



S3 contribution to national STI roadmap for SDGs

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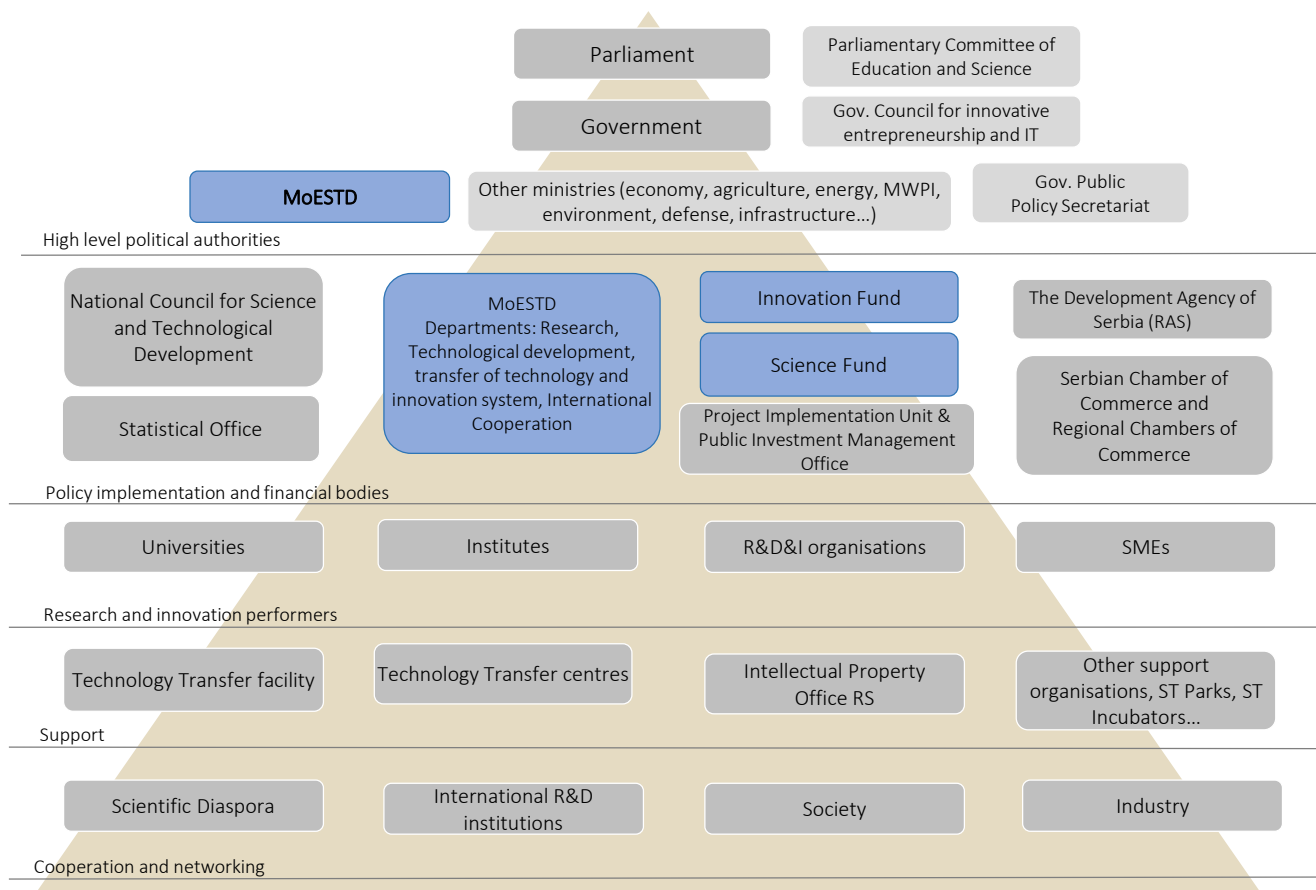
Serbia: Western Balkan economy with a EU perspective

- Population: ~ 7,5 million
- **Global Competitiveness Index 2018** - Rank 65/140
- **Gross R&D expenditures (%GDP) 2018** - **0,92** (EU28 - 2,06)
- 16,213 researchers in total in 2018 (8,329 women)
- **2.322 R&D staff per million people 2018** (EU28 - 3.939)
- The **scientific research system** of Serbia comprises of 63 Scientific/R&D Institutes, 121 HEIs and 20 Centres of Excellence
- **Total world production of scientific works** - rank **52/239** (in 2019) (SCImago Journal & Country Rank)
- **Horizon 2020 program** (Sept 2019 statistics): 403 participations in 280 projects, contracted ~ 96.3 million EUR, Serbia's average success rate is 12.2%





STI Institutional Framework





Comprehensive reform of the STI sector - towards research excellence and relevance

- Challenges in the past:
 - **System of research financing** does not incentivize research excellence and relevance (only project-based financing available with success rates of up to 90%);
 - Inadequate financial instruments for **linking science with industry** (research outcomes are primarily publications);
 - Lack of strategic approach in **managing research institutions** (no institutional funding available to allow for long-term planning);
 - Lack of adequate **human resources in research** (researchers primarily located in public STI sector, with worrisome age distribution and low mobility);

Current strategic framework towards reforms

Strategy on Scientific and Technological Development of the Republic of Serbia for the period 2016-2020 - "RESEARCH FOR INNOVATION" adopted in 2016:

- Encouraging **excellence and relevance** of scientific research;
- Strengthening the **connections** between science, economy and society to encourage innovation;
- Establishing an **effective management system** for science and innovation in the country;
- Ensuring excellence and availability of **human resources** for science and economy and social affairs;
- Improving **international cooperation** in the field of science and innovation;
- **Increasing investment** in research and development through public funding and encouraging the investments of the business sector.



A new model for financing research activities

A new legal framework has recently been adopted to implement a mix of institutional and project-based financing for research:

- **Institutional financing** (Law on Science and Research - July 2019):
 - Implemented by the MoESTD;
 - Ensuring long-term quality of scientific research;
 - Strengthening of the scientific and research institutions.
- **Competitive-project based financing** (Law on Science Fund - December 2018):
 - Implemented by the Science fund;
 - Based on the principles of good governance, independent and expert evaluation and selection processes;
 - Providing highly competitive project-based funding to the best research teams.



Innovation Fund - a good practice example of public support for private sector innovation

REPUBLIKA SRBIJA
FOND ZA
INOVACIONU
DELATNOST



- The establishment of the Science Fund is in good part based on Serbia's experience with the establishment of the Innovation Fund - an independent and expert implementing agency for supporting private sector innovation;
- **Innovation fund** operational since 2011, founded by the Law on innovation activity to provide financing support for innovation in SMEs through a mix of instruments along the innovation chain;
- Establishment supported by an EU project implemented by the World Bank;
- Project selection process: international peer-review and independent international investment committee;

IF SUPPORT INSTRUMENTS	PROGRAM DESCRIPTION
MINI GRANTS PROGRAM	Up to 80,000 EUR (and 15% matching) for innovative start-ups;
MATCHING GRANTS PROGRAM	Up to 300,000 EUR (and 30% matching) for SMEs;
COLLABORATIVE GRANT SCHEME PROGRAM	Up to 300,000 EUR (and 30%) for joint business-academia projects;
TECHNOLOGY TRANSFER FACILITY	Technical assistance and financing for technology transfer, patenting and commercialization;
INNOVATION VOUCHERS	Vouchers for companies for R&D services of public research institutions (up to 8,000 EUR);
PROOF OF CONCEPT	Up to 20,000 EUR for researchers engaged in product development;



Science Fund - independent and expert implementation of competitive research funding

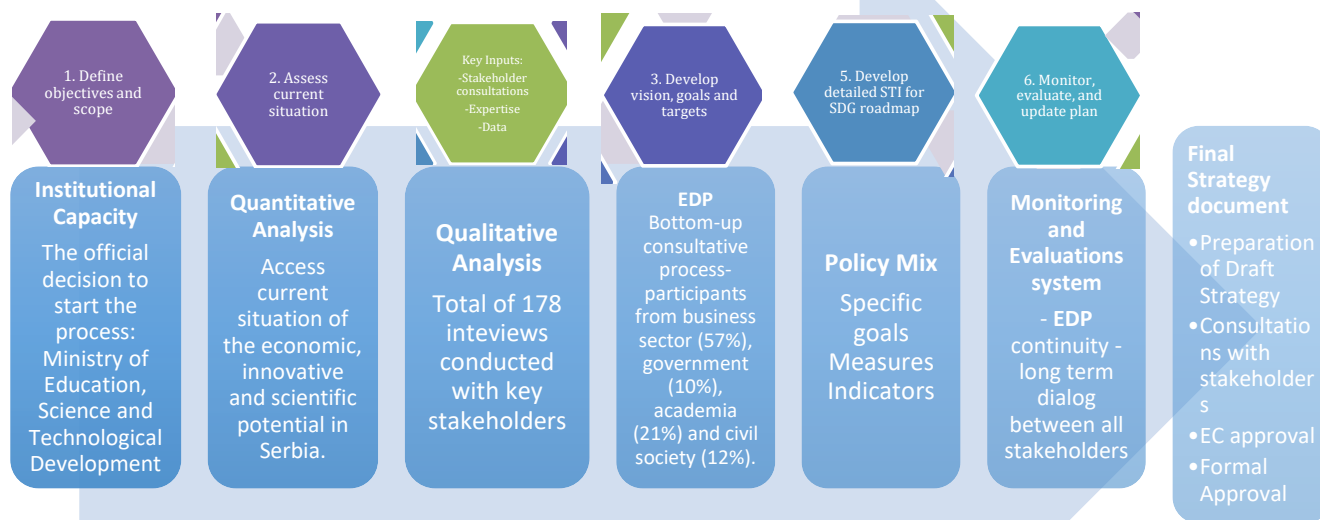


- The Science fund will implement programmes to support the best scientists and ideas to boost research excellence and relevance in Serbia;
- **Program for Young Researchers (PROMIS)** - first call in June 2019 (585 project applications received). Projects of up to 200,000 EUR for projects of young researchers;
- Two new calls:
 - **Diaspora Cooperation Programme,**
 - **Artificial Intelligence Development Programme** and
- In developing phase: **Ideas Programme.**
- Based on the same good governance principles as the Innovation Fund - international peer-review and independent selection committees;
- Capacity and institutional building for Science Fund planned under future World Bank project in Serbia.



Smart Specialisation Strategy in Serbia

4S Process



Next steps:

- SDG mapping
- Action plan: STI Roadmap for SDGs



6 step approach -
UN Guidebook on
Development of
STI Roadmaps for
SDGs



Serbia's Smart Specialisation priorities

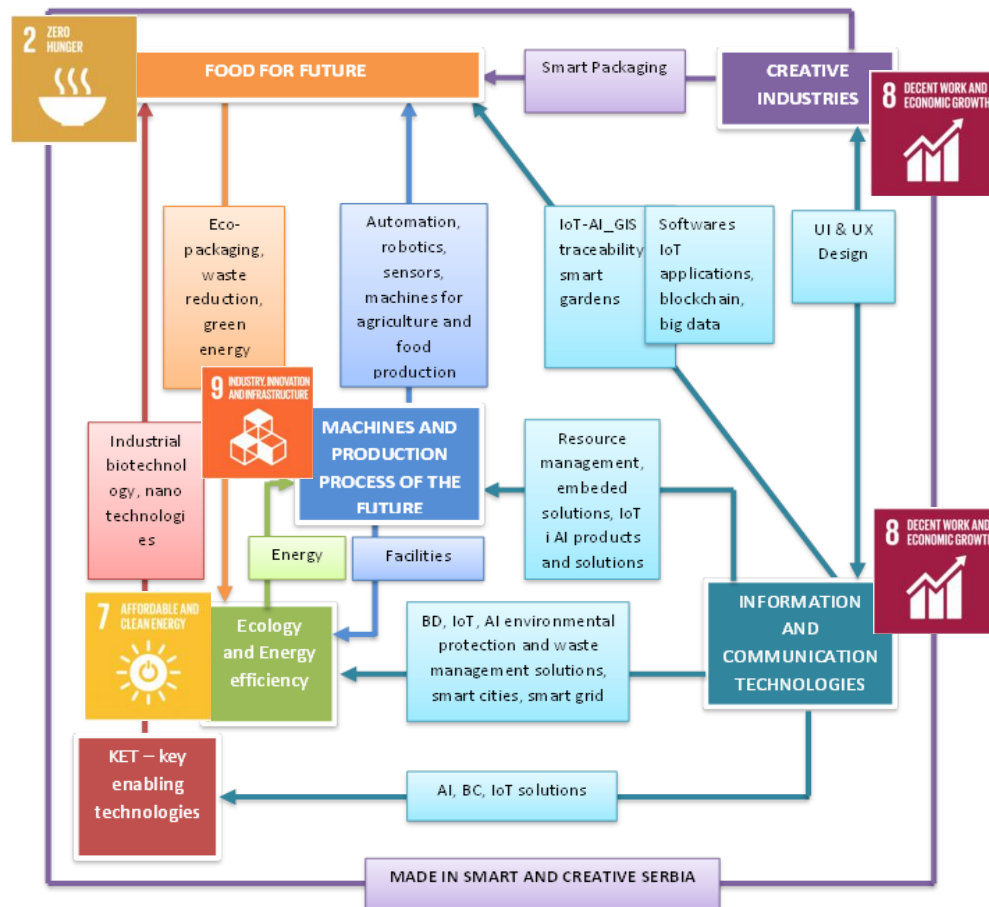


Information and communication technologies	Food for Future	Creative industries	Future Machines and Manufacturing Systems
Custom Software Development	High Tech Agriculture	Creative audio-visual production	General and specific purpose machines
Software Solutions Development	Value Added Food products	Video Games and Interactive content	Information in the Smart Management Service - Industry 4.0
	Sustainable Agrifood Production	Smart Packaging	Smart Components and Tools
Key Enabling Technologies (KET)			
Energy Efficient and Eco-Smart Solutions			

MADE IN SMART AND CREATIVE SERBIA



Vertical and Horizontal priorities and cross-sectoral innovation





Food for Future - example for STI for SDGs Roadmap



- Agrifood in Serbia has a long tradition, developed agricultural production, biodiversity and raw material base
- ~ 9.68 % of government research funding are dedicated to Biotechnology and agriculture (TR) and Agriculture and food (III)
- OECD (2017) Unleashing the Transformation Potential for Growth in the Western Balkans:

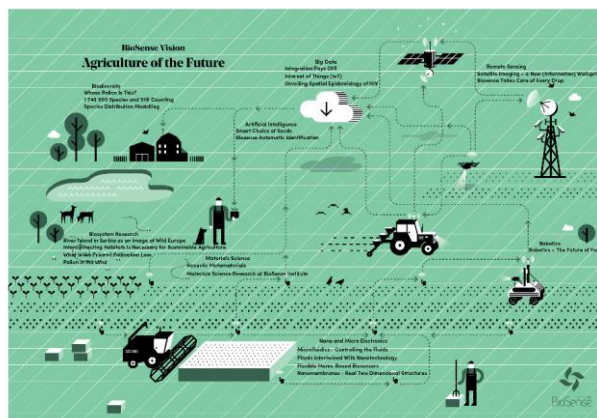
	Gross value added % of GDP	Employment % of total	Exports % of total
Agricultural sector	6,5	18,6	9,2
Food processing sector	4,2	4,6	11,4

- **H2020 SUCCESS STORY** - New technologies for sustainable agriculture (29 MEUR investment jointly EC and MoESTD)

Good practice example - BioSense Institute

R&D Institute for IT in Biosystems. Connecting two most promising sectors in Serbia ICT and agriculture.

The vision of BioSense is to be a European leader in research in ICT for agrifood and related biosystems. BioSense strives to create prosperity and sustainability for a broad ecosystem that includes academia, government, industry, farming community and civil society.

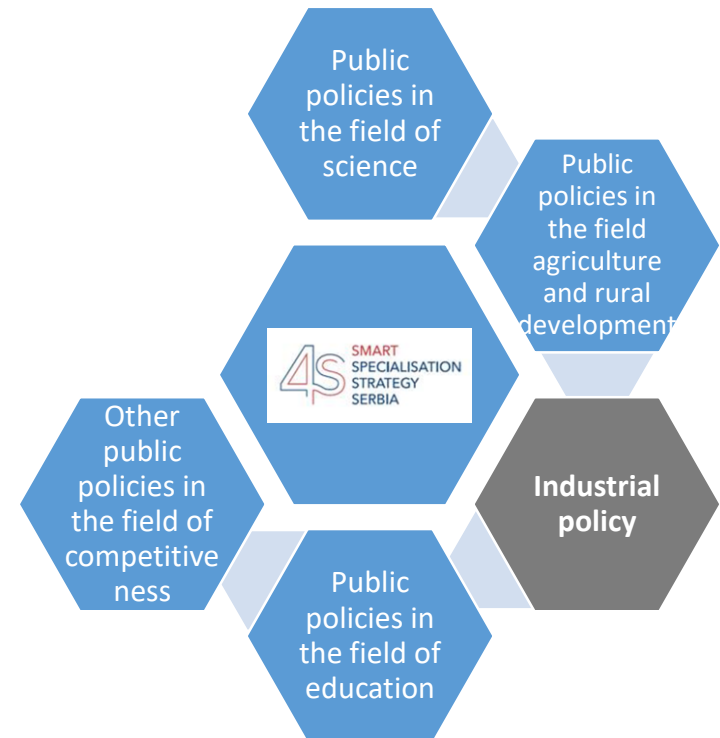




S3/STI Roadmap at the intersection of public policies

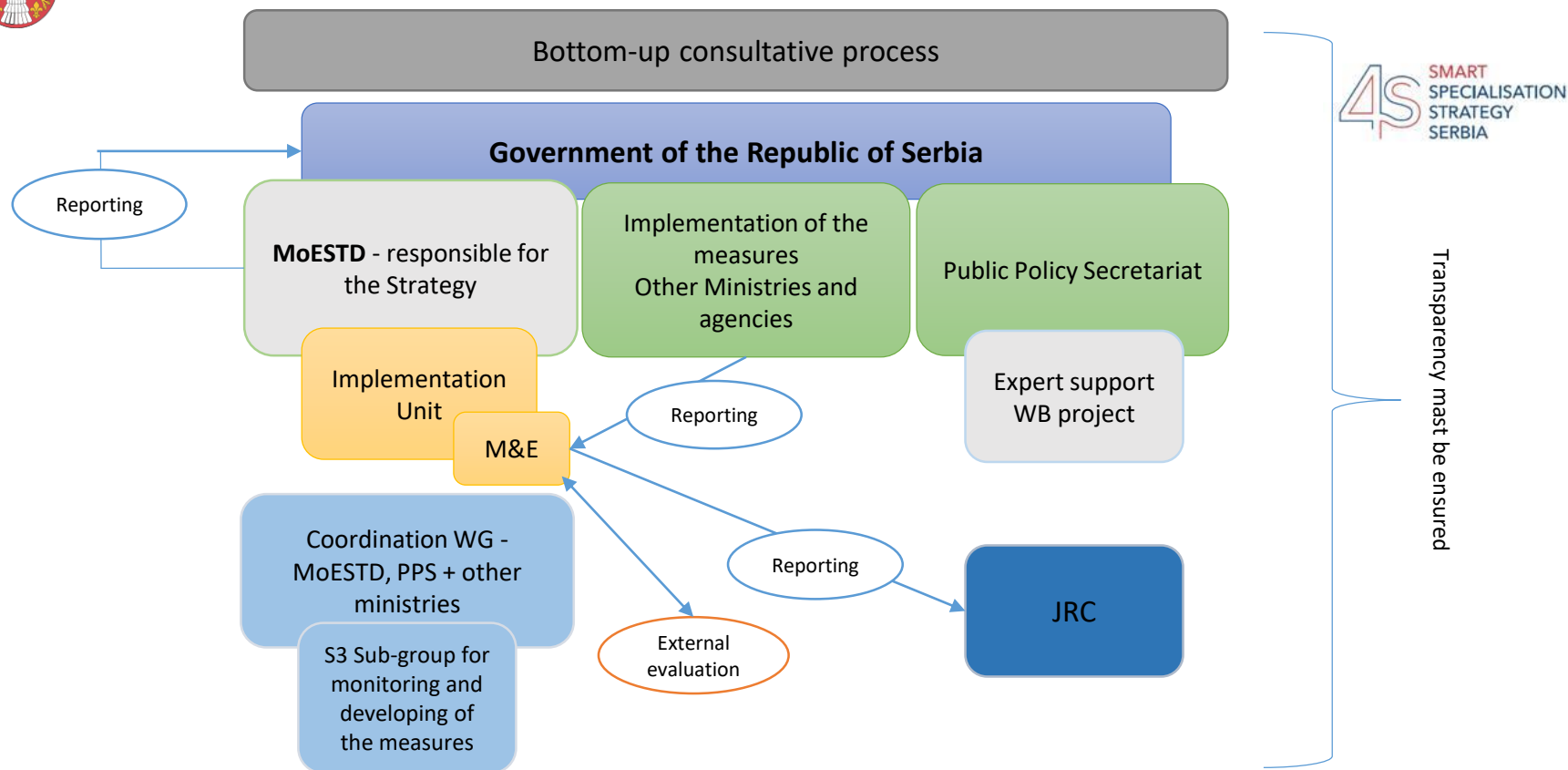
- Position of the Smart Specialization Strategy in relation to other public policy documents
- S3 is directly related to a number of strategic documents in the field of: science (1), competitiveness (6), agriculture (1), education (1), communication and digitization (1 new)

Public policies do not act independently of one another, but rather interact with each other.





S3/STI Roadmap - Managing the process of implementation





Serbia and Agenda 2030



- In 2015 - first inter-ministerial working group for monitoring the implementation of the 2030 Agenda and achievement of SDGs established;
- In 2015 - the national campaign “The Serbia We Want”, as part of the global campaign “The World We Want”. Two rounds of consultations were held in Serbia: Over 28,000 citizens had an opportunity to participate in consultations;
- Fall 2017 - the “Serbia and 2030 Agenda” report prepared (mapping of the national strategic framework against the SDGs to identify the level of coverage and state of affairs);
- Fall 2018 - Serbia prepared the UN Mainstreaming, Acceleration and Policy Support (MAPS) report;
- In June 2019 - Serbia presented its first Voluntary National Review on the implementation of Agenda 2030 for SDGs to the UN;
- Next steps: nationalization and financing of SDGs, as well as monitoring the implementation.



STI for SDGs Roadmap - Next Steps and Pilot Activities



- Serbia's EU integration agenda provides a platform to integrate the SDGs as a mutually-reinforcing agenda.
- The ongoing STI reform processes in Serbia, and the S3 process in particular, represent a unique opportunity to engrain SDGs into the country's STI policies and instruments.
- *Next steps:*
 - Nationalization and financing (budgetary, IPA and other) of SDGs (inter-ministerial WG);
 - Global Pilot Programme on Science, Technology and Innovation for SDGs Roadmap;
 - Implementation and monitoring of S3 (exploring synergies between S3 and STI Roadmap for SDGs especially in terms of defining indicators, measures to increase R&D spending and capacity building);
 - Continuous sharing of experiences and learning from global and regional good practices.



Serbia STI Roadmap for SDGs - pilot activity



The specific steps in the methodology that will be followed are:

1. **Analysis of national SDG framework** in Serbia, including the main challenges indicated in official documents (including Voluntary National Review, national documents concerning Agenda 2030 and matching policies/strategies).
2. **Statistical assessment** of the key challenges resulting from SDGs on the basis of international and national data sources covering the indicators for SDG goals and targets indicated in Eurostat SDG database.
3. **Stakeholder and expert validation** of the SDG challenges.
4. Identification of the **scientific, technological and innovative potential** allowing responding to the identified challenges.
5. Description of the **knowledge/competence gaps** - where national STI potential does not allow addressing SDG challenges.
6. Identification of national and international **STI collaboration networks** that can be mobilised to answer the challenges resulting from SDGs based on co-publishing, co-patenting and joint project applications.



THANK YOU!

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