

AI4EU TGB Meeting

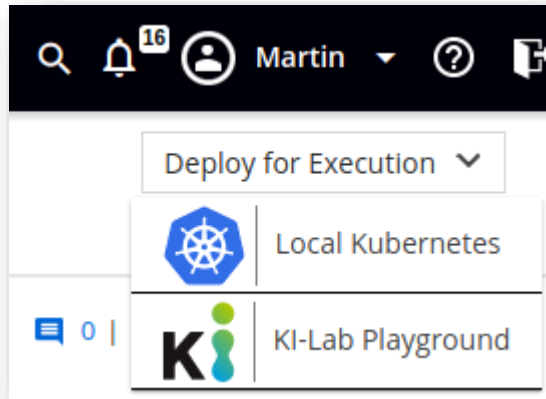
29.04.2022



- 10:00 - 10:15 Introduction, News and Status Updates
- 10:15 - 10:45 AIPlan4EU Integration Concepts
- 10:45 - 11:00 How to best facilitate technical contributions to the AI On Demand Platform
- 11:00 - 11:30 Initiate the nomination of new voting members

Proposed date for the next TGB Meeting: Friday 3.6.2022 10:00 - 12:00 CEST

- The AI4Europe Proposal has been accepted, will start in the summer of 2022
- We will have a workshop in May with STAR/ICT-38
- Playground progress

AI Playground



n0038k43 

folder-example

recognize-demo

Deployment: recognize-demo

Run

Reset

Delete

Logs

Status Check	Nodename	Status Details	Logs	WebUI/Folder
✓	orchestrator	show	view	🔗
✓	testrecognizedatasink1	show	view	🔗
✓	testrecognizeocr1	show	view	🔗
✓	testrecognizepreprocessing1	show	view	🔗
✓	testrecognizesegmentation1	show	view	🔗
✓	testrecognizeui1	show	view	🔗
✗	SharedFolder	show	view	🔗



How to best facilitate technical contributions to the AI On Demand Platform

- A project or partner wants to contribute a feature and has development resources
- The feature and high level implementation concept is presented in the TGB
- The TGB makes sure that open questions can be solved by connecting experts and developers
- The project or partner implements the feature and presents the results
- Then the feature is released

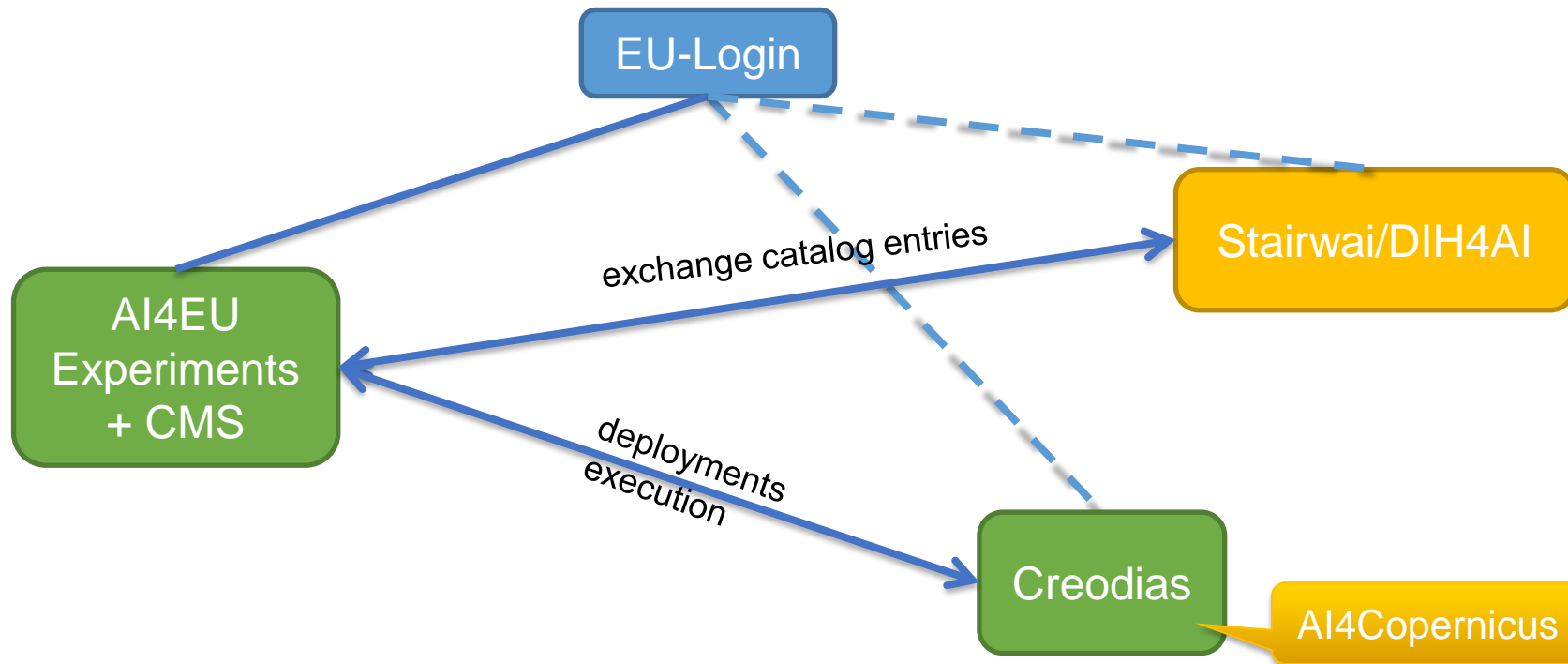
Facilitate technical contributions to the AI On Demand Platform by:

- presenting and discussing new contributions and releases
- connecting experts for collaboration and advice
- voting on critical additions or changes to the architecture
- create new concepts for technical integrations
- accept requests for presentations

The TGB is NOT about collecting requirements and only handles technical topics (neither content nor legal topics)

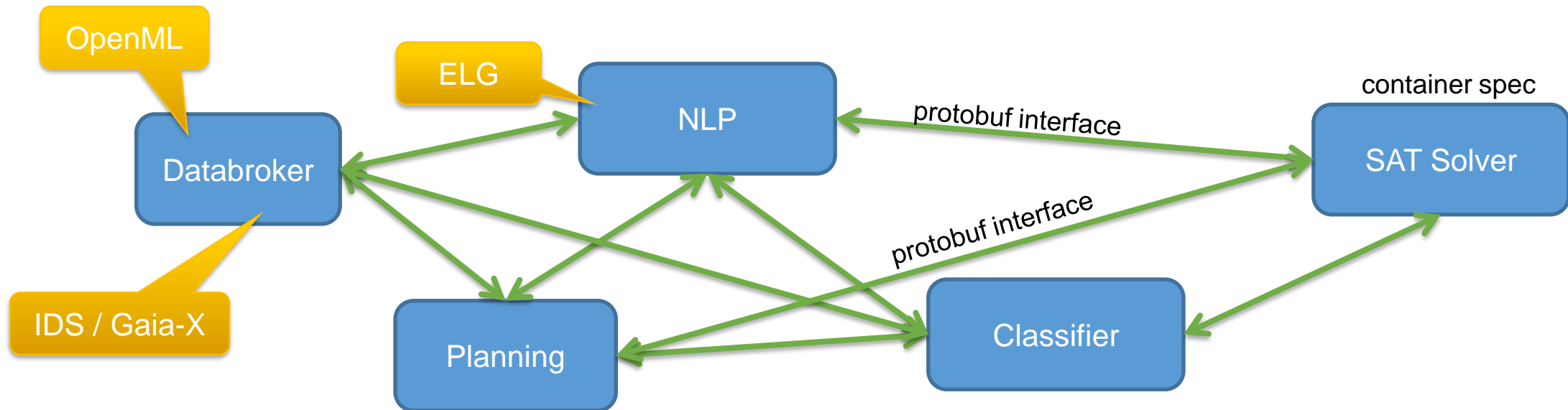
Interoperability Level 1: Platform

Level of platform interconncetion and Single Sign On → API and Sourcecode



Interoperability Level 2: AI Tools

Level of AI tool interconnection and cognitive architectures → Container Spec



AI Tools Interoperability / Interfaces



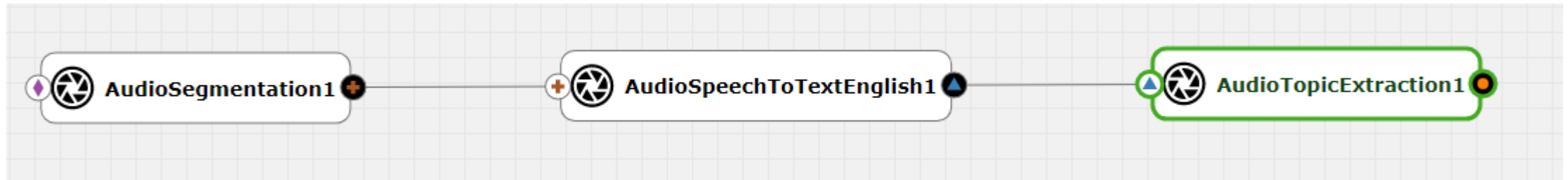
Based on the AI4EU Experiments Container Specification:

- Docker container
- with protobuf/grpc public interface
- optional Web-UI



Establish common interfaces for areas of AI:

- offer choice of models for tasks
- knowledge transfer (best practices)
- even Hybrid-AI



SIGNATURE

```
syntax = "proto3";

message AudioFileJob {
  string job_uuid = 1;
  int64 priority = 2;
  string file_name = 3;
  string work_dir = 4;
  int64 length = 5;
}

message AudioSegment {
  string job_uuid = 1;
  string segment_uuid = 2;
  string segment_file = 3;
  string work_dir = 4;
  int64 index = 5;
  int64 length = 6;
  int64 start_time = 7;
  int64 end_time = 8;
}

service AudioSegmentation {
  rpc getNextAudioSegment(AudioFileJob) returns(AudioSegment);
}
```

SIGNATURE

```
syntax = "proto3";

message AudioSegment {
  string job_uuid = 1;
  string segment_uuid = 2;
  string segment_file = 3;
  string work_dir = 4;
  int64 index = 5;
  int64 length = 6;
  int64 start_time = 7;
  int64 end_time = 8;
}

message SegmentText {
  AudioSegment segment = 1;
  string text = 2;
  string language = 3;
}

service AudioToSpeech {
  rpc textToSpeech(AudioSegment) returns(SegmentText);
}
```

SIGNATURE

```
syntax = "proto3";

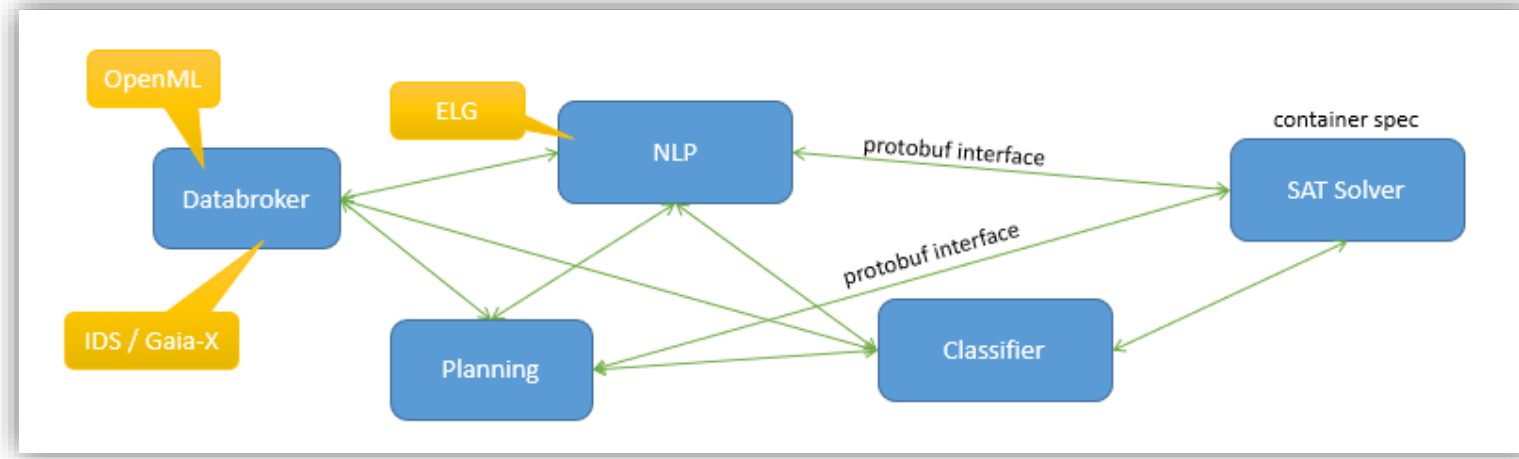
message AudioSegment {
  string job_uuid = 1;
  string segment_uuid = 2;
  string segment_file = 3;
  string work_dir = 4;
  int64 index = 5;
  int64 length = 6;
  int64 start_time = 7;
  int64 end_time = 8;
}

message SegmentText {
  AudioSegment segment = 1;
  string text = 2;
  string language = 3;
}

message TextTopics {
  AudioSegment segment = 1;
  repeated string topics = 2;
}

service AudioTextTopics {
  rpc extractTopics(SegmentText) returns(TextTopics);
}
```

AI Tools Interoperability: Collaboration



- Please look at the the AI tools in the catalog
- Contact the author / provider of the most interesting for you
- Connect your tools and create completely new innovative AI Pipelines
- Every partner can act independently and locally
- Publish the resulting Pipeline (and a paper), get all the fame

- We have been discussing a new subsystem for matchmaking
- Ideas for benchmarking

- Deployment of AI4EU Experiments pipelines to execution environments for satellite images (DIAS)

- Plans for „intercative“ deployments using Jupyter Notebooks
- Plans for benchmarking and challenges

- Constantly adding new assets to the AI Asset Catalog
- Live Speech recognition Demo (might become an AI4EU Experiments pipeline)
- Kindly took over the hosting and of the platform until AI4Europe is ready







- Automatic onboarding of assets to AI4EU Experiments
- Access of AI4EU Experiments catalog entries via Federation API
- DIH4AI execution environment

For more Details see: <https://github.com/ai4eu/Technical-Governance-Board/tree/main/Meeting-2022-03-04>

Contributors



- ICT-49 projects (<https://www.ai4europe.eu/AI-on-demand-services>)
- ICT-48 projects
- KI.NRW (Germany)
- Eclipse AIICE initiative more industry focused
- Maybe ICT-38: Industry 5.0 / Manufacturing

 <p>Matchmaking</p> <p>Connecting AI experts and hardware providers with SMEs, public administrators and researchers for AI solution development. You don't know what you don't know? Explore in your own language Monetise your infrastructure deploying research tools or supporting partnerships</p> <p>Coming Soon</p>	 <p>Earth Observation</p> <p>Find out what value AI can bring to Earth Observation (EO). Linking users of Copernicus data (scientists, SMEs, etc.) and the DIAS platforms with Artificial Intelligence. Offering AI4Copernicus datasets and tools and services relevant to Copernicus data.</p> <p>Coming Soon</p>	 <p>Energy Service</p> <p>Explore how AI will reshape the energy value chain. Evolving, upscaling and demonstrating innovative AI-as-a-Service (AIaaS) Energy Analytics Applications and digital twins services.</p> <p>Coming Soon</p>
 <p>Planning Service</p> <p>AI facilitating the process of deciding what to do in order to achieve a desired objective. Bringing the most advanced planning technology Europe has to offer to companies, SMEs and innovators Demonstrating how this technology can be adopted in different scenarios, boosting the use of planning technologies even in non-technical businesses.</p> <p>Coming Soon</p>	 <p>Cyber Physical systems</p> <p>AI-as-a-Service for the Deep Edge Helping SMEs digitalise by allowing them to access, implement and make use of Artificial Intelligence in an easy and affordable way. Offering a series of modular services—such as experimentation, model compression, optimisation, benchmarking, and deployment on hardware and security—that will increase AI usage among enterprises and SMEs.</p> <p>Coming Soon</p>	 <p>Digital Innovation Hubs</p> <p>A dynamic European network of regional AI DIHs and AI Testing and Experimental Facilities (AI TEFs) Ensuring deployment of available state-of-the-art European AI capacities and capabilities. Supporting joint development and provision of ecosystem-business-technology-transformation services targeting local SMEs and tech governmental agencies.</p> <p>Coming Soon</p>

Initiate the nomination of new voting members

- Critical changes of the architecture need to be approved by the voting members
- The last vote was about the integration of the EU Login
- Currently there are 9 voting members
- There is a process to replace voting members
- New voting members must be approved by the existing voting members