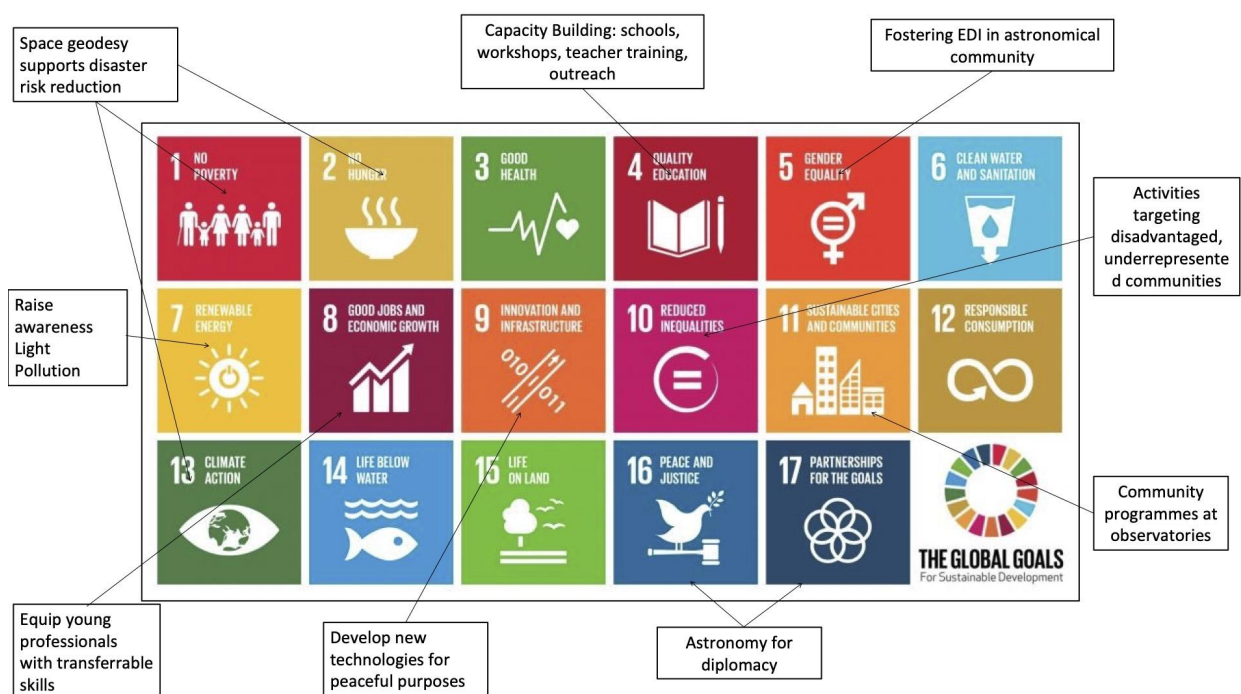


## JIV-ERIC and the Sustainable Development Goals

Astronomy is in a unique position to support the United Nations Sustainable Development Goals (SDGs). Astronomy allows us to study the most remote places in the universe but it also gives us a different perspective on our planet, showing us its fragility and fostering a sense of global citizenship. Moreover, astronomy is at the forefront of science and technology; answering fundamental questions, pushing engineers to new levels and driving innovation. From medicine to the invention of Wi-fi, astronomy has a strong impact in our modern society.



Examples impact of astronomy on different UN Sustainable Development Goals.

The [Joint Institute for VLBI European Research Infrastructure \(JIV-ERIC\)](#) provides access and offers support to users of the [European VLBI Network](#), which includes 22 telescopes around the world that combined offer the sharpest view of the Universe. JIV-ERIC contributes to the Sustainable Development Goals from its role as a research infrastructure to facilitate high-quality research as well as through the impact of astronomy in innovation, education, equity, job creation and entrepreneurship. Find below examples of the contributions of JIVE-ERIC to the UN SDGs:

### SDG9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

JIV-ERIC delivers robust data and services to the worldwide radio astronomy community fostering innovation that makes possible breakthrough science. For instance, JIV-ERIC staff participated in the Event Horizon Telescope (EHT) collaboration that obtained the first image of



the shadow of the supermassive black hole in M87, which inspired billions of people worldwide. Moreover, JIV-ERIC efforts also underpin Earth orientation in space that contributes to build and maintain reference frames that are fundamental for obtaining resilient infrastructures.

**SDG8: Promote inclusive and sustainable economic growth, employment and decent work for all**

JIV-ERIC provides and supports efforts worldwide on capacity building, including developments of skills such as coding that are eminently transferable to high-tech industries. For instance, JIV-ERIC participation in the Development in Africa with Radioastronomy (DARA) project training a new generation of African students supports economic growth and entrepreneurship.

**SDG1:End Poverty in all its forms everywhere & SDG2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture & SDG13: Take urgent action to combat climate change and its impacts**

JIV-ERIC through the Very Long Baseline Interferometry (VLBI) technique infers Earth orientation in space that is essential to geodesy, navigation and Global Navigation Satellite Systems, which are fundamental to support disaster risk reduction.

**SDG4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

Astronomy is considered a gateway science in education since it generates excitement for science and attracts young people to STEM (science, technology, engineering, and maths) subjects. JIV-ERIC through the organisation of educational actions contributes to raising awareness of science careers and fostering critical thinking.

**SDG5: Achieve gender equality and empower all women and girls**

JIV-ERIC contributes to achieve gender equality by supporting and fostering an inclusive, egalitarian and diverse astronomy community.

**SDG17: Revitalize the global partnership for sustainable development**

At the core of the Very Long Baseline Interferometry (VLBI) technique is international/global collaboration, which is often performed beyond particular conflicts or competitions. JIV-ERIC serves as the umbrella organisation for fostering and supporting the collaboration of 19 organisations in 15 countries around the world to provide the sharpest view of the Universe.

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