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Statement Item 9: Spin-off benefits of space technology

Mr. Chair, Distinguished Delegates,

Italy recognizes the vital contribution of space to sustainable development. Space technologies support health, food security, energy, and infrastructure—both on Earth and in orbit. For example, satellite-based telemedicine brings care to remote areas, and Earth observation helps track disease outbreaks and improve public health responses.

Human space exploration is a shared global goal, yet it presents major health challenges. Microgravity causes bodily deconditioning, including heart stress and impaired brain blood flow, increasing risks like thrombosis and vision disorders.

To address this, the Italian Space Agency supports the **Drain Brain 2.0** project, led by the University of Ferrara. It is testing aboard the ISS a simple, wearable device to monitor jugular venous pulse—a key indicator of cardiovascular and brain health. Astronauts can use it autonomously by wearing a neck strap and breathing normally. Japanese astronaut Takuya Onishi is among the first participants in the experiment.

Aligned with **Sustainable Development Goal 3** (Good Health and Well-being), this technology also has Earth applications, enabling low-cost, remote cardiovascular monitoring via telemedicine—especially useful in underserved regions.

Drain Brain 2.0 is a clear example of how space research can improve health for both astronauts and people on Earth.

Thank you.