**BILBAO GREEN DIGITAL DECLARATION**

## Foreword

Digitisation is everywhere. Through data science, robotics and artificial intelligence, it is freeing human beings from dangerous and alienating work and fostering faster, more efficient processes by making it possible to identify and predict trends and correlations. The digital transformation economy may change the way in which we see and do things, and may result in new forms of entrepreneurship such as innovation through cooperation (collective intelligence and open experimentation) and new opportunities for social activism. Data-based public sector policies also help to build less speculative decision-making models by reducing risks and uncertainties. In combination with open data strategies, they help foster the transparency and accountability of public administrations, favouring participation and public engagement with public-sector policies.

The recent pandemic has enhanced the importance of digitisation as a way of tackling challenges and problems of all kinds, related not just to public health but also to work, administrative management, social policies, mobility, public engagement and the climate emergency. In addressing this last challenge, the use of smart systems and technologies, especially in environments such as cities (*Smart Cities*), may help to make more efficient use of energy resources and raw materials and to dematerialise and decarbonise the economy. This is conducive to a shift from products to services, to an optimisation of mobility and transport and, in general, a reduction in environmental impact which helps to create a sustainable economy.

However, digitisation also entails the consumption of a great deal of resources and energy. The manufacturing and upkeep of electronic products and networks far outstrip those of other consumer goods. The extraction of mineral ores and other raw materials is compounded by the huge amounts of energy required by computing and

data storage centres, all of which has an environmental impact. It is calculated that by 2030 digital technologies will account for 40% of greenhouse gas emissions and 10% of all electricity consumption in the EU. This digitisation process is thus all too material.

The digital transition and the environmental/energy transition are interdependent, so there is an urgent need to align them now through smart collaboration between institutions, businesses, research centres and the community, taking into consideration the environment as a natural system (in what is known as a "quintuple helix innovation model", incorporating sustainability criteria).

We therefore propose the following 10 point plan for digital green transformation. This plan has emerged from the talks held in Bilbao on 17 and 18 November 2022, at the GREEN DIGITAL CONFERENCE supported by  Bilbao City Hall, BBK, GLOBERNANCE and the Chair in AI and Democracy at the European University Institute.

**Ten-point plan**

1.- Act in accordance with the criteria of digital minimalism: first assess whether it is relevant and necessary to develop digitisation systems in particular contexts and applications, and avoid technology for technology's sake.

2.- Factor eco-design criteria into the development and implementation of digital systems, including processes for assessing and measuring environmental impact. Impacts need to be measured so that systems can be transformed (ethics and sustainability by design).

3.- Foster the development of green algorithms based on data science and IA to improve energy efficiency in processes and activities.

4.- Optimise energy use in digital environments to reduce greenhouse gas emissions.

5.- Research and develop sustainable, energy-efficient hardware and software via "green algorithms".

6.- Encourage the reuse of electronic devices and materials and a culture of repairs in the framework of our "digital circular economy".

7.- Prioritise renewables in digitisation processes.

8.- Protect vulnerable individuals, populations, species and environments that may be harmed by the extraction of raw materials for digitisation and for energy production.

9.- Ensure that the benefits and burdens of digitisation processes are shared fairly and equally.

10.- Foster sustainable digital literacy among the population, encouraging positive habits in digital consumption, especially among young people, so that they are well aware of sustainability and environmental protection issues.


Digital development in line with Sustainable Development Goals and the 2030 Agenda is possible if the social, material and energy-related implications are taken into account. There's still time.


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