



20 & 21 October 2014  
Athens, Greece

2nd South-Eastern Europe GEO Workshop  
on Integrating Earth Observation Data  
and Services for monitoring the  
Environment, protecting the citizens and  
stimulating the regional economic growth

### Session III- Middle East



## Contents:

- national activities
- national infrastructures
- networking National Strategy
- comments

# NATIONAL ACTIVITIES



Department of Meteorology, Cyprus University of Technology (RS lab) they also have lidar, part of AERONET, RS association



ISA (Israel Space Agency)// TAU- Remote Sensing Labs is "a national excellence center" for HSR (Ministry of Science), Soil spectroscopy, protocols and standards, Establishing of the National Observatory for Environmental Studies (under construction) ". Comprehensive research (in GEOSS related issues) is conducted at all Universities (6) and National Institutes



CIMA RISICO forest fire risk index and next extend to Flood prediction



Saudi Arabia: Space and Remote Sensing Lab @ King Fahd University of Petroleum & Minerals (KFUPM)

# NATIONAL INFRASTRUCTURE

## ΤΜΗΜΑ ΜΕΤΕΩΡΟΛΟΓΙΑΣ ΔΙΚΤΥΟ ΜΕΤΕΩΡΟΛΟΓΙΚΩΝ ΣΤΑΘΜΩΝ

0 5 10 20 30 40  
Kilometers



### Υπόμνημα

- ◆ Κλιματολογικοί Σταθμοί
- Βροχομετρικοί Σταθμοί
- Αυτόματοι Σταθμοί

# NATIONAL INFRASTRUCTURE



Cyprus: Synoptic Surface Observations, automatic climatological stations, raingauges, Actinometric Station, Lightning detector systems, EUMETSAT 1 hr (because of political constraint - nominally EUMETSAT provides an image every 15 minutes), doppler weather radar, part of AERONET, UAV, air quality network



Israel: "Thermal Hypersp sensor, National Soil Spectral library, Aeronet Stations, Observatory for Environmental Studies (under construction), National CAL/VAL sites for EOSuper site calibration area for EO, National Center for HSR (under construction), Eros satellite, Venus satellite, SHALOM satellite"



Lebanon: EUMETSAT Satellite Application Facility and LSA SAF



Saudi Arabia: high performance computing center, Dhahran Techno Valley (research, prototypes, patents), aeronet stations// X-L-band antenna 2015,

# NETWORKING



# NETWORKING

- All four countries presented rich networking activities with various sectors energy sector, health, oil drilling platforms, civil defense, Government Departments, Universities and Public, international collaboration, World Bank
- Lebanon: CAPWATER launched a program that meets the priorities set by Lebanon, Jordan, Egypt, Morocco and Tunisia



# NATIONAL STRATEGY





# NATIONAL STRATEGY



Not eumetsat members, signed cooperation agreement with ESA, participation in COPERNICUS, connected to WIS of WMO, GFCS Global framework of climate services, plan to participate in Ground Validation of Global Precipitation Measurement mission



TAU participate in GEO and ISA

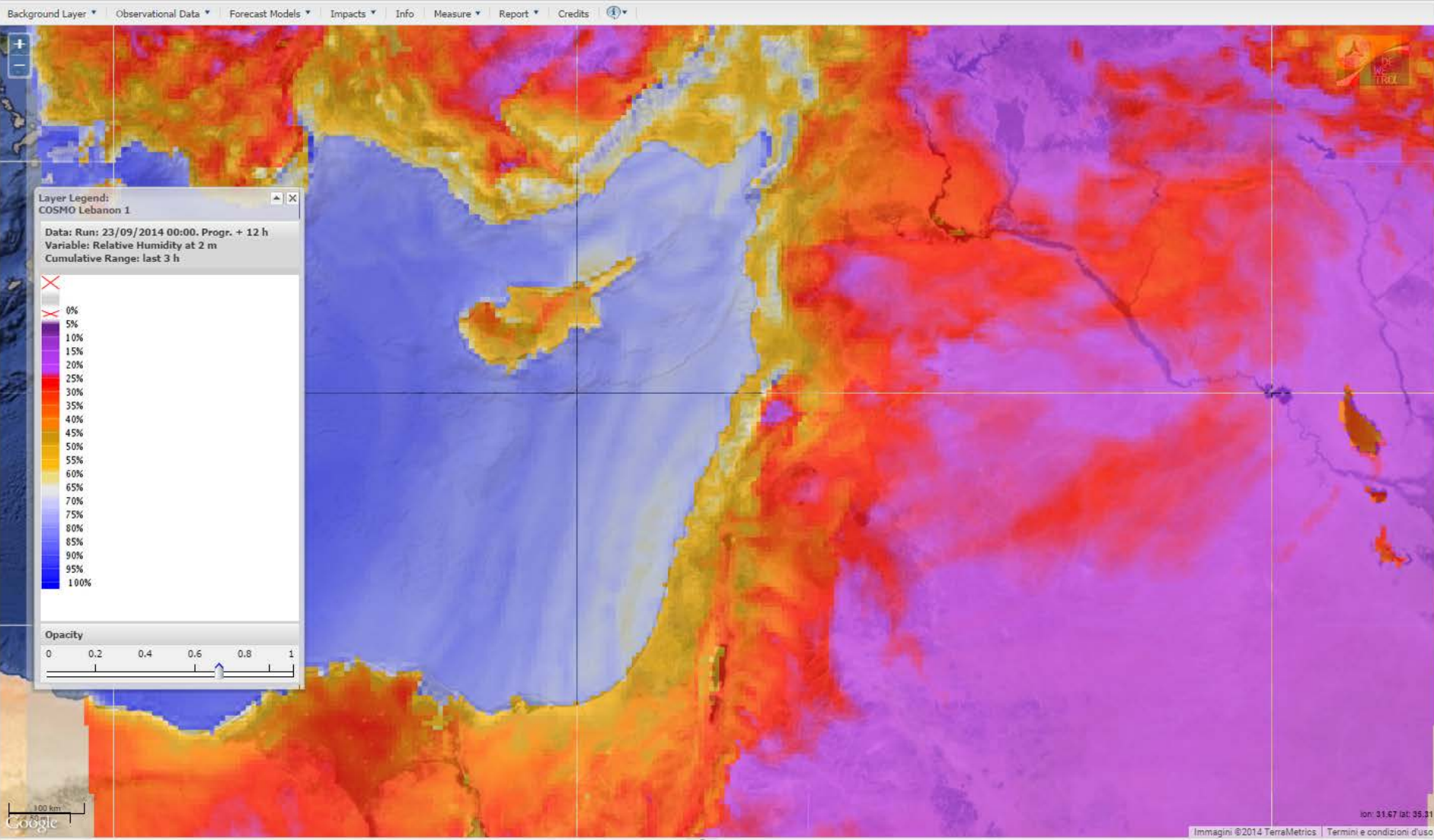


National Forest fire Management Strategy



Funding sources: National Science, Technology and Innovation Plan (NSTIP), King Abdul Aziz City for Science & Technology (KACST), Saudi ARAMCO, Department of National Defense "

# GAPS - COMMON



# GAPS - COMMON



- Difficult to maintain infrastructure
- Fragmented coordination of ground infrastructure,
- Not easy to exchange data between different organisations
- Need for data inventory, coordination
- More should be encouraged to participate in GEO/GEOSS
- No specific GEO activities but many relevant activities indirectly related to GEO e.g. Cal/val activities in CEOS. Several Societal benefit areas
- Supersite calibration area for EO// Soil spectral library.
- Several problems are common, such as forest fires, air pollution, energy waste, dust storms, and other related to the quality of life
- Collaborations