SAS in research and innovation ecosystem- potential, obstacles and barriers

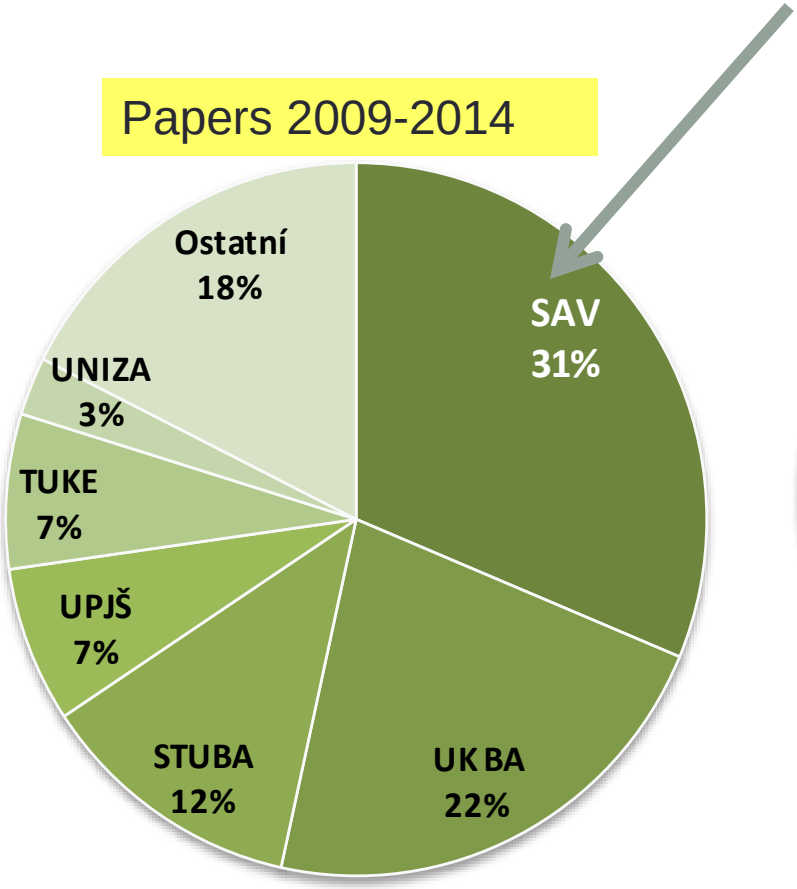
Eva Majkova

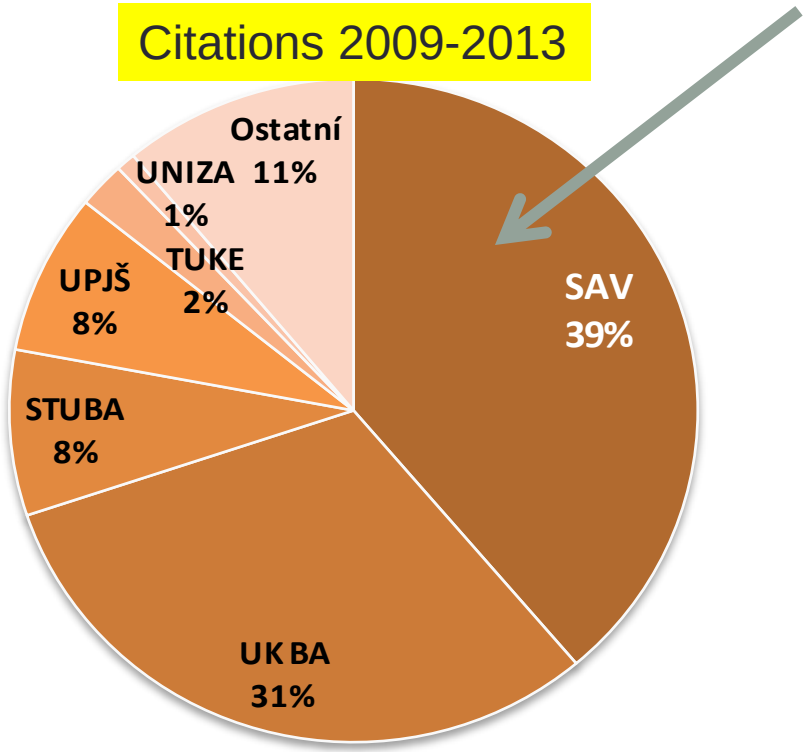
Science is the future

Outline

- **Mission of the SAS**
- **Representative activities of SAS**
- **Collaboration of SAS with the Slovak and international industrial partners**
- **Effect of the EU funding via structural funds on the innovation activities**
- **Problems of the national research and innovation funding**
- **Transformation of the SAS research institutes into public research institutions for improvement of the technology transfer and innovation**

Research output





SAS research capacity - 11% FTE

Slovak Academy of Sciences

- 56 scientific organizations (in 3 scientific divisions)
- 8 specialized and 5 service organizations

Mission

Research in the natural, technical, medical and social sciences in areas which are innovative, demanding in terms of personnel and research infrastructure and in the development of innovative technology and diagnostics.

Research focused on current global and social issues
Virtual center for global a civilization analysis (SAS and universities)

Protection and development of cultural heritage and regional research

Servis for society:
- **new knowledge,**
- **training of experts,**
- **PhD students, teaching at the universities**
- **effective transfer of knowledge**

Activities

Stefan Schwarz fellowship for postdocs since 2004 (up to now cca 180)

SASPRO Marie Curie Cofund (project of the 7th FP EU)

- **attract excelent researchers from abroad**
- **reintegration of Slovak researchers**

(57 positions within 3 years)

SAS and ERA

ERA NET SAS member of 7 ERA net programs

Bilateral collaboration projects SAS– MOST Taiwan, JST Japan, Tubitak Turkey

Several multilateral projects e.g. CERN (162)

7RP EU/ Horizont 2020 – SAS – most succesful institutions in 7th FP in Slovakia

Project Teaming
H2020-WIDESPREAD-2014-1-FPA
CEMEA Building-up Centre of Excellence for advanced materials application
SAS succsesful in 1st stage (SAS, partners Uni Helsinky, VTT Finland)

The aim: to achieve a measurable and significant improvement in the research and innovation culture (as shown through indicators such as research intensity, innovation performance, values and attitudes towards research and innovation) of those countries

Results of the new CEMEA Centre´s research will be applicable in areas of economic specialisation identified in RIS3 of the Slovak Republic.

Long term objectives

-increasing human potential,
-strengthening of international cooperation,
-increasing quality of research, increased participation in Horizon 2020,
-improved intellectual property management and transfer of knowledge to industry with emphasis on collaboration with local end-users.

The Centre will operate in three fields:

1. **Basic (core) research (Material research and Nanotechnology, Biomedicine and Biotechnology, Sustainable Energy);**
2. **Applied research (technology transfers) in cooperation with industrial partners;**
3. **Training and education program in cooperation with academic partners (PhD studies, post-doc studies, young scientists support and exchange, senior researchers fellowships program).**

Effect of the EU funding via structural funds on the innovation activities of SAS

Slovak and international industrial partners (>100)

Patents
e.g. in 2014 7 approved, 21 applied

collaboration with industry is perfomred with existing infrastructure
outside EU SF fubding it is difficult to start R&D in the new field

absence of the interface entities between research and production
scaling up of technology, need of different instrumentation etc

Innovation and transfer of knowledge need funding (often higher than basic research)

Structural fonds – most important source

Due to SF EU - increased collaboration with industry
new partnership

The effect will be visible within few years

Projects supported by Structural fonds of EU

Singnificant improvement of the technological and research infrastructure

small vs large projects

Important projects:
Bratislava
Center for Applied Research of New Materials and Technology Transfer CARMAT
Scientific Park for Biomedicine BIOMED

Other regions
Material Research Center PROMATECH in Kosice
R&D Center for Imunoactive Species, Šarišské Michaľany
Research Center Allegro Trnava

23 R&D **projects, project leader from industry**
Competence Centre for New Materials, Advanced Technologies and Energetics
(academia and industry)

The main goal of these projects

- innovative research facilities for development of new technologies,

- original diagnostics and technology transfer that will attract young researchers and will help to span the gap between laboratory and industry

Problems of the national research and innovation funding

Low and unstable competitive funding from the state grant system
Low funding from private sources

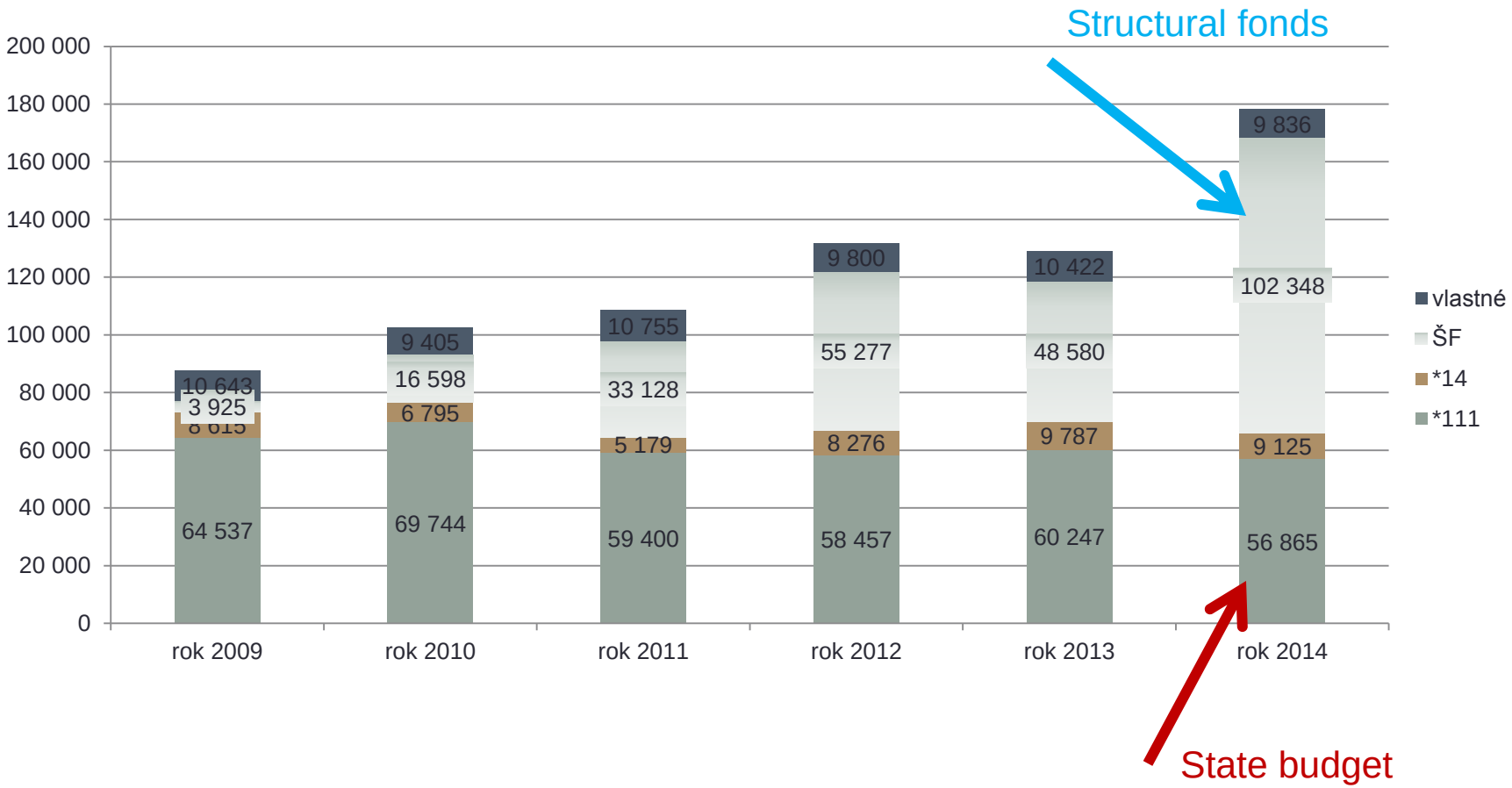
Not well developed schemes for:
- large long term (strategic) R&D projects for academia and industry
- national program for sustainability
- programs stimulating cooperation between SAS, universities, sectorial research institutes
- programs for systematic support of applied research and innovations

Evaluation system

Absence of regular analysis and evaluation of the grant funding scheme

Low contribution from the state budget
High contribution from SF EU

Problems of the national research and innovation funding



SAS funding

Institutional
Projects of national grant agency APVV
Structural fonds of EU
Other (Horizon2020, contracts…)

Increase the contribution of research to social and economic development through global excellence and local relevance

provide the necessary infrastructure for research and development

connect the academy with universities, research institutes and partners from industrial and public sectors through projects

support and stimulate international cooperation in science and technology
support applied and result-oriented research and research into socially relevant issues

maintain a dynamic balance between support for excellent basic and applied research and innovative and development activity
create an environment for effective inter- and multidisciplinary research

Transformation of the SAS

Target:
Form a modern, dynamic and successful SAS
with a better position in the European Research Area and
directly linked to RIS3,
stable and foreseeable funding requirements

Transformation of the SAS organizations into public research institutions

economical freedom and flexibility
increase of research excellence
motivation for contracts with industrial partners
motivation for transfer of knowledge


Thank you for your attention

Slovak Academy of Sciences

Štefánikova 49

814 38 Bratislava 1

Slovak Republic

More information

www.sav.sk