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# THE DISRUPTIVE BUSINESS MODELS IN SPATIAL ANALYTICS

Driven by Big Data & IoT

GEOSPATIAL WORLD FORUM 2016 Rotterdam, The Netherlands

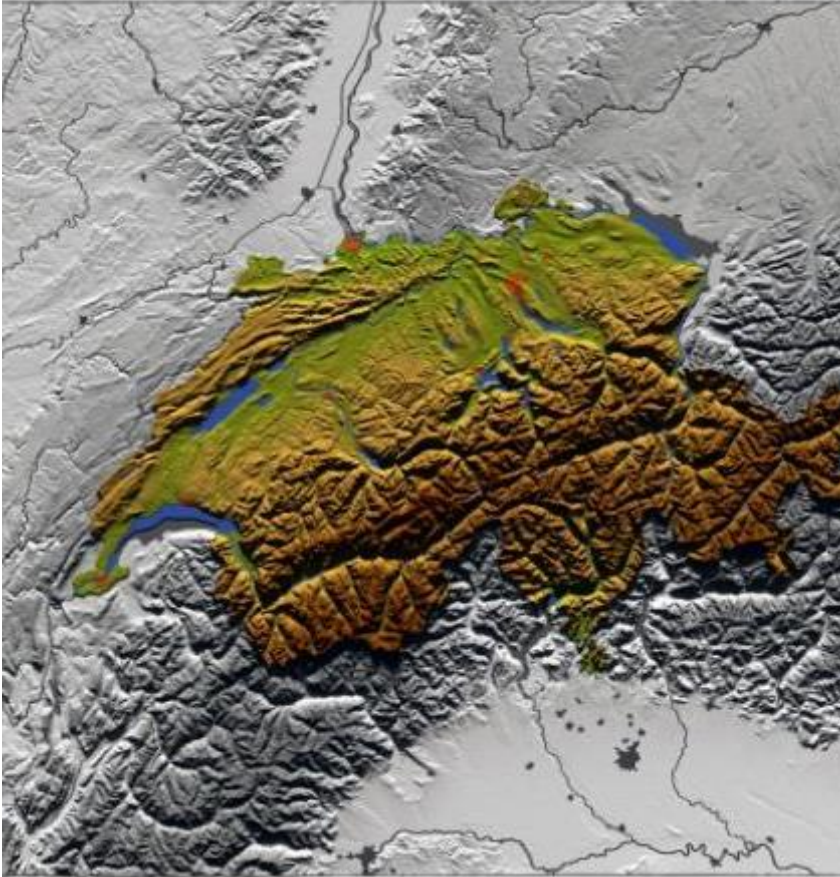
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## AGENDA

- Location Intelligence – the new frontiers
- 5 Disruptive Forces
- Disruptive Business Models
- CYIENT - Leading the journey

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LOCATION  
INTELLIGENCE

The New Frontiers

# Location Intelligence – the new frontiers

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About 80%  
of corporate  
data has  
spatial  
significance



BI provides  
WHAT, WHEN &  
WHO...  
Spatial provides  
WHERE and  
makes better  
sense of HOW &  
WHY

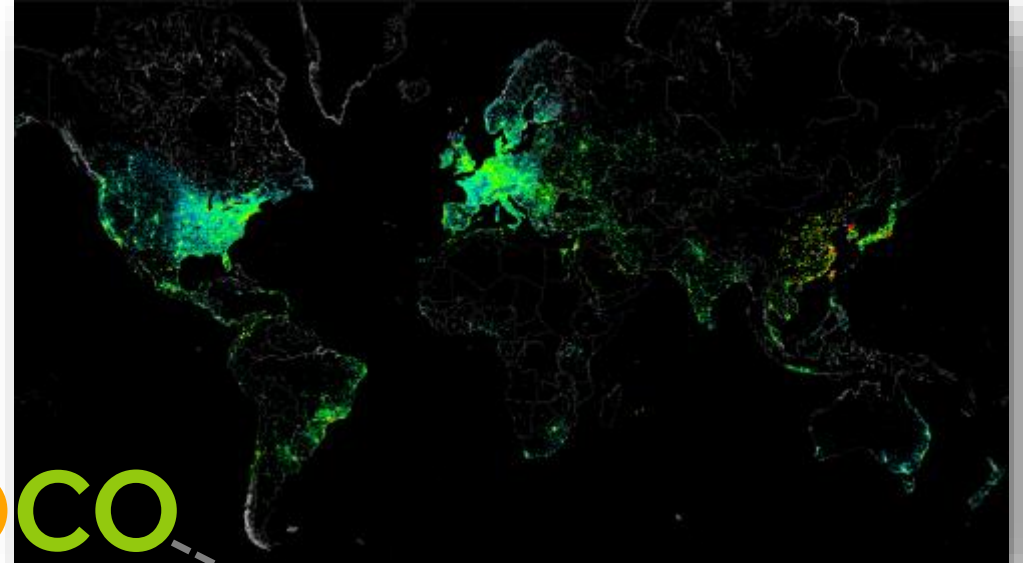
**RELEVANCE**  
**RESPONSE**  
**REVENUE**  
**RESULTS**



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# Extending the gamut of Location

Every "thing" of economic value is spatially relevant...



SOLOCO

Socialise

Localise

Commercialise

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## 5 DISRUPTIVE TRENDS

The New Opportunities

# 5 Disruptive trends

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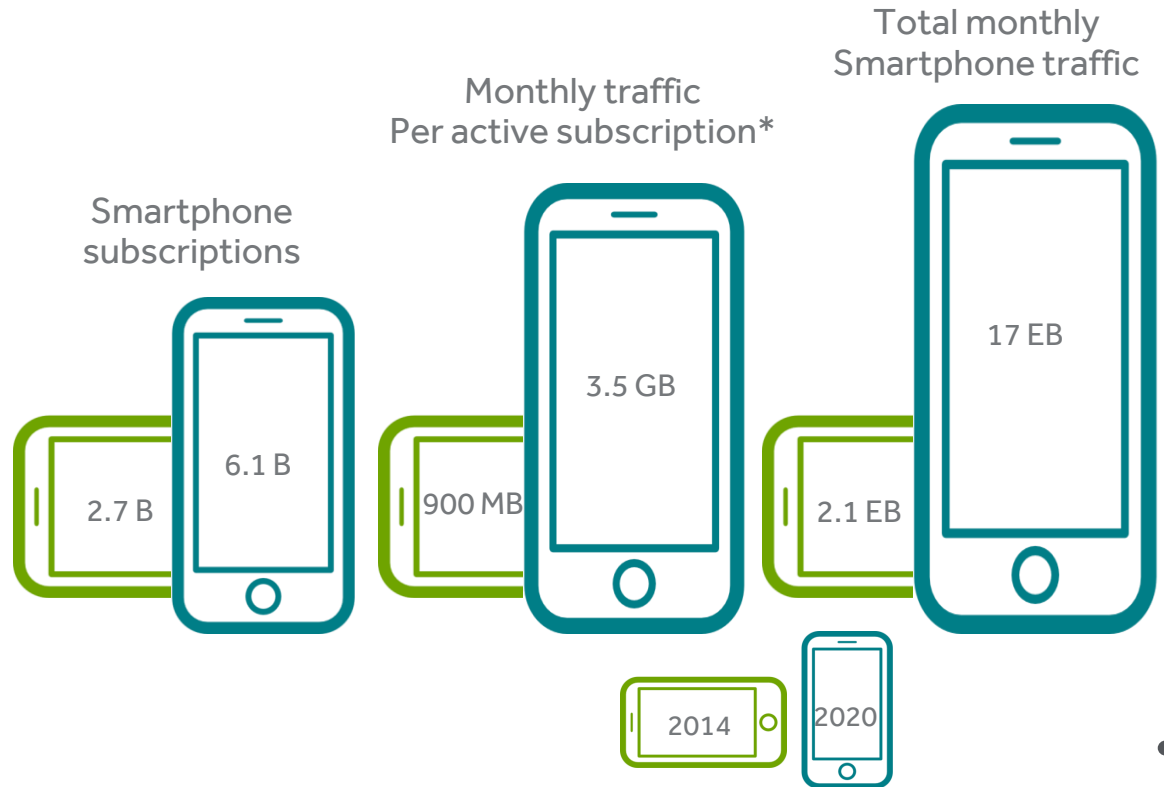
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# 1. Widespread adoption of smartphones

- Location is ubiquitous with cell triangulation
- Consumers opting to share their location voluntarily
- >74% of consumers with smartphones use location based services\*\*
- App proliferation

Global Smartphone traffic to increase by 8X by 2020



Source:

\* Ericsson

\*\*Pew Research Internet project, 9/2013



## 2. Ability to connect things affordably

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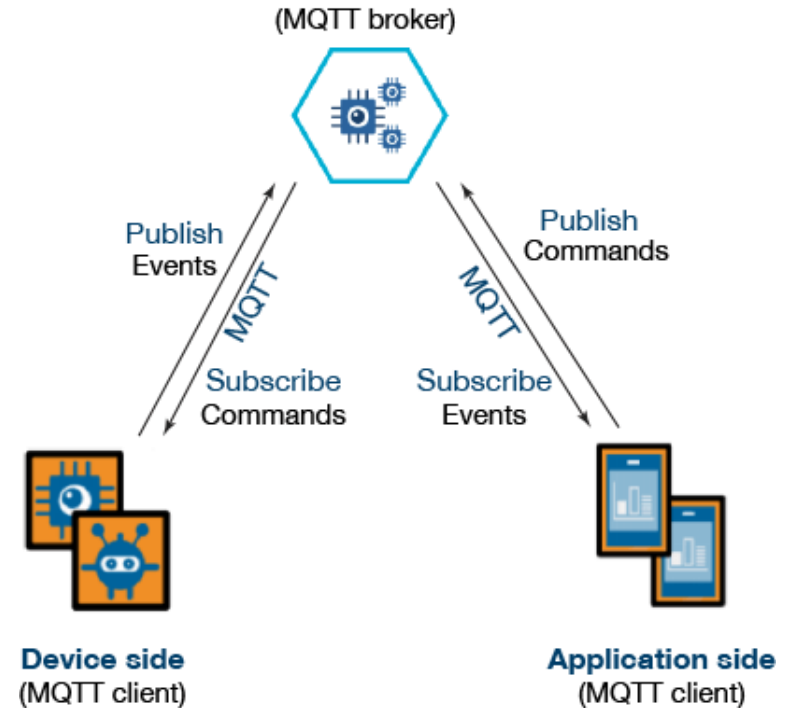
Most of the IoT applications have spatial significance

- Vehicles, cell phones, assets and even pets

Location and Time play pivotal role in building spatial intelligence

- Show me vehicles passed by **location X** in the past hour
- **Where** has my car been over the last few hours

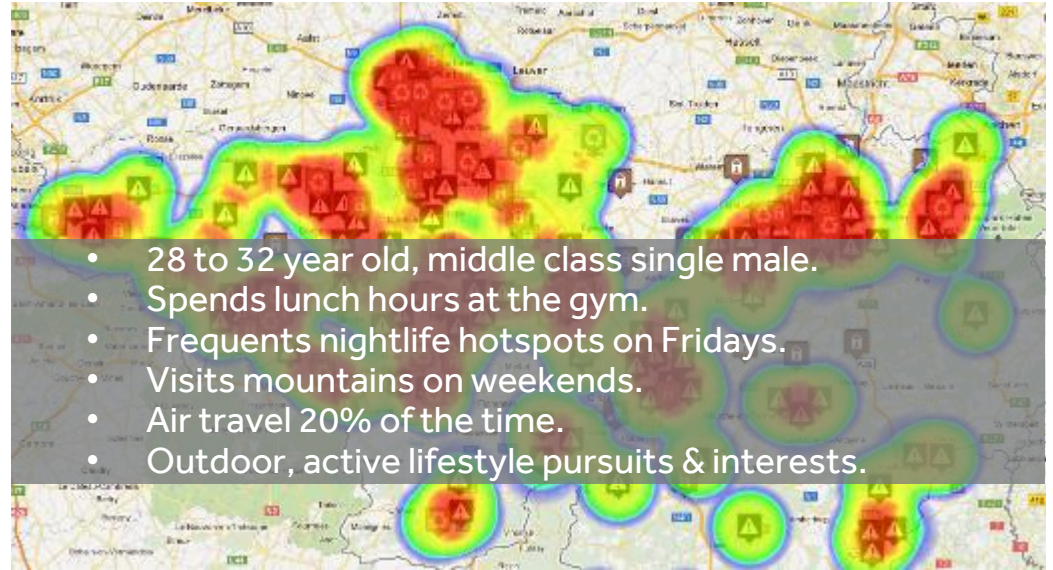
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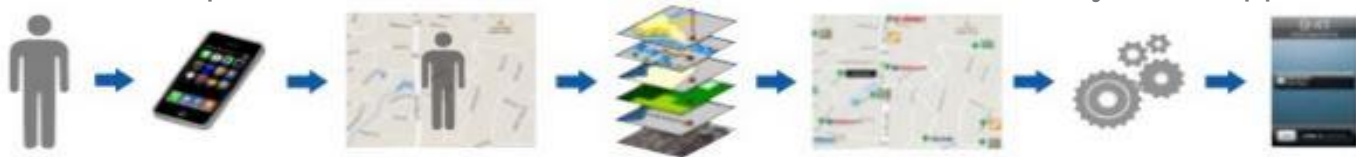
### 3. Ability to process big data in real-time and offline

Location intelligence is underutilized in most BI applications

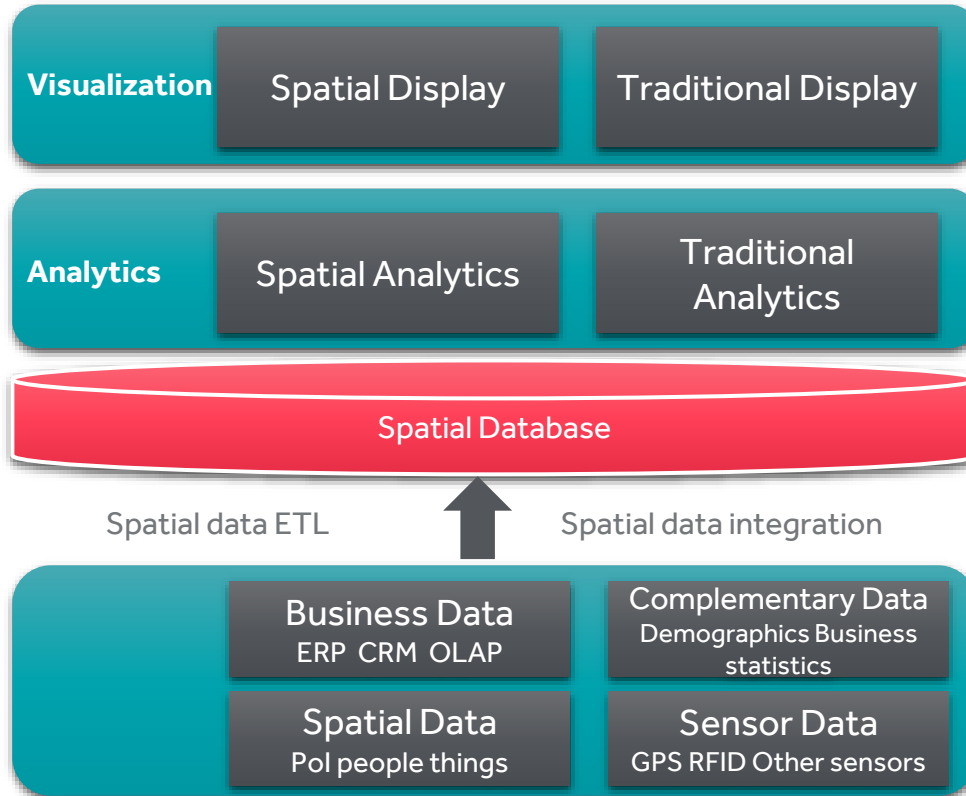
If there is location, there is location intelligence, almost instantly.



Human → Smartphone → Location → Relevant data → Context → Analytics → Applications



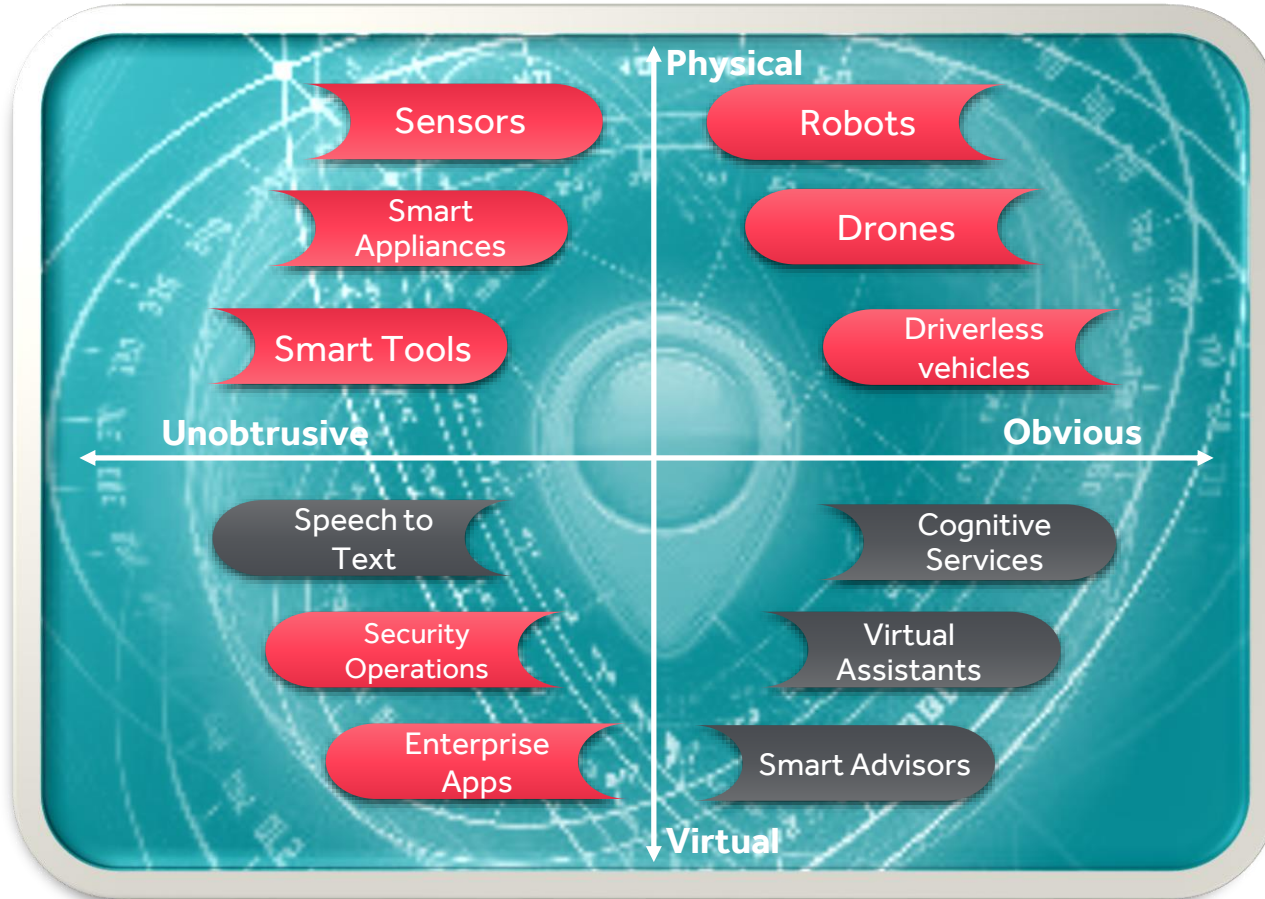
### 3. Ability to process big data in real-time and offline



#### Common capabilities of Machine Learning

- Speech recognition
- Natural language processing
- Face detection
- Medical diagnosis
- Customer profiling
- Fraud detection
- Spam detection
- Shape detection

## 4. Autonomous Agents and Things



Autonomous agents and things sense their environment and produce rich data.

They get richer context with location intelligence when they interact with their environment

# 5. Sharing Economy



YAHOO!  
Aol.  
NETSCAPE

Internet



Google<sup>™</sup>  
PayPal  
ebay<sup>™</sup>  
amazon.com.

Web Services



facebook.  
UBER  
zipcar.  
airbnb

Location Intelligence

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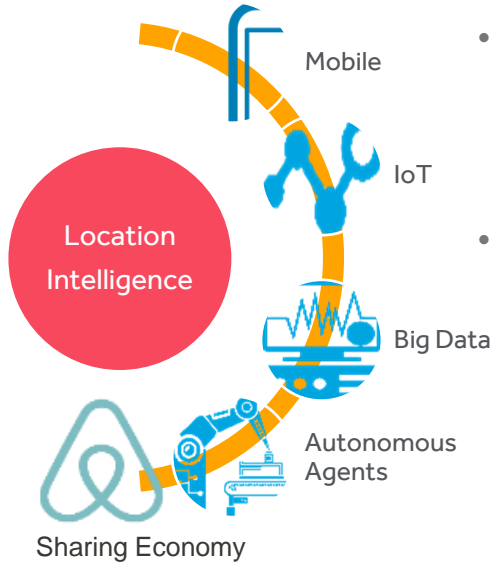
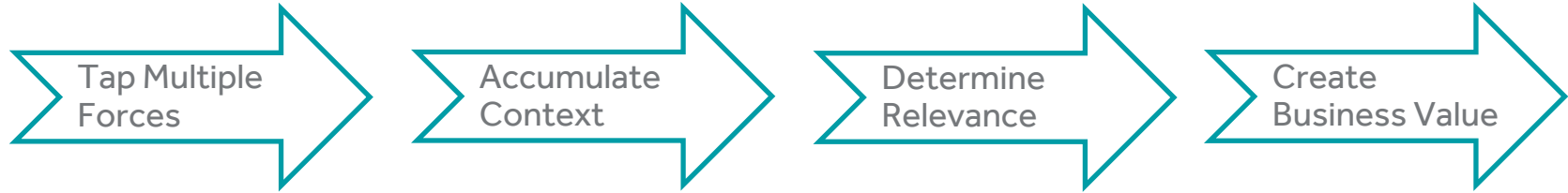
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# DISRUPTIVE BUSINESS MODELS

Where is the Money?

# The Disruptive Business Models

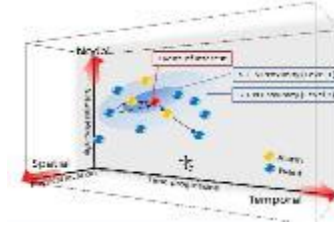
Accumulate context to create untapped business value



- Resolve data sources across multiple disruptive forces
- Integrate new forces with existing ones



- Spatial Reasoning
- Temporal Reasoning
- Nodal Reasoning



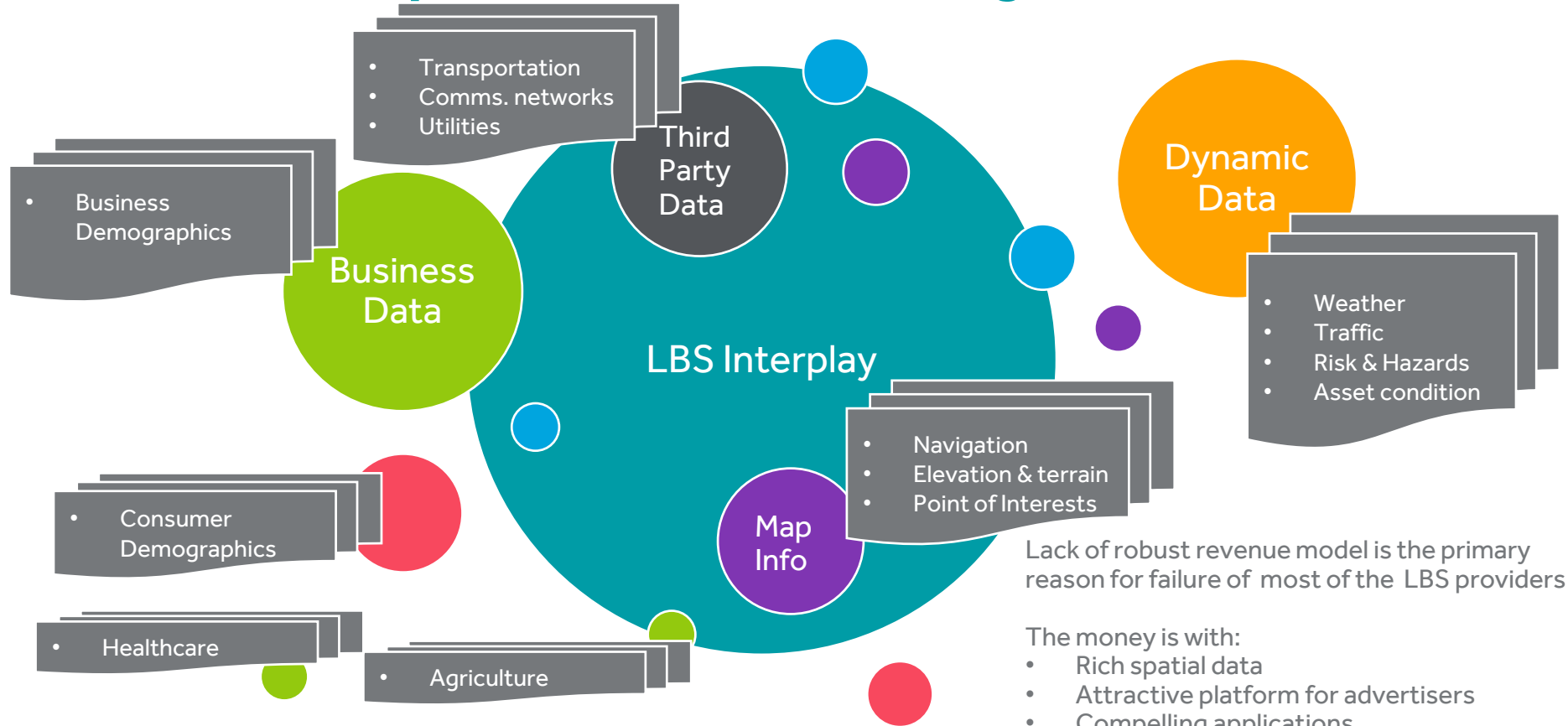
- Create possibilities
- Predict Outcomes
- Alert opportunities



# Observation space for Location Intelligence

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Lack of robust revenue model is the primary reason for failure of most of the LBS providers

The money is with:

- Rich spatial data
- Attractive platform for advertisers
- Compelling applications
- Cross functional applicability



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Leading the journey of  
Spatial Analytics

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## GEOSPATIAL SOLUTIONS

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### CREATE

Source | Accumulate | Capture

### REFRESH

Update | Maintain | Support

### MANAGE

Integrate | Migrate | Transform

### ANALYSE

Interrogate | Classify | Model

### DELIVER

Distribute | Publish | Share

### TOGETHER

Consult | Advise | Inform

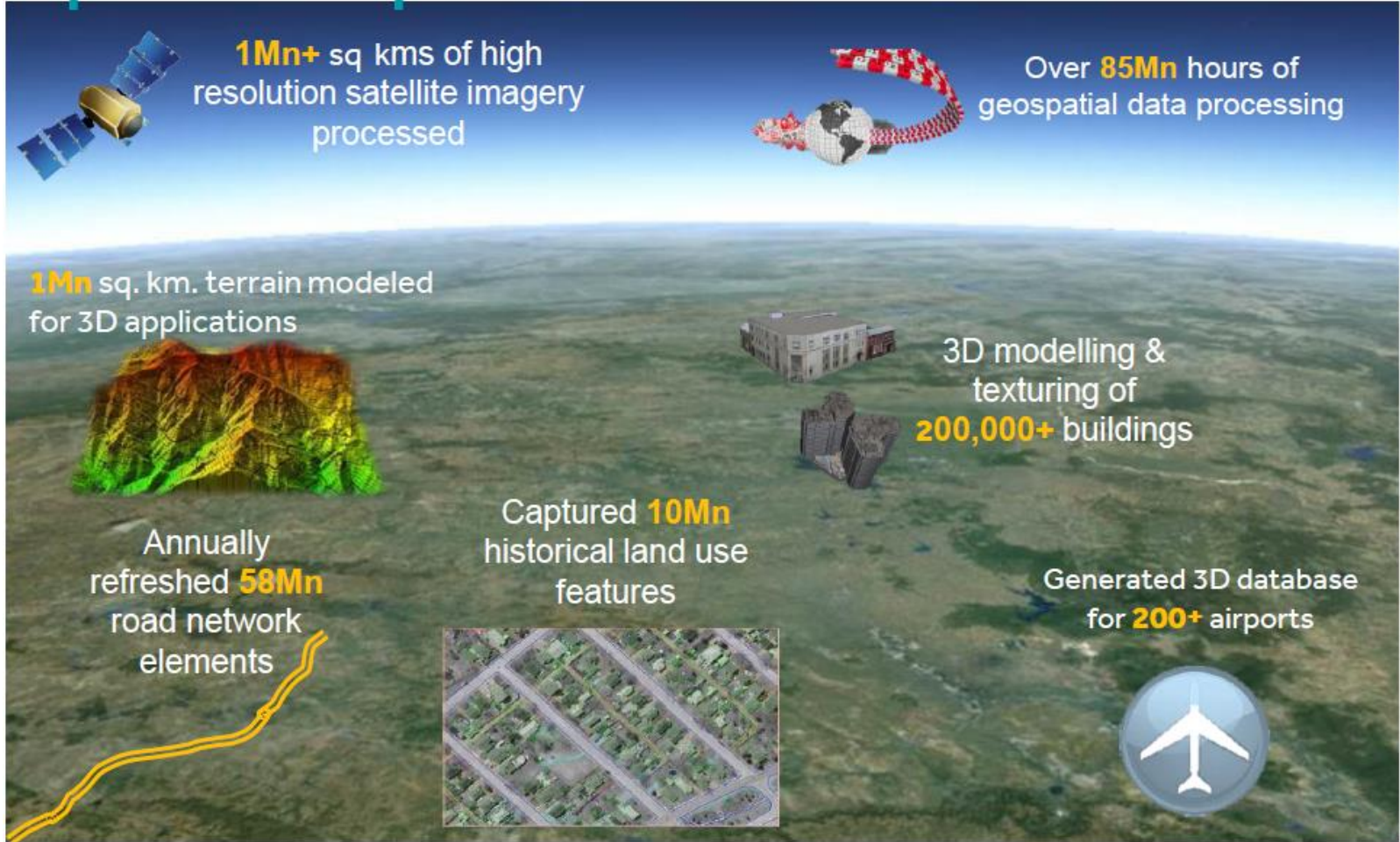
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DESIGNING TOMORROW TOGETHER

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**1Mn+** sq kms of high resolution satellite imagery processed

Over **85Mn** hours of geospatial data processing



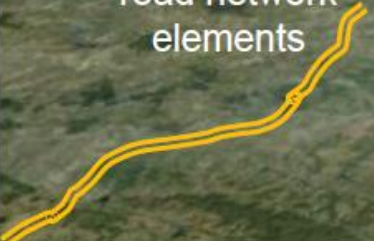



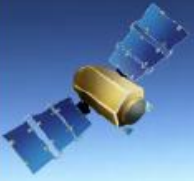
**1Mn** sq. km. terrain modeled for 3D applications

3D modelling & texturing of **200,000+** buildings

Annually refreshed **58Mn** road network elements

Captured **10Mn** historical land use features

Generated 3D database for **200+** airports



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THANK YOU

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