

Mediterranean Regional Information Network (MedRIN)

Newsletter # 1



1st MedRIN MEETING AND WORKSHOP PAPHOS, CY

The Mediterranean Regional Information Network (MedRIN) organized its first regional meeting

The Mediterranean Regional Information Network (MedRIN) organized its first regional meeting on March 20th at the Aliathon Village Hotel in Paphos, during the Seventh International Conference on Remote Sensing and Geoinformation of Environment. **The Conference was under the auspices of the H.E. the Minister of Transport, Communication and Works, Ms Vassiliki Anastassiadou.** MedRIN aims to support tackling regional and local challenges, as described by the United Nations' Sustainable Development Goals (SDGs). It seeks not to replace existing networks in the region but to leverage additional networking capacity and build on the existing networks and systems with actions and ways that may only be of support to a peaceful utilization of Earth Observation in citizen's everyday life.



The welcome note was delivered by Dr Garik Gutman, Land-Cover/Land-Use Change (LCLUC) Program Manager, NASA Headquarters who addressed the audience regarding the LCLUC global program, which enhances regional scientific research through collaborations between NASA and local networks. Part of the LCLUC capacity building initiative are the GOFC-GOLD Regional Networks in the major areas of the planet, such as South America, South and West Africa, South Central Europe and South Asia, to name a few. Dr Garik stressed the importance for MedRIN to form and strengthen linkages and partnerships with international development agencies and organizations.

Vincent Ambrosia, Associate Program Manager NASA Applied Science Program also greeted the meeting and presented on the Support of NASA to the MedRIN network. **The Leader of the MedRIN Prof. Diofantos Hadjimitsis from CUT and co-Leader Prof. Ioannis Gitas from AUTH**, outlined the objectives of this newly formed network as following:

- *Better coordination and linkage of monitoring systems and databases across Mediterranean;*
- *Strengthening and upgrading regional/national EO networks;*
- *Alignment of multi-modal and multi-source data compliant to international norms;*
- *Utilization of Copernicus and relevant freely distributed services in the region by end users;*
- *Contribution to free publicly-available data through interoperable databases and services.*

The priorities of the MedRIN include:

- *Urban and built-up areas*
- *Rural areas / Agriculture, Forestry and wildlands*
- *Hazards (fires including agricultural fires, earthquakes, floods, etc.)*
- *Soil and water resource management (Irrigation/Hydrology, Soil degradation, Desertification)*

Training as a major component of the above priorities

During the meeting, presentations were delivered by various countries including, Israel, Italy, Greece, Cyprus, Romania, Serbia, Bulgaria and Norway which highlighted the importance of collaboration in the fields of Remote Sensing and Earth Observation in the Mediterranean Region. Also, a representative from the SCERIN network (South Central Europe) presented best practices and achievements.

Final Remarks:

A total number of 62 attendants participated in the 1st MedRIN meeting, while there was an enthusiastic expression of interest by observer countries to participate as well. The meetings final remarks highlighted the importance of a development of a plan for funding resources as well as for the communications plan to be put in place, in order to keep the communication between members of the network vivid, as well as disseminate the results in the most effective way. Also, the members will collaborate to submit a proposal to COST in order to support the activities of the network while it will also promote the publication of a special issue MDPI Remote Sensing on “MedRIN activities”. **Professor George Zalides from IBEC Thessaloniki** announced the decision to hold the next meeting in Thessaloniki, Greece in May-June 2020. The MedRIN has already attracted the interest of the Industry and the Government for collaboration in furthering its goals and objectives.

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



THE MedRIN KICK-OFF AT CHANIA, JULY 2018

The MedRIN aims to capitalize on existing relationships and capacities, support the communication and collaboration of the parties of the current network, have a specific governing mandate and be sustainable.

The MedRIN Kick-off Meeting took place in the premises of the Mediterranean Agronomic Institute of Chania, in Chania / Greece during 13-14 July 2018. During the kick-off meeting, representatives from the members/partners had the opportunity to discuss, organise and set the strategy for the effective progress of the MedRIN, highlighting the need to expand on current collaborations and existing links between the interested parties. The MedRIN aims to capitalize on existing relationships and capacities, support the communication and collaboration of the parties of the current network, have a specific governing mandate and be sustainable.

What is the community targeted by this network?

The stakeholders and recipients of the networks collaborative products will be the same as those of GOFC-GOLD. But since the region has specific requirements and needs the users/stakeholders will act as a link between those of the GOFC-GOLD and the local ones.

Individual perspectives regarding the founding of MedRIN:

One of the main goals of the members/partners is the development of a network which will collaborate on issues that are of high priority for the region. The stakeholders are already known and focus groups can serve specific objectives of the network. The additional benefit outcomes from the foundation of the MedRIN will be the synergies coming out of the collaborative efforts. The current participants should only be the founding members and aim to attract others to join this effort.



Presentations during the Kick-off meeting

‘Science without borders’: The MedRIN should be considered as a broad umbrella

- Encouraging the collaboration between several existing regional networks and promoting their expansion and
- Facilitating the communication procedure in order to be easily accessible to any entity and individual in the region, in terms of products and services produced

Actions & Decisions:

One of the first tasks should be the creation of an inventory of capacities and achievements from the members of the network, in order to seek synergistic collaborations. Take this opportunity to increase communication between members/partners focusing on the needs of the region and direct efforts towards this direction.

‘Science without borders’: The MedRIN should be considered as a broad umbrella



Group photo of Kick off at Chania

Socio-economic expertise is essential, particularly to study Land Use changes (causes, impacts). Further, socio-economic component is a basic criterion for proposed projects while some initial priority research areas for the region have been highlighted:

- Fires
- Agriculture
- Urban
- Soil degradation (Desertification)
- Water Resources Management (Irrigation/Hydrology)
- Training

During the kick-off meeting the members/partners decided to rotate the leadership. Diofantos Hadjimitsis representing CUT will assume leadership for the first term. Ioannis Gitas will be the co-leader for the first term. The next meeting will be held on March 2019 in Cyprus.

The NASA LCLUC SUPPORT OF THE GOFC-GOLD NETWORKS: MedRIN



Garik Gutman, Land-Cover/Land-Use Change Program Manager, NASA Headquarters DC



e welcome note delivered by Dr Garik Gutman, Land-Cover/Land-Use Change (LCLUC) Program Manager, NASA Headquarters included specific information on how the LCLUC global program, will incorporate MedRIN into the family networks of the capacity building initiative which is the GOFC-GOLD.

According to Dr Gutman, LCLUC is a global program supported through regional partnerships to enhance regional scientists' access to NASA assets and NASA scientists access to national data and facilitate field data collection. The LCLUC is aspired to work as a promoter of

regional capacity building through NASA data-use training and international data sharing while being a catalyst for regional science initiatives through networks and specialized workshops focused on societal priorities.

A revised strategy of the GOFC-GOLD initiative highlighted the importance of **Capacity Building** as the Regional Networks “form an important venue through which capacity-building can be achieved. Inter- and intra-regional capacity building activities should be continued and strengthened.” (Editors: J. Townshend and M. Brady, 2006). Indeed, “to ensure that capacity building is maintained, the regional networks should form or strengthen their linkages and partnerships to international development agencies and organizations.” GOFC-GOLD manages to do that through Implementation Teams (IT), Working Groups (WG) and Regional Networks .

The new GOFC-GOLD Network in the Mediterranean Dr Gutman highlights it will;

- enhance regional science
- contribute to the global change science
- incorporate socio-economic components,
- hold regular meetings and promote the continuous interactions between members (SCERIN model)
- develop a website with an inventory of projects, publications etc.
- incorporate the Educational Component (TAT NASA-ESA model).

As far as the steps forward for the MedRIN, Dr Gutman suggested that a roadmap with timeline and milestones should be developed and planning for meetings into the next two years. He also encouraged the continuous interactions during the year and that annual programmatic MedRIN meetings should be carried out with topical meetings for sub-groups (focus groups) on a six months basis. A joint proposal, a paper for the EC and other funding sources should also be on the table while he identified Vincent Ambrosia as the POC and lead of the MedRIN.

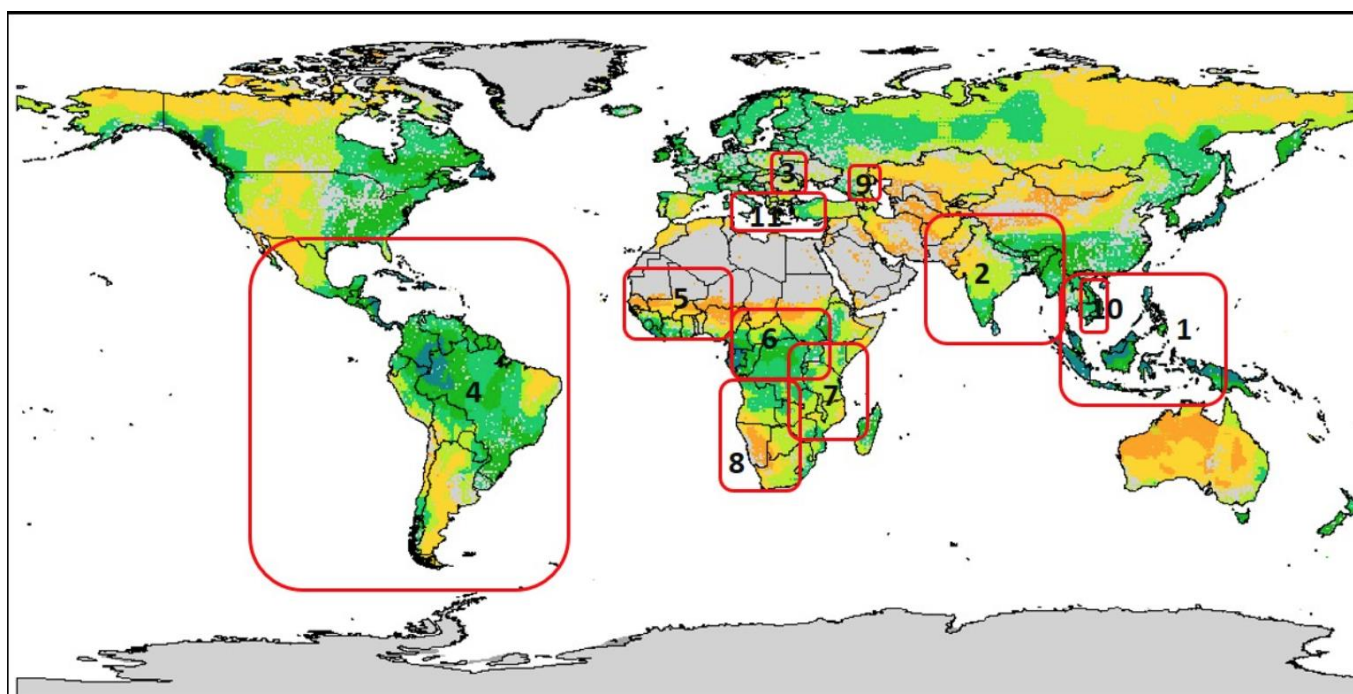


Figure 1 GOFC-GOLD Regional Networks

CHAIR OF THE MedRIN, PROF. DIOFANTOS HADJIMITSIS ON THE OBJECTIVES OF THE NETWORK.

Professor Hadjimitsis is the Vice Rector of Academic Affairs, Department of Civil Engineering & Geomatics Cyprus, University of Technology, Cyprus and Chair of the MedRIN network.

Which are the Objectives of the MedRIN:

We have considered all the priority topics which interest the countries of the Eastern Mediterranean but also neighboring countries and in accordance with the GOFC-GOLD family of networks we have agreed on the following to be our main objectives:

- better coordination and linkage of monitoring systems and databases across Mediterranean,
- strengthening and upgrading regional/national EO networks,
- alignment of multi-modal and multi-source data compliant to international norms,
- utilization of Copernicus and relevant freely distributed services in the region by end users,
- contribution to free publicly-available data through interoperable databases and services.

The Network will also work to support tackling regional and local challenges, as described by the United Nations' Sustainable Development Goals (SDGs).

What is the message you would like to communicate as the Chair of the MedRIN:

It is the time to join forces for the benefit of the Med region, for the benefit of the citizens for improving the quality of life, for the benefit of the research, science and innovation.

Let's all work a together!



VINCENT AMBROSIA FROM NASA AND PROF. IOANNIS GITAS ON THE MedRIN INITIATIVE AND THE FUTURE STEPS

An interview to Dr Georgia Kouta during the RSCy2019

1. What differentiates the Mediterranean Region from other Regions and what are you hoping to achieve with the MedRIN network

GITAS: *What is different in this region:* we are talking about lots of organizations lots of entities that have high knowledge, have the capacity of doing things themselves and quite visible in a world level. There are a lot of entities here that do a lot of things and I believe that is the difference between our network and the other networks. *But why MedRIN:* We want to join forces! It's okay to work alone, but it's better to work in groups, and to tackle problems together that are common to the region, and talking about problems we mean mainly Ecological and environmental problems, natural disasters and urban planning etc.



“We want to join forces! It’s okay to work alone, but it’s better to work in groups”

What kind of natural and anthropogenic disasters? In our case (AUTh) are considered experts with dealing with forest fires and forest management, other partners from Greece are considered experts in water management, like IBEC and urban planning like colleagues from ForTH in Crete. Working together gives us the plus to work with partners from the regions- we can do bigger things that can be more visible at the end and gives us a good opportunity also to start working with NASA and the American Universities. This is something that is missing really

On the contribution of GOF-C-GOLD and then nature of the collaboration between the MedRIN members and NASA

AMBROSIA: The Global Observation of Forest Cover – Global Observation of Land Dynamics (GOF-C-GOLD) NASA program was established in the 1990s to look at global scale issues of land-use / land-cover and change dynamics around the globe. When it was originally established, NASA and the partners saw the need to regionalize some of the focus efforts, to compartmentalize and break down the globe into specific regions that have common issues. So, different groups were established to work together on specific interests in their areas, to focus on trans-national issues, or issues common to larger regions.

One of the latest examples is the establishment of the MedRIN network of collaboration. There are collaborations that exist in South America, networks in the Caucasus, in the South-Central-Eastern European regional information network, and others. What we are trying to do is have smaller working groups / subgroups within the GOFC-GOLD network to focus on specific issues in those regions. These are just sub-networks of the GOFC-GOLD program, with the purpose to unify the community in the acquisition, use, training, and expansion of EO tools for improving decision processes in various regions of the globe.

With GOFC-GOLD, the goal is to establish regional collaborative networks with a focus on land-use change / land cover dynamics within those regions. Specific regions were selected based on the regionalized characteristics that are shared across national boundaries. Mediterranean ecosystems, which have their own unique issues, are different from Southeast Asian communities, or Caucasus communities or the South American communities. We do share some common themes across those other regions and networks, but overall we try to divide the globe into areas that have common issues or concerns related to land-use / land cover change dynamics. Some of the common issues across Mediterranean ecosystems are fire, ecosystem changes due to urban expansion, and changing agricultural practices. The focus area of MedRIN is on European Mediterranean countries, the Levant, and North Africa, because they have many common issues, and the importance of the network is to try to build relationships between and amongst those different organization, different countries, researchers in organizations, and universities that haven't really had the opportunity to collaborate across boundaries in the region and share their ideas. The purpose of the regional networks is therefore to provide a common forum or platform to share in common tools and solutions. The concept is to unify and create "open-border" science-sharing between these various regional entities, so that we don't get "stove-piped" into these silos of individual work, where you don't really see what everybody else is doing around you.

The concept is to unify and create open border science sharing between these various regional entities. So that we don't get stove piped into these silos of individual work where you don't really see what everybody else is doing around you.

"It really is a network; a network unifies systems to allow them to work together".



3. Current priorities of the MedRIN and the issues it aspires to tackle

GITAS: We try to create a general classification and try to find themes that are common in this part of the world and the US and at some point create a problem which will consolidate the partnerships..

focus on common problems in the med region and the us and at some point we can collaborate with American universities through NASA.

Common Issues between US and Med Countries which can form the basis of collaboration

Hot topics like Agricultural fires: new subject to the studies, we would like to have a thorough look and collaborate with American entities on that.

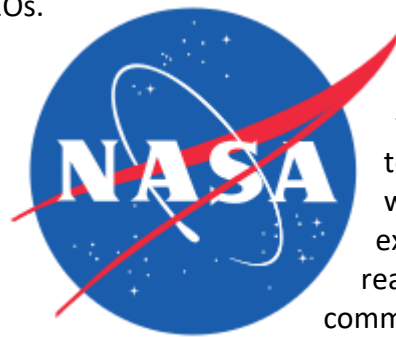
AMBROSIA:

I think there are couple of areas of common land-dynamics / land change issues that both the MEDRIN region and the United States/ North American region share, and one of them is fire monitoring, especially agricultural fires. We tend to underestimate the contributions and amount of agricultural fires, and they are in fact a major contributor to our carbon balance on the planet. We tend to focus on the large wildland /forest system fires, and don't focus on the small, persistent agricultural fires. Collectively, we need to have a better assessment of the contribution of those small agricultural fires, how to measure those events, and improve our knowledge level of what those small agricultural fires can do to contribute to global carbon emissions. People always think of the big wildland fires that cover many hectares / acres of land and fail to realize that agricultural fires make up a large proportion of the acreage consumed regionally and globally. So, we in the U.S. want to collaborate with our colleagues throughout the world, but especially from these Mediterranean ecosystems where fire is such a persistence problem, to come to a better understanding of how to measure, and what are the contributions of small agricultural fires to our changing ecosystems and carbon balance.

Another common land-use change / land-cover change issue in the growth or expansion of fire around the world (especially in Mediterranean fire-adapted ecosystems), is the expansion of urban and exo-urban areas in traditional wildland fire environments. These "Wildland-Urban-Interface (WUI)" areas are hazardous regions because the built-up areas can create a new fuel to further propagate fire. These urban areas, creeping into the traditional wildlands, now become part of the fuels problem and force fire management entities to change their management strategies from controlling / managing wildfires to protecting structures and human life. The urban expansion also changes land-use patterns; traditional agricultural lands are being converted to suburban enclaves, which changes the ecosystem dynamics of a region and can have detrimental effects on the water availability, water quality, urban heat-island effects, and removal of plant carbon storage capacity. These issues, such as wildland fire, agricultural fires, urban expansion, changes in agricultural areas, land use / land cover changes are common across the MedRIN network nations (and other areas of the world), and will be some of collaborative focus areas of the network.

4. On the topic of Education and Training: Given the fact that there aren't many initiatives of NASA education in our region, how does the MedRIN propose to tackle that.

AMBROSIA: One of NASA's Earth Sciences Division's main objectives, is the outreach component and capacity building: how to engage, build, and expand the use of Earth Observations (EO) within communities that might not be aware of the utility of EOs.



So, NASA organizes workshops, webinars series, and training in EO data, tools and model use; we have that long-term experience on how to reach out to those community members,

provide multiday workshops, online webinar series, and training series. These outreach and training capabilities encompass topics ranging from Remote Sensing basic concepts (for someone who is not involved with remote sensing and EO) to more advanced classes on employment of EO data into modeling and predictive analysis. So, one of our objectives is to take those training materials that NASA has developed over the years, and share them with our various partner communities. For the MedRIN, we want to share that training expertise and create more specific regional training opportunities within the community.



GITAS: there is also this tool called TATS: transatlantic training tool- there is an agreement between NASA and ESA

“organizing workshops together with NASA and European scientists”

give advanced courses on the latest advanced on image analysis etc. and this is one of the tools to include in one of the priorities of MedRIN, this is why the training component is integral on the priorities of MedRIN.

Education Component in Higher and Secondary Education:



AMBROSIA: One of the MedRIN initiatives we identified is development of regional MedRIN “inter-institutional” PhD program that would be focused on the MedRIN activities. In this conceptualization, a MA/PhD working on MedRIN land use / land change issues, could be transferable between different institutions in the MedRIN. As far as Secondary Education, we in the MedRIN believe it is important to increase the knowledge and training in our primary/secondary education system. By educating our young about the importance of our planet, its health, and tools such as Remote Sensing, Earth Observations, and Geospatial Analysis, these future leaders, scientists and active community members will gain greater knowledge about our planet, and the tools available to them to make informed decisions on improving our lives on this planet, to support better stewardship of the planet. The earlier we educate, the easier it will be to progress to that MA and PhD program, with informed young minds, eager to tackle the problems of the region with innovative EO tools already in their tool boxes.

5. Evaluating the 1st MedRIN workshop and meeting which took place in Paphos this year and the future plans of the network.

AMBROSIA: This meeting in Paphos was really the first MedRIN workshop, since we considered the first meeting in July 2018 in Crete to be the Organizational Kick-Off introductory event, where we had a number of different agencies, Universities, regional entities, and colleagues which came together to create this entity. So, this meeting here in Paphos in March 2019, was really the first opportunity to establish some of the terms-of-reference, guidelines and focus areas for what we wanted to collaborate on for the next two years. We want to be constantly looking at the next 1-2 years out into the future for this programme, and how we want to advance different capabilities and the different foci of our collaborations. With this meeting in Paphos, we received a really strong response by the Mediterranean community, but also other nations that attended as well. We had around 62 attendees at this meeting that are going to be MedRIN members or observers from outside the Mediterranean ecosystem, to share their capacity building efforts as well. This was a very high turnout and very successful statement from the community, that there is a necessity and interest for collaborations within the Mediterranean region.





We are in the process now of developing our future resources to support the establishment of workshops and meetings into the future. and we are developing the concepts for that. One of those elements is the development of a Communications Plan, how we will communicate through the web, whether that is through Facebook, Twitter and a website presence that promotes the distribution of research findings through our meetings, workshops, and presentations, to reach out to the community and make that information available for everyone. We are also planning on MedRIN Principals to hold tele-conferencing meetings / updates every two months, in order to stay in constant communication with our partners. We are also looking for ideas to create proposals for small funding sources to support some of our MedRIN activities, like workshops or trainings. We are looking to take advantage of the opportunities of different funding agencies or private companies, which want to get involved.

Also, we are looking to publish special issues in online peer-reviewed professional e-journals (such as Remote Sensing Journal) focused on the MedRIN activities, in order to inform the community of what we are doing and the potential partnership opportunities available. As mentioned earlier, we are promoting cross-institutional MSc / PhD programs in MedRIN priority areas, in order to build capacity and develop and educate the next generation of young scientists in the MedRIN community.

GITAS: idea place for next meeting will take place in Thessaloniki, and the reason is because the city is situated close to countries which have an interest to participate in our network like Albania, Bulgaria, Northern Macedonia, Croatian, Montenegro and Turkey. It's an easy access city also via land, and because we are currently also collaborating with the IBEC (Environmental Organization in Thessaloniki) we would like to capitalize on our existing collaborations in order to enhance the visibility in the region. Following the meeting in Thessaloniki we would plan to take the third in Turkey or Italy.

AMBROSIA: Another advantage of Thessaloniki is the proximity to other regional information networks like the South-Central European Regional Information Network (SCERIN), with which we look to have cross-collaborations and shared workshop events. This will help to promote collaboration between regional networks which have similar kind of regional focus priorities like the MedRIN and SCERIN.



MEDRIN COMMUNICATION AND PRESENCE ON SOCIAL MEDIA

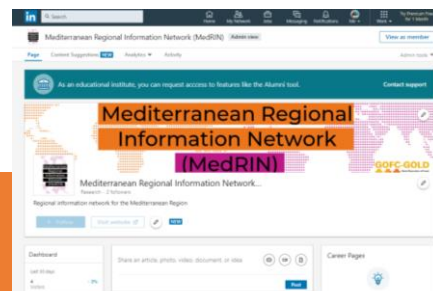
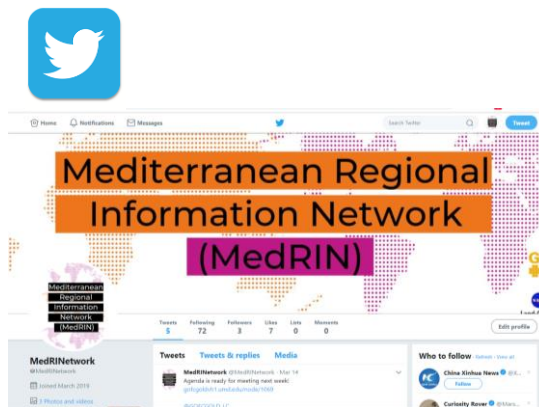
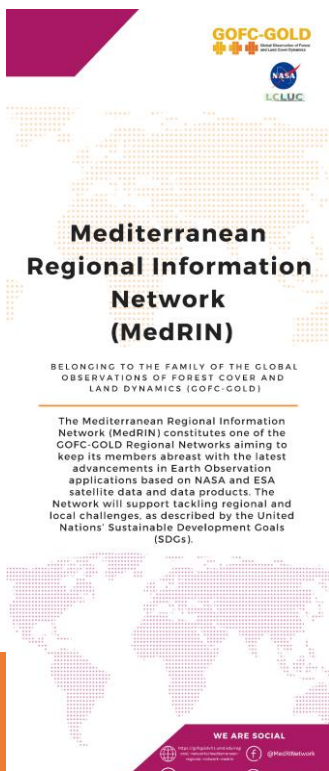
The Mediterranean Regional Information Network (MedRIN) has been dynamic in producing a communication plan to kick off communications between the members and disseminate the network's objectives to a wider public.

Webpage updated
on Gofc-Gold
website

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



Social Media active and going!
MedRIN Banner ready!



Contact Us!



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