



**GeSI**

GLOBAL e-SUSTAINABILITY  
INITIATIVE

# WEBINAR

## Developing a Sustainability Assessment Standard Framework (SASF) for the global ICT industry

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Tuesday 25 June 2015

4 pm Brussels / 10 am New York



# Please notice

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- As all participants are on mute, please submit your questions via the „Chat function“ in the control panel. We will collect all questions and address them at the end of the webinar.
- During the discussion you will have the opportunity to participate verbally. Please make sure, that your microphone is properly working.
- The webinars will be recorded.



# WEBINAR

## Developing a Sustainability Assessment Standard Framework (SASF) for the global ICT industry

Tuesday 25 June 2015

9 am Brussels / 5 pm Sydney



Danilo Riva  
Sustainability Manager, Telecom Italia  
**Telecom Italia**



Rasmus Prieß  
Senior Researcher, Sustainable Products and Material Flows  
**Oeko-Institut**



Christian Behrendt  
Consultant  
**Stakeholder Reporting**



Harald Utler  
Consultant  
**Stakeholder Reporting**



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# Agenda

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- I. Short introduction to the SASF
- II. Benchmark analysis and framework development
- III. Discussion: Environmental aspects in the ICT sector
- IV. Discussion: Social aspects in the ICT sector
- V. Closing remarks and outlook



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Andreas Harker / Danilo Riva

# SHORT INTRODUCTION



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# About GeSI

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- - -

Created in 2001, GeSI is a strategic partnership bringing together companies active in the ICT sector and international organisations committed to creating and promoting technologies and practices that foster economic, environmental and social sustainability, while driving economic growth and productivity.

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# The Sustainability Assessment Standard Framework

## Our Objectives

- The overarching objective of this project is to develop a comprehensive **sustainability assessment framework for products and services for the global ICT industry.**
- The framework aims to be **gradually improved towards a sector-wide standard.**



# The Need for a Comprehensive Assessment

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Empirical findings suggest that **environmental impact of global ICT will increase** over the next few years under Business-As-Usual scenarios.

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**Increasing concern** shown by consumers, civil society actors, policy-makers and shareholders on **sustainability issues related to global ICT**.

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Proliferation of standards & benchmarks leading to **confusion & insecurity among consumers, policy-makers and civil society actors**.

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Recent **initiatives** have started to **address the need for standardization of sustainability impact assessment methodologies** (e.g. European Commission's initiative on Product Environmental Footprint).

# SASF: What we want to achieve

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**Holistic assessment** covering social, environmental and economical aspects



**Integration of utility/functionality** into the framework to incorporate ICT specific criteria



**Modular structure**, enabling the framework to be used for diverse companies, products and services

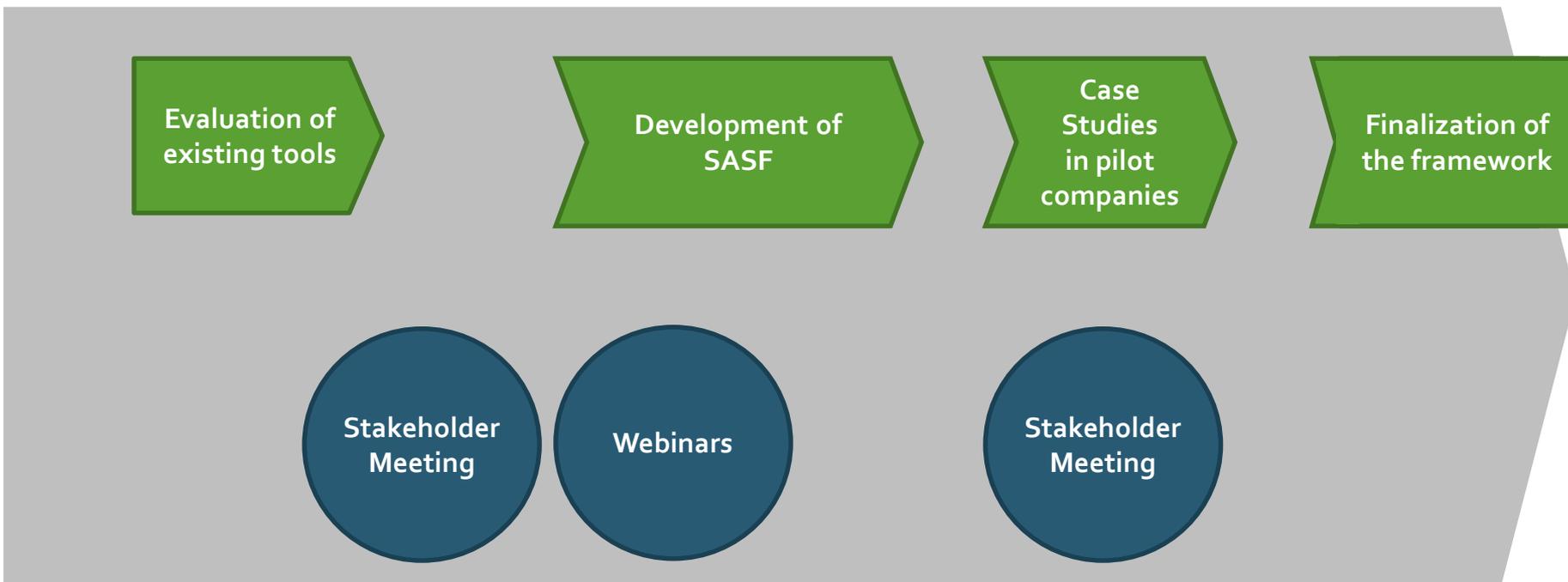


**Integration of existing tools and initiatives** or the elements thereof in the overall development of SASF



# Overview of Project's Steps

Year 2015	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan 2016
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Rasmus Priess

# FRAMEWORK DEVELOPMENT AND BENCHMARK ANALYSIS



# SASF: Objectives & Requirements

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## *Comprehensiveness*

- Environment (Impacts and indirect benefits)
- Social/ human rights (Impacts and indirect benefits)
- Performance/ utility (Direct and indirect benefits)

## *Practicality*

- Use and referencing of existing standards and tools
- Focus on most important aspects

## *Modularity/flexibility*

- **Sub-sectors:** Hardware manufacturer, network operator, data centre operator, software producer, ... (?)
- **Components:** End-consumer Hardware, Software, Data Centre Service, Mobile network service, Broadband network service, Replacing existing products

## *Relevance*

- Weighting between criteria and indicators possible and substantiated

## *Acceptance/credibility*

- Transparency in criteria, criteria development and assessments

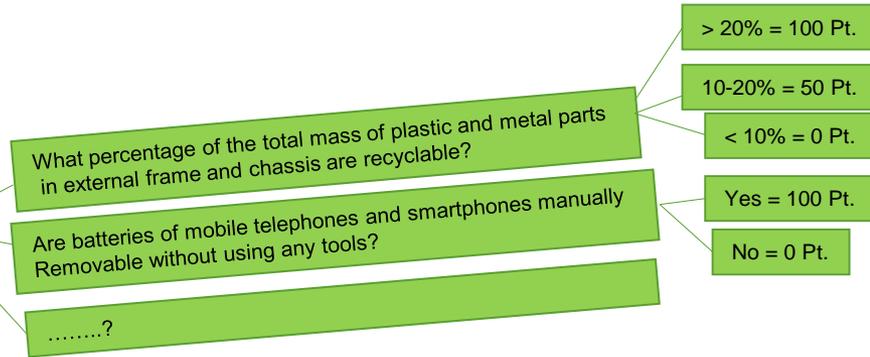
## *Extendibility*

- For external communication
- For comparisons/ benchmarking

# Development of SASF (1)

Methodological approach and development  
Exemplary approach (1)

Environment	C 1: Resource conservation (example)
	I 1.1: Design for recycling
	I 1.2: .....
	I 1.3: .....
	I 1.4: .....
Human Rights	C 1: .....
	I 1.1: .....
	I 1.2: .....
	I 1.3: .....
	I 1.4: .....
Utility/ Performance	C 1: .....
	I 1.1: .....
	I 1.2: .....
	I 1.3: .....
	I 1.4: .....



Integration of well-established processes (e.g. E-TASC, Eco-Rating 2.0 etc.)

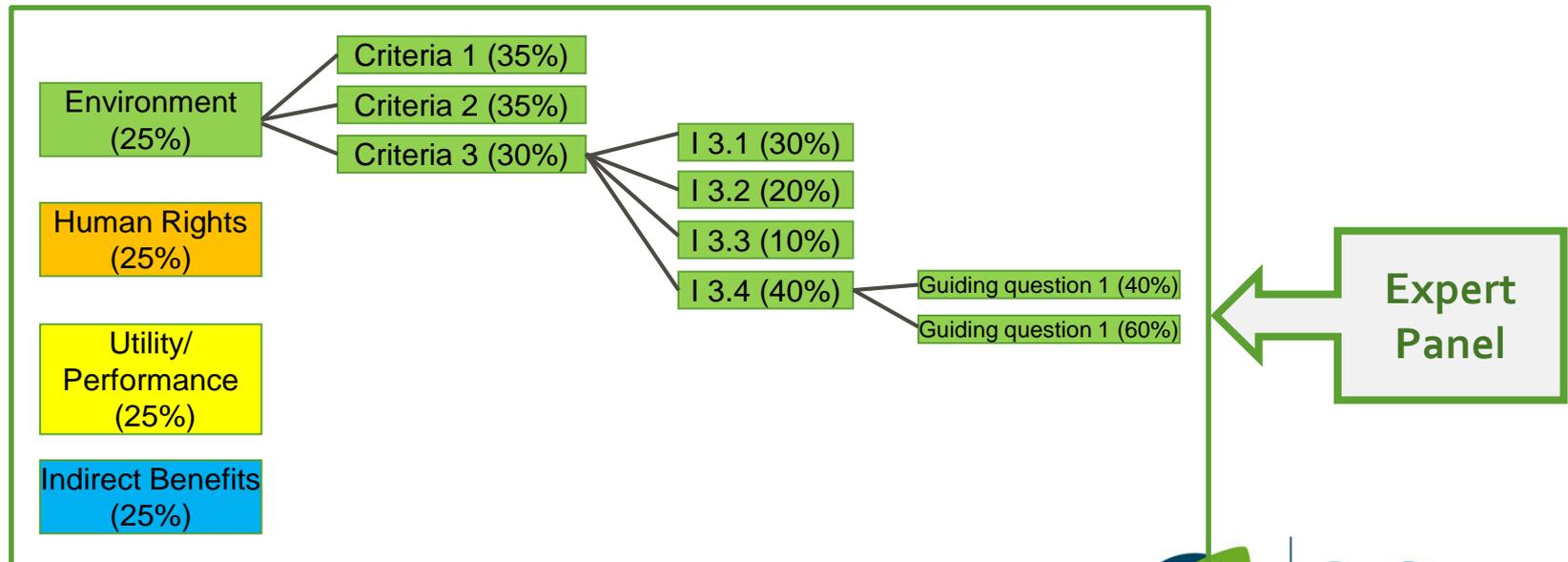
Evaluation of relevance (e.g. hardware, service, software, company etc.)

# Development of SASF (2)

## Methodological approach and development Exemplary approach (2)

Expert panel weighs between:

- the sub-indicators within an indicator
- the indicators within a criterion
- the criteria within a thematic area
- the three thematic areas



# Overview Benchmark Seven assessments in detail

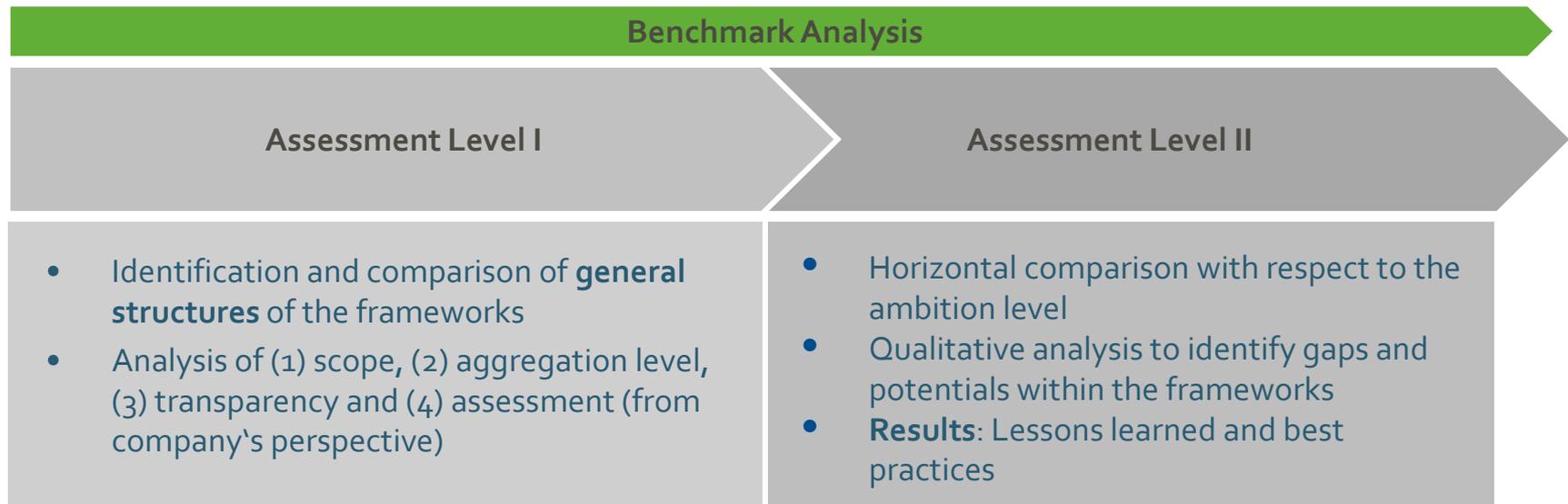
Assessments	Object	Initiator
 <b>ITU - Sustainability Toolkit</b>	Sustainable buildings, Sustainable ICT in corporate organizations, Sustainable products, end of life management, General specifications and KPIs, Assessment Framework for environmental impacts of the ICT sector	ITU Telecommunication Standardization Sector (ITU-T Initiative)
 <b>Deutsche Telekom – PMN</b>	ICT products and services	Deutsche Telekom AG
 <b>NABU - Handy-Ranking</b>	Cell phones, Charger	NABU (Naturschutzbund Deutschland e.V.) is a non-governmental organization with focus on research, political engagement, education and PR.
 <b>E-TASC</b>	Customized ICT categories (Network Equipment, Electronics, Handsets, etc.)	GeSI in cooperation with EcoVadis
 <b>Eco-Rating 2.0</b>	Mobile devices	Forum for the Future w/ Telefónica, O2 and Vodafone
 <b>Rank a Brand</b>	Audio, Video, Cameras, Camcorders, Computers, Notebooks, Game Consoles, Home Appliances, Navigation systems, (Mobile) Phones, Printers, Copiers, Television, TVs	Rank a Brand Foundation
 <b>Greenpeace – Guide to Greener Electronics</b>	Electronic devices in general	Greenpeace International



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# Overview Benchmark Overall process

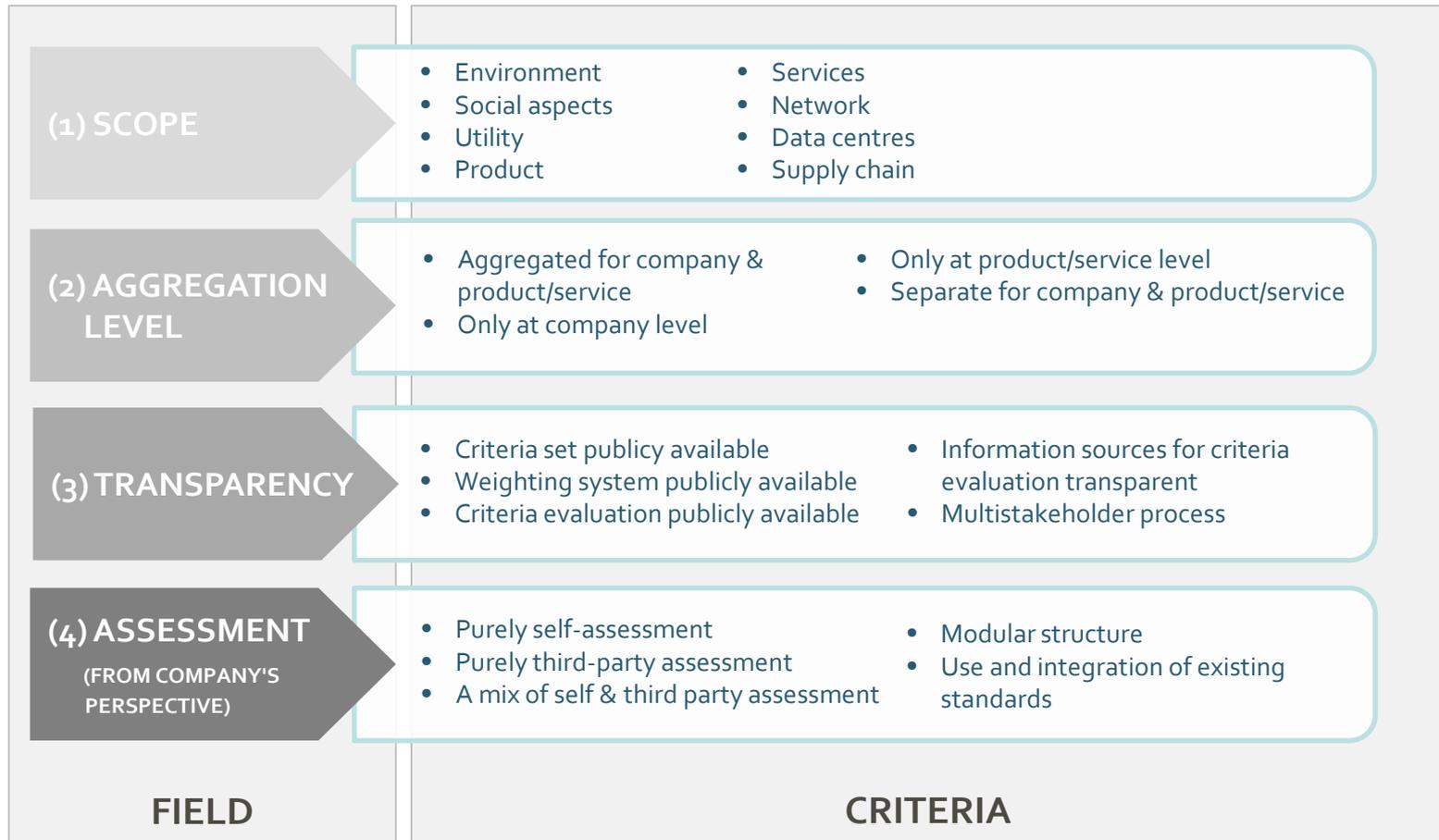
- The **first assessment level served as a basis**, covering the evaluation systems of the examined **seven frameworks**.
- The **second level** was more detailed, looking into each criterion in terms of the criteria coverage as well as the ambition level and to identify best practices and lessons learnt for SASF.



# Assessment Level I

## Evaluation of general structure

- The first assessment level identified and compared the general structure of the assessments in four fields



# Assessment Level I

Key findings and learnings (extract)

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## (1) SCOPE

- **Telecommunication sector specific products/components (e.g. services, networks and data centres) are not addressed by most** of the frameworks.
- Most of the frameworks do not follow a **systems approach**, but are based on classical product or company assessment.

## (2) AGGREGATION LEVEL

- Most of the frameworks are not flexible enough to be adjusted according to the requirements of individual companies

## (3) TRANSPARENCY

- While **five frameworks are transparent** in terms of the assessment criteria used, the level of transparency varies when it comes to the evaluation of criteria, weighting system applied and information sources used for the evaluation.

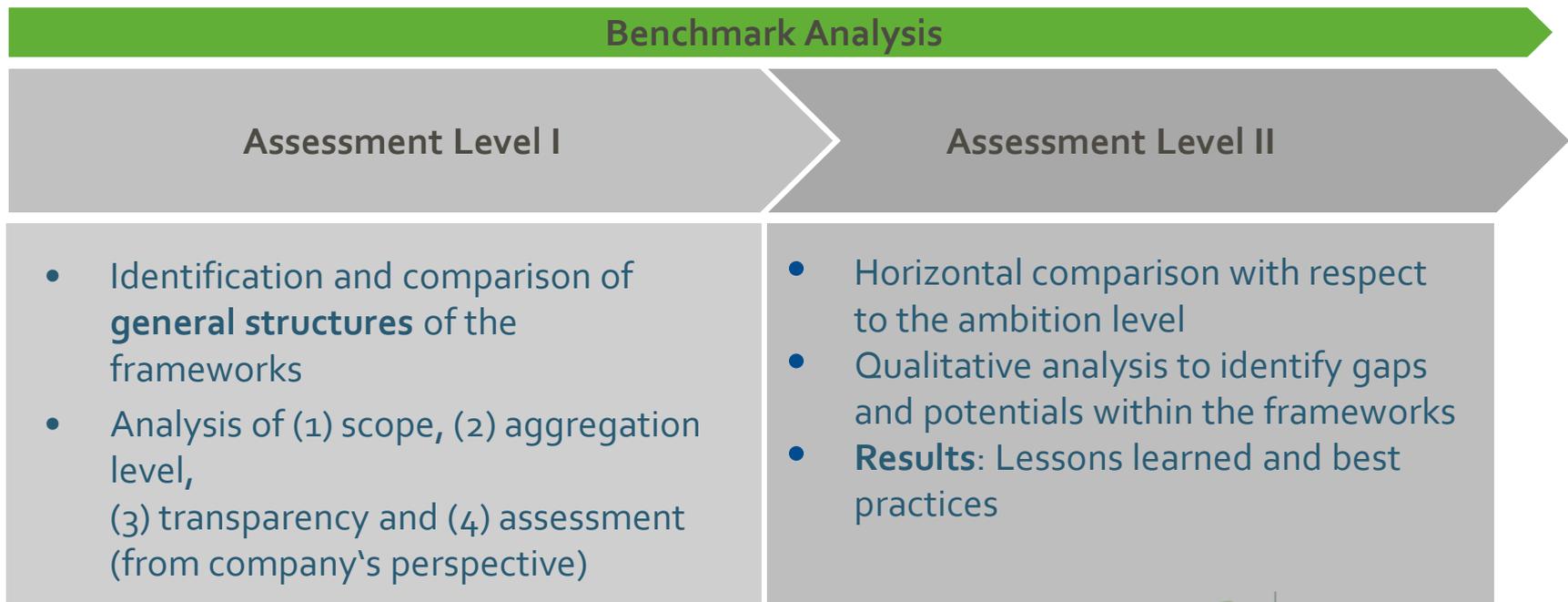
# What does this mean for the SASF?

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- Allow for **evaluation of ICT/ Telecom specific products/ components** (services, networks, data centres, ...)
- Recognise **systemic nature**, especially for capturing benefits of ICT
- Ensure relevancy for specific companies by allowing for **flexible/ modular implementation**
- Ensure high-level of **transparency** in criteria, process and implementation

# Overview Benchmark Overall process

- The **first assessment level served as a basis**, covering the evaluation systems of the examined **seven frameworks**.
- The **second level** was more detailed, looking into each criterion in terms of the criteria coverage as well as the ambition level and to identify best practices and lessons learnt for SASF.



# Assessment Level II Evaluation of criteria coverage

- Individual topics were extensively evaluated – Example below: Resource Conservation

		Deutsche Telekom - PMN	ITU-Sustainability Toolkit	NABU-Handy Ranking	E-TASC	Eco-Rating 2.0	Rank a Brand	Greenpeace
Resource Conservation	Packaging	Yes	Yes	Yes	No	Yes	Yes	Unclear
	Post-consumer recycling material	Yes	Yes	Yes	No	Yes	Yes	Yes
	Availability of spare parts	Yes	Yes	No	No	Yes	Yes	No
	Warranty	No	No	Yes	No	Yes	Yes	Yes
	Durability requirements	No	Yes	Yes	No	Yes	No	No
	Repairability	Yes	Yes	No	No	Yes	Yes	No
	Disassembly	Yes	Yes	No	No	Yes	No	No
	Offers to prolong product life-spans/usage	Yes	Yes	Yes	No	No	Yes	Yes
	Recycling-friendly construction	Yes	Yes	Yes	No	Yes	No	No
	Raw material extraction	No	No	No	No	Yes	Yes	No
Others, please specify				optionally without charger, no paper manual		easy data wiping, protection from damage, reuseable parts, universal charger	universal charger, take back program, replaceable batteries, water/land footprint, FSC-paper, recycling symbols	deforestation, FSC-paper, take back system

# Assessment Level II

Key findings and learnings (extract)

Climate  
Change

- Generally well captured in existing frameworks, though specific reference to established standards sometimes missing, especially for important Scope 3 emissions
- Only two frameworks have specific requirements for the **climate-friendly manufacturing of electronic components**.
- Only two frameworks refer to the **use of renewable energies**.



## Learnings for SASF development

- Better capture **supply chain/ product-level**. Especially, measurement and reporting on **GHG Scope 3 emissions** needs to be made more specific and precise.
- Specific criteria for **climate-friendly manufacturing of electronic components** needs to be formulated.
- Same is true for **use of renewable energy** (with additional environmental benefit).

# Assessment Level II

Key findings and learnings (extract)

## Hazardous Substances

- Considering that substances listed under Annex XIV can still be available in imported articles from non-EU countries (e.g. DEHP, DBP, BBP, DIBP) and restrictions under Annex XVII (e.g. DINP, DIDP, DNOP) do not apply currently to EEE articles, regulation of these substances in current frameworks have not been addressed adequately.
- Verification of **supplier conformity** with requirements pertaining to the declaration of hazardous substances in the supply chain is still not well developed.



## Learnings for SASF development

- Better capture **risk assessment for substitute materials**.
- Incorporate systematic/ **management oriented approach** for the whole supply chain.

# Assessment Level II

Key findings and learnings (extract)

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## Resource Conservation

- Coverage of criteria related to resource conservation varies between various frameworks.
- While requirements for the use of **post-consumer recycling material** are available in all the frameworks, criteria related to the **extension of product life-span and usage times, remanufacturing, repair, disassembly, recycling of products and warranties** are either not present in all the frameworks or are formulated in different degree of detail.



## Learnings for SASF development

- Better incorporate criteria for resource conservation through **longer usage of products.**

# Assessment Level II

Key findings and learnings (extract)

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Indirect effects & miscellaneous

- All but one framework do not possess any criteria on **indirect benefits** of using ICT products & services.
- Aspects related to **data security and protection** have not been adequately addressed in most of the standards.



## Learnings for SASF development

- **Indirect positive benefits of ICT** (refer to SMART 2020 , SMARTer2020, SMARTer2030) should be included in the criteria set.
- **Data security and protection** has gained an enormous importance in the public debate. These aspects need to be addressed in the criteria set.

# Assessment Level II

Key findings and learnings (extract)

## Supply Chain

- Many frameworks have included criteria on **conflict minerals (3TG)**.
- However, all frameworks **lack criteria on extraction of other relevant (not necessarily conflict-related) minerals**.
- Only few frameworks include criteria on **human rights and labour** issues in the manufacturing phase. In general, it can be said that **most of the frameworks do not cover or do not adequately cover criteria related to human rights and labour issues in the supply chain**.



## Learnings for SASF development

- Better reflect requirements on **extraction of minerals**.
- In the future, supply chain related issues will be more generally viewed under the topic of **human rights due diligence** (as a direct consequence of the UN Guiding Principles on Business and Human Rights).

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# Longlist: Environmental Issues in the ICT sector

- Direct GHG Emissions
- Indirect GHG Emissions
- E-Waste Management
- Energy Efficiency in the Use-Phase
- Raw Material Extraction
- Rare Earth Elements
- Disassemblability
- Biodiversity
- Water Usage
- Packaging
- Hazardous Substances
- Life Time Extension
- Direct Use of Renewable Energies (on-site)
- Indirect Use of Renewable Energy
- Post-Consumer Recycling Material
- Recycling-Friendly Construction
- Etc.



# Addressing challenging environmental impacts

## USE OF RENEWABLE ENERGY

- Standard from GHG Protocol on Scope 2 accounting
- DC 100% (Carbon neutral Data Centre)

## MANAGEMENT OF (HAZARDOUS) SUBSTANCES IN THE VALUE CHAIN

- Incorporate the developed BEMPs for ICT
- Green Screen Tool

## LIFE-TIME EXTENSION (DURABILITY, OFFERS TO PROLONG PRODUCTS LIFE-SPAN/USAGE)

- Decrease monthly rates of rented set-top
- Incentives to extend product usage times
- Global asset management systems
- Repair agreements with network equipment manufacturer
- Ifixit – in process of developing standard

## RESOURCE RECOVERY

- Extend critically matrix of the EU to include sustainability criteria
- Design for disassembly → EPEAT
- Consider capabilities of different smelters
- Take-back incentives (e.g. additional traffic)
- Design for disassembly (recycling with third-party verification)



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# Longlist: Social Issues in the ICT sector

- Data Security / Privacy
- Conflict materials (3TG)
- Use of industry standards for supplier audits
- Living Wages
- All ILO Core Conventions
- Alternative mechanisms (where ILO Con. 87&98 are restricted by local/national laws)
- Health & Safety Regulations
- Working hours
- Transparency in the supply chain
- Freedom of expression
- Access to ICT
- Net neutrality
- Independent audits
- Extraction of other relevant metallic raw materials
- Corruption
- Fair market prices
- (Anonymous) Complaint mechanism
- Use of independent standards for supplier audits
- Long-term supplier relationships
- Reporting on suppliers (details of major suppliers available)
- Training and incentives for suppliers
- Overtime compensation



# Addressing challenging social issues

## LIVING WAGES

- SA 8000
- ...

## ADDITIONAL MECHANISMS WHERE ILO CORE CONVENTIONS 87 AND 98 ARE RESTRICTED BY LOCAL / NATIONAL LAWS

- Public Procurement Code
- Good Electronics Watch
- SA 8000

## CONFLICT MINERALS (3TG)

- OECD Due Diligence Guidance for Responsible - Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- Affected and High-Risk Areas
- US Dodd Frank Act
- Rank a Brand

## EXTRACTION OF OTHER RELEVANT METALLIC RAW MATERIALS

- ...



# SASF Objective: Comprehensiveness

The SASF aims to include direct and indirect benefits of ICT products and services into the assessment framework.

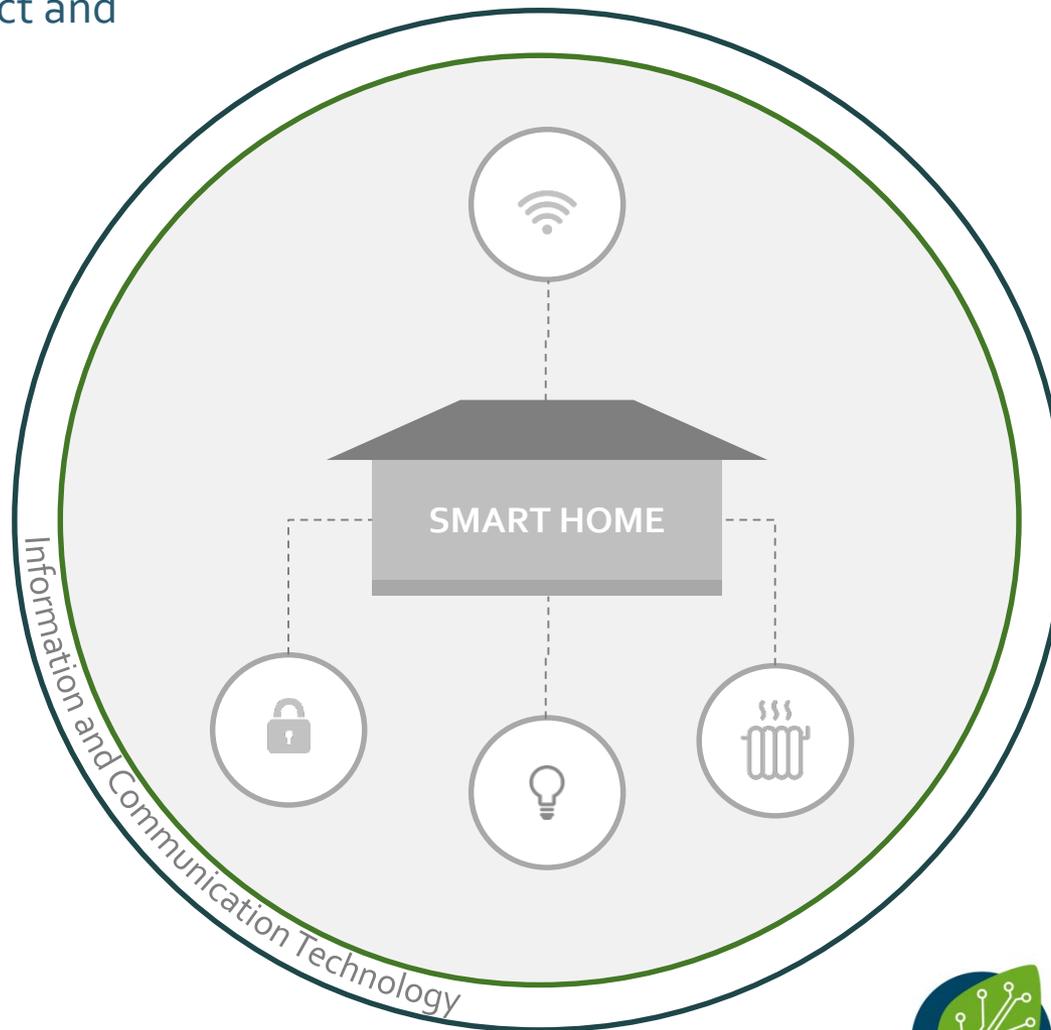
Examples:

- Abatement CO<sub>2</sub>-Emissions
- Dematerialization
- Freedom of speech
- Education
- Information
- Accessibility
- Cost control



# SASF Objective: Comprehensiveness

Example for direct and indirect benefits enabled by ICT: „Smart Home“





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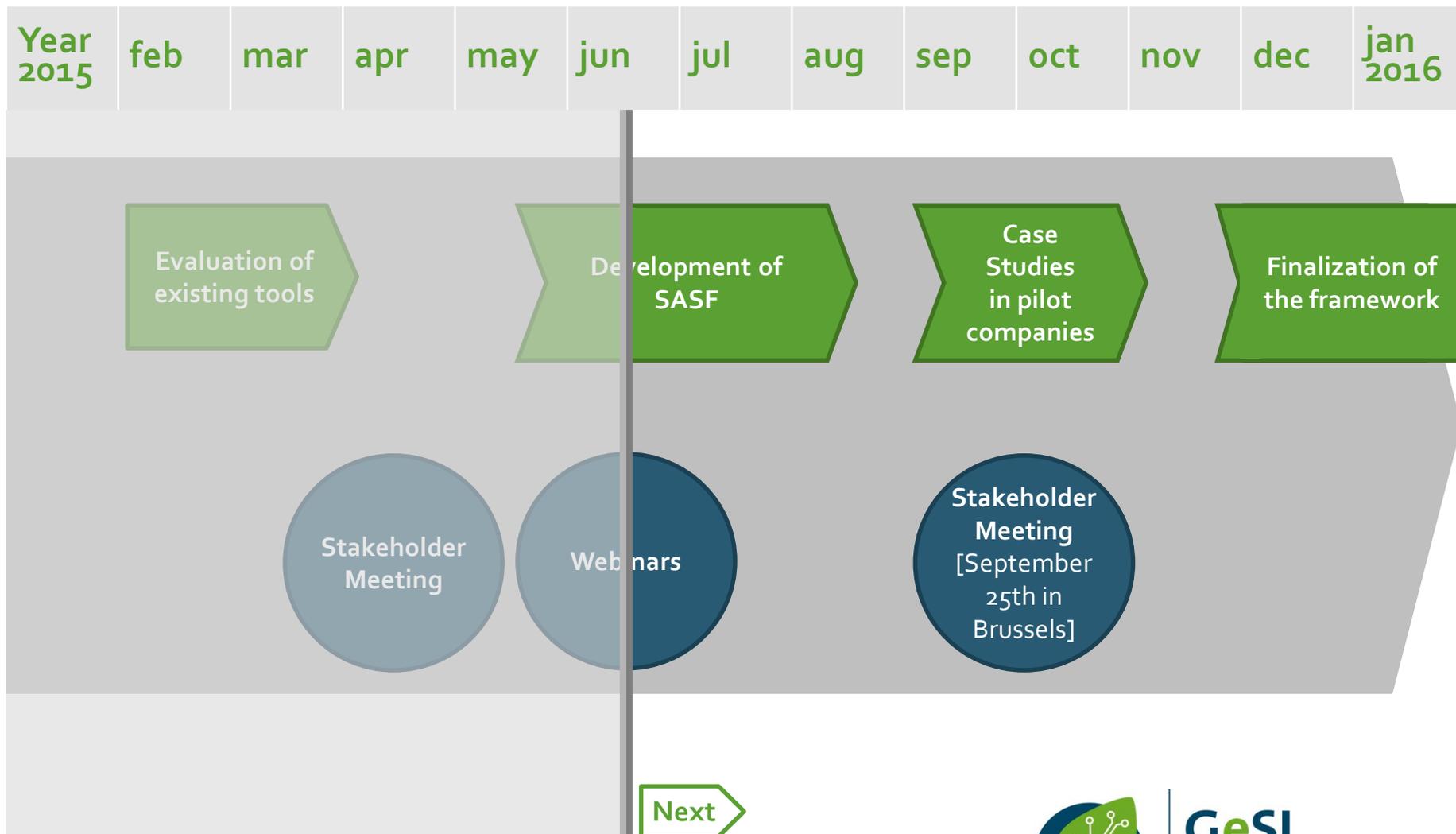


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# Project Plan: Current Status and Outlook





# THANK YOU VERY MUCH FOR YOUR PARTICIPATION!

## Contact for project inquiries

Carolin Friedrich - [carolin.friedrich@stakeholder-reporting.com](mailto:carolin.friedrich@stakeholder-reporting.com)

tel. +49 30 51 69 560 20

## Contact at GeSI

Chiara Venturini - [chiara.venturini@gesi.org](mailto:chiara.venturini@gesi.org)

tel. +32 2 282 8442



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