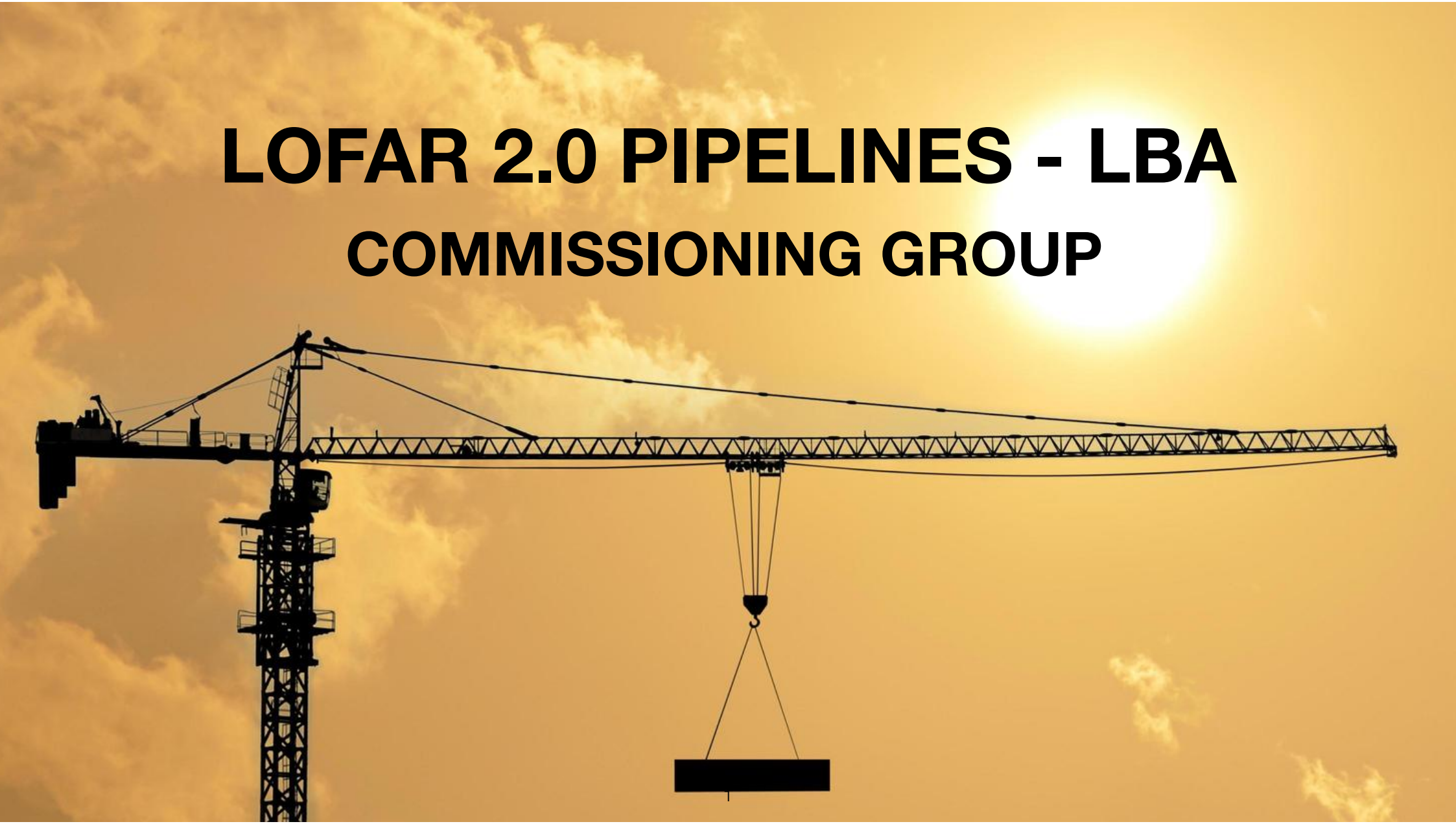
LOFAR 2.0 PIPELINES - LBA

COMMISSIONING GROUP



LOFAR 2.0 LBA Commissioning Team

Francesco de Gasperin (INAF)	Coordinator, calibration strategies
Jort Boxelaar (INAF)	VLBI, calibration strategies
Cristina Cordun (ASTRON)	<30 MHz, transients
Alexander Drabent (Uni Tautenburg)	Pipeline workflow
Henrik Edler (ASTRON)	Calibration strategies
Christian Groenveld (Uni Leiden)	<30 MHz
Thomas Pasini (INAF)	Extraction
Reinout van Weeren (Uni Leiden)	Calibration strategies
Marco Iacobelli & Tim Shimwell (ASTRON)	Coordination with other groups

Other related commissioning groups:

- Pipelines: VLBI
- Pipelines: Pre-process/LINC/Rapthor
- Operations: scheduling

Aims and deliverables

What can we currently do?

- We can do (deep) imaging at 42-66 MHz using Dutch array
- We can do imaging of a few very bright sources with IS
- We can do imaging at <30 MHz with good ionospheric conditions
- It is unclear if we can do IS on moderately fluxy sources
- We probably cannot do wide-field imaging with IS
- We are severely limited by ionospheric conditions

Aims of the team:

- LBA Long Baselines (> 50 km)
- Wide field calibration at < 30 MHz and low-dec
- Reach thermal noise in sub-optimal ionospheric conditions

- Design observing strategies

Deliverables:

- A set of observing strategies and suggested parameters
- Preprocessing strategy
- Processing strategy

First projects and discussion

1. Cal-cal dual-beam observations (1+1+1 hrs) on 3c196 + 3c295 or 3c380 + 3c196: optimize cal strategy for IS, understand direction dependencies for amplitude & full-Jones effects

2. Observations with NenuFAR (6+6 hrs): clarify complications of integrating NenuFAR in our pipelines and understand the benefit for calibration

3. Calibrator observations to get the SEFD down to 10 MHz

Discussion:
- Further commissioning ideas / did we miss anything?
- Link with other groups (avoid duplication of effort)
- Suggestions on strategies