



Experimental Control and Data Collection (ECDC)

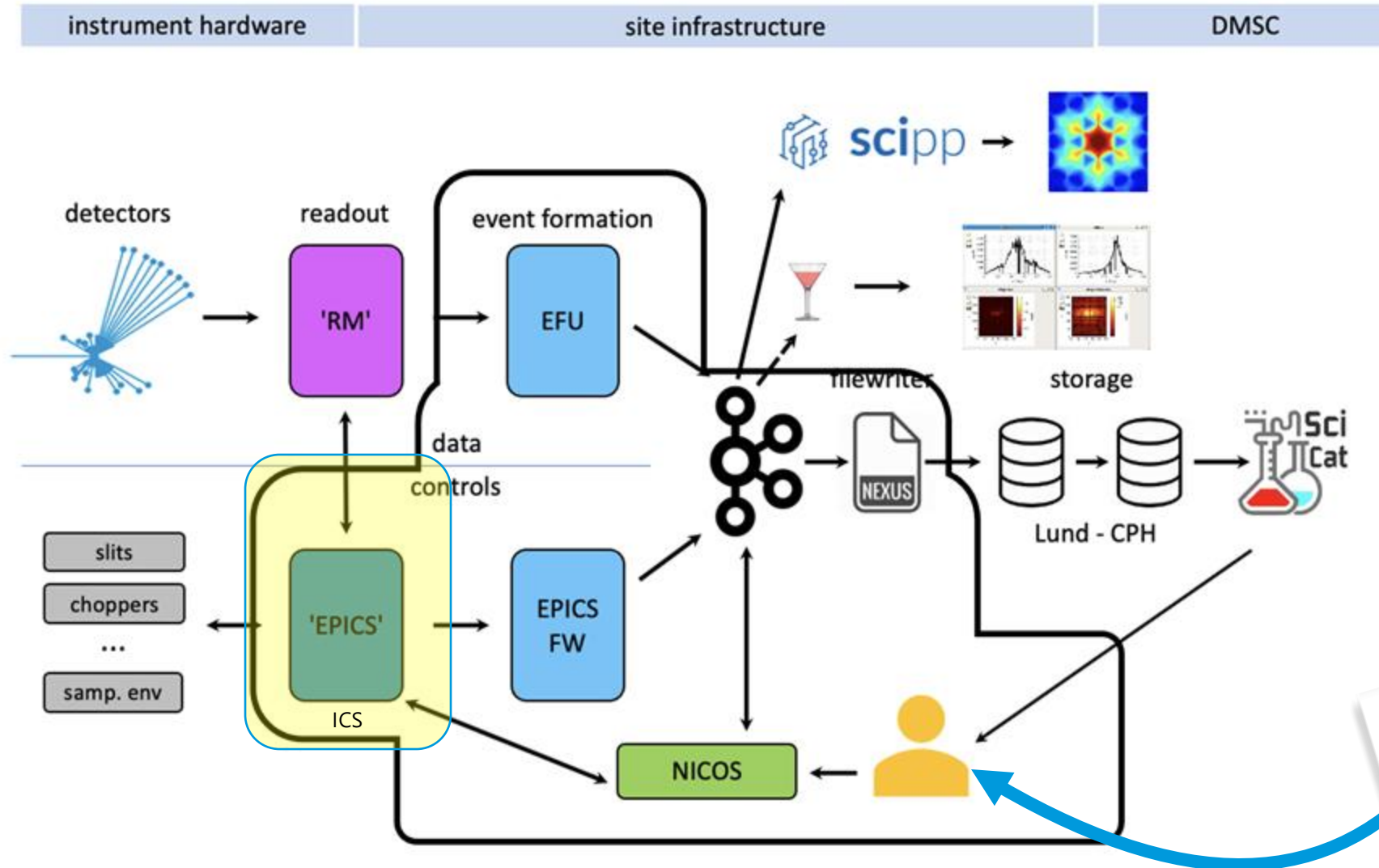
LOKI SAR Meeting

LAIS PESSINE DO CARMO, LINE MØLLER

19/09/2025

System Definition

Complete ECDC delivery package



ECDC Status Report

Overview



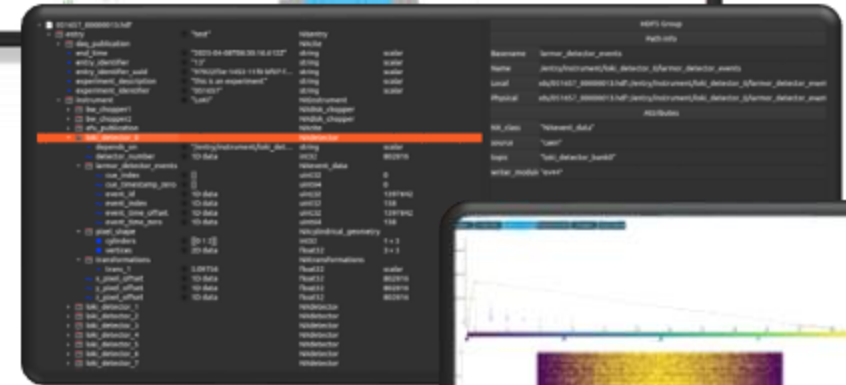
- Principal responsibilities:
 - NICOS Integration and NeXus Data Recording
 - Support for Local SAT of every Technology Group
 - Support for Integrated Test with Instrument staff



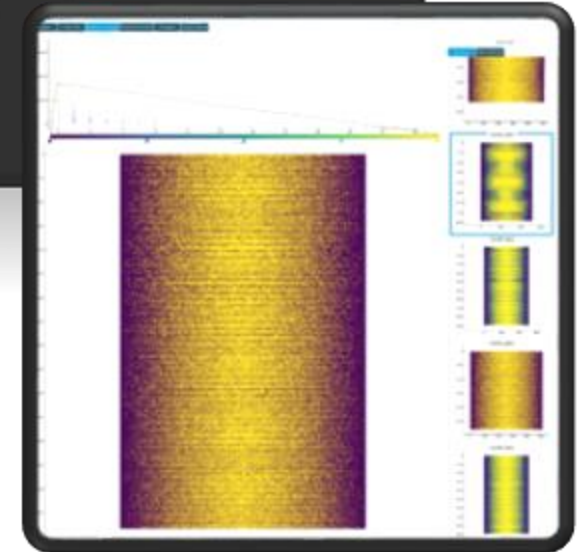
Choppers Integrated Tests



Choppers on NICOS



Nexus file



Detector on NICOS

ESS.NSS.H01.LOKI.K02

ECDC

All cases:



ECDC Status Report

Commissioning Status

- Performance with respect to tests: **Pass**
- Main issues (NCR/NIT)
 - **NIT-209 - LoKI: Develop detector distance transform**
 - **NIT-327 - Availability of Accelerator and Target PVs/data to instruments**
- Outstanding items
 - **ECDC-4806 Synoptic Interface**
- What are the treatments
 - **Develop the necessary features**
- When will they be fixed
 - **Before BoT**
- Are deferred test integrated into the hot commissioning plan
 - N/A

Is the hardware software ready for hot commissioning= **YES,**
READY FOR ALL THE FUTURE IMPROVEMENT

Description	NIT	Status	Responsible
Beamstop <ul style="list-style-type: none"> Adjust routine for selecting and moving beamstoppers Set beam center position Re-test at the instrument 	NIT-203 NIT-198 NIT-202 NIT-201 NIT-200 NIT-199 NIT-196 NIT-197 NIT-195	In Progress	ECDC, MCA
User Experience <ul style="list-style-type: none"> Fix naming Improve status messages Make device controls more user-friendly 	NIT-205 NIT-204 NIT-189 NIT-184 NIT-216 NIT-186 NIT-179 NIT-178 NIT-175	In Progress	ECDC
	NIT-193	Done	
Motion <ul style="list-style-type: none"> Fix status messages Fix precision Set speed values 	NIT-218 NIT-208 NIT-207 NIT-219 NIT-183	In Progress	ECDC, MCA
	NIT-210	Done	
Nexus <ul style="list-style-type: none"> Additional values to Nexus file 	NIT-221 NIT-209	In Progress	ECDC
	NIT-233	Done	
Sample Environment	NIT-182	To Do	ECDC, SE
Filewriter	NIT-206	Done	ECDC
Network	NIT-327	In Progress	ECDC

ECDC Hot commissioning



Supporting activities from instrument hot commissioning plan

- **Related to ESS-1108651 (LOKI V&V plan)**

Operating & Maintenance manuals

- **ESS-5706535 - NICOS Operation Manual**

Challenges

- **To discover new feature along the way**

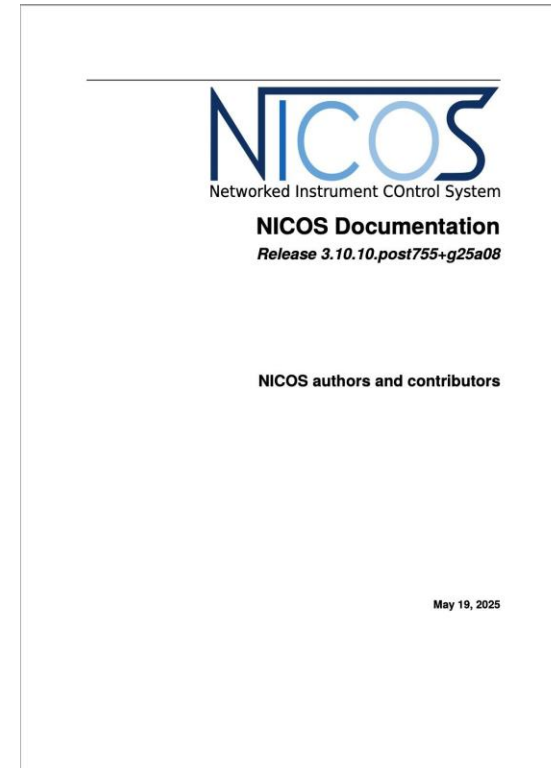
Resources required

- **1/2 FTE Peak load**

Out of hours

- **As needed**

Source: hot commissioning plan (LOKI)



Acknowledgements



- **NITIS team** (ICS-HWI-WP12)
- **Firmware team**