Open Geospatial Consortium

Standards Lessons Learned from e-shape. H2020 Project on the use of the Cloud for EO

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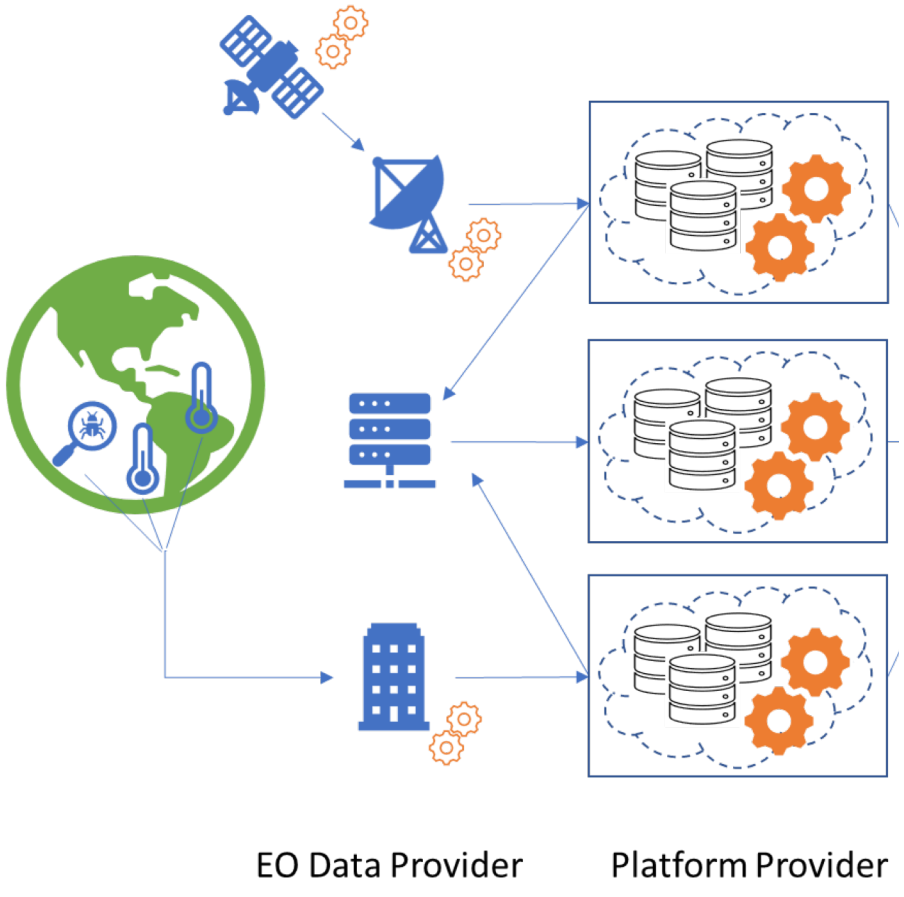
OGC Cloud Concept Development Study

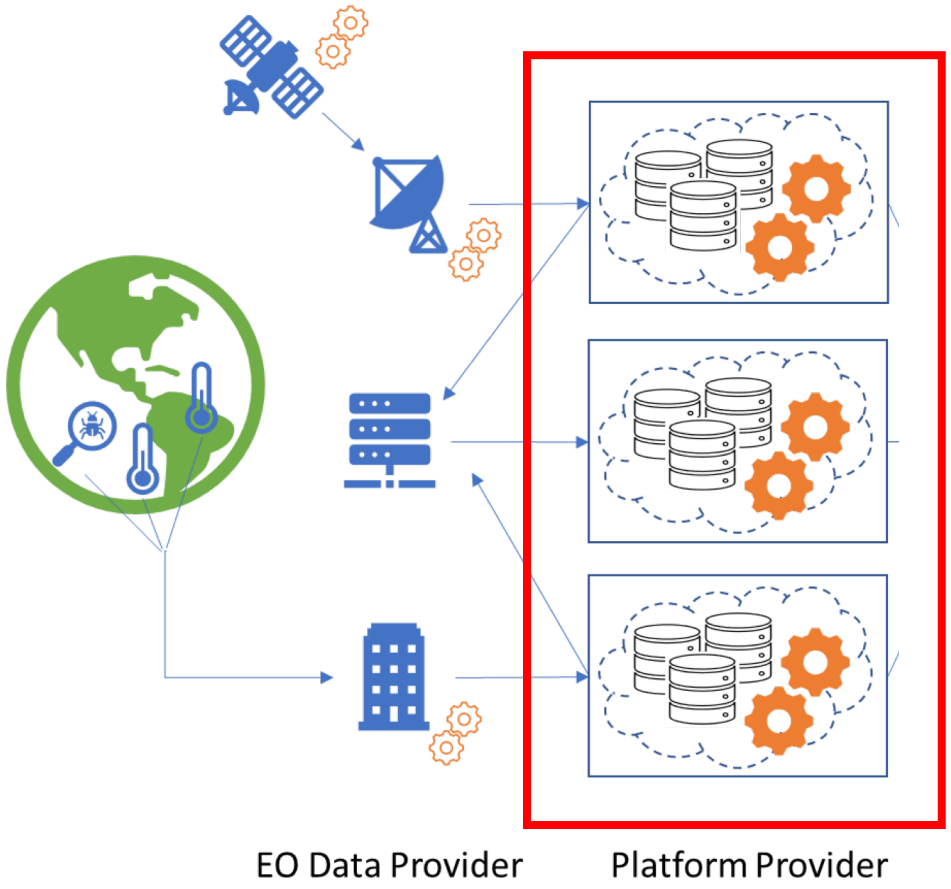
The major (big) Geospatial Data providers are going towards Cloud solutions not only to make more data more accessible, but also to locate data processing next to the data.



https://docs.ogc.org/per/21-023.html

EOEPCA enables EO Platforms federations

Efforts such as the Earth Observation Exploitation Platform Common Architecture (EOEPCA) from ESA enable the federation of platforms to benefit from all platforms assets.



https://eoepca.github.io/

https://docs.ogc.org/per/21-023.html

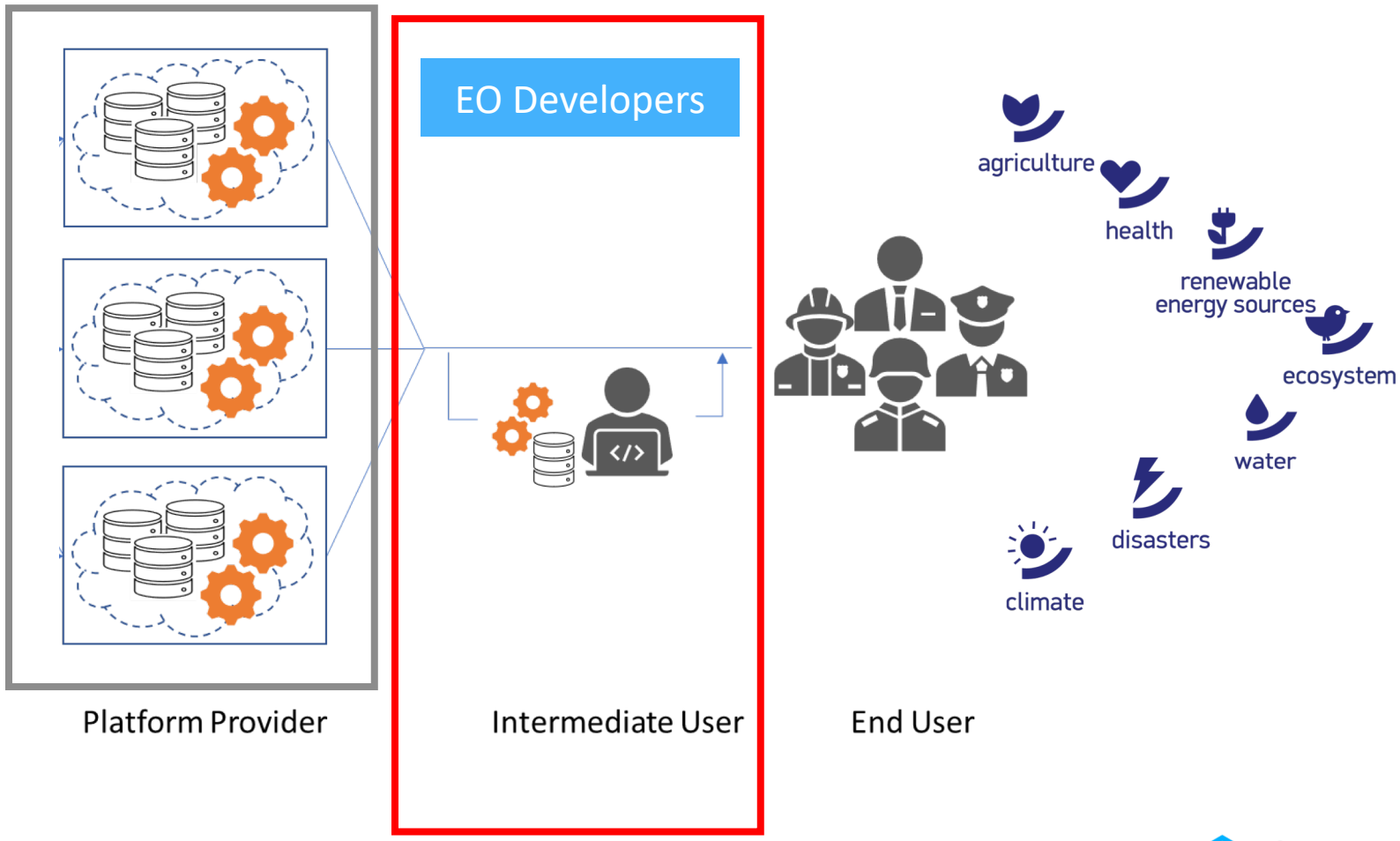
E-shape H2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 820852

EO developers community still needs support to fully adopt the Cloud

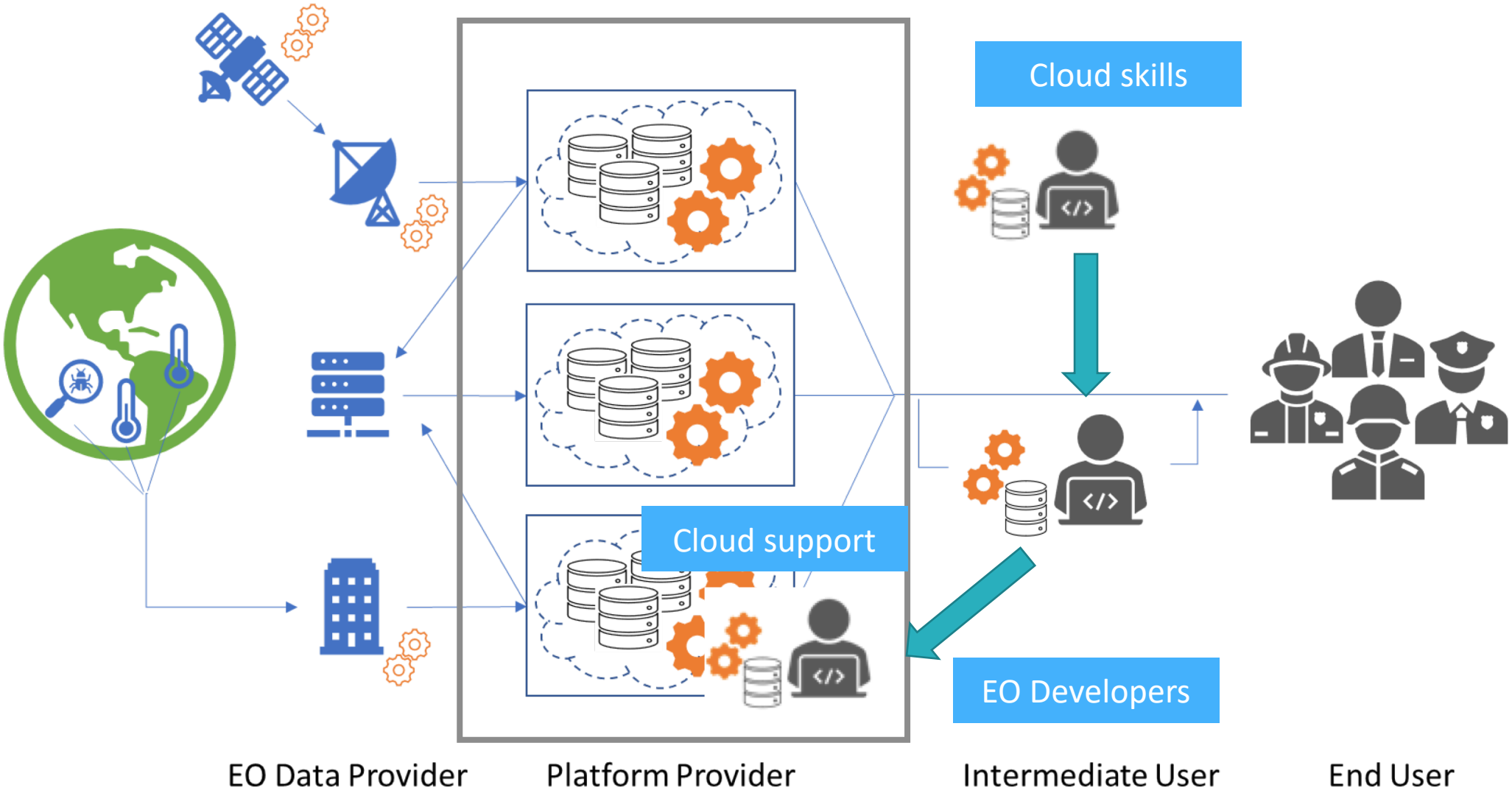
7 Showcases
37 pilots
68 Partners

https://e-shape.eu/

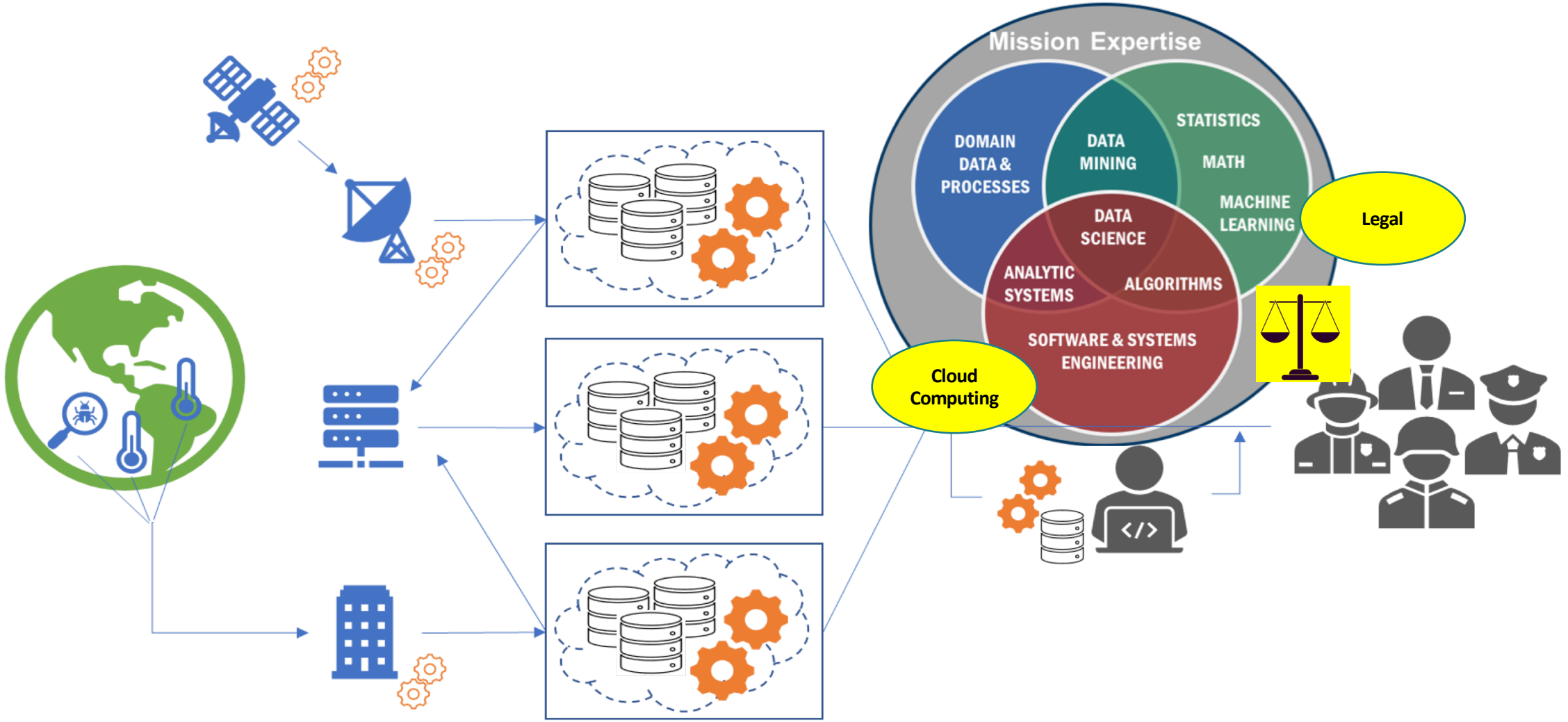


Cloud knowledge is needed to take advantage from the platforms

Platforms such as TEPs and DIASs are still young and evolving towards federations. Cloud experts support is needed



EO Pluridisciplinary teams: Data Science + Cloud skills + Legal Knowledge



Graphic Source: DRAFT NIST Big Data Interoperability Framework: Volume 1, Definitions, NIST Special Publication 1500-1r2

To support the good connection between

- **Data providers,**
- **Technology providers,**
- **EO pluridisciplinary teams** including data science experts (domain data and processes, statistics, math, machine learning, data mining, analytic systems, algorithms, software and systems engineering), + Cloud computing + legal experts

sponsors have to keep on supporting the efforts from the EO community at a number of levels:

- enhancing Copernicus and other open data accessibility,
- developing clouds and platforms interoperability and operational maturity,
- increasing cloud skills among developers and scientists,
- sustaining funding mechanisms,

EO = Data + Sciences + Technology + Skills + *Facilitation*

How long should these efforts be supported?

long enough to allow the rendez-vous in the Cloud of all the critical stakeholders with good timing to reach the critical point of self-sustainability.

- Technology Providers: Increase the new platforms capacities towards FAIR technologies
- Capacity building: develop the technical skills including a good understanding of the pricing mechanisms and how to optimize the costs
- Ramping up to build TRUST to evolve the organization and budgeting to outsource part of the infrastructures

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Thank You

Community

500+ International Members
110+ Member Meetings
60+ Alliance and Liaison partners
50+ Standards Working Groups
45+ Domain Working Groups
25+ Years of Not for Profit Work
10+ Regional and Country Forums

Innovation

120+ Innovation Initiatives
380+ Technical reports
Quarterly Tech Trends monitoring

Standards

65+ Adopted Standards
300+ products with 1000+ certified implementations
1,700,000+ Operational Data Sets
Using OGC Standards