



**UNSD**  
**workshop on sea and business accounting**  
***New Commission***  
***October, 2019 New York***

Environmental Accounting  
A Critical Building Block of the New European Green Deal?

European Commission

DG - Environment

# **Environmental Accounting**

A Critical Building Block For Delivering The Green Deal?

## Content

- I. Needs & Opportunities for Strengthening Environmental Accounting*
- II. The Emerging (Corporate) Environmental Accounting Practice*
- III. Elements for Building the Future Environmental Roadmap*

# Environmental Accounting

## A Critical Building Block For Delivering The Green Deal?

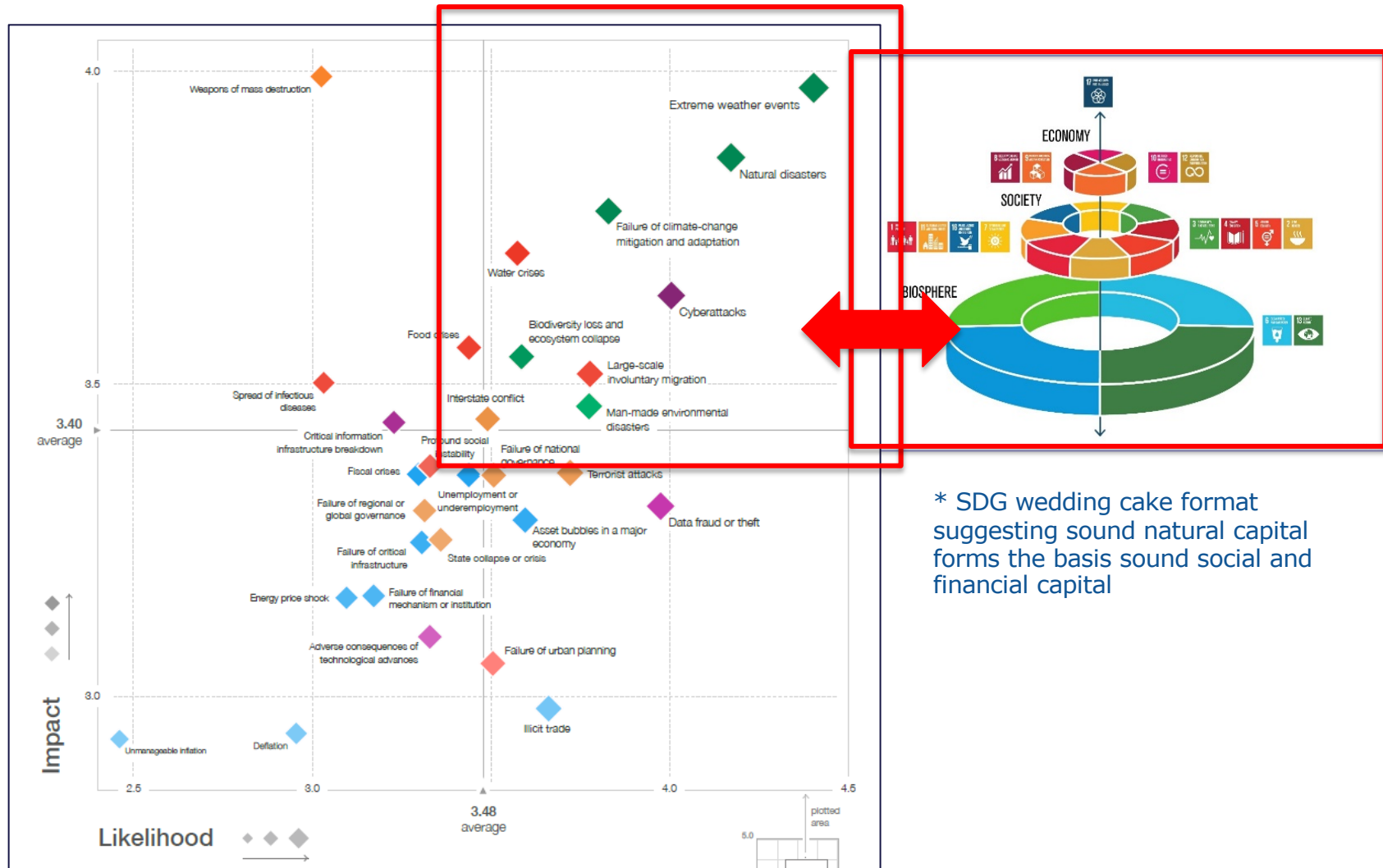
### ***Part I***

#### Needs & Opportunities for Strengthening Environmental Accounting

- ✓ Rising (interlinked) Natural Capital Risks Jeopardize Society & Economy;
- ✓ Growing (corporate) Environmental Risk Awareness and Management;
- ✓ Call for Total Environmental Impact Management ;
- ✓ New (European) Green Deal extends priorities beyond climate and moves sustainable finance center stage;
- ✓ SDG-Paris driven Sustainable Finance Hype contrast with Finance reality;
- ✓ Natural capital proof infrastructure (financing &) development most urgent;
- ✓ Lacking methods for measuring and (forward) managing total environmental impact hampering public and private greening efforts (cf. also EAC report);

# All Natural Capital Degrading Rapidly

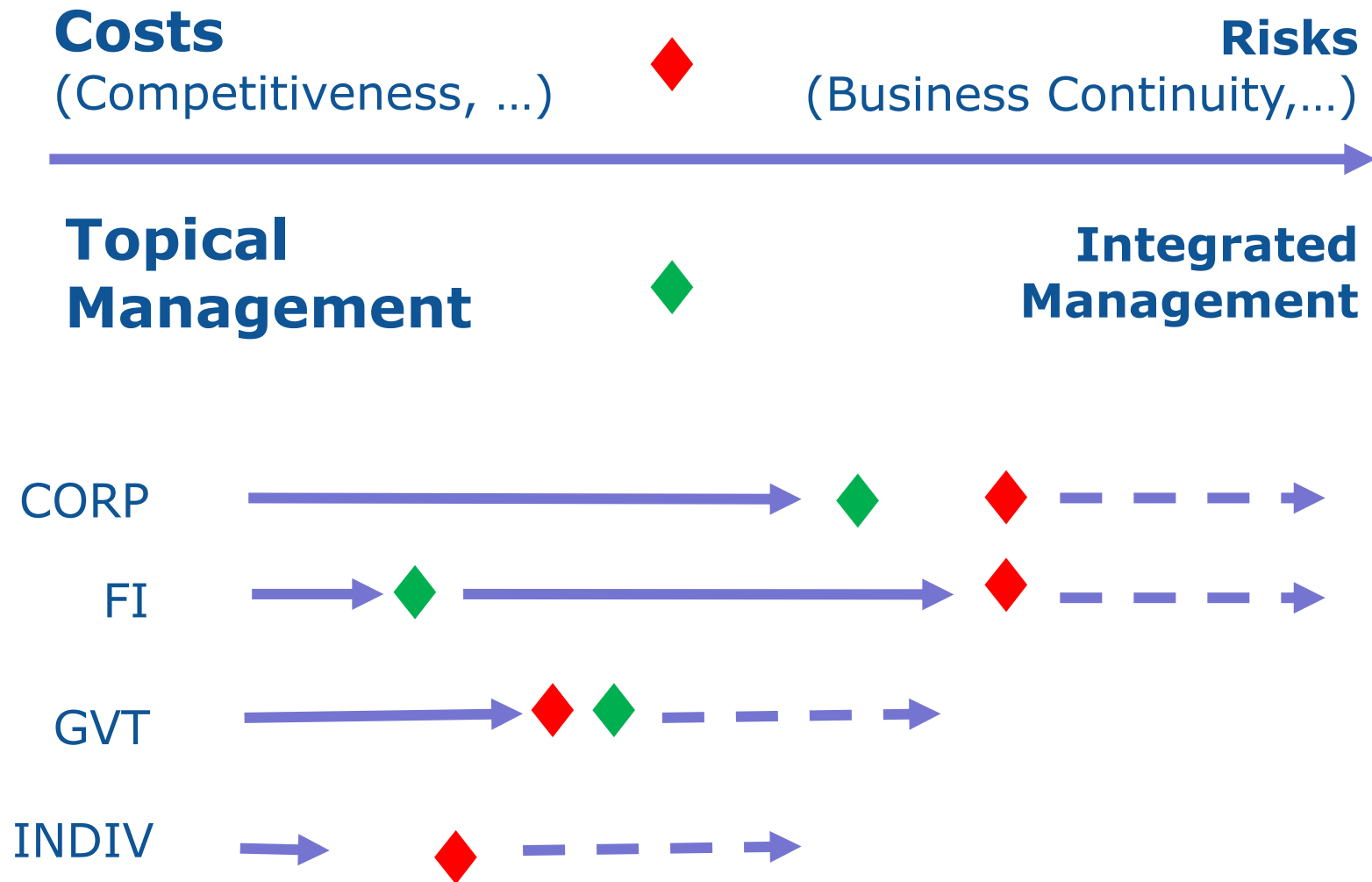
*Risks interlinked and jeopardizing Social and Economic Sustainability*



\* WEF Global Risk Reports

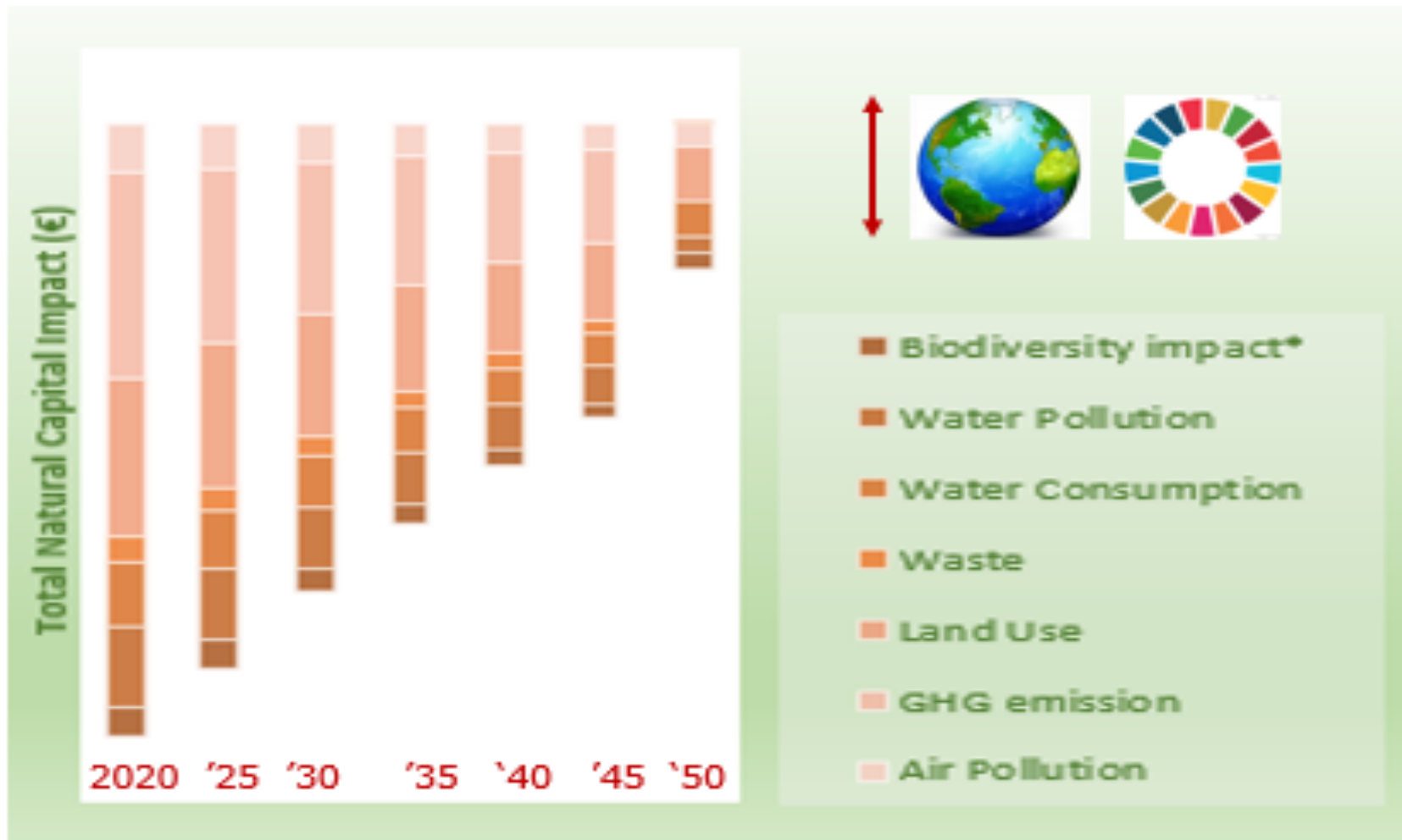
# The Evolving Drivers of Environmental Management

*From costs and benefits to risks and opportunities*



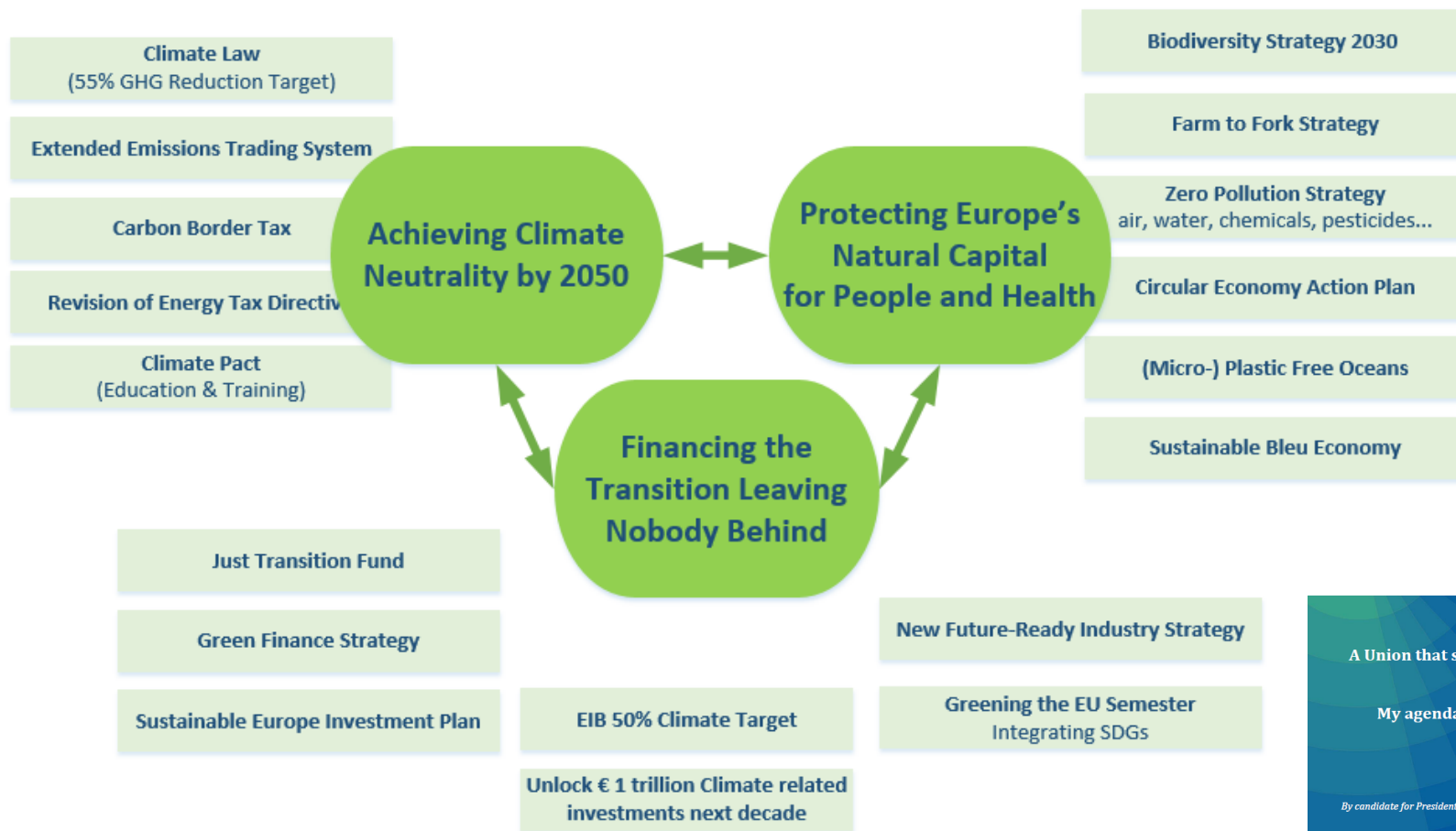
# The Call for Total (Environmental) Impact Management

*Requiring adapted strategies & management information systems*



# The New European Green Deal

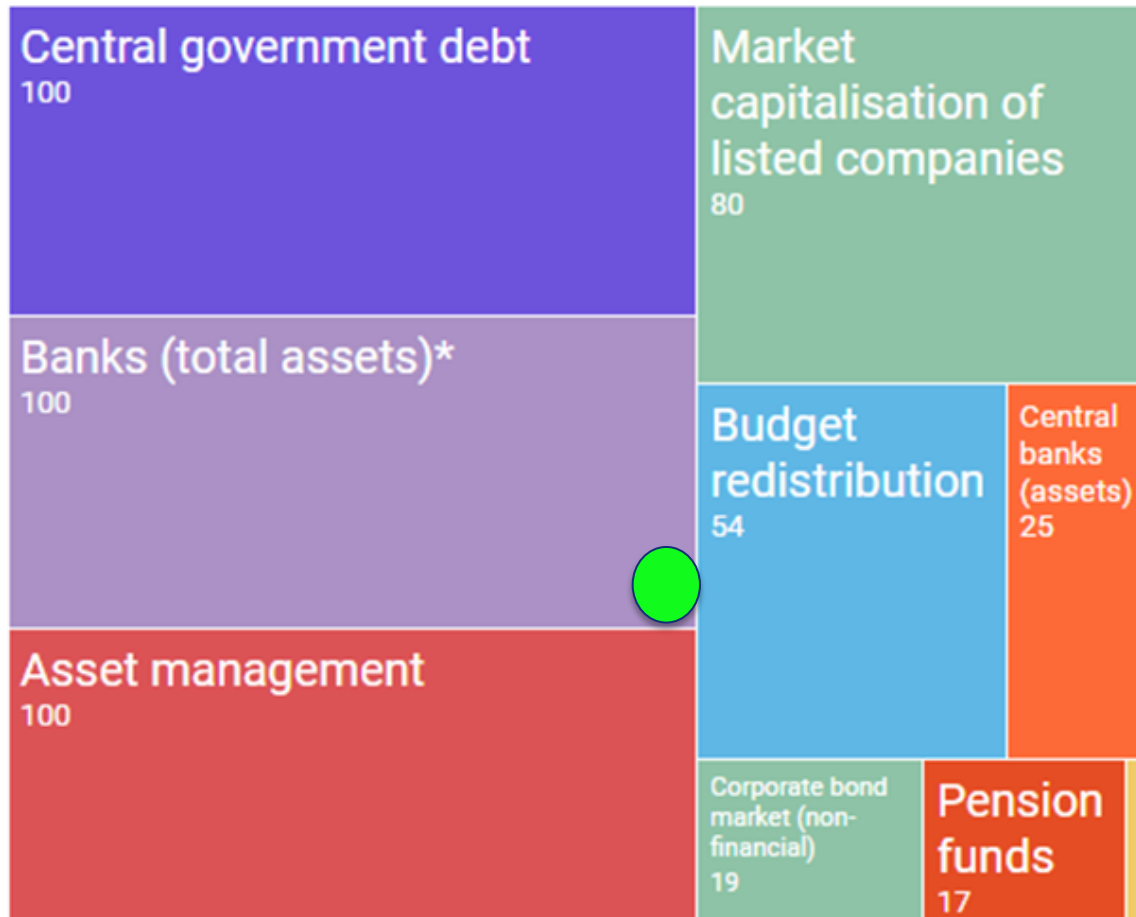
*Extending Priorities Beyond Climate & Moving Sustainable Finance Center-Stage*



*A Comprehensive Framework for Efficiently Managing Environmental and Social Risks & Opportunities whilst Future Proofing Businesses & Economies*

# Green Finance Essential for Delivering the Environmental Agenda

*But Reality in Mobilizing Markets (Very) Far from Policy Goals and Rethoric*



Financial Markets: ESG market share < 2% (98% not green)  
Public Finance: LIFE~0,005% of MFF; climate spending ~ 20%  
Financing & Investment Needs exceed public budgets manifold

Sustainable  
Investment  
Obstacles\*

Poor Understanding of  
Environmental Risks

Lack of Harmonized  
Methods & Metrics

Poorly Joined-Up Policies

Limited bankable  
investment pipeline

Other

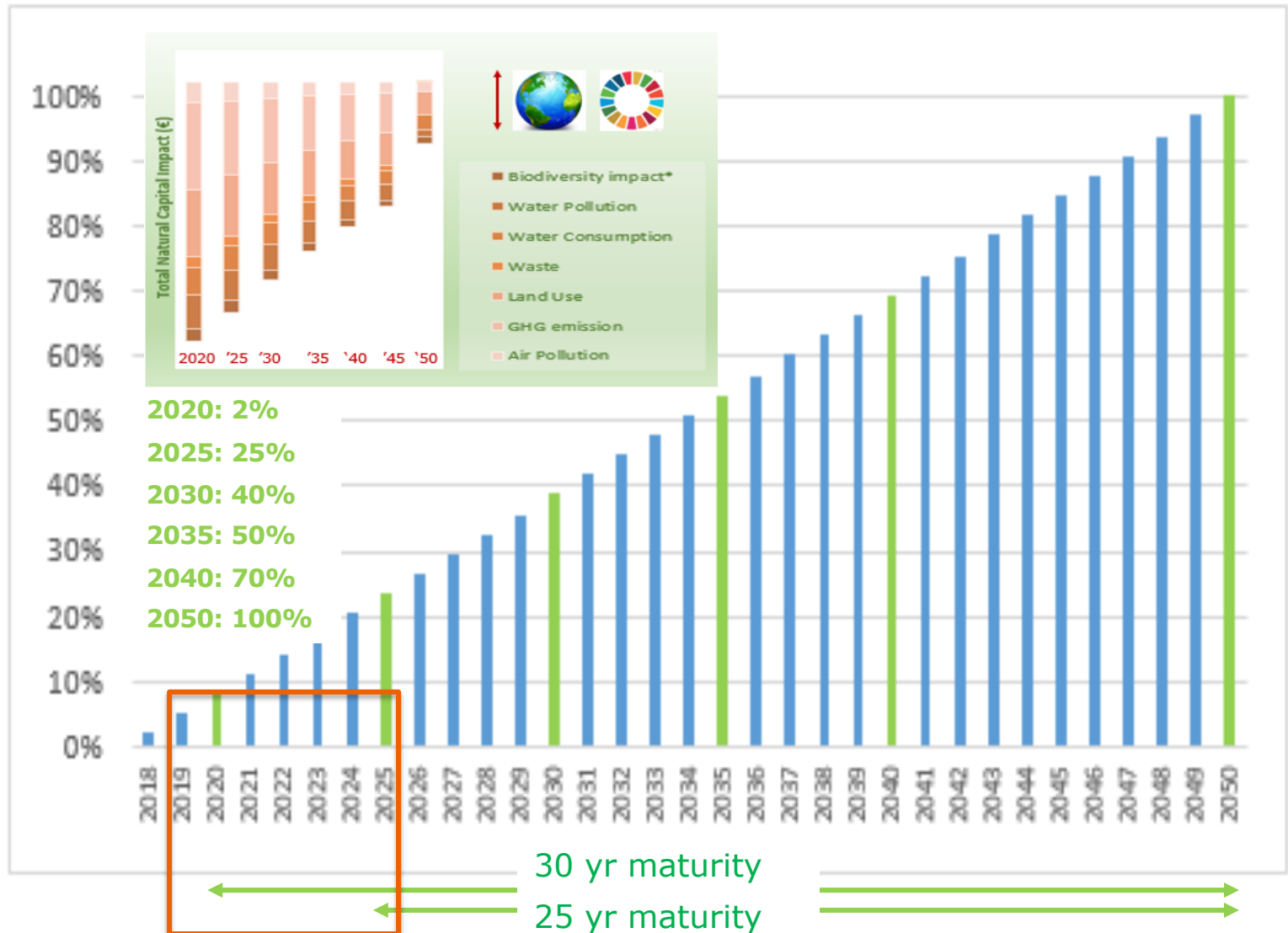
\* See HLEG, UNEP-World Bank,  
PR-CFA, ... (2018)



# Credible Green Deal Requires Strong Green Finance Strategy

*But Distance to Target Pathway Not Yet (Credibly) Defined*

Current and Assumed Market Shares



Next 5 years crucial: All LT (infrastructure) investments are to be 100% sustainable

# Sustainable Development (& Finance) Strategies Beyond 2020

*Building Blocks for Strengthening Actions and to Move from Niche to Mainstream*

**One  
Agenda**

**Climate, Natural Capital** (Air, Water, Land, Biodiversity)  
**Low Carbon, Resource Efficient, Circular Economy**  
Social

**Education, Training, and  
Capacity Building**

**Climate and Environmental Risks & Opportunities**  
Social, Economic & Financial Risk & Opportunities  
Sustainable Finance Excellence Centers

**Risk Management  
Information & Governance**

**Environmental Accounting (EGAAP)**

**Taxonomy (Climate + No Harm + Nat Cap + CE)**  
Non-Financial Reporting, Investors' Disclosure, ...

**Increasing Share of  
Sustainable Investments**

**Investment Needs Analysis & Forecasts**  
**Financial Product Standards** (Green Bonds, Funds, ...)  
**Portfolio Development** (InvestEU, NatCap & CE, ... )

**Impact Monitoring &  
Evaluation**

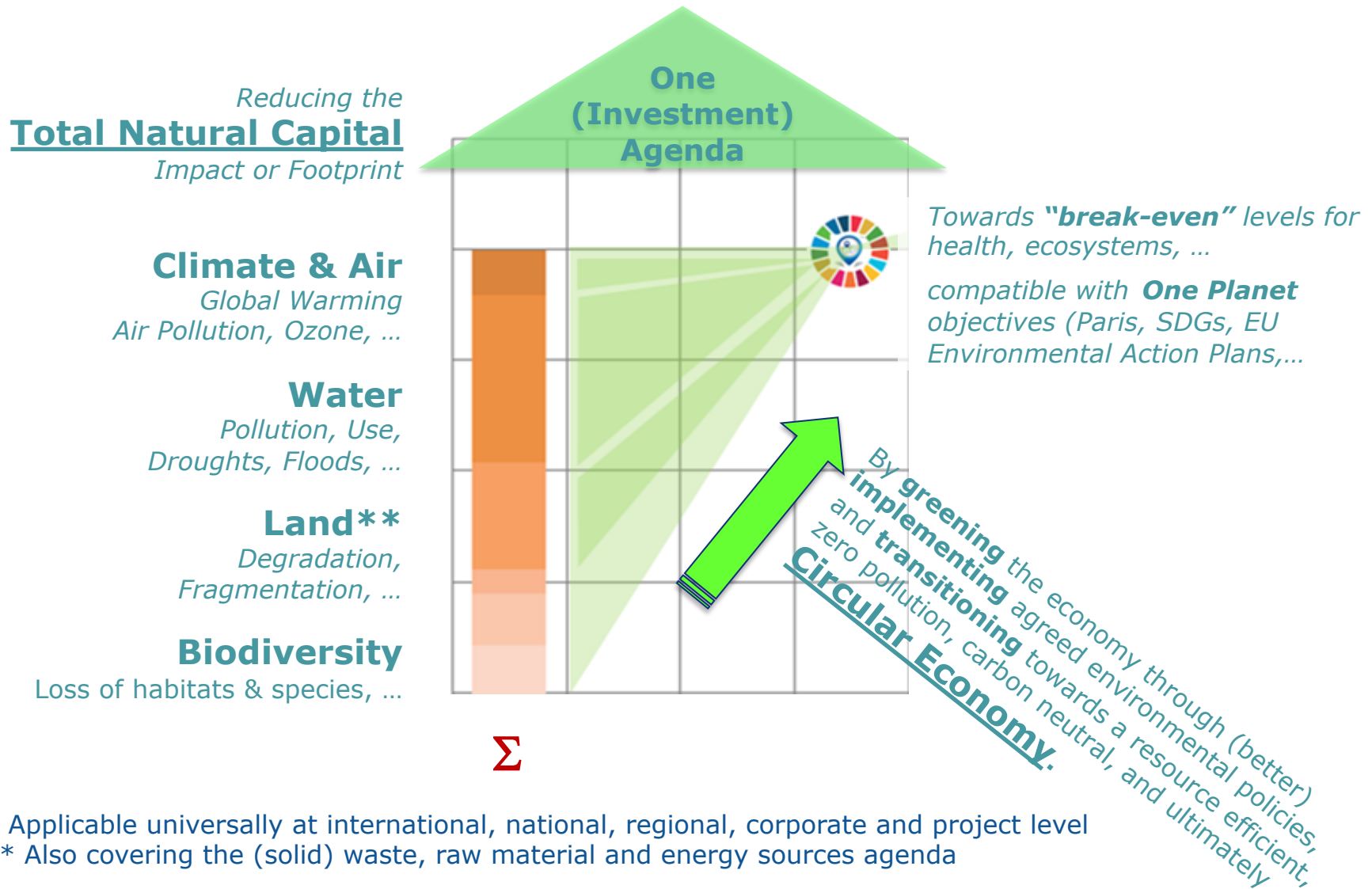
**Market surveillance platform**  
**Environmental impact monitoring & evaluation**  
Social impact surveillance

**R&I, Digitisation  
Co-operation**

Research, Innovation, Digitisation  
**Partnerships and Platforms**  
**Co-ordination**

# Need for a Universal Consolidated Green Agenda

*Joining Forces for Reducing (not shifting) Climate & Environmental Risks*



\* Applicable universally at international, national, regional, corporate and project level

\*\* Also covering the (solid) waste, raw material and energy sources agenda

# **Environmental Accounting**

A Critical Building Block For Delivering The Green Deal?

## ***Part II***

### **The Emerging (Corporate) Environmental Accounting Practice**

- ✓ Overview of New & Existing Environmental Accounting Work Streams
- ✓ Pioneering E P&L practice moving from niche to growing environmental practice
- ✓ Growing (corporate) interest in developing harmonized approach
- ✓ Actions to promote generally accepted environmental accounting standards (e-gaap)
- ✓ Status, similarities & differences with national environmental accounting (SEEA, ...)
- ✓ Hybrid national natural capital accounting applications
- ✓ ...

# Environmental Accounting Workstreams

## *Towards a Comprehensive Environmental Accounting Programme*

### ***Environmental Management Accounting Work Streams (2019-2024)***

Corporate Environmental Accounting (Generally Accepted Environmental Accounting Principles)  
Project Environmental Accounting (InvestEU Guidelines for Environmental Accounting)

National Environmental Accounting – International (SEEA, ...)  
National Environmental Accounting – EU (Eurostat)  
National Environmental Accounting – Other (WB, ... )

### ***Related Work Streams***

*EU Sustainable Finance Action Plan (Taxonomy, Non-Financial Reporting, Corp. Governance<sub>new</sub>)*

...

Life Cycle Analysis (ISO)  
Life Cycle Analysis (EU PEF/OEF/EMAS/...)

...

External Cost Data and Methods  
Human and Social Capital Impact Accounting & Reporting

...

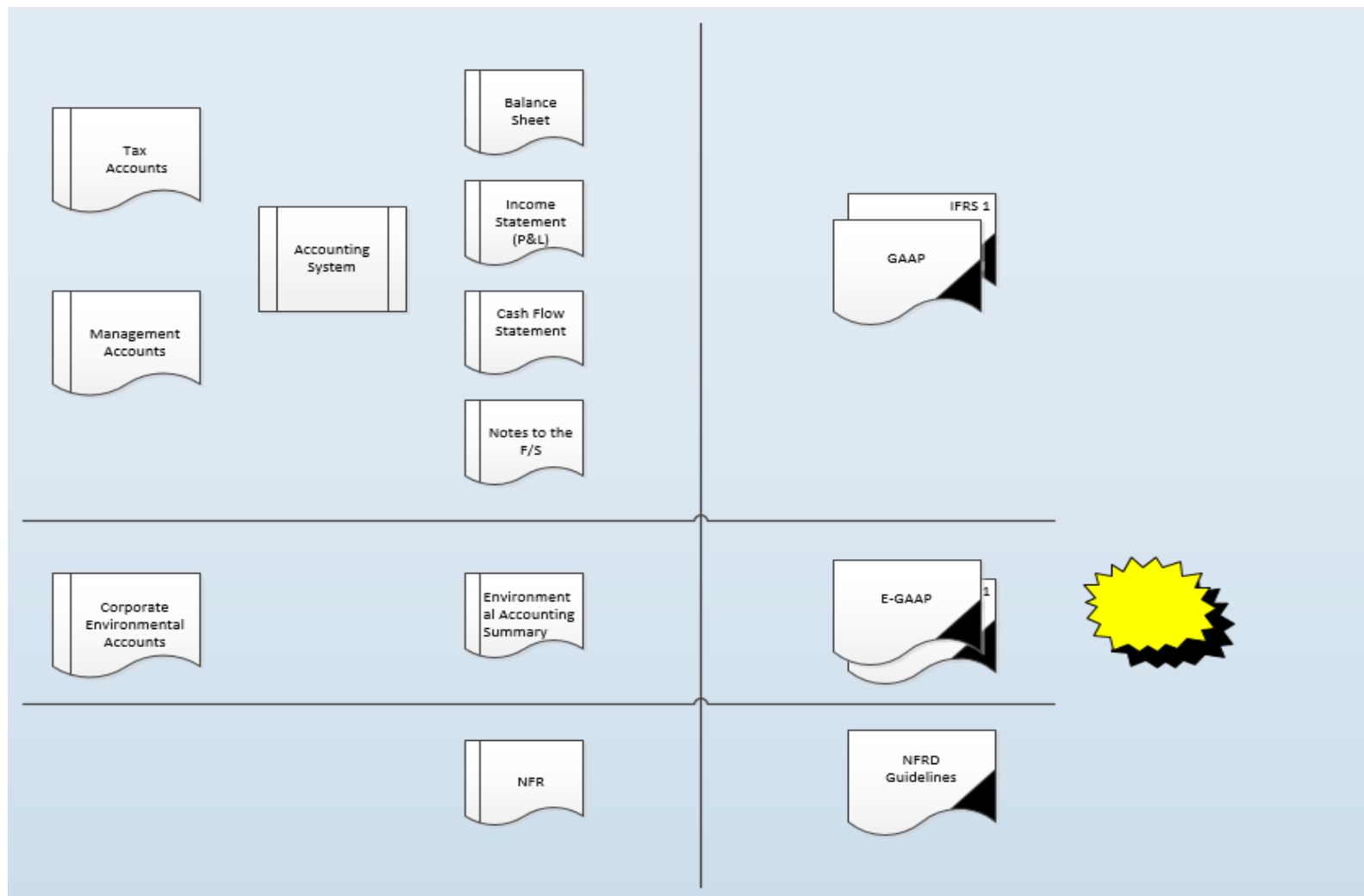
### ***Partnerships and Platforms***

Preparatory Project on Generally Accepted Environmental Accounting Standards (LIFE / E-GAAP)  
Environmental Accounting Platform (EU Business & Biodiversity CoP)  
Project Environmental Accounting Pilot Group (InvestEU)  
[International Panel of Experts on Environmental Management Accounting]  
[Corporate Green Accounting Challenge & Charter]

...






































## ***The Environmental Accounting Priority (cf AP#9, HLEG)***

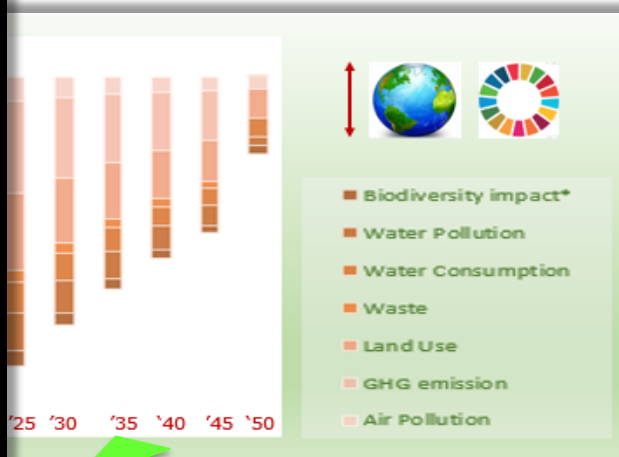
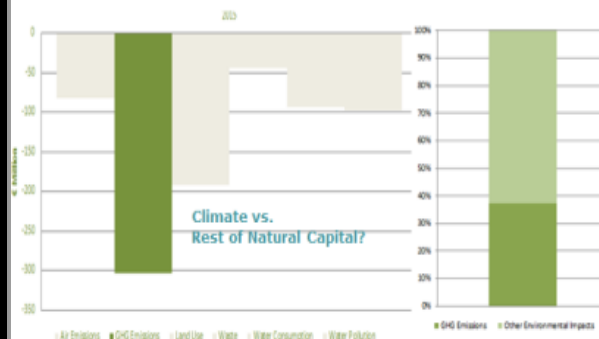


# The Emerging Corporate Environmental Accounting Practice

## *Enabling Total Impact Measurement and Management*

	TIER 0: STORES WAREHOUSE OFFICES	TIER 1: ASSEMBLY	TIER 2: MANUFACTURING	TIER 3: RAW MATERIAL PROCESSING	TIER 4: RAW MATERIAL PRODUCTION	TOTAL IN MILLIONS
AIR POLLUTION 						8% €64,5
GREENHOUSE GAS EMISSIONS 						35% €272,2
LAND USE 						27% €209,9
WASTE 						5% €37,0
WATER CONSUMPTION 						11% €83,2
WATER POLLUTION 						14% €106,2
TOTAL:	7% €56,0	13% €100,0	4% €33,70	26% €197,6	50% €385,7	100% €773,0

### Managing Risk: Simple or Smart?

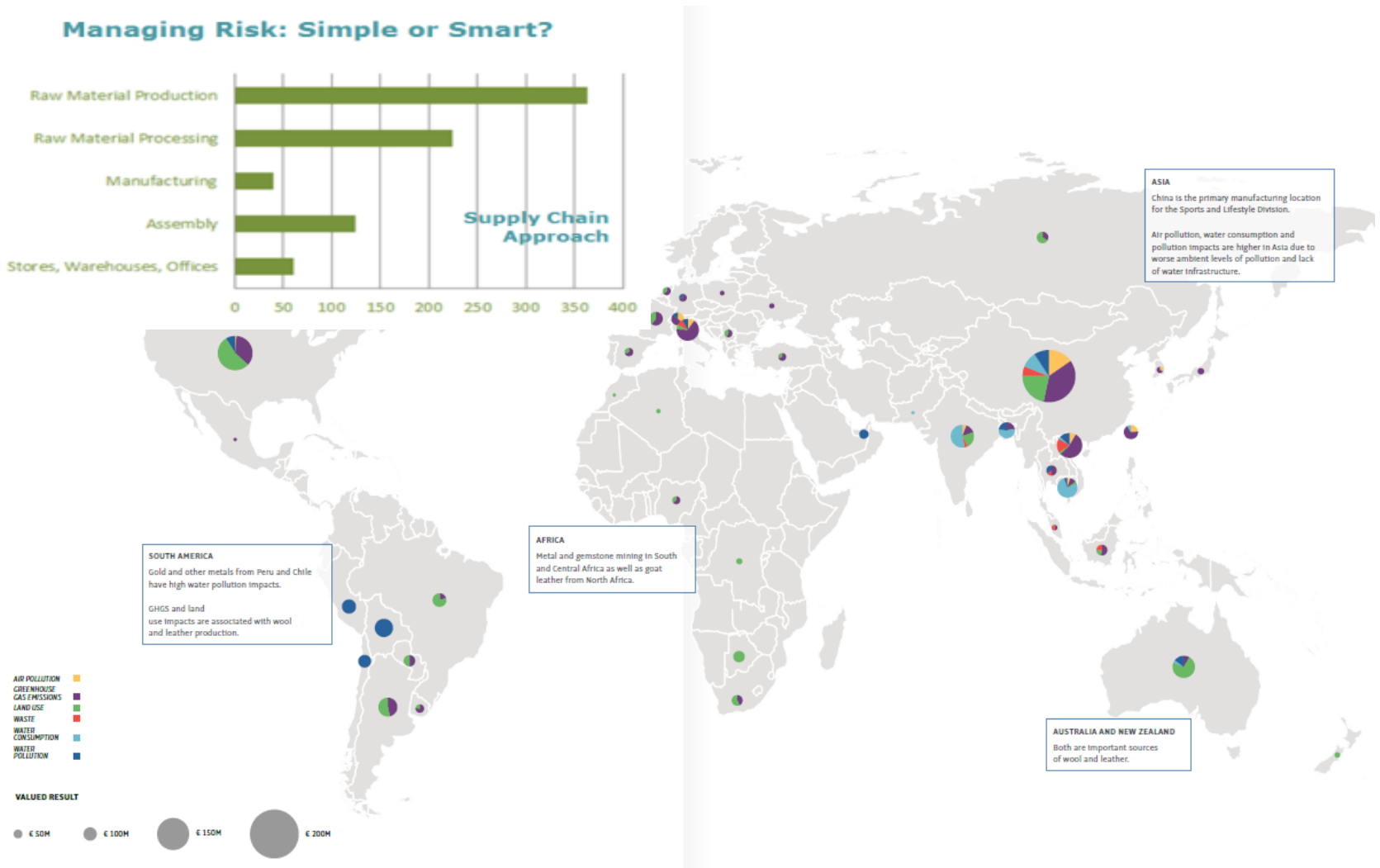


Kering Environmental P&L Methodology and Group Results 2013

See also: <https://www.kering.com/en/sustainability/environmental-profit-loss/>

# The Emerging Corporate Environmental Accounting Practice

*Generating relevant information for managing the green (business) transition*



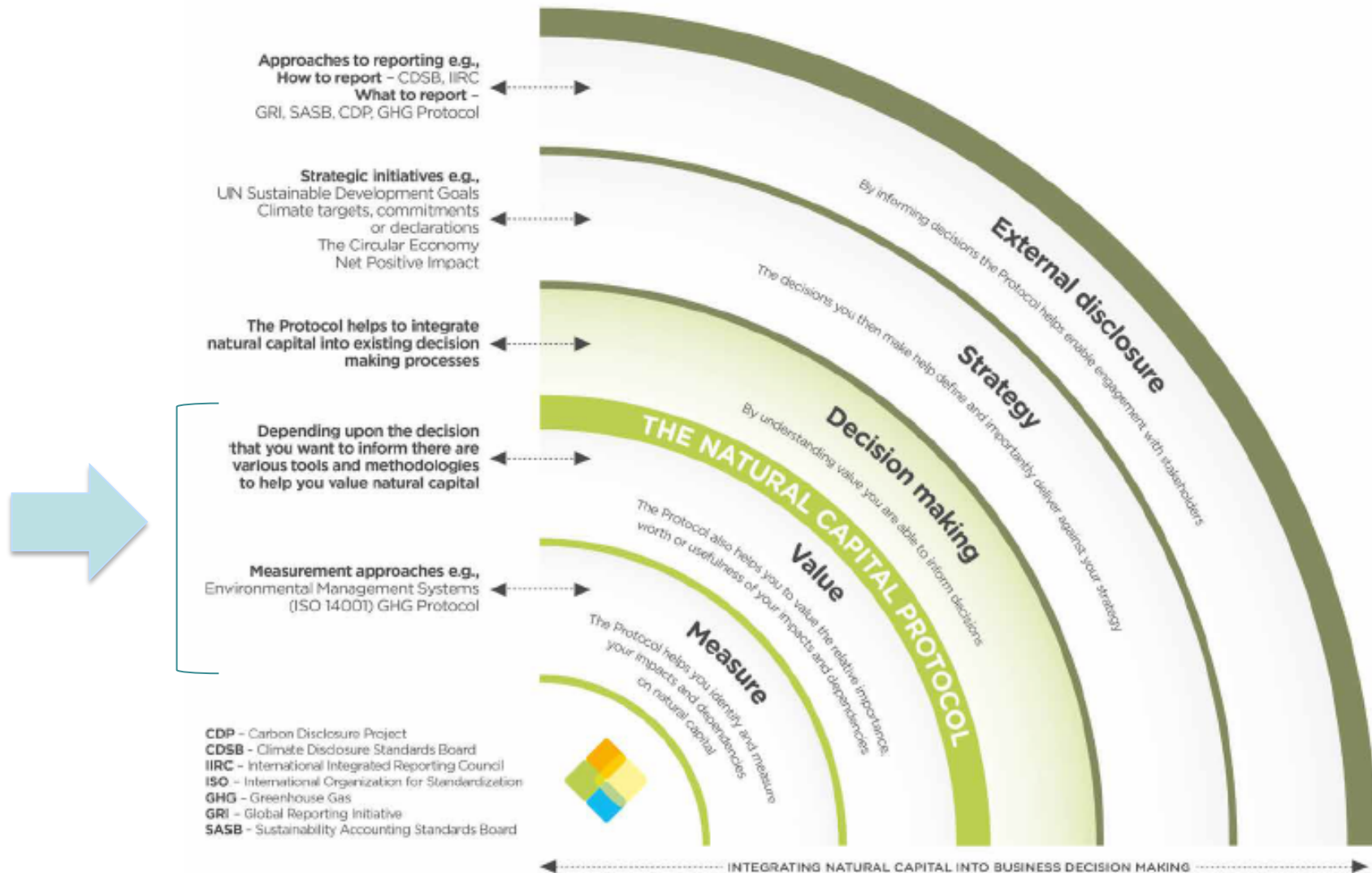
Kering Environmental P&L Methodology and Group Results 2013

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# The Emerging Corporate Environmental Accounting Practice

## *Enabling Total Impact Measurement and Management*



# The Emerging Environmental Accounting Practice

## Joining the Corporate Momentum (300+)

[Green  
Corporate  
Challenge]

### Association (e.V.)\*



### Policy advisor\*



### Pro-bono consultants\*



### value balancing alliance

#### Advisory board\*



#### Supporters\*



\* Not members of association

### Environmental P&L



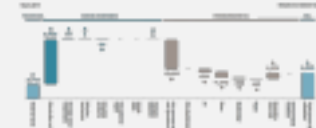
### The Total Contribution



### True Earnings

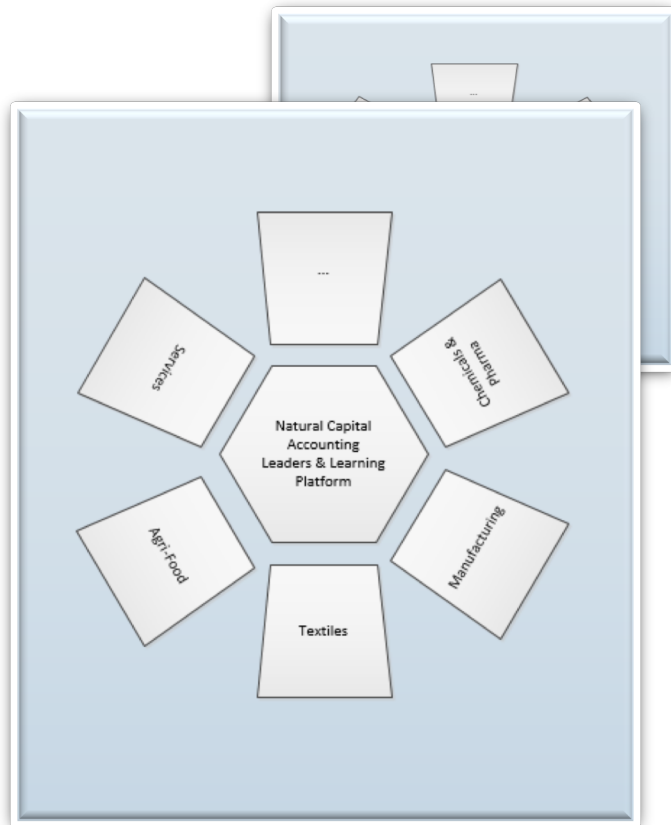


### Integrated Profit & Loss



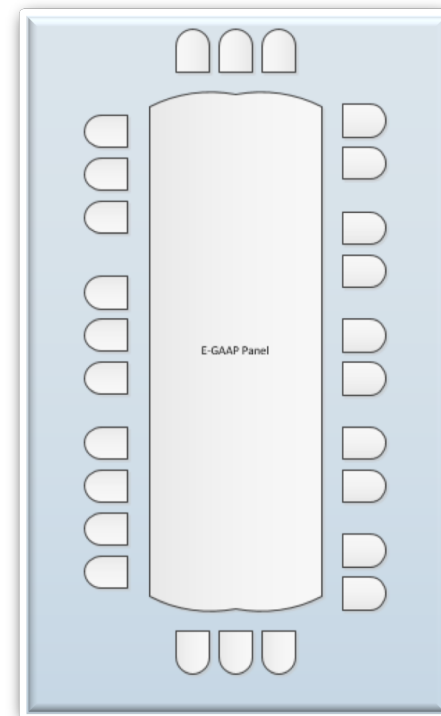
# ***The Emerging Environmental Accounting Practice***

*Building Public-Private Partnerships and Platforms*



**Environmental Accounting  
Practitioners Platform(s)**  
(Best Practice Sharing and Promotion)

LIFE E-GAAP Prep project  
(InvestEU, EIB, ...)



**[International Environmental  
Accounting Panel(s)]**  
(Corporate E-GAAP)

# National Environmental Accounting



eurostat

## SYSTEM OF ENVIRONMENTAL ECONOMIC ACCOUNTING

<https://seea.un.org/content/homepage>

### Thematic Areas

The SEEA is a guide to integrating economic, environmental and social data into a single, coherent framework for holistic decision-making.



Agriculture, Forestry and Fisheries



Air Emissions Accounts



Energy



Environmental Activity Accounts



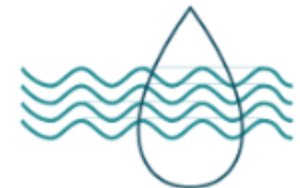
Ecosystem Accounts



Land Accounts



Material Flow Accounts



Water

NAVIGATION ▾

ONLINE PUBLICATIONS ▾

TOOLS ▾

Environmental accounts - establishing the links between the environment and the economy  

[https://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental\\_accounts\\_-\\_establishing\\_the\\_links\\_between\\_the\\_environment\\_and\\_the\\_economy](https://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_accounts_-_establishing_the_links_between_the_environment_and_the_economy)

# National Environmental Accounting

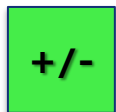
## SYSTEM OF ENVIRONMENTAL ECONOMIC ACCOUNTING



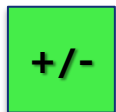
*Reducing the*  
**Total Natural Capital**  
*Impact or Footprint*



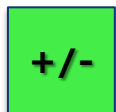
**Climate & Air**  
*Global Warming  
Air Pollution, Ozone, ...*



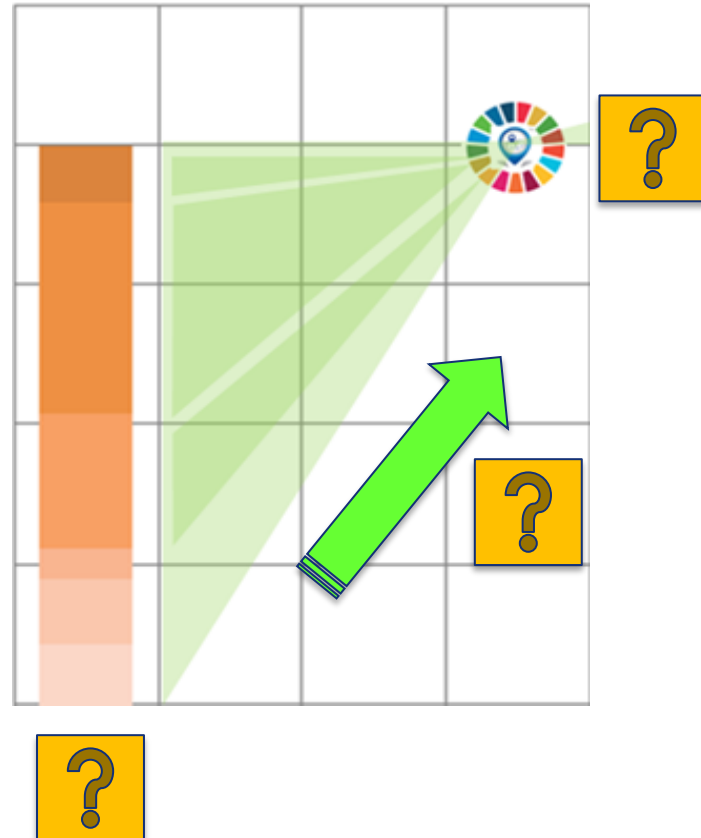
**Water**  
*Pollution, Use,  
Droughts, Floods, ...*



**Land\*\***  
*Degradation,  
Fragmentation, ...*



**Biodiversity**  
*Loss of habitats & species, ...*



# National Environmental Accounting



NAVIGATION ▾

ONLINE PUBLICATIONS ▾

TOOLS ▾

eurostat

Environmental accounts - establishing the links between the environment and the economy



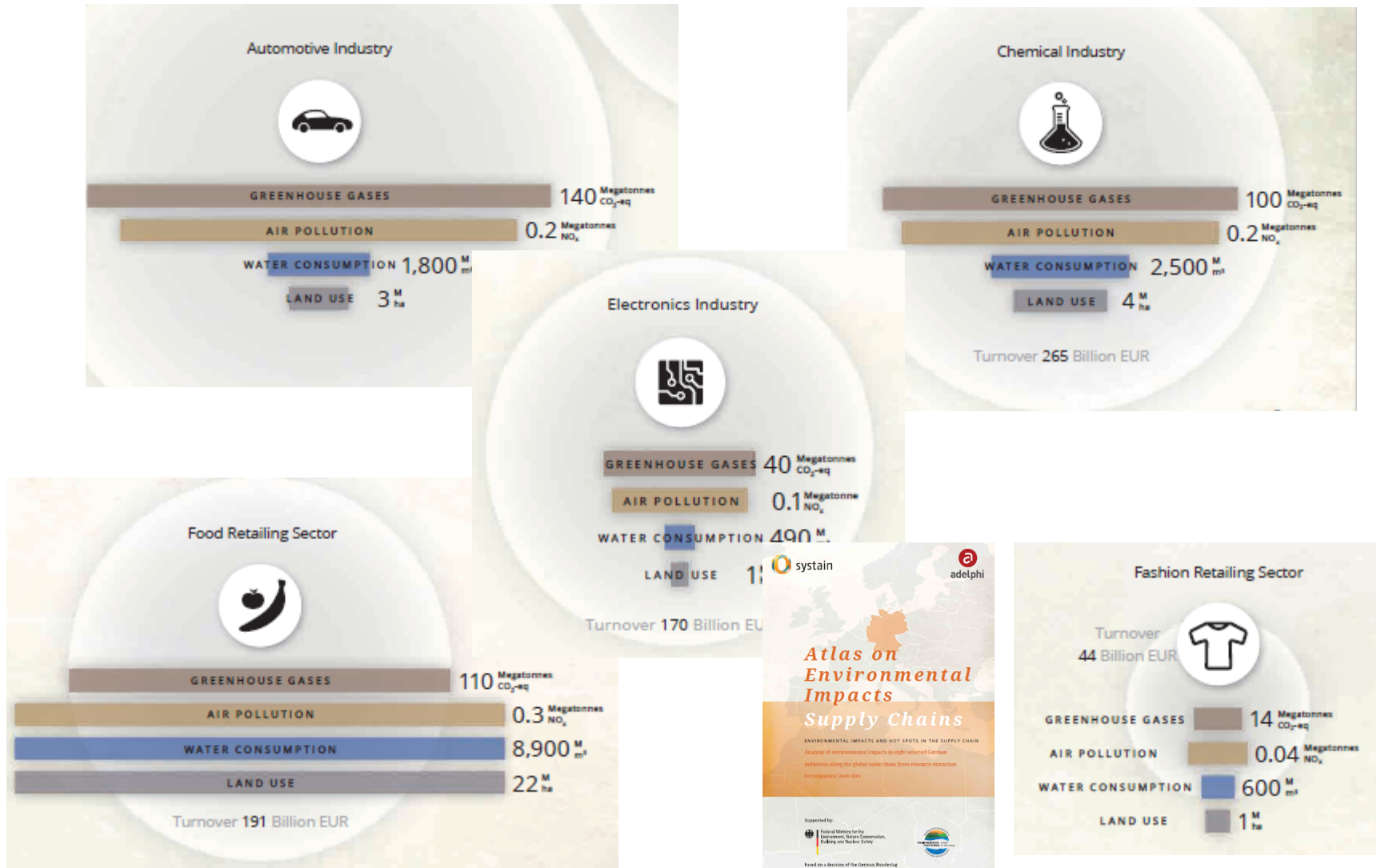
## ***Recommendations to the Commission (by end 2021):***

- 1. Improve strategic framework for the EEEA data.*
- 2. Improve EEEA modules' relevance for policy making.*
- 3. Improve the timeliness of EEEA data.*



# The Emerging Environmental Accounting Practice

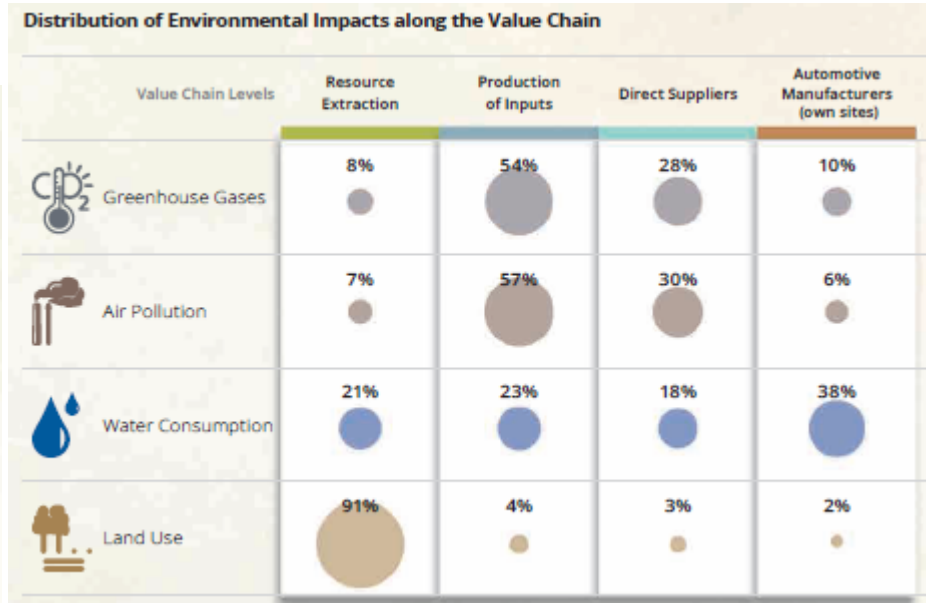
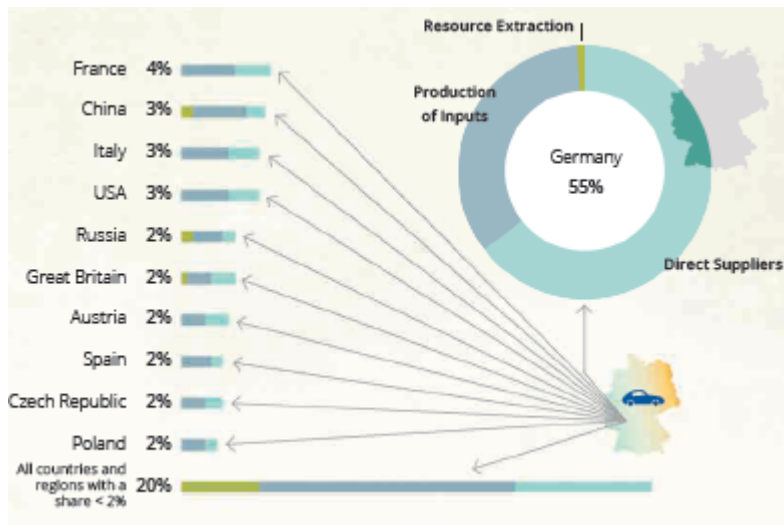
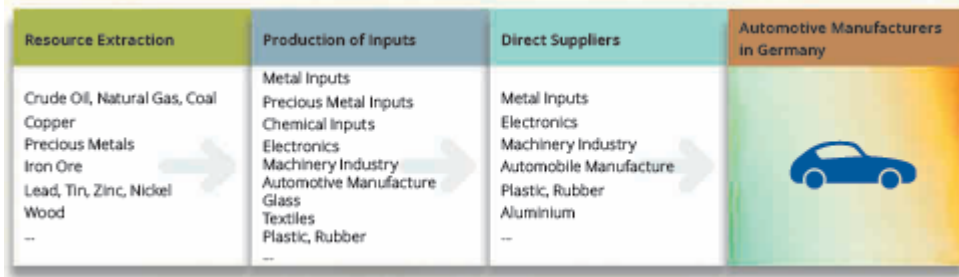
*Generating data relevant for managing the green (economy) transition*



Source: Atlas on Environmental Impacts - Supply Chains – Environmental Impacts and Hot Spots in the Supply Chain, Adelphi/Systain, Berlin/Hamburg, 2017.

# The Emerging Environmental Accounting Practice

## *Generating data relevant for sound green (sectoral) transition management*



Source: Atlas on Environmental Impacts - Supply Chains – Environmental Impacts and Hot Spots in the Supply Chain, Adelphi/Systain, Berlin/Hamburg, 2017.



# Environmental Accounting

## ***Part III***

(Concluding Reflections / Workshop Input)

### **Elements for Building the Future Environmental Roadmap**

- ✓ Environmental Accounting is critical (missing) building block for delivering (any) green deal;
- ✓ Combine Natural Capital & Circular Economy Agenda for improved efficiency;
- ✓ Natural Capital Accounting is critical for future proofing business & society;
- ✓ Promote synergies between Corporate Natural Accounting Solutions (“e-gaap”) and National Environmental Accounting (SEEA) plans and priorities;
- ✓ Prioritize completion of core natural capital accounts (air, water, land, biodiversity) to enable future proofing of businesses & societies;
- ✓ ...



# Thank you

Extra -/- -

# The Emerging Environmental Accounting Practice

*Generating data relevant for managing the green (economy) transition*

## Applications

Moving towards management accounting



### Corporate level



Annual contribution  
Progress monitoring

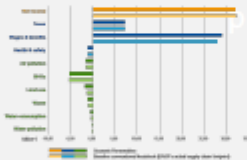


Materiality

### Project level



Site development  
M&A, divestments

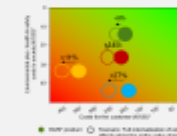


Technology shifts

### Product level



Product portfolio



Product performance

✓ Reporting, advocacy

✓ Materiality, monitoring

✓ Decision making

✓ Steering, KPI setting

5 16.05.19

**BASF**  
We create chemistry



Corporate Environmental  
Accounting (E-GAAP)







Project Environmental Accounting  
(InvestEU, Art. 7.3)

LCA, PEF, OEF, EMAS,  
ISO 14040/44 ...



# The Emerging Corporate Environmental Accounting Practice

## *Enabling Total Impact Measurement and Management*

	EMISSIONS AND RESOURCE USE	ENVIRONMENTAL CHANGE	CHANGE IN WELLBEING
AIR POLLUTION 	Emissions of pollutants (PM <sub>2.5</sub> , PM <sub>10</sub> , NOx, SOx, VOCs, NH <sub>3</sub> ) in kg	Increase in concentration of pollution	Respiratory disease, agricultural losses, reduced visibility
GREENHOUSE GAS EMISSIONS 	Emissions of greenhouse gases (CO <sub>2</sub> , N <sub>2</sub> O, CH <sub>4</sub> , CFC's etc) in kg	Climate change	Health impacts, economic losses, change in natural environment
LAND USE 	Area of tropical forest, temperate forest, inland wetland etc in hectares	Reduced ecosystem services	Health impacts, economic losses, reduced recreational and cultural benefits
WASTE 	Hazardous and non-hazardous waste in kg	Climate change, disamenity and contamination	Reduced enjoyment of local environment, decontamination costs
WATER CONSUMPTION 	Water consumption in m <sup>3</sup>	Increasing water scarcity	Malnutrition and disease
WATER POLLUTION 	Release of specific heavy metals, nutrients, toxic compounds in kg	Reduced water quality	Health impacts, eutrophication, economic losses





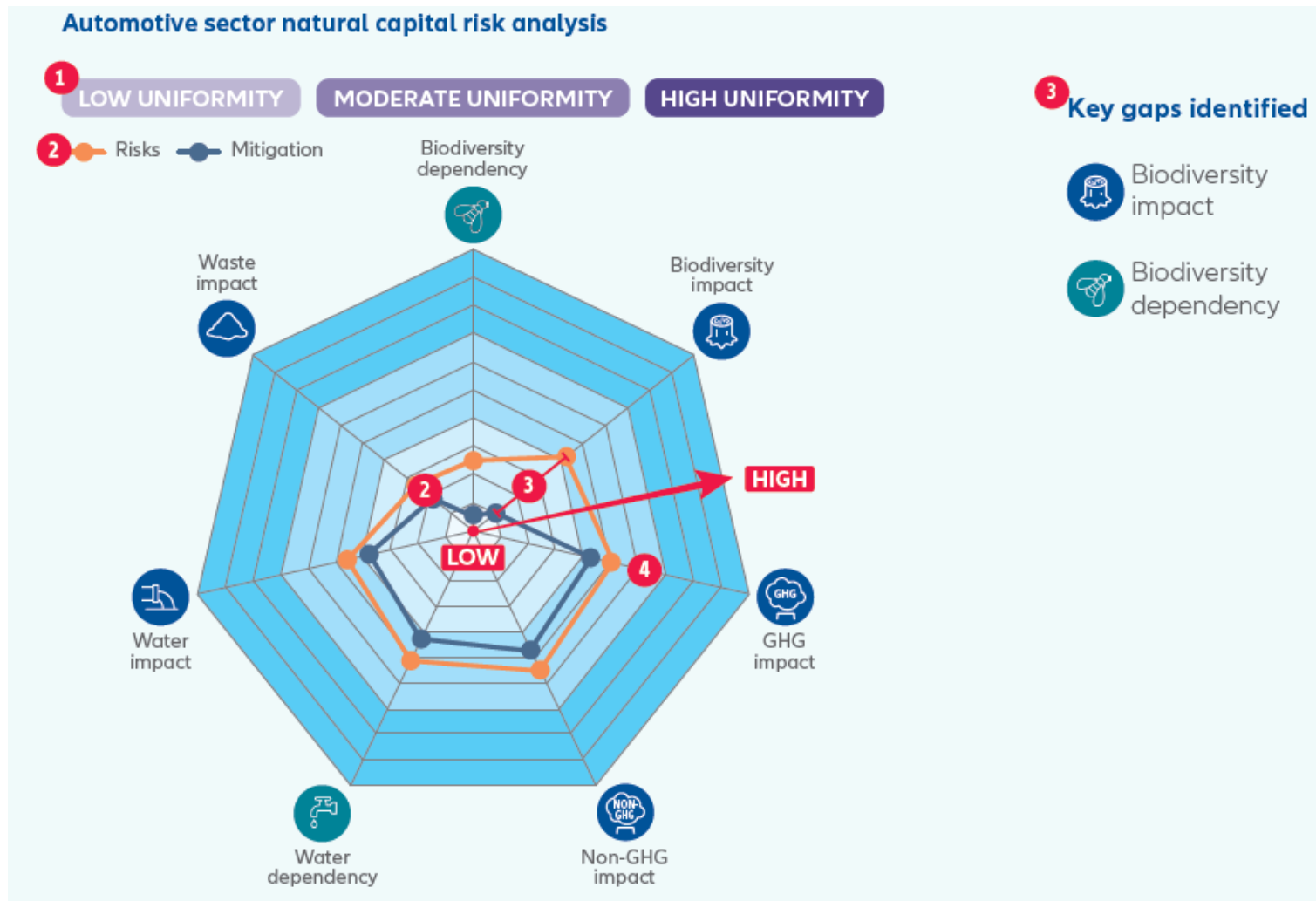
# Future Proof Business?

An EU Futures Invest Business	... causes no harm	...pursues positive outcomes
<b>Respects Nature</b>	<b>Protecting the health of all ecosystems</b> touched by the company's own operations by activities throughout its supply chain, and by the sale of its products	<b>Enriching ecosystems and biodiversity</b> via regenerative activities in and beyond the company's value chain, and by the sale of efficient and restorative products
<b>Thinks Circular</b>	<b>Eliminating all waste</b> from the company's own operations, throughout its supply chains, and from the sale of its products	<b>Reclaiming waste and helping others avoid it</b> by recycling post-use products, designing products for repair and reuse, product-as-service business models, and reclaiming materials from waste streams
<b>Fosters Wellbeing</b>	<b>Safeguarding the health of people</b> including customers, as well as workers and local communities in the company and throughout its supply chains	<b>Addressing unmet needs</b> via beneficial products and business models, and by acting to increase wellbeing and access to work and markets in and beyond the company's value chain
<b>Strengthens Society</b>	<b>Conducting business responsibly</b> by behaving ethically, contributing fairly to public infrastructure, and not using its influence in ways that may slow society's progress to future-fitness	<b>Growing trust and resilience</b> by seeking to positively influence markets, industry bodies and regulatory systems, and by investing to improve public infrastructure

Adapted from [futureproof.org](https://futureproof.org)

# The Environmental Accounting Priority

*Generating data relevant for managing the green (economy) transition*



Source: Measuring and Managing Environmental Exposure, A Business Sector Analysis Of Natural Capital Risk, Allianz Global Corporate & Specialty, June 2018

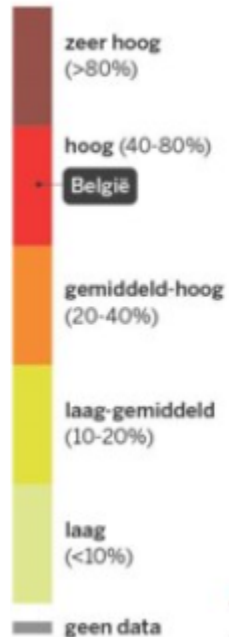


European  
Commission

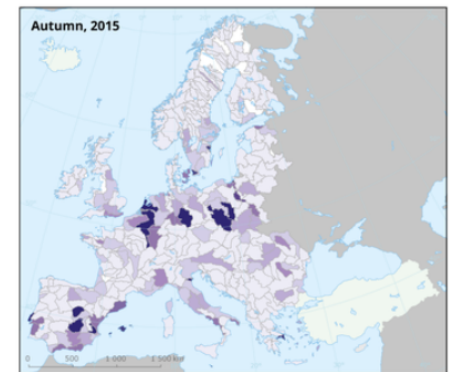
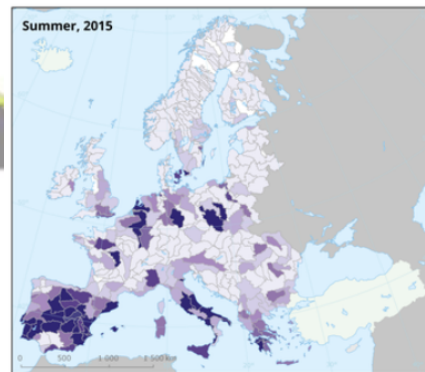
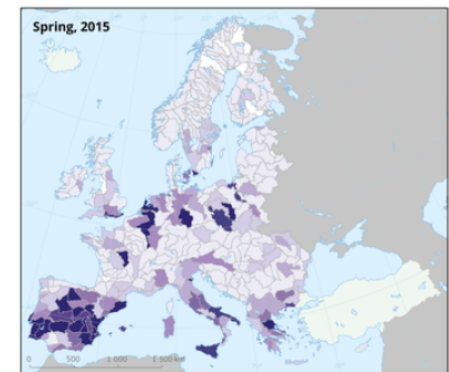
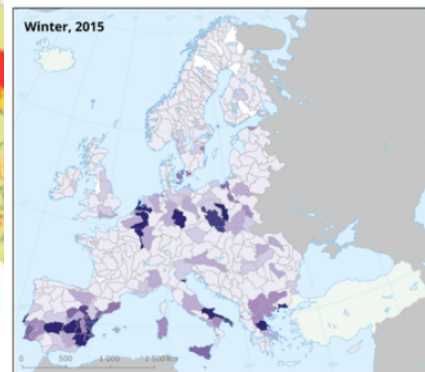
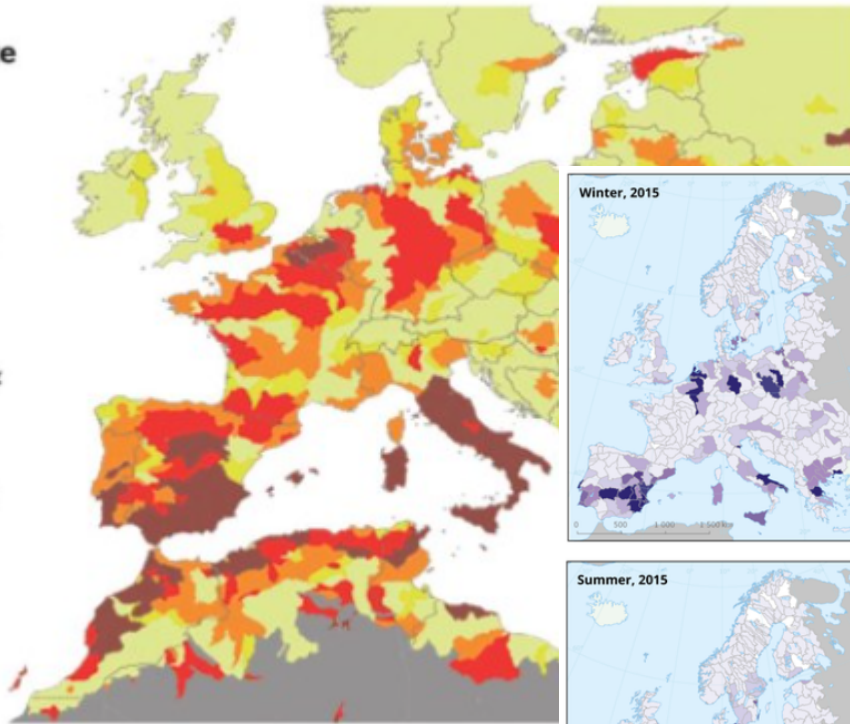
# The Emerging Environmental Accounting Practice

*Generating data relevant for managing the green (economy) transition*

## Risico op waterschaarste



DS Infografiek | Bron: [www.wri.org](http://www.wri.org) (data 2019), The New York Times



Seasonal water exploitation index plus (WEI+), sub river basin district scale



# **The Emerging Environmental Accounting Practice**

*Organizing data and information (accounting) to answer key questions*

1. What is the total environmental footprint of my activity for a given (fiscal) year?
2. How important is each natural capital category (air, water, land, biodiversity) vs. the total?
3. How is the footprint distributed geographically and along stage of the supply or value chain?
4. How do I expect the footprint to evolve in time and across locations?
5. Are these footprints causing business continuity or other risks now or in the future.
6. Should I take risk mitigation measures and if so, where to concentrate efforts?
7. How is the footprint comparing to those of other companies, sectors, countries,...?
8. How is my footprint evolving over time? Is it evolving according to the plan?