Economic and Financial Affairs Council (ECOFIN) ISSUE: Space-Mining and International Ownership AUTHORS: Alexia and Arman POSITION: Committee, Co-Chairs



### What is ECOFIN and how does it work?

The Economic and Financial Committee (ECOFIN), known as the Second Committee of the UN General Assembly, addresses global economic challenges such as development, financial stability, poverty reduction, and sustainability. While its resolutions are non-binding, ECOFIN plays a vital role in shaping international consensus and influencing policy on key issues like trade, external debt, and the Sustainable Development Goals (SDGs).

With all 193 UN member states participating equally, ECOFIN adopts resolutions that serve as frameworks for global economic cooperation. Its notable contributions include debt relief initiatives, SDG-focused guidelines, and strategies to address climate change's economic impacts.

ECOFIN sessions, led by annually elected presidents, focus on thematic areas such as development financing and global trade. In 2025, the agenda includes topics like pandemic recovery, taxation reform, and climate adaptation funding.

More information can be found on the guidance documents available on the WESMUN website.

### Background

Space mining, the extraction of resources from celestial bodies such as asteroids, the Moon, and other planets, has emerged as a promising frontier for the global economy. Advances in space exploration, coupled with increasing demand for scarce materials like rare earth metals, platinum, and water (for fuel and life support), have propelled interest in this field. Asteroids alone are estimated to contain resources worth trillions of dollars, offering solutions to Earth's resource scarcity while potentially revolutionising industries.

The concept of space mining transitioned from science fiction to reality in the early 21st century with private companies like Planetary Resources and Deep Space Industries spearheading asteroid exploration. Governments, too, are heavily involved, with initiatives like NASA's Artemis program aiming to establish a sustainable lunar economy. These ventures seek to exploit resources such as water ice for rocket fuel, facilitating deeper space exploration.

However, the legal and regulatory frameworks surrounding space mining remain underdeveloped. The 1967 Outer Space Treaty, signed by over 100 countries, prohibits the claim of sovereignty over celestial bodies but does not explicitly address resource extraction. This ambiguity has spurred debate over ownership, equity, and the risk of a space "gold rush" dominated by a few powerful nations or corporations.

# Current situation

Space mining is no longer hypothetical. Technological advancements, such as reusable rockets and robotic mining systems, have made resource extraction increasingly feasible. Governments and private companies alike are actively investing in space mining initiatives. NASA's 2023 VIPER mission, designed to explore lunar resources, is a precursor to establishing long-term extraction capabilities. Meanwhile, private firms like SpaceX and Blue Origin are working on the infrastructure needed to transport resources back to Earth or utilise them in space.

At the same time, international interest is growing. Countries like China, India, and Luxembourg have announced plans to develop space mining technologies. Luxembourg, in particular, has positioned itself as a hub for the space mining industry by passing legislation in 2017 granting companies the right to own resources extracted from space. This move reflects a growing trend of nations seeking to capitalise on the economic potential of space.

However, these developments have raised questions about equity and sustainability. Critics argue that current efforts risk replicating Earth's inequalities in space, with wealthier nations and corporations monopolising access to resources. There is also concern over the environmental and geopolitical implications of large-scale space mining, including the potential for orbital debris and conflicts over resource claims.

### Barriers to International Ownership

The ownership and regulation of space mining face significant legal, ethical, and logistical challenges. The 1967 Outer Space Treaty establishes space as the "province of all mankind," prohibiting national sovereignty over celestial bodies. While it allows for the peaceful use of space, it remains vague on whether extracted resources can be owned, leading to differing interpretations among signatories. The 1979 Moon Agreement sought to address these gaps but has been ratified by only a handful of nations, excluding major spacefaring powers like the United States, China, and Russia.

Without a cohesive international framework, nations and companies risk engaging in competitive and potentially exploitative practices. The United States' 2015 Commercial Space Launch Competitiveness Act and Luxembourg's space mining laws have granted private entities the right to own extracted resources, a move viewed by some as contradictory to the Outer Space Treaty's principles. Such unilateral actions could lead to disputes over resource claims and exacerbate geopolitical tensions.

Logistical barriers also loom large. The high costs of space exploration, coupled with the technological challenges of mining in harsh environments, make space mining an

expensive and risky venture. Additionally, the environmental impact of such activities, including potential contamination of celestial bodies and increased space debris, raises ethical questions about humanity's responsibilities in space.

## Key Challenges and Opportunities

Developing a fair and sustainable framework for space mining is crucial to ensuring equitable access and avoiding conflict. International cooperation through organisations like the United Nations Office for Outer Space Affairs (UNOOSA) and multilateral agreements similar to the Antarctic Treaty could provide a model for managing space resources. Proposals include creating a global fund to distribute the benefits of space mining to all nations, particularly developing ones.

On the technological front, advancements in autonomous systems, robotics, and insitu resource utilisation (ISRU) offer opportunities to reduce costs and enable sustainable operations. The use of extracted resources to build infrastructure in space, such as habitats or fuel depots, could further advance humanity's presence beyond Earth.

As space mining progresses, balancing innovation with ethical considerations and international cooperation will be essential. Success in this domain could not only address Earth's resource challenges but also pave the way for a new era of global collaboration in space exploration.