

# Comments on “Pilot methodology for mapping SDGs in the context of S3”

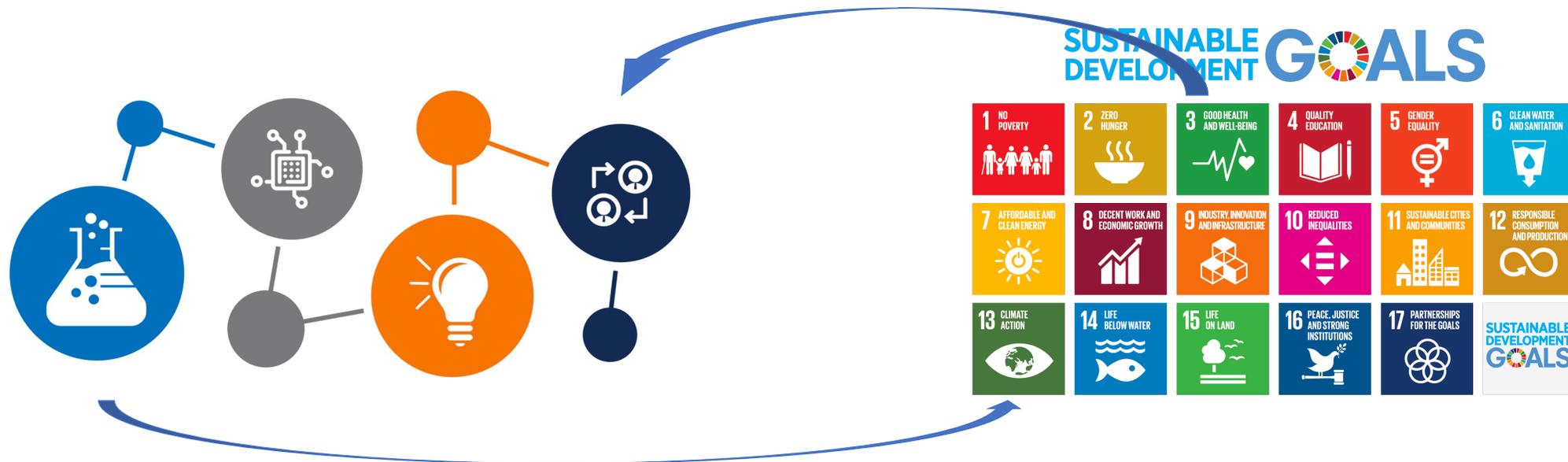
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# Contribution

- The SDGs are one of the few internationally agreed-upon set of objectives aiming to achieve economic development for all, that is both socially inclusive and within the ecological boundaries of the earth's capacity to sustain human activity.
- In the last years, there have been several approaches that try to shape STI policies towards the SDGs (mission-oriented approaches, roadmaps, transitions/transformations and S3). **Less effort** has been made in trying to understand what works and how to evaluate the efficacy of different approaches. I think this is an amazing contribution on that regard.



# 'We are seriously off-track' UN chief António Guterres

## 7 AFFORDABLE AND CLEAN ENERGY

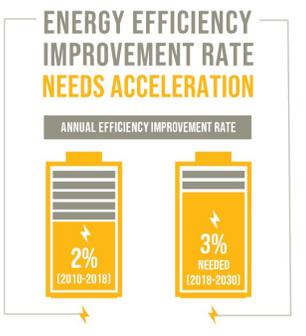
### ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

ONE THIRD OF THE WORLD'S POPULATION USE DANGEROUS AND INEFFICIENT COOKING SYSTEMS (2019)



759 MILLION PEOPLE LACK ACCESS TO ELECTRICITY

3 OUT OF 4 OF THEM LIVE IN SUB-SAHARAN AFRICA (2019)



ACCELERATED ACTION ON MODERN RENEWABLE ENERGY IS NEEDED – ESPECIALLY IN HEATING AND TRANSPORT SECTORS



## 13 CLIMATE ACTION

### TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

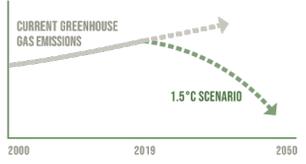
THE CLIMATE CRISIS CONTINUES, LARGELY UNABATED



2020 GLOBAL AVERAGE TEMPERATURE AT 1.2°C ABOVE PRE-INDUSTRIAL BASELINE

WOEFULLY OFFTRACK TO STAY AT OR BELOW 1.5°C AS CALLED FOR IN THE PARIS AGREEMENT

RISING GREENHOUSE GAS EMISSIONS REQUIRE SHIFTING ECONOMIES TOWARDS CARBON NEUTRALITY



CLIMATE FINANCE INCREASED

BY 10% FROM 2015-2016 TO 2017-2018, REACHING AN ANNUAL AVERAGE OF \$48.7 BILLION

125 OF 154 DEVELOPING COUNTRIES ARE FORMULATING AND IMPLEMENTING NATIONAL CLIMATE ADAPTATION PLANS

- HIGHEST PRIORITY AREAS INCLUDE
- FOOD SECURITY AND PRODUCTION
  - TERRESTRIAL AND WETLAND ECOSYSTEMS
  - FRESHWATER RESOURCES
  - HUMAN HEALTH
  - KEY ECONOMIC SECTORS AND SERVICES

## 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

### PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

THE PANDEMIC IS INTENSIFYING CHILDREN'S RISK OF EXPLOITATION

INCLUDING TRAFFICKING AND CHILDLABOUR



1 IN 3 TRAFFICKING VICTIMS WERE CHILDREN (2018)



CHILDLABOUR ROSE TO 160 MILLION (2020)

FIRST INCREASE IN TWO DECADES

IN 2020, THE KILLINGS OF 331 HUMAN RIGHTS DEFENDERS WERE REPORTED IN 32 COUNTRIES

AN 18% INCREASE FROM 2019

ONLY 82 COUNTRIES HAD INDEPENDENT NATIONAL HUMAN RIGHTS INSTITUTIONS IN COMPLIANCE WITH INTERNATIONAL STANDARDS (2020)

BRIBERY IS AT LEAST FIVE TIMES MORE LIKELY



# SDG targets

- Within regions, **societal priorities differ markedly with economic status**. In future versions would it be possible to compare these results with policy makers (and society) to have a different view on priorities?
- Page 44 - “A wide relative gap with EU leaders does not necessarily mean a worrying situation in absolute terms”. SDG12 and SDG13 are worst for high income countries. Should the frontier be the world level?

**Identification of SDG targets as main challenges in official assessments of the SDGs in Serbia [Policy]**

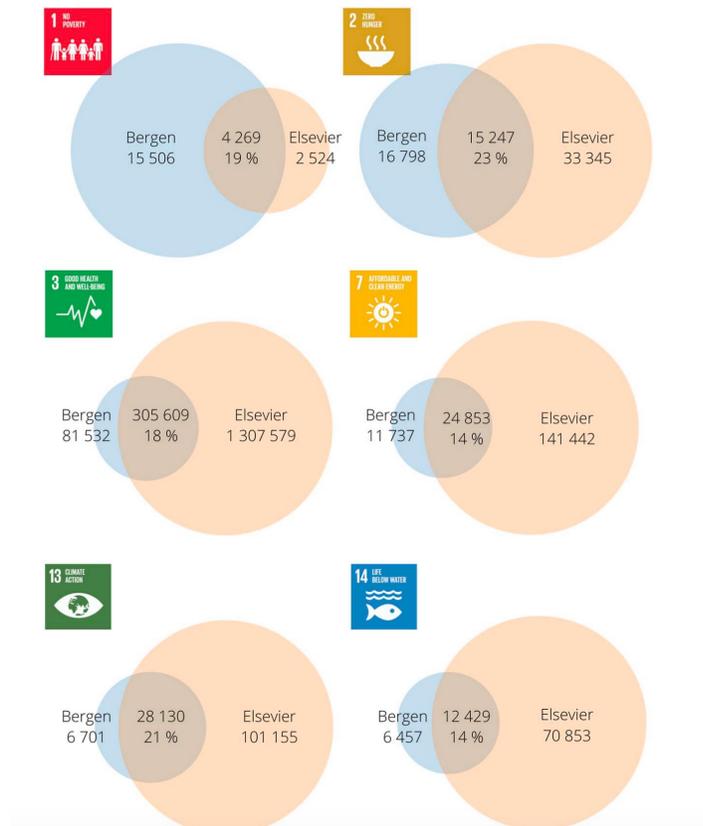
**Statistical assessment of the key challenges resulting from SDGs**



# SDG research

- "Our results show that approach made a large difference, with little overlap in publications retrieved by the two approaches." (Armitage et al. 2020)
- You use a vocabulary that is openly available. 😊
- We need to be very careful in applying this kind of approaches because we can incentivise universities in very weird ways

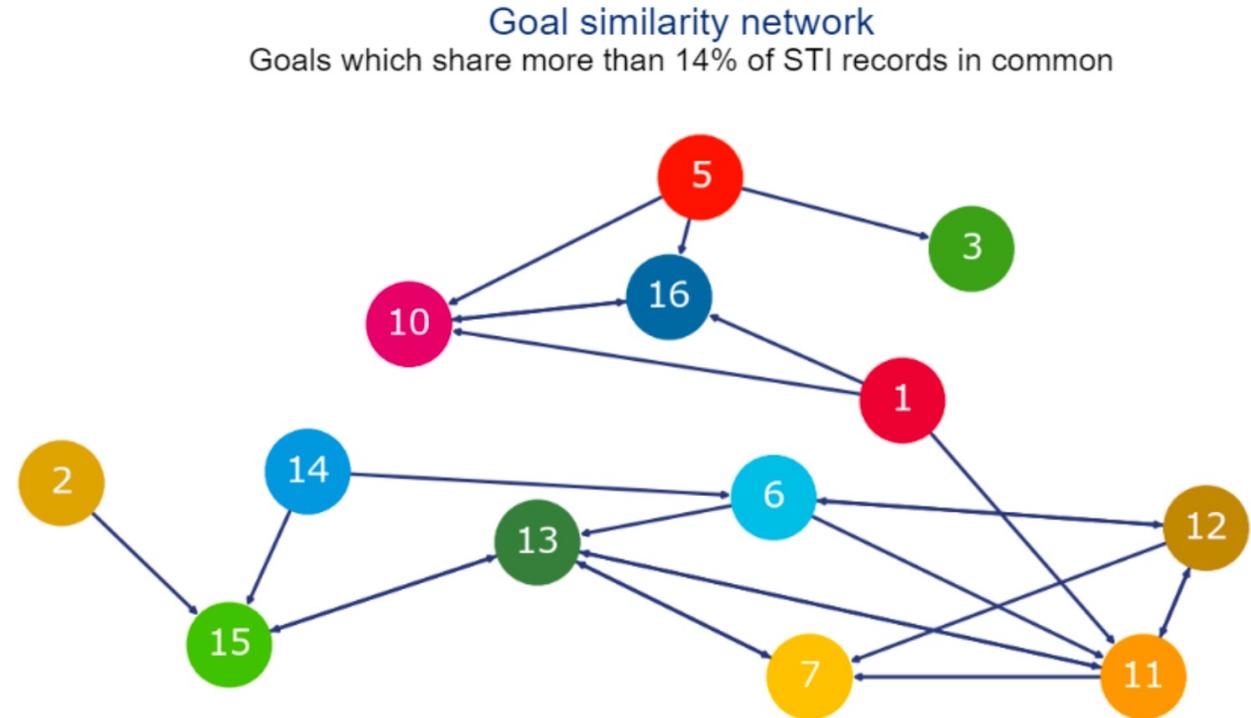
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Rank	Name	Gender equality	Overall
1	Princess Nourah bint Abdulrahman University 📍 Saudi Arabia	88.6	92.0
2	La Trobe University 📍 Australia	83.2	97.3
3	Western Sydney University 📍 Australia	80.3	94.3
4	Charles Darwin University 📍 Australia	78.7	77.5-85.2
5	Glasgow Caledonian University 📍 United Kingdom	78.2	88.1
6	Trinity College Dublin 📍 Ireland <a href="#">Explore</a>	77.5	89.2
7	Lahore College for Women University (LCWU) 📍 Pakistan	76.9	56.6-66.2

# Synergies and trade-offs

- Would it be possible to identify areas where Serbia STI actors have good capabilities, and have the potential to contribute to several SDGs? Would this be a potential way to prioritise resources?
- About trade-offs. Developments in some SDGs (e.g. SDG8) might do harm to other SDGs (e.g. SDG13). Should this be taken into consideration in your analysis? How?



# Policy Implications

- SDGs 1, 5, 10 and 16 have no potential direct impact of S3 priorities and very few “indirect”.
- This is an important finding.
- There are certain societal challenges for which STI incentives might do very little.
- Therefore, beyond knowing which are the major challenges and which are the main STI capabilities, we also need to think about the marginal contribution that specific STI areas might have on certain SDGs. Any ideas how to do it?

Summary of the potential impact of the S3 priorities in the main challenge resulting from the SDGs in Serbia

	Information and communication technologies	Food for Future	Creative Industries	Future Machines and Manufacturing Systems	Energy Efficient and Eco-Smart Solutions	Key Enabling Technologies
Goal 1. No Poverty	Indirect	Indirect				
Goal 2. Zero Hunger		Direct	Indirect	Indirect	Indirect	Indirect
Goal 3. Good Health and Well-being	Direct		Indirect		Indirect	Indirect
Goal 4. Quality Education	Direct		Direct			
Goal 5. Gender Equality	Indirect		Indirect			
Goal 6. Clean Water and Sanitation		Indirect		Indirect		Indirect
Goal 7. Affordable and Clean Energy	Direct	Indirect	Indirect	Indirect	Direct	Indirect
Goal 8. Decent Work and Economic Growth	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect
Goal 9. Industry, Innovation and Infrastructure	Direct	Indirect	Indirect	Direct	Indirect	Direct
Goal 10. Reduced Inequalities	Indirect		Indirect			
Goal 11. Sustainable Cities and Communities	Indirect			Indirect	Indirect	Indirect
Goal 12. Responsible Consumption and Production		Indirect	Direct		Indirect	Indirect
Goal 13. Climate Action		Indirect	Indirect	Indirect	Indirect	Indirect
Goal 14. Life Below Water		Indirect	Indirect	Indirect		
Goal 15. Life on Land		Indirect	Indirect	Indirect	Indirect	
Goal 16. Peace, Justice and Strong Institutions						

# Questions

1. Given that different demographics have different perceived societal (SDG) challenges, should we base STI priorities based on indicators (frontier - world vs EU), policy reports, opinions?
2. Are there any pernicious incentives in shifting research evaluation from number of publications/citations to publications related to societal challenges?
3. How to make use of SDGs synergies and trade-offs for policy design?
4. The development of STI capabilities might not help to achieve certain societal challenges (e.g. SDGs 1, 10, 16). How to think about the marginal contribution of certain SDG related research to a certain challenge?
5. Firm innovation is not very well captured in your empirical analysis (~patents). Is it possible to look at trade data? Survey data? What else?

# References

- Armitage, C. S., Lorenz, M. & Mikki, S. Mapping scholarly publications related to the Sustainable Development Goals: Do independent bibliometric approaches get the same results? *Quant. Sci. Stud.* 1, 1092–1108 (2020).
- Coulibaly, M., Silwé, K. S. & Logan, C. Taking stock: Citizen priorities and assessments three years into the SDGs. *Afrobarom. Policy Pap.* 0–34 (2018).
- Rafols, I., Noyons, E., Confraria, H. & Ciarli, T. Visualising plural mappings of science for Sustainable Development Goals (SDGs). in Paper presented at the ISSI2021 (2021).
- Confraria, H., Ciarli, T. Noyons, E. Countries' research priorities in relation to the SDGs. Paper to be presented at Concordi 2021 (2021)