Proposed plan for addressing technical alignment within the DSBA
BDVA, FIWARE, GAIA-X and IDSA launch an Data Spaces Business Alliance (DSBA) to accelerate Business Transformation in the Data Economy (Sep 23rd, 2021)

- One voice and a common framework to make interoperable Data Spaces happen;
- Together, the Alliance’s founding organisations represent 1,000+ leading key industry players, associations, research organisations, innovators, and policy-makers worldwide;
- With its combined cross-industry expertise, resources and know-how, the Alliance drives awareness and uses more than 100 Hubs for dissemination
- Technical Coherence WG created seeking for technical alignment
Convergence catalysts

- W3C DID and VC/VP standards are getting mature as basis for decentralized Identity and Access Management (IAM): FIWARE, Gaia-X and IDSA are working towards integration of these standards in their respective frameworks

- W3C VC/VP standards are also adopted in Gaia-X for representing service and service offering descriptions, supporting trusted verification and labelling. Also considered base reference for recently created IAM SWG

- Marketplace services are fundamental and planned in Gaia-X roadmap for 2023

- Extensive experience in FIWARE regarding implementation of marketplace services based on TM Forum open standards and piloted in several projects (SynchroniCity, i4Trust, KI Marktplatz, …)

- Proposal DOME submitted to Digital Europe Programme brought together a relevant number of members of the four DSBA associations towards development of an architecture facilitating federation of marketplaces based on TM Forum standards and Gaia-X specifications: Engineering, Atos, Ionom, Orange, Dawex, Outscale, CloudFerro, OCHK, TOP-IX, CSI Piemonte, iSHARE, Alastria, Tolar-Hashnet, TeamDev, FICodes, Elliot Cloud, Tecnalia, DEKRA, …
How to get there

- Implementation-driven agile approach based on delivery of subsequent versions of a **Minimum Viable Framework (MVF)** of the target technology framework
- Parallel workstreams launched to address a concrete aspect:
  - **Workstream 1**: Incorporation of Decentralized Identifiers (DIDs) and VC/VPs in IAM framework, Trust Anchor services aligned with Gaia-X
  - **Workstream 2**: Incorporation of additional IDS Connector functions and support to ODRL for access control
  - **Workstream 3**: Integration of Federated Marketplace, Services Catalogue and Data Publication services
  - **Workstream 4**: Incorporation of IDS Connector functions for usage control
- Once alignment within a given workstream is achieved, implementation of an initial/new version of the MVF will be started.
- First three workstreams will start now in parallel:
  - It may be anticipated that workstream 1 will close first (design ready) → start of version 1
  - Workstream 3 may end before workstream 2, that depends on the progress of discussions within each workstream
- FIWARE Foundation has already movilized a development team, meeting on June 27-28 involving IDSA, Gaia-X and FIWARE teams
Ideas on the table (1/2)

- Different kind of service providers:
  - IaaS providers
  - Platform service providers
  - Data Access/Processing(App) service providers

- Usage rights acquired via marketplaces:
  - connected to IaaS (e.g., IONOS)
  - connected to Platforms (e.g., Digital Enabler)
  - independent (e.g., DAWEX)

- Shared Catalogue of service & service offering descriptions:
  - formatted as Verifiable Credentials / Presentations (VC/VP) following Gaia-X
  - stored in blockchain networks

- Standard TM Forum APIs used:
  - by federated marketplaces to access service & service offering descriptions
  - to record logs during lifecycle of service orders and activation of services
  - to record logs during execution of services
Ideas on the table (2/2)

- VCs issued by certification agencies, for example describing compliance with certain regulations/recommendations. Examples:
  - GDPR compliance
  - Low carbon emission
  - ...

- VCs issued by certification agencies describing compliance with certain standards. Examples:
  - NGSI-LD API supported
  - Data models X, Y, Z supported
  - IDS Connector used
  - ...

- VCs meaningful at application level, typically assigned to service users and considered for Attribute Based Access Control (ABAC)

- Access Control at three levels
  - Verifying whether participants can be trusted (Trust Anchor service)
  - Verifying whether access rights were properly acquired (e.g., via some marketplace)
  - Verifying credentials at platform (e.g. NGSI-LD or IDS connector support) and app level
Proposed plan

**Workstream 1:**
- Incorporation of DID, VC/VP and revocation services supporting low-frequency changing attributes
- Evolved Trust Anchor framework relying on blockchain technology

**Workstream 2:**
- Incorporation of IDS architectural elements for access management
- Adoption of IDS ODRL as Access Policy Definition Language

**Workstream 3:**
- Description of Services and Service Offerings based on Gaia-X specs
- Management of services and service orders lifecycle, and log transactions based on TM Forum standards, on top of blockchain networks
- Data Publication functions based on DCAT/DCAT-AP

**Workstream 4:**
- Incorporation of additional IDS architectural elements for usage control

Timeline:
- **2Q22:** Kick-off
- **3Q22:** FIWARE Summit
- **4Q22:** IDS Winter days
- **1Q23:** End of June 2022
Thank you!