

ERATOSTHENES Centre of  
Excellence (ECoE)



# 1st virtual EXCELSIOR International Technical Workshop

15 July 2020

## NASA Contribution to the EM Region, EXCELSIOR Project, & the MedRIN Network

@excelsior2020eu



Vincent Ambrosia

NASA Applied Science Program & CA. State University-Monterey Bay (CSUMB)



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This project has received funding from the Government of the Republic of Cyprus through the Directorate General of the European's Programmes, Coordination and Development

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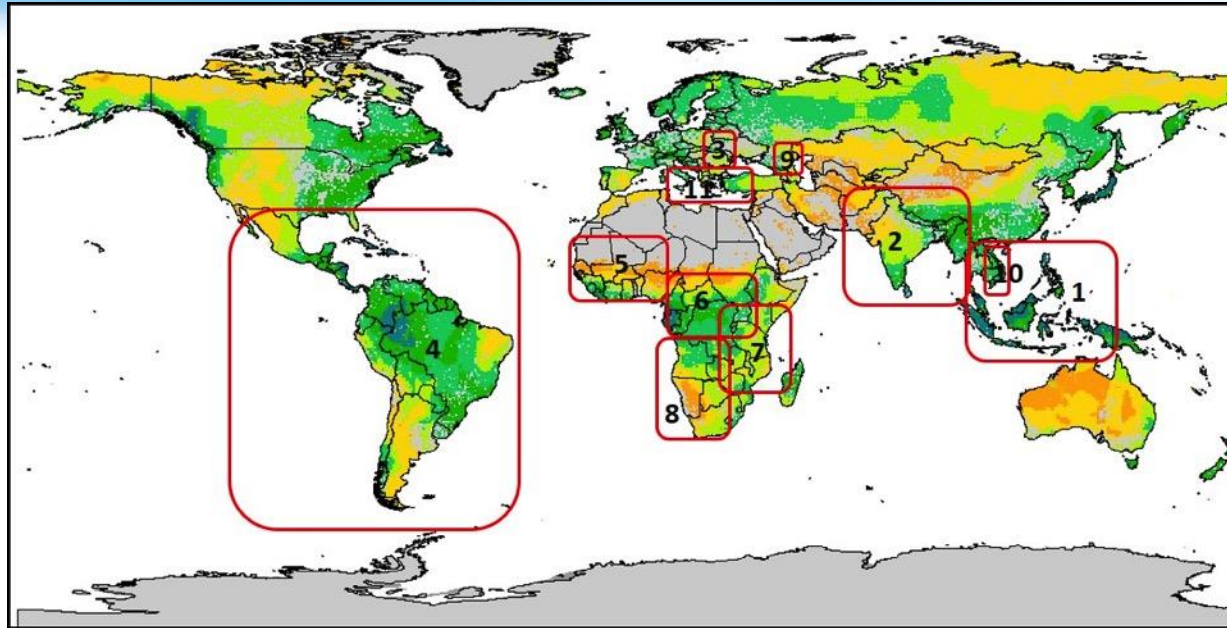


# Mediterranean Regional Information Network (MedRIN)

- MedRIN is within the framework of the NASA **Global Observations of Forest Cover and Land Dynamics (GOFC-GOLD) Program**;
- Serves as a liaison between Land Cover Land Use Change (LCLUC) remote sensing scientists and stakeholders in the Mediterranean region.
- The MedRIN will keep members abreast with the latest advancements in Earth Observation applications based on NASA and ESA satellite data and data products.
- MedRIN should support tackling regional and local challenges, as described by the United Nations' Sustainable Development Goals (SDGs).



# GOFC-GOLD Regional Networks



1. Southeast Asia Regional Research and Information Network (SEARRIN)
2. South Asia Regional Information Network (SARIN)
3. South-Central European Regional International Network (SCERIN)
4. Red Latinoamerica de Teledeteccion e Incendios Forestales (RedLaTIF)
5. West African Regional Network (WARN)
6. Observatoire Satellital des Forets d'Afrique Central (OSFAC)

7. Miombo Network (MIOMBO)
8. Southern Africa Fire Network (SAFNET)
9. Caucasus Regional Information Network (CaucRIN)
10. Mekong Regional Information Network (MekRIN)
- 11. Mediterranean Regional Information Network (MedRIN)**

# MedRIN Goals & Geographic Domain

## Goals:

- Provide a platform for collaboration among remote sensing experts in Mediterranean region, through collaborative activities;
- Facilitate progress and consistent implementation of remote sensing and LCLUC methodology, in the region;
- Foster regional collaboration for monitoring the dynamics, stability, and vulnerability of the major ecosystems;
- Promote effective sustainable management and preservation, on the local, regional and pan-European level.

## Geographic Domain:

Mediterranean countries of Europe, the Levant, and North Africa.



## ***Actions / Decisions from 1<sup>st</sup> MedRIN: Crete, Greece, July 2018***

- initial priority research areas for the MedRIN:
  - Fires
  - Agriculture
  - Urban
  - Soil degradation (Desertification)
  - Water Resources Management (Irrigation/Hydrology)
  - Training



*Socio-economic expertise is essential, particularly to study Land Use changes (causes, impacts). Further, socio-economic component is a basic criterion for proposed projects.*

# MedRIN Leadership

## **Network Coordinators E.U.:**



Dr. Diofantos Hadjimitsis  
Vice Rector of Academic Affairs Professor Department of Civil  
Engineering & Geomatics,  
Cyprus University of Technology  
Lemesos, Cyprus



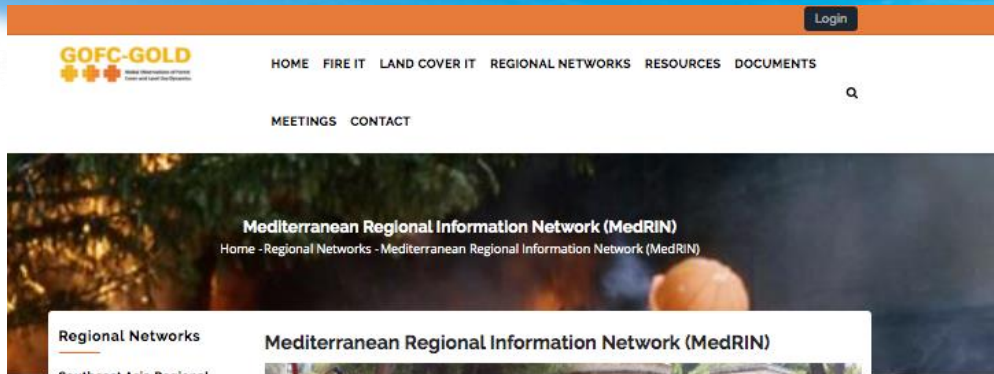
Dr. Ioannis Gitas ([igitas@for.auth.gr](mailto:igitas@for.auth.gr))  
Faculty of Forestry and Natural Environment  
Aristotle University of Thessaloniki  
Thessaloniki, Greece



## **Network Coordinator U.S.:**

Vince Ambrosia ([vincent.g.ambrosia@nasa.gov](mailto:vincent.g.ambrosia@nasa.gov))  
NASA- Ames Research Center / CSUMB  
Moffett Field, CA. USA

# MedRIN Digital Presence



## Regional Networks

South East Asia Regional Research and Information Network (SEARRIN)

South Asia Regional Information Network (SARIN)

South Central European Regional Information Network (SCERIN)

Red Latinoamericana de Teledetección e Incendios Forestales (RedLaTif)

West African Regional Network (WARN)

Observatoire Satellital des Forêts d'Afrique Central (OSFAC)

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Mediterranean Regional Network (MedRIN)

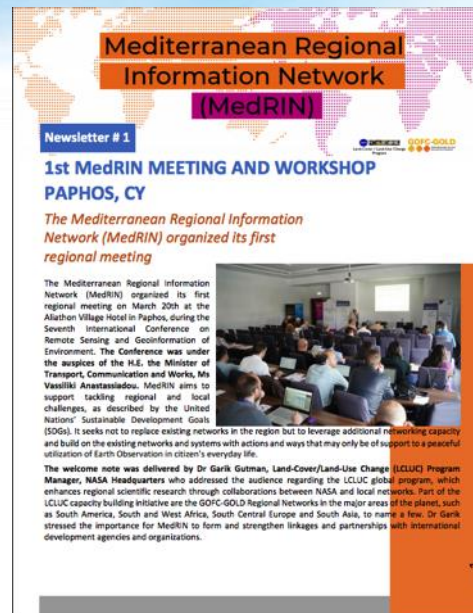
Central Asia Regional Information Network

## Mediterranean Regional Information Network (MedRIN)



### Welcoming MedRIN to the GOFC-GOLD family of networks

On behalf of the NASA Land-Cover/Land-Use Change Program – the primary sponsor of the international GOFC-GOLD Program – I'd like to welcome the new Mediterranean Regional Information Network MedRIN to the GOFC-GOLD family of networks. Developed in 1997 under the Committee on Earth Observation Satellites (CEOS), the Global Observations of Forest Cover initiative was originally intended to test the concept of the Integrated Global Observing System (IGOS) to improve the use of Earth Observation data to address major problems of global concern and to improve coordination of national programs. Additionally, it was directed at improving cooperation between providers and users of Earth Observation data for regional and global applications. Later on, GOFC became one of the Panels of the Global Terrestrial Observing System (GTOS), and was further named GOFC-GOLD to include other landcover dynamics in addition to forest cover change. Traditionally, its sponsors have been such international entities as Food and Agriculture Organization (FAO), World Meteorological Organization (WMO), United Nations Environmental Program (UNEP), European Commission Joint Research Center (JRC), European Space Agency (ESA), NASA and other agencies and institutions. The backbone of GOFC-GOLD are its Regional Information Networks (RINs) and Implementation Teams (IT) for Fire, with its office at the University of Maryland (College Park, MD, USA) and for Landcover, with its office at Wageningen University (The Netherlands). There are about a dozen RINs operating over the worlds. The aim of GOFC-GOLD leadership to ensure the functionality of these networks, revitalizing the older and enhancing the newer ones.



# ***Joint MedRIN and SCERIN Workshop***

- Original Capacity Building Workshop between MedRIN and SCERIN planned for 15-18 June 2020 in Thessaloniki, Greece delayed till June 2021 (COVID-19);
- Transatlantic Training (TAT), organized by NASA & ESA to educate on uses of EO for students and young professionals, was to precede such on 12-15 June 2020; TAT rescheduled also;
- Goals of the joint workshop are:
  - 1) Inform on-going major scientific efforts and projects with possible contribution and follow-up activities of the participants;
  - 2) Facilitate progress of the on-going activities of the networks focus groups;
  - 3) Foster new ideas for joint activities and papers by the participants.
- The SCERIN / MedRIN Workshop team applied for funding support from START (<https://start.org>), and will reapply for 2021 support;
- Joint Workshop Organizers:
  - SCERIN co-organizers: Petya Campbell, Jana Albrechtova, and Lucie Kupkova
  - MedRIN co-organizers: Ioannis Gitas, Diofantos Hadjimitsis, George Zalidis, and Vince Ambrosia
  - TAT Training Organized by: Premysl Stych in collaboration with Chariton Kalaifzidis
- **STAY TUNED FOR INFO ON THE 2021 JOINT WORKSHOP!!!**



# NASA Contribution to the Eastern Med. Region

## NASA ROSES-2019, sub-element A.2 -- Land Cover / Land Use Change for Early Career Scientists

### Focus Areas:

- LCLUC solicitation focused on submissions from "early career" investigator within 7 years of receiving PhD. (since 2014);
- The solicitation regions of interest are the **Mediterranean Region**, Latin America, Central Asia and western Asia (west of India).
- The Mediterranean region includes the coastal countries and islands around the Med. Sea. The **eastern and southern sectors of the Med area** are of greater interest and encouraged.
- Proposed efforts are to feed into / participate in GOFC-GOLD MedRIN network.
- Proposals required to include **EO** and **Social / Economic Sciences** to measure impacts of land-use change on society, or how SE aspects of land-use systems adapt to climate change;
- Projects have undergone review and should be announced Fall 2020 with efforts starting in early 2021.

# ***NASA Support to EXCELSIOR***

- NASA supports the EXCELSIOR goals to promote the wide use and distribution of EO data by the global community to enhance understanding of our dynamic planet.
- NASA EO data is and will be shared freely with the community of users, and provide access to training materials from the NASA Applied Science Program, Applied Remote Sensing Training (ARSET) element (<https://arset.gsfc.nasa.gov>);
- The Director of the NASA Applied Science Program (Lawrence Friedl), supported the development of the EXCELSIOR H2020 Teaming Phase 2 Project proposal with an agency letter of support.
- NASA has provided sponsorship and learning materials to the International Conference on Remote Sensing and Geoinformation of Environment, held yearly in Cyprus;
- NASA can continue to provide EXCELSIOR guidance on access of NASA EO data planned for collection from the Cyprus downlink antenna station (led by DLR). These NASA data sets will augment the EU EO data, expanding the real-time access to an unprecedented EO areal coverage of the Med region, southeastern Europe, No. Africa, and the Middle East.
- NASA Applied Science Program, Associate Program Manager, Vince Ambrosia is a member of the EXCELSIOR External Advisory Board (EAB);

# ***MedRIN Web Access***

<https://gofcgoldvh1.umd.edu/regional-networks/mediterranean-regional-network-medrin>

<https://start.org/programs/gofc-gold/>

# THANK YOU FOR YOUR ATTENTION

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