

## The Global State of Young Scientists (GloSYS) Study

The GloSYS study aims to improve the career advancement of young scientists around the world by examining national conditions, obstacles, and opportunities that shape the career paths of young scientists.

### GloSYS Project Description

Academics, employers, and policy makers recognize the importance of global networks for achieving scientific excellence and solving international problems. Young scientists occupy a unique and pivotal position in this regard. Widely recognized as being among the most creative and energetic researchers, young scientists can also be more mobile and better trained than ever before. They thus constitute a vast pool of global talent that stands to change the geography of knowledge in fundamental ways. Young scientists also play an increasingly important role in the new knowledge economy, where research and innovation are the drivers of economic growth, socioeconomic development and enlightenment for countries around the world. Young scientists are often the key innovators and creators that provide the intellectual capital needed to grow strong national research and innovation systems. Understanding precisely how young researchers can succeed in and contribute to the knowledge landscape, and what obstacles they encounter in the process across the world is the subject of the GloSYS project. By exploring the global state of young scientists and identifying their opportunities and concerns, the GloSYS project aims to initiate change and catalyze improvement in the global system of science.

### Need for Action identified in GloSYS

Results from the GloSYS precursor study show that the current knowledge on the state of young scientists is incomplete and geographically biased with knowledge primarily produced in Europe and North America.

GloSYS identified global deficits and a need for action in the following areas:

1. Transparency and fairness: Defining assessment criteria and providing prospects to improve the career development of young scholars.
2. Systematic mentoring: Providing guidance and advice for career decisions.
3. Focused training: Aligning young scientists' skills with the duties and responsibilities on the next level such as teaching, proposal writing, group management and science communication.
4. Autonomy: Entrusting young scientists with more responsibility and encouraging them to conduct research more independently.
5. Values: Cultivating Work-life balance, fair compensation and workload, appreciation of good work, ideas and commitment.
6. Working Conditions: Providing adequate infrastructure, equipment and support.
7. Support structures: Providing systematic support such as start-up grants and programs for young scientists.

### Cooperation in Africa

The GloSYS precursor study indicates that there is a huge knowledge deficit on the state of young scientist in Africa. Reliable, systematic and comparable data is simply missing, despite the value of such information for informing public policy initiatives that could substantially improve career development and support for young scientists. No doubt, improving the status of young African scientists will reflect on the development of their countries.

**The Global Young Academy seeks partnerships with African experts, organizations and stakeholders to develop a project investigating the "State of Young Scientists in Africa".**

We aim for a meeting with African stakeholders in early 2014 that will provide a platform for exchange and draw together interested partners to act as a reference team for the launch of a new project. Therefore we would like to initiate contact with and invite:

- Organizations and Foundations in Africa interested in collaboration
- Experts of the science sector in Africa (either working in science and academia, the government or politics) interested in collaboration
- African Academies interested in collaboration

**Please contact us** to get involved and to suggest organizations interested in collaboration:  
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Project website: <http://www.globalyoungacademy.net/projects/glosys-1>

## „The Global State of Young Scientists“: Key Findings and Future Aims

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### Creating new prospects in science careers

**While many issues and concerns are shared amongst young scholars in various parts of the world, GloSYS also identified significant regional differences in the range of support and future prospects provided.**

One of the central goals most young scholars share throughout the world is to become fully established in their disciplines. In higher education this usually happens by achieving a permanent position, as this allows candidates to leave behind the insecurity of temporary contracts during a qualification phase. This qualification phase is characterized by a high level of flexibility with regard to career options, geographical mobility, uncertainty and the need for high productivity. However, moving into the security of a stable position and becoming an accepted member of the profession is a challenge.

### Need for better support of careers in science

An increase in transparency and fairness of the assessment process would improve the career development of young scholars and are considered prerequisites for diversity and sustainability in science. Mentoring also plays an important role in this context providing young scholars guidance in career decisions. Another issue is the training of young scientists, which often leaves them poorly equipped for the duties and responsibilities once they reach a permanent position. Apart from conducting research, young scientists often lack formal training in teaching, preparing grant applications, group management and science communication. Autonomy is an additional issue of concern as many young scholars are not encouraged to work independently at an early stage depriving them of relevant experiences. A good work-life balance, fair payment, an acceptable workload and the appreciation of new ideas and commitment are the pre-conditions for job satisfaction. Support factors such as adequate infrastructure and the availability of start-up grants, an increase in job stability and family-friendly policies allow young scientists the freedom to be creative and productive while balancing professional and personal duties, but they also enhance the progress of the national science and

innovation systems. The prospects and ways of overcoming these barriers differ from country to country, although a bigger problem may be that the available research provides only very limited insight into the career structures of developing and emerging nations. A structural challenge in discussing and analysing *the global state of young scientists* is the duality between an international system of science and the national higher education systems. The higher education system, the promotion structures and the scientific traditions, differ not only among world regions but also among countries.

### Value of international cooperation

International cooperation is crucial in the GloSYS project, thus the Global Young Academy seeks international partnerships to gain insights into specific regional differences from the perspective of several sectors such as science, politics and the government. The diverse international perspectives will add to the progress of this study by filling in gaps of knowledge and raising new ideas and issues. The global focus of this project requires a well-balanced and encompassing approach including knowledge, data but also first-hand perspectives from developed and developing parts of the world.

International partnership with institutes, research funding organisations and relevant stakeholders from different world regions will provide an exceptional opportunity to adopt diverse points of view which help to integrate cultural diversity into the study. There is a huge demand for comparable and systematic information about the state of young scientists everywhere in the world. Therefore, this project has the potential to contribute immensely in compensating the current deficit in knowledge and information. Gaining knowledge about science systems and career opportunities is not only an advantage for young scientists but it is also a valuable and insightful source of information for administration and policy makers which supports their efforts to increase transparency, fairness and democracy in the academic system.

**Contact GloSYS to get involved!**

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