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### **Deliverable D17.1**

**Providing access of 250 hours to the WSRT  
infrastructure**

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NEDERLAND (ASTRON)

# 1 Document information

Document name: Providing access of 679 hours to the TNA WSRT in the period 01/01/2012 – 31/05/2013

Type Other

WP 17

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## 1.1 Dissemination Level

Dissemination Level		
<b>PU</b>	Public	X
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

## 1.2 Content

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## 2 TNA deliverable

### 2.1 Information about the TNA-WSRT

The Westerbork Synthesis Radio Telescope (WSRT), owned and operated by ASTRON in The Netherlands, has 14 fully steerable parabolic reflectors, distributed in an East-West configuration of 2700m length. It is equipped with a sensitive receiver package providing almost continuous coverage at decimetre and centimetre wavelengths as well as frequency agility. Coupled to its flexible half-million channel correlator, and its modern pulsar and VLBI backends, the WSRT continues to be a uniquely capable facility in the world that is consistently oversubscribed and draws a wide international user base.

The WSRT will see its next major upgrade in 2013-14. An ambitious 21cm receiver system, "Apertif", consisting of phased-array feeds and digital beamformer, developed at ASTRON, will be installed at the focal plane of 12 (out of 14) of the WSRT dishes, replacing the current Multi-Frequency Frontends (MFFEs).

The WSRT followed the customary semi-annual observing proposal cycle. Proposal preparation and submission, and project design, are facilitated by the web-based tools NorthStar and MoM. The WSRT Programme Committee (PC) (composed of 10 members, selected from the international astronomical community on a personal basis for their knowledge of relevant research fields, appointed for a 3-year term) meets face-to-face twice per year, following research proposal deadlines around 15 March and 15 September, to discuss and rate observing requests for the subsequent semesters

The current over-subscription rate shows that the demand still outstrips the available time throughout the year, and several proposals have to be rejected or trimmed down.

The receiver usage statistics show the classical preponderance of 21+18 cm observing, playing to the dominant strength of the WSRT for line and continuum imaging in this band, plus a somewhat higher than usual fraction of 6 cm observing, mostly related to transient source follow-up, which is increasingly occurring on the WSRT

### 2.2 Report on the users & project in the period 01/01/2012-31/05/2013

A list and details of scientific projects which were eligible for TNA support during the first reporting period (1 January 2012 to 31 May 2013) is given in the following table:

Project Acronym	Name (Institute, Country) of the TNA user group leader	Number of eligible TNA users	Provided Access (Hours)
R12A/005	Janssen G. (Jodrell Bank Centre for Astrophysics, UK)	8	109
R12A/008	Kauffmann G. (Max Plank Institute for Astrophysics, DE)	9	543
R12A/010	Liu K. (Max Plank Institute for Radio Astronomy, DE)	4	9
R12B/005	Liu K. (Max Plank Institute for Radio Astronomy, DE)	5	18
TOTAL: 4		TOTAL: 26	TOTAL: 679

The total number of access hours provided to the 4 TNA-eligible projects was 679. The total number of eligible users was 26.

The detailed information about the committee providing access, projects and selection is given in the TNA database of the 1<sup>st</sup> periodic report.

## 2.3 Information about the EC financial contribution to the travel

During this reporting period, TNA travel funds were used to partially fund the cost of a visit to ASTRON for project R12A/008 (PI Kauffmann).

The table below shows the estimated cost. The travel budget is allocated by the RadioNet3 beneficiary No. 5 (JIVE). Therefore, the exact numbers will be presented at the following periodic report.

Project acronym	Person name (institute)	EC travel support [€]
R12A/008	Kauffmann G. (Max Planck Institute for Astrophysics)	524
TOTAL estimated EC contribution		524 €