

# The Office of Astronomy for Development: Why Astronomy must go global

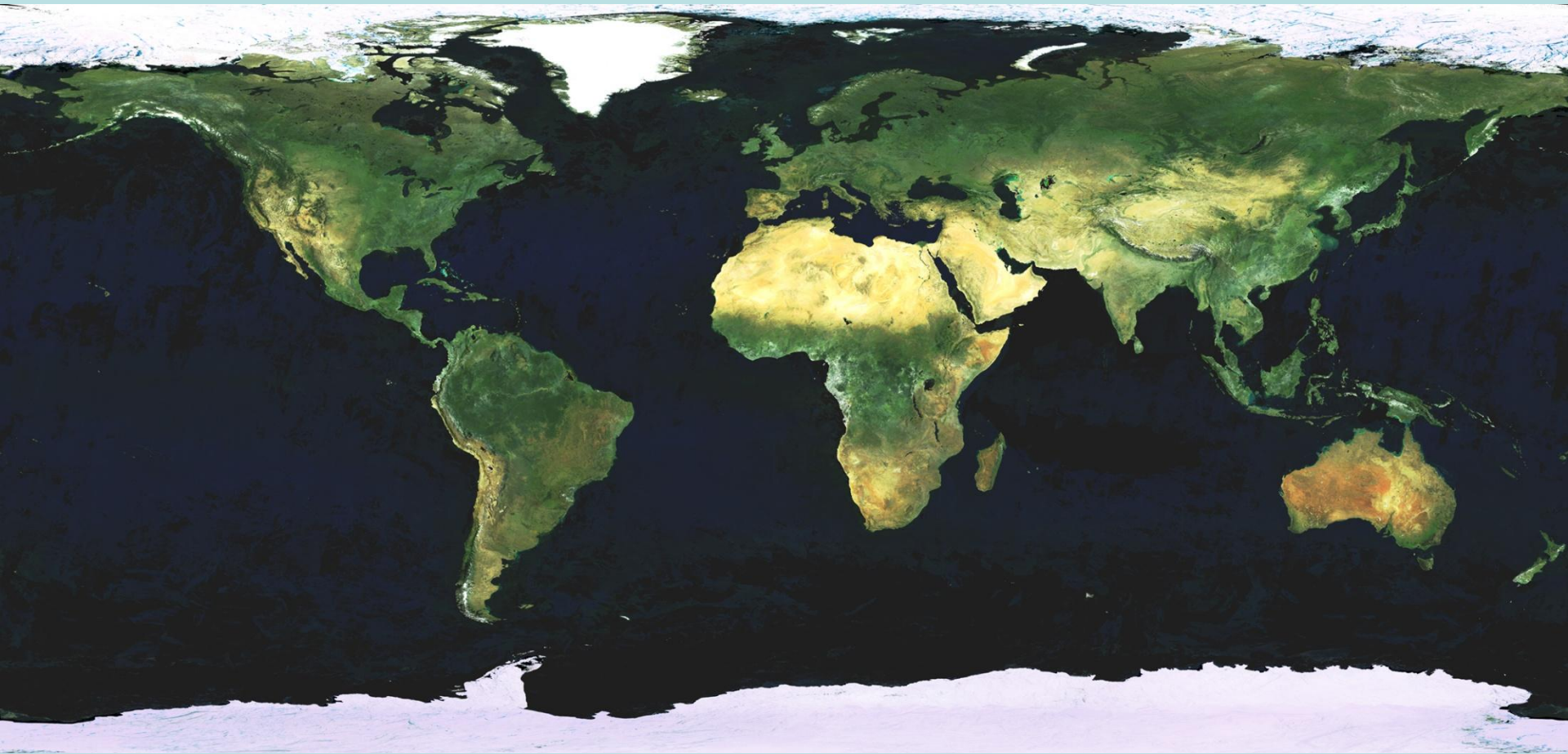
Heidelberg, 17. June 2013

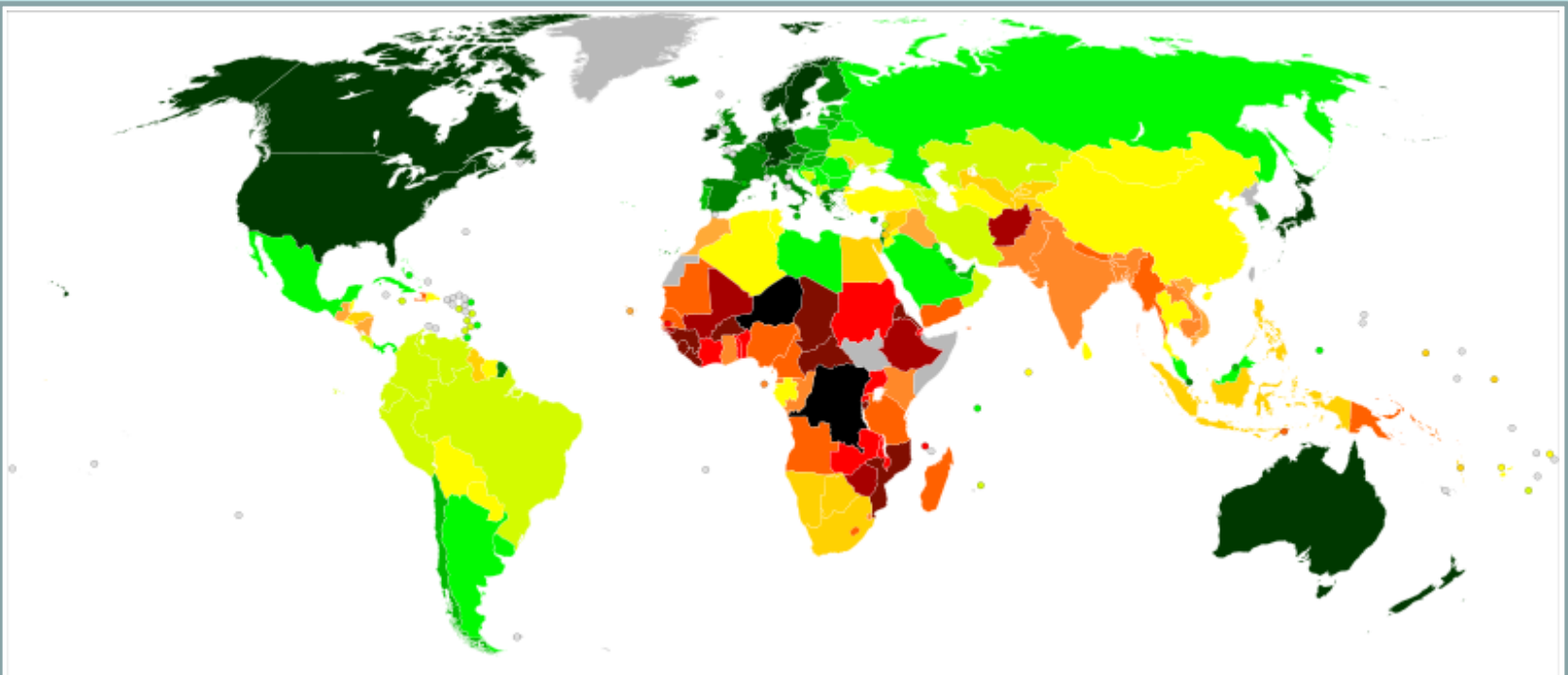
## International Astronomical Union Office of Astronomy for Development



Cecilia Scorza and Kevin Govender  
scorza@hda-hd.de ; kg@astro4dev.org;  
www.astro4dev.org

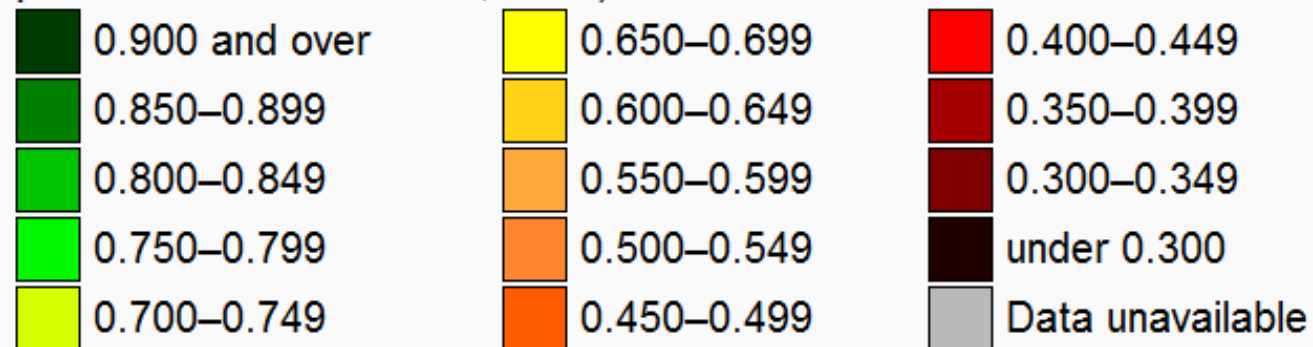


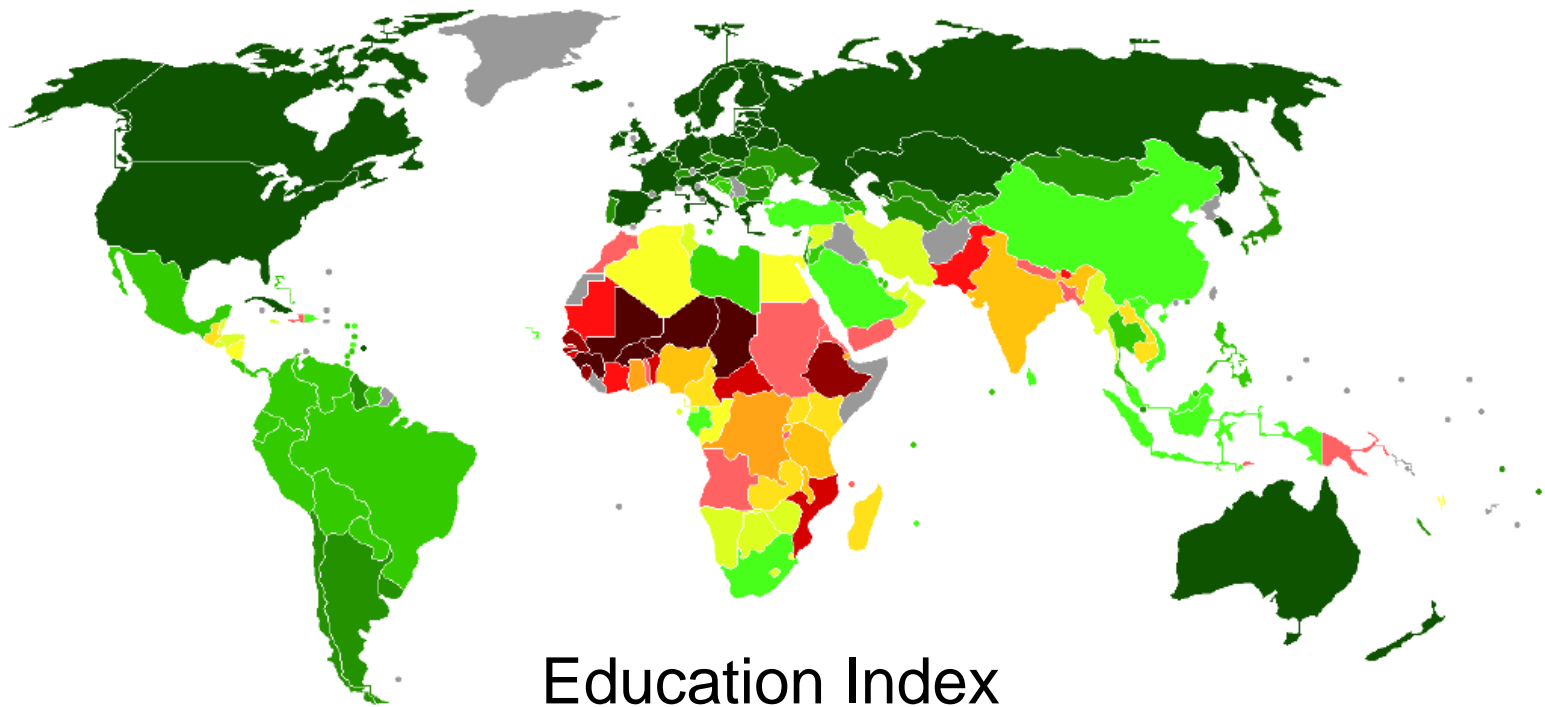




## Human Development Index

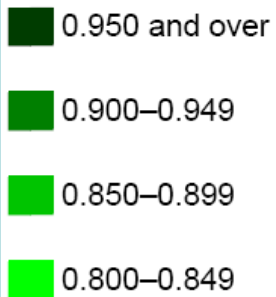
World map indicating the Human Development Index (based on 2010 data, published on November 4, 2010)<sup>[1]</sup>



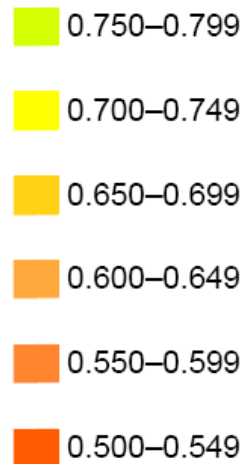


## Education Index 2007/2008

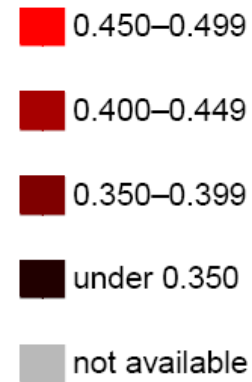
### High



### Medium

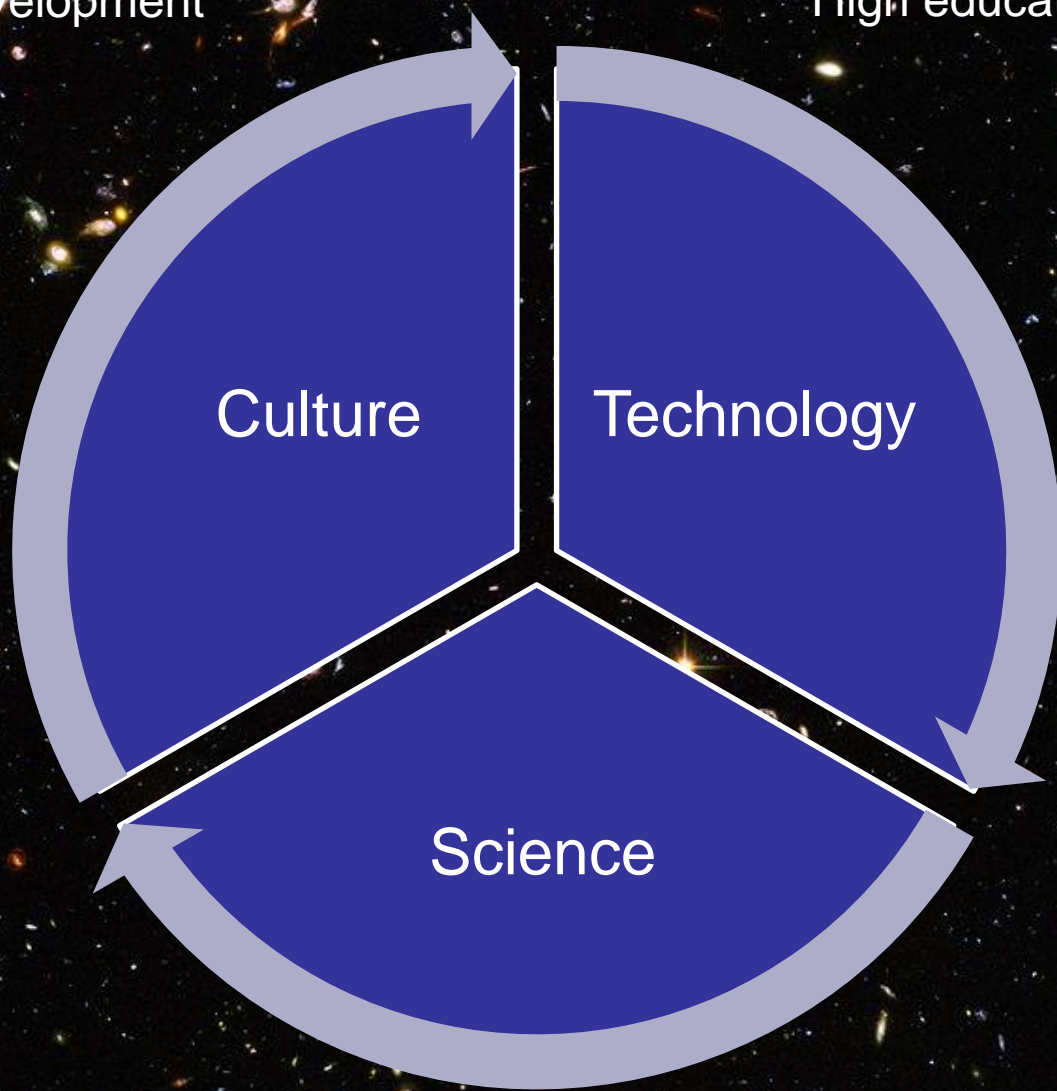


### Low



High development

High education



Culture

Technology

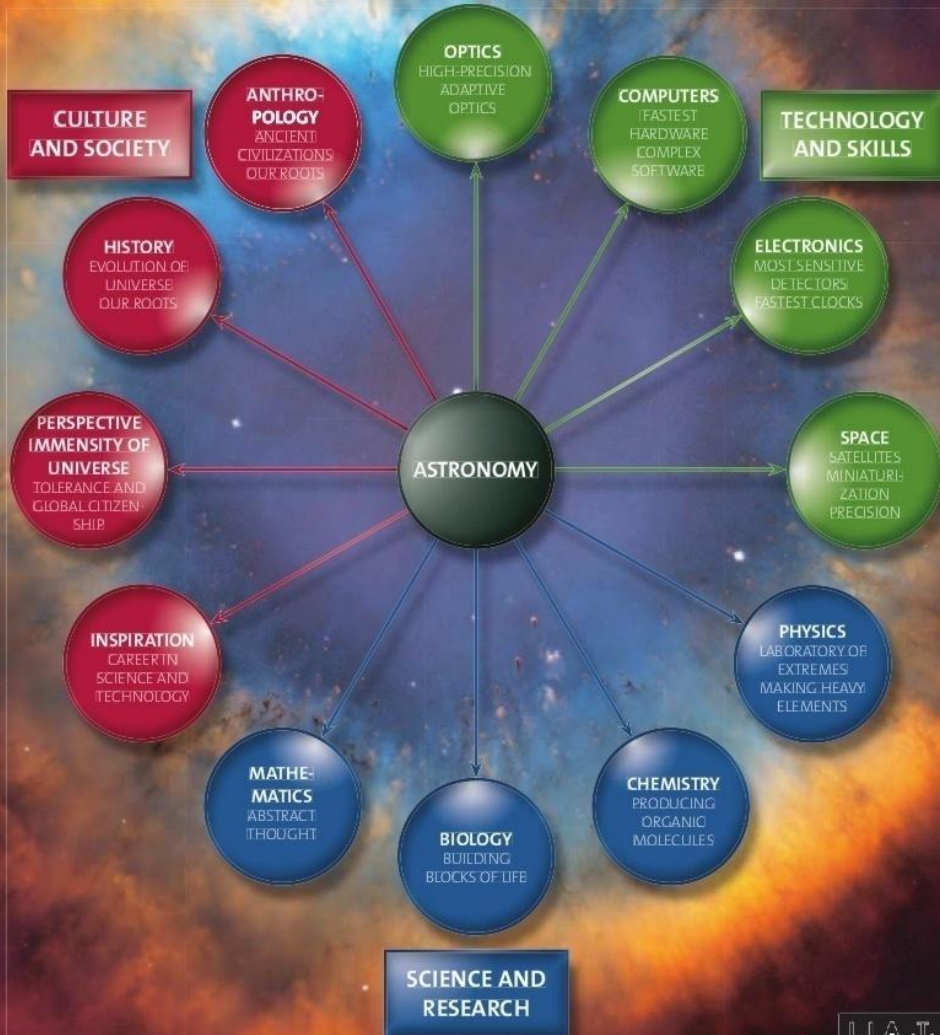
Science

# Astronomy for Development

Building from the IYA2009

## Strategic Plan 2010–2020

with 2012 update on implementation



“Exploring the Universe for the benefit of humankind”



Prof. George Miley

Yes, we are convinced!



India



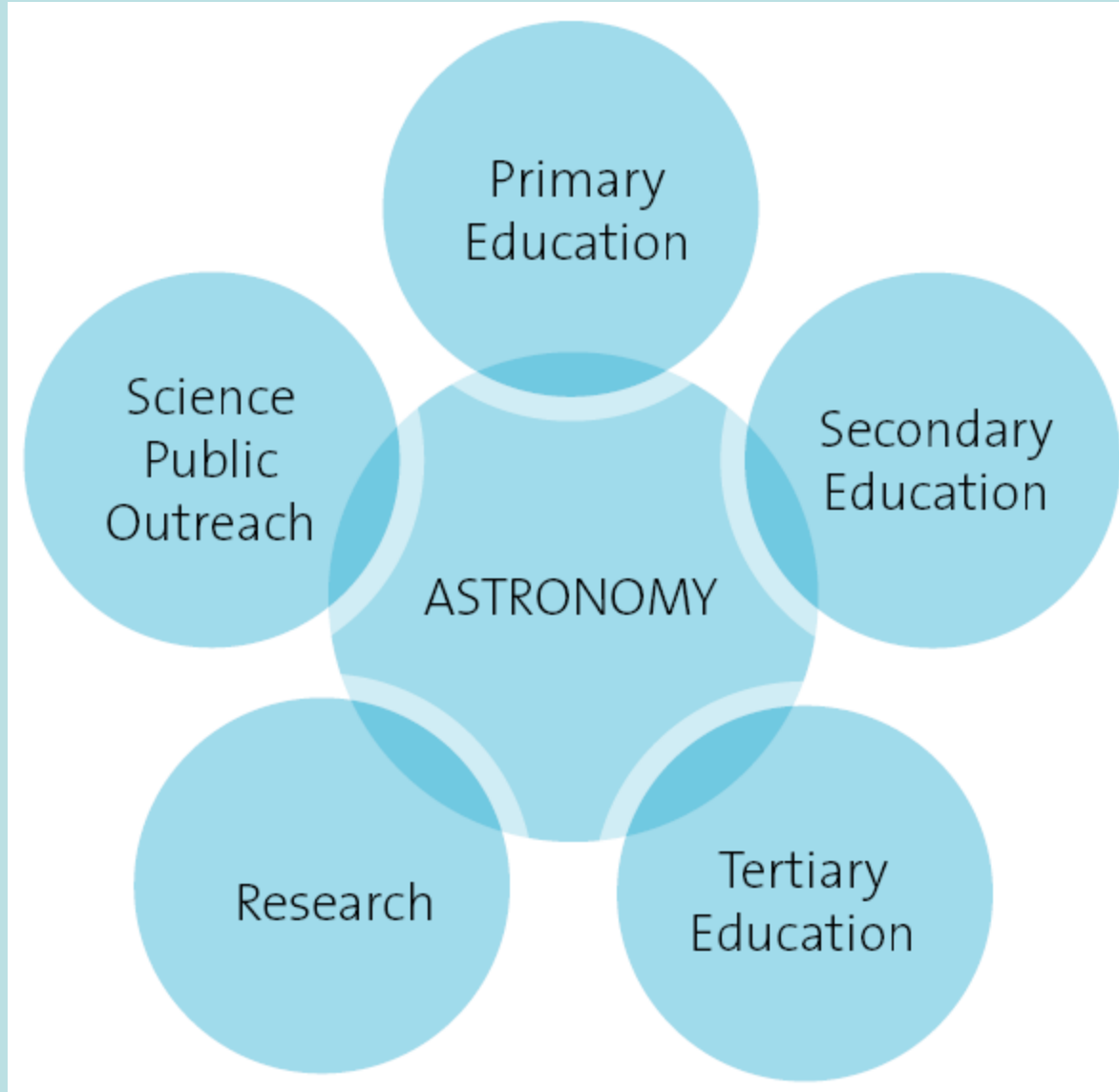
South Africa



Af



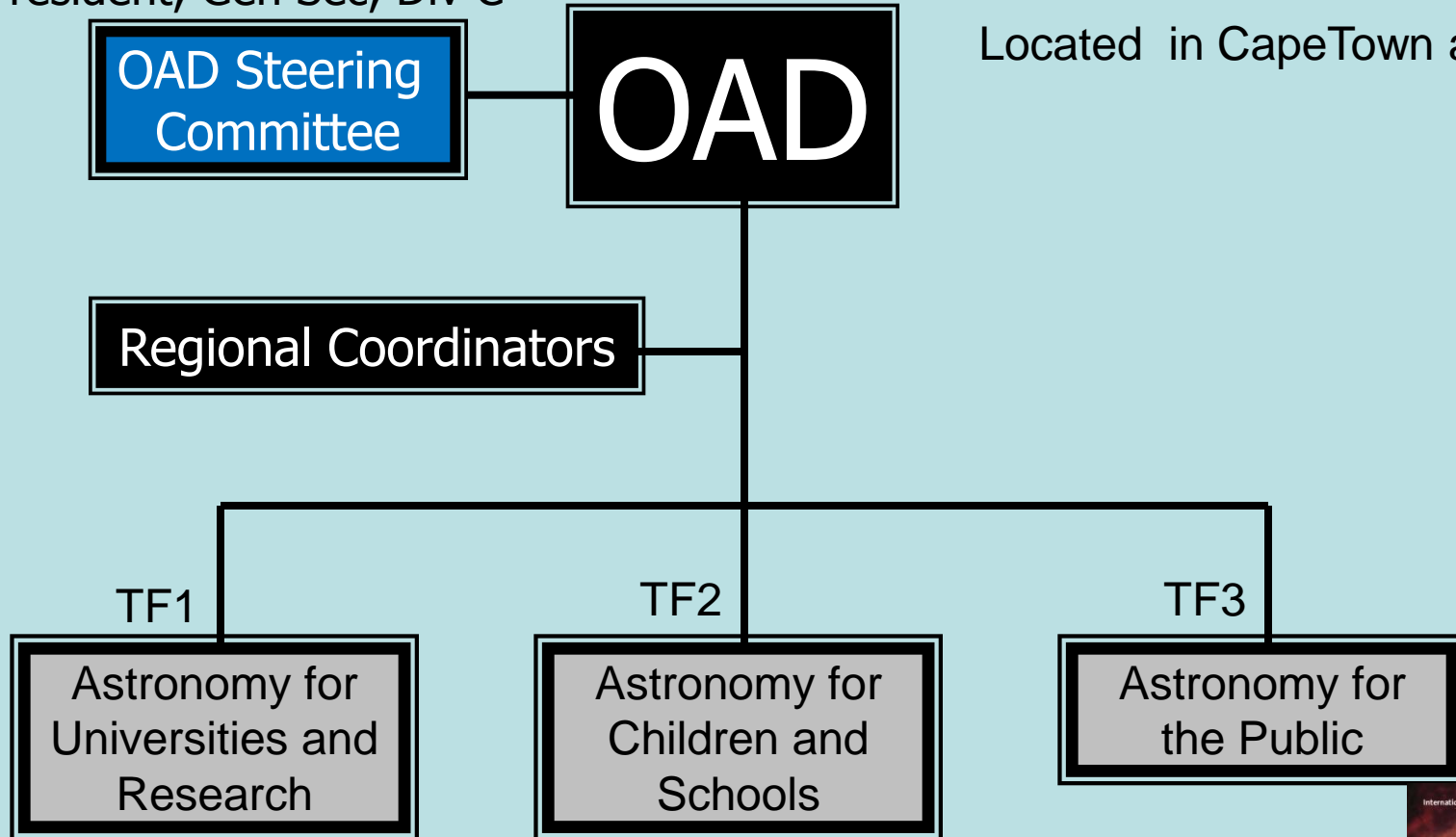
# Elements of Astronomy for Development...



# The IAU Office of Astronomy for Development

IAU President, Gen Sec, Div C

Located in CapeTown at SAAO



***“Astronomy for a better world!”***



# The Roles of the OAD

- **Implementation of the Strategic Plan**
- **Strategic advice**
- **Coordination and Facilitation**
- **Funding and Infrastructure**
- **Implementation of special projects**



# The OAD team



**Director**  
Kevin Govender



**Project Officer**  
J-C Mauduit

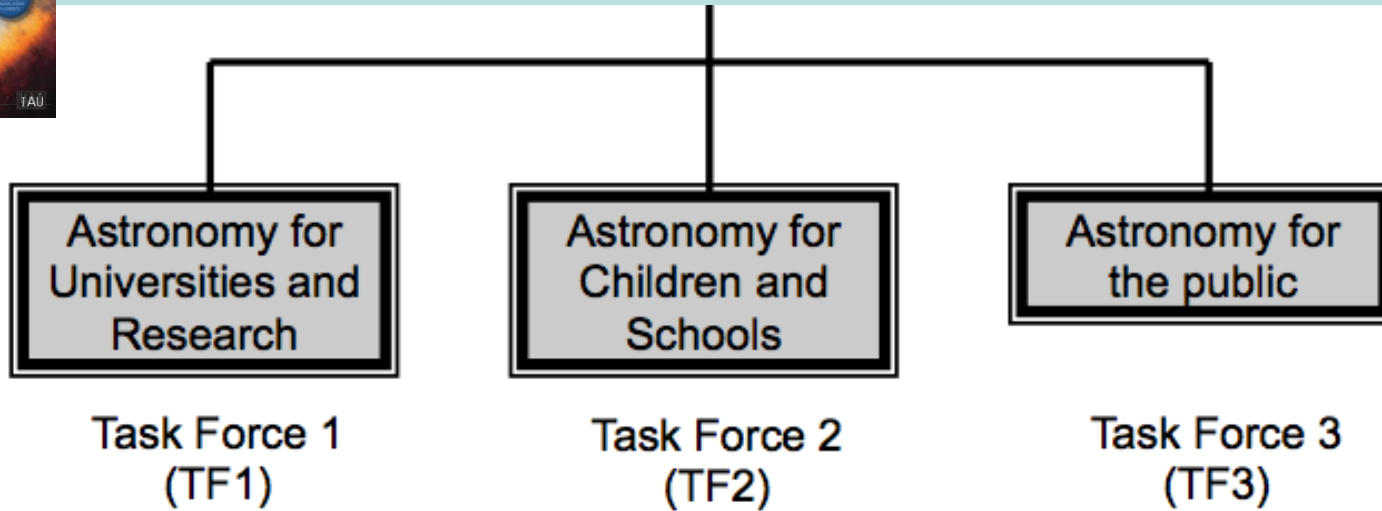


**Administration**  
Nuhaah Solomon





# OAD Task Forces



Jean-Pierre de Grève (Belgium)  
Richard de Grijs (China)  
Michèle Gerbaldi (France)  
**Edward Guinan (USA – Chair)**  
Roger Hajjar (Lebanon)  
Edward Jurua (Uganda)  
**Katrien Kolenberg (USA - VC)**  
Hakim Malasan (Indonesia)  
Shengbang Qian (China)  
Nicole van der Bliik (Chile)

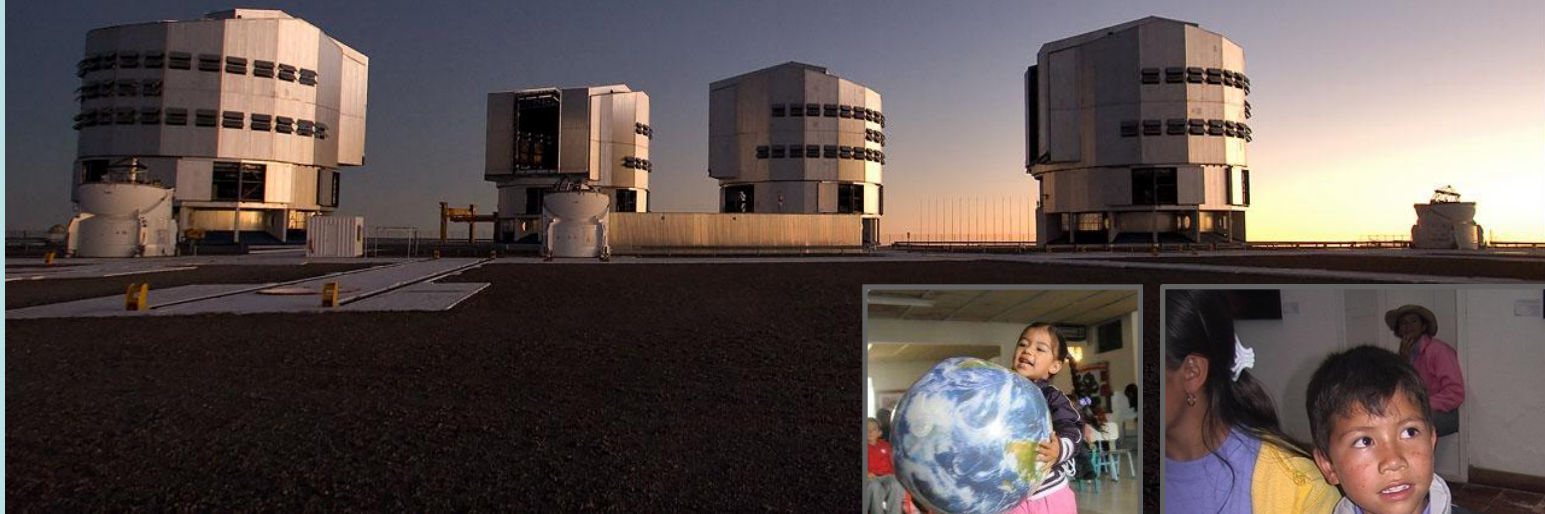
Rosa Doran (Portugal)  
**Edward Gomez (LCOGT, Cardiff - VC)**  
Mary Kay Hemmenway (USA)  
Robert Hollow (Australia)  
Ofodum Chukwujekwu Nworah (Nigeria)  
Rosa Maria Ros (Spain)  
**Pedro Russo (Leiden/UNAWA, Chair)**  
Cecilia Scorza (Venezuela/Germany)  
Linda Strubbe (Canada)  
Akihiko Tomita (Japan)

Thilina Heenatigala (Sri Lanka)  
Sarah Kendrew (EU - New Media)  
Lars Lindberg Christensen (Germany, IAU C55)  
**Carolina Ödman (South Africa – VC)**  
German Puerta (Colombia)  
*Sarah Reed (Japan/UK)*  
**Ian Robson (UK - Chair)**  
Komiko Usida (Japan)

# Volunteers (~450) worldwide...

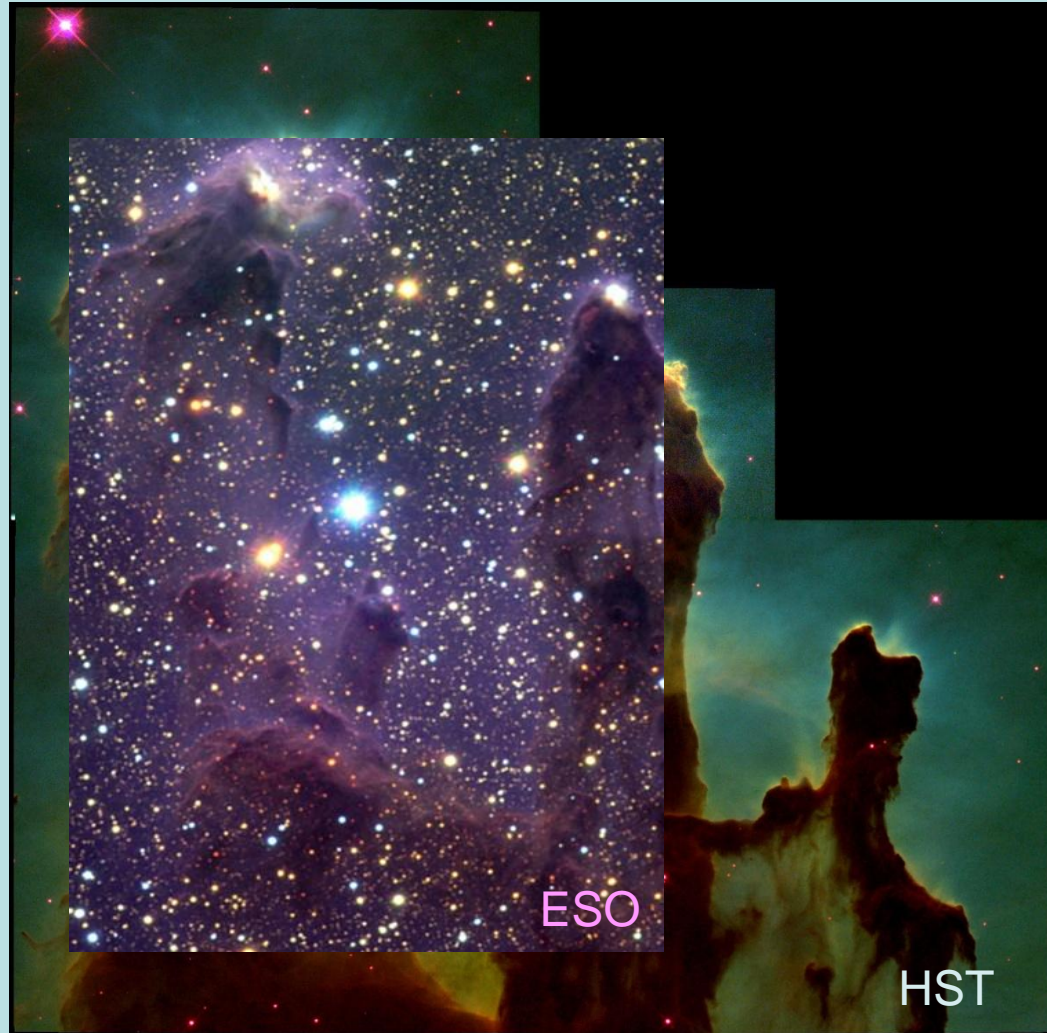
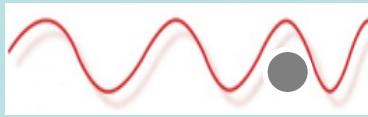


# Education for development under the skies of Chile



Cecilia Scorza (OAD) and Olaf Fischer (WIS)  
Heidelberg University and House of Astronomy

# How does infrared astronomy work?





# The infrared kit



# Chile: Astronomy for the schools / Network of 240 teachers

January 2013

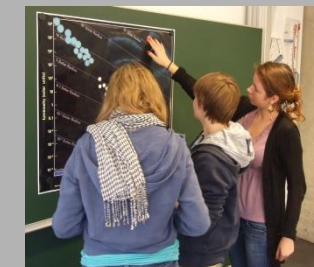


8 teacher trainings (new materials)

Observations with VISTA (ESO)



The Milky Way





# Other interns & their projects

Laure Catala



*Evaluating the impact of different outreach and education programs*

*Developing an undergraduate astronomy course for historically black universities.*

Eli Kasai



*Working on developing resources based on the Khan Academy project.*

*He is also helping TF2 with the AstroPack, a set of astronomical resources that can be distributed globally*

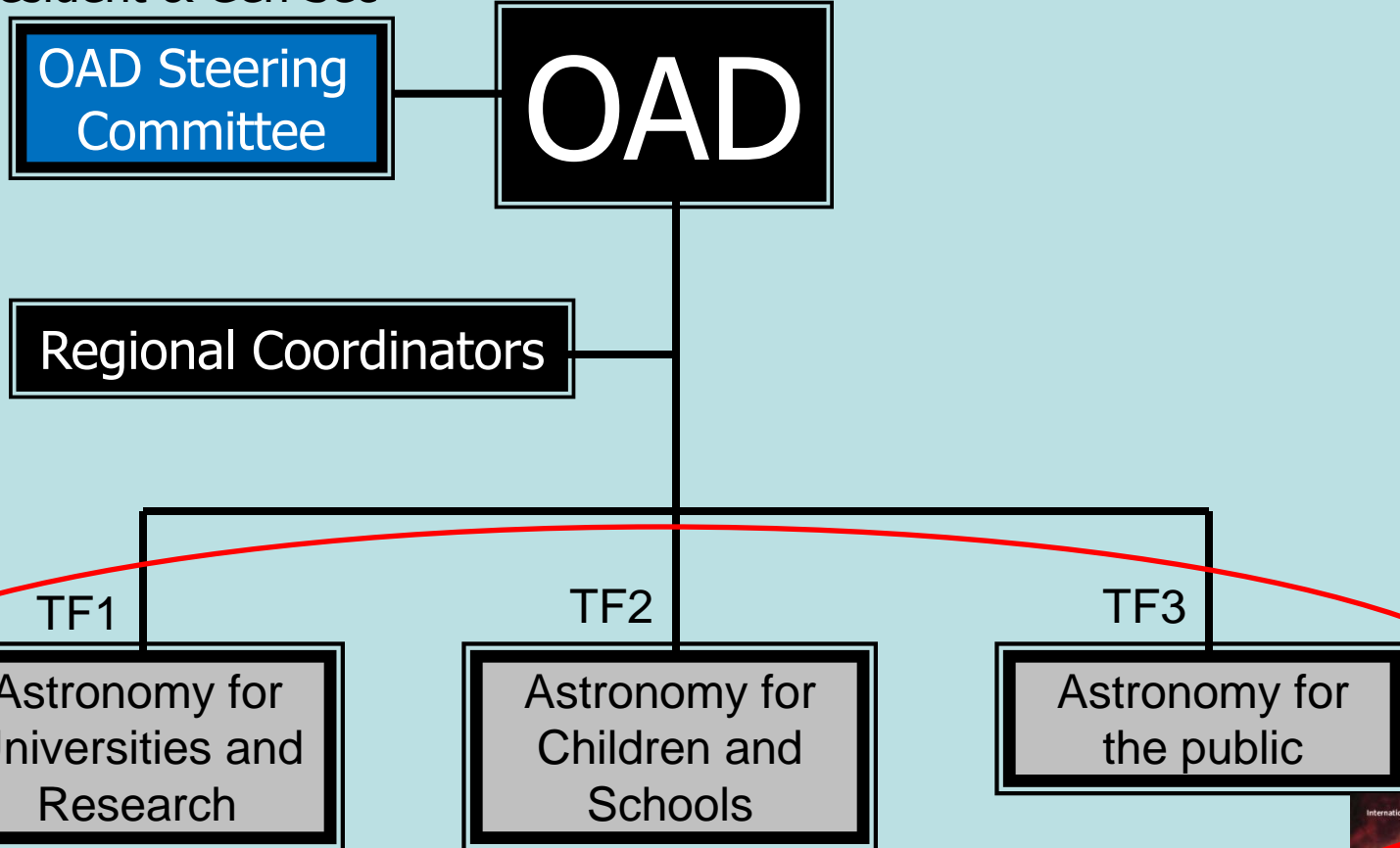
Rajin Ramphul



*Evaluating the skills of astronomical programming to solve problems in other scientific fields*

# The IAU Office of Astronomy for Development

IAU President & Gen Sec



***Call for proposals***



# Task Force Calls for Proposals

- **Call went live on 10<sup>th</sup> August 2012**
- **Translation support offered**
- **€80000 available for Task Force recommendations**
- **Projects recommended but not funded go onto “wish list”**
- **OAD allocates IAU funds by December 2012**
- **Projects implemented in 2013**
- **Each Task Force has similar (but separate) call...**



# OAD Annual Call for Proposals

## Response:

Astronomy for  
Universities and  
Research

e.g. University twinning,  
summer schools,  
equipment grants, etc

42 applications  
€ 752 959 requested

Astronomy for  
Children and  
Schools

e.g. Teacher training,  
resource development,  
curriculum research

94 applications  
€ 772 079 requested

Astronomy for  
the public

e.g. Journalist training,  
citizen science,  
astro-tourism

53 applications  
€ 310 782 requested

Total Requested:  
€1 835 820

After evaluations:  
€ 968 940 on wish list





# Task Force 1: Universities and Research

#	Title	Country
1	National Workshop on Astronomy & Astrophysics (NWAA2013), Kathmandu, Nepal	Nepal
2	Starlight in the university lab	Nigeria, Zambia
3	Astronomy lectures for university students and teachers in Accra, Ghana	Ghana
4	MENA Regional Summer School: "Astronomy with Small Telescopes"	Lebanon
5	Strengthening Astronomy Research at University in Rwanda (Phase 1)	Rwanda
6	Guatemalan School of Astrophysics	Guatemala
7	(Re-)integration of DPRK astronomers in the international research community	DPRK, China



# Task Force 2: Children and Schools

#	Title	Country
1	An astronomical kit for the visually impaired	Spain, several
2	Mathare Ambassadors of Astronomy	Kenya
3	Galileo Teacher Training Program (GTTP)	Nepal
4	NASE Africa	Several
5	Astronomical measurements in Ancient Greece	Greece





# Task Force 3: Public

#	Title	Country
1	Astronomy for Extremely ill or Traumatically Injured Children and Their Families	US, model for others
2	Astronomía Periférica (Peripheral Astronomy)	Colombia
3	Chinese Ancient Poetry Astrophotography	China
4	Coordinating Astronomy for Public Outreach in Viet Nam: Bringing Astronomy to Remote Areas	Vietnam
5	Limpopo Astronomy Public Outreach (LAPO)	South Africa
6	Dark Skies Outreach to Sub-Saharan Africa	Several in Africa



# OAD-funded projects: overview



Astronomy for Universities and Research



Astronomy for Children and Schools



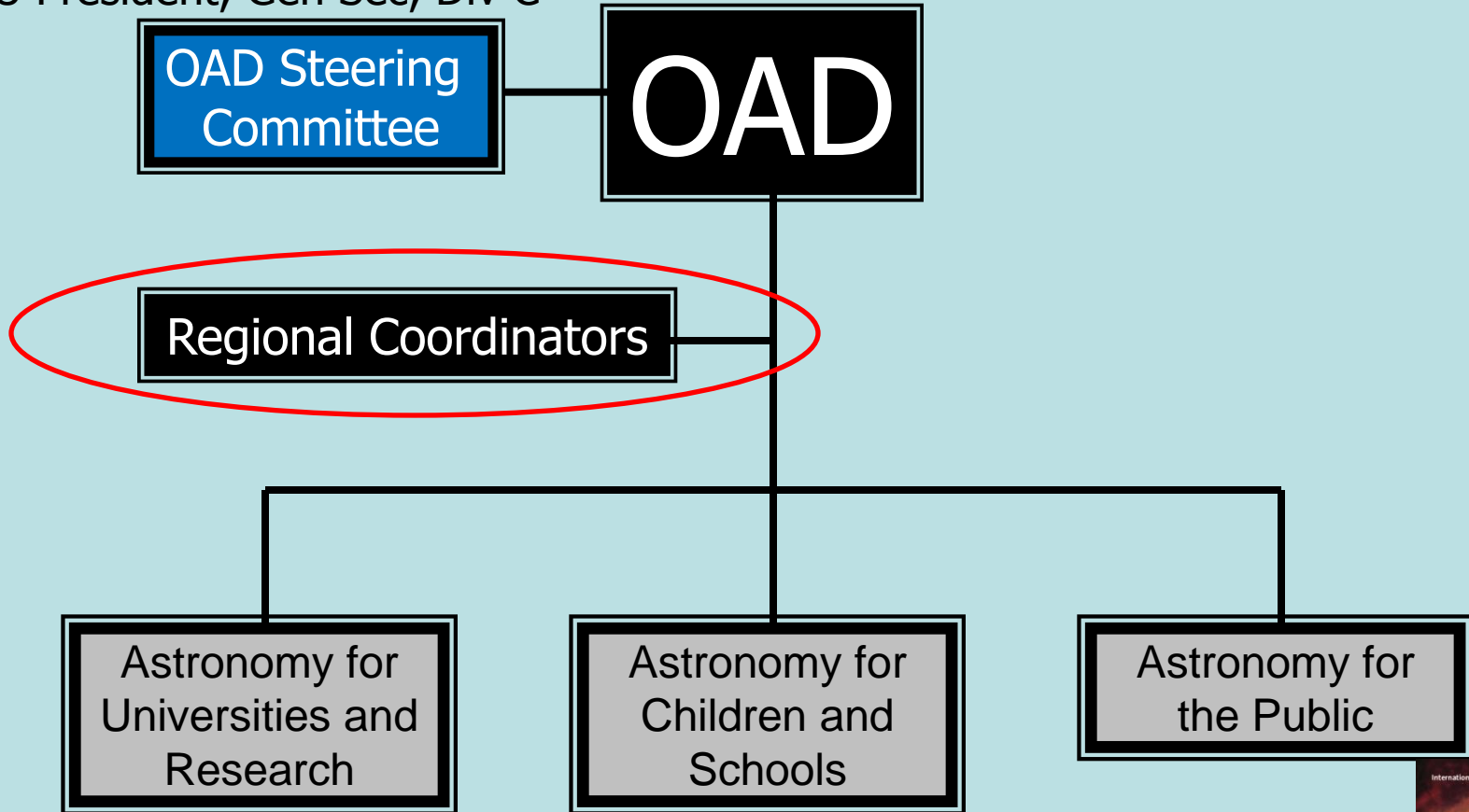
Astronomy for the public



[www.astro4dev.org/funded-projects/](http://www.astro4dev.org/funded-projects/)

# The IAU Office of Astronomy for Development

IAU President, Gen Sec, Div C



***“Astronomy for a better world!”***



# OAD Regional Nodes

- **Announcement of Opportunity (January 2012)**
- **Language Expertise Centres included**
- **31 Expressions of Interest**
- **15 Full proposals**
- **2 Selected**
- **Iterations on proposals**
- **Revised proposals Feb 2013**



# OAD Regional Nodes



Colombia,  
Andean Partners

Armenia,  
BAO

Nigeria,  
CBSS

Ethiopia, ESSS

South East Asia,  
Thailand

East Asia,  
China

**OAD**

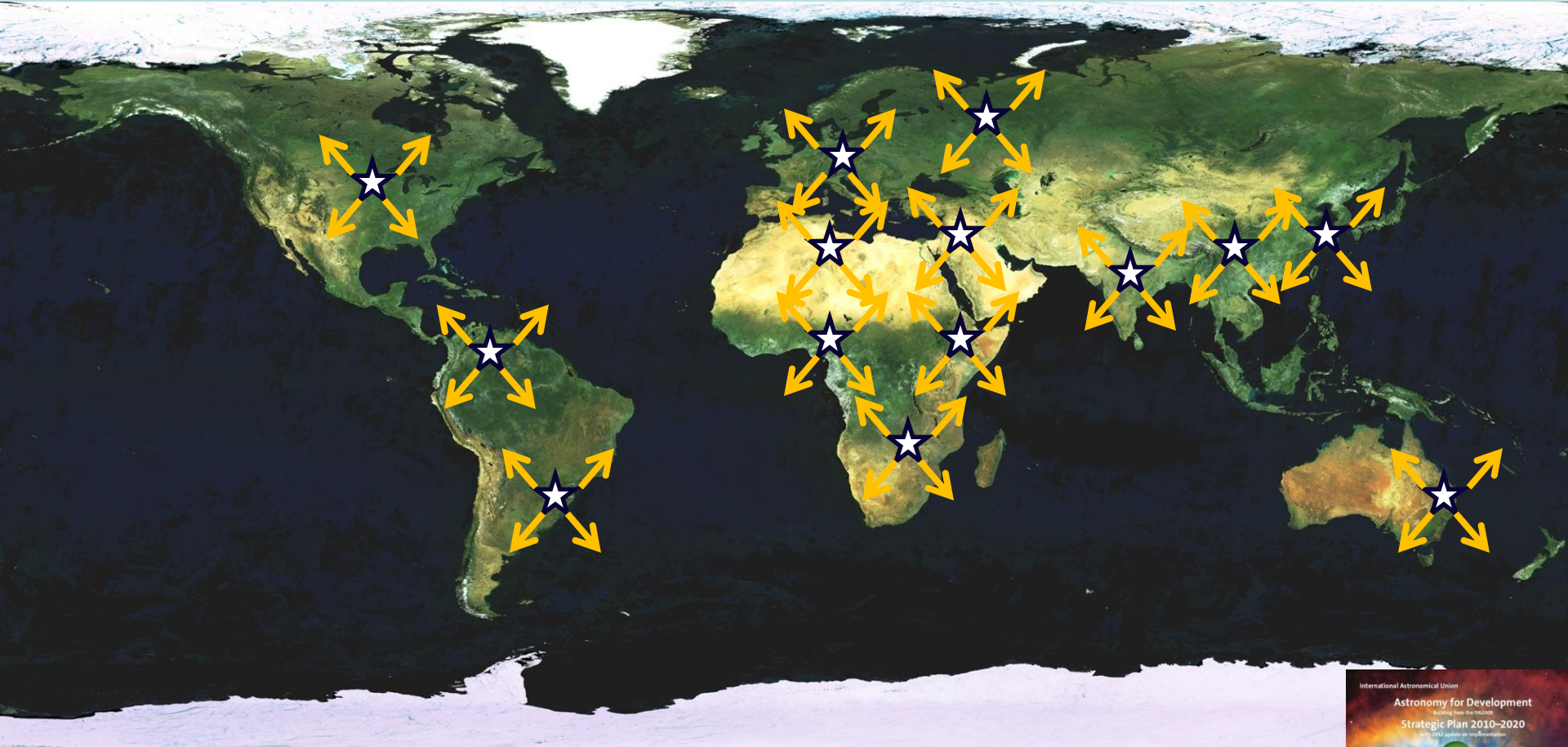
Global Office,  
South Africa



# Supporting the creation of the Regional Andean



# OAD Moving forward...



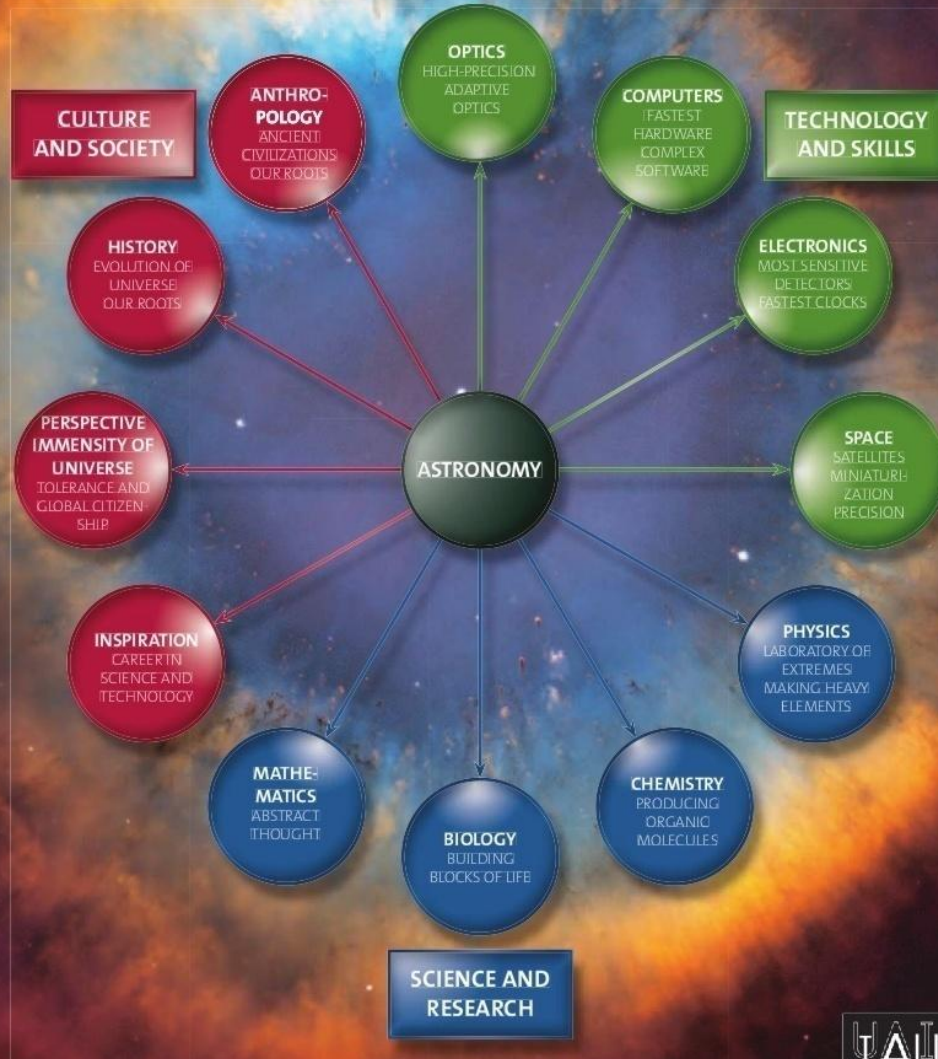
International Astronomical Union

# Astronomy for Development

Building from the IYA2009

## Strategic Plan 2010–2020

with 2012 update on implementation





# Astronomy for a better world!



[www.astro4dev.org](http://www.astro4dev.org)  
Kevin Govender [kg@astro4dev.org](mailto:kg@astro4dev.org)