



APPLICATION OF GIS ANALYZES WITH CLOUD COMPUTING

Sevket BEDIROGLU, Volkan YILDIRIM and Selcuk ERBAS
(Turkey)

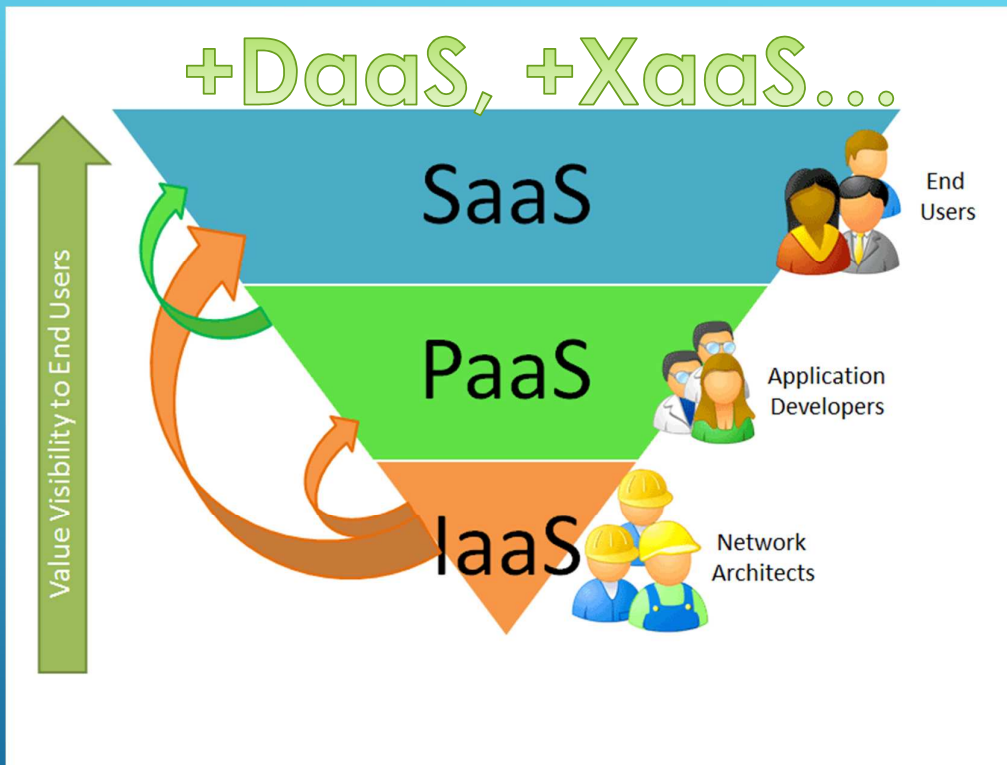
Karadeniz Technical University Geographic Information Systems Laboratory
GisLab



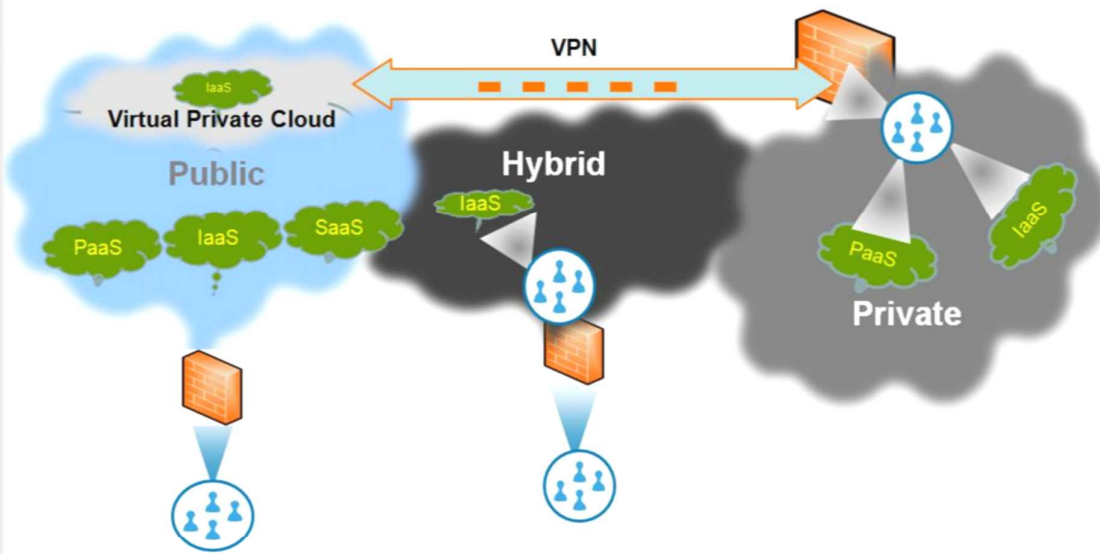
Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort (NIST).

WHAT IS CLOUD COMPUTING (CC)?

- ▶ Cloud computing is a term used to refer to a model of network computing where a program or application runs on a connected server or servers rather than on a local computing device such as a PC, tablet or smartphone. (Otey, M.,2011)
- ▶ The difference with cloud computing is that the computing process may run on one or many connected computers at the same time, utilizing the concept of virtualization.
- ▶ With virtualization, one or more physical servers can be configured and partitioned into multiple independent "virtual" servers, all functioning independently and appearing to the user to be a single physical device.(EMA, 2013)



Deployment Models



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CC DEPLOYMENT MODELS

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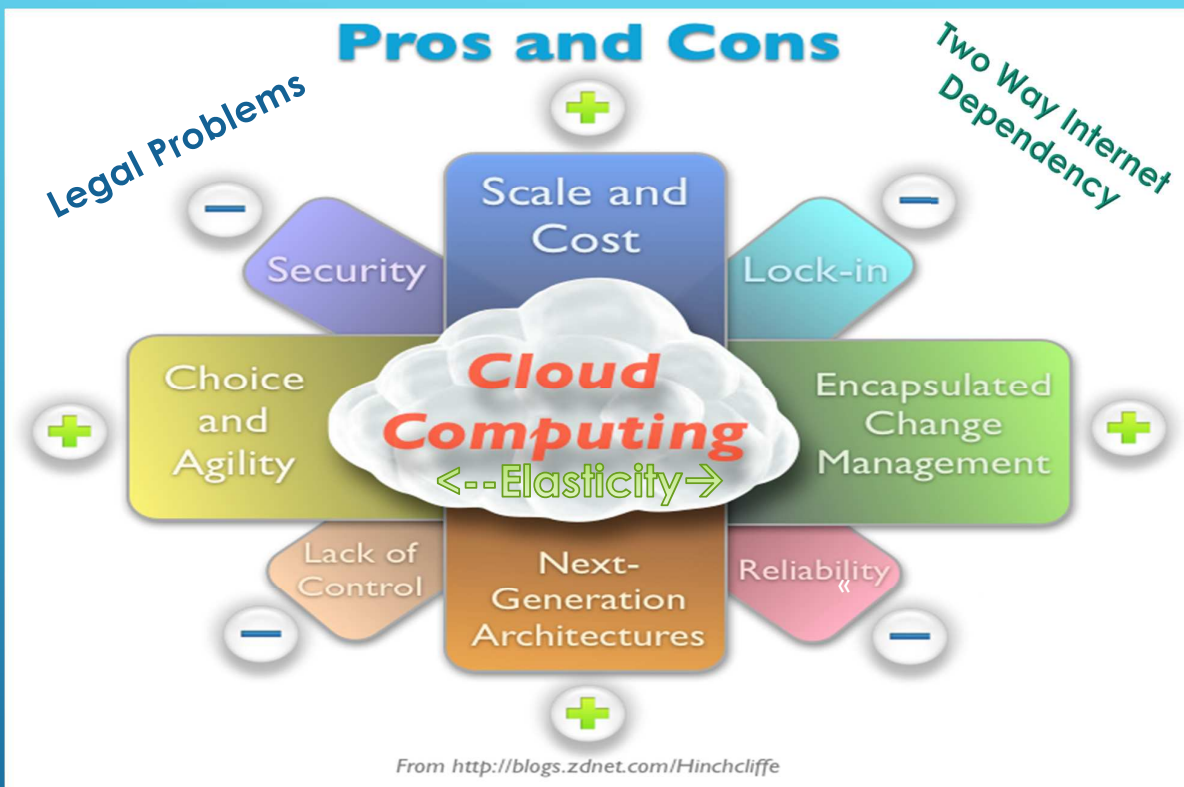
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SHARE POOL

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ADVANTAGES,, DISADVANTAGES...

What is Cloud Computing?

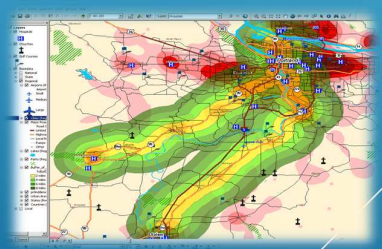
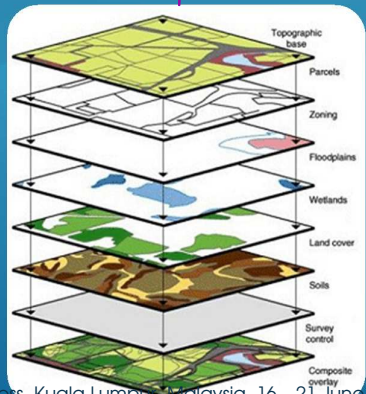
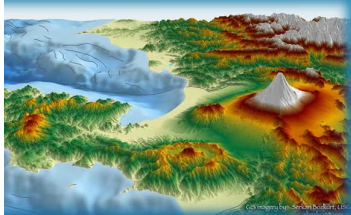
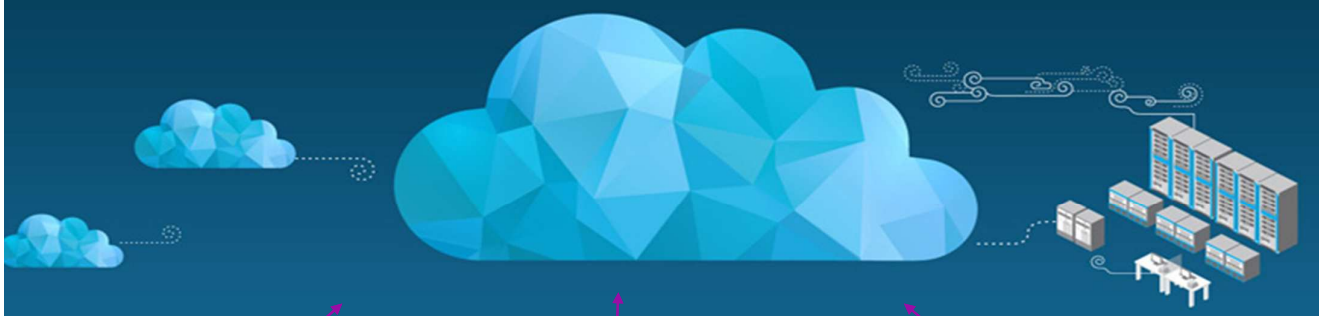


[LINK](#)



[LINK](#)

Are you ready for GIS in the Cloud?

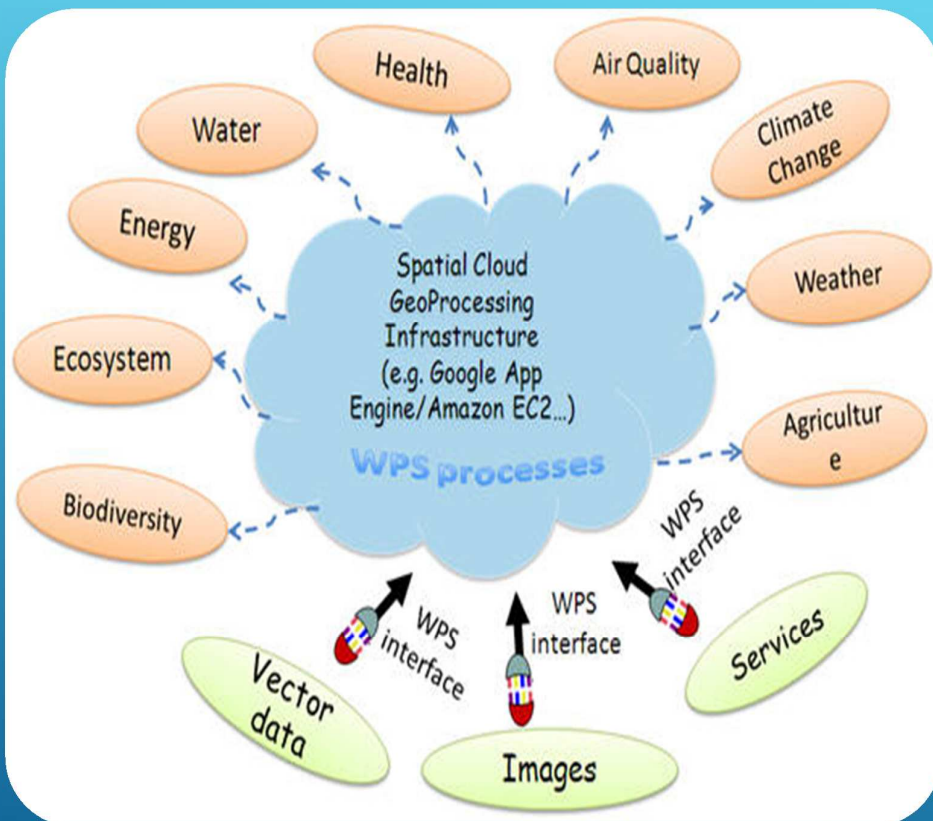




WHAT IS SPATIAL CLOUD COMPUTING (CLOUD GIS)?

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- *Working interoperable
 - *Easy access, fast update
 - *Access to huge datasets
 - *Easy applicable, enjoyable
- ex: buffering grandmom

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Cup Venues: From Dust to Dreams

esri

Estadio Beira-Rio
Porto Alegre

Rebuilt in a picture-postcard setting on reclaimed Guaiba River land, the "Gigante do Beira-Rio" took nearly 10 years to build in the 1960s. Fans

1 Estadio Beira-Rio Porto Alegre
2 Arena Pantanal Curitiba
3 Maracanã Rio de Janeiro
4 Arena de Sao Paulo Sao Paulo
5 Arena Amazonia Manaus
6 Estadio Mineirao Belo Horizonte
7 Arena da Baixada Curitiba
8 Estadio das Dunas Natal
9 Estadio Nacional Rio de Janeiro
10 Estadio Castelão Fortaleza
11 Estadio Brinco de Ouro do Araripe Fortaleza
12 Estadio Nacional de Brasília Brasília

WORLD CUP 2014-BRAZIL

[LINK](#)

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Tornadoes

storymaps.esri.com/stories/2014/tornadoes/

Twister Dashboard: Exploring Three Decades of Violent Storms

Though tornadoes can occur throughout the year, prime time for twisters in the U.S. is spring and early summer. Larger symbols show the most violent tornadoes. Zoom into the map to see approximate tornado tracks.

Pan and zoom map to explore; graphs show totals for current map view
Click on graph to see annual totals
Click on a tornado for stats about individual twisters

esri

6/15/92
Tornado Date

4
Enhanced Fujita Scale

3
Length (miles)

0
Injuries

0 1811

Los Angeles, Chicago, Toronto, New York, Washington, Dallas, Houston, Mexico City, Guadalajara, Havana, Nassau, Belmopan, Port-au-Prince, Kingston, Santo Domingo, Guatemala, Tegucigalpa, Caribbean Sea

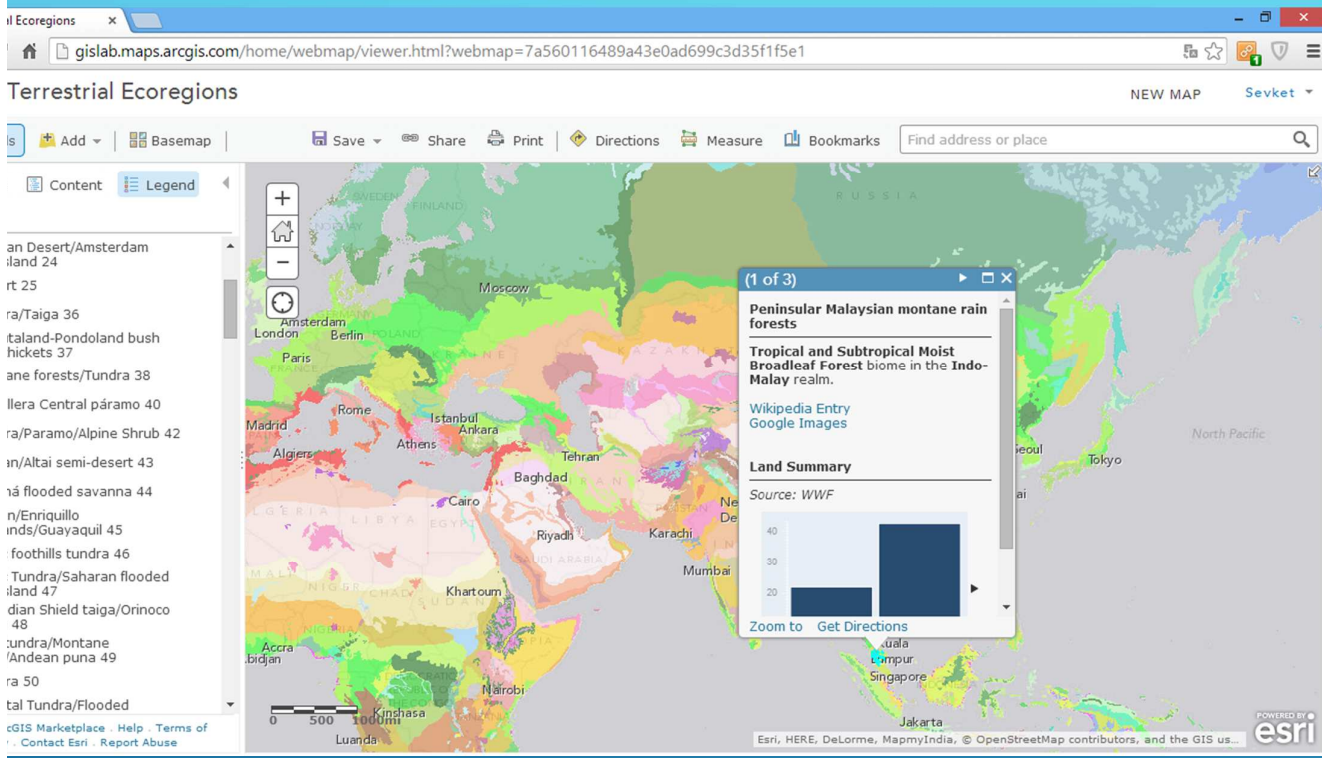
POWERED BY esri

TORNADO DASHBOARD FOR DECADES

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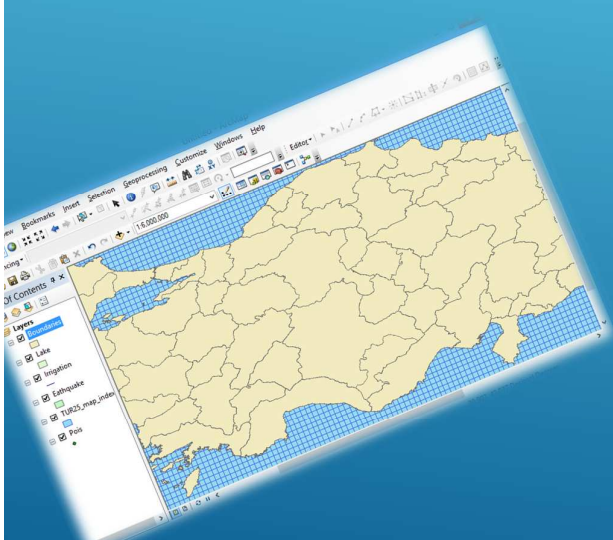
TERRESTRIAL ECO REGION MAPS

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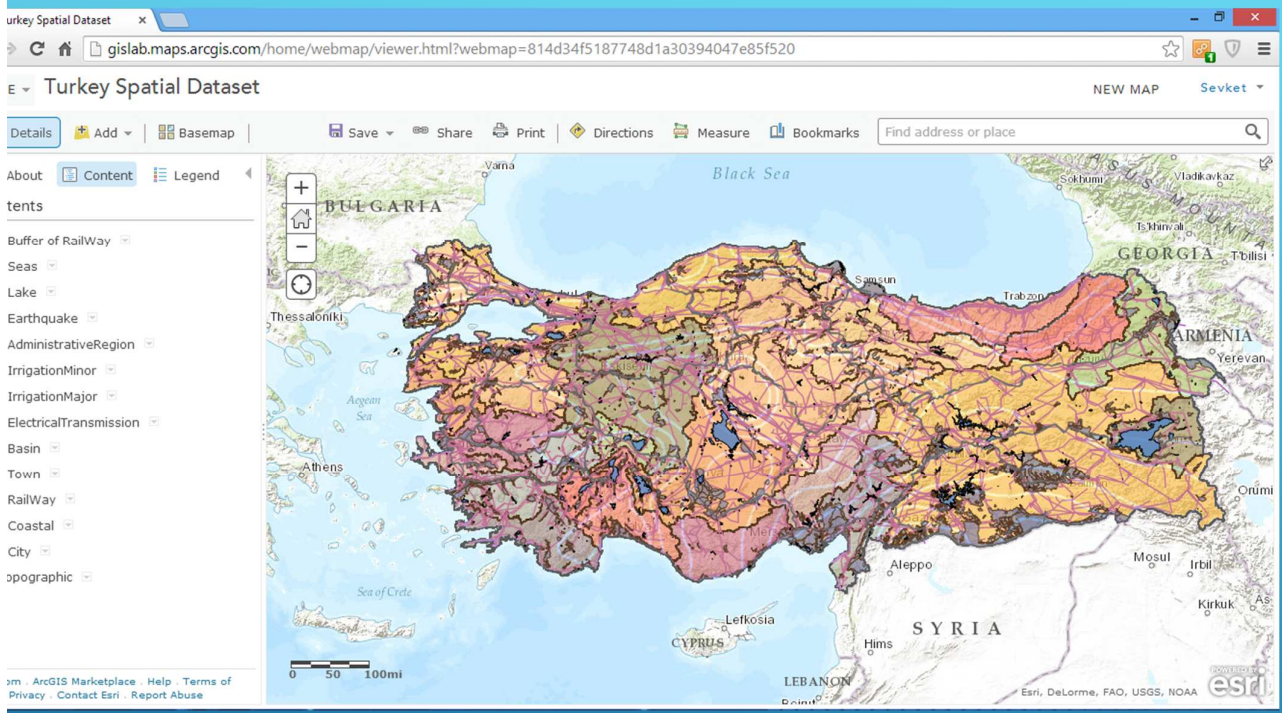
APPLICATION....

Creating Datasets In Desktop or Cloud



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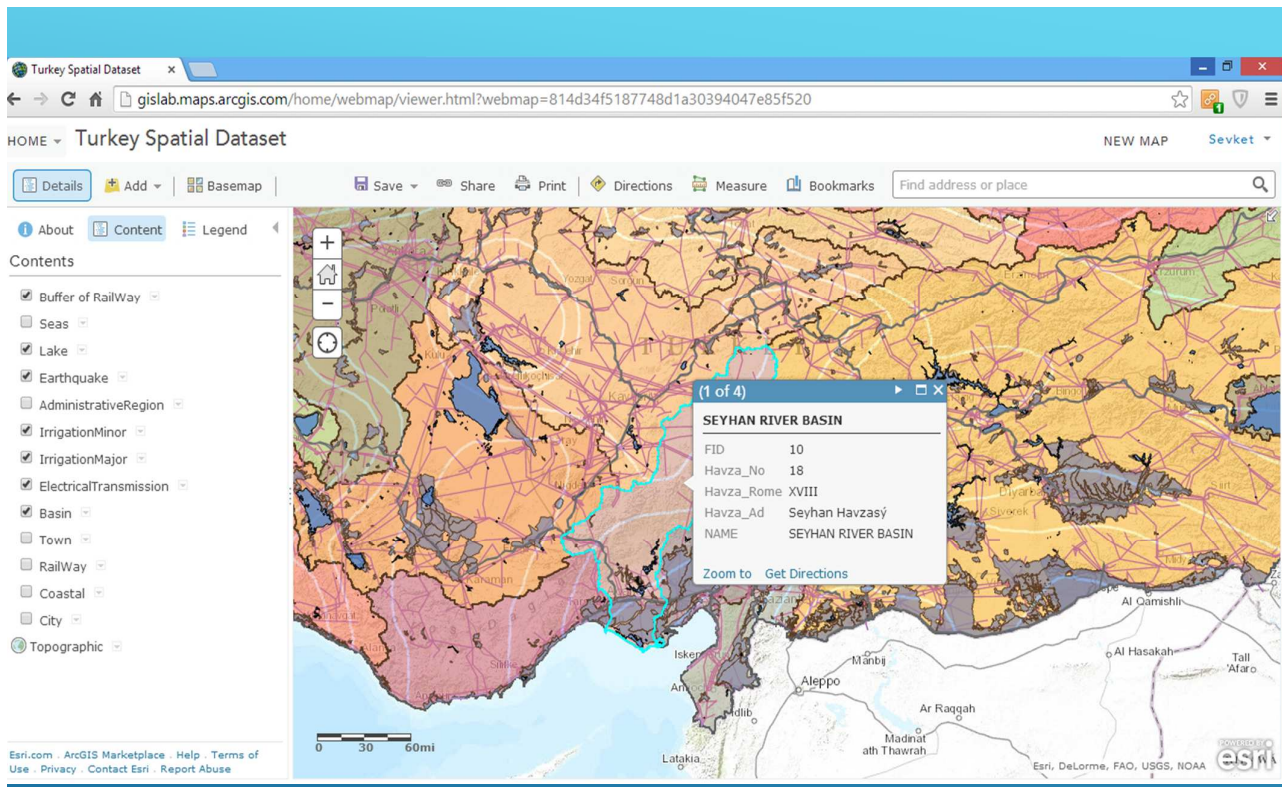
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TURKEY SPATIAL DATASET ON CLOUD

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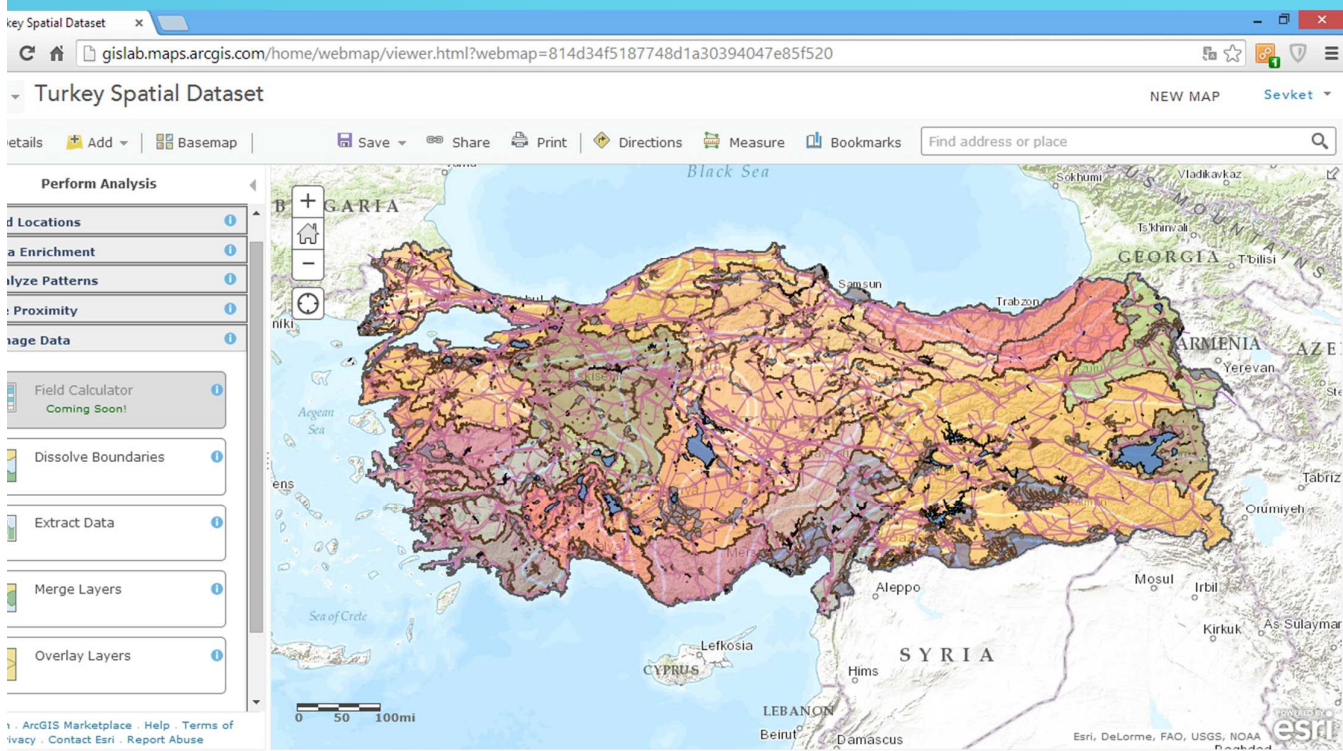
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ATTRIBUTE QUERY ON CLOUD

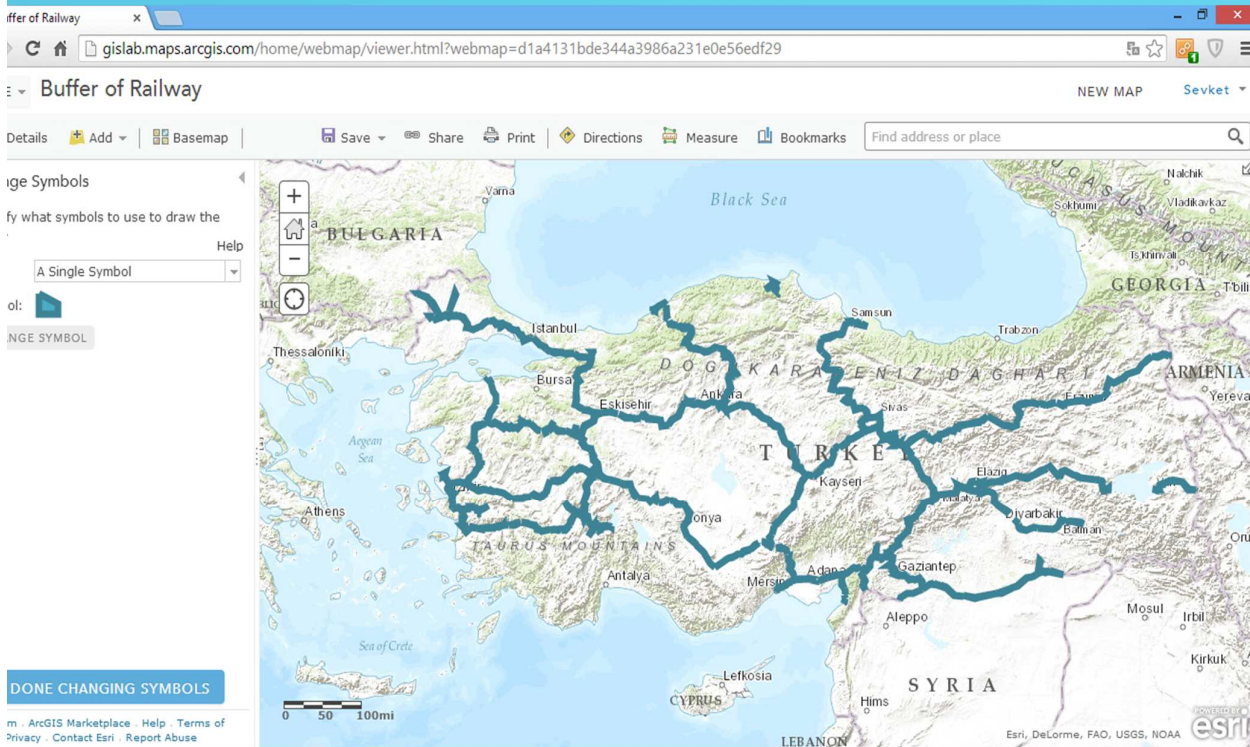
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PERFORMING ANALYZE

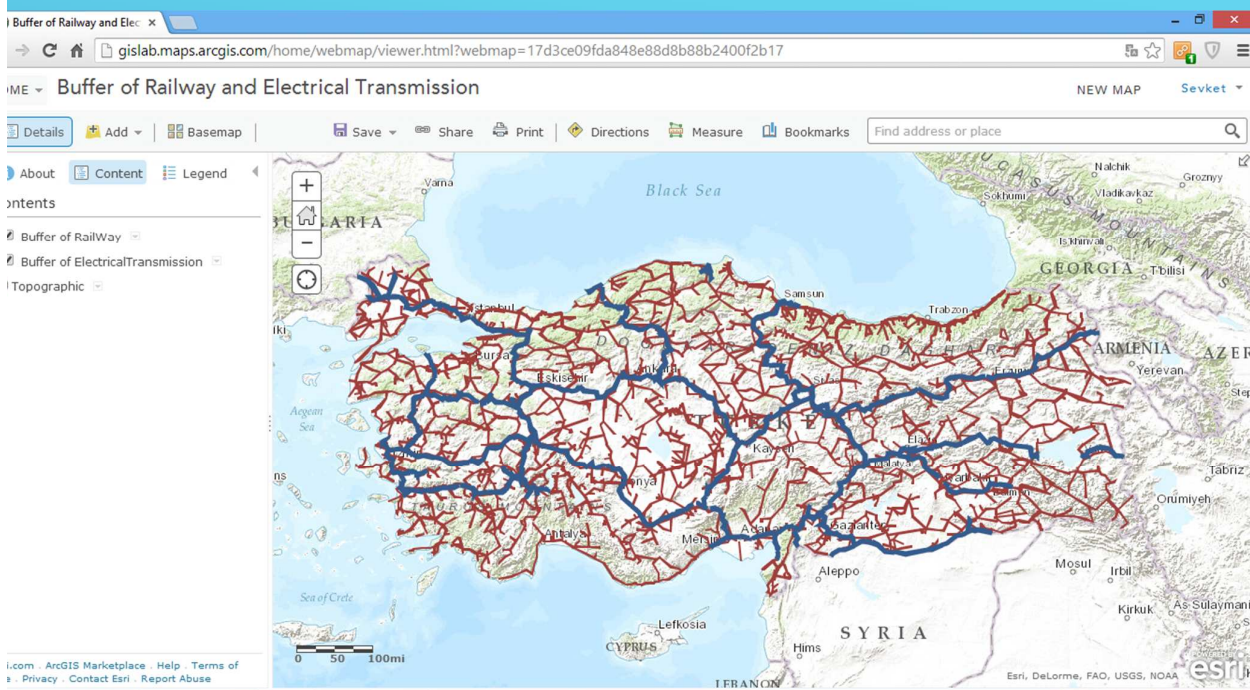
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GIS ANALYZE ON CLOUD

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RESULT OF ANALYZE

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- ▶ I- Ancient Silk Way and Caravan Way Presentation Project with CC
- ▶ Funder: Turkey Nature and Habitat Group
www.gislab.com.tr/kervan2
- ▶ II- Presentation of Agriculture Events in Giresun/Eynesil, with CC
- ▶ Funder:Giresun Local Administrative
www.gislab.com.tr/eynesil
- ▶ III- Detection and Presentation of Tourism Events with CC Technology
<http://www.gislab.ktu.edu.tr/trb/>
- ▶ IV- Natural Gas Pipeline Detection Project (just presentation of final layers)
- ▶ <http://www.gislab.ktu.edu.tr/tubitakraster/index.html>
- ▶ Funder: Turkey Scientific and Technis Research Organization

CLOUD PROJECTS DONE BY KTU GISLAB

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- ▶ www.stat.ucla.edu
- ▶ <http://www.hakanuzuner.com/index.php/cloud-computing-servisleri-saas-software-as-a-service-paas-platform-as-a-service-iaas-infrastructure-as-a-service.html>
- ▶ <http://techmerip.com/breaking-former-wangchhi-group-cto-rivar-bachani-joins-angani-co-as-coo/>

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THANKS...

▶ FIRSTLY TO ALL AUDIENCE IN THIS SESSION



▶ KTU GISLAB RESEARCHERS IN TURKEY



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Research Assistant Şevket Bediroğlu/2014

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WITH THE HOPE OF MEETING AT **TURKEY** FOR **FIG 2018**

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