THE NEW CRISIS OF EUROPEAN SCIENCES

Over the past century, some reflections have pointed to the need for a profound inquiry not only into the performance, but also into the nature and mission of the sciences in contemporary societies. In 1935, just a few years before the outbreak of World War II, the German philosopher Edmund Husserl gave a lecture in Prague, whose title inspired the theme of this initiative by the Lisbon Academy of Sciences, aimed at responding in Portugal to the challenge of commemorating the **World Science Day for Peace and Development 2025**, promoted by the **International Science Council** on **November 10, 2025**.

An essential characteristic of the science born with European Modernity between the 15th and 17th centuries is the unity between theory and technological application—hence the now commonly used term **technoscience**. Often, success on the technological front has delayed the need to reflect on the fundamental principles and implications of modern science which, although born in Europe, is now universal.

The growing awareness of the **crisis of science** has been fueled both by the worsening material and objective situation of the state of the world—namely, existential risks threatening all of humanity—and, in the case of European countries by the **decline in their technoscientific performance**, which also affects, though to a lesser extent, the United States.

We are witnessing a clear **shift in centers of economic and technoscientific power** from the countries that have dominated over the past two centuries to an alliance of states and nations that were once colonized or intervened in by the West but are now asserting themselves with undeniable vigor and capacity for initiative. In terms of global alliances, the former hegemonic powers are part of the **G7**, while emerging powers tend to group in the **BRICS**.

From an economic perspective, if we compare the share of **G7 and BRICS in global GDP** (by purchasing power parity), we see a dramatic change between 2000 and 2024. In 2000, the G7 accounted for **43.28%** of global GDP versus **21.37%** for the BRICS. By 2018, the balance had flipped: **31.84%** for the G7 versus **32.33%** for the BRICS. For 2024 , the G7 is estimated to decline further to **29.64%**, against **35.43%** for the BRICS (data from the German company **Statista**).

In the more refined area of **science and technology (S&T)**, the results are even more surprising. In **August 2024**, a report was published by the **Australian Strategic Policy Institute**, a think tank linked to the government of Canberra, on the main countries leading S&T in **64 critical areas for the future**: defense, space, energy, environment,

artificial intelligence (AI), biotechnology, robotics, cybersecurity, computing, advanced materials, and key areas of quantum technology. The study covers the period from **2003 to 2023**. Here too, the **West is in retreat**. In 2003, the **United States led in 60 of the 64 technologies**. In 2023, it led in only seven. **China**, on the other hand, rose from leading in **three technologies in 2003** to **57 of the 64** in 2023. If the **EU** were counted as a single country, it would lead in only **two technologies** (gravitational force sensors and small satellites). Other BRICS countries also stand out: **India** ranks among the top five in **45 of the 64 technologies**, **Iran** in eight, and **Saudi Arabia** in four.

If we turn to the **existential issues** that should be calling scientific communities in Europe and across the world to dialogue and cooperative action, we can identify **three fundamental dangers** which, if not addressed, will have devastating consequences:

a) The worsening **global environmental and climate crisis**, which has received a **conformist response** from Europe and the U.S.—**disguised** in the case of Europe, **brutal** in the case of the U.S.;

b) The **military escalation** in Europe and in other critical regions of the world, threatening—more than at any time since 1945—the possibility of **mutually assured destruction (MAD)** in a generalized nuclear conflict;

c) The **headlong race** between the U.S. and China for the development of **Artificial Intelligence**, aiming at qualitatively superior stages (such as **generative AI**, or even **general AI**), without **security protocols** established among all companies and states involved in this unrestricted race.

We are living in a **paradox with no parallel in the past**. Never has humanity possessed such knowledge, skills, and tools capable of leaving such a **lasting impact on the Planet** (hence the ongoing debate on the new geological and historical epoch of the **Anthropocene**). And yet, never have **political irrationality**, **economic greed**, and **military adventurism** seemed so inclined to use these very capabilities **catastrophically**—against the Earth, the **only common home of humanity**.

What can scientists and researchers, as well as their networks, societies, and organizations, do to avoid being mere **spectators in a race to the bottom**? How can we help ensure that the **right of future generations to exist**, prevails over the short-sighted exploitation by those who today hold the reins of power? How can we support the **long-term preservation of the Earth System** against its looting and destruction by an "**economy that kills**," recalling the teachings of **Pope Francis**? How can we argue and persuade political and economic decision-makers not to forget the fundamental

lesson of the Cold War: only **diplomacy can resolve conflicts**, because **nuclear war will have no winners—only losers**?

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Viriato Soromenho-Marques