

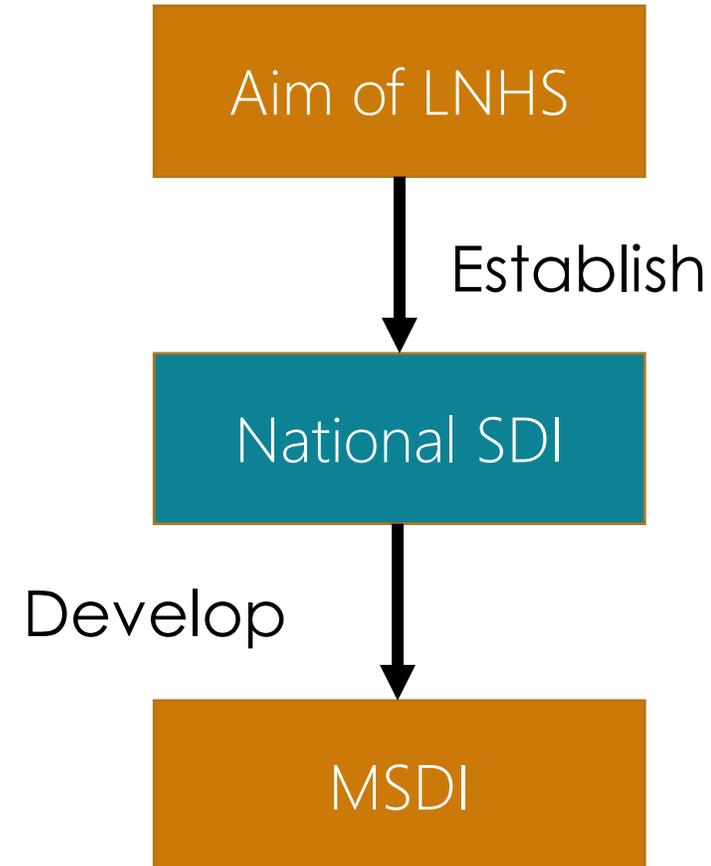
Marine Spatial Data Infrastructure

Cdr Afif GHAITH
Director LNHS

SDI In Lebanon



- At the moment, no National Spatial Data Infrastructure in Lebanon
- Stand-alone system, with flat files being gathered by the LNHS



Safety of
navigation

Oil and gas
exploration
support

Cartographic
Production

The works being done by the LNHS

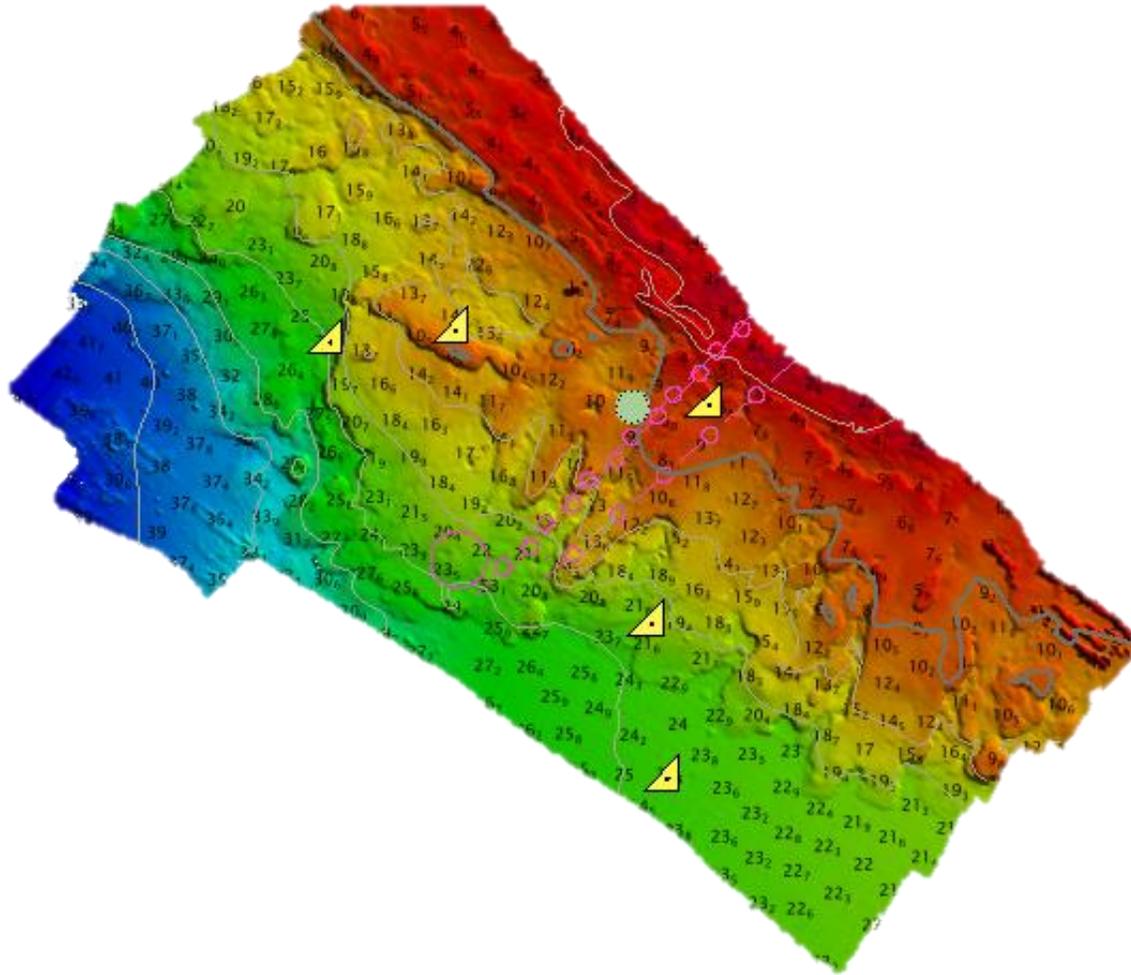
Surveying

GNSS
reference
Stations

Establishing
Maritime
Borders

Safety of
navigation

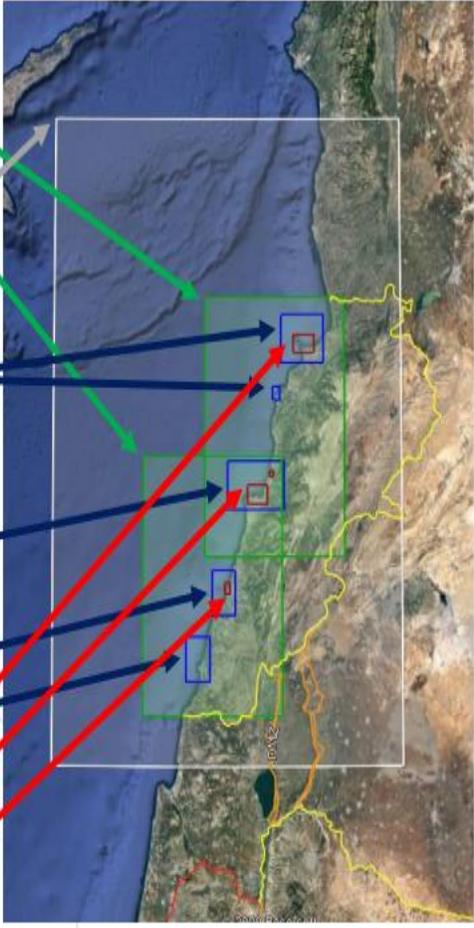




Surveying

Cartographic
Production

	TITLE	SCALE ENC	Scale PC	INT
LB 301	Tripoli to Ras es Saadiyat	1:90.000	1:100.000	
LB 302	Ras El Maameltein to Ras Al Naqourah	1:90.000	1:100.000	
LB 303	Baniyas to Akko	1:180.000	1:250.000	YES
LB 401	Approach to Tripoli and Selaata			
	Approach to Tripoli (A)	1:45.000	1:40.000	
	Approach to Selaata (B)	1:22.000	1:20.000	
LB 402	Approach to Beirut and Port of Jounieh	1:45.000	1:40.000	
	Port of Jounieh (A)	1:12.000	1:12.000	
LB 403	Approach to Sidon	1:22.000	1:25.000	
LB 404	Approach to Tyre	1:22.000	1:25.000	
LB 501	Port of Tripoli	1:6.000	1:8.000	YES
LB 502	Port of Beirut	1:6.000	1:8.000	YES
LB 503	Port of Sidon	1:4.000	1:6.000	YES





GNSS
reference
Stations

Establishing
Maritime Borders



Different Elements



NATIONAL RESEARCH CENTER

Research data
gathered for scientific
purposes



DIRECTORATE OF GEOGRAPHIC AFFAIRS

Data from land surveys



HYDROGRAPHIC

Hydrographic Survey
data with coastline



DEFENCE

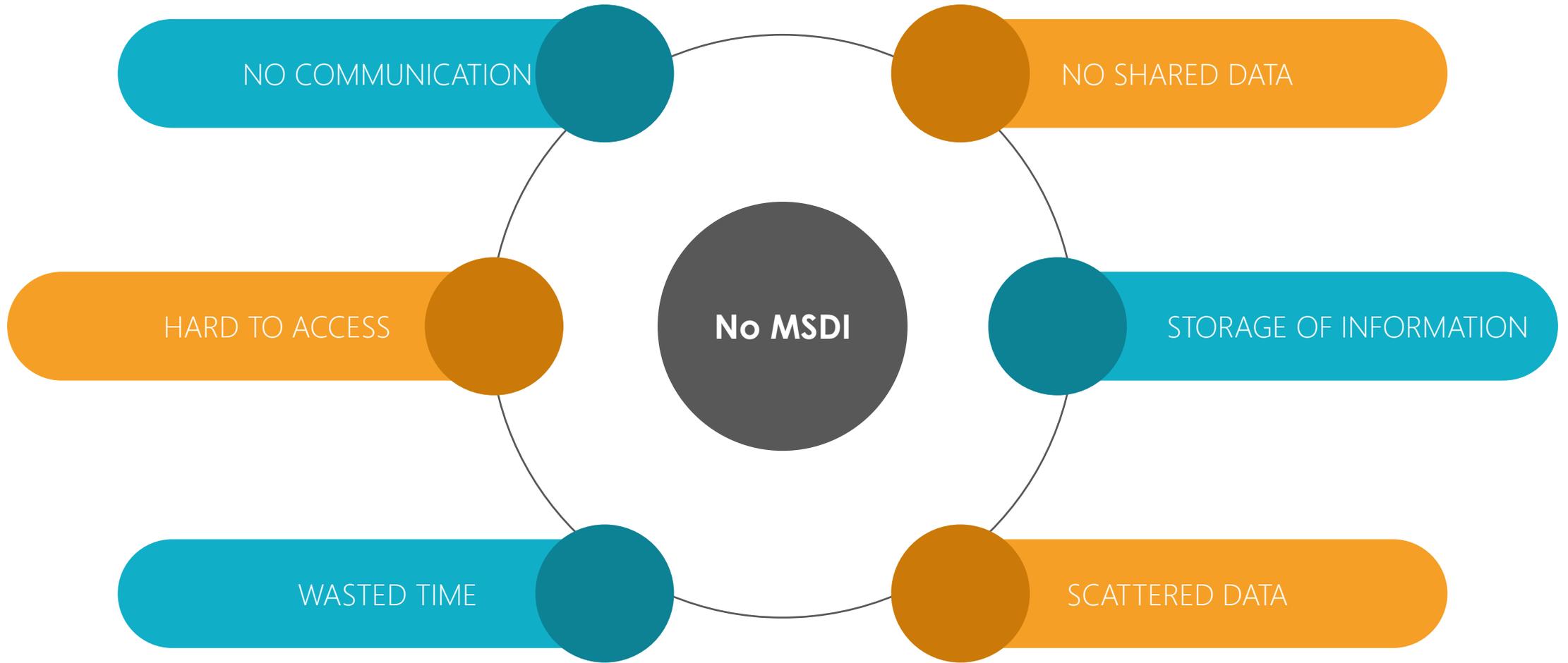
Military essential data



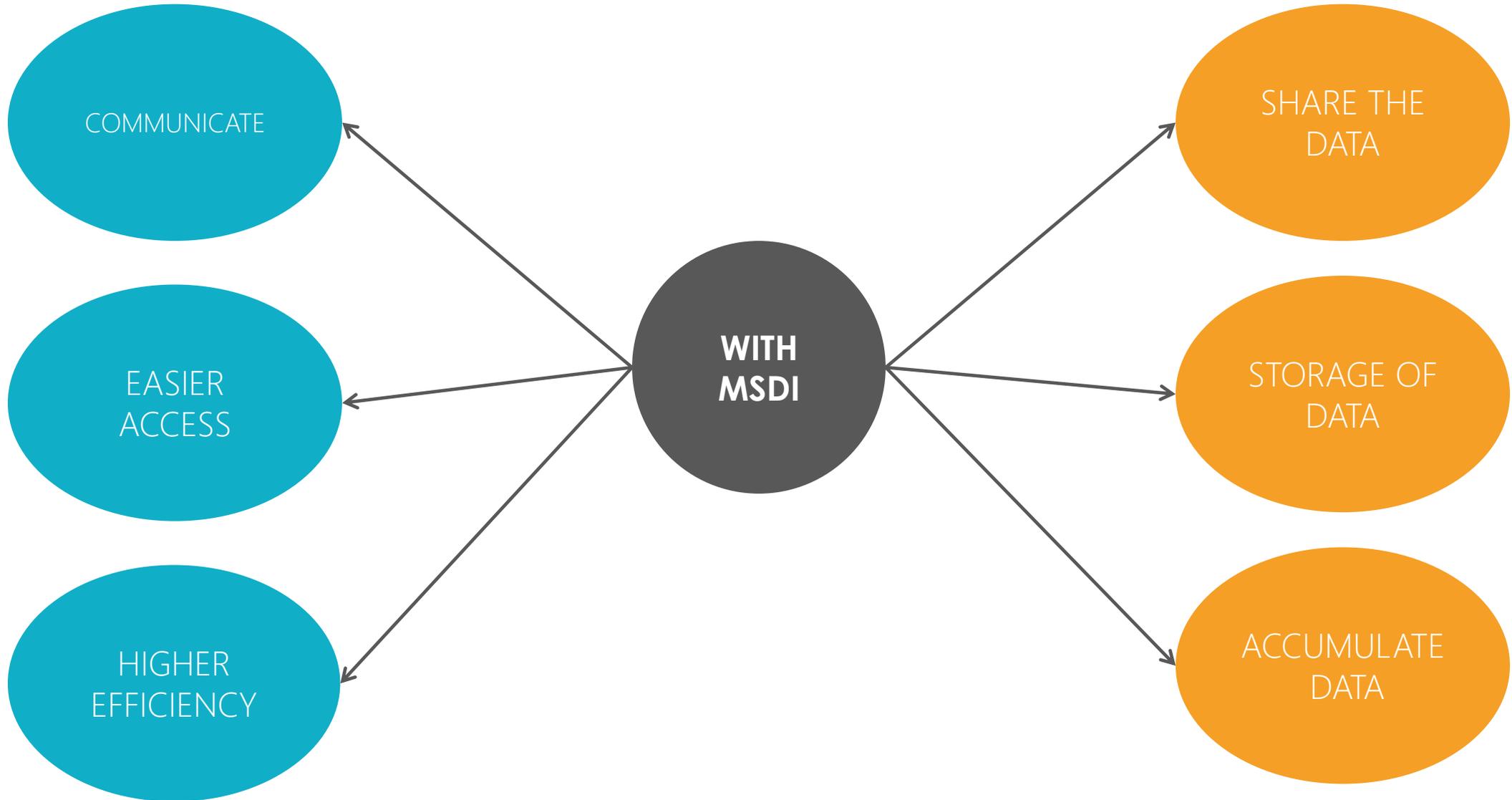
TRANSPORT

Traffic data and Future
projects

The Problems Now

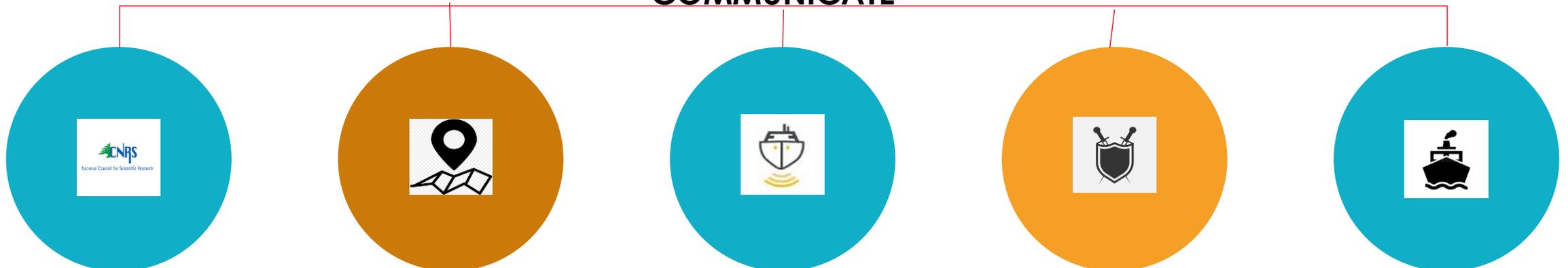


Project Analysis



- **Establish Policy and Governance of SDI and DATA**
(Sets the vision, Define the responsibilities, authorization Licensing, Intellectual property, data security and quality)
- **Create Technical standards for use of Infrastructure**
(creation of network infrastructure, Search engines, toolkits, spatial databases, file types)
- **Use of technology**
(technical architecture, best practices)

COMMUNICATE

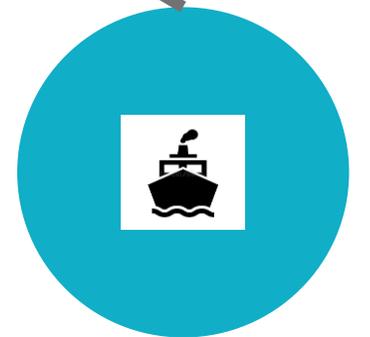


USER

Access Point

DATA and Metadata

DATA and Metadata



- The role of the MSDIWG is to support activities relating to SDI and MSDI
- Lebanon, through the LNHS, will work to establish communication between different elements relating to the SDI and will take guidance from the IHO publication C-17
- The LNHS request support in establishing our SDI and developing our MSDI



SPATIAL DATA INFRASTRUCTURES "THE MARINE
DIMENSION"

Guidance for Hydrographic Offices

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Thank You