Future Prospects for the DIPG use-case

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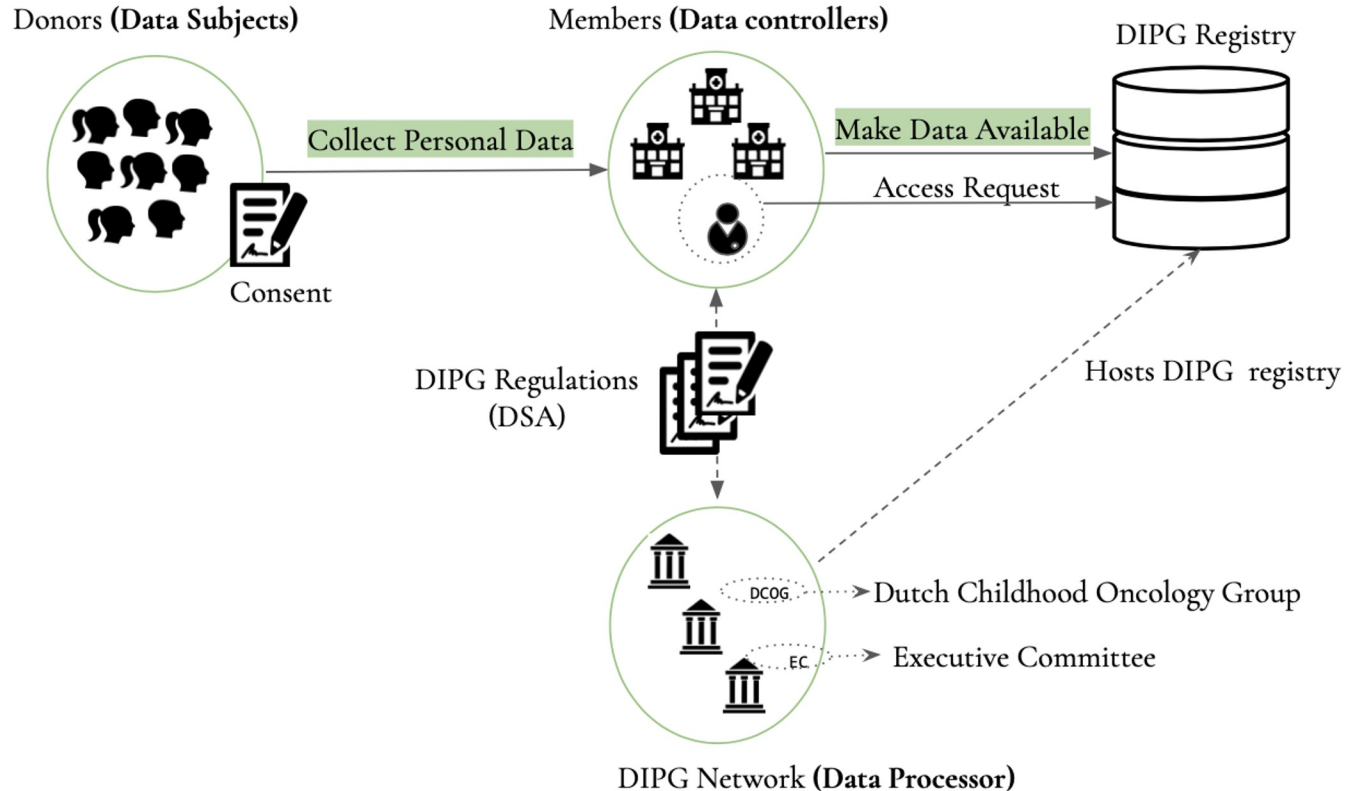
DIPG Prototype

The Amsterdam Data Exchange (AMdEX) fieldlab with UvA and Surf (EPI)
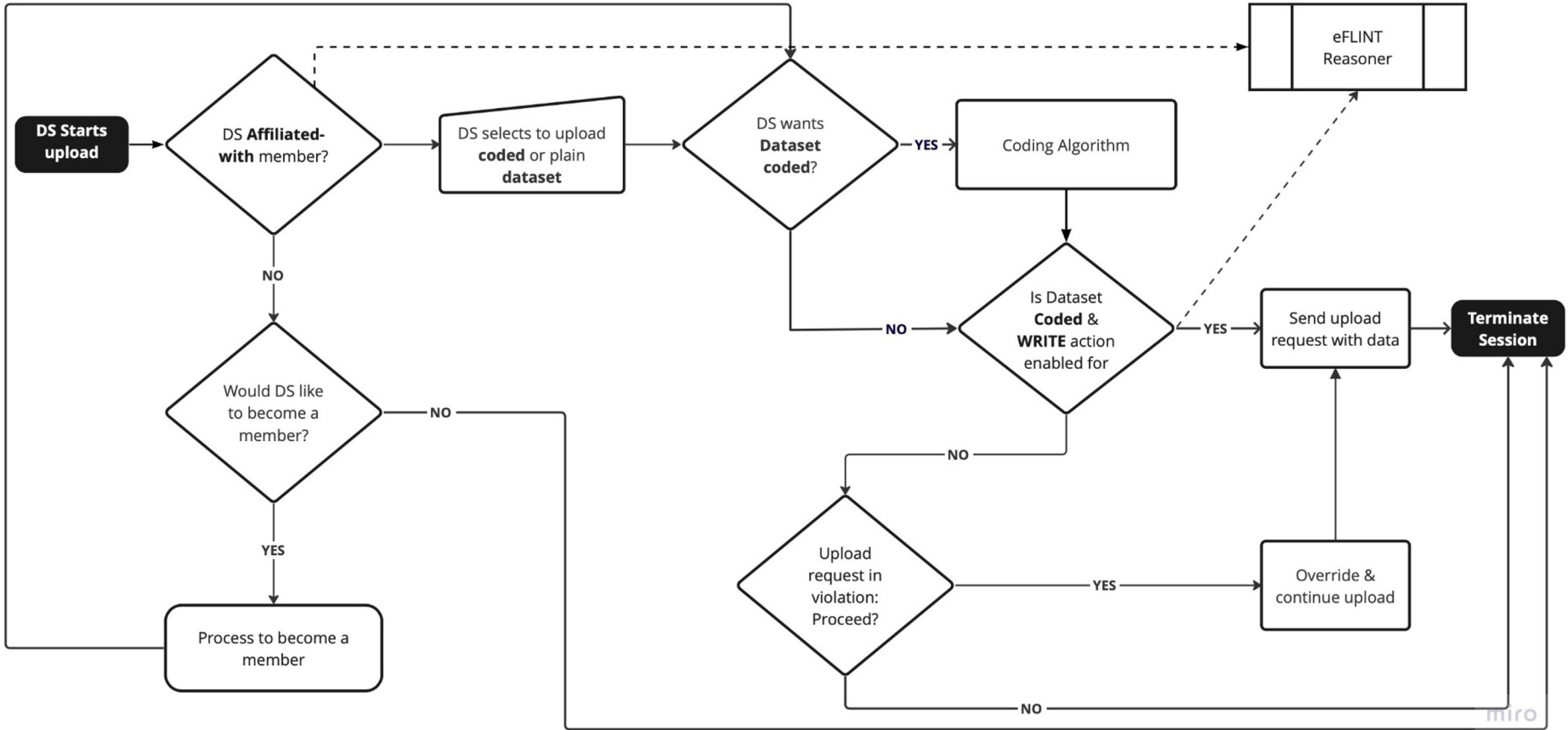
- The fieldlab builds generic, reusable components driven by Use Cases
- DIPG prototype - current practices of the DIPG Registry
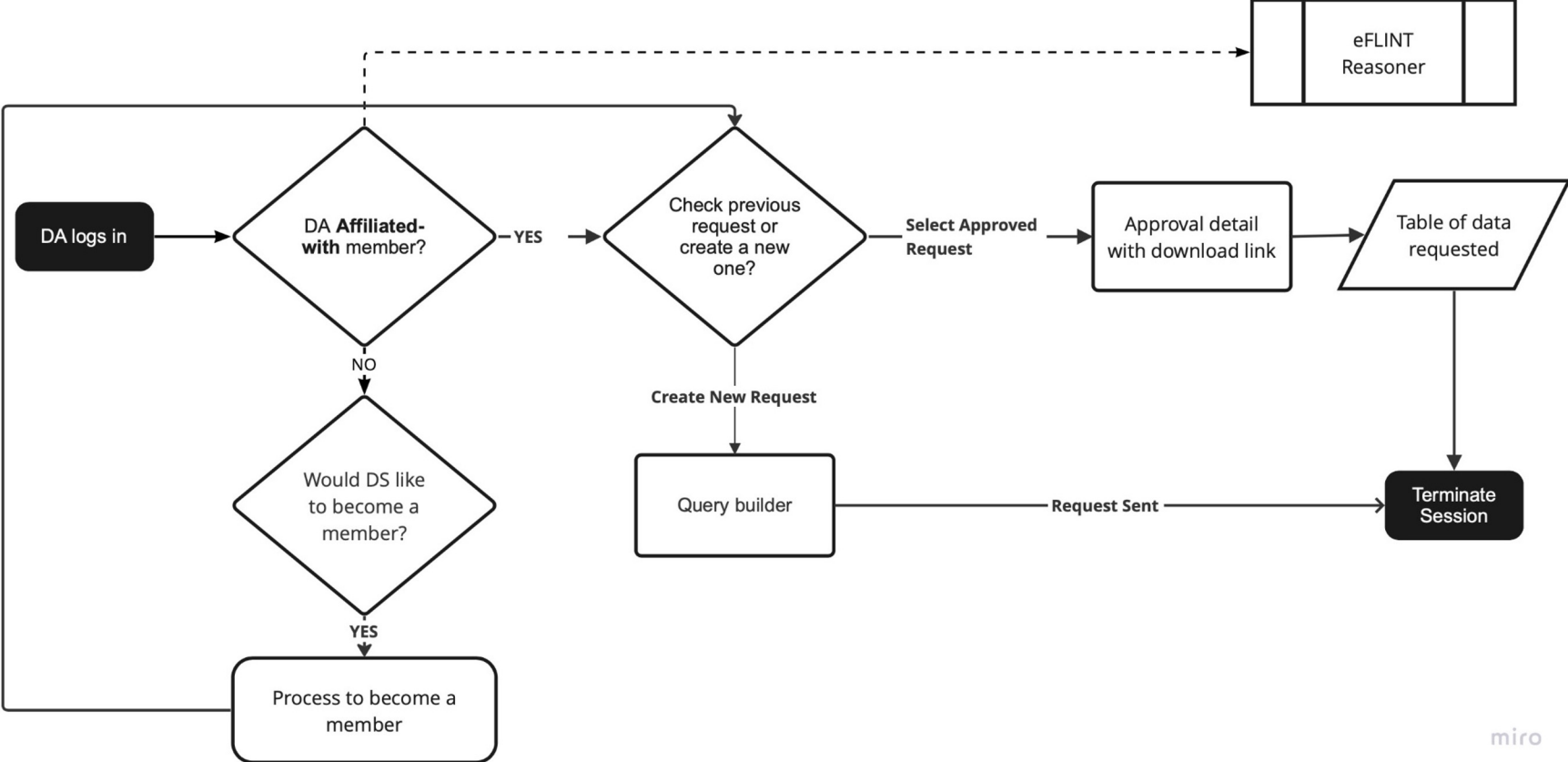- Alternative solution based on one of the AMdEX use-cases

DIPG & UNL Demo

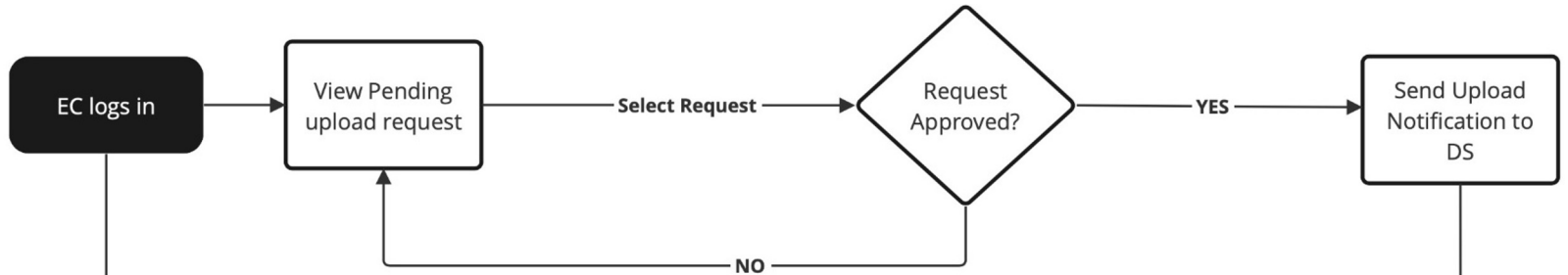- A Demo of the current DIPG practices

Producer hospital - Uploading data to the DIPG repository

eFLINT Reasoner

DS Starts upload → DS **Affiliated-with** member? → DS selects to upload **coded** or plain **dataset** → DS wants **Dataset coded**? —YES→ Coding Algorithm

DS **Affiliated-with** member? —NO→ Would DS like to become a member? —NO→ (to Terminate Session)

Would DS like to become a member? —YES→ Process to become a member

DS wants **Dataset coded**? —NO→ Is Dataset **Coded** & **WRITE** action enabled for

Coding Algorithm → Is Dataset **Coded** & **WRITE** action enabled for —YES→ Send upload request with data → **Terminate Session**

Is Dataset **Coded** & **WRITE** action enabled for —NO→ Upload request in violation: Proceed? —YES→ Override & continue upload → Send upload request with data

Upload request in violation: Proceed? —NO→ **Terminate Session**

Consumer Hospital-Project Proposal

Approve upload request

EC logs in → View Pending upload request → **Select Request** → Request Approved? → **YES** → Send Upload Notification to DS

Request Approved? → **NO** → View Pending upload request

Approve download request

View Pending project proposals → **Select Request** → View request meta-data → Request Approved? → **YES** → Create & send Letter of Approval → Terminate Session

Request Approved? → **NO** → View Pending project proposals
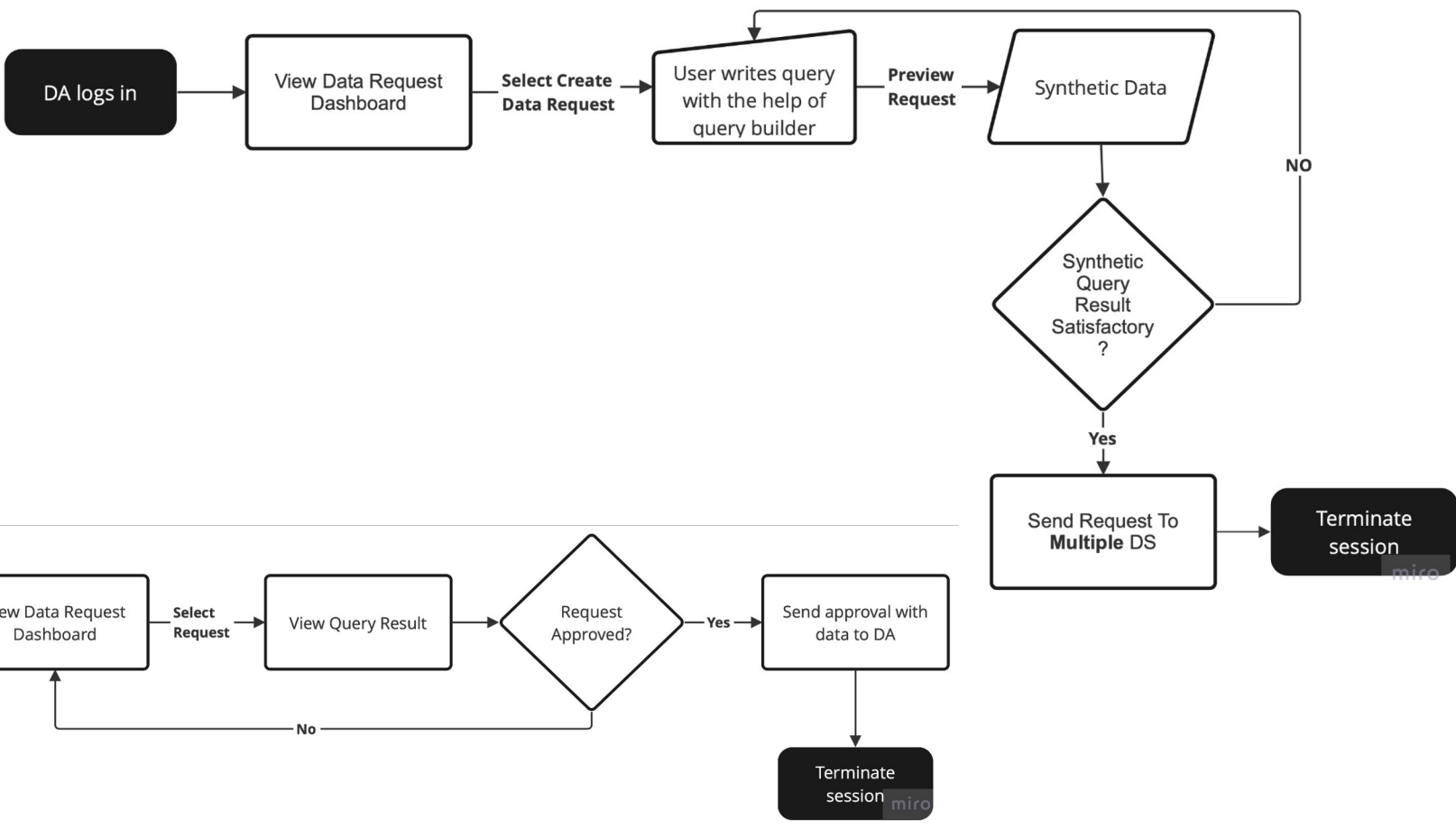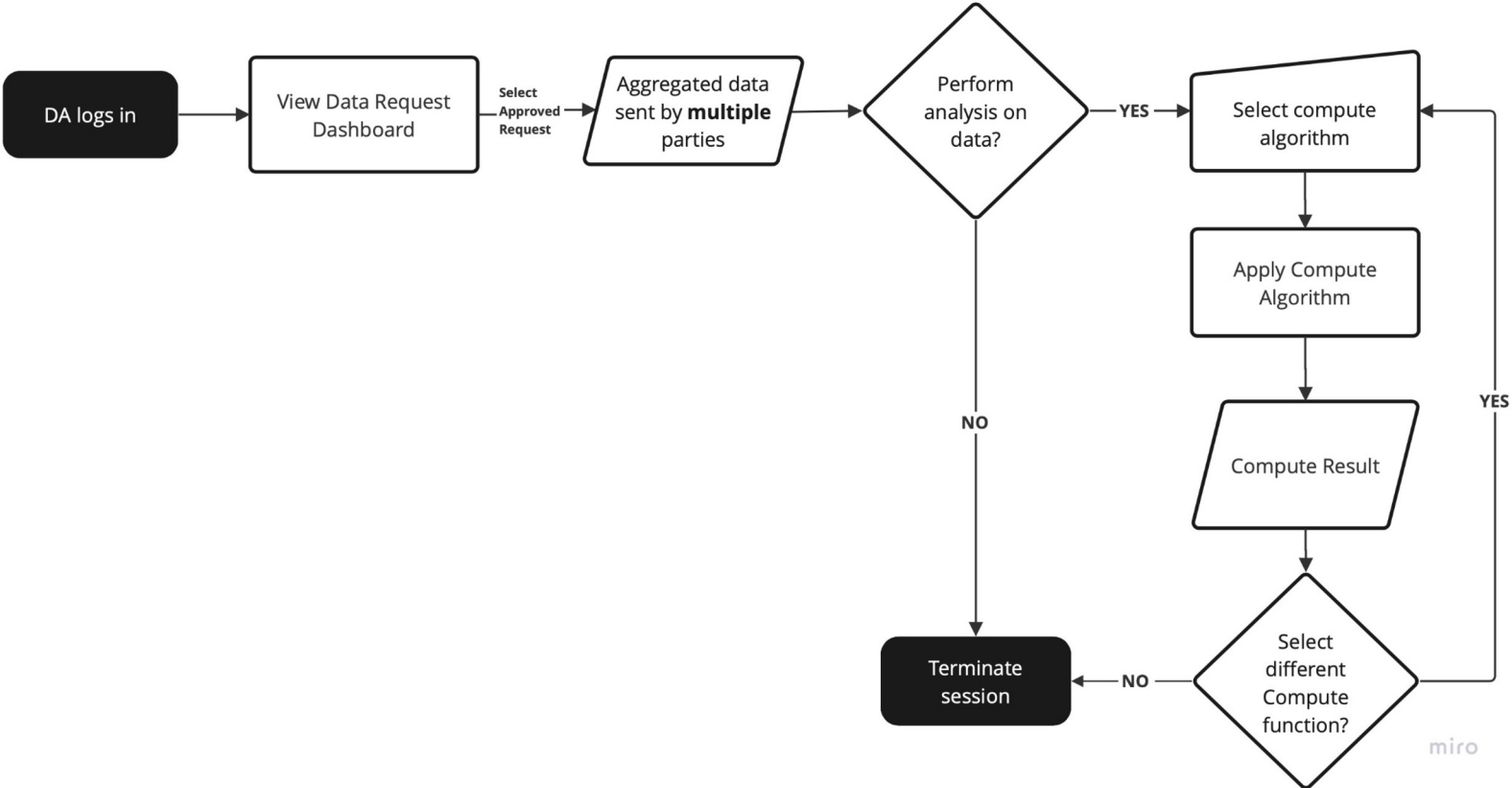
eFLINT Audit Log
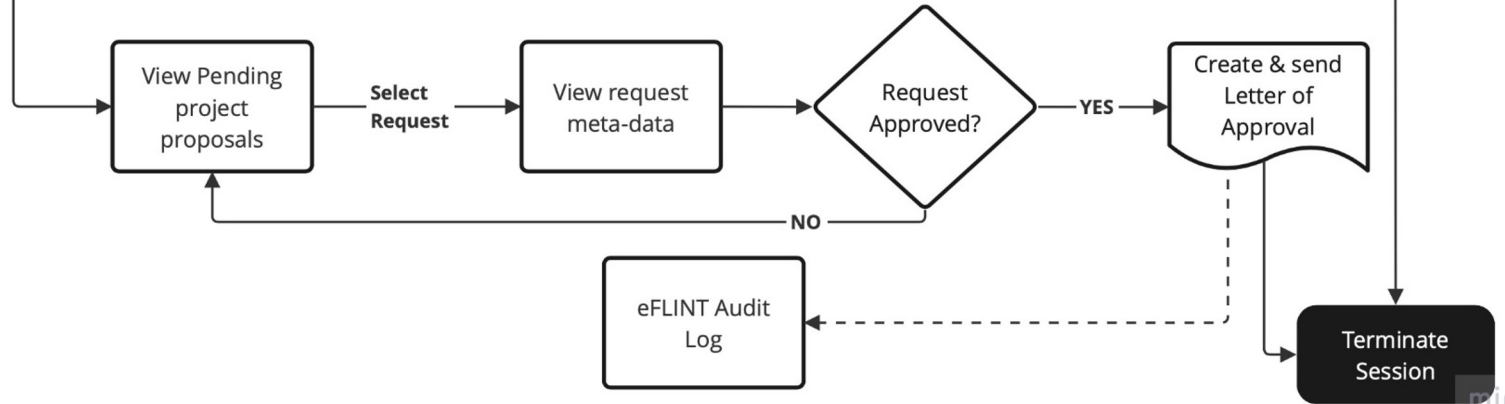
Distributed Data sharing

- Goal - Distributed clinical data sharing
- Main difference
    - Share data with multiple parties
    - Compute on aggregated data
        - E.g Average salaries
    - Apply K-anonymity depending on the type of data requested

Data Request to Multiple Parties

```
DA logs in  →  View Data Request Dashboard  --Select Create Data Request-->  User writes query with the help of query builder  --Preview Request-->  Synthetic Data
```

Synthetic Data → Synthetic Query Result Satisfactory?
- NO → (back to User writes query with the help of query builder)
- Yes → Send Request To **Multiple** DS → Terminate session

```
DS logs in  →  View Data Request Dashboard  --Select Request-->  View Query Result  →  Request Approved?
```

Request Approved?
- Yes → Send approval with data to DA → Terminate session
- No → (back to View Data Request Dashboard)

Perform Analysis on Aggregated Data

Current work

- Survey access control compliance to GDPR
- DSA policies - AMdEX Archetypes , Data formats
- St. Antonios Data sharing agreement policies
- Access decision based on purpose (purpose determination and management)
- Trustworthy data sharing infrastructure (With Jamila)