Coordinating and integRating state-of-the-art Earth Observation Activities in the regions of North Africa, Middle East and Balkans and Developing Links with GEO related intiatives toward GEOSS

GEO-CRADLE pre-Kick-Off Meeting
Thursday, 17th of February, 2016

Ufuk Sakarya, Ph.D. & Aziz Koru

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IONIC Centre, 11 Lysiou Street
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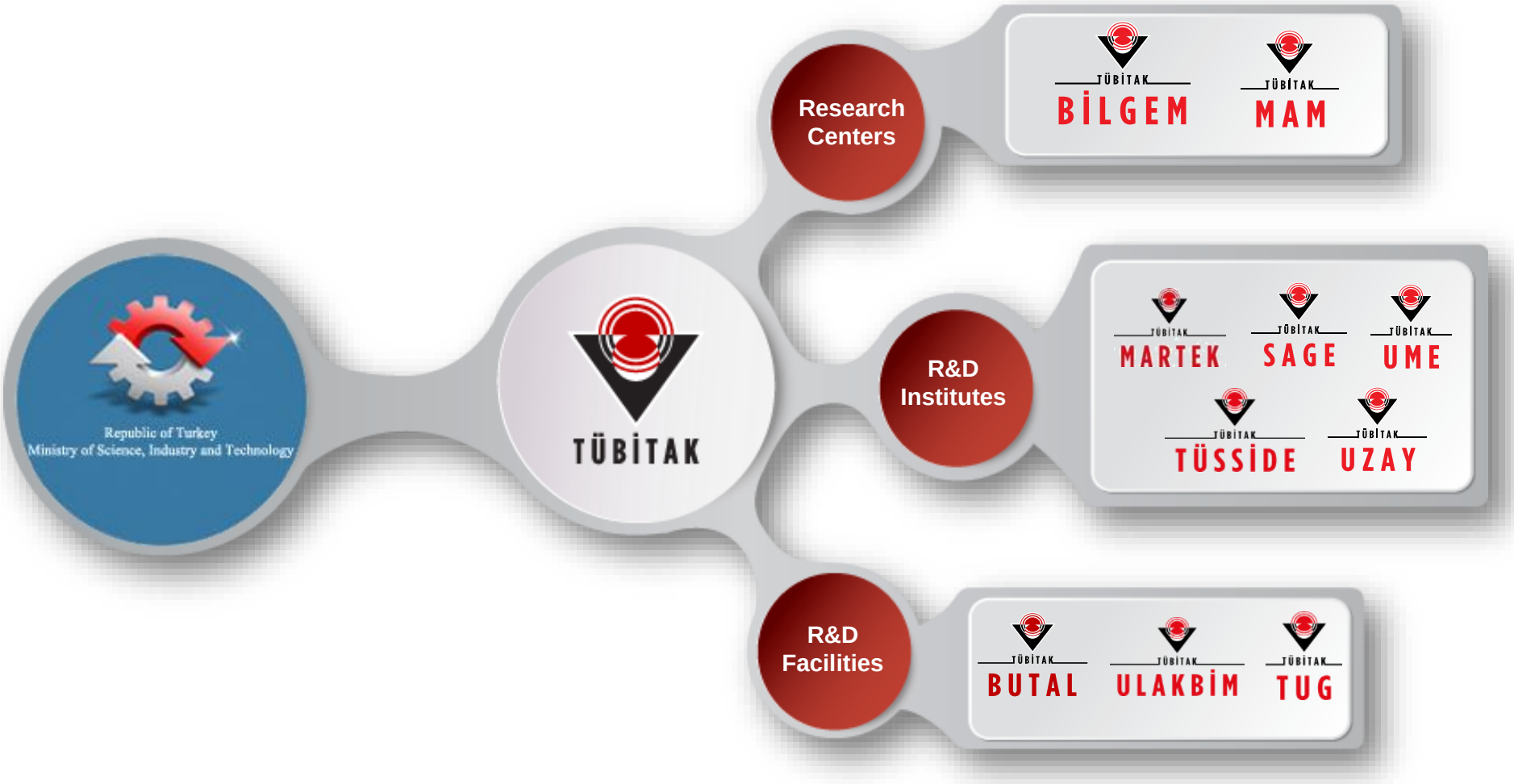
TÜBİTAK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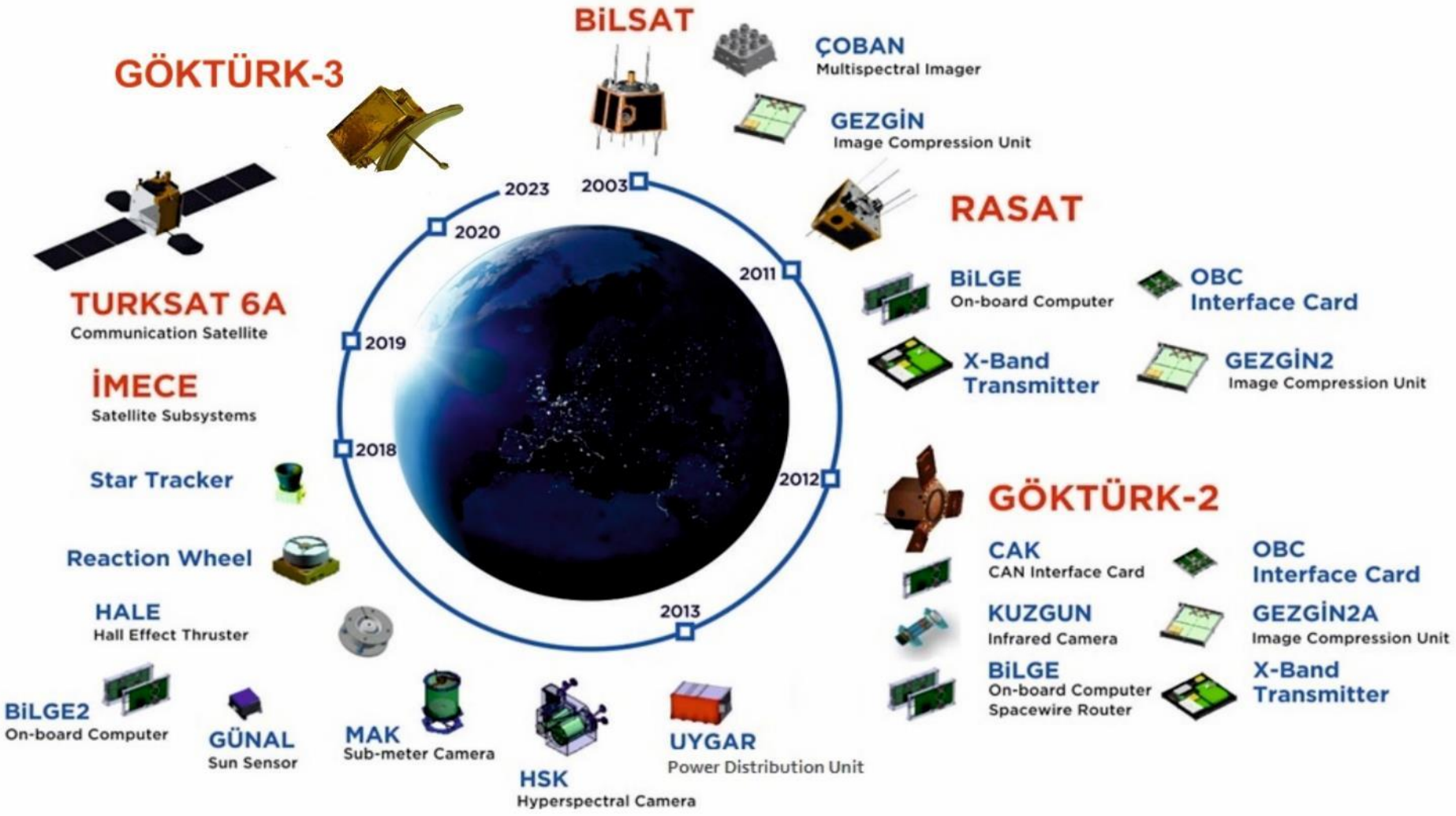
TÜBİTAK UZAY Satellite Roadmap



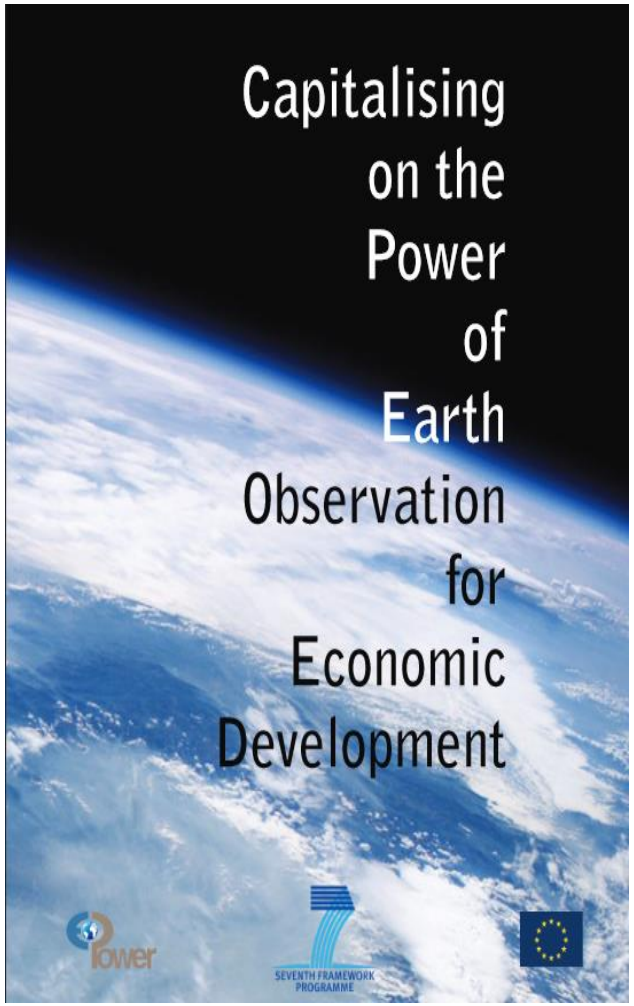
EOPOWER Project

- European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° FP7- 603500.

The purpose of the project:

- To create conditions for sustainable economic development through the increased use of Earth observation products and services for environmental applications.

- This will lead to in a wider regional implementation of EO technologies with a significant impact on economic empowerment.

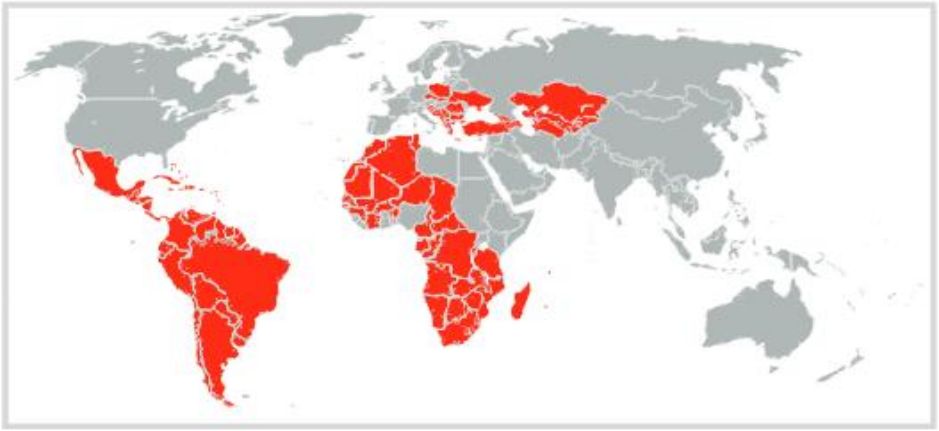


http://www.eopower.eu/downloads/EOPOWER_popular_final_report.pdf

EOPOWER Project

The EOPOWER impact assessment framework was applied in the different regions of the project on the following subjects:

- Southern Africa: increased use of EO data with emphasis on the use of SPOT (and other) satellite
- imagery,
- French-speaking Africa: regional conferences for the promotion of the use of EO,
- Czech Republic and Slovakia: use of EO technologies in national parks,
- Poland and Ukraine: promotion, networking and dissemination activities for EO,
- Turkey and Turkish-speaking countries: promotion of the use of RASAT satellite images and the use of the GEZGIN Geoportal,
- Balkan region: support to flood and land management in Serbia and Caravan events (workshops to
- raise awareness on GEO, GEOSS and EO and address questions of interest for the future of EO)
- held in the Balkan region,
- Black Sea region: “Bringing GEOSS Services into Practice” workshop and EO promotion activities and their impact in Armenia,
- Latin America and the Caribbean: networking and capacity building in disaster reduction,
- International organizations: EO for water resources management, related to the Water Partnership Programme of the World Bank



Regions of the EOPOWER project

http://www.eopower.eu/downloads/EOPOWER_popular_final_report.pdf

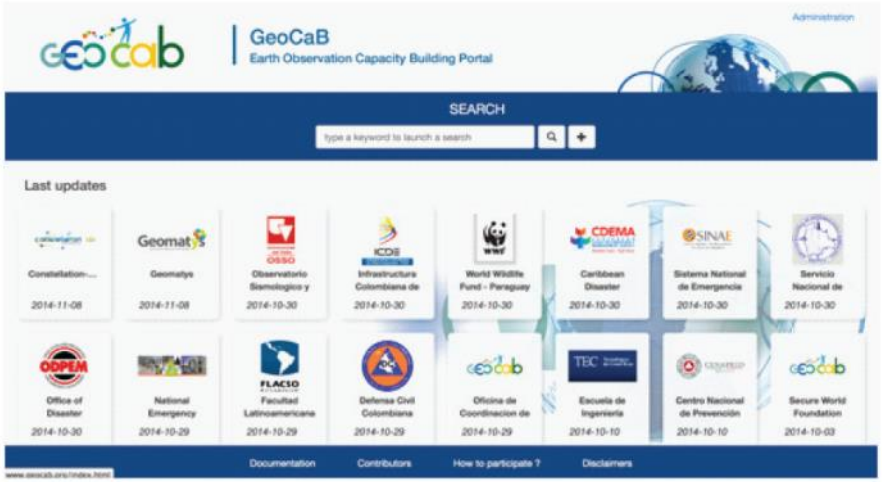
GEONETCAB

Learning and knowledge management are very important elements in the promotion of the use of new technologies, such as earth observation. In fact, marketing of earth observation can be defined as promotion and capacity building.

As complement to GEOSS, which contains “hard” datasets on earth observation, the EOPOWER project therefore had the aim to establish a one-stop shop with references to capacity building resources and material, building on previous efforts in the GEONetCab project.

In the GEO Plenary of November 2014 this system, called GEOCAB, was officially adopted and is accessible through the GEO website and directly:

www.geocab.org



GEOCAB home page

EOPOWER Project

The delivered reports by TÜBİTAK UZAY:

- D9.10 Report on the Inventory of EO Resources and EO Environmental Applications and Technologies in Turkey
- D9.20 Report on networking of EO communities in Turkey and Turkish-speaking countries.
- D9.30 Report on EO Economic Development workshop.
- D9.40 Report on impact assessment Turkey and Turkish-speaking countries.

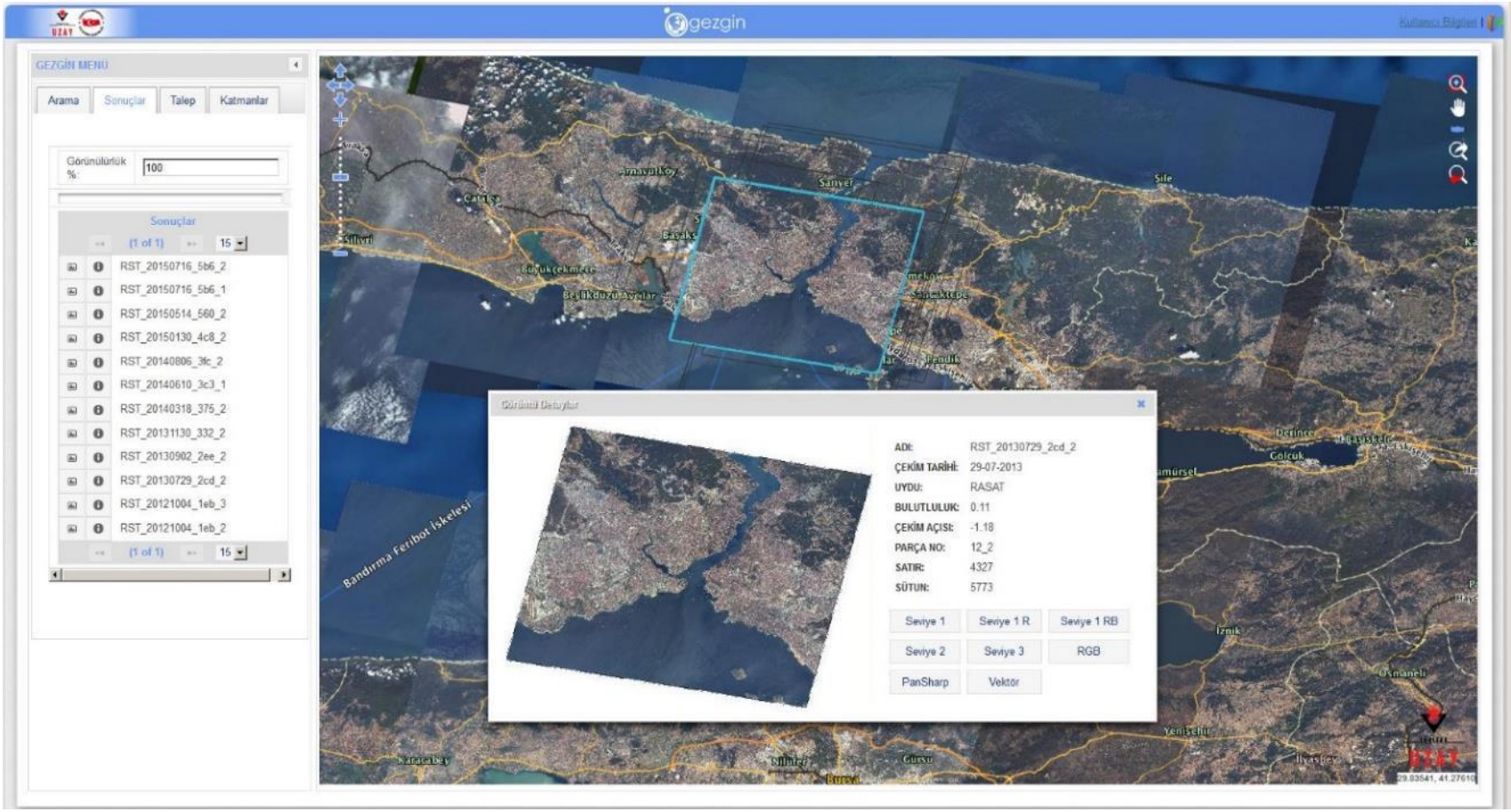
GEZGIN geoportal opening meeting and mass media event (19 August 2014)

Training in EO satellites and data of Azercosmos staff

http://www.eopower.eu/downloads/EOPOWER_popular_final_report.pdf


SEOCA
GEO capacity building
initiative in Central Asia
www.geo-seoca.net

Gezgin Geoportal Project



GEZGİN GeoPortal is based on serving RASAT satellite images to Turkish citizens. The network services and technologies available within the GeoPortal are: search, preview, download, request etc.

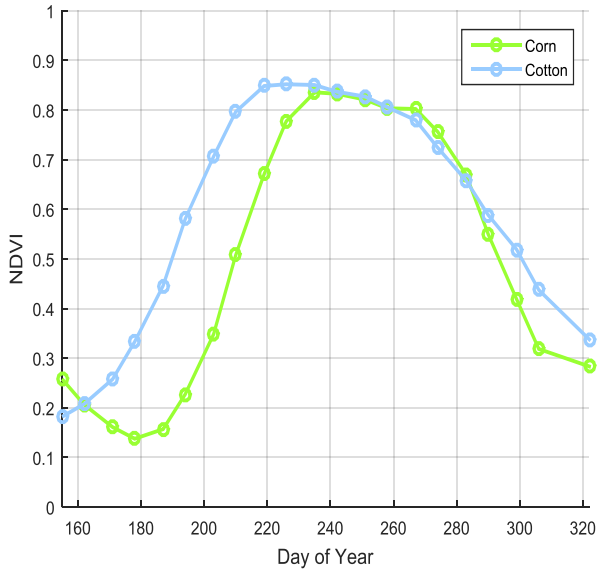
Gezgin Geoportal Project

The goal of this project is to enable the easy access to satellite images obtained from RASAT.

- the radiometric and geometric calibration of images
- generation of an image mosaic encompassing all Turkey

HASSAS Project

- HASSAS Project: Widespread application of sustainable precision agriculture practices in Southeastern Anatolia Project Region (GAP) Project
- To study development of precision agriculture practice in GAP region.
- Multi-spectral satellite imagery and aerial hyperspectral data along with ground measurements will be collected to analyze data in an information system.
- Project will study feasibility of precision agriculture application in a pilot area.
- Main crops of the region: cotton, wheat and corn.



AKTAR Project

- AKTAR Project: Smart agriculture aims to develop models for irrigation, fertilization and spectral signatures of crops in Inner Anatolia.
- Wheat, barley, rye, oat, apple, sour cherry and cherry will be analyzed.
- Available land for the project is up to 400ha, while around 100 ha is expected to be used for experiments.
- Ground measurements include soil moisture, spectral signature, and meteorological data.
- There will be controlled test areas for fertilization and irrigation.
- At the end of the project precision agriculture practices to control irrigation, fertilization, pesticide and estimation of crop yield will be developed.

AKTAR Project

Conclusion

- The know-how and technology that has been gained over the years, during the research and development activities related to the two earth observation satellites are extended to remote sensing domain.

- This has been a major advantage for TÜBİTAK UZAY in the process of becoming a leading institute in remote sensing research field.

- TÜBİTAK UZAY will contribute the below work packages in GEO-CRADLE Project
  - WP200 Inventory of capacities and user needs
  - WP300 Gap analysis, Indicators and Priorities
  - WP400 Pilots towards regional challenges
  - WP600 Communication, Dissemination and Engagement

Contact Information

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