



**Document: Summary and Concluding remarks of the 1st Pan-Eurasian Experiment (PEEX)** 

**Science Conference &** 

The 5th PEEX Meeting Helsinki, Finland 10-13 February 2015

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APPENDIX: https://www.atm.helsinki.fi/peex/

1- Agenda

2- Participant list

3- Conference Proceedings

**4- Press releases** 

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#### 1. SCIENCE PLAN & THE CONTINUATION OF THE SCIENCE PROCESS

- Science Plan Proof available is <a href="https://www.atm.helsinki.fi/peex/">https://www.atm.helsinki.fi/peex/</a>. Editing of the proof is in process and the final version will be released in March 2015.
- Hard copies are available in spring/summer 2015 and the translations in Russia and in Chinese will be made in 2015.
- in addition to pees research projects the science process continues via PEEX special issues
  - discussed EGU special issues (ACP etc.)
  - o the PEEX special issue will include papers on the topics such as
    - Overview of the relevant research needs for the arctic-boreal regions (PEEX Science program in detail) (RESEARCH AGENDA)
    - Modelling Platform (MODELLING)
    - Conceptual design of PEEX observation network (manuscript) (INFRA)
    - PEEX observation network (INFRA)
    - etc..
  - identification of PEEX Special Issue Editors under discussion by the PEEX Preparatory Committee

#### 2. PEEX ORGANIZATION

- PEEX program the organization structure has been establish (see Science Plan); bodies are:
  - o PEEX Prepratory Phase Committee
  - O PEEX Offices:
    - Helsinki HQ Program coordination (Univ.Helsinki and FMI)
    - Moscow offices (MSU and Aerocosmos)
    - PEEX Beijing (RADI) and PEEX Nanjing (Univ.Nanjing)
  - PEEX Nations segments (in process)











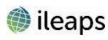












- PEEX Working Groups (in process)
- in order to ensure the fluent information flows (several e-mailing lists will be updated /established and peex website / intranet will be updated:
  - E-mailing lists
    - lists: PEEX-all, PEEX-Europe, PEEX-Russia, PEEX-China, PEEX WGs: infra, modelling, society
    - PEEX HQ members are part of all PEEX-mailing list
      - PEEX list administrator is Alla Borisova, Helsini-HQ
  - o updating PEEX www & establishing Russian and China sites
    - PEEX main www will be linked to PEEX Russia-www (in process, Pavel Konstantinov MSU) and PEEX-China-www (in process, Yubao Qiu RADI) coordinated in collaboration with PEEX HQ and Russia and China offices/officers
    - PEEX Russia and China will follow the new visual layout of the main site.

### 3. BUILDING THE PEEX COMMUNITY - Becoming conferences, WS and PEEX sessions

- 3.1 International Geographical Union (IGU) Regional Conference in Moscow, 17-21 August 2015
  - http://www.igu2015.ru/about-igu
  - SESSIONS: Pan-Eurasian Experiment (PEEX) A Research Initiative Meeting The Grand Challenges Of The Changing Environment Of The Northern Pan-Eurasian Arctic-Boreal Areas
  - Chair Persons: Markku Kulmala, Sergej Zilitinkevich, Tuukka Petäjä, Hanna K. Lappalainen, Natalia Chubarova
- 3.2 European Aerosol Conference (EAC) September 6-11, 2015, Milan Italy
  - Abstract Submission Deadline February 27<sup>th</sup>, 2015
  - PEEX special session organized by Kostas Eleftheriadis elefther@ipta.demokritos.gr
- 3.3 3rd CRAICC PEEX Workshop: Climate Change for Arctic Seas and Shipping 9-10 March 2015 in Copenhagen, Denmark
  - The topics of this workshop are:
    - estimating consequences of climate change for the Arctic region on seas and shipping and effects of ship emissions on the environment and climate
    - estimating frequency, spatio-temporal distribution and impact of extreme weather events on shipping traffic
    - improving satellite monitoring and modelling of ice formation and movement in areas of the Arctic shipping routes
    - developing approaches to environmental challenges due to possible increase in Arctic shipping
    - We invite all doing research in fields related to these topics to deliver a presentation at the workshop.
  - Abstract deadline (short max 250 words) February 20th 2015 (Annabelle Lund ase@dmi.dk).
  - Registration deadline February 25th 2015

## 4. BUILT ON EXISTING - PEEX-ACTIVITIES

- 4.1 Establishing the PEEX observation network
- The aims of the PEEX metadata base are











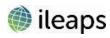












#### PRACTICAL AIMS

- (i) to add new stations, which are interested into take part of the PEEX network
- (ii) to update/ complete / check the existing station information specific actions here;
  - a. RAS stations (Nina Zaitzeva)
  - b. University hosted stations in Russia (Pavel Kostantinov MSU (Russia)
  - c. China Flux stations; Prof. Guirui YU & Leiming ZHANG, Inst. of Geographic Sciences and Natural Resources Research, CAS & Joni Kujansuu Univ.Helsinki

#### **INFRA- PROGRAM AIMS**

- i. To establish PEEX observation network
  - a. to select stations providing pilot-approach based on Hari et al. Network concept
- ii. To distribute PEEX labeled data (long-term aim)
  - a. To establish metadatabase on multiscale observations
  - b. To facilitate links from metadata to real observations
    - i. access to PEEX station data
    - ii. links to existing databases
- The stations metadata will be opened in spring 2015 via peex www. Each user will be provided own username and password
- The first set of stations providing the PEEX pilot will be determined in detail in spring 2015. The stations will be in minimum the exiting SMEAR / SMEAR typed stations (Jarviselja, Nanjing) and some other well-equiped stations such as Tiksi, Zotini, Tomsk.
- The discussions how to find synegies and collaboration with the WMO/GAW network is in process.
- Research Infrastructure Roadmap Implementation Plan; Draft already in process (Petäjä, Lappalainen, Baklanov, de Leeuw, Zilitinkevich, Kulmala et al.)

#### 4.2 Knowledge -transfer

#### Targeted for Education

- The first PEEX courses has been announce in <a href="https://www.atm.helsinki.fi/peex/index.php/education">https://www.atm.helsinki.fi/peex/index.php/education</a>
- New proposals on PEEX labeled courses are welcomed to submit <a href="https://www.atm.helsinki.fi/peex/index.php/submit-courses">https://www.atm.helsinki.fi/peex/index.php/submit-courses</a>
- Example of new actions, which could be applied to PEEX themes / regions
  Air Quality Education (China) WS in May 2015 in Beijin; contact person is Dr. Taina Ruuskanen,
  taina.ruuskanen(at)helsinki.fi

#### Targeted for the General Public & science communities

• PEEX outrearch material (flyer, poster, ppt) in process by the Helsinki HQ

## 4. NEW PEEX ACTIVITIES - the 1st PEEX labeled projects

#### PEEX PROPOSALS

- Marie-Curie-Gand Challenges PEEX (ca 4 MEURO), CR M. Kulmala Univ.Helsinki; submitted in Jan 2015
- Future Arctic Scenarios & Assessments (FAAS) (cs 3,4 MEURO), CR M. Kulmala Univ. Helsinki; to be submitted in March 2015
- Erasmus+ (ca 1 MEURO), CR S. Zilitinkevich; submitted in February 2015

# ON-GOING PROJECTS

• PEEX – CRAICC –series of workshops (NORDFORSK) (2.750.000 NOK; ca 320 000 EURO)











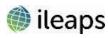












- FAAS WS (NORDFORSK) (12 000 EURO)
- ABBA (Academy of Finland, ca 500 EUR) supplemented by 5 Russian projects (RFBR, 45 000 RUB)
- AEROCOSMOS-ATM (FCoE) project (BILATERAL COLLABORATION)
  - Development of methods for monitoring of the dynamics of natural and anthropogenic emissions of trace gases and aerosols in the atmosphere based on satellite data and modelling results"
- Beautiful Beijing- project, University Of Helsinki (TEKES FI)
- CO-DESING Activities; Helsinki HQ together with PEEX Offices in Russia and China continues promoting PEEX program to funding agencies in Europe, Russia and in China.

#### 5. INTERNATIONAL COLLABORATION & PEEX IMPACT ON SOCIETY IN LONGER RUN

- During 2012-2014 PEEX program has established dialog, collaboration or been integrated part of the several large scale networks and programs: GEOSS, IEAS, IIASA, FUTURE EARTH, IGBP (iLEAPS), ARCTIC COUNCIL, SAON, WMO GAW, Int. Society of Digital Earth and SILK ROAD
- The work with the specific actions coordinated by the Helsinki-HQ will continue such as
  - providing PEEX labeled Pilot service for GEOSS
  - o detailed specifications with PEEX observations network vs. WMO GAW
  - drafting PEEX RI/data policies vs. SAON vs. GEOSS vs. WMO GAW part of the PEEX observation network implementation plan
  - o seeking collaborations activities in a frame of IEAS
  - o deepen the PEEX agenda and role of P in a frame of SILK ROAD Economic belt –program
  - o deepen the PEEX positions as a arctic-boreal node/hub in a frame of Future Earth