

A small green seedling with several leaves is growing out of a crack in a grey concrete surface. The background is a soft, out-of-focus light color.

F r o m  
e n v i r o n m e n t a l s t a t i s t i c s t o  
i n t e g r a t e d a c c o u n t i n g

E v i d e n c e f o r t r a n s f o r m a t i o n  
p r o c e s s e s t o w a r d s s u s t a i n a b l e  
d e v e l o p m e n t

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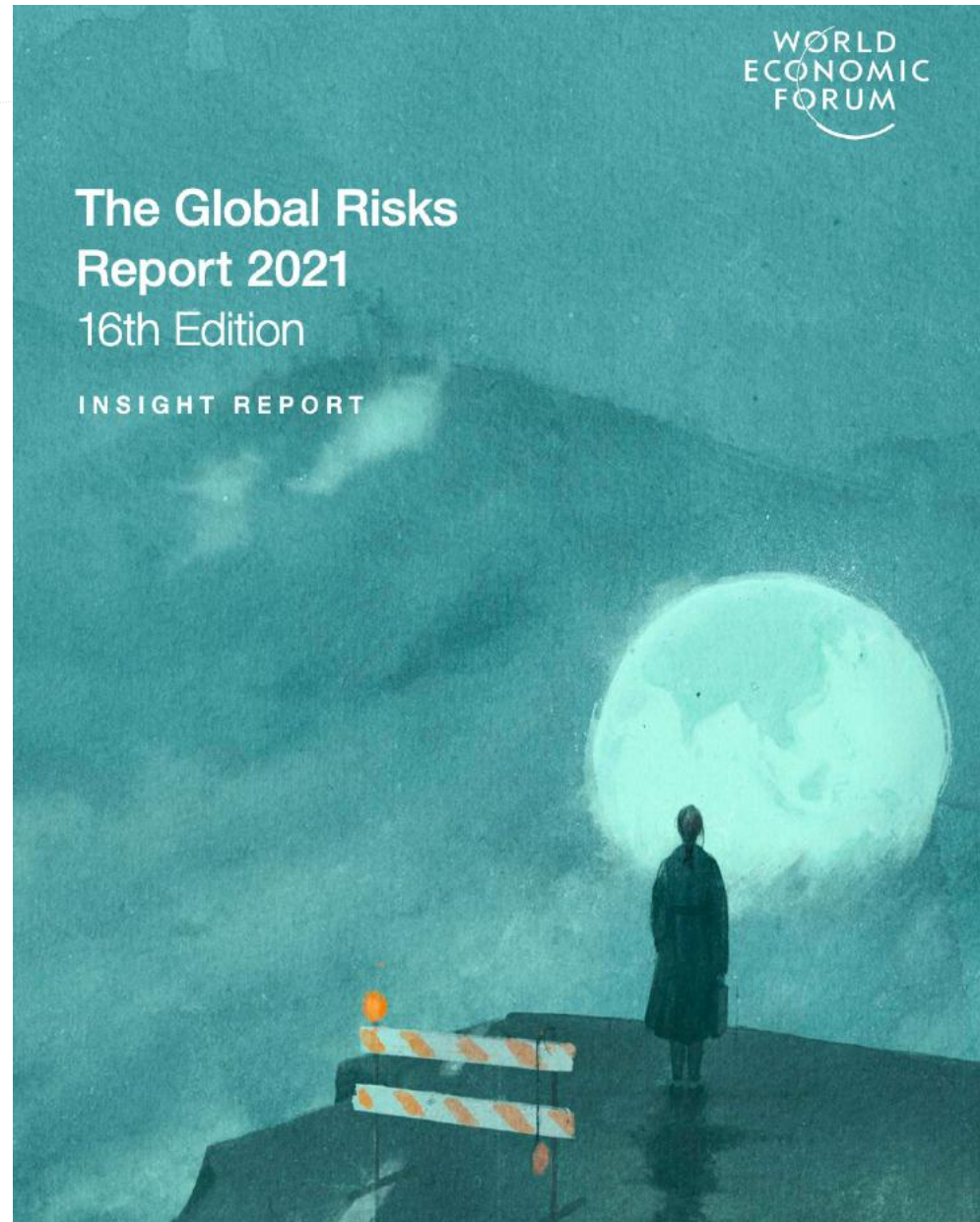
CNIS Commission EDD  
Jeudi 21 octobre 2021

Walter J. Radermacher

# Risk, Transformation, Uncertainty

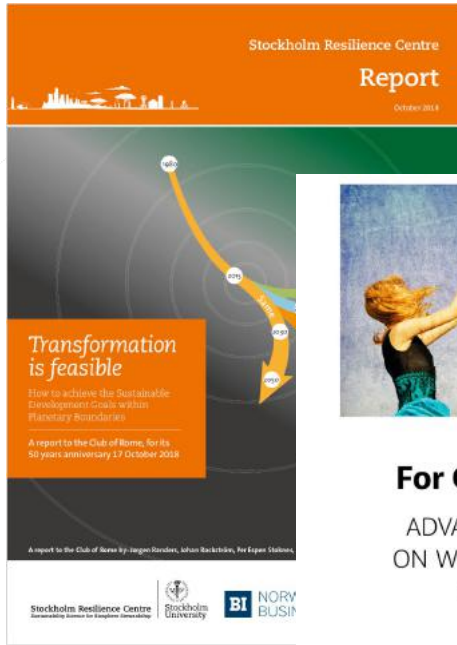
Towards 2030 vs. Short Term Crisis Management





[http://www3.weforum.org/docs/WEF\\_The\\_Global\\_Risks\\_Report\\_2021.pdf](http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf)

Walter J. Radermacher



[https://www.stockholmresilience.org/download/18\\_51d83659166367a9a16353/1539675518425/Report\\_Achieving%20the%20Sustainable%20Development%20Goals\\_WEB.pdf](https://www.stockholmresilience.org/download/18_51d83659166367a9a16353/1539675518425/Report_Achieving%20the%20Sustainable%20Development%20Goals_WEB.pdf)



**For Good Measure**  
ADVANCING RESEARCH  
ON WELL-BEING METRICS  
BEYOND GDP

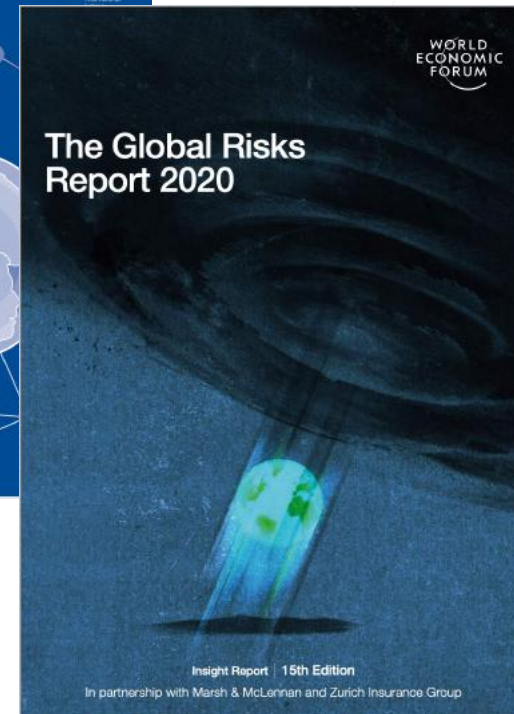
Edited by Joseph E. STIGLITZ, Jean-Paul  
and Martine DURAND



**Sustainable  
Equality**



Report of the  
Institute for Sustainable  
Development



[https://read.oecd-ilibrary.org/economics/for-good-measure\\_9789264307278-en#](https://read.oecd-ilibrary.org/economics/for-good-measure_9789264307278-en#)

[https://www.progressivesociety.eu/sites/default/files/2018-12/S%26D\\_ProgressiveSociety-SustainableEquality\\_BROCHURE\\_V18\\_spreadsWEBSITE.pdf](https://www.progressivesociety.eu/sites/default/files/2018-12/S%26D_ProgressiveSociety-SustainableEquality_BROCHURE_V18_spreadsWEBSITE.pdf)

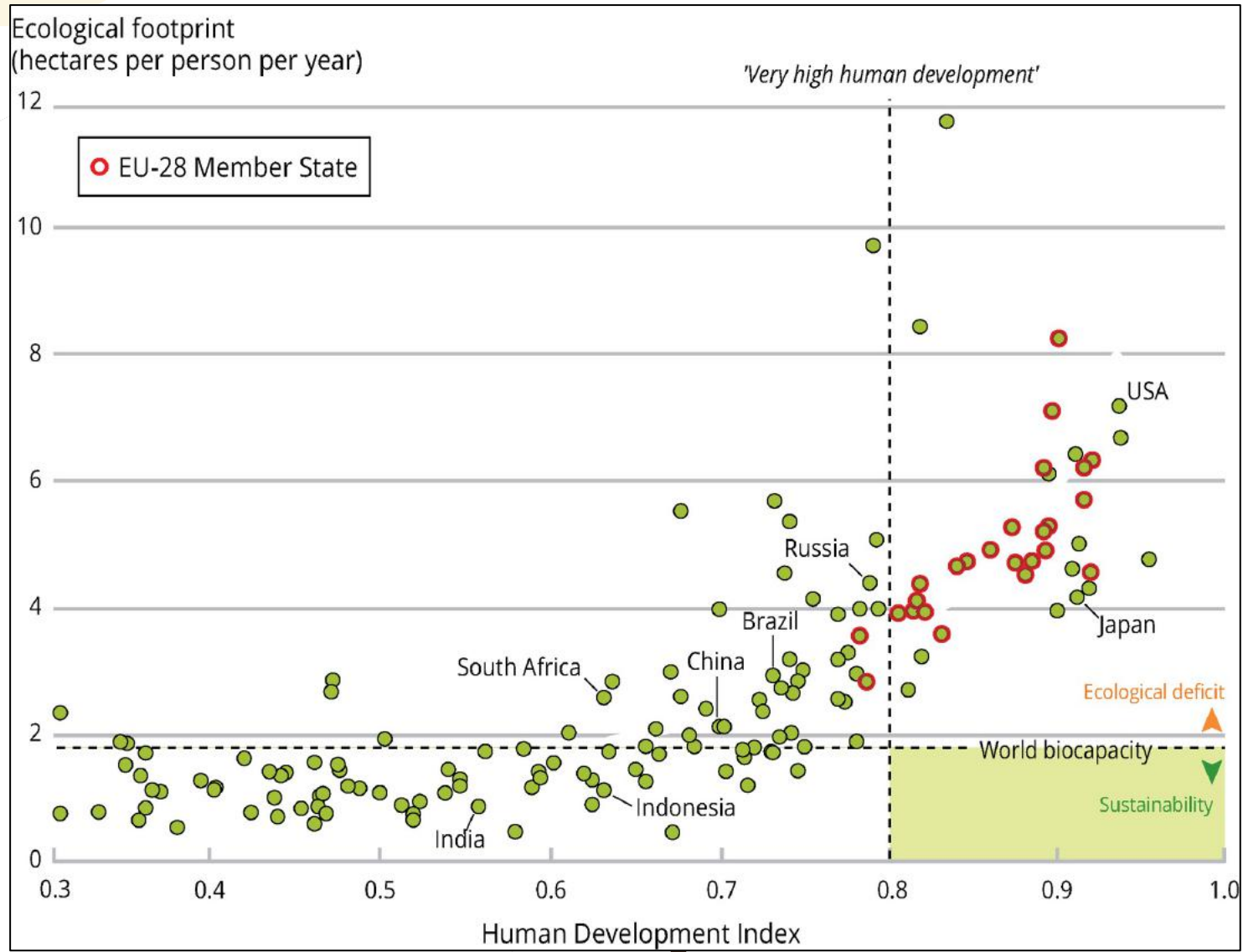
[https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms\\_662410.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_662410.pdf)

<https://www.weforum.org/global-risks/reports>



<https://intelligence.weforum.org/topics/a1Gb000000pTDXE2?tab=publications>

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<https://www.eea.europa.eu/soer-2015/europe/green-economy>



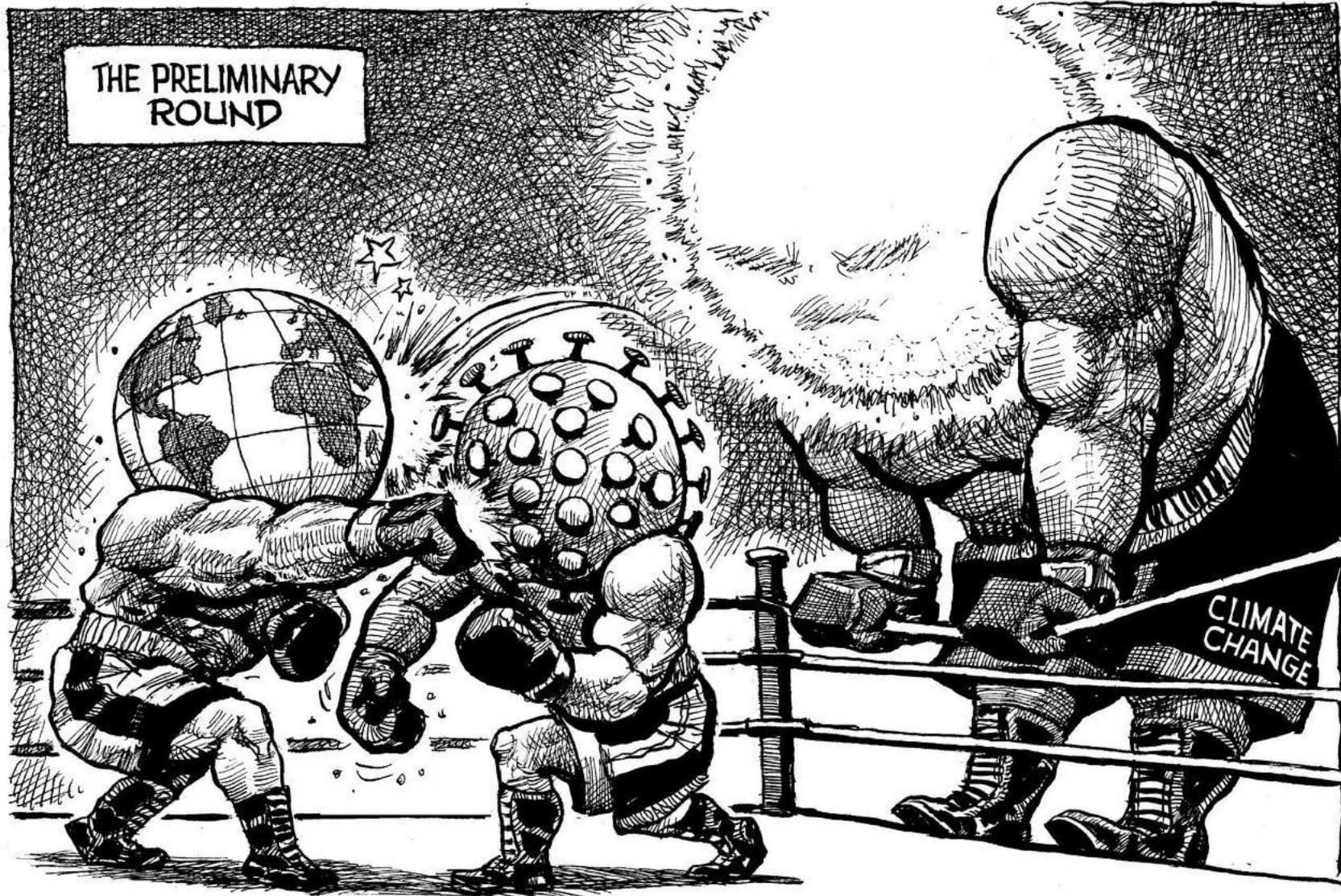
Politics  
 17 Goals  
 (qualitative)  
 169 Targets  
 (qualitative and  
 quantitative)



Statistics  
 231 Indicators



<https://www.un.org/sustainabledevelopment/progress-report/>

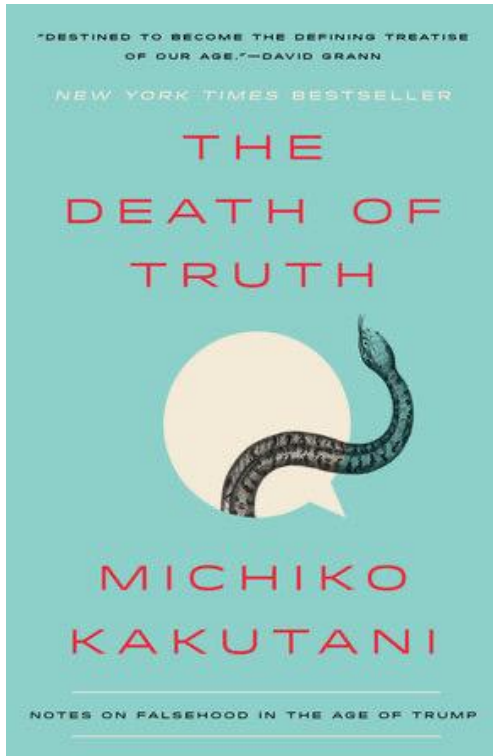


Economist.com

Kal

<https://external-preview.redd.it/xwHtR8k5PNX2t5vHufjViai8L5aCOjZ4S2QHOMCAPT4.jpg?auto=webp&s=7676945731ba277e4b338f7a886e54000d9c4ec>





The Era of Digitisation and Globalisation

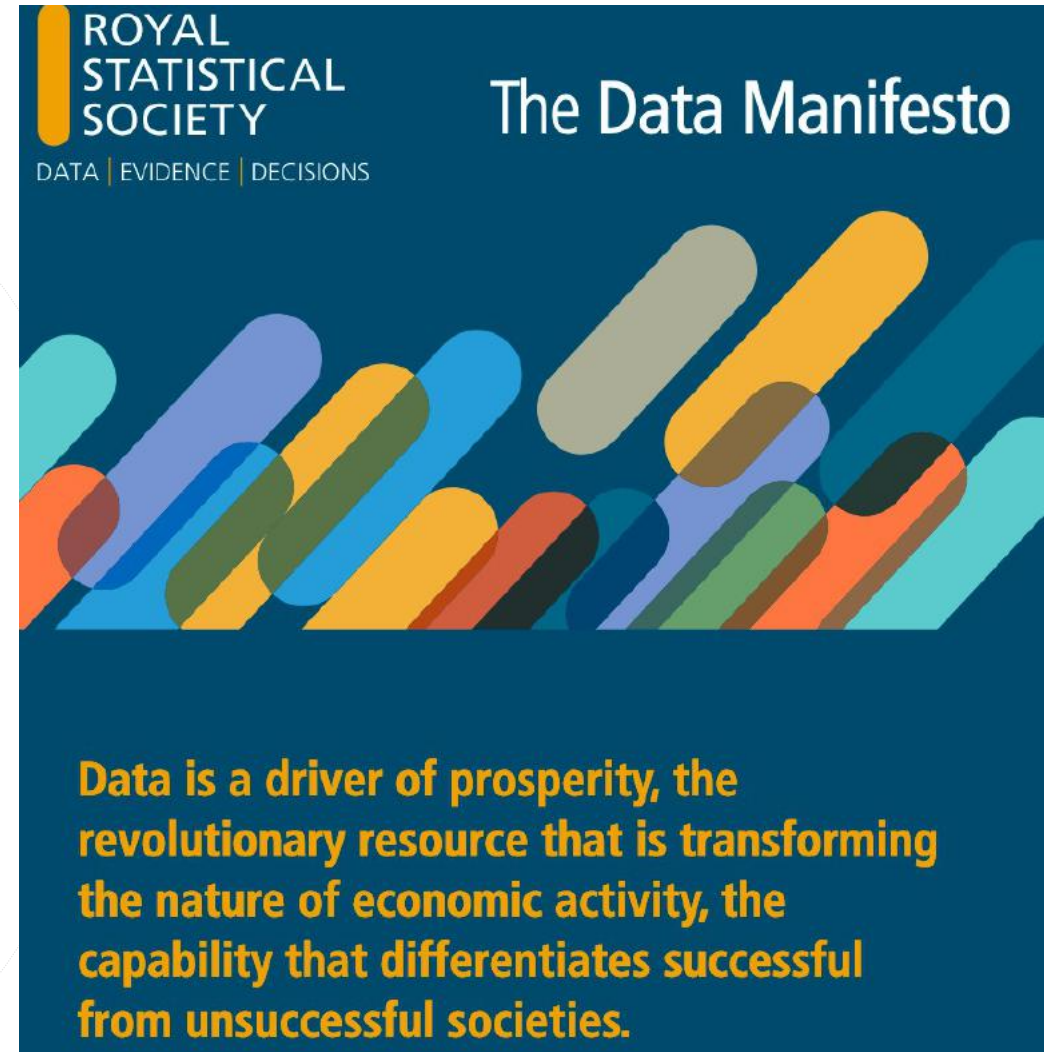
# Data Goldrush & Death of Truth

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# Data Revolution

- Data for better policymaking
  - There is a great opportunity for more effective policymaking if we use data to inform what we are doing.
- Data: the driver of productivity and prosperity
  - Our wellbeing depends on economic prosperity, which in turn depends upon exploiting our investment in data, and on our skills as a society to understand and use data.
- Data to strengthen democracy and trustworthiness
  - Our democracy relies on the quality and trustworthiness of data in the public domain.

3 Σ



<https://rss.org.uk/RSS/media/File-library/Policy/2019/9522-RSS-Data-Manifesto.pdf>



The long read

## How statistics lost their power – and why we should fear what comes next

<https://www.theguardian.com/politics/2017/jan/19/crisis-of-statistics-big-data-democracy>

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- The declining authority of statistics is at the heart of the crisis that has become known as “post-truth” politics
- The statistical logic of the past two centuries is being replaced by a data logic
- With the authority of statistics waning, and nothing stepping into the public sphere to replace it, people can live in whatever imagined community they feel most aligned to and willing to believe in

# The world we live in: Trends, Evolutions, Revolutions

Data revolution, IoT, AI

Society

- Evidence based decision making, neoliberal governance, technical experts and elites  
*depending-on-evidence*
- Critical civil society, social movements, NGOs,  
*pro-evidence*
- Do-it-Yourself statistics  
*pro-my-own-evidence*
- Post-truth-politics, mistrust against experts and institutions, conspiracy theories,  
*contra-evidence*

Globalisation of economies and crises

# Statistical Information



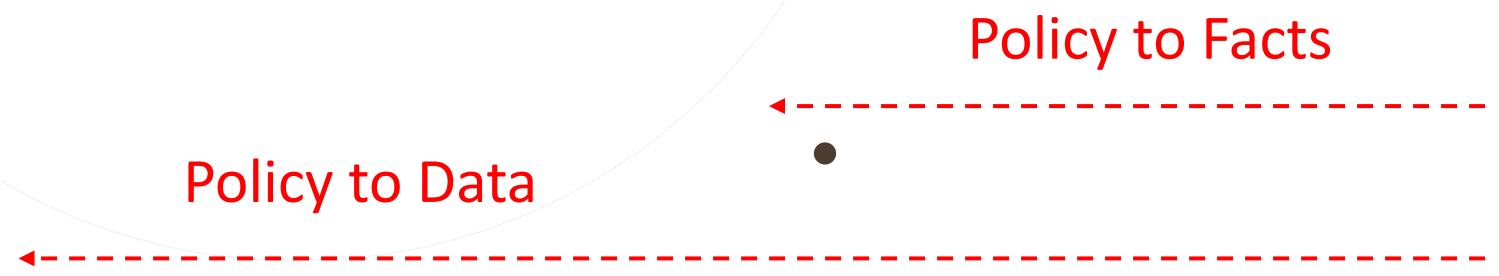
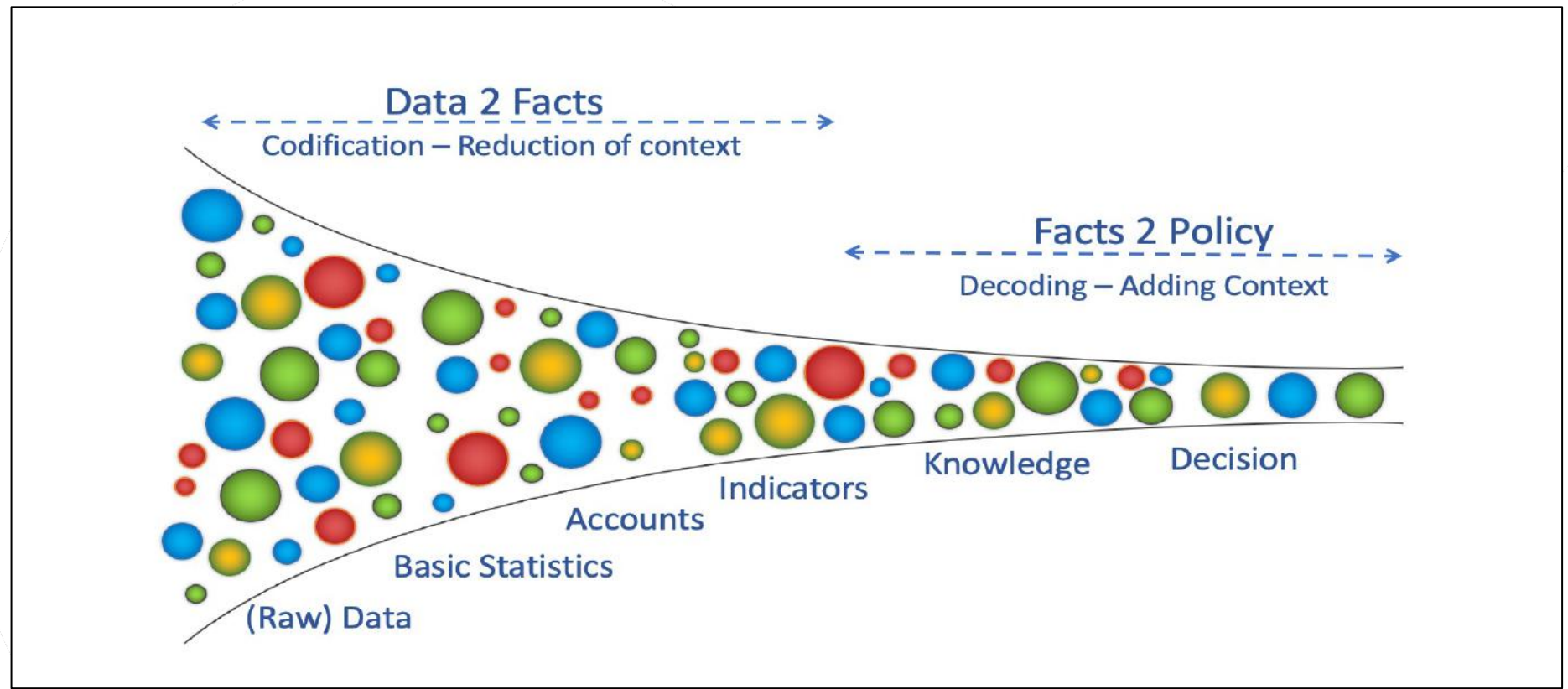
Facts are Products

- Constructed
- Objective

Product Quality

# Reducing Complexity – Stages and Roles - Governance

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## Public (Official) Statistics

Quality:

What (statistical products)?

How (methods)?

Who (institutions)?

For Whom/What (public discourse)?

<https://medium.com/data-policy/how-statistics-can-help-going-beyond-covid-19-22bb2ce92440>

<https://medium.com/data-policy/official-statistics-language-for-public-discourse-part-1-294d31e56b6e>

## EUROPEAN STATISTICS CODE OF PRACTICE

*For the National Statistical Authorities  
and Eurostat (EU statistical authority)*



**Economic and Social Council**

Distr.: General  
28 October 2013

Substantive session of 2013  
Agenda item 13 (c)

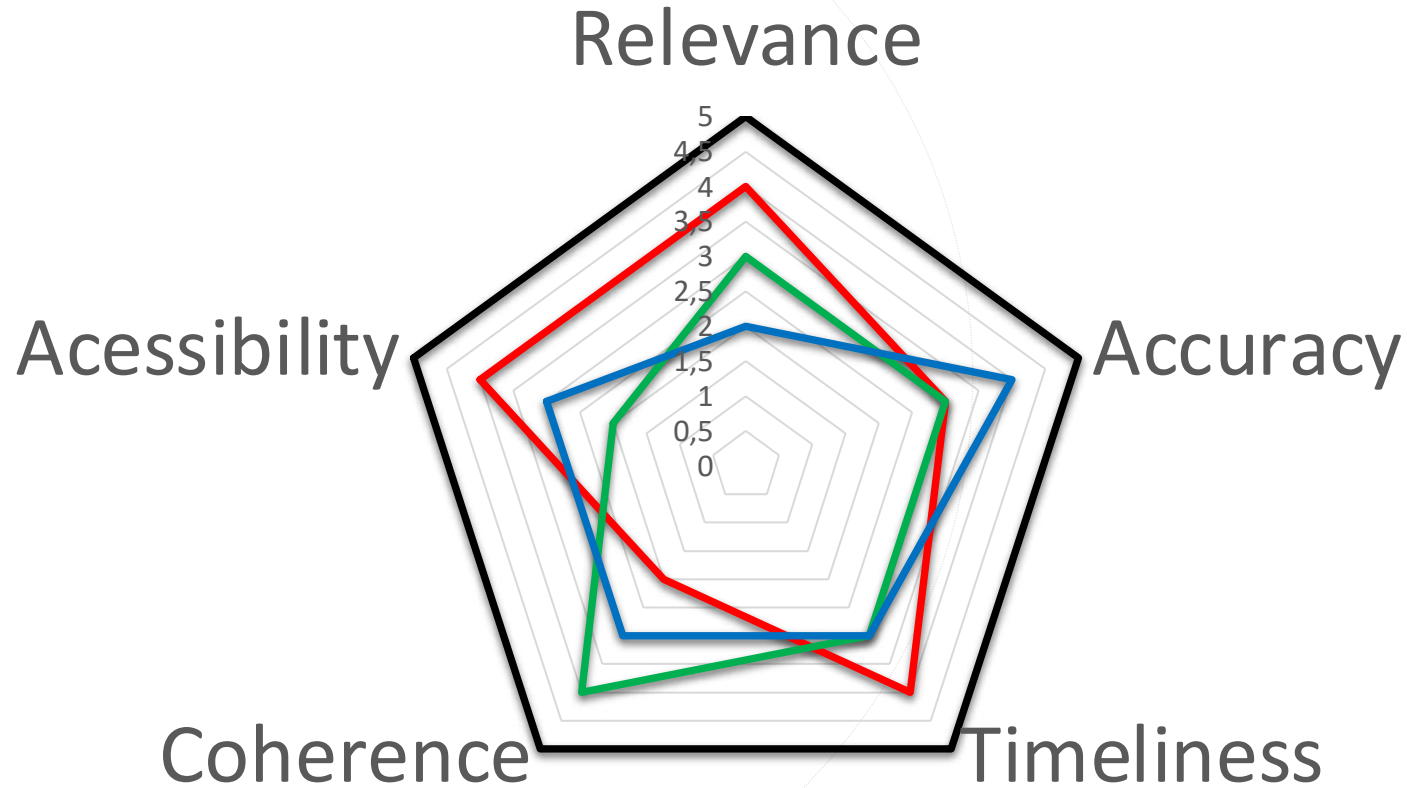
**Resolution adopted by the Economic and Social Council on 24 July 2013**

*[on the recommendation of the Statistical Commission (E/2013/24)]*

**2013/21. Fundamental Principles of Official Statistics**

# Portfolio of Quality Profiles in the Statistical System

— Indicators    — Accounts    — Basic statistics    — Maximum



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# Environment Statistics

≥ 40 Years

# Episodes of Environmental Issues

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1. Volume and price changes: energy crisis, (quantitative) depletion of natural resources

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2. Local/regional changes of quality: air, waste, water etc., (qualitative) degradation

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3. Global phenomena such as Ozone layer, climate change

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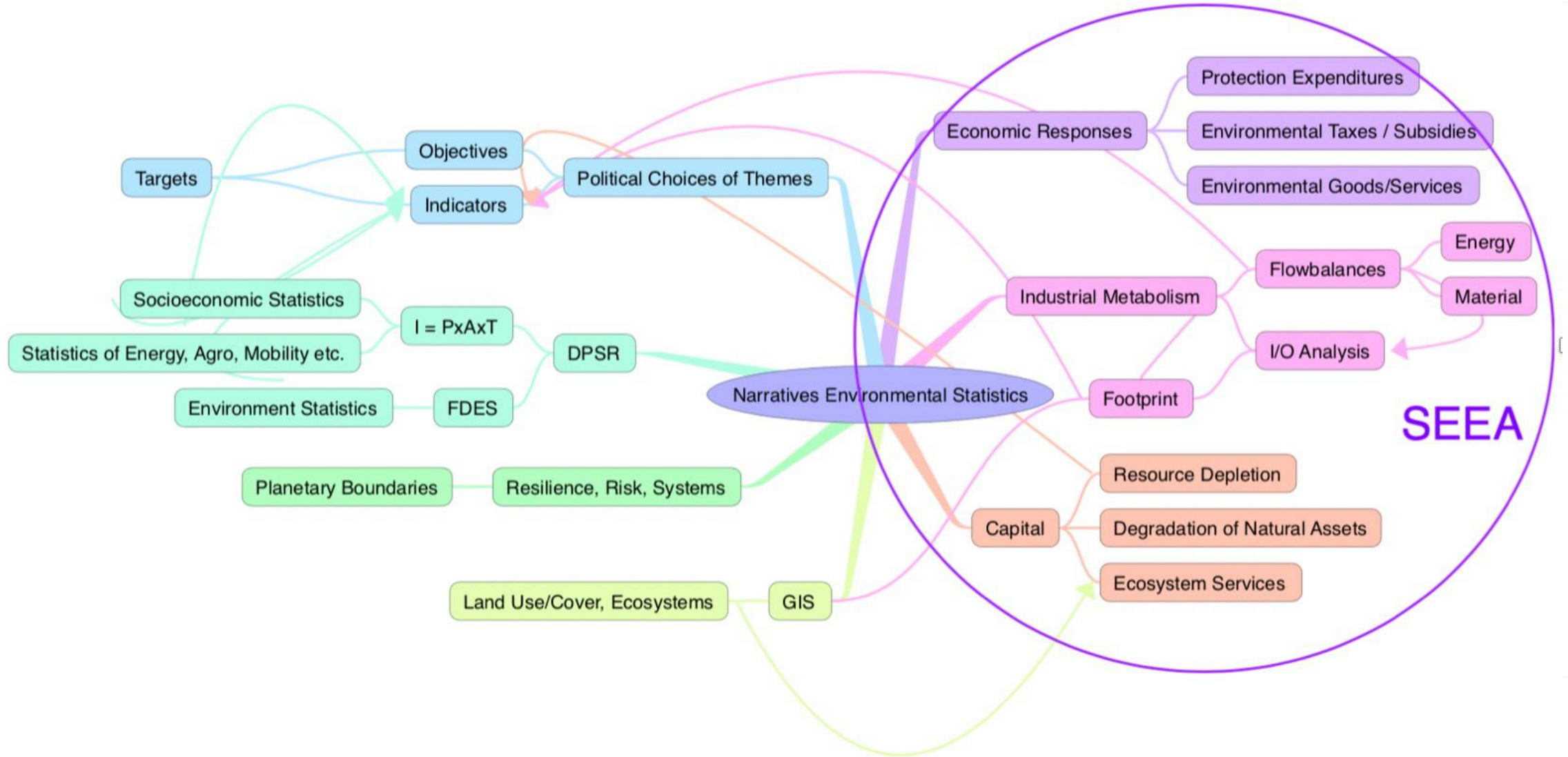
4. Ecosystems, biodiversity and planetary boundaries

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5. Corona pandemic and its aftermath

# Narratives, Heuristics and Frameworks

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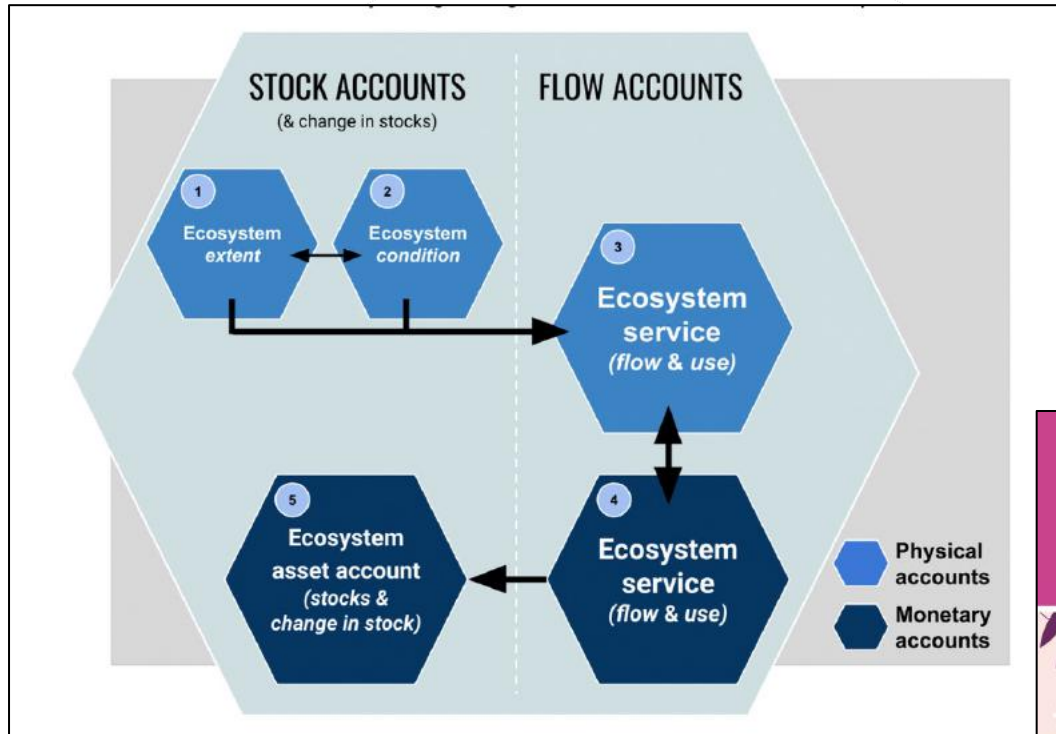
# Approaches to quantify Sustainable Development

- Science-driven approaches to measure Sustainable Development
  - ‘Keep Capital Intact!’: the capital approach - stock accounting
  - ‘Assess the development of a country, not economic growth alone!’ HDI
  - ‘Maximise Resource Productivity!’: material and energy - flow accounting
  - ‘Operate within Planetary Boundaries!’ ecosystems and resilience
- Data-driven: Data initiatives opening official statistics for data sciences and other (big) data sources
- Policy-driven: Sustainable Development Goals and Indicators
- Analysis of use and influence of SDIs: The potential effectiveness of indicators as “boundary objects” in connecting science and policy

**Conclusion: an iterative approach supporting public policy making, long-term objectives, short term learning, the entire portfolio of statistics**

# Ecosystem accounting takes a spatial approach

3 Z



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION  
UNITED NATIONS

System of Environmental Economic Accounting

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**System of Environmental-Economic Accounting—  
Ecosystem Accounting**

*Final Draft*

Version 5 February 2021

Accounting for ecosystems and their services in the European Union (INCA) 2021 edition

Final report from phase II of the INCA project aiming to develop a pilot for an integrated system of ecosystem accounts for the EU

European Environment Agency | European Commission | STATISTICAL REPORTS | eurostat

SYSTEM OF ENVIRONMENTAL ECONOMIC ACCOUNTING

Home About SEEA Methodology Tools and Learning Data Knowledge Base Policy Application

Home » London Group on Environmental Accounting, 27th Meeting

**London Group on Environmental Accounting, 27th Meeting**

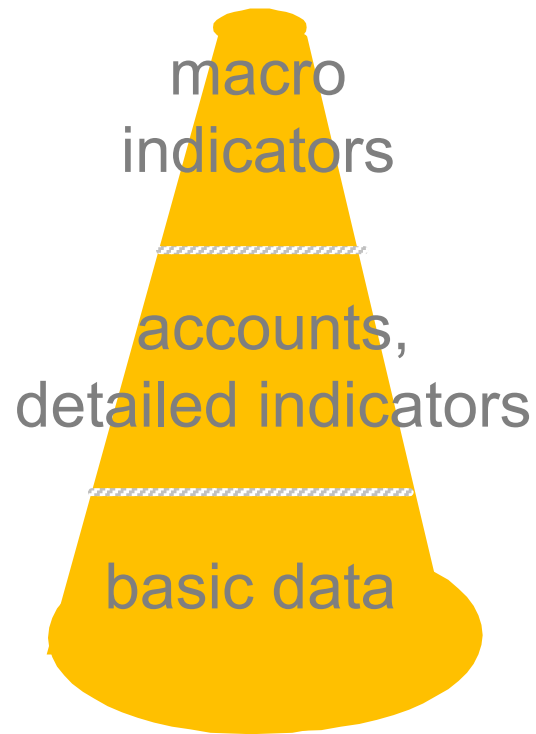
# Evidence & Policy

- Public Statistics for Decision Making in Public Area
- Économie des Conventions

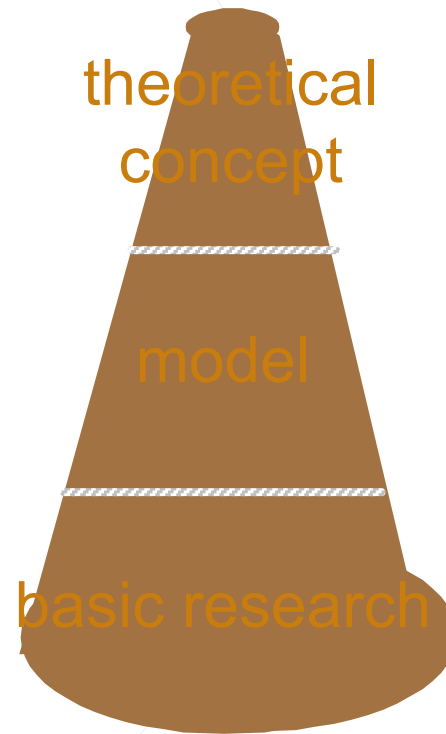


# Work Systems: Statistics, Science and Politics

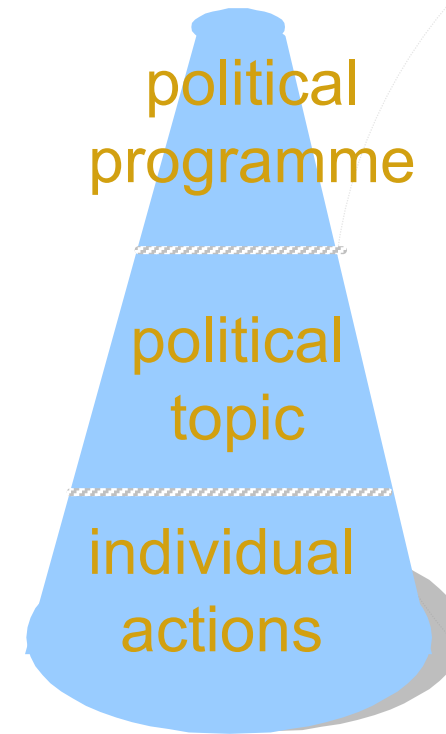
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Statistics



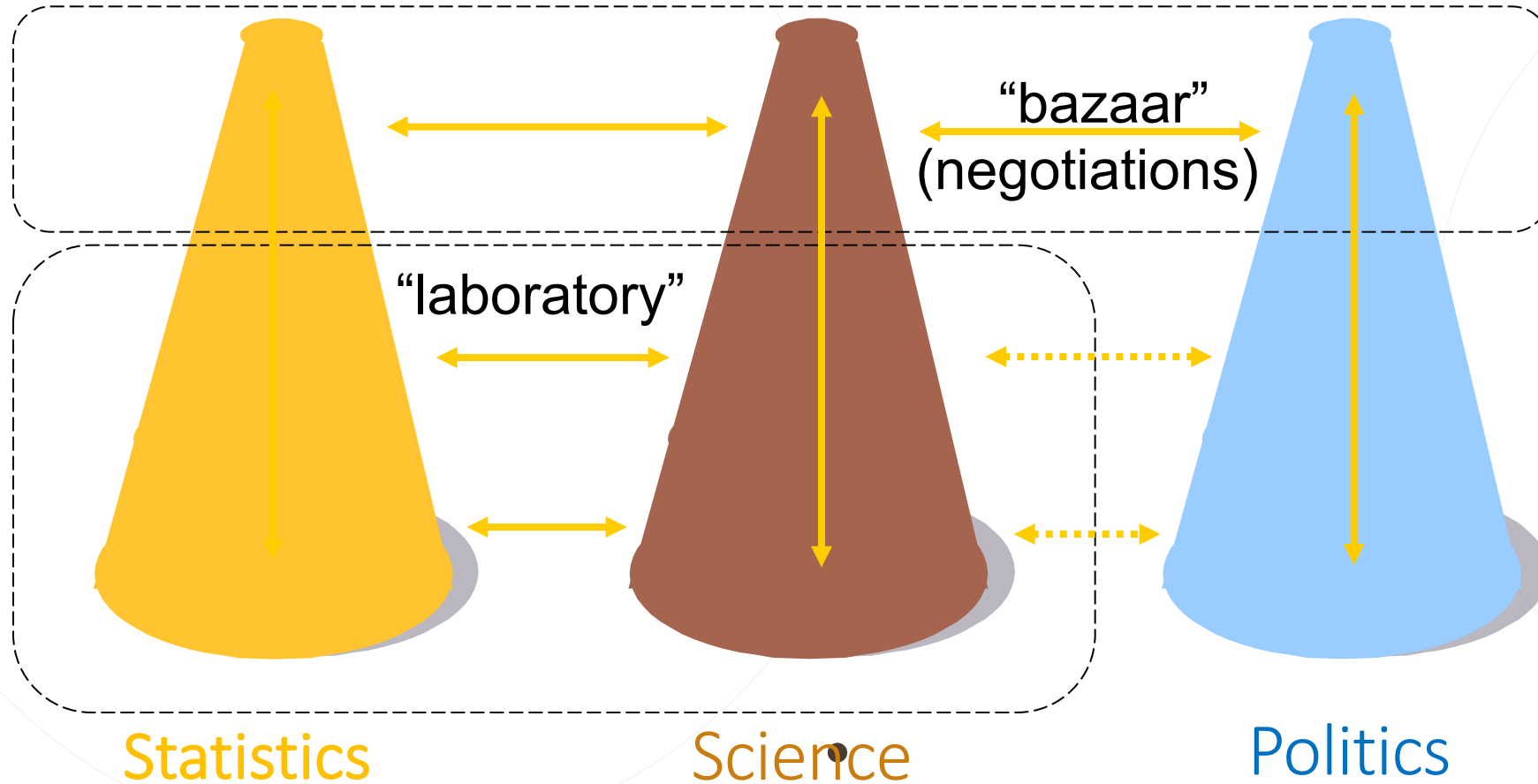
Science



Politics

# ... Iterative Decision-Making

C: Selection of indicators



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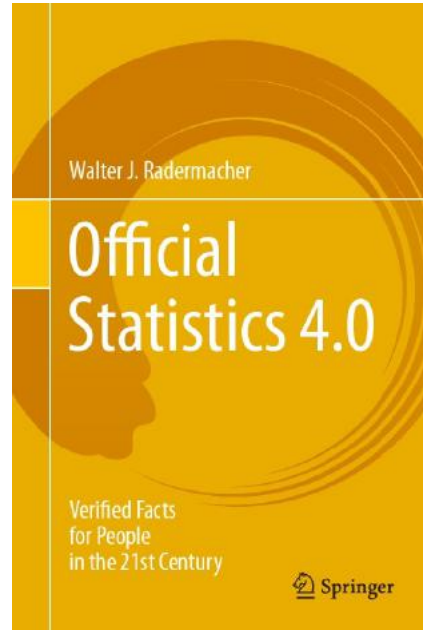




# Résumé

- Les statistiques publiques servent le discours public ( $\neq$  projet de recherche)
  - Qualité adéquate = 'Fitness for Purpose'
  - La relevance compte
  - Le temps compte
  - La fiabilité compte (statistiques officielles basées sur des faits)
- Pas de temps à perdre (après  $\geq 40$  ans de R&D en statistiques environnementales)
  - Besoins d'information pressants pour les crises à venir (climat, biodiversité, ...).
  - L'ensemble du portefeuille de statistiques publiques (statistiques de base, comptes, indicateurs) a été adapté
  - Créer des comptes physiques le plus rapidement possible, comprendre les comptes monétaires comme des informations complémentaires
- Haute priorité, capacités et budget pour cette adaptation de l'infrastructure statistique publique
- Relation étroite avec les utilisateurs politiques et la société civile
- Une coopération internationale dense, notamment au niveau de l'Union Européenne (Green Deal, nouvelle politique agricole, etc.) ●

THANK YOU  
MERCÍ BIEN



Official Statistics 4.0  
Verified Facts for People in the 21st Century  
<https://www.springer.com/gp/book/9783030314910>

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