Addressing common challenges for FAIR astronomy data

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The ESCAPE project (European Science Cluster of Astronomy and Particle physics ESFRI research infrastructures) is addressing the common challenges for making astronomy data FAIR (Findable, Accessible, Interoperable and Re-usable.) and supporting data driven research in the context of the European Open Science Cloud (EOSC). Participating ESFRIs include the Cherenkov Telescope Array (CTA), the European Solar Telescope (EST), the cubic-kilometre -sized Neutrino Telescope (KM3NeT), the ESO Extremely Large Telescope (ELT) and the Square Kilometre Array (SKA). The European Virtual Observatory (Euro-VO), as well as the European Gravitational Wave Observatory (EGO-Virgo) and JIVE are participating in this Astronomy and Particle Physics cluster. I will outline the approaches that are being developed for connecting astronomy data to the EOSC using the Virtual Observatory, and show how the architecture of the Virtual Observatory maps directly into the FAIR principles. Also, the community coordination and training activities of ESCAPE will be highlighted.