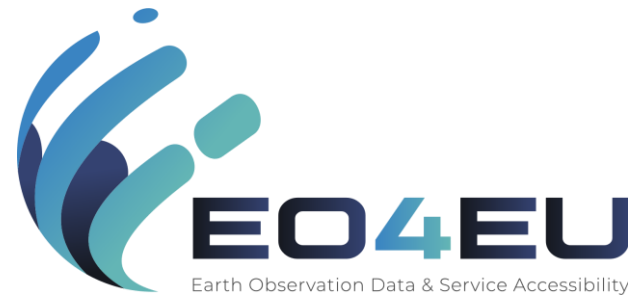




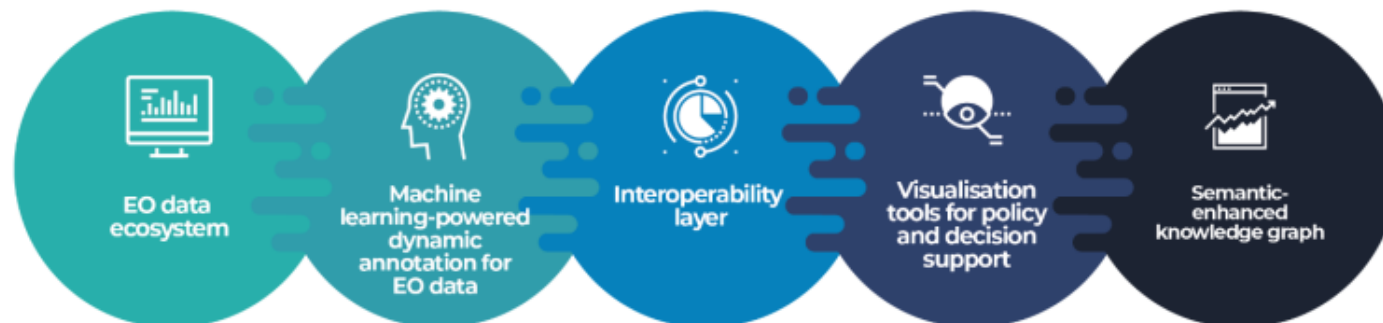
E04EU: AI-augmented ecosystem for EO data accessibility with XR User Interfaces for Service and Data Exploitation













Stathes Hadjiefthymiades
National and Kapodistrian University of Athens

For more information:





 <h3>Services</h3> <ul style="list-style-type: none"> Machine learning for Semantic Annotation Semantic enhanced Knowledge Graphs Data Fusion Augmented and Virtual Reality Data Analytics Visualization 	 <h3>Data</h3> <p>Access at least 10 major EO data sources</p>	 <h3>Use Cases</h3> <p>7 Innovative Use Cases</p>	
 <h3>Policy Priorities</h3> <ul style="list-style-type: none"> Support the EU Digital Single Market by lowering the barriers for EO services development Contribute to the Europe 2020: Blend a socio-economical, and data driven framework facilitating Sustainable Development 	 <h3>Target Groups</h3> <ul style="list-style-type: none"> EO Data Providers Private Sector Policy Makers and Actors Research and Academia Citizen Scientists / General Public Standards Development Organisations 	 <h3>Collaboration Landscape</h3> <ul style="list-style-type: none"> Collaboration Landscape R&I funded projects Large Enterprise & SMEs EO Data Providers EO Providers EOSC Destination Earth Multipliers (see section 2.2) Results-exploiting 3rd-party organisations Environmental Organisations 	
 <h3>Community and Communication</h3> <ul style="list-style-type: none"> 1500 engaged community members from relevant Stakeholder groups with global coverage 2400 Social Media followers 7 original videos with over 3500 total views 2 podcasts 8+ journal papers and 12+ conference papers 	 <h3>Events</h3> <ul style="list-style-type: none"> 4 End-user use case workshops 2 EO4EU Impact events 2 EO Innovation Contests: one for industry and one for research/academia 14 dedicated webinars Presence at 20+ third party events 		 <h3>Insights</h3> <ul style="list-style-type: none"> External Advisory Group Grant committee to evaluate the EO Innovation Contests Policy Brief Exploitation & Sustainability Plan Revision or contribution of new standards



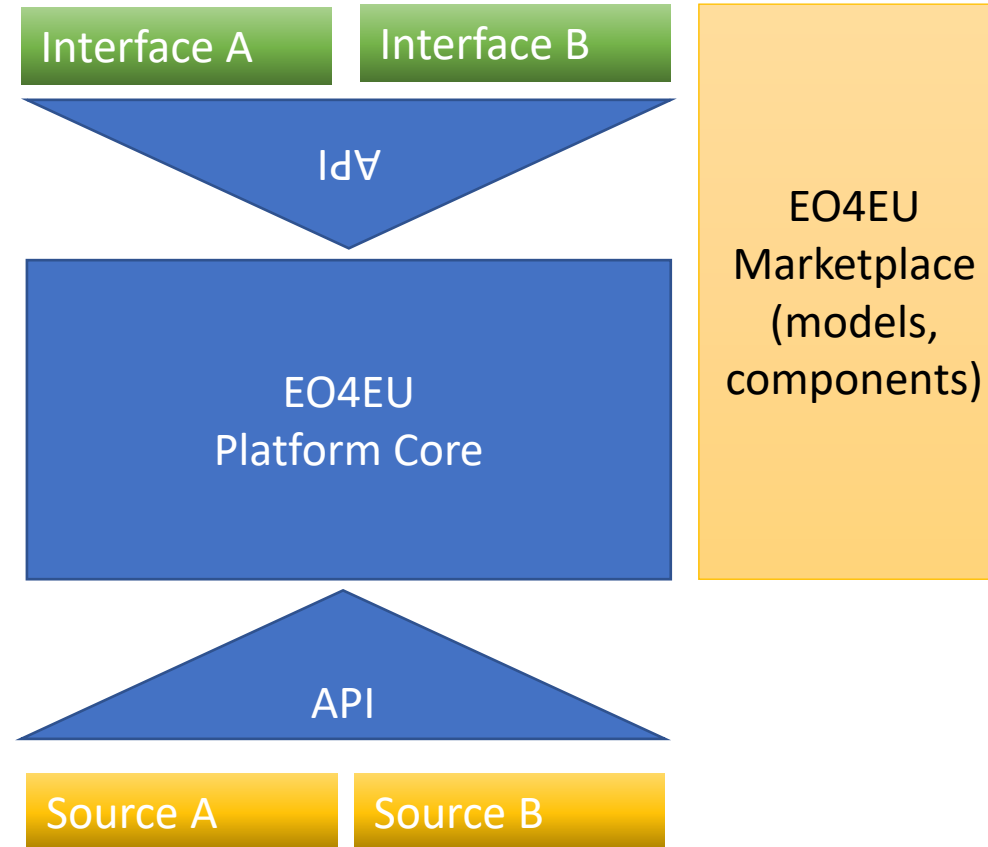
Objectives:

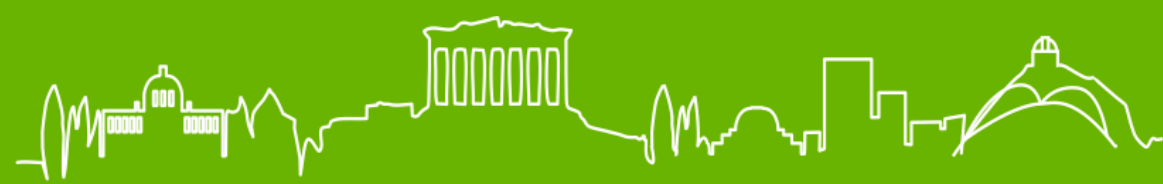
- Develop/integrate a truly generic platform to allow a wide spectrum of users to benefit from EO data.
- Interface different EO data sources to the platform
- Implement a number of use cases to demonstrate platform's versatility and ease of use (& programming)

Technology items: ML, Fusion, Semantic Annotation, Cloud computing, HPC, Domain Specific Languages, XR Interfaces, API, Application Marketplace

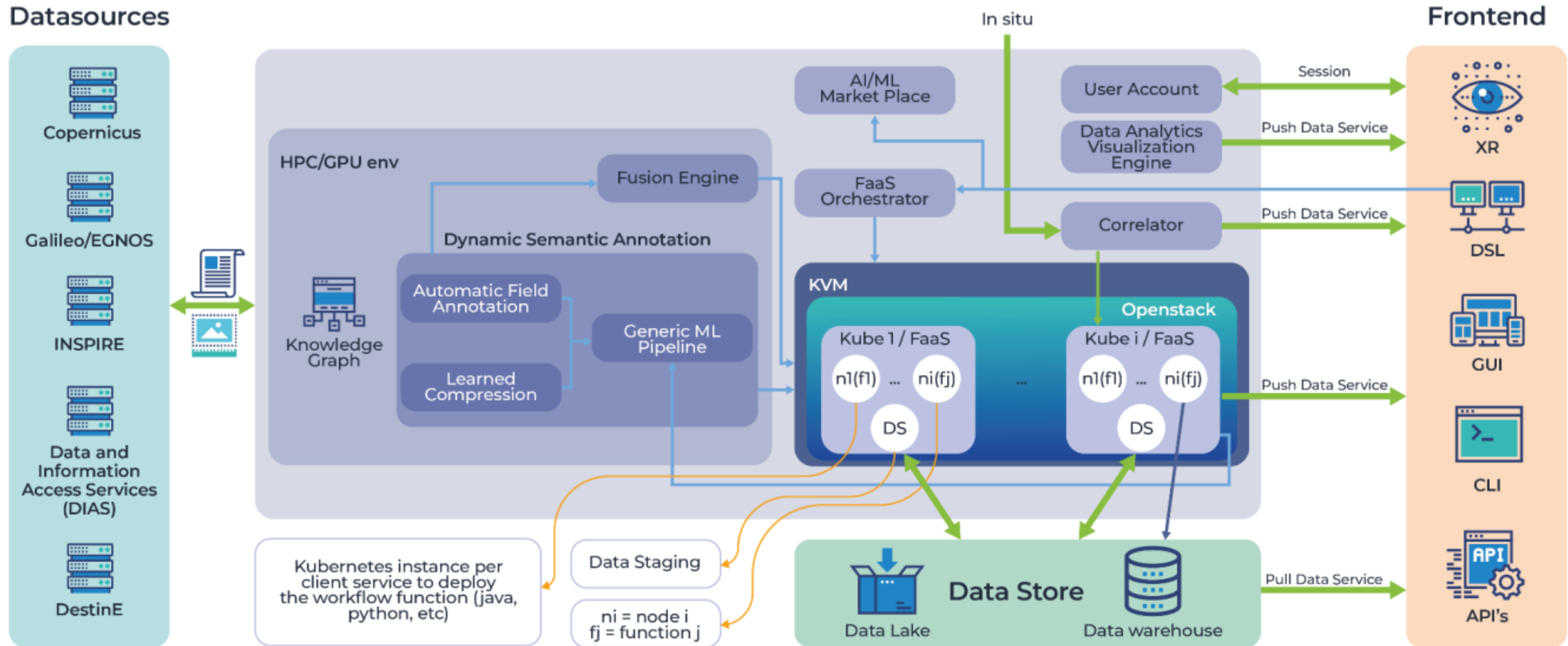


Layered Architecture (logical)





Layered Architecture

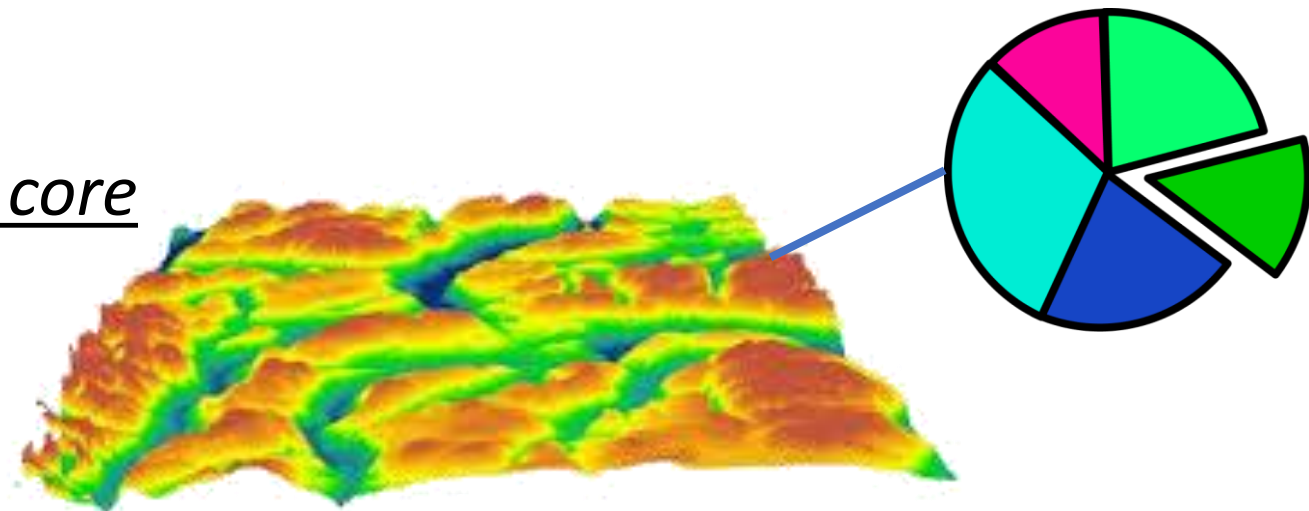


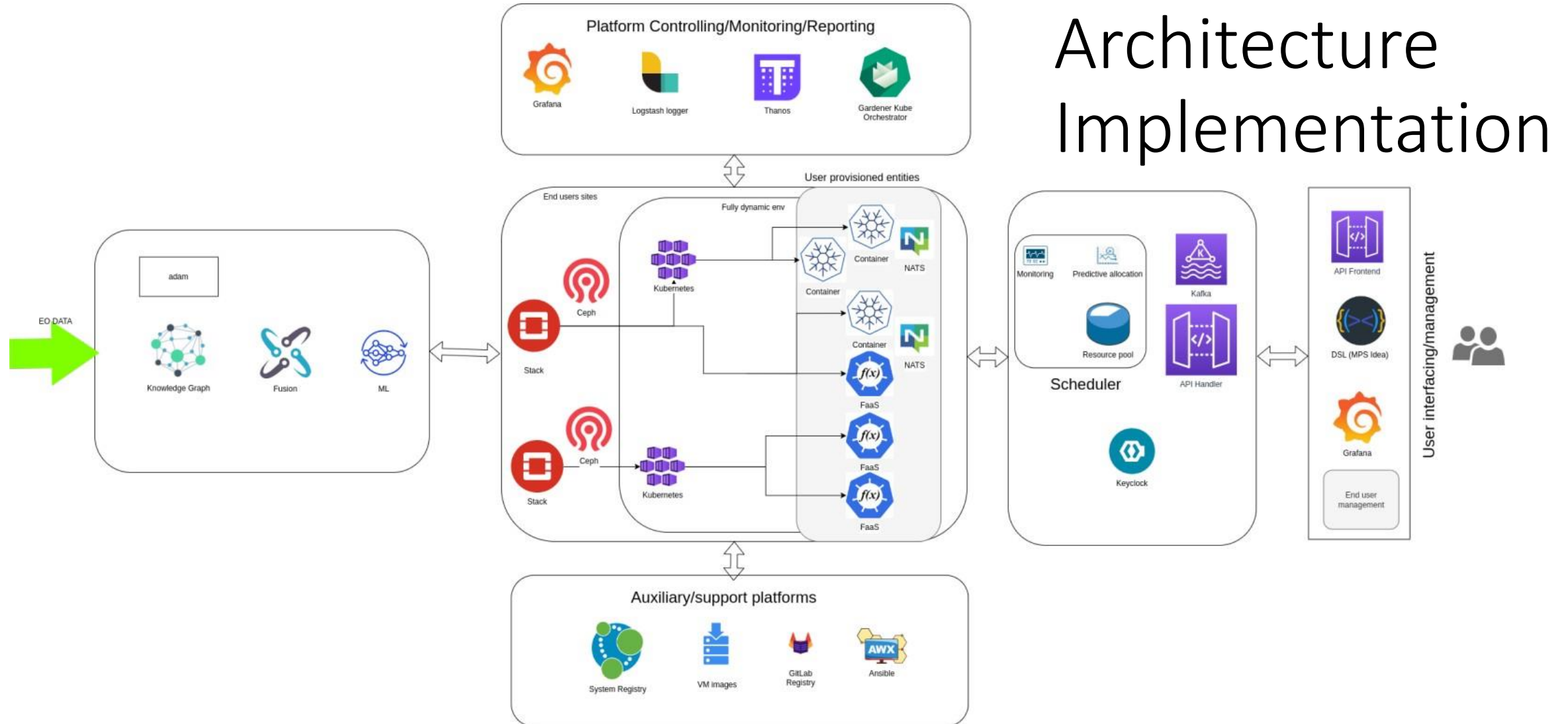


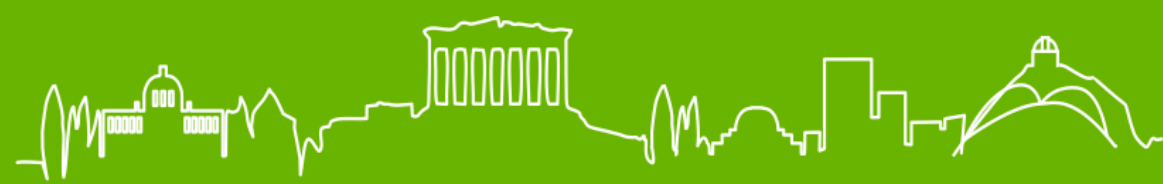
Customer facing services

- Dashboards with analytic capabilities
- CLI
- XR/AR
- Customized Applications
- Domain Specific Language Editor

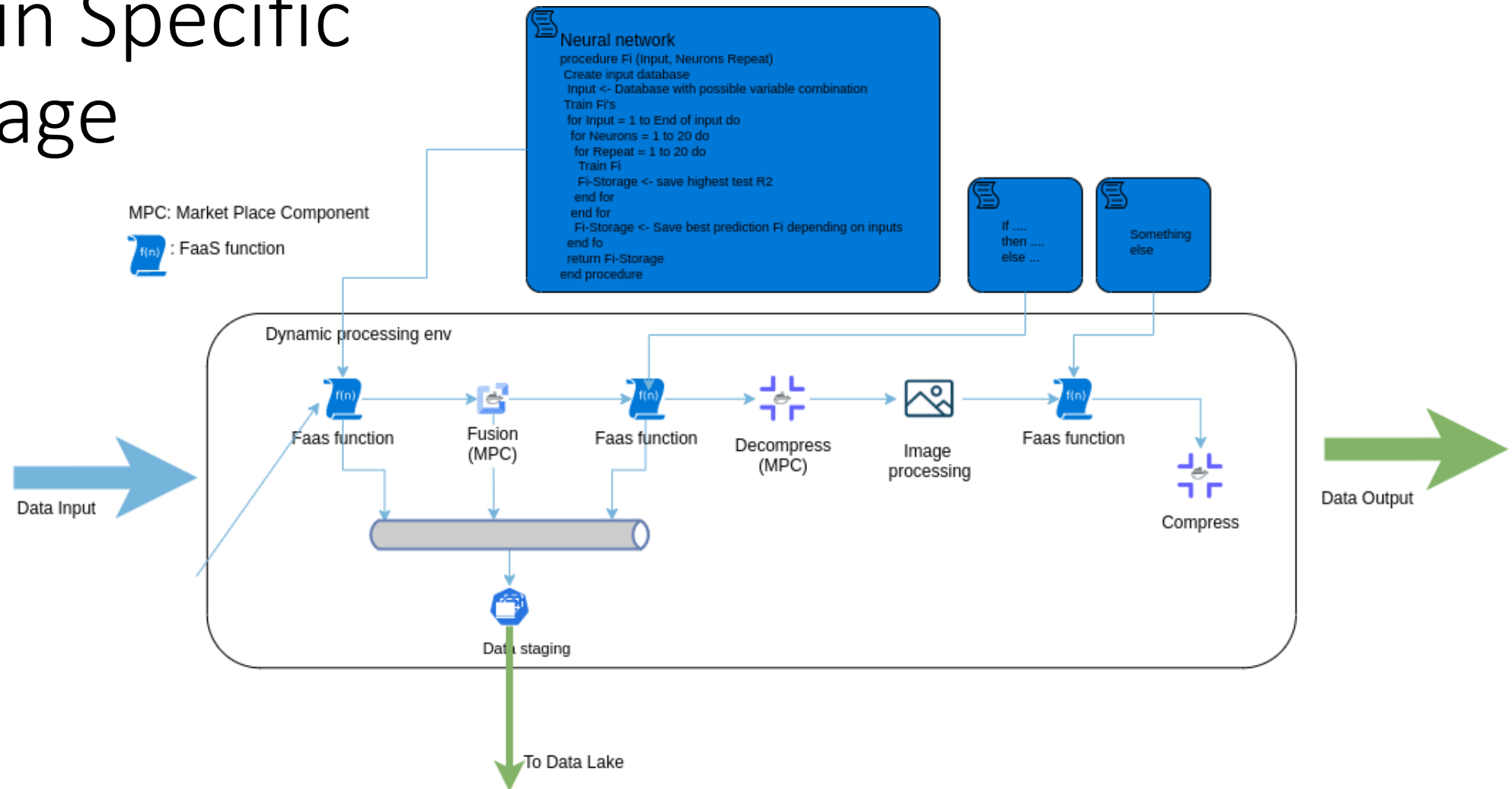
Uniform API towards the platform core







Domain Specific Language





Users



Simple
end-
users



Advanced
end-users



Application
Developers &
Service Providers



Pilot Use Cases

- Personalized health care,
- Sea route planning,
- Ocean monitoring,
- Food security,
- Food ecosystems,
- Soil erosion,
- Environmental pest, and
- Crisis (responders) management.