



# ESCAPE

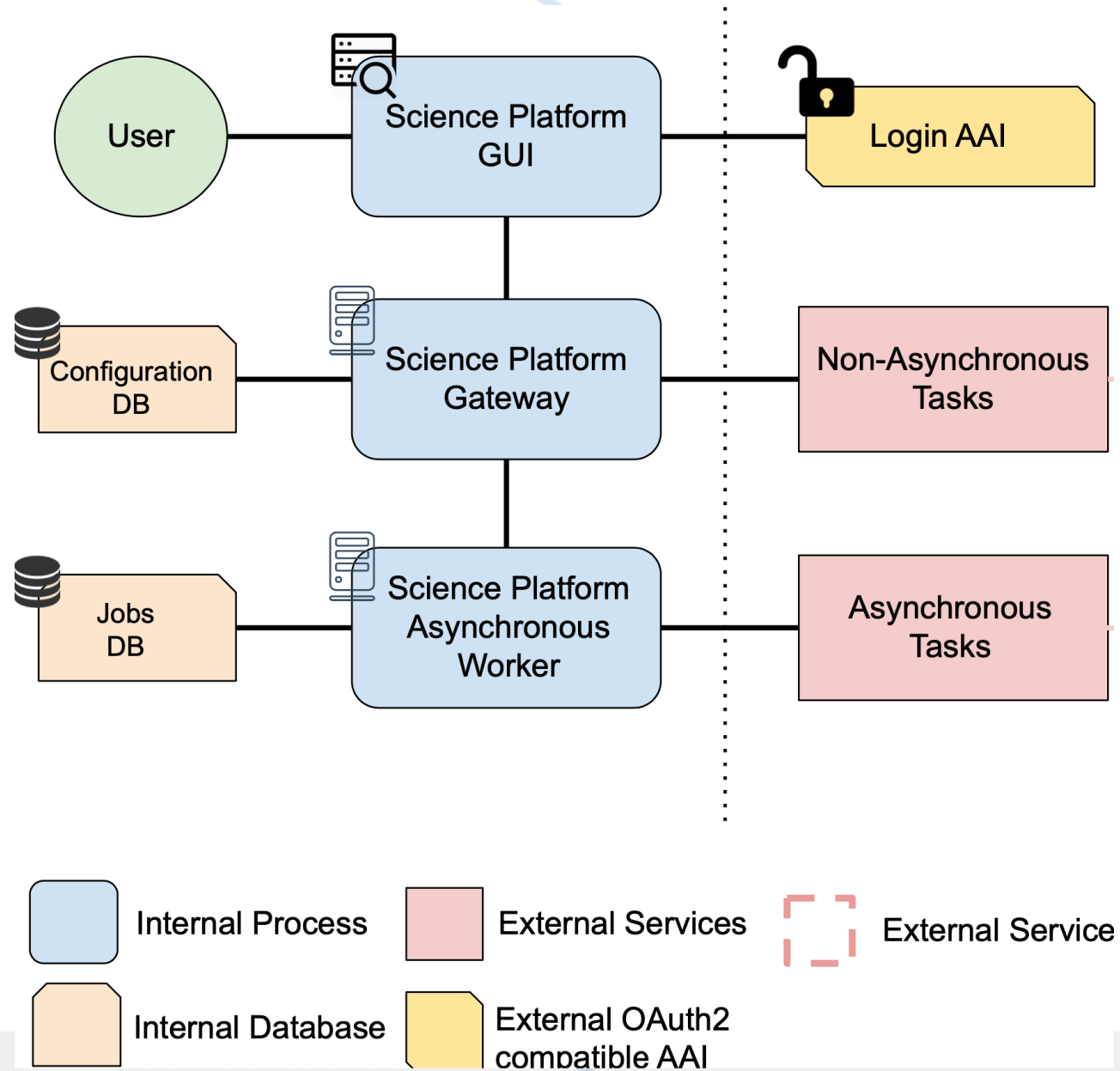
European Science Cluster of Astronomy &  
Particle physics ESFRI research Infrastructures

## ESAP DIRAC Integration

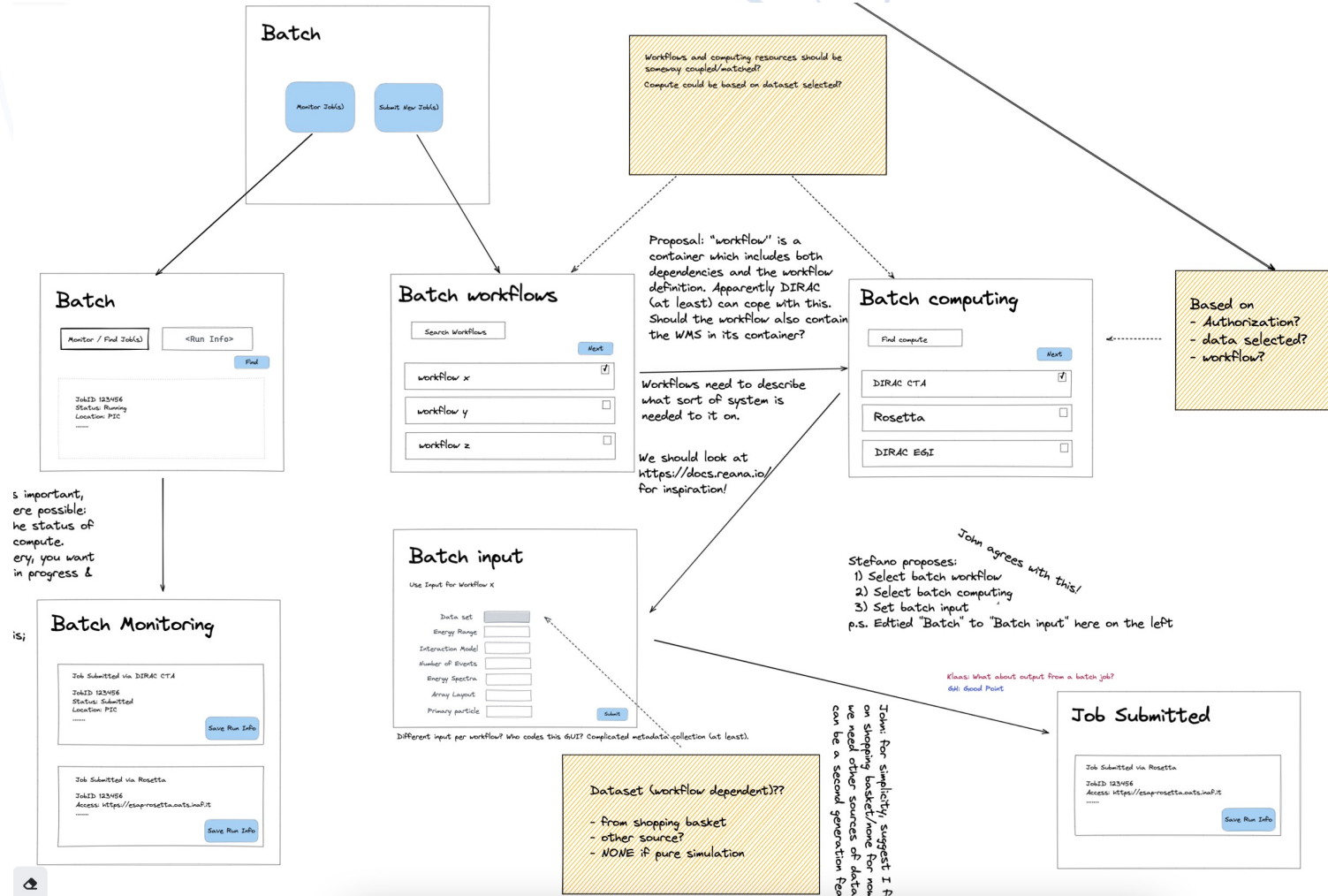
Gareth Hughes  
Klaas Kliffen



ESAP Outline



# The Plan

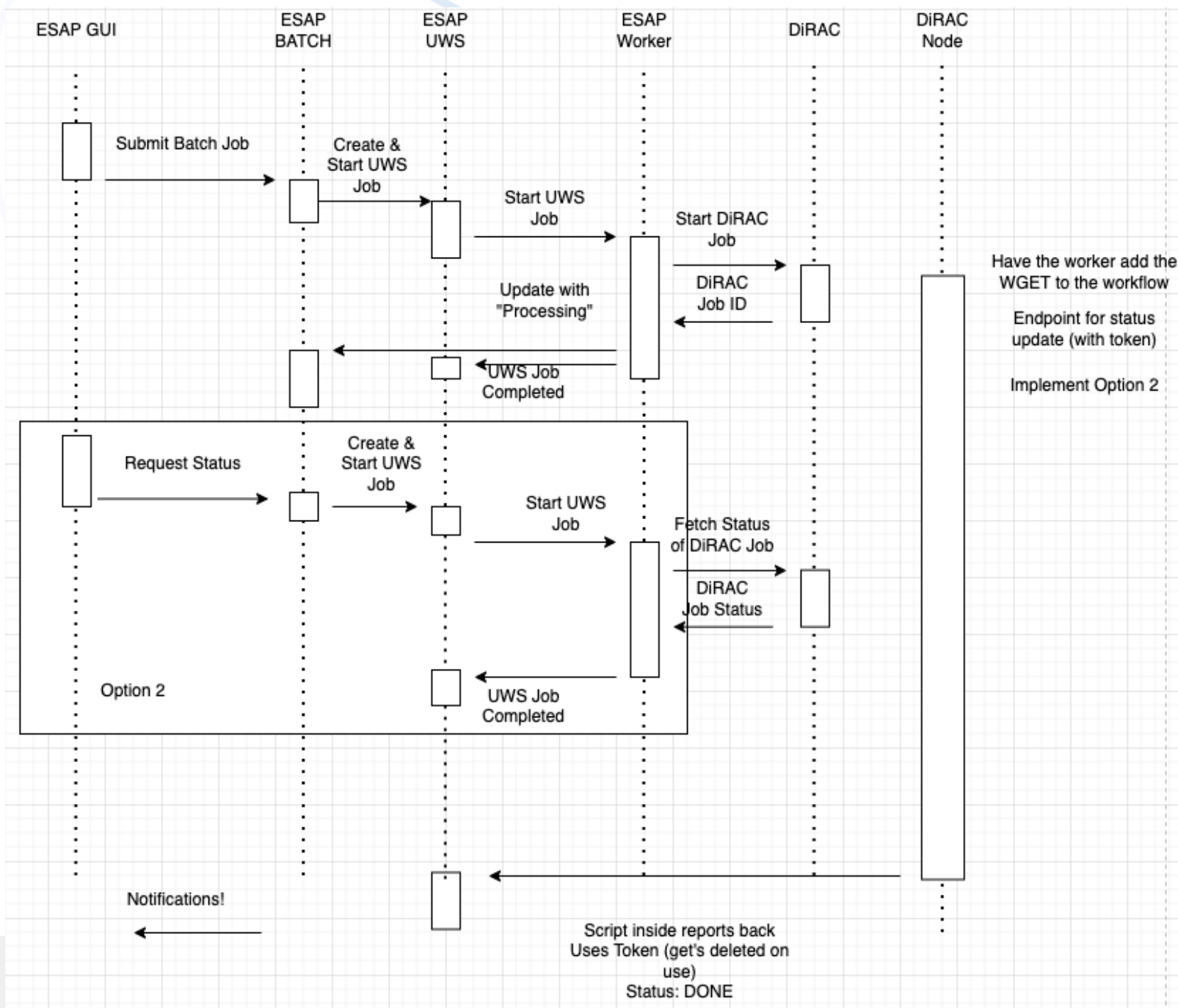


[https://excalidraw.com/#room=d22af41a7f9224424e39,kuSMiRmqaqqBKKWQhp\\_Wzg](https://excalidraw.com/#room=d22af41a7f9224424e39,kuSMiRmqaqqBKKWQhp_Wzg)



# ESAP Busy Week: The Plan

**Klaas Kliffen**  
(Astron)

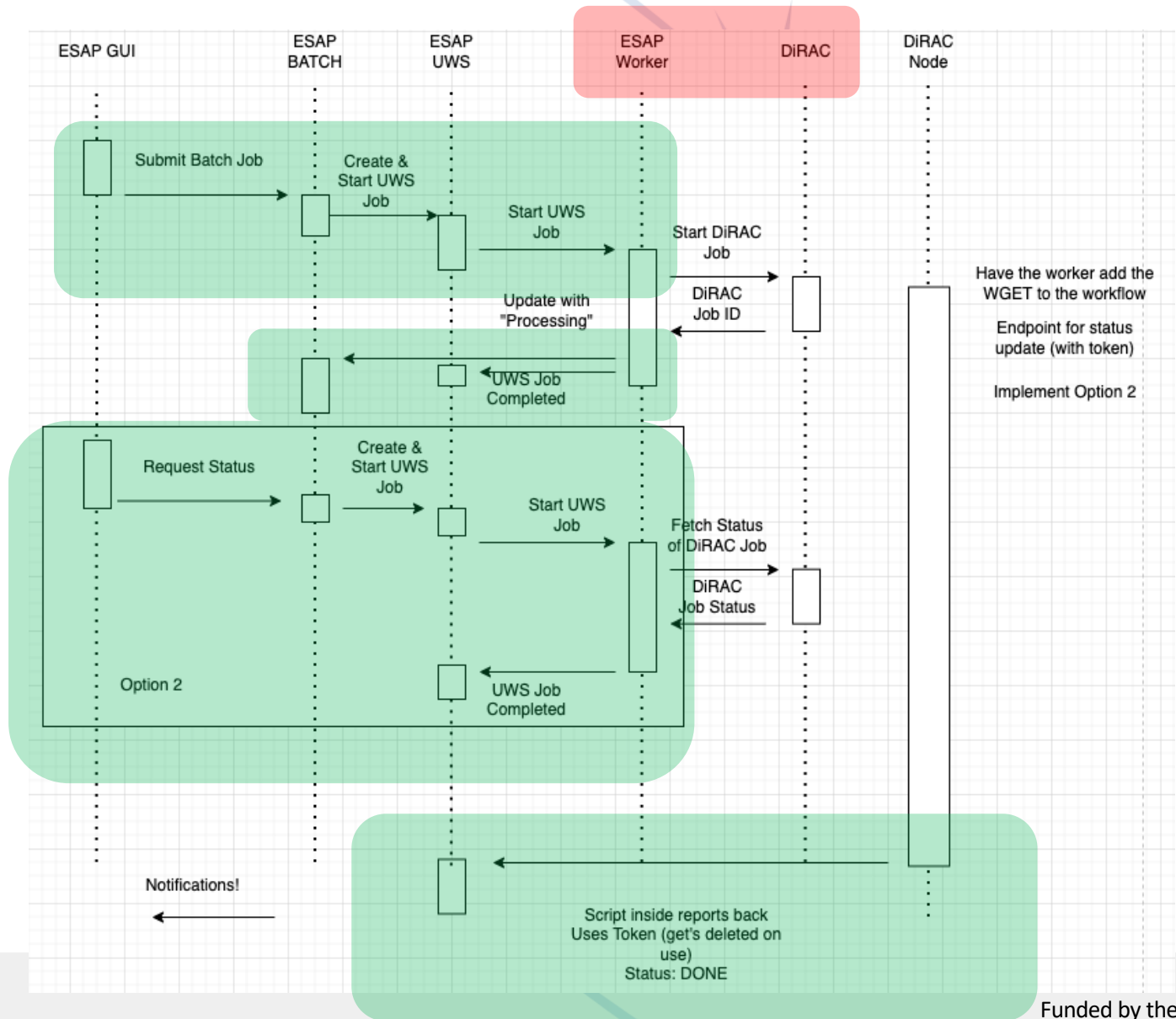


Have the worker add the WGET to the workflow  
Endpoint for status update (with token)  
Implement Option 2

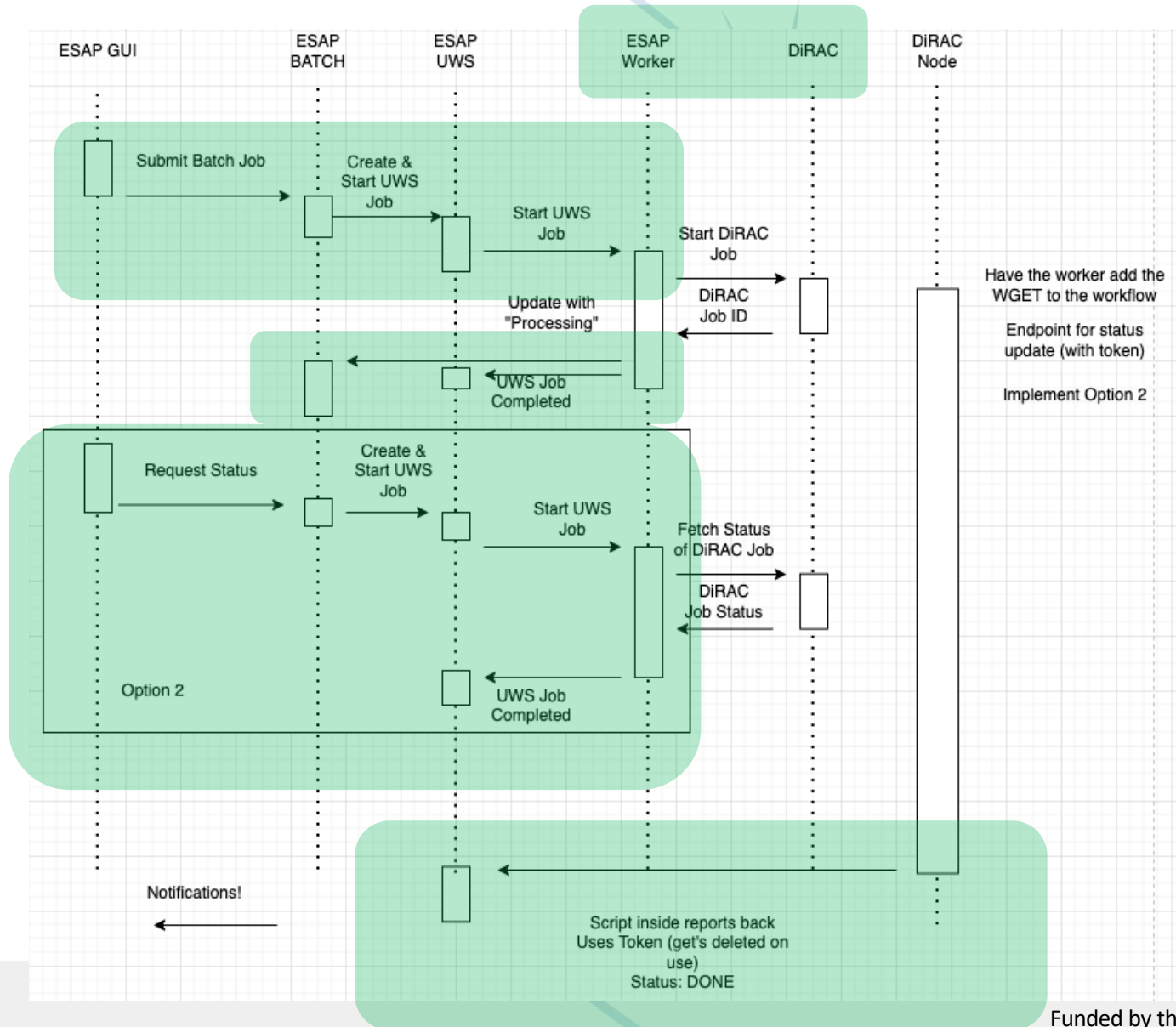
Script inside reports back Uses Token (get's deleted on use)  
Status: DONE



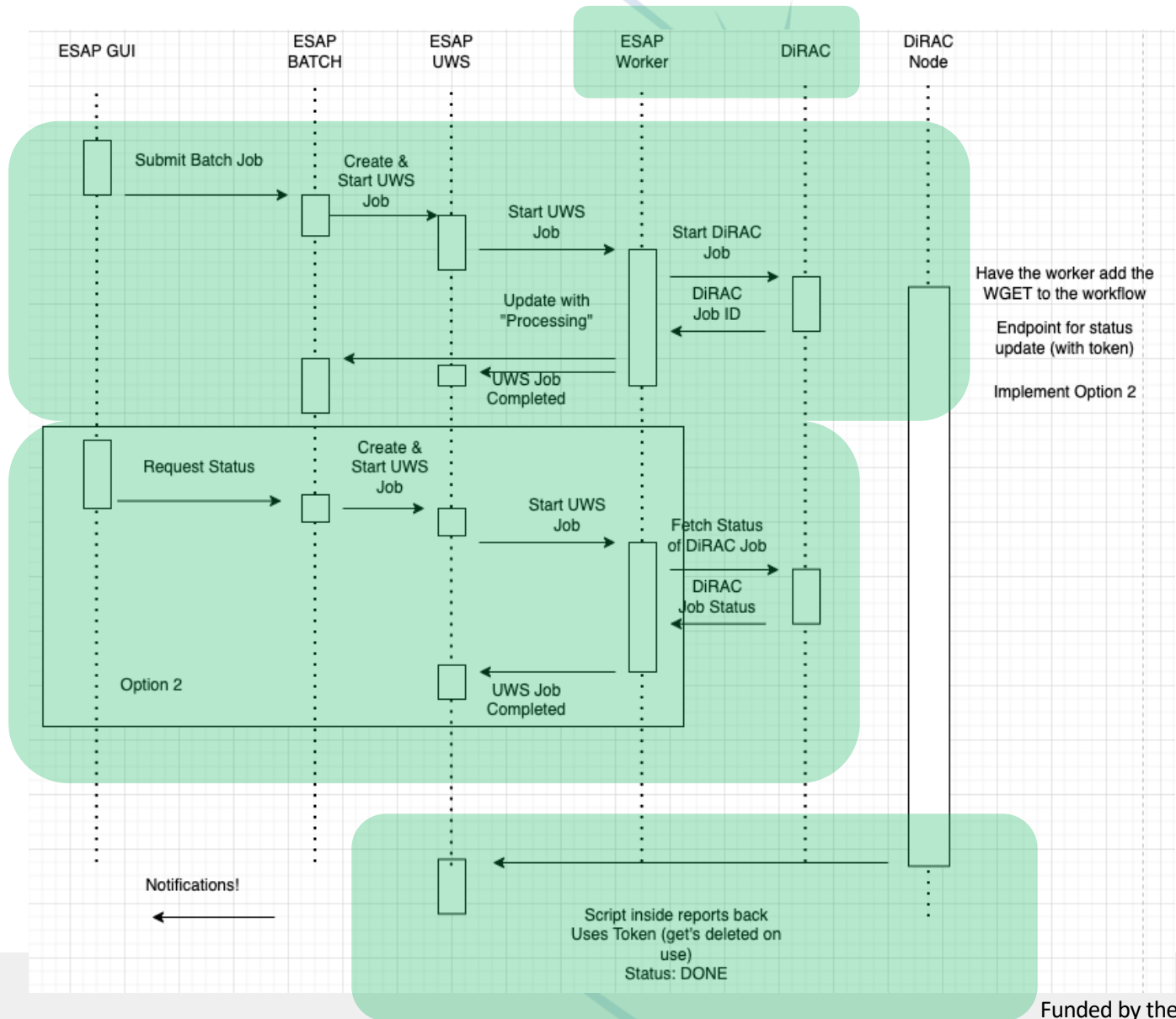
Just after the ESAP Busy Week we got this far



ESAP-Worker and CTADIRAC running in the same container + talking to the API and GUI



We can now use the Worker to submit and monitor jobs on CTADIRAC



# Batch/DIRAC on ESAP

## Batch Analysis

Monitor Batch Jobs

Submit Batch Jobs

esap-gui version 21 jan 2022 - 10:00

<https://youtu.be/4kAskIWFuFk>

localhost:3000/esap-gui/batch





# Batch/DIRAC on ESAP

## Batch Analysis

Monitor Batch Jobs

Submit Batch Jobs

Search for Workflows

- Hello World

Description: This is the hello world example  
Keywords:  
Steering File: DIRACExampleWorkFlows/helloworld.json

- CTA Monte Carlo Generation

Description: Production of raw CTA simulations  
Keywords:  
Steering File: DIRACExampleWorkFlows/testfile1.json

- CONCORDIA

Description: Containerized Corsika on DIRAC  
Keywords:  
Steering File: DIRACExampleWorkFlows/testfile2.json



# Batch/DIRAC on ESAP

## Batch Analysis

Monitor Batch Jobs

Submit Batch Jobs

Search for Facilities

- CTADIRAC**  
Description: CTA-DIRAC instance  
Runtime Engine: Docker
- Rosetta @ INAF OATS**  
Description: The Rosetta platform deployed at INAF OATS computing centre  
Runtime Engine: Singularity



# Batch/DIRAC on ESAP

## Batch Analysis Submission

### ESAP Hello World Example

This workflow is the example

|            |                                      |
|------------|--------------------------------------|
| Parameter1 | <input type="text" value="1"/>       |
| Parameter2 | <input type="text" value="2"/>       |
| Parameter3 | <input type="text" value="33"/>      |
| Parameter4 | <input type="text" value="GG"/>      |
| Parameter5 | <input type="text" value="test"/>    |
| Parameter6 | <input type="text" value="default"/> |

Job Number: 6  
Status: PENDING

Select RUN to submit the job with the above parameters or ABORT to cancel.

Job Number: 6  
Status: EXECUTING

esap-gui version 21 jan 2022 - 10:00



# Async UWS App

Jobs: 6 Page: 1

| Run ID | Phase     | Creation date          | Parameters     | Results     | Action                                 |
|--------|-----------|------------------------|----------------|-------------|--|
| batch  | COMPLETED | 31 Aug 2022, 09:09 UTC | 7 parameters i | 1 results i | <input type="button" value="ARCHIVE"/> |
| batch  | COMPLETED | 30 Aug 2022, 14:20 UTC | 2 parameters i | 1 results i | <input type="button" value="ARCHIVE"/> |
| batch  | COMPLETED | 30 Aug 2022, 14:18 UTC | 7 parameters i | 1 results i | <input type="button" value="ARCHIVE"/> |
| batch  | COMPLETED | 30 Aug 2022, 14:06 UTC | 2 parameters i | 1 results i | <input type="button" value="ARCHIVE"/> |
| batch  | COMPLETED | 30 Aug 2022, 14:05 UTC | 2 parameters i | 1 results i | <input type="button" value="ARCHIVE"/> |
| batch  | COMPLETED | 30 Aug 2022, 14:04 UTC | 7 parameters i | 1 results i | <input type="button" value="ARCHIVE"/> |

Create a new Job

Run ID

Message

Job Type

esap-gui version 21 jan 2022 - 10:00



# Batch/DIRAC on ESAP

## Batch Analysis

Monitor Batch Jobs

Submit Batch Jobs

Input Job ID to find information on batch jobs:

[Find Batch Jobs](#)

Job ID: 19427291  
 Job Status: COMPLETED  
 Creation Time: 2022-08-30T14:20:11.530724Z

Job Status: [{"key":"JobStatus","value":"Done","size":null,"mimeType":null}]

esap-gui version 21 Jan 2022 - 10:00

```

base) root@13cf83eb3f93:/ESAPWORKER/esap-worker# dirac-wms-job-status 19427291
JobID=19427291 ApplicationStatus=echo {"Parameter1": "999", "Parameter2": "2", "Parameter3": "33", "Parameter4": "GG", "Parameter5": "test", "Parameter6": "default", "type": "batch.submit"} successful; MinorStatus=Execution Complete; Status=Done; Site=LCG.IN2P3-CC.fr;
{"key":"JobStatus","value":"Done","size":null,"mimeType":null}
    
```



# Conclusion

- We have a locally running version of ESAP that can access DIRAC
- This uses the new UWS async worker
- Next:
  - Do a real-world example
  - Work with WP4 IVOA Execution planner
- Links:
  - Plan: [https://excalidraw.com/#room=d22af41a7f9224424e39,kuSMiRmqaqqBKKWQhp\\_Wzg](https://excalidraw.com/#room=d22af41a7f9224424e39,kuSMiRmqaqqBKKWQhp_Wzg)
  - Diagram: <https://app.diagrams.net/#G1Ao01iHs0uXReJLJYk1B8gdOYhyFK0DhA>
  - Video: <https://youtu.be/4kAskIWFuFk>

