The Global Sustainable Development Report (GSDR): Paving the way for global transformation to sustainable development by 2030

https://sustainabledevelopment.un.org/globalsdreport/2019

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ESDN Helsinki 30.10.2019

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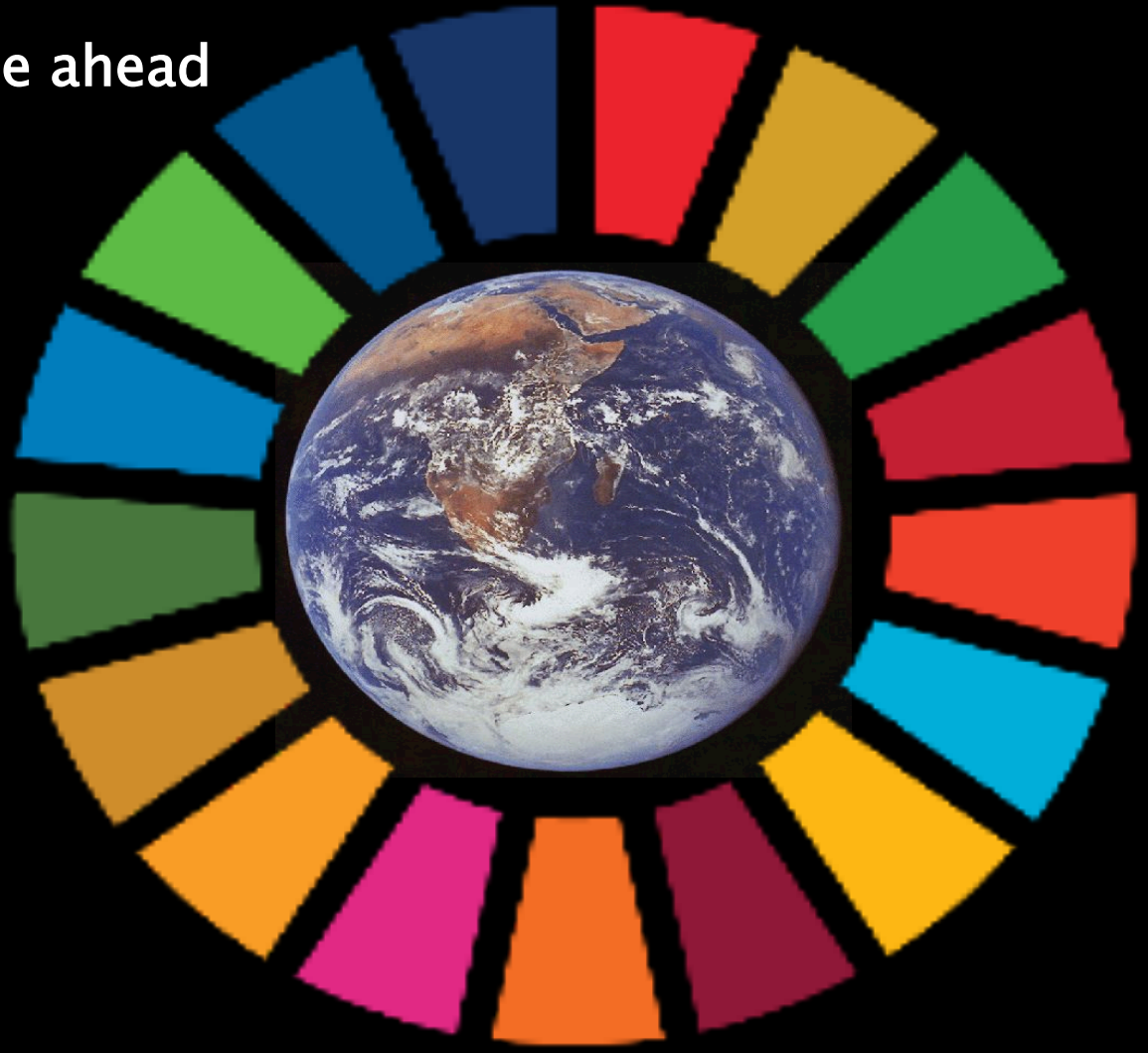
A decisive decade ahead



Plenty of action mobilised

- Governments
- Regions
- Cities
- Business
- Civil society
- Research

PICUTURE: NATURE.COM, MIKA BAUMEISTER, TOBIAS BENNETT

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Process of GSDR

Face-to-face meetings in New York and continuous consultations facilitated by UN DESA
Support by Task Team of six UN Agencies: DESA, UNEP, UNCTAD, UNDP, UNESCO, and World Bank

Dec 2016

Received mandate

- Nominations by Member States
- Appointment by UNSG

2017

- Understanding the mandate
- Develop overall concept

- First Member State briefing
- Workshop in Helsinki
- External Inputs

2018

- Zero Draft
- Consultations
- 1st Draft

- Second Member State briefing
- Workshop Washington DC; Regional Consultation in South Africa; Argentina and Bangladesh Participation to regional UN fora

2019

- 2nd Draft
- Scientific review
- Member states comments
- Final draft and launch at UN SDG Summit

- Third Member State briefing
- Regional Consultation in Jordan

How have the targets been reached?

- Progress slow
- Partly no progress at all, partly change to negative direction

Business-as-usual approaches

GOAL	WITHIN 5%	5–10%	>10%	NEGATIVE LONG-TERM TREND
Goal 1		1.1. Eradicating extreme poverty	1.3. Social protection for all	
Goal 2		2.1. Ending hunger (undernourishment)	2.2. Ending malnutrition (stunting) 2.5. Maintaining genetic diversity 2.a. Investment in agriculture*	2.2. Ending malnutrition (overweight)
Goal 3	3.2. Under 5 mortality 3.2. Neonatal mortality		3.1. Maternal mortality 3.4. Premature deaths from non-communicable diseases	
Goal 4	4.1 Enrolment in primary education	4.6 Literacy among youth and adults	4.2. Early childhood development 4.1 Enrolment in secondary education 4.3 Enrolment in tertiary education	
Goal 5			5.5. Women political participation	
Goal 6		6.2. Access to safe sanitation (open defecation practices)	6.1. Access to safely managed drinking water 6.2. Access to safely managed sanitation services	
Goal 7		7.1. Access to electricity	7.2. Share of renewable energy* 7.3. Energy intensity	
Goal 8			8.7. Use of child labour	
Goal 9		9.5. Enhancing scientific research (R&D expenditure)	9.5. Enhancing scientific research (number of researchers)	
Goal 10			10.c. Remittance costs	Inequality in income**
Goal 11			11.1. Urban population living in slums*	
Goal 12				12.2. Absolute material footprint, and DMC*
Goal 13				Global GHG emissions relative to Paris targets**
Goal 14				14.1. Continued deterioration of coastal waters* 14.4. Overfishing*
Goal 15				15.5. Biodiversity loss* 15.7. Wildlife poaching and trafficking*
Goal 16			16.9 universal birth registration *	

* target not specified ** based on most recently available data

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Four alarming trends, which threaten the progress of the entire 2030Agenda

Rising inequalites

Biodiversity loss

Climate change

Growing amount of waste

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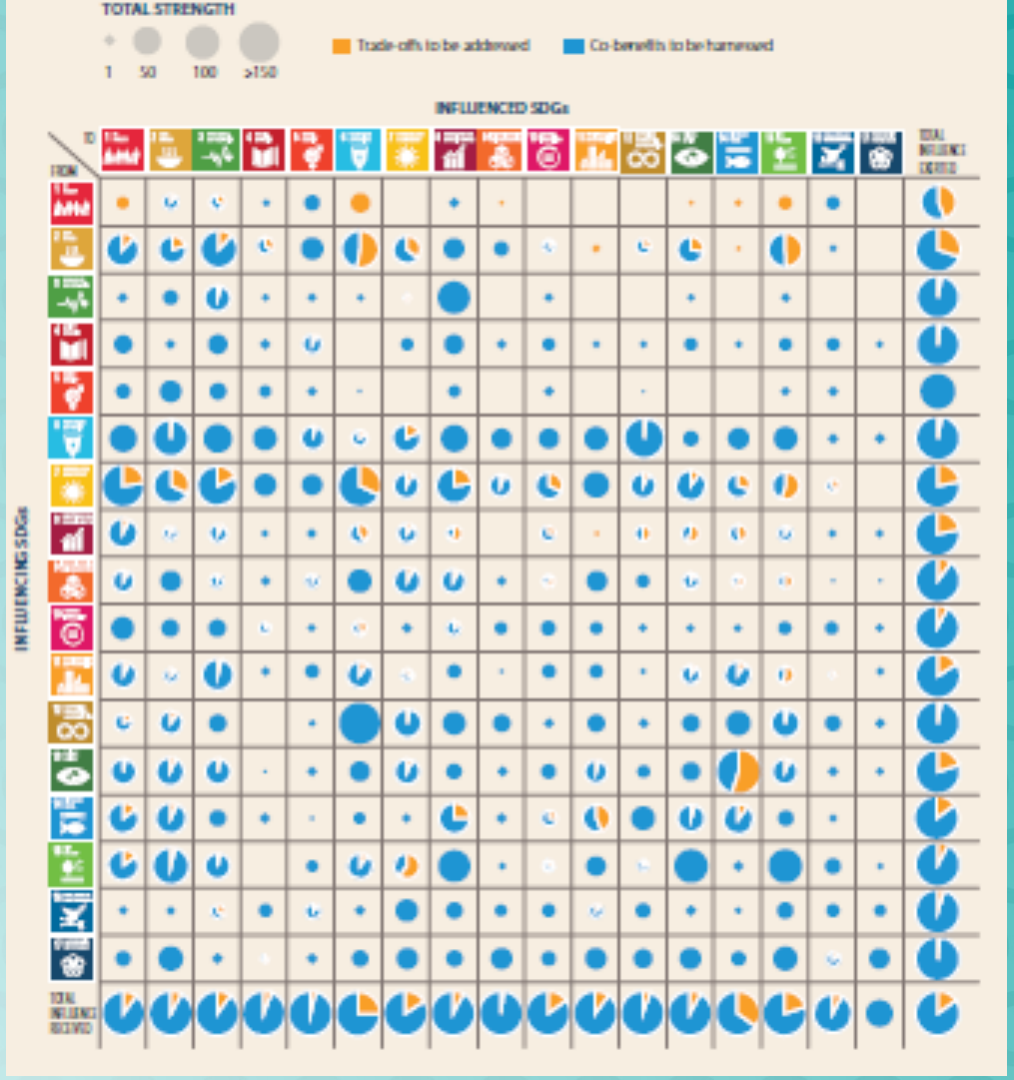
Interlinkages between goals essential: foreseeing the potentials and the needs to act



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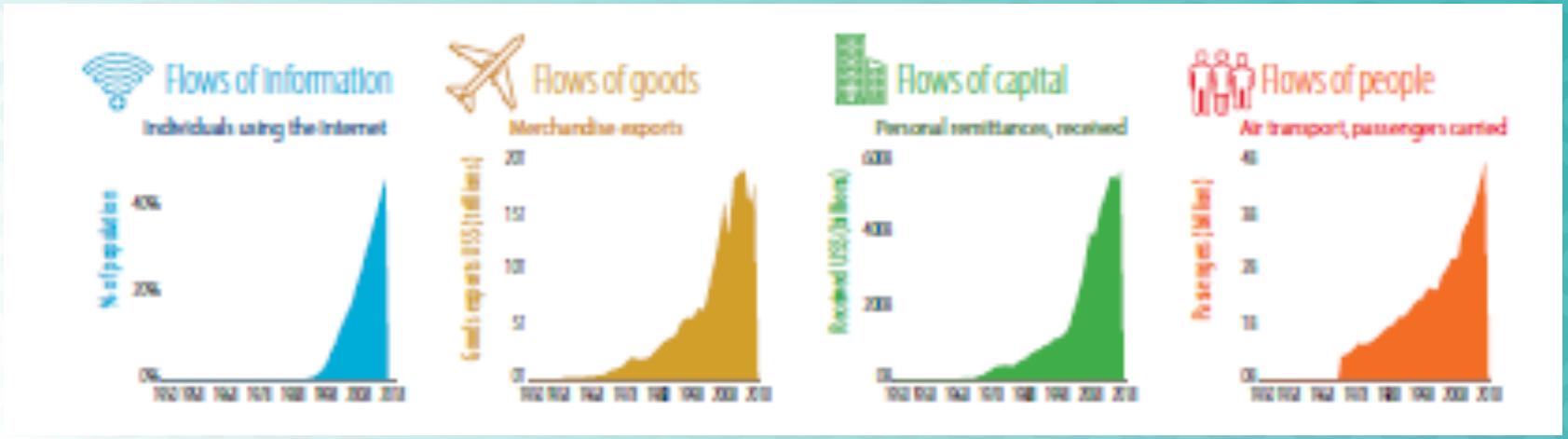
An increasingly hyper-connected world:

Benefits and losses of global flows are divided inequally



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Both challenges as well as transformations are in the hands of several actors

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winners...

	Country/Corporation	Revenue (USD bn)		Country/Corporation	Revenue (USD bn)		Country/Corporation	Revenue (USD bn)		Country/Corporation	Revenue (USD bn)
1	United States	3363	26	Mexico	224	51	General Electric (US)	140	76	Walgreens Boots Alliance (US	104
2	China	2465	27	Switzerland	216	52	CSCEC (CN)	139	77	HP (US)	103
3	Japan	1696	28	Berkshire Hathaway (US)	211	53	AmerisourceBergen (US)	136	78	Assicurazioni Generali (IT)	103
4	Germany	1507	29	India	200	54	Agricultural Bank of China	133	79	Cardinal Health (US)	103
5	France	1288	30	Norway	200	55	Verizon (US)	132	80	BMW (DE)	102
6	United Kingdom	996	31	McKesson (US)	192	56	Chevron (US)	131	81	Express Scripts Holding (US)	102
7	Italy	843	32	Russia	187	57	E.ON (DE)	130	82	Nissan Motor (JP)	102
8	Brazil	632	33	Austria	187	58	AXA (FR)	129	83	China Life Insurance (CN)	101
9	Canada	595	34	Turkey	184	59	Indonesia	129	84	J.P. Morgan Chase (US)	101
10	Walmart (US)	482	35	Samsung Electronics (KR)	177	60	Finland	128	85	Koch Industries (US)	100
11	Spain	461	36	Glencore (CH/JE)	170	61	Allianz (DE)	123	86	Gazprom (RU)	99
12	Australia	421	37	ICBC (CN)	167	62	Bank of China (CN)	122	87	China Railway Eng. (CN)	99
13	State Grid (CN)	330	38	Daimler (DE)	166	63	Honda Motor (JP)	121	88	Petrobras (BR)	97
14	Netherlands	323	39	UnitedHealth Group (US)	157	64	Cargill (US)	120	89	Schwarz Group (DE)	97
15	South Korea	304	40	Denmark	157	65	Japan Post Holdings (JP)	119	90	Trafigura Group (NL/SG)	97
16	China Nat. Petroleum (CN)	299	41	EXOR Group (IT/NL)	154	66	Costco (US)	116	91	Nippon Telegraph and Tel. (JI	96
17	Sinopec Group (CN)	294	42	CVS Health (US)	153	67	Argentina	116	92	Boeing (US)	96
18	Royal Dutch Shell (NL/GB)	272	43	General Motors (US)	152	68	BNP Paribas (FR)	112	93	Venezuela	96
19	Sweden	248	44	Vitol (NL/CH)	152	69	Fannie Mae (US)	111	94	China Railway Constr. (CN)	95
20	Exxon Mobil (US)	246	45	Ford Motor (US)	151	70	Ping An Insurance (CN)	110	95	Microsoft (US)	94
21	Volkswagen (DE)	237	46	China Constr. Bank (CN)	150	71	Kroger (US)	109	96	Bank of America Corp. (US)	93
22	Toyota Motor (JP)	237	47	Saudi Arabia	150	72	Société Générale (FR)	108	97	ENI (IT)	93
23	Apple (US)	234	48	AT&T (US)	147	73	Amazon.com (US)	107	98	Greece	93
24	Belgium	232	49	Total (FR)	143	74	China Mobile Comm. (CN	106	99	Nestlé (CH)	92
25	BP (GB)	226	50	Hon Hai Precision Ind. (TW)	141	75	SAIC Motor (CN)	105	100	Wells Fargo (US)	90

Nation states | Multi-national company | Fossil-fuel based industry

on Babic M, Fichtner J, Heemskerk EM. 2017. States versus Corporations: Rethinking the Power of Business in International Politics. The International Spectator. 52(4):20–43. doi: 10.1080/03932729.2017.1389151.

… and losers

The way forward

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Six key areas for transformation

1) Human well-being and capabilities
2) Sustainable and just economies
3) Sustainable food systems and healthy nutrition
4) Energy decarbonization with universal access
5) Sustainable urban and periurban development
6) Securing global environmental commons

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How to do it?

Four levers to be coherently deployed for each entry point:

- Governance
- Economy and finance
- Individual and collective action
- Science and technology

Context-dependent combinations of the levers form *integrative pathways to transformation*

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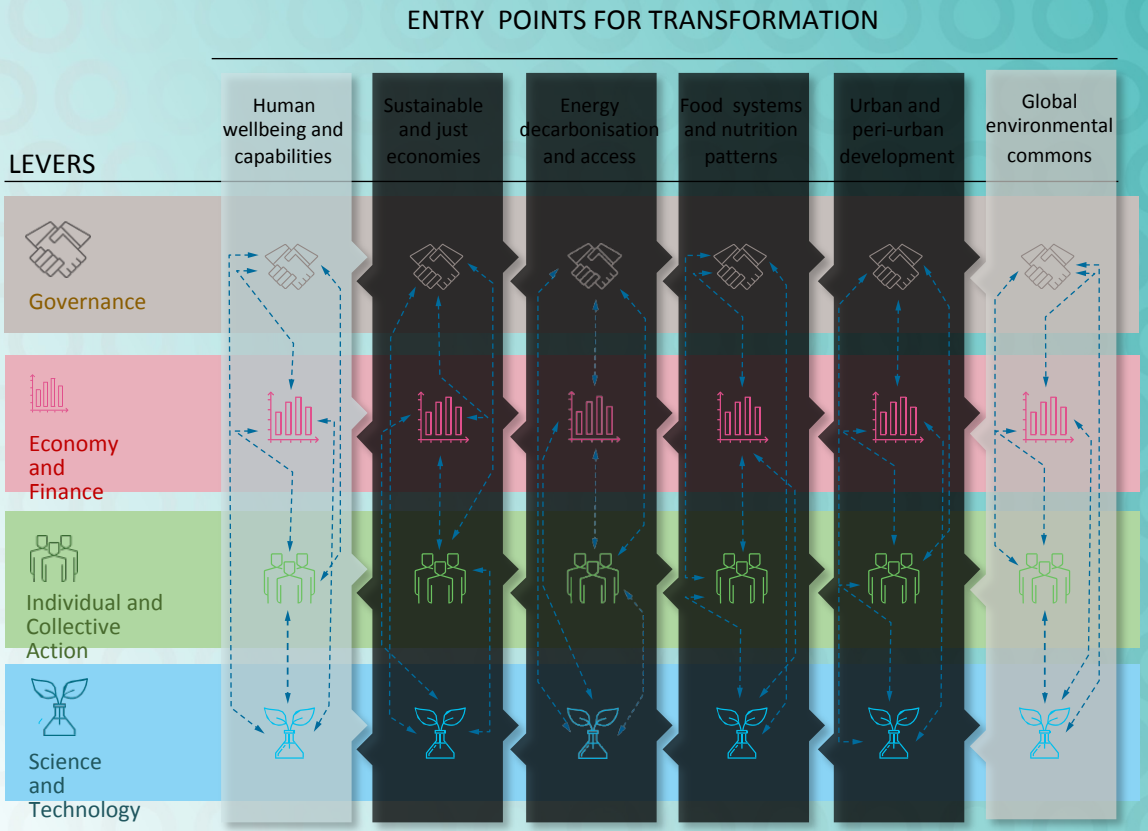
An operational roadmap: Context-specific pathways to transformation for sustainability



Pathways to Transformation as context-specific configurations of levers to achieve transformation in each entry point

Food and nutrition

- Global food systems to deliver just and environmentally sustainable food to the growing populations
  - Transformation of agriculture
  - Small farms with forest farming

- Healthier and more sustainable eating habits, reduction of foodwaste

9 billion people

KUVAT: OPENNESS.EU JA MINNA KALJONEN/SYKE

Building sustainable food systems and nutrition patters

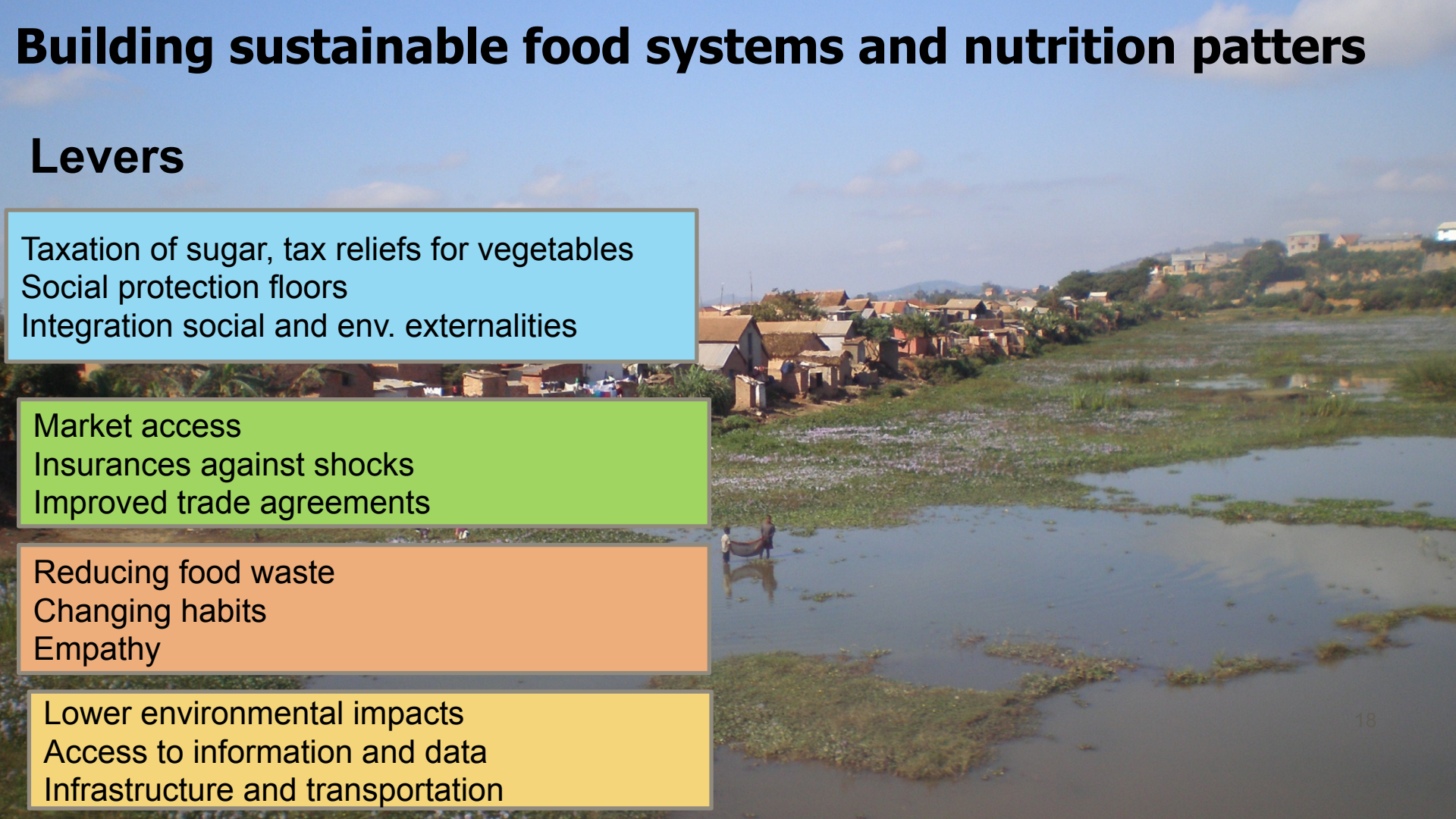
Levers

Taxation of sugar, tax reliefs for vegetables
Social protection floors
Integration social and env. externalities

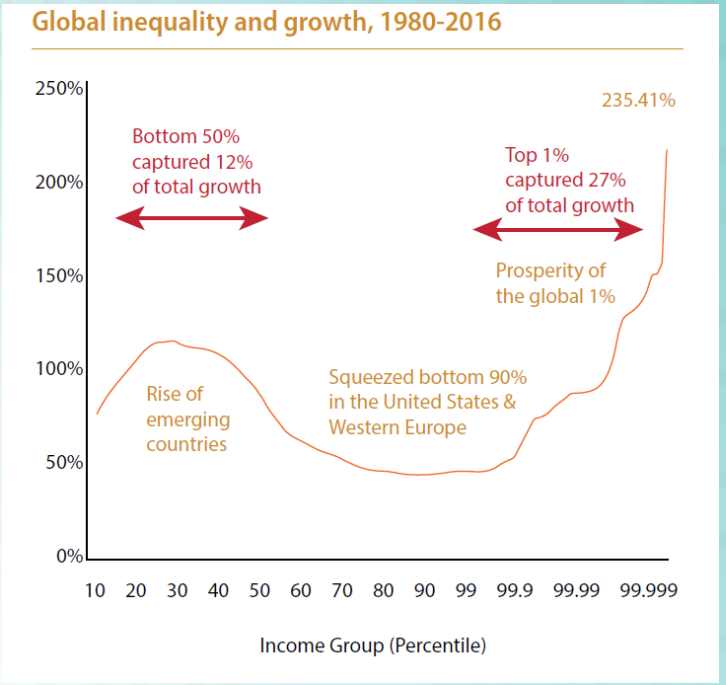
Market access
Insurances against shocks
Improved trade agreements

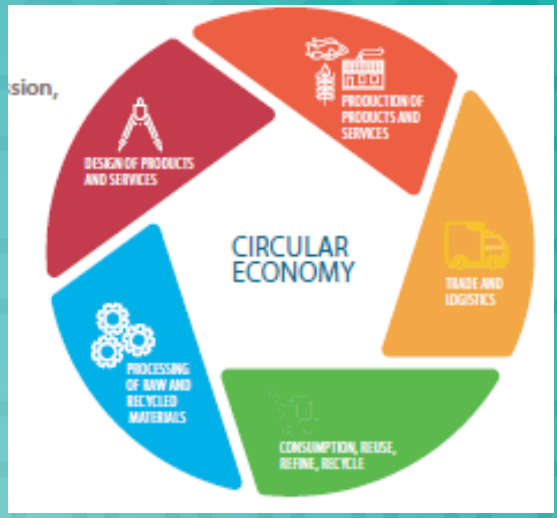
Reducing food waste
Changing habits
Empathy

Lower environmental impacts
Access to information and data
Infrastructure and transportation



Sustainable economies





- Environmental footprint
- Equal division of benefits and losses
- Governance of global flows

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Energy de-carbonisation and access

- Transformation of the global energy system to align with the Paris Agreement

- 840 milj. people without electricity

Social innovations

Sustainable technologies exist -> the challenge within application and distribution

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Urban and peri-urban development

unsustainable use of natural resources

pollution

inequalities

- Evidence based planning and governance of cities
  - nature based solutions
  - polycentrism
- Citizens and other actors as developers

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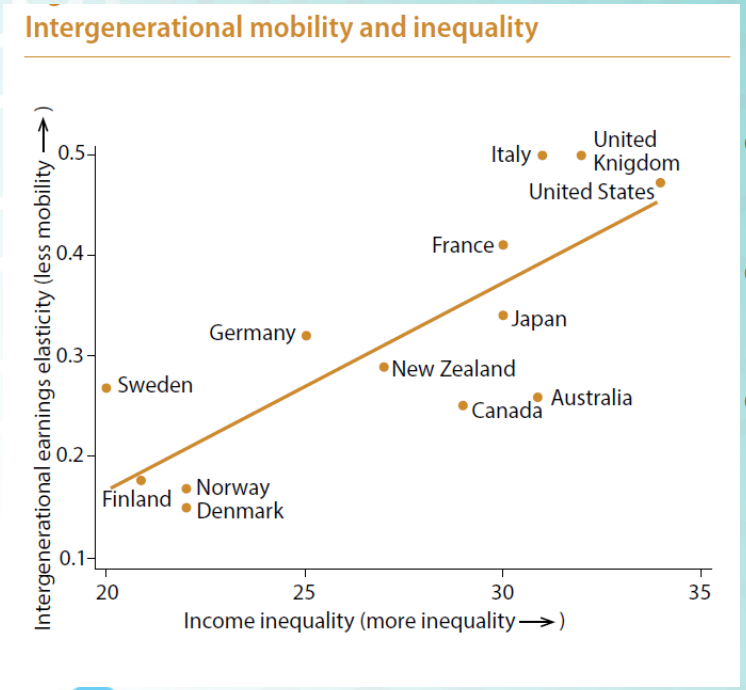
KUVAT: PAT KRUPA, JORGE VIDAL

Human wellbeing and capabilities



- Multi-dimensional inequality
- Importance of early childhood
- Education for sustainable development

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Global environmental commons

BIODIVERSITY ♥ AIR ♥ OCEANS ♥ LAND

- The balance of nature and humans
- Earth systems rely on biodiversity

KUVAT: EEVA FURMAN

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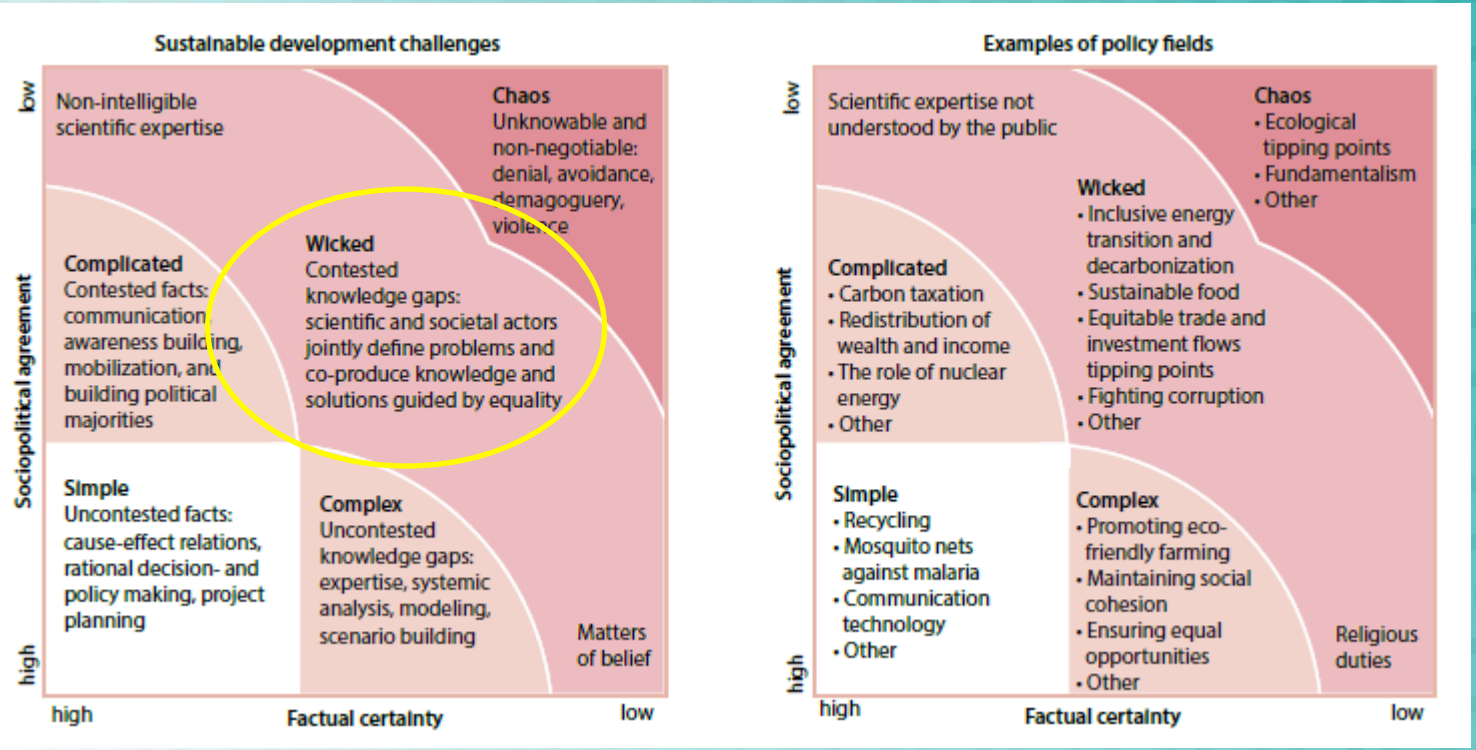
Interpreting and solving single problems often lead to more problems and counter-act the solving of other

The role of science in knowledge-based transformations to sustainable development



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Universal sustainability science calls for a major transformation in science

comment

Expansion of sustainability science needed for the SDGs

Dominant research modes are not enough to guide the societal transformations necessary to achieve the 2030 Agenda. Researchers, practitioners, decision makers, funders and civil society should work together to achieve universally accessible and mutually beneficial sustainability science.

Peter Messerli, Eun Mee Kim, Wolfgang Lutz, Jean-Paul Moatti, Katherine Richardson, Muhammad Saidam, David Smith, Parfait Eloundou-Enyegue, Ernest Foli, Amanda Glassman, Gonzalo Hernandez Licona, Endah Murniningtyas, Jurgis Kazimieras Staniškis, Jean-Pascal van Ypersele and Eva Furman

This is a decisive year for the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). Convening this week, the United Nations High-level Political Forum on Sustainable Development (HLPF) includes a quadrennial SDG summit under the auspices of the General Assembly. Here, the Global Sustainable Development Report (GSDR)[1], prepared by an independent group of scientists, will be officially presented. It reviews progress and strives to chart ways ahead.

Adopted in 2015, a remarkable year for multilateralism, the 2030 Agenda has successfully raised awareness of the kinds of transformations needed — in policy, civil society, business, science and technology — to put countries on a sustainable development path.

But recent scientific assessments[1–3] paint a sobering picture of progress towards the SDGs. There is a growing gap between what needs to happen and what is actually being done. Just a handful of the 169 sub-targets are on track to fulfil the 17 higher-level SDGs. Many are off track and some display even negative trends including those related to tackling climate change, inequalities and biodiversity loss[4]. Massively expanded concerted actions are urgently needed to enable sustainable development in the next decade. In particular, we must quickly make available the best policy-relevant knowledge to guide these actions.

GSDR framework

The GSDR 2019 proposes a framework for knowledge-based transformations to sustainable development that reconciles evidence and socio-political deliberations for accelerated action. It emphasizes the following three key complementary areas of knowledge production[1,2].

Understanding systemic interactions. Guided by the 2030 Agenda, we must improve understanding of how complex human–environment system dynamics can produce trade-offs that hinder individual targets, on the one hand, or produce synergies, on the other. For example, scaling up dominant food systems to meet growing demand can harm targets related to ending poverty, halting climate change and preserving life on land. Conversely, sustainable intensification of food production (for example, agroecology) and adapting people's diets can have positive spillover effects for many social and environmental targets.

Understanding competing development agendas. Governance, business and finance, individual and collective action, as well as science, technology and innovation all provide crucial levers for transforming vicious systemic circles into virtuous circles[5]. However, we must clearly identify how the values and interests of powerful actors help or hinder the 2030 Agenda, and how rules and incentives can be changed to enable collaboration towards common goals. For instance, there is a pressing need for evidence-based guidance on how to regulate the financial sector, markets, trade, taxation, and so on, to support — not harm — ecological sustainability and social cohesion[6].

Understanding transformations in concrete contexts. Individual countries and regions face unique challenges and have different development priorities. The specific design of transformation pathways depends on each context — few solutions will work the same way everywhere. Instead, we must strive to combine different sets of transformation levers based on the needs and conditions of each setting. At the same time, harmonized high-level efforts are needed to steer the interactions between pathways and their aggregate outcomes to deliver universal progress towards the 2030 Agenda. For example, poor nutrition is a global challenge demanding international cooperation, but it also requires customized local pathways based on cultural preferences, educational attainment, prevalent food systems, available technologies and other local factors.

Achieving the 2030 Agenda

Science has played a central role in building the still fragile international consensus on the SDGs. Researchers have made major advancements in understanding coupled human–environment systems, especially thanks to increasing use of interdisciplinary approaches[7]. Various international scientific assessments have successfully synthesized fragmented evidence, enabling policy breakthroughs such as the 2015 Paris Climate Agreement.

Nevertheless, there are fundamental limits to our ability to design sustainable transformation pathways based on evidence[8]. Human–environment systems remain highly complex and difficult — or impossible — to map fully. Causes and effects are often hard to distinguish and context dependent. Stakeholders frequently disagree about problems and solutions[9]. In such cases, decision makers must navigate ways forward based on careful consideration of risks, uncertainty and issues of social justice. Precautionary measures or interventions may be advisable even if cause-and-effect relationships are not fully established.

In response to such challenges, the growing field of sustainability science has adopted a variety of useful approaches —

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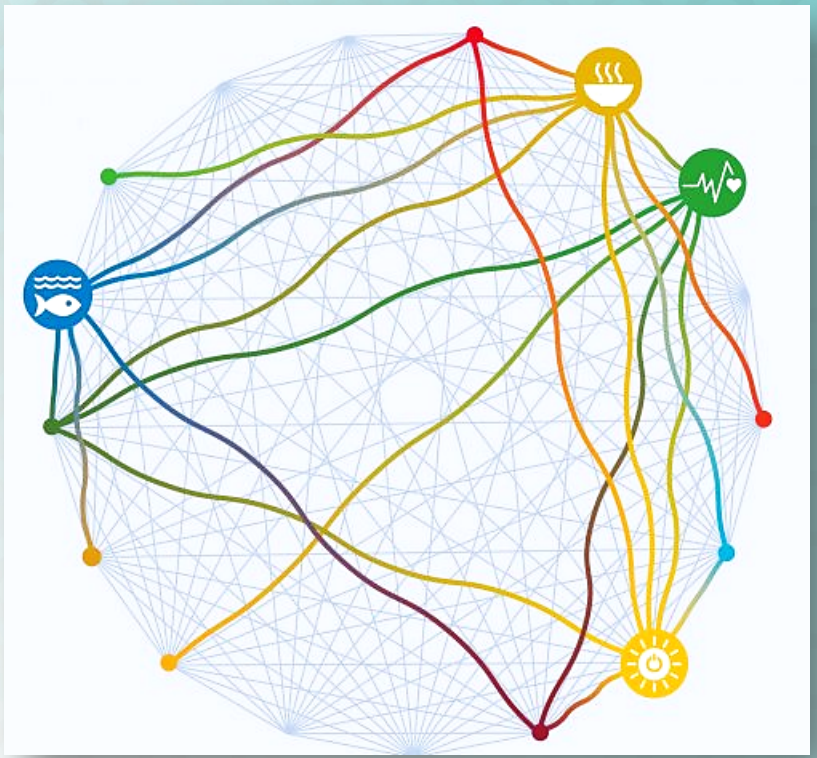
Call to Action (1/3):

Harness existing knowledge for accelerated SDG implementation



1. Continued support for international **scientific assessments and synthesis** and their increased **coherence**
2. Establish open-access national and regional **SDG knowledge platforms**
3. Sustainable development **councils** and knowledge **diplomacy**
4. Support **novel partnership** of science (public-private-civil society) and building of competencies

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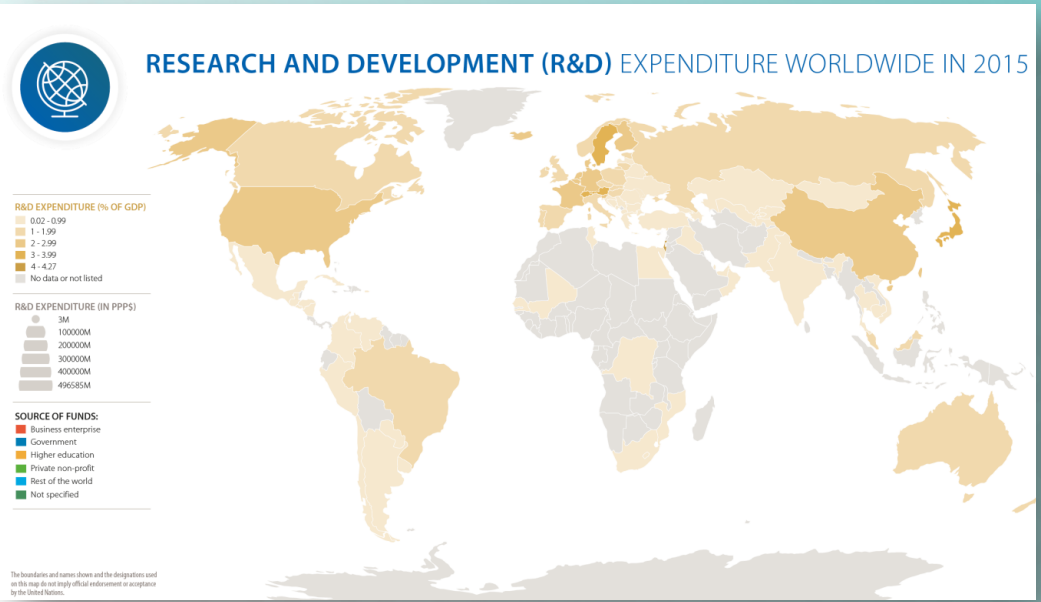
Call to Action (2/3):

Boosting scientific knowledge in low and middle income countries



1. Build open-access **SDG knowledge and technology platforms** to design, monitor, and evaluate transformations to SD
2. Harnessing and boosting **scientific capacities** through North-South and South-South transboundary research partnerships
3. Support **curricula and education** in sustainable development
4. Build national and regional **scientific funding institutions**

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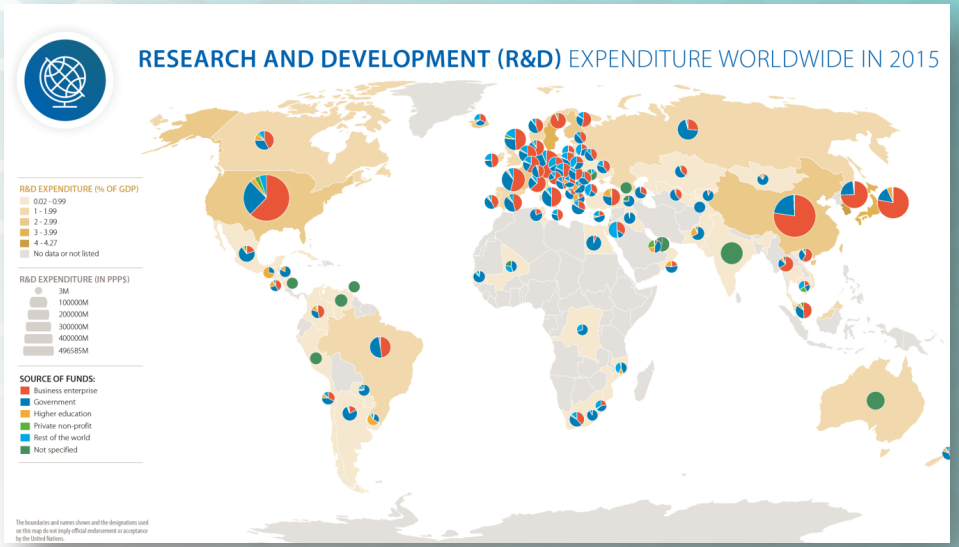
Call to Action (3/3):

A ‘moon-shot’ mission for Sustainability Science



1. Rapid increase of **mission-oriented research** guided by the 2030 Agenda
2. Scientific **assessment of existing transformation** knowledge including non-academic sources
3. Adapt **funding schemes** to programme structures supporting **inter- and transdisciplinary research**
4. Expand **incentive- and evaluation schemes**
5. Create **experimental spaces and transformation labs** for next generation science-policy interfaces

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Independent group of Scientists (IGS):

Peter Messerli (co-chair)
Endah Murniningtyas (co-chair)
Parfait Eloundou-Enyegue
Ernest Foli
Eeva Furman
Amanda Glassman
Gonzalo Hernandex Licona
Eun mee Kim
Wolfgang Lutz
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Muhammad Saidam
David Smith
Jurgis Kazimieras Staniskis
Jean-Pascal van Ypersele

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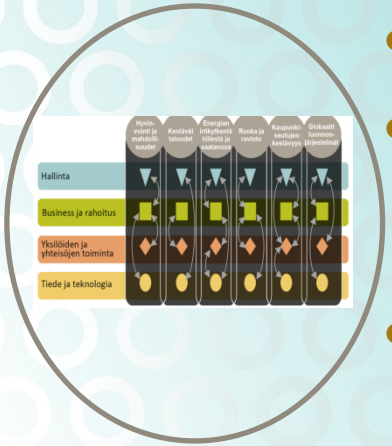
Main messages of the GSDR 2019



- **Achieving sustainable development is still possible**
- Multilateral organizations, governments and public authorities should explicitly adopt the Sustainable Development Goals as a guiding framework for their programming, planning and budgetary procedures
- To accelerate transformations, special attention should be devoted to the six entry points, applying knowledge on the interlinkages, harnessing synergies and mitigating trade-offs
- The four levers of change – governance, economy and finance, individual and collective action, and science and technology – should be coherently and context-specifically combined
- **Science must play a major role in advancing sustainable develop**ment

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https://sustainabledevelopment.un.org/gsdr2019

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Thank you