

Training Opportunity for Irish Trainees

Reference	Title	Duty Station
IE-2018-TIA-TT	New processes and practices for technology development planning	ECSAT

Overview of the unit's mission:

Define technology work plans to support ESA Member States satcom industry in their technology needs. Support technology and product developments initiated by industry in co-funding. Manage the ARTES Core Competitiveness programme in the Telecommunication Directorate (see https://www.esa.int/spaceinvideos/Videos/2017/06/ARTES_Core_Competitiveness).

Overview of the field of activity proposed:

Satellite communication is rapidly changing and the ESA Member States industry involved needs to innovate fast to remain competitive. New technologies and systems are emerging for space applications, such as optical and high radio frequency communication, large space structures, highly efficient amplifiers, digital signal processors, secure communications, satcom integration into 5G, industry 4.0, artificial intelligence, augmented reality, machine learning, active flat antennas, and “new space”, with nano and cubesat constellations providing broadband access anytime and anywhere. As a direct consequence of this changing environment, the pace of innovation is accelerating in the quest for new solutions to new problems.

One way that ESA supports industry to be competitive in this highly dynamic commercial environment is to define annual technology development work plans, which aim to make new and relevant technology available to industry in time to meet their product development needs.

Each new work plan is the result of a thorough evaluation process that takes into account internal knowledge of market evolution and emerging needs, technology trends, both inside and outside of the space industry, and the Agency's plans for technology harmonisation across all of its activities (telecommunications, earth observation, science, navigation, human space flight and space transportation).

Given the fast changing environment, it is becoming increasingly important to capture, process and maintain relevant internal and external knowledge and technology development priorities in a streamlined manner to support the production of well targeted and timely technology development work plans.

The focus of this opportunity will be on the development of new processes and practices for technology development planning, working closely with internal experts of all disciplines to help achieve this objective.

Required education:

Master's degree with a telecommunication background, Satcom knowledge is an asset.