

# Agile Sustainability: Let's get more – social, environmental & economic – sustainability based on data!

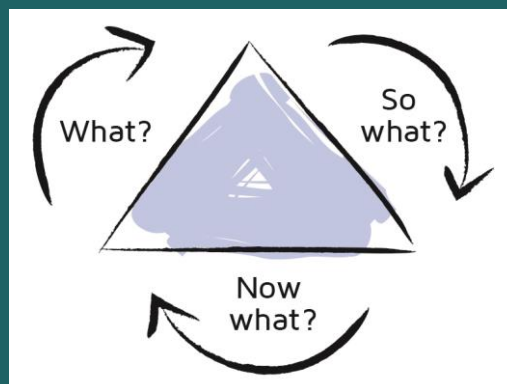
Jutta Eckstein

Pollution Control Commissioner on Ecological Environmentalism

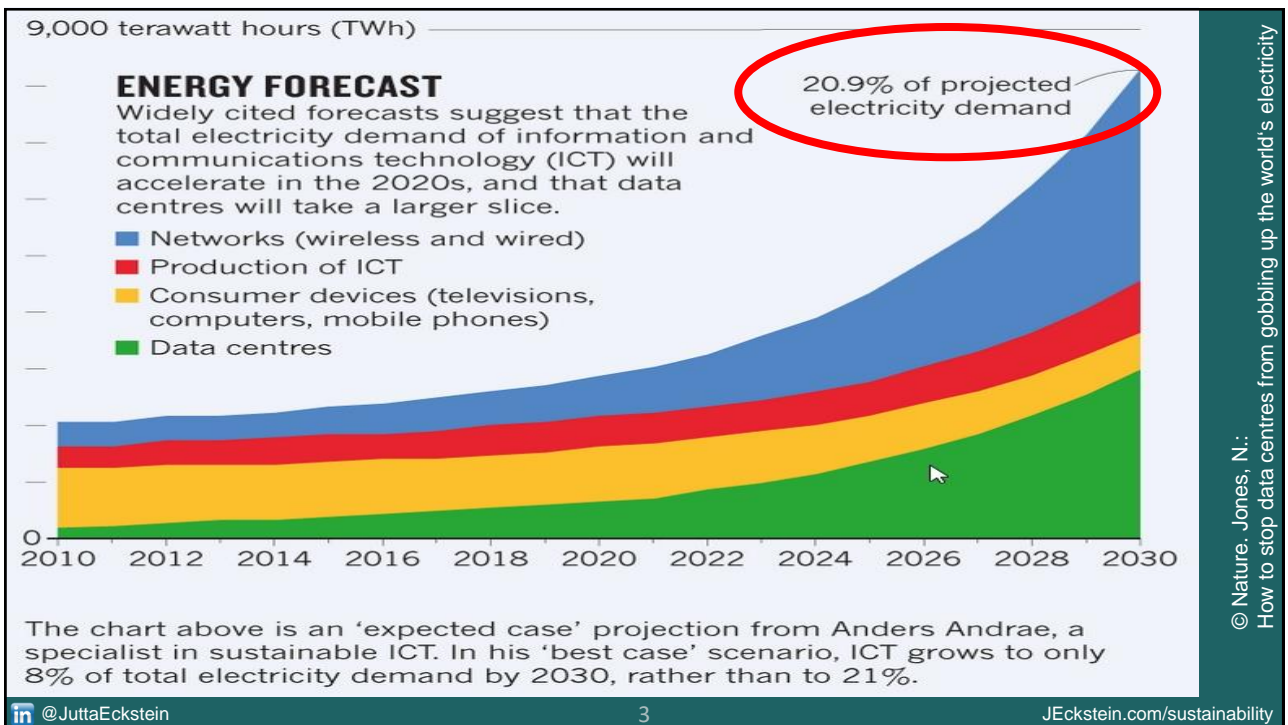
## Agenda

**What?** Facts

So what? Insights



Now what? This is what you can do!

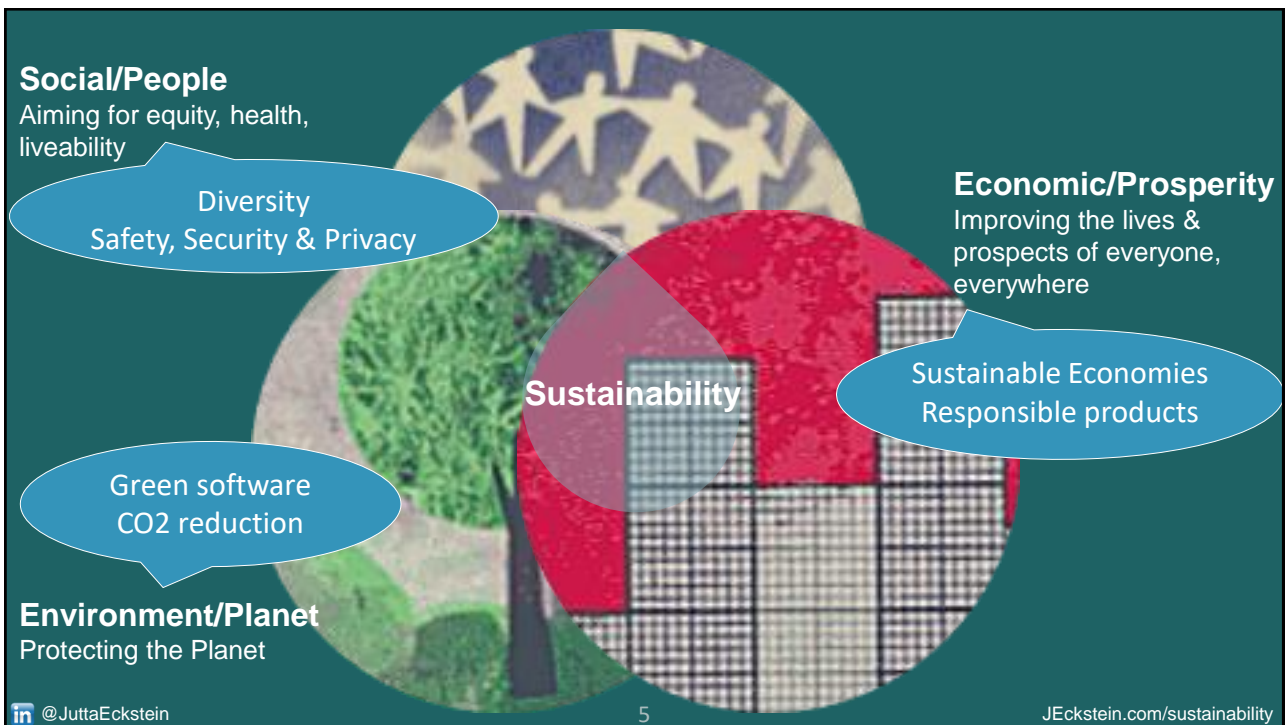


Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

UN Brundtland commission

THE GLOBAL GOALS  
For Sustainable Development

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**Social/People**

Patient's first name

Patient's last name

Enter a valid last name.

**Economic/Prosperity**

**Environment/Planet**

In 2019, **53.6** million metric tonnes of electronic waste was generated worldwide (that's plus 21% in 5 years.)

This is an equivalent of almost **5,400** Eiffel towers.

8

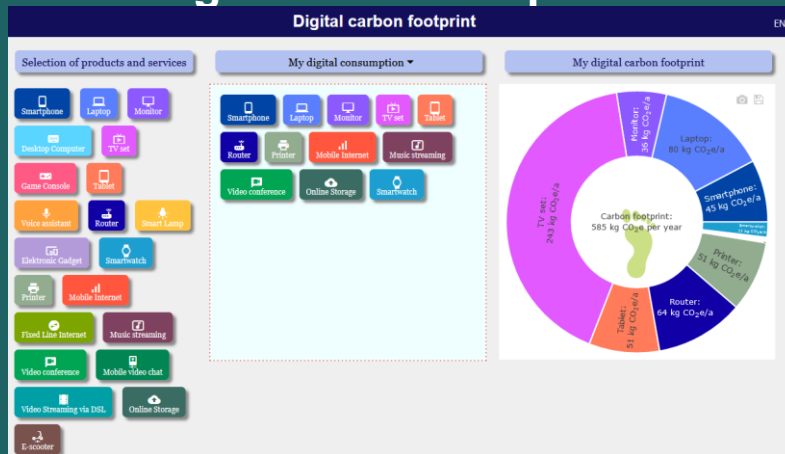
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# Our Individual Digital Carbon Footprint



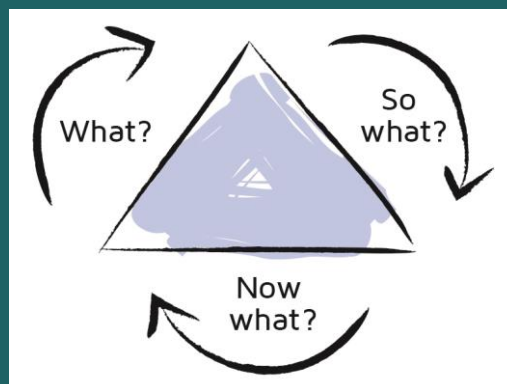
■ <https://www.digitalcarbonfootprint.eu/>



## Agenda

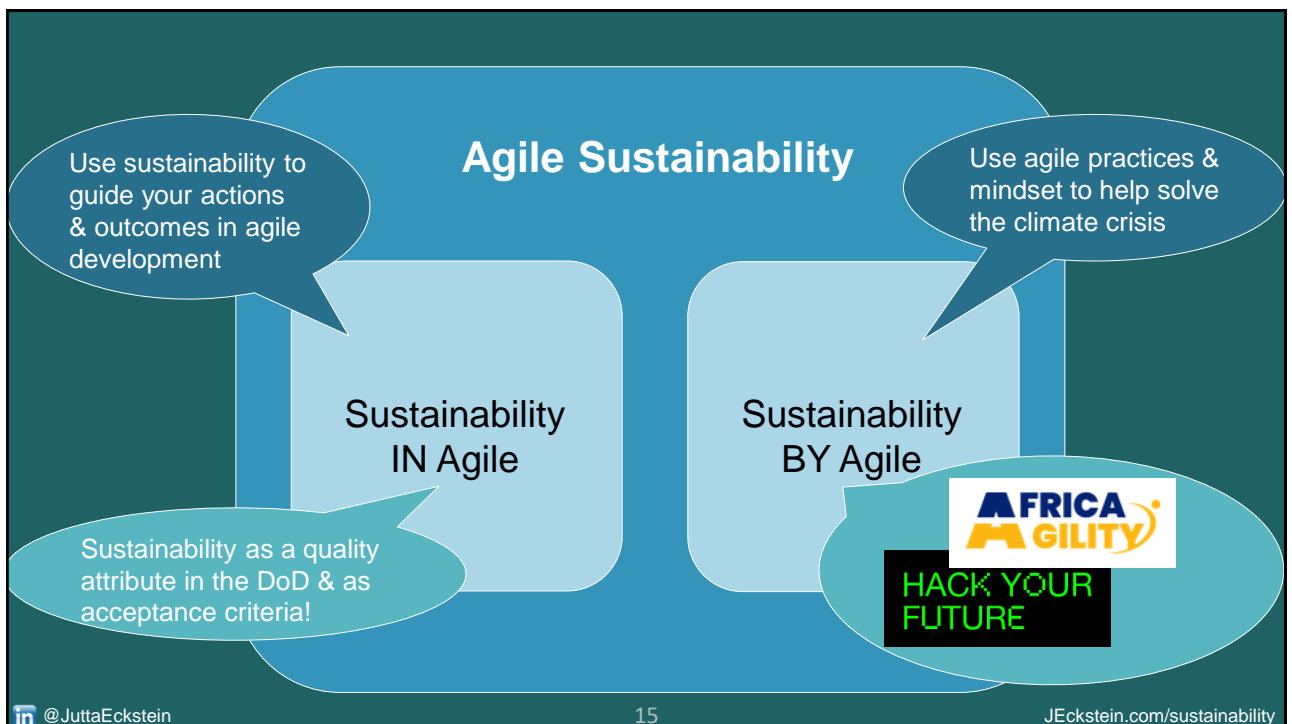
What? Facts

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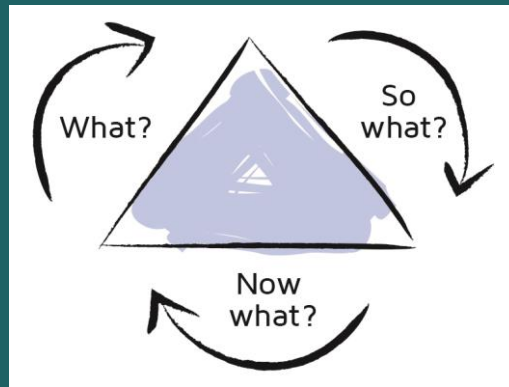




# Agenda

What? Facts

So what? Insights



**Now what?** This is what you can do!

## Persona Spectrum

- Make your system accessible to everyone!

	Permanent	Temporary	Situational
Touch	 One arm	 Arm injury	 New parent
See	 Blind	 Cataract	 Distracted driver
Hear	 Deaf	 Ear infection	 Bartender
Speak	 Non-verbal	 Laryngitis	 Heavy accent

Source: ©David Dame, Microsoft, <https://bit.ly/3EYNdXk>

# Stories

Note: It's not about the form, it's about the content!

As a {insert user},  
I want to {insert users' want},  
So I can {insert value to the user}

With the impact of {insert impact on environment, social, etc.}

As a designer,  
I want to reduce the amount of font types,  
So the page performance will increase for users and pages will be more digestible,

With the impact of reduced CO2 emissions because of less data transfer.

Source: Michael Fearer: <https://bit.ly/impactStories>

## Fonts Excursion

Source: <https://siteefy.com/how-many-websites-are-there>

**1,106,671,903**

Currently, there are around **1.11 billion** websites in the World. **18%** of these websites are active, **82%** are inactive.

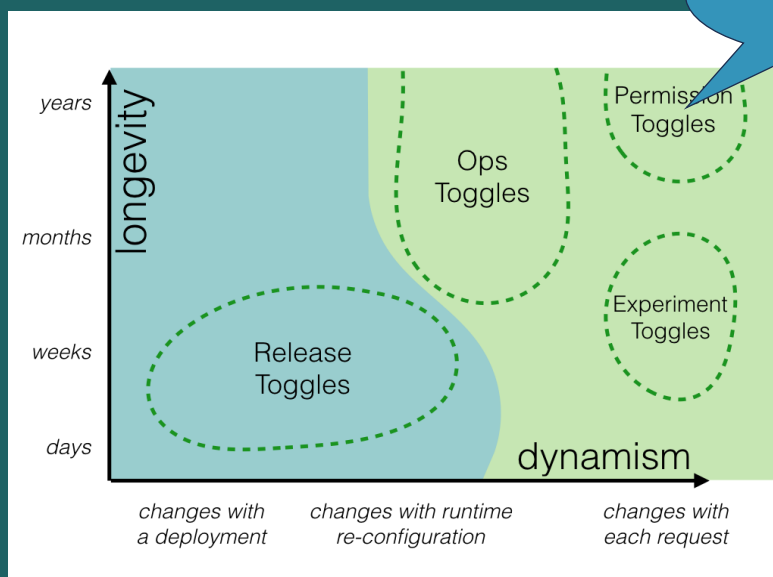
Font	CO2 emission per month (g)	CO2 emission per year (g)
-----	-----	-----
Google fonts	388,06	4656,72
Self-hosted fonts	218,73	2624,76
System fonts	42,89	514,68

Source: Lukasz Jedrasiak: <https://bit.ly/fontsImpactOnCarbonFootprint>

# Supporting Older Hardware

- **Sustainability Toggles**
  - Deactivate non-supported features
- **Responsive Design**
  - Recognize supported functionality on actual client

## Feature Toggles





# Energy Aware Operations

- **Understand when**
  - Low-carbon electricity is available
  - Energy mix is renewable
- **Execute operations asynchronously at environmentally friendly times, like**
  - Tests
  - Non critical jobs



## Data Centre / Cloud Provider

### Google Cloud Region Picker

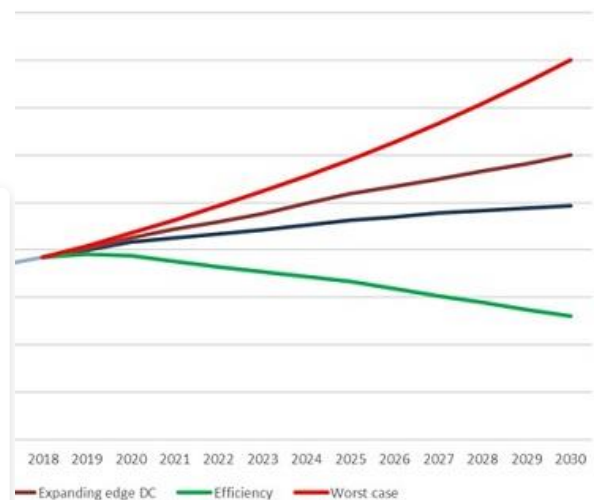
This tool helps you pick a Google Cloud region considering approximated carbon footprint, price and latency.

This is not an officially supported Google product and does not cover all Google Cloud locations.

#### Optimize for

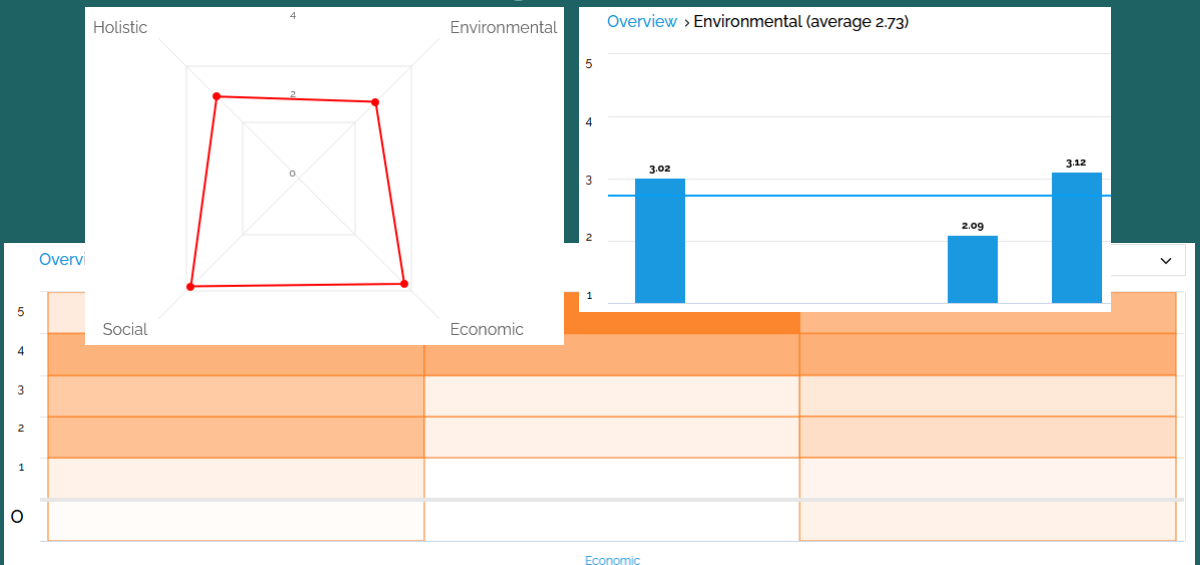
- Lower carbon footprint ⓘ  
Not important Important
- Lower price ⓘ  
Not important Important
- Lower latency ⓘ  
Not important Important

Projections of the energy demand of data centres in the  
EU (Source: Borderstep Institute)



## Where do we stand? Let's gather data!

Full assessment under (cc): <https://bit.ly/agile-sustainability>



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26

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# Change your Conversations for Increasing Sustainability!

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27

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# Many Thanks!

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- **And join:**
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