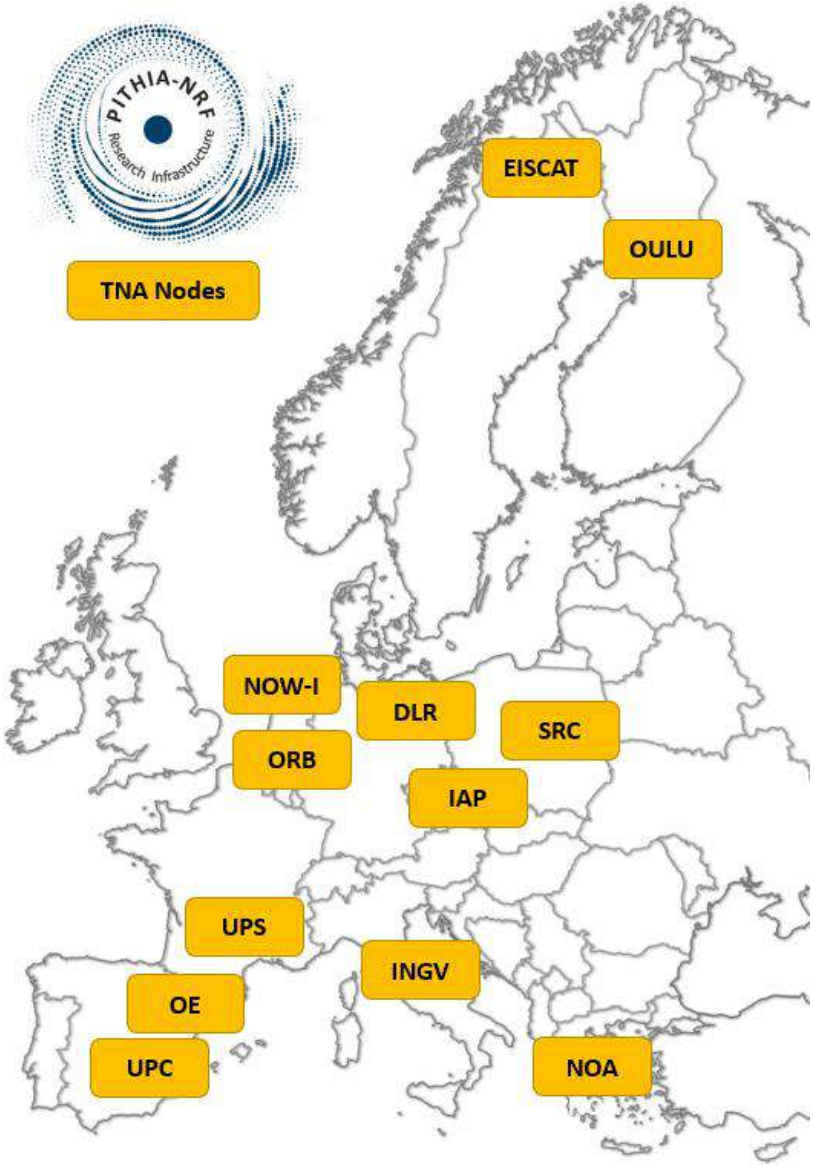


PITHIA-NRF
Access of facilities

Ingemar Häggström, PITHA Access Bureau
EISCAT Scientific Association
PITHA-NRF EEAB 31Mar22

PITHIA TNA nodes

- 1. NOA, Palaia Penteli, Greece
- 2. OE, Roquetes, Spain
- 3. IAP, Prague, Czech Republic
- 4. EISCAT, Tromsø/Kiruna, Sweden
- 5. LOFAR, ASTRON, Dwingeloo, The Netherlands
- 6. CBK/PAS, Warsaw, Poland
- 7. SGO, Sodankylä, Finland
- 8. INGV, Rome, Italy
- 9. ROB-GNSS, Brussels, Belgium
- 10. UPC-IonSAT, Barcelona, Spain
- 11. UPS-IRAP, Toulouse, France
- 12. DLR, Neustrelitz, Germany

Objectives

- Offer scientific users subsidized hands-on access
  - Conduct selected research projects
  - Learn how to access the observing facilities end-to-end
    - Set up a special campaign
    - Data collection & analysis
- Data exploitation
  - Usage of PITHIA tools and services
    - Live tests → improvements

Areas of science openings

- Validation & development of user models
- Developments of higher-level data products
- Plasma physics
- Development of analysis methods
- Small/large scale features and dynamics
- Magnetosphere-ionosphere-atmosphere coupling
- Usage of space models
- Global data analysis and modeling
- .....

User access

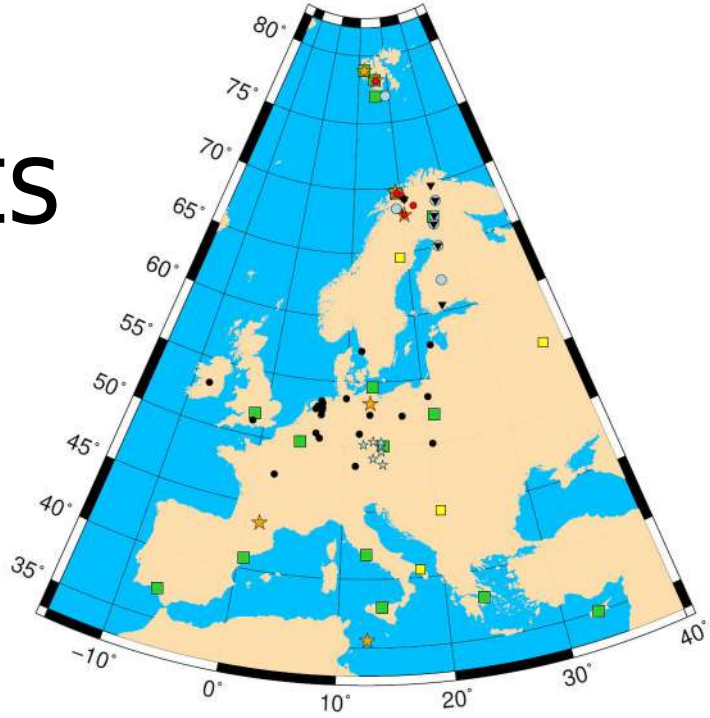
- Assessment
  - Follow H2020 TNA requirements
  - Scientific merit
  - Political preferences
    - New users
    - Mainly inside of EU+
      - Outside if it ‘benefits Pithia project’
    - SMEs
    - Member states not well-endowed with RIs

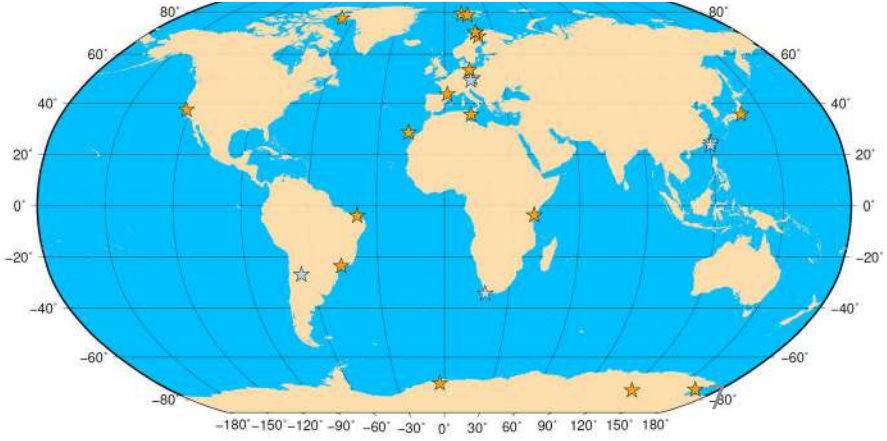
Commitments

- Node
  - Physical
    - Travel to the site location and one week of accommodation
  - Remote
    - Weekly scheduled interactions during one month
  - Training at site for running experiments, analysing, database searching etc.
  - Remote support during the whole project
- User
  - Present scientific results and findings in a report within 6 months
    - Compiled by project into EU deliverables
  - Write an evaluation of the project experience

Instruments

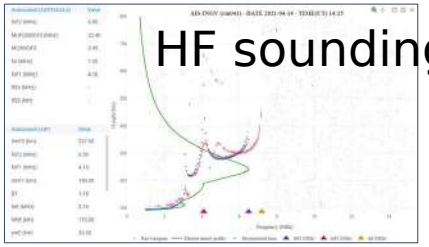
- Ionosondes (■■)
- Doppler sounders, CDSS (★)
- GNSS scintillation receivers (★)
- Incoherent scatter radars (●)
- Riometers (●)
- Pulsation magnetometers (▲)
- LOFAR sites (●)
- GNSS sites of standard networks
  - EUREF and IGS
- Space models/global data
- Cameras and other radars/receivers

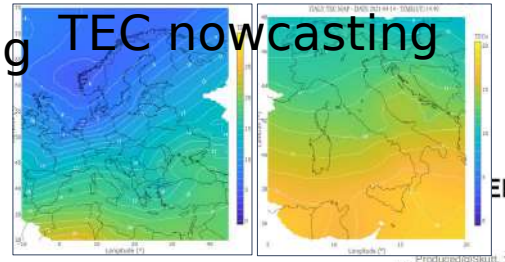


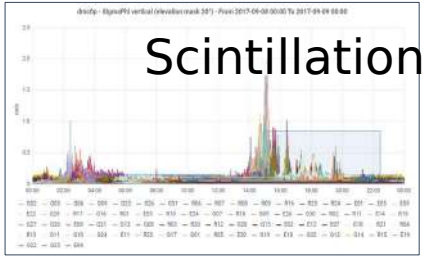


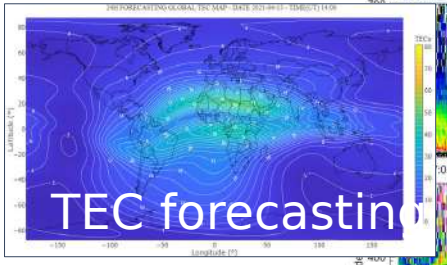
Data

- Ionosonde parameters
  - Derived profiles, skymaps, drifts
  - Archive/Nowcasting/Forecasting
  - Models
- Doppler Sounding
  - Gravity Waves, global propagation
- Incoherent Scatter
  - Ionospheric density, temperature profiles
  - Ionospheric convection
- GNSS/Lofar
  - TEC, Ionospheric scintillation
    - Local/global maps
- Riometer/Magnetometer networks
  - Absorption, Magnetic fields
- Interhemispheric Modelling

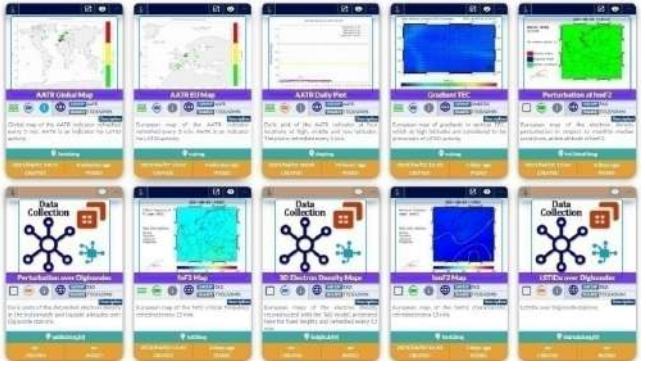


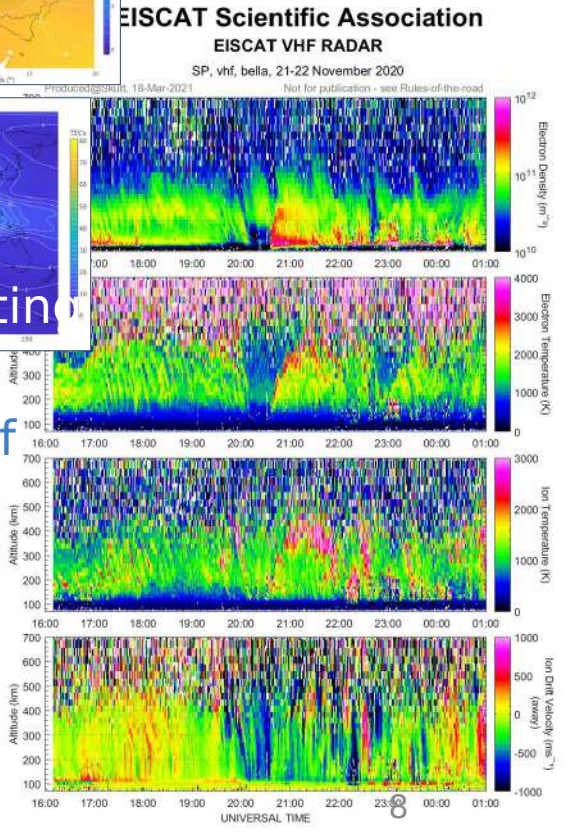






Detection and prediction of





PITHIA Access Bureau (PAB)

- Member(s) from each node
- Meet ~monthly
- TNA office
  - PAB meetings organiser
  - Application handling
  - Providing documents
- Mails
  - pab@pithia-nrf.eu
  - tna@pithia-nrf.eu

PITHIA-NRF Meetings

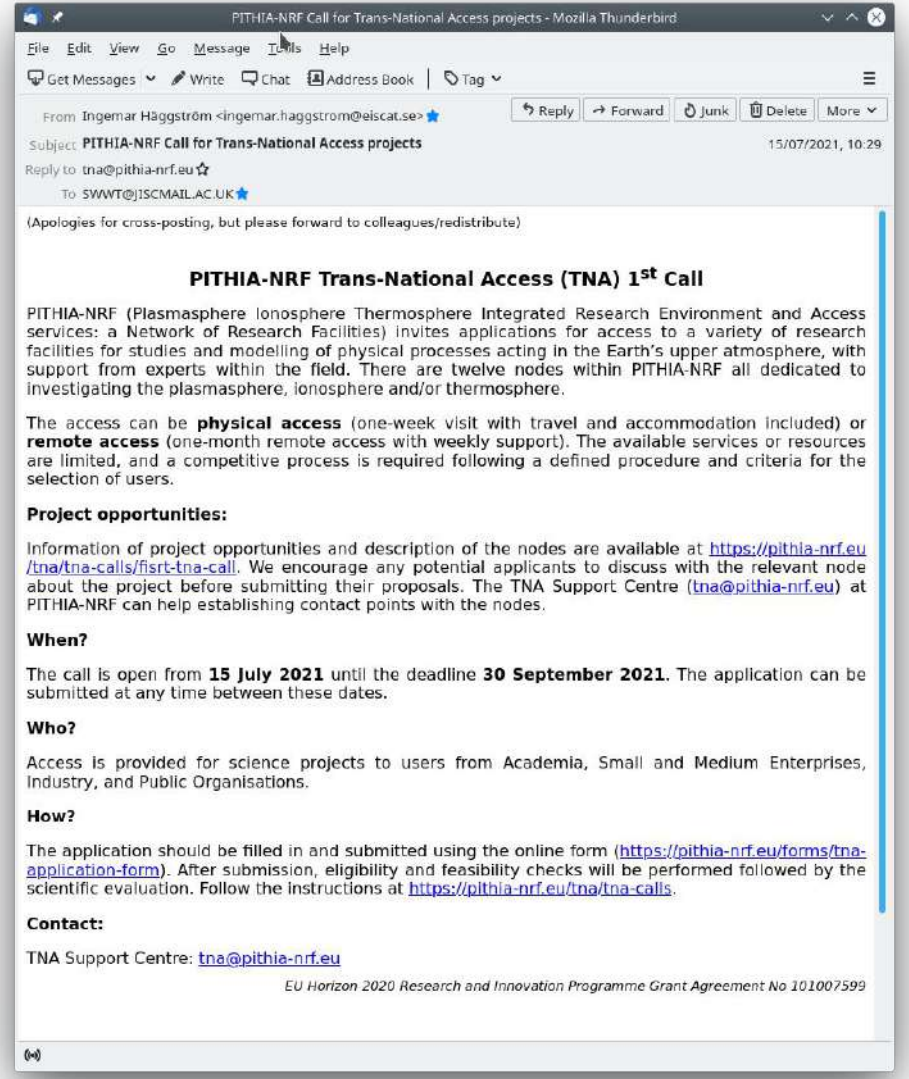
s/n	General	EB	PAB	PINT	WOOS	TPW	Technical Meeting
1	11-03-2021 pre-KOM	07-04-2021 1st EB m.	25-05-2021 1st PAB m.	18-06-2021 1st PINT m.	18-05-2021 1st WOOS	08_11-11-2021 days 1&2: 1st TPW - days 3&4: FitSM	17&18-05-2021 TKOM (day 1, day2)
2	19-04-2021 KOM	06-05-2021 2nd EB m.	08-06-2021 2nd PAB m.			28_29-03-2022 2nd TPW	27-01-2022 2nd Tech. m.
3	26-05-2021 Public Event	24-06-2021 3rd EB m.	21-06-2021 3rd PAB m.				
4	30-03_01-04-2022 1st EG & EEAB	20-07-2021 4th EB m.	07-07-2021 4th PAB m.				
5		06-09-2021 5th EB m.	24-08-2021 5th PAB m.				
6		27-09-2021 6th EB m.	16-09-2021 6th PAB m.				
7		06-10-2021 7th EB m.	06-10-2021 7th PAB m.				
8		04-11-2021 8th EB m.	20-10-2021 8th PAB m.				
9		10-12-2021 9th EB m.	03-11-2021 9th PAB m.				
10		14-01-2022 10th EB m.	01-12-2021 10th PAB m.				
11		01-03-2022 11th EB m.	21-12-2021 11th PAB m.				
12			20-01-2022 12th PAB m.				
13			24-02-2022 13th PAB m.				
14			16-03-2022 14th PAB m.				
15							

TNA procedure (D7.1)

- Call, 2.5 months
  - Application form
- Review, 1 month
  - Selection
    - Granting letter
- Negotiations node-user
  - Start/stop date
  - Practicals
  - Contract writing
- Execution
  - Kickoff meeting
  - Node training
  - Access
    - Physical 1 week
    - Remote 1 month
    - Virtual (usage of tools)
  - Users analysis
  - Report writing
  - Feedback form
  - Dissemination form
- Report accepted
  - Reimbursement if physical

PITHA TNA Calls

- Twice per year, each ~2,5 months
  - Finish within ~a year
    - Some overlap
  - 15 Jul-30 Sep 2021
    - Execute 1Nov-1Aug
  - 1 Jan-15 Mar 2022
    - Execute 1May-1Mar
  - 1 Jul-15 Sep 2022
    - Execute 1Oct-1Jul
- Announcements
  - Email lists ~5+
    - Wide/narrow communities
  - Social media
    - Linkedin/Twitter
  - Meetings
    - Presentation/Poster/Pamphlet/Discussion



PITHIA-NRF Call for Trans-National Access projects - Mozilla Thunderbird

File Edit View Go Message Tools Help

Get Messages Write Chat Address Book Tag

Reply Forward Junk Delete More

From Ingemar Häggström <ingemar.haggstrom@eiscat.se>

Subject **PITHIA-NRF Call for Trans-National Access projects** 15/07/2021, 10:29

Reply to tna@pithia-nrf.eu

To SWWT@JISCMAIL.AC.UK

(Apologies for cross-posting, but please forward to colleagues/redistribute)

PITHIA-NRF Trans-National Access (TNA) 1st Call

PITHIA-NRF (Plasmasphere Ionosphere Thermosphere Integrated Research Environment and Access services: a Network of Research Facilities) invites applications for access to a variety of research facilities for studies and modelling of physical processes acting in the Earth's upper atmosphere, with support from experts within the field. There are twelve nodes within PITHIA-NRF all dedicated to investigating the plasmasphere, ionosphere and/or thermosphere.

The access can be **physical access** (one-week visit with travel and accommodation included) or **remote access** (one-month remote access with weekly support). The available services or resources are limited, and a competitive process is required following a defined procedure and criteria for the selection of users.

Project opportunities:

Information of project opportunities and description of the nodes are available at https://pithia-nrf.eu/tna/tna-calls/fisrt-tna-call. We encourage any potential applicants to discuss with the relevant node about the project before submitting their proposals. The TNA Support Centre (tna@pithia-nrf.eu) at PITHIA-NRF can help establishing contact points with the nodes.

When?

The call is open from **15 July 2021** until the deadline **30 September 2021**. The application can be submitted at any time between these dates.

Who?

Access is provided for science projects to users from Academia, Small and Medium Enterprises, Industry, and Public Organisations.

How?

The application should be filled in and submitted using the online form (https://pithia-nrf.eu/forms/tna-application-form). After submission, eligibility and feasibility checks will be performed followed by the scientific evaluation. Follow the instructions at https://pithia-nrf.eu/tna/tna-calls.

Contact:

TNA Support Centre: tna@pithia-nrf.eu

EU Horizon 2020 Research and Innovation Programme Grant Agreement No 101007599

PITHA TNA Call 1

- 15Jul-30Sep 2021
- 14 applications
  - 2 rejected, 1 withdrawn, 1 canceled, 1 unknown
  - 5 physical
  - 4 remote

PITHA TNA Call 1

- Dust Charging in PMSE, **EISCAT, Iran, physical → remote**
- Regional ionosphere maps, **UPC-IonSAT, Portugal, physical**
- Optimal radar design, **EISCAT, Russia, physical→ withdrawn**
- Ionospheric irregularities at high and low latitudes, **EISCAT, India, remote**
- Ionospheric variations, **EISCAT, China, rejected**
- Solar Minimum Impact on the Lower Exosphere, **UPC-IonSAT, Ukraine, physical → ??**
- Comparing GNSS-receiver to model data, **INGV, Netherlands, physical**
- Traveling ionospheric disturbances, **IAP, Ukraine, physical**
- Magneto-ionospheric modeling through Faraday rotation, **UPC-IonSAT, Germany, remote**
- Low-frequency intraospheric waveguide, **SGO, Russia, physical->canceled**
- Wave-like structures in the ionosphere, **NOA, Hungary, physical**
- IISR analysis software, **EISCAT, Russia, remote**
- Ionospheric reconstruction profilers, **NOA. Egypt, rejected**
- Ionospheric currents and magnetic field variations, **EISCAT, France, physical**

PITHA TNA Call 2

- 15Jan-15Mar 2022
- 9 applications
  - Bulgaria, Pakistan, China*2, Spain, India, Belgium, Slovakia, Poland
  - DLR-SO*2, EISCAT, NOA, INGV, OE*3, LOFAR
  - 7 physical
  - 2 remote
- Under review (7Apr22)

Thank you for your attention!

WEB:
https://www.pithia-nrf.eu

The PITHIA-NRF project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101007599