From cutting-edge sensors to multi-intelligence knowledge

DEFENCE AND SPACE

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AIRBUS

A commercial aircraft manufacturer, with Helicopters as well as Defence and Space divisions

Commercial Aircraft

78,000+ employees

We build the most innovative commercial aircraft and consistently capture about half of all commercial airliner orders.

Helicopters

20,000+ employees

We are the world's No.1 helicopter manufacturer with the largest civil and military helicopter range.

Defence and Space

32,000+ employees

We are Europe's largest defence and space company allowing our customers to address even their most challenging operational needs.

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Key Competences

End-to-end Space Missions

Project Management, System
Engineering, AIT, Ground Segments

Multi Domain Applications

Data fusion, intelligence and C2 systems
for all sensors and platforms

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Intelligence Domains

OSINT
Open-source Intelligence

SIGINT
Signals Intelligence

IMINT
Imagery Intelligence

HUMINT
Human Intelligence

MULTI-INT

GEOINT
Geographical Intelligence

ELINT
Electronic Intelligence

COMINT
Communication Intelligence

ENVIRONMENT

CYBINT
Cyber Intelligence

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Satellite Imagery

| DMC Constellation	SPOT 6/7	Vision-1	Radar Constellation	Pléiades	Pléiades Neo
22m RESOLUTION	1.5m RESOLUTION	0.9m RESOLUTION	0.25m - 40m RESOLUTION	0.5m RESOLUTION	0.3m RESOLUTION

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WorldDEM

- First worldwide, consistent and seamless DEM product
    - Covering the entire Earth's land mass (pole-to-pole) with unprecedented accuracy and quality

- **Digital Terrain Model** representing the elevation of the bare Earth, man-made objects and vegetation are removed

- **Digital Surface Model** representing the surface of Earth including heights of buildings and other man-made objects, trees, forests and other vegetation

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OSINT Data

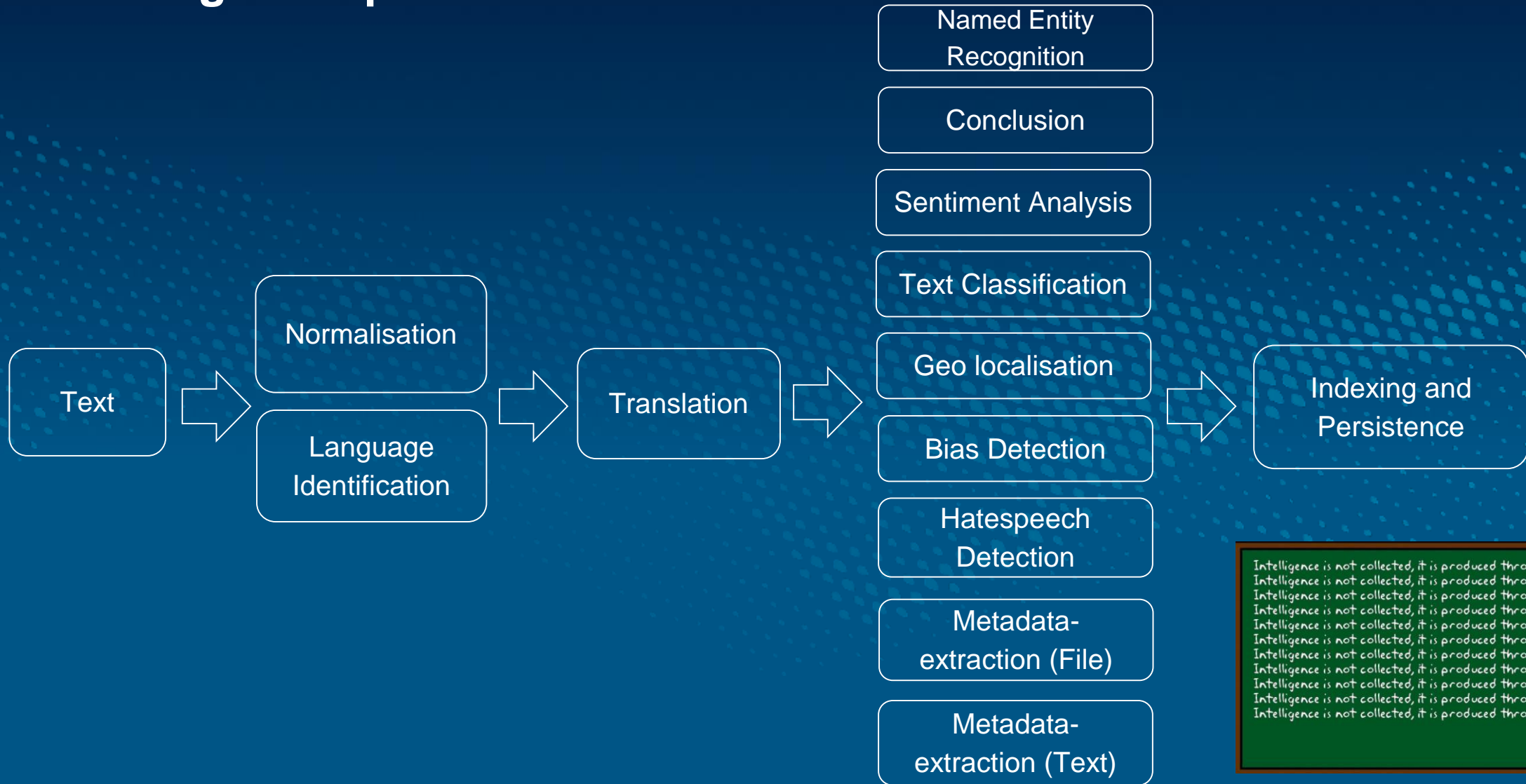**AIRBUS**
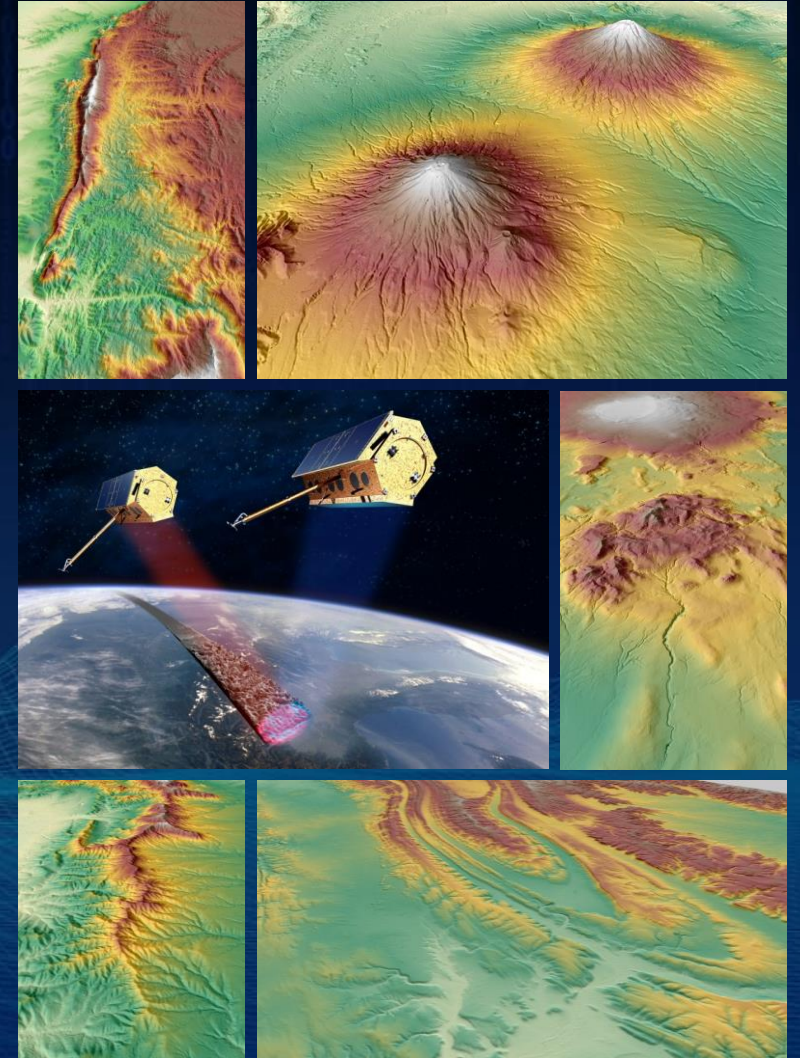
Multi-Intelligence Data Collection

Challenges in data collection

- Very heterogeneous and dynamic sources and data structures
- No standardization
- Frequent adjustments to the collection system are often necessary to react to changes on the source side
- Very large number of different sources (partly language barrier)
- Not only digital sources (e.g. flyers, graffiti/tags)
- Application programming interfaces (API) from the service provider (fully) available or not? > Individual connectors
- Legal limitations (GDPR, individual terms of use) > Anonymization of personal data
- Anonymous data acquisition > separate collection system

In addition, there are the "usual" challenges in dealing with Big Data
- data volume
- Speed at which the amounts of data are generated and transferred
- data types and sources
- authenticity of data

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Processing Example: TEXT

Text →

Normalisation

Language Identification

→ Translation →

Named Entity Recognition

Conclusion

Sentiment Analysis

Text Classification

Geo localisation

Bias Detection

Hatespeech Detection

Metadata-extraction (File)

Metadata-extraction (Text)

→ Indexing and Persistence

Intelligence is not collected, it is produced through analysis
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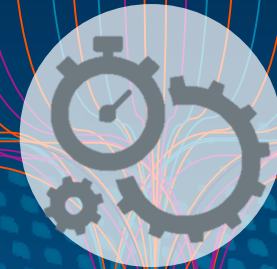
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Multi-Intelligence Solutions

huge amounts
of multi-sources
heterogeneous data

automatic
extraction / processing
of key information

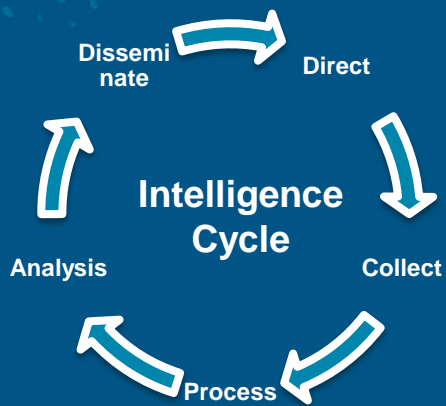easy search among various
Intelligence data bases
/ datalake

Alerts & Various
vizualisation tools
(incl. GEOINT)

build
& capitalize knowledge

Dissemi
nate

Direct

**Intelligence
Cycle**

Analysis

Collect

Process

Intelligence production
& agile dissemination

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Intelligence Serves Multiple Markets

Defence

Security

Maritime

Oil, Gas, Mining & Energy

Agriculture

Forestry & Environment

Land Admin. & Mapping

Infrastructures & Engineering

Insurance

Finance
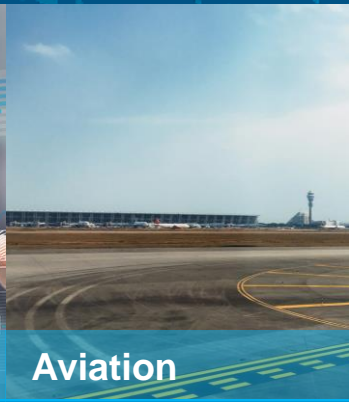
Aviation

Mobility & Transportation

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Multi-Domain Combat Cloud

Enhancing defence power through information superiority

End-to-End cross domain collaborative engagement between manned and unmanned assets

Merging data from various sources in a trusted way

Turning data into actionable information

Sharing the right information, at the right time in the right place

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Conclusion and What's next

Challenges regarding the type, quantity and quality of the sources and data

Fake news, disinformation, video-, image-, audio-manipulation, information warfare

AI usage and evolution (Bots, ChatGPT, Deepfakes)

Modular architecture is crucial in order to be able to react fast changes

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Thank you

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