

Business Mission



to the UAE



April 14-16, 2019



UNITED ARAB EMIRATES
MINISTRY OF ECONOMY



الإمارات العربية المتحدة
وزارة الاقتصاد



ICT Focus Sector Roundtable:

UAE future agenda for digital transformation
and smart cities

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Mr. Matteo Zoppas

President
Confindustria Veneto



Digital economy: a great opportunity

The Italian Strategy

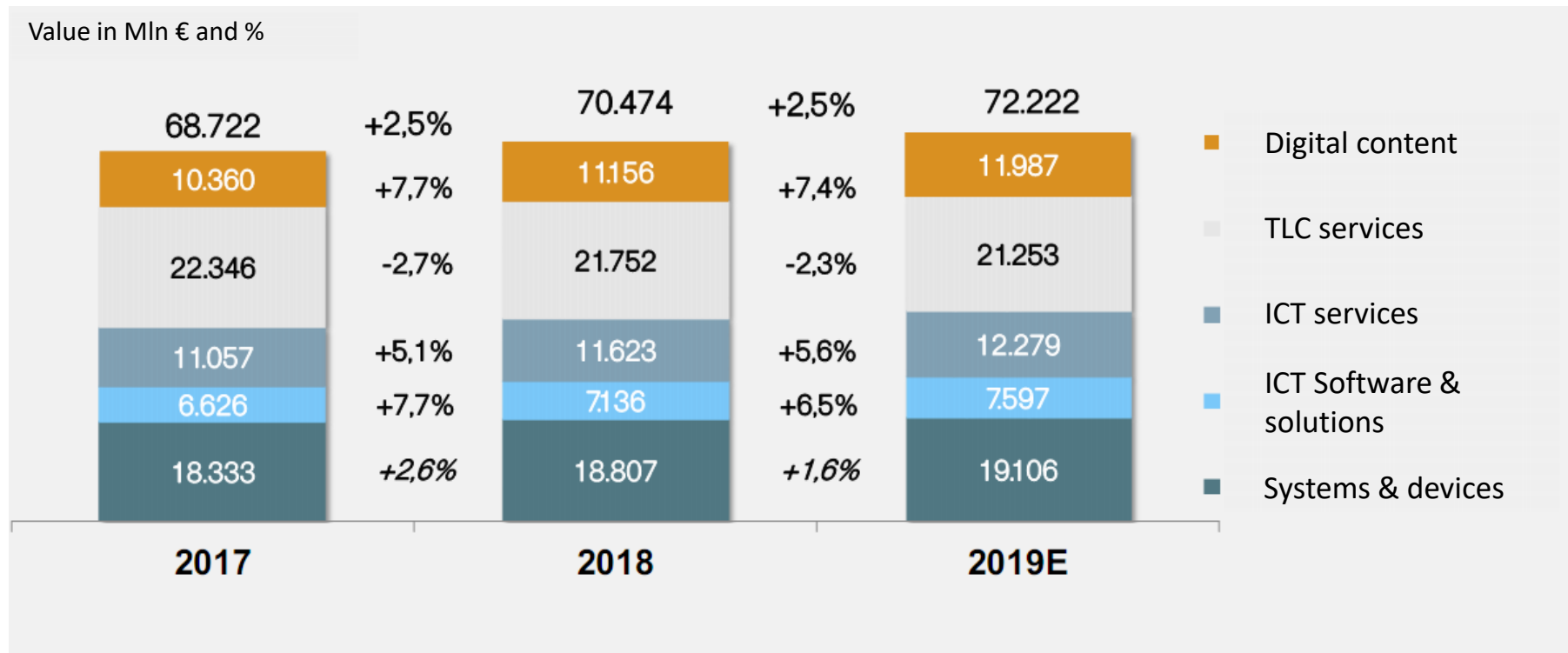
Matteo Zoppas – President Confindustria Veneto

Italy is working to promote digital transformation and to play a leading role in European actions to :

- Build an inclusive society that promotes participation and builds trust
- Support enterprises' competitiveness to win technology and social challenges
- Build a framework for a sustainable development that leverages the potential of digital technologies
- Enhance digital development to drive social inclusion Create the jobs and skills of the future

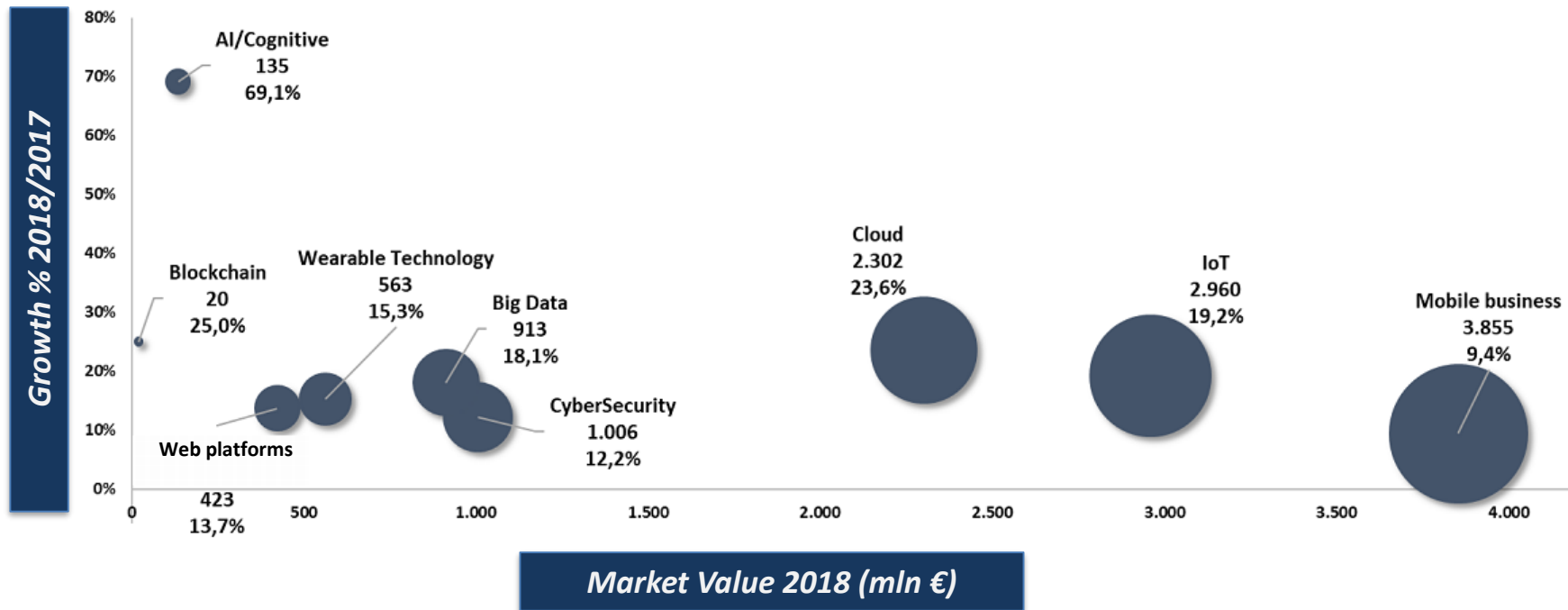
- Provide a digital environment that enhances trust, privacy and security
- Boost digital infrastructure to enhance connectivity
- Enhance innovation and the adoption of emerging technologies (AI, IoT, etc.)
- Accelerate the digital transformation for the manufacturing sector
- Promote digital leadership in public sector services
- Push for fair global competition and boost Italian and European competitiveness

Italian Digital Market Value: 2017 – 2019E

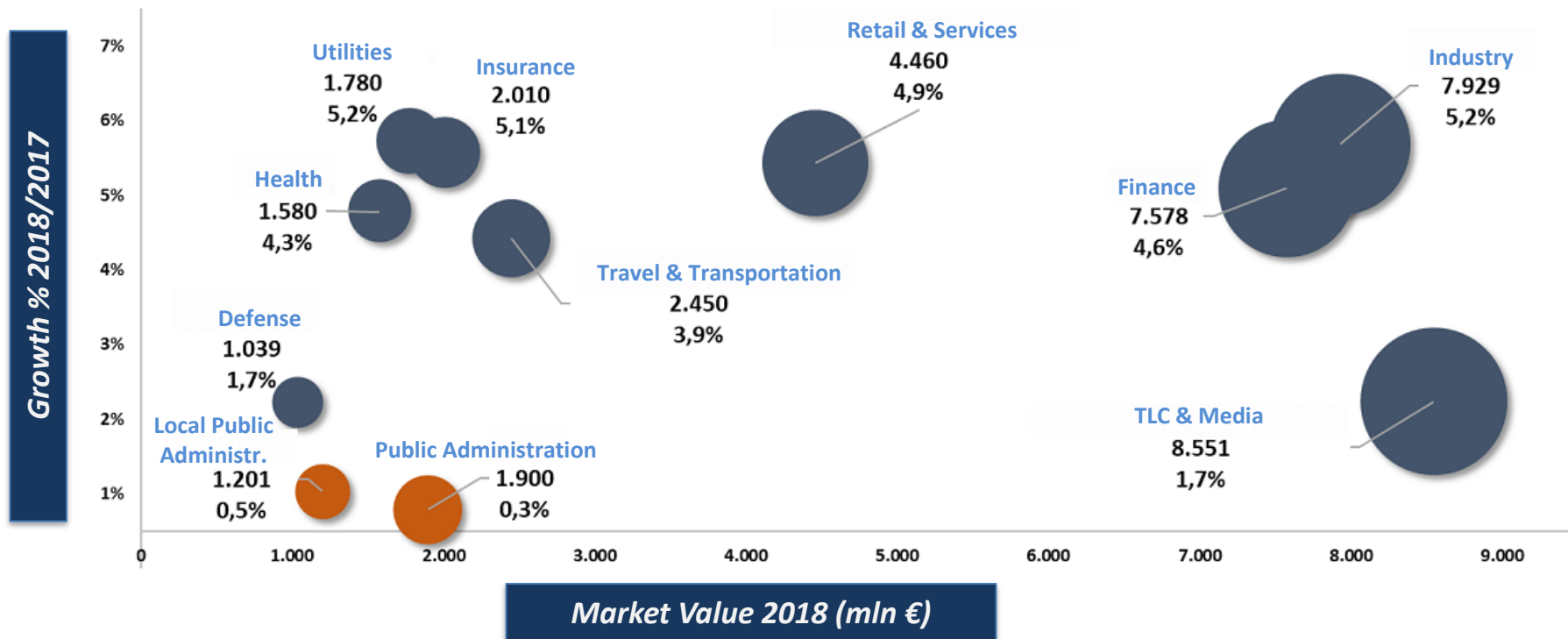


Fonte: Anitec-Assinform / NetConsulting cube, Marzo 2019

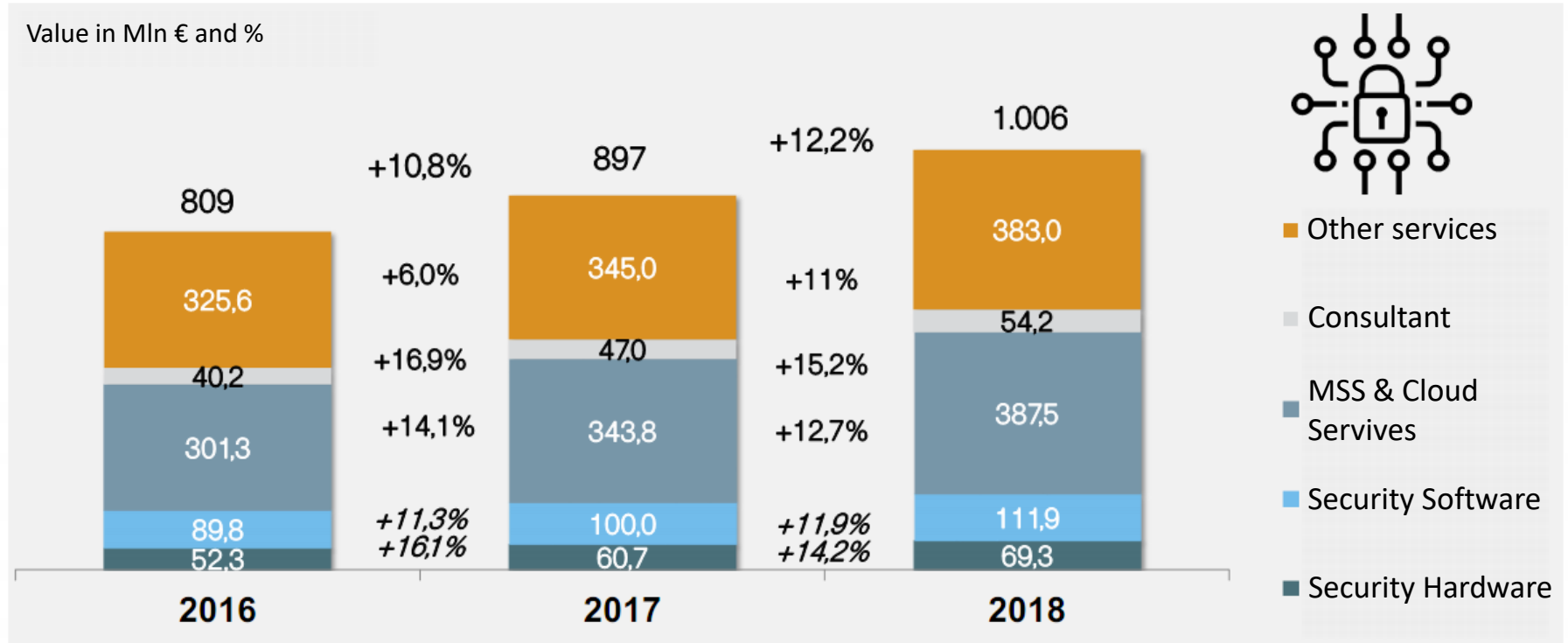
Italian Digital Market Value by Digital Enabler



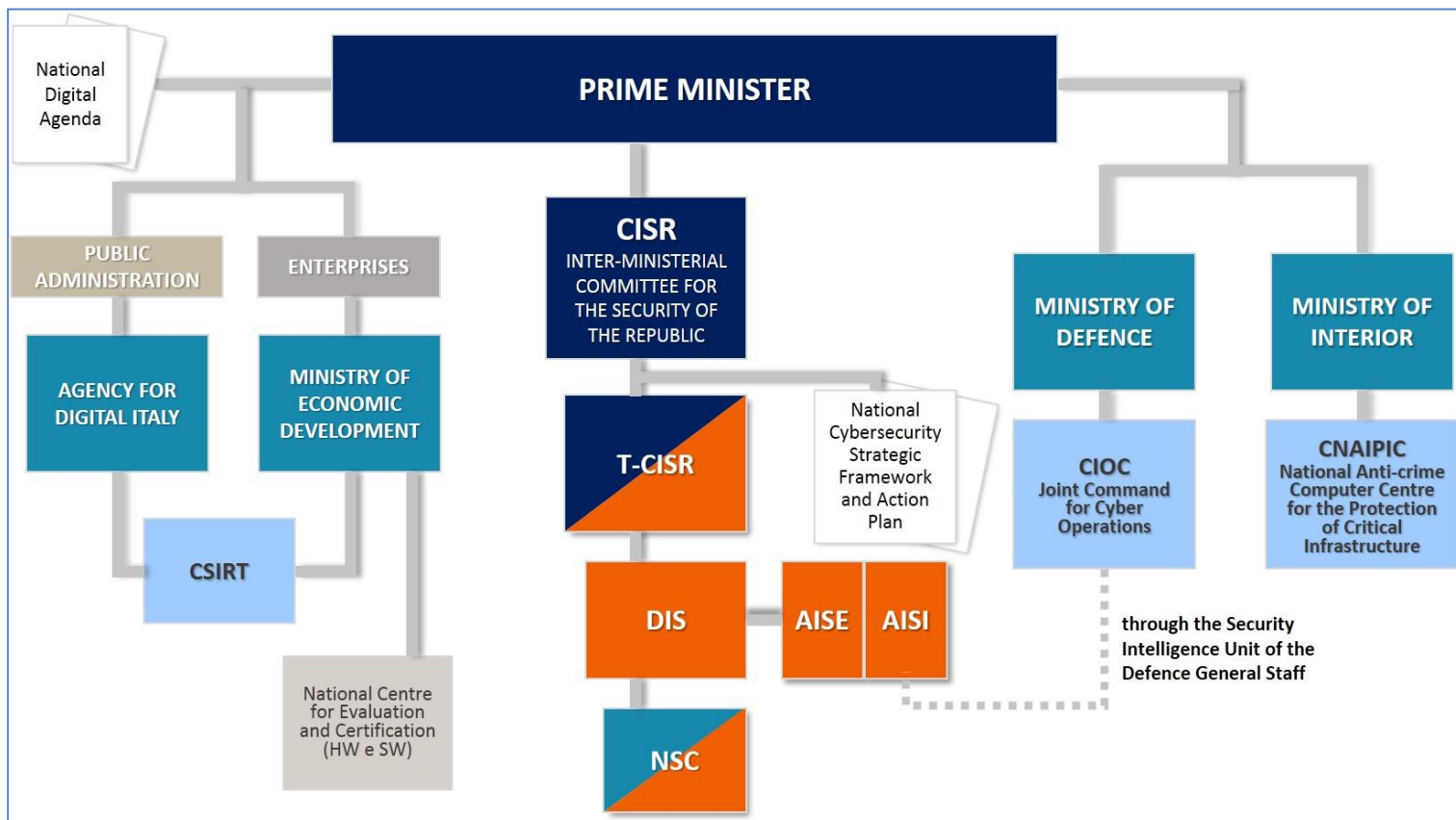
Italian Digital Market Value by Sector



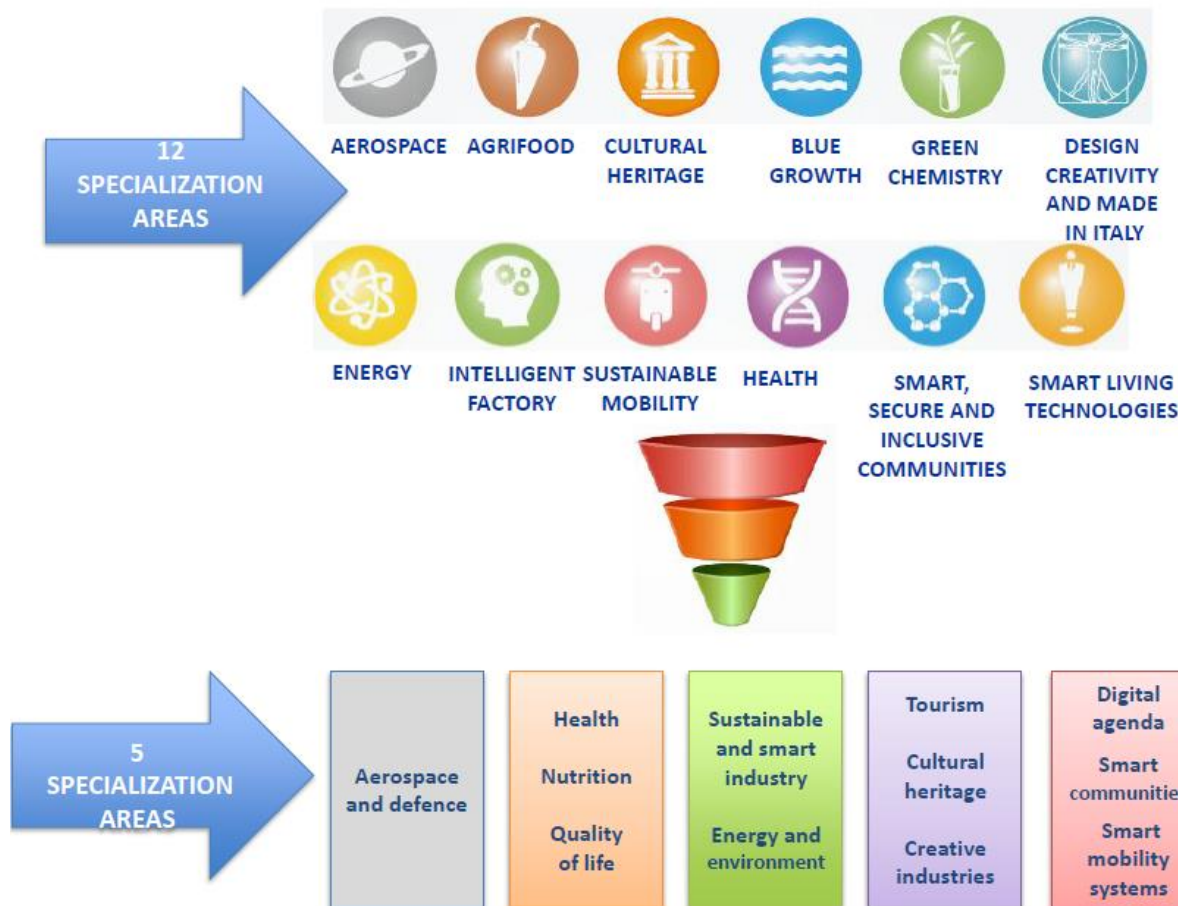
Italian Cybersecurity Market, 2016 – 2018



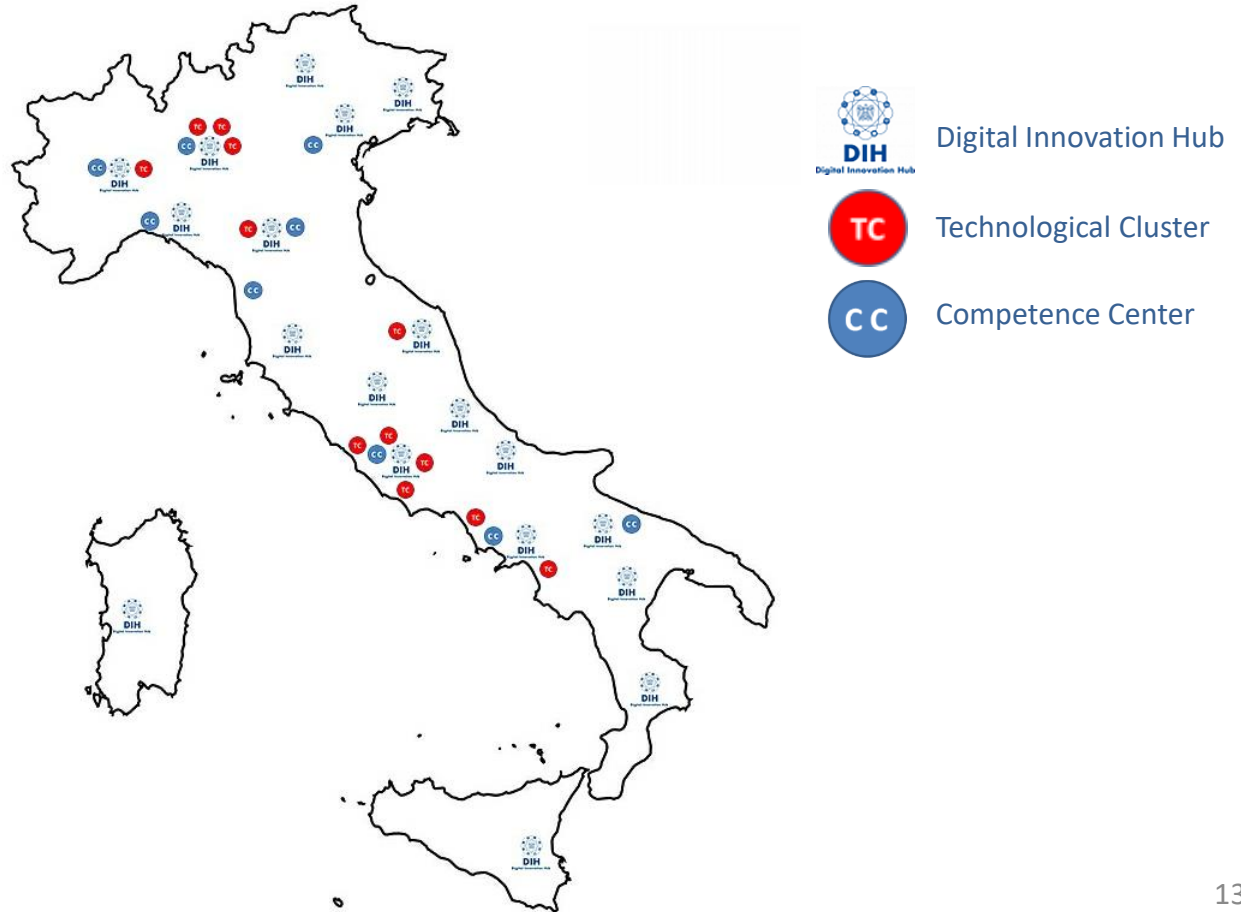
Italian Cybersecurity Architecture



NATIONAL RESEARCH PROGRAMME 2015 - 2020

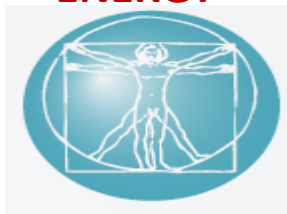


The Italian Innovation Network





ENERGY



**DESIGN
CREATIVITY
AND
MADE IN ITALY**



AGRIFOOD



**CULTURAL
HERITAGE**



**BLUE
GROWTH**



**GREEN
CHEMISTRY**



AEROSPACE



**SMART,
SECURE AND
INCLUSIVE
COMMUNITIES**



**INTELLIGENT
FACTORY**



**SUSTAINABLE
MOBILITY**



**SMART LIVING
TECHNOLOGIES**



HEALTH

12 NATIONAL TECHNOLOGICAL CLUSTERS



NATIONAL TECHNOLOGICAL CLUSTERS

The **12 National Technological Clusters (CTN)** are **structured aggregations** of **enterprises, universities, public or private research institutions**, including financial entities active in the field of innovation, composed of several **public-private aggregations**, including existing Technological Districts and focusing on specific technological and applicative fields.



PURPOSE: Development of **National Meta-Districts** aimed at boosting sustainable **economic growth** both at local and national level to the benefit of the whole national economic system.

Italian Clusters are aligned with **Europe 2020 Strategy** and with **Horizon 2020 challenges**



National Competence Centres

Politecnico Torino Manufacturing 4.0	Additive manufacturing, data science and big data Focus on automotive, aerospace, energy
Politecnico di Milano Made	Enterprise 4.0 - Cyber Physical System
Università di Bologna BI-REX	Big data Focus on mechatronics, automotive, biomedical, agrifood
Scuola Sant'Anna di Pisa Artes 4.0	Robotics and virtual environments
Università di Padova SMACT	Tecnologie Smac: social media, mobile, analytics and big data, cloud, IoT, automation Focus on clothing, furniture, agribusiness
CNR Liguria Start 4.0	IoT (Internet of Things), augmented reality, big data, block chain, robotics, connectivity 4.0 Focus on energy, transports, blue growth, port
Federico II Napoli Industry 4.0	All industry-enabling technologies 4.0 Focus on automotive, aerospace, agriculture, pharmaceutical
La Sapienza Cyber 4.0	Cybersecurity

Digital Innovation Hub



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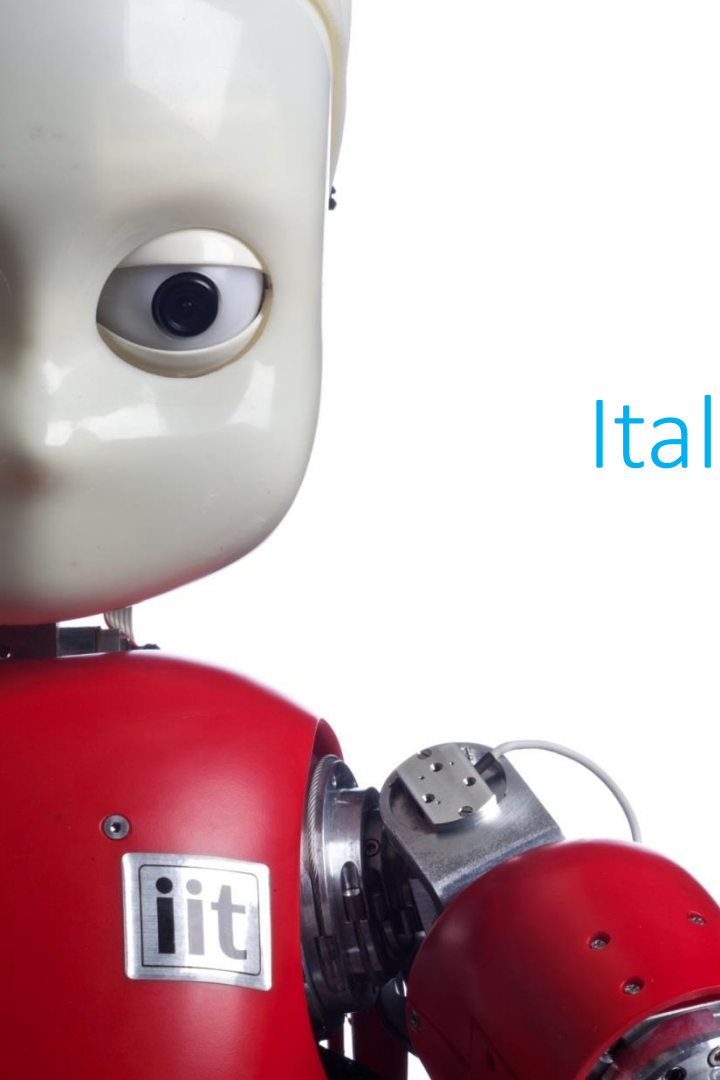
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Giorgio Metta
Vice Scientific Director, iCub Facility Director
Italian Institute of Technology



Italian Institute of Technology

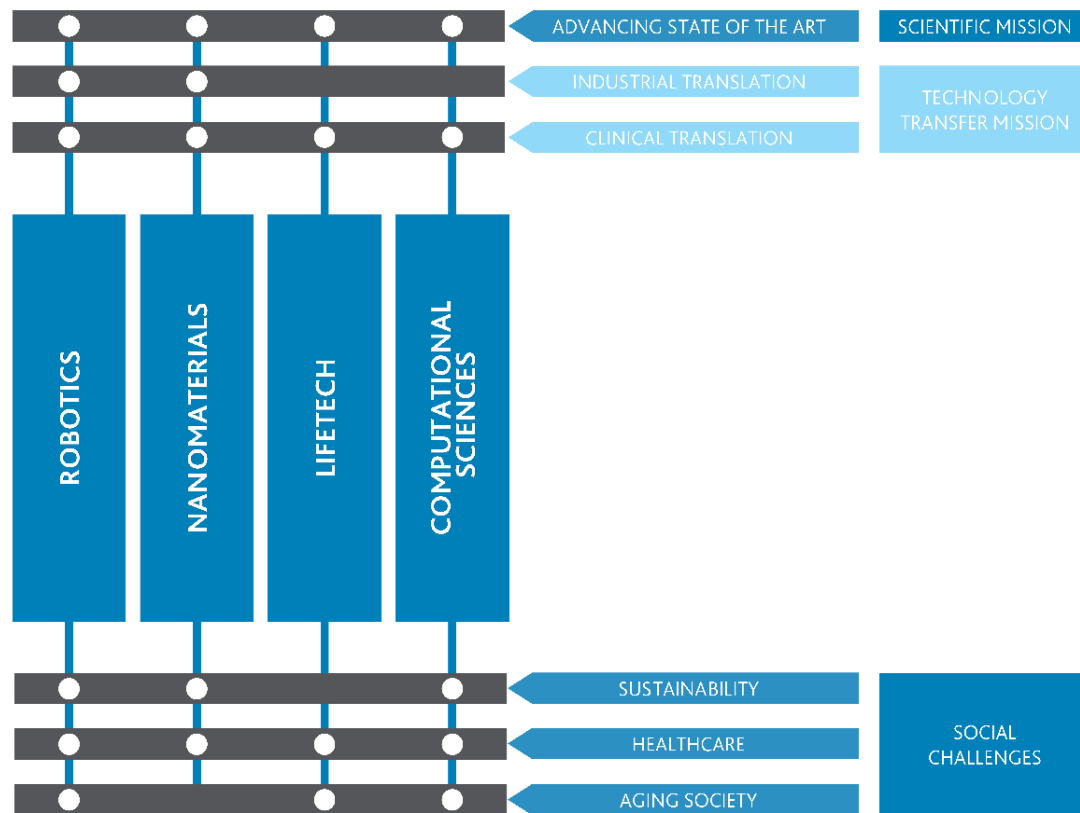
technology with the human touch



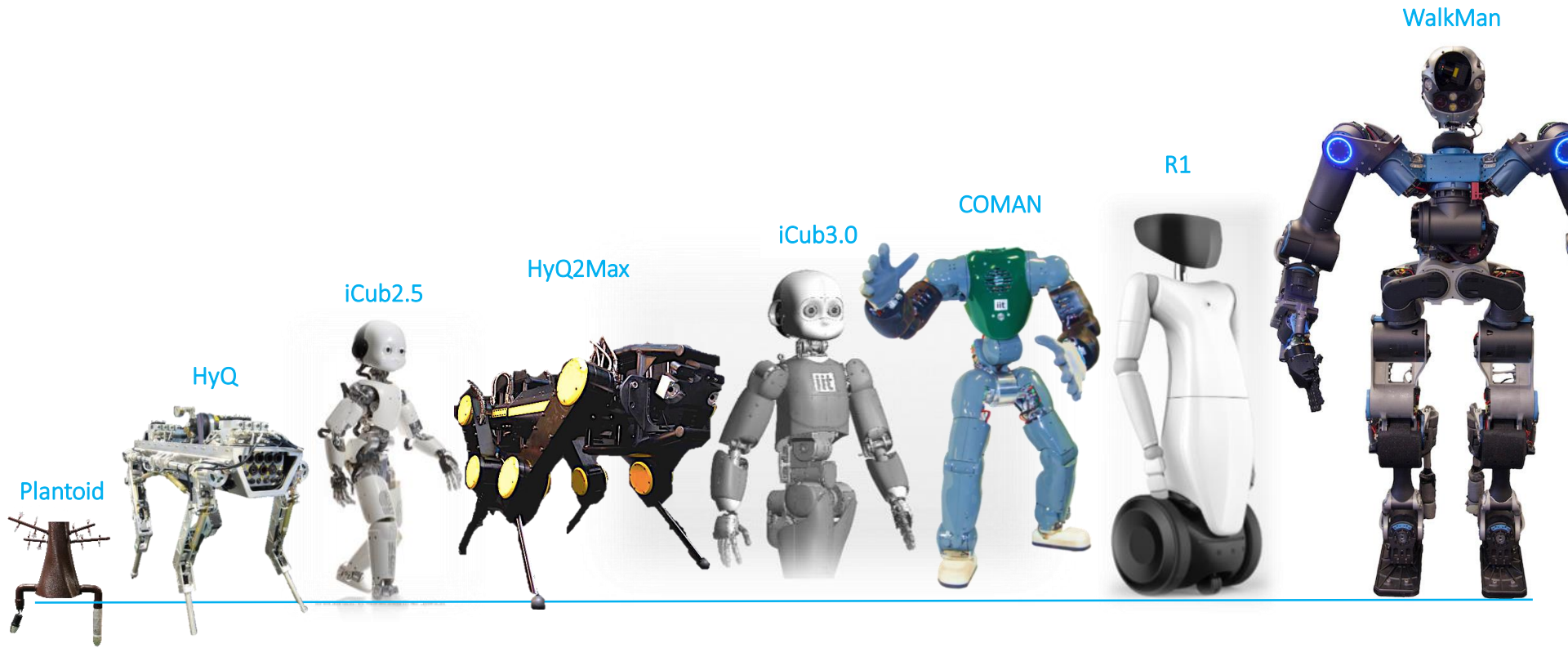
ISTITUTO ITALIANO
DI TECNOLOGIA

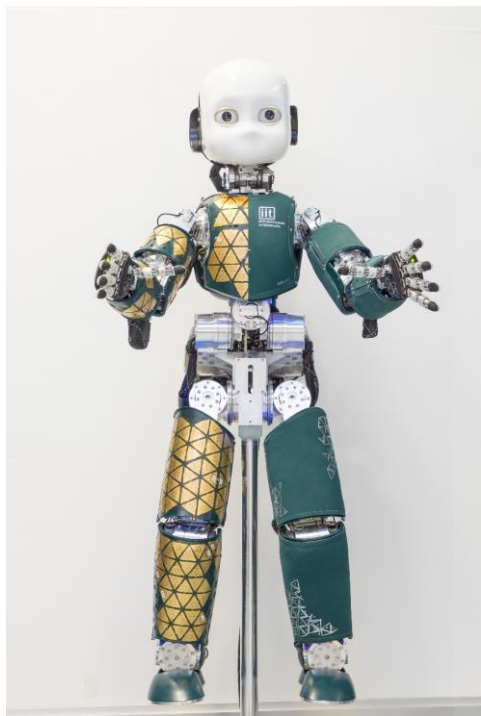


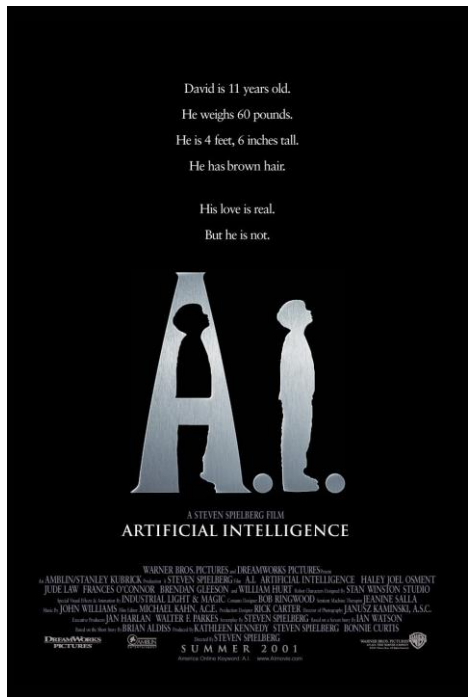
ISTITUTO ITALIANO
DI TECNOLOGIA

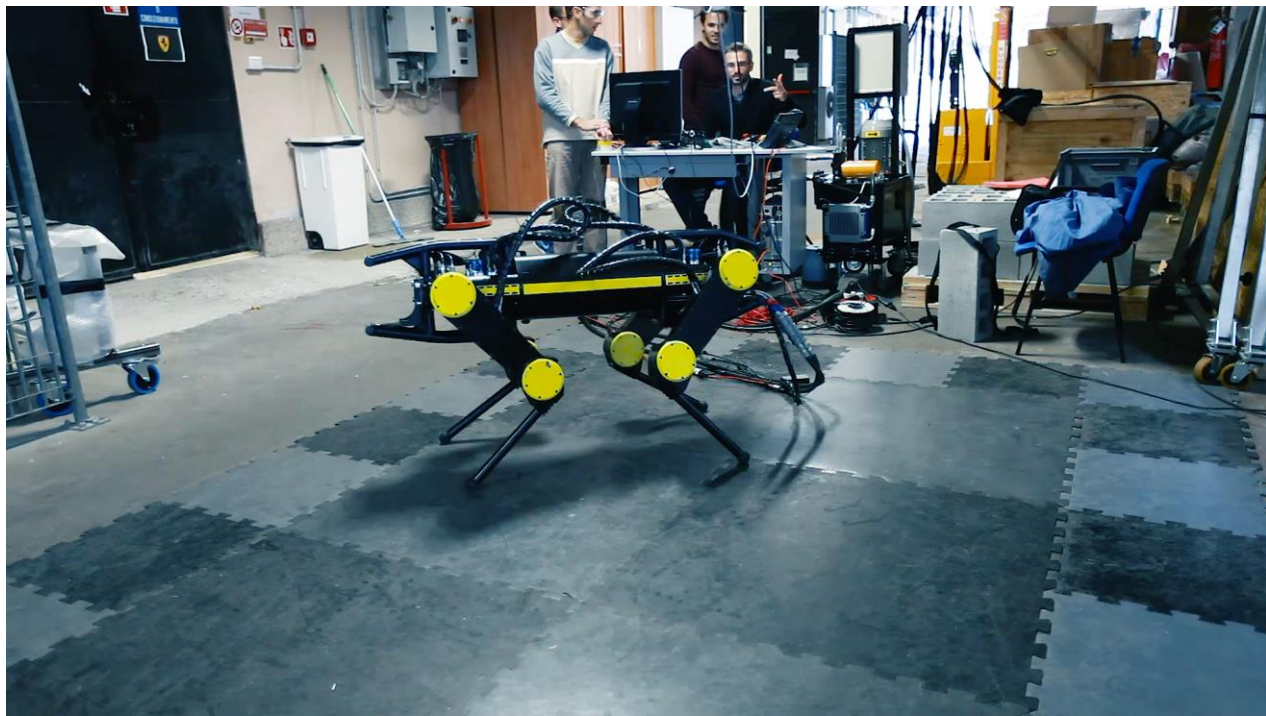


our family of robots



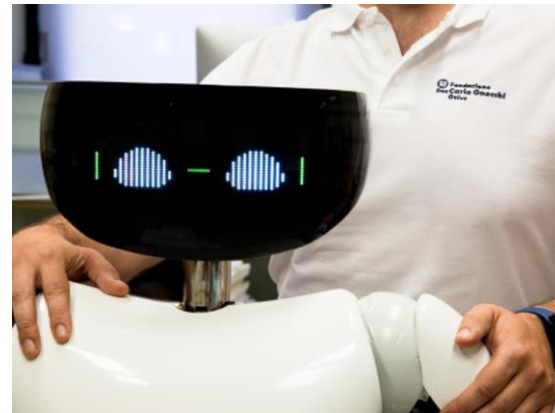








Hammer



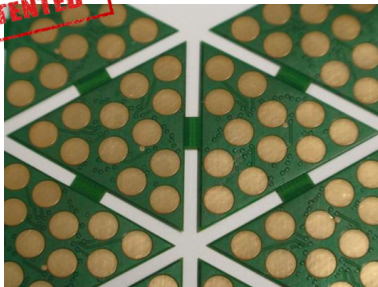






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PATENTED

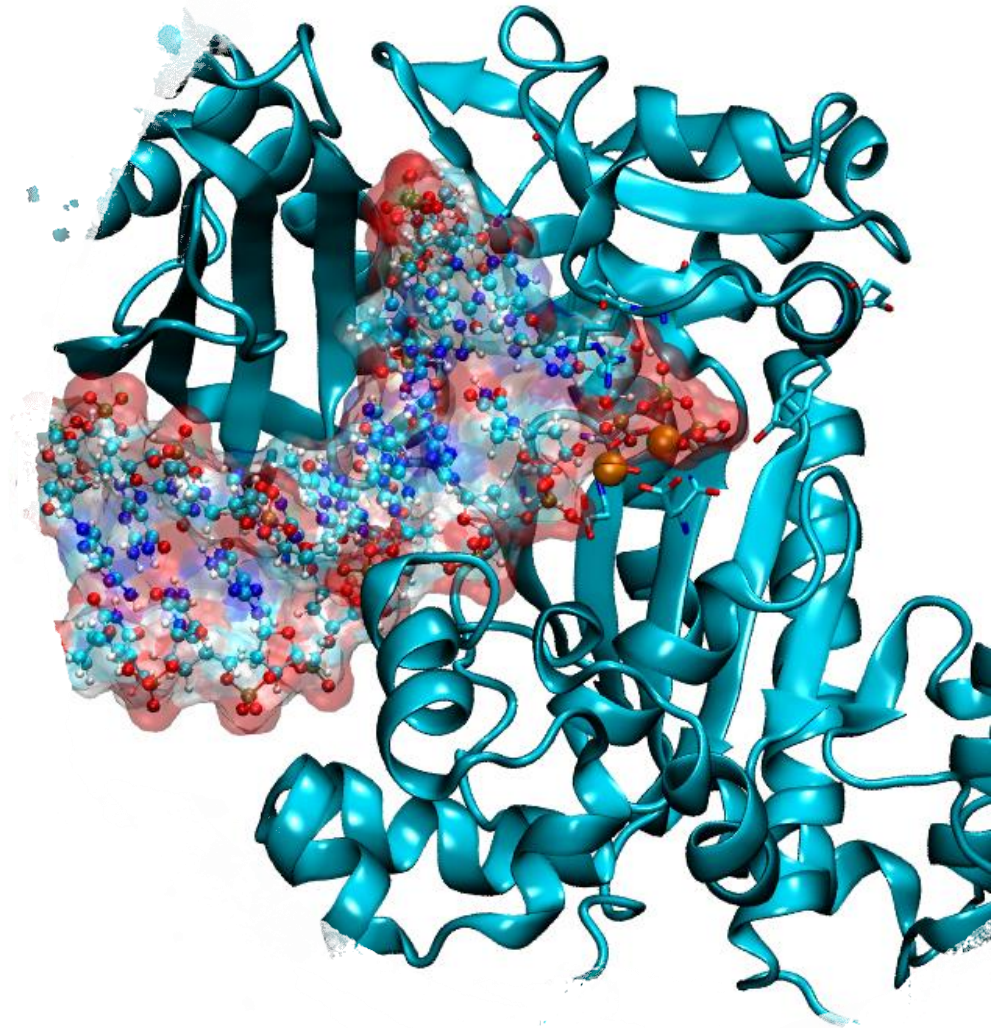


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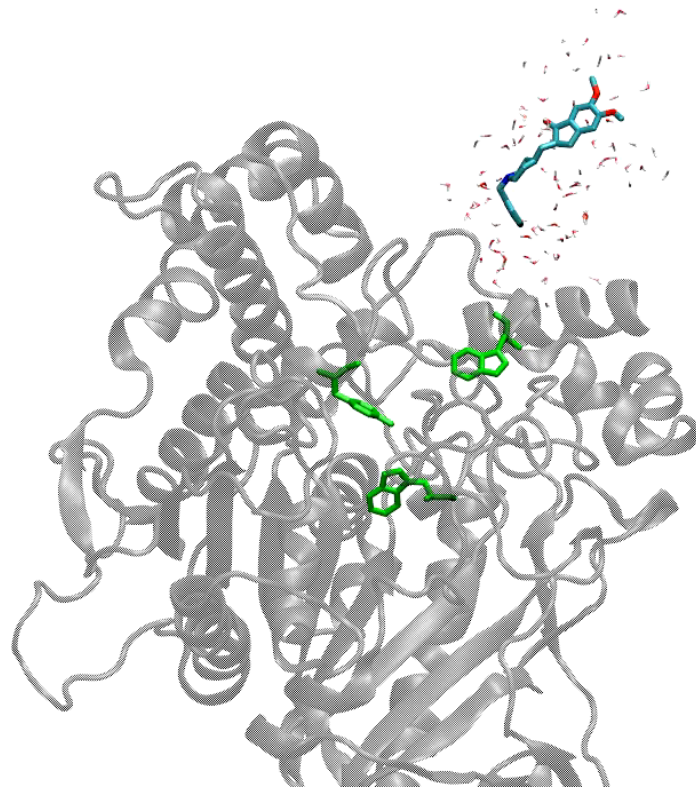


digital tech for health

- ↓ IIT and Gaslini Children's Hospital
- ↓ 40 families analyzed
- ↓ 19,396 genes, 6Tb in 48 hours
- ↓ 150,000 variants per sample!
- ↓ 50-100 variants for manual analysis
- ↓ 1 candidate mutation found

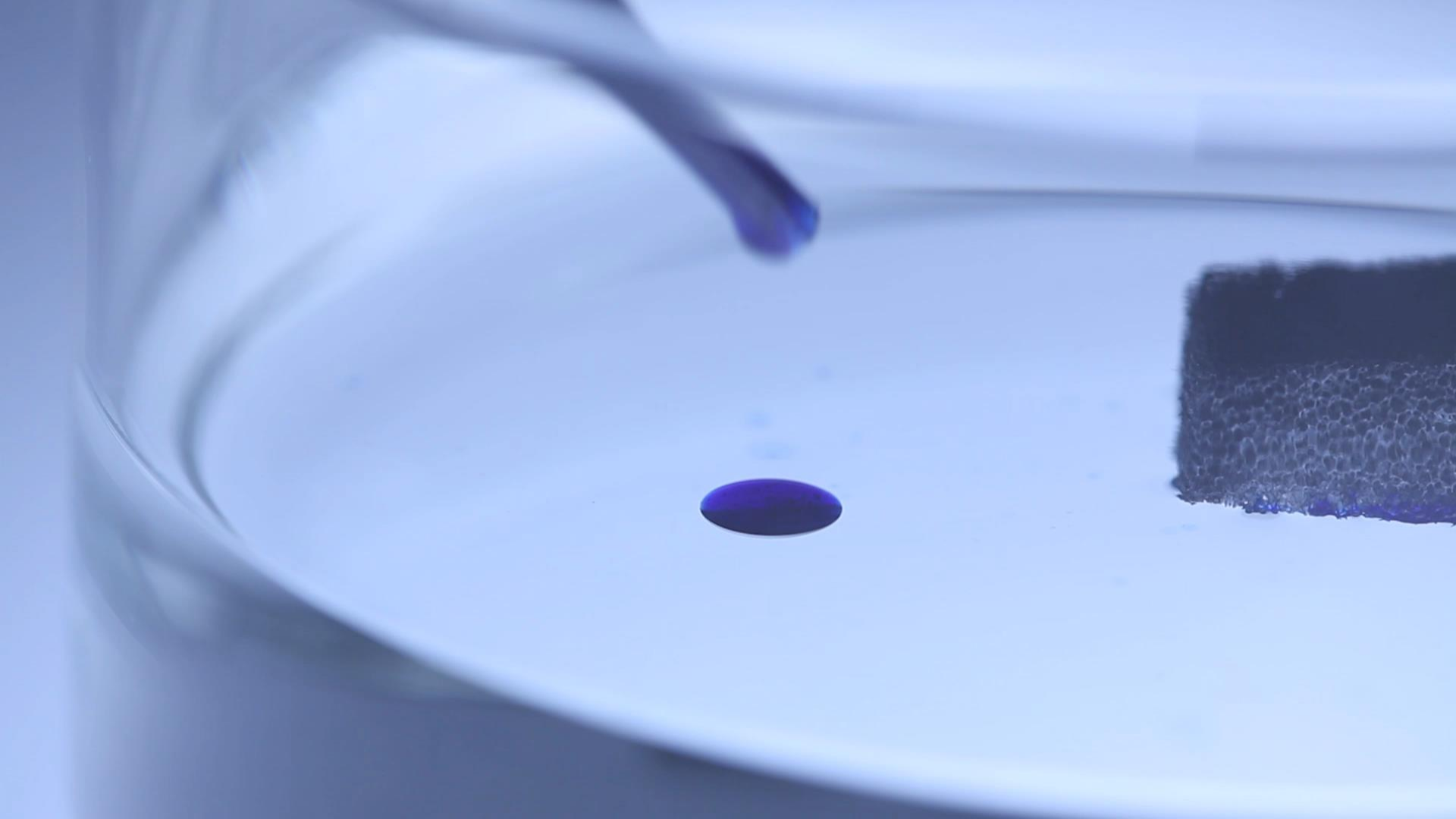


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how food waste
becomes food
packaging







iit

ISTIT

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Valeria Sandei
CEO
Almawave an Almaviva Company



Absolute digital.

Almaviva Group

Dubai, 15/04/2019





Almaviva The Group

8

Countries

15

Companies

62

Offices
32 in Italy
23 abroad

45_k

People
11k in Italy
34k abroad

823_{mln} Euro

Turnover
In 2018

IT

IT Services & innovation to drive disruptive trends and support customers in a continuous transformation



CRM

A new vision for customer experience management on a global scale



TECH

Technology to transform customer experience management and enhance IT services & solutions





Almaviva

Stories of excellence in IT

Excellence for IT



Vertical Expertise
Longstanding Experience



Transportation

KEY CLIENTS

- Railway
- Logistics
- Local Transportation

KEY STATISTICS

- Traffic management for **11,000 trains a day**
- **17,000** rail networks
- **20,000** pieces of equipment in **2,200** managed stations
- **2,000** managed fleet of trains



Public Administration

KEY CLIENTS

- Defense & Homeland Security
- Administration & Finance
- Healthcare
- Agriculture
- Education
- Welfare
- Local Authorities

KEY STATISTICS

- **32 mln** pension slips a year
- **1,5 mln** declarations via bill to organ donation
- **1,600km** radar coastal surveillance
- **€8 bln** funds yearly granted and managed



Financial Services

Bank & Insurance

KEY CLIENTS

- Core Banking
- Core Insurance
- Governance & Compliance
- Connected Insurance
- BPO
- Wealth Management
- Postal Services

KEY STATISTICS

- **100** customers among Italian & international banks & insurance companies
- **20** products «Made in Almaviva» for financial services
- **150** installations
- Leader in trust company services

Technology Trends Deep Knowledge

Modern IT

Cyber-Security

Cloud Computing

Internet of Things (IoT)

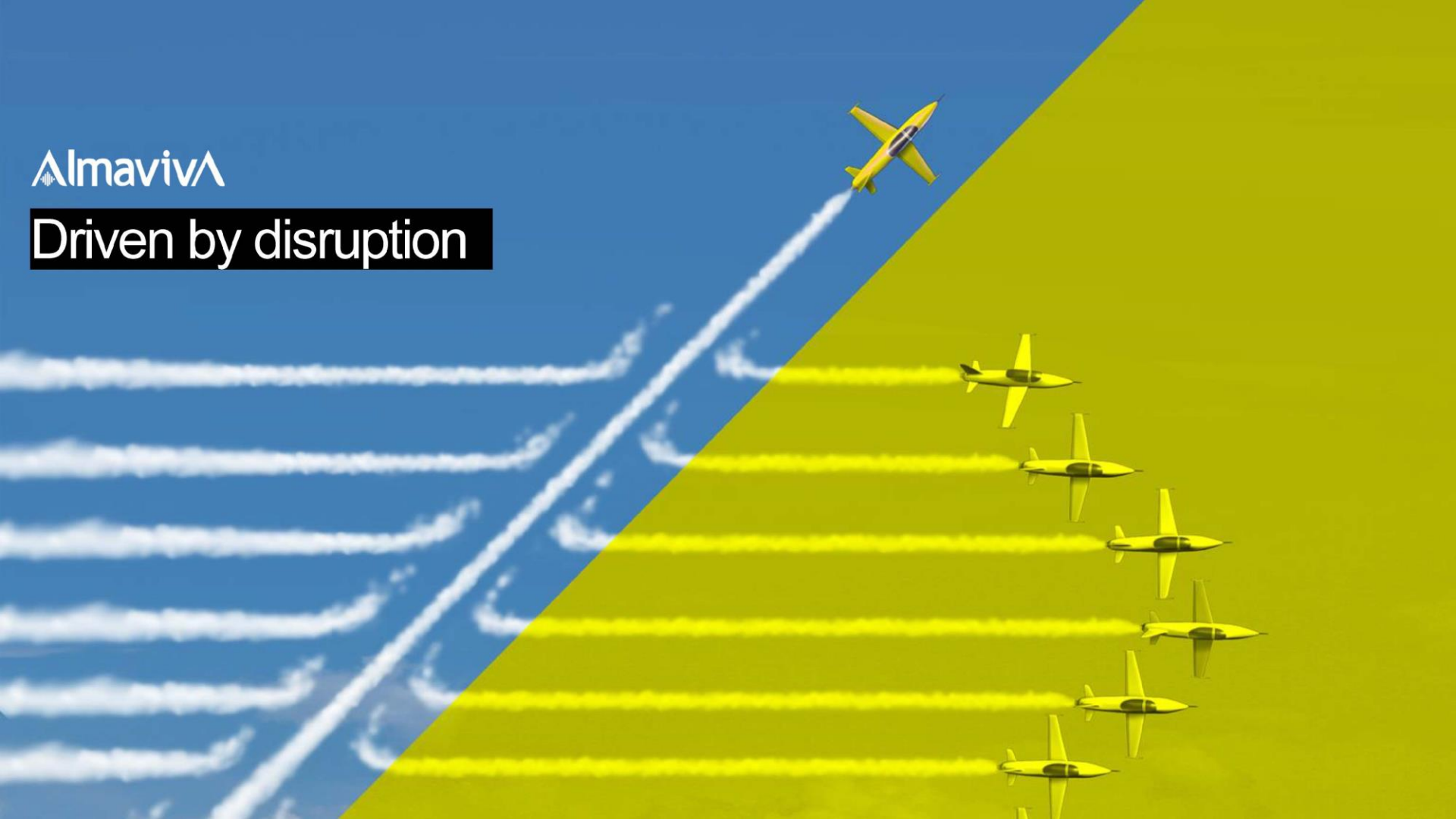
Mobile & Mobility

Big Data & Analytics

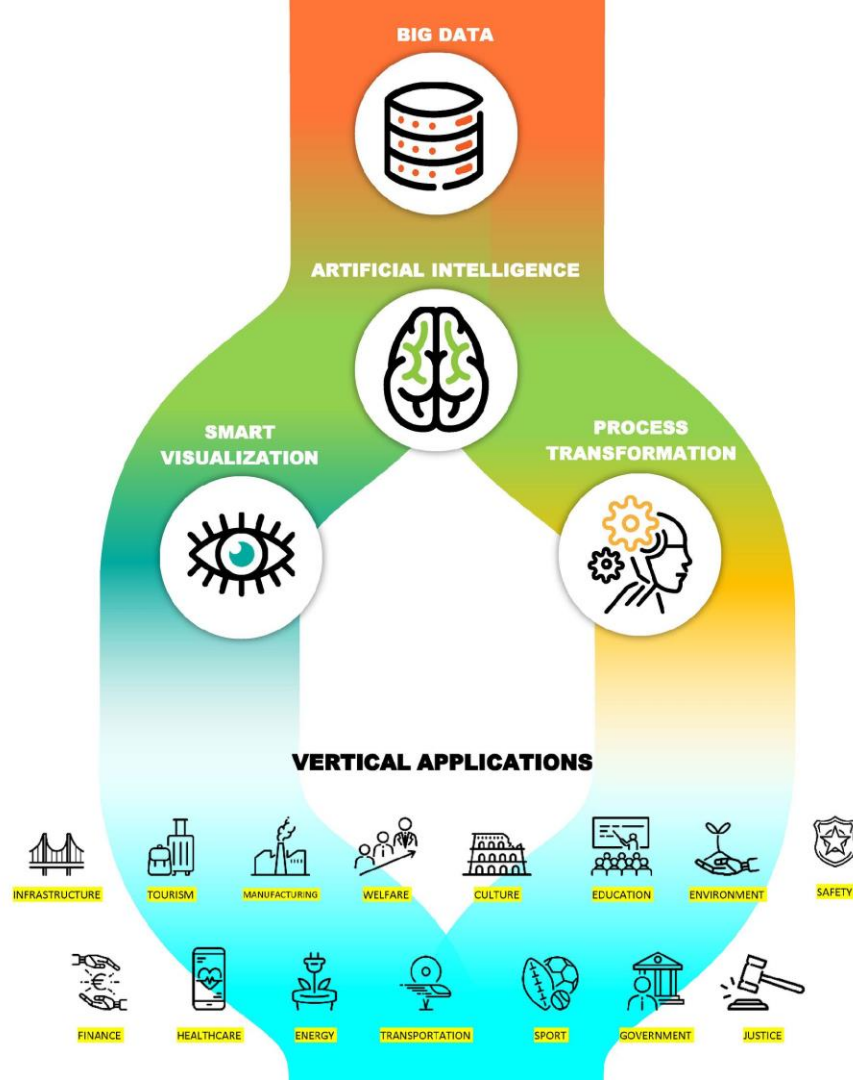
AI & Cognitive technologies

Almaviva

Driven by disruption



AI for Digital Transformation



Sample features



Ontological mapping & search



Conversational agent



Computer vision & OCR



Content classification



Language processing (text|voice)



Speech recognition



Translator



RPA



Multi-channel technology

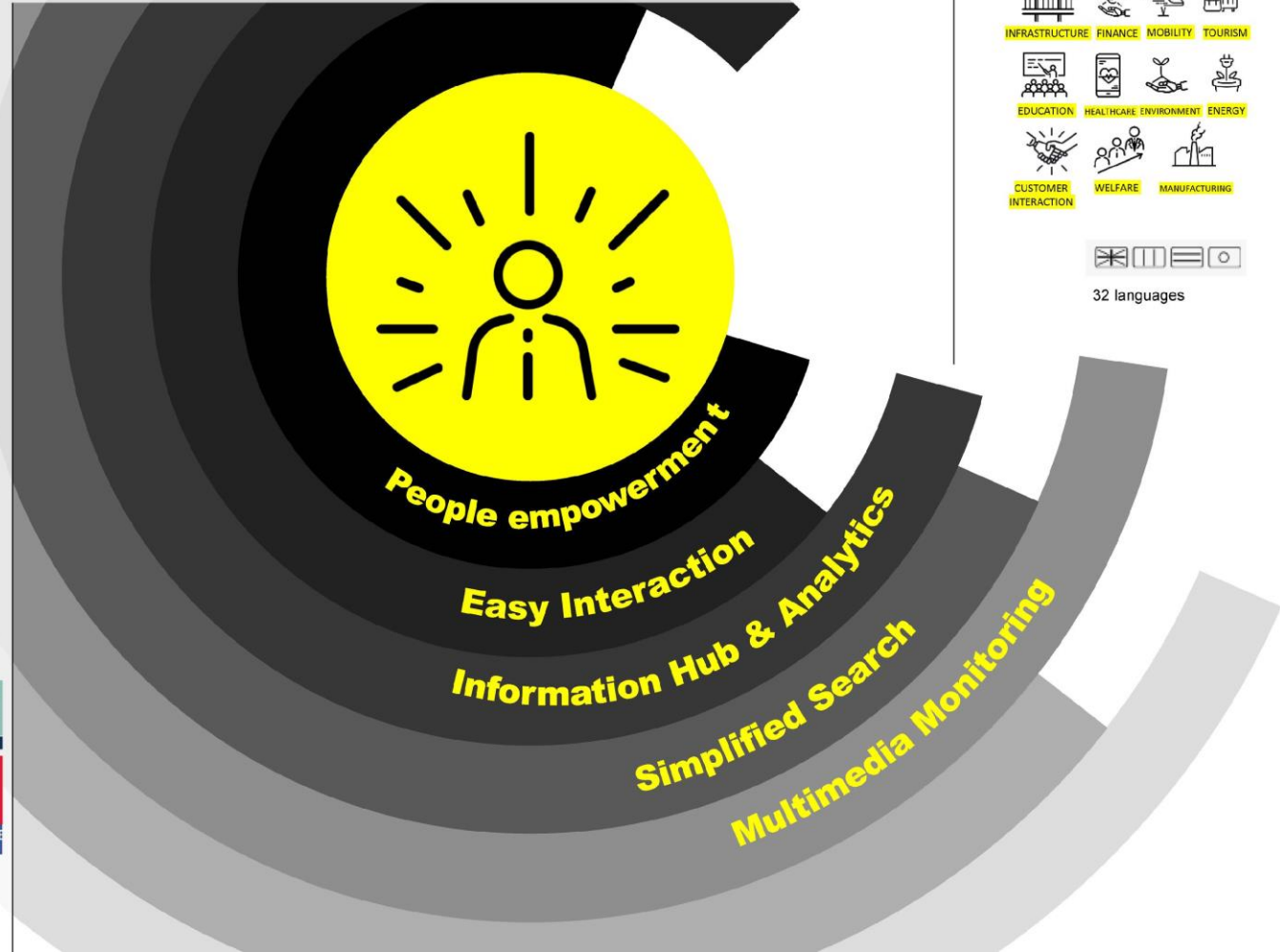
Customer Experience

Prizes & awards

- Enabling Technology for CRM BPO Leadership Award, Europe, 2019
- Magic Quadrant for CM BPO, worldwide, 2017
- Top Ten Disruptive Companies, Italy, 2016

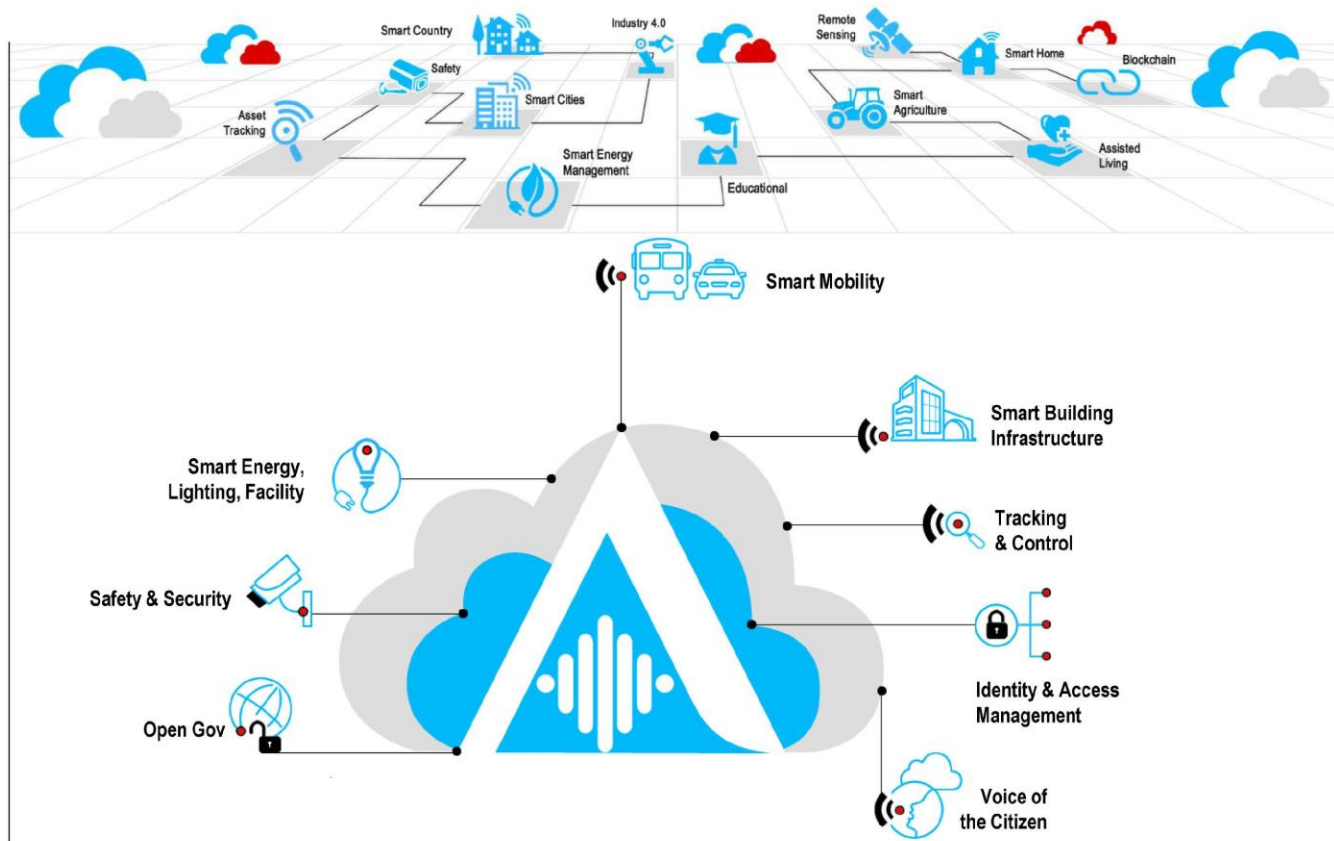


Almawave
Conversation in action



IoT

Smart spaces & services
enabled by IOT for a better
quality of life & interaction
for citizens & customers

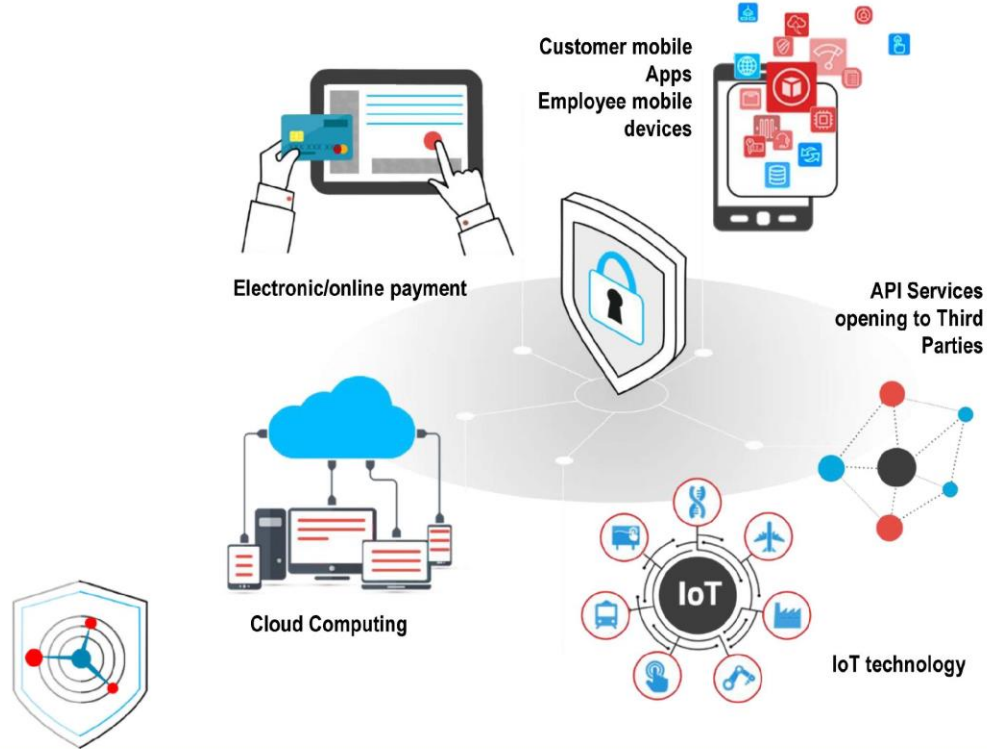


- Advanced Big Data
- Human-Decision Support Systems
- Spatial thinking
- Machine Learning & Artificial Intelligence
- Deep Learning
- Advanced human-machine interaction



Cyber Security

Fighting violations & reacting to attacks is not enough – you need to know and prevent potential threats



- Security Consulting & Advisory
- Identity & Access Management
- Advanced Cyber Security
- Threat Management
- Mobile Security
- Data Protection
- Fraud & Transaction Management
- Managed Security Services



powered by **Almawave**
Conversation in action

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ITALIANO DI
TECNOLOGIA



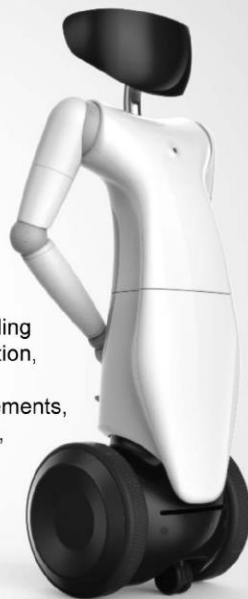
R1 has been developed by IIT- Istituto Italiano di Tecnologia (Italian Institute of Technology), a research institute established in 2003 to promote excellence in fundamental and applied research, develop higher education in science and technology and foster the evolution of industry towards the forefront of technological innovation



R1 is a humanoid robot designed to operate in the service and domestic robotics market



R1 can take care of customers by providing assistance, information, recommendations, directions, advertisements, help and individuals, supporting a high quality of life



Height: 115-135cm (extensible)

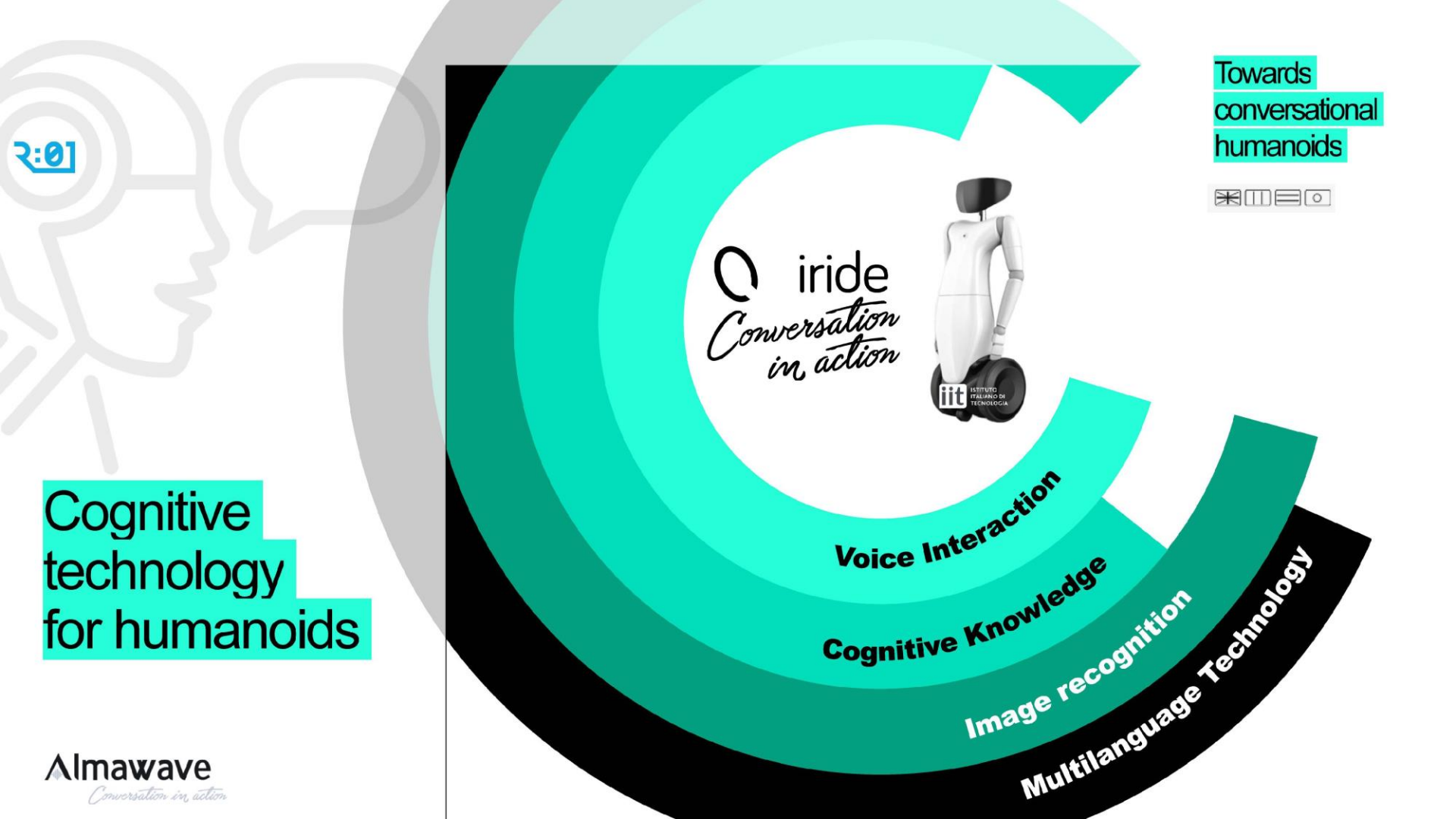
Weight: 51kg

Communication system:

- Loudspeaker
- RGB display (80X32 16 bit color depth)

Sensors:

- stereo cameras (including RGBd)
- microphones (x4-8)
- encoders (each joint)
- six axis force/torque sensors (arms)
- tactile sensors (capacitive) fingertips and skin on the forearms
- Gyroscopes
- Accelerometers
- IMU
- lasers (x2)



Towards
conversational
humanoids



iride
*Conversation
in action*



Voice Interaction

Cognitive Knowledge

Image recognition

Multilanguage Technology

Cognitive
technology
for humanoids



Use cases for Expo Dubai2020

Safety

- Videosurveillance
- Anomaly detection
- Object identification
- Audio recording

Assistance

- Information
- Interaction
- Multilingual

Italian | English | Arabic

powered by

Almawave
Conversation in action

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Absolute digital.

Almaviva Group

Dubai, 15/04/2019



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Federico Cornagliotto
Partner
AizoOn Technology Consulting

aizoOn Presentation for Business Mission to the UAE



15/04/2019

Cool Vendor 2016





500+ engineers and specialists globally supporting our customers

Gartner
Cool Vendor
2016

aizoOn Cool Vendor 2016

Operational Technology in a Digital Business

Our **Vision** is to use **scientific methods** and focus **on data driven decisions** to enable a more responsible and **sustainable society**

Our **Mission** is to **support our customers in their journey through the digital era**, bringing strong know-how in technology and innovation

AUSTRALIA
Sydney NSW

EUROPE
Torino ITA | Cuneo ITA | Milano ITA | Genova ITA
Bologna ITA | Roma ITA | Bari ITA | Sheffield UK

USA
New York NY | Troy MI | Cambridge MA | Lewiston ME

aizoOn ORGANISATION & ACTIVITY LEVELS

TECHNOLOGY EXCELLENCE

the **Technology Units** oversee the entire spectrum of enabling technologies required by the digital economy

BUSINESS PROXIMITY

the **Market Divisions** ensure a thorough and attentive knowledge of the needs and transformations taking place in manned areas

ABILITY TO CREATE INNOVATION

the **Applied Innovation Division** directs and coordinates the development of innovative solutions in accordance with the customer's strategic vision

aizoOn has a **unique ability** to support its customers at various levels

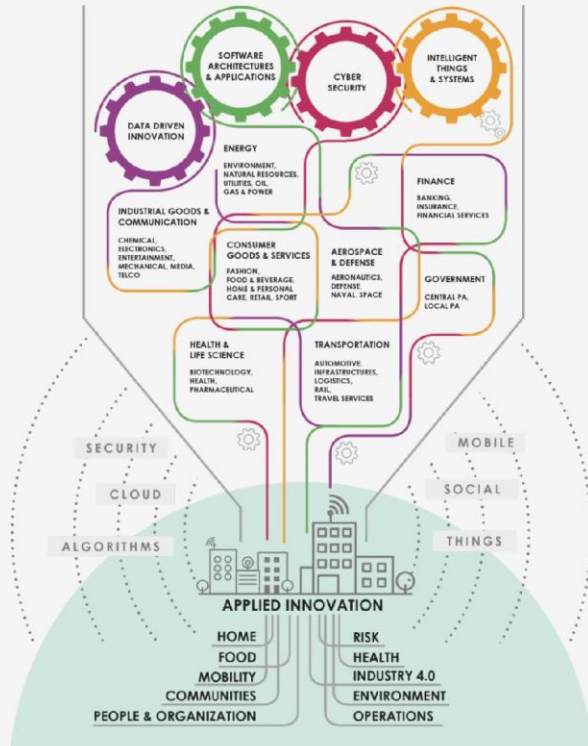
Consulting Services

Turn-Key Projects

Proprietary SW Products

Innovation
R&D / Prototyping / PoC

aizoOn & cybersecurity aramis



aramis is a **network security** platform developed to reduce the “dwell” time of identification of attacks.



Leveraging **machine learning** algorithms, advanced **cyber analytics** and **threat intelligence** capabilities allows cyber-security analysts to make the critical decision, in real time, and protect their environment from even the most advanced cyber threats.

AUSTRALIA
Sydney NSW

EUROPE
Torino ITA | Cuneo ITA | Milano ITA | Genova ITA
Bologna ITA | Roma ITA | Bari ITA | Sheffield UK

USA
New York NY | Troy MI
Cambridge MA | Lewiston ME

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Riccardo Monti
Executive Director
Triboo

ICT Roundtable: UAE future agenda for digital transformation and smart cities

A Digital Project between Italy and Emirates

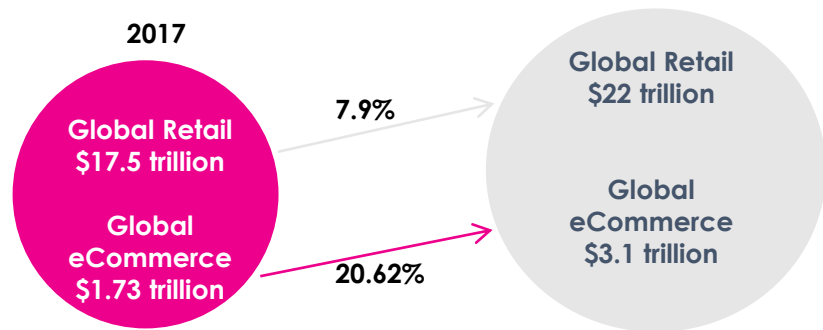
DUBAI, 15 April 2019

TRIBOO

www.triboo.com

Global E-commerce Snapshot

Global Offline Retail versus eCommerce 2020



Number of eCommerce Shoppers Worldwide (2017)

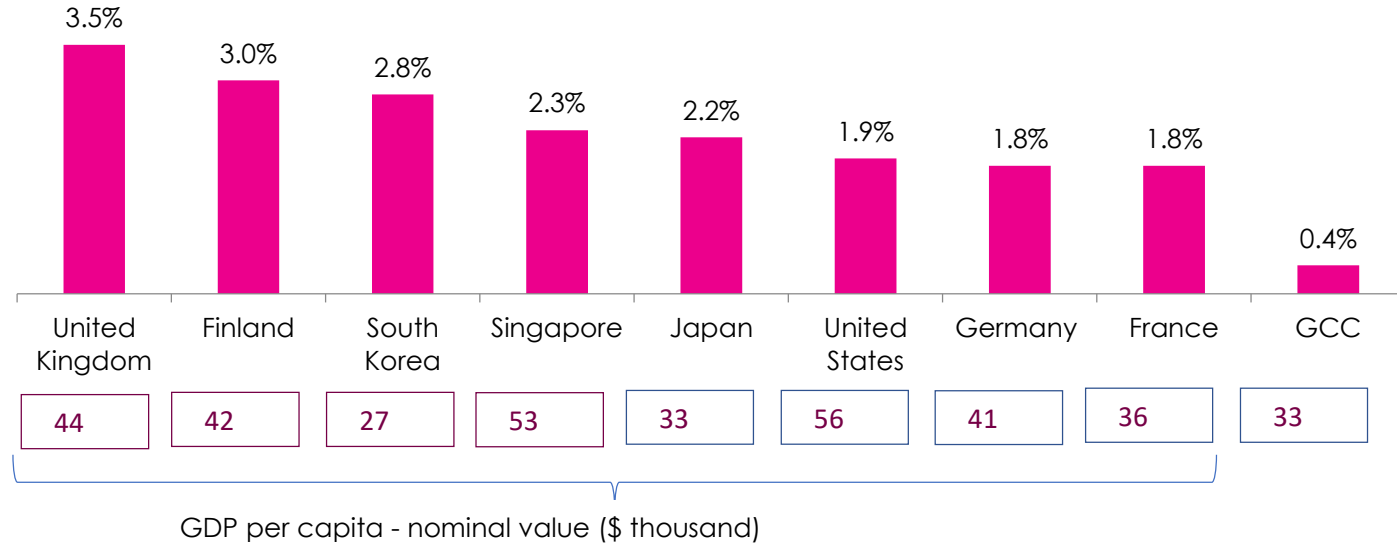
Type	Numbers in 2017
Total Population - on Internet	4.1 billion (54% of population)
- shopping online	1.66 billion (40% of Internet users)
- mCommerce	59% of eCommerce (growing to 70% by 2020)

Top Retail eCommerce Players

Company	Headquarters	Market Shares of Top 6 E-tailers	Revenue (2017) (\$. Billions)
Amazon	Seattle, Washington (USA)	72%	\$177.9
Alibaba	Hangzhou, China	9%	\$23
JD.com	Beijing, China	7%	\$16.9
Walmart	Bentonville, Arkansas (USA)	5%	\$11.5
eBay	San Jose, California (USA)	4%	\$9.6
Rakuten	Tokyo, Japan	3%	\$8.3

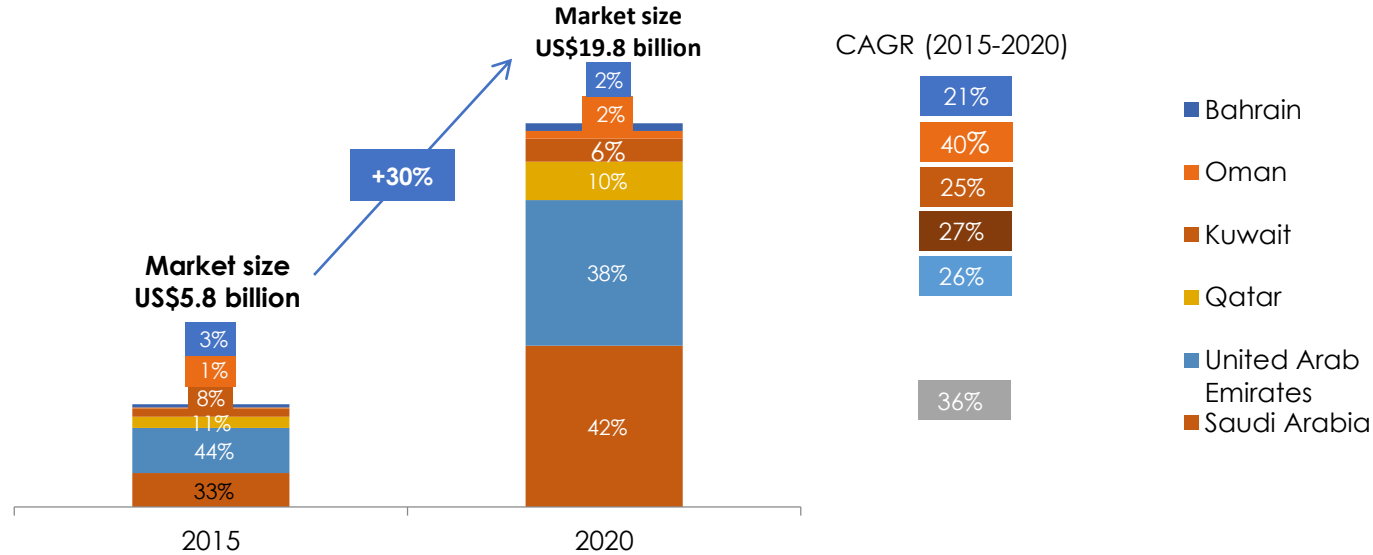
State Of Regional E-commerce

E-commerce as a % of GDP



E-commerce contributes just 0.4% to GDP amongst GCC nations, despite large disposable income levels and strong telecom penetration.

E-commerce Growth Potential For GCC Nations



- Only **34% of major GCC retailers have eCommerce channels**, versus 58% in the USA
- It is estimated that the **GCC eCommerce market** to reach approximately **US\$20 billion by 2020**, compared to just US\$5.8 billion in 2015
- At a **30% CAGR over 2015-2020**, eCommerce is expected to outperform traditional retail growth, which is forecast to grow at a 9% CAGR over the same period

Digital State of Affairs in Luxury Fashion

Ecommerce

- Fashion brands provide exception service but **struggle to translate this online**
- They have been **slow to implement on-site features** for personalized attention
- The industry as a whole **lags behind other verticals in digital sophistication**

Digital Marketing

- **Search drives 61% of all site traffic** and is crucial for brands
- On Google branded **search terms are the largest investment** by luxury brands
- Brands are also **increasing spend on Product Listing Ads**

Social Media

- **Facebook and Instagram see near universal adoption** amongst luxury brands
- **Instagram has seen growth of almost 4 times that of Facebook** and almost 2 times that of YouTube in terms of posts and interactions
- **Pinterest adoptions remains high** but growth is declining

Mobile

- Brands have **shifted their attention from apps to mobile web**
- While 92% of a **user's time** on a phone is spent on an app, **only 5% is spent shopping**
- **Brands are deprioritizing their investments in apps** as only a few shopping apps are consistently used and these are top apps like amazon, etsy etc.

Debenhams – A case study on the consequences of not going digital



Debenhams an iconic British store in operation since 1778 **issued three profit warnings last year** and has been taken over by the banks after accrued debts of well over £600 million

Many in the industry believed **the department store had failed to transform quickly enough**, despite a new brand identity and improvements to store design last year.

Debenhams **blames IT costs and leases for its exception costs write down** which resulted in record losses.

*"The whole problem with Debenhams is **that it's been too slow – online is not a new phenomenon and they haven't had the right solutions** and they've hung on to the store for too long,"*

Catherine Shuttleworth, CEO of Savvy,

	Offer	Awareness	Engagement	Conversion	Retention
Best practices	<ul style="list-style-type: none">• Clear, distinctive, attractive features• Suitable variety and assortment• Product or service exclusivity• Competitive price• Perceived convenience	<ul style="list-style-type: none">• Effective SEA & SEO management• Efficient management of other channels performance web marketing• Social media coverage• Presence of marketplaces• Endorsement from other reliable players / partners• Display on offline channels	<ul style="list-style-type: none">• Brand Positioning• Content consistent with the target• Efficient online store management• Functional mobile experience	<ul style="list-style-type: none">• Incentive for the first purchase• Service level in line with expectations• Registration and purchase process without clutches• Pre-purchase customer support	<ul style="list-style-type: none">• Quality post-purchase experience• Post-purchase customer support• Push to repeat purchase• Promote the acquisition of other customers• Stimulate to interact through all the brand's channels

Why Triboo?

1. We are a **digital company**, that **combines Italian creativity** with **luxury, fashion** and **quality**
2. Triboo is a “**one-stop solution factory**”, staffed with over 500 professionals from 20 different countries, delivering top quality digital services since 15 years ago
3. With an **integrated offer** of **digital services, marketing sales communication, consulting and training**, Triboo presents itself as responsible for the full value chain tailored to Brands needs
4. Triboo manages **over 100 online & offline stores** with **omni-channel strategy**, as for **lifestyle, fashion & luxury** brands **Moschino, Roberto Cavalli, Alba Ferretti, Carpisa, Yamamay**.

MOSCHINO

CARPISA

roberto cavalli

yamay
5. Triboo has **international** coverage and with a **team** with extensive experience globally and specifically in the Middle East

Triboo figures



500+
professionals



1.000+
clients



100+
online stores



17
digital properties



3.000.000
products shipped per year



100.000.000
marketing emails sent per year



20.000.000+
monthly visitors to our websites



30 millions
profiled users through our proprietary DMP

Triboo full range of services



Digital Consulting

- DIGITAL STRATEGY
- DIGITAL TRANSFORMATION
- DIGITAL INNOVATION
- ECOMMERCE OPERATIONS
- DATA MANAGEMENT



Digital Integration & Development

- PROJECT MANAGEMENT
- SYSTEM INTEGRATION
- DEVELOPMENT
- Q&I
- LOCALIZATION
- TRANSLATIONS
- MOBILE APP DEVELOPMENT



eCommerce Management

- STORE MANAGEMENT
- MARKETPLACE
- PAYMENTS
- INTERNAZIONALIZATION
- CUSTOMER CARE
- LOGISTICS



China & Far East

- ECOMMERCE OPERATIONS
- RETAIL O2O & OMNICHANNEL
- LOGISTICS & SHIPPING
- STORE MANAGEMENT
- CUSTOMER CARE
- DIGITAL MARKETING
- INFLUENCERS & PR
- MULTI-LANGUAGE STAFF



Content Development

- PHOTOSHOOTING
- CREATIVITY & COMMUNICATION
- TRIBOO STUDIOS
- BRANDED CONTENT PROJECTS



Digital Marketing

- SEO
- SEM
- SOCIAL MEDIA MARKETING
- DESIGN & UX
- PERFORMANCE MARKETING
- MARKETING AUTOMATION
- LEAD GENERATION
- DIGITAL DIRECT MARKETING



Audience & Monetization

- BRANDING SOLUTIONS
- VIDEO ADVERTISING
- DMP
- PROGRAMMATIC



Real Time Analytics

- WEB ANALYTICS
- VIDEO ANALYTICS
- APP ANALYTICS
- MOBILE ANALYTICS
- CONVERSION ANALYSIS
- ROI AND ADV CAMPAIGN MONITORING
- CUSTOMER DATA OWNERSHIP
- INDEPENDENT SOFTWARE PROVIDER

... Triboo since its foundation has been actively extending its international value proposition in digital services and content

Fashion, luxury, industry and premium experiences

MOSCHINO

Gianvito Rossi

ALBERTA FERRETTI

PHILOSOPHY
DI
LORENZO SERAFINI

ANTONIOLI

OFF-WHITE



DONDUP

Luisa Spagnoli

Drumchre
ESTABLISHED 1770

FABIANA
FILIPPI



THE BRIDGE
DAL 1949



Jeep



ALESSI



FERRERO

Pellini

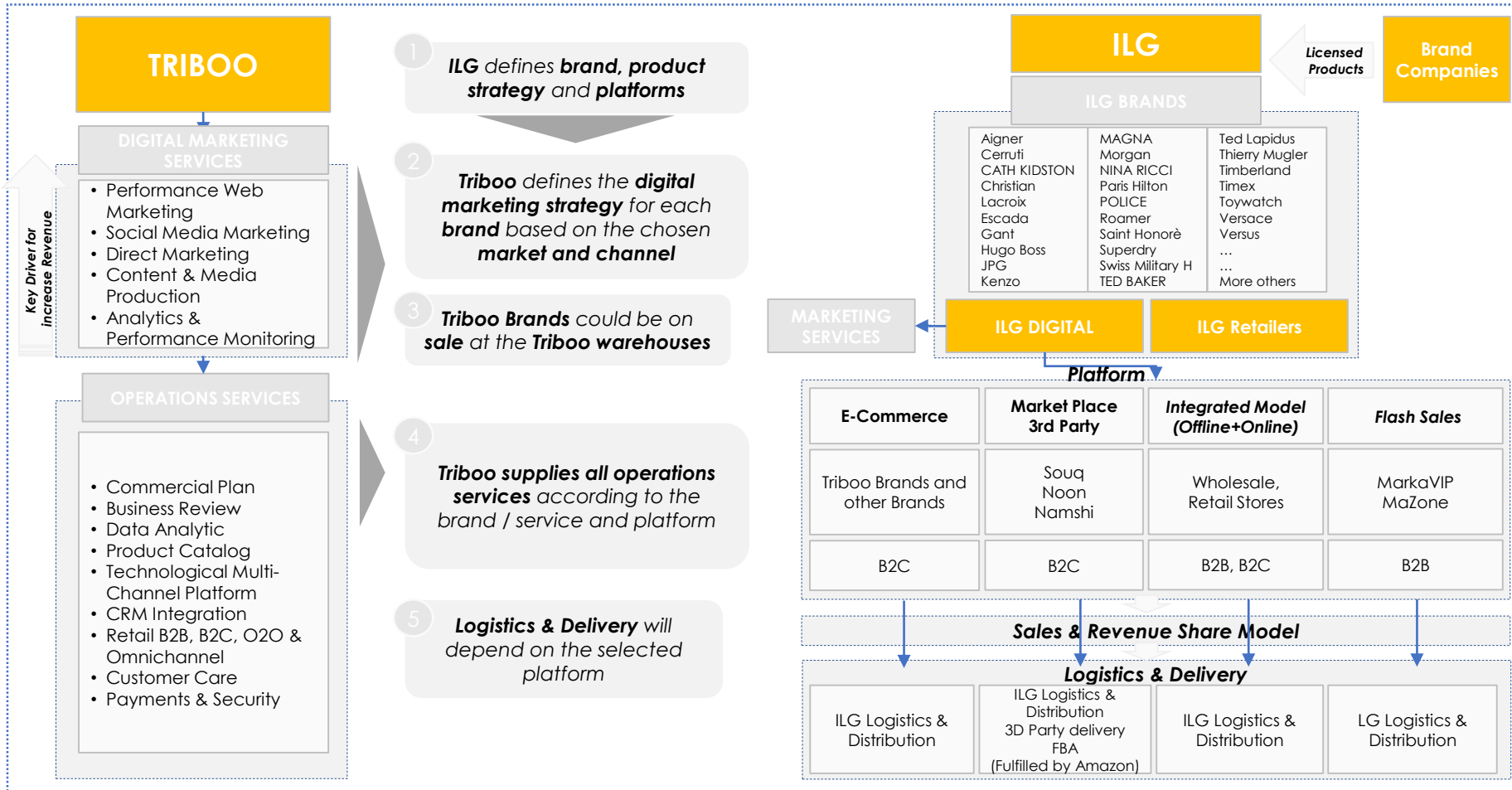


MORE THAN 1.000 CLIENTS PER YEAR

ILG as global leading company in the field of licensed watches, accessories and eyewear



TRIBOO ILG Digital Business Model



Business Mission



to the UAE



April 14-16, 2019



UNITED ARAB EMIRATES
MINISTRY OF ECONOMY



الإمارات العربية المتحدة
وزارة الاقتصاد



ICT Focus Sector Roundtable:

UAE future agenda for digital transformation
and smart cities

Business Mission
to the UAE
April 14-16, 2019



UNITED ARAB EMIRATES
MINISTRY OF ECONOMY



الإمارات العربية المتحدة
وزارة الاقتصاد



Mr. Ettore Scardecchia

Head of Product Engineering

AVIO



AVIO Institutional Presentation

Dubai, 17th April 2019

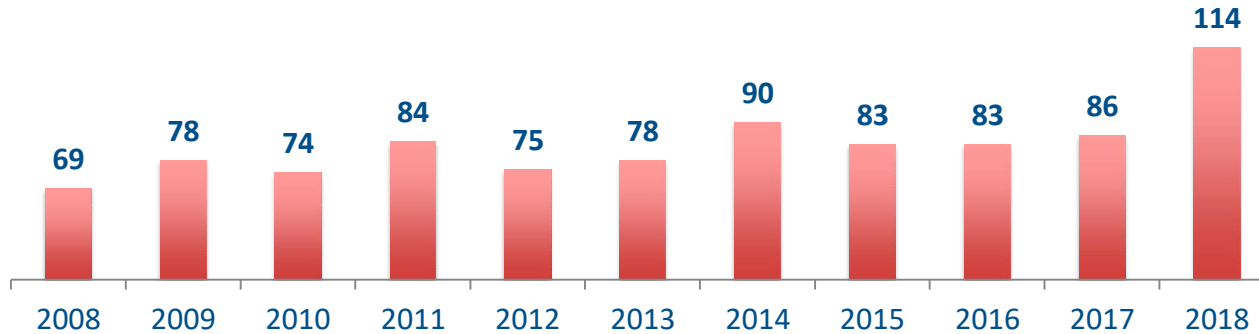
Avio: a European leader in Space Launch



-  Prime Contractor
-  Partner/Supplier
- Public company, 330M€ Mkt Cap
- 900 employees, ~390 M€ revenues
- >65% free float, no controlling shareholder
- 4% Management share

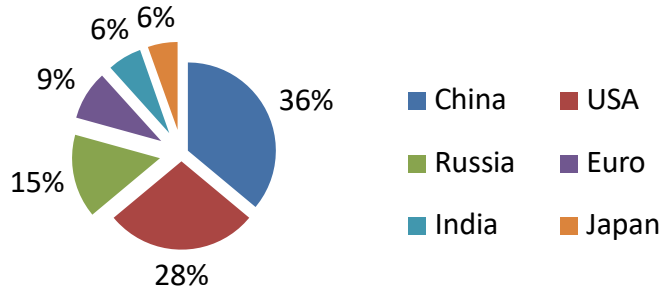
Space launches grow at 5% CAGR, with few countries having launch technology

2008-2018 Total # of Space Launches Worldwide - CAGR 5%



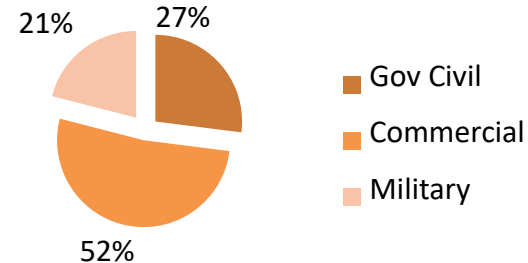
Space Launches by launch country

2018



Space Launches by customer type

2017-18



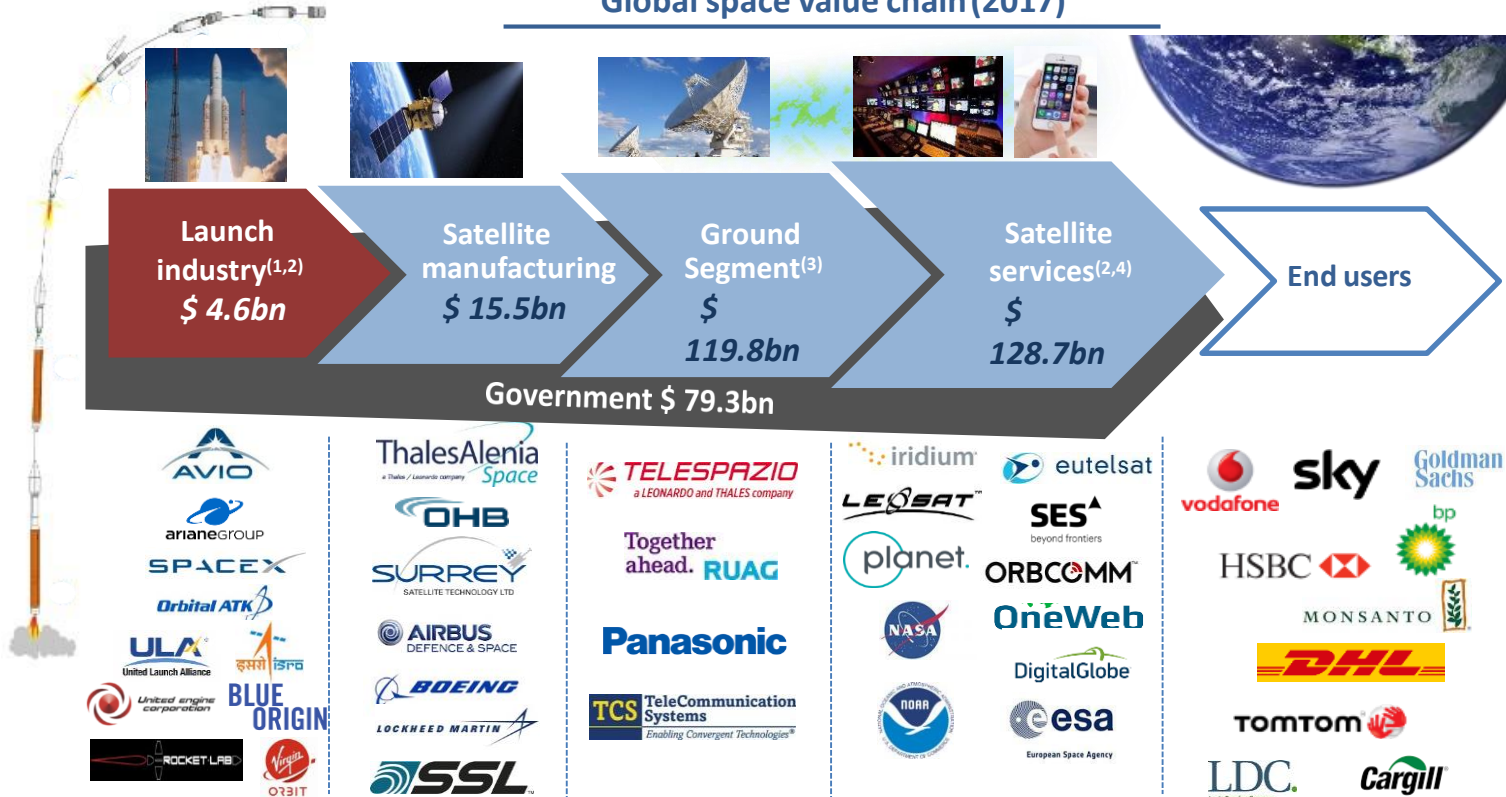
1 Dedicated flights to supply the International Space Station

Source : Gunter Space Page and SpaceFlightNow

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Launch is the upstream part of the Space industry

Global space value chain (2017)



Source: Satellite Industry Association (2018)

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(1) : Includes launcher manufacturing and launch service activities
(2) : Commercial services revenues only (3): Includes GNSS chipsets and Related (4): Includes commercial humanflight

Space launch has three main sub-segments by type of orbit



GEO - Geostationary Earth Orbit

Altitude 36,000km



Annual avg volume :
30 launches, 160 tons



Mature market

Altitude 3,000-22,000km



Annual avg volume :
12 launches, 19 tons



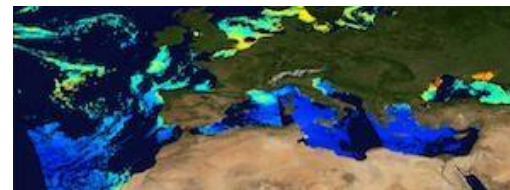
Niche market

LEO - Low Earth Orbit

Altitude 500-2,000km



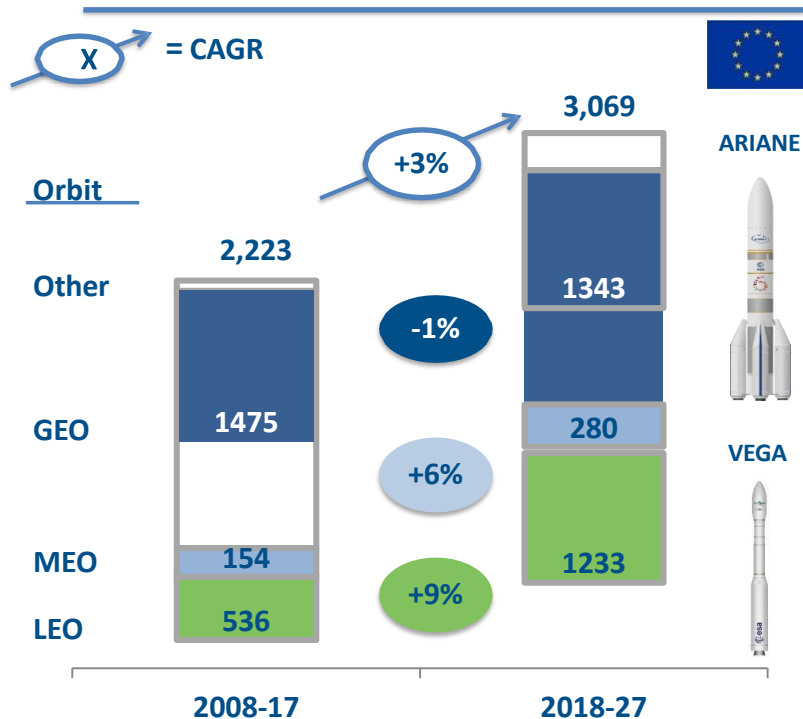
Annual avg volume :
55 launches, 60 tons



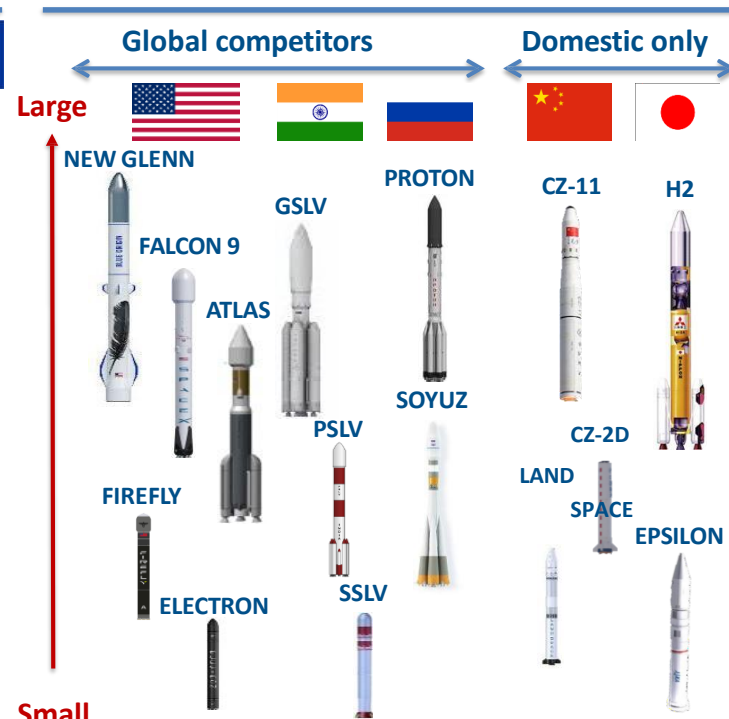
Booming demand

Demand requirements and product offer both evolving

Total mass at launch (Tons) - World market



Launch service offering – World Market



Source : Avio estimate on Euroconsult data

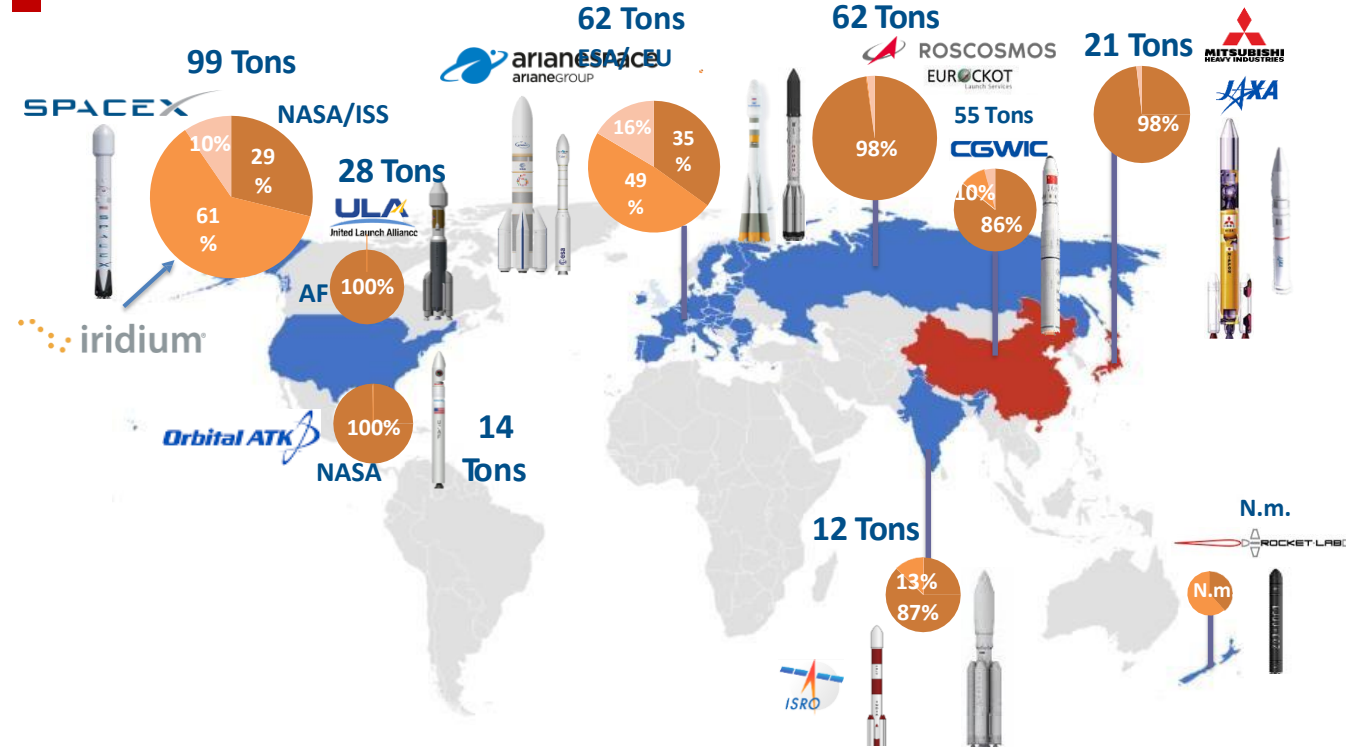
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Global competition vs service to domestic governments in 2018

Pie size proportional to orbited mass

Domestic «only» markets

Domestic gov Commercial Export gov



SOURCE: Avio elaboration on Gunter Space data

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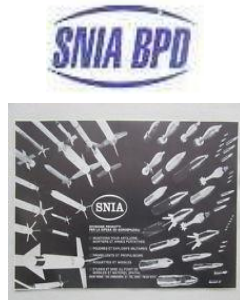
Avio: An important heritage of corporate evolution

1912 – 1967



2 entrepreneurs
(and Senators)
Defense focus

1968 – 1990



Industrial group (listed)
Chemicals focus



1965
Europa
7
launches

1994 – 2003

FiatAvio



Industrial group (listed)
Aerospace focus



1988
Ariane 4
104 launches
(16/year)

2003 – 2015

Avio



THE CARLYLE GROUP

Cinven

Private Equity
Financial focus



1996
Ariane 5
>100 launches
(6/year)

2017

AVIO



Public
Company
Space
Launchers



2012
Vega
14 launches
(2-3/year)

Avio works across the full spectrum of the European offer side

Avio activity by main product lines

Ariane 5 - Heavy launcher
(Avio Industrial partner)
40% of Revenues



P230 Boosters

Turbopump

Vega - Light launcher
(Avio Prime Contractor)
55% of Revenues



P80 motor

Zefiro 23 motor

Zefiro 9 motor

Upper stage

Launcher Integr

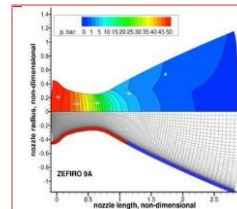
GNC software

 **esa** European launchers

Avio activity by type of business

Research & Product Development

40% of Revenues

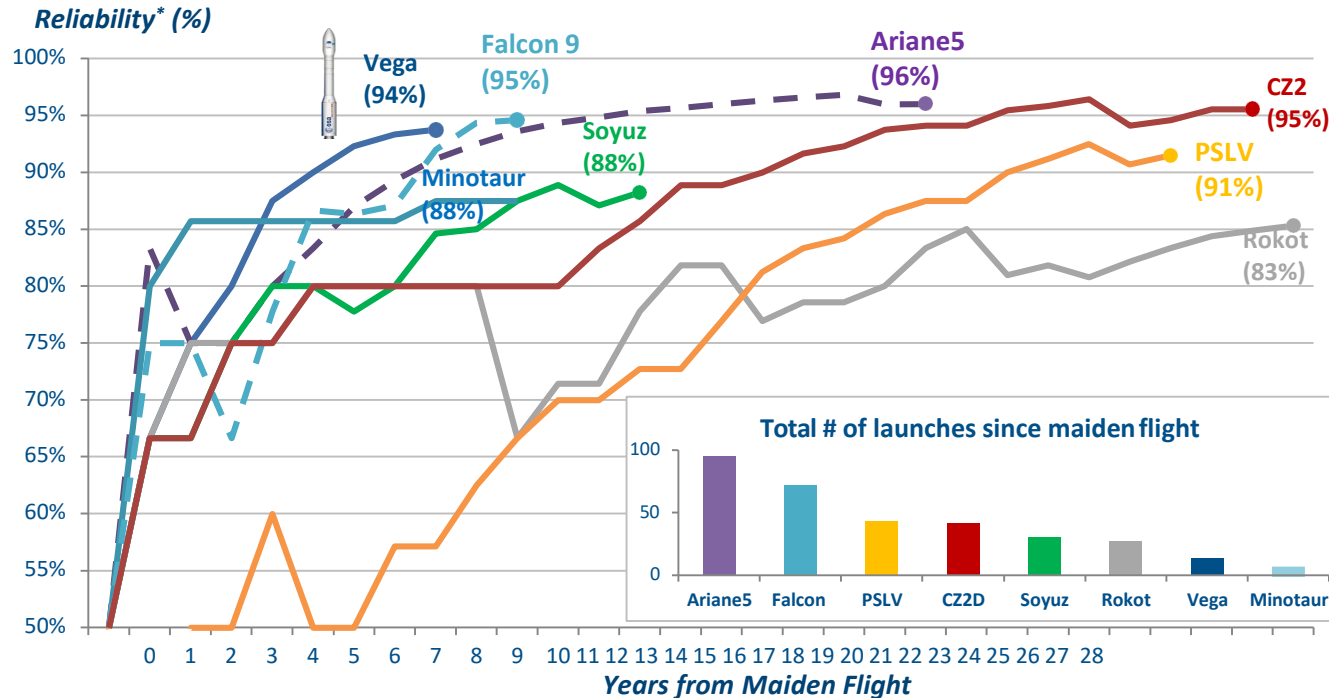


Propulsion and Launcher Production

60% of Revenues



Reliability matters : Vega the fastest to reach world-class levels



* First level Bayesian estimate of mean predicted probability of success for next launch attempt $(k+1)/(n+2)$ where k is the number of successful events and n is the number of trials

SOURCE: Avio elaboration on SpaceLaunchReport data

European Launcher offering evolving to meet market demand

Key
Perf
Data

10.5 tons
in GTO

1.5 tons
in LEO

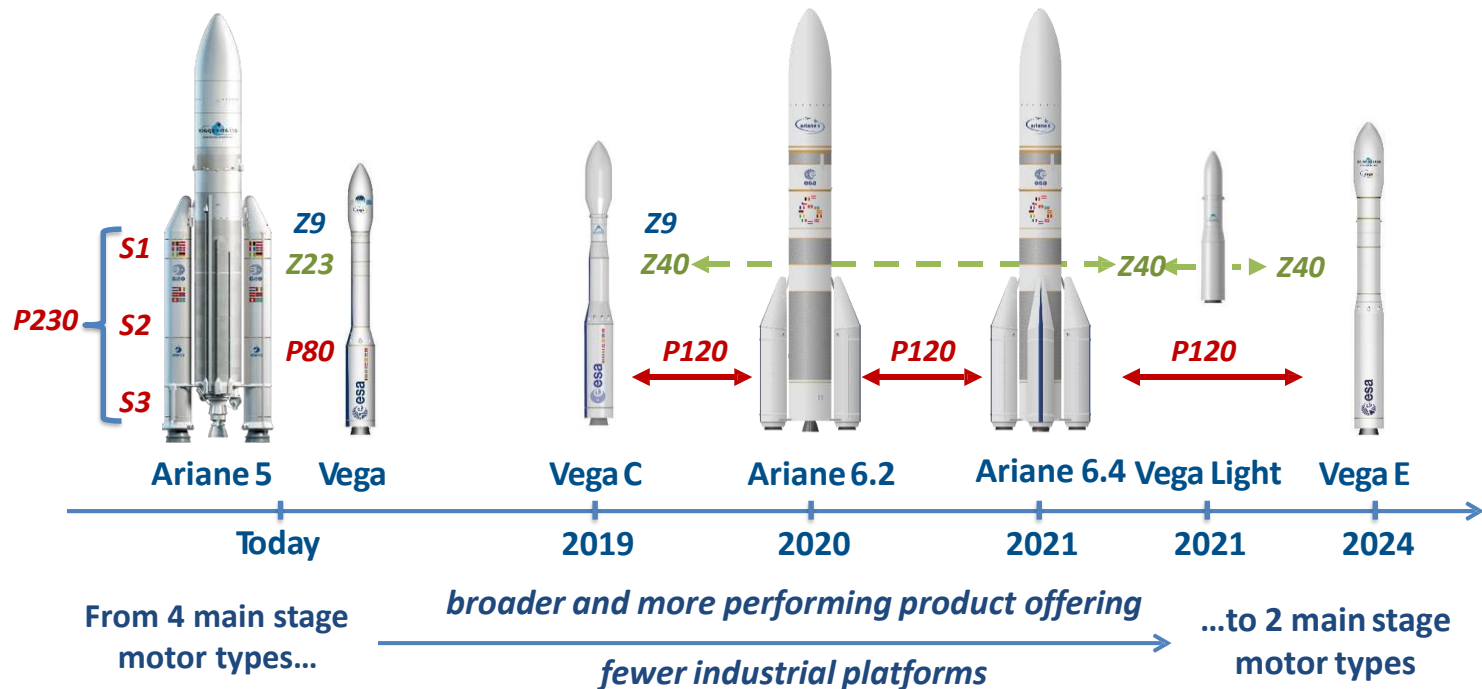
2.3 tons
in LEO

>5 tons
in MEO/LEO/GEO

11 tons
in GTO

TBD
in LEO

2.8 tons
in LEO



Revolutionary automation, advanced materials, simplification approach for main stage (P120) production



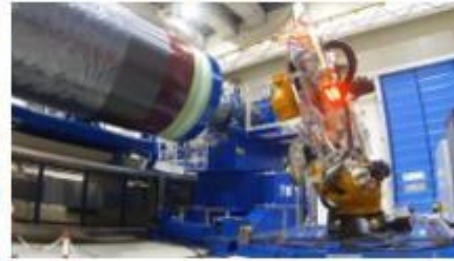
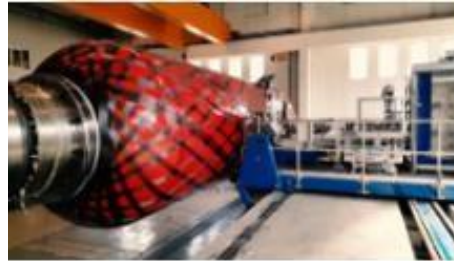
*First flight items
production*

Vega C MF
Ariane 6 MF

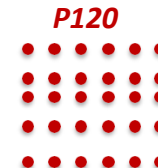
*P120 Full volume
production*



Vega Ariane 5



Vega C Ariane Ariane
6.2 6.4



Single main-stage, higher volumes

Economies of scale



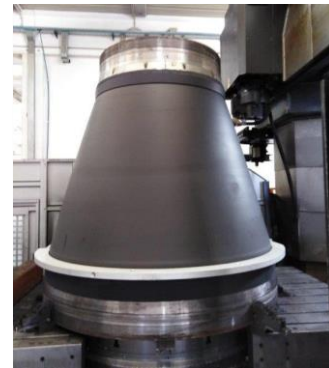
Main production facilities in Colleferro, Italy



Booster Case Facilities



Interstage manufacturing



Nozzle Production



P120 filament winding



Upper stage integration



Avio prepreg tow (patent)

Main Plants at the spaceport in Kourou, French Guiana



**Mobile Gantry
Launcher Integration**



EUP – Stage Integration



Regulus – Propellant casting

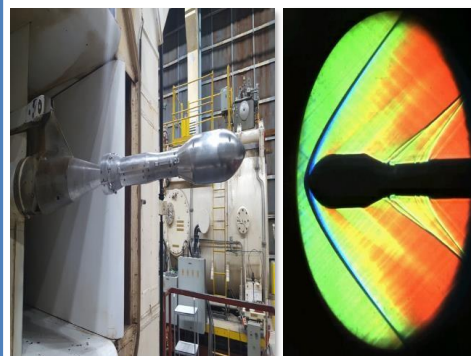
Development and Testing activities



P120 Static Firing Test (July 2018, Kourou)



New SPTF facility



Wind Test Tunnel for Vega C



Z40 Static Firing Test (March 2018, Sardinia)



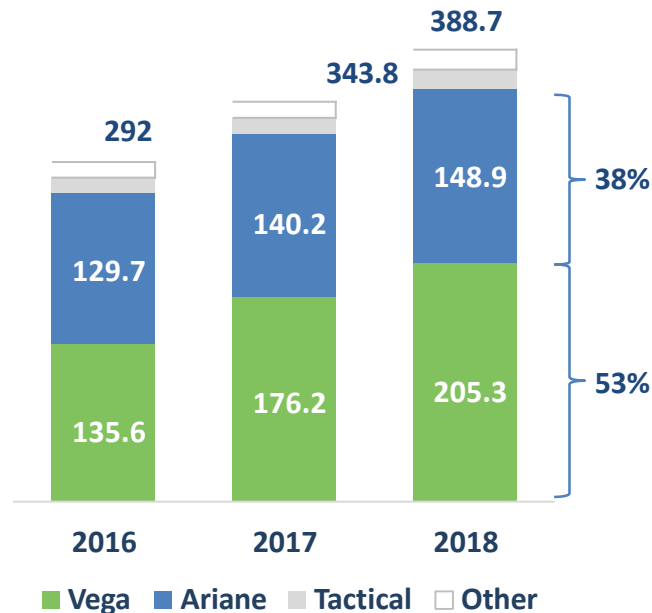
Firing test of Vega E M10 prototype engine



Vega C systems vibration test

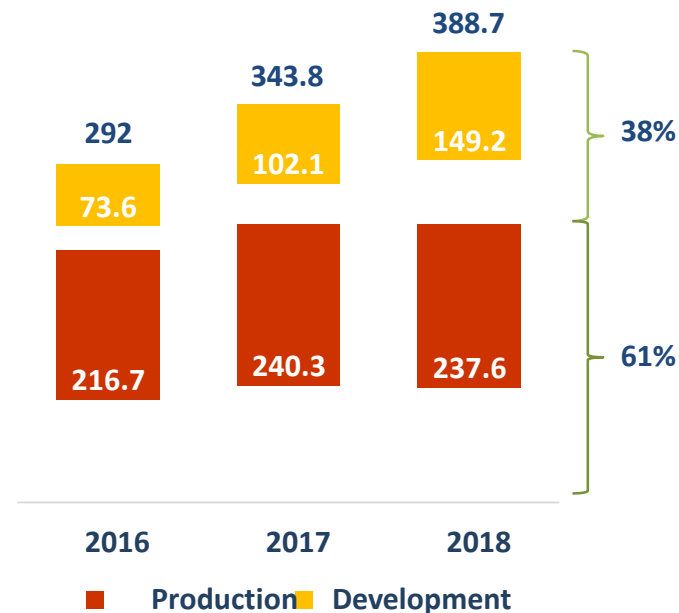
Net Revenues growth fueled by Vega and development activities

by Line of Business (€ - M)



Vega growing launch rate and dev't activity

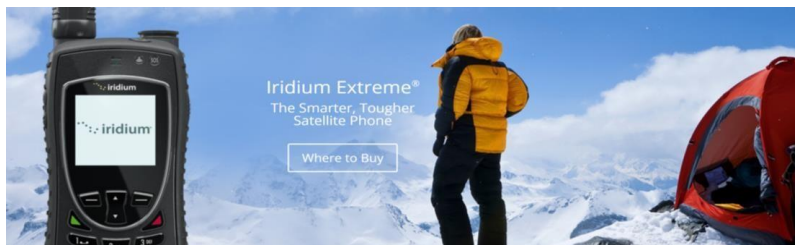
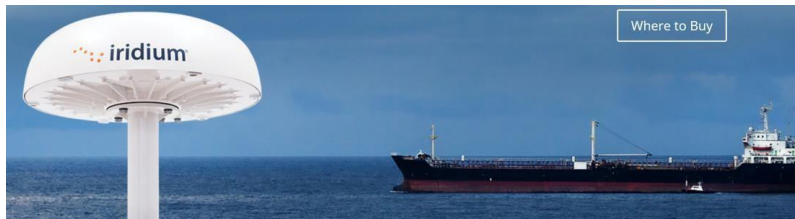
by Activity (€ - M)



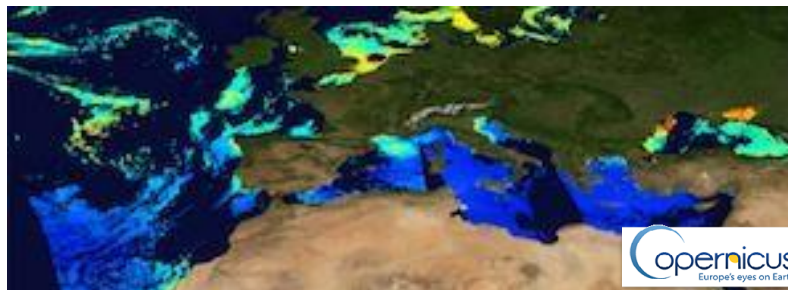
P120 and Vega dev't ramping up

Appendix

Smallsat growing demand is fueled by the increasing need for advanced telecom and remote sensing services



Satellite telephone communication



Mediterranean Sea temperature monitoring



Crop vitality monitoring



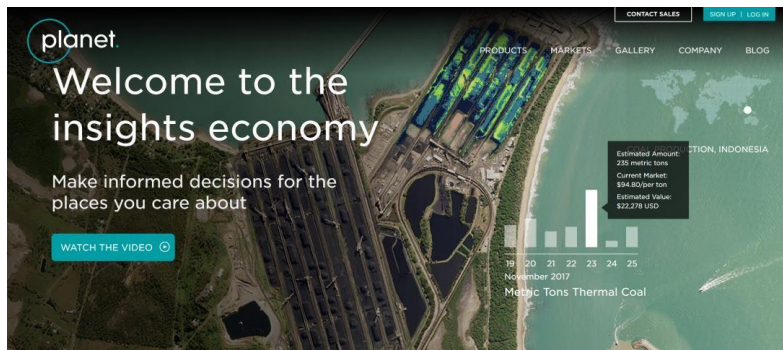
Satellite imaging is creating a new «insights economy» to support civil, military and commercial needs



Military Airfield monitoring



Damage assessment : Pre-earthquake view



Coal production monitoring



Damage assessment : Post-earthquake view

Avio is part of the EU critical space infrastructures also through partnership with Ariane Group



Kourou European Spaceport (CSG)

- Solid rocket motor casting (Regulus – 60% Avio*) and integration (Europropulsion – 50% Avio**)
- Vega integration and launch operations (Mobile Gantry)



* 40% Ariane Group, ** 50% Ariane Group

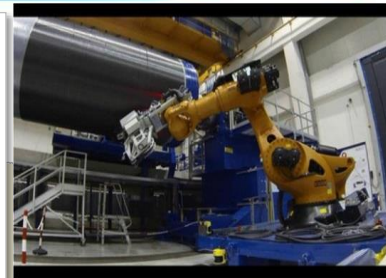
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Colleferro



- Solid rocket motor design, production
- System activities, mission design
- Flight Software Factory
- Liquid propulsion design, production,
- Stage integration (Vega)
- Test center



Turin



- LOx&LNG turbo-pump design, manufacturing and assembly



Paris



- Management and design of SRM for development and production programs



Airola



- Carbon Epoxy Prepreg manufacturing and testing

Highlights from the 2018 Consolidated Non Financial Statement

