Strategic Positioning of the 'ERATOSTHENES Research Centre' and exploration of new R&D opportunities in the fields of Earth Surveillance and Space-Based of the Environment

Diofantos Hadjimitsis¹, Haris Kontoes², Gunter Schreier³, Albert Ansmann⁴, George Komodromos⁵, <u>Kyriacos Themistocleous</u>¹, Rodanthi Mamouri¹, Silas Michaelides¹, Andreas Anayiotos¹, Argyro Nisantzi¹, Christiana Papoutsa¹, Christodoulos Mettas¹, Giorgos Melillos¹, Milto Miltiadous¹, Demetris Kouhartsiouk¹, Evagoras Evagorou¹, Evangelos Akylas¹, Chrystalla Demetriades¹, Andreas Christofe¹, Marios Tzouvaras¹, Kyriacos Neocleous¹, Ioannis Papoutsis¹, Vassilis Amiridis², Vassilis Tsironis², Themistocles Herekakis², Eleni Christia², Ursula Gessner³, Daniele Cerra³, Egbert Schwartz³, Ulla Wandinger⁴, Patric Seifert⁴, Johannes Bühl⁴, Ronny Engelmann⁴, Konstantina Liperi⁵

¹Eratosthenes Research Center, Cyprus University of Technology, Cyprus; ²National Observatory of Athens, Institute for Astronomy and Astrophysics Space Applications and Remote Sensing, Greece; ³German Aerospace Center (DLR), Germany; ⁴Leibniz Institute for Tropospheric Research, Germany; ⁵Department of Electronic Communications, Ministry of Transport, Communications and Works, Cyprus; k.themistocleous@cut.ac.cy

The aim of this paper is to present our strategy and vision to upgrade the existing ERATOSTHENES Research Centre (ERC), established within Cyprus University of Technology (CUT), into a sustainable, viable and autonomous Centre of Excellence (CoE) for Earth Surveillance and Space-Based Monitoring of the Environment (EXCELSIOR), which will provide the highest quality of related services both on the National, European and International levels. The 'EXCELSIOR' project is a Horizon 2020 Teaming project, addressing the reduction of substantial disparities in the European Union by supporting research and innovation activities and systems in low performing countries. It also aims at establishing long-term and strategic partnerships between the Teaming partners, thus reducing internal research and innovation disparities within European Research and Innovation landscape. The ERCis already an established player in the local community and has excellent active collaboration with actors from various sectors in (a) the government, (b) industry, (c) local organisations, and (d) society. In order to further engage users and citizens and to become more attractive to international research and education community, the Centre aims to be fully involved in strategic positioning on the national level, but also in Europe, the Middle East region and internationally. Some examples of how space technologies are integrated with other tools or techniques such as UAV, field spectroscopy, micro-sensors, EO space/in-situ sensors etc. for the systematic monitoring of the environment is shown. Indeed such examples fulfills the objectives of the COPERNICUS academy network (in which ERC is a member) for empowering the next generation of researchers, scientists, and entrepreneurs with suitable skill sets to use Copernicus data and information services to their full potential. Finally, opportunities for future collaboration and investments with the ERC in the Eastern Mediterranean Region are stated. Five partners have united to upgrade the existing ERC into a CoE, with the common vision to become a world-class innovation, research and education centre, actively contributing to the European Research Area (ERA). More specifically, the Teaming project is a team effort between the Cyprus University of Technology (CUT, acting as the coordinator), the German Aerospace Centre (DLR), the Institute for Astronomy and Astrophysics Space Applications and Remote Sensing of the National Observatory of Athens (NOA), the German Leibniz Institute for Tropospheric Research (TROPOS) and the Cyprus' Department of Electronic Communications of the Ministry of Transport, Communications and Works (DEC-MTCW).