



**Centre for EO
Research &
Satellite Remote
Sensing**

EXCELSIOR | Advanced Partner ROLE H2020 Teaming Project

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Generic Information

Pillar: H2020-2018-2020 - Spreading excellence and widening participation

Call: H2020-WIDESPREAD-2018-2020

Topic: WIDESPREAD-01-2018-2019 Teaming 2

Total **Budget:** >38,000,000 €

- 15 millions from EC,
- 15 from Republic of Cyprus
- 8 millions from CUT

Duration: 7 Years (EC) + 8 years (Republic of Cyprus/RC)

Start: 1 October 2019

Mission:

Upgrade the existing Remote Sensing & Geo-Environment Lab, into a sustainable, viable and autonomous Centre of Excellence: ECoE

Vision:

Become a world-class **Digital Innovation Hub** and a Research **Competence Centre** for Earth Observation and Geospatial Information by offering education, research, innovation and application services capable of **sustaining** Cyprus development

- Develop Research **Excellence** to excel in three application domains:
 - *Environment and Climate*
 - *Resilient Society*
 - *Big Data and Data Analytics*
- Facilitate **Regional Growth** and Develop **infrastructure** unique for the region
 - ✓ **install** and operate a supersite for aerosol & cloud monitoring
 - ✓ **install** and operate a real time EO data receiving station in the EMMENA
 - ✓ become a Gateway for enabling **International cooperation** in EMMENA

EU Funding and Support to:

- Develop skills to transforming big data to enhanced information for **decision making** in support of policies and sectors
- **Co-exploitation business models** through the Creation of the Digital Innovation Hub
- **Knowledge transfer** through trainings, workshops, secondments etc
- Acquire new and highly skilled **researchers**

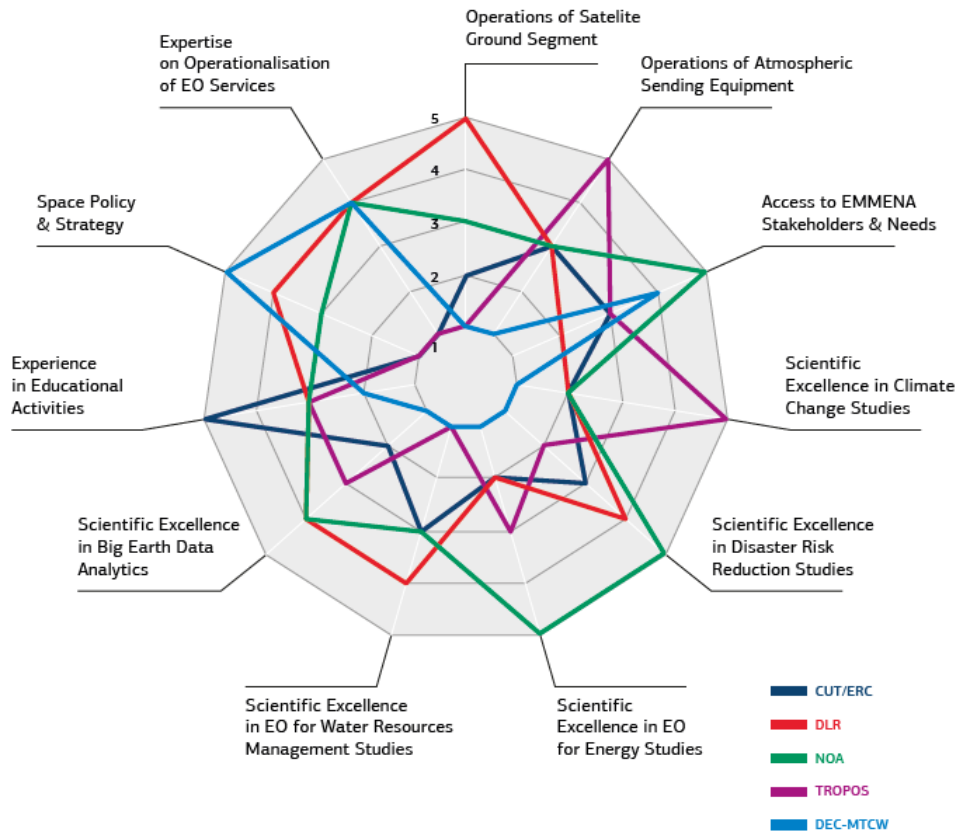
Resulting in:

- **Sustainability** and **autonomous** operation
- Attract new **funding** with immediate benefit for the economy



Strategic Partners

EXCELSIOR Consortium



The strategic partners of the EXCELSIOR project bring together five organizations that:

1. Form a **highly complementary** team possessing the **full range of skills** and expertise necessary to carry out the proposed activities successfully
2. Own state-of-the-art in science
3. Provide high level education and longstanding expertise in knowledge transfer and capacity building
4. Offer access to the wider EU/Global communities of scientist and stakeholders who are potential collaborators with the Center in the course of its development and for the next 5-7 years that are very critical for projects sustainability and autonomous operation

DLR supports the planning and establish a satellite receiving station including attached processing and archiving functions with the possibility of a direct data flow into EO-based services and networks

NOA establishes sustainable links between the ECoE and BEYOND, which is established in the European Research Area as a regional Copernicus node for EO

TROPOS establishes a ground based Remote Sensing station providing close links between European networks and satellite validation/calibration activities

DEC-MTCW provides the links to the local and governmental community and promote space issues on the national level

Strategic Partners role in Widening

- Strategic Partners are **funded** and legally bound to support the project
- Provide **advisory** capacity in different roles and positions
- Provide **plans and strategic roadmaps** for sector development
- Provide **trainings** towards transferring expertise in specific sectors
- **Support** further co-operation with the new autonomous entity leveraging:
 - the co-development and co-exploitation of the IPR,
 - licensing of innovation, and
 - market uptake of new EO-based products, services and solutions
 - win-win synergetic actions and proposal/project co-operation

generated with/by Strategic Partners

NOA'S COPERNICUS HUB

- The Copernicus Data Hubs compose the layer of services that is responsible for disseminating the Copernicus Sentinel data taken directly from the Copernicus Ground Segment to the European mirror sites, the International organizations that have agreements with ESA, the Copernicus DIAS services and to any other services and organizations that has an agreement with ESA.
- [NOA](#) hosts and operates the [Hellenic National Sentinel DataHub](#) in the framework of the Core Collaborative Ground Segment Data initiative for Sentinel data archiving and redistribution in **the SE Europe and Balkans**.
- The objective of the [Data Hubs](#) is to offer highly available and distributed services for disseminating Petabytes of satellite data to other European and international services. All Data Hubs provide a uniform way of locating and downloading products through a web interface, an OData API as well as an OpenSearch API.





Business Plan

Second phase requires a very detailed proposal that includes an investment plan and a **business plan** of the potential center of excellence

Includes:

- PUBLIC SECTOR**

16 Governmental Departments

2 Organisations

INDUSTRY

7 Companies

EXCELSIOR
Eratosthenes
Centre of Excellence

INTERNATIONAL

5 Networks

5 Organisations

LOCAL

6 Societies










6 Municipalities

S Strengths	W Weaknesses
<ul style="list-style-type: none"> • The unique position, geographically and geopolitically, of Cyprus provides significant advantages in terms of research coordination and synergy in the Eastern Mediterranean, Middle East, and Northern Africa (EMMENA) region. • The ECoE incorporates advanced partners with a long and internationally-recognised track RTD record in the fields of space-based EO and RS. • The ECoE will be an upgrade of the ERC and will capitalise on the ERC's strong links and collaboration network at the national, European and International level. • Government of the Republic of Cyprus has committed to provide additional funding of 15 million Euros to the ECoE, while the Cyprus University of Technology will provide an additional 5 million Euros. 	<ul style="list-style-type: none"> • Strong competition in EO/RS sectors in Europe by existing research and technology centres. • Low orientation and capacity of Cyprus' private sector in undertaking research and innovation management of space-based EO and RS applications. • Public and private sectors have limited knowledge/awareness of EO and RS, and the added value brought by these technologies. Thus, some time will be required to utilise these technologies within the Cyprus economy. • Small size of the Cyprus economy and limited National funding opportunities for research and innovation activities.
O Opportunities	T Threats
<ul style="list-style-type: none"> • Unique position in the EMMENA region providing basic and applied research in the field of space-based Earth Observation (EO) and Remote Sensing (RS). • A perspective satellite data receiving station, an atmospheric calibration supersite and a near real time data hub would be the most eastern infrastructure of this kind under EU regime, opening a variety of RTDI opportunities. • International treaties, European policies and directives as well as Cyprus' ESA membership endorse the ECoE's thematic research areas, which are also in line with Cyprus Smart Specialization Strategy. • Creation of employment opportunities for talented Early-Stage Researchers and high-level Experienced Researchers. 	<ul style="list-style-type: none"> • Volatile economic conditions (and risk of future economic crises) are likely to discourage research investments by the private sector in Cyprus and the EMMENA region. • Low orientation and capacity of Cyprus' private sector in undertaking research and innovation management of space-based EO and RS applications. • Attracting and recruiting high calibre researchers who are willing to relocate to Cyprus. • Delays in establishing the ECoE as independent entity due to governmental bureaucracy.

Business Plan - Business Model

Includes:

- Overall Business Model
 - ✓ Value proposition
 - ✓ Customer segments and relationships
 - ✓ Key activities
- Thematic Area Business Model:
 - ✓ Environment
 - ❖ Atmosphere
 - ❖ Agriculture
 - ❖ Water etc.
 - ✓ Resilient Society
 - ✓ Big Earth Data
- Revenue Streams, e.g. EC, ESA
- Sustainability

 Key Partners <ul style="list-style-type: none"> • DLR • NOA • TROPOS • DEC-MTCW • Partnering Organizations (20) 	 Key Activities <ul style="list-style-type: none"> • International knowledge transfer and capacity building • Educational activities • Publish scientific papers • Infrastructure maintenance • Data management, distribution & operations • Exploitation & market uptake • Networking/ knowledge hubs • Asset Sharing • Living Labs 	 Value Propositions <ul style="list-style-type: none"> • Establish a cal/val atmospheric supersite • Research excellence in the areas of Water Resources Management, Atmosphere, Disaster Risk Reduction, Energy & Data Analytics • Gather SoA European EO infrastructure in Cyprus • Gateway for European stakeholders to the EMMENA region • Life-long learning in EO • Means to transform ECoE research to innovation (multi-actor approach) • Linkage with external industry 	 Customer relationships <ul style="list-style-type: none"> • Specialized EO applications • Education-M.Sc., PhD • End-user • Scientific Community 	 Customer Segments <ul style="list-style-type: none"> • EU and International Research Agencies • Government Departments • Semi-government Agencies • Utility Companies • SMEs • Spin-offs • Professional organizations • Academia • Individual End-users
	 Key Resources <ul style="list-style-type: none"> • Personnel (130) • Infrastructure (10 Million euros) • Buildings and offices (2 Additional Buildings) 		 Channels <ul style="list-style-type: none"> • Website, • Social Media • Events • Brochures • Training • Workshops • Seminars • Conferences • Research publications 	
Cost Structure <ul style="list-style-type: none"> • Salaries for ECoE employees and capacity building • Salaries for business/services development and marketing • Dissemination channel and advertisement cost • ECoE Operations & Infrastructure upgrade and maintenance costs • Investment to expanding & maintaining the observational networks and in-situ stations/sensors/antennas/lidars/laboratory equipment • Lawyers/Financial auditors 			Revenue Streams  <ul style="list-style-type: none"> • Research Funding EU & Local • Services & products for industrial exploitation • Targeted funding from global/regional initiatives • ESA, EC & local funding for innovation activities • Asset leasing and co-exploitation • Spin-offs • Education 	

Business Plan - Others

Includes:

- Organisational structure
- Implementation
 - ✓ Key activities
 - ✓ Risks
 - ✓ Contingency Plan
- Expected impact
 - ✓ Economic
 - ✓ Societal
 - ✓ Innovation
- Financial analysis
 - ✓ Initial Funding
 - ✓ Income from Competitive Research Funding
 - ✓ Income from Services
 - ✓ Income from Educational Activities
 - ✓ Transfer of Equipment
 - ✓ Dissemination, Equipment and Other Expenses
 - ✓ Taxes and Others
 - ✓ Profit and Loss Statements

Business Plan – Tips / Focus

- Strong **vision**
- Market analysis and opportunities - **proof** to back up every claim you make
- What **differentiate** you/makes you competitive?
- Be **objective** in your research: showcase the good and the bad - show you've thought through every possible contingency
- Be **super-explanatory**



Thank you!

IMAGINATION
TAKES US
BEYOND
OUR LIMITS

A small, stylized icon of a satellite with two solar panel arrays, positioned to the right of the word "IMAGINATION".