space for Sustainability & Resilience



Green Deal  
Dataspace  
Resilience & Sustainability

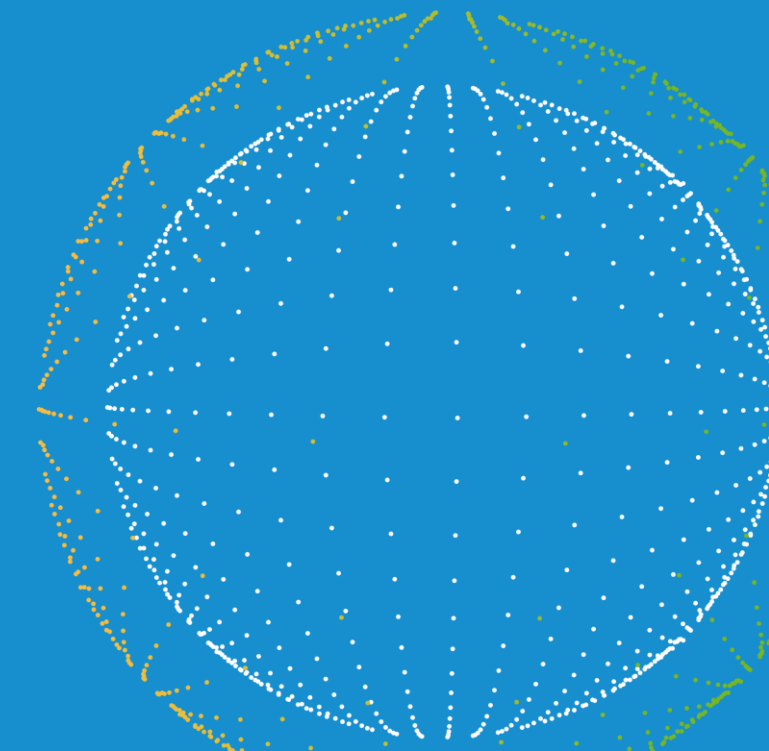
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Dr. Reinhold Achatz  
International Data Spaces Association  
Chairman of the Board



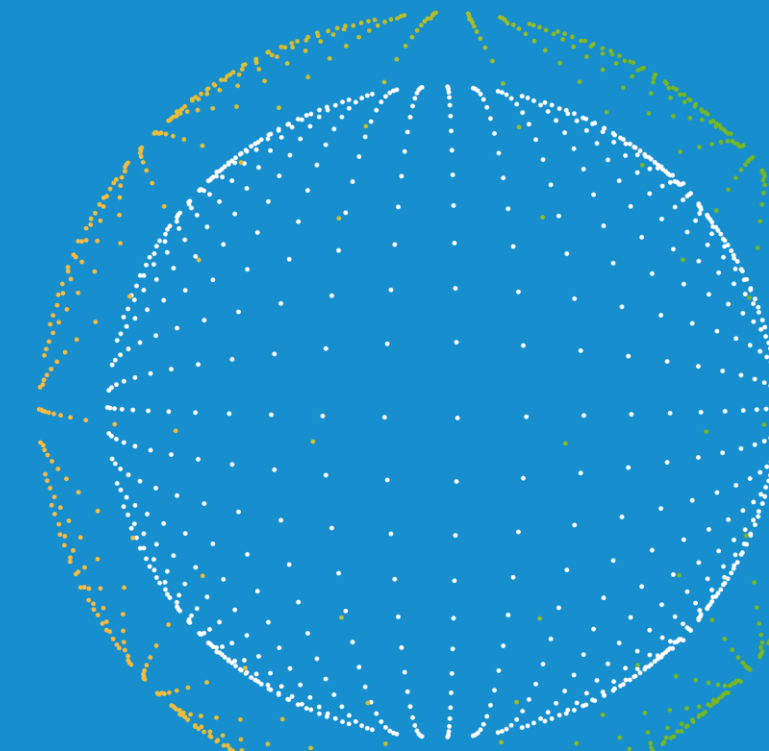
# Green Deal Data Space

- Green Deal Data Space is the umbrella platform for all sustainability and resilience use cases
- Platform based on IDSA standards
- Cross domain
- Open for all / non-profit organization
- Planned working groups:
  - Resilience
  - Emission Data (Sustainability)
  - Biodiversity
  - Manufacturing-X
  - others
- Circa 2'4 million data sets available today
- Multiple services
- Cross border data exchange will be supported



# Green Deal Data Space – Use case examples

- Sustainability / Emission data use case
  - ✓ Provides data for Life cycle assessment
  - ✓ Support for EU Taxonomy reporting
  - ✓ CBAM – Carbon Border Adjustment Mechanism – data
  - ✓ REACH data communication
- Resilience use case
  - ✓ A supply chain radar will support companies with company specific analyses of supply chain risks generated by events in their supply chain.
  - ✓ Trusted Data Hub: Privacy Preserving
  - ✓ Multiparty Data-Sharing Tool



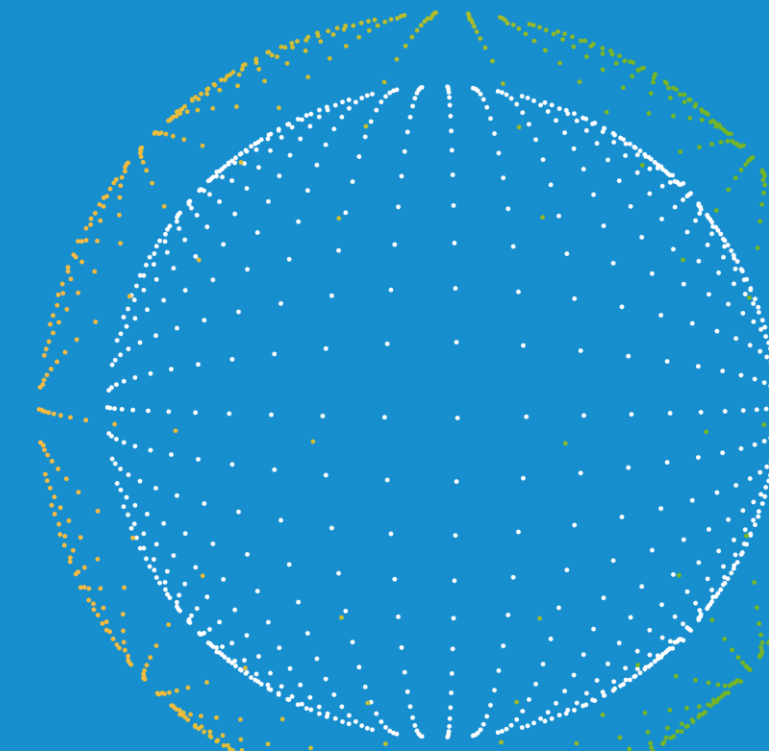
# Data Spaces Symposium

## Building a Common European Agricultural Data Space



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Thomas Gomez  
European Project Manager  
AgDataHub





## Challenges

- **Fragmented and heterogenous sector**
- Many small and medium enterprises
- **Key role of farmers**  
=> asymmetry of power
- **Maturity levels** regarding the adoption of digital technologies
- Semantic interoperability



## Present results

- **Over 400 Data Sharing Initiatives** mapped
- **Macro and micro approach** of the data space
- Capitalising on existing initiatives
- Importance of **data intermediation services**
- Importance of **consent & permission management** for farmers



## Next steps

- **Pedagogy** to onboard local actors
- Select relevant **use cases**
- Demonstrate **value of the data space**
- Implementation of a **decentralised architecture**
- Application of the **legal framework**

# Data Spaces Symposium

## Building a Common European Energy Data Space



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Prof. Antonello Monti  
RWTH Aachen  
University

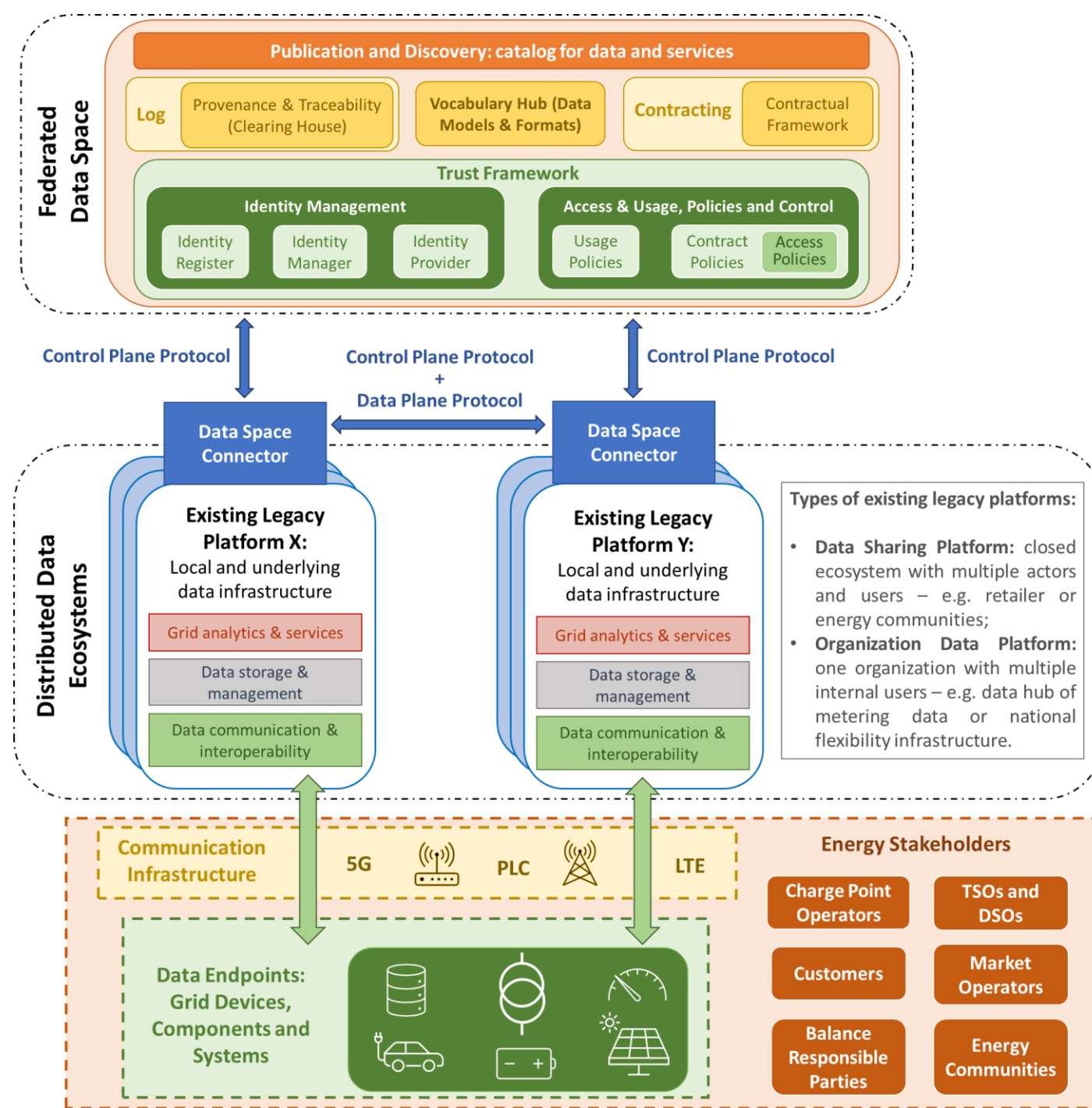


# Blueprint for deployment ready

Goal: from Innovation Actions to national initiatives and large-scale deployments of data spaces

Content:

- **Business use-cases of CEEDS:**
  - Scenarios, Actors, Exchanged Data
- **Architecture:** not MVP version, but with complete set of components
- **Interoperability:**
  - Technical
  - Semantic
  - Governance



# Data Spaces Symposium



Bringing together energy and  
data value chains to enable the  
energy transition

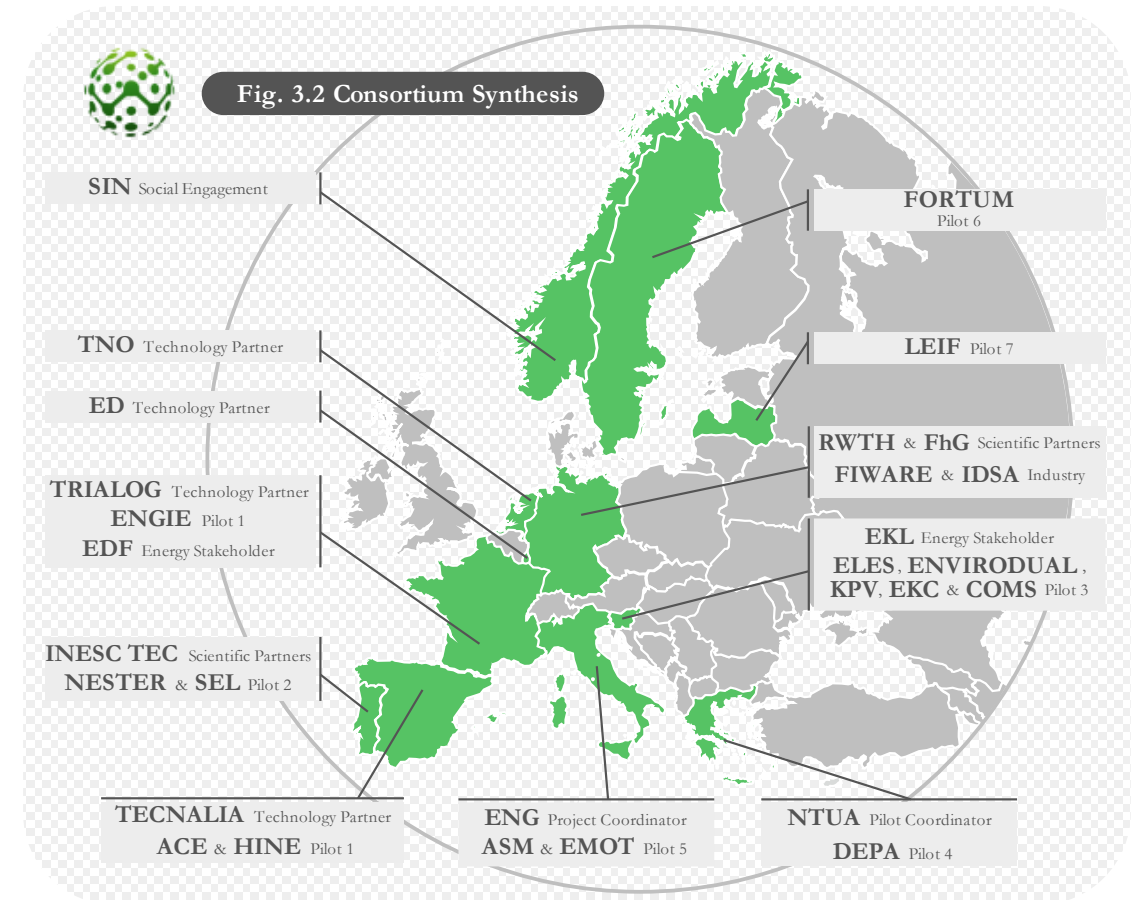
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Massimo Bertoncini  
Engineering Ingegneria  
Informatica  
ENERSHARE Project Director



# Project Identity Card

- **ENERSHARE- European Common Energy Data Space framework enabling data sharing-driven across- and beyond- energy services**
- **Project Goal - To develop and demonstrate a European Common Energy Data Space which will deploy an 'intra-energy' and 'cross-sector' interoperable trusted Energy Data Ecosystem**
- Starting Date: 1st July 2022 – Duration: 36 months
- Total Costs: 9.537.658,75 Euro,
- EU contribution: 7.999.712,00 Euro (Innovation Action)
- Partners: **28 + 2 Affiliated Entities** (Linked Third Parties)
- Country Coverage: 11 Countries
  - Italy, Slovenia, France, Greece, Spain, Latvia, Portugal, Norway, Finland, The Netherlands and Luxembourg



# Project Scope vs Achievements To Date

- Deployment and validation of a **Reference Implementation (RI)** for **Common European Energy Data Space (CEEDS)**, which includes **Technological and standardizable DataSpace Building Blocks**
  - **First Version delivered as MVP1.0**
- Leveraging on and aligning with a number of leading edge **initiatives** (IDSA, GAIA-X, FIWARE, DSSC, BRIDGE) and **projects** (CEEDS HE projects via IntNet project, INTERCONNECT, BD4NRG, OneNet, TwinEU), with SGAM and IEC families of standards, as well as on SAREF and other IoT ontologies
  - Final **Reference Architecture delivered**, which included building blocks and software components design
- **Trust Building Blocks** which include use-cases/pilot-based adaptation and validation of existing **Usage Access Control Tech components** ->
  - A first set of **Trust and sovereignty components** have been provided for the first technology release, including **2 data space connector implementation (TNO TSG, ENG TRUE)** and an identity provider
- Combining **SSH approaches** with **sharing economy and cross-value chain business models** to bring the **consumer perspective** center stage and deploy **blockchain based marketplaces** enabling P2P tokenized energy versus data assets/services exchange and reciprocal beyond-financial compensation
  - Beta version of marketplace, 17 Data-driven cross-sector services, and Beta versions of 3 System-of-System Digital Twins



# Main challenges & Lessons learnt

- energy in some parts of the value chain is a **regulated market/sector**, hence regulated operators cannot freely share data without a clear regulation, while end consumers are reluctant to share energy consumption data due to privacy concerns
  - sophisticated technology is there, but data are missing...
- focus on **simplified tools** for data sets onboarding (make life simpler for non IT people)
- **end-to-end** applications with simply design of attractive **end user interfaces**
- **business cases & models**
  - with clear **interaction among roles belonging to both energy and data value chains**,
  - **techno economic analysis** of trading off additional costs for using data space onboarding tools versus expected benefits (improved BAU, new services)
  - CEEDS data space **governance**



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