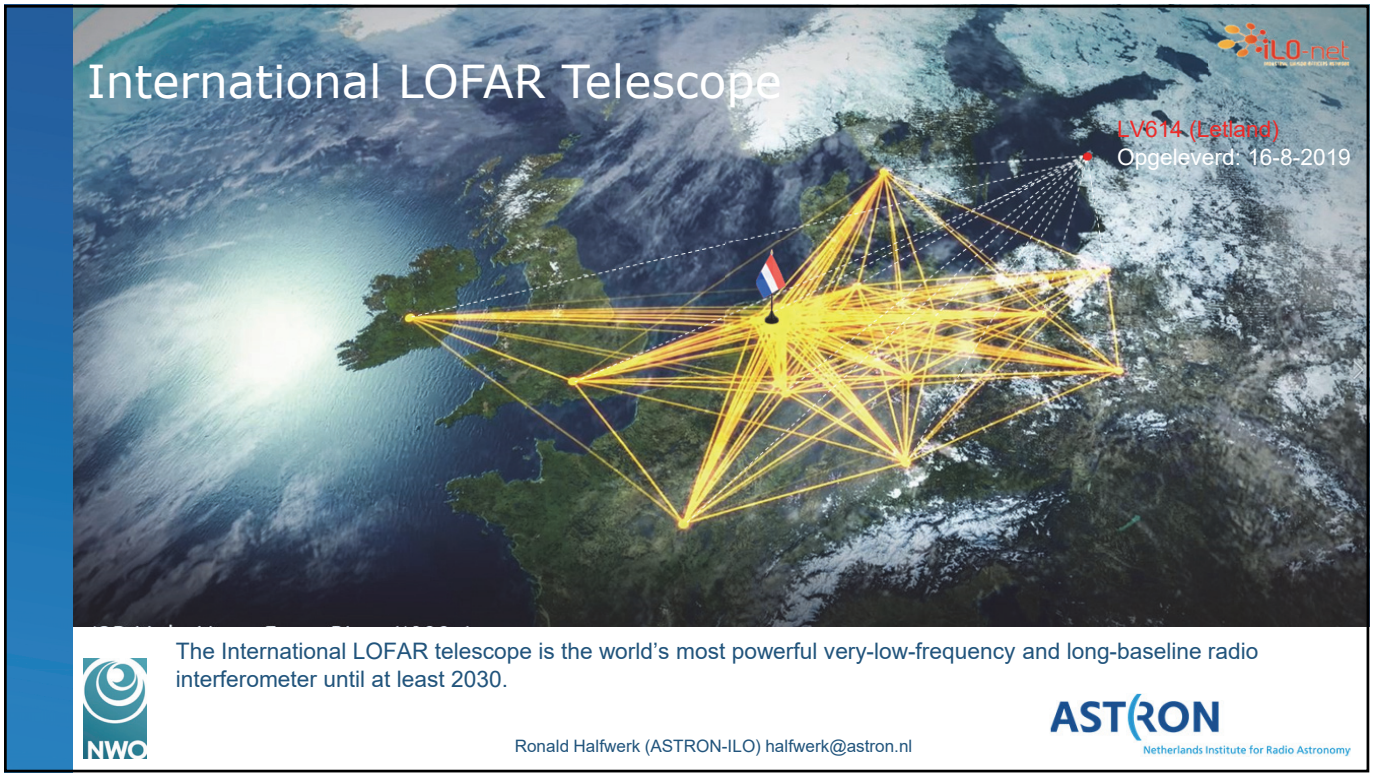
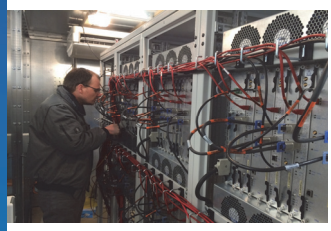

International LOFAR Telescope
LV614 (Letland)
Opgeleverd: 16-8-2019
The International LOFAR telescope is the world's most powerful very-low-frequency and long-baseline radio interferometer until at least 2030.
Ronald Halfwerk (ASTRON-ILO) halfwerk@astron.nl

International LOFAR Telescope



Station LV614 (Letland)
Irbene, nabij Ventspils

"The making of": an International LOFAR station

Credits fotos: M Gerbers, H Meulman (ASTRON), Romass Pauliks (VIRAC, Ventspils University, Latvia)

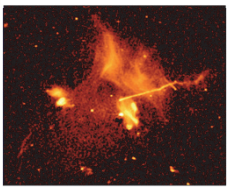
Ronald Halfwerk (ASTRON-ILO) halfwerk@astron.nl

ASTRON
Netherlands Institute for Radio Astronomy

International LOFAR Telescope

LOFAR 2.0: Extra functionaliteit, nieuwe hardware

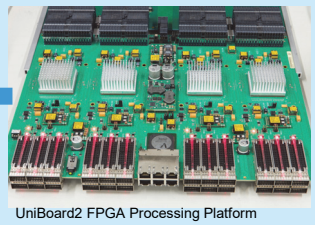
Development	Production	Roll-out	Commissioning	Operations
Q3 2018	Q3 2021	Q4 2022	Q2 2023	Q4 2023



- Hogere efficiency, betere callibratie, simultaan inzet LBA en HBA antennes
- CDR: Q2 2021
- Roll-out voltooid: 2022 (Nederlandse stations)
- Fase-1:
  - Vervanging van stations electronica
    - Subracks (RCU, RSP, TBB)
    - Clock distributie
  - Monitoring and control software
  - LBA calibration pipeline

Key:
✓ Samenwerking met industriële partners tijdens R&D fase
✓ Sterke(re) positie in roll-out fase (aanbesteding)

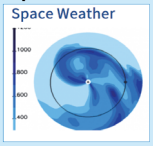
39x NL LOFAR Cabinet
14x International ILT-container



UniBoard2 FPGA Processing Platform
- Data throughput: 3 Tera bit per second (Tbps)
- Processing capability: 5 Tera MAC/s

Low-noise amplifier High Band Antenna:
LOFAR nu: 50.688 stuks

Applicatie:
Space weather = 24/7



Vraagt 2x zoveel electronica !
(en bekabeling)

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