



# DOME Marketplace

Cloud & Edge services you can trust

Federated Marketplace of  
Cloud, Edge & AI services  
that you can trust

September 2024

Jesus Ruiz

# DOME: the initial requirements



## Common European marketplace for cloud and edge services ...

*... to serve as a key enabler crucial to deliver on the EU Data Strategy's ambition to*

- *facilitate adoption across Europe of cloud and edge service offerings,*
- *that comply with EU regulation, European standards,*
- *as well as user expectations in terms of data sovereignty, security, portability, or energy efficiency.*

*This open marketplace concept would also strongly contribute to*

- *breaking down silos between national / sectorial markets across the EU, and*
- *accelerate integration across the continent.*

*The aim would be to serve the entire EU market, from public administrations to industry, including SMEs.*

## Common European marketplace for cloud and edge services

*Such a marketplace would serve as a one-stop shop for cloud-edge applications from all providers that abide by European regulation.*

*It would level the playing field and lower barriers to entry for smaller service providers.*

*Under its most simple format, a European cloud marketplace would aggregate compliant services into an openly accessible, certified catalogue, with a search function allowing users to find solutions that match their criteria.*

*Beyond this information-sharing and match-making capability, the marketplace could also provide brokering features to facilitate transactions between providers and customers.*

## Common European marketplace for cloud and edge services

*The marketplace could be built to enable multi-tenancy: the service catalogue and technical foundations would be the same across Europe, but allow different entities to operate the marketplace for different user bases.*

*For example, Member States wishing to have their own marketplace for their national public sector consumption of cloud and services according to a specific framework contract could operate an instance of the marketplace and thereby still access the same service catalogue.*

*A network of connected instances could thereby feed into a meta service catalogue.*

## Common European marketplace for cloud and edge services

*The marketplace foundations would be developed as open source, with open APIs, and integrate third party transparency for services such as **verifying provider authorizations and certifications**.*

*Given the marketplace would, at least in its first years, be built and operate as a public-good, public-private collaboration is required to cover the build up and initial rollout costs.*

*Finally, **early onboarding of a significant set of providers and users will also be key to accelerate the achievement of a critical mass** of traffic to further its adoption, and leverage the lessons learned from leading global marketplaces to enlarge its user base.*



# DOME

One-stop Shop for your trusted Cloud, Edge & AI Journey



Verified Cloud, Edge & AI Services



Cloud & Edge services you can trust

[dome-marketplace.eu](https://dome-marketplace.eu)



# The DOME project



Digital Europe Programme

DIGITAL-2021-CLOUD-AI-01



Budget: 40 M€

Funding 50%



Consortium: 38 Partners

+5 Affiliated Entities

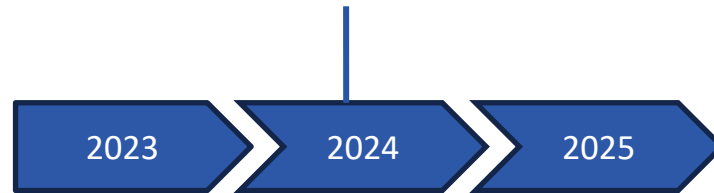


Duration: 36 Months

Jan 2023 – Dec 2025

Started production July 4<sup>th</sup>, 2024

- Only catalog, not procurement.
- Procurement will be added some months later.
- Will evolve according to feedback from users until the end of the project.





# Roadmap

---

The DOME business aims to create a collaborative environment where we can grow together with the platform adopters.

July 4th 2024

## 1.0 Catalog

### Publish your services

- Service Discovery
- Trusted services with Verified Credentials
- Offline contact provider / customer
- Services publication is free
- Free for both Sellers and Buyers

December 2024

## 1.1 Purchase

### Enjoy Full Experience

- Payments gateway (Services)
- Providers set up direct selling models and pay a minimum compliance check cost + a small % of DOME revenues - early bird discounts
- Group services in a single purchase

December 2025

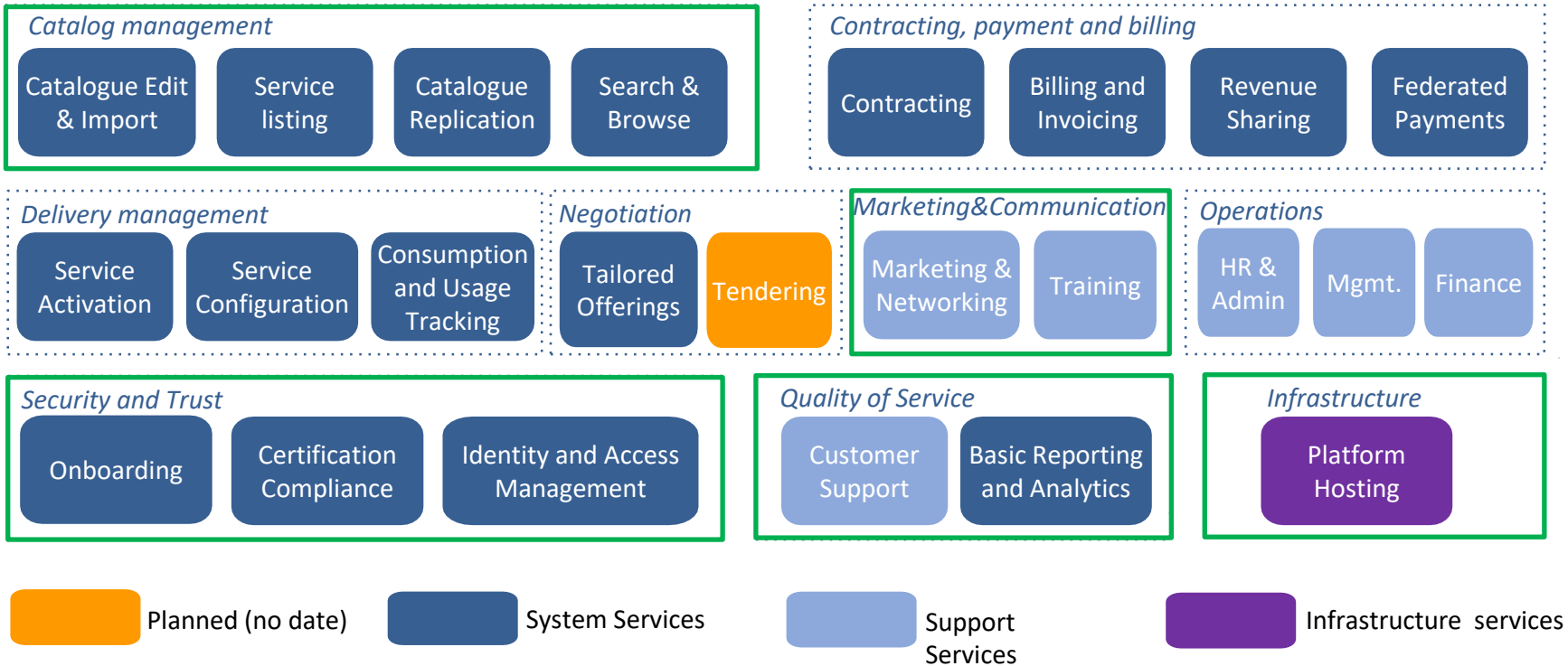
## 1.2 New features

### New & Advanced Features

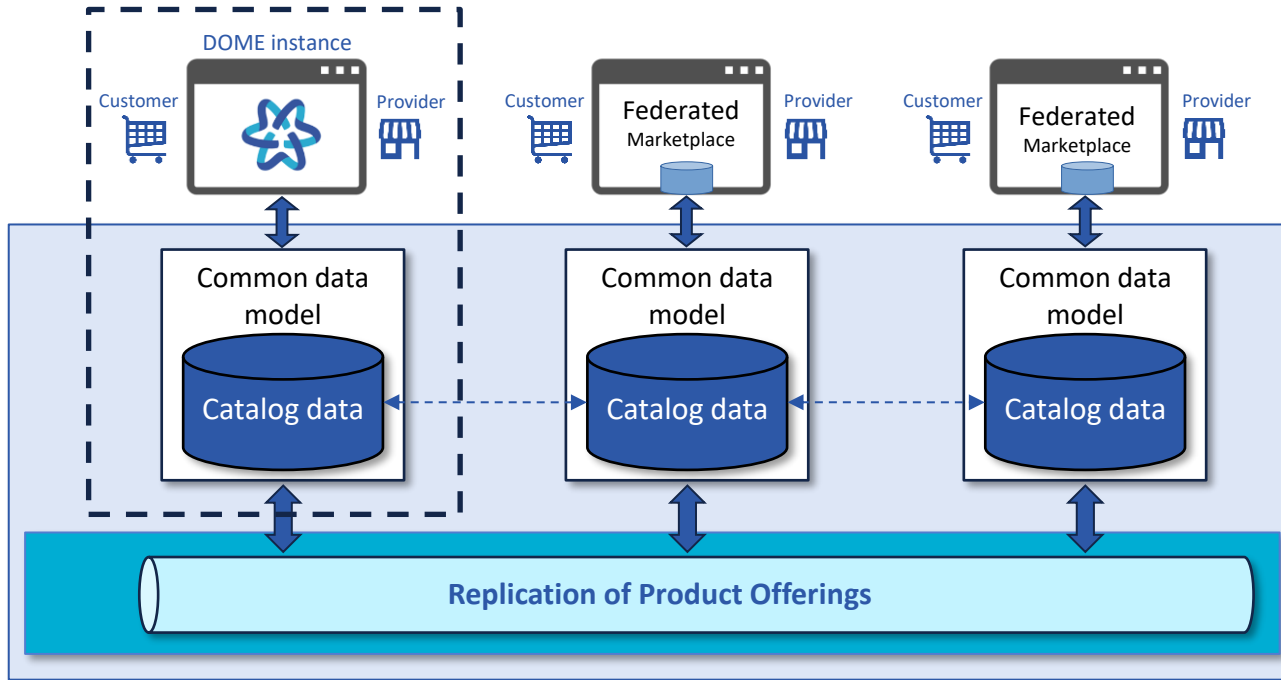
- New vertical functionalities delivered to support vertical market needs
- Total handover to the DOME operator



# Scope of functionalities in version 1.0 (Catalog)



# DOME: a Decentralised Federated Marketplace




Applied filters: Infrastructure as a Service (IaaS)

## Categories

- Infrastructure as a Service (IaaS)
- Container as a Service (CaaS)
- Platform as a Service (PaaS)
- Software as a Service (SaaS)
- Artificial Intelligence and Machine Learning
- Data as a Service (DaaS)
- Cybersecurity and Data Privacy
- Internet of Things (IoT)
- Automotive
- Agriculture, Forestry, Fishing
- Blockchain (DLT)
- Beauty and Perfume
- Cleaning and Facility Management Services
- Community Groups, Social, Political and Religious
- Education
- Construction
- Employment, Recruitment, HR

Search Cloud Services, Edge Services, Providers...

**CREODIAS - immediate access to Copernicus Earth Observation data**

Agriculture, Forestry, Fishing
  Education
  Science and Engineering
  Security
  Storage
  IT
  Network
  Data as a Service (DaaS)
  Compute
  Infrastructure as a Service (IaaS)


**Level 1**

**CREODIAS - immediate access to Copernicus Earth Observation data**

CREODIAS platform gives you:

- Immediate access to current & archive Copernicus Earth Observation...

[View details](#)




**Virtual data center VMware**

Enterprise private cloud infrastructure

[get in touch with us...](#)

Compute
  IT
  Infrastructure as a Service (IaaS)
 **Level 1**

[View details](#)




**IONOS**

Storage
  Infrastructure as a Service (IaaS)
 **Level 1**

**IONOS Block Storage (HDD/SSD)**

Block Storage is a type of IT architecture in which data is stored as a file system. It provides endless possibilities for storing large amounts of...

[View details](#)



**nivola**

Storage
  IT
  Governmental Administration and Regulation
  Compute
  Community Groups, Social, Political and Religious
  Infrastructure as a Service (IaaS)
 **Level 1**

**Nivola SaaS**

Nivola is the cloud of CSI. Nivola SaaS (Storage as a Service) provides storage and network with pay-per-use payment

[View details](#)




**nivola**

IT
  Governmental Administration and Regulation
  Compute
  Community Groups, Social, Political and Religious
  Infrastructure as a Service (IaaS)
 **Level 1**

**Nivola IaaS**

Nivola is the cloud of CSI. Nivola IaaS (Infrastructure as a Service) provides computing resources (vCPU, vRAM, HDD) and network with pay-per-use...

[View details](#)



**CloudFerro Cloud**

Agriculture, Forestry, Fishing
  Education
  Science and Engineering
  Security
  Storage
  IT
  Network
  Data as a Service (DaaS)
  Compute
  Infrastructure as a Service (IaaS)
 **Level 1**

**CloudFerro Cloud**

CloudFerro Cloud provides innovative cloud services for specialized markets such as the European space sector, climate research and si

[View details](#)



# Decentralised Replication

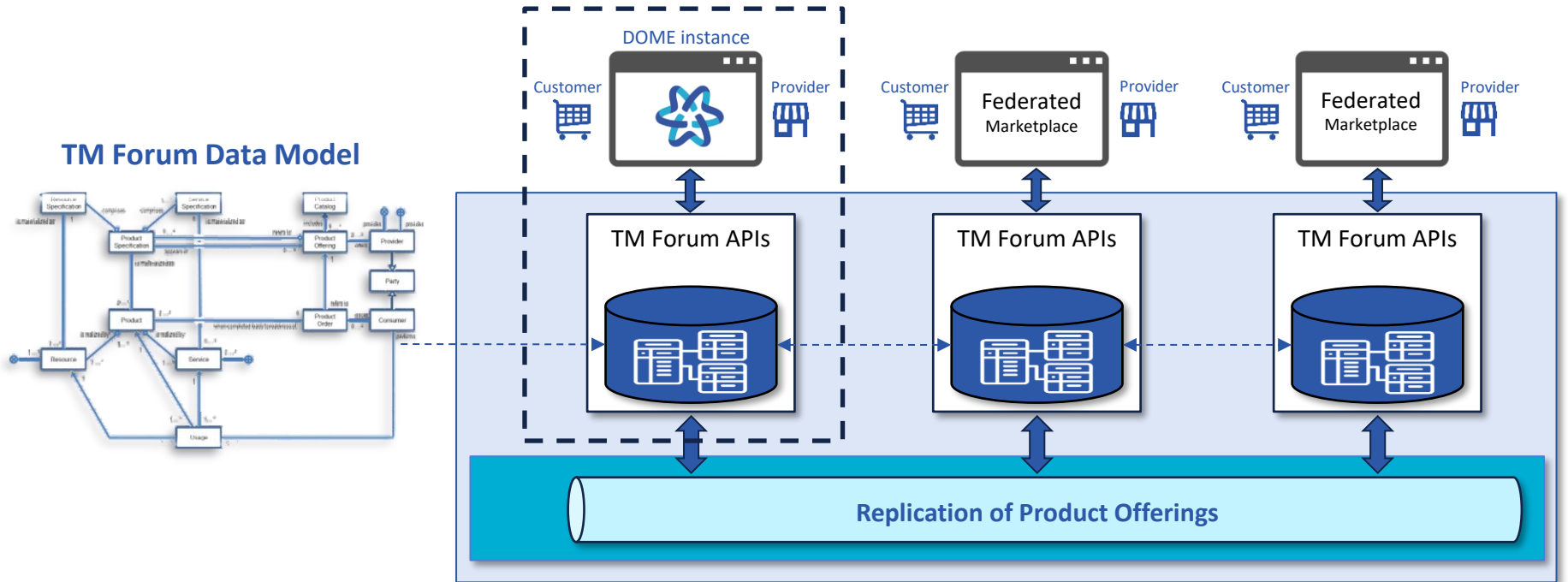


Cloud & Edge services you can trust

[dome-marketplace.eu](https://dome-marketplace.eu)



# Replication requires common data model and APIs



# TM Forum data model and APIs for Marketplaces

The screenshot displays the TM Forum website's navigation menu and a grid of API cards. The navigation menu includes: tmforum, Knowledge, Labs, Code + frameworks, Training + accreditation, Events, Membership, About, and Contact. The API cards are organized into three columns:

- Marketing Sales APIs (1):** Sales Management API (TME699, v4, v5)
- Customer APIs (14):** Appointment Management API (TME646, v3, v4), Customer Management API (TME629, v4, v5, Async), Payment Management API (TME676, v1, v4), Prepay Balance Management API (TME654, v4), Customer Bill Management API (TME678, v4, v5, Async), Customer360 Management API (TME717, v4, v5), Payment Method Management API (TME670, v4, v5), Product Configuration Management API (TME760, v5), and Quote Management API.
- Product APIs (8):** IoT Service Management API (TME914, v4), Product Catalog Management API (TME620, v4, v5, Async), Product Inventory Management API (TME637, v4, v5, Async), Product Offering Qualification Management API (TME679, v4, v5), Product Ordering Management API (TME622, v4, v5, Async), Promotion Management API (TME671, v4, v5), and Usage Consumption Management API.
- Service APIs (9):** DCS 5GSlice Service Activation API (TME924, v4), Performance Management API (TME628, v5), Service Catalog Management API (TME633, v4, v5), Service Inventory Management API (TME638, v4, v5, Async), Service Ordering Management API (TME641, v4, v5), Service Problem Management API (TME656, v4, v5), and Service Qualification Management API.

The Product APIs column is highlighted with a red border.

# Open API dashboard for May 2024

All time totals: **871,186** Open API downloads by **48,338** developers from **2,826** organizations | [85 Organizations have certified 1,124 Open APIs](#)



## DOWNLOADS THIS MONTH

API downloads **16,599**  
 Unique organizations **473**  
 Unique individuals **2,841**

## TOP DOWNLOADERS\*

Parent Account	Rank	Downloads
Vodafone Group	1	925
Tata Consultancy Services	2	772
Tech Mahindra Limited	3	571
AT&T Inc.	4	503
Orange	5	424
Amdocs Management Limited	6	398
Deutsche Telekom AG	7	397
Accenture	8	349
PlatformX Communications (PXC)	9	324
BT Group plc	10	312
Capgemini	11	291
LotusFlare	12	280
Infosys	13	261
Saudi Telecom Company	14	254
NEC Corporation	15	246
Ericsson Inc.	16	236
Millicom International Cellular S.A.	17	224
Celfocus	18	223
Jio Platforms Limited	19	217
TELEFONICA	20	198
ADVANCED INFO SERVICE PLC. (AIS)	21	179

\* Organizations with 5+ unique users in the month



## Useful links

[Open API table](#) | [Pre-production API table](#) | [188 Open API manifesto signatories \(current TM Forum members\)](#)



## CERTIFICATIONS

### OPEN API CERTIFICATION LEADERBOARD



### TOP APIs CERTIFIED



### LATEST OPEN API CERTIFICATIONS



## WHAT'S NEW LATEST API UPDATES APPROVED

V4 TMF716 Resource Reservation - Production

## THIS MONTH'S MOST POPULAR APIs

API Full Name	Rank	Downloads
TMF622 Product Ordering	1	1,412
TMF620 Product Catalog Manage...	2	885
TMF666 Account Management	3	869
TMF632 Party Management	4	751
TMF629 Customer Management	5	722
TMF637 Product Inventory Mana...	6	562
TMF621 Trouble Ticket	7	559
TMF641 Service Ordering Manag...	8	546
TMF639 Resource Inventory Man...	9	539
TMF638 Service Inventory Manag...	10	478
TMF678 Customer Bill Managem...	11	472
TMF640 Service Activation and C...	12	301
TMF679 Product Offering Qualifc...	13	297
TMF669 Party Role Management	14	274
TMF915 AI Management	15	273

## NEW API RESEARCH & CASE STUDIES

[My API Story: Enhancing efficiency in product management and customer experience](#)  
 Kelvin Chaffer, CEO, Lifecycle Software



[DTW24-Ignite: ODA advances under the spotlight](#)

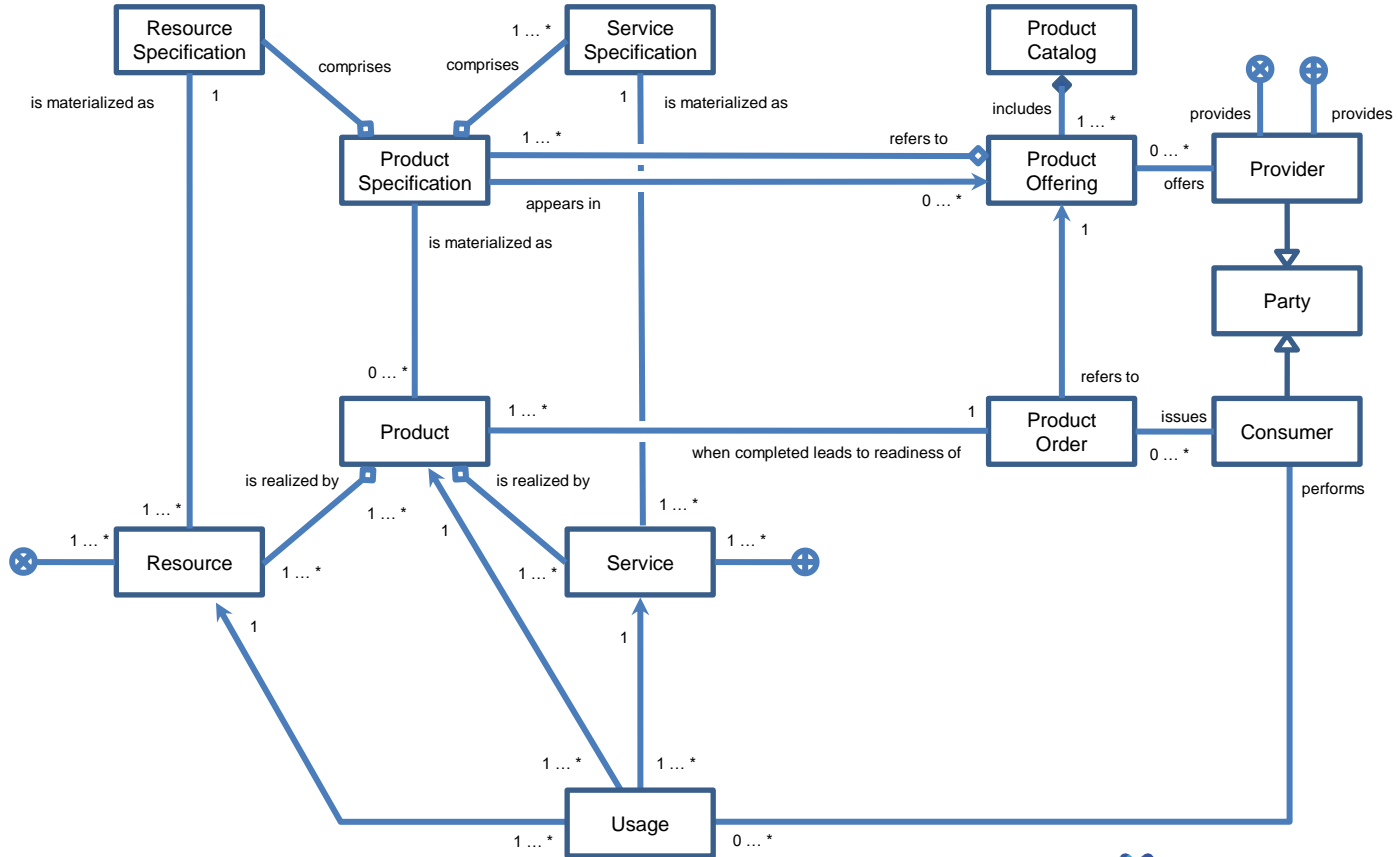
[Vodafone's journey to becoming a modular, agile telco](#)



DOME - Distributed Open Marketplace for Cloud and Edge Services in Europe



# TM Forum APIs for Marketplaces - Model (Simplification)



# Identity & Access control



Cloud & Edge services you can trust

[dome-marketplace.eu](https://dome-marketplace.eu)



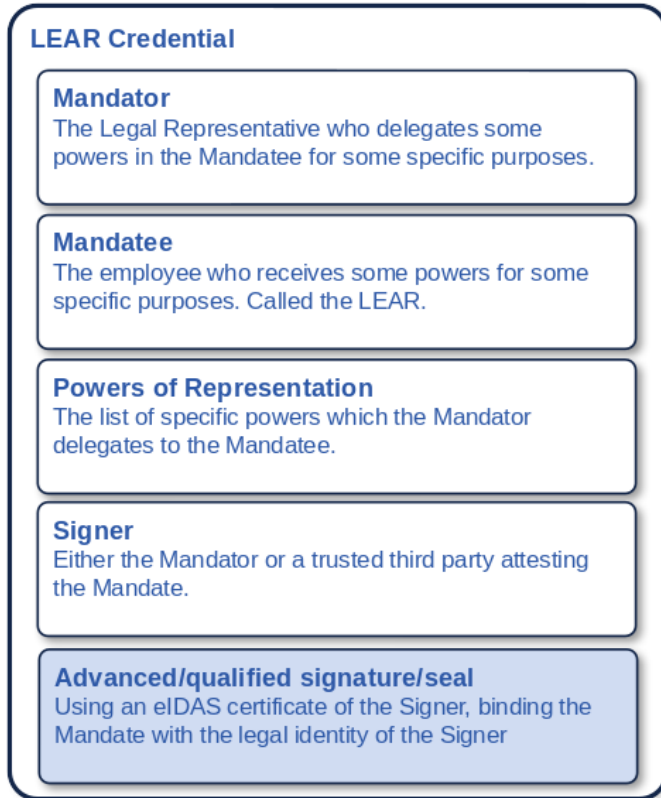
# eIDAS2 Regulation (11 April 2024) on the European Digital Identity Framework

*Section 1, Article 5f-2:*

*Where private relying parties that provide services are required by Union or national law to use strong user authentication for online identification or where strong user authentication for online identification is required by contractual obligation, including in the areas of **transport, energy, banking, financial services, social security, health, drinking water, postal services, digital infrastructure, education or telecommunications**, those private relying parties **shall, no later than 36 months from the date of entry into force of the implementing acts referred to in Article 5a(23) and Article 5c(6), accept European Digital Identity Wallets** that are provided in accordance with this Regulation.*

Source: [Regulation \(EU\) 2024/1183 of the European Parliament and of the Council of 11 April 2024 amending Regulation \(EU\) No 910/2014 as regards establishing the European Digital Identity Framework](#)

# LEAR Credential: electronic Powers of Representation

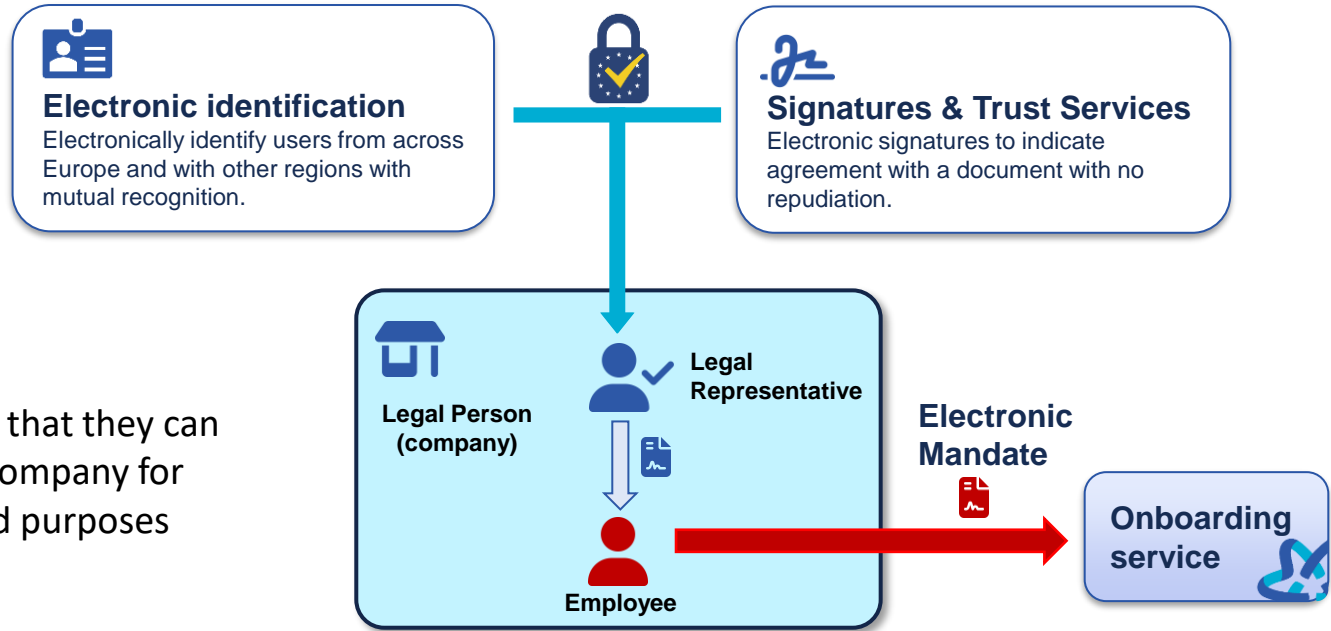


Allows an employee to **act on behalf of** an organisation for a specific set of activities.

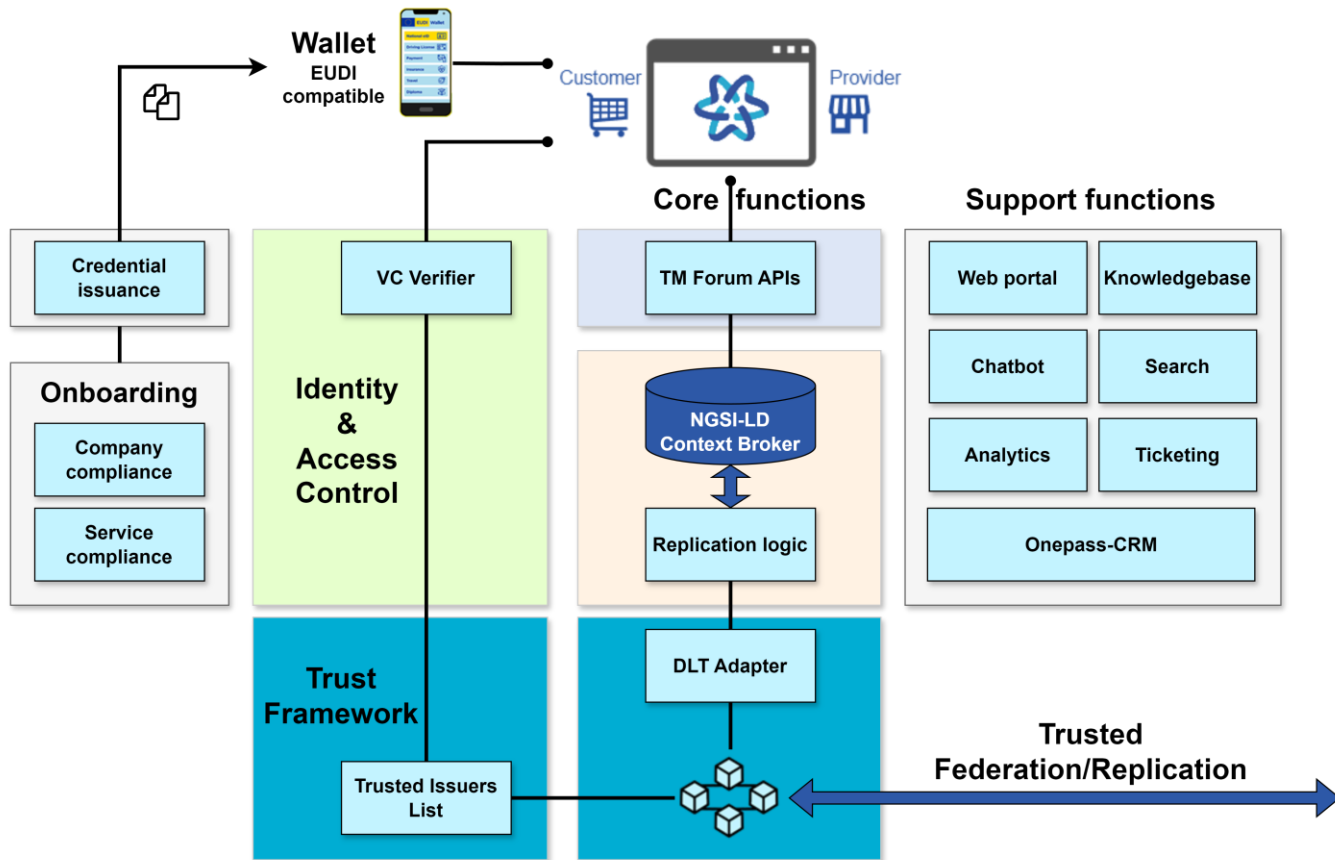
A machine-readable document (JSON) where:

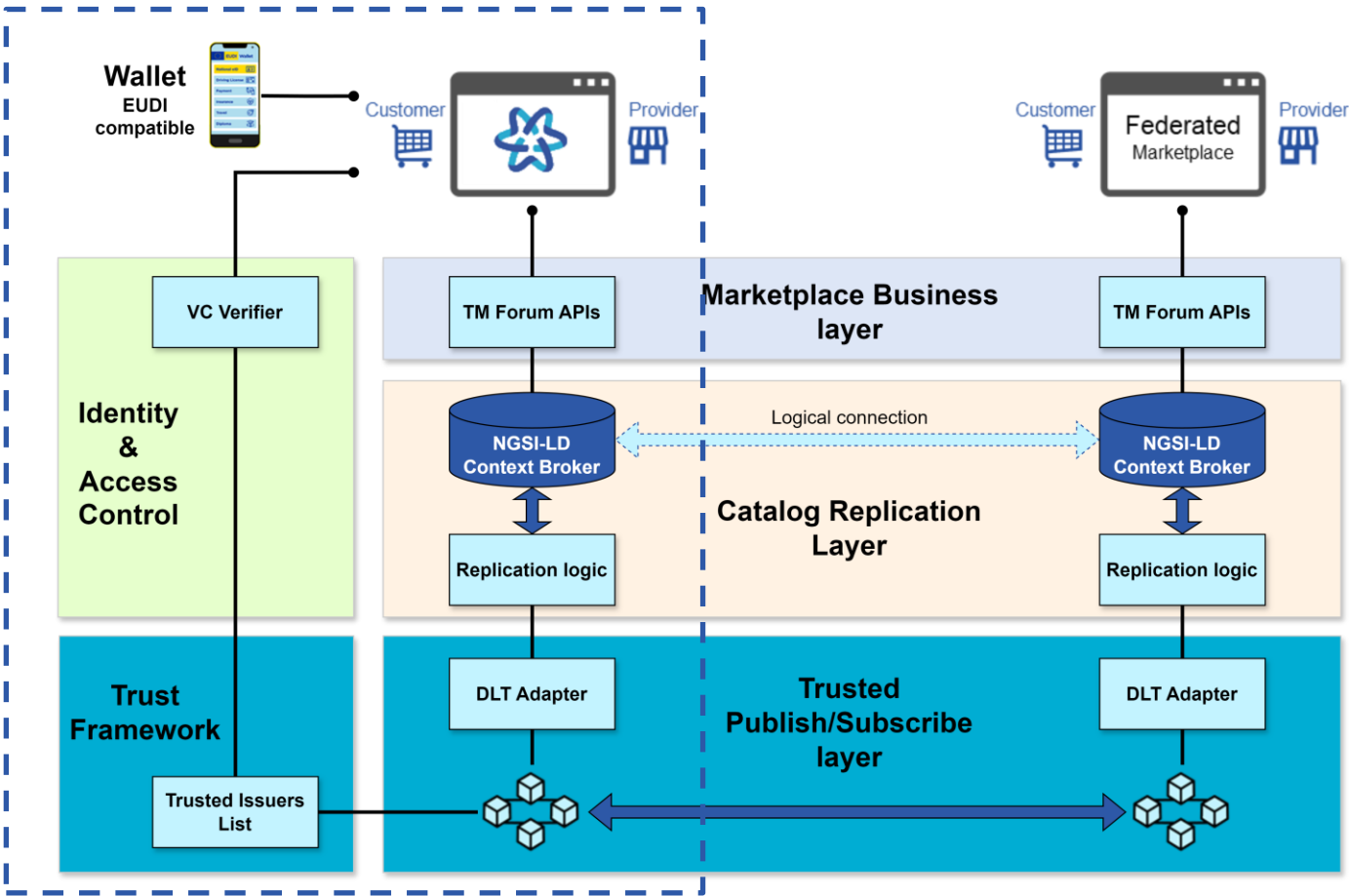
- ◆ The legal representative of the company delegates into the employee a set of limited powers to perform specific activities with third-parties.
- ◆ The Verifiable Credential is signed by the Legal Representative using an eIDAS certificate issued by one of the qualified trust service providers in the EU.

# Verifiable Credentials as electronic Powers of Representation

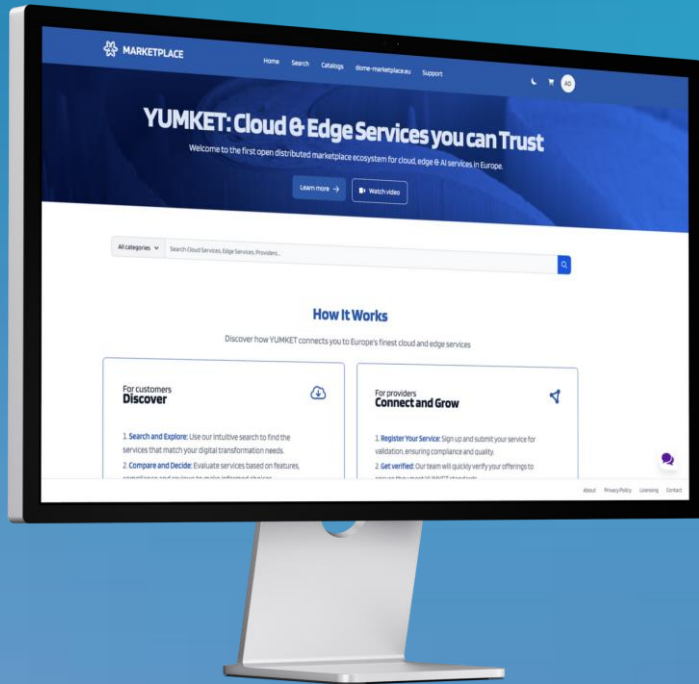


Employees can prove that they can act on behalf of the company for specific and restricted purposes

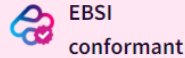




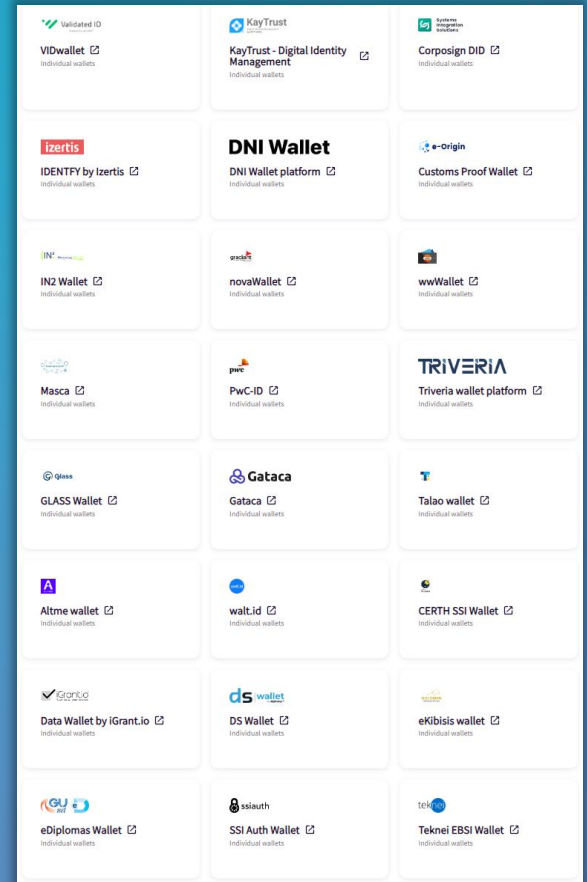
# Open wallet ecosystem



## Wallet capabilities:



- ✓ Request & present credentials





# Verifiable Certifications

Decentralised Trust on products and services

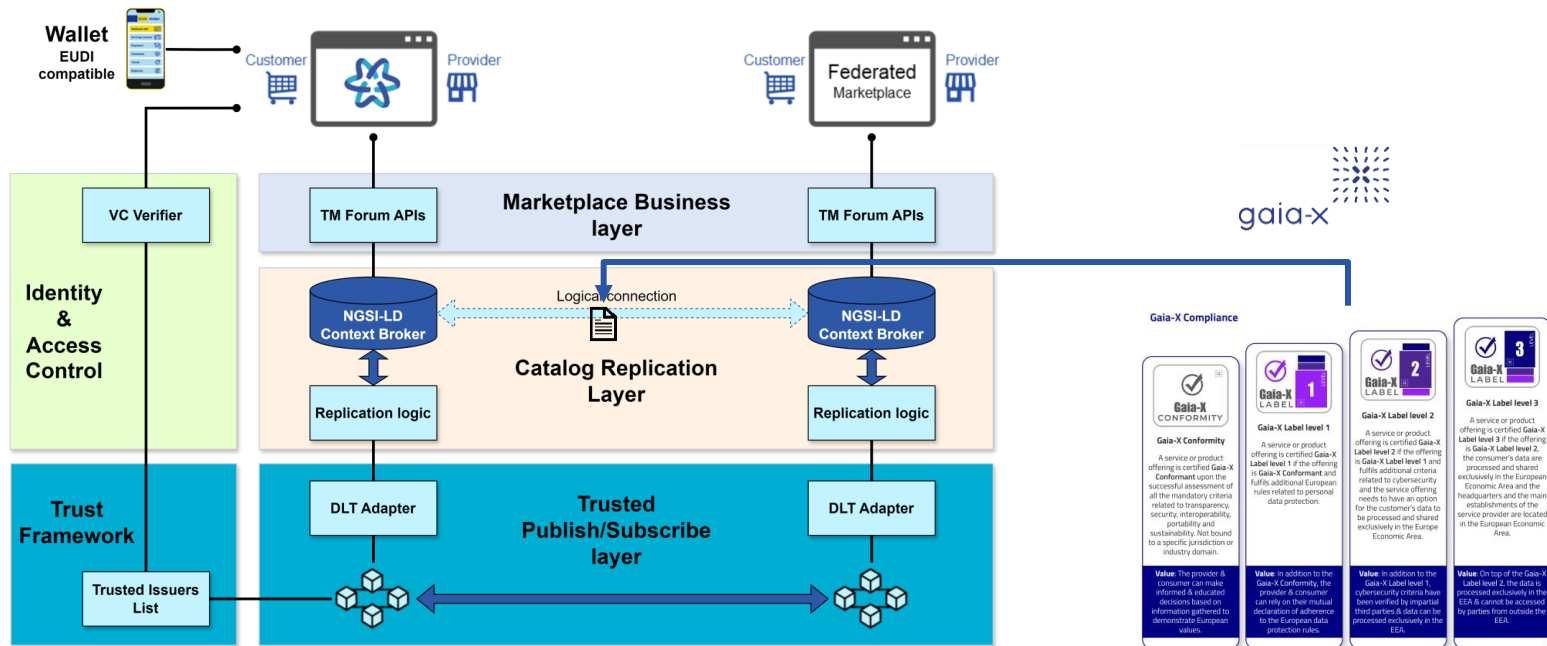


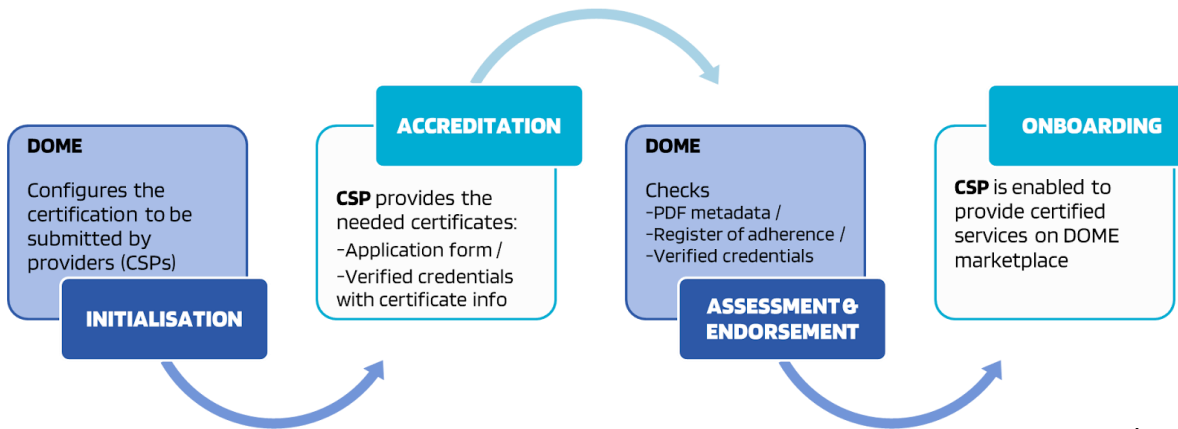
Cloud & Edge services you can trust

[dome-marketplace.eu](https://dome-marketplace.eu)

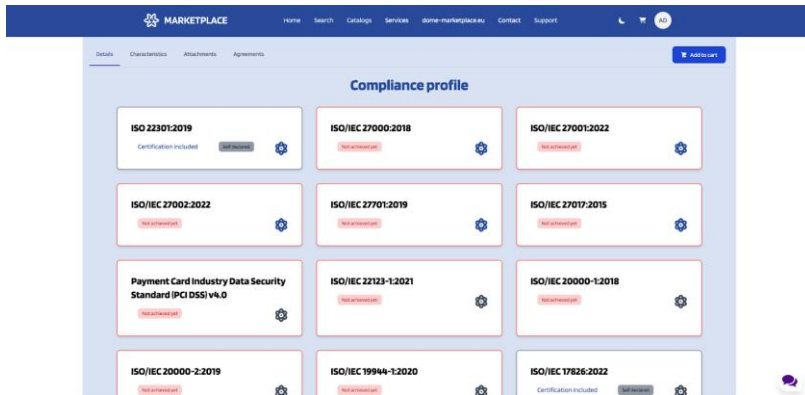


# Verifiable Certifications are required for trusted decentralised replication









## Proper Level Of Assurance

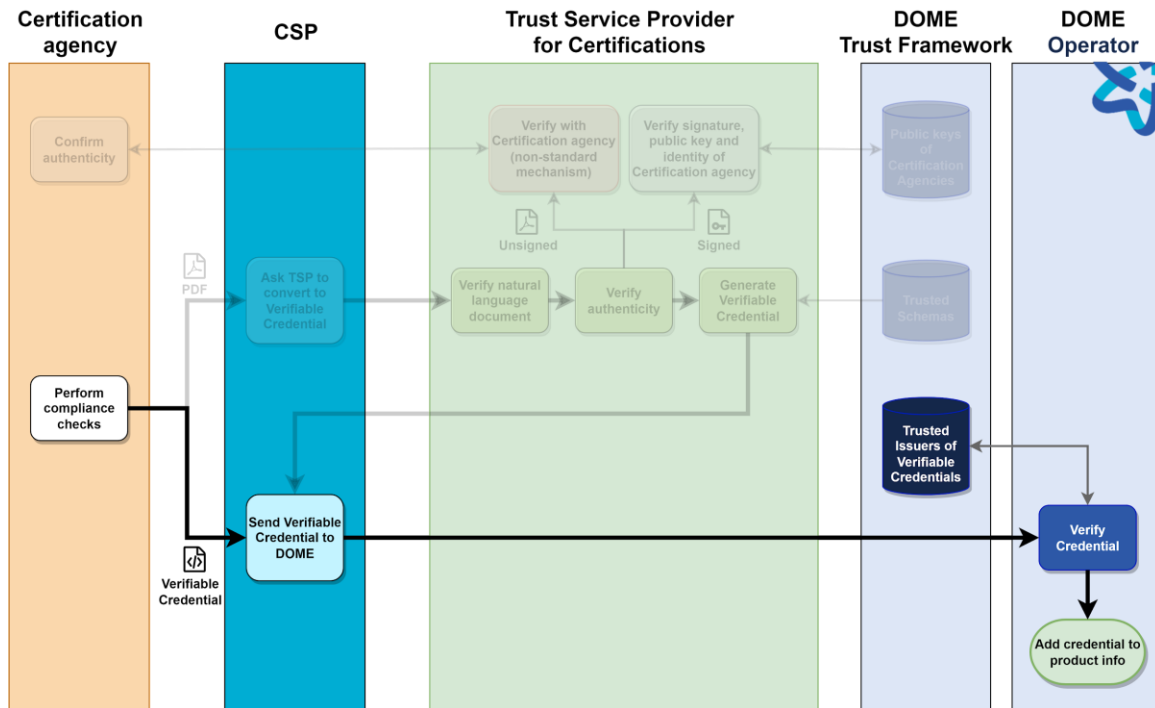


### Gaia-X Compliance

 <p><b>Gaia-X Conformity</b></p> <p>A service or product offering is certified Gaia-X Conformant upon the successful assessment of all the mandatory criteria related to transparency, security, interoperability, portability and sustainability. Not bound to a specific jurisdiction or industry domain.</p> <p><b>Value:</b> The provider &amp; consumer can make informed &amp; educated decisions based on information gathered to demonstrate European values.</p>	 <p><b>Gaia-X Label level 1</b></p> <p>A service or product offering is certified Gaia-X Label level 1 if the offering is Gaia-X Conformant and fulfills additional European rules related to personal data protection.</p> <p><b>Value:</b> In addition to the Gaia-X Conformity, the provider &amp; consumer can rely on their mutual declaration of adherence to the European data protection rules.</p>	 <p><b>Gaia-X Label level 2</b></p> <p>A service or product offering is certified Gaia-X Label level 2 if the offering is Gaia-X Label level 1 and fulfills additional criteria related to cybersecurity and the service offering needs to have an option for the customer's data to be processed and shared exclusively in the European Economic Area.</p> <p><b>Value:</b> In addition to the Gaia-X Label level 1, cybersecurity criteria have been verified by impartial third parties &amp; data can be processed exclusively in the EEA.</p>	 <p><b>Gaia-X Label level 3</b></p> <p>A service or product offering is certified Gaia-X Label level 3 if the offering is Gaia-X Label level 2, the consumer's data are processed and shared exclusively in the European Economic Area and the headquarters and the main establishments of the service provider are located in the European Economic Area.</p> <p><b>Value:</b> On top of the Gaia-X Label level 2, the data is processed exclusively in the EEA &amp; cannot be accessed by parties from outside the EEA.</p>
--	--	---	---



# Future: the Certification agency issues a Verifiable Credential

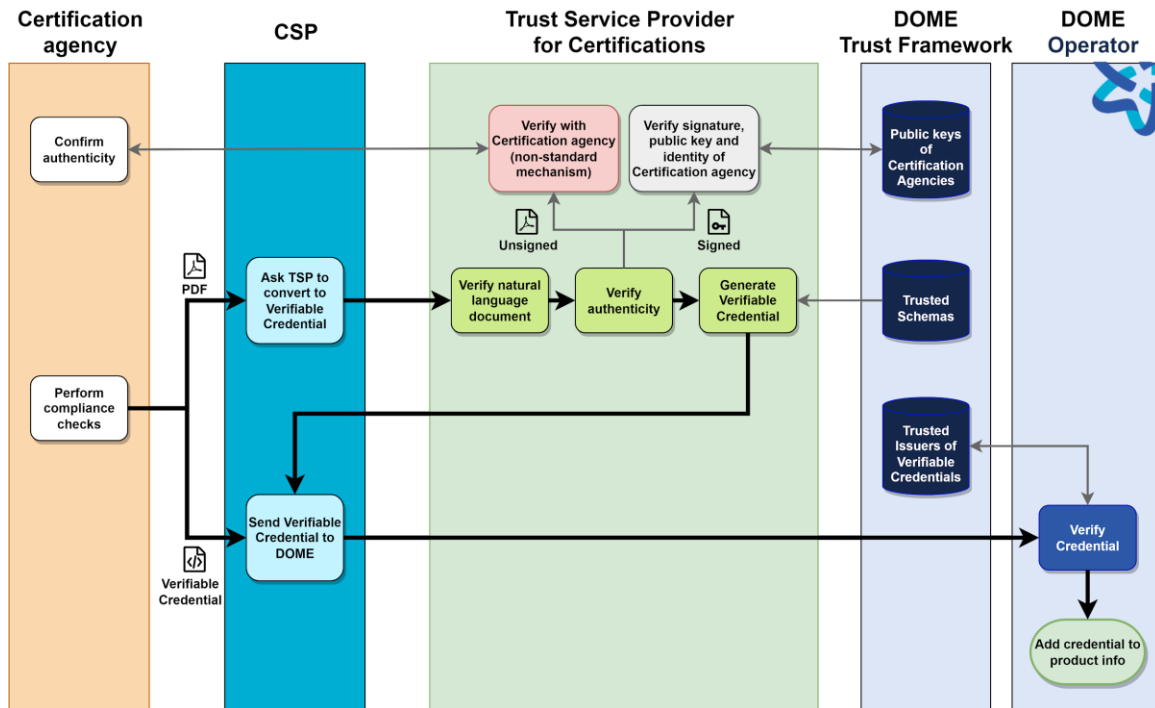


The flow is very simple:

- The CSP receives the certification in its enterprise wallet.
- The CSP sends the certification to DOME onboarding.
- DOME verifies automatically the authenticity of certification and that it is one of the required certifications.
- Identities of certifications agencies are in the Trust Framework



# Today: services to “convert” PDF to Verifiable Credential



There is an intermediate trusted service:

- Verifies the content of credential (typically natural language).
- If it is not digitally signed, checks with the certification agency (may be manual or automatic).
- If it is signed, checks signature, and that signer is authorised.
- Generates a VC and returns it to CSP.

The Trusted Service can be provided by DOME and by other market operators.



# DOME Marketplace



Let's build together a Common European Marketplace  
for trusted Cloud, Edge & AI Services!

- Join now and publish your services, it's free and easy
- Join and federate your marketplace
- Participate in the evolution so it becomes what you need

Contact us! [info@dome-marketplace.eu](mailto:info@dome-marketplace.eu)