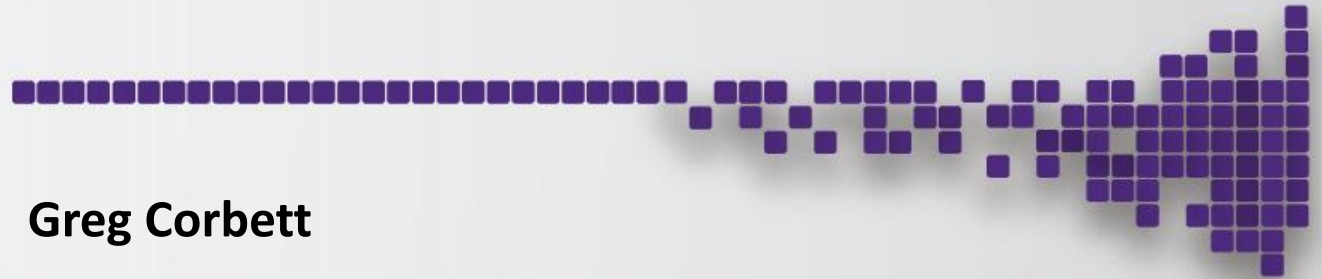




INDIGO - DataCloud

RIA-653549

APEL Accounting in INDIGO - DataCloud



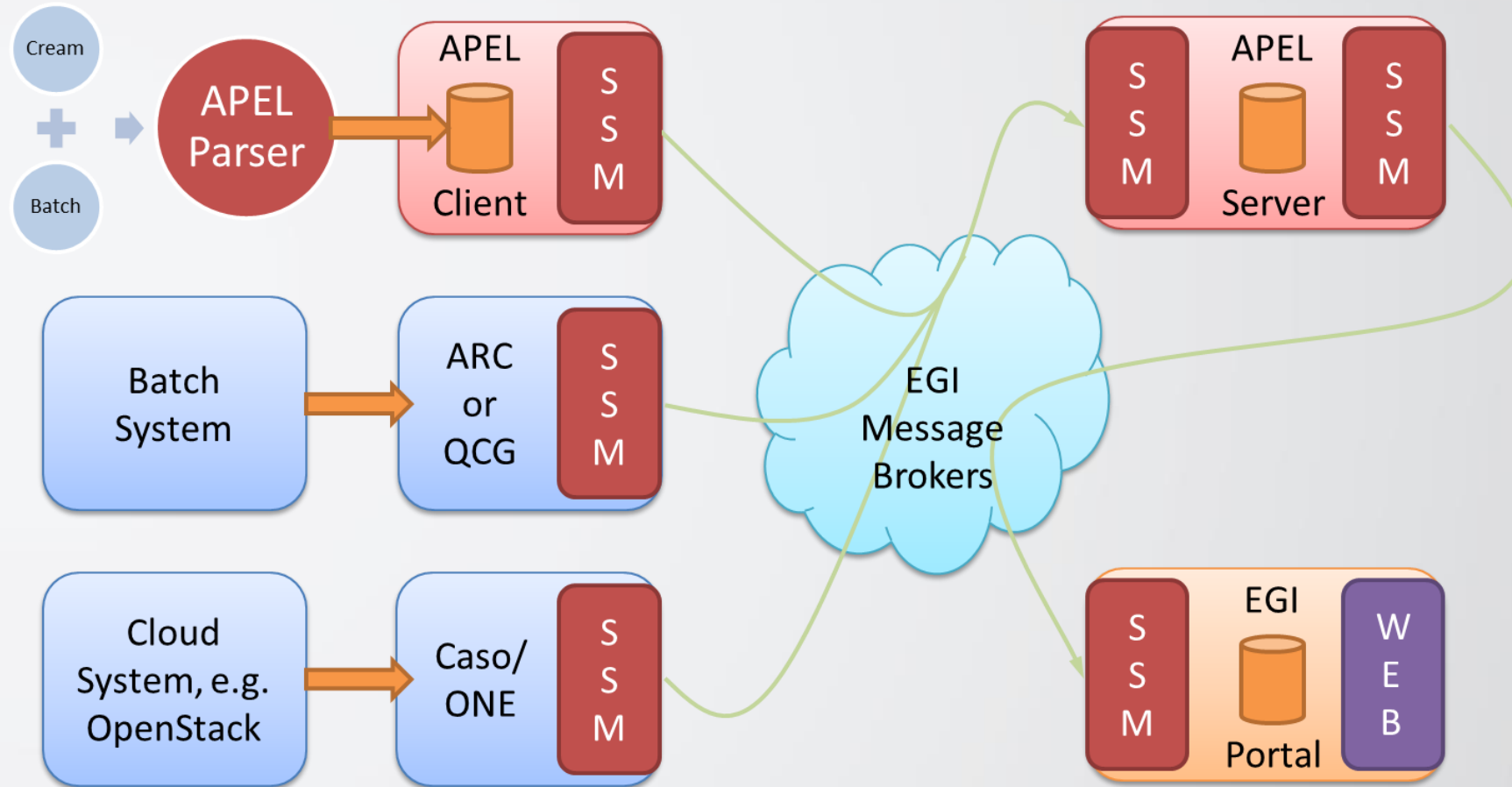
Greg Corbett

Stuart Pullinger



INDIGO-DataCloud is co-founded by the
Horizon 2020 Framework Programme

APEL in EGI



INDIGO-DataCloud

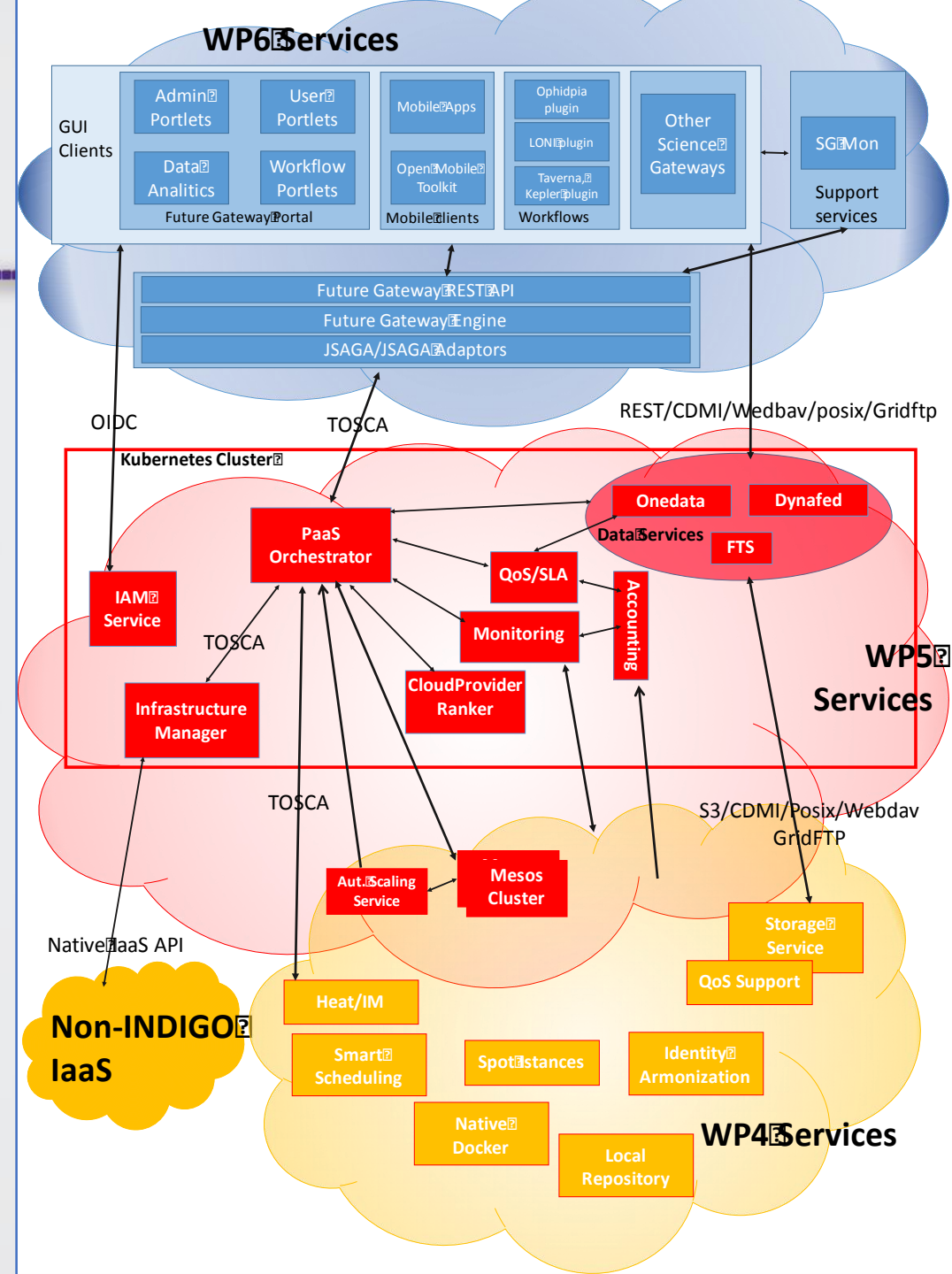


- An H2020 project from April 2015 to September 2017
- Who: 26 European partners in 11 European countries
- What: develop an open source Cloud platform for computing and data tailored to science.
- For: multi-disciplinary scientific communities
- Where: deployable on hybrid (public or private) Cloud infrastructures
- Why: answer to the technological needs of scientists seeking to easily exploit distributed Cloud/Grid compute and data resources.



How the service works

- Top level is a Science Gateway - users submit “jobs” via TOSCA files
- Middle level uses these TOSCA files to determine what VMs, Docker Containers and Storage is needed
- Lowest level is the underlying infrastructure to instantiate these resources



APEL's Role in INDIGO DataCloud



- APEL will account for the underlying resource usage
- This information is passed to the QoS/SLA tools to account for the usage of groups
- Plan to aggregate usage across data types
 - Grid
 - Cloud
 - Storage

APEL Development

- Docker container(s) for an APEL Server (and underlying database)
- INDIGO - DataCloud will not be using EGI Message Broker
- APEL will use a REST API to read and write accounting data

APEL REST API



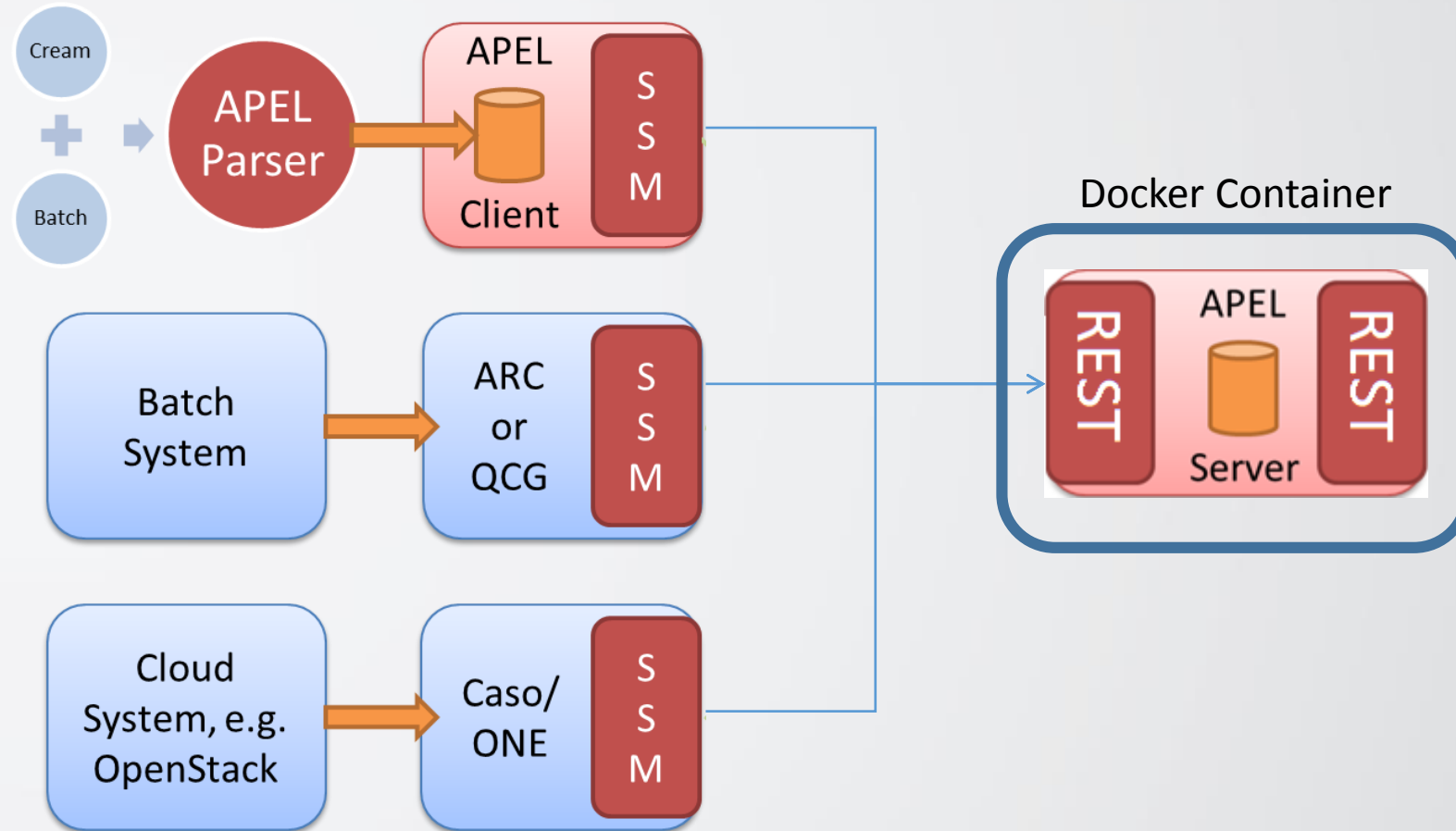
- Accept usage records from underlying Indigo-DataCloud infrastructure as POST requests
- Provide the QoS/SLA tool access to accounting summaries via GET requests
- Exact REST endpoints and protocols to be decided.

APEL REST API – work so far



- Early prototype of POST functionality on a test machine
- Sample messages received and saved for later loading into an instance of the APEL database
- Next is adding a SSM send method to interface with the REST API

Prototype APEL in INDIGO DataCloud



Thank you



<https://www.indigo-datacloud.eu>
Better Software for Better Science.