

# PLANETEK HELLAS

## ΚΑΙΝΟΤΟΜΕΣ ΤΕΧΝΟΛΟΓΙΕΣ ΔΟΡΥΦΟΡΙΚΗΣ ΠΑΡΑΤΗΡΗΣΗΣ ΓΗΣ ΓΙΑ ΤΗΝ ΠΑΡΑΚΟΛΟΥΘΗΣΗ-ΕΠΙΤΗΡΗΣΗ ΘΑΛΑΣΣΙΟΥ ΧΩΡΟΥ

Η ΚΑΙΝΟΤΟΜΙΑ ΣΥΝΑΝΤΑ ΤΗΝ ΑΜΥΝΤΙΚΗ ΒΙΟΜΗΧΑΝΙΑ

ΛΑΕΔ, 9 ΜΑΡΤΙΟΥ 2018

ΣΤΕΛΙΟΣ ΜΠΟΛΛΑΝΟΣ



■ E.O. applications for environment & security



■ On Board Payload Data Processing



■ Space Astronomy Data Exploitation



■ Spatial Data Infrastructures & Interoperability



■ Satellite Ground Segment & Data Fusion Centre



# Planetek Group



## Rome

✓ GEO-K

## Bari

✓ Planetek Italia - 1994

✓ GAP



## Athens - 2006

✓ Planetek Hellas

# Planetek Hellas

## Key numbers

Planetek Group

SME

Foundation **2006**

People **19**

Turnover 851K €



# Planetek Hellas ... στο ελληνικό οικοσύστημα του Διαστήματος



Formal ESA Supplier since  
2006



Board member  
Hellenic Space cluster -  
<http://www.si-cluster.gr>



Board Member of the Association of the  
Hellenic Space Industries  
[www.hellenic-asi.org](http://www.hellenic-asi.org)



Board Member of the Association of the  
European Space SMEs  
<http://www.sme4space.org>



# Planetek Hellas

Εταιρική φιλοσοφία



# Συνεργατικά ευρωπαϊκά έργα

## FP7 Security/Emergency



Pre-operational COPERNICUS Security services in support of the EU External Action Agency



Services and Application for Emergency Response



Prevention and management of external regional crisis

# Δραστηριότητες για την Ασφάλεια και την Άμυνα



IMINT και  
GEOINT



Αξιοποίηση  
Οπτικών και  
SAR  
δεδομένων

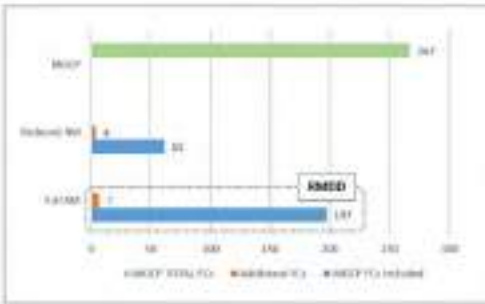


Χαρτογράφηση  
MGCP &  
SatCen



Υποστήριξη  
και Κατάρτιση

# Επιχειρησιακά Έργα EU SatCen to support FRONTEX border surveillance activities with Very High Resolution EO



Production of High Resolution Vector Data (HRVD), following the Reference Mapping Data Dictionary (RMDD) defined by SatCen and FRONTEX.

Two types of Reference Mapping Products are needed to be procured: i) Full Reference Mapping Product and, ii) Reduced Reference Mapping Product.



### MIGRATORY ROUTES MAP

- Western Africa coast
- Eastern Mediterranean
- Central Mediterranean
- Southern European coast
- Eastern Mediterranean coast
- Eastern African coast
- Eastern European coast
- Antarctica
- Subantarctic islands

# Επιχειρησιακά Έργα

## EU SatCen to support EU External Action Service Geospatial production



# Έργα για τον Ευρωπαϊκό Οργανισμό Διαστήματος European Space Agency – ESA (σύνολο 10 > 2Μ€)



European Space Agency

**NTSS**  
Naval Traffic Statistics for Security

**MarCoast 2**  
Marine & Coastal Environmental Monitoring Services

**SIMS**  
Seagrass Integrated Monitoring System

**C-Wams**  
Coastal Water Attribia Monitoring using Satellite data

**TSM from 2 Phleas**  
Images (TSM2012) applying the calibrated algorithm.

Products: WQ, HAB, Med Res, Meris, WQSE

Products TSM, Turbidity Maps, High Res, Rapid Eye Br, Very High Res, Phleas 2m

## ESA – Satellite detection of Illegal Crops for the Dutch and Greek Police

**WEOS Waste Earth Observation System**

**Planck Legacy Archive Value Adding Interfaces (PLAAVI)**  
600 K€ for 18 months  
PKH Lead, Sub-Con: Institute of Astrophysics – Uni.Oslo, Norway

**Science Archives Publications System (SAPS)**  
600 K€ for 30 months





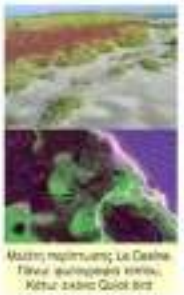
# Ερευνητικά Διακρατικά Συνεργατικά έργα

## BIO\_SOS

### Biodiversity Multi-Source Monitoring System: From Space TO Species

(Call: FP7-SPACE-2010-1)

BIO\_SOS will provide high definition land cover maps for change detection and biodiversity monitoring within NATURA 2000 sites and along their borders.



Μαύριη κοιλιά, La Caille  
Πάρος, Αιθιοπία, Κίβρι, Κίβρι, Κίβρι, Κίβρι

**eENUDas**  
**SEO\_DWARF - Semantic EO Data Web Alert and Retrieval Framework**  
 3 Cross-border Pilots

On-board Processing for Compression and Cloud Classification of hyperspectral data (OP3C)

**Project Objectives**

- Feasibility study to develop an integrated compressor (SW and HW) for hyperspectral satellites
- Business plan for product to be
- Prepare for SME instrument PI

**Duration**  
01/01/2015 – 01/08/20

**Funding Agency**

- ✓ 4 years duration
- ✓ Budget 1,8 M Euros
- ✓ Budget for Planetek: € 360
- ✓ 30+ people will be exchange

## ITACA

Innovation Technology Applications for Coastal Archaeology

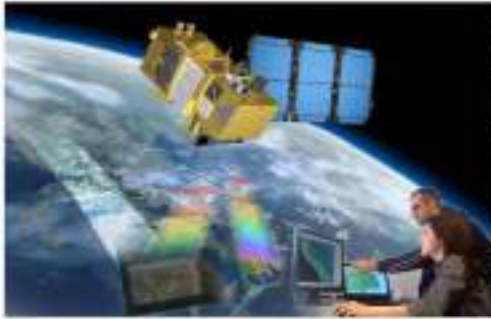
Satellite Identification and Monitoring of Ancient Submersed Settlements and Ship Wrecks

FP7 SPACE call - 2012

Coordinator - Planetek Hellas

11 partners

- ALMA Sistemi Snc (IT), ANESTI Ltd (UK), CODEVINTEC Srl (IT), DHI GRAS (DK), FFCUL (PT), IEN.A.E. (GR), Kall Srl (IT), NANS Srl (IT), Regione Sicilia (IT), SME4SPACE VZW (BE)





Monitoring the evolution on our Earth

## Geo-Info as a service

Γεωχωρική πληροφορία ως υπηρεσία - Η κινητήριος μηχανή της Planetek προς την παγκόσμια αγορά

- Cloud based
- Satellite data
- (Geo) Open Data
- Continuous update
- Indicators, maps, reports

### Services

#### Displacement



Detecting and reporting earth's surface movements, aimed at monitoring landslides, subsidence, and the stability of infrastructures, as buildings, roads and railways.

#### Marine



Monitoring coastal ecosystems quality supporting local governments, environmental reporting, requirements, aquaculture and desalination plants.

#### Wildfires



A geospatial information designed to support burnt areas detection and monitoring, through forest area per fires mapping and detection of illegal activities changes over time.

#### Urban Dynamics



Monitoring and reporting urban changes in size and infrastructure development, through location indices in territorial planning and infrastructure building.



0-6	Receiving Office (specified by the applicant)	European Patent Office (EPO) (RO/EP)
0-7	Applicant's or agent's file reference	AVRP345499PCT
I	Title of Invention	Methods Of Compressing And Decompressing Spectral Data
II	Applicant	
II-1	This person is	Applicant only
II-2	Applicant for	All designated States
II-4	Name	Planetek Hellas E.P.E
II-5	Address	44 Kifisias Avenue Monumental Plaza Building C 2nd Floor 15125 Marousi Greece
II-6	State of nationality	GR
II-7	State of residence	GR
II-8	Telephone No.	+30 21521 57390
II-9	Facsimile No.	+30 21521 57398
III-1	Applicant and/or inventor	
III-1-1	This person is	Inventor only
III-1-3	Inventor for	All designated States
III-1-4	Name (LAST, First)	SYKAS, Dimitris
III-1-5	Address	Aiolou 25 Kantza-Pallini 15351 Attiki

PATENT COOPERATION TREATY

RECEIVED

31 MAY 2016

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

From the INTERNATIONAL SEARCHING AUTHORITY

To:  
WITHERS & ROGERS LLP  
4 More London Riverside  
London  
SE1 2NU  
ROYALME LINE

02/06/16  
RVE. 31/07/16  
demand dse  
07/07/16

(PCT Rule 44.1)

Date of mailing (day/month/year)	31 May 2016 (31-05-2016)
<b>FOR FURTHER ACTION</b>	See paragraphs 1 and 4 below
International filing date (day/month/year)	2 September 2015 (29-09-2015)

Applicant's or agent's file reference AVRP345499PCT
International application No. PCT/EP2015/070628
Applicant PLANETEK HELLAS E.P.E

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/EP2015.070628



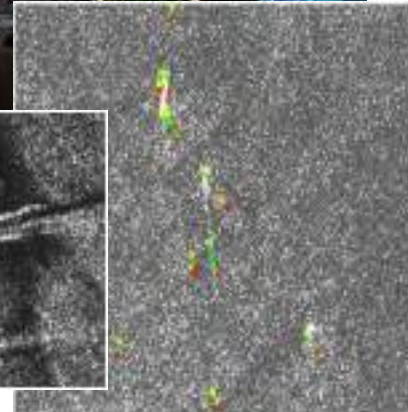
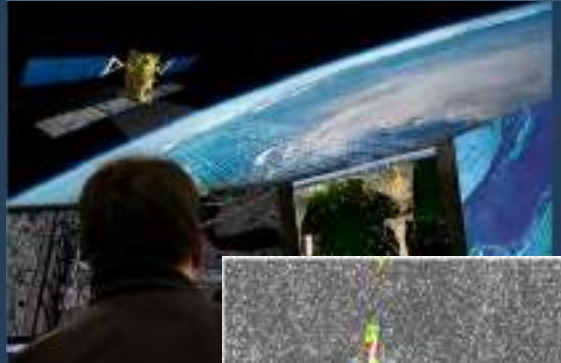
Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

# Προτεινόμενη Καινοτομία στη ΘΕ: Παρακολούθηση-επιτήρηση θαλάσσιου χώρου

## Maritime surveillance Service



Multi-sensor Maritime System  
combining multispectral  
satellite image, SAR data and  
AIS vessel tracking



### Data Sources (fusion)

- Optical Satellite Data
- Terrestrial and Satellite AIS
- Vessel Monitoring System (VMS)
- Maritime Databases
- Meteorological Ocean Data
- Customer Provided Data
- Other Auxiliary Data

TRL=> 5

### Partners

- Italy
- Spain
- Ireland

# Συνεργασίες με εμπορικούς δορυφόρους (SAR + Optical)



MDA - RadarSat



WorldView-3, WorldView-2,  
WorldView-1, GeoEye-1,  
QuickBird, IKONOS



DEIMOS – Deimos 1-2



21st AT - Triplesat



Spot, TerraSAR-X,  
Pléiades



Cosmo-SkyMed



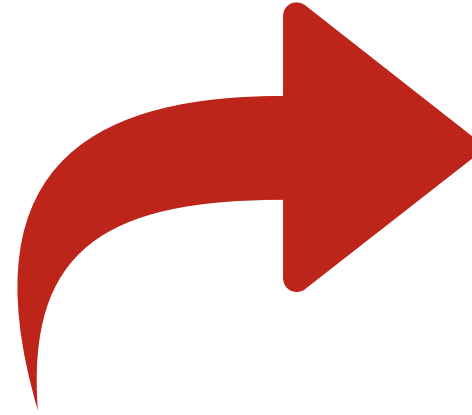
RapidEye

# Ευχαριστώ...

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