



Societal Impact of Social Sciences,
Humanities & Arts Conference
2- 4 November, Stockholm

Parallel Session (K.11)

International Collaboration for Tackling Grand Challenges



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International Collaboration for Tackling Grand Challenges

Ylva Hillbur

*Pro Vice-chancellor for International Relations, Swedish University for Agricultural
Science, Sweden*

International collaboration for tackling the global challenges

Introduction Ylva Hillbur 10/15 min

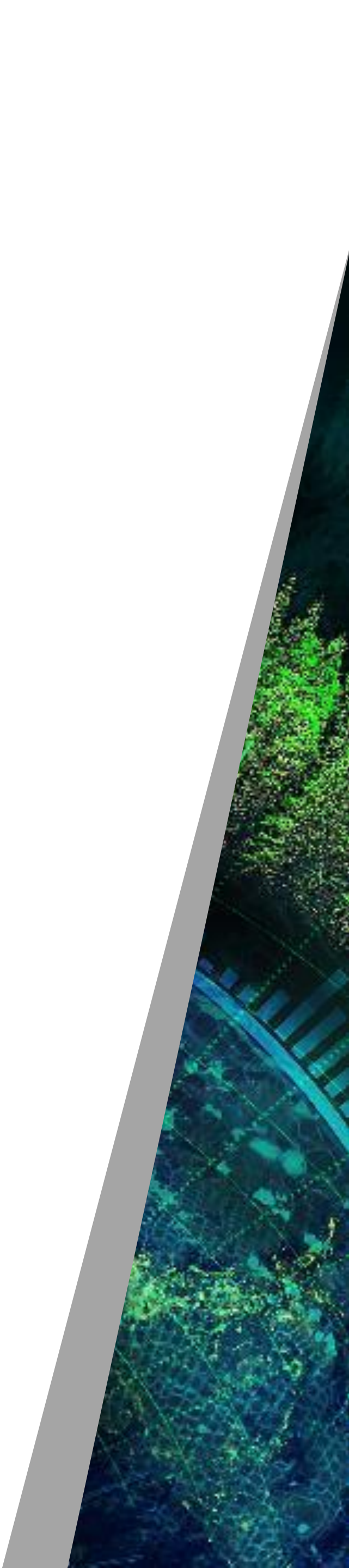
Jojo Nem Singh 15/20 min

Heidi van Rooyen 15/20 min

General discussion and Q&A 20/30 min

Examples from the Swedish University of Agricultural Sciences

1. A global network strengthening capacity to contribute to sustainable development
2. The library making available SDG-relevant knowledge





Global Challenges University Alliance 2030

A university network with a common vision of contributing to sustainable, global development

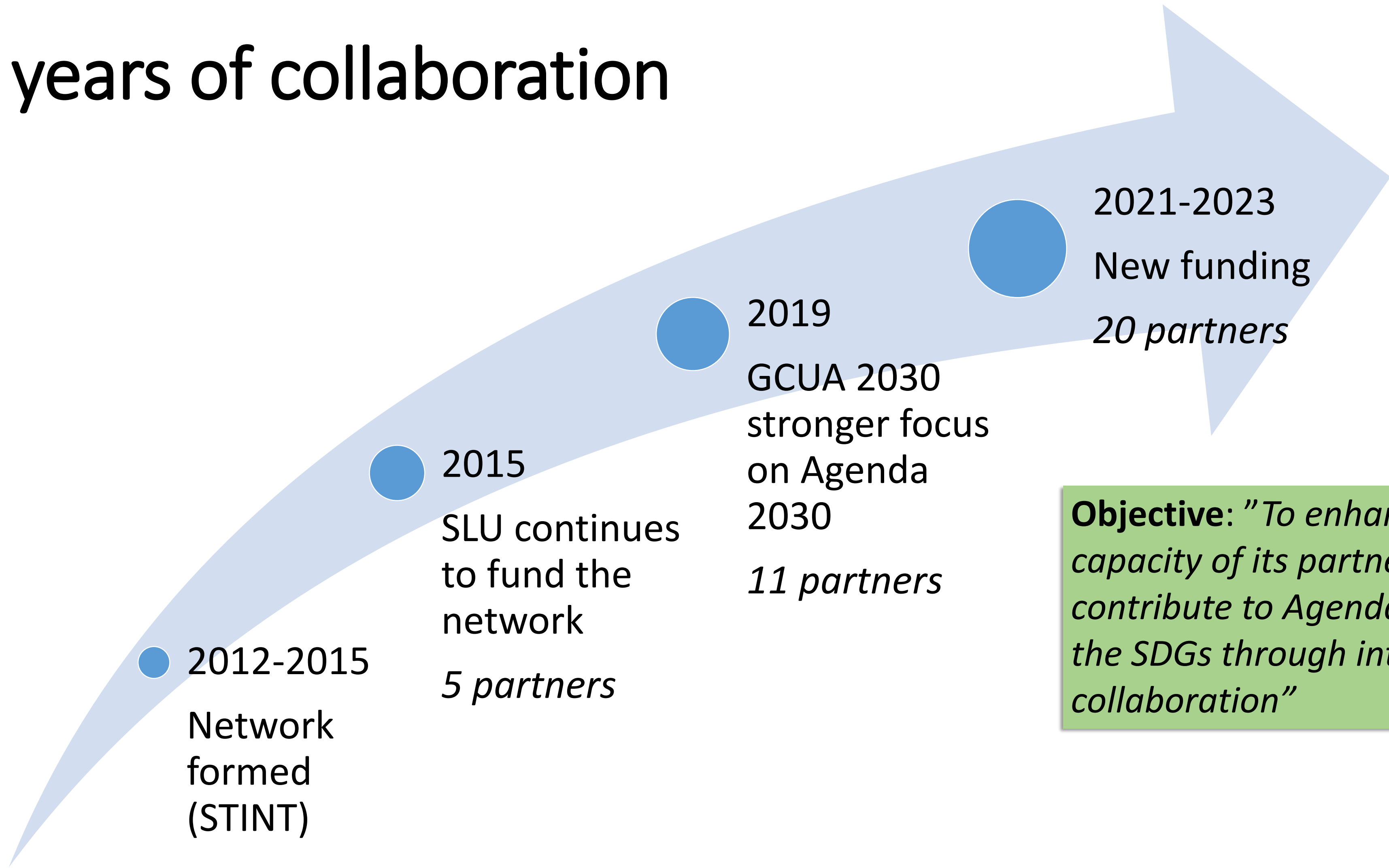


STINT
Stiftelsen för internationalisering av
högre utbildning och forskning
The Swedish Foundation for International
Cooperation in Research and Higher Education





10 years of collaboration



● 2012-2015
Network
formed
(STINT)

● 2015
SLU continues
to fund the
network
5 partners

● 2019
GCUA 2030
stronger focus
on Agenda
2030
11 partners

● 2021-2023
New funding
20 partners

Objective: "To enhance the capacity of its partners to contribute to Agenda 2030 and the SDGs through international collaboration"

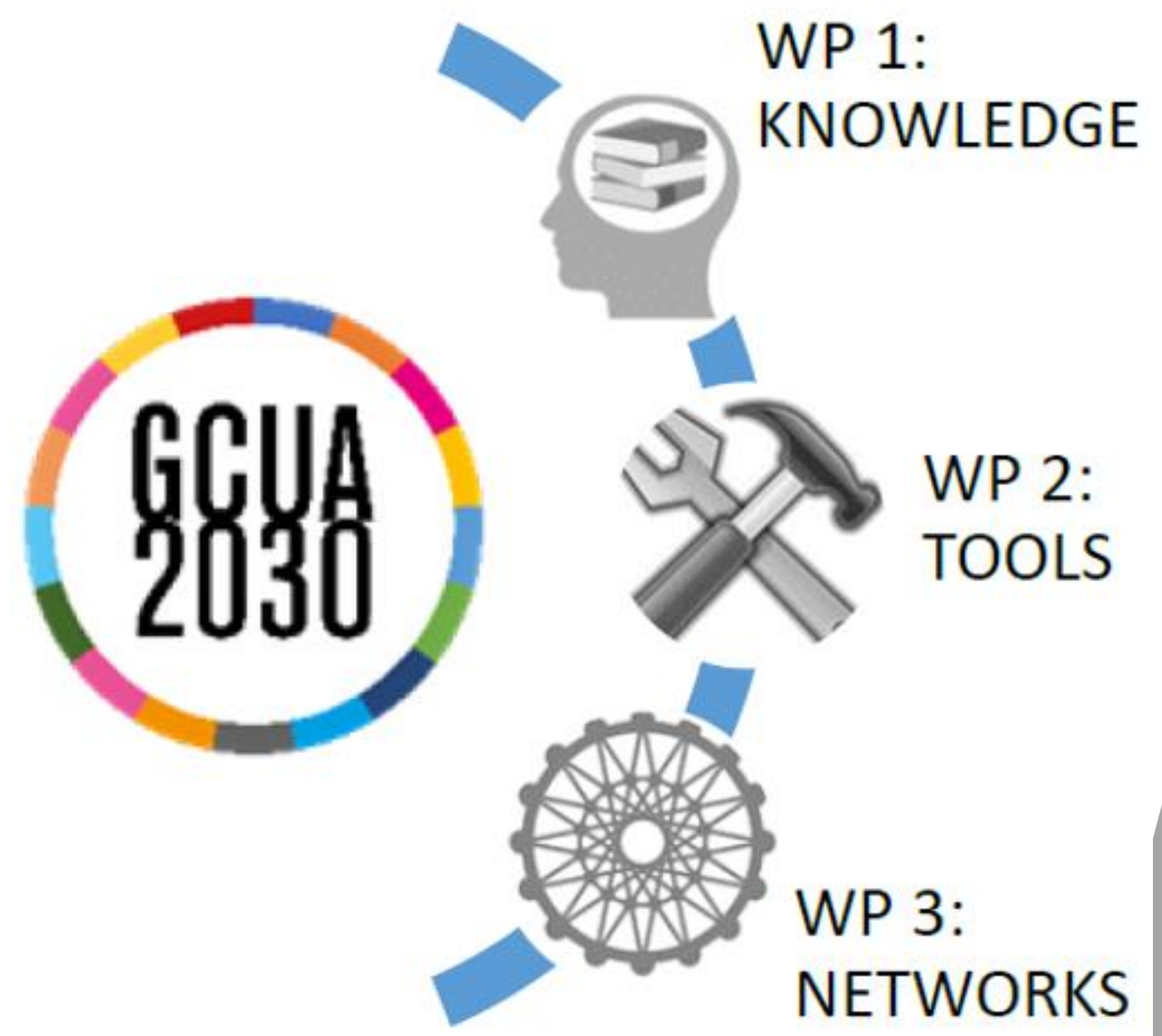


A global learning forum for PhD students

- the next generation of academic leaders

To equip PhD students from all partner universities with **knowledge, tools and networks** that will strengthen their capacity to:

- work across disciplines – and cultures
- conduct translational research
- contribute to sustainable global development





Online portfolio of learning and networking activities

- developed in consultation with PhD student ambassadors

- 4 courses
 - Credits/certificate
- Mentoring program
 - Pairing mentors/mentees across partner universities/disciplines
- Career workshops
 - Post doc planning
- Climate action challenge
 - Systems perspective
- Webinars, workshops

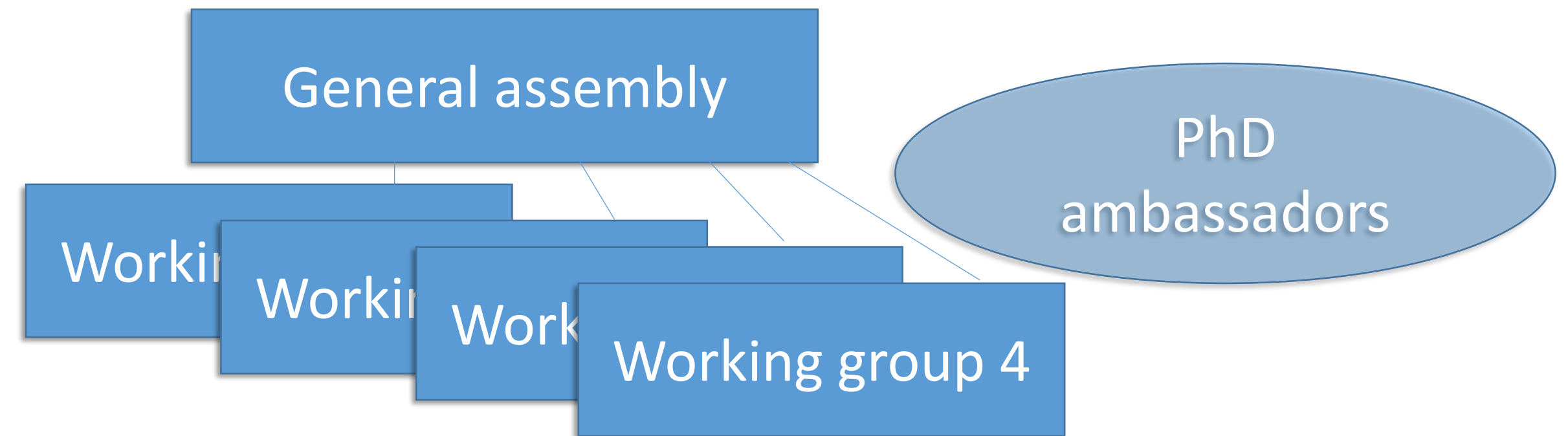
The screenshot shows a user interface for an online portfolio. At the top, there is a search bar and a 'Refine' button. Below are four course cards, each with a header image, a title, a description, and a footer with the course duration, cost, and credits.

Course Title	Description	Time limit	Cost	Credits
Agenda 2030: Synergies, conflicts, and assessment tools	Course start: 29 March 2022. Learn how to apply tools to constructively identify and approach goal conflicts, trade-offs, and synergies central to achieving the SDGs.	60 days	€50	1.5 credits
Working and communicating across cultures	Course start: 29 April 2022. Gain familiarity with how intercultural competence and communication can impact and contribute to work towards the SDGs.	60 days	€50	1.5 credits
Education for sustainable development: Teaching for sustainability	Course start: 7 June 2022. Begin to prepare for teaching in higher education in a way that strives toward the SDGs. The point of departure is the concept of Education for Sustainable Development.	60 days	€50	1.5 credits
Designing research with impact using the Theory of Change approach	Course start: 12 September 2022. Learn how to apply the Theory of Change approach to plan for impact in research projects, and analyze the potential impact of research.	60 days	€50	2 credits



Piloting digital internationalisation

- General assembly
 - Decision-making, strategic direction
- Working groups
 - Development of activities
- PhD student ambassadors
 - Advice to working groups, communication
- Physical meetings – start and end



- **Monitoring, evaluation and learning**
 - ToC and framework under development
 - Activities, Output, Outcome, Impact

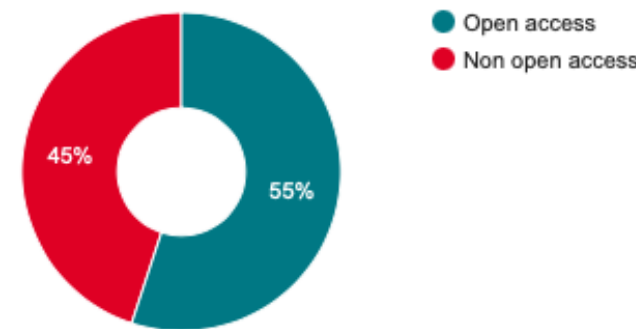
		2021				2022				2023				
		1	2	3	4	1	2	3	4	1	2	3	4	
WP 1	Research-focused webinars/courses/workshops		[Grey bar]											
	Sustainability in a globalized world (MOOC)				[Grey]				[Grey]			[Grey]		
WP 2	Sustainability in a globalized world (MOOC)				[Grey]				[Grey]			[Grey]		
	How to conduct a systematic review		[Grey]											
	How to write a policy brief					[Grey]								
WP 3	From research to innovation											[Grey]		
	Mentorship program				[Grey]	[Grey bar]								
	Case study					[Grey]	[Grey]	[Grey]	[Grey]	[Grey]	[Grey]	[Grey]	[Grey]	
Milestones	General Assembly meetings ^a	[Grey]				[Blue]				[Blue]				
	Meeting with all project participants												[Grey]	
	Annual and final reports				[Grey]				[Grey]				[Grey]	

^a Grey colour = physical meeting, blue colour = virtual meeting

MAKING AVAILABLE SDG RELEVANT KNOWLEDGE

Accessibility

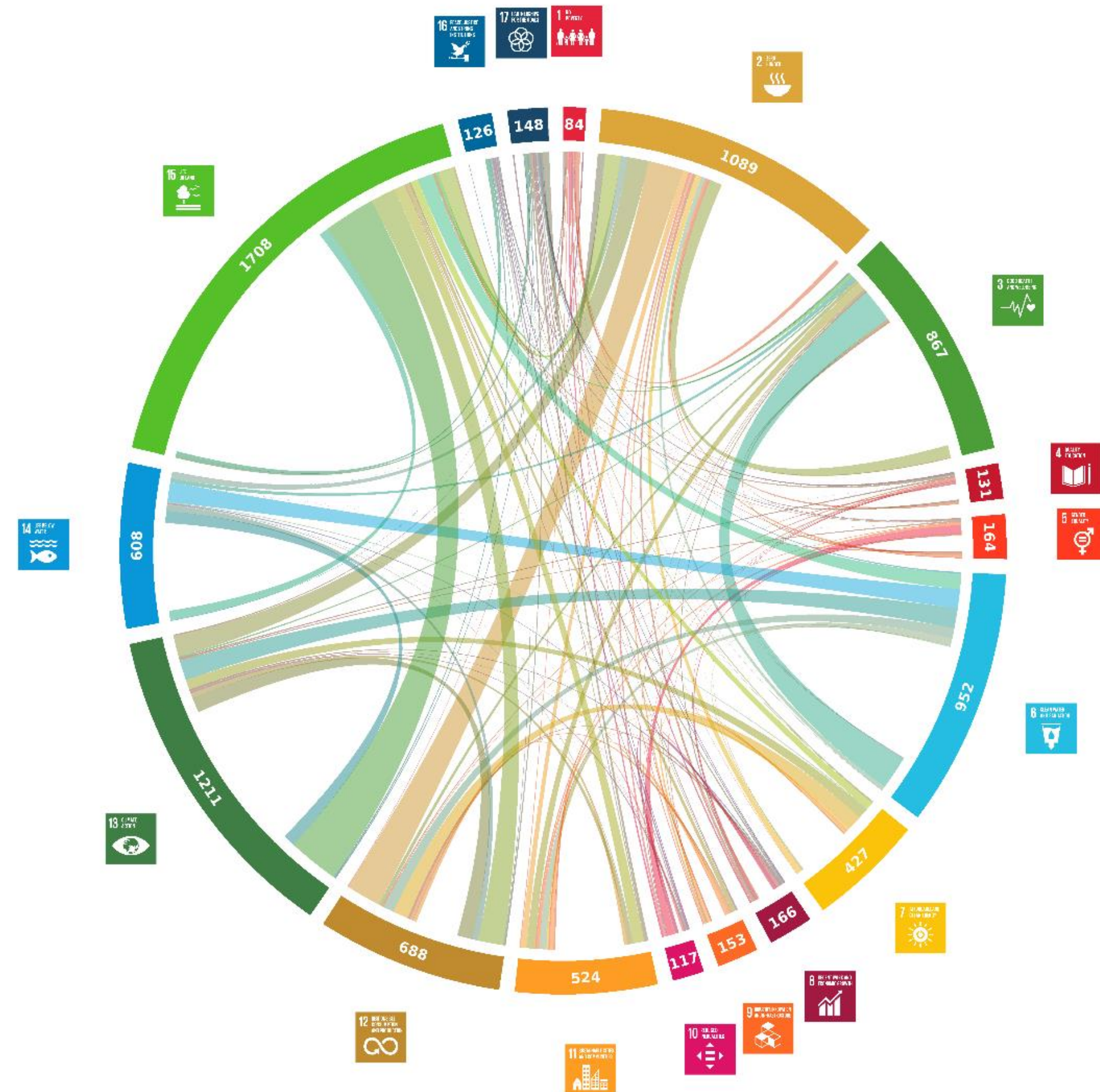
Through searching in reference databases we have found 1090 publications that relate to SDG2, and have authors from SLU. 622 of these are available with Open Access.



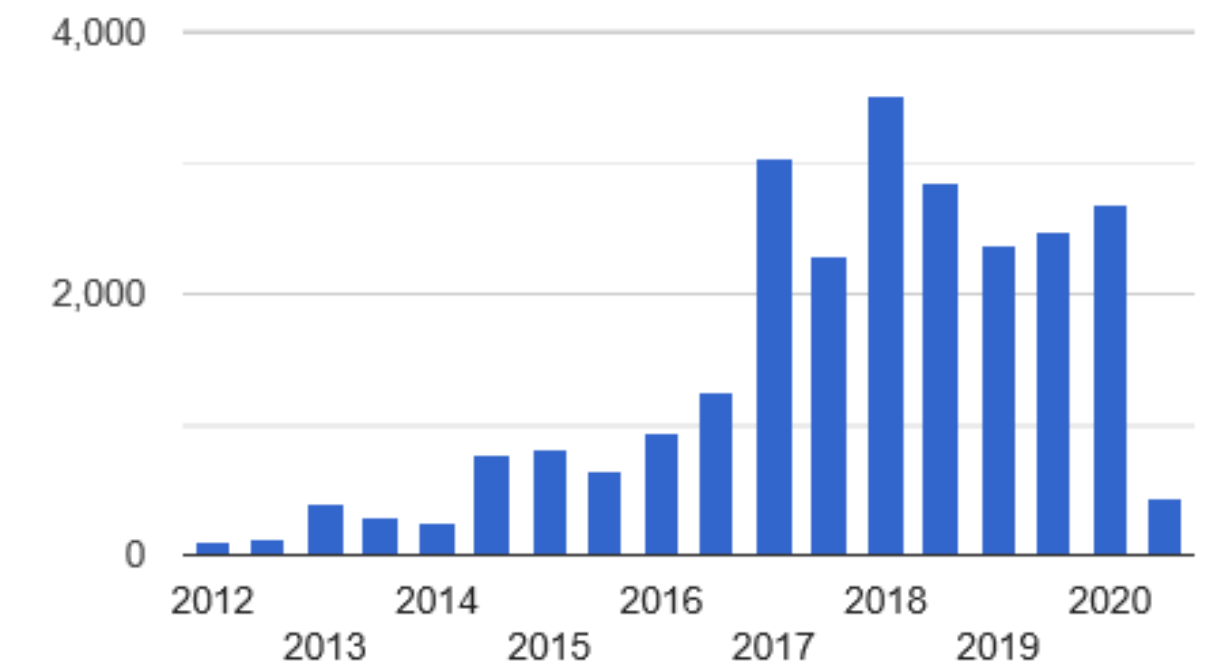
SDG2 - Zero hunger

SLU Publications

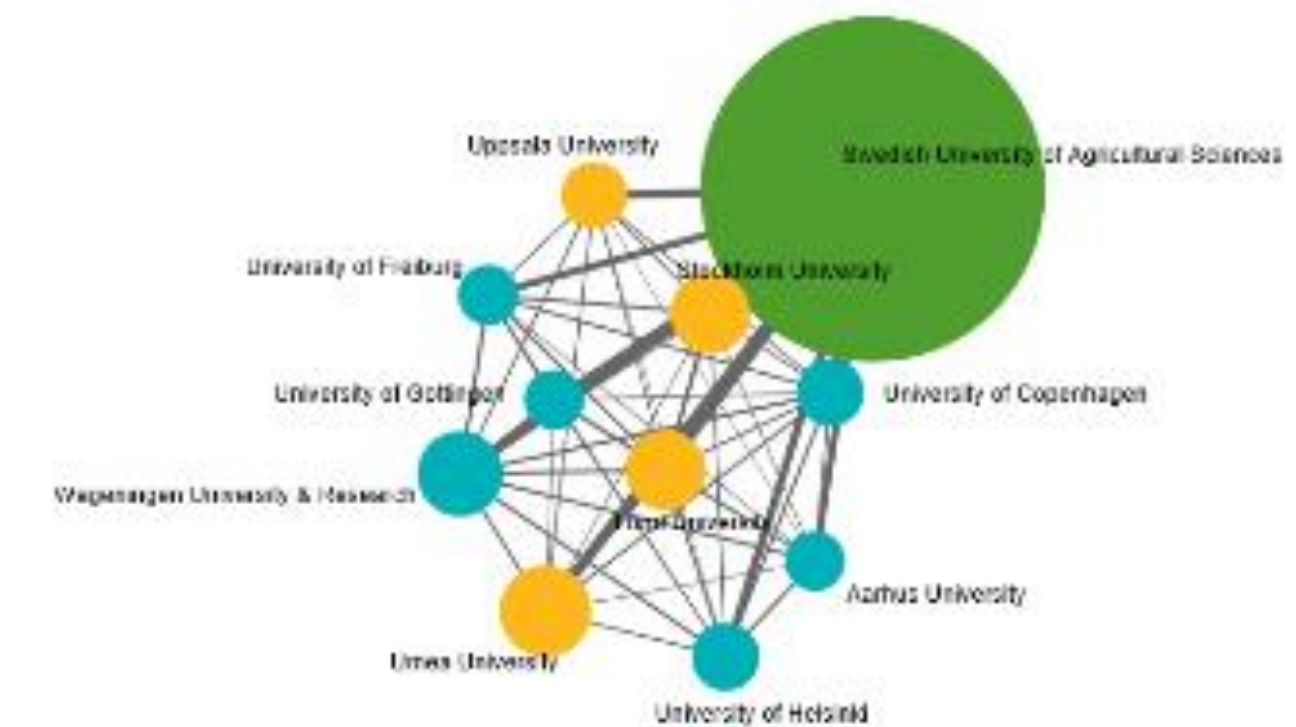
YEAR	PUBLICATION
2021	Bajzelj, Bojana; Laguzzi, Federica; Röö, Elin The role of fats in the transition to sustainable diets doi:10.1016/S2542-5196(21)00194-7 Download full text
2021	Kalt, Gerald; Mayer, Andreas; Haberl, Helmut; Kaufmann, Lisa; Lauk, Christian; Matej, Sarah; Röö, Elin; Theurl, Michaela C.; Erb, Karl-Heinz Exploring the option space for land system futures at regional to global scales: The diagnostic agro-food, land use and greenhouse gas emission model BioBaM-GHG 2.0 doi:10.1016/j.ecolmodel.2021.109729 Download full text
2021	Fischer, Klara Why Africa's New Green Revolution is failing - Maize as a commodity and anti-



Altmetric – proxy for societal impact



Collaboration



MAKING AVAILABLE SDG RELEVANT KNOWLEDGE

Accessibility

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Search profiles built on detailed analysis of targets
 Automated search of WoS
 + self reporting by scientists (reports, data etc)
 Curated lists, to check relevance

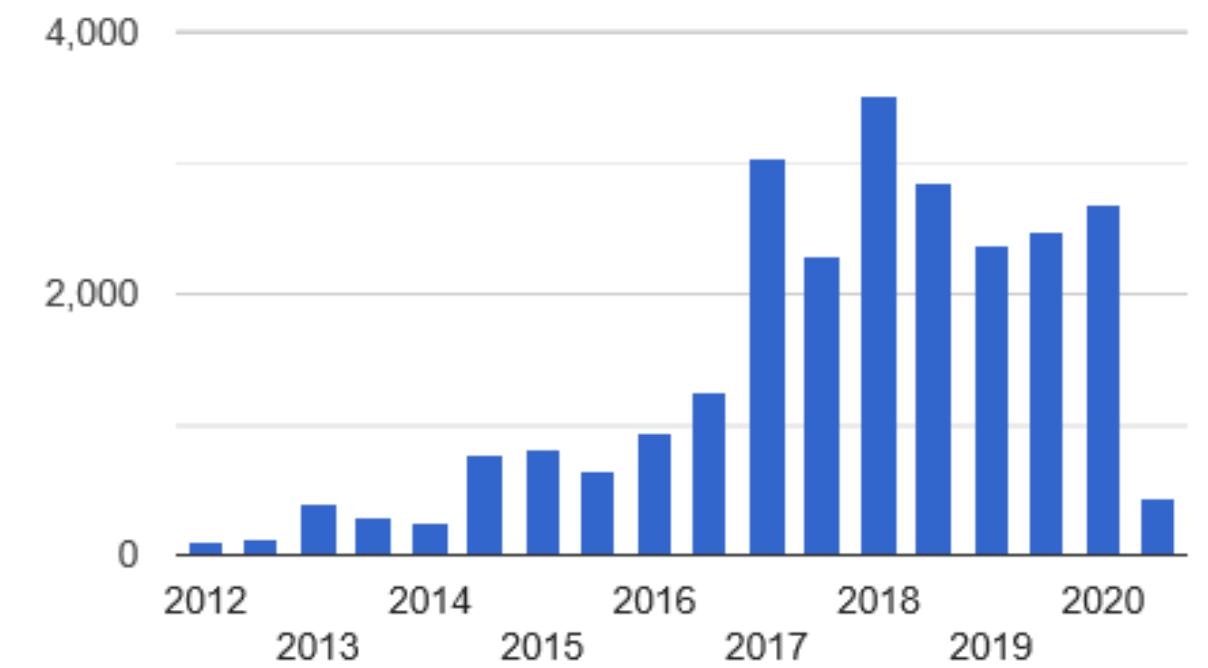
SDG2 - Zero hunger

SLU Publications

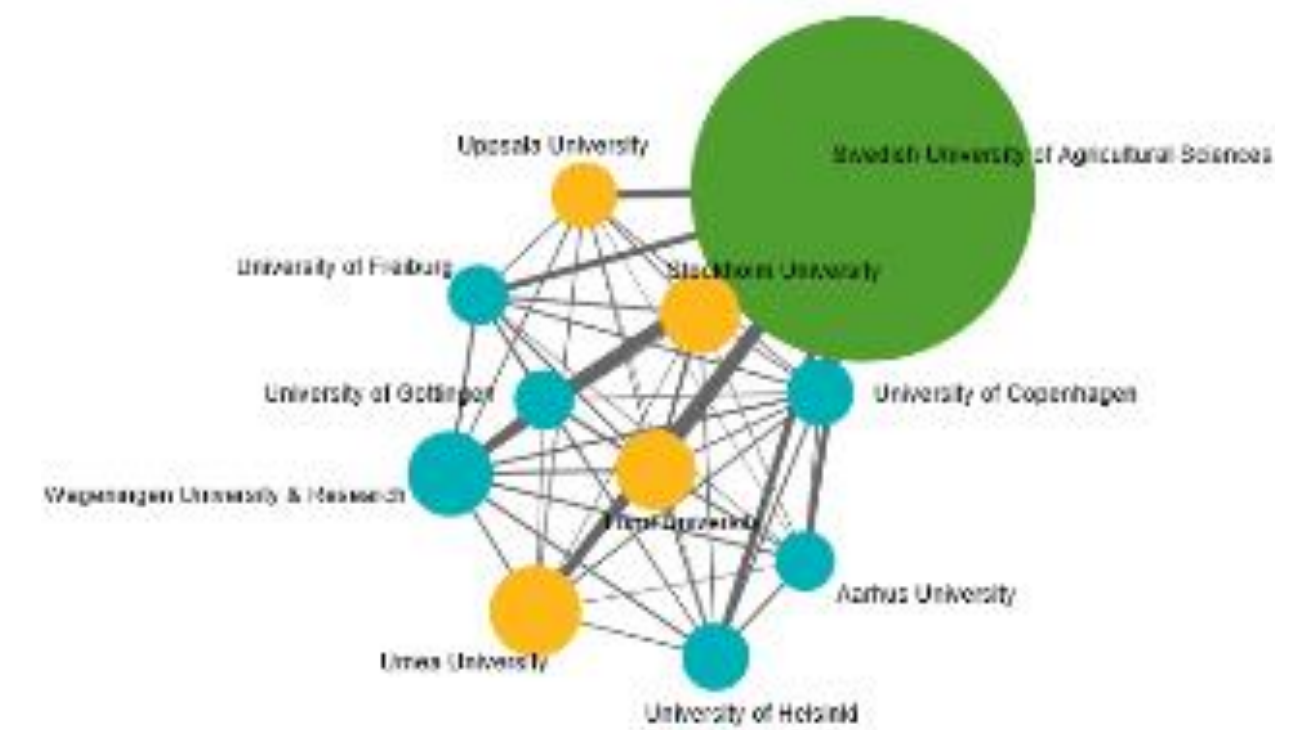
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MAKING AVAILABLE SDG RELEVANT

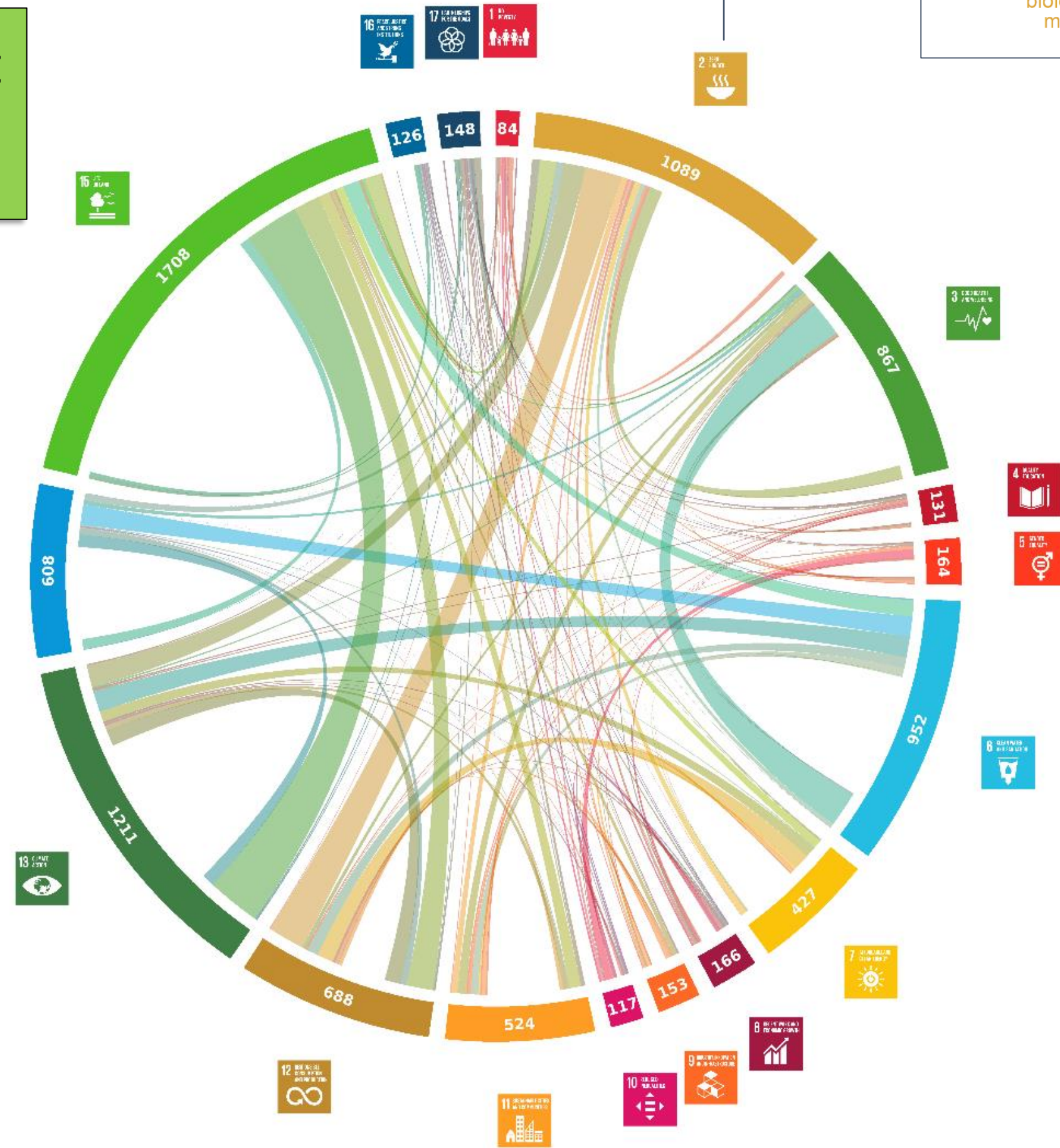
SDG

Continuous development of new functionalities...

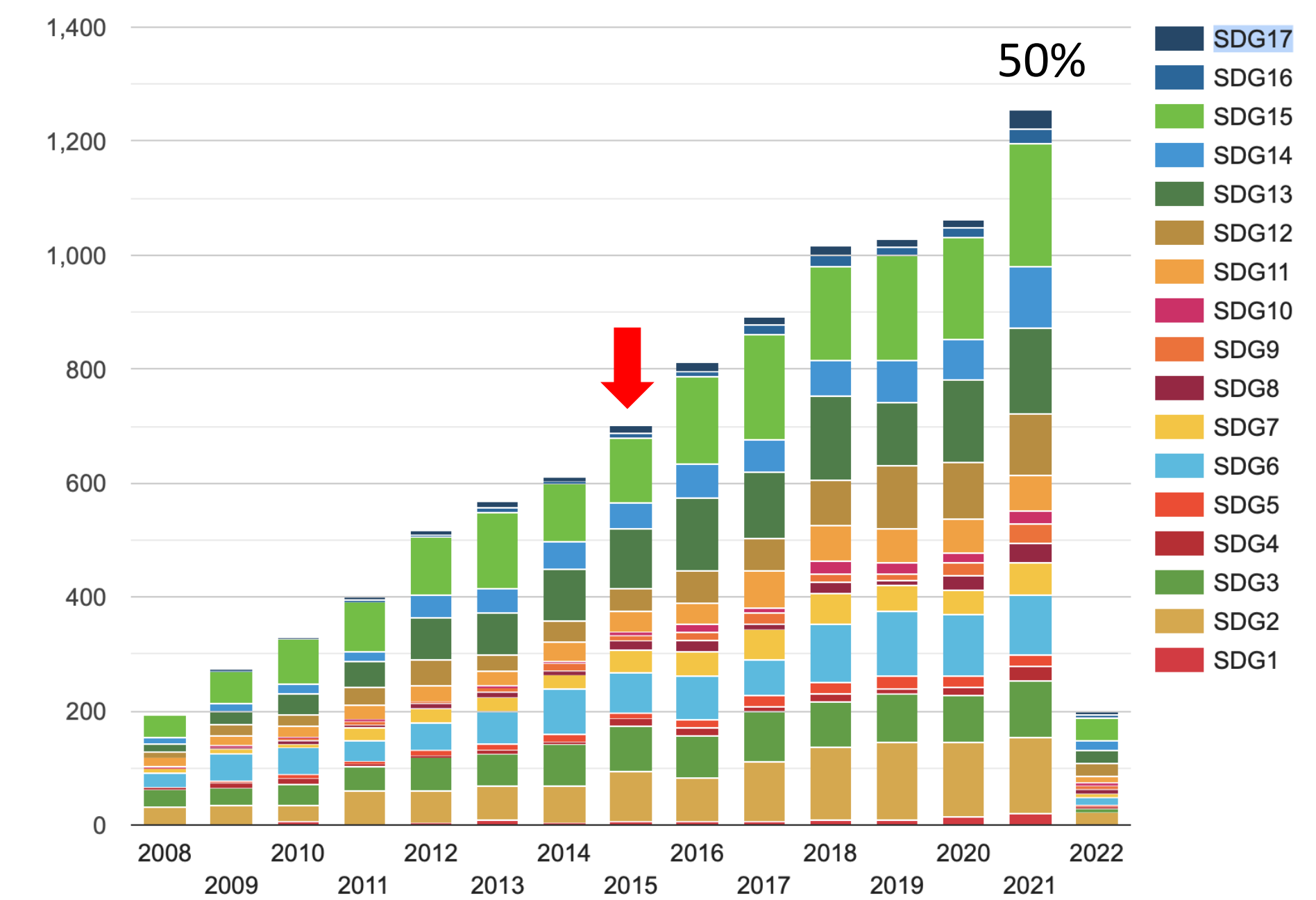
sustainable development
greenhouse gas emissions
sub-saharan africa
biodiversity
food waste animal welfare
sweden sustainable agriculture
land use climate change
livestock food agriculture nutrition
yield resilience food security
wheat management
genetic diversity lca
ethiopia
sustainability environment
ecosystem services agroecology
biological control risk assessment
microsatellites

Search function:
Publications related to several SDGs

marine strategy framework directive
perca fluviatilis freshwater
perch lakes nitrogen competition
ecosystem-based management
temperature herring phosphorus
cod climate change
reproduction fish fisheries kattegat
baltic sea
eutrophication predation
fisheries management biodiversity
management sprat
aquaculture gadus morhua
stock assessment atlantic salmon
conservation spatial distribution



Number of SDG-relevant publications





SCIENCE AND
EDUCATION **FOR**
SUSTAINABLE
LIFE



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International Collaboration for Tackling Grand Challenges

Jojo Nem Singh

*Assistant Professor in International Development, ISS Erasmus University Rotterdam,
the Netherlands*

Building International Collaboration within an ERC Project

Jewellord (Jojo) T. Nem Singh

Principal Investigator, GRIP-ARM (ERC STG No. 950056)

AESIS Conference | 04 November 2022

International
Institute of
Social Studies

Project Overview

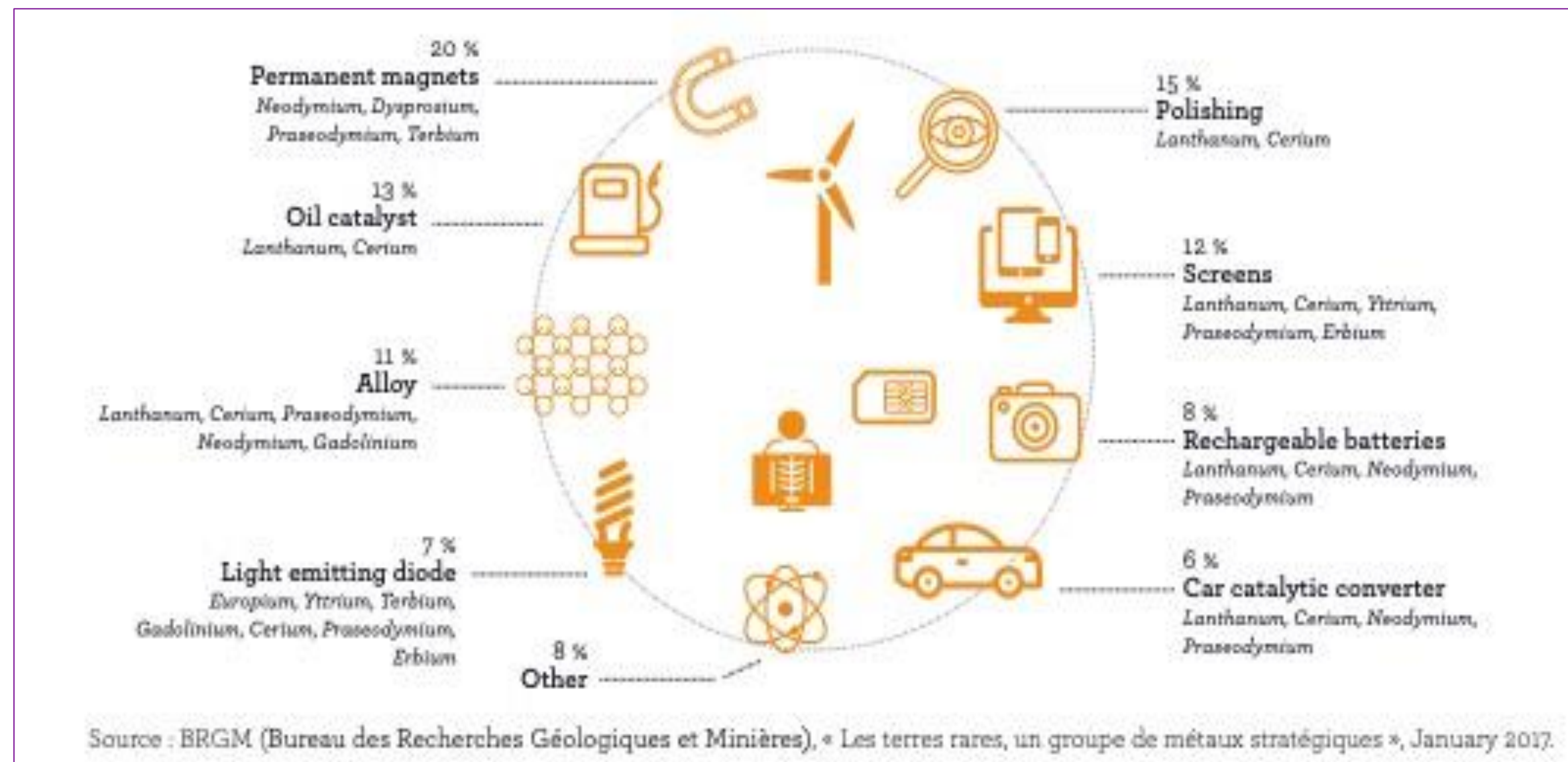
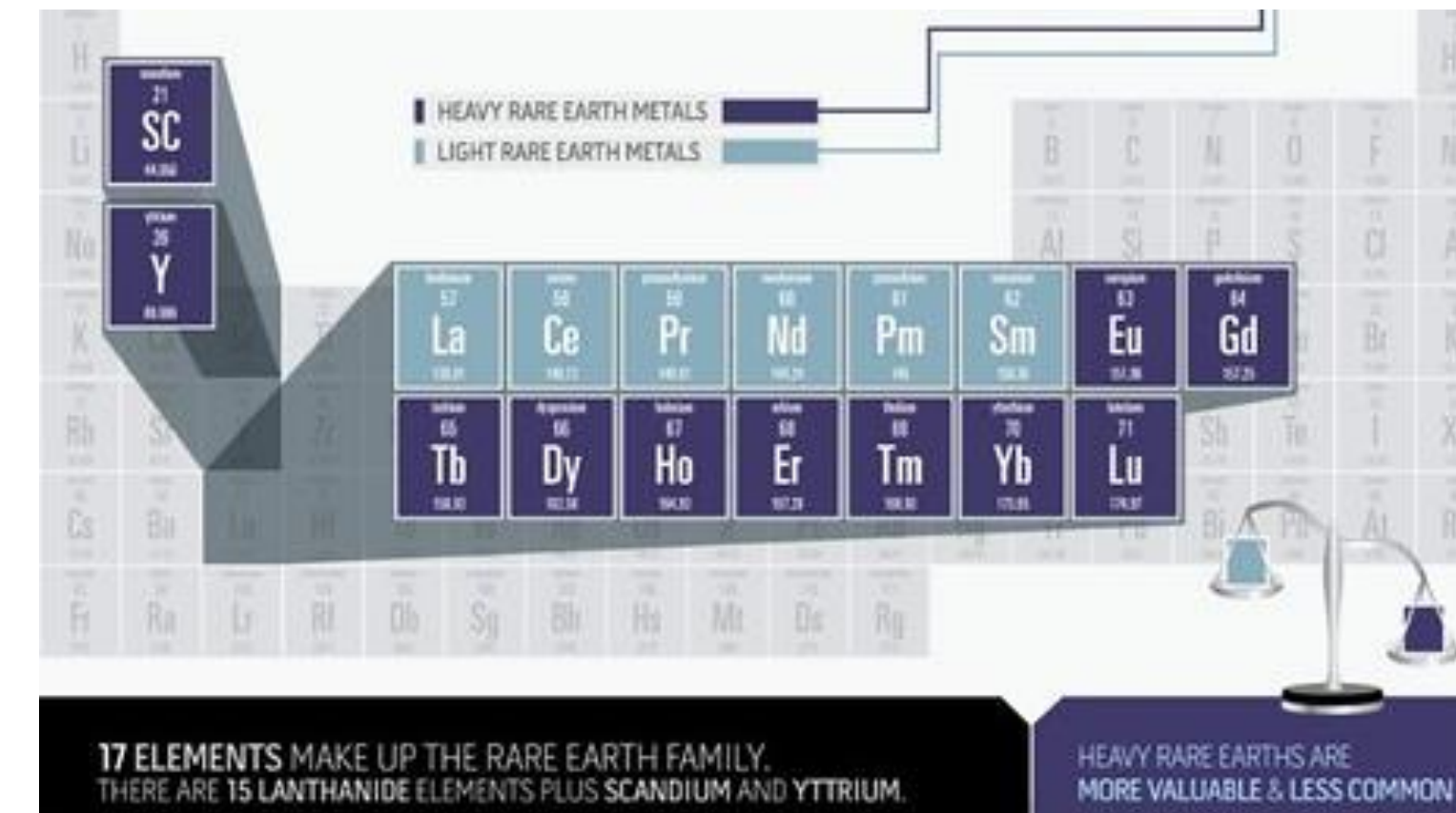
Green Industrial Policy in the Age of Rare Metals

Erasmus University Rotterdam
Make it happen.

The Erasmus University logo, featuring the word "Erasmus" in a stylized, cursive script.

What are Rare Earths Elements?

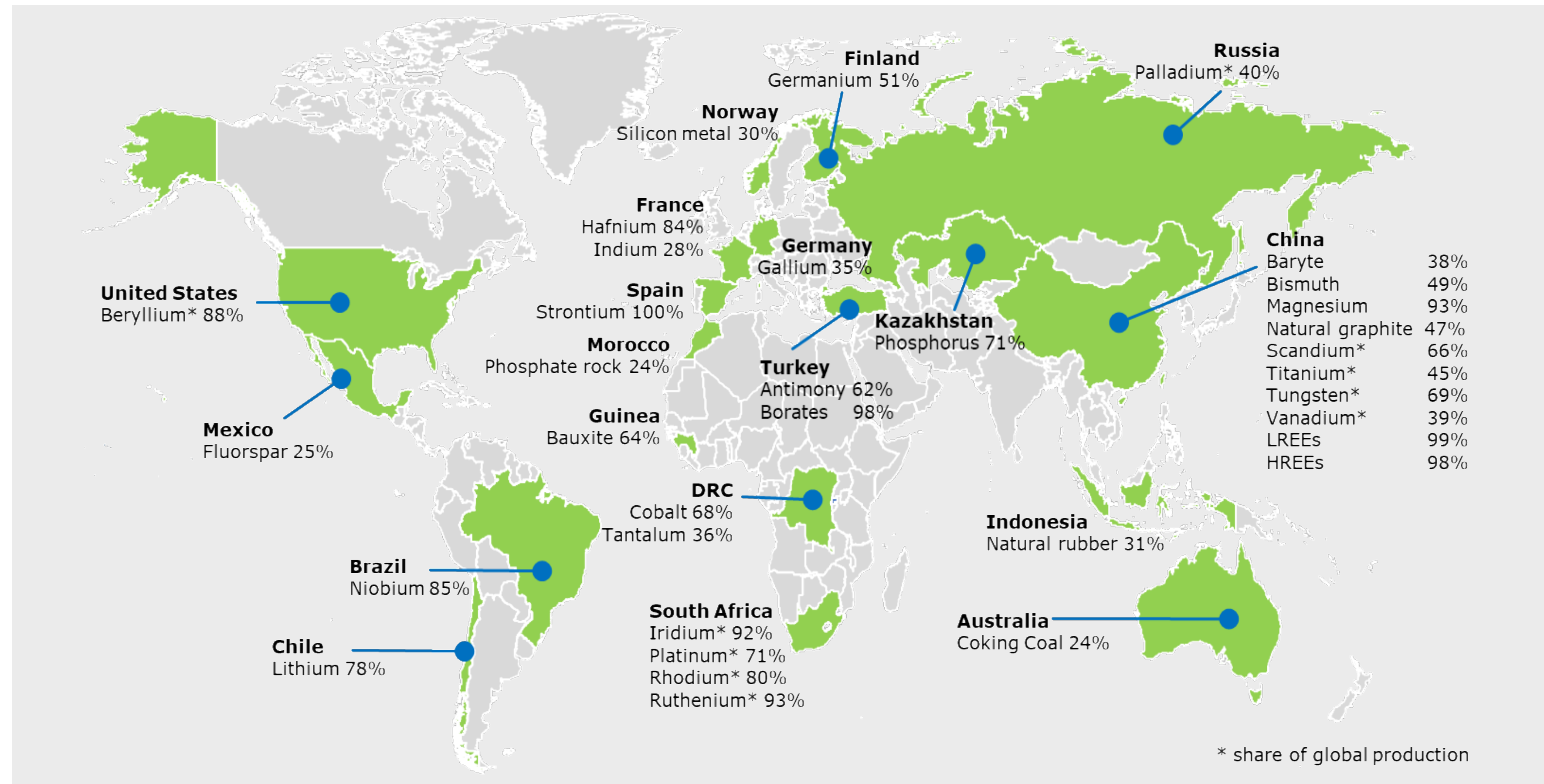
- Rare earth elements (REEs) – family of rare metals consisting of 17 elements with similar chemical properties.
- ‘Vitamins of the Modern Economy’ – mining in small scale BUT requires separation and processing.



Erasmus

Why study 'critical minerals'?

- Strategic dependence on minerals from China can lead to geopolitical vulnerabilities
- Primary mining is confined in only few countries → industrial competitiveness can be threatened in the context of deglobalization
- Mineral producer states will play a larger role in reshaping consumer countries' industrial policy



Erasmus

Our Main Questions

How do state capacity, business power, and organizational structure of domestic markets shape the design of industrial policies in resource-rich countries?

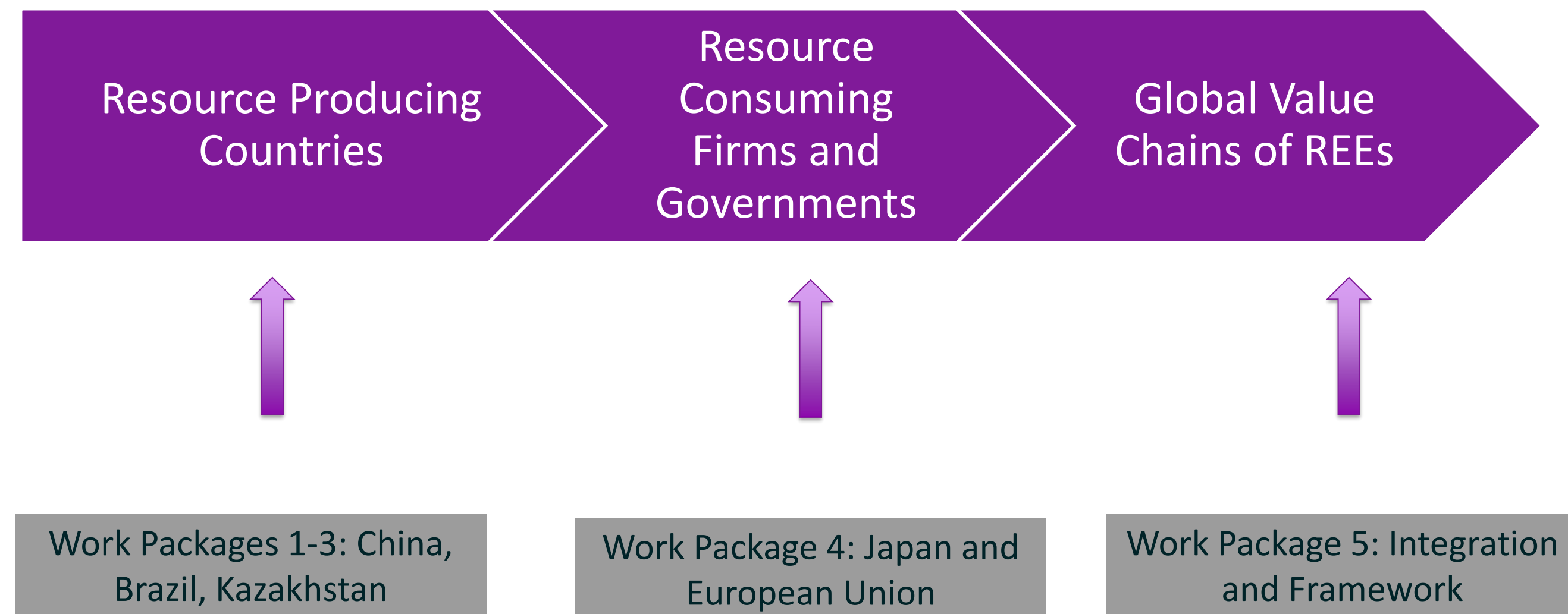
How do some countries successfully generate linkages between resource extraction and manufacturing, and what accounts for their failure?

How effective are the responses of resource-consuming countries and manufacturing firms in securing a stable supply chain whilst reducing the socio-environmental costs of extraction?

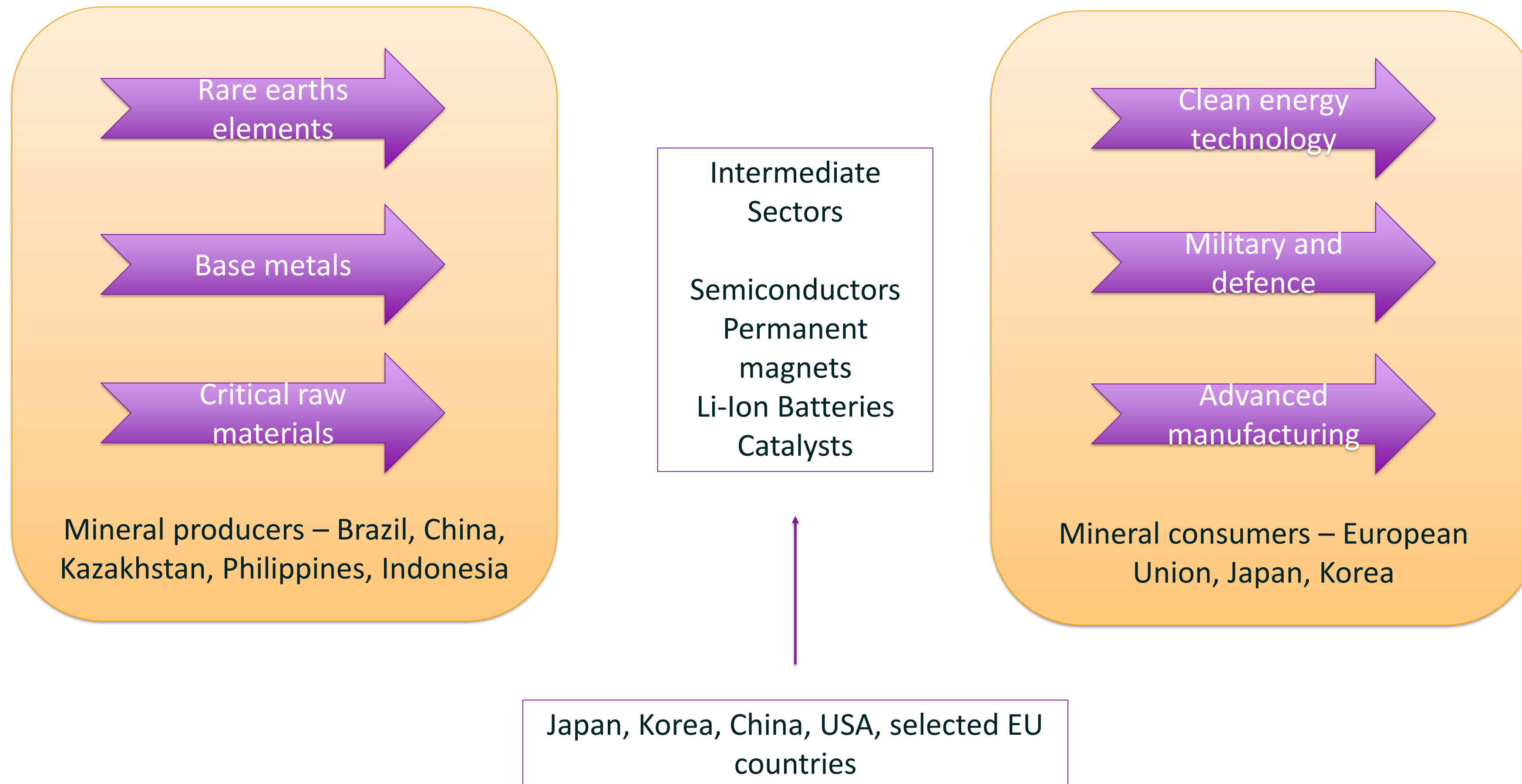
The logo for Erasmus, featuring the name in a stylized, cursive script.

A Global Value Chains Approach to Mining-based Development

- I. Centralised industrial policies + grand strategy linked to BRI (China);
- II. Hybrid industrial policies + public-private sector participation (Brazil);
- III. Mixture of public-private participation of MNEs (Kazakhstan).



Our Work Focus in the Value Chains



Supply Chain of Rare Earths Elements

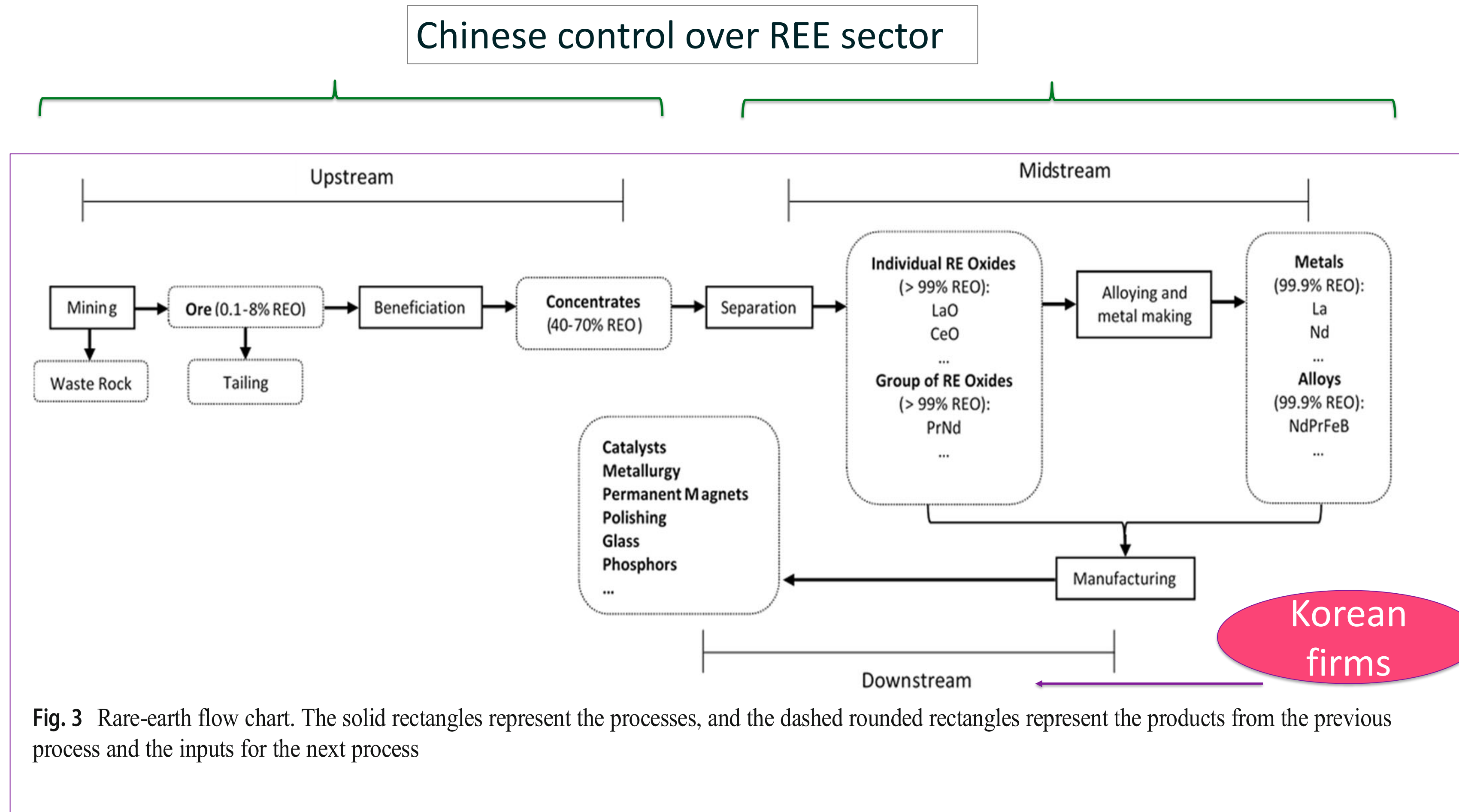
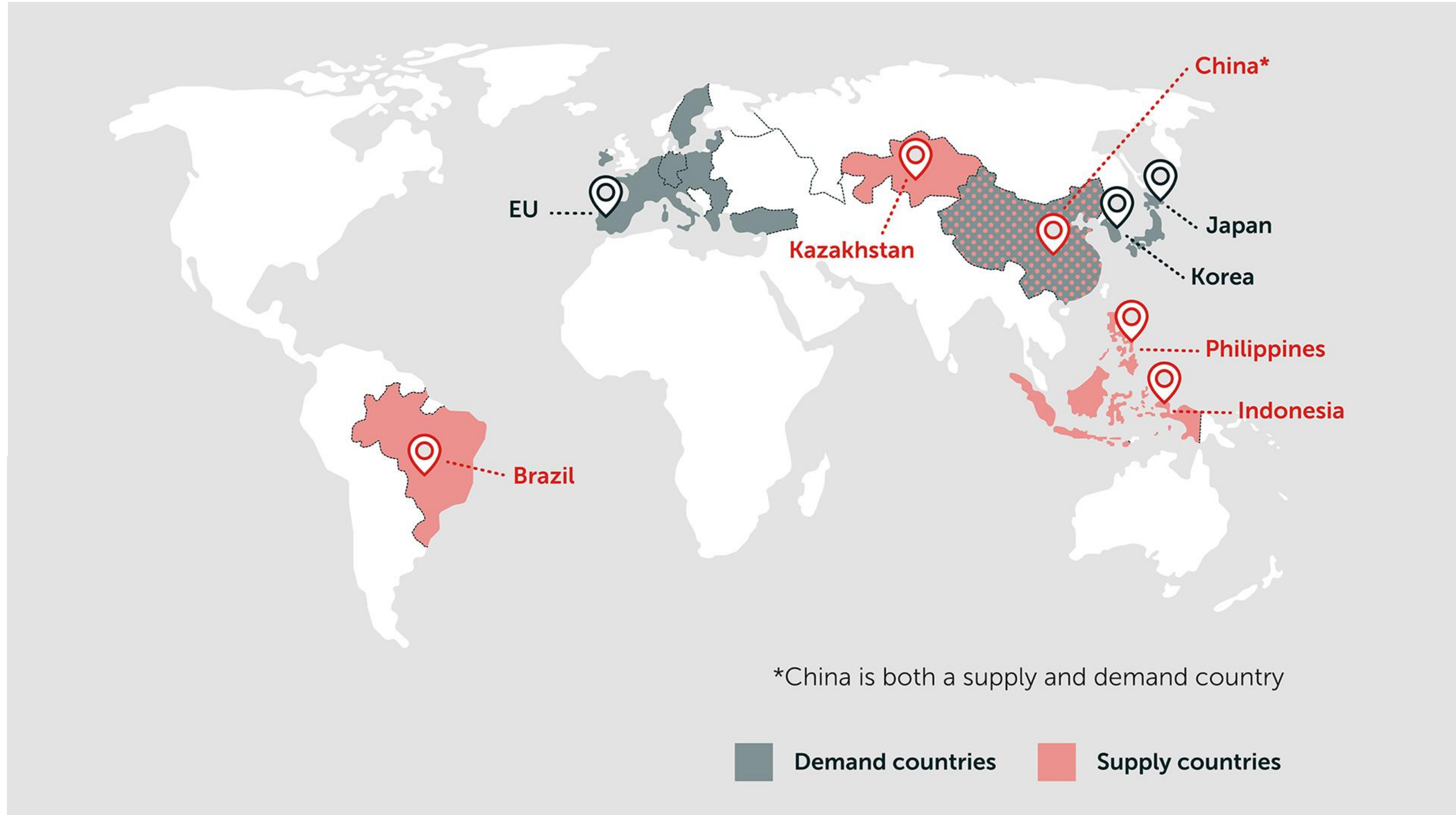


Fig. 3 Rare-earth flow chart. The solid rectangles represent the processes, and the dashed rounded rectangles represent the products from the previous process and the inputs for the next process

Sources: Shen, Moomy, and Eggert (2020, 131); U.S. Department of Energy (2020, 6)

Ezafus

Our Fieldwork Sites



Project Collaboration

- We draw strength by bringing together our combined expertise in Asian Studies and Development Studies
- Embedding our research team in a global network of academics and practitioners



**International
Institute of
Social Studies**

Erasmus

Research Strategy

- Build an International Advisory Board at proposal stage to ensure delivery of data collection – Tsinghua University, Tokyo University, IIAS, but also Embassy of Brazil and UNRISD Geneva.
- Expand the research network in Year 1 – Wilson Centre, UNDP, Embassy of Kazakhstan + top research universities in Asia (Seoul National University, Ateneo de Manila, University of São Paulo)
- Year 2: Focus on building network with private sector – industry associations, major companies in mining and downstream sectors, EU Battery Alliance

The Erasmus logo is a stylized, handwritten-style signature of the word "Erasmus" in black ink, located in the bottom right corner of the slide.

Maximizing the ERC Grant

- 100% scientific project but important to engage with policy-makers
- National workshops at the end of project cycle
- Speaker Series focussed on four key pillars – critical minerals governance, industrial policy, environment and sustainability, China and geopolitics
- We are setting up a *Policy Paper Series* aimed at decision-makers
- Publication - cycle of papers and blogs → academic and non-academic audiences

The Erasmus logo is a stylized, handwritten-style signature of the word "Erasmus" in black ink, located in the bottom right corner of the slide.

Thank you!

- Visit my webpage: <https://nemsingh.com/>
- University website: <https://www.iss.nl/en/people/jojo-nem-singh>
- Project website: <https://www.iss.nl/en/research/research-projects/transregional-comparison-growth-strategies-rare-earth-mining>
- Follow me on twitter: @JNemSingh @GRIP_ARM



Erasmus



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International Collaboration for Tackling Grand Challenges

Heidi van Rooyen

*Group Executive: Impact Centre & Acting DCEO Research, Human Sciences
Research Council, South Africa*



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Panel discussion and Q&A

Ylva Hillbut(Chair)

Jojo Nem Singh

Heidi van Rooyen