შოთა რუსთაველის ეროვნული სამეცნიერო ფონდი
SHOTA RUSTAVELI NATIONAL SCIENCE FOUNDATION

Presentation of the achievements in implementing the Policy Mix Peer Review Recommendations

Conference: Associated to Horizon 2020: what's next?
'From association to impact generation'

November 7, 2016
Tbilisi

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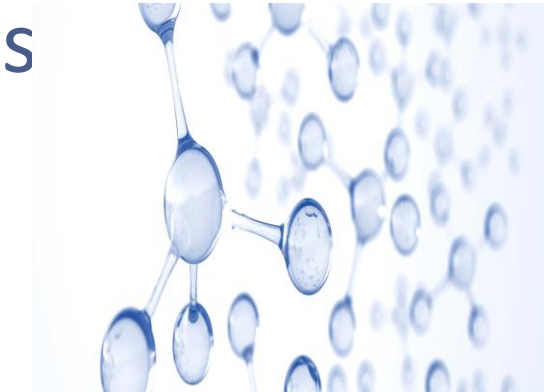
Shota Rustaveli National Science Foundation

Outline of Presentation

1. Background information on PMPRD
2. Major Conclusions & Recommendations
3. Activities undertaken by MoES, SRNSF & other Stakeholders: Progress Report on Implementation of Particular Recommendations
4. Major Challenges- What's Next?



PMPRD at a Glance

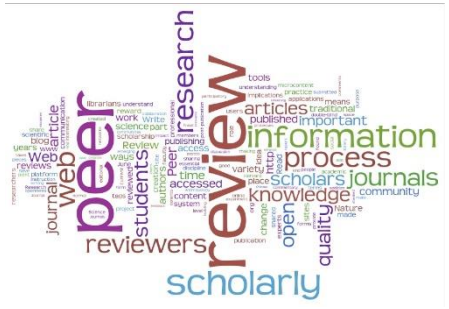
Why STI Policy Mix Peer Review?

- Implied by one of the WPs of IncoNet EaP project
- Timeframe: March – October 2015
- Goal: getting external view on the country's STI system
- Widely used approach, all EU member states participated, organized through 'Policy Supporting Facility'
- Good experience in Moldova and Kazakhstan
- Possibility of getting input on ongoing or up coming reforms and changes in country's STI system from high level international experts
- **Having advisory function only!** Dependence on hosts' commitments and uptake of recommendations

Background information on PMPRD

Methodology

- **Commitment by hosts**
- Invitation of peers-international experts
- Kick-off meeting Setting research Methodology
- Background report by hosts (MoES, SRNSF, GITA)
- Review Panel visit, Interviews with stakeholders
- Data analysis
- First draft
- Feedback from hosts
- Final report



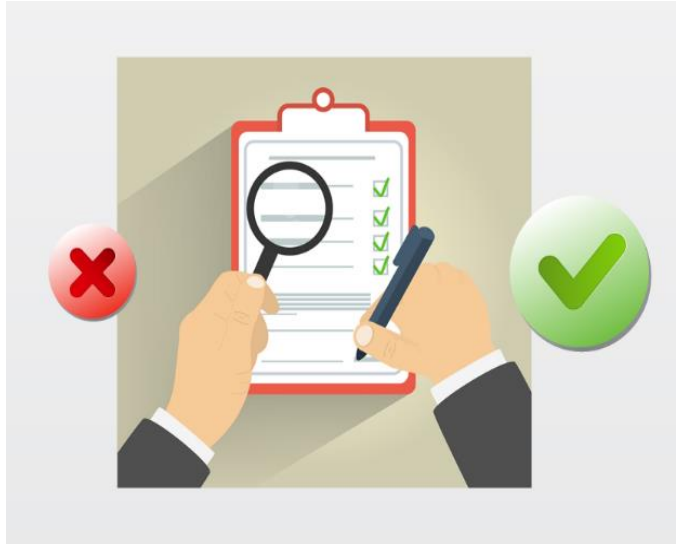
Hosts: MoES, SRNSF, GITA

Peers-international experts:

1. **George Bonas**, Centre for Regional & International STI Studies & Support (CeRISS), **Greece** (Team leader)
2. **Adrian Curaj**, Executive Agency for Higher Education, Research, Dev. & Innovation Funding (UEFISCDI), **Romania**
3. **Viktor Nedovic**, MoES & Technological Development, Un. of Belgrade, **Serbia**
4. **Michael Schlicht**, German Federal Ministry of Education & Research, **Germany**
5. **Martin Felix Gajdusek**, Center for Social Innovation (ZSI), **Austria**
6. **Yannis Kechagiaras**, CeRISS, **Greece**

Utilizing Results & Uptake

- Public Presentation of Report by peers and hosts
- Spreading PMPRD among stakeholders and scientific community
- Dialogue with major stakeholders-broader discussions on particular topics
- Planning: what should be done on institutional level, on Governmental level?
- Monitoring of progress.



Major Sections of PMPRD Recommendations

1. Georgia's STI system as a whole
2. Funding of STI
3. Integration of Research and Education
4. Innovation & Business Sector
5. Human Resources Development
6. International Cooperation & HORIZON2020 Association

Major Findings & Conclusions

- The STI system **should not be considered to be in a transition period** anymore: there is a need to look forward, to develop a **vision and a strategy** that will consolidate and gradually strengthen the **STI system as an integral element for a knowledge based society and for sustainable growth of the country.**
- A **broader consultation process** involving policy makers, the academic and research communities but also the business sector and the civil society, will largely contribute to the **identification of the most suitable policies** and instruments but also to the acceptance and efficient implementation of them.
- By **reducing the fragmentation, removing barriers and improving the planning**, a considerable jump forward could be observed in the system's performance.
- Certainly, and despite recent initiatives, an **increase in the level of funding for STI** is necessary. However, such increase in the funding should **be mainly oriented to carefully selected priorities** where either **strong research capabilities** or promising **economic potential** exist.
- The ongoing process of Association of Georgia to the EU's Framework Programme 'Horizon 2020' renders **the introduction of substantial changes in the STI system** urgently necessary, in order to fully **benefit from the advantages** that such an Association can bring.

TENTATIVE IMPLEMENTATION ROADMAP (1)

	Recommendations	Primary Stakeholders to uptake the recommendations							
		Ministry of Edu & Sc.	RIC	Comm. for Ed., Sc. & Culture	SRNSF	GITA	NAS & NAAS	Research Community	Private Sector
	Implementation suitable/feasible at **Short-term**								
STI System	1. Development of a consultation process to define a clear and documented Vision specifically for the STI sector	✓	✓	✓					
STI System	2. A well-defined Strategy coherent to the Vision needs to be elaborated and adopted	✓	✓	✓					
STI System	3. Consolidate and further strengthen the role of the RIC	✓		✓					
STI System	5.Define the role of the policy delivery organisations (SRNSF, GITA)	✓	✓						
STI System	9. Widely promote important STI policy initiatives in the public	✓			✓	✓			
STI System	11. Highlight/Showcase the short term impacts of a dynamic STI system	✓			✓	✓			
Univ. / Res. Centers	23. Further improve the Accreditation process for the universities	✓	✓	✓				✓	
Univ. / Res. Centers	26. To acknowledge the new landscape of the research system	✓	✓					✓	
Univ. / Res. Centers	33. Organise the implementation of the assessment of the existing STI providing organisations	✓	✓		✓		✓	✓	

TENTATIVE IMPLEMENTATION ROADMAP (2)

	Recommendations	Primary Stakeholders to uptake the recommendations							
		Ministry of Edu & Sc.	RIC	Comm. for Ed., Sc. & Culture	SRNSF	GITA	NAS & NAAS	Research Community	Private Sector
Inno & Business	35. Involving business sector representatives in Advisory boards of Universities and research centres.	✓	✓					✓	✓
Int. Coop. & H2020	47. Develop a coherent international cooperation strategy in line with the country's vision and strategy	✓			✓	✓		✓	
	49. Devote a particular attention in the cooperation with the national diaspora	✓			✓			✓	
	50. Development of a Plan of Action dedicated to the Association to H2020 with realistic expectations and goals	✓	✓		✓	✓			
	51. Strengthening of the NCP system in the country in order to cure current weaknesses	✓			✓				
	52. Promote the participation of Georgian researchers in COST Actions	✓			✓			✓	
	53. Actively participate in Support Actions that stimulate the exchange of good practices and networking	✓			✓	✓			
	Implementation suitable/feasible at **Medium-term**								
STI System	4. Improve the visibility of the RIC in terms of its disposition, the principles of transparency and information	✓	✓						
	6. Develop sound monitoring processes on financial issues, results/outputs and impact	✓			✓	✓			
	7. Define research fields where currently strong research capacity exists	✓			✓	✓		✓	

TENTATIVE IMPLEMENTATION ROADMAP (3)

	Recommendations	Primary Stakeholders to uptake the recommendations							
		Ministry of Edu & Sc.	RIC	Comm. for Ed., Sc. & Culture	SRNSF	GITA	NAS & NAAS	Research Community	Private Sector
STI System	8. Identify research fields centered around promising economic fields (niches) in the country	✓			✓	✓		✓	✓
	10. Promote an open dialogue and a broad involvement of stakeholders in all the STI related activities	✓	✓	✓					
	12. Develop low cost initiatives that could contribute to the positive disposition of the society towards the STI sector	✓			✓	✓		✓	
	22. An active participation in the H2020 processes should aim at the promotion of the national priorities in STI	✓			✓				
STI Funding	13. Significant increase of the national expenditure for STI	✓	✓	✓	✓	✓			
	14. Increase both the core and the competitive funding through grants	✓	✓		✓	✓			
	15. Gradually introduce monitoring and evaluation (assessment) systems	✓	✓		✓		✓	✓	
	16. Develop an additional grant scheme with dedicated budget as part of the national vision and strategy to increase the STI funding level	✓	✓		✓	✓			
	17. Introduce multiannual planning for the STI grants	✓	✓	✓	✓	✓			
	18. Provide incentives to the private sector for investments in STI	✓	✓	✓	✓	✓			✓
	19. Stimulate and activate financial contributions of the private sector for the realization of applied and innovation projects					✓			✓
Univ./ Res. Centers	24. Secure an adequate level of core funding	✓	✓	✓	✓				
	27. Re-confirm and re-equilibrate the status of researcher and of mainly teaching university professors	✓	✓	✓					

TENTATIVE IMPLEMENTATION ROADMAP (4)

	Recommendations	Primary Stakeholders to uptake the recommendations							
		Ministry of Edu & Sc.	RIC	Comm. for Ed., Sc. & Culture	SRNSF	GITA	NAS & NAAS	Research Community	Private Sector
Univ. / Res. Centers	28. Promote the osmosis (permeability) between higher education and research spheres	✓	✓						
	29. Massively 'irrigate' the research centres with students	✓			✓			✓	
	31. Present successful practices of "role models" organizations				✓			✓	
	32. Encourage the participation of most successful research centres ('role models') to mutual learning exercises such as international benchmarking				✓			✓	
Inno & Business	34. Define priority research fields that have a positive impact on dynamic economic sectors of the country	✓			✓	✓		✓	✓
	37. Development of dedicated support structures to facilitate the utilization of research results	✓			✓	✓			✓
	38. Stimulation of the research demand through incentives to the business sector (tax reductions; bank loans; etc.).	✓	✓	✓		✓			✓
Human Res. in STI	41. Encouragement of the engagement of young researchers in public grants as an obligation	✓			✓				
	43. Introduce the research activities in the university professor's assignments	✓	✓					✓	
	44. Research activities as a criterion in the context of the Accreditation process for the universities, as well as in the Evaluation of university performance	✓	✓					✓	
	45. Removal of all the legal and administrative barriers that still exist for the free staff circulation between universities and the formally integrated research institutes	✓	✓	✓	✓			✓	
	46. Gradually further equilibrate the salaries between researchers and teaching professors	✓	✓	✓					

TENTATIVE IMPLEMENTATION ROADMAP (5)

Recommendations		Primary Stakeholders to uptake the recommendations							
		Ministry of Edu & Sc.	RIC	Comm. for Ed., Sc. & Culture	SRNSF	GITA	NAS & NAAS	Research Community	Private Sector
Int. Coop. & H2020	48. Support the development of internationalization strategies by the existing research entities	✓			✓			✓	
	Implementation suitable/feasible at **Long Term**								
STI Funding	20. Facilitation of collaborative research schemes and PPPs	✓	✓	✓	✓	✓			✓
STI Funding	21. Proactively intervene towards the donors for the identification of the optimal funding instruments and of the priority actions to support	✓			✓	✓			
Univ./ Res. Centers	25. Improve the alignment of the study programmes with the local economic sectors' demand	✓	✓					✓	✓
Univ./ Res. Centers	30. Promote interdisciplinary approaches in both higher education and research	✓			✓			✓	
Inno & Business	36. Promotion of the use of developed new knowledge in the economic sector through licensing, patenting, etc.	✓			✓	✓			
Inno & Business	39. Invest in parallel to the development of skills in technology adoption/absorption	✓				✓			
Human Res. in STI	42. Envisage support mechanisms that improve the living conditions or increase the status of young researchers	✓						✓	

Activities undertaken by MoES, SRNSF & other Stakeholders

Progress on Implementation of Particular Recommendations

1 - STI system as a whole

Recommendations:

- Unified Vision & Strategy; long term perspectives
- Fragmentation among stakeholders to be reduced/removal o barriers
- Improved planning to be introduced
- Definition of Priority Fields (with strong poles, outputs, fields cantered around promising economic sectors-niches)
- more targeted funding to be implemented

Progress

- Active involvement of all stakeholders in Governmental AAWP preparation
- SRNSF is in the **process of strategy revision, evaluation of resources,** compliance with global trends & requirements
- Increased **collaboration between SRNSF, GITA, IPR National Centre** (MoU, joint participation in scientific events, open discussions, prep. Of joint call)
- **Transparent** procedures, more **interaction** with major beneficiaries: Universities, Research Centre and Institution, Targeted research Groups
- SRNSF is in the process of **mapping strong research groups** throughout various institutions (based on research productivity indicators (c, h indices), experience of international collaboration.

2 -Funding STI

Current funding (0.25 %of GDP) is very low

Recommendations:

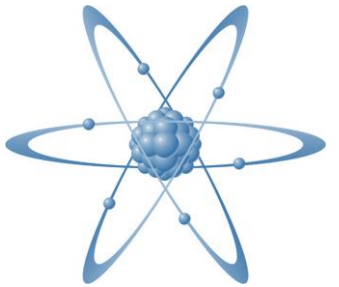
- To Increase core funding based on Key Performance Indicators
- To Increase Grant funding, but targeted for priority areas (additional ones)
- Introduce multiannual Grant Programmes with perspective of continuation
- To give Incentives For research-private sector cooperation, fundraising from private sector

Progress

- Education & science declared as one of 4 Governmental priorities. It should be reflected in public funds
- SRNSF increased Research Grants funding by 20% in AR programme and by 40% in FR & DI
- SRNSF changed TOR in major funding schemes: taxes are not paid from grants/fellowships.
- New funding schemes are planned and prepared making focus on targeted research excellence, with high level pf international collaboration and intra institutional cooperation
- AR call terms to be modified in cooperation with IPRNC and GITA

SRNSF – One of the Major STI Funding Agency: Programmes, Reforms and Latest Developments

27 Programmes!



- Research projects (basic and applied research, collaborative research)
- International joint research projects (CNRS, CNR, TUBITAC, STCU)
- Long-term targeted projects in STEM (from 2017)
- Mobility of scientists and international collaboration (TG, CG, SS)
- Young scientists' development (YS, IG, MR, PhDF)
- Research and technology infrastructure development
- Science popularization (Research and innovative projects with participation of secondary school students, targeted small scale projects for science popularization)
- Promotion of Georgian Studies within international academic area (HE, OU)

- 2015 Structural Changes
- 2015-2016 New Programmes developed
- More Transparency & communication with Scientists
- Changes in Evaluation procedures and criteria
- Efficacy Evaluations
- New international partners

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3 - Integration of Research & Education

Recommendations:

- Further improve Accreditation process
- Introduce Key Performance Indicators, assessment acc. International standards
- Secure KPI based adequate core funding, reduce dependence on students' fees
- Ensure compliance of local economic sectors' demand and academic programmes
- Overcome isolation of research centres & institutes from universities
- Provide mobility, better communication & collaboration
- Merged poles: constitute a competitive advantages
- Promote inter disiciplinarity
- Irrigate research centres with young researchers

Progress:

- **MoES** initiated Law amendments Law on HE, Law on Sc. Technology dev. Law on dev. Of Quality of Education)
- **NCEQE** is supporting HE internationalisation, reviewing accreditation standard, criteria in line with EU quality standards
- **SRNSF** works on development of GEO research portal: evaluating science productivity of its grantees in different fields, mapping of strong resources by fields, research institutions/ centres
- **SRNSF** launched call for New PhD programmes, fostering RI & University collaboration
- New schemes & **increased funding** for **Post Docs, PhD & MA students**

4 – Human Resources in STI

Problematic age structure, active involvement of young generation needed!

Recommendations:

- Strengthen grants for YS
- Provide return conditions for YS graduated abroad
- Introduce research activities in Accreditation process for universities
- Remove barriers Universities /research cent.
- Enhance social status& prestige, Sc. Popularisation in wider society

Progress

- SRNSF introduced **new grants** for YS on all stages: MA, PhD, PostDocs
- SRNSF modified grant schemes, **requesting involvement of YRs** in FR, AR & DI projects
- EQE modified **standards with emphasis on research and education integration**
- Special trainings, forums, workshops are supported for **YS capacity building**
- MoES initiated Law amendments Law on HE, Law on Sc. Technology dev. Law on dev. Of Quality of Education)
- MoES new initiated-annual Sc. fest -broader community involvement
- SRNSF provides 3 programmes for Sc. popularisation, 2016 awards for scientists

5 - Internationalisation

Statement: well developed 80% co

publication rate, more donor driven

Recommendations:

- Improvement of coherence needed, in line with vision, strategy& national priorities
- Promotion of internationalisation of stakeholders/Universities. RCs
- Provide more active collaboration with compatriots

Progress

- SRNSF -new **IR strategy** (work in progress)
- Defining **priority fields for international cooperation,** in line with H2020
- New **bilateral and multilat. cooperation** schemes (STCU, ISTC, Juelich UO, JSPS, TUBITAK)
- Involvement in **multilateral projects (EU framework programmes)**
- Regional **evaluation platform** creation
- **Outsourcing of evaluation: ORAU, CRDFG**
- Cooperation **with ESF, NSF & EU experts in Sc. Management**
- New **joint programmes and mobility** schemes
- Affiliation to **European Association for Quality Assurance in HE**. Initiating international experts in accreditation
- EQE's participation in **Bologna Follow-up Group**

6 - HORIZON 2020 Association

29/04/2016 association Agreement Signed!
Great Success but a challenge as well!!

Recommendations:

- Plan of action how to benefit from association should be developed: spearing of information, co-funding/rewarding, participation in H2020 governance, setting up Liason Office in Brussels, etc.)
- NCP system should be strengthened
- More participation in COST networking & capacity building activities

Progress

- H2020 info days, web page
- SRNSF -ERC NCP in Georgia
- Contact points in major universities
- Special trainings for YSs and wider scientific community, conveyong some practical skills and sharing best experience from H2020 grantees
- Involvement in EU framework programme funded projects: IncoNet EaP!, Black Sea Horizon, Inco PLUS - supportive instruments for Georgian Scientists active involvement in H2020 programmes.

H2020 Association Opportunities and Challenges

Key messages

- The *Association* of Georgia to H2020 constitutes an *opportunity* for improving the STI system
- But it is also a *challenge*: **a systematic multi-level effort is necessary** in order to obtain the benefits from the Association

Creation of Well Functioning NCP Network is crucial!

Grants' Management Units at HEIs and RCs

Intensive trainings/workshops on H2020 programmes and project writing and management is needed!

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SRNSF vision and plans:

- New Programme for preparatory activities to foster H2020 project writing and networking
- *Supporting Georgian researchers' participation in Brokerage Events, Twinning Programmes (TG,* IG, CG, SS, *Multilateral projects)*
- *Strengthening cooperation with Diaspora (DI)*

7 – Innovation & Business Sector

Very law involvement & investment of private sector in research; Stagnant patenting activity; More focus s made on low-tech innovation rather than to knowledge-intensive.
Innovation high in political agenda with positive initiatives (GITA, Tech.Park etc.)

Recommendations:

- Interaction among Priority fields of research and dynamic economic sectors is urgent!
- Involvement of business representatives in Advisory Boards
- To improve framework conditions (TTOs, start-up support, incentives to stimulate research demand, etc.)

Progress

- Identification of **excellent clusters is in progress, in compliance with promising economic sectors**
- Prominent **Business Sector's representatives included** in SRNSF AR evaluation **committee** (II phase)
- **SRNSF – SAKPATENTI – GITA cooperation (AR)**
- **NC IPR – training, workshops, consultations for sc.s**
- **GITA's activities:**

1. formation of **legal framework for the development of innovational activities;** The law on innovation has been prepared with the intensive consultations with public/private sector and international community's expertise-approved by the Government Cabinet, ratified by the Parliament and signed by the President of Georgia.
2. **provision of infrastructure for innovations** (Technological Park, Fabrication Laboratories (FabLab), Innovation Laboratories (iLab), Business Incubators, BroadBand for All – High Speed Fiber optic internet, Accelerators etc.);
3. **capacity building on entrepreneurship and innovational skills** (trainings, seminars, workshops, hackathons etc.;
4. **promotion of entrepreneurship and development of innovative ideas by improving access to finance.**

- the Government of Georgia has introduced 4 Point Plan of Economic reforms, significant part of which is 'StartUp Venture Finance'. One of the co-implementers of the plan is GITA.

What is next?
Still the most challenging issues

- **Unified vision, strategy and action plan**
- Thinking in terms of long-term perspectives, connection to economic impact
- Consolidation of finances
- More integrated & comprehensive dialogue is needed
- Still 87 priorities?! *RIC vision!
- Mapping of resources is urgent!
- More international collaboration
- More **inter-institutional collaboration**
- Identification of strong spots & clusters is crucial!

- Fostering H2020 participation
- Focus on **inter disciplinarily**
- More integration of **research and education**
- Continuing **development of YSs**
- More action towards **SME-Research collaboration,**
- **incentives for** business to invest in research.

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Thank you for your attention!

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