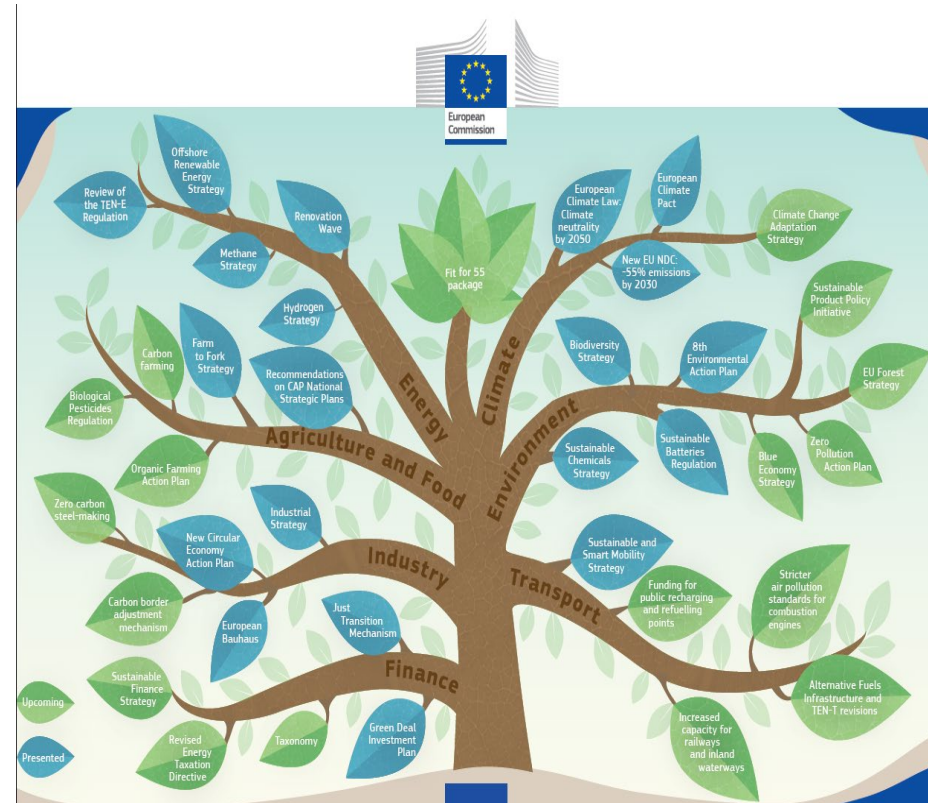




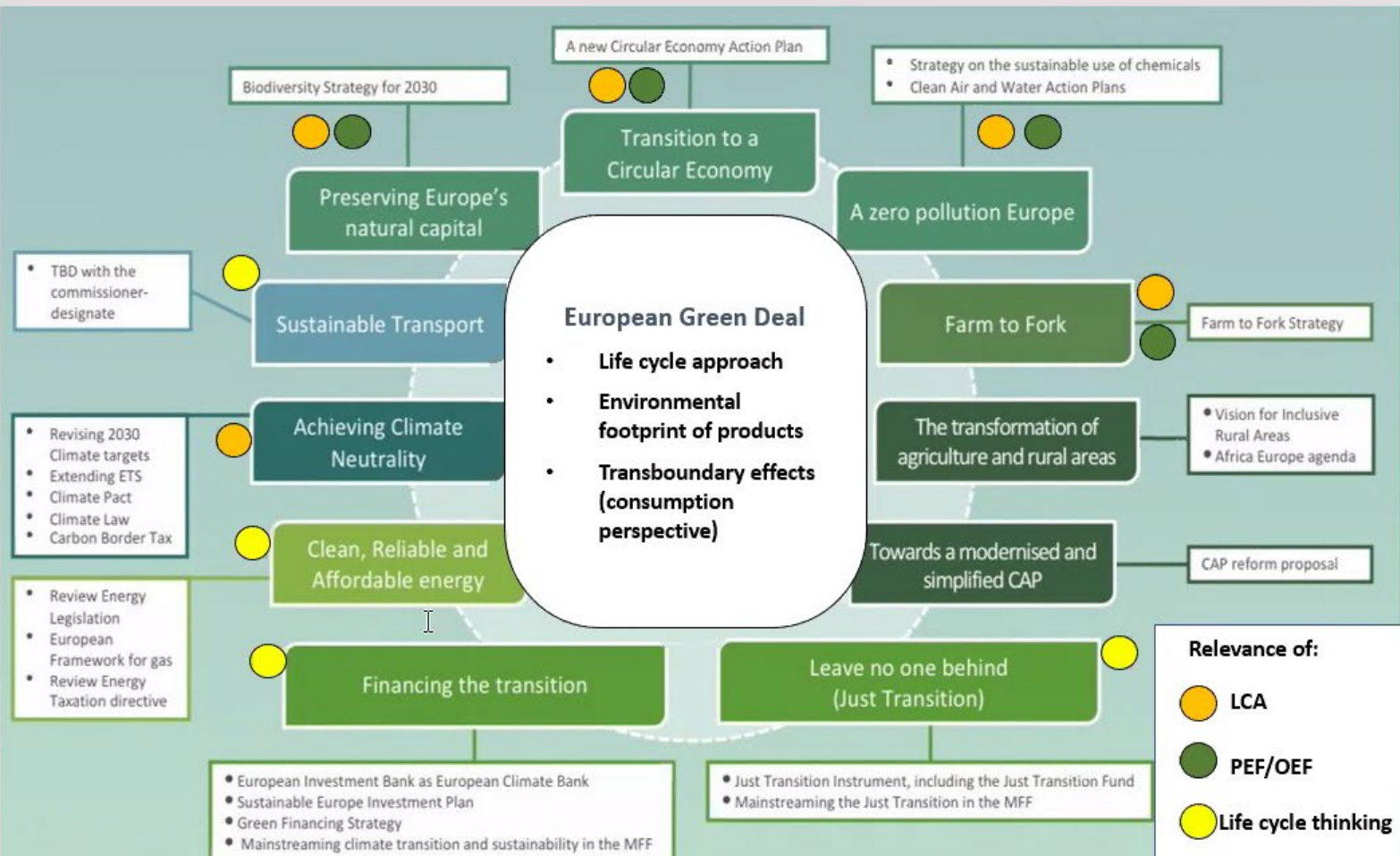
**Upcoming Trends and
requirements in the EU:
EU Taxonomy Regulation and
Disclosure of verified
sustainability data in reports –
Start boarding now!**

Axel Dick

- Keywords at EU level:
 - Paris Climate Agreement (2015)
 - **Climate target 2030 – 55% & 2050 „Climate Neutral“**
 - European Green Deal (2019) incl. a Roadmap ...



Relevance of LCA in the EU Green Deal: LCA "in support" to policy and LCA "into" policy



Core target group

The **EU Taxonomy Regulation** includes the following **core target groups**:

- **Financial market participants**, that issue environmentally sustainable **bonds** (green bonds).
- **Financial market participants** that provide **financial products** (incl. pension products)
- **Companies** that have to report on **non-financial indicators**

Presentation of the **environmentally sustainable economic activities** – Undertakings shall disclose the following information:

- **Net turnover:** proportion of the **net turnover** associated with economic activities that qualify as environmentally sustainable
- **CapEx: Proportion of capital expenditures** associated with economic activities that qualify as environmentally sustainable
- **OpEx: Proportion of operational expenditures** associated with economic activities that qualify as environmentally sustainable

Article 9 is central for defining the 6 environmental objectives:

- **Climate change mitigation**
- **Climate change adaption**
- The sustainable use and **protection of water an marine resources**
- The transition to a **circular economy**
- **Pollution prevention and control**
- The **protection and restoration of biodiversity and ecosystems**

- ***Note: Principle of "Do No Significant Harm" (DNSH)***

Article 10 EU Taxonomy Regulation – Part 1

Article 10: Substantial contribution to climate change mitigation

The following economic activities are described:

- **generating, transmitting, storing, distributing or using renewable energy** in line with Directive (EU) 2018/2001, including through using innovative technology with a potential for significant future savings or through necessary reinforcement or extension of the grid;
- **improving energy efficiency; except for** power generation activities as referred to in Article 19 (3);
- increasing **clean or climate-neutral mobility**;
- switching to the use of **sustainably sourced renewable materials**;
- ...

Article 10 EU Taxonomy Regulation – Part 2

- **strengthening land carbon sinks**, including through avoiding deforestation and forest degradation, **restoration of forests**, sustainable management and restoration of croplands, grasslands and wetlands, afforestation , and regenerative agriculture;
- establishing **energy infrastructure** required for **enabling the decarbonization** of energy systems;
- producing clean and efficient fuels from renewable or carbon-neutral sources

Article 11 – Substantial contribution to **climate change adaption:**

- includes adaption solutions that either **substantially reduce the risk of the adverse impact of the current climate and the expected future climate on that economic activity** or substantially reduce that adverse impact, without increasing the risk of an adverse impact on people, nature or assets;
- or
- provides adaption solutions that, in addition to satisfying the conditions set out in Article 16 (*Note: enabling activities*), contribute substantially to preventing or reducing the risk of the **adverse impact of the current climate and the expected future climate on people, nature or assets**, without increasing the risk of an adverse impact on other people, nature or assets.

Article 13 EU Taxonomy Regulation – Part 1

Article 13 – **Substantial contribution to the transition to a circular economy**

An economic activity shall qualify as contributing substantially to the transition to a circular economy, including waste prevention, re-use and recycling, where that activity:

- uses **natural resources**, including sustainably **bio-based and other raw materials** in production more efficiently, including by
 - **reducing the use of primary raw materials** or increasing the use of by-products and secondary raw material; or
 - **resource and energy efficiency measures**.
- increases the **durability, reparability, upgradability** or **reusability of products**, in particular in designing and manufacturing activities.

Article 13 EU Taxonomy Regulation – Part 2

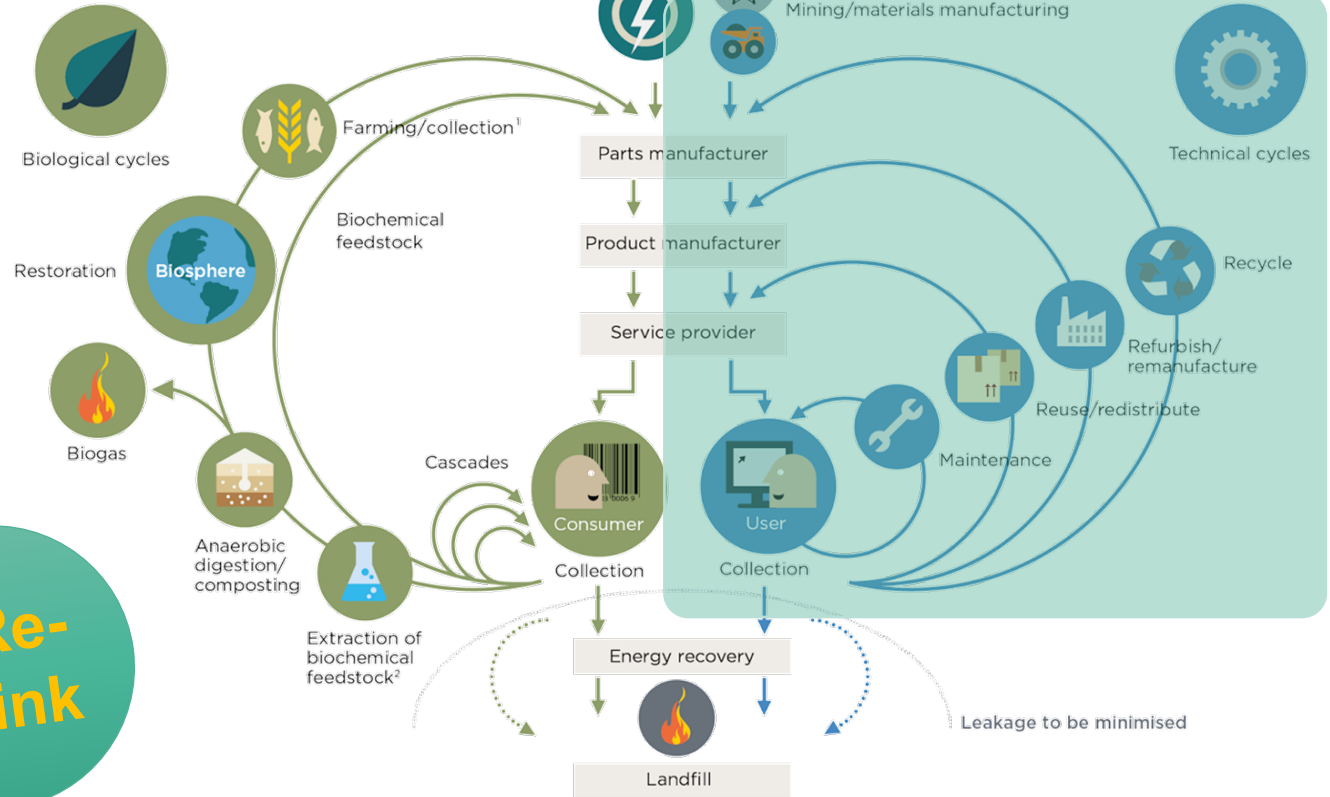
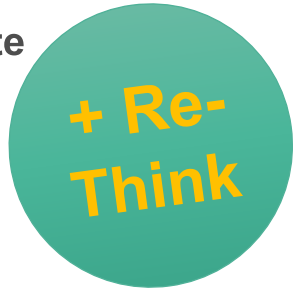
- **substantially reduces the content of hazardous substances** and **substitutes substances of very high concern in materials and products throughout their life cycle, in line with the objectives set out in Union law**, including by **replacing such substances with safer alternatives** and ensuring traceability;
- prolongs the use of products, including through **reuse, design for longevity, repurposing**, disassembly, remanufacturing, upgrades and repair, and sharing products;
- **increases the use of secondary raw materials** and their quality, including by high-quality recycling of waste;
- **prevents or reduces** waste generation, including the generation of waste from the **extraction of minerals and waste from the construction and demolition of buildings**;
- ...

Technical closing of the loop



R-Technics:

- Reduce
- Re-Use
- Repair
- Refurbish
- Remanufacturing
- Reconditioning
- Regenerate
- Recycling
- Resale



¹ Hunting and fishing
² Can take both post-harvest and post-consumer waste as an input
 SOURCE: Ellen MacArthur Foundation -
 Adapted from the Cradle to Cradle Design Protocol by Braungart & McDonough

Article 17 – Significant harm to the environmental objectives

- When assessing an economic activity against the criteria set out in paragraph 1, both the **environmental impact of the activity** itself and the **environmental impact of the products and services provided by that activity throughout their life cycle** shall be taken into account, in particular by considering the **production, use and end of life** of those products and services.
- Note: ISO 14001:2015 refers to **direct and indirect environmental impacts; considering a life cycle perspective**

Article 18 EU Taxonomy Regulation

Article 18 – **Minimum safeguards**

- **OECD Guidelines** for Multinational Enterprises;
- **UN Guiding Principles** on Business and Human Rights;
- Declaration of the **International Labour Organisation** on Fundamental Principles and Rights at Work;
- International Bill of **Human Rights**

- **Principle of 'do no significant harm'** referred to in point (17) of Article 2 of Regulation (EU) 2019/2088



**Outlook
New Reporting
obligations
Drafts EFRAG
as of November
(CSRD)**

ATTENTION DRAFTS, November 22

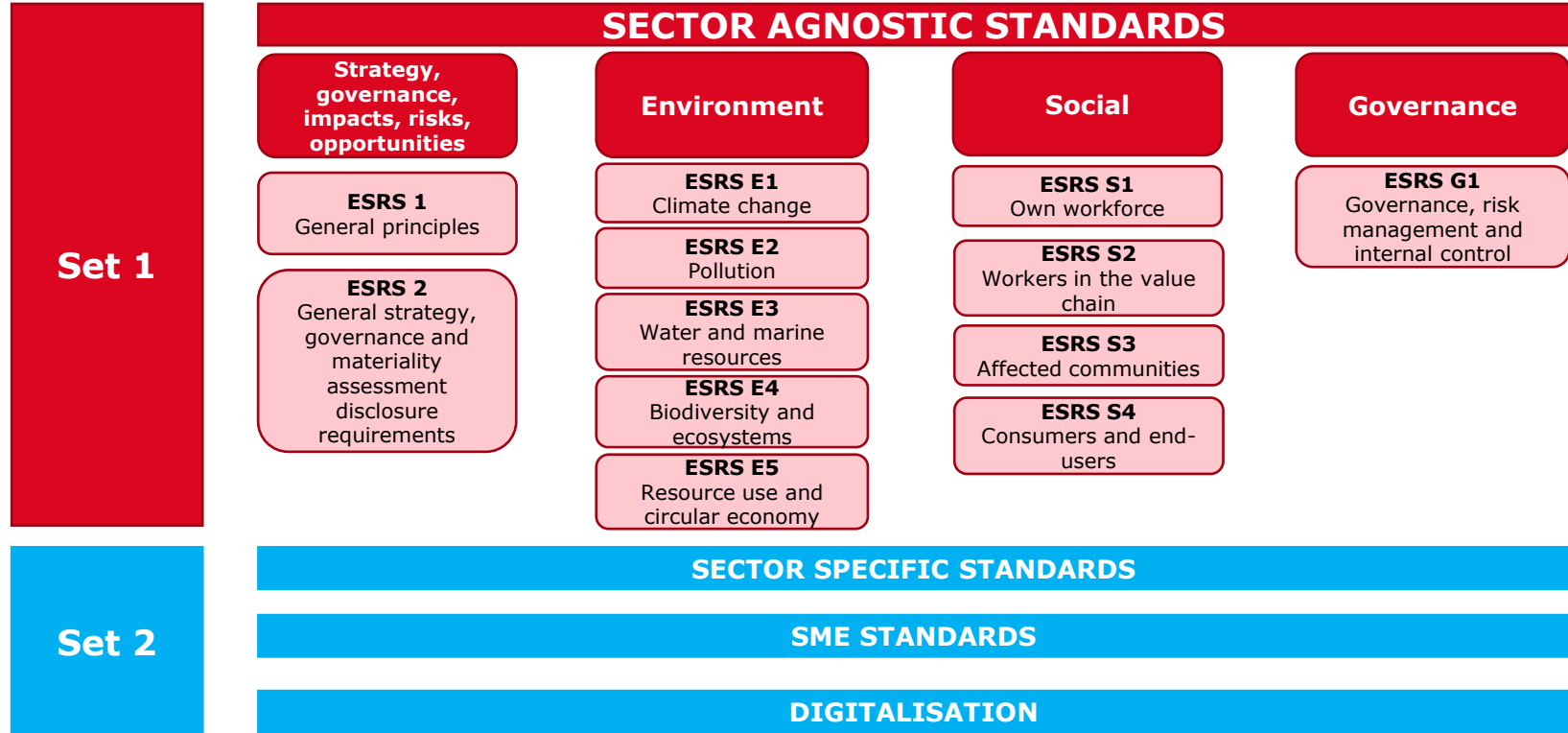
- **Cross-cutting Standards (ESRS 1 und ESRS 2)**
 - ESRS 1 **General principles**
 - ESRS 2 **General, strategy, governance and material assessment**

- **Topical Standards – Environment (ESRS E1 to ESRS E5)**
 - ESRS E1 **Climate Change**
 - ESRS E2 **Pollution**
 - ESRS E3 **Water and Marine Resources**
 - ESRS E4 **Biodiversity and Ecosystems**
 - ESRS E5 **Resource Use and Circular Economy**

- **Topical Standards – Social (ESRS S1 to ESRS S4)**
 - ESRS S1 **Own Workforce**
 - ESRS S2 **Workers in the Value Chain**
 - ESRS S3 **Affected Communities**
 - ESRS S4 **Consumers & End Users**

- **Topical Standards – Governance (ESRS G1 and ESRS G2)**
 - ESRS G1 **Governance, Risk Management and Internal Control**

EFRAG ESRS – Exposure draft



ESRS 1 General principles – Double materiality; Requirement 42ff

- **Double materiality** is a concept which provides criteria for the determination of whether a sustainability matter has to be included in the undertaking's sustainability report.

*Double materiality is the union (in mathematical terms, i.e., union of two sets, not intersection) of **impact materiality and financial materiality**.*

*A sustainability matter meets therefore the **criteria of double materiality** if it is material from either the **impact perspective** or the **financial perspective** or **both perspectives**.*

EU Taxonomy – Structure of evaluation in the Appendix

Environmental objective	Comments
Substantial contribution to climate change mitigation	Carbon emissions, possible presentation of the life cycle GHG emission savings based on ISO 14067:2019 or ISO 14064-1:2019
Climate change adaption	Appendix A: robust climate risk and vulnerability assessment considering physical climate risks; assessment of adaption solutions differentiated acc. to climate projections (up to 10 years or 10 to 30 years); Draw up and adaption plan; Climate-related hazards: chronic (e.g. heat stress) or acute (e.g. wildfire), <i>see also Appendix A to Annex 1</i>
Sustainable use and protection of water and marine resources	Appendix B: good water status incl. good ecological potential; for example, in the course of the Environmental Impact Assessment
Transition to a circular economy	R-Strategies; orientation towards the Waste Management Act – Waste Hierarchy
Pollution prevention and control	Appendix C: persistent organic pollutants, mercury and its compounds, ozone depleting substances; REACH Article 57, for example CMR, toxic, endocrine, (highly) persistent and bioaccumulative substances; emissions such as CO, HC, NOx, PM,... Also reference to BAT documents concerning the state of the art
Protection and restoration of biodiversity and ecosystems	Appendix D: Assessment in the course of the EIA incl. required mitigation and compensation measurements

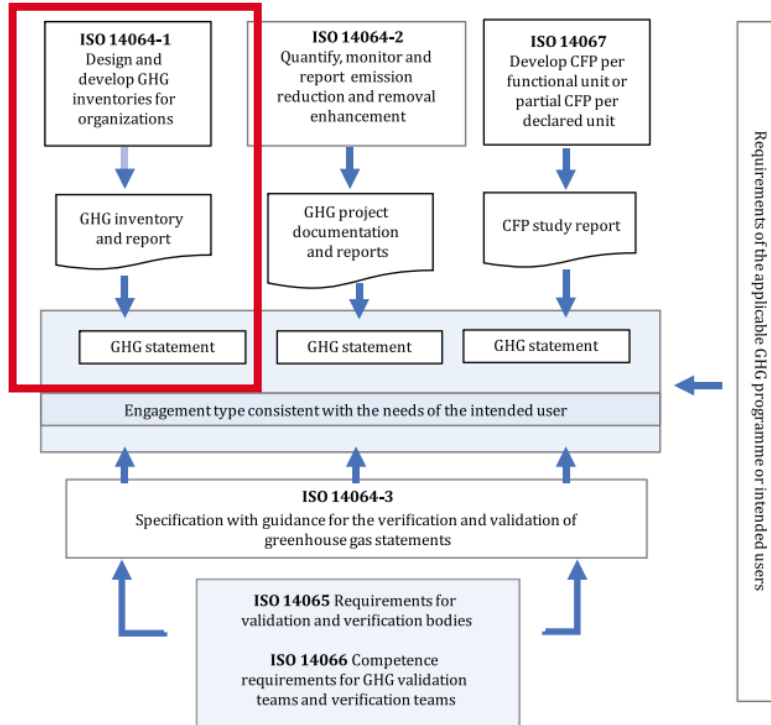
Science Based Targets Initiative (SBTi)

Framework for climate targets of companies

- Science-based GHG reduction targets consistent with decarbonization to keep global warming below 2°C resp. 1.5°C.
 - there are minimum requirements for targets
e.g. **-4,2%/a for 1.5°C**
- Internationally recognized; currently the most common climate target among Fortune 500 companies.
- 2022: approx. 3500 companies have set targets like these



Interrelation of the ISO 14060 Family of Standards



...The ISO 14060 family of standards provides clarity and **consistency for quantifying, monitoring, reporting and validating or verifying of GHG emissions and GHG removals** for the sustainable development through a **low-carbon economy**, and also supports organizations, project proponents, and interested parties worldwide...

Description of System Boundaries

ISO	GRI	activity
direct	Scope I (Core direct)	Company owned/controlled facilities
		Company owned/controlled vehicles
	Scope II (Core upstream, energy indirect)	Electricity
		Heating oil
		Natural Gas
		District heating
		Cooling
	Scope III (Upstream indirect)	Purchased goods
		Purchased services
		Capital goods
		Fuel- & energy-related activities
		Transportation & Distribution
		Waste generation
		Business travel
		Employee Commuting
Leased assets		
Employee Nutrition		
indirect	Scope III (Downstream indirect)	Marketing
		Transportation & Distribution
		Processing of sold products
		Use of sold products
		EOL treatment of sold products
		Leased assets
		Franchises
		Investments

Quantitatively, both systems should come to the „same“ results, only the presentation is structured slightly different and differs in some details.

Shown often also as (upstream & core):

Upstream	Purchased goods
	Purchased services
	Fuel- & energy-related activities
	Transportation & Distribution
	Leased assets
Core	Energy
	Capital goods
	Waste generation
	Business travel
	Employee Commuting
	Employee Nutrition
	Marketing

Quality Criteria – “**Climate Neutral**”

- Carbon accounting **complies** with **ISO** or GHG protocol
- Reporting **complies** with **ISO** or GHG protocol
- Clear **system or inventory boundaries** are disclosed
- **Reduction and action plan**
- Compensation only after avoidance and reduction
 - **Additionality**
 - **Avoid double counting**
- Responsible use of the term “climate neutral”

→ will soon be standardized in **ISO 14068!**

Start boarding now and get prepared for the future

- **First step: Build up competencies** in your organization!

- **Certification:**
 - ISO 14001 or at least ISO 50001
 - ISO 45001
 - SR 10...
 - ISO 37001 (Anti-Bribery)
 - ISO 37301 (Compliance)

- **Verification of Green House Gases: ISO 14064-1**

- **Assessment Circular Economy: Circular Globe**

