

The historical association of the short Gamma Ray Burst GRB170817 with the gravitational wave source GW170817, has demonstrated the huge informative power of multi-messenger observations. During the next decade the nascent field of multi-messenger astronomy will mature significantly. Around 2030 and beyond, third generation ground-based gravitational wave detectors will be roughly ten times more sensitive than the current ones. At the same time, neutrino detectors currently upgrading to multi km³ telescopes, will include a 10 km³ facility in the Southern hemisphere. The Transient High Energy Sky and Early Universe Surveyor (THESEUS) is a mission concept accepted by ESA for phase A study and proposed by a large international collaboration in response to the call for the Cosmic Vision Programme M5 missions. If selected, THESEUS will be launched by 2032 and it will play a key role in a fully mature era of multi-messenger astrophysics. For instance, the unprecedented capabilities of this mission will allow to detect and accurately localize and characterize long and short GRBs, NIR kilonovae and soft X-ray transients expected to be associated to gravitational wave events, providing also redshift measurements.