

# GAIA-X 4 PLC-AAD

Building a data ecosystem for the product life cycle  
of automated lane keeping systems

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Finanziert von der  
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# Project structure

Use Case 1:  
Simulation

Use Case 2:  
Bullwhip Effect

Use Case 3:  
Predictive  
Maintenance

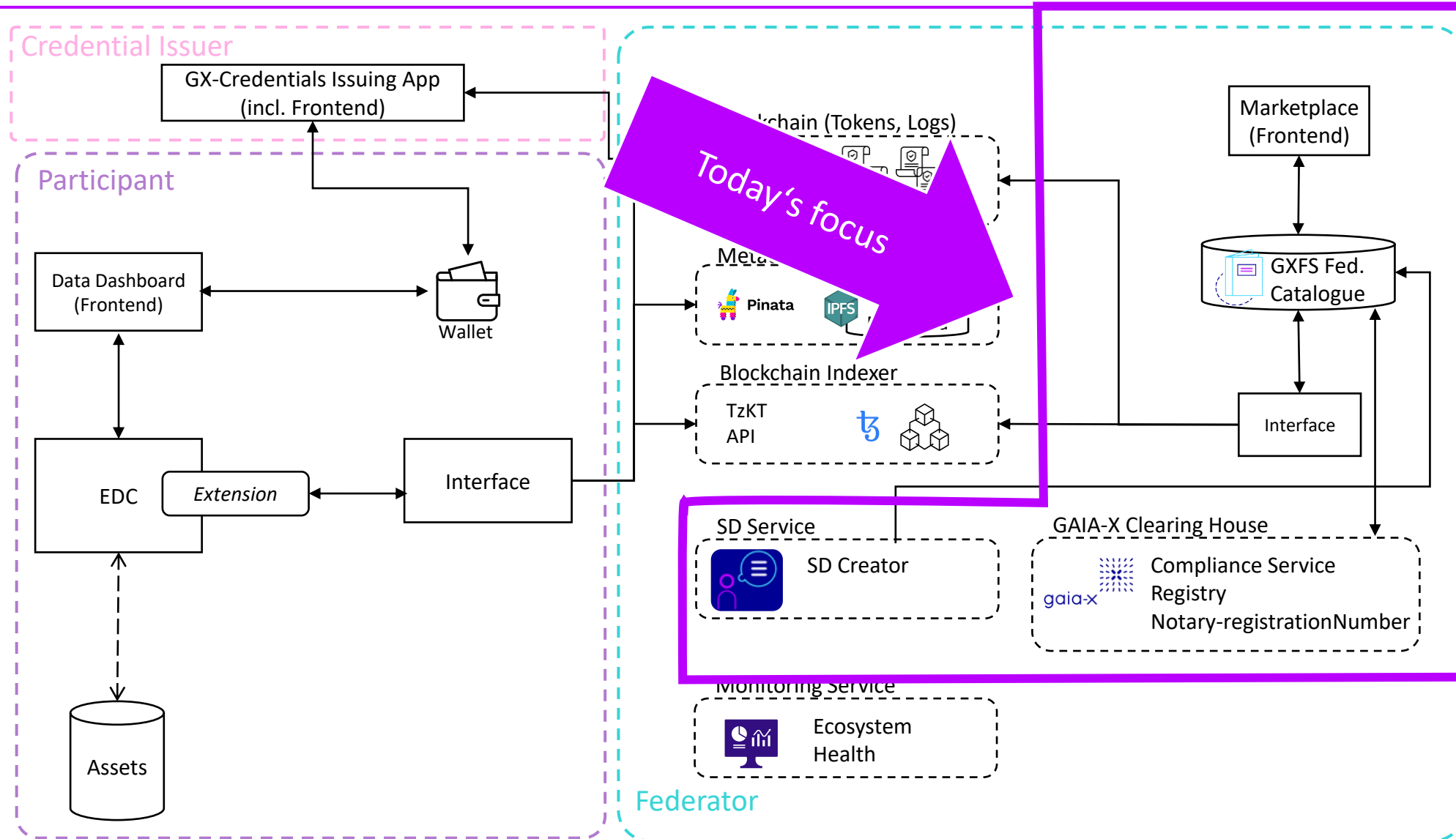
## Architectural Aspects

(SSI, Data Settlement, Meta-Data Search, Payment, Governance)

## Infrastructure

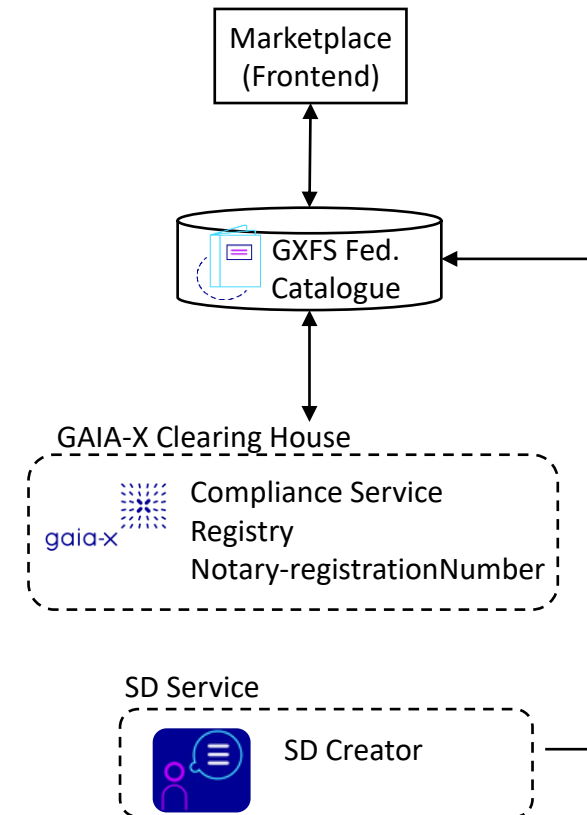
(Privacy, Contract Execution, Interfaces, Monitoring)

# Overall architecture

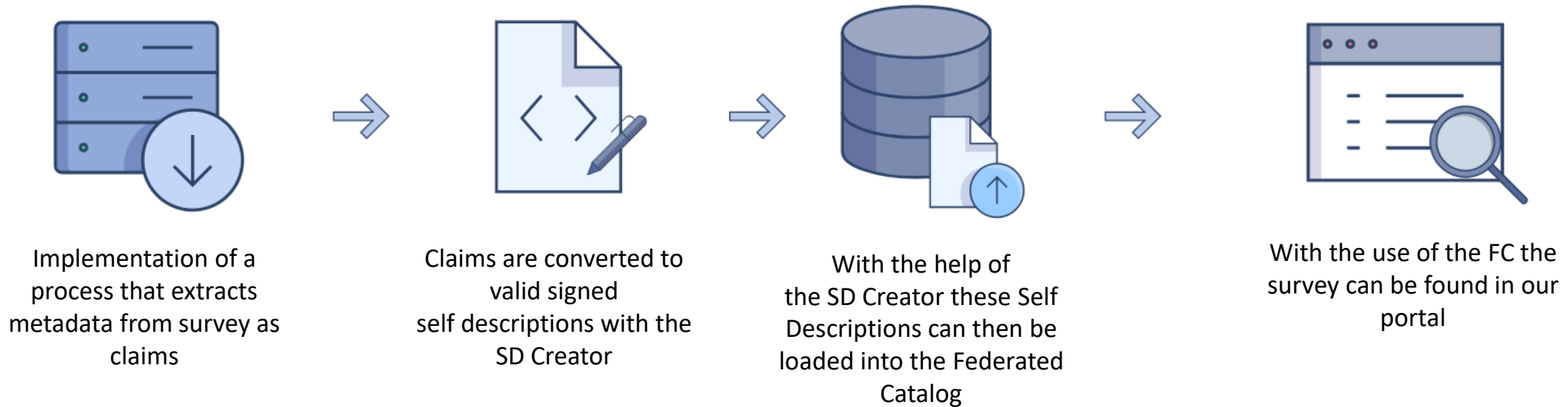


# Quick Overview of the GXFS Federated Catalog in our architecture

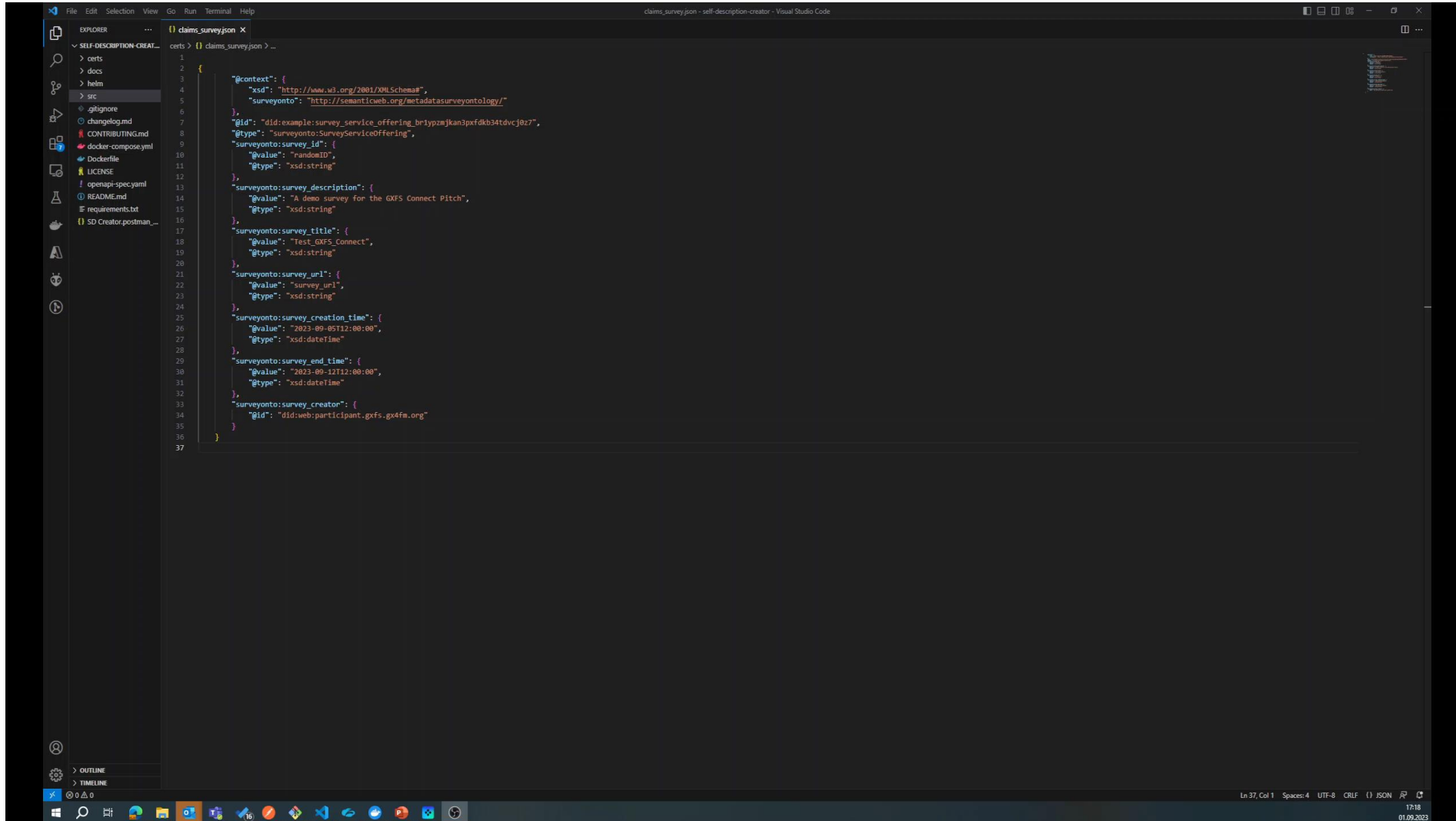
- Backend of our marketplace/portal used to search for data
- Centralized storage for Self Descriptions and defined shapes in the data ecosystem
- Uses self hosted GAIA-X Registry to verify Self Descriptions
- Own implemented open source tool to create and sign Self Descriptions and send them directly to a GXFS Federated Catalog instance ([SD Creator](#))



# Current Workflow in Use Case 2: Use of the Federated Catalog



# Demonstration



```
claims_survey.json
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{
  "@context": {
    "xsd": "http://www.w3.org/2001/XMLSchema#",
    "surveyonto": "http://semanticweb.org/metadatasurveyontology/"
  },
  "id": "did:example:survey_service_offering_briypzmkan3pfdkb34tdvcj0z7",
  "@type": "surveyonto:SurveyServiceOffering",
  "surveyonto:survey_id": {
    "@value": "randomID",
    "@type": "xsd:string"
  },
  "surveyonto:survey_description": {
    "@value": "A demo survey for the GXFS Connect Pitch",
    "@type": "xsd:string"
  },
  "surveyonto:survey_title": {
    "@value": "Test GXFS Connect",
    "@type": "xsd:string"
  },
  "surveyonto:survey_url": {
    "@value": "survey_url",
    "@type": "xsd:string"
  },
  "surveyonto:survey_creation_time": {
    "@value": "2023-09-05T12:00:00",
    "@type": "xsd:dateTime"
  },
  "surveyonto:survey_end_time": {
    "@value": "2023-09-12T12:00:00",
    "@type": "xsd:dateTime"
  },
  "surveyonto:survey_creator": {
    "id": "did:web:participant.gxfs.gx4fm.org"
  }
}
```

# Thanks for your attention!

## Questions

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