Road Safety Data
Spatialization & Deep Learning

Presenters: Khadija Al Falahi (Geospatial Consultant)
            Ahmed Al Mandhari (Geospatial Consultant)
Contributors: Khamis Al Bulushi (Geospatial Consultant)
Agenda

Methodology

Product

Background & Objectives

Challenges, Achievements & Learnings

Thank you
Background & Objectives
• Road safety has always been and will remain one of top priorities in PDO
• Motor Vehicle Incidents (MVI) and fatalities have increased since 2021
  2022 MVI = 60
  2022 Fatalities = 9
• Improvements and use of technology can help directly and indirectly to mitigate and/or prevent road accidents, human injuries and fatalities
• Road safety related data currently reside in multiple databases that require extensive efforts to combine and analyze that hinder any proactive intervention or timely decision making
• Objectives:
  ✓ Support Darb Al Salama project to identify trends and patterns
  ✓ Spatialize MVI locations
  ✓ Enable spatial analysis & Deep Learning
  ✓ MVI Dashboard and dynamic analysis
Methodology
Methodology

Data Sources
- Data
  - Excel
  - Unstructured
  - Coordinates Missing & Different format

GIS Integration (FME Scripts)
- MVI Coordinates
  - PIM reports
  - RSST reports
- Automation Coordinates & validation
  - Excel to SDE
  - FC / Table

Output
- Reporting
  - MVI Dashboard
  - MVI Analyses
  - IRC Analyses
Product
PDO Road safety initiative

HSE is very core to petroleum Development Oman (PDO) business therefor after 2021 road incidents tragedies which occurred leaded to increas

Khamis XTOI
June 21, 2022
Challenges, Achievements & Learnings
Challenges, Achievements & Learnings

**Challenges**
- File base & not structured data
- Multiple data sources
- Geographical locations is missing from some of motor vehicle incident reports

**Achievements**
- Spatialize 50% of motor vehicle incidents
- Established the first MVI dashboard in PDO linked with a spatial data
- Support Darb Al Salamh project team with dynamic analyses

**Learnings**
- MVIs must be recorded in database.
- IVMS historical data key to enhance analyses
- Revealed observations/patterns on the time and location of incidents
Thank you
Thank you

STAY SAVE
PDO Road safety initiative

HSE is very core to petroleum Development Oman (PDO) business therefor after 2021 road incidents tragedies which occurred leaded to increas

Khamis XTOI
June 31, 2022