



Arab Republic of Egypt

Ministry of Petroleum



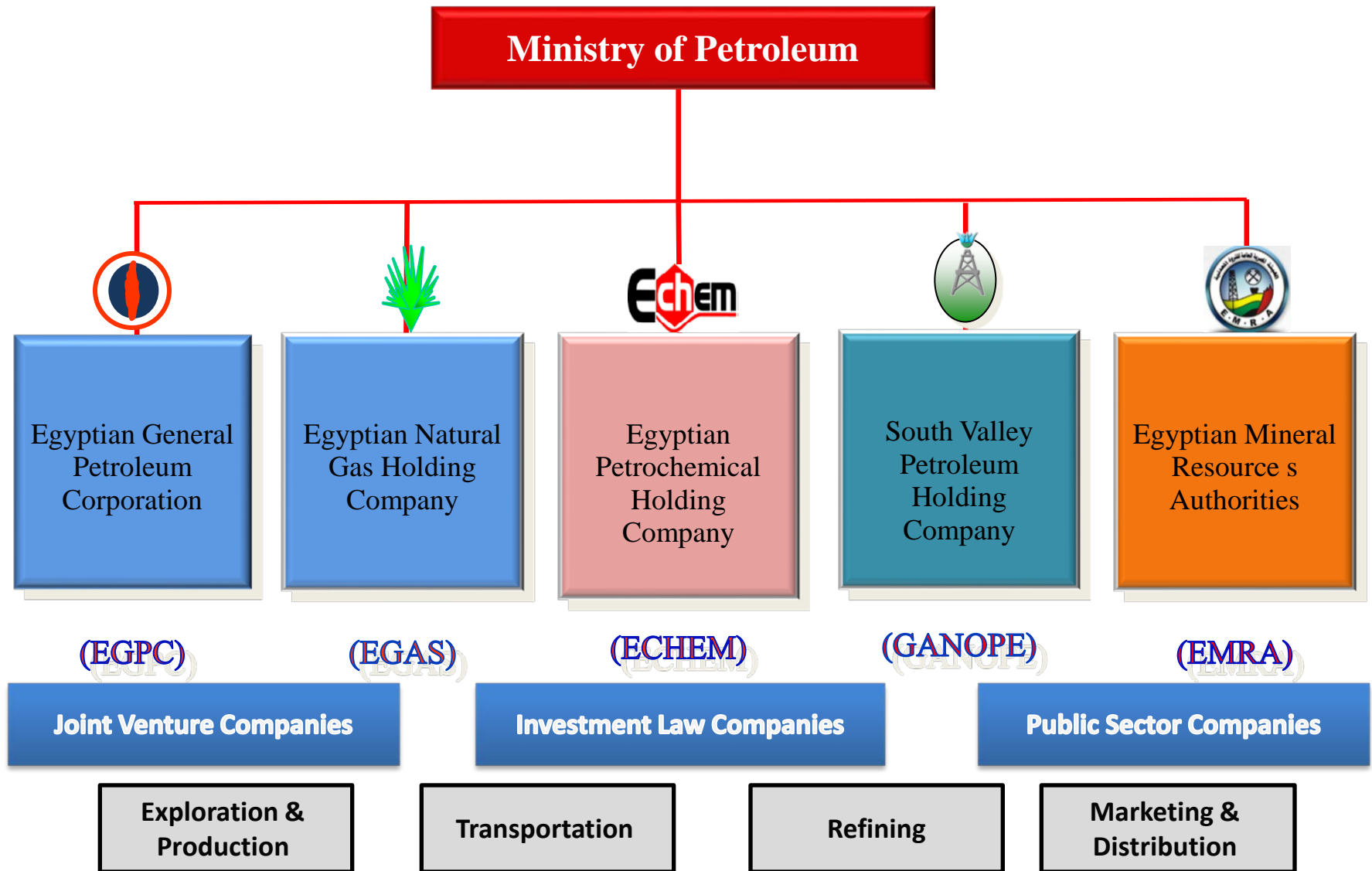
Data Collection: Challenges and Success Stories

By:
Ismail Mohamed

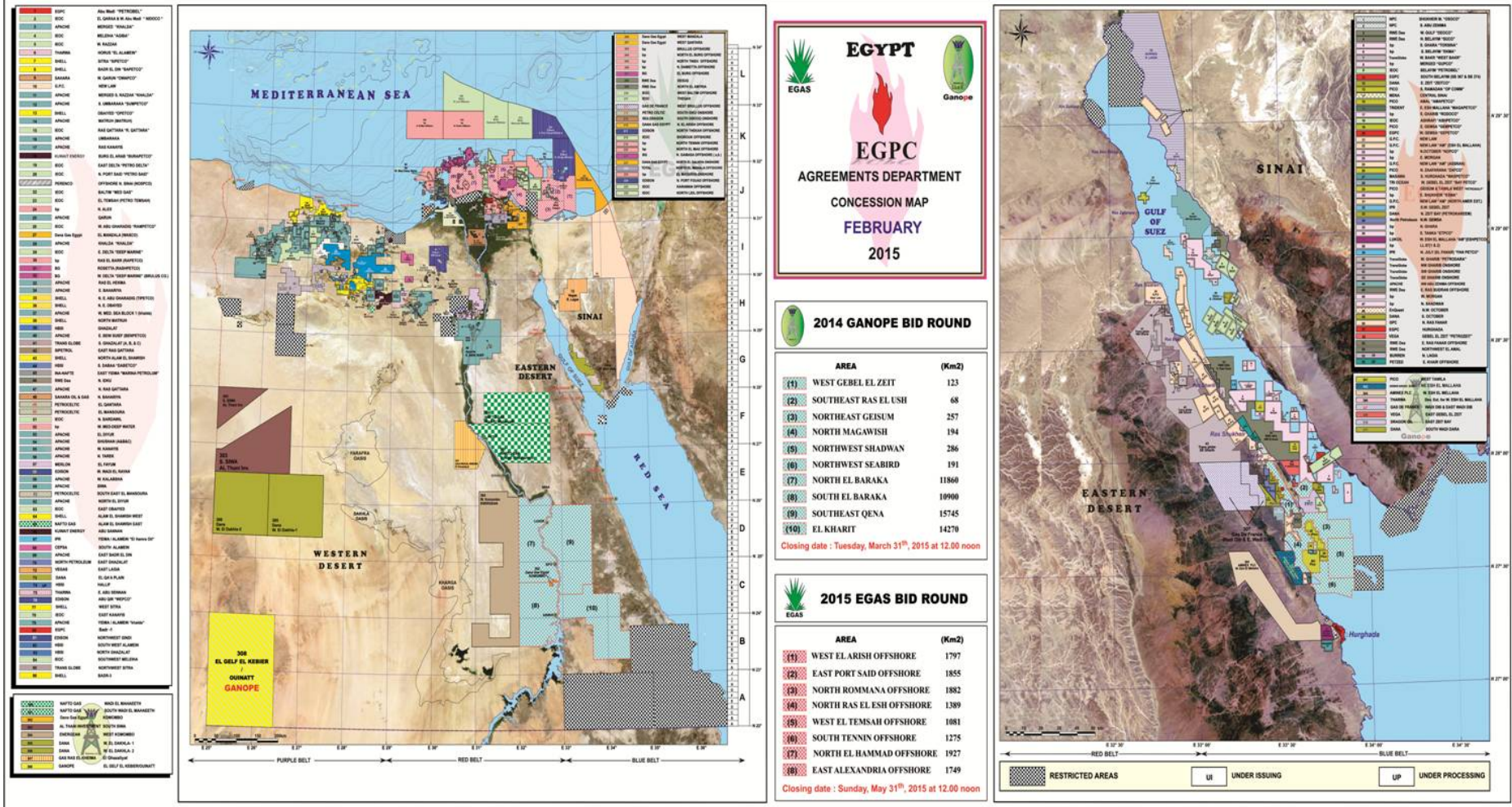
April. 2015

- Egyptian petroleum industry overview
- Data collection
- Data transparency and sharing
- GIS project milestones
- GIS implementation challenges

Structure of Petroleum Industry



EGYPT CONCESSION MAP



Petroleum Industry Overview

National Gas Company
(EGAS)



Non-associated natural
gas (dry +Rich)

52.2 BCM

Natural gas
Production

Export



Arab Gas Pipeline

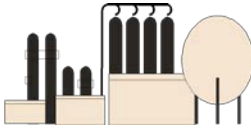
Export



SEGAS and ELNG
Liquefaction
Plants (LNG)

Demand

Separation facilities / Gas
processing plants



Associated
natural gas
(wet)



670 mbbbl/d

Crude oil

NGL

Ethane
Propane
Butane
Pentane
Pentane
plus

LPG proportion from gas processing plants

Oil
Products
Refinery
outputs

535 mbbbl/d

Demand

Import:

Export

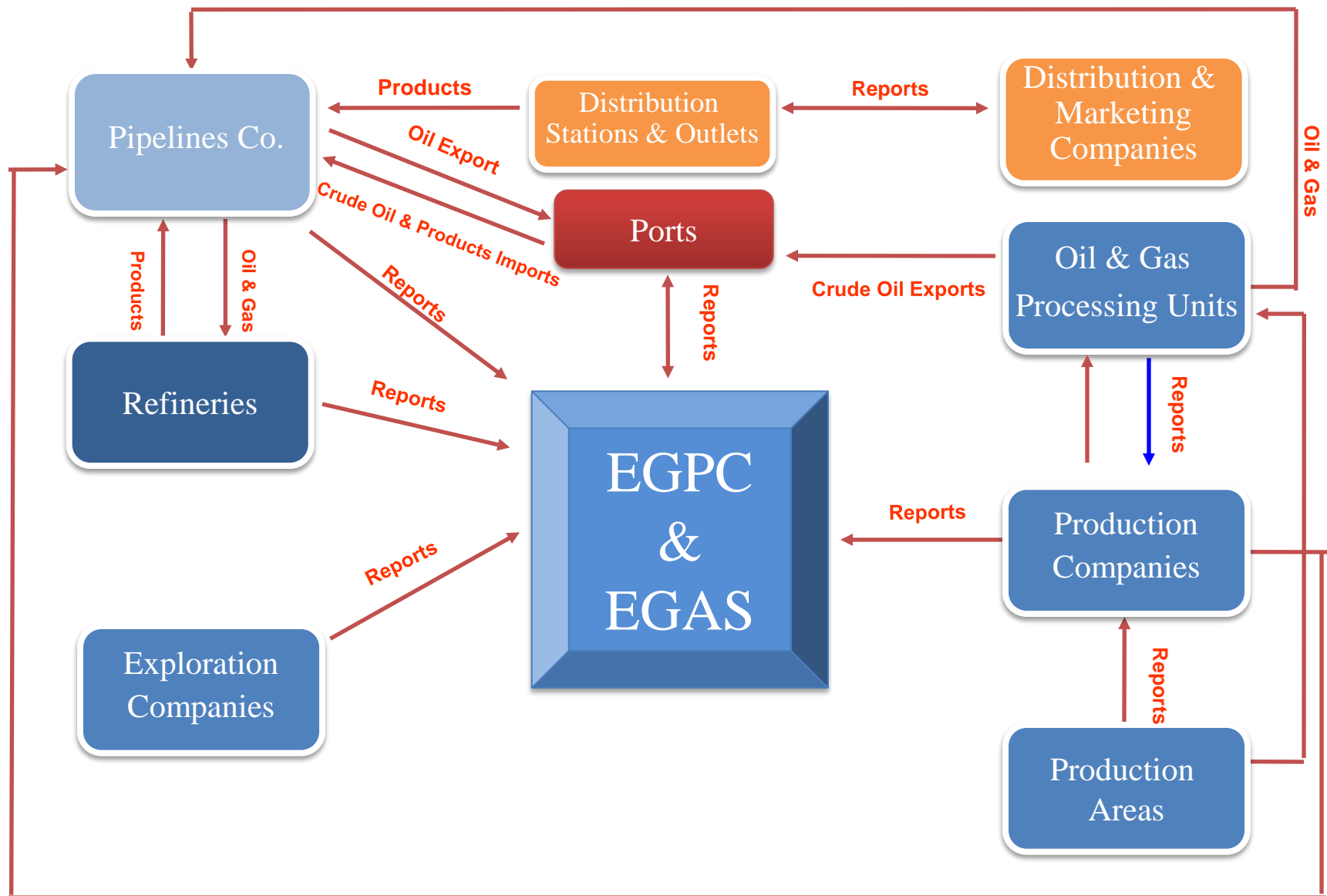
8 Refineries
38 mm tones

Import:

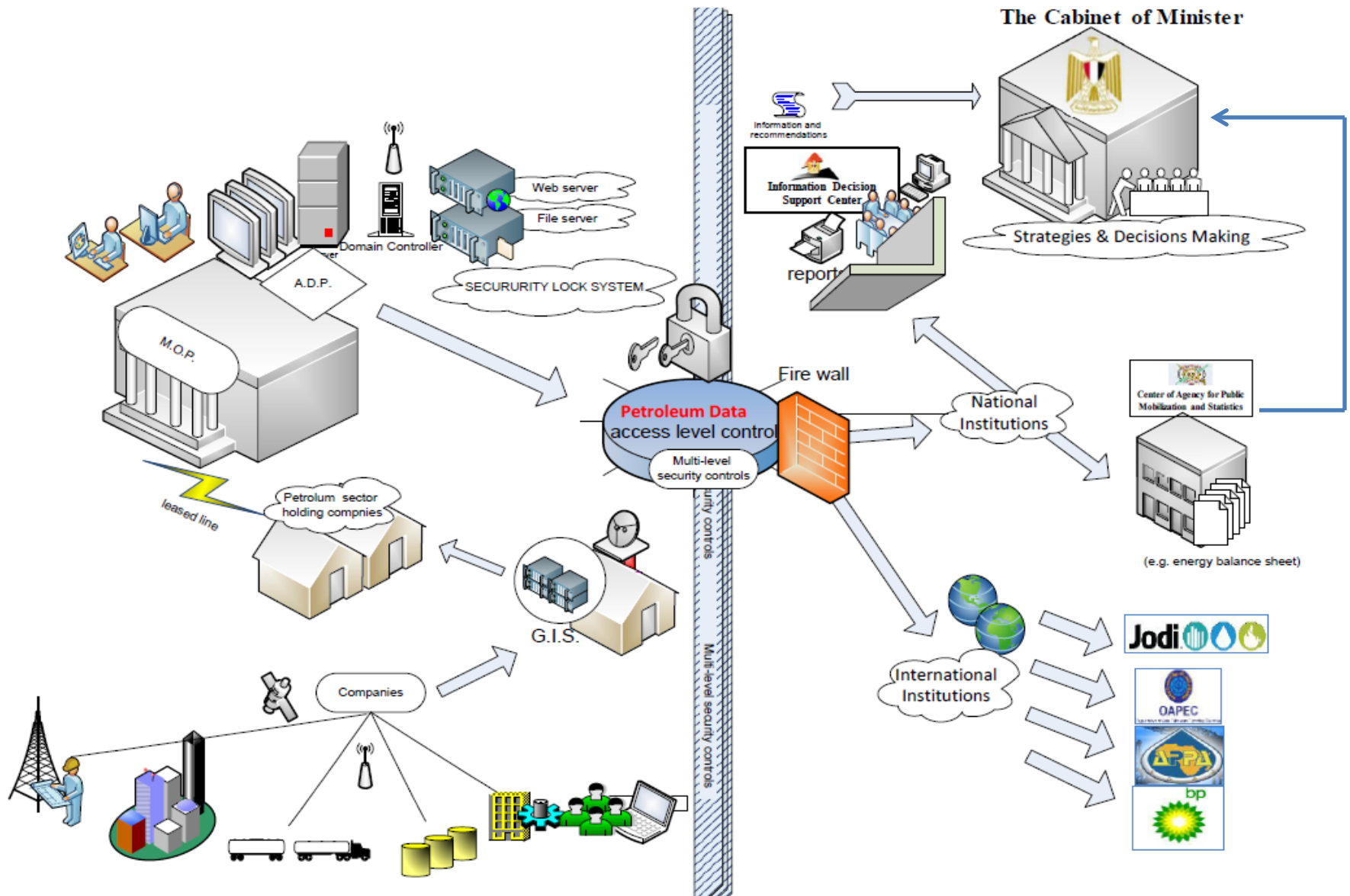
Export

National Oil Company
(EGPC)

Petroleum Data - Collection



Data transparency & Sharing



Macroenvironmental Analysis

Operating Environment

- Global competition increasing
- Target fields more complex and small
- Maturing portfolios
- Volatile oil prices

Industry Concerns

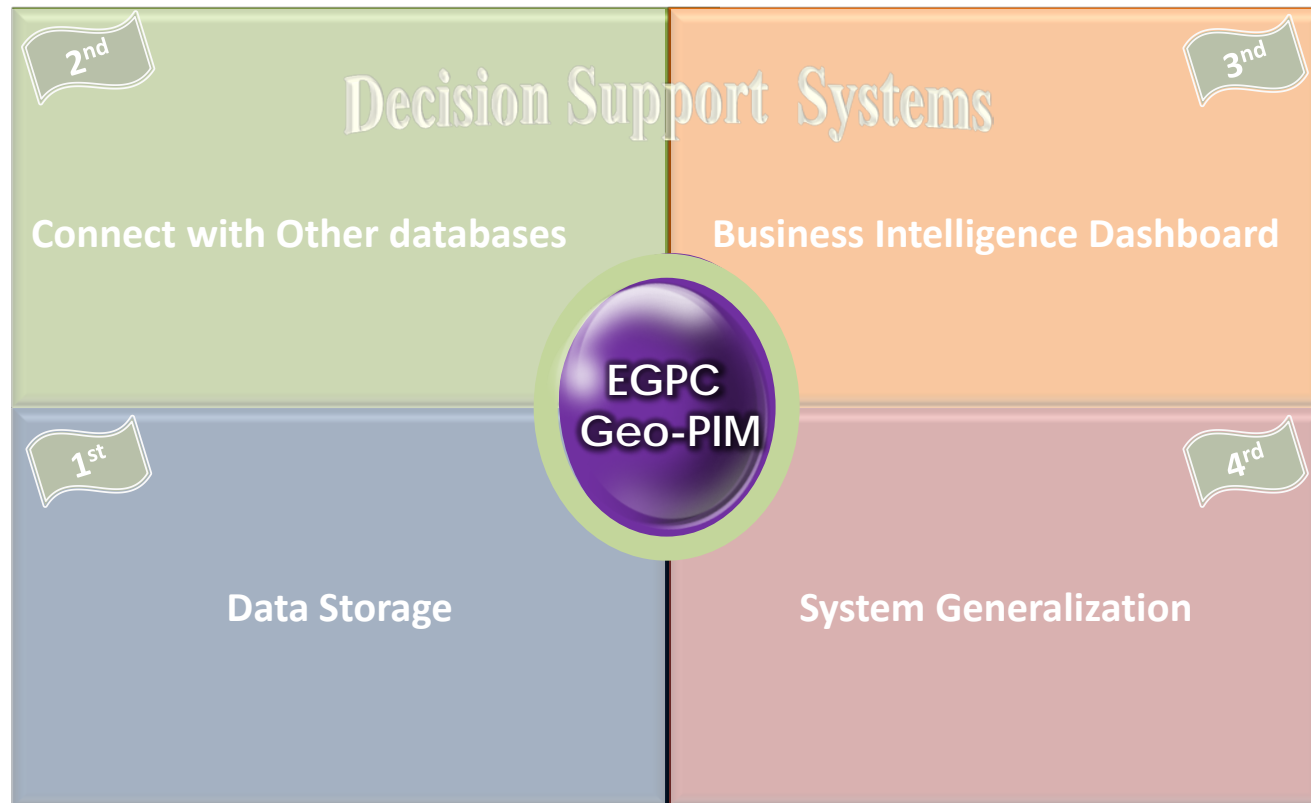
- Reduction of risk
- Reduction of uncertainty
- Reduction of cycle times
- Reduction of costs
- A continuum of E&P
- Management of diverse portfolios

What Is Needed?

- Easy Access to quality information
- Planning, resource allocation and management
- Workflow support, Group communication tools
- Decision support system

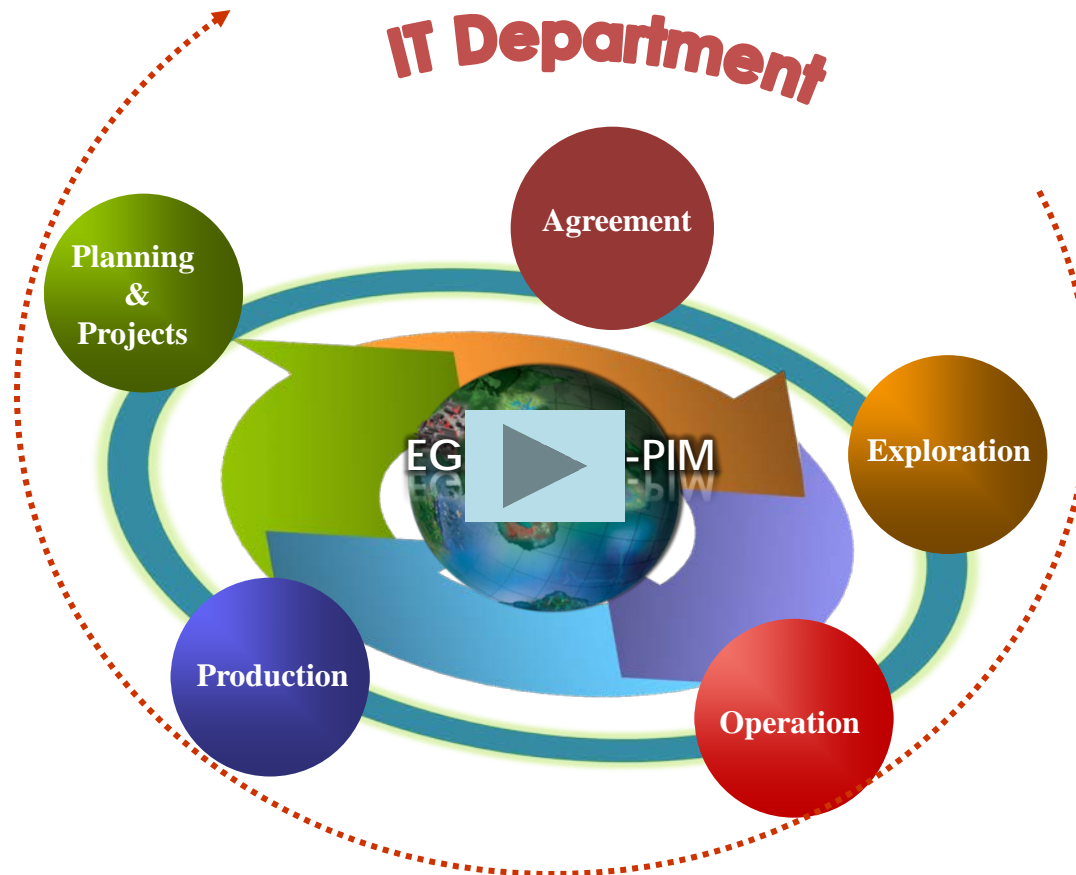
...Prerequisite to all of the above is an optimal IT and data management environment...

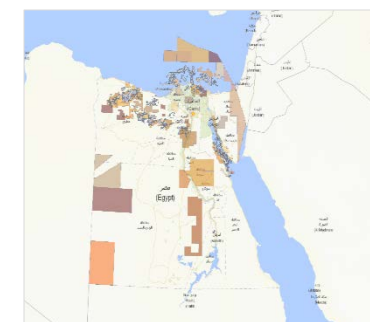
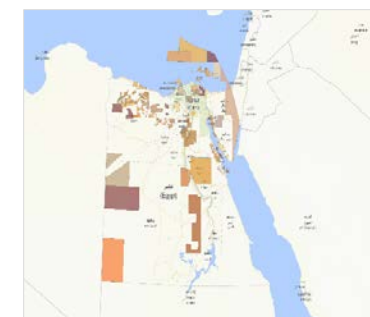
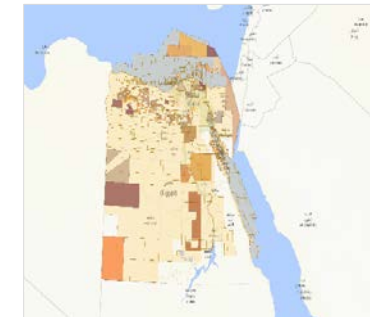
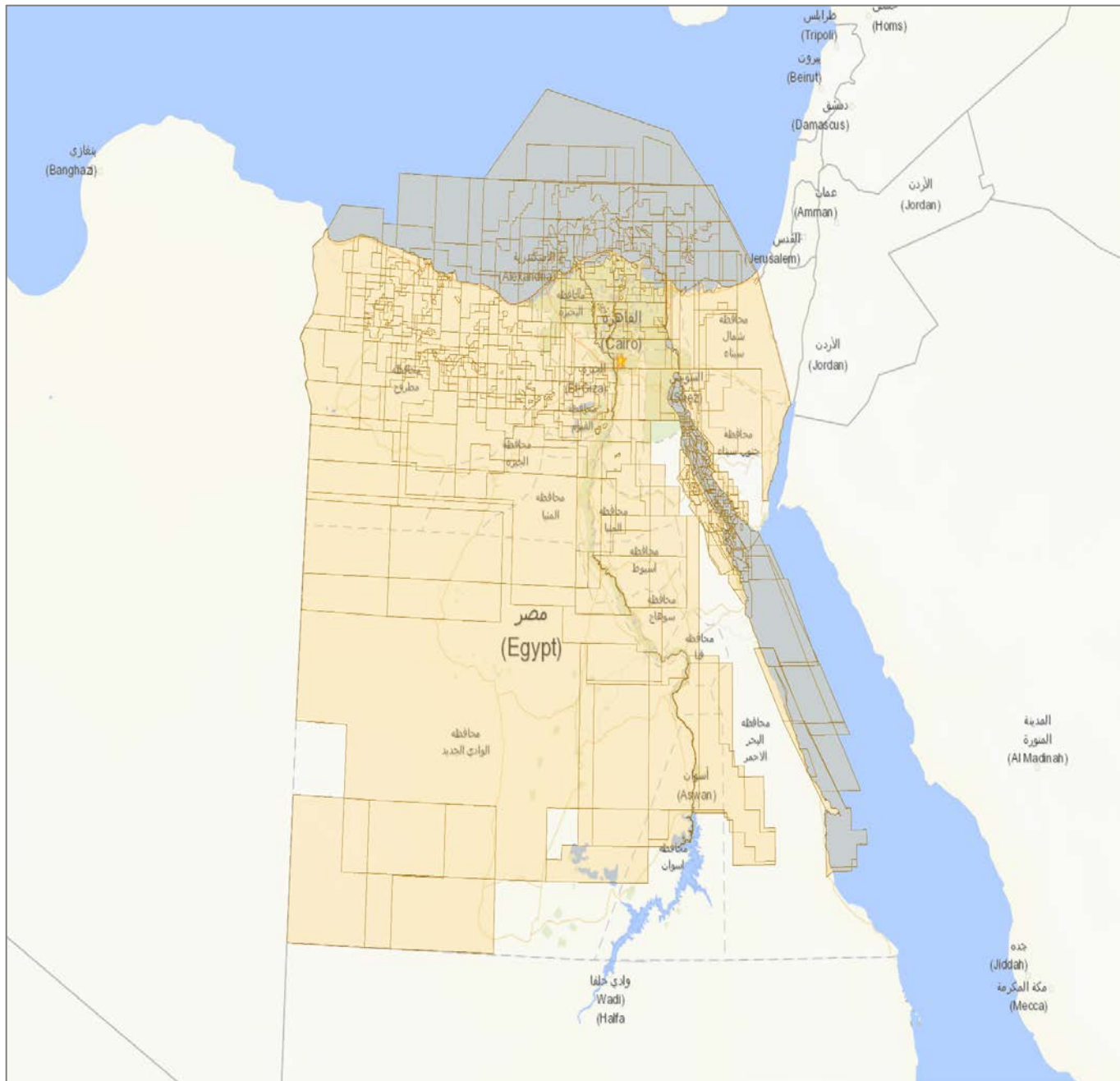


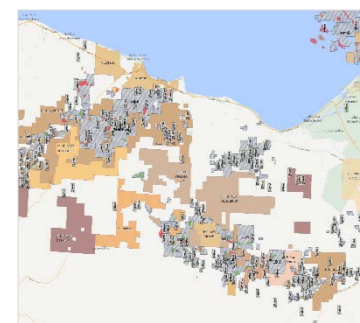
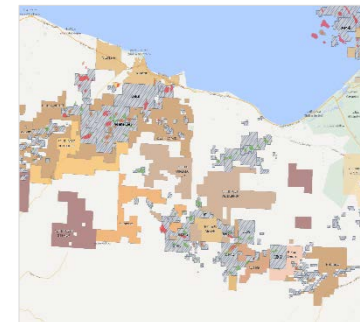
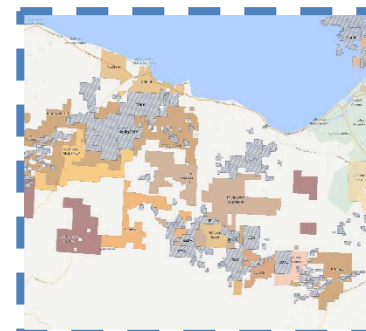
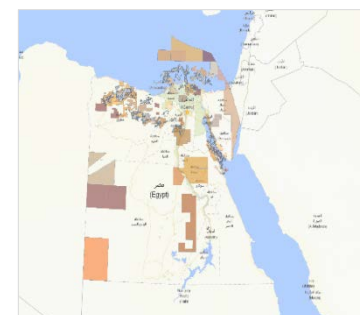
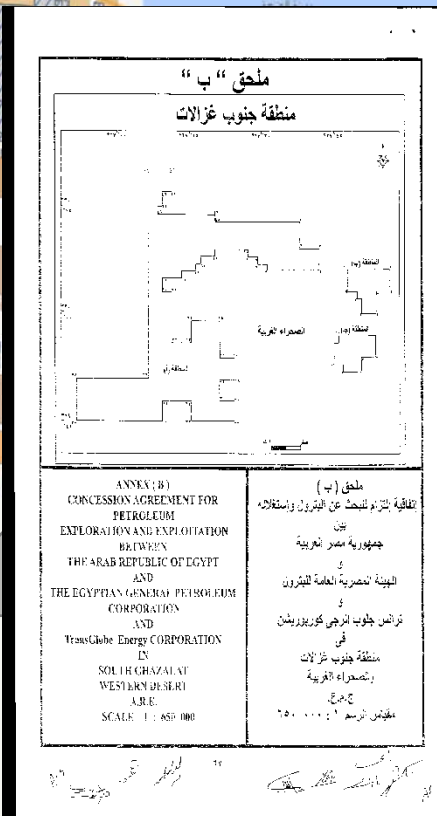
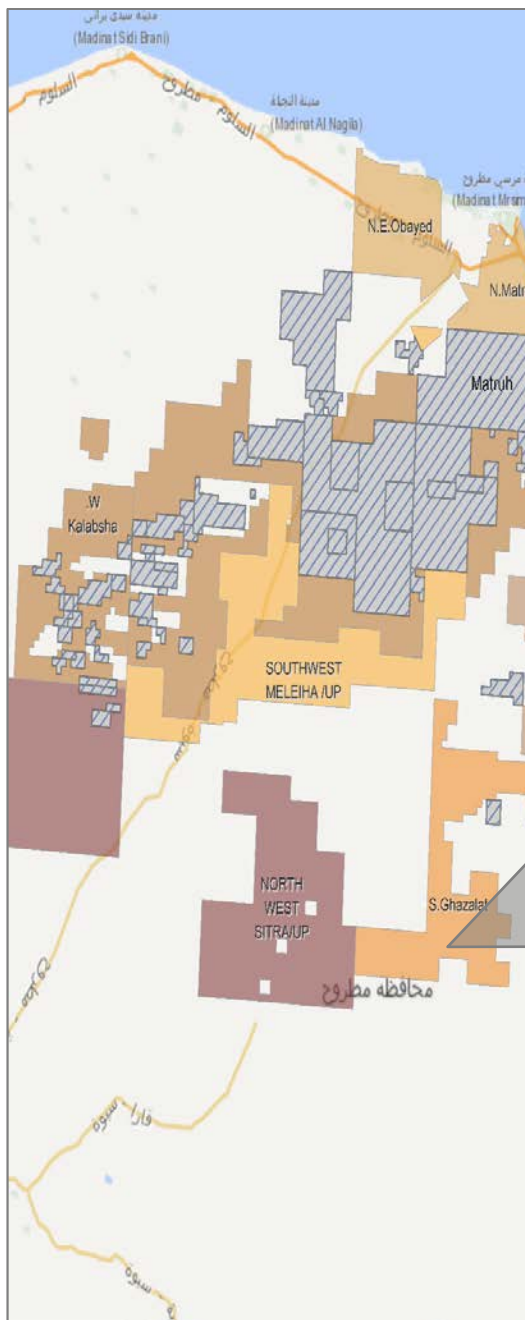


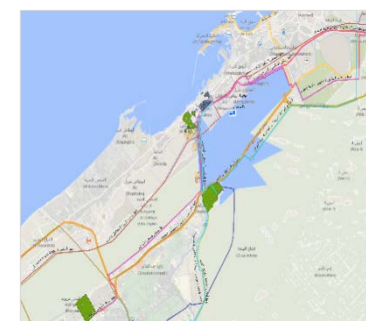
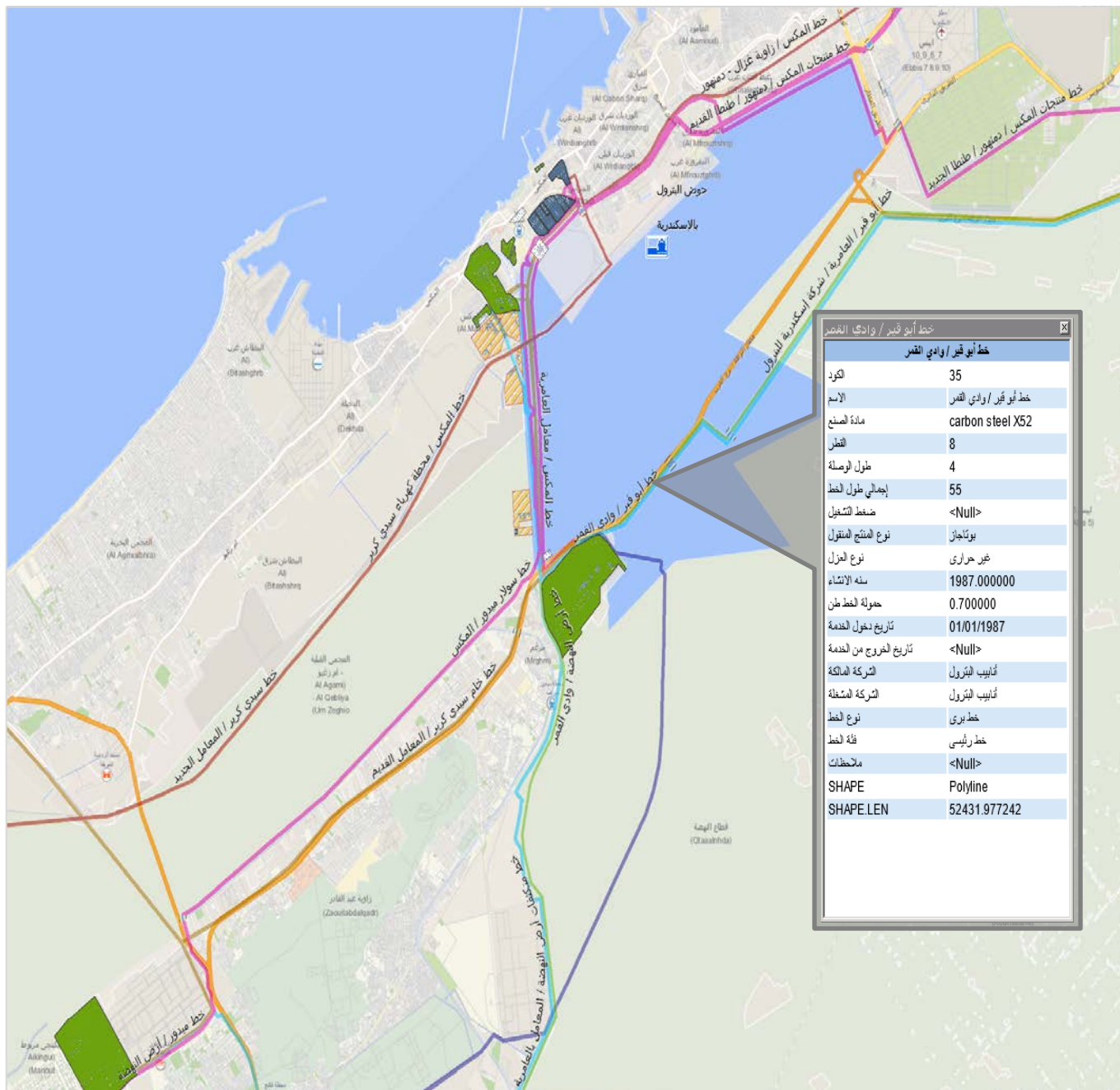
Current System Stakeholders

petroleum database (i.e. Agreement, planning and project, Exploration and Production) since 1990 were collected and stored, providing users with map-based access to both spatial information and its related attributes.

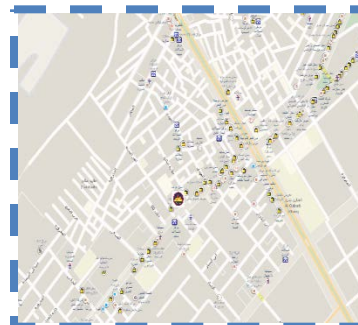
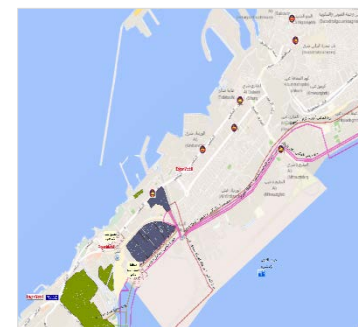
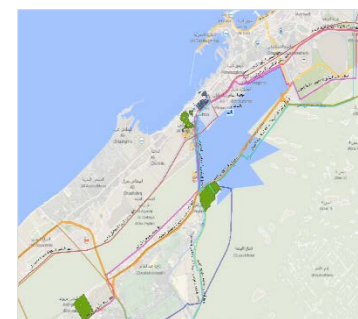
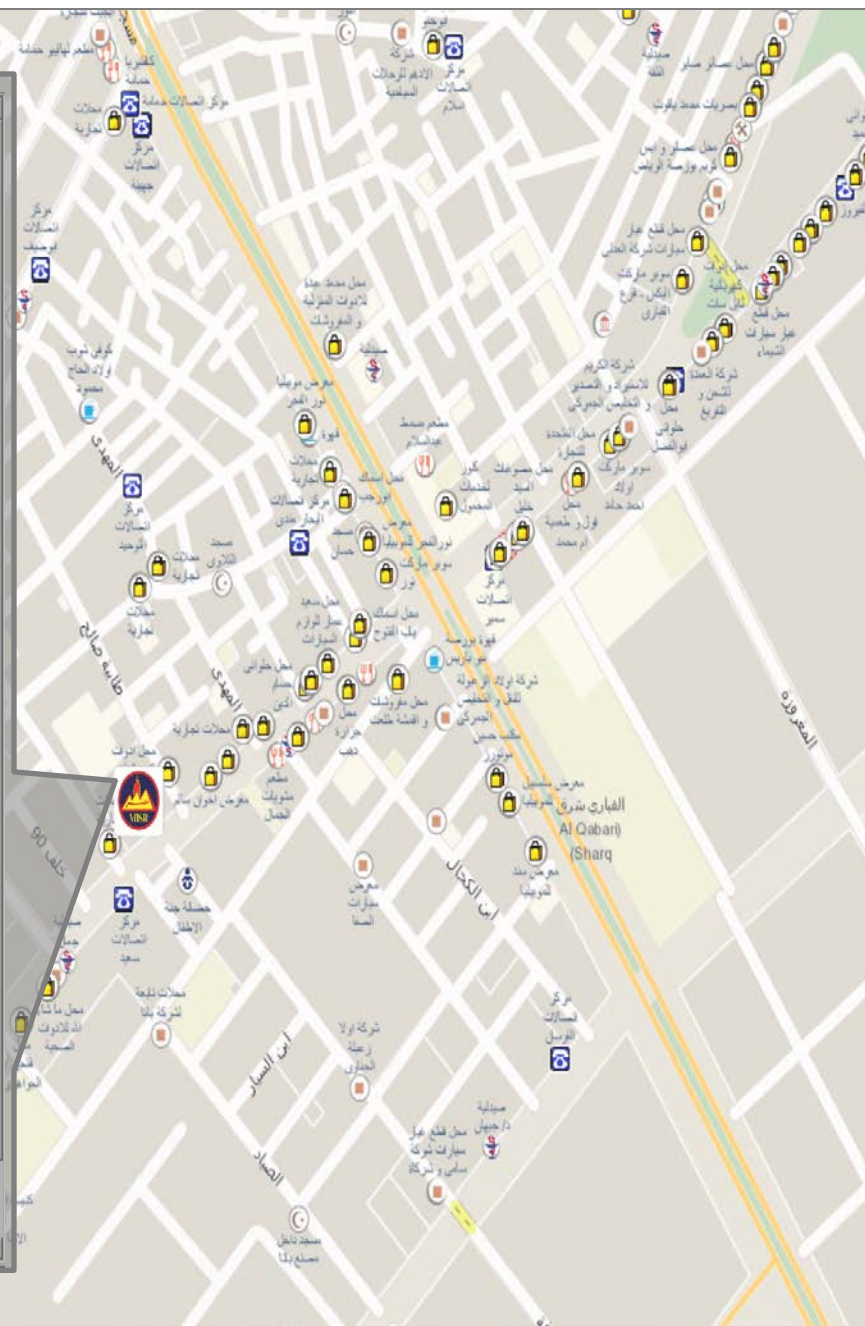








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نوع المحطة	تأمين وخدمة
الشركة	مصر للتأمين
AREA	الإسكندرية
نوع الملكية	شركة
اسم المالك	<Null>
اسم الوكيل	صفى حسين حسن الطراواوى
نوع الاشراف	الوكيل
اسم المشتل	<Null>
الغنوان	ش المسك / لوردين 86
رقم التليفون	4446333
الواجهة	38
العمق م	64
المساحة م2	2448
عدد الطلقات	5
عدد مسدسات	0
عدد خزانات	0
السعة التخزينية للمحطة	0
عدد مسدس 80	2
عدد خزان 80	2
السعة ل 80	45
عدد مسدس 92	
عدد خزان 92	
السعة ل 92	
عدد مسدس 95	
عدد خزان 95	
السعة ل 95	
عدد مسدس سولار	2
عدد خزان سولار	2
السعة سولار	45
عدد المضخات المشتركة	0
عدد مضخات الهزين	0
عدد مضخات السولار	0
القوى المعركة بالحصان	21
توفر التأمين بالغاز	No
عدد لعمال	23
تاريخ بدء التشغيل	06/03/2003
تاريخ الموافقة	06/03/2003
حالة المحطة	<Null>
الاحداثى الصادى	29.877727
الاحداثى السيني	31.17611
المحافظة	محافظة الإسكندرية



GIS Implementation Challenges



Scattered & Missing Data

Establishing Joint workforce GIS committee.



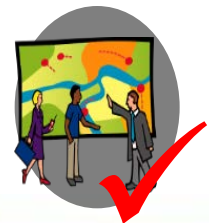
Complicated GIS Knowledge

Helping Employees Get the most out of Technology.



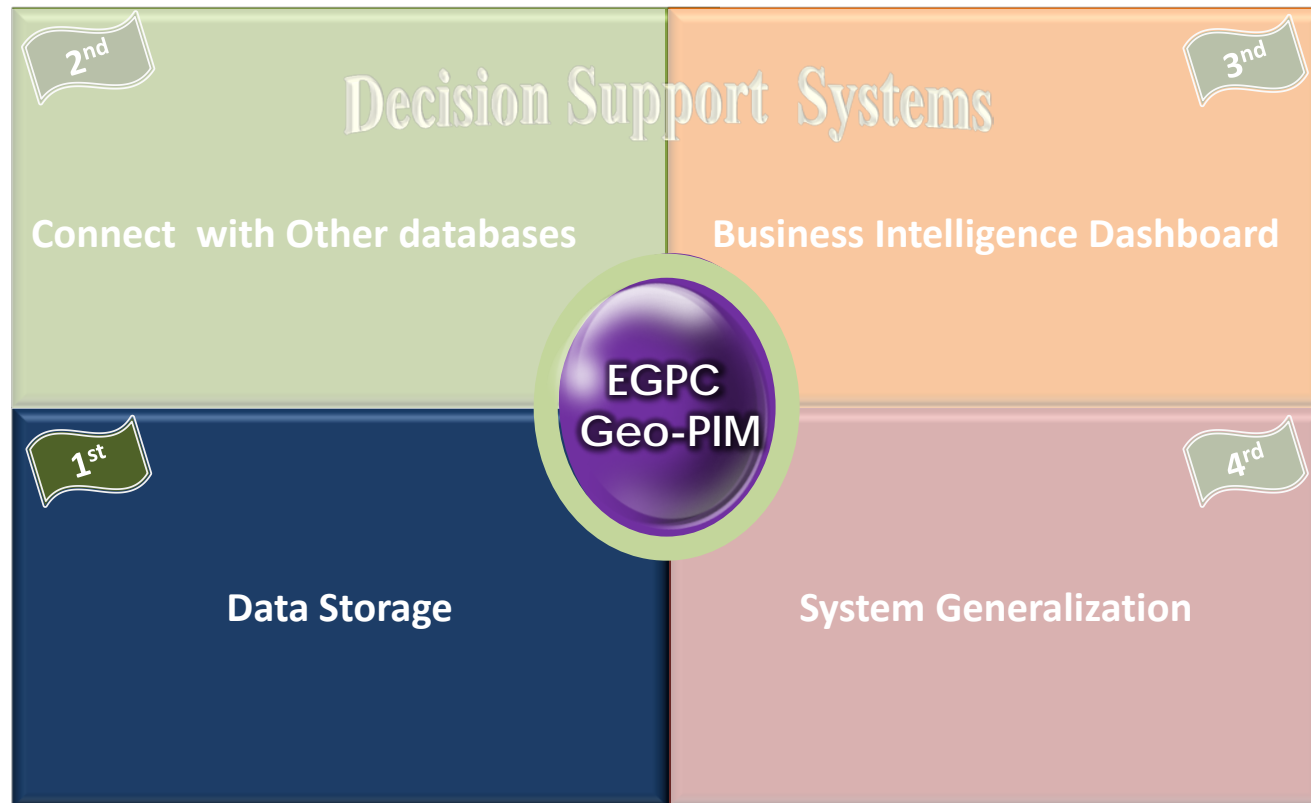
Security Issue

Applying highly protected standards to the info security system.

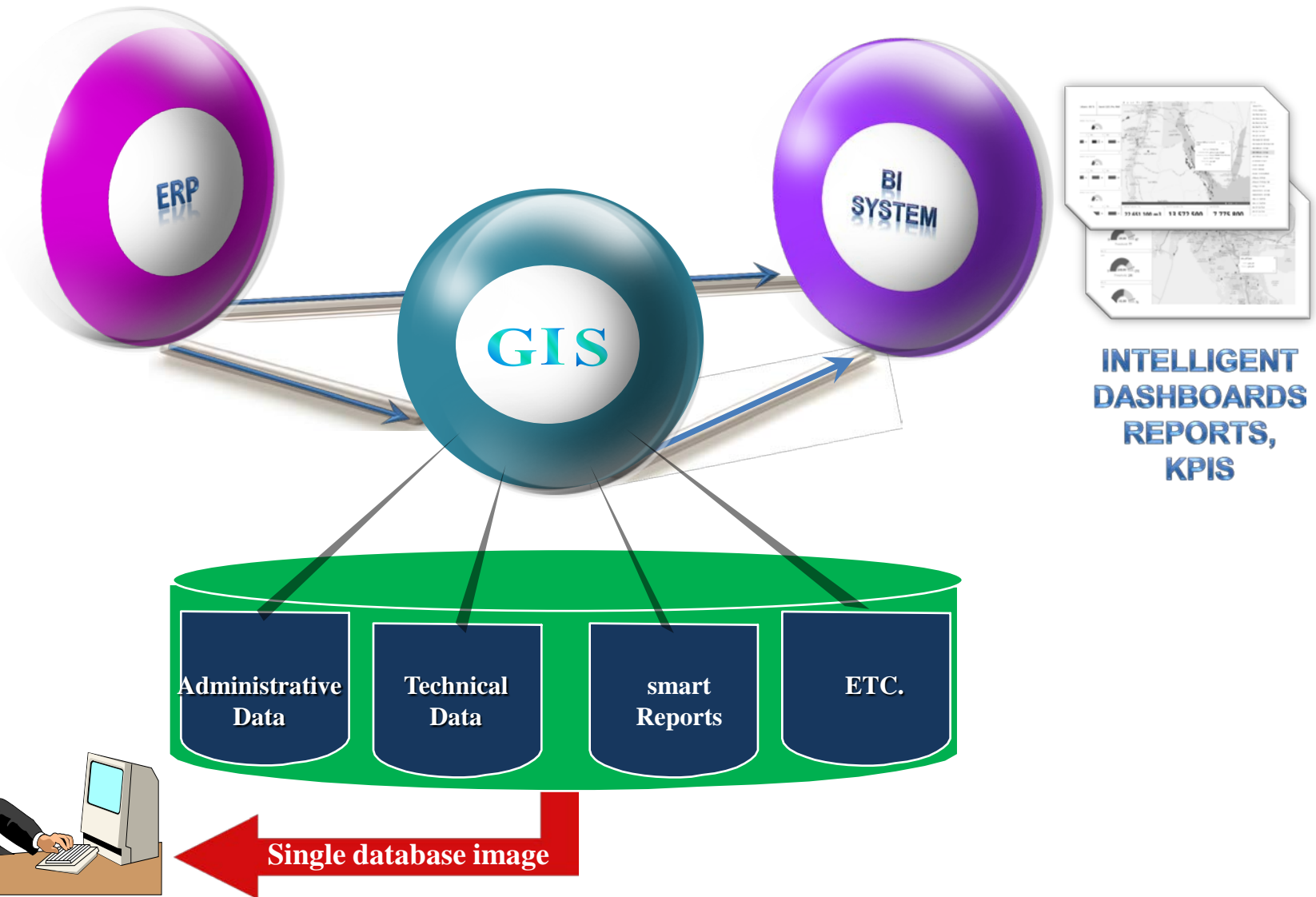


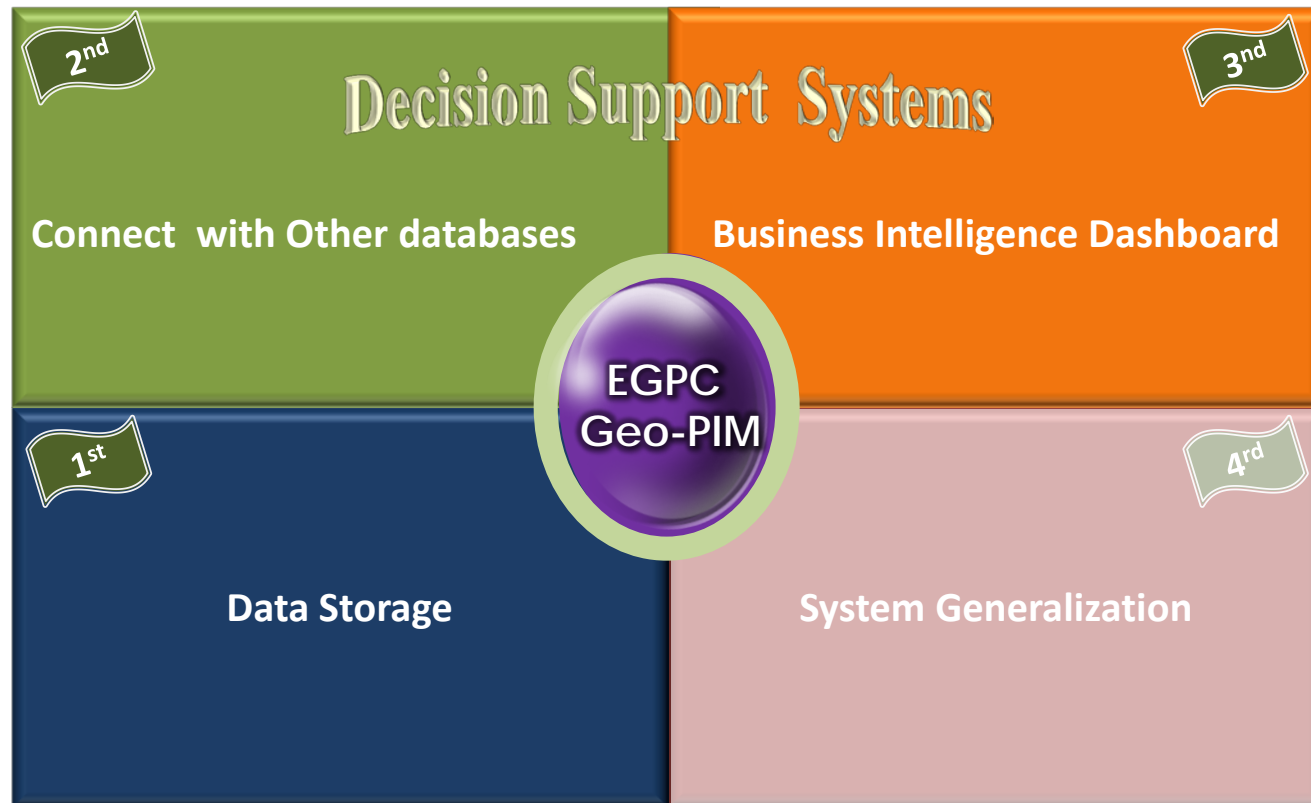
Visualization & Monitoring Issue

Safety remote access in protected channels, including remote control.

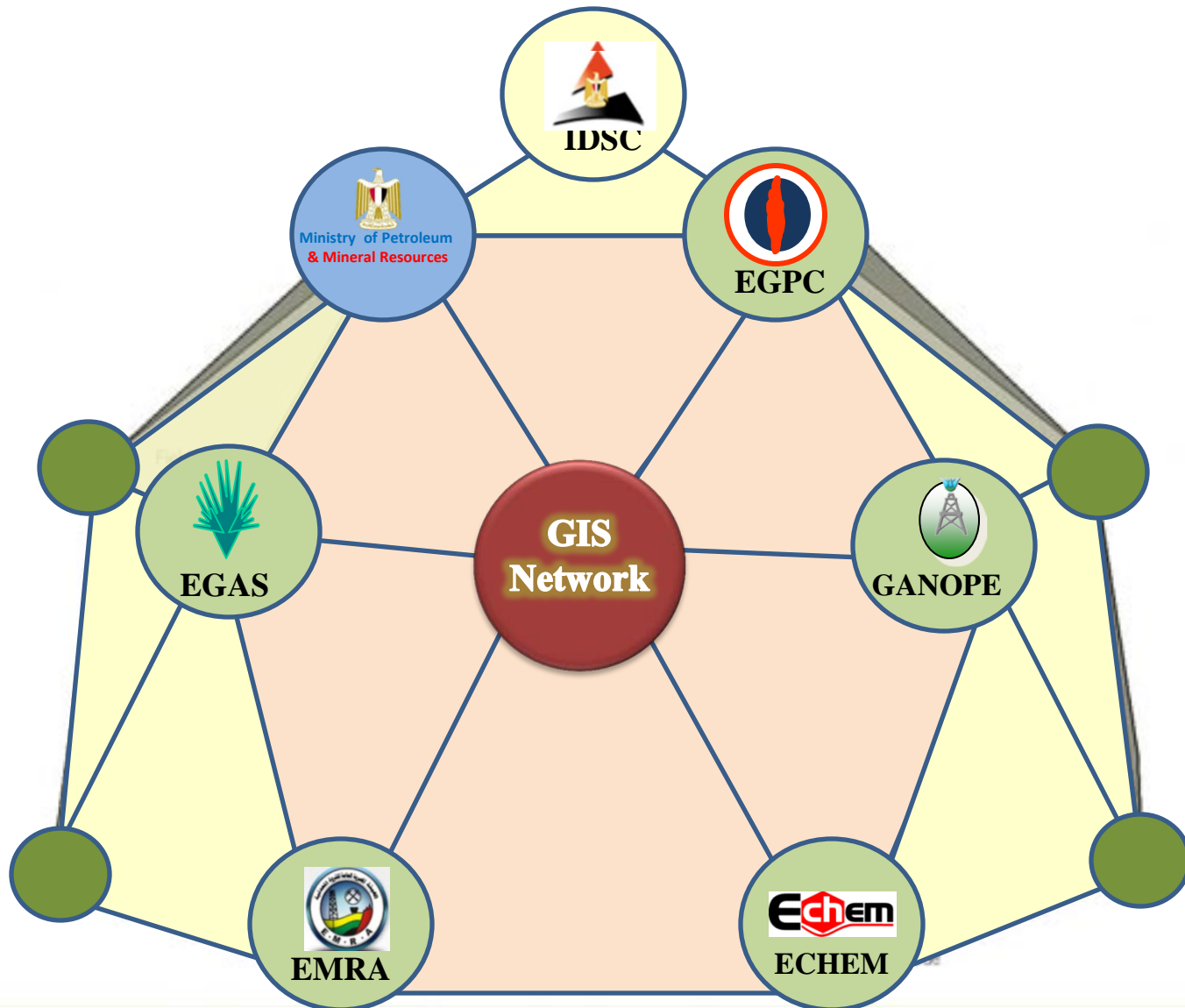


2nd & 3rd phase – Decision Support Systems





Phase 4 - GIS Generalization





THANK YOU FOR YOUR ATTENTION