



29 SEPTEMBER 2025

IT SUSTAINABILITY @ ABB

Ola Appelros – Country IS Manager – ABB Sweden

**ENGINEERED
TO OUTRUN**

Sustainability on ABB's agenda

Empowering IS Sustainability Roadmap

IT Sustainability – Enabling Industries to Outrun Leaner & Cleaner

Upgraded targets and ambition under low-carbon society

UPGRADED IN 2023

We enable a low-carbon society

- **Net zero targets**
 - Scope 1 and 2 CO2e emissions reduction of 80% by 2030 and 100% by 2050 versus 2019 baseline
 - Scope 3 CO2e emissions reduction of 25% by 2030. 90% by 2050 Versus 2022 baseline
- **600Mt avoided CO2e emissions ambition**

UNCHANGED

We preserve resources

- **80% of ABB products & solutions covered by circularity approach**
- **Zero waste to landfill** from own operations wherever possible

We promote social progress

- **Zero harm to our people and contractors**
- **25% women in senior management roles**
- **Top-tier employee engagement score in our industry**
- **Impactful support for community-building initiatives**

ABB Way: Sustainability embedded throughout the business

Board of Directors | Executive Committee
Sustainability Council | Division-level implementation

TIME's "World's Most Sustainable Companies 2025 – ABB placed 14th

- ABB placed **14th globally** on TIME & Statista's "World's Most Sustainable Companies 2025" list, and **3rd among all companies in Switzerland**.
- The ranking evaluated over **5,000 of the world's largest companies** on more than 20 sustainability indicators, across 35 countries and 21 industries.
- ABB achieved a sustainability score of **81.92/100**, reflecting strengths in sustainable business practices, transparency, environmental & social stewardship.



WORLD'S MOST SUSTAINABLE COMPANIES OF 2025

TIME and Statista have named 500 companies doing best for the Earth

The growing environmental impact of IT

Global figures



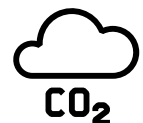
40 billions IT devices



~ 8 devices per human



x4 impact in 15 years



4% CO₂ eq. emissions global 2020

IS sustainability Framework

Sustainable IS (Green IT)

Align IS with ABB Sustainability targets and reduce IS environmental footprint

 Laptops & desktops	 Screens & accessories	 Telephony
 Data centers & cloud	 Network	 Printing
 IS team	 Software & applications	 Other IT spend

Partners and vendors
Regulations and policies
Measure and report

IS for Sustainability

Enable our businesses to achieve their sustainability targets

ABB business & digital offering		
Data & analytics	Sustainability affairs domain	Operational technologies
Finance	Product & master data	Customers ...

Sustainability Training & Awareness

IS sustainability Roadmap & Governance

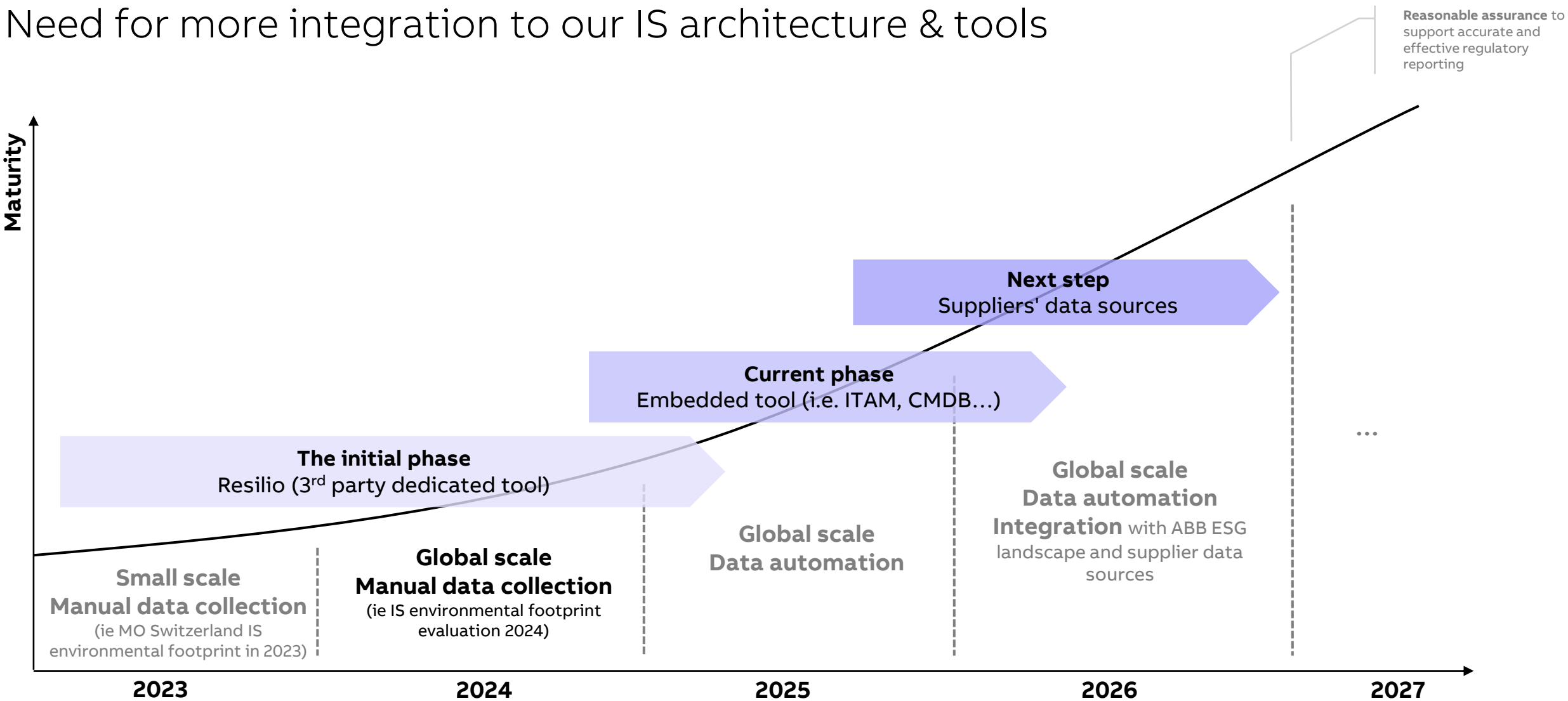


Mission to Zero in Digital Operations

Measurement is a crucial start to set the path

IS environmental footprint measurement

Need for more integration to our IS architecture & tools



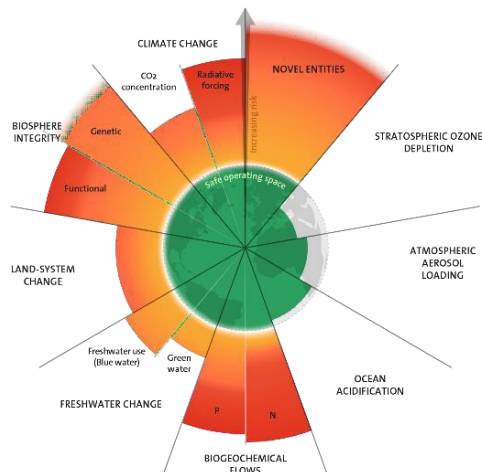
Measurement is a crucial start to set the path

Methodology

A multi-criteria approach

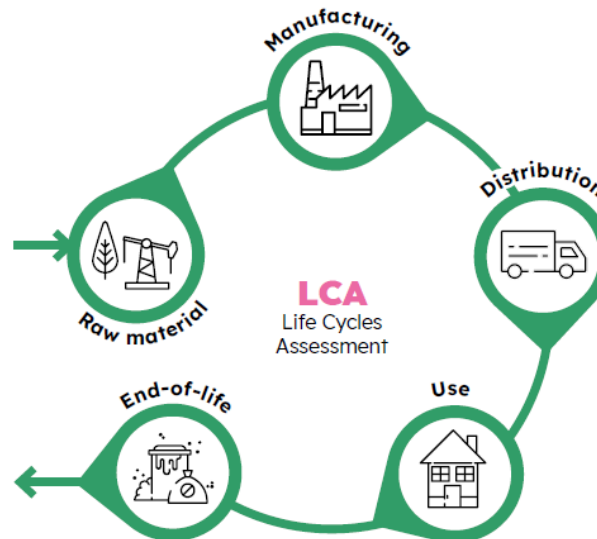
16 environmental impacts, in line with international standards

ISO 14040/44, EU PEF 3.0



A multi-phase analysis

On the entire lifecycle view



Maturity assessment

Assessment of your ability to apply 74 best practices

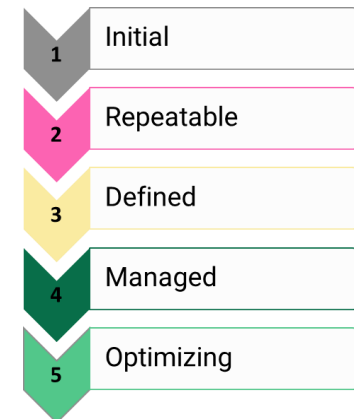
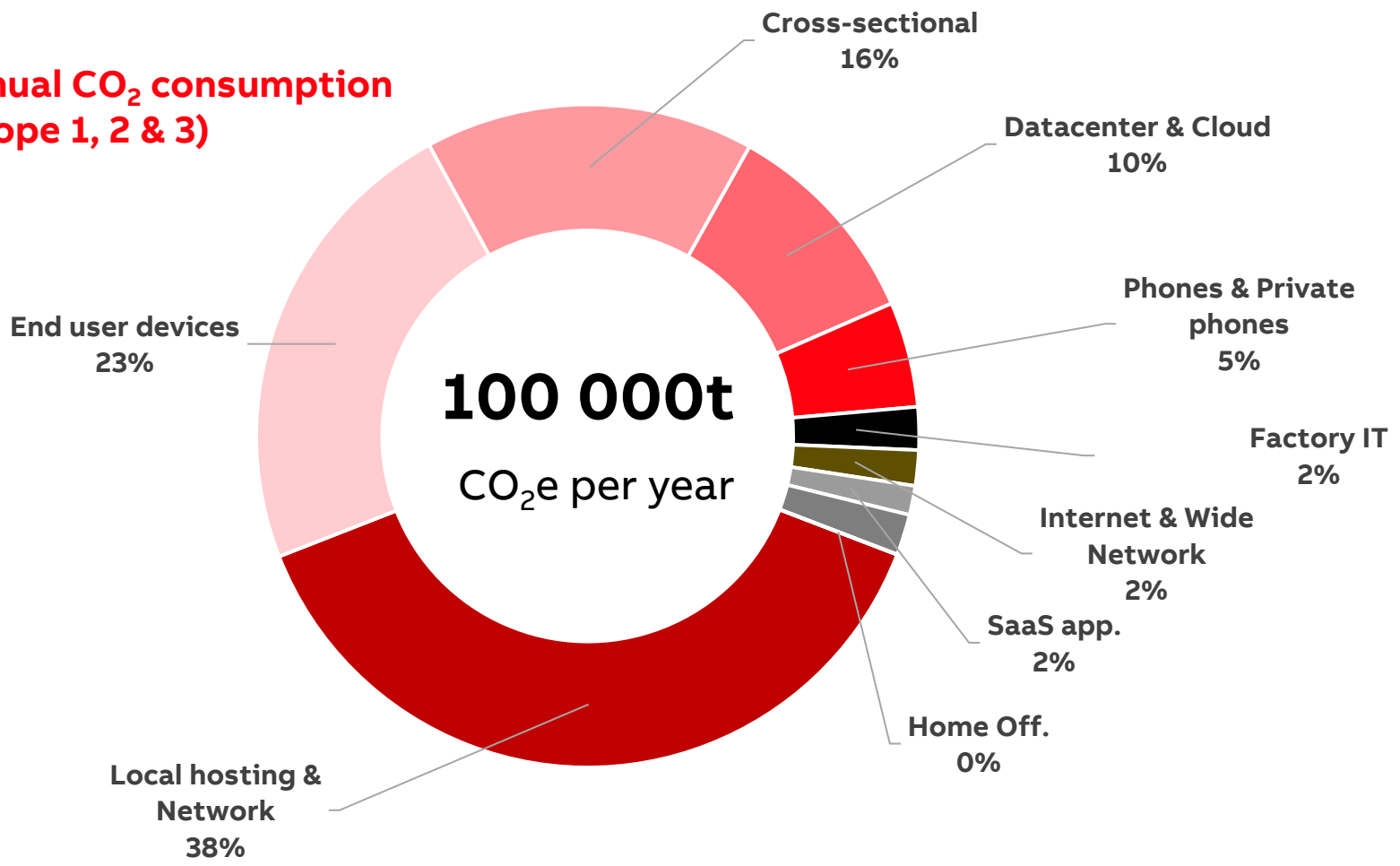


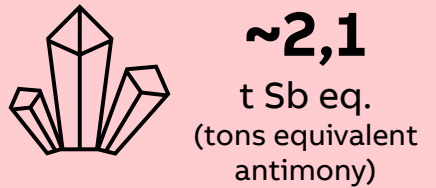
ABB IS environmental footprint

Key results

Annual CO₂ consumption
(scope 1, 2 & 3)



Additional resource usage



Abiotic Depletion Potential (ADPe)
Resource usage equivalent to 7 smartphones disposed per year per user



Water use (WU)
Freshwater usage equivalent to 18'200 Olympic-size swimming pools!

* Based on Resilio DB and LCA methodology and data collected for core IS + 10 countries + RA – an uncertainty of ~30% remains as per international standards (ADEME, IPCC...)
**Comparison sample : Benchmark Green IT.fr and Resilio 2022 & 2023 & 2024. May contain entities with different size and business model



Measurement & evaluation

Maturity assessment

Overall scoring

- **ABB** average score = **2,2/5**
- **ABB** grade on maturity benchmarking = **C**
- 1 domain have a score < 1,5/5



Comparison sample : Benchmark Green IT.fr and Resilio 2022 & 2023 & 2024. May contain entities with different size and business model

Most mature areas



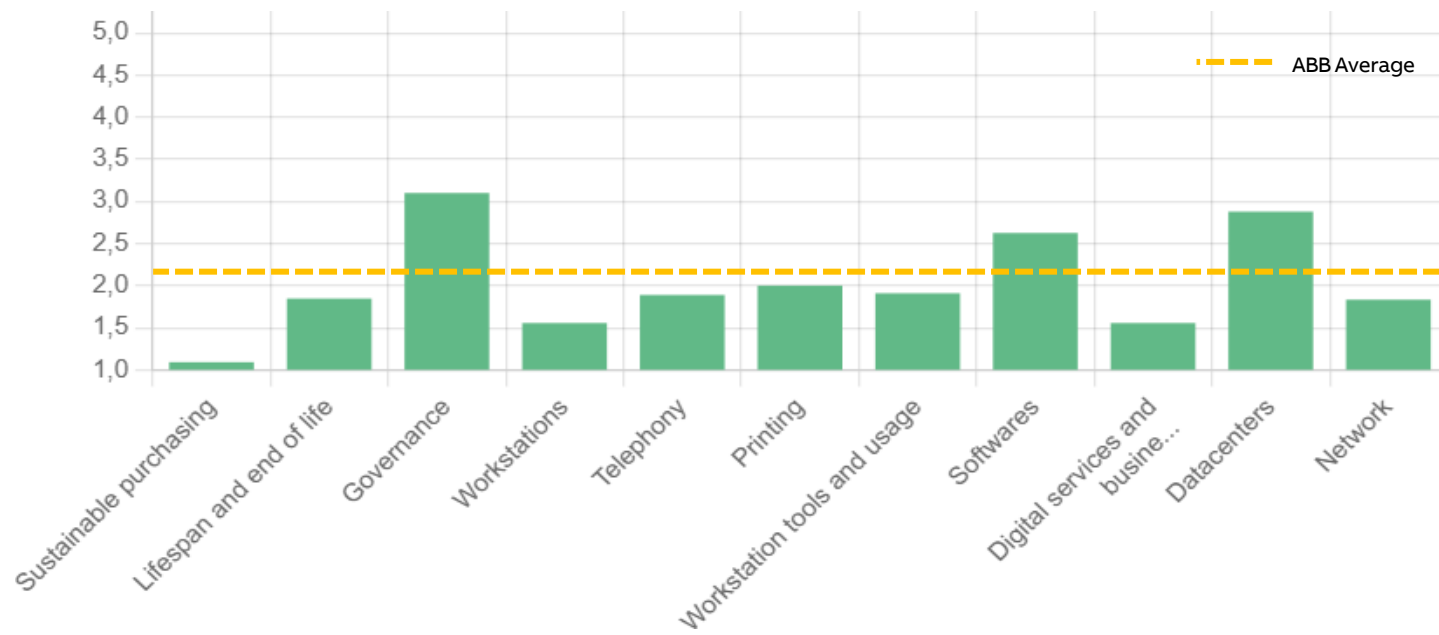
Governance

Strong improvement compared to 2023's MO CH maturity assessment

- Datacenters
- Software

Least mature areas

- Sustainable purchasing
- Workstations
- Digital services



Top down Global initiatives

Examples of ongoing IS initiatives

IT Sustainable

Ongoing global initiatives



MEASURE

Increase data automation and granularity

Embed IS environmental metrics in existing tools (i.e. ITAM, CMDB...) to enable data driven sustainability and increased automation level



TRAINING

Education as a change catalyst for our teams

Equip IS teams with relevant knowledge & documentation on IS sustainability:

- Green IS eLearning
- Specific green IS pathways: software engineering, sourcing, etc.
- Community of practice & regular updates
- Dedicated events (ie learning week...)



DATA CENTER & CLOUD

#1 impact driver of IS environmental footprint

Co-create roadmap for sustainable IS hosting.

- **Assess data centers** energy efficiency and define improvements
- **Embed sustainability in major projects** and RFPs, including vendors relationship
- **Evaluate cloud vs DC** sustainability



END USER DEVICES

#2 impact driver of IS environmental footprint

Prolong PC lifespan from 3 to 4+ years to reduce IS emissions by ~1 800tCO2e/year.

Develop circularity, including monitors, PC & mobile phone repairability, as well as end of life process.

Test more repairable devices and **innovative** usage (i.e. BYOD, VDI...)



SOURCING

2/3 of estimated IS footprint is supplier driven

Co-create roadmap for sustainable IS procurement along with IS sourcing & VM teams.

Align key IS suppliers with ABB targets (25% reduction by 2030) **and drive transparent reporting**



IS FOR SUSTAINABILITY

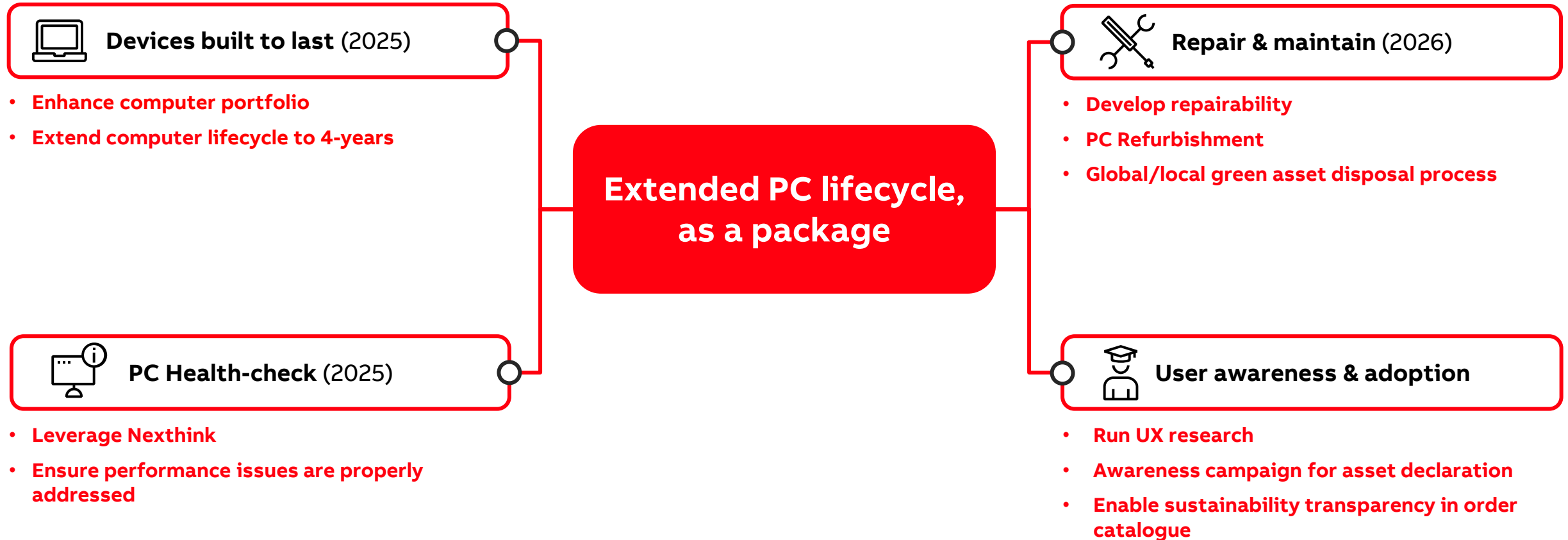
Enable business sustainability targets

Deliver global sustainability data product (i.e. central warehouse) to set foundations for consistent & automated reporting

Define as-is and target business sustainability architecture to drive synergies across function and businesses.

Driving Circularity in IS

Extending Device Lifecycles, Preserving Resources



Use Case @ ABB - globally

Digital signature using Adobe Sign

68 000 kwh

of energy saved which is
an equivalent to 100 500
days of refrigerator usage

**Monthly consumption
statistics at**

ABB

**150 000
sheets**

of paper would have been
printed which is an
equivalent to a stack 15
meters high

4 800 kg

of wood saved kilograms
reduced in waste
production which is an
equivalent to which is an
equivalent to 2100 reams
of paper

30 700 kg

of wood saved which
is an equivalent to 217
trees that could have
been cut down when
processing manual
transactions



Bottom up Local initiatives

Examples of ongoing IS initiatives

Sustainable IT – Everyone needs to contribute

Actions across ABB countries

47

New actions identified -
to run between
2025 & 2027

TOP-5 ACTIONS

1. Align IS suppliers with ABB's sustainable goals
2. Measure environmental efficiency in local data centers
3. Track IT equipment lifespan
4. Reduce number of monitors
5. Increase servers lifespan by re-using for other purposes

Close work with the
countries to identify
possible actions

**~ 5,2 actions
by country**



Use Case: Sweden

From Air to Water: Smarter Data Center Cooling

The change

- High Performance Computing environment consuming ca 1000 MWh/year
- Transition from **air-cooled servers** to **direct water-cooled servers**
- Replace **outside air cooling units** with **water-based heat recovery** integrated into the building

The goal

- **Higher energy efficiency** – improved cooling performance with **150 MWh** (20%) less power usage
- **Lower operational costs** – reduced electricity demand for fans and chillers
- **Heat reuse** – **300 MWh** recovered waste heat can be redirected to building heating systems
- **Reduced carbon footprint** – lower overall energy consumption and emissions
- **Improved reliability** – stable water-cooling reduces hotspots and temperature fluctuations



Use Case: Sweden

Sustainable Mobile Device Life Cycle Process

The process

- **Asset register** established of all mobile devices
- When you order a new company mobile, a smooth **process for returning** your old device is activated
- An **automatic** return order is created
- The old mobile is reused or recycled in a sustainable way (**1000 phones/year**)
- This helps to reduce environmental impact and promotes a **circular economy**

The goal

- Reduce the amount of electronic waste and conserve valuable resources
- Contribute to creating a more environmentally friendly corporate culture
- Promote long-term sustainability in technology and business operations



Lessons Learned

& key challenges

Continuous improvement on a global journey

Lessons learned / key challenges

1.

**Strong Engagement
but Long Journey Ahead**

2.

**Data Quality and
Alignment Challenges**

3.

**Sustainability in
Decision-Making**

4.

**Driving culture to enable
sustainability by design**

ABB