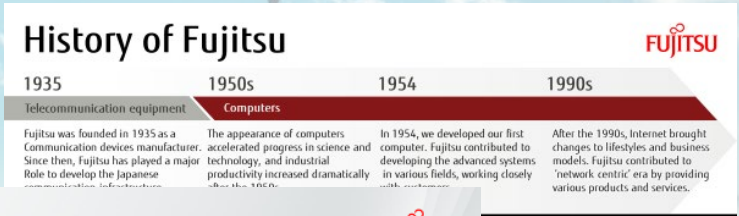
inetum realdolmen
Positive digital flow

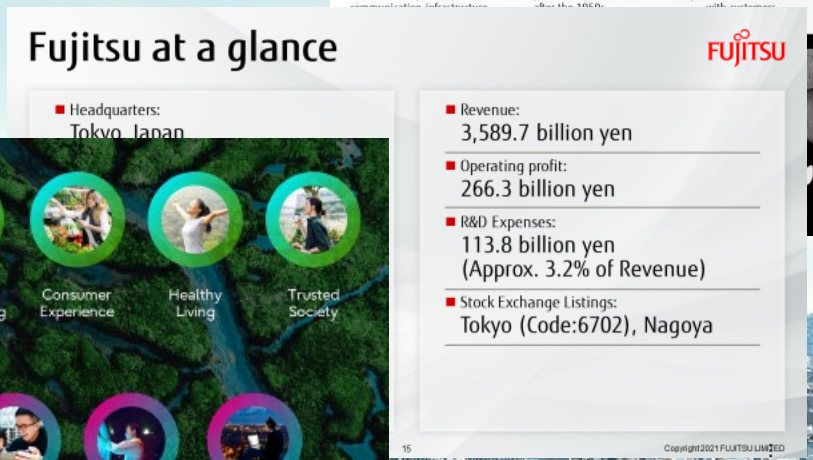
De menselijke factor in duurzaamheid: het optimaliseren van medewerkersgedrag voor bedrijfseco-effectiviteit

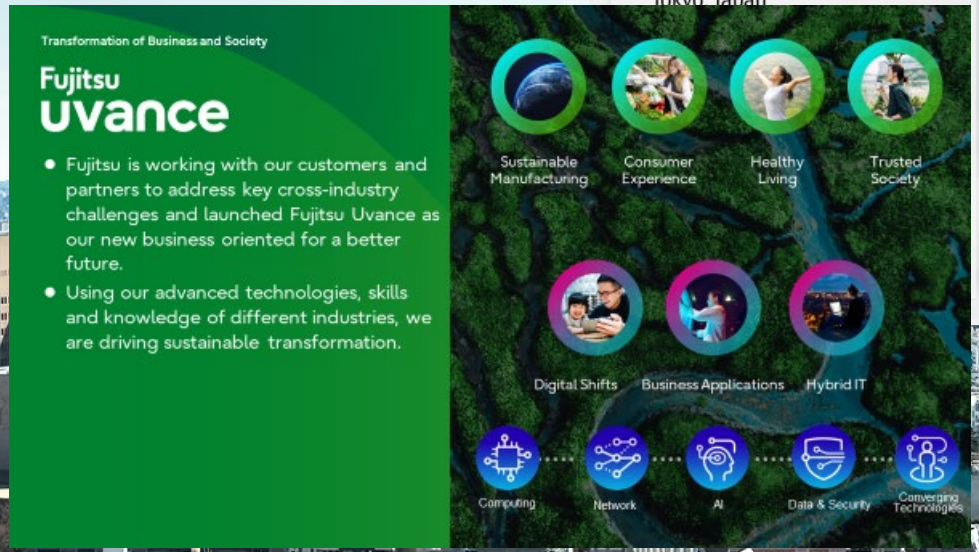
Ronald Bottenberg ,Fujitsu

One of the world's biggest

The Japanese global ICT company.
The world's eighth-largest IT services Provider and No.1 in Japan.







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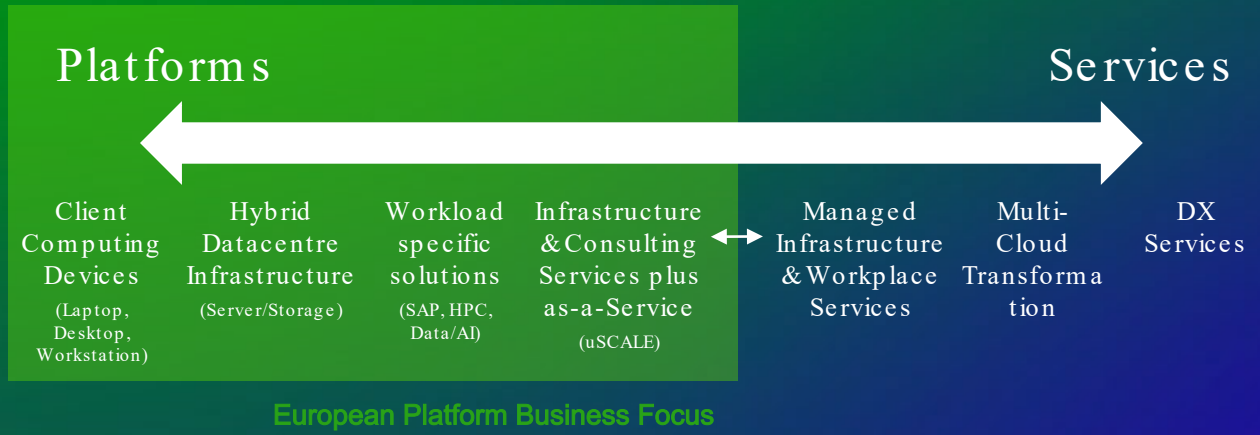
Fujitsu in Europe

Unrivalled end to end **portfolio & reach** via two joined focus business units with complementary skillsets

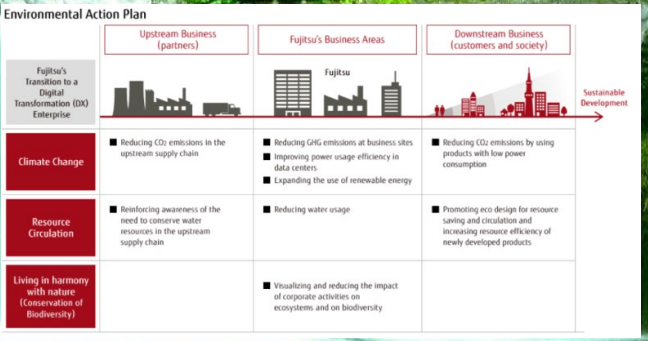


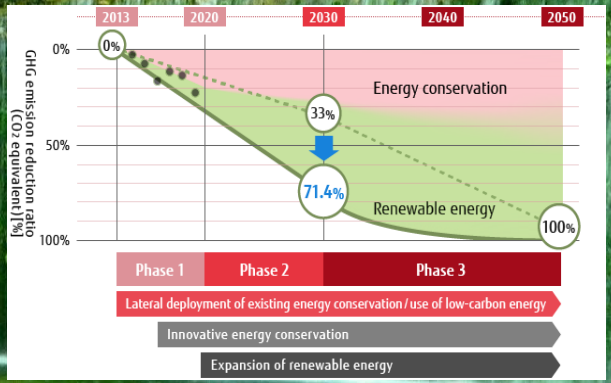
Vision without action is a daydream
Action without vision is a nightmare

FUJITSU

History of Environmental Activities

1935	Park-style design adopted for Kawasaki Plant on suggestion of the first president Mr. Yoshimura
1972	Environmental control sections established at each plant
1987	Ozone Layer Protection Committee established
1989	Environmental Committee established
1990	Environmental control evaluation system implemented
1991	Environmental Engineering Center established
1992	"Fujitsu Commitment to the Environment" formulated Use of cleaning CFCs and carbon tetrachloride abolished Energy Saving Committee established
1993	Product Recycling Committee established Wastes Control Committee established Fujitsu Environmental Protection Program (1st edition) formulated Product Environmental Assessment Guideline formulated Domestic Affiliated Companies' Environmental Protection Council established Environmental Information Service (FJ-CUG) opened
1994	Inaugural issue of Eco-Plaza environmental bulletin published Use of 1,1,1-trichloroethane abolished "The 1st Fujitsu Group Environmental Technology Exhibition" held Fujitsu Environmental Emblem determined Overseas Environmental Information Network begins operating
1995	Environmental Management System Committee established Fujitsu recycling system established and implemented "The Fujitsu Group Worldwide Environmental Conference" established
1996	Fujitsu Environmental Protection Program (2nd edition) formulated Environmental Engineering Center home page set up on intranet Chemical Emissions Reduction Committee established First Environmental Activity Report published
1997	Environmental home page established ISO 14001 certification gained by all domestic manufacturing plants
1998	Forestation program undertaken in Thailand Launch of Green Products
1999	Introduction of environmental accounting Forestation program undertaken in Vietnam
2000	ISO 14001 certification gained by 4 domestic development and service sites Corporate Environmental Affairs Group established Fujitsu Environmental Protection Program (Stage III) planning commenced





Since its foundation in 1935, Fujitsu has made environmental conservation one of the company's top management priorities, based on the principle of "operating in harmony with nature."
Recognizing our mission as a global ICT company, we promote environmental management with the commitment of top management under the "Sustainability Management Committee" chaired by the president

Our targets are validated as 1.5°C-aligned by the Science Based Targets initiative.

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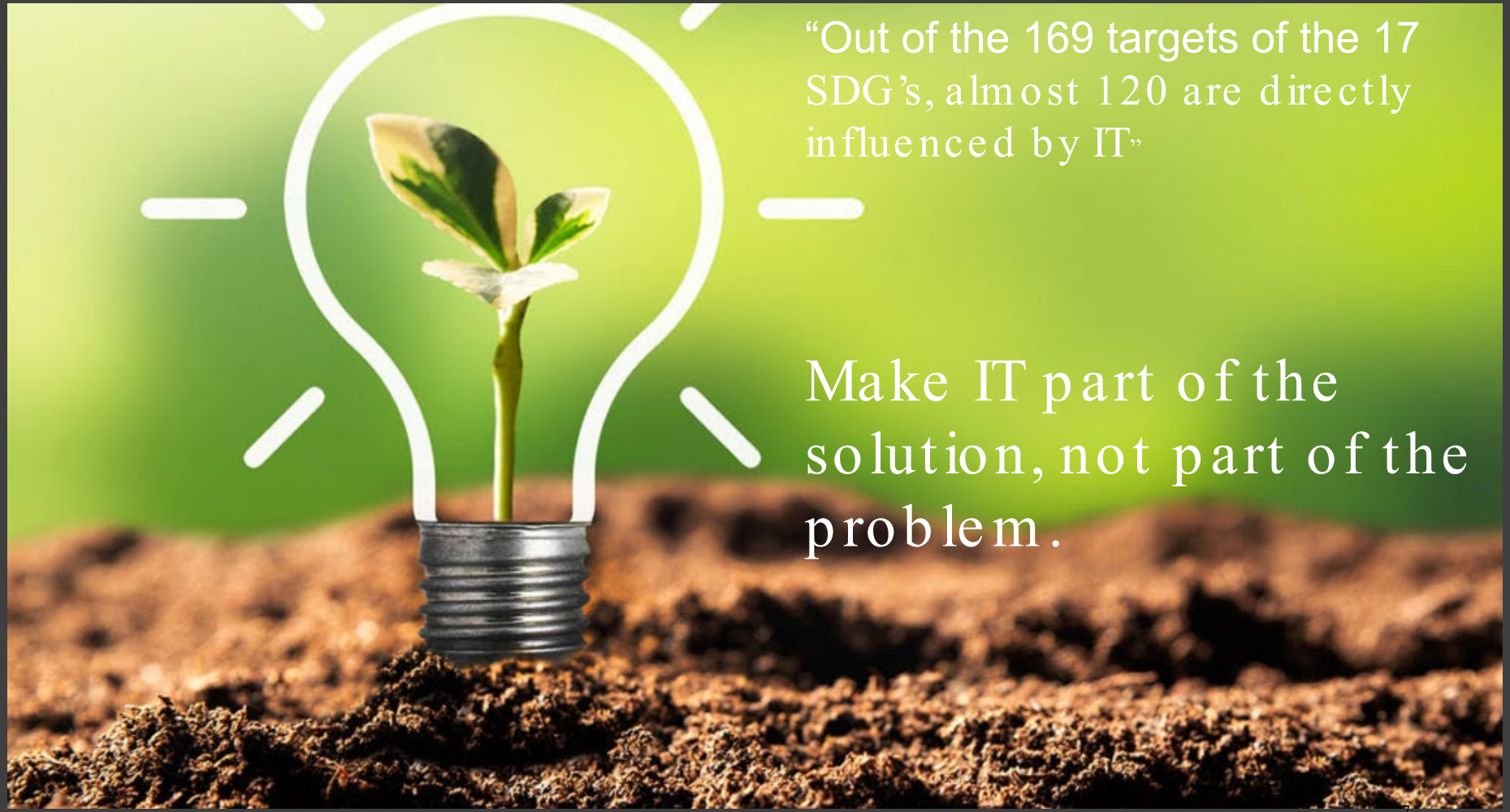
SUSTAINABLE DEVELOPMENT GOALS

The Fujitsu Group proactively contributes to the Sustainable Development Goals adopted by the UN and defined as global issues to be solved.

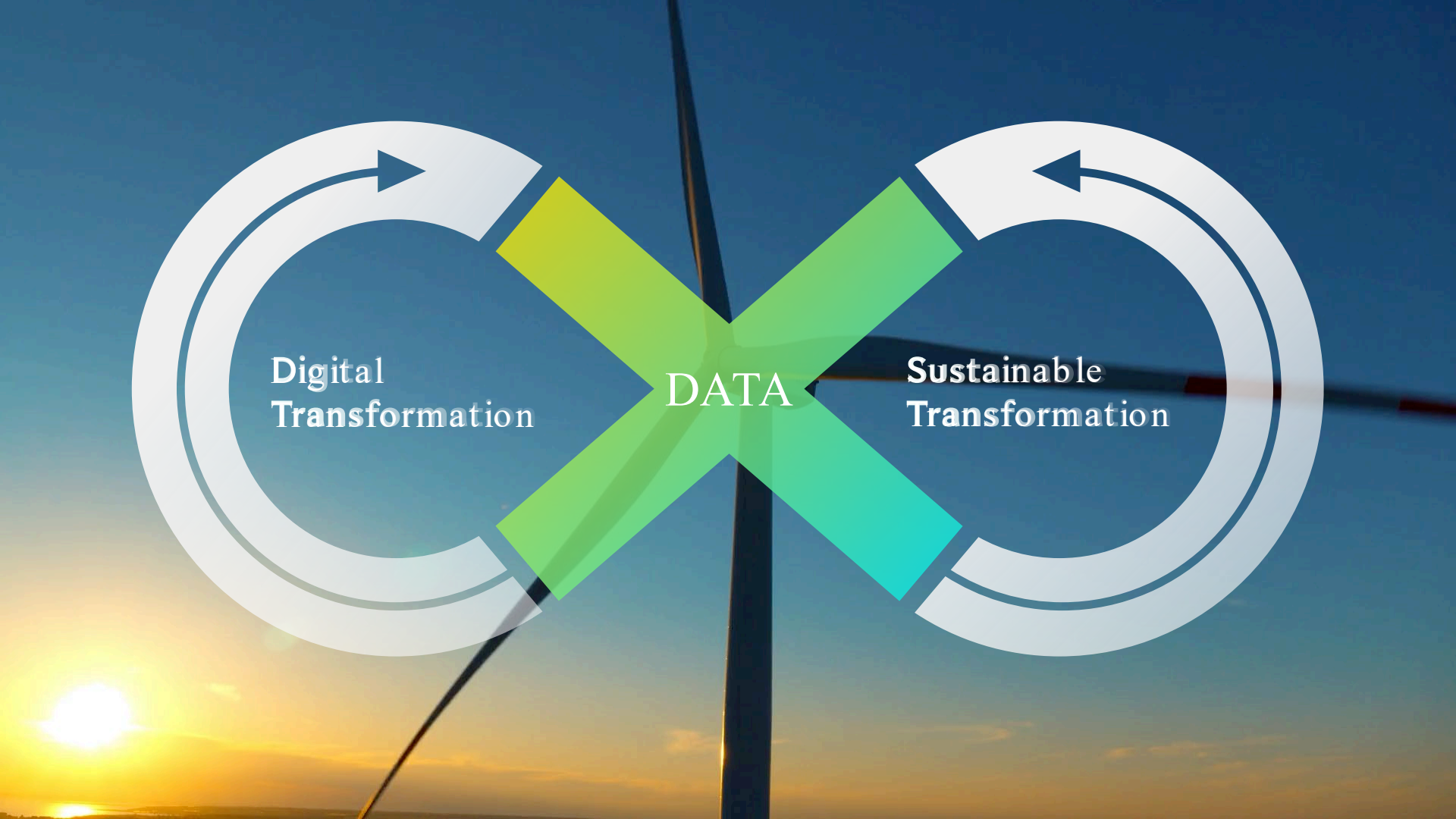
17 GOALS 169 Targets

Source: https://ourworldindata.org/sdg-tracker-update


“Out of the 169 targets of the 17 SDG’s, almost 120 are directly influenced by IT”
Make IT part of the solution, not part of the problem.

Sustainable data-driven transformation

FUJITSU-PUBLIC


Digital
Transformation
DATA
Sustainable
Transformation

This is …

FUJITSU

… a mission paper on **why & how** we can make an impact on sustainable transformation utilizing FUJITSU's data-driven transformation strategy

…a guide **to educate & create awareness** - to showcase the potential of sustainable data management

…**NOT a concrete ask** -> companies and indivuals need to make their own decisions based on far more aspects like data privacy, data security & business resilience

… NOT green-washing our products & offerings -> „sell more" / „buy more" are not the answers of sustainable transformation but

We want to raise awareness adding sustainability in the buying / selling decision criteria

Why data?

"It's costing us the equivalent of maintaining the airline industry for data we don't even use!" (1)

- One best case scenario is that ICT will consume 8% of the world's electricity demand by 2030, compared to 2% in 2020 [1)]
- Only about 32% [illegible] ta created is ever
- [illegible] e of DC energy consumption [illegible] and could account for 38% [illegible] rements in 2030 [3)]
- [illegible] 100-140g CO^2 within entire
- [illegible] 2025, 49% of data will be stored in public cloud environments [2)]

1) https://www.bloombergquint.com/business/cutting-back-on-sending-emails-could-help-fight-global-warming
2) https://www.seagate.com/files/www-content/our-story/rethink-data/files/Rethink_Data_Report_2020.pdf
3) Emerging Technologies: Enterprise Storage Will Consume More of the Available Data Center Power Budget and Undermine Sustainability

Globally Data Centers generate more CO_2 than the Airline Industry

Airline emissions are declining, whilst Datacenter emissions are rapidly growing

ICT will consume 8% of the world's electricity demand by 2030, compared to 2% in 2020

Increasing use of compute and AI:

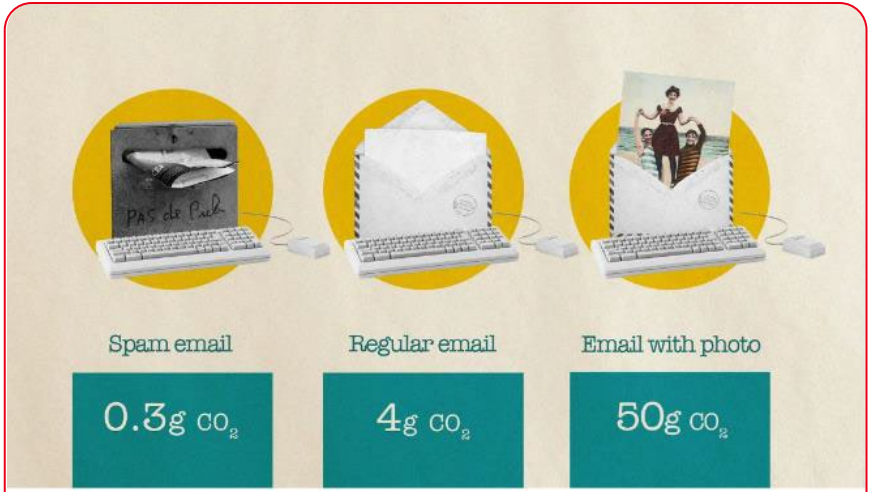
- Training an AI model emits about as much carbon as the **lifetime** emissions of 5 cars

Rapidly Expanding Storage:

- Every day the world produces about **2.5 quintillion bytes of data** of which only about **32% is ever used**
- The total CO_2 generated in the UK alone from unneeded stored data, according to a report from IET, is the equivalent of **112,500** return flights from London to Australia.

→ It's costing us the equivalent of maintaining the airline industry for data we don't even use

→ New systems are much more efficient than old ones!



Why your internet habits are not as clean as you think - BBC Future

Let’s discuss
data minimization

Optimize our data usage & minimize

Manage your office data better & be mindful of what sustainable behavior looks

- Spam emails: 0,3g CO^2, regular emails: 4g CO^2, with attachment 50g CO^2
- Know what is trash, what is not
  - Data waste could be anything from pointless copies to forgotten backups
  - Make yourself aware of what is required now, in future, never
- Map your digital waste
  - Where is your forgotten digital trash?
  - E.g. Forgotten backups, emails, expired records & documents
  - Where are large files kept?
- Take action where you can (but be mindful about data privacy & security!)
  - Check your mailbox (e.g. Filter for large / old emails)
  - Search for common names, addresses, (large) files etc. and remove duplications
  - Long conversations including many emails can be minimized to the latest
  - Unsubscribe from all newsletter you don't need anymore
  - Clean up your calendars from digital waste
  - Consider switching your video streaming off / make sure you are using the time effectively
  - Encourage your team to be more mindful of data being stored in team shares
  - WhatsApp, Facebook, Insta, Snapchat, etc, are backed up to the cloud but not automatically deleted. Consider manual delete
  - Incremental backup is a common backup regime. Efficient and performant at first, it becomes less so with time. Consider annual full backup resets

Gain insights first

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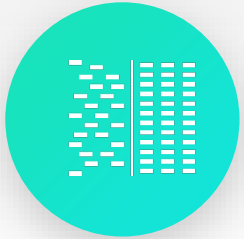
1

What do I have? What can I delete?

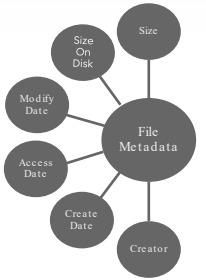


2

Data with context

ACTIONABLE INSIGHTS

Risk Scoring and Advanced Analytics

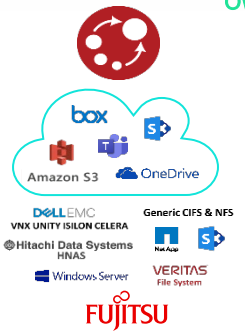


STALE, NON-BUSINESS, ORPHAN

BUSINESS USE

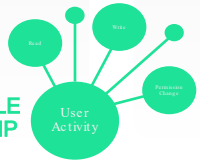
Is my data protected? Is there a compliance risk?

DATA INSIGHT



Can I find what I need quickly?

FILE OWNERSHIP



SECURITY RISKS

VALUE AND SENSITIVITY

Let's make use of your data!

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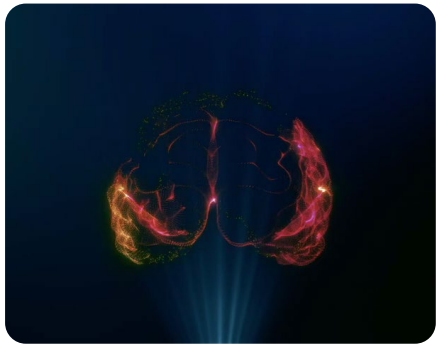
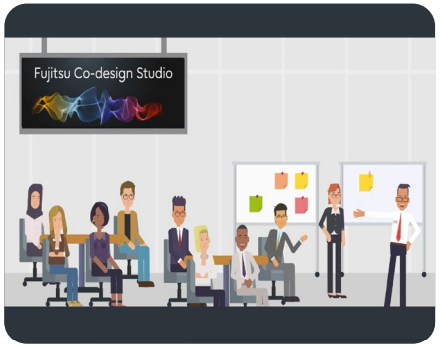
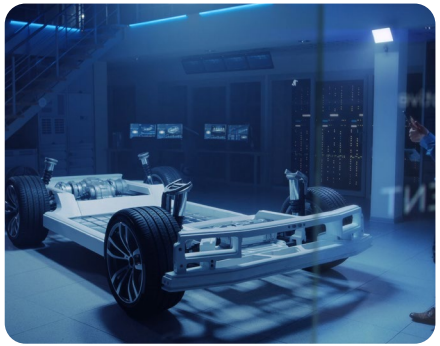


Experience ideas



Co-create ideas



Test-drive ideas

Bring to life

Supported by Project Teams , Data Consultants, DX Experts, Our Ecosystem

Experience

- Customer Experience Lab
- projects with other partner / reference cases
- solutions / challenges
- Innovation / trend discussion

Co-create

- Human Centric Experience Design (HXD)
- Data strategy session
- Consultancy services
- Ecosystem
- Enterprise Architecture

Test drive

- DX Innovation platform
- AI platform
- Invest in joint PoC / MVPs

Win together

- Build joint go-to-markets based on many superpowers

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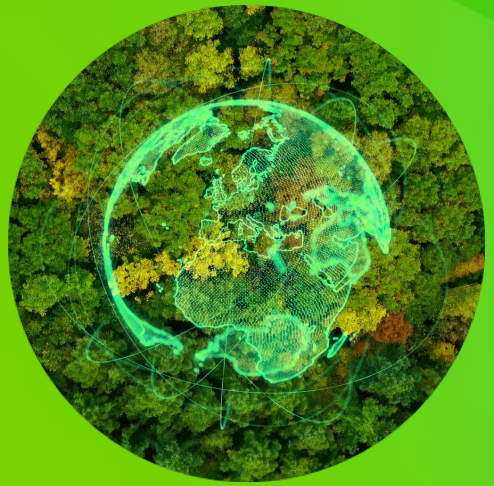
Let's discuss digital waste management

Our mission

FUJITSU



> Don't let your data go to waste. Use it as a key of your digital & sustainable transformation journey.
>
> Adopt data-driven transformation to reach your sustainability targets whilst improving data management. Together, we can master the sustainable transformation, not just for your business success.

Awareness of trash blindness

Co-create data-driven solutions

Educate to promote data minimization

Digital waste management

In partnership with

WORLD CLEANUP DAY

DIGITAL CLEANUP DAY

FUJITSU

Host a corporate digital clean up day!

We will support with material, educational sessions & tools if needed

In partnership with

FUJITSU

You can do two things now

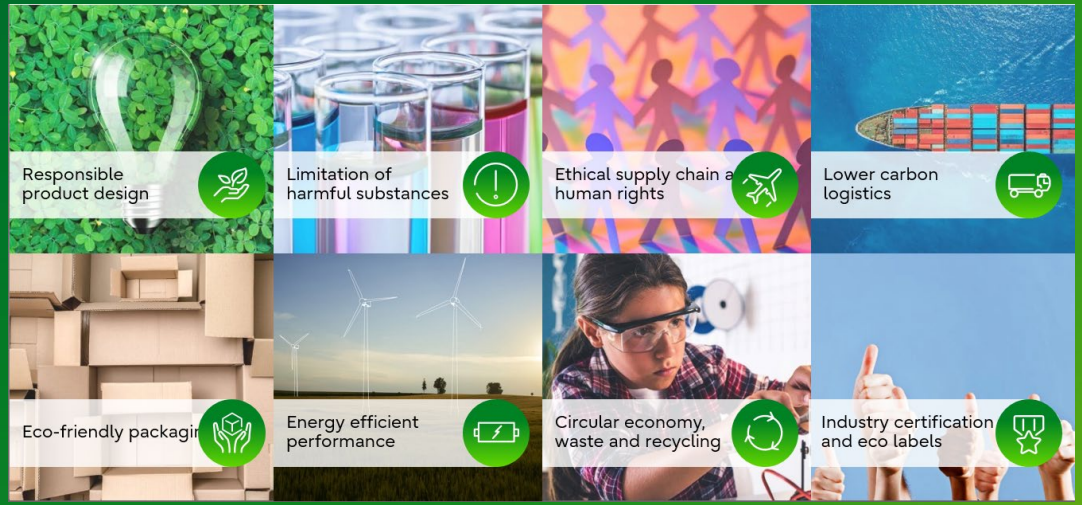
1. Make use of your data to generate value for your sustainability transformation

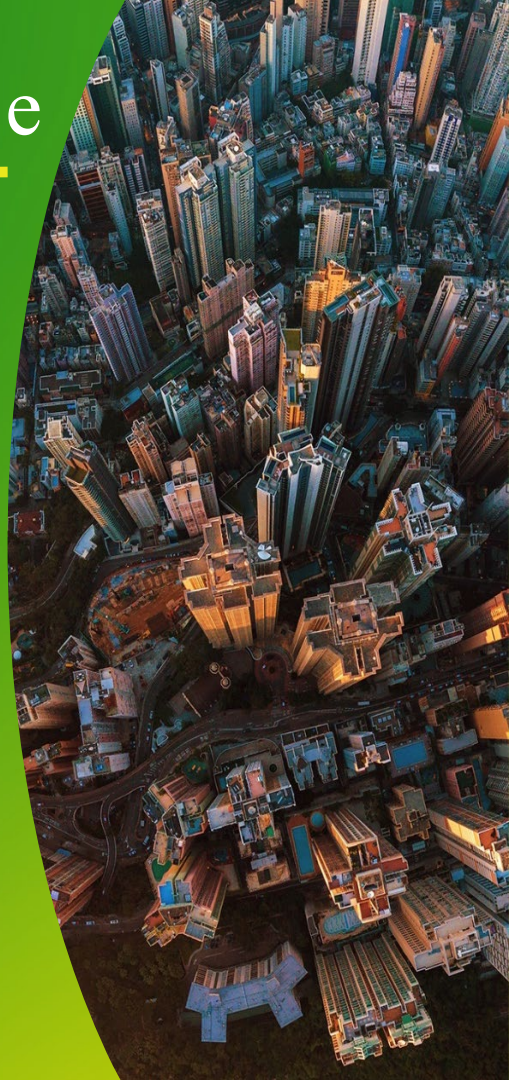
2. Implement digital waste management practice &start meaningful data minization

Fujitsu Response to climate change

How does Business Platform help

The Fujitsu Platform Business promotes its Sustainability activities based on the Fujitsu Way. Fujitsu takes care to operate responsibly at every stage of the product's lifecycle..





Sustainability needs movers and shakers!

Business platform response to climate change

Longer use of products

Breathing a second life into products

Data trash blindness

Fujitsu's SDX Accelerator

Consolidate

Switch off

No more over - dimensioning

Delete data

Sustainability benchmark

Create a starting point

Raise efficiencies

Sustainability can bring business opportunities

Long before “Green” was a popular buzzword, Fujitsu established long-term goals

How can Fujitsu help

1989 First Fujitsu take-back and recycling program

1993 The first "green" PC

1994 Blue Angel for Fujitsu as the world's first IT manufacturer

2001 The first Eco-Mark certification was carried out on a Fujitsu PC

2002 Non-recyclable share of products below 10%

2004 Cool Safe introduced for PRIMERGY servers

2008 0-watt PC, 0-watt monitor and 0-watt laptop adapter

2011 Lead-free soldering at Augsburg factory & introduction of Eco-Design Standard

2015 Intensive cooperation with AfB (work for the disabled)

2017 Use of green electricity at Manufacturer location

2020 Best performance on PRIMERGY, absolute and in performance/watt

2023 Sustainability Value Calculator

2023 PRIMERGY M7 in SpecPower with double performance with over 10% advantage in power consumption

Sustainability Hero Products

Fujitsu P-Line Display

- Smart display solutions as factory pre-set save energy with Auto-Brightness Control
- Saves 30% energy in eco-mode
- Environmentally conscious mercury-free LED backlit panel

Fujitsu Eco Mouse (M440 ECO BL)

- 100% eco material (cellulose acetate)
- Bioplastic casing reduces virgin plastic usage
- PVC-free USB cable limits harmful e-waste

Fujitsu LIFEBOOK U7x13

- Service door capability to enhance repairability
- 5-year parts guarantee to extend product lifecycle
- Offer zero-watt adaptor to further improve energy efficiency

Fujitsu PRIMERGY with Cool-safe®

- Patented cooling technology means datacenters can be run at higher temperatures, therefore consuming less energy
- Immersion cooling uses 40% less power and 50% less space for high density deployment

ICT Sustainability Benchmark

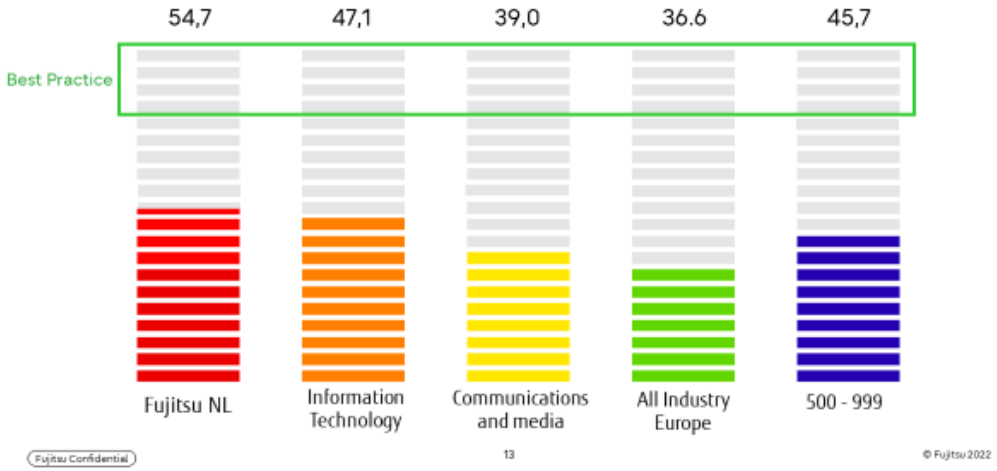
Sustainability is becoming a top business priority

ssment based on quick surveys

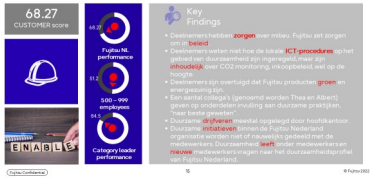
sment measures the readiness and maturity of
ustainability relative to our database of over
organisations across all industry sectors

Fujitsu NL outcomes

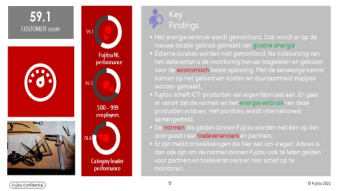
Fujitsu NL Benchmark results



Enablement Dashboard (betrokkenheid, drijfveren)



Metrics Dashboard (meetmethodes, normen, certificeringen)



Lifecycle Dashboard (factoren, uitdagen)

Enterprise Dashboard (datacenter)

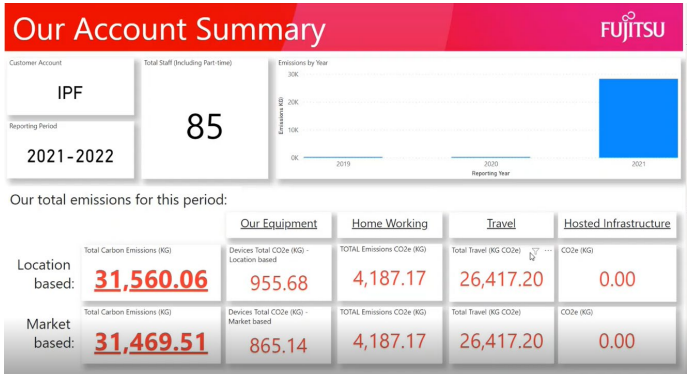
End User Dashboard (faciliteren en stimuleren)

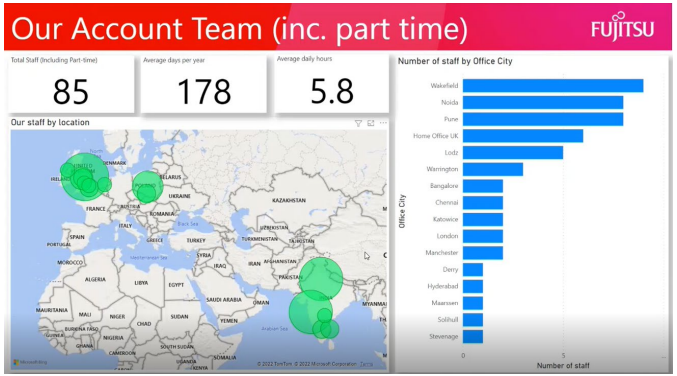
Outcome → next steps

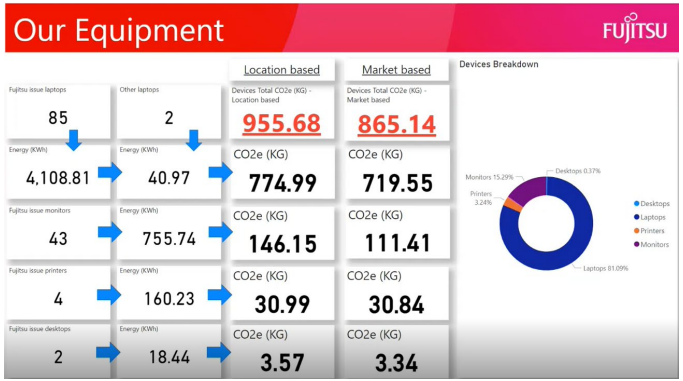
Carbon footprint calculation

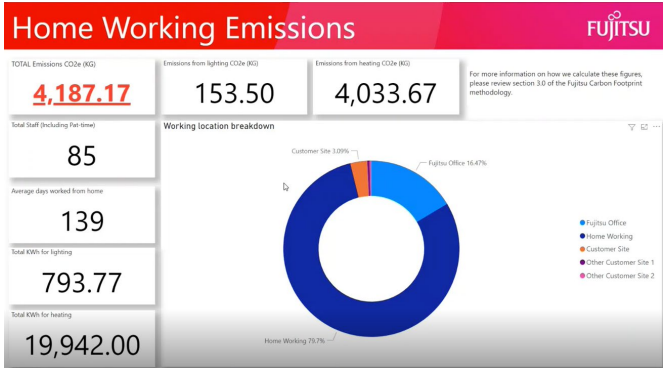
The journey of sustainability transformation has already begun

Fujitsu Carbon Analysis outcomes









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Thank you