Profile sheet C attached to call TD8/2023

PROFILE C APPLICABLE PROJECT	**DATA ENGINEER** **NFFA-DI PROJECT**
POSITIONS UNDER SELECTION	**1**
EXPECTED CONTRACT DURATION	18 months, with possible extension
PLACE OF WORK	Area Science Park - Technological Innovation Research Institute (TIR) at the Area Science Park Data Engineering Laboratory in Padriciano, Trieste
DEGREE CLASSES REQUIRED FOR ADMISSION	LM06 – BIOLOGY LM08 – INDUSTRIAL BIOTECHNOLOGY LM09 – MEDICAL, VETERINARY AND PHARMACEUTICAL BIOTECHNOLOGY LM13 – PHARMACY AND INDUSTRIAL PHARMACY LM17 – PHYSICS LM18 – IT LM20 – AEROSPACE AND ASTRONAUTICAL ENGINEERING LM21 – BIOMEDICAL ENGINEERING LM22 – CHEMICAL ENGINEERING LM25 – AUTOMATION ENGINEERING LM26 – SAFETY ENGINEERING LM27 – TELECOMMUNICATIONS ENGINEERING LM30 – ENERGY AND NUCLEAR ENGINEERING LM32 – IT ENGINEERING LM33 – MECHANICAL ENGINEERING LM40 – MATHEMATICS LM44 – MATHEMATICAL AND PHYSICAL MODELLING FOR ENGINEERING LM53 – MATERIALS SCIENCE AND ENGINEERING LM54 – CHEMICAL SCIENCE LM58 – SCIENCE OF THE UNIVERSE LM60 – NATURAL SCIENCE LM66 – IT SECURITY LM71 – SCIENCE AND TECHNOLOGY OF INDUSTRIAL CHEMISTRY

	LM74 – GEOLOGICAL SCIENCE AND TECHNOLOGY LM79 – GEOPHYSICAL SCIENCE LM82 – GEOPHYSICAL SCIENCE LM91 – TECHNIQUES AND METHODS FOR THE INFORMATION SOCIETY
DESCRIPTION OF THE POSITION AND ACTIVITIES	The technologist should be able to perform activities in several of the following areas with a sufficient level of independence: <u>Data Infrastructure</u> – design and development of innovative systems and services for management of computing resources and storage provided by HPC systems – implementation of algorithms on the HPC platforms available and experimentation on real datasets – experimentation with tools for scaling of software solutions based on containers for secure and isolated execution of parallel-computing applications – tuning and optimisation of the performance of algorithms, with a particular focus on parallel algorithms <u>Data Management</u> – development of appropriate metadata schemes in materials science for managing scientific data according to the FAIR-by-design approach – development of and experimentation with platforms for managing scientific data generated that enable sharing in line with FAIR principles, with a particular focus on protocols and methodologies of data interoperability – use and definition of specific formats for scientific datasets, in the context of data provenance, usage and management of data repositories <u>Data Science</u> – design and testing of pipelines for analysis of data in materials science – identification of new Deep Learning (DL) approaches and algorithms, with potential for technological applications and experimentation on scientific data – calibration of advanced services for analysis of data generated by various types of scientific instrumentation in the context of the NFFA-DI project.