



EMF

An Island's Perspective

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EMF Workshop: How Best to Promote Science Based EMF Limits

EMF, The MCA's Multiple Roles

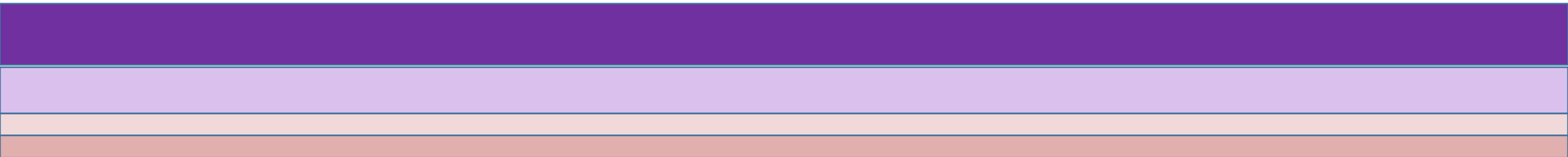
Spectrum Agency, NRA, Agency
Responsible for Non-ionising Radiation



Give Peace of Mind to End Users



Regulating EMF



The MCA - EMF Work in Numbers

Our Work in Numbers

More Than

1000

Radio Base Stations
Installed Across the
Maltese Islands

More Than

150

Fixed points to carry out
EMF audits on a yearly
basis

More Than

100

On-demand, on-site
audits per year

More Than

2500km

Of drive tests to ensure
nationwide EMF compliance
along the Maltese roads



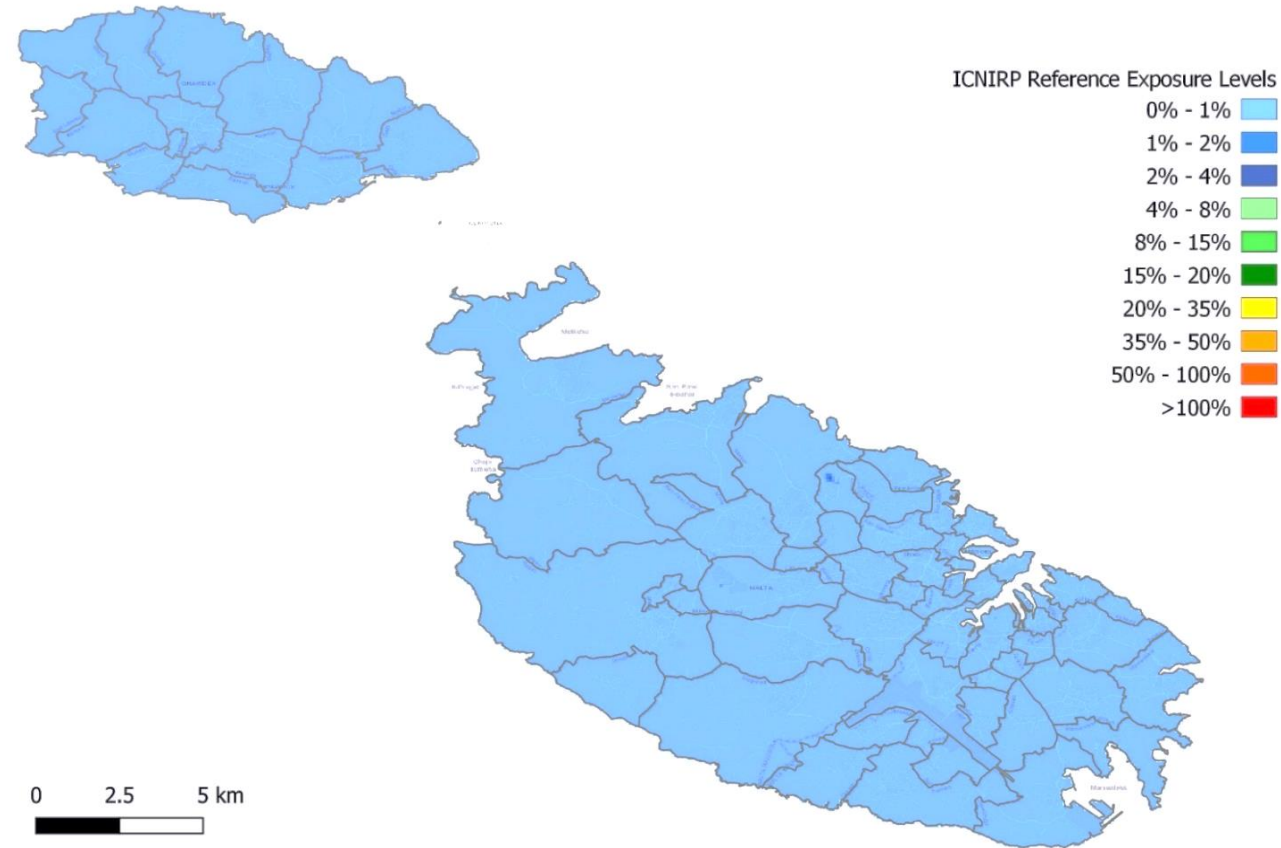
The Nationwide Carriageway Drive Test (1/2)



Overview of the nationwide EMF measurement Campaign 2020	Malta	Gozo
Total number of real-time measurements	358106	56109
Distance covered in km	2220 Km	350 Km
Duration of drive test in days	56 days	5 days
Mean EMF exposure level as a % of ICNIRP Guidelines	0.076%	0.03%
Median EMF exposure level as a % of ICNIRP Guidelines	0.017%	0.004%
Maximum EMF exposure level as a % of ICNIRP Guidelines	19.9%	3.64%

The Nationwide Carriageway Drive Test (2/2)

EMF Exposure Levels



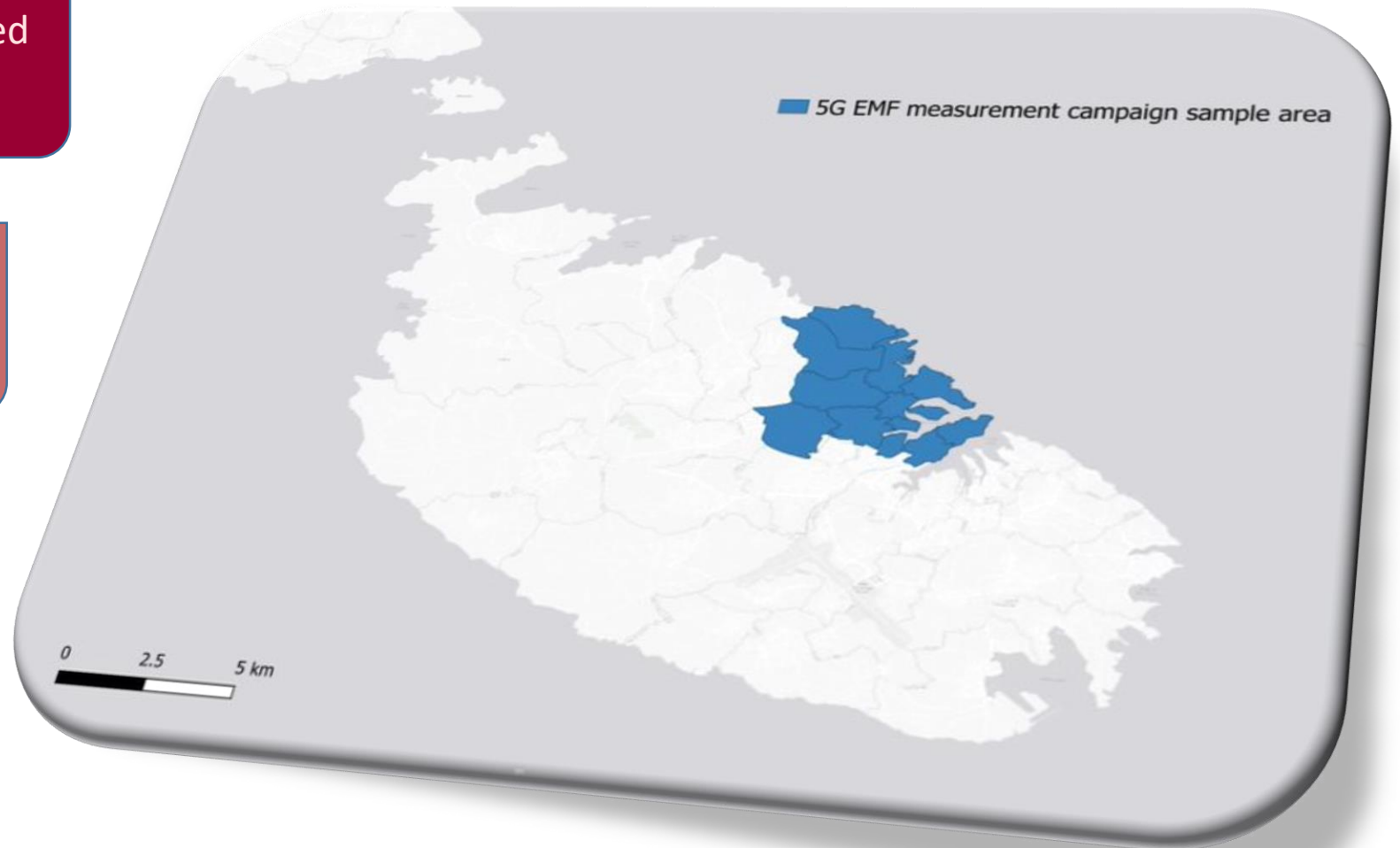
EMF and 5G

5G base stations artificially loaded to 100% capacity

16,618 EMF measurements taken over 95km

In-situ EMF audits

All street-level readings < 1% of ICNIRP



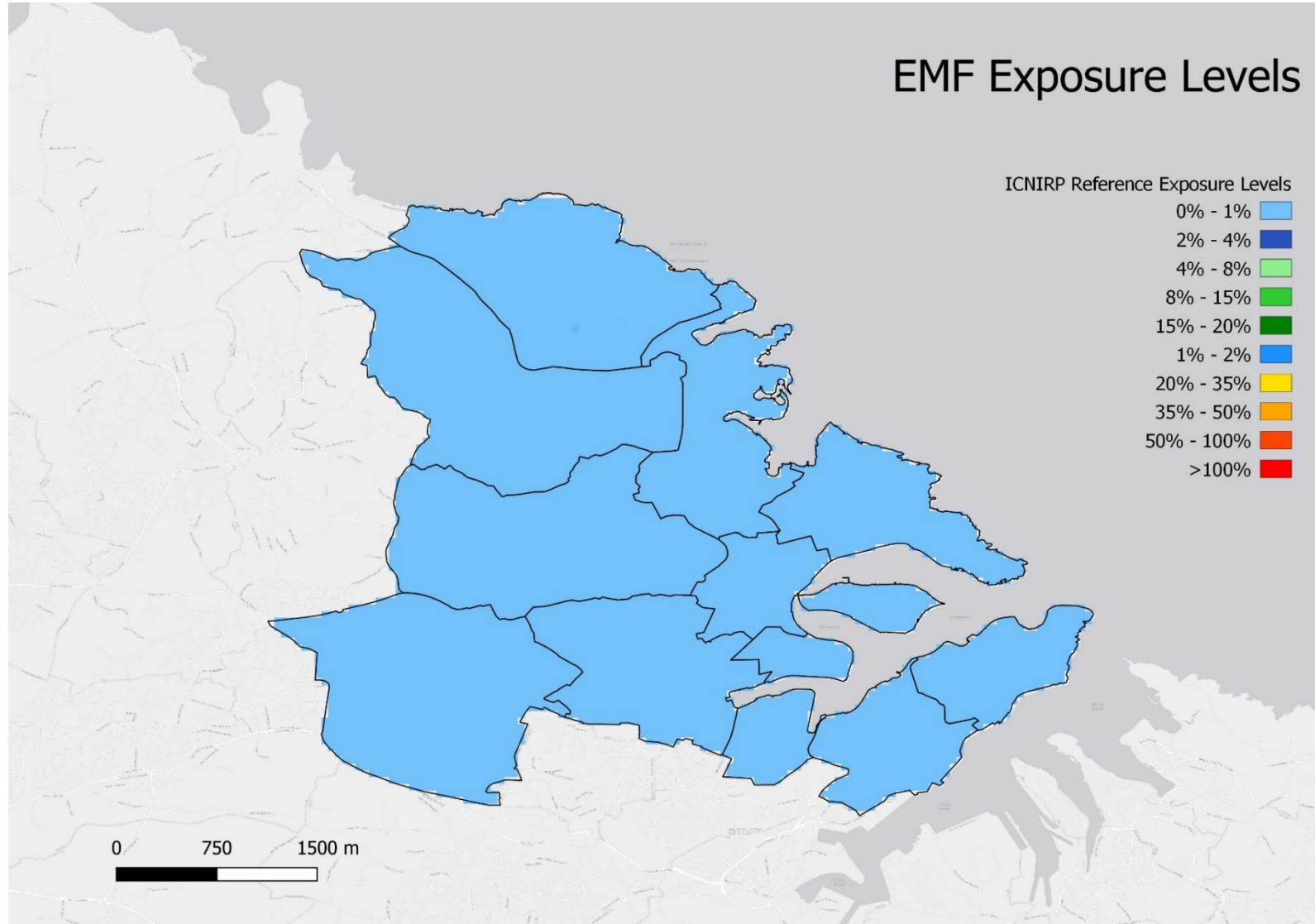
EMF 5G measurements (1/2)

5G



EMF real-time measurement in the area of investigation	With 5G	Without 5G
Total number of real-time measurements	16618	101710
Mean EMF exposure level as a % of ICNIRP Guidelines	0.123%	0.069%
Median EMF exposure level as a % of ICNIRP Guidelines	0.047%	0.018%
Maximum EMF exposure level as a % of ICNIRP Guidelines	5.35%	7.62%

EMF 5G measurements (2/2)



EMF guidelines

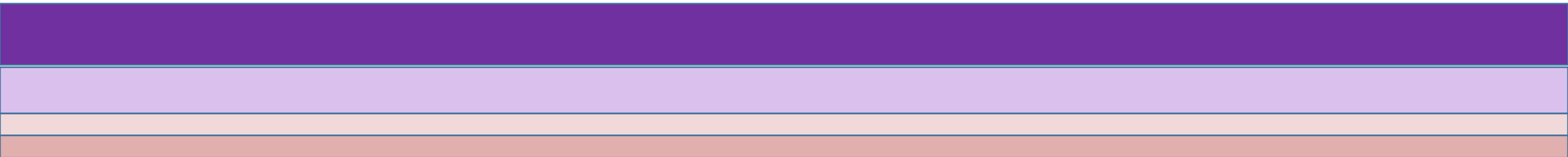
14-day timeframe to notify MCA following installation or modification of base station

Three initial reports to be submitted plus yearly reports

Requirements set in line with the IEC 62232 standard

Coordination between MCA and network providers on the use and purchase of EMF simulation software

Consumer Focused Information



EMF campaigns

What can 5G be used for?



SMART CITIES

Traffic safety control, waste management and environmental monitoring



VIRTUAL AND AUGMENTED REALITY

Entertainment, gaming and remote working



MEDIA

Ultra high quality video and audio



ENERGY

Green grid and intelligent energy monitoring



eHEALTH

Wireless patient monitoring, telemedicine and remote surgery



AUTOMOTIVE INDUSTRY

Connected Vehicles



MANUFACTURING

Sophisticated automation and advanced robotics

On-demand EMF Monitoring



The Evolution of Mobile Wireless Technology



Analogue telecommunications, voice calls only



Mobile data and wireless internet connection



Faster data speeds, Ultra-HD and 3D video, and more connected devices

1G 2G 3G 4G 5G

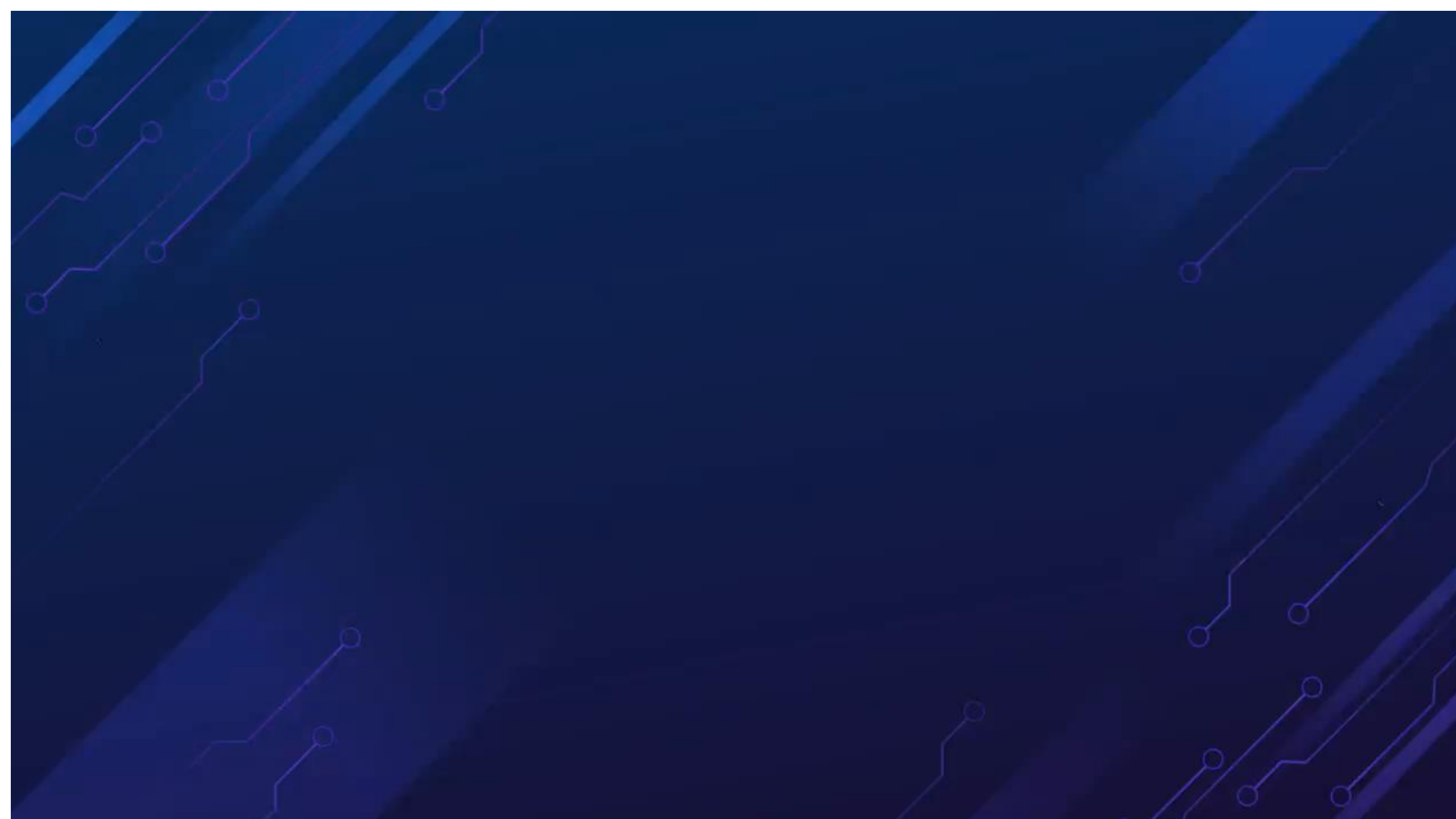


Text messaging

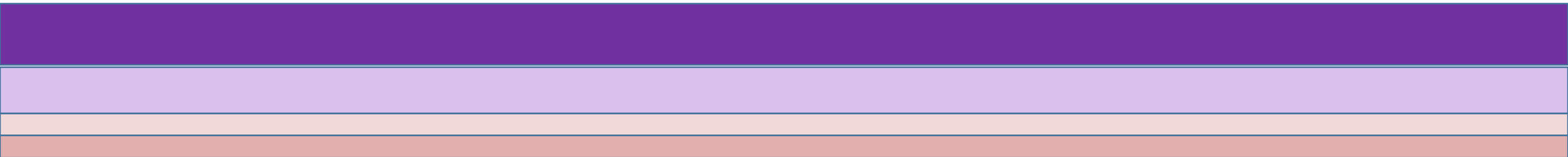


HD Streaming, Faster Speeds, and more data

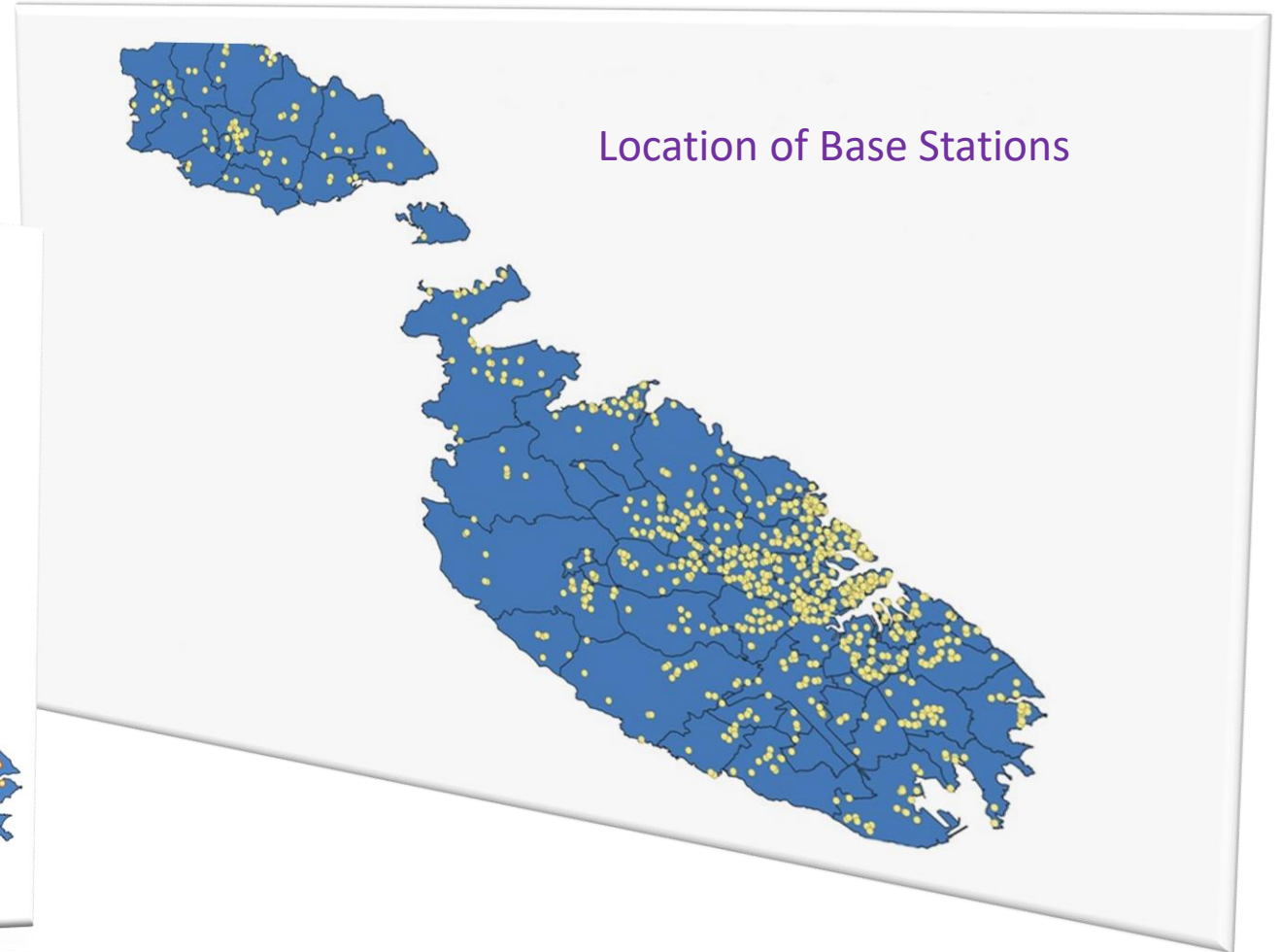
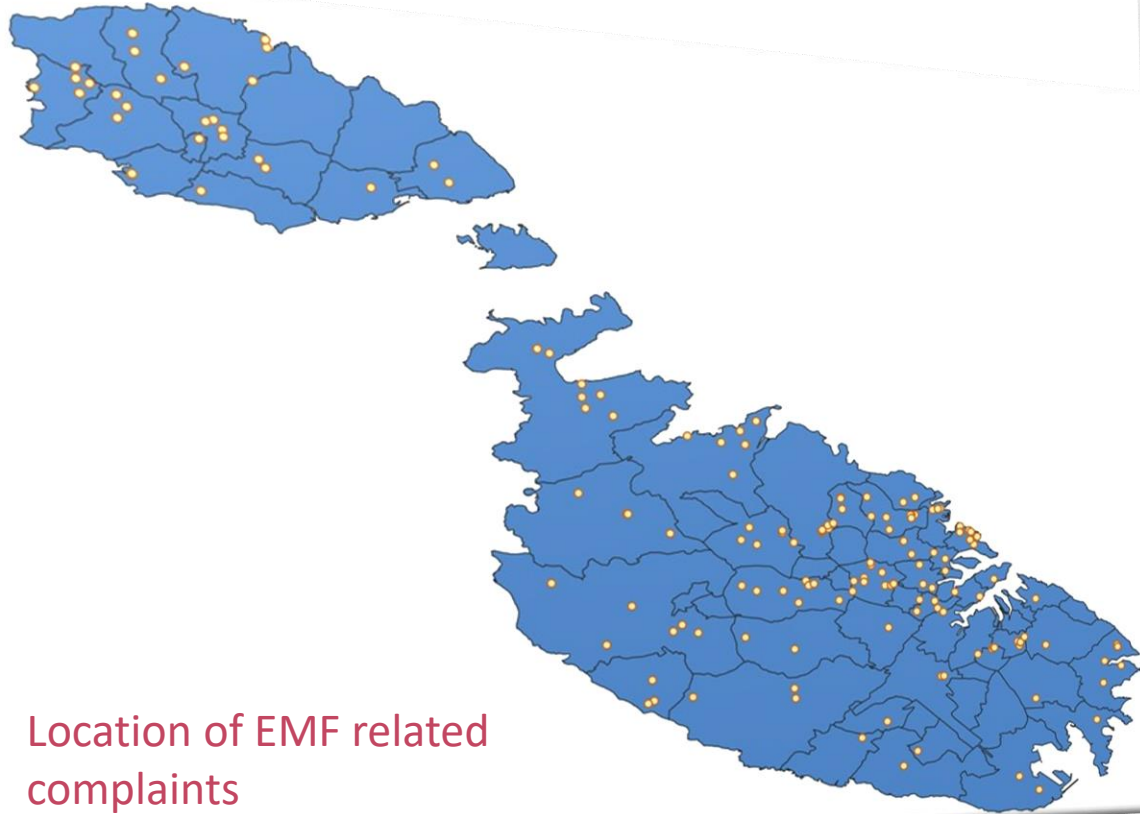




Data Driven Decision Making



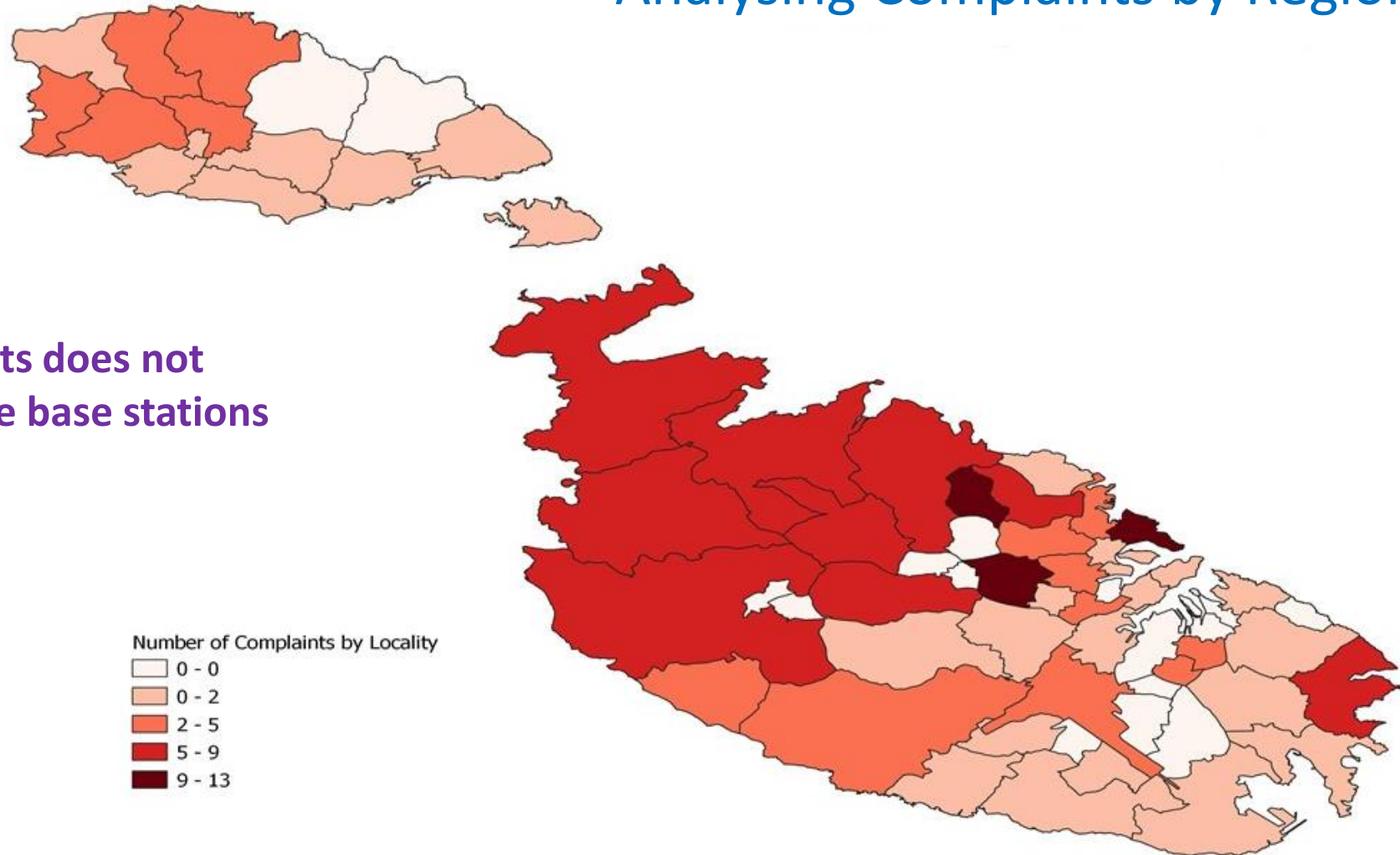
Mapping of complaints vs Location of base stations



Demographic Mapping of EMF complaints

Analysing Complaints by Region

Distribution of complaints does not correlate with that of the base stations



Thank you