

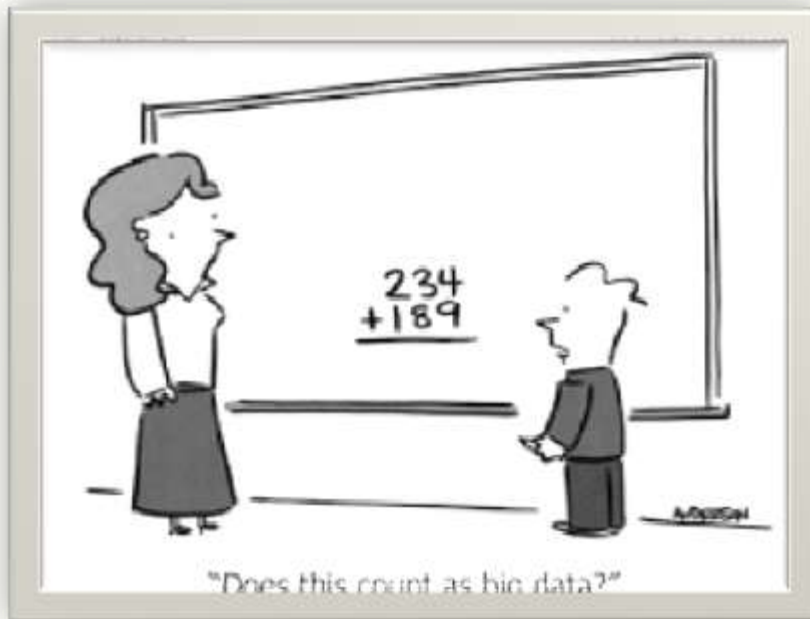


Sultanate of Oman  
Ministry of Defence  
National Survey Authority

# Spatial Big Data

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NSA Website: [www.nsaom.org.om](http://www.nsaom.org.om)

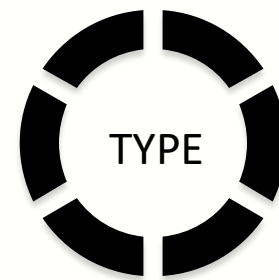
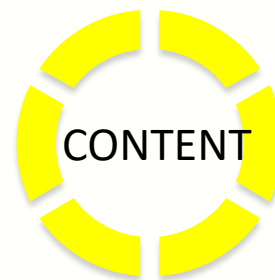
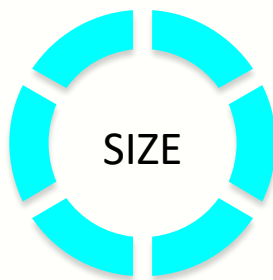


Everyone ***talks*** about it, nobody really ***knows*** how to ***use*** it, everyone ***thinks*** everyone else is using it, so everyone ***claims*** they are using it...



# Spatial Big Data : General Perception

What is the first impression that comes to your mind when somebody talks about Big Data?



Approx. 80% of the Big Data that exists today  
has a spatial component attached to it



## Spatial Big Data : Definition



Big Data are “data sets that are so big that they cannot be handled efficiently by common database management systems”



It represents Big Data in the form of spatial layers and attributes.

There is no standard threshold on minimum size of Big Data or Spatial Big Data, although big data in 2013 was considered one petabyte (1,000 terabytes) or larger.



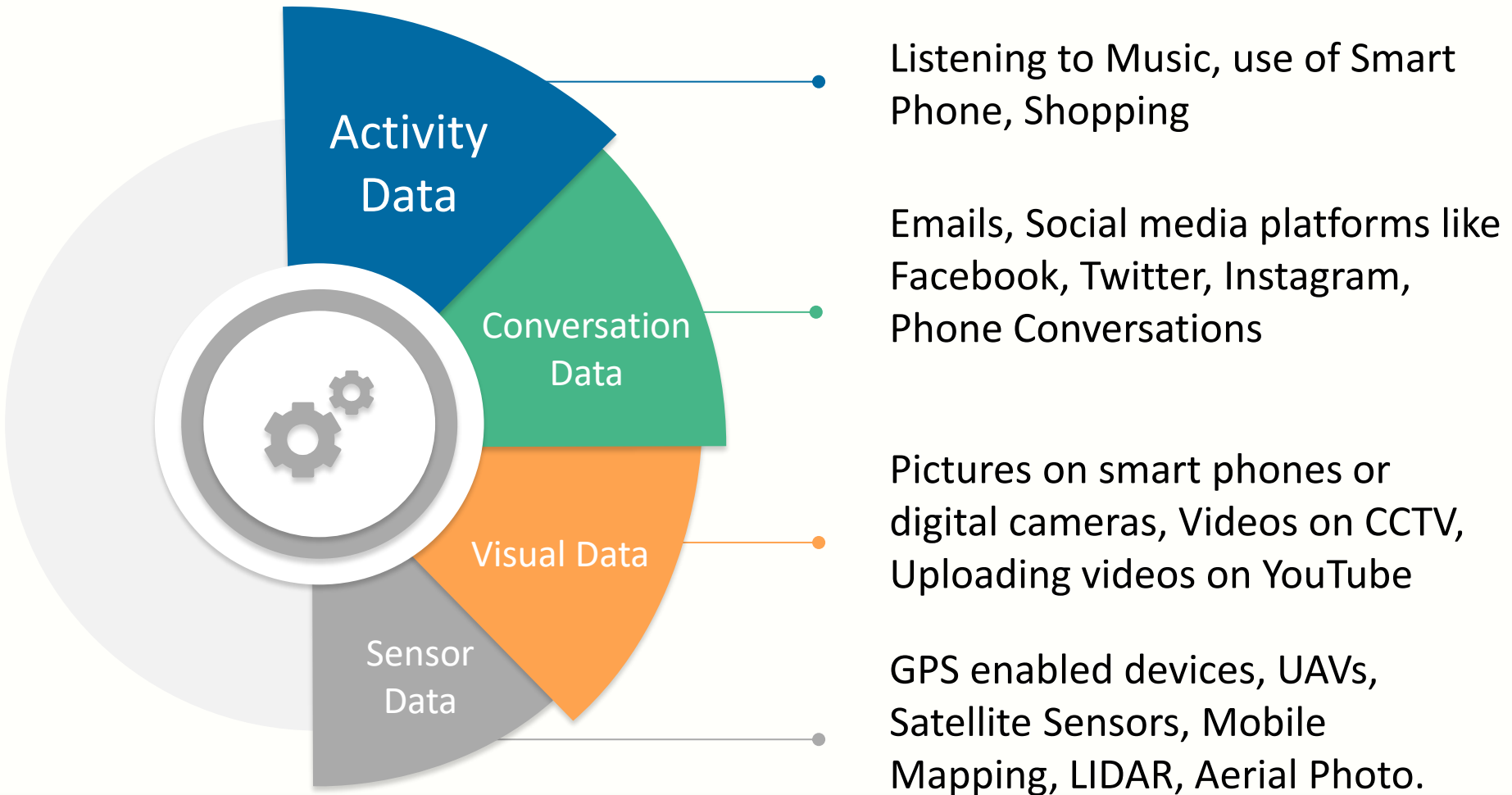
## Spatial Big Data – Take Aways

Spatio-temporal data has the potential to make our lives better	Better decision making
	Saves cost from greater efficiency
	Analyze spatial connections
	Get information in real time
	Spot location-related patterns that might previously have been undetected





## Sources for Spatial Big Data



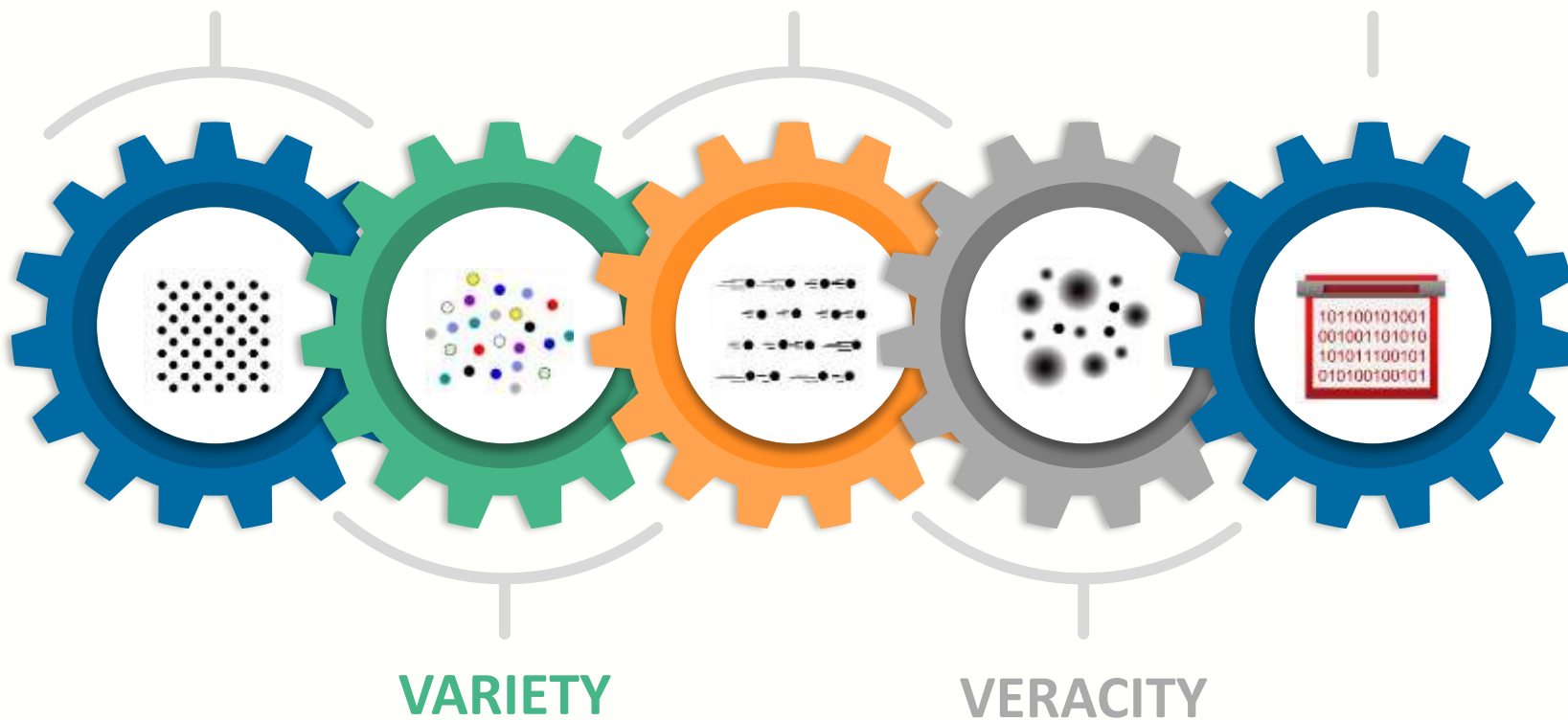


## Five V's of Spatial Big Data

VOLUME

VELOCITY

VALUE







# Turning Raw Data into Wisdom



Wisdom

Knowledge

Information

Data

Business acumen says arrange a show of Haitham Mohd. Rafi in Salalah for Guaranteed Success

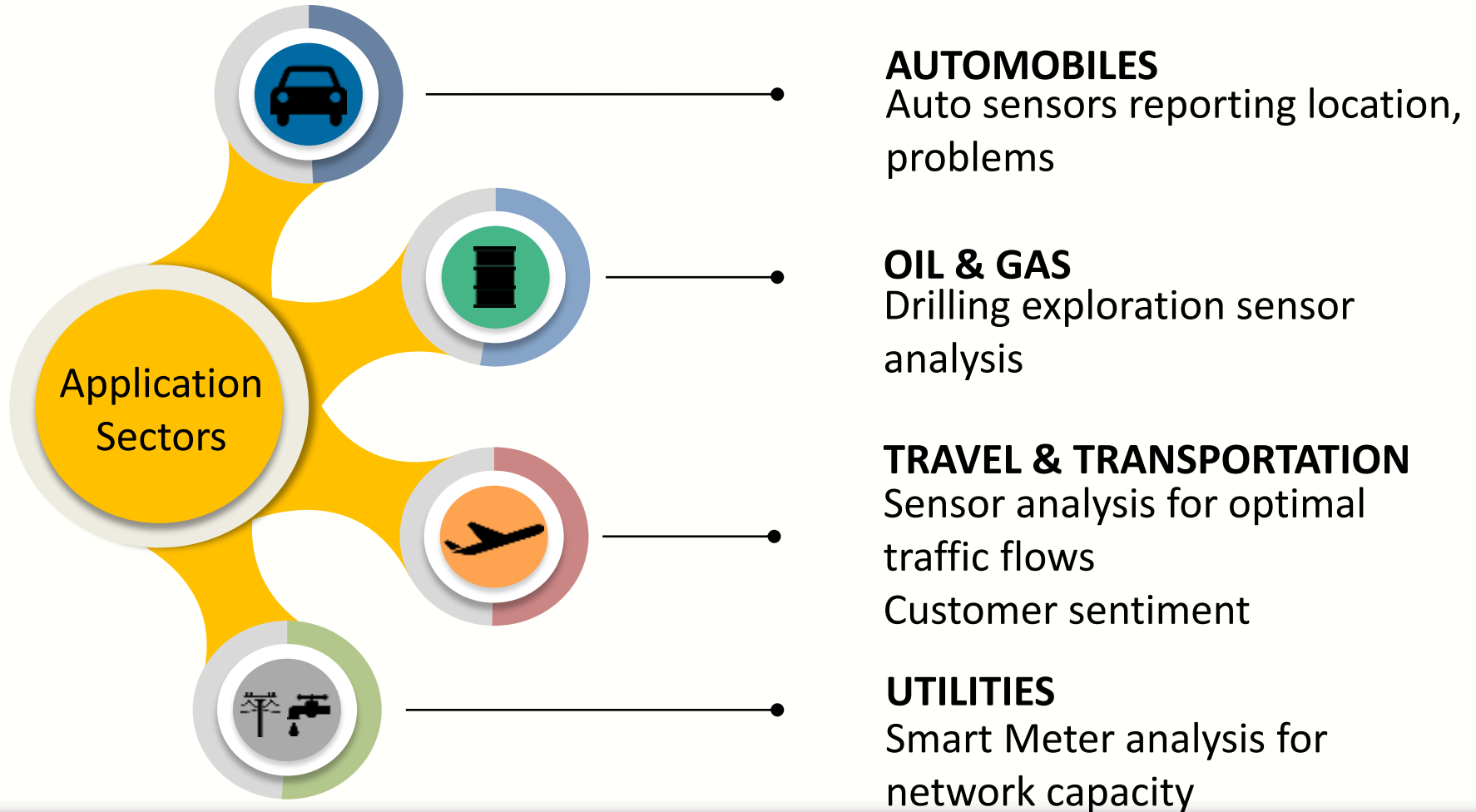
Haitham Mohd. Rafi is very popular in Salalah

10% of the tweets are from Salalah for Haitham Mohd. Rafi to win Dil Hai Hindustani

Oman Produces 0.5 Million Tweets every day

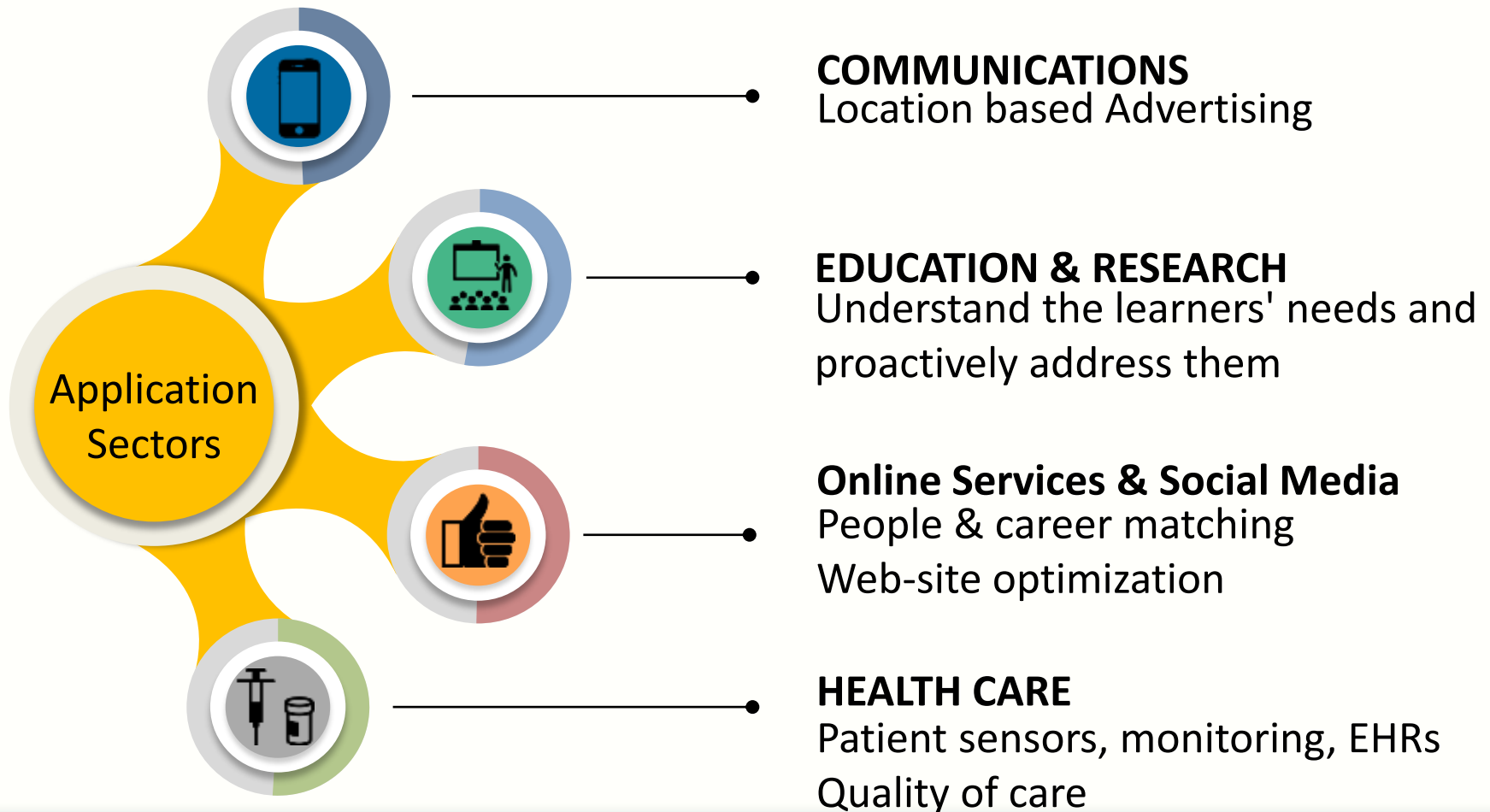


# Spatial Big Data Applications





# Spatial Big Data Applications





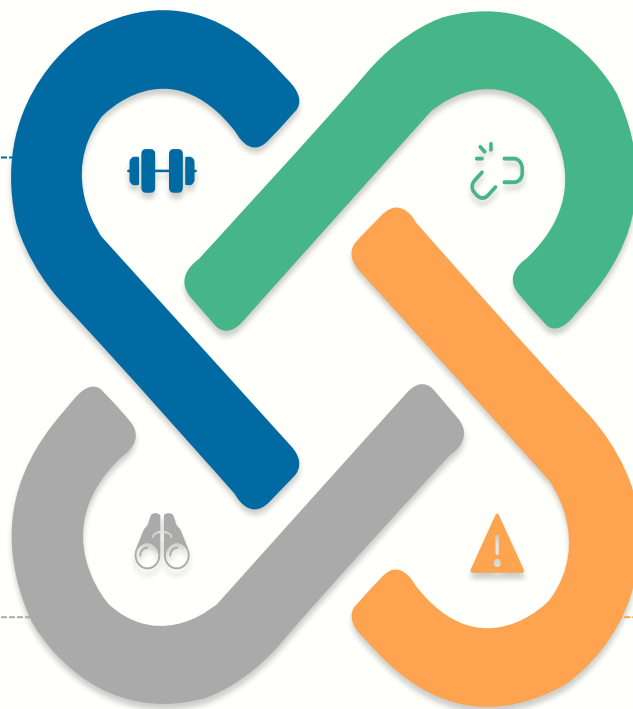
# SWOT – Big Data in Oman

## STRENGTHS

- NSA/NCSI/PDO capable Organisations
- Strong Support from Government
- Envisioned in Oman 2020 mission.

## OPPORTUNITIES

- Scope for Research & Development
- Enables Improved Decision Making.



## WEAKNESSES

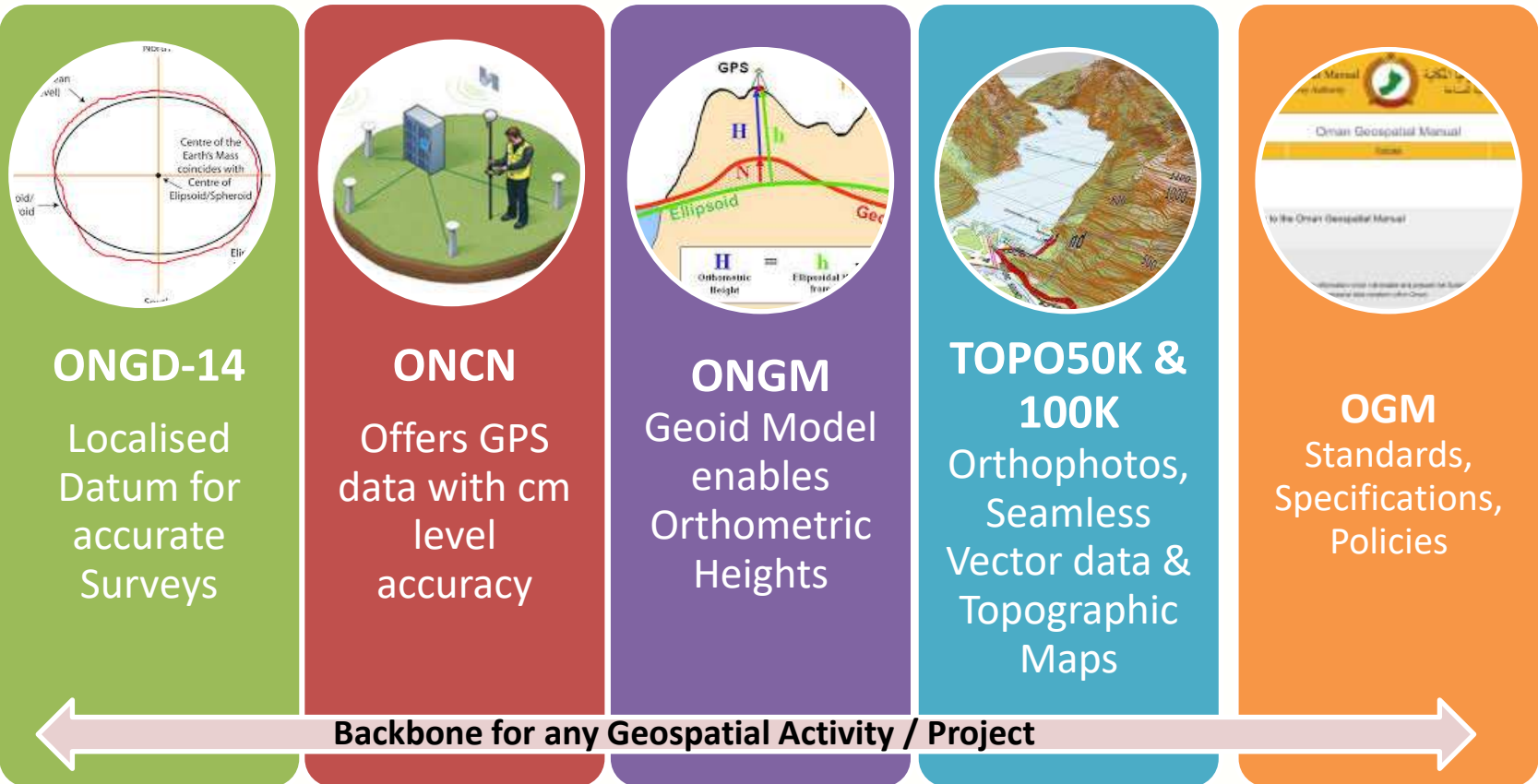
- Lack of Capacity & Capability in Big Data
- Nascent stage of development in Oman

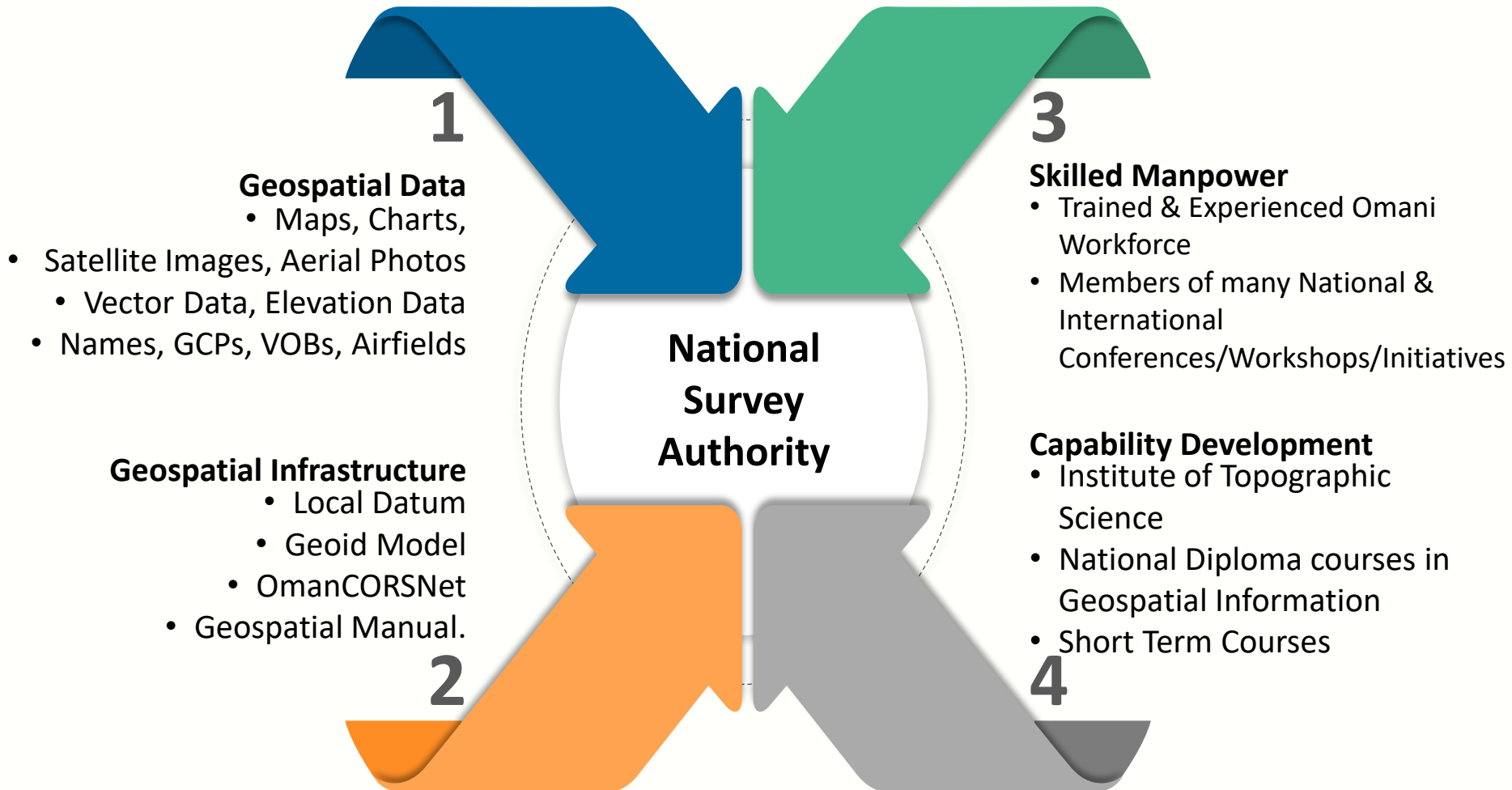
## THREATS

- Need of a nodal agency for creating or controlling Geospatial Information
- Lack of common standards, Metadata



# NSA's Contribution to Geospatial Community in Oman







# Global Geospatial Industry Outlook Report – 2017

## Geospatial Media & Communications

### Oman's Rank



Geospatial  
Infrastructure &  
Policy Framework



Geospatial Institutional  
Capacity



Geospatial User  
Adoption Level



Geospatial Industrial  
Capacity



Geospatial Readiness  
Index





## Key Notes

- Oman shows steady development in adoption of geospatial technology
- Need for research in spatial big data domain, and subsequent studies to ascertain its relevance in Socio economic growth
- Multi Pronged approach to simultaneously develop Capacity & Capability





Sultanate of Oman  
Ministry of Defence  
National Survey Authority

# Thank You

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