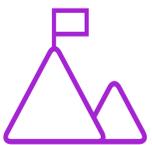
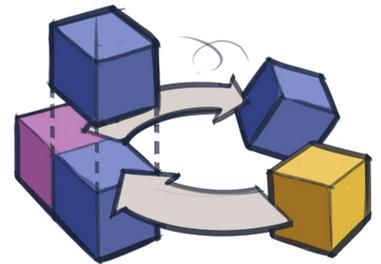


## EU Cloud services in an Open FEDerated ecosystem

### Workstream 2

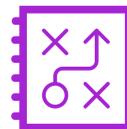
#### What are we working on?

- ECOFED defines the interaction patterns that make services across providers comparable, composable, consumable and switchable.
- ECOFED develops a technical framework for open, federated European cloud services .
- ECOFED develops a protocol to enable technology agnostic cloud federation.



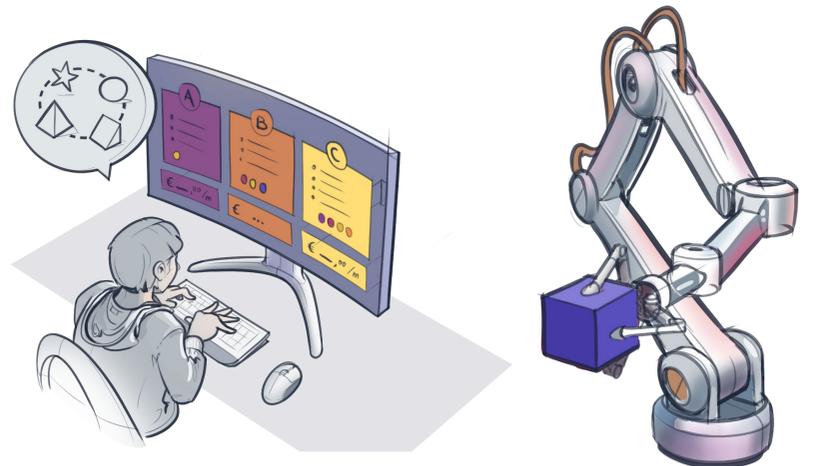
#### What have we achieved?

- Semantic Framework, service definitions.
- Composition over multiple providers.
- Implementations for different tech-stacks.
- CSP-to-CSP network connectivity.



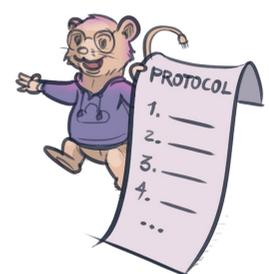
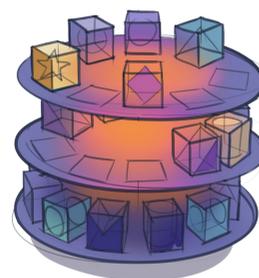
#### Current Challenges

- Align new and existing business models for cloud federation.
- Collaboration between IPCEI CIS projects and utilizing each others results.



#### Next Steps

- Validating ECOFEDs Federation approach with different CSP implementations.
- Publish specifications for community feedback and contributions.



#### Contact

Inés Martínez & Erik Langius, Project coordination, TNO.

Contact: [info@ecofed.eu](mailto:info@ecofed.eu)



Let's connect on...

Building and expanding the ecosystem





# ECOFED

## Hyperscale like ease of use, but deployed in a federated cloud

- ◆ The screen recording shows the power of ECOFED principles.
- ◆ Using a federated cloud, composed out of multiple providers, can be as easy as using a hyperscale integrated stack.

### User flow

- ◆ Select the service(s) that you want to have.
- ◆ Show the provider(s) that offer the requested service(s).
- ◆ Select the provider(s) to run the service(s).

The present recording shows a portal, which is not a formal project deliverable but a demonstration platform to illustrate the ECOFED concepts in practice.

# ECOFED

**ECOFED makes services across providers comparable, composable, consumable and switchable**

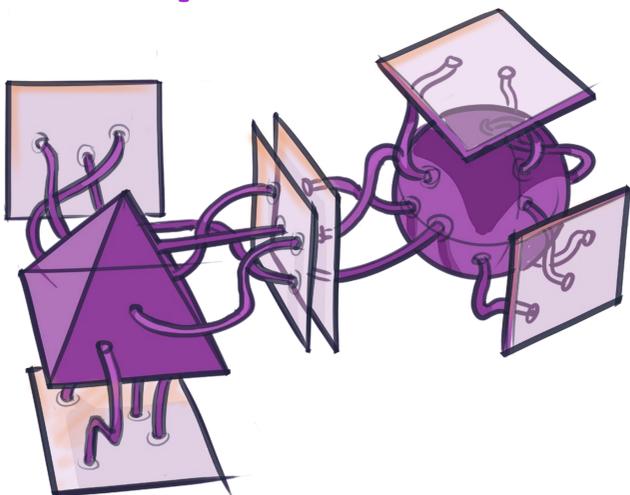
**No more bespoke assessment per provider. Apples to apples.**

A semantic service description model that makes provider offerings comparable across capabilities, SLAs, pricing, data residency, and compliance.

## Compare



## Compose



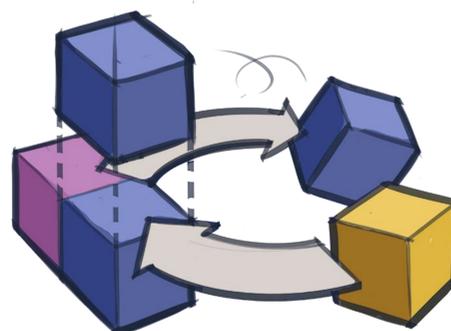
**One system, many providers**

Standardised interaction patterns and an abstraction layer over existing provider stacks. Extensible interfaces let services from different providers be orchestrated as one cohesive system.

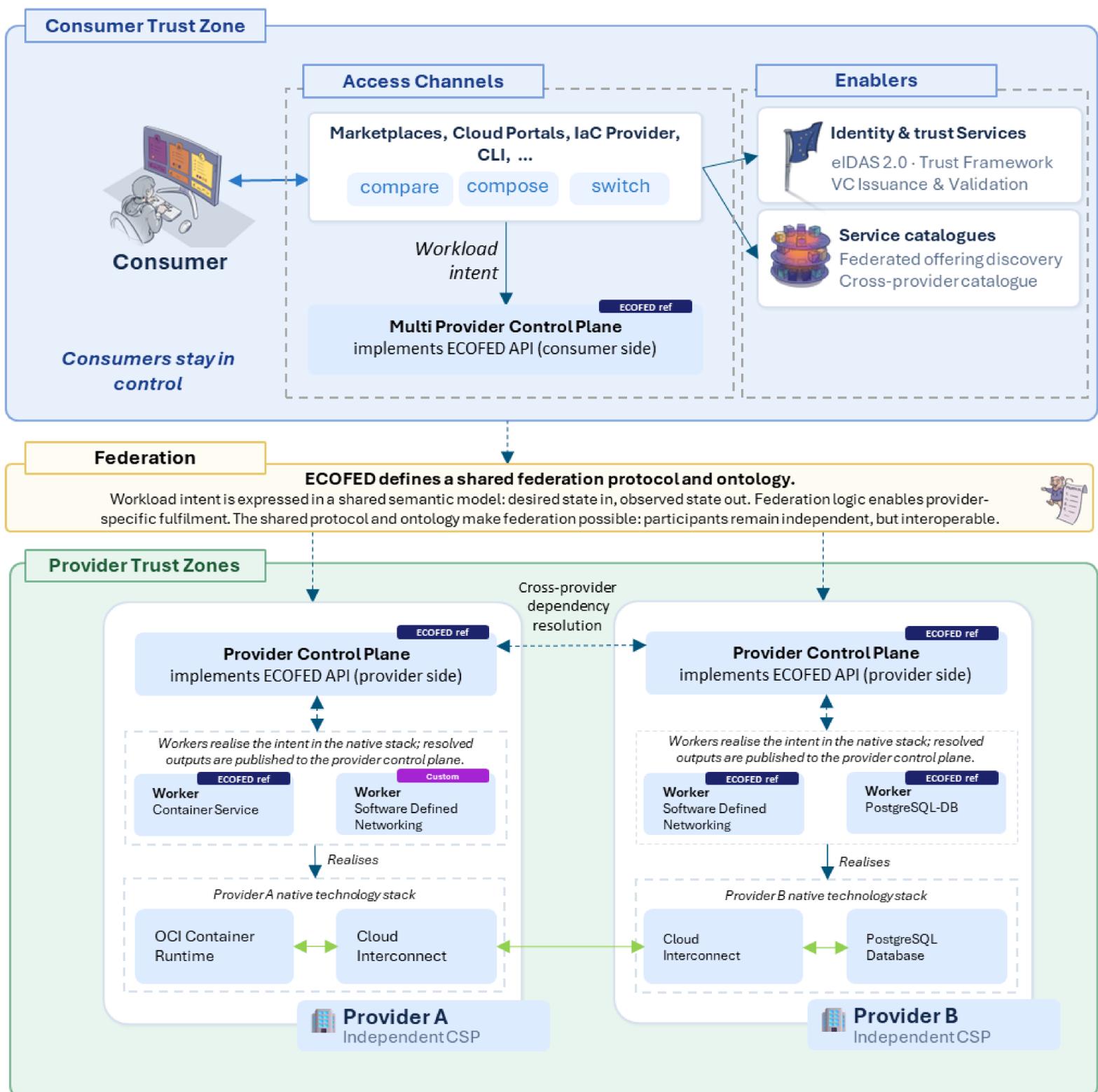
**No lock-in. Switch providers with low friction, any time.**

Portability-by-design reduces migration friction. Aligned with Data Act switching obligations, providers compete on merit, not lock-in.

## Switch



# ECOFED Federation



- ◆ A consumer searches a marketplace for an OCI-compliant container service and a PostgreSQL-compatible database.
- ◆ The marketplace identifies compatible offerings from CSP A and CSP B and verifies technical compatibility and networking feasibility.
- ◆ After the consumer adds custom configuration and submits the order, the Multi-Provider Control Plane (MPCP) splits it into two provider-specific requests.
- ◆ Each cloud service provider sets up networking, provisions its service, and makes it available to the consumer.

## Legend

- - - - - Controlplane (ECOFED API)
- Dataplane
- ↔ Relation / dependency
- ECOFED ref ECOFED Reference implementation
- Custom Provider-specific worker: custom realisation