The European Academies’ Science Advisory Council and Africa-EU co-operation in STI

Workshop
„The ERAfrica initiative for Africa-EU co-operation in STI“ - Involvement of the RECs and Networks of Science Academies“
Addis Ababa, 03 April 2016

Dr Christiane Diehl
EASAC Executive Director
What is EASAC?

- Collective voice of the National Academies of Science in the EU member states, Norway and Switzerland
- Source of independent scientific advice for policy-makers in the EU’s institutions and member states and wider Europe
- National Science Academies in the EU:
  - Networks of scientific excellence in Europe
  - Shared task of science-based advice for policy and society
EASAC - What does it do?

• “Science for policy”: use of scientific evidence to guide EU policy making (esp. in the areas of Biosciences, Energy and Environment)

• Detailed analysis and recommendations from Europe’s most respected scientists

• Publications and events are designed for a policy oriented audience, not only other scientists

• Efficient and timely manner of offering science-based analysis and advice for policy and the public
EASAC’s structure

Council
(Full Assembly)

Bureau
(President & Vice-Presidents)
Secretariat at the German National Academy of Sciences Leopoldina

Capacity-building activities for member academies (e.g. Science-Policy-Dialogue workshops)

Activities with a global reach, related to EASAC’s work as regional affiliated network in Europe of IAP

Steering Panel
Biosciences

Director Biosciences

Working Groups Biosciences

Steering Panel
Energy

Director Energy

Working Groups Energy

Steering Panel
Environment

Director Environment

Working Groups Environment
Some reports and statements
EASAC reports and statements 2015-16

- CO₂ emissions from Oil Sands, April 2016
- Marine Sustainability in an Age of Changing Oceans and Seas (with the JRC of the European Commission), January 2016
- Commentary on a Circular Economy, November 2015
- Facing Critical Decisions on Climate Change, October 2015
- Gain of Function (in Virology), October 2015
- New Breeding Techniques, July 2015
- Ecosystem Services, Agriculture and Neonicotinoids, April 2015
- Shale Gas Extraction, January 2015
EASAC science journals publications 2015-2016

- **eLife** 2016. What next for gain-of-function research in Europe?
- **Ambio** 2016. Sustainable energy supply and consumption by 2050
- **Nature** Correspondence 2015. Genetic gain of function
- **Research Media** 2015. EASAC and the new Science Advice Mechanism
- **International Innovation** 2015. A voice for the oceans
- **Nature** 2015. Academies review insecticide harm
- **Nature Reviews Drug Discovery** 2015. Antimicrobial Innovation
- **Nature** 2015. Time to settle the synthetic controversy
- **Trends in Plant Science** 2015. Global Plant Health
- **The Lancet** Global Health 2015. Antimicrobial resistance
EASAC target audiences
Position on research priorities as part of reports and statements
New Breeding Techniques

- Cisgenesis – transfer of gene(s) from same or closely related species.
- Intragenesis – insertion of reorganised coding region of gene derived from the same species.
- Targeted mutagenesis – mediated, for example by zinc-finger nuclease or TALEN (Transcription Activator-Like Effector Nuclease) technology.
- Other transient introduction of recombinant DNA, for example oligonucleotide-directed mutagenesis and agro-infiltration.
- Other new techniques – for example, RNA-induced DNA methylation gene silencing), reverse breeding, grafting non-GM scion onto GM rootstock.
- Genome Editing: DNA is inserted, deleted or replaced in the genome of an organism using engineered nuclease, or "molecular scissors."
EASAC-NASAC Collaboration „Planting the Future“

Planting the future: opportunities and challenges for using crop genetic improvement technologies for sustainable agriculture

EASAC policy report 21
June 2013
ISBN: 978-3-8447-3181-3
This report can be found at www.easac.eu
EASAC and NASAC as part of a global network of science academies
IAP, the InterAcademy Partnership

The Global Network of Science Academies

- Observers
- IAP
  InterAcademy Partnership
  - Research/Reports
  - Science
  - Health
- Regional Networks
  - Asia/Pacific (AASSA)
  - Europe (EASAC)
  - Americas (IANAS)
  - Africa (NASAC)
- Over 130 member academies
IAP project: Food and Nutrition Security and Agriculture

- Regional working groups in science academies’ networks in Africa (NASAC), Asia, Americas and Europe (EASAC)
- In addition to core issues for agricultural productivity, there are important connections with bioenergy, resource efficiency, environmental sustainability and public health
- Regional working groups to identify key priorities, to include:
  - Regional characteristics for food and nutrition security and agriculture
  - Regional challenges where science can contribute
  - Cross-cutting determinants e.g. economics, climate change, demography
  - Mechanisms for mobilising science for implementation agenda
  - Identifying contact points for recommendations