



EARTH
OBSERVING
SYSTEM

Listening To The Pulse Of The Planet

EAS

ENVI ANALYTICS SYMPOSIUM

BUSINESS CHALLENGES AND OPPORTUNITIES for satellite imagery providers

EOS products



EOS Platform

Cloud tool for search, sharing and on-the-fly processing of satellite imagery with high and low resolution.



EOS Vision

Perform efficient geodata analysis and visualization with flexible SQL interface and state-of-the-art cartographic tools in EOS Vision.



EOS Intelligence

Solve intelligence and security challenges in maritime and military domain utilizing comprehensive satellite surveillance solution based on EOS own proprietary methods to fuse data extracted from SAR satellite imagery with 3rd party data sources such as AIS.



EOS Crop Monitoring

Smart Solutions to make farming simple analyze, model and predict the crop yields in one place.



EOS Lidar

Employ precise automated LiDAR data processing, 3D modeling, visualization solutions for security, business, government applications.

Company profile



OWNERSHIP

Privately held company



HUMAN RESOURCES

- 150+ employees
- R&D group of scientists led by 5 Professors & 15 Ph.D
- Own software development team

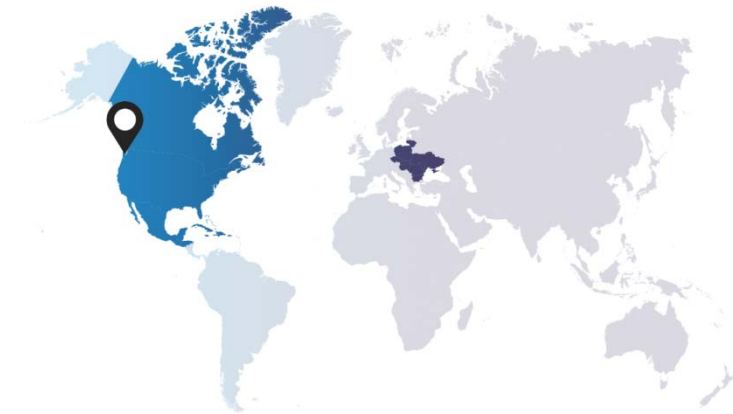


MAIN BUSINESS

Providing diverse solutions and software for business, science and education using earth observing data.

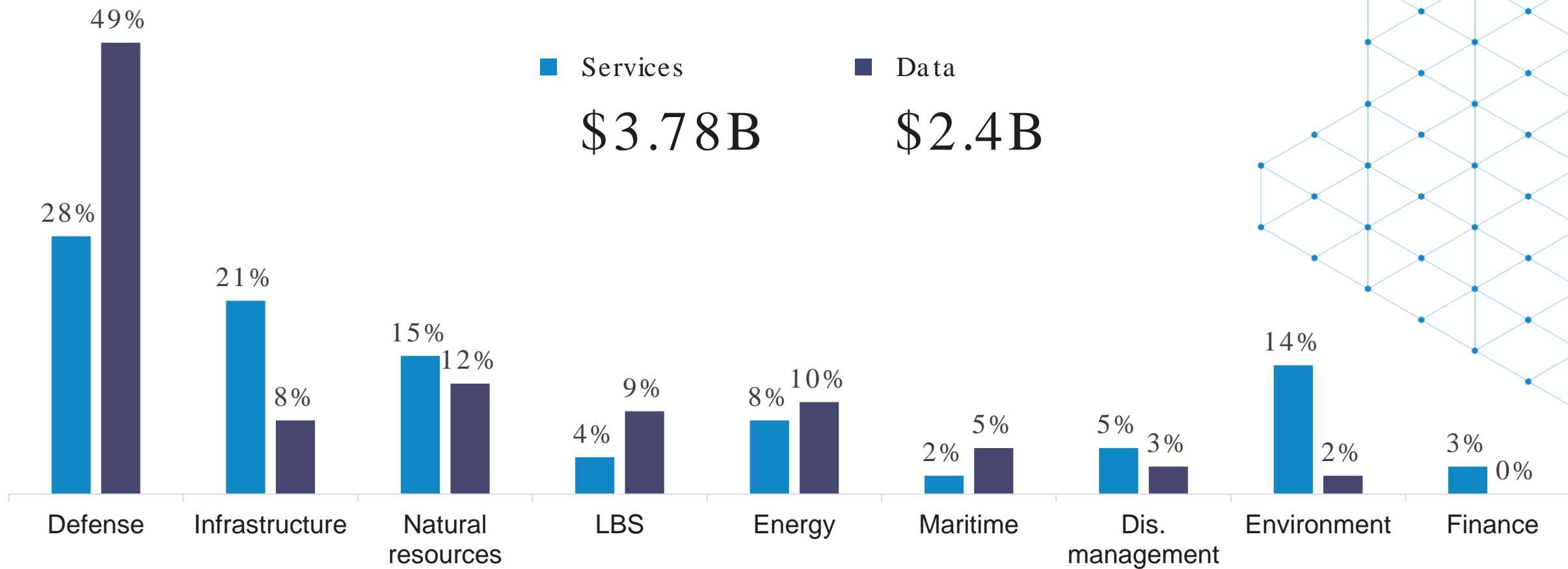


LOCATION



- HQ in Menlo Park, California
- Research center in Eastern Europe
- Sales teams in North America & Eastern Europe

Market share



General flow



Satellite
imagery



Pixels +
VAP + DP

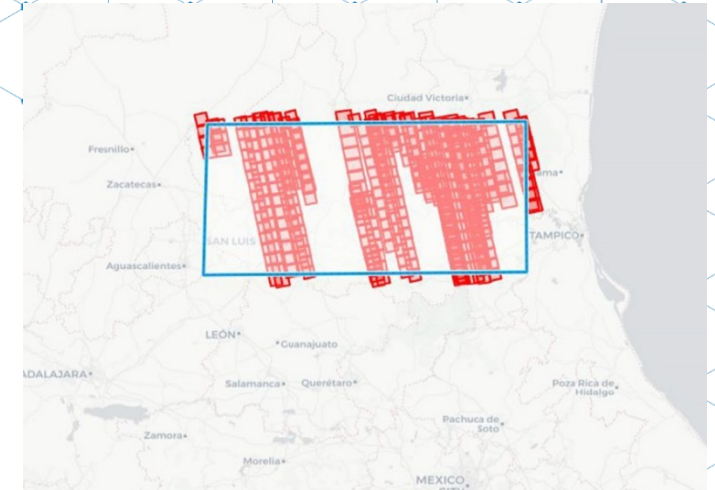
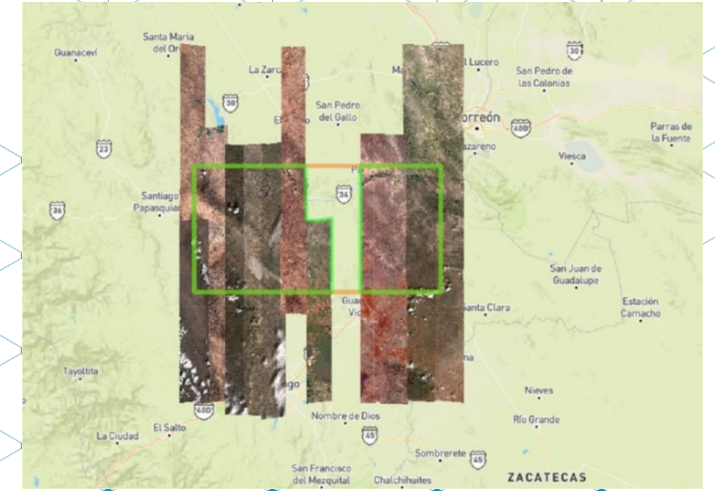
CLIENTS



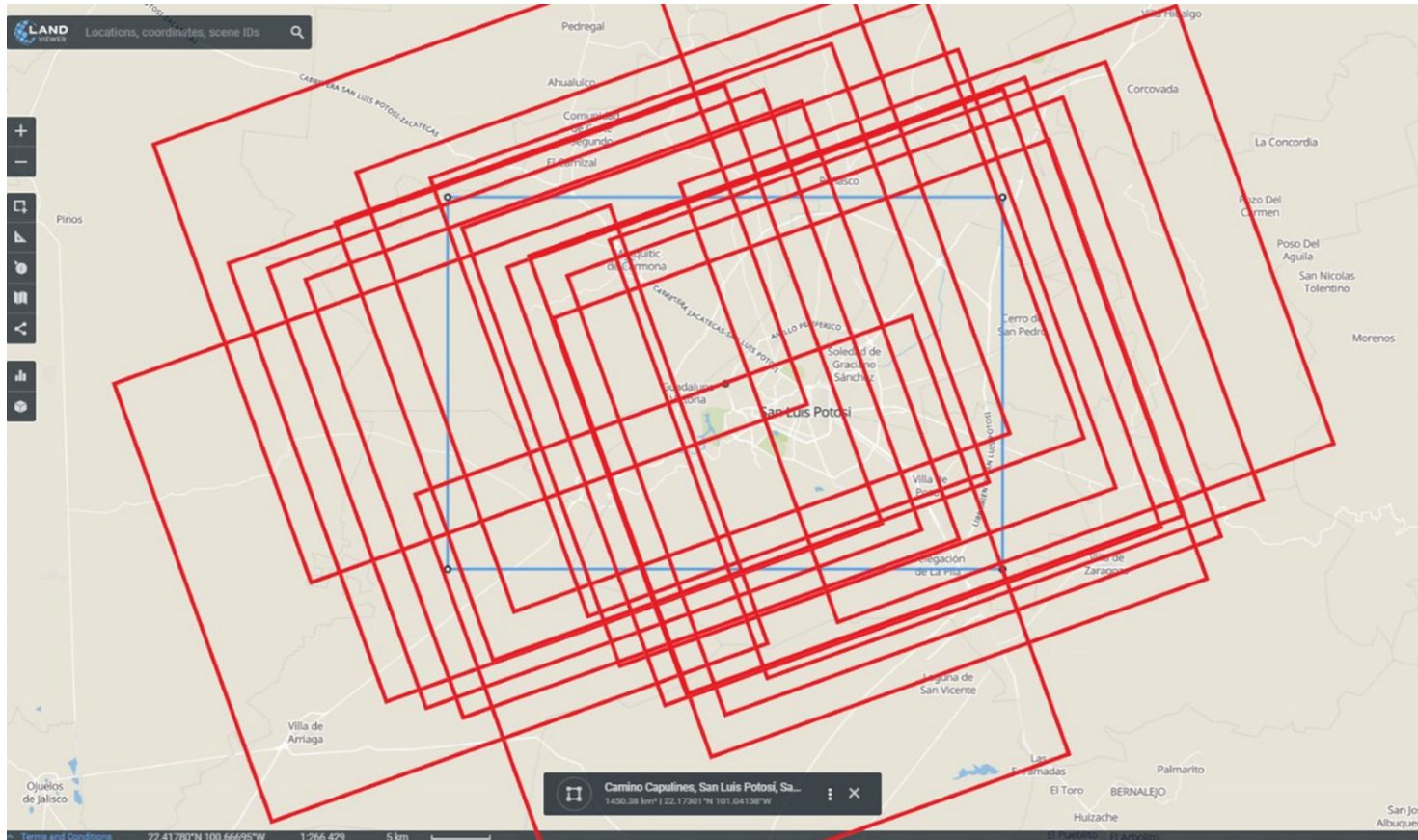
Problem statement #1

Lack of imagery coverage in areas of need

Problems:
lack of fresh
coverage
and coverage
in areas of need



Solutions: we need images



2018–2019

0.5 m/pxl – 3 000 images

1.0 m/pxl – 6 000 images

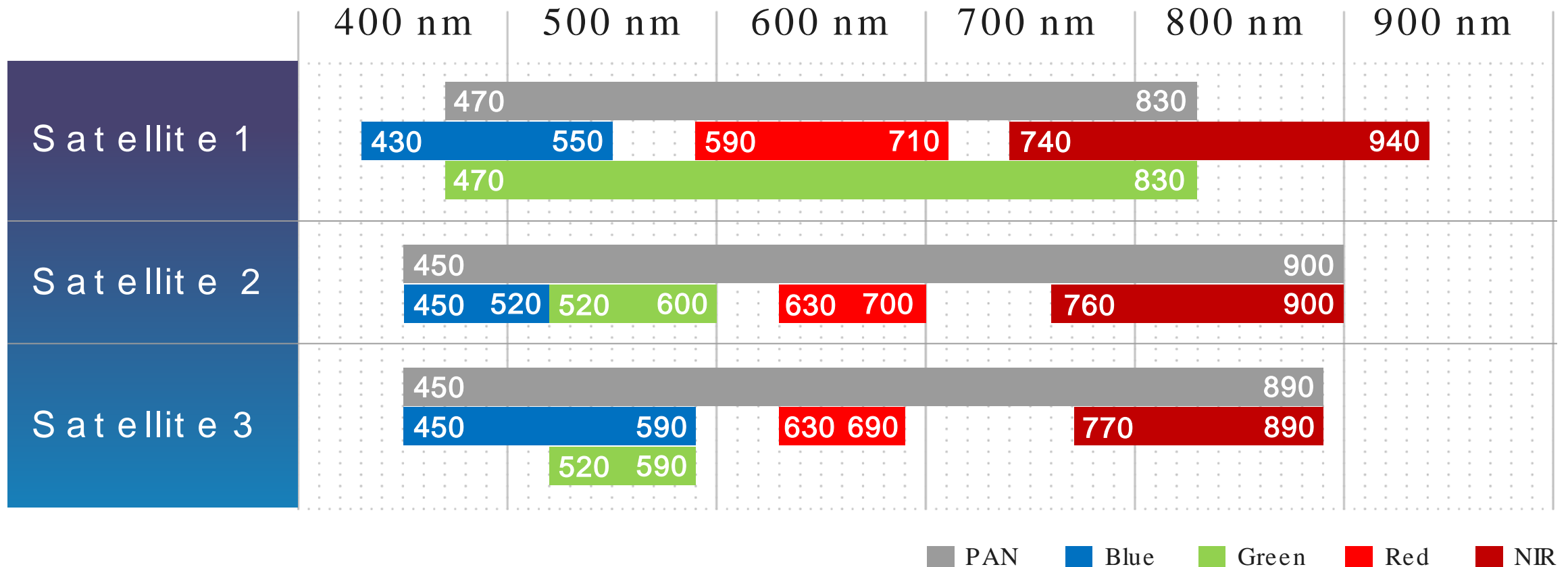
2.5 m/pxl – 5 000 images



Problem statement #2

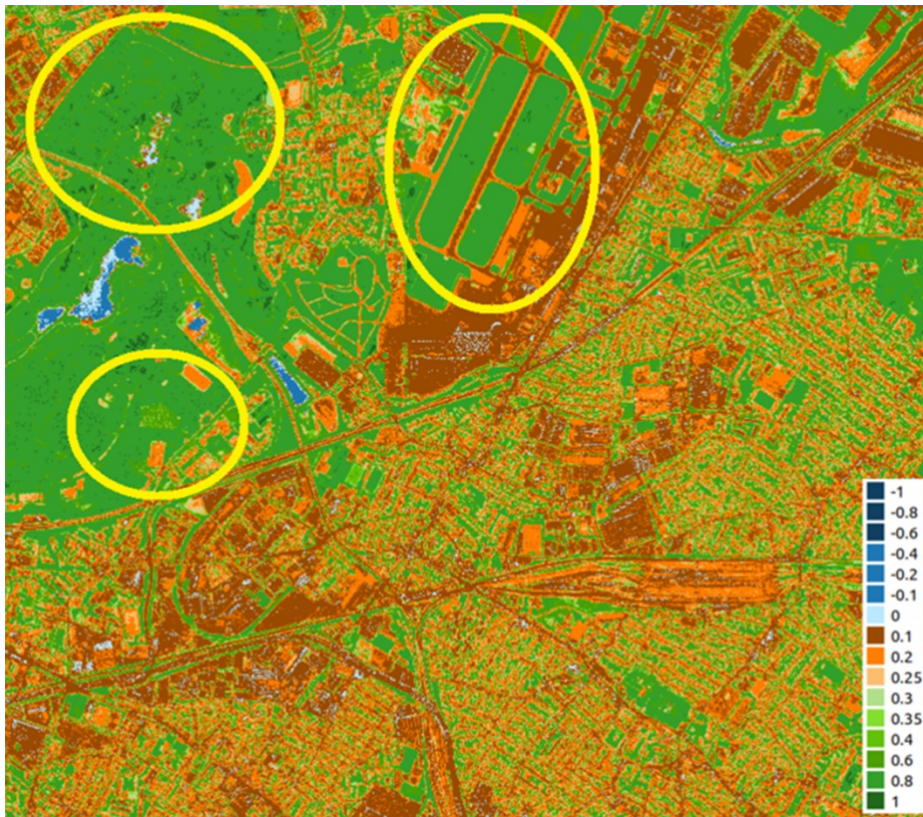
Compatibility and quality of the imagery

Problems: quality of the imagery

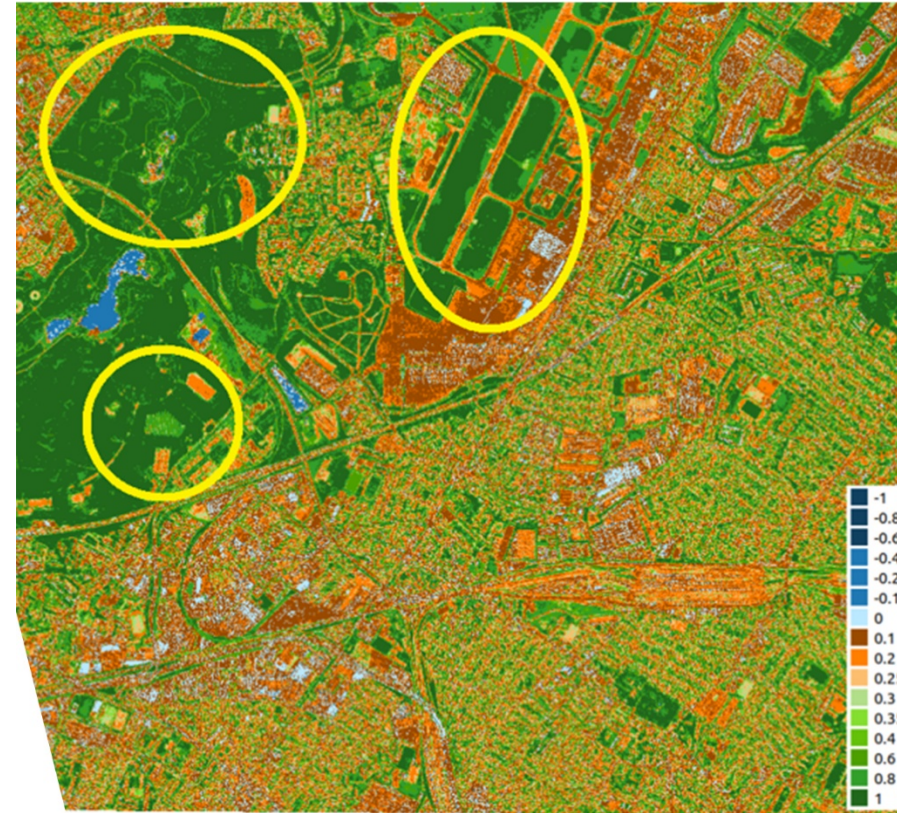


Problems: quality of the imagery

NDVI - Satellite 1 - 08.05.2018 - 11:17



NDVI - Satellite 2 - 08.05.2018 - 12:41



Problems: quality of the imagery

NDVI- Satellite 1- 28.07.2018 - 10:55



NDVI- Satellite 3 - 28.07.2018 - 19:16





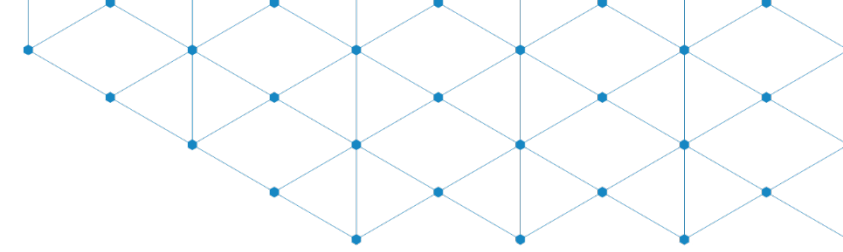
Problem statement #3

Minimum order and price

Problems : minimum order and price

	ARCHIVE DATA	NEW TASKING DATA
OPTICAL imager y	Average price: \$10–15 / sq.km Min order: 25 sq.km Total budget: \$2.5–3.75 for 250 sq.km (10 times 25 km)	Average price: \$20 / sq.km Min order: 100 sq.km Total budget: \$20K for 50 sq.km
SAR imager y	Average price: \$2.5K/ scene Min order: 1 scene Total budget: \$25K for 50 sq.km	Average price: \$5K/ scene Min order: 1 scene Total budget: \$50K for 50 sq.km

S o l u t i o n s : p r i c e



Use case: make change detection Territory: 5 sq.km Time period: 10 month Resolution: 50 cm/pxl.

	ARCHIVE DATA	NEW TASKING DATA
OPTICAL imager y	Average price: \$10–15 / sq.km Total budget: \$2.5–3.75K or — Total budget: \$500–750 for 50 sq.km	Average price: \$20 / sq.km Total budget: \$20K or — Total budget: \$1K for 50 sq.km
SAR imager y	Average price: \$2.5K/scene Min order: 1 scene or \$56 / sq.km Total budget: \$2.5–3.75K or — Total budget: \$500–750 for 50 sq.km	Average price: \$5K/scene Min order: 1 scene \$112 / sq.km Total budget: \$50K or — Total budget: \$5.6K for 50 sq.km



Problem statement #4

Legal issues associated with the development of VAP and DP

Problems

- A growing availability of satellite imagery must correspond to a greater ability to automatically and quickly extract and share information, in the most effective way.
- Major satellite imagery providers started development of their Imagery analytics platforms to transform raw pixels into the value-added information extracted from satellite images to respond to this need.
- Meanwhile, there is a market for satellite image processing services as well as GIS players who doesn't provide any imagery/doesn't have direct access to own satellite imagery.
- Such companies limited in terms of time and automated access to the imagery archive. This is the main obstacle to a greater ability to automatically create VAP and DP for final customers.
- Main limiter is the security, as there are number of bad guys around who are thirsty for satellite imagery as well as for VAP.
- Where are no common rules or standards to access imagery and those rules should standardize somehow to make GIS VAP and DP production transparent and boost the market in general.



Problem statement #5

Order and delivery



Problems: ordering and delivery



OWN PORTAL

for searching and ordering his own data



OWN ORDER FORM AND TIME PERIOD

for order delivery



OWN DESCRIPTION

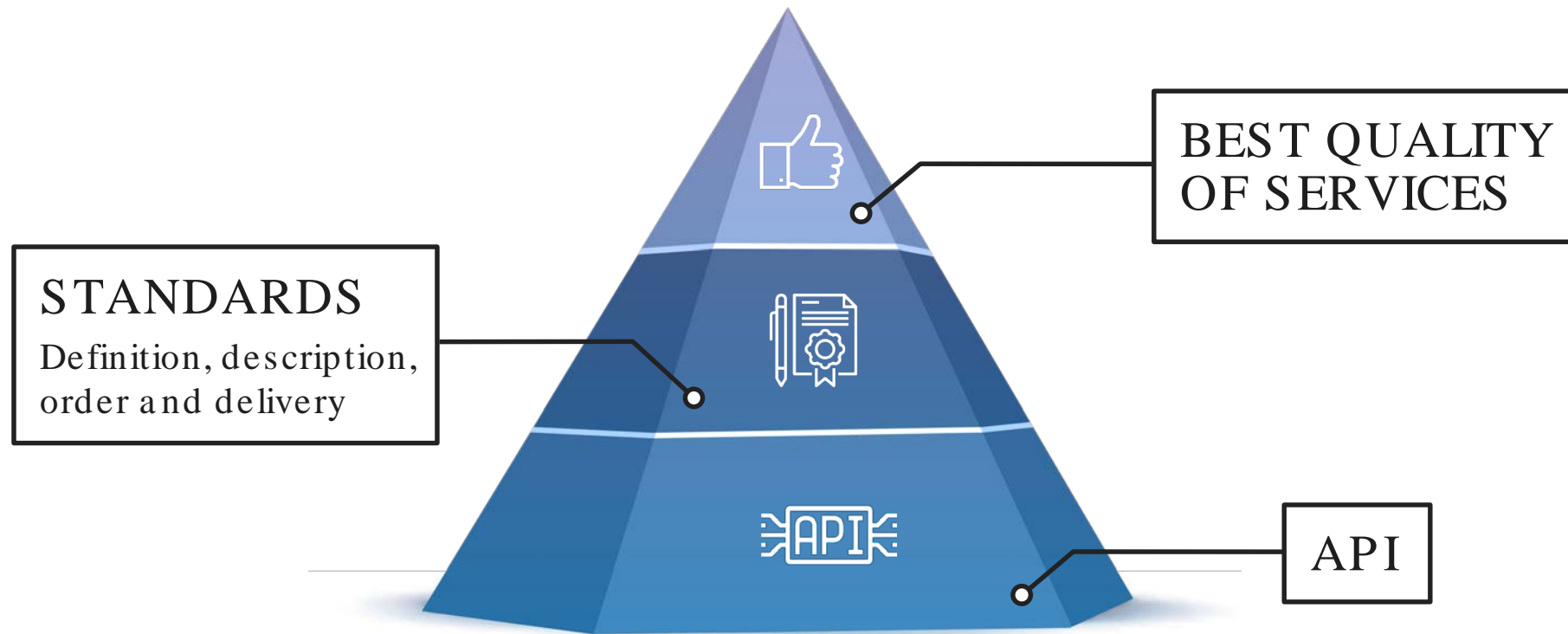
for imagery processing level



OWN FTP

for delivery of the order

Solutions: order and delivery



In order to universalize the industry processes and ensure the best quality of services, we need to create standards for product definition, description, order and delivery, all backed by API.

Opportunity



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Opportunity

PROBLEMS

- Minimum order and price
- Lack of imagery coverage in areas of need
- Order and delivery
- Legal issues associated with the development of VAP and DP
- Quality of the imagery



SOLUTION

Marketplace



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Thank you!



ALEX SAKAL

Head of business development

✉ alexandr.sakal@eosda.com

www.eosda.com