

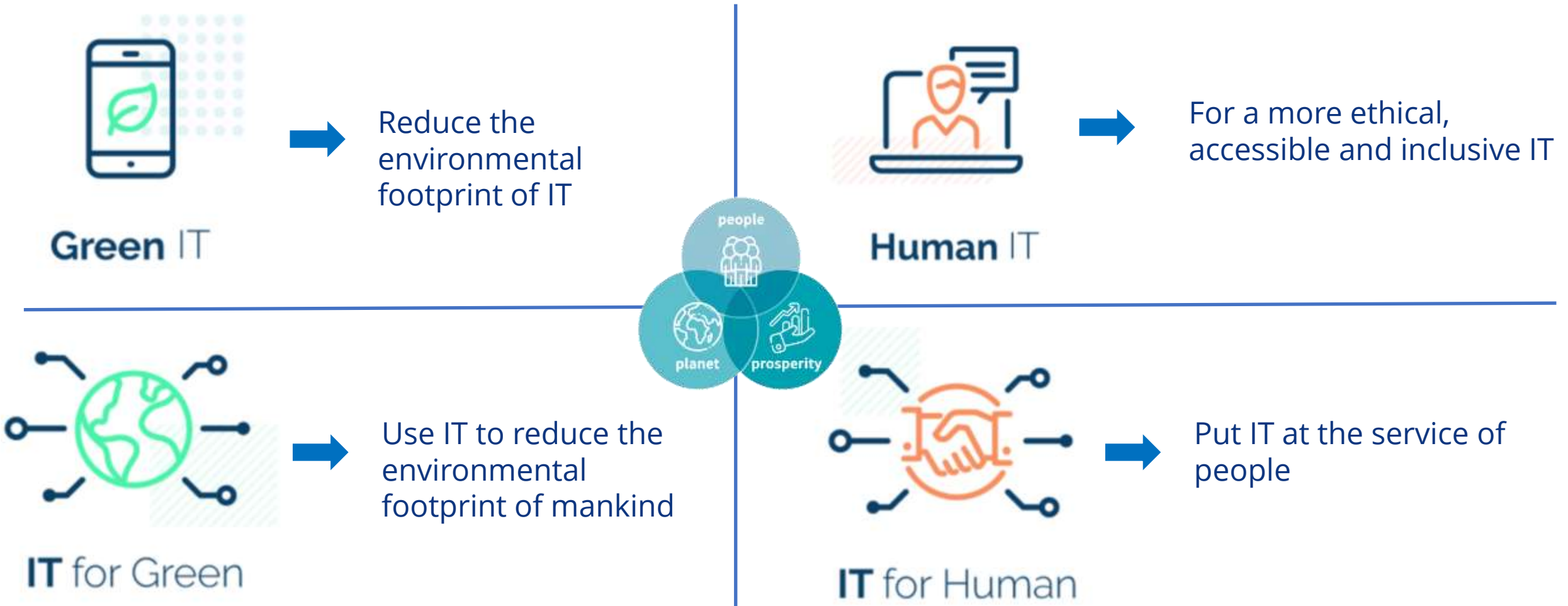


Introduction to Sustainable IT

24 February 2022

Olivier Vergeynst, Director
Belgian Institute for Sustainable IT asbl/vzw

The 4 axes of Sustainable IT



The 96 member organisations of the INR in France

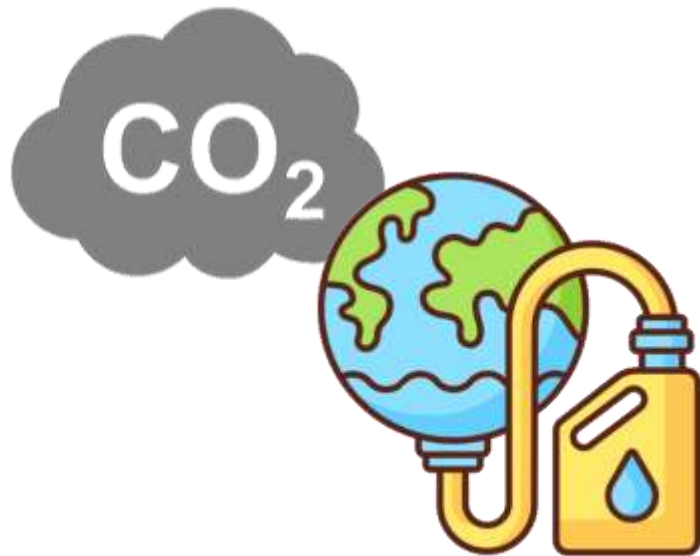


And more...

The 48 members of the ISIT in Belgium



The environmental impact of technology, equipments and uses



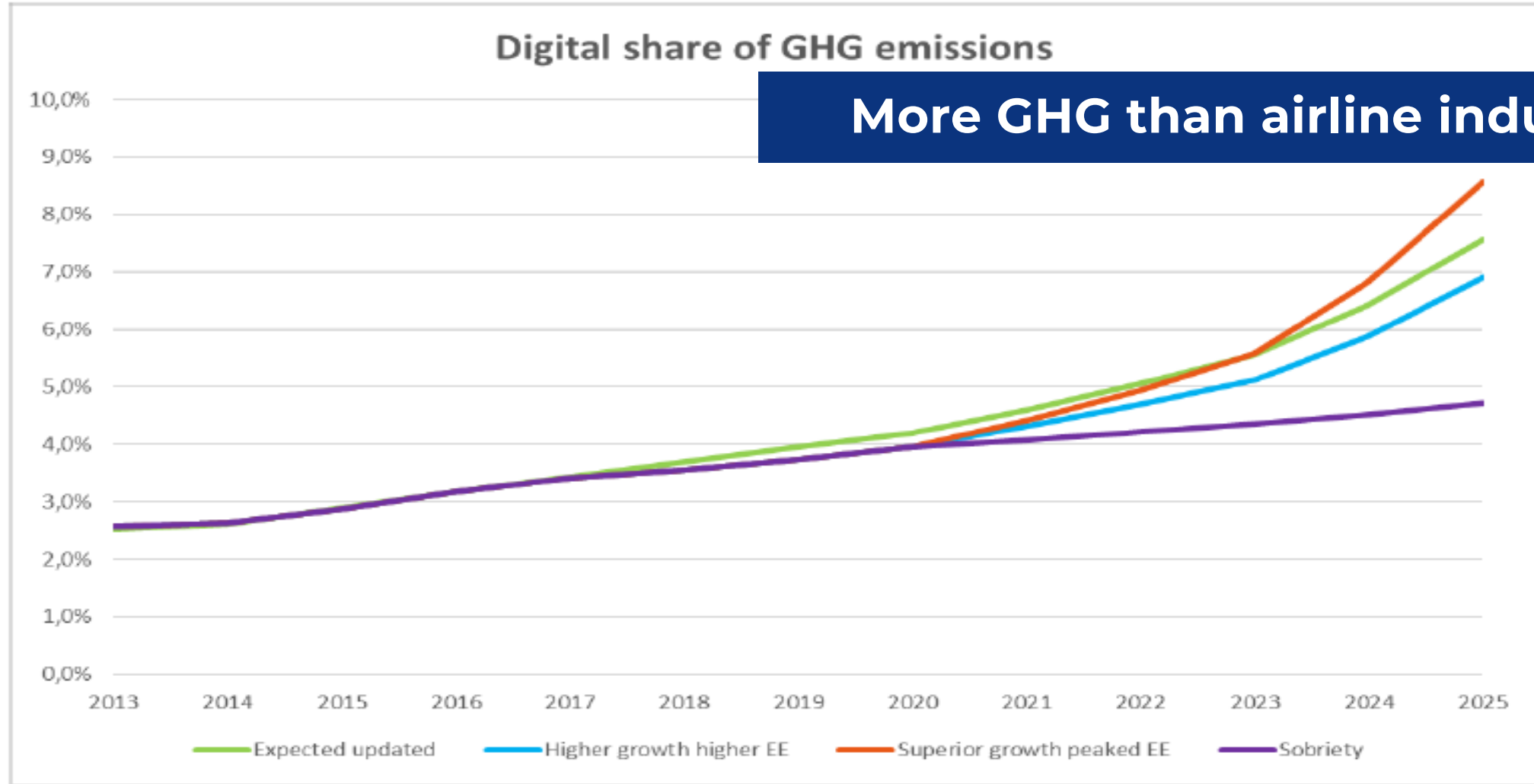
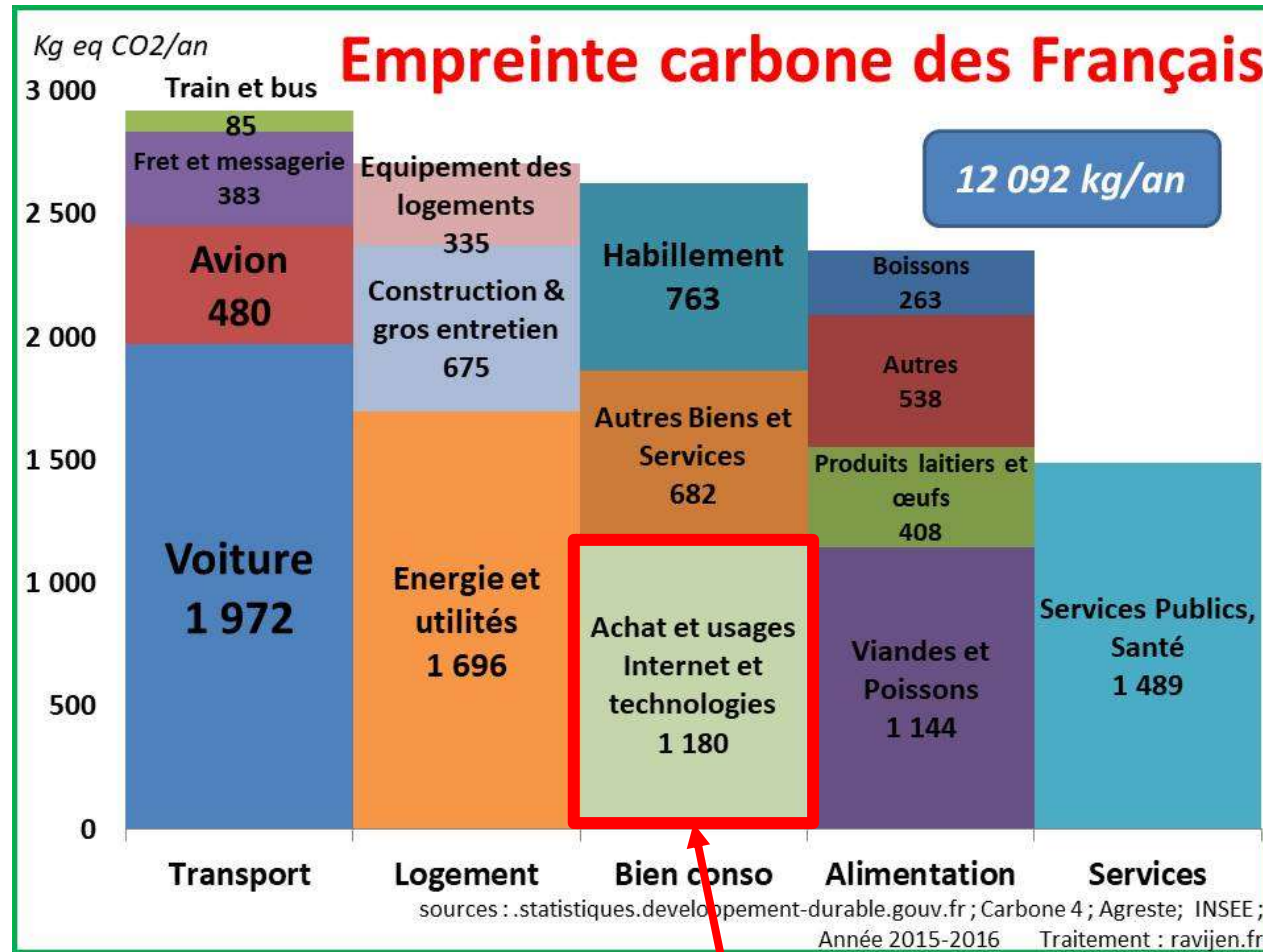


Figure 3 : Évolution 2013-2025 de la part du Numérique dans les émissions de GES
 [Source : [Lean ICT Materials] Forecast Model. Produit par The Shift Project à partir des données publiées par (Andrae & Edler, 2015)]



Average (whole population): ~1.200 kg






~ 1/10^e

Average (employees): ~1.500 kg

~ 1/8^e

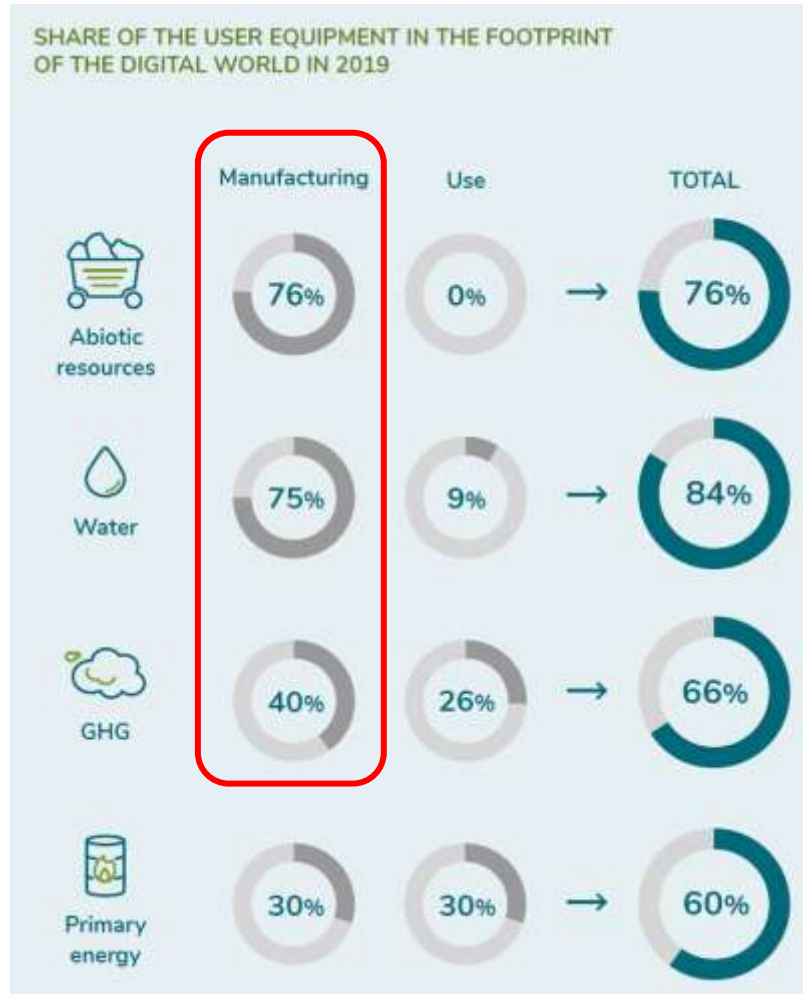
of your personal carbon footprint (pro + private)
comes from your usage of IT services

Mainly end-users' equipment

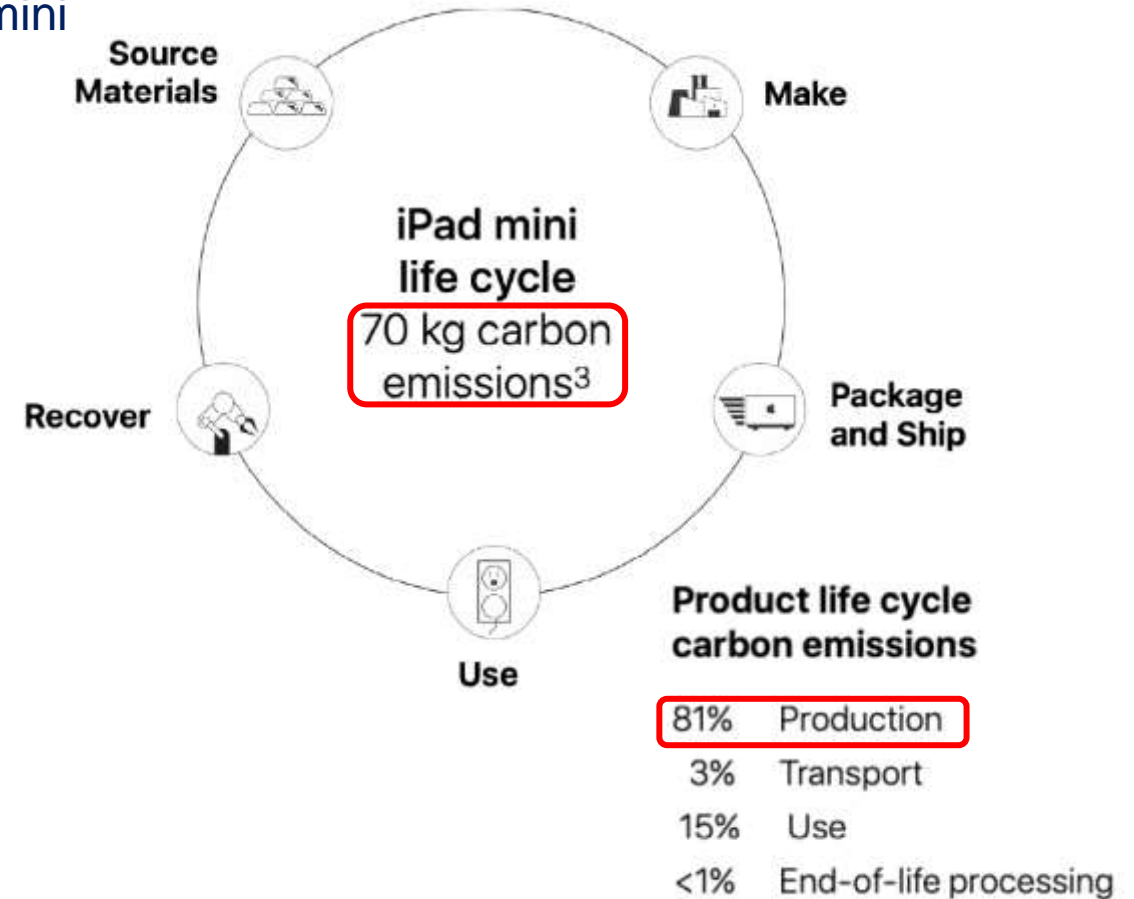
%	 Energy	 GHG	 Water	 Elec.	 ADP
User equipment	60%	63%	83%	44%	75%
Network	23%	22%	9%	32%	16%
Data centres	17%	15%	7%	24%	8%

Breakdown of impact of the digital world in 2019

Mainly due to the manufacturing



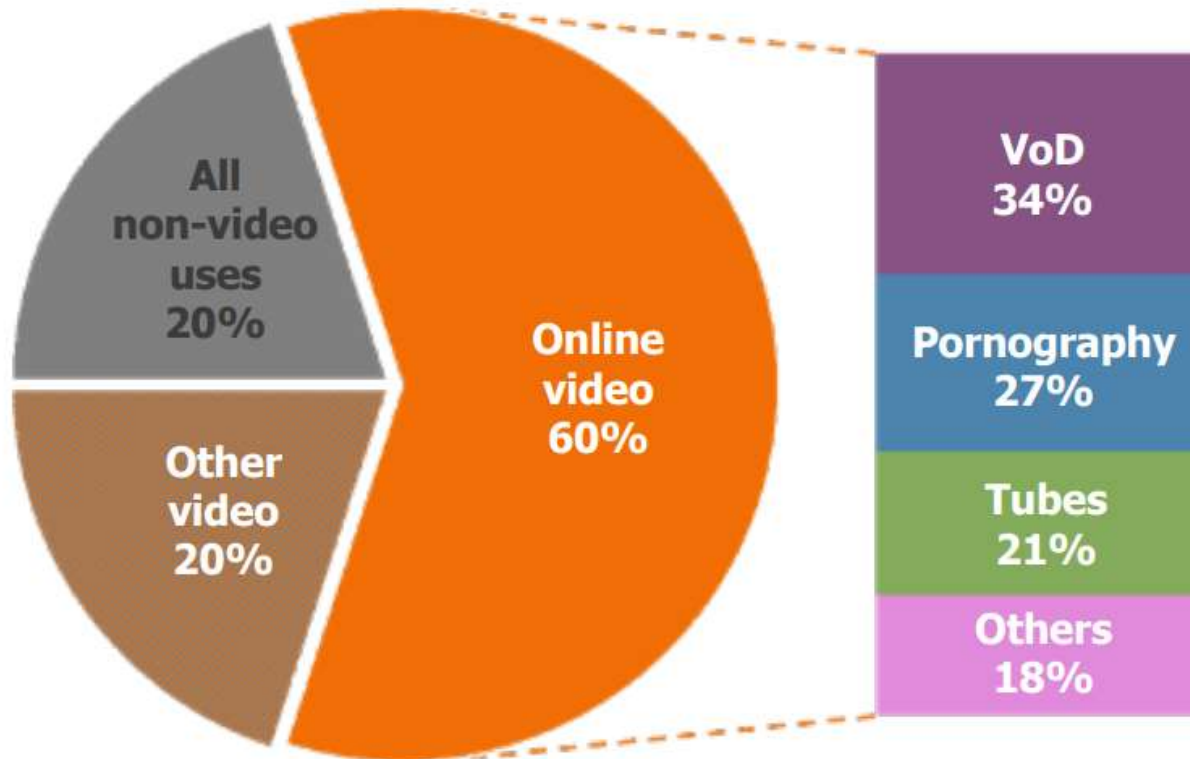
Example: iPad mini



Use: the main impact comes from videos

Distribution of online data flows between different uses in 2018 in the world

[Source : *The Shift Project 2019* - as of (Sandvine 2018), (Cisco 2018) and (SimilarWeb 2019)]

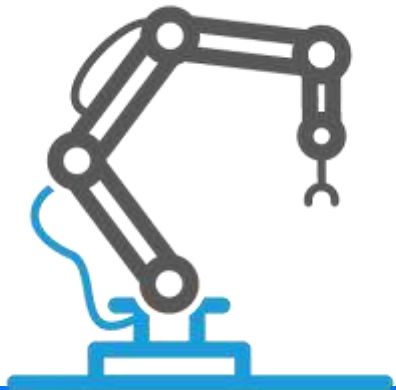
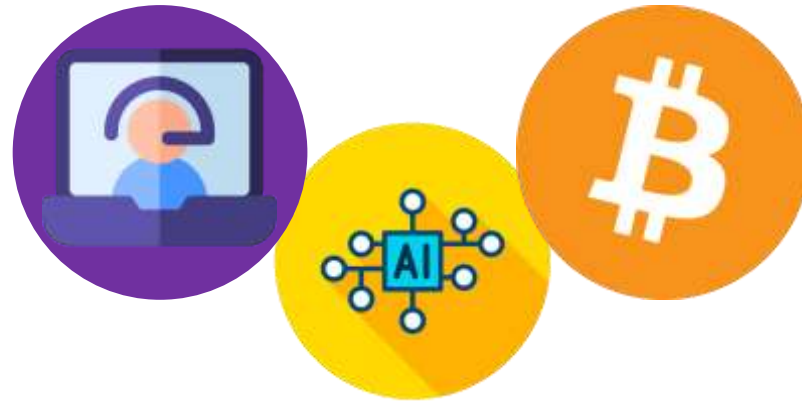


306 million tons of CO₂ is what the "online video" category generated in 2018.



1 ton of CO₂e = 1 flight
Paris / New York for 1 passenger

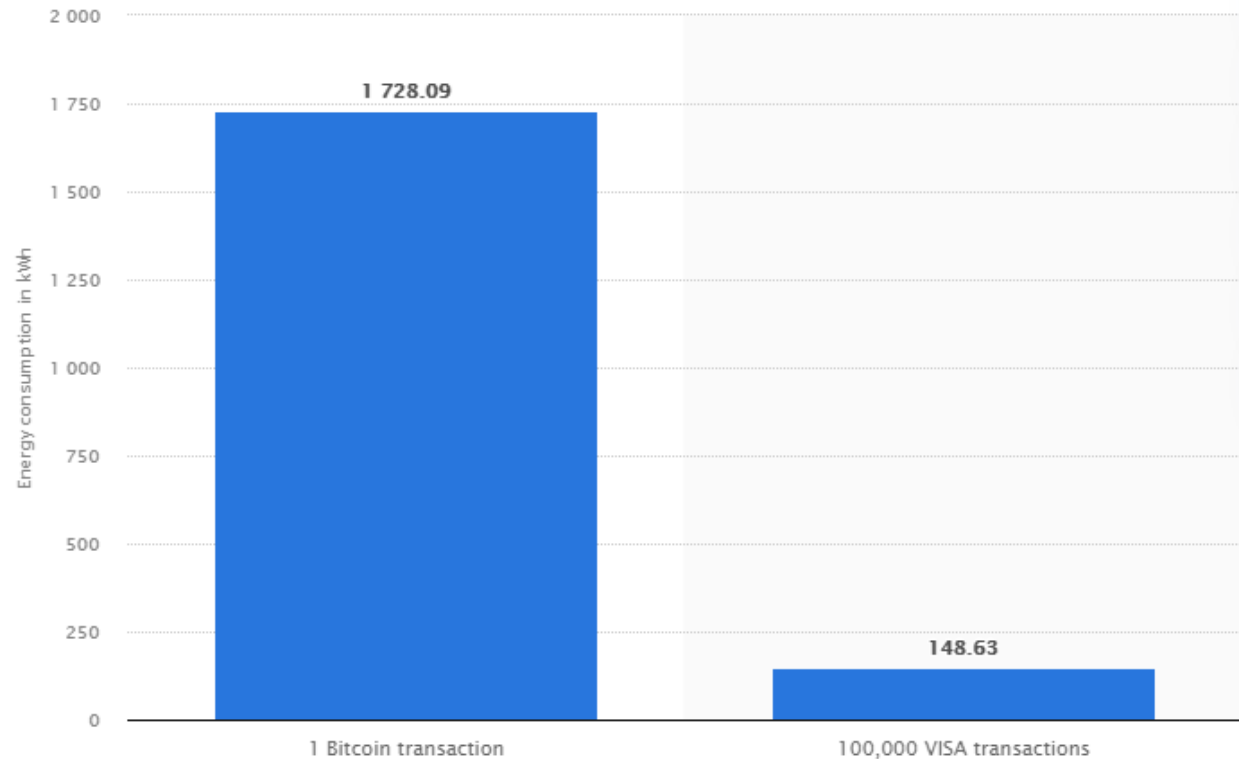
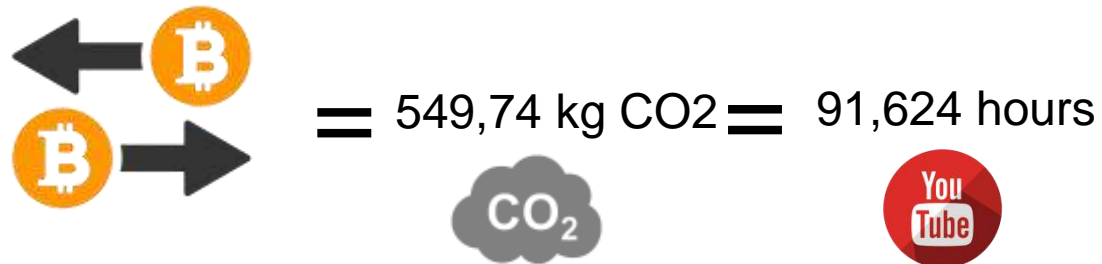
Reflecting on the impact of new technologies



The Bitcoin footprint: Power consumption

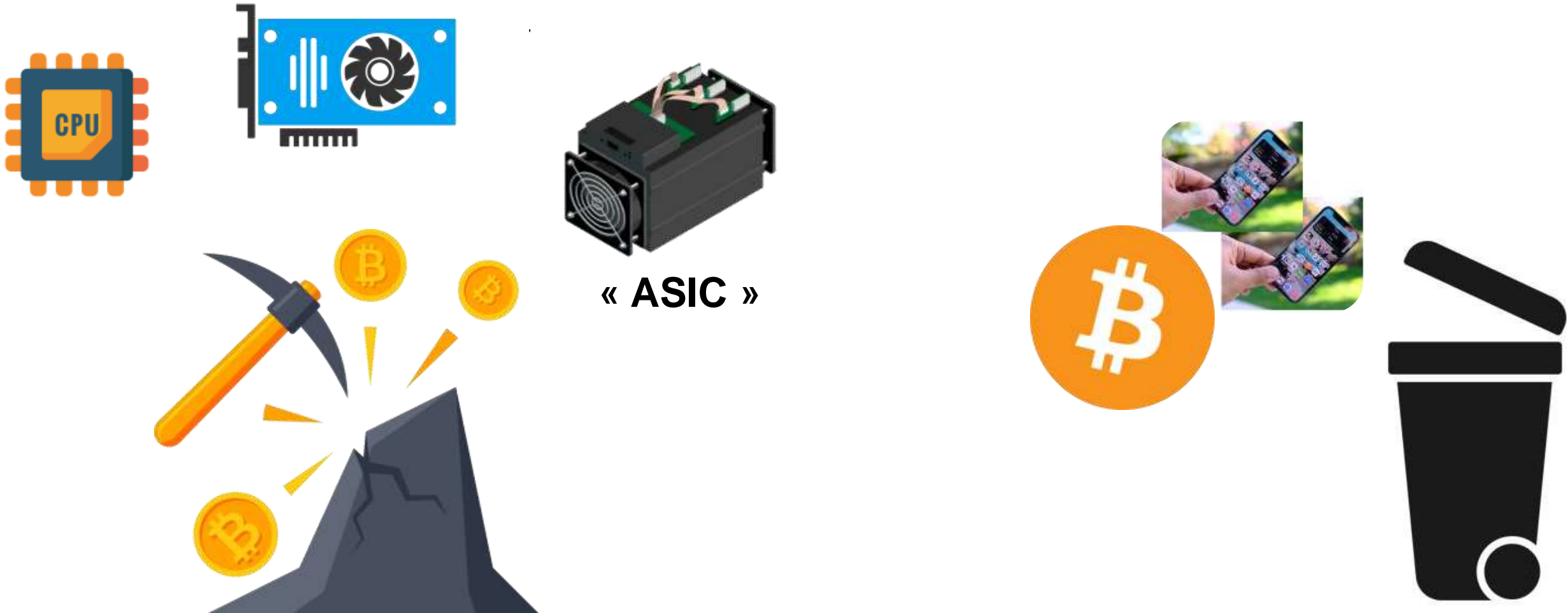


Image credits: Cambridge Centre for Alternative Finance
(<https://cbeci.org/cbeci/comparisons>)



© Statista 2021

Bitcoin's footprint: Hardware & e-waste



Taking action in organisations



Extend the life span to the maximum!

THINK REPAIRABLE

Adapt the purchasing policy
Train your buyers



CIRCULAR ECONOMY

A second life for your equipments
Create local employment
Avoid waste trafficking (WEEE)



AS GOOD AS NEW

Also suitable for companies
2 to 3 years warranty possible



Eco-designing digital services



WRITE EFFICIENT CODE



REDUCE BANDWIDTH

LinkedIn

112

facebook

2 to 9

Microsoft

5

DIVIDE INFRA NEEDS

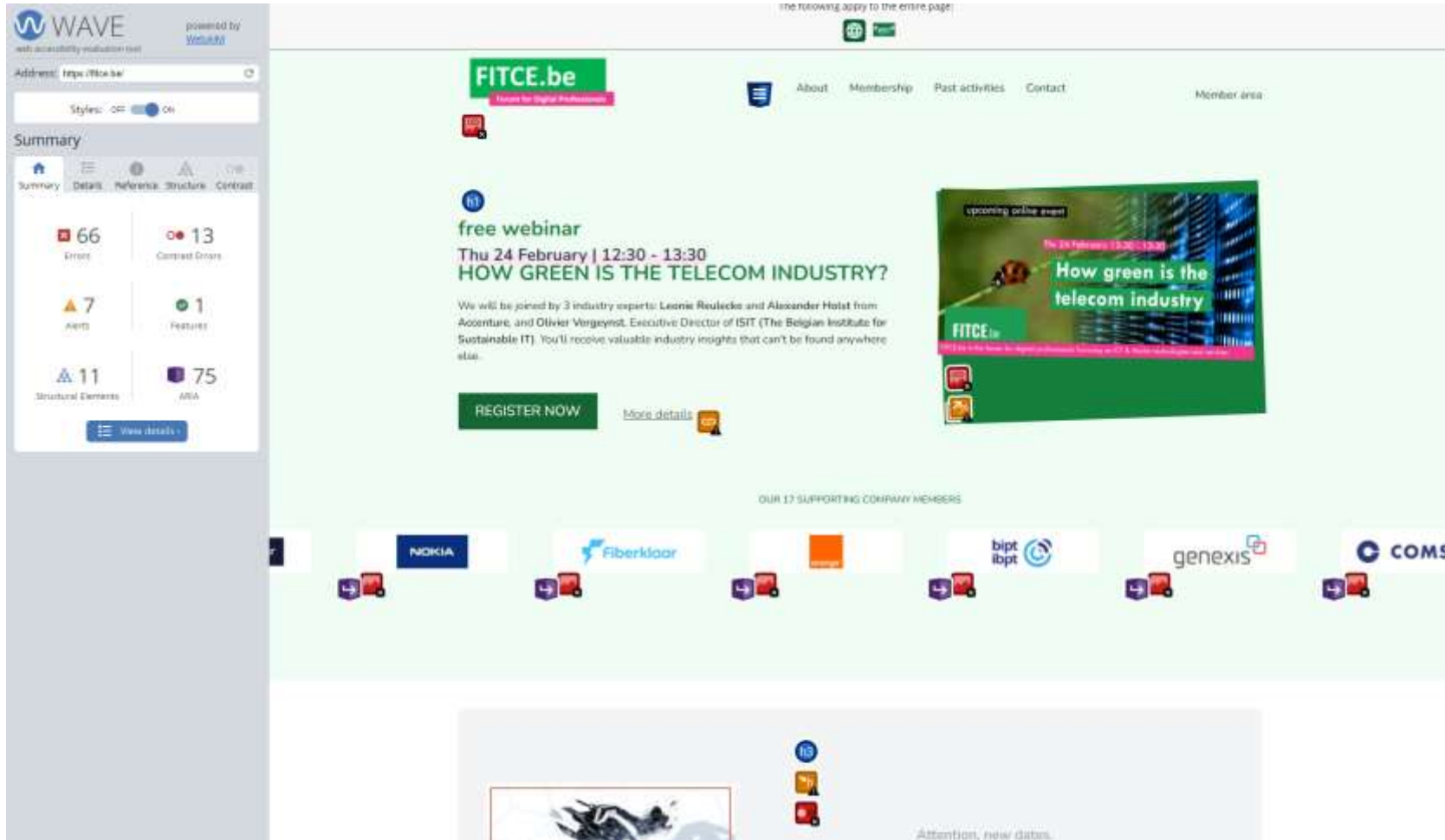


EXTEND LIFETIME



USER FOCUS

Accessible websites



The screenshot shows the FITCE.be website with the WAVE accessibility evaluation tool overlay. The tool provides a summary of accessibility issues:

- 66 Errors
- 13 Contrast Errors
- 7 Alerts
- 1 Feature
- 11 Structural Elements
- 75 ARIA

The website content includes a header with navigation links (About, Membership, Past activities, Contact, Member area) and a main section for a free webinar titled "HOW GREEN IS THE TELECOM INDUSTRY?" scheduled for Thursday 24 February from 12:30 to 13:30. The webinar features three industry experts: Leonie Reulecke and Alexander Holst from Accenture, and Olivier Vergeynst, Executive Director of ISIT (The Belgian Institute for Sustainable IT). A "REGISTER NOW" button is prominently displayed.



Below the webinar section, there is a list of 17 supporting company members, including Nokia, Fiberkloar, bipt libpt, genexis, and COMS.

Enter URL to test a page *

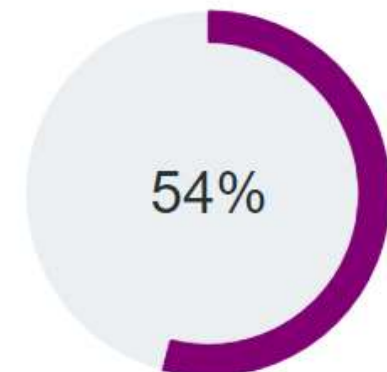
<https://fitce.be/>

Test



	Violations Identified	45
	Automated Tests Run	267
	Additional Tests Available	76

Register for Free Monitoring

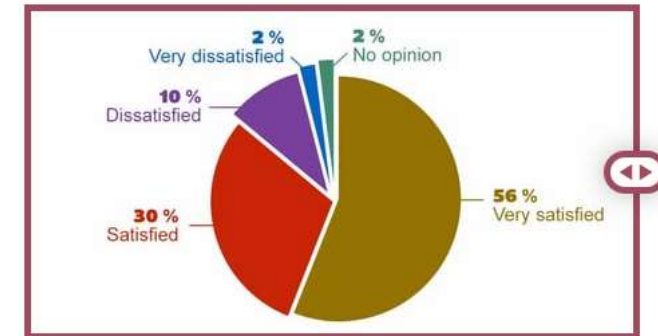
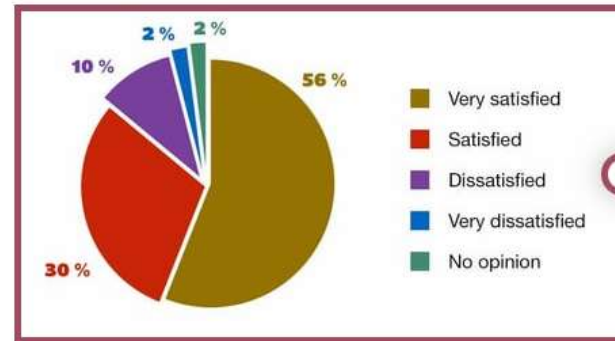


Health Score

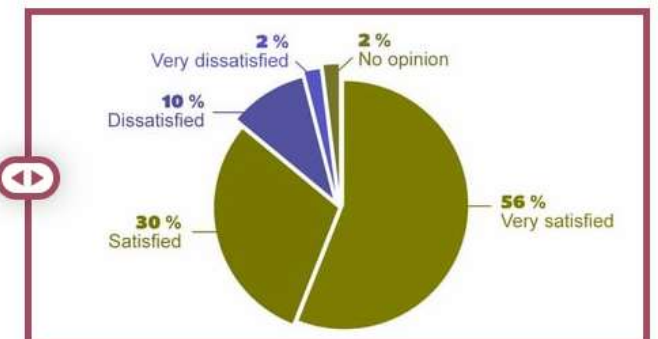
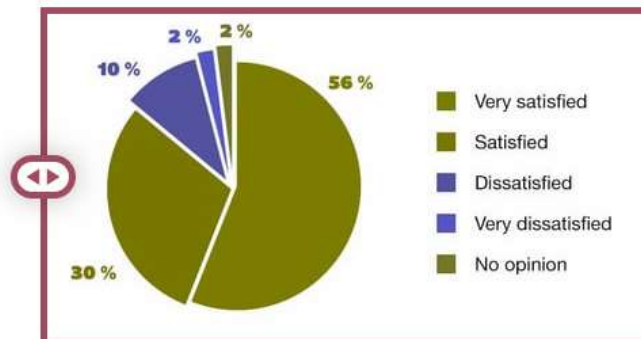
Accessibility: not only for websites



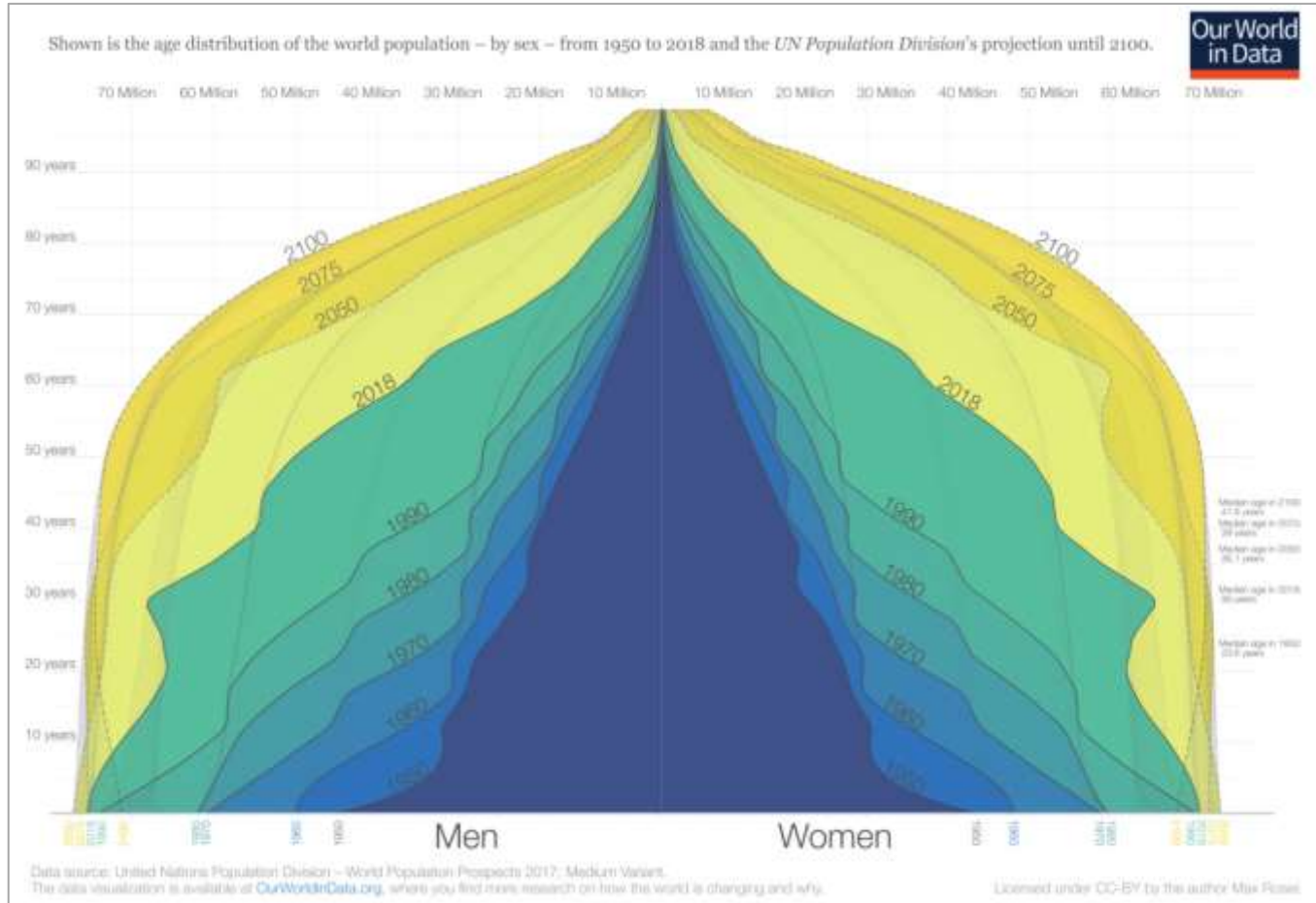
Not colour blind



Colour blind



Accessibility = more users



1 BILLION
PEOPLE
LIVE WITH
DISABILITY

Source: WHO (2011) World Report on Disability

ACCESSIBLE

WEB

Eco-designing digital services



WRITE EFFICIENT CODE



REDUCE BANDWIDTH

LinkedIn

112

facebook

2 to 9

Microsoft

5

DIVIDE INFRA NEEDS



EXTEND LIFETIME



MORE CLIENTS



BUSINESS GROWTH



Green Deal recovery plan

How much money?

€750
BILLION
Next Generation EU



support the green transition

at least **37%** of resources contribute climate action and environmental sustainability



foster digital transformation

at least **20%** of resources contribute to the EU's digital transition

EU values at the heart of the digital transition



Sustainable IT in action



3.9 & 6.3
Soils and water pollution (WEEE)

4
Quality education

5 & 8 (via Charter)
Gender equality and social inclusion

8.4, 9.4 & 12
Sustainable use of natural resources

8.5, 8.7 & 16.2
Child labour and modern slavery in mines and landfills

13
Climate change

16.4
Illicit financial flows (conflict minerals & WEEE)



Engage in Sustainable IT



ISIT MEMBERSHIP

isit-be.org/become-a-member



SUSTAINABLE IT CHARTER

isit-be.org/the-charter



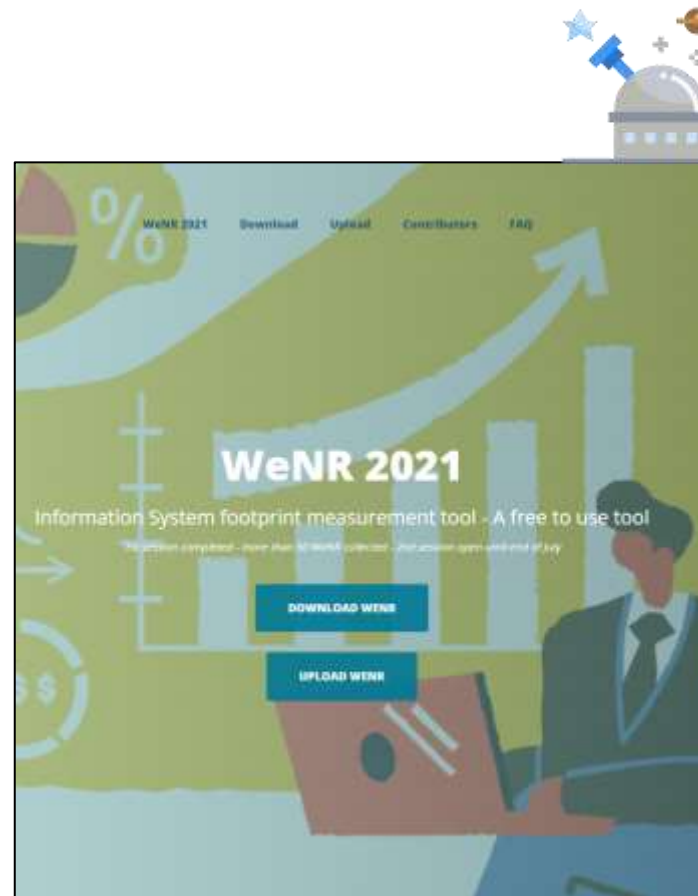
SUSTAINABLE IT LABEL

isit-be.org/the-label

Our deliverables: guides, tools, training...



Some examples :






Institute for Sustainable IT

ISIT ACADEMY

Through its Sustainable IT Academy, the INR wishes to offer a set of training projects aimed at the greatest number of people in order to train them in the challenges and best practices of Sustainable IT.

SUSTAINABLE IT MOOC

Faced with the climate emergency and the consequent environmental footprint of digital technology, and the imperative to rethink digital technology so that it carries more inclusive and ethical values for the women and men of our society, INR and its partners are proposing a MOOC on Sustainable IT to enable everyone to be informed and trained.

[» AWARENESS MOOC \(30MIN\)](#)
[» THE WHOLE MOOC NR](#)

The Awareness Sustainable IT MOOC is a short training program allowing a first approach to Sustainable IT for everyone.

Become a member of ISIT to...

Promote your organisation

Joint interventions at events, conferences, fairs, webinars...

Access to the press review, members directory and Sustainable IT experts

Participate in the creation of new content

Get started with our Welcome Kit



Train your employees, at preferential rates

Access all our resources in the members' area

Exchange with other members on our forum

Take part in workshops and working groups

... and much more!

Cyber World CleanUp Day



An event open to everyone

- Annual event to raise awareness of digital pollution
- The goal is to mobilise as many people as possible to :
 - Clean up their data
 - Collect used digital equipment
- Next edition : 19 march 2022 (3rd edition)



Go to the Cyber WCUD website



Institute for
Sustainable IT



*"IF NOT US, WHO ?
IF NOT NOW, WHEN ?"*
JOHN F. KENNEDY



<https://isit-be.org>



contact@isit-be.org



[linkedin.com/company/isit-be](https://www.linkedin.com/company/isit-be)