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Netherlands Institute for Radio Astronomy

JumpingJIVE WP4

ERIC scope:  
The International LOFAR Telescope



# Objectives

## Jumping JIVE WP4

- Assessment of possible merits and pitfalls of closer operational alignment of JIVE and ILT, and possibly their merging into one ERIC
  - Can cooperative procedures and governance be optimized for long-term sustainability?
- DELIVER: discussion document for JIVE and ILT governing bodies and stakeholders
  - Possible follow-up outside the scope of this WP

# Background (1) JIVE (and EVN)

International LOFAR Telescope



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EUROPEAN  
VLBI  
NETWORK



JIVE  
Joint Institute for VLBI  
ERIC



eneration, courtesy of Nasa Visible Ea

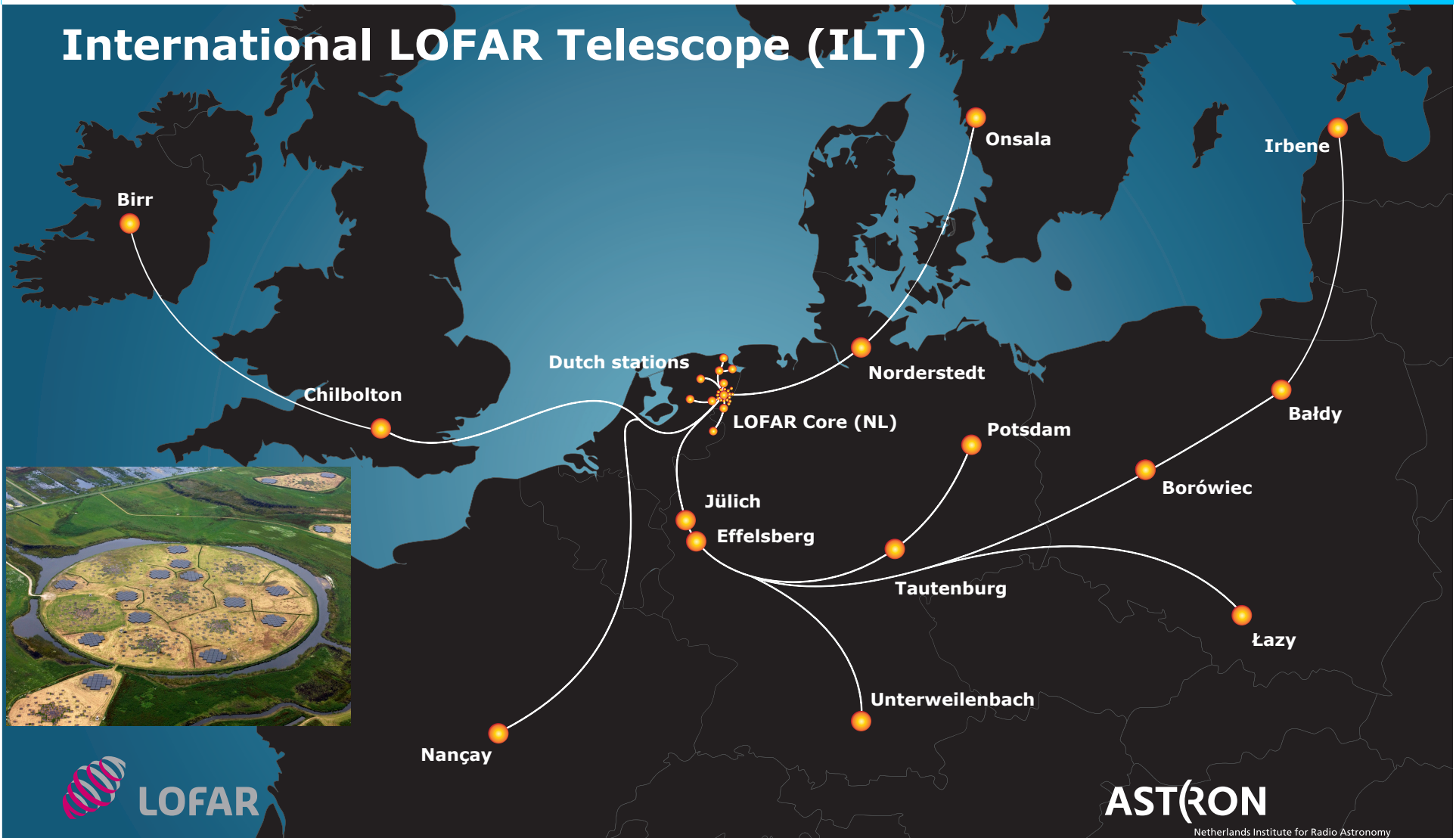
# Background (2)

## ILT



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### International LOFAR Telescope (ILT)



# Background (3) ILT



## LOFAR System Data Flow



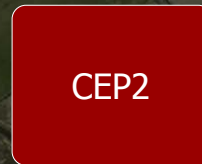
**Station signals collected in the station cabinets**



**Signals sent to COBALT for correlation**



**Data sent to CEP2 for initial post-processing**



**Products sent to the long-term archive**



**CEP3 cluster available for additional user processing**

**Entire process is overseen by Observatory operators, Science Support, and Software development groups**



# Background (4)

## JIVE and ILT



- There appear to be significant scientific & organizational similarities between JIVE and ILT:
  - A distributed international “telescope” network is correlated at a central facility
  - There is a central organization for
    - Data curation
    - Quality control
    - Long-term archive
    - User interfaces & support
    - Development support

# One task

## Two assessment studies



- Evaluate overlaps/similarities as well as differences
- Start from description of current status
- Assess how changing internal and external circumstances (national, European, and international) may alter the respective positions of JIVE and ILT in the next decade
  - Discuss associated opportunities, challenges, and risks
- Study possible advantages and risks that specific collaborations between JIVE and ILT would entail
  - including a full merger into a combined ERIC



# First document: Operational model

- Describe current modus operandi of JIVE and ILT
- Explore likely evolution and enhancement paths
  - Required to stay abreast of expanding technological capabilities as well as growing scientific end-user needs, particularly within the European landscape
- Analyze advantages and risks in bringing operational models and technological efforts more closely into alignment



# Second document: Governance model (1)



- Describe current governance and partnerships
- 
- Explore plausible national, European, and international developments in the next decade w.r.t. funding and collaboration on operating large-scale research facilities in radio astronomy
  - Keeping ESFRI priorities in mind
- Assess possible places and roles of JIVE and ILT in light of these possible evolutions of research infrastructures

# Second document: Governance model (2)



- Analyze possible advantages, risks, and challenges, of aligning governance and financing models, including discussion of a full merger scenario
  - Take into account the substantially overlapping membership of JIVE and ILT, and ambitions of both organizations to grow (in part) by acquiring new partners



- Preparatory paper studies by policy officer(s)
  - Call upon services of external technical and legal/financial experts as needed for thorough assessments
- Several intensive meeting sessions or workshops
  - First meet with relevant operational & management staff
  - Then include representatives of governing bodies
  - Finally invite review by experts from similar European or international (prospective) partner facilities
    - May invite relevant EC experts to share their insight



- D4.1: Month 16
  - Workshop(s) with board representatives discussing position papers
- D4.2: Month 30
  - Broader-scoped workshop(s) with external experts
- D4.3: Month 35
  - Final documents presented and discussed in JIVE Council and ILT Board

