The European Big Data Value Forum (EBDVF) is the flagship event of the European Big Data Value and Data-Driven AI Research and Innovation community organised by the BDVA and the European Commission (DG CNECT), with the support of local partners. EBDVF 2023 brought the entire European data-driven AI research and innovation community together to share knowledge, collaborate and celebrate achievements in Valencia, from 25-27 October.

This year’s edition was organised under the auspices of the Spanish European Council presidency and in collaboration with ITI, a private technological centre of reference in ICT, INCLIVA VLC (Biomedical Research Institute), the Polytechnic University of Madrid (Universidad Politécnica de Madrid) and the Polytechnic University of Valencia (Universidad Politécnica de Valencia), alongside the European Commission (DG CNECT).

The forum featured over 200 top speakers, including Carme Artigas, the Secretary of State for Digitalisation and Artificial Intelligence of the Spanish Government, Roberto Viola - Director General of the European Commission’s DG Connect, Siemens’ Chief Expert Software Thomas Hahn and Asunción Gómez Pérez (UPM).

Esteemed speakers from industry, research and policymaking, such as Stefan Hoppe (OPC), Ulrich Ahle (FIWARE Foundation), Alberto Palomo - Chief Data Officer for the Government of Spain, Lars Nagel (ISDA), Laura Olcina (ITI), Els Breedstraet (Publications Office of the European Union), Ana García Robles (BDVA), Laure Le Bars (SAP), Daniel Sáez Domingo (ITI), Andrés Cervantes (INCLIVA), Elena Montiel-Ponsoda (UPM), Frédéric Bellaiche (DAWEX), Natalie Bertels (CiTiP-KU Leuven-IMEC), Jose Bernabeu-Auban (ITI), Viivi Lähteenoja (MyData Global), Sebastian Peña Serna (clesgo GmbH), Roland Fadrany (Gaia-X), Edina Nemeth (Horizon Europe), Silvina Arce (Club Chief Data Officer Spain & Latam) and Joan Meseguer Llopis (Fundación Valenciaport) shared with us the latest updates and outcomes of their projects.

The event was moderated by the Secretary General of BDVA, Ana García Robles.

EBDVF 2023 aimed at promoting initiatives and setting the ground for partnerships, through a close and powerful industry-research-policy collaboration with focus on challenges and opportunities of Data and AI considering the technological, societal and economical aspects.

To achieve those purposes, we gathered in Valencia top industry professionals, business developers, researchers and policymakers from all over Europe and other regions of the world to support policy actions and industrial and research activities on the cutting edge of technological advancements.
This year's theme, titled "Data and AI in action: Sustainable impact and future realities," fostered discussions on key issues within the data and AI community and featured presentations of BDVA members, partners and representatives from European research and innovation projects. Collaboratively, we conducted sessions and workshops that shaped the trajectory of big data and data spaces, highlighting how businesses can leverage Trustworthy AI and exploring the role of high-performance computing in facilitating digital transformation. Our agenda encompassed a comprehensive perspective across various European economic sectors, acknowledging the societal implications of rapidly advancing technologies.

Contributors provided insights that illuminated new paths for innovation in the years ahead. However, the European Big Data Value Forum (EBDVF) was not solely centered around the stage events. It offered a platform to connect with European colleagues, gain fresh perspectives and foster future collaborations, contributing to a dynamic and interactive experience.
The EBDVF 2023 took place on-site in Valencia, Spain between 25 – 27 October. The overall programme included 4 plenaries, high-level panels and 5 parallel sessions over three days. The programme was organised based on themes from a sectorial and cross-sectorial angle and divided into 14 tracks.

**VERTICAL/SECTOR-SPECIFIC THEMES AND LEADS**

- **Mobility**: Vivian Kiousi (Intrasoft), Bernhard Peischl (AVL), Oihana OTAEGUI (Vicomtech), Rodrigo Castineira (Indra), Jim Ahtes (i2CAT), Stefano Persi (Mosaic Factor)
- **Healthcare**: Ane Alberdi (Mondragon University), Josep Redon/Ana Ferrer (INCLIVA), Ernestina Menasalvas (UPM)
- **Manufacturing**: Thomas Hahn (Siemens), Davide Dalle Carbonare (Engineering), Sergio Gusmeroli (Polimi), Oscar Lazaro (INNOVALIA)
- **Agri-Food**: Panos Ilias (ILVO), Pablo Coca (CTIC)
- **Tourism**: Dolores Ordóñez (Anysolution), Nuria De Lama (IDC)
- **AI for public services**: Roberto Di Bernardo (Engineering), Vega Rodrigalvarez (ITAINNOVA), Claudio Feijóo (UPM)

**HORIZONTAL/CROSS-SECTORIAL THEMES AND LEADS**

- **Data Spaces**: Ed Curry (Insight), Tuomo Tuikka (VTT), Franziska von Scherenberg (Fraunhofer), Daniel Sáez (ITI)
- **Industrial and Trustworthy AI**: Thomas Hahn (Siemens), Patrick van der Smaagt and Djalel Benbouzid (Volkswagen), Nuria Ávalos (IndesIA)
- **Technology, Platforms and impact**: Richard Stevens (IDC), Daniel Sáez (ITI), Jose Bernabeu (ITI)
- **EuroHPC and applications**: Jeanette Nilsson (RISE), Maria Perez (UPM)
- **Data AI and the new society**: Natalie Bertels (imec/ KU Leuven), Freek Bomhoff (TNO), Alberto Gago (ES Gov), Daniel Sáez (ITI)
- **Emerging topics**: Valerio Frascolla (Intel), Laure Le Bars (SAP)
- **Metaverse**: Valerio Frascolla (Intel), Joaquín Salvachúa (UPM)
- **Large Language Models and Generative AI**: Andrejs Vasiljevs (TILDE), Elena Montiel (UPM)
Day 1
25th of October 2023

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<thead>
<tr>
<th>Time</th>
<th>Room A</th>
<th>Room 3F</th>
<th>Room 3G</th>
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<td>9:00 - 10:00</td>
<td>Common European Data Spaces and Interoperability</td>
<td>Visions on European AI, Data and Policies - shaping the UNDA</td>
<td>Mobility and Transportation - working value chains and ensure dynamics in the Digital Computing Continuum</td>
<td>Interoperability of Data Spaces</td>
<td>If you think AI is hot, wait until it meets Quantum Computing (part 1)</td>
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<td>11:30 - 13:30</td>
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<td>13:30 - 14:30</td>
<td>Networking Lunch, Exhibition</td>
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<td>14:30 - 16:00</td>
<td>Accelerating adoption of Data Spaces: From theory to practice</td>
<td>HPC and AI towards the sustainable future</td>
<td>Leveraging the data sharing potential across an emerging energy data value chain</td>
<td>Non-legal aspects of data sharing for resource constrained environments</td>
<td>Metaverse enablement: moving towards virtual worlds (part 1)</td>
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<td>16:00 - 16:30</td>
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<td>16:30 - 18:00</td>
<td>Manufacturing x IR</td>
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<td>18:00 - 18:30</td>
<td>Keynote: AUID and i-Spaces Ceremony</td>
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<td>19:00 - 21:00</td>
<td>Reception at Feria Valencia</td>
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## Day 2
### 26th of October 2023

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<th>Time</th>
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<tr>
<td>8:30 - 9:00</td>
<td>1A (Plenary room)</td>
<td>Morning Coffee/Exhibition</td>
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<tr>
<td>9:00 - 10:15</td>
<td>3F</td>
<td>Panel/Keynotes</td>
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<td>10:15 - 11:45</td>
<td>3G</td>
<td>- Exploring the opportunities and challenges of the European Health Data Space and the new regulation proposal.</td>
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<td>3C</td>
<td>- Smart Manufacturing Data Ecosystems and Their Socio-Economic Impact</td>
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<td>4D</td>
<td>- Unlocking a Data-Driven Mobility in Europe</td>
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<td>- Empowering Smart Cities with Multimodal Extreme-Scale Data Analytics</td>
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<td>Coffee Break/Exhibition</td>
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<td>12:15 - 13:45</td>
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<td>Networking Lunch/Exhibition</td>
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<td>13:45 - 14:45</td>
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<td>- Empowering innovative large language models, transcribing European data provenance.</td>
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<td>- A journey through the landscape of ethical AI with challenges.</td>
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<td>- The bridges between Environmental digital twins and the Greentech Data space.</td>
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<td>- End-to-end modular approach to digital Twin Development to holistically address the impact of solutions in manufacturing.</td>
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<td>Coffee Break/Exhibition</td>
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<td>16:15 - 16:45</td>
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<td>- Federation of i-Spaces: The experimental reference for accelerating Data &amp; AI adoption in Europe.</td>
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<td>16:45 - 18:15</td>
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<td>- Empowering the Public Sector through AI</td>
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<td>- Regulatory landscape for AI: Current situation, challenges and opportunities.</td>
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<td>- Data Spaces Roadmap and future programmes (DSSC).</td>
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<td>20:45 - 23:00</td>
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<td>Social/Networking dinner at Veles e Vents</td>
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Day 3  
27th of October 2023

For the detailed view and sessions description, please check the online programme.
EBDVF 2023 started with the welcome speech from Thomas Hahn (BDVA President & SIEMENS Chief Expert Software) and Ana García Robles (BDVA Secretary General).

Thomas Hahn talked about the importance of having events that unite industry, academia and international organisations in today’s ever-changing landscape of technology and how the strides we make today echo into the future, shaping the way we live, work and connect. The fusion of data, data spaces and AI technologies is not just a trend, but a transformative force that extends its influence across businesses and personal spheres. The integration of AI opens doors to novel digital product features and advanced services, revolutionising industries and creating new dimensions of collaboration.

Ana García Robles thanked everyone for being part of this transformative journey. As participants engage in discussions, build bridges and develop partnerships, they contribute to pushing the field forward and opening new business opportunities and societal development.

Laura Olcina, the Director General of ITI and Andrés Cervantes, the Scientific Director of INCLIVA, both representing the two local organisations that supported EBDVF 2023, thanked participants for coming to Valencia and underlined the growth and development of the data and AI ecosystem in the region.

Laura Olcina talked about ITI’s outstanding growth and the innovative projects that her institution is currently involved in and the importance of remaining competitive in the ever-changing global economy. Data is and will continue to be a transformative force for economy and society and as members of the event, participants will not only be witnesses of its impact, but will be part of it.

Andrés Cervantes stated that everyone’s intervention creates a lot of expectation, as it will have a transformative effect on how everyone’s profession will develop and underlined the contribution and relevance of data and AI in the medical sector.
Roberto Viola, the Director General DG CNECT (the European Commission) expressed his support for events like EBDVF, that help the development of the Data Economy and underlined the need to unite different stakeholders to discuss burning topics. In the current context of the world, working and living with data cannot be overstated. Data is the key to decision-making, productivity and competitive advantage. For this reason, the European Commission has put a strong emphasis in recent years on making more data available for innovation within the EU, helping to develop a legal framework that we then put in place. The legal framework represents the first pillar of the Commission’s strategy from 2020. The second pillar is the creation of the Common European Data Space - spaces where data can be exchanged securely, in a trustworthy manner and where everyone is treated equally in terms of business outcomes. Roberto Viola was glad to announce that all the elements have been put into action to help further EU’s plans for a data-driven society. The Data Act aims to balance the interests of data creators and users, especially small and medium-size enterprises, giving European companies a public and secure access to data. The vote in the Parliament is expected later this year.

Keynote speaker Prof. Asunción Gómez Pérez (Vice-Rector for Research, Innovation and Doctoral Studies, UPM) talked about the power of AI in a future reality, presenting the case of the AI in the Spanish Language Academy. She mentioned the long history of Real Academia Española. RAE’s mission is ensuring that the changes that the Spanish language undergoes, as it constantly adapts to its speakers’ needs do not break the fundamental unity of language throughout the Hispanic world. In 2019, RAE launched its Spanish Language and Artificial Intelligence Project (LEIA) to defend and encourage the good use of the Spanish language in the digital world. She underlined the importance of AI-related language research and the furthering of data-driven research across academic fields.
DATA AND AI IN ACTION: SUSTAINABLE IMPACT AND FUTURE REALITIES (PANEL)

The panel discussion focused on the crucial aspects of empowering European industry and society for a human-centric digital future embedded with technology infused with ethical values and purpose. It aimed to expand the data-driven ecosystem across sectors and global value chains, while taking into account the crucial need for governing data effectively, aligning technological advancements with societal and business needs and ensuring that technology evolves ethically and sustainably in the digital age.

The dialogue, featuring Thomas Hahn, Laure Le Bars, Alberto Palomo, Viivi Lähteenoja and Silvina Arce, illuminated critical facets essential for meaningful progression in the digital landscape.

At the start of the panel, Thomas Hahn shared BDVA’s strategic agenda and main themes of focus:

1) Empowering European industries and societies for a human-centric digital future
2) Expanding data-driven ecosystems across sectors and (global) value chains
3) Making data and AI innovations fit for emerging infrastructures and platforms
4) Sustainable data and AI: enhancing efficiency and resilience, while reducing resource demands
5) Integrating innovation, ethics and compliance

Viivi Lähteenoja, with her diverse perspectives as a researcher, philosopher and board chair of MyData Global, introduced a profound notion of considering the pace of technology against the slow, evolving nature of human values and needs. Emphasising that technology’s rapid evolution often eclipses the slower pace of human adaptation, she stressed the necessity to recognise the constants amidst technological change. The focal point, Viivi argued, should revolve around ensuring that technology aligns with fundamental human requirements for belonging, security and personal growth.
Silvina Arce highlighted the importance of aligning technological advancements with business needs. She cautioned against the risk of developing innovative solutions without fostering adoption within businesses. Ms Arce emphasised the need to start not with technology but with the "why" and the "expected outcomes," ensuring that technological advancements are closely intertwined with tangible business impacts.

Alberto Palomo shed light on the imperative need for governance in the realm of artificial intelligence and data. He underscored the significance of controlling and governing cloud, AI and data to achieve reproducible results in AI, advocating for a European approach that prioritises understanding data contextually rather than relying solely on the brute force of computational power.

The conversation also touched upon the concept of “trustworthy technology,” where the convergence of technical prowess, legal compliance and ethical standards fosters a foundation for dependable AI systems. This discussion underlined the necessity of harmonising technology with legal and ethical boundaries to ensure the deployment of trustworthy AI.

Laure Le Bars further echoed the sentiment, emphasising that technological advancements, particularly in AI, require a purpose-driven approach. She highlighted the need to focus not just on the technology itself, but on its real-world application and beneficial use cases for enterprises, citizens and humanity as a whole.

The overarching theme woven through these discussions revolved around aligning technological progress with human values, ethical considerations and the practical needs of businesses and society. The panel unanimously advocated for a thoughtful and purpose-driven approach to technology, ensuring that advancements serve the greater good while maintaining accountability, transparency and ethical integrity.

As we head toward an increasingly digital future, these insights serve as a guiding compass, steering the trajectory of technological development towards a human-centered and ethically sound digital realm.

The general consensus was that we are in need of ethical technologies to support the growth of businesses. Data governance and the alignment of technology with human values and practical applications are important for a sustainable future technological development throughout European industries.
In the context of a high level of digitisation, the global landscape of manufacturing stands at the threshold of unparalleled challenges and prospects. This transformation heralds the convergence of tangible reality with its virtual counterpart, promising an integration across the entire value chain—from the inception of products and the intricacies of production and process design to the realm of on-site customer service and circular practices. These advancements transcend geographical borders, corporate confines and national demarcations, propelled by the engine of digitalisation.

Thomas Hahn, Ernst Stöckl-Pukall and Prof. Henning Kagermann, the former chairman of the Executive Board and Chief Executive Officer of SAP, talked about how in this milieu, IM-X embarks upon the creation of a federated, decentralised and collaborative data ecosystem tailored for the realms of astute manufacturing. Embracing openness, global reach and cross-industry participation while upholding the tenets of FAIR Data Principles, its strategic objectives revolve around laying the groundwork for a robust and competitive industrial sphere within a framework of sustainability.

International Manufacturing-X, as the vanguard, not only defines global benchmarks but also oversees the essential technical infrastructure essential for ensuring both interoperability and sovereignty. IM-X’s core mission lies in crafting a federated, decentralised data ecosystem conducive to smart manufacturing. This pursuit is aimed at fostering an open, global and cross-sectoral network of data, driving cost-effective operations on an international scale.

This ambitious endeavour is structured along three principles:

1. Cultivating collaborative use cases for industrial data across diverse manufacturing sectors.
2. Pioneering the formulation of prerequisites, exerting influence on international standardisation and framing frameworks fundamental to deploying federated data ecosystems tailored for manufacturing.
3. Offering guidelines that facilitate the utilisation of user-friendly applications and enable the scalable expansion of these ecosystems.

At the heart of this vision lies a commitment to open collaboration, inclusivity, transparency and equitable treatment of all partners nested within the International Manufacturing-X ecosystem. The International Manufacturing-X Council stands as the collective compass, determining the requisites, actions and accountable stakeholders essential to this endeavor.
In order to foster sustainable, resilient and competitive industrial solutions, the manufacturing sector is presently strategising substantial investments in establishing and managing a federated data economy for manufacturing. These efforts extend beyond individual company endeavours and are integral to a comprehensive data ecosystem reliant on collaborative efforts transcending company boundaries, industry sectors and national borders. Global Manufacturing-X (IM-X) Systems are worldwide data-centric endeavours initiated by the industry, uniting nations and regions deeply committed to advancing Smart Manufacturing to its next phase.

To ensure transparency and synchronise global perspectives requiring alignment, the council assembled thought-leaders and decision-makers from both public and private sectors, representing key manufacturing initiatives worldwide. They facilitated ongoing dialogues aimed at cultivating dependable global data ecosystems and steering the evolution of the data economy.

The core elements of the IM-X Council and the forthcoming steps towards their implementation were presented in this panel. To underscore the initiative’s global essence, industry leaders worldwide shared their perspectives on the matter.

EBDVF connected via live stream to an event happening in Greenville, S.C., where U.S.’ Smart Manufacturing Institute was honoured to share with Valencia’s audience their participation in the establishment of the International Manufacturing-X Council, with their official announcement at the 2023 Annual CESMII Member Meeting hosted at SOUTHTEC’s Smart Manufacturing Experience.

U.S.’s Smart Manufacturing Institute joined Germany (Plattform Industrie 4.0), Austria (Plattform Industrie 4.0 Österreich), France (Alliance Industrie du Futur), Australia (CSIRO’s Data61), Canada (Offensive de Transformation Numérique), South Korea (KOSMO), Japan (RRI), Italy (Confindustria) and the Netherlands (Smart Industry) in launching this important initiative to implement a federated, decentralised and collaborative data ecosystem for smart manufacturing.

IM-X represents a ground-breaking effort to facilitate open, international R&D, partnerships, cooperation, standardisation and deployment of manufacturing technology, which at its core is based on the creation of a federated, decentralised and collaborative data ecosystem for smart manufacturing.
John Dyck, CEO of CESMII mentioned that the future of smart manufacturing lies in open, interoperable systems, sustainable and energy-efficient operations and secure and resilient architectures.

Henning Banthien, Secretary General Plattform Industrie 4.0 saw how the data-based economy is changing the forms of cooperation between companies and for this transformation to be a success, trust between all actors is needed.

During the connection between Valencia and Greenville, the dialogue delved into the significance of global collaboration, particularly emphasising the importance of unified data spaces, scalability and cross-sectoral cooperation.

The conversation touched the topic of a need for scalability, where emphasis is placed on creating guidelines to scale up initiatives, especially targeting small and medium-sized companies (the German Mittelstand) in addition to larger corporations. This stresses the importance of guidelines and support for these smaller entities.

The formation of an International Manufacturing Council highlights its potential for innovation, economic growth and addressing critical societal challenges like climate change, through the use of sustainable technologies.

Key Industry focuses were addressed, as the discussion reached the diverse interests within manufacturing, such as smart manufacturing or cybersecurity, where there was a consensus over the significance of connecting data across sectors and countries.

All participants shared their passion for data spaces. They envisioned global data spaces that transcend national borders, allowing seamless data exchange for innovation and sustainability, stressing the importance of trust and cooperation in building them. The panel acknowledged the pivotal role that associations such as BDVA have in supporting International Manufacturing efforts, emphasising the need for knowledge-sharing, discussing challenges, bringing to the table potential solutions and leveraging collective experiences to drive meaningful change.

Overall, the discussion showcases a shared vision among global representatives for collaborative efforts in crafting a unified platform for data-sharing and innovation in the manufacturing industry, aiming for a more sustainable and connected future.
DATA IN ACTION BY THE DATA SPACES BUSINESS ALLIANCE (PANEL)

As we become increasingly reliant on data, the collaborative efforts of organisations have sparked a new era defined by the exploration of data spaces and the potential they hold. The debate, which featured Thomas Hahn (Siemens), Ulrich Ahle (FIWARE Foundation), Roland Fadrany (Gaia-X), Ana García (BDVA) and video intervention from Lars Nagel (IDSA), allowed industry leaders to highlight a shared vision—capturing the essence of cooperation and innovation.

Thomas Hahn underlined the core motivation behind the inception of the Data Space Business Alliance. Reflecting on the alliance’s genesis, Hahn noted a critical juncture in 2021 when industry experts united to examine the burgeoning landscape of data spaces. Their diverse perspectives converged on a singular focus—harnessing the potential of data from various angles, leading to the birth of an alliance committed to exploring these uncharted territories. The alliance’s primary focus wasn’t to craft extensive contracts but to create a concise yet impactful framework—a mere couple of pages outlining their goals, strategies and the ‘why’ behind their endeavours.

The proliferation of data spaces, likened to mushrooms sprouting in diverse sectors like energy, manufacturing and health, underscored the imperative for support and impact creation. Hahn elaborated on the necessity by citing examples from the manufacturing sector, stressing how a limited perspective on emissions within a factory often blinds us to upstream and downstream impacts. Data spaces could bridge these gaps, offering a comprehensive view to tackle issues like reducing CO2 emissions.

Ulrich Ahle delved deeper into the technological aspect, highlighting the alliance’s efforts to establish a common architecture—a technological convergence. This convergence aimed not to reinvent the wheel but to create a blueprint for interoperable data spaces, leveraging existing technology while innovating only where necessary. Ahle also touched upon the Data Spaces Support Center, a pivotal project focused on developing technical guidelines for interoperable data spaces, underlining the importance of domain-agnostic building blocks for 80% of functionalities, ensuring compatibility across diverse industries.

Lars Nagel further elaborated on the multifaceted nature of data spaces, sharing the necessity of interoperability and trust as cornerstones of their success. He highlighted the four layers—legal, organisational, semantic and technical interoperability—and the concerted efforts to find common ground across these realms. Standardisation emerged as a crucial theme, with a focus on not just conceptualising interoperability but delivering tangible solutions through open-source software development and formal standardisation.
The debate shifted towards the market adoption of data spaces, led by Roland Fadrany, who mentioned the importance of creating a federated system—a digital clearing house—where entities could obtain compliance on a neutral platform, fostering democratisation of trust. Real examples of projects leveraging this infrastructure were cited, highlighting the growing market adoption of these concepts.

Ana García Robles underlined the strategic importance of data spaces, emphasising the need to leverage these infrastructures to create value, drive innovation and support the common good. She underscores the significance of not only generating business value, but also exploring other avenues such as cost reduction, joint innovation and societal benefits through data spaces. She also highlighted the role of various hubs within the Data Spaces Business Alliance, representing entities actively engaged in working with small and medium-sized enterprises (SMEs) to foster a data-driven mindset. These hubs vary in their focus, some concentrating on community building, others on project ideation, testbeds, or technical infrastructure. Ana acknowledges the vast potential these diverse hubs offer and emphasised the importance of unifying this network to maximise its collective impact, underlining the importance of standards and internationalisation in this context. Ana stated that while it's essential to bring companies into data spaces, it's equally crucial to cultivate innovation and experimentation within these spaces. The hubs play a pivotal role in facilitating access to necessary data for startups, enabling organisations to experiment with their ideas in testbeds or sandboxes within the data space framework.

The focus turned to the indispensable role of AI in unlocking the true potential of data spaces. Both Roland Fadrany and Ulrich Ahle highlighted the necessity of trust frameworks for data and infrastructure, ensuring the authenticity and reliability of data accessed within these spaces.

Ana García Robles concluded the panel by underlining the need for data quality, the data-AI stronger collaboration, and the need to generate value in Data Spaces. The paradigm of data quality has changed along with the AI Act and we need to make sure that through data spaces we can guarantee access to the high-quality data needed depending on the purpose of the application. Secondly, Data and AI are forever bounded: AI will be of great support for data spaces (e.g we are all aware of how expensive data curation can be for companies or how LLMs can support us in solving challenges of semantic interoperability) and AI will help us extract value out of data. BDVA has 2 task forces working on this topic - etami and the Data Spaces Task Force, bringing together data and AI experts. Finally, we need to design data spaces to generate value out of data (both business and societal value) and integrating them in a larger digital ecosystem.

The debate, featuring top industry professionals, paints a vivid picture of a collaborative landscape, where the convergence of data, AI, interoperability and trust paves the way for a future defined by innovation, efficiency and value. As the journey continues, the Data Spaces Business Alliance stands poised at the forefront of this transformative era, with a unified vision to shape a data-driven world driven through long-lasting partnerships and knowledge-sharing.
AI IN ACTION (PANEL)

EBDVF 2023 hosted a debate among experts in the field of AI, shedding light on various facets of this rapidly evolving domain. Led by Daniel Alonso Román (BDVA), the conversation gathered some of the organisers of AI-focused sessions, which delved into crucial aspects of AI implementation, ethics, regulation and the pivotal role of data in shaping the future landscape of artificial intelligence.

Esteemed panelists included Elena Montiel, Associate Professor of Applied Linguistics at Universidad Politécnica de Madrid (UPM), Andrejs Vasiljevs, co-founder and executive chairman of Tildem and Natalie Bertels, a senior legal researcher and valorisation expert from KU Leuven.

Each brought a unique perspective, discussing topics such as large language models, language diversity representation, regulatory sandboxing for AI, data sharing, infrastructure needs and the balance between regulation and innovation.

The discussions revolved around Europe's potential in AI development, including language representation, regulatory frameworks, infrastructure development and the importance of collaboration and knowledge-sharing within the AI community to overcome inevitable challenges in the field.

Elena Montiel emphasised Europe’s opportunity to ensure language and cultural diversity within large language models. She highlighted the significance of representing diverse languages and cultures in these models, stressing the need for efforts to train models with data from various linguistic backgrounds.

Andrejs Vasiljevs, drawing from industry insights, stressed the importance of creating a trustworthy environment for using generative AI and large language models. He underscored Europe’s potential to lead in setting rules for the responsible use of these technologies, emphasising the necessity of robust computing and data infrastructures.
Natalie Bertels talked about regulatory sandboxing for AI, bringing attention to the complexities surrounding experimental tools and the imperative need for clarification in this domain. She emphasised the pivotal role of regulatory sandboxing in striking a balance between regulation and innovation in AI.

When asked to summarise one key challenge and propose a solution, Elena highlighted the ongoing need for data sharing across languages. Andrejs stressed the importance of creating an interconnected value chain comprising computing infrastructure, data spaces and accessible tools to maximise societal and business benefits. Natalie echoed the call for action, underlining the necessity for knowledge-sharing, talent development and capacity-building in implementing regulations effectively.

The insights from this discussion underscored the multi-dimensional nature of AI challenges and the critical role of collaboration, well-developed regulation and technological infrastructure in navigating the evolving landscape of artificial intelligence. As the conversation hinted, the path forward involves a collective commitment to innovation, ethical guidelines and fostering inclusive, diverse and responsible AI ecosystems.

The panel culminated in a collective call to action, underlining the urgency of collaborative efforts, interdisciplinary approaches and resource allocation to overcome the challenges and harness the potential of AI effectively.
In a keynote titled “Envisaging a data-empowered future with EUHubs4Data and i-Spaces Federation” Daniel Sáez-Domingo, Technology Transfer Director in ITI and coordinator of EUHubs4Data project highlighted the value that the i-Spaces community provides to European Data and AI strategy, preparing the stage for the great ceremony where the new quality labels for innovation data spaces were unveiled, known as i-Spaces. The session placed the spotlight on the evolving landscape of data-driven innovation and AI technologies.

It underlined BDVA’s determination to nurture the growth of i-Spaces and the need to support data spaces in general, across borders. The discussion shed light on the pressing challenges faced by the industry, including the immediate need for accessible computing power for AI Innovators, the necessity of SMEs to integrate into data ecosystems and the increasing importance of data ethics for companies and large data holders.

BDVA’s i-Spaces community coagulates a group of organisations with experimentation facilities, that are fostering secure data-sharing. They have introduced the i-Space quality label, which serves as a benchmark, promoting and evolving the ambitions and community of these entities. By federating themselves, these organisations have formed a super-core for Europe, bringing together computing power, ethical guidelines, business models and more, creating a pan-European federated catalogue that accelerates the evolution and adoption of data-driven innovation and AI technologies.

BDVA recognises i-Spaces as pivotal instruments for driving data-driven innovation in Europe. These cross-sectorial and cross-organisational innovation hubs are central points for regional technology businesses to develop their products. i-Spaces accelerate the uptake of data-driven innovation across commercial sectors such as Manufacturing 4.0, Logistics, e-commerce and several others. They provide secure accelerator-style environments for running experiments in both private and open data, fostering technology and application development.

The evaluation process conducted by BDVA emphasises the excellence of Data-driven Experimentation and Innovation Spaces (BDVA i-Spaces) in crucial domains such as infrastructure, services, projects and sectors, ecosystem/impact, business/sustainability strategy, federation capabilities and ethics.
During this session at EBDVF 2023, BDVA announced the new labels for i-Spaces, celebrating their outstanding contributions to the European data and AI ecosystem. This recognition not only acknowledges the quality of these innovation spaces, but also highlights their pivotal role in shaping the future of data-driven technologies and innovation in Europe.

To ensure the quality of the European Data Innovation Spaces and connect existing initiatives under one umbrella, the BDVA set up the BDVA i-Space label. On a yearly basis, candidates from all over Europe are invited to apply for this label. A set of criteria are tested by way of a survey to collect the relevant information. Being a quality label, it is granted based on the evaluation of a series of KPIs, set in 6 different pillars: infrastructure and data, services, projects in sectors, ecosystem and impact, sustainability and federation.

- The ‘infrastructure and data’ pillar indicates the computing power and storage capacity, the allocated resources (computing, storage, networking, tools and applications), the data access methods and privacy and the integrity security measures.
- The ‘projects in sectors’ pillar indicates the number of projects the i-Spaces have been involved per sector, the number and the growth of participating companies in the project, as well as the existence of knowledge and expertise of the personnel required by the sector.
- The ‘services’ pillar indicates the level of technical support (ICT assistance as well as focused support from data scientists and specialists, benchmarking datasets and technologies) provided by the i-Space. Among others, it includes indicators on technical support on big data management, analytics, data visualisation, new data and AI regulations, as well as data sharing and data spaces.
- The ‘ecosystem and impact’ pillar indicates the number of collaborations of the i-Spaces with companies, SMEs, academia, startups and outreach activities of the i-Space on local, regional, national, European or international level. It also offers information on partners’ contribution to the ecosystem and impact creation.
- The ‘sustainability’ pillar reflects the viability of the i-Space’s business strategy, including information on the business plan goals, strategies for growth, impact, outreach and services strategy, as well as the model of economic sustainability.
- Last but not least, the ‘Federation’ pillar indicates the compliance of the i-Space with the federation catalogue manager, the federation Learning Management System and it also shows the contribution and the participation of the i-Space to the federation.
A committee appointed by the BDVA Board of Directors (BoD) carefully examines individual candidates and recommends the appropriate quality ranking (bronze, silver, gold, platinum) to the BoD, which ultimately grants the label. These activities have led to the establishment of a European Federation of i-Spaces that ensure easy access for industrial partners to foster the development and testing of precompetitive solutions on high-quality platforms offering certified services and training.

Through this labelling process, BDVA recognises the quality of existing data experimentation and innovation hubs in Europe and guarantees that the innovation environments provided by those initiatives meet the necessary requirements to boost data-driven and AI-based innovation at local level, but also the collaboration with similar initiatives to foster the adoption at European level.

BDVA extends its gratitude to the 29 i-Spaces from 19 European countries for their unwavering dedication to this transformative initiative.

Based on the outcomes of the 2023 evaluation, we are proud to announce that 7 i-Spaces have achieved the prestigious Platinum Label, elevating from the Gold Label status. In addition, 10 i-Spaces have secured the Gold Label, 9 have merited the Silver Label and 3 have been honored with the esteemed Bronze Label. These distinctions celebrate the amazing results of our network.

i-Space 2023 Platinum Labels

- ahedd Digital Innovation Hub, NCSR Demokritos, Athens (Greece)
- Aragón EDIH, Aragon Institute of Technology, Aragon (Spain)
- CeADAR, Ireland’s Centre for Applied Artificial Intelligence, Dublin (Ireland)
- Cineca, Bologna (Italy)
- ITI – Technological Institute specialised in ICT, Valencia (Spain)
- Know-Center GmbH, Graz (Austria)
- RISE, Research Institutes of Sweden AB, Lulea (Sweden)
i-Space 2023 Gold Labels

- CIDAI, Center of Innovation in Data Technologies and Artificial Intelligence, Barcelona (Spain)
- DIHGIGAL, Asociación para la Digitalización de la Industria de Galicia, Vigo (Spain)
- EGI, Amsterdam (Netherlands)
- HPC4Poland EDIH, IBCh PAS PSNC, Poznan (Poland)
- Madrid's i-Space for Sustainability (MiSS), Universidad Politécnica de Madrid, Madrid (Spain)
- Produtech DIH, PRODUTECH-Associação para as Tecnologias de Produção Sustentável, Porto (Portugal)
- SINTEF Nemoonoor, Nemoonoor, Trondheim (Norway)
- Smart Data Innovation Lab, Karlsruhe Institute of Technology (KIT), Karlsruhe (Germany)
- TeraLab, IMT Transfert, Paris (France)
- The European Digital Innovation Hub in Transilvania (TEDIHT), Asociatia Transilvania, Cluj-Napoca, Romania

i-Space 2023 Silver Labels

- 4PDIH Laboratory for telecommunications, University of Ljubljana - Faculty of Electrical Engineering, Ljubljana (Slovenia)
- Algebra Lab, Algebra University College, Zagreb (Croatia)
- Belgrade Data Innovation Hub, University of Belgrade - School of Electrical Engineering, Belgrade (Serbia)
- Edinburgh International Data Facility (EIDF), University of Edinburgh, Edinburgh (UK)
- L3S Research Center, Hannover (Germany)
- Latvian IT Cluster Digital Innovation Hub, Latvijas Informācijas tehnoloģiju klasteris, Riga (Latvia)
- MEDiHub, ITI - Instituto Tecnológico de Informática, Naples (Italy)
- nZEB Smart Home DIH - IsZEB DIH, Thessaloniki (Greece)
- Plan4all DIH, Plan4all z.s., Horni Briza (Czech Republic)

i-Space 2023 Bronze Labels

- ICD, University of Groningen and ICD, Drachten (Netherlands)
- INCLIVA SPACE, Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana (Fundación INCLIVA), Valencia (Spain)
- LCM, Linz Center of Mechatronics GmbH, Linz (Austria)
Sebastian Pena Serna (Project Vision Lead at DIGITbrain, clesgo GmbH) presented “DIGITbrain – Data, Models and Algorithms as reusable Modules for Digital Twins”. Many involved in manufacturing have been using digital twins for several years now, as they offer a digital representation of a physical object, person, or process, contextualised in a digital version of its environment. Digital twins help organisations simulate real situations and their outcomes, allowing better decision-making. Data plays an important role in their use and using and reusing digital twins, trying to adapt or extend digital twins can prove difficult. DIGITbrain tries to solve these challenges with reusable modules. Developers can publish the metadata of their modules on DIGITbrain’s Solution, which combines the metadata from data, model and algorithm, compiling and then deploying an executable.

Frédéric Bellaiche (VP Technology & Research, DAWEX) showed us “How Data intermediaries build trust, ensure compliance and orchestrate data ecosystems through open principles and standards”. In today’s data-driven world, data intermediaries are pivotal in connecting data providers with consumers while ensuring trust, security and compliance with evolving regulations and ecosystem frameworks like Gaia-X. The session explored the principles that data intermediaries employ to build trust, ensure compliance and orchestrate data ecosystems through the adoption of open principles and standards. Through trust frameworks, auditability mechanisms, consent and authorisation management, Compliance As Code and Self Sovereign Identities, data intermediaries establish trust among stakeholders, enable transparency, controls and compliance with regulations, fostering confidence in data exchange, driving continuous improvement and adaptability within the data ecosystem.

Jose Bernabeu-Auban (Scientific Director, ITI) questioned how “Data is everywhere… or is it?”. Data is produced at a higher rate than ever and there is a general agreement that this flow of data has the potential to improve how companies, institutions and society in general operate. According to recent observations, the biggest challenge that companies face is related to data quality. Mr. Bernabeu-Auban talked about the many factors that keep this potential from being realised and the needs of the field. He added that ITI, alongside Gaia-X addresses many of those problems in their work. ITI is a private technological centre specialised in research, development and innovation in ICT, involved in 149 projects, offering their services to 417 clients, mainly SMEs. ITI understands well the issues within IT technologies and specifically the ones related to data that companies generate, helping them exploit it to its full potential. ITI focuses on the infrastructure of easy-access technologies/tools, helping SMEs get access to the Data Economy.
Stefan Hoppe (President & CEO, OPC Foundation), presented “Bridging OT and IT: OPC UA deliver secure semantic interoperability from assets to Digital Twin and Metaverse”, sharing the goals and reach of OPC UA, a collection of technologies that ensure a secure exchange of standardised information from the sensor to the cloud and backwards. He underlined how OPC UA offers a harmonised solution for both OT and IT, that includes modelling language, flexible transport and security.

Els Breedstraet (Head of open data innovation and outreach at the Publications Office of the European Union) discussed the initiative of creating data stories to make complex data more understandable and engaging for various audiences. Initially, storytellers struggled with lengthy text-based explanations and transitioned to visual data stories crafted by collaborations between data journalists and visualisation experts, resulting in shorter, more appealing narratives. Els emphasised the importance of adapting the tone of voice, clear structuring, readability of visuals, staying honest with data interpretation and ensuring consistency in collaborative work. She also highlighted a data visualisation guide and offered courses for those interested in creating such stories, inviting contributions and feedback from the audience to further enrich their data spaces. Overall, her presentation aimed to encourage the audience to embrace visual storytelling for communicating complex data effectively.

Joan Meseguer (IT Researcher, Fundación Valenciaport) talked about “Data and AI in the port of Valencia”. He shared with the EBDVF audience some information about Fundación Valenciaport, an applied research, innovation and training centre with a focus on the digital transformation expertise in disruptive technologies, such as the internet of things, 5G, cybersecurity, AI, Big Data or blockchain. He then looked at a recent project, GreenCPorts, which aims to use artificial intelligence and internet of things to support environmental sustainability in the Mediterranean. GreenCPorts looks at the noise pollution and its impact, with an objective to develop predictive models capable of indicating when would the sound levels be higher, as a sound level forecast. He then presented “E2RM”, a project that is predicting empty containers in depots and “iNGENIOUS”, a project that is predicting port’s truck turn-around times using a combination of different AI models.
Daniel Sáez Domingo delivered a comprehensive overview of the significance and role of "i-spaces" within the context of Europe's innovation ecosystem. He highlighted the pivotal role of experimentation in fostering a culture of innovation and emphasised the necessity of i-Spaces as ecosystems equipped with robust infrastructures, extensive data and tools essential for fostering experimentation and innovation with data. These spaces, while deeply connected with local ecosystems, also maintain global connections, forming a robust constellation of data capabilities. Discussing the complex landscape in Europe, Sáez Domingo stressed the immediate need for data and computing power, support for SMEs to become data-driven, evolving interests in AI and data ethics, as well as the challenges of fair data value chains and incentivising data sharing.

He underscored the journey of the i-Spaces community from its inception, illustrating its growth and evolution, along with the criteria and rigorous evaluation process for the coveted i-Spaces label, which denotes quality, federated cataloging, strong ties with SME ecosystems and an embedded ethics framework. Moreover, Sáez Domingo outlined the significance of i-Spaces as tools aligned with the objectives of Europe’s Digital Decade, offering a safe sandbox for data and AI experiments, accelerating data-driven innovation, aiding SMEs in their transition and championing discussions around AI and data ethics. i-Spaces serve as educational hubs, collaborative networks, connectors between digital ecosystems and guides through the complex regulatory landscape, ultimately providing sustainable destinations for data innovation initiatives. Sáez Domingo concluded by emphasising that a comprehensive data strategy in Europe cannot exist without i-Spaces at its core, given their capacity to offer immense value and sustainability to data initiatives. Throughout the session, he detailed the historical progression, key milestones, growth and the essential value of i-Spaces, highlighting their critical role in shaping Europe's data-driven innovation landscape.

EBDVF 2023 CLOSING SPEECH

Carme Artigas, Spain’s Secretary of State for Digitalisation and Artificial Intelligence, delivered a powerful closing speech, emphasising the critical importance of responsibly harnessing data and AI for societal progress and economic growth. Artigas highlighted Spain's significant strides in this domain and its role in shaping ethical frameworks and regulations, not just within Europe, but across the world. The forum, representing the triple helix of public policy, industrial initiatives and research efforts, underscored the need to leverage data for the advancement of AI, businesses and the public interest.
Artigas underlined Spain's commitment to a human-centric approach to digital transformation, pioneering the ethical use of technology. This emphasis on human agency in technology aligns with Spain's focus on creating sustainable and rights-oriented digital policies.

A core aspect of Artigas' discourse was Spain's groundbreaking initiatives in AI development and regulation. Spain has taken the lead in legislative proceedings involving AI, ranking first globally in Stanford University's 2023 report for the highest number of mentions of AI. The country's National Strategy on AI outlines key axes focusing on investment, innovation and the development of AI-ready data platforms. Spain's commitment to solving societal challenges through AI was highlighted, with significant funding allocated to 5 lighthouse R&D projects addressing critical issues such as sustainable energy, personalised medicine and efficient agrifood value chains. Notably, Spain has also pledged substantial investment towards Green Algorithms and the promotion of natural language processing in Spanish to counter English dominance. Moreover, Artigas elucidated Spain's efforts in fostering AI innovation through the launch of the Next Tech Fund, supporting the scaling up of deep tech companies. Spain's pivotal role in negotiating the EU regulation on AI, the AI Act, which aims to regulate AI systems' impact on health, safety and fundamental rights, reflects its commitment to setting global moral standards for AI governance.

Spain's proactive measures extend to the creation of sandboxes facilitating trustworthy AI development, reducing barriers for SMEs, which form a significant portion of the country's business fabric. The establishment of a national agency for AI supervision and hosting the European Center for Algorithms Transparency underscore Spain's dedication to ethical AI and transparency in algorithmic operations. Artigas also announced Spain's involvement in the creation of a high-level artificial intelligence board under the UN Secretary-General's leadership, underlining the country's commitment to shaping international governance of AI in alignment with European values. Spain's vision for a secure digital future revolves around the nexus of trustworthy data, cloud infrastructure and coordination at the EU level. This includes participation in Gaia-X, focusing on principles like traceability and transparency, essential for fostering trustworthy AI.

The discourse of Spain's Secretary of State on Digitalisation and AI exemplifies her country's resolute commitment to helping shape responsible AI and data governance, not just within its borders but on a global scale. Spain's efforts, combined with European initiatives, lay the groundwork for a secure and ethical digital future, driven by innovation while upholding core European values.
Data observability is relevant to monitor the different pipelines and identify problems (missing values, etc.) and ensure data quality.

Data Ingestion has to ensure the possibility to upload data in multiple ways and with different characteristics (volume, granularity, velocity, etc.).

Data (sharing) needs between the same stakeholders evolve over time. Even contracts in the blockchain should not be considered as “written in a stone” – it needs to be possible to re-negotiate a contract.

The needs of data asset providers vs the needs of data asset consumers (e.g. in terms of temporal granularity) cannot be always reconciled. Designing generic solutions (baseline analytics, energy apps) required flexibility and adaptations on the data asset consumer side.

Centralised and federated architectures need to be simultaneously in place to address the diverse needs of the energy data value chain.

Batch and real-time data ingestion, security, sharing and self-serving bring different (often conflicting) challenges that need to be addressed collectively for the same stakeholders.

Leveraging the data sharing potential across an ever-extending energy data value chain

25 October, 2023 - 14:30 - 15:30
Room 4C

Some key aspects on the transition from big-data platform to data-spaces for the energy domain:

- Data observability is relevant to monitor the different pipelines and identify problems (missing values, etc.) and ensure data quality.
- Data Ingestion has to ensure the possibility to upload data in multiple ways and with different characteristics (volume, granularity, velocity, etc.).
- Data (sharing) needs between the same stakeholders evolve over time. Even contracts in the blockchain should not be considered as “written in a stone” – it needs to be possible to re-negotiate a contract.
- The needs of data asset providers vs the needs of data asset consumers (e.g. in terms of temporal granularity) cannot be always reconciled. Designing generic solutions (baseline analytics, energy apps) required flexibility and adaptations on the data asset consumer side.
- Centralised and federated architectures need to be simultaneously in place to address the diverse needs of the energy data value chain.
- Batch and real-time data ingestion, security, sharing and self-serving bring different (often conflicting) challenges that need to be addressed collectively for the same stakeholders.

HPC and AI towards the sustainable future

25 October, 2023 - 14:30 - 16:00
Room 3G

- HPC and AI Towards the sustainable future
- EC: HPC the key element for a sustainable ecosystem of interoperable digital infrastructure. New initiative to make it even more easy to use for SME and start-ups are on the way.
- JU: The current system and planned investments, Quantum, sharing example of how the system is used for AI and Industry. User forum 11 December
- Adra: Scale and speed. LLM and requirements
- Siemens: The importance of cooperation and enabling the infrastructure to the large industries
- Castiel: How the project is helping a new group that is working with AI, explaining how the national competence center can support different actors and what is coming up 2024.
- Tunnll Small tech company, using the experimentation facilities and experts to develop their service. They has also worked on HPC and wants to have the whole business chain at one place, pointing out the problem with data storage
- Europe must be better to deploy results of research to companies and to scale up start-ups and get out the results from research to Industry and commercialisation.

Jeanette Nilsson (RESEARCH INSTITUTES OF SWEDEN AB – RISE)
In mobility and logistics:
- Transal and complimentary trends across mobility and logistics domains: digital twins, data space and synthetic data. The complementary role of digital twins and data space deployments have many applications across mobility domains and value chains, from local urban mobility use cases to automotive.
- Regional data space deployments of course depend on the stage of digitalisation and data quality of the local ecosystem. New approaches such as "data utilities" are taking off towards this goal, as in the case of Flanders.
- Predictive models and other added-value AI applications are drivers for multi-stakeholder, win-win scenarios, from city mobility ecosystems to even airport operations.

In automotive:
- Applying modern, agile, innovative practices (e.g. ML-Ops) to the classic V-model is a significant transformation with high payoffs.
- Data labs are providing innovative approaches to testing, engineering and homologation activities.
- There is a high collaboration potential with a multi-domain impact beyond mobility: collaboration on non-differentiating elements of the industrial technology stack and open standards to break the silos and create convergence of three major ecosystems: energy, infrastructure and mobility.

Jim Ahtes (i2CAT Foundation)
Federation of i-Spaces: The experimentation reference for accelerating Data & AI adoption in Europe
26 October, 2023 - 16:45 - 18:15
Room 4C

Focus points and summary of the session:

- “A group of organisations which have developed strong business and human ecosystems around secure data-sharing and exploitation decided to join forces time back....” - a grassroot initiative
- “They created a quality label for innovation data spaces (called i-Space label) as a way to benchmark, promote and evolve their ambitions and community...” The quality label. This is the i-Spaces community!
- They have federated themselves with the vision of being the reference for experimentation and innovation with industrial, public and personal Data and AI technologies following the European, national and regional values and principles. Solid collaboration. Common vision. Tangible implementation
- These organisations are at the core of HPC, AI TEFS, EDIHs, Data Spaces ... and together create a super-core for Europe. These organisations are relevant!
- New data regulations bring complexity and they are also affecting research and innovation activities.
- We initially designed a governance model for the Federation that is not DGA-compliant... and a solution is needed
- These organisations have found a way to take the regulations as an opportunity and not as a barrier and have decided to join forces and share costs of creating a data intermediary entity.
- This common entity, the federation, will have two legal entities and will coordinate the federated catalogue, which is synchronised by the catalogue manager, a result of the EUH4D project already running to build federated catalogues.
- Some stakeholders, like data platforms, TEF, networks of DIHs can make use of catalogue manager to include resources in the federated catalogue.

Daniel Sáez Domingo (ITI)
A detailed follow up on the International Manufacturing-X Council and the entire initiative. On the 25th during the plenary this has been presented to the whole community and in this session, the message has been shared among the Smart Manufacturing Industry vertical.

A tangible experience from an industrial company (FIDIA) has been presented highlighting challenges and how their vision on how to realise a digital and data space 4.0 continuum that will allow trusted and responsible industrial IA and turn it into business value.

The SM4RTENANCE project presented how European digital and manufacturing industries are approaching the challenge of realising and allowing a cost-effective operation of global manufacturing ecosystems and data spaces and how this relates to the Manufacturing-X initiative.

The AI-MATTERS (TEF initiative) explained the relevance and the benefits for European SME to take advantage from this opportunity.

The room has been quite crowded during the entire session and many positive comments has been received from attendees at the end of the session and the days after.
Advanced Digital Skills (ADS), including AI and data science, are a key element in the design of the digital future of Europe and universities, VET centres and industry should be involved in providing more, deeper and increasing quality in ADS training to cover the needs of the workforce in Europe.

A mindset of lasting collaboration between these worlds: professional education, industry and university is essential, in several forms: applied research, recognition of prior learning activities, pathways between educational levels, activities, courses, learning programmes and activities and training in different formats, apprenticeships and micro-credentials.

Practically should be the rule, by integrating the benefits from both education providers collecting and expanding good practices of cooperation could be a good starting point.

It is essential to be more strategic at all levels (educational institutions, policies, industry) in the challenge of trying to provide advanced digital skills to meet the high demand.

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**Empowering Tomorrow’s Workforce: Bridging the Digital Skills Gap through Higher Education and Vocational Training**

*Juan José Moreno Navarro (UPM)*

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**Unlocking Interoperability: The Dataspace Protocol in Research Projects and Sustainability via Open-Source Ecosystems**

*Ilknur Chulani (IDSA ASSOCIATION)*
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Chief Expert Software
SIEMENS AG

CARME ARTIGAS
Secretary of State for Digitalisation and Artificial Intelligence
THE GOVERNMENT OF SPAIN

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Click here for the full list of speakers
The EBDVF 2023 was supported by 51 sponsors and partners, coming from several industries, industry-driven communities and research and innovation projects. The sponsorship packages were developed based on previous EBDVF editions, offering visibility, exhibition booths and opportunities for sponsored sessions or sponsored talks.
SPONSORS AND PARTNERS DATA

- Project: 63%
- Non-profit organisation: 11%
- Research/Academia: 15%
- Industry: 6%
- SME: 6%
SPONSORSHIP PACKAGES

- Diamond: 0
- Platinum: 5
- Gold: 10
- Silver: 15
- Projects: 30

SPONSORS SURVEY

- Registration Process: 4.44
- Communications: 4.67
- Website Visibility: 4.56
- Venue Visibility: 4.44
- Exhibition/Booths: 4.44
- Sponsored Sessions: 4.25

Overall Score: 4.67
650 participants took part in the European Big Data Value Forum 2023, representing numerous European countries. Most attendees came from Spain, Germany, Italy, Greece and Belgium.

* This visual is based on the data gathered from the total number of participants. 275 attendees chose to not indicate their country of origin.
The event reached the objectives set for the target audience, with attendees representing very well the different stakeholders, with 44% coming from research or academia, 20% SMEs/Start-ups, 12% non-profit/foundations/associations, 11% large industry, 4% public bodies, 1.5% international organisations, 6% other backgrounds and 1% from the European Commission.
WEBSITE

EBDVF’s website received over 9600 page views and attracted over 1500 new users. BDVA newsletters featured the event content throughout the campaign. EBDVF got even further exposure through the promotion done by event co-organisers, partners and session organisers.

NEW USERS 1.593

PAGE VIEWS 9.649

SOCIAL MEDIA

LinkedIn + X (former Twitter)

EBDVF’s posts reached over 45 000 impressions on BDVA’s social media channels, along with 1744 likes and over 8200 visitors. X promotion gathered a wide reach organically, boosted by the BDVA community and stakeholders. Sponsors and session organisers were provided with branded materials and easy-to-use graphic design templates for Social Media promotion, which were actively used prior to and during the event.
OUR AUDIENCE OVER THE YEARS

2017: EBDVF Versailles - Onsite event with 850 attendees
2018: EBDVF Vienna - Onsite event with 600 attendees
2019: EBDVF Helsinki - Onsite event with 500 attendees
2020: EBDVF Berlin - Online event with 850 attendees
2021: EBDVF Ljubljana - Online event with 550 attendees per day
2022: EBDVF Prague - Onsite event with 430 attendees
2023: EBDVF Valencia - Onsite event with 650 attendees
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Ana García Robles, BDVA Secretary General
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Konstantina Kinikli, BDVA Junior Secretariat Officer
Laure le Bars, BDVA Vice President
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Sinna Rissanen, BDVA International Secretariat and Event Manager
Daniel Sáez Domingo, ITI Technology Transfer Director

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Franziska von Scherenberg, Fraunhofer
Josep Redón, INCLIVA
Riku Leppänen, DG CNECT, European Commission
Laure Le Bars, BDVA Vice President
Sinna Rissanen, BDVA, International Secretariat and Event Manager
Thomas Hahn, BDVA President
Daniel Sáez Domingo, ITI Technology Transfer Director
BDVA is an industry-driven international not-for-profit organisation with 250 members all over Europe and a well-balanced composition of large, small and medium-sized industries as well as research and user organisations. Our mission is to develop an innovation ecosystem that enables the data-driven digital transformation of the economy and society in Europe, delivering maximum benefit. To reach this goal, we focus on advancing areas such as big data technologies and services, data platforms and data spaces, industrial AI, datadriven value creation, standardisation and skills.

BDVA enables existing regional multi-partner cooperation, to collaborate at the European level through the provision of tools and know-how to support the cocreation, development and experimentation of pan-European data-driven and AI applications and services and know-how exchange.

Through BDVA, our members contribute to the European data and AI R&I agenda and develop guidelines and strategic roadmaps for industry and policymakers in BDVA Task Forces and our events give opportunities to build new collaborations and co-create new projects. Being part of the BDVA community, the members gain higher visibility on the European level and our services are designed to give timely updates on all the latest developments in the fields of data and AI.

BDVA believes in collaborations! BDVA has been the private side of the H2020 partnership Big Data Value PPP, it is a private member of the EuroHPC JU and it is a founder member of the AI, Data and Robotics Partnership. BDVA has developed a strong and growing cooperation with Gaia-X, IDSA and FIWARE through the Data Spaces Business Alliance (DSBA), it is a partner of the Transcontinuum Initiative (TCI) and collaborates with many industry-driven AI national initiatives and other European communities.

BDVA is open to new members!

Visit BDVA.EU to learn more about members and activities. You can contact us anytime at info@bdva.eu.
The European Big Data Value Forum (EBDVF) is the flagship event of the European Big Data Value and Data-Driven AI Research and Innovation community organised by the BDVA and the European Commission (DG CNECT).