



**DIGITAL  
FOR  
PLANET**

# **A SUSTAINABLE INTERNET FOR A GREENER DATA ECONOMY**

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# AT WORK TO MAKE IT HAPPEN!

## DIGITAL FOR PLANET –D4P

is a **non-profit association** that aims to grow a **strong network of individuals and organisations** at work to **develop and foster the adoption of digital technologies** that **respect and contribute to the sustainability of our planet** and are beneficial to society

**#togetherisbetter** **#aloneisimpossible**



# > DIGITAL WITH PURPOSE

## ICT FOR SUSTAINABLE DEVELOPMENT

Across several sectors - smart energy/ grids, connected mobility, smart factories, smart buildings, smart farming, smart water, etc. – digital technologies and solutions allow for:

- › More efficient use of resources
- › Optimisation of processes
- › Environmental impact monitoring
- › Access to essential (and not only) services, e.g., education, health care...



*"ICT has the potential to maintain global CO<sub>2</sub> emissions at 2015 levels, decoupling the past pattern where each 1% of growth in GDP equated to an 0.5% increase in CO<sub>2</sub> emissions, and promote sustainable growth through 2030".*

SMARTer 2030, GESI

# BUT AS WE KNOW



**DIGITAL TECHNOLOGIES AND  
THEIR OVERCONSUMPTION  
ARE ALSO A BIG PART OF  
THE PROBLEM**

## **Technology drives electricity demands**

- › Estimates show that ICT could consume 20% of global electricity by 2025, generating 5.5% of CO<sub>2</sub> emissions - with 25 billion “connected things” by 2021 (!)

## **Technology is damaging the environment**

- › Production, use and disposal have direct effects
- › Mining rare minerals destroys natural ecosystems
- › eWASTE - 53.6 million tonnes only in 2019 (!)

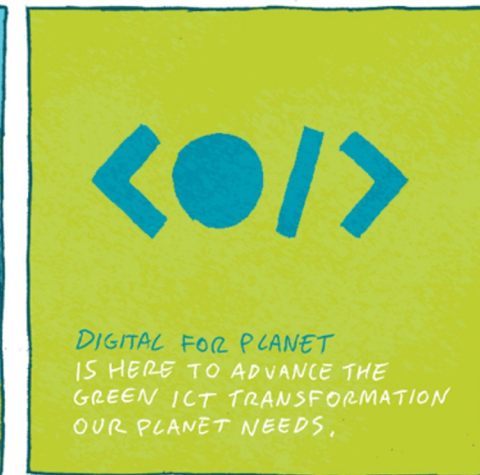
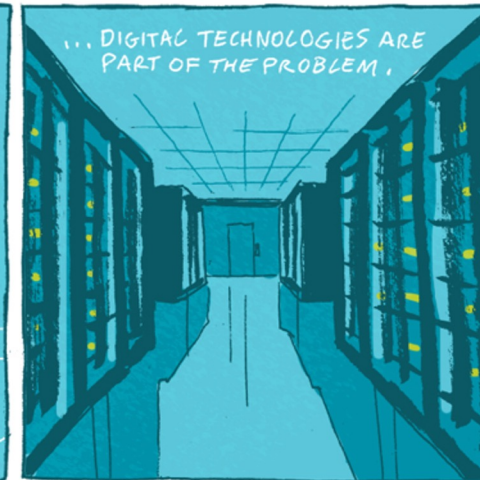
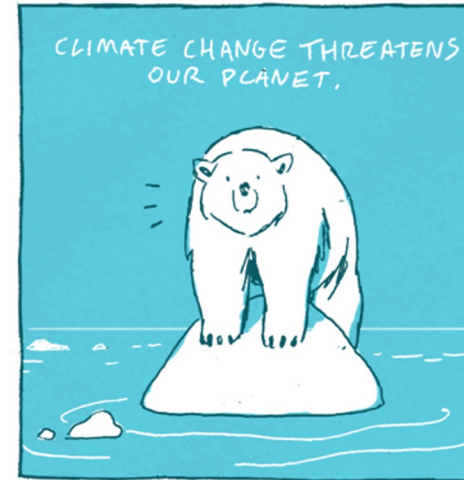
## **Technology is inducing overconsumption**

- › Enforcing culture of disposability
- › Replacement rather than repair approach
- › Software development vs. hardware upgrades

# > OUR PLANET CALLS!

THE BALANCE OF POSITIVE VS NEGATIVE OUTCOMES OF ICT DEPENDS ON INCENTIVES AND POLICIES

WE NEED GREENING DIGITAL TECHNOLOGIES FOR THE SUSTAINABLE DEVELOPMENT OF OUR SOCIETY



# TOWARDS A SUSTAINABLE INTERNET

## PILLARS AND LAYERS

The NGI Forward 2030 vision for a future Internet includes *five pillars*, of which two are of significance for D4P core interests: **resilience** and **sustainability**. The traditional layered network model was extended to cover information and societal aspects.

Resilient and sustainable Internet impacts many layers

- › L01: escaping unsustainable consumerism
- › L03: data minimization and processing power
- › L06: little sustainability focus in Internet standards
- › L07: network resilience vs. environment footprint

- 01 › Societal impact
- 02 › Applications
- 03 › Data and transport
- 04 › Information
- 05 › Technology and software development
- 06 › Protocols, standards and governance
- 07 › Physical infrastructures and hardware

*The layers of the power stack model for the internet*

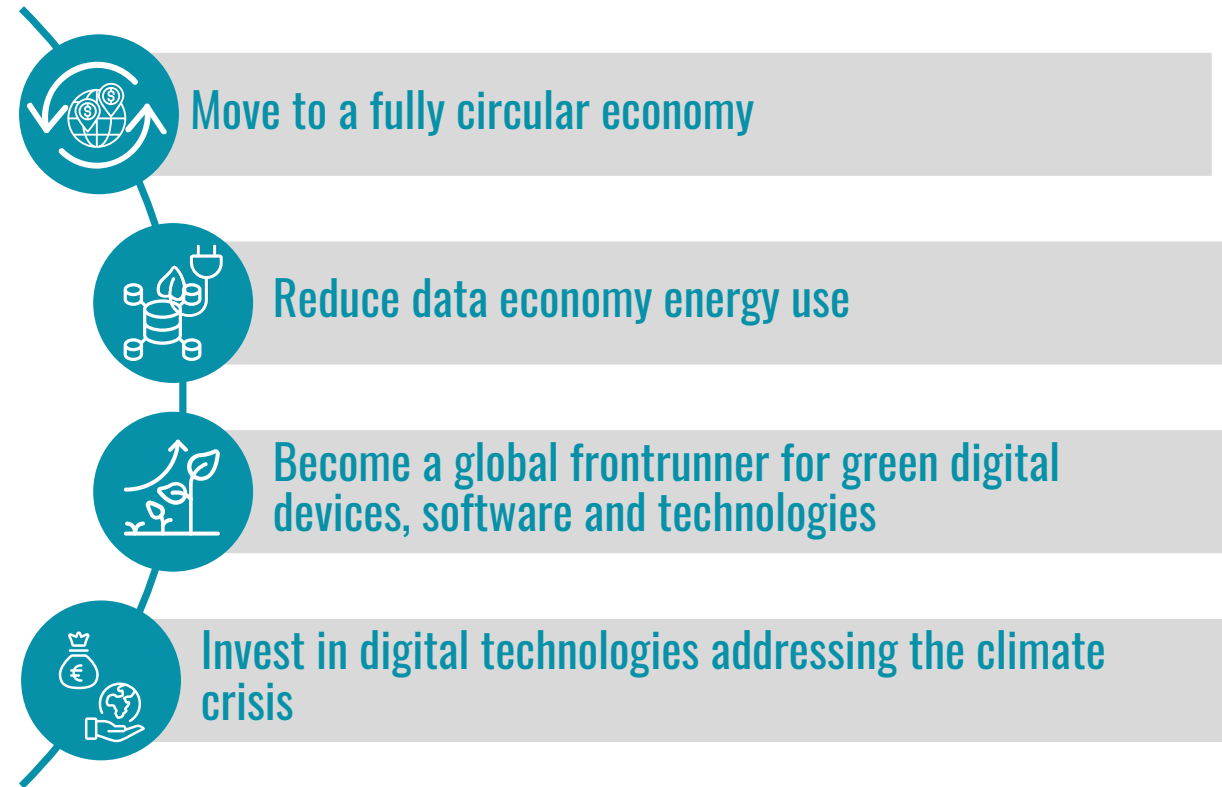
# TOWARDS A SUSTAINABLE INTERNET

## OBJECTIVES FOR 2030

NGI 2030 vision sets goals for the *Sustainability* pillar and acknowledges the symbiosis between green and digital transformation

### HOWEVER, WE CAN MAKE SOME REMARKS

- › The faux-ethereal self-image of ICT must go
- › We need complexity mindset, not solutionism
- › Interdisciplinarity is key more than ever...
  - › ... But must be matched by community diversity
- › Social / economic sustainability and resilience
  - › They are important, too
  - › But must not be used as a distraction ploy



# DIGITAL FOR PLANET - AMBITION

Supporting the development and adoption of green ICT to help develop organisations, businesses, communities and cities in a sustainable direction for:

- › Achieving net zero greenhouse gas emissions by 2050.
- › Fighting climate change and preserving the environment.
- › Decoupling the economic growth rate from natural resource consumption rate.



*In line with the **European Green Deal** objectives and the **UN Sustainable Development Goals***





# > CURRENT FOCUS

## D4P IS TARGETING THESE TOPICS

- › Sustainable Next-gen Internet
- › Sustainable 5G/B5G networks
- › Green Data Centres
- › Smart and Sustainable Cities





# JOIN DIGITAL FOR PLANET

At work for a greener, sustainable Internet?

**Join us and create a stronger impact!**



[digital4planet.org](http://digital4planet.org)



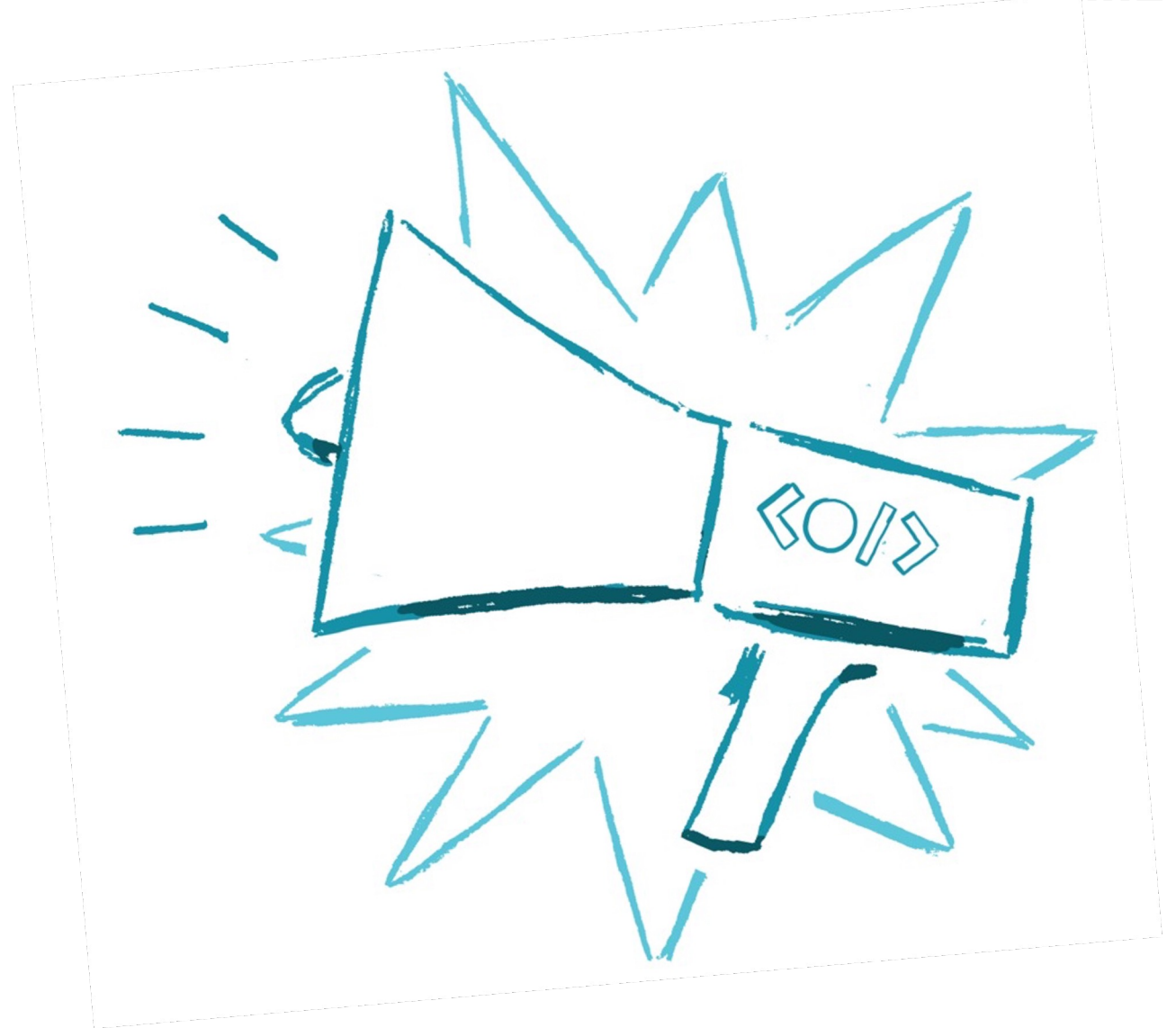
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THANK

YOU

FOR YOUR

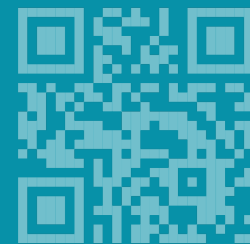
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