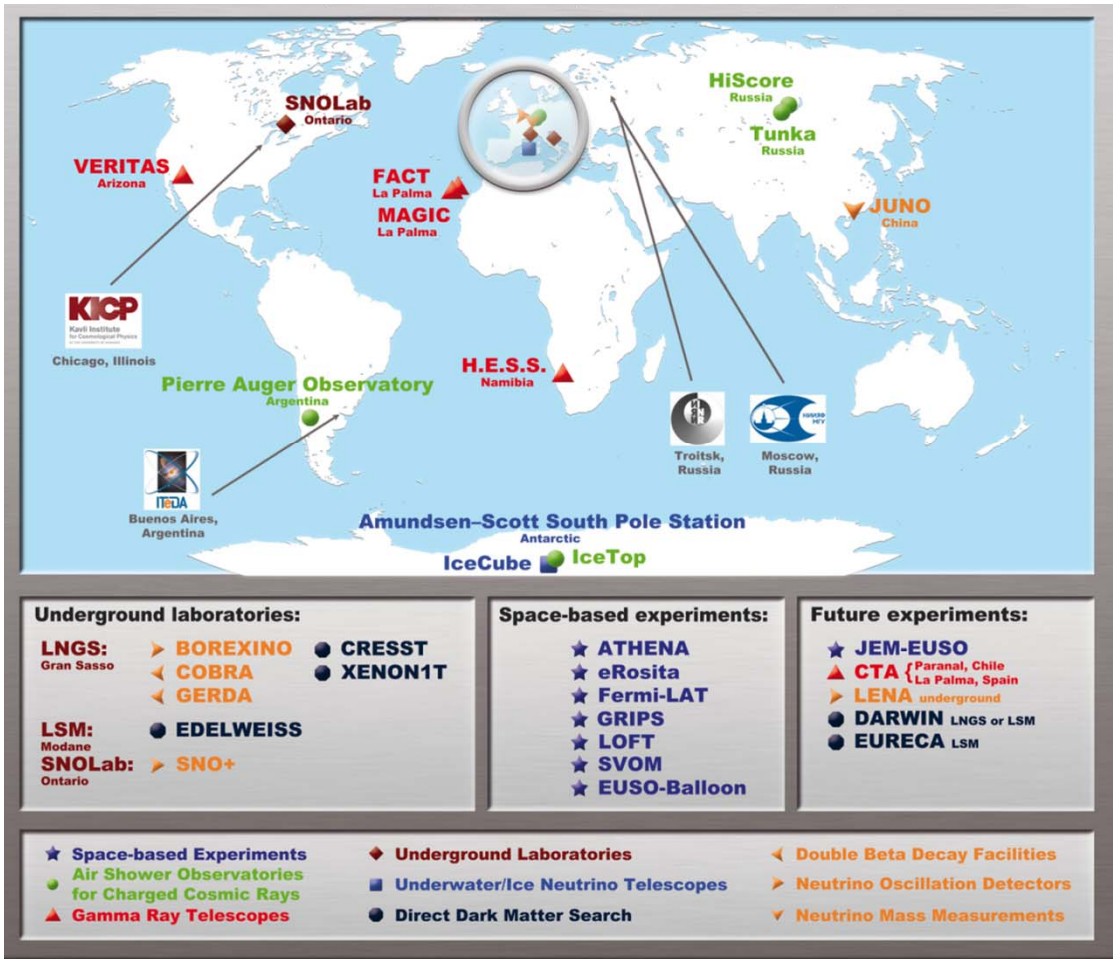


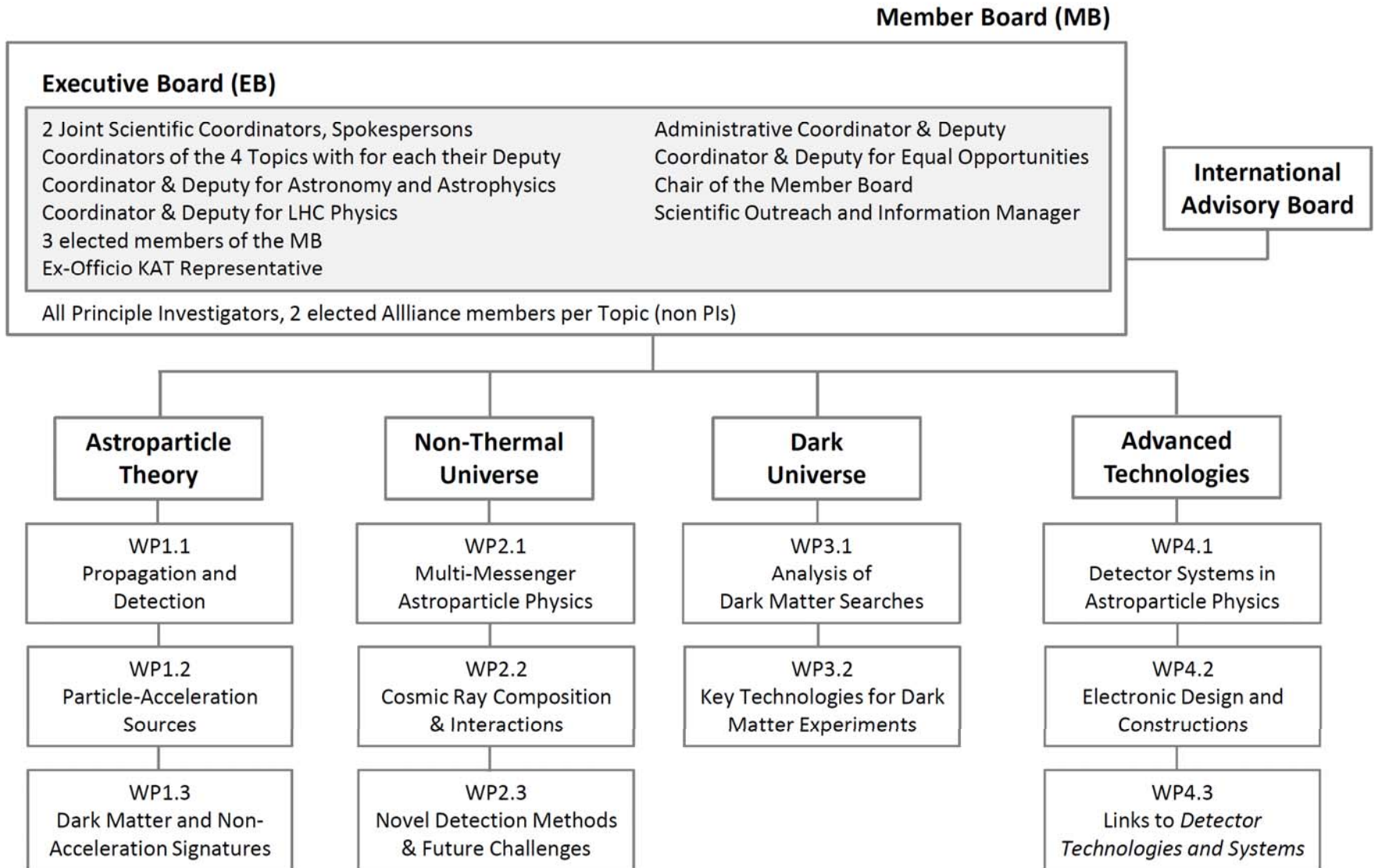
Partners in HAP

about 175 scientists and 150 PhD students

- in 2 Helmholtz Centres and 15 German universities
- And 10 national and international partner institutes

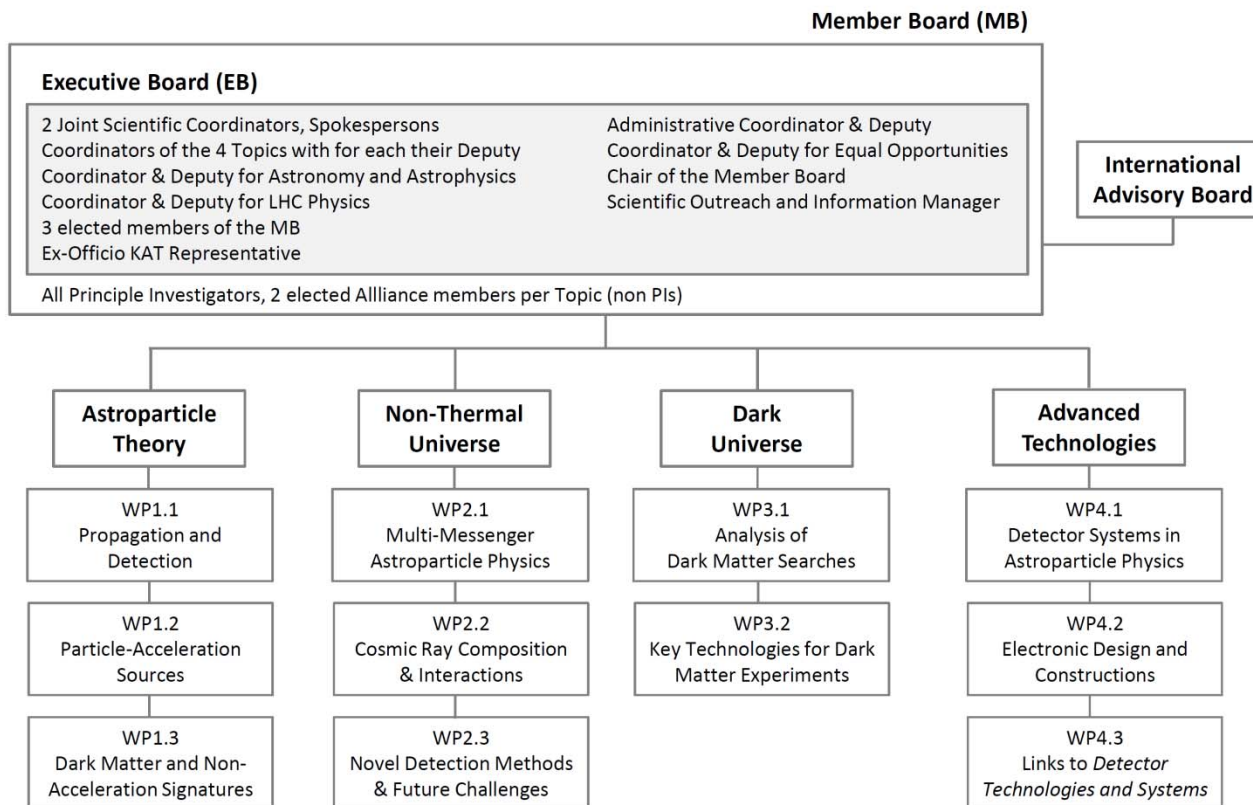


Organization Chart



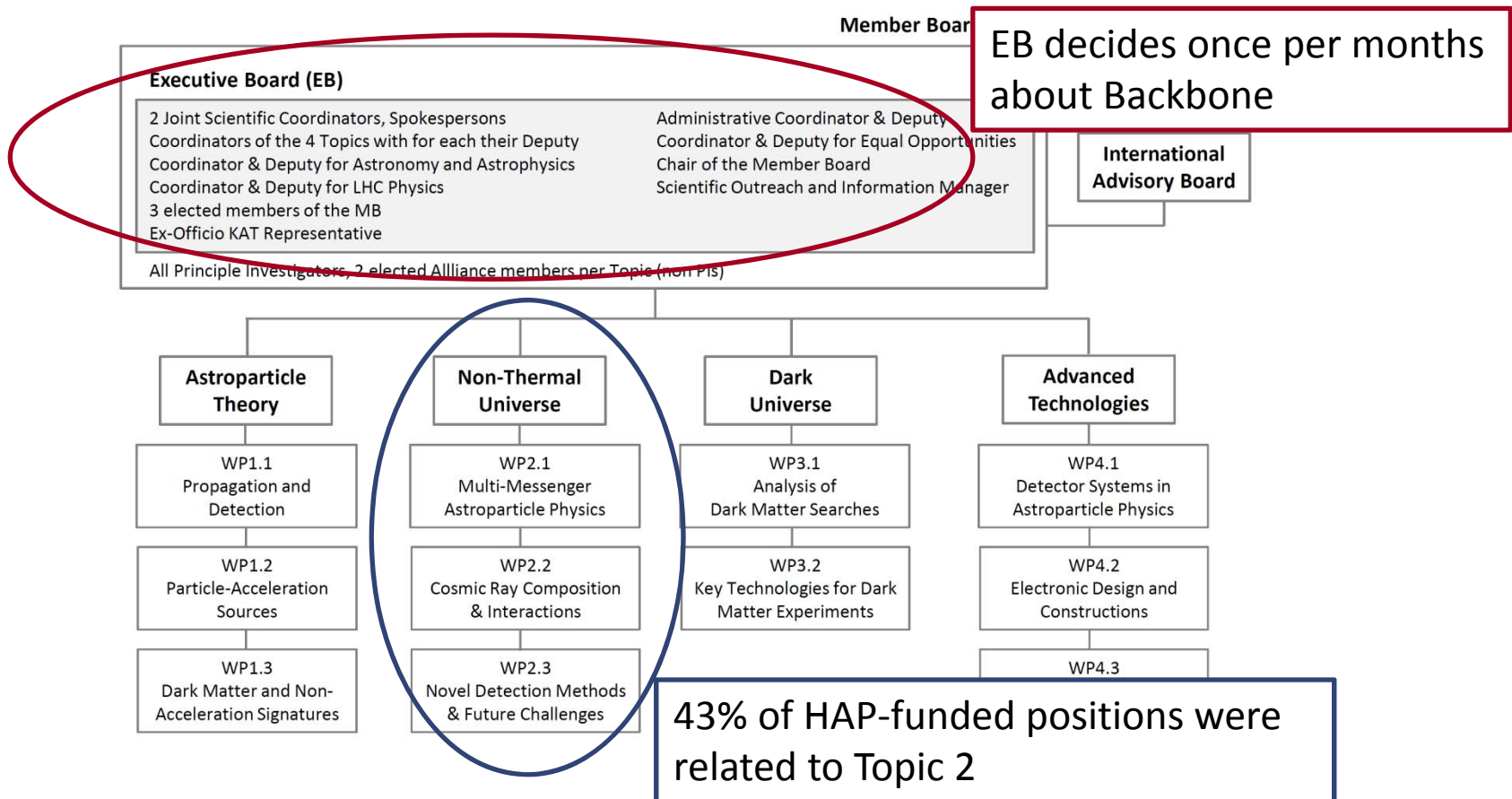
HAP Funding

- Almost 10 Mio. EUR for 5.5 years
- 10% for „Backbone“ activities
- Significant part of funding at the partner institutes are for PhD and Post-Doc positions



HAP Funding

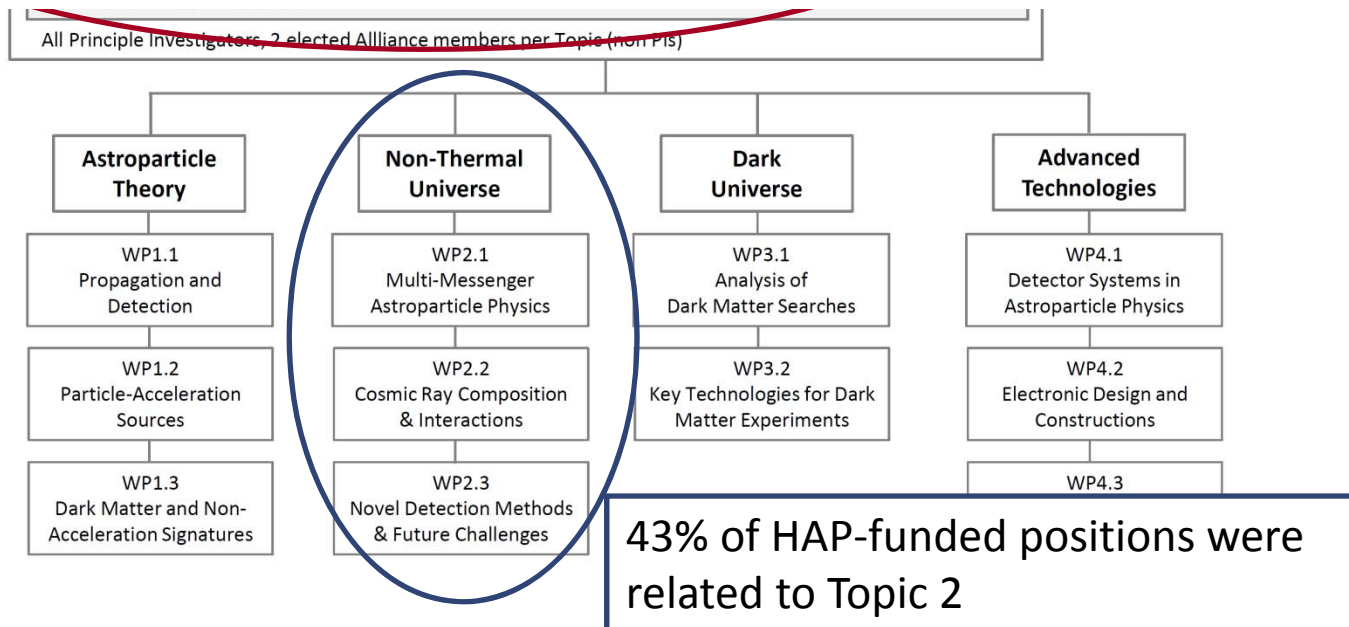
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<http://www.hap-astroparticle.org/hap-activities-young-scientists.php>



This is HAP

HAP General Meeting,
Sept. 2014



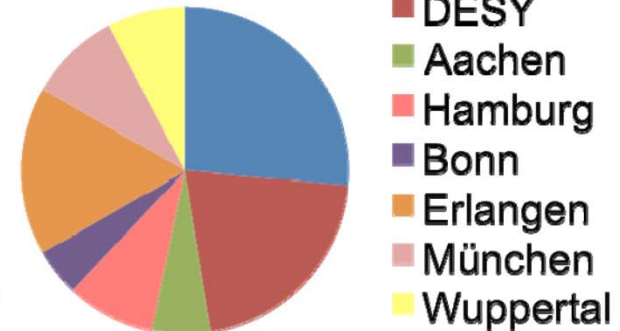
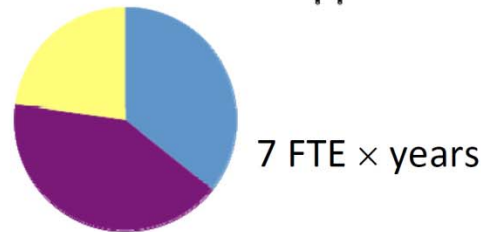
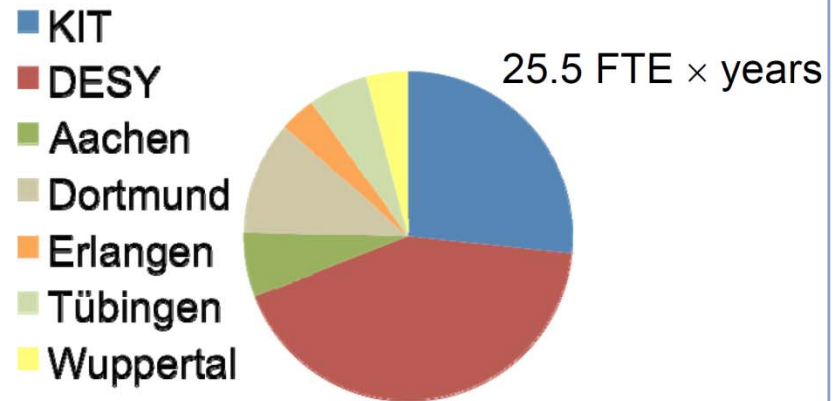
The Non-Thermal Universe in HAP

The work packages

- WP1:
Multimessenger APP

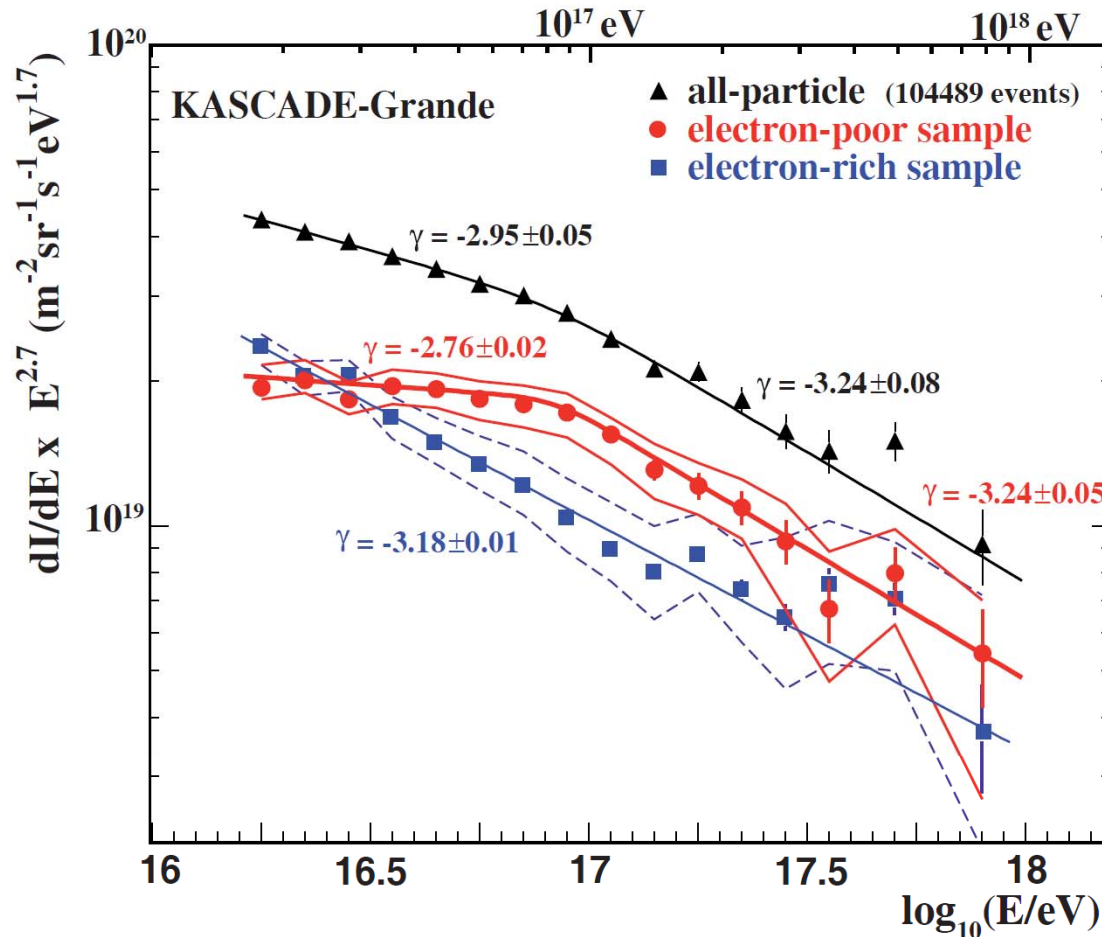
- WP2:
CR composition
and Interactions

- WP3: Novel
technologies and
future challenges



Slide from C. Spiering (Topic-Coord. 2011- 2015), HAP-MB meeting 2013

Some Highlights of „Non-Thermal Universe“



Result of composition analysis of the KASCADE-Grande experiment: A knee-like feature in the spectrum of heavy primary cosmic rays could be identified (PRL 107,171104 (2011)).

Some Highlights of „Non-Thermal Universe“

Blick ins turbulente All

Weltgrößtes Tscherenkow-Teleskop H.E.S.S. II offiziell eingeweiht

2. Oktober 2012

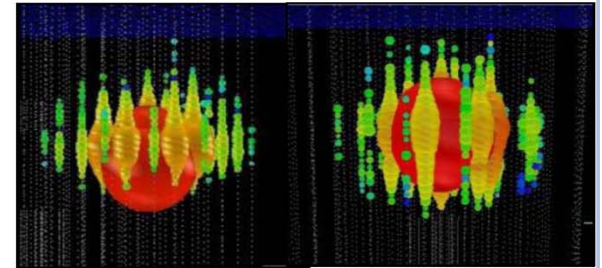


Some Highlights of „Non-Thermal Universe“

■ Very energetic extraterrestrial neutrinos in IceCube

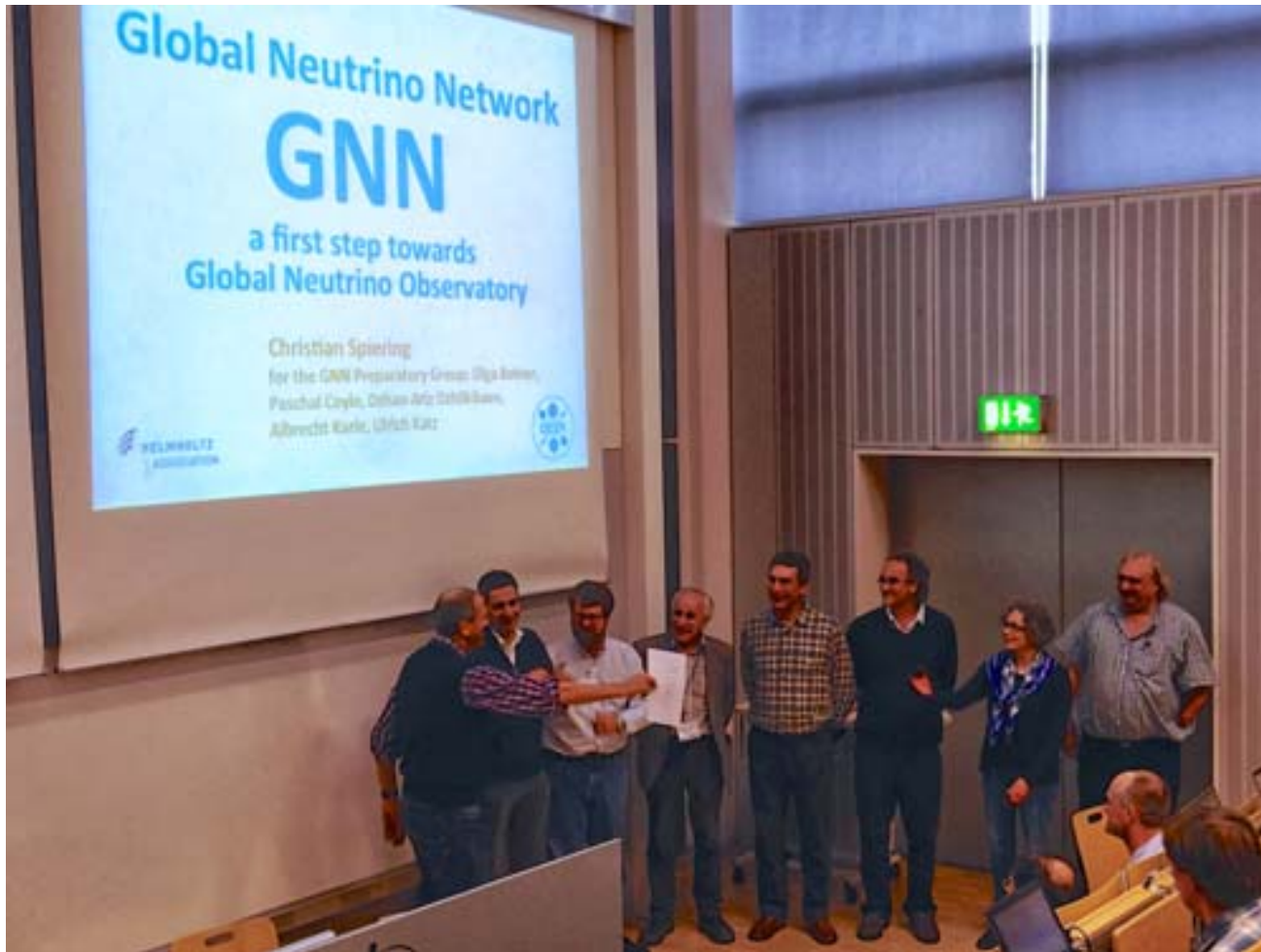
- Chiba: PeV 2010/11: Ernie and Bert → see arXiv
- DESY/Bonn: cascades 2008 → 2.2σ ,
- RWTH Aachen: muons 2007 → 2.1σ
- Madison: HESE analysis → see the rumors
- DESY/Bonn: cascades 2009: coming soon

- keep your fingers crossed!



Slide from C. Spiering (Topic-Coord. 2011- 2015), HAP-MB meeting 2013

Some Highlights of „Non-Thermal Universe“



HAP News 2013

Foundation of the GNN in Munich, October 2013

<http://www.globalneutrino.org/>

Some Highlights of „Non-Thermal Universe“

HAP News 2013

22.05.2013 - Prototyp für CTA-Gammateleskop startet Betrieb



Karl Eugen Huthmacher, Stefan Schlenstedt, Sabine Kunst, Christian Stegmann, Manel Martinez und Helmut Dosch (von links) nehmen den Prototypen per Knopfdruck in Betrieb.

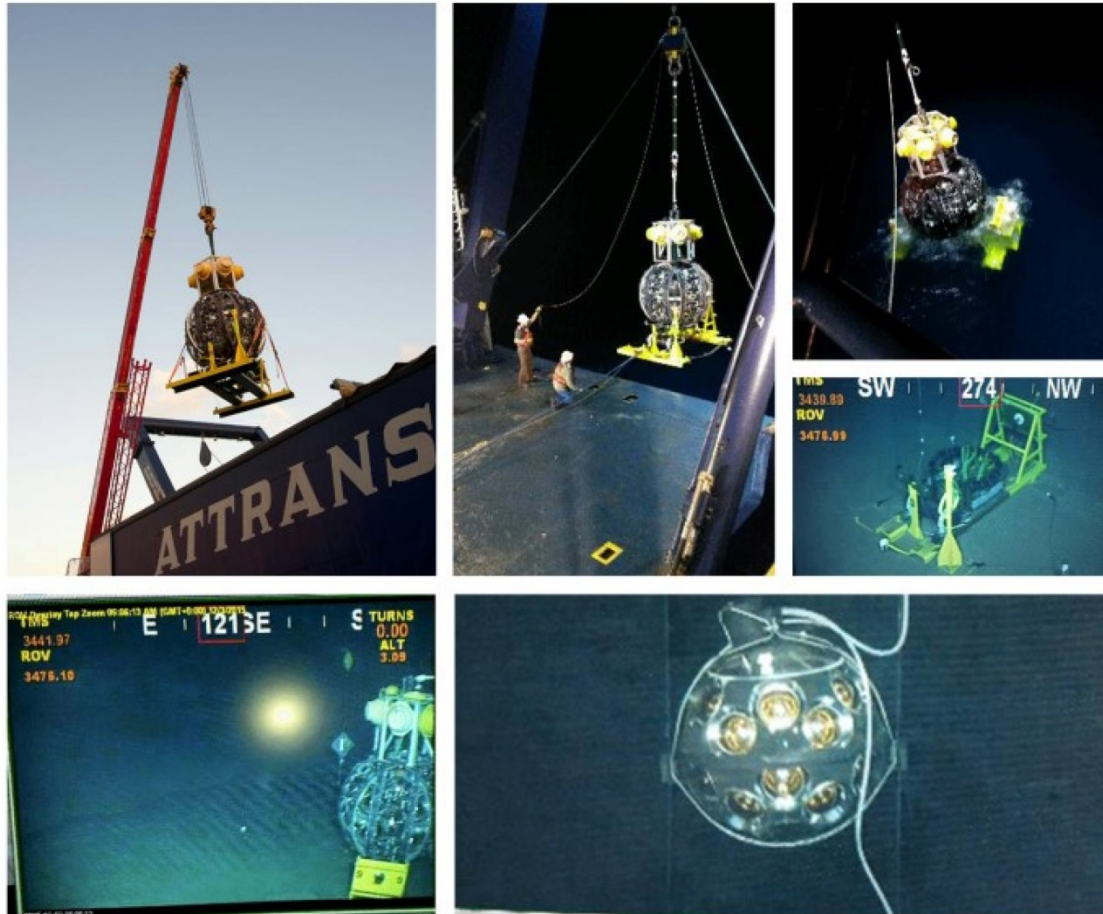
(Foto: DESY)



*Der CTA-Prototyp im Berliner Wissenschaftspark Adlershof.
(Foto: DESY)*

Some Highlights of „Non-Thermal Universe“

08.12.2015 - The construction of KM3NeT, the next generation neutrino telescope, has begun



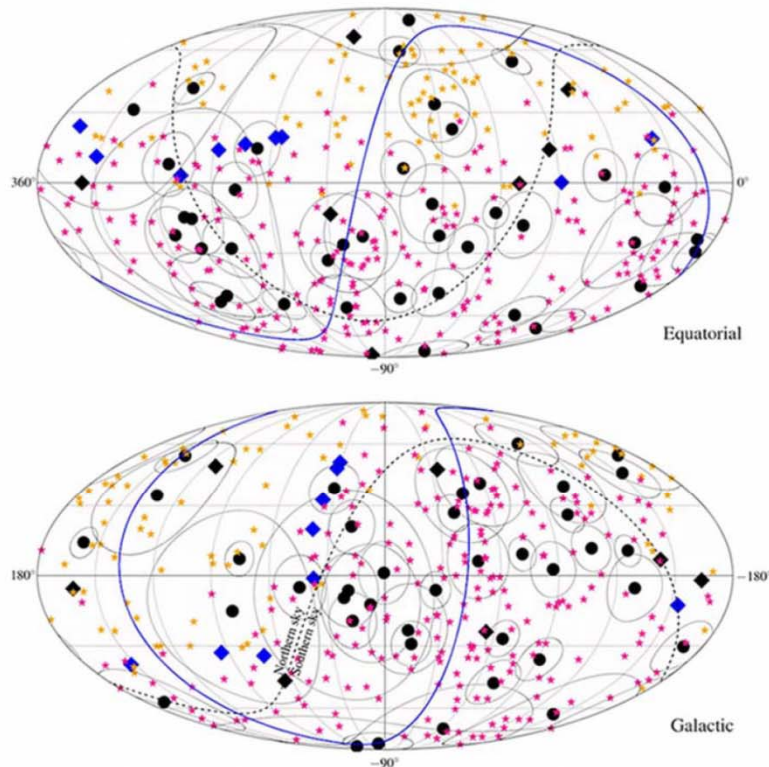
HAP News 2015

The neutrino detection string wound around the spherical deployment frame prior to deployment on board the boat to touch down of the deployment frame on the sea floor (underwater pictures: Display screens in control room).

(credit: KM3Net Collaboration)

Some Highlights of „Non-Thermal Universe“

02.12.2015 - A search for cosmic-ray sources with IceCube, the Pierre Auger Observatory, and the Telescope Array



HAP News 2015

Maps in Equatorial and Galactic coordinates showing the arrival directions of the IceCube cascades (black dots) and tracks (diamonds), as well as those of the UHECRs detected by the Pierre Auger Observatory (magenta stars) and Telescope Array (orange stars). The circles around the showers indicate angular errors. The black diamonds are the HESE tracks while the blue diamonds stand for the tracks from the through-going muon sample. The blue curve indicates the Super-Galactic plane.

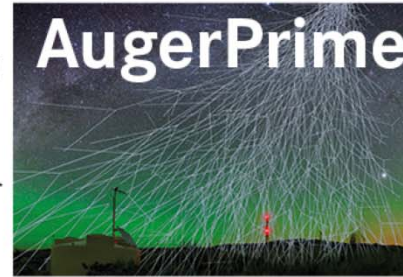
*Image: IceCube, Pierre Auger and Telescope Array Collaborations.
(credit: IceCube, Pierre Auger, TA collaborations)*

Some Highlights of „Non-Thermal Universe“

16.11.2015 - AugerPrime Symposium



PIERRE
AUGER
OBSERVATORY



HAP News 2015

**Celebrating 15 years of achievements and
signature ceremony of a new International Agreement for the next 10 years**



Some Highlights of „Non-Thermal Universe“

14.06.2016 - Wissenschaftliches Zentrum des CTA-Observatoriums kommt nach Deutschland



*Computer-Rendering des Gebäudes
für die CTA Headquarters in Bologna,
Italien*

(Quelle: Bologna University Project Office)



*Architekturentwurf des Gebäudes
für das wissenschaftliche Zentrum von CTA auf dem DESY-Campus
Zeuthen*

(Quelle:Dahm Architekten & Ingenieure, Berlin)

HAP News 2016

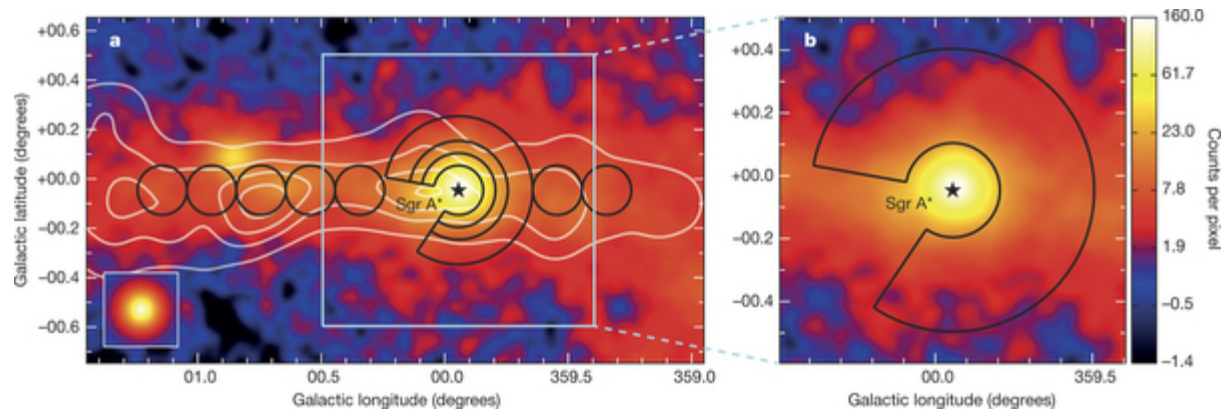
Some Highlights of „Non-Thermal Universe“

16.03.2016 - Forscher lokalisieren Teilchenbeschleuniger mit beispielloser Energie im Zentrum unserer Galaxie



*Blick ins All: H.E.S.S. (High Energy Stereoscopic System)
(Bild: HAP / A.Chantelauze)*

HAP News 2016



*Bilder der ultra-hoch-energetischen Gammastrahlung im galaktischen Zentrum.
(Bild: H.E.S.S. Collaboration)*

Highlights of our network

Workshops, Conferences, and Schools

- about 35 HAP workshops and conferences
- about 20 schools and events supported by HAP

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Some Statistics

- 35 % of the HAP workshops were related to Topic 2
- About 50 participants in average joined all and the Topic 2 workshops
- 112 kEUR were spent from HAP Backbone for HAP workshops
- 124 kEUR were spent from HAP Backbone for schools and „HAP-supported“ events
- 51 kEUR were spent from HAP Backbone for travel support of students

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iPROGRESS - Internship Program for Young Research Scientists

- scholarships for young researchers (master or PhD students) with our associated partner countries
- 13 students supported, read about their experiences at <http://www.hap-astroparticle.org/about-us/i-progress.php#iPROGRESS-participants>

Support of scientific exchange for the youngest to the seniors

- PhD travel support
- Guest visits
- HAP Senior Fellows

High

Workshops, Conferences, and



- PhD travel support
- Guest visits
- HAP Senior Fellows

2012

P. Biermann



H. Klages



E. Otten



2013

F. von Feilitzsch



G. Schatz



H. Völk



2014

E. Lorenz †



C. Spiering



2015

C. Grupen



H. Meyer



Highlights of our network

Equal Opportunities

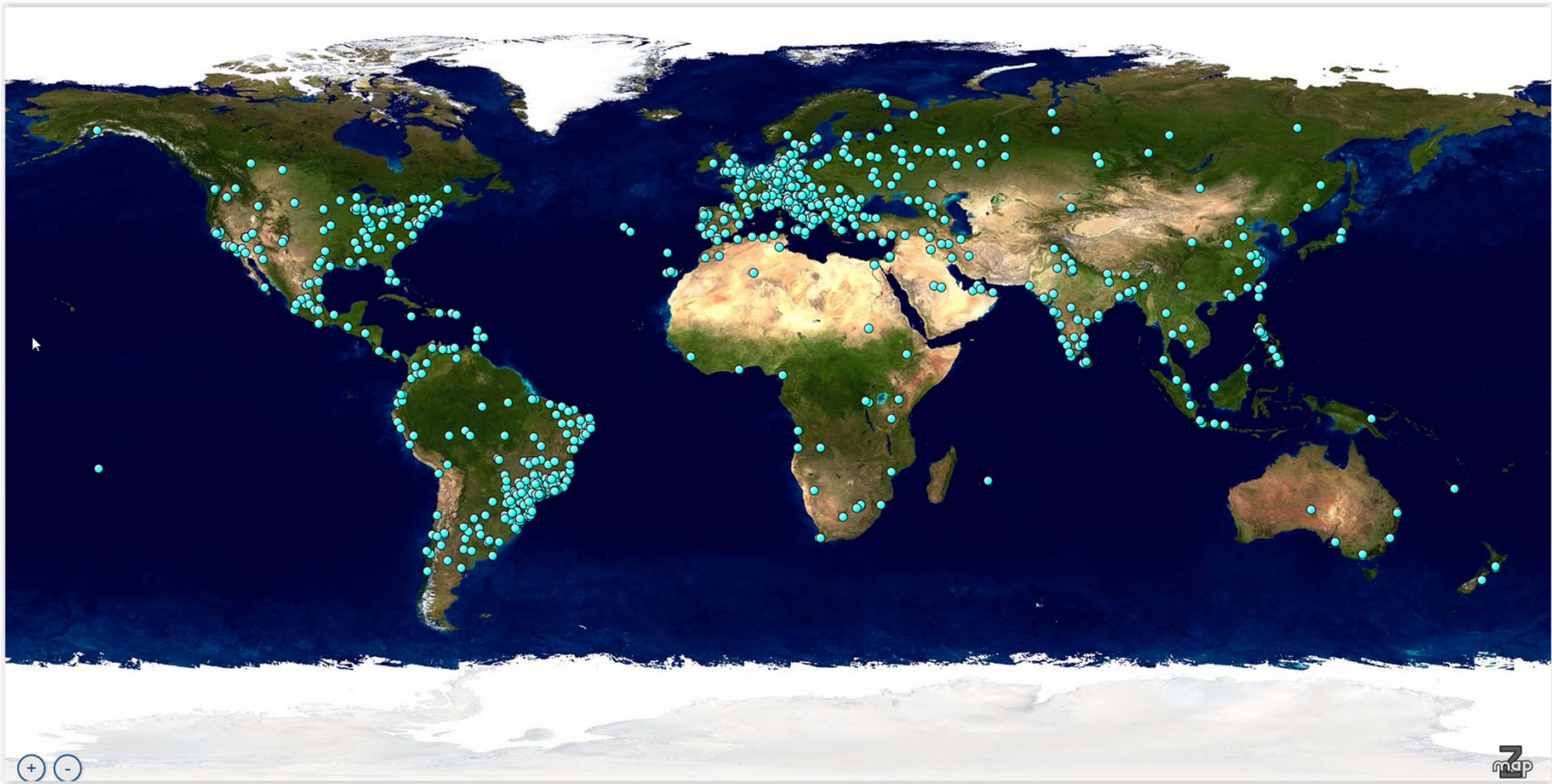
- strengthen all HAP-members while managing a balanced life between excellent science and happy family life
- mainly devoted for younger families
- supported 20 individual measures



Outreach

- presence in the web and social media
- weekly newsletter
- several local public events and fairs

Origin of visits on the HAP webpage



Origin of visits on the HAP webpage between Sept. 2014 – Sept. 2015.
More than 11 000 individual visitors since July 2012.

Ideas for the (near) future

- Preparation of a „glossy“ brochure
- HAP Symposium
- HAP-Scientific-Highlights Lecture Series
- Further HAP Workshops

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