# PRESENTATION BY GIOVANNI SOCCODATO

## HIGH LEVEL DIALOGUE ON ASEAN ITALY ECONOMIC RELATIONS
### Third Edition

Meliá, Hanoi
Wednesday, June 5 and Thursday, June 6, 2019

Associazione Italia ASEAN

The European House — Ambrosetti

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# Enhance resilience in Asean: best practices, approaches and matching complementarity with Italy

Giovanni Soccodato – Leonardo Chief Strategy and Innovation Officer

Hanoi – Vietnam, June 5-6, 2019



**LEONARDO**

70
1948 · 2018

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Company Internal

# 2018 Key Figures

| € 15 Bn | €12.2 Bn | € 36 Bn | € 1.4 Bn | 46.4 K |
|---------|----------|---------|----------|--------|
| Bookings | Revenues | Bookings Backlog | R&D | Employees |

# 5 Divisions

**Helicopters**

**Aircraft**

**Cybersecurity**

**Electronics**

**Aerostructures**

**JV & Subsidiaries**

Leonardo DRS (Leonardo 100%)

Telespazio (Leonardo 67% - Thales 33%)

Thales Alenia Space (Thales 67% - Leonardo 33%)

ATR (Leonardo 50% - Airbus 50%)

MBDA (BAE Systems 37,5% - Airbus 37,5% - Leonardo 25%)

Vitrociset (Leonardo 100%)

Company Internal

# Geographic Presence

**TOTAL HEADCOUNT**
**46,462**

**USA**
**6,520**

**Poland**
**2,622**

**Italy**
**29,244**

**UK**
**6,986**

Domestic markets

Rest Of The World (1,090)

Company Internal

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# Key Technological Trends

**More/All Electric System**

Advances Hybrid and electric propulsion

**Services & Applications On 5G**

Narrow-band mission critical networks (TETRA, DMR,…); integration with public and private 4G/5G networks for broadband services

**Blockchain & distributed ledgers**

Multi-echelon supply chain visibility
Configuration management
Certification of people and machines

**Quantum Technologies**

Use of Quantum Cryptography for secure communication

Quantum technologies for future sensors

**Artificial Intelligence**

Emotion recognition and understanding Human Behavior in a crowded context

**Cognitive and Smart Sensors & Communication**

Intelligent sensors
Sensing grids
Network routing

# Main areas to be protected

| Security | Transportation | Gov, Enterpr. & Defence |
|---|---|---|

**Critical Infrastructure Protection**
*The largest segment both in terms of total and target market, convergence between physical and cyber security solutions in the medium-long term*

**Counter Terror & Crime**
*Total Market is characterized by the growing demand for C3I solutions*

**Emergency Management**
*Includes communication tech; geospatial tech; business continuity & disaster recovery solutions; simulation tools; professional services*

**Urban Safety & Security**
*Relatively new market, rapidly growing as cities are just beyond deploying video surveillance infrastructure*

**Aviation**
*Total Market is driven by the growing demand for monitoring, detection, and prevention of threats*

**Railways & Metro**
*Comprises devices & components, solutions and services that help the rail companies to monitor all railway-related operations more closely and accurately*

**Road / Urban Traffic Safety**
*An approach that integrates all the disciplines found in town planning and management. These include traffic management, enforcement, education, public transport, town planning, etc, as well as road safety*

**Gov. Digitalization**
*Will grow at 8,9% CAGR over the next 5 years driven by the needs of increasing efficiency and transparency, transforming gov transaction services, data-driven gov, better access to and mgmt of information*
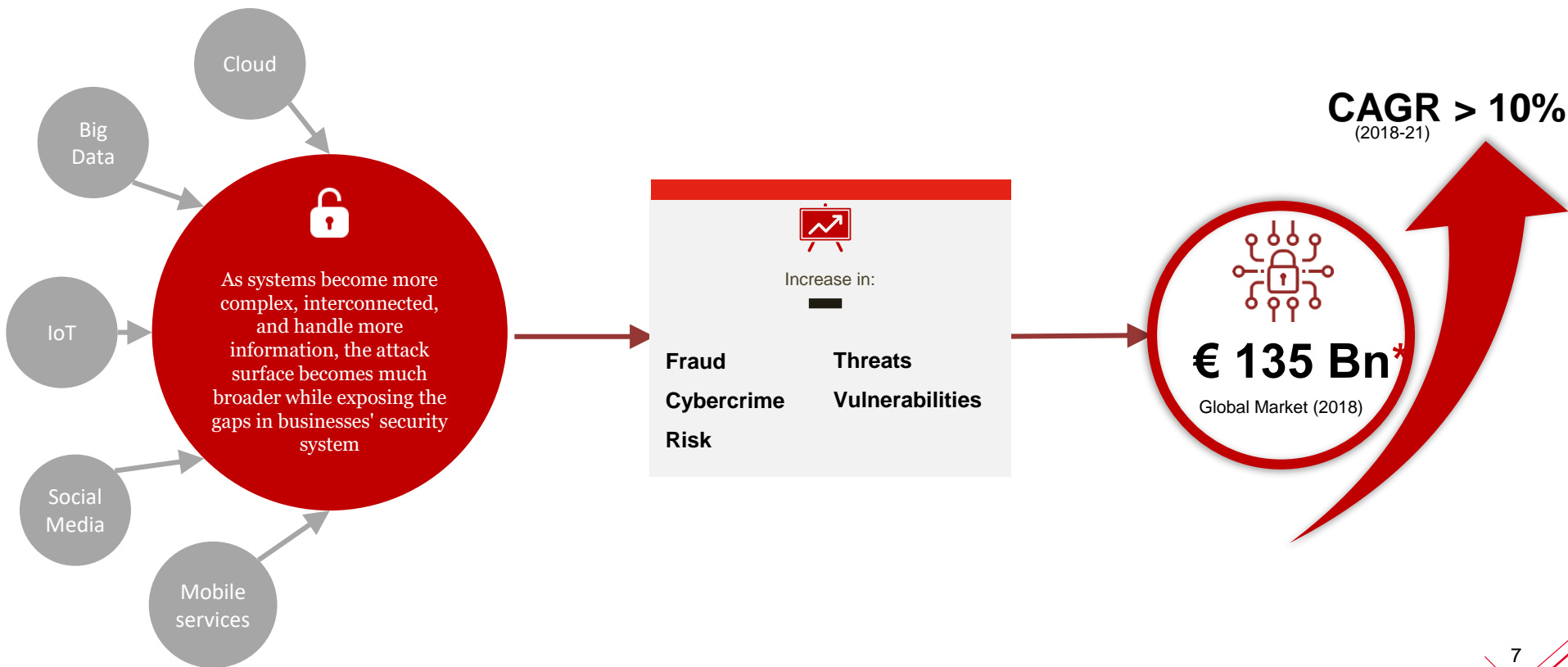
**Defence Digitalization**
*A new wave of technologies (e.g. connected devices - IoT, artificial intelligence, etc…) and an increase in cyber-based attacks are driving the market to grow at 2 digit CAGR (10,2%) over the next 5 years*

**Industrial Digitalization**
*Refers to the application of new digital technologies in the industrial and manufacturing sector, with the aim of increasing interconnection and resource cooperation (people, machines and information) used in business processes, both inside the factory and distributed along the supply chain*

# Cyber Threats Challenges

Cloud

Big Data

IoT

Social Media

Mobile services

As systems become more complex, interconnected, and handle more information, the attack surface becomes much broader while exposing the gaps in businesses' security system

Increase in:

**Fraud**            **Threats**

**Cybercrime**    **Vulnerabilities**

**Risk**

**€ 135 Bn***

Global Market (2018)

**CAGR > 10%**
(2018-21)

Company Internal

*Source: LDO Internal elaboration

# Leonardo Cyber Solutions

**Cyber Professional Services**
Consulting services for cyber strategy and governance to help customers address their cyber security issues

**SOC Managed Services**

Next generation SOC service family guarantees 24x7 cyber security detection and monitoring for national and international

**Incident handling and response services**
A team of experienced promptly and effectively responds to cyber attacks, supporting by cutting edge artificial intelligence tech.

**Cyber Training**
Realistic and immersive cyber environments which enable national defence and critical industries to practise attack and defense processes

**Threat Intelligence**
Open source web and dark web continuous monitoring and deep analysis aiming to detect, predict and thwart the most complex and highly refined cyber threats

**Investigation Support system**
Family of advanced proprietary platforms for government and law enforcement agencies end-to-end support to investigation of crime activities

**Secure Analytics**
Analytics based proprietary platforms designed to ensure the secure supply of critical services for industrial and governmental organisation

**Secure Digital Transformation**
Cutting-edge solutions, technologies and competences able to accompany our customers across the secure digital transformation path

# Application Experience – NCIRC

Leonardo has been selected by **NATO** to develop and implement the NATO Computer Incident Response Capability (**NCIRC**) Full Operating Capability (FOC); Leonardo has supported and evolved the platform for the last 7 years

NCIRC FOC is a highly **adaptive and responsive system** to help protect NATO from cyber-attacks against both its mobile and static Communication & Information Systems

- NATO Computer Incident Response Capability
- A unique center for classified and unclassified networks
- 29 countries involved
- Over 70.000 users

Some IRT functionalities provided:
- Real Time Monitoring
- Malware Analysis
- Forensic Analysis
- Situation Awareness
- Traffic Monitoring/Capture
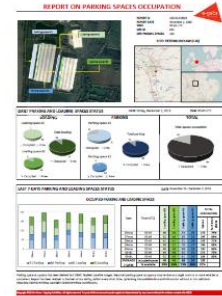- Vulnerability Assessment
- Information Sharing
- Knowledge Management

Company Internal

# Geo Information: from pixels to data analytics products

Big data analysis

Information Products

Value Added Services
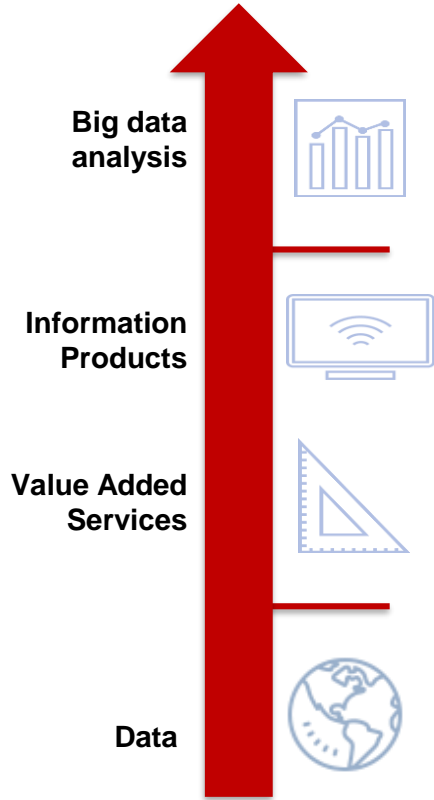
Data

**Big Data Analytics reports**

• Geo spatial solutions based on big data and data analytics reports

**Application Platforms**

• Geo spatial solutions for each vertical domains (maritime surveillance, image intelligence, infrastructure monitoring, emergency management, risk management, insurance, …)

• **Worldwide distribution of COSMO Sky-Med** first and second generation commercial data – Third parties data provider

# Geo Information Center



- A modular capacity building process to enable **End-User** to generate and deliver **Geospatial products and services** covering both civil and **Intelligence / Defence** applications

- Scalable **hardware/software architecture** and specific application platforms.

- Full benefit of **Cosmos Skymed** constellation data with local receiving capability and federation of multi mission optical and radar sensors to provide the best information driven products in a broad range of domains