

Sustainable Development and Spatially Enabled I.R. Iran

22 Oct 2014
3rd HLF UNGGIM
Beijing, China

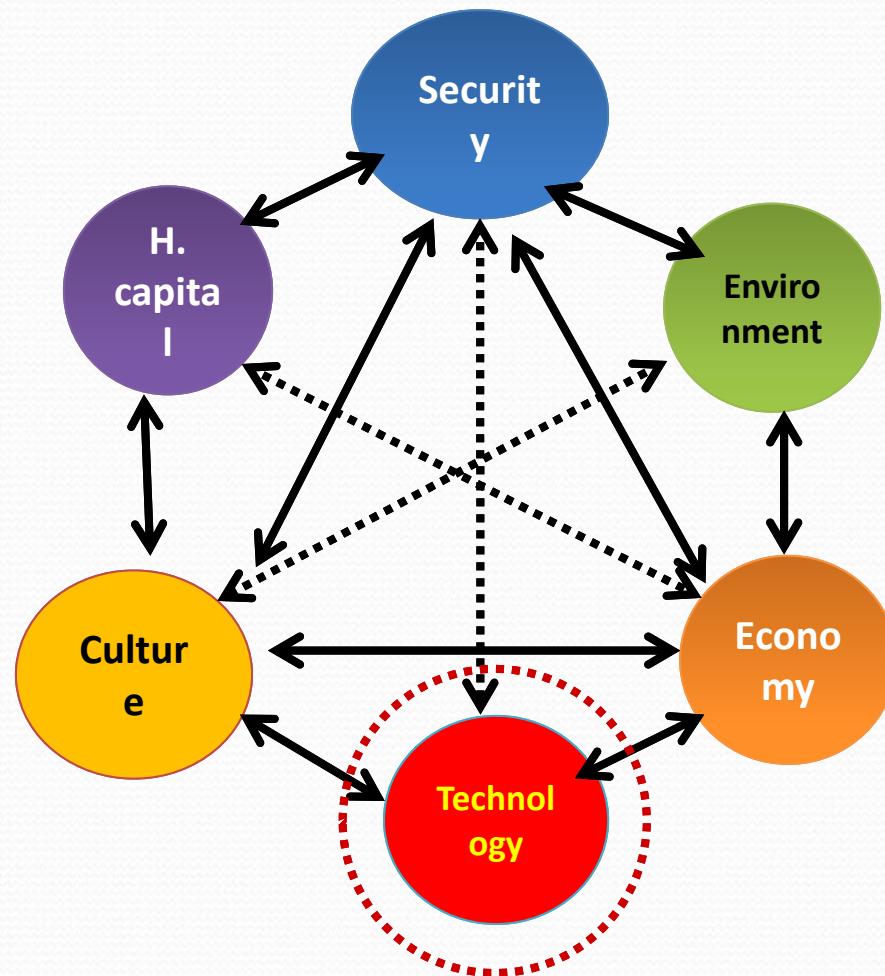
IRAN AT A GLANCE

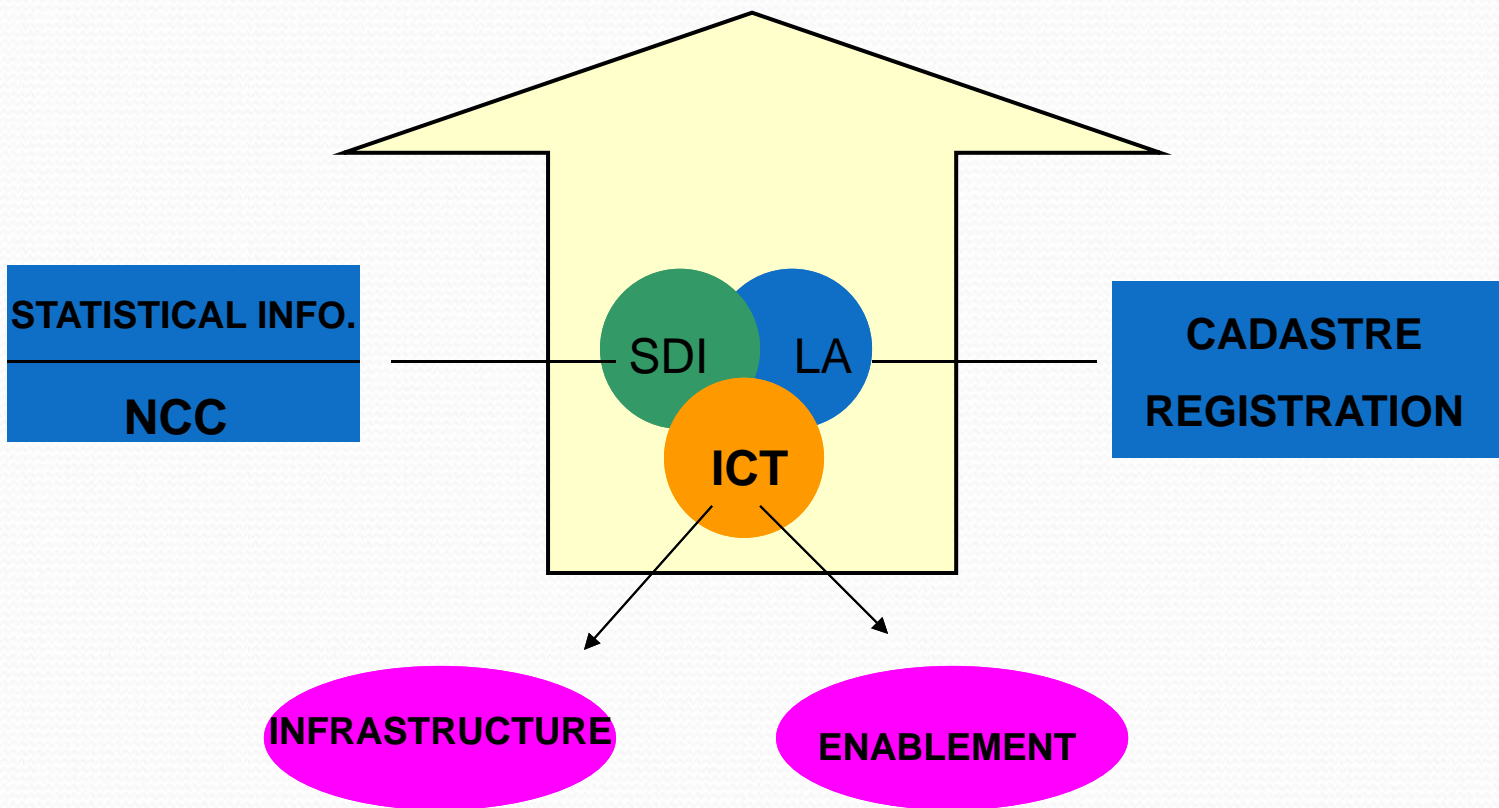
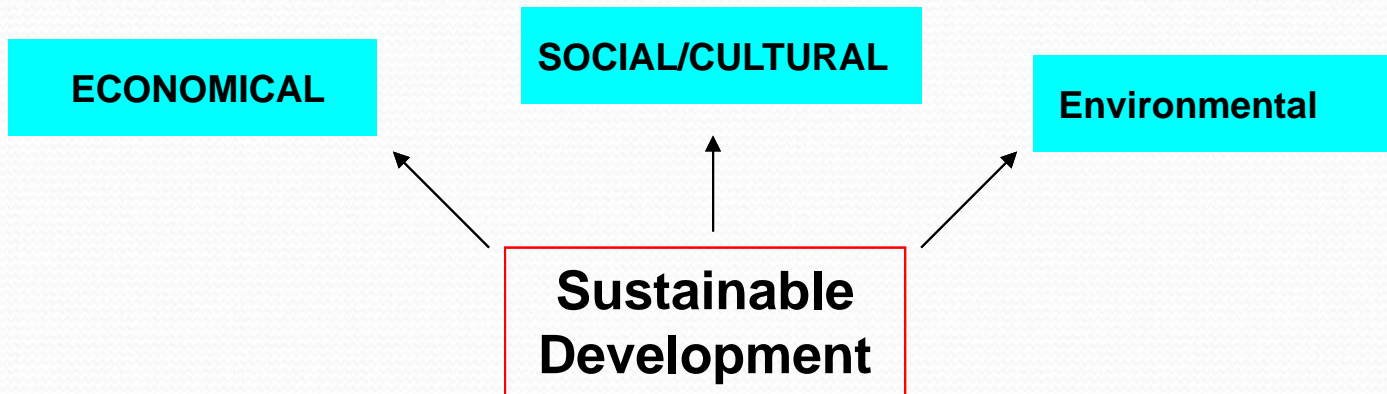


General Information	
Governmental system	Islamic Republic
Area	1,648,195 sq.km
Population	75495782
Capital	Tehran
Official Language	Farsi (Persian)
Currency	Rial

Key Factors for Development

Technology as main Driver





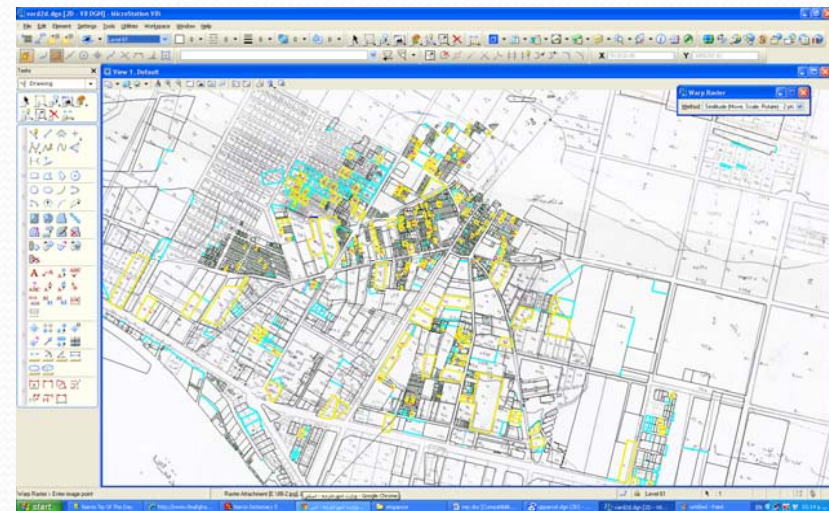
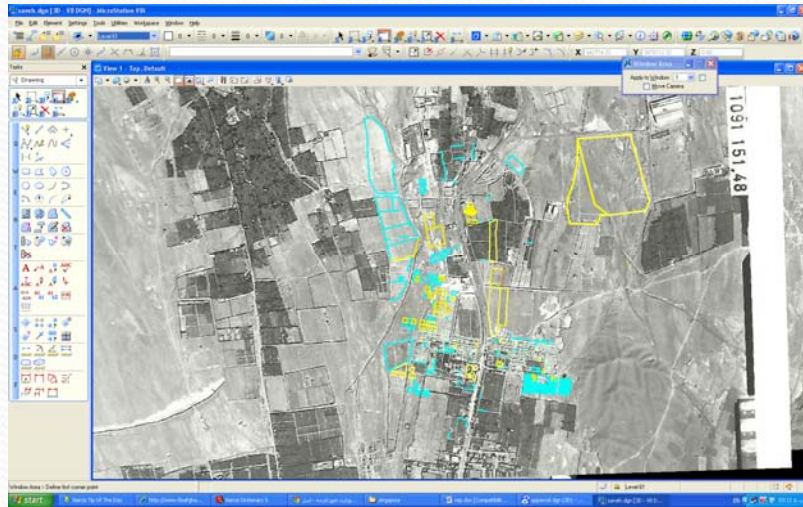
CADASTRE and SUSTAINABLE DEVELOPMENT

The role of cadastral data is quite significant so that, Iran's Deeds and Properties Registration Organization by its project for cadastre performance, prepared a powerful integrated data base in country for more than **96 percent** of Urban area and for legal attributes of more than **25million registered parcels** of public and private owners, which are maintaining in digital database.

CADASTRAL LAYERS

- PARCELS
- PROPERTIES
- BUILDINGS
- ROADS
- WATER RESOURCE BOUNDRIES
- LAND TENURE INFORMATION
- LAND VALUES
-

CADASTRAL OUTPUTS



CADASTRAL OUTPUTS

The screenshot displays a CADASTRAL software interface. The top portion shows a map of a city grid with a blue arrow pointing to a specific area. Below the map is a control panel with various buttons and a data table. The table contains information about land parcels, including their original and current areas, and their respective sheets and sections.

Control Panel Buttons:

- ارایق خلاصه مشاهده
- تبدیل صفحه به MD
- صفحه 101
- دفتر 49F1
- SET
- شماره 1021199
- کد محل 1021199
- مشخصات ملک
- حدود اریحه آیانمان
- حدود اریحه عرضیه
- مشخصات سند
- مفروضات و منضبات
- موضوعات اصلاحی
- مالکیت و محدودیت
- خروجیها
- مسیر اوراق

Table 1: List of sheets and sections

کد دفتر	دفتر	صفحه	زینفنا	کدسختل	اصلی	تریعی	مفروض	نقطه	مساحت	حذف
1021199	49F1	101	2	1021100	3758	233	160	5	200	

Table 2: Detailed parcel information

جهت	طول	اصلی	تریعی	مفروض	نقطه	مخبر	عرض
جنوباً	10					ک	3
شرفاً	20				14V13		
جنوباً	10						

Summary Data:

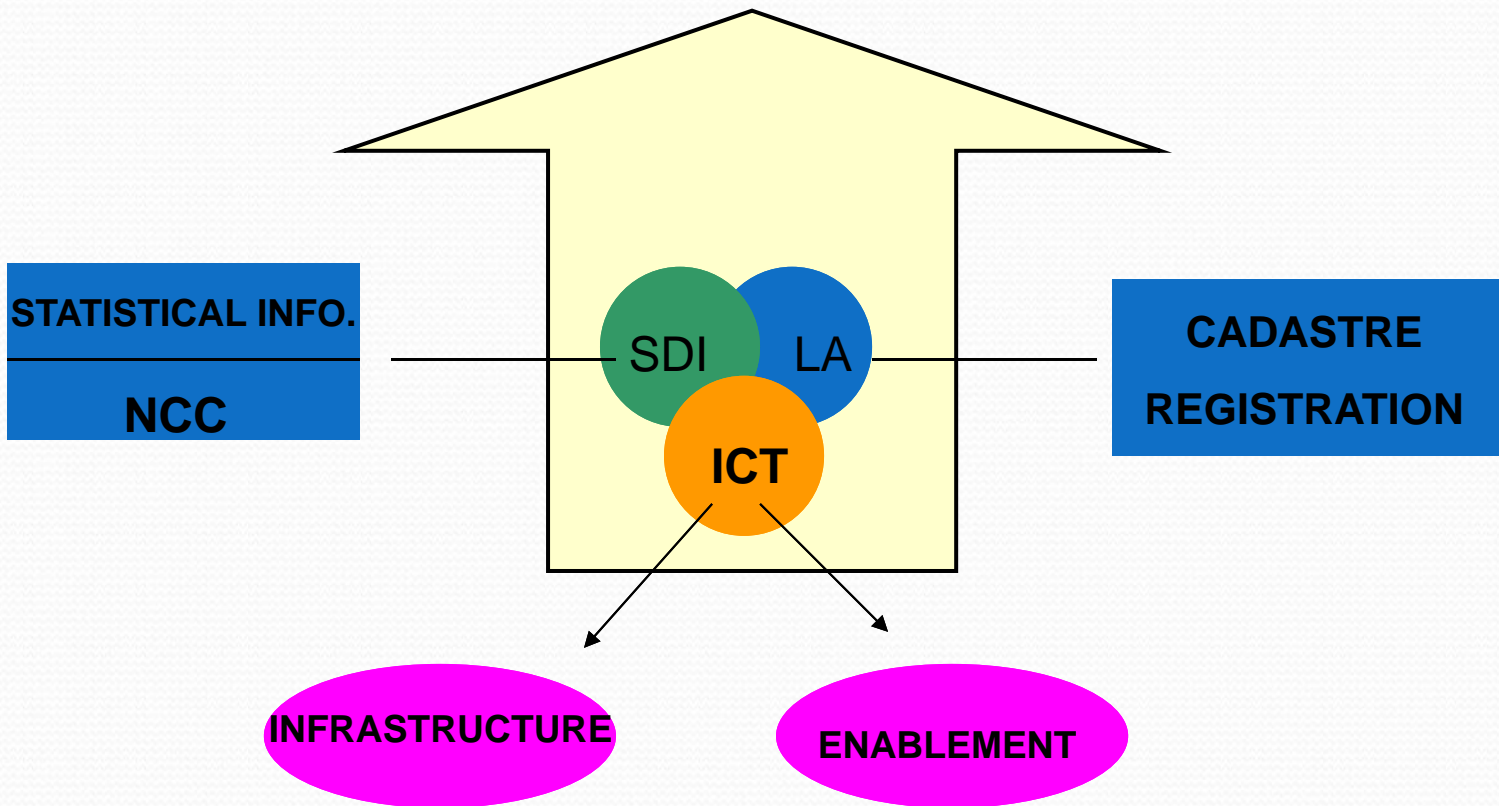
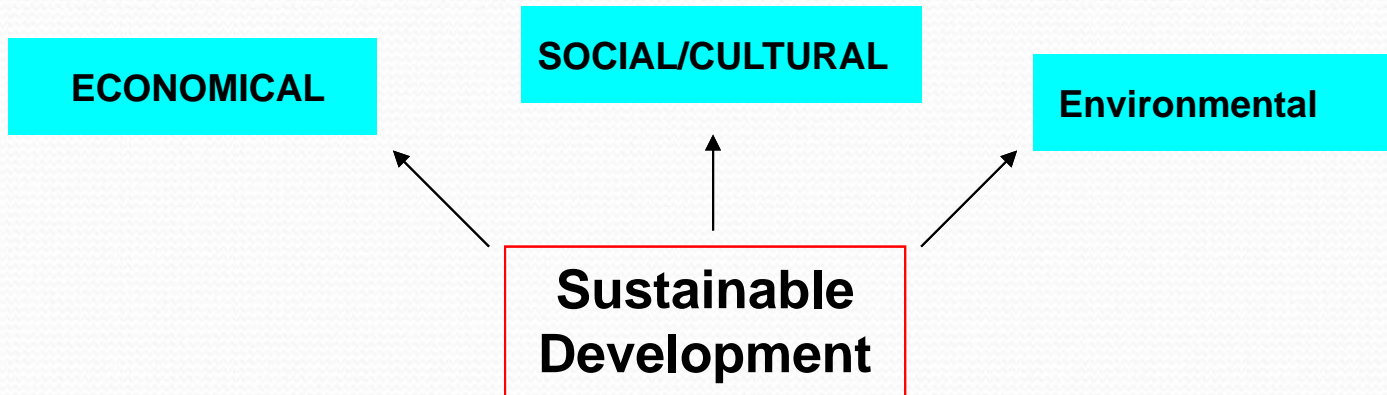
- کد محل: 1021100
- اصلی: 3758
- تریعی: 233
- مفروض: [Blank]
- نقطه: [Blank]
- جهت: [Blank]
- طول: [Blank]
- اصلی: [Blank]
- تریعی: [Blank]
- مفروض: [Blank]
- نقطه: [Blank]
- مخبر: [Blank]
- عرض: [Blank]

Buttons: نمایش, صفحه

CADASTRAL ATTRIBUTES

Query Output

کد سری دفتر	شماره دفتر	شماره صفحه	ردیف	شماره سند	تاریخ ثبت	تاریخ ثبت	پلاک اصلی	پلاک فرعی
1151100	D493	294M0R6	1		1391/08/28	1391/08/28	43	8644
1151100	D354	344R3S1	1		1391/08/29	1391/08/29	43	8448
1151100	D223	344R13S1	1		1391/08/29	1391/08/29	43	8448
1151100	D2466	257R2S1	1		1391/08/29	1391/08/29	43	8448
1151100	D227	20R5	1		1391/08/29	1391/08/29	43	8448
1151100	D227	20R8	1		1391/08/29	1391/08/29	43	8448
1151100	D227	20R1	1		1391/08/29	1391/08/29	43	8448
1151100	D227	20R4	1		1391/08/29	1391/08/29	43	8448
1151100	D227	20R10	1		1391/08/29	1391/08/29	43	8448
1151100	D1903	377R3	1		1391/08/29	1391/08/29	43	8448



National Cartographic Center of Iran (NCC) (Iranian National Mapping Agency)

Surveying, Geodesy and Geodynamics
Aerial Photography
Photogrammetry & Remote Sensing
Geospatial Information System (GIS)
Spatial Data Infrastructure (SDI)
Cartography
Hydrography
Supervision and Technical Control
Research, Development and Standardization
Education and Training

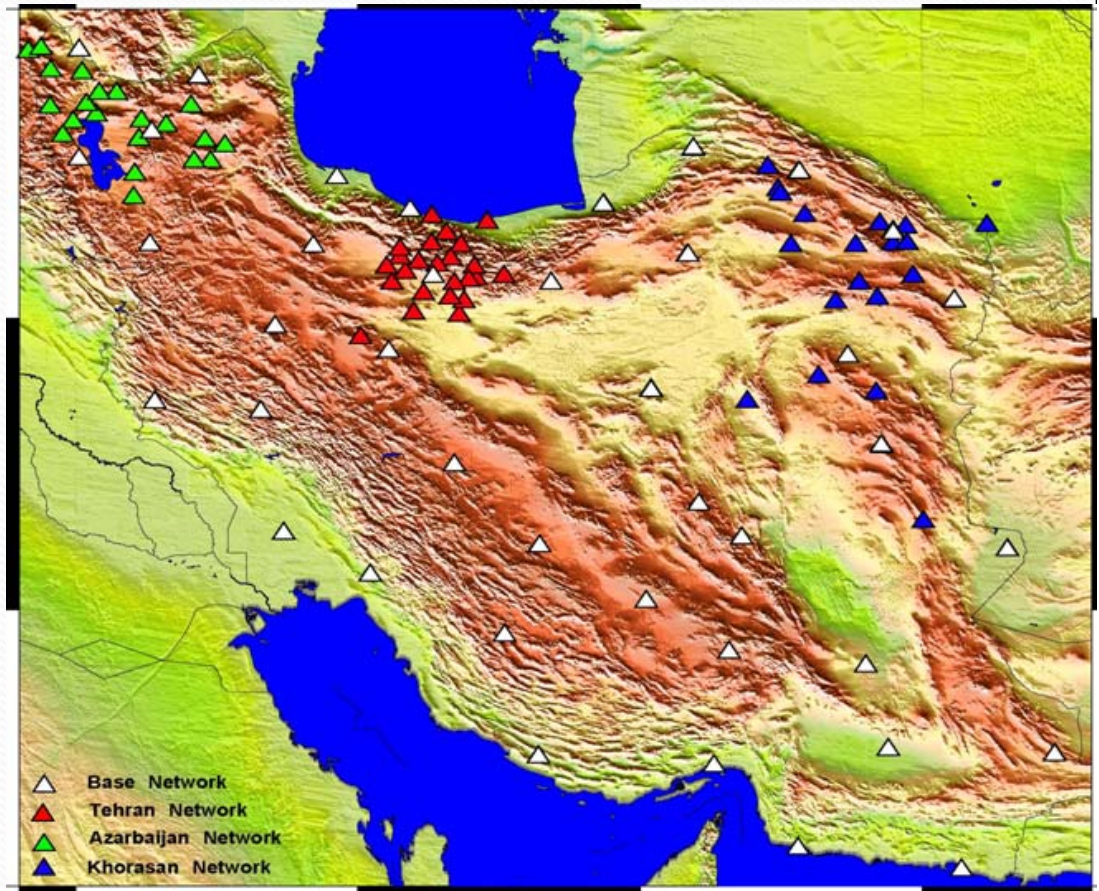
Establishment of Precise Leveling of different order



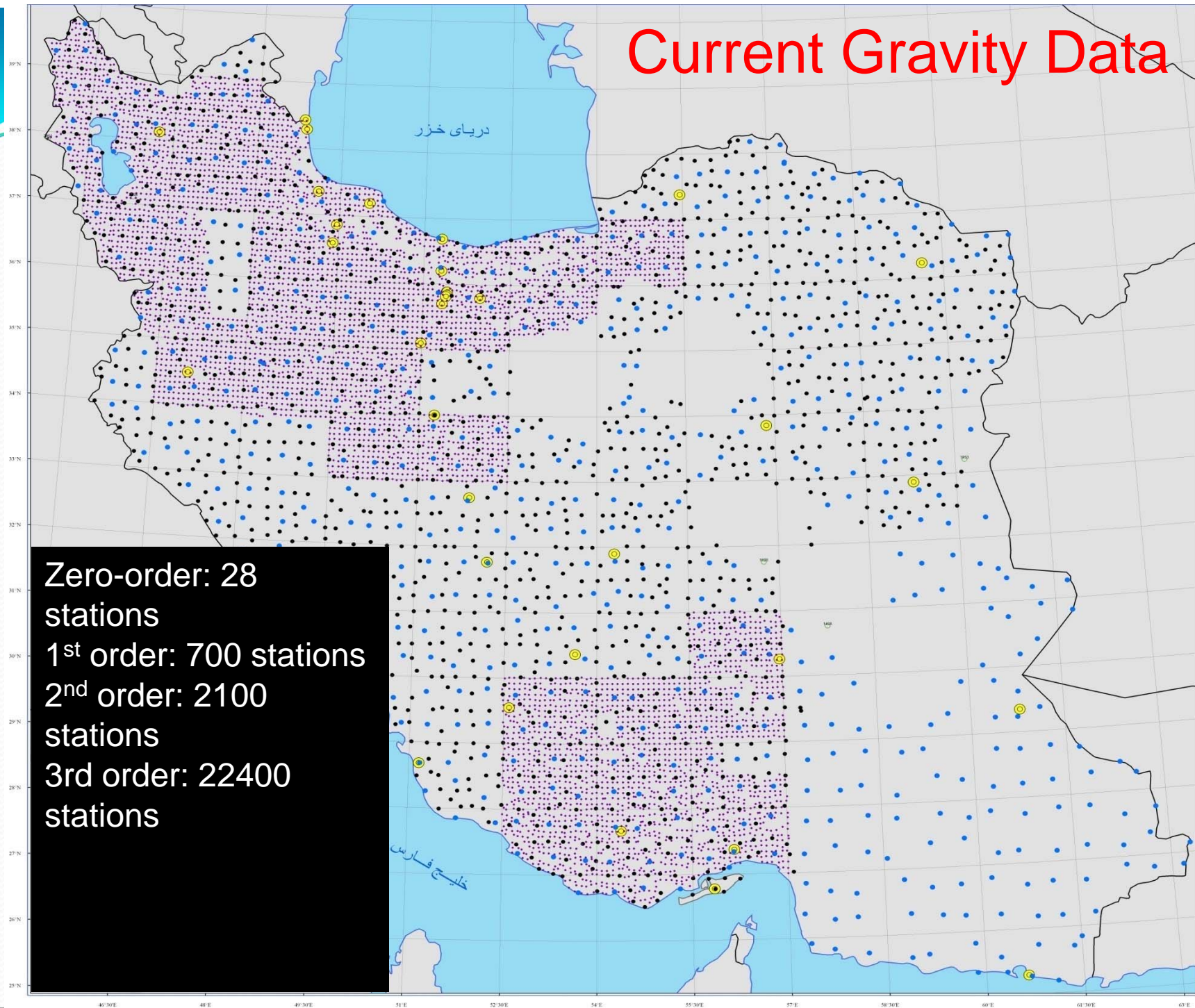
1st Order Leveling Network
Measured at least Two times
for Geodynamics Purposes
33500 km (98 loops)

- Measured by optical N3 and digital DINI12 levels with the Precision of 0.9 & 0.65 mm/km respectively
- 2nd Order : 26000 km
- 3rd Order : 25000 km
- Datum Point:
• Bandar Abbas tide gauge station

150 Permanent GPS stations for Geodesy and Geodynamics



Current Gravity Data



Photogrammetry

Aerial Photography

4 Dornier 228

1 Jet Falcon 20

Aircrafts equipped with digital aerial cameras (UltraCam-D and XP) as well as multi GPS Antennae and IMU for attitude determination.



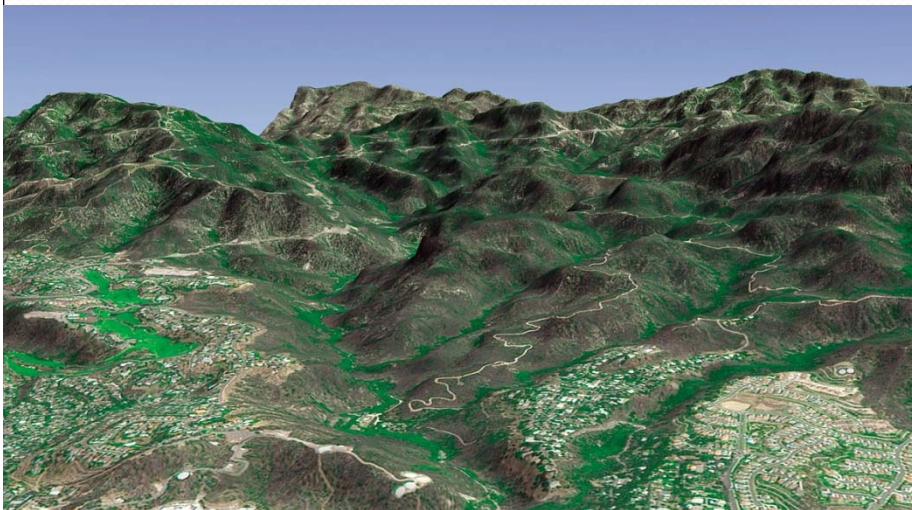
Remote Sensing

Production of:

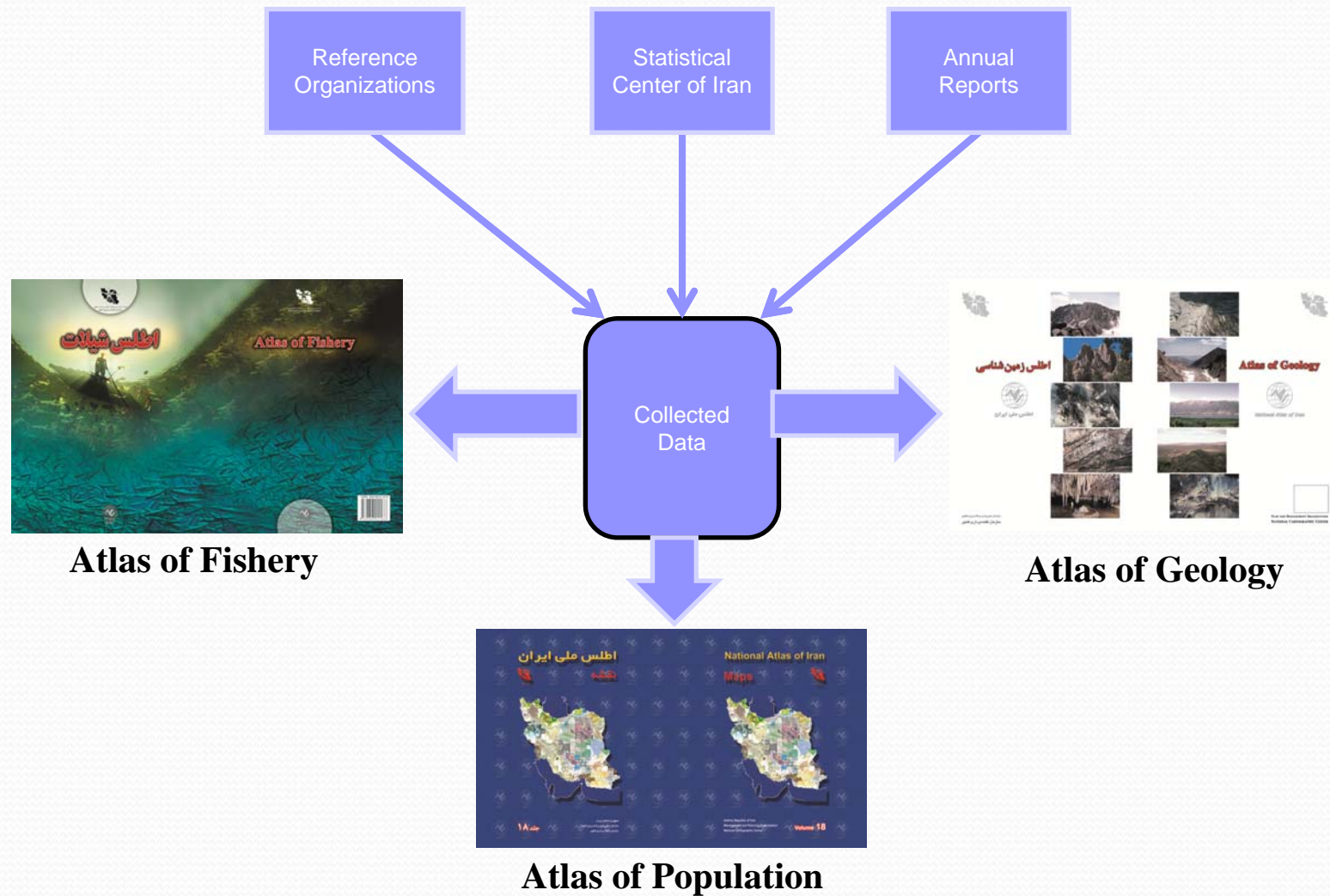
DTM and DSM

Ortho Rectified Aerial Photo and Satellite Images

Land cover classification



Statistical Data collection for National Atlas

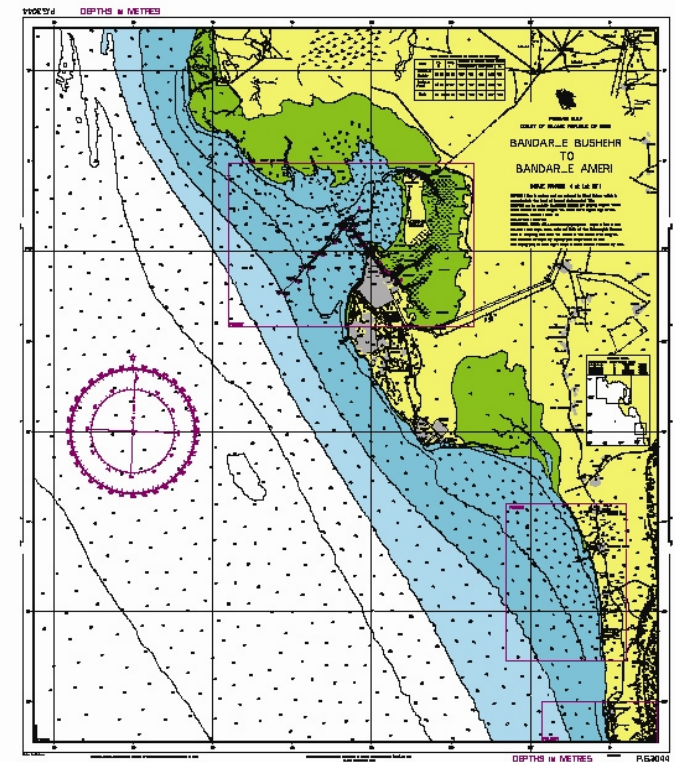


Hydrography

Different Hydrographic vessels

Equipped with Single and Multi Beam Echo Sounder

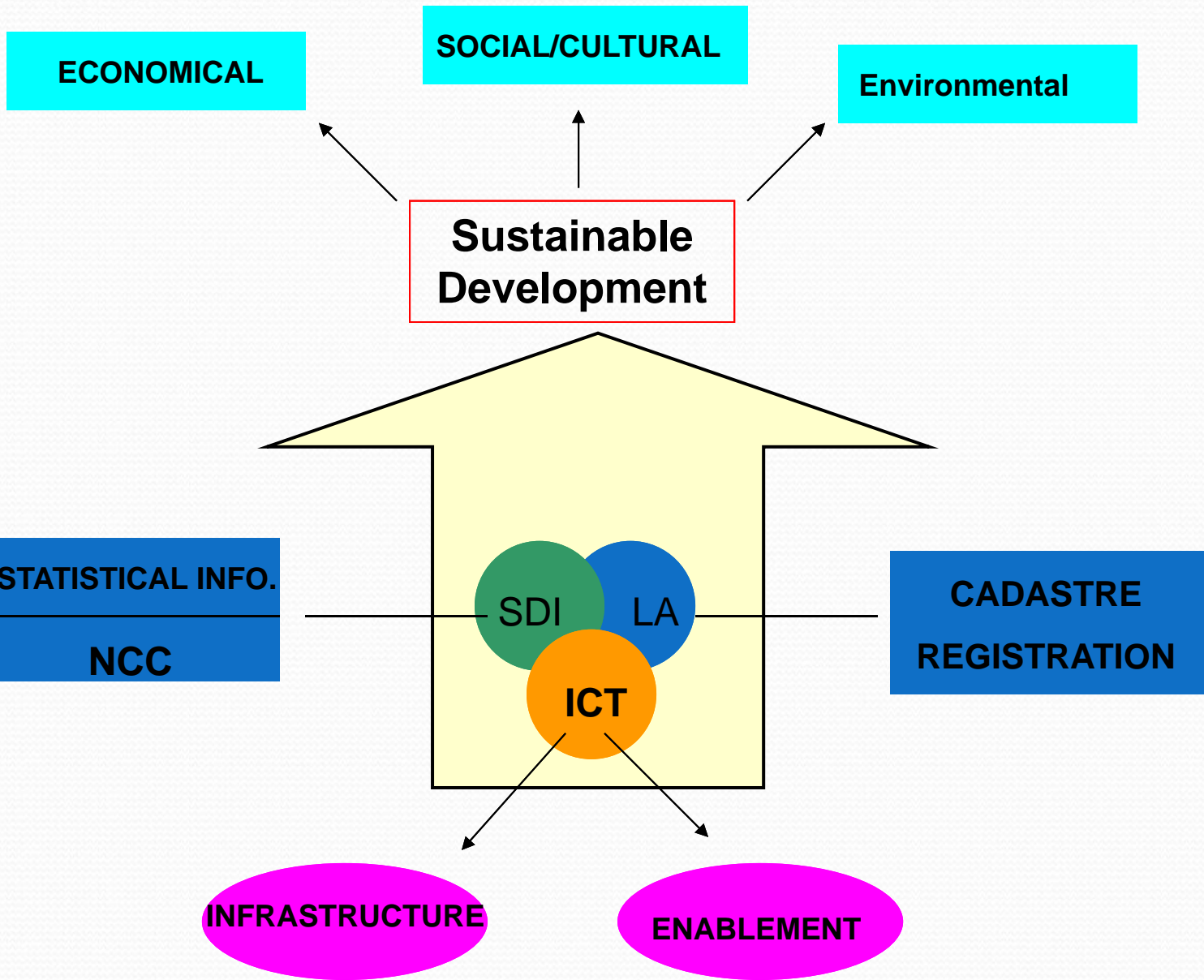
Using Data Processing and marine Cartography Software
And Digital Tide Gauge



National Cartographic Center of Iran (NCC)

(Iranian National Mapping Agency)

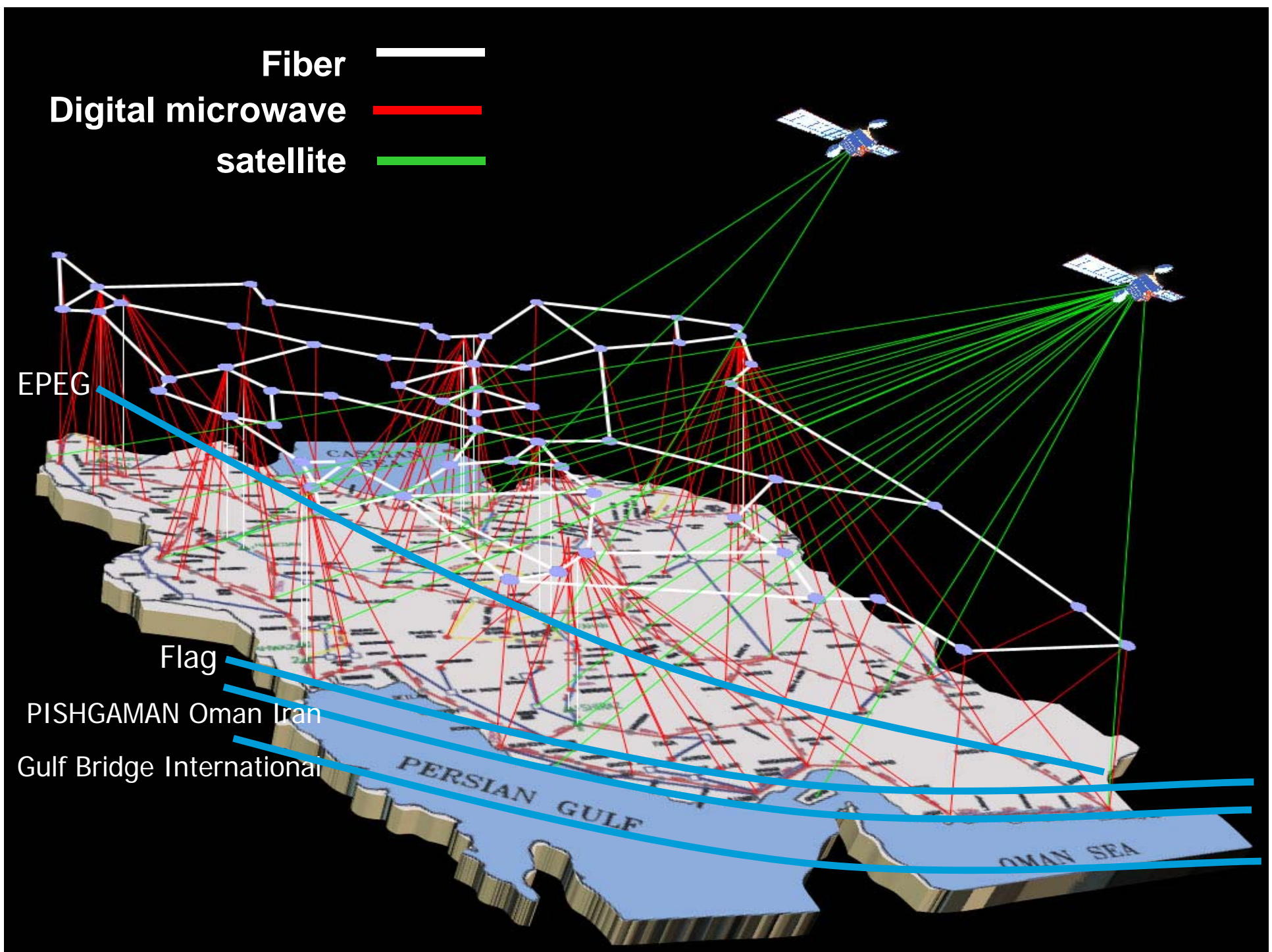
- Surveying, Geodesy and Geodynamics
- Aerial Photography
- Photogrammetry & Remote Sensing
- Geospatial Information System (GIS)
- National Spatial Data Infrastructure (NSDI)
- Cartography
- Hydrography
- Supervision and Technical Control
- Research, Development and Standardization
- Education and Training



CADASTRE and SUSTAINABLE DEVELOPMENT

Iran's Deeds and Properties Registration Organization is working on its project for cadastre performance, & has prepared:

- > 96 % Urban Cadastre
- > 40% Rural Cadastre, and
- legal attributes > 30 million parcels of public and private owners.



Telecom Access Indicators

3 Layers Redundant Net.

≈65000 km fiber optic
microwave net.

Satellite Net.

Fully Digital Access across the Country

Developing NBN

Fix Tel. Penetration household ≈ 90%

Mobile Penetration > 100%

International Transit Network

Opto. Silk Road

