Towards next generation of young scientists: support networks of excellent researchers

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Modal view of atmospheric circulation

MODES focuses on the representation of the inerto-gravity circulation in numerical weather prediction ensemble prediction systems and climate simulations. The project methodology relies on the representation of atmospheric circulation in terms of 3D orthogonal normal-mode functions. It allows quantification of the role of atmospheric variability across the whole spectrum of resolved spatial and temporal scales.

MORE ABOUT MODES
Paths to independence: an ERC StG

- Enables to found own research group to realize the project goals
- Brings recognition among the colleagues in the field and beyond
- Empowers
Excellent young researchers are everywhere in Europe

Around 1.76 million researchers (in FTE) in EU28 (2014 data). Around 0.3% of them are ERC grant holders. Around 2% of ERC grants are in Eastern Europe*.

*former Eastern block and YU

Courtesy of T. Schäfer
Westward oriented brain drain

About the half of the ERC grantees from EU13 has located their grants abroad

Source: ERC, data until early 2015
Relevance of pre-ERC mobility

A significant part of ERC StG/CoG holders in Eastern Europe have returned home after a period in EU15 or USA.

- Social network
- Optimism
- Empowerment
- Active citizenship

Research administration as the significant burden

Source: www.moremusic.biz

Žagar, 2015, paper at http://www.scigeneration.eu/
Atmospheric sciences: excellent field to grow international early in the carrier

Development of Numerical Weather Prediction (NWP) in the countries of Eastern Europe since 1990: a story of success

NWP model ALADIN: Collaboration and development driven by operational needs since early 1990s

Atmospheric science research in the countries of Central and Eastern Europe

A long path to research excellence

Source: http://www.cnrm.meteo.fr/aladin/
Excellent young researchers are everywhere in Europe

Eastern Europe: what factors are contributing to the choice of the “lucky ones” in national funding scheme and in the ERC competition?
Networking as a way to realize that many issues are shared across Europe and we can contribute some ideas to overcome them.
Young Academy of Europe

Pan-European non-governmental academy of top young scientists and scholars with outspoken views about science and science policy.

http://www.yacadeuro.org

Contributing to spreading excellence in Europe

Involvement in AE Wroclaw Hub task force to help get more ERC StG in Central and Eastern Europe
Supporting the ERC visiting fellowship scheme
Sci-Generation: topics

demographic context
WG1

Career & Funding Opportunities
WG2

Research Quality Assessment
WG3

Research Community
WG4

Courtesy of T. Schäfer
Issues in “inclusiveness countries” that impede career of excellent young researchers ...

... how to involve them in decision making

Courtesy of T. Schäfer
Working Group 2: opportunities

Career and funding perspectives for young researchers in the sense of a true European labour market ...

... mobility and pensions?

Courtesy of T. Schäfer
Working Group 3: quality assessment

Multi-/Inter-/Trans-disciplinary Research and how it can be evaluated...

... Ethics both in evaluation and science

“I realize you don’t know much about telecommunications network integration, but we’re looking for a fresh perspective.”

Courtesy of T. Schäfer
Foster **synergy** between European science policy platforms, avoid duplication of efforts

"I thought I was on to something but I can’t figure out how to move it."

Courtesy of T. Schäfer
Obstacles for next generation researchers are shared across Europe

- Missing excellence in research environment and training of the next generation researchers
- Need to stimulate excellent potential in next generation researchers
- Fostering independence of next generation researchers
- Shortage of resources
- Minimize the impact of indicators, evaluate the potential and content instead
- Conceive strategies to reduce biases in the review process
Bridging the gap between theory and practice in (Eastern) Europe

- “There must be a good sheriff in town”, M. Girtu
- Good ideas may turn bad results unless carefully adjusted
- The time to encourage the leaders of tomorrow is today
- A merit-based society takes time to develop

Sci-Generation WG1 workshop in Ljubljana
My message to young researchers: do science that makes you happy and strive for excellence

- Outstanding young researchers are everywhere in Europe. Do not become too worried about the statistics, it does not speak about you.
- Certainly there are significant biases but do not let them to get to you.
- Take as much as possible feedback from your colleagues in the field and the grant office. But, your grant is your child, not a continuation of a successful work with your PhD thesis mentor.
- Focus on writing your best ever proposal that you will feel proud about. If you fail to win a grant, take a lesson and do it all over again.
- Take support from your peers. It can be invaluable. Be supportive.
Many roads to cross when following the stars