



MAPS
SHARING KNOWLEDGE

AIM Italia Conference 2019, London
October 21st 2019



Marco Ciscato, Chairman

Founder of Maps. He graduated in Software Engineering at University of Bologna and started his career as software engineer at ds Data Systems. During the first phase of Maps he worked in the technical area. After obtaining a Master in Business Administration at CUOA in Vicenza, he moved from the technical area to internal organization, finance & control and strategic development. He is currently Chairman of Maps.



Maurizio Pontremoli, CEO

He graduated cum laude in Physics from the University of Parma. In the past, he was a professor of computer science at the University of Parma and a researcher at the Fini Speciali School of the University of Parma. Later, he became the founder and the director of the Professional Services Division of ds Data Systems, then the director of Imagena S.r.l. (IT products and solutions for mobile telephony) for about six years. In MAPS since January 2008, he is CEO and deals with the definition of the offer and the strategic development.



Gian Luca Cattani, R&D Director

Degree in Mathematics cum laude at the University of Parma; MSc and PhD in Computer Science at the University of Aarhus (Denmark); Master in Technology and Innovation Management at the Bologna Business School of the University of Bologna. He was a researcher in Logic and Semantics of Computation at the University of Cambridge (UK). He is the author of several scientific publications in Theoretical Computer Science. For over fifteen years he has been involved in software development projects for complex organizations. In MAPS since 2008, he has been appointed R&D Director in 2017.

MAPS AT A GLANCE

A 3D visualization of a data map. The floor is a grid of glowing green lines, receding into the distance. Numerous vertical lines of varying heights rise from the grid, each topped with a small green dot. The background is a dark gradient, transitioning from black at the top to a deep green at the bottom, with scattered glowing green particles and light trails.

MARKET NEEDS

In this digital era, each company can access huge quantities of data: the challenge for Maps is **extracting business value from such data**.

WHAT WE DO

We develop **software solutions** that help our customers to take better decisions based on the evidences that come from data, that is to become data driven companies.

WHO WE ARE

We are a group of **highly qualified people** that share the same vision. More then 70% of the employees have an university degree.

THE MARKET

Digital Transformation of companies is what we support. Experts state that the **Digital Transformation Market** has been growing with a CAGR of 20% and will grow at the same pace in the coming years.

OUR CUSTOMERS

Our customers are **leaders** in their sectors.

GOALS ACHIEVED IN 2013-2018



FINANCIAL PERFORMANCE

doubled revenues
+16% CAGR
 2018: €16.7 mln
 2013: €7.9 mln

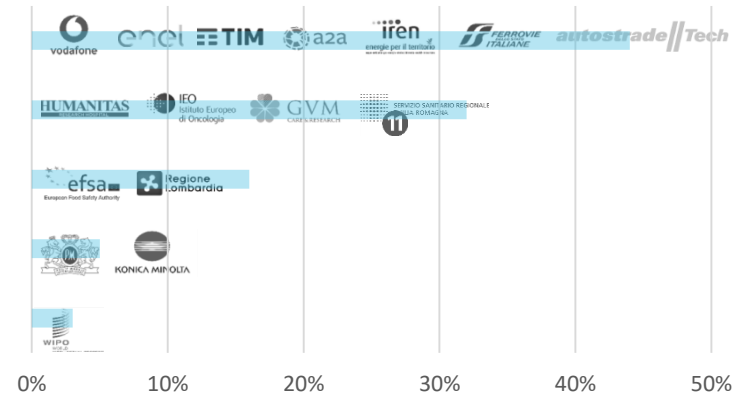
loyalty
 65% of customers have been choosing Maps for over 5 years

profitability
+59% EBITDA CAGR
 2018: €3.6 mln (21% margin)
 2013: €0.4 mln (4% margin)

cash conversion
 excellent and constant cash conversion used for acquisitions and investments

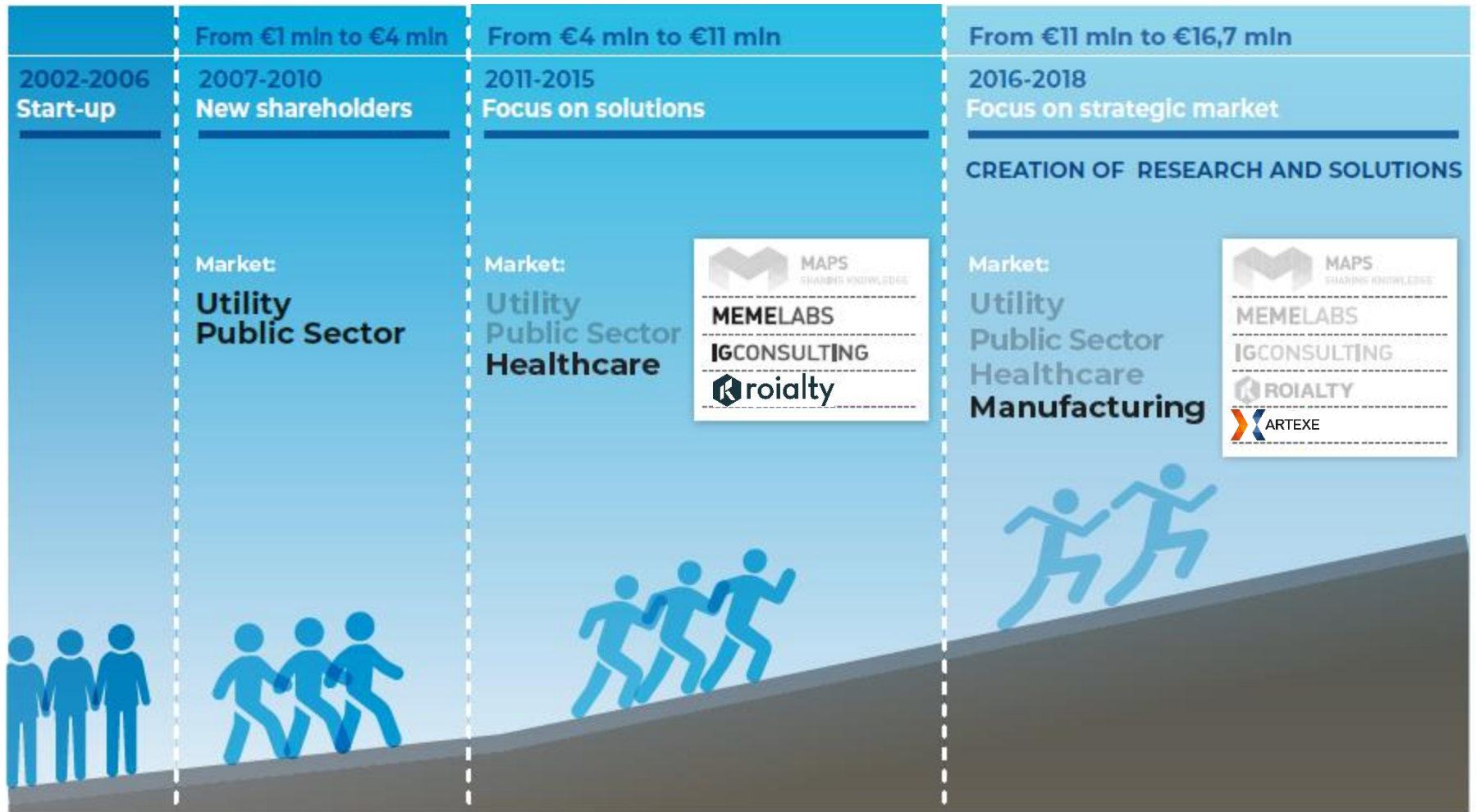


-  Telco & Utilities
-  Healthcare
-  Public Sector
-  Manufacturing
-  Services



We are **LEADER** in the Italian market for **Patient Journey**

- more than **600 installations**
- more than **17million patient accesses per year**



GOVERNANCE

Market-friendly approach
(exceeding AIM requirements):

- 2 independent directors
- List vote (2.5%)
- Our bylaws provides «white washing»

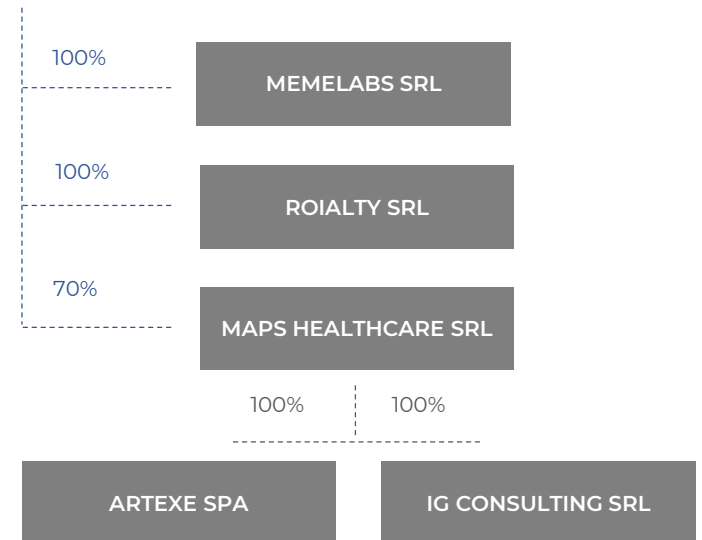
BOARD OF DIRECTORS



SHAREHOLDERS

- Floating: **26.6%**
- The remaining shares are owned by 6 people
(4 of them are Maps' managers):
 - Marco Ciscato (21.87%)
 - Maurizio Pontremoli (18.03%)
 - Domenico Miglietta (13.68%)
 - Paolo Ciscato (9.44%)
 - Gian Luca Cattani (8.22%)
 - Giorgio Ciscato (2.14%)

MAPS



Our employees, together with our software solutions, are our most important asset

OBJECTIVES

Attract talents

Identify and maintain top performers

Enhance all employees' skills and performances

Share a clear identity, because employees are our first ambassadors

ACTIONS

	2018 DATA
Training	7,600 hours
Salary based on individual targets	More than 35% of the personnel
Recruiting	1 dedicated person
Appraisal and personal objectives	All employees involved
Smart working	16 man years of remote working
Welfare	More than 20 events

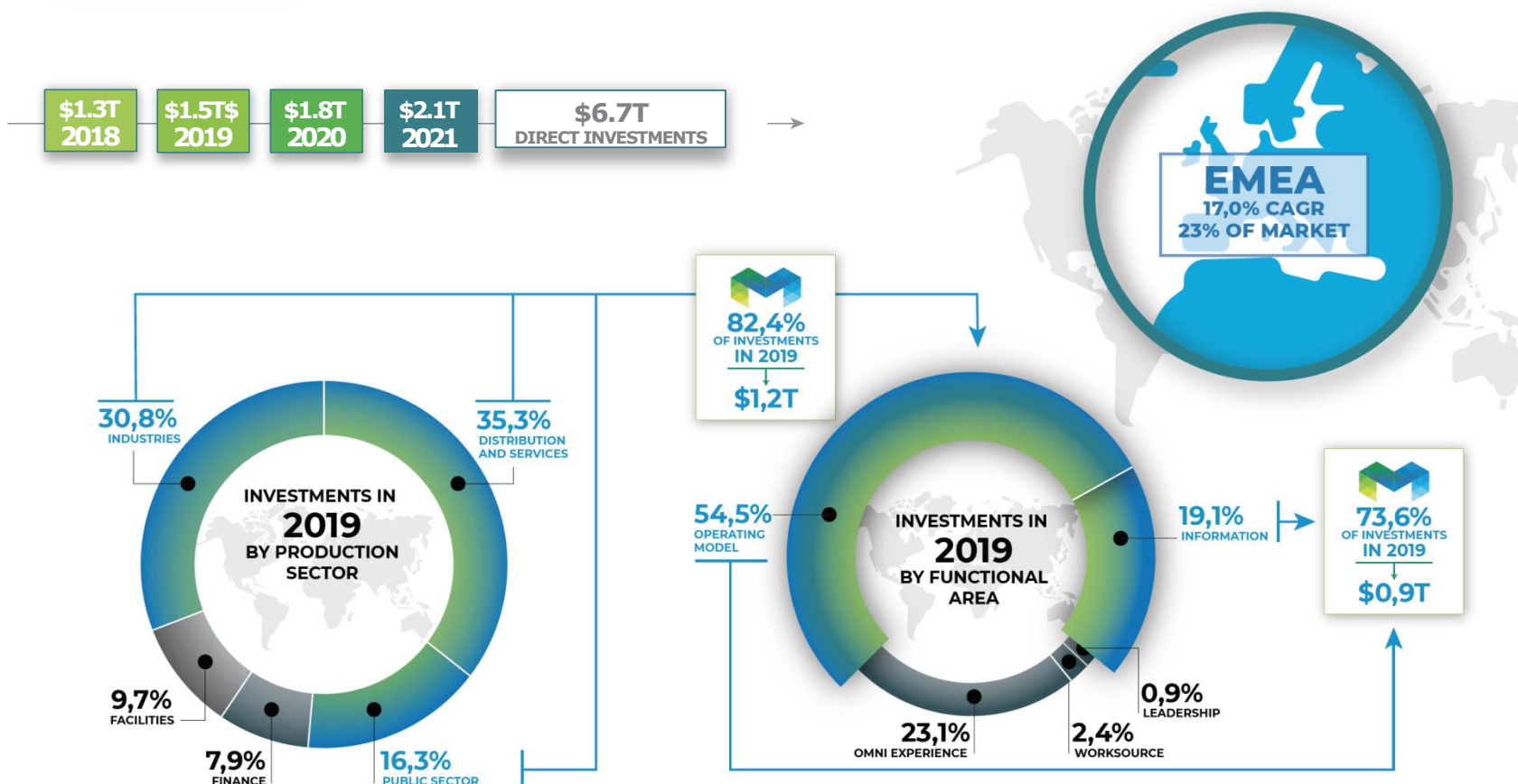
MARKET TREND





Digital Transformation

Take better decisions or implement new business models leveraging the knowledge that comes from digital data

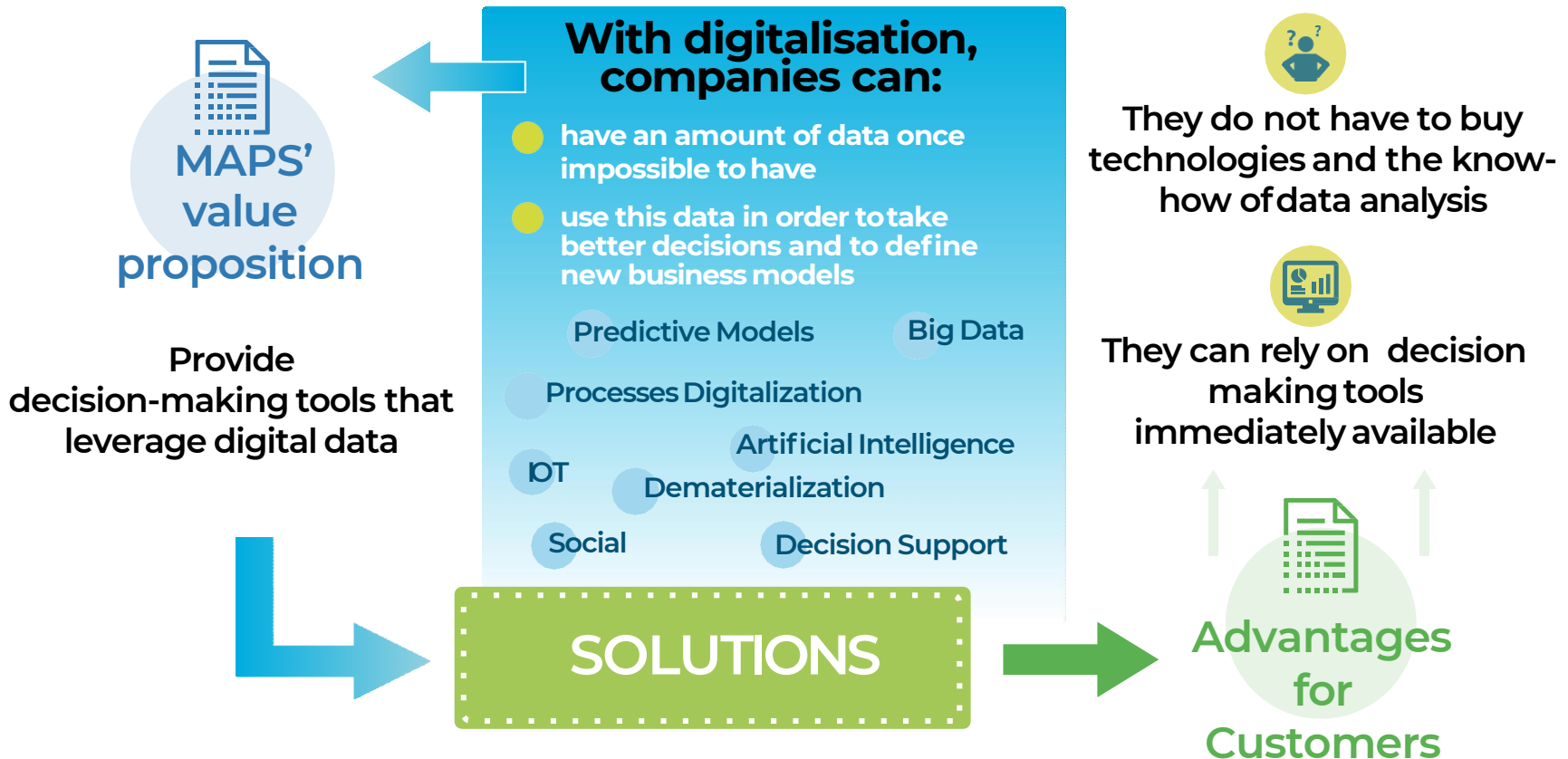


VALUE PROPOSITION BUSINESS MODEL





Add value to your business cases with our services



TO THRIVE IN THE DIGITAL TRANSFORMATION MARKET, NEED TO FOCUS ON THE BUSINESS VALUE THAT WE PROVIDE TO THE CUSTOMERS



R&S DEFINES AND CREATES MAPS INNOVATIVE SOLUTIONS

- **Open Innovation** in collaboration with market leaders and research centres, e.g., University of Genoa, University of Copenhagen
- **Fully proprietary investments**, e.g., artificial intelligence based method for semantic analysis of clinical text is Patented

COMMERCIAL BUSINESS UNITS BRING MAPS SOLUTIONS TO THE MARKET OR IMPLEMENT SOLUTIONS TO CUSTOM NEEDS

- Responsibilities: Operative Marketing, Sales, Delivery, Customer Satisfaction

TO THRIVE IN THE DIGITAL TRANSFORMATION MARKET, NEED TO FOCUS ON THE BUSINESS VALUE THAT WE PROVIDE TO THE CUSTOMERS



CHALLENGES

- Identify adding-value services with the highest chances of replicability
- Propose and provide effective solutions to critical business needs

REWARDS

- Recurrent revenues
- Profitability
- Customer loyalty

EXAMPLES



Patient Journey: leadership in Italian market




Smart Nebula: niche solution with highest margins










Vodafone: loyal customer with high volumes

vodafone




HEALTHCARE

Scope	Objectives	Investment Type	Main Partners
Patient Journey – ROI for Customers	<ul style="list-style-type: none"> Performance Based Fees (new Business Model) Sales Tool 	Own Investment	
Waiting Lists Prediction and Management (Innovation on an Existing solution)	<ul style="list-style-type: none"> Crucial Issue for All Universal Access Healthcare Systems New National Plan issued mid-2019 	Own Investment	
Long Term Care	<ul style="list-style-type: none"> Increasing Need Leverage Clinical Narrative Text for Better Healthcare 	EU co-financed	 Alisa Sistema Sanitario Regione Liguria

TELCO & UTILITY (ENERGY)


Scope	Objectives	Investment Type	Main Partners
Energy Resources Management	<ul style="list-style-type: none"> Flexibility Market (Demand/Response) 	Open Innovation	 
Energy Efficiency	<ul style="list-style-type: none"> Energy Efficiency Services Ancillary to Energy Resources Management 	EU co-financed	 
Wind Energy	<ul style="list-style-type: none"> Sales Efficiency Flexibility Market 	Open Innovation	
Predictive Maintenance	<ul style="list-style-type: none"> Cost Reduction of Maintenance Higher Quality of Service 	Open Innovation	 

PUBLIC SECTOR

Scope	Objectives	Investment Type	Main Partners
Digitalisation of Processes	<ul style="list-style-type: none"> Growing Area Primary Usage of Digital Data Collection of Data for Secondary Usage (Analytics and Strategic Decision Support) 	DK co-financed	  

The background features a pattern of small, light green dots arranged in a grid that is slightly distorted, creating a sense of depth and movement. The dots are set against a dark green background.

OFFER AND SAMPLE SUCCESS STORIES







LARGE ENTERPRISE / DATA INTEGRATION

DATA INTEGRATION SMARTAGGREGATOR SMARTNEBULA

LARGE DATA FLOW DATA GENERATED IN DIFFICULT CONTEXT «CORE» DATA



DATA EXAMPLES

- Data management of the entire Vodafone offer for both fixed and mobile networks: configuration, administrative activation, network provisioning, ticketing, invoicing
 -  **30M+** of mobile users
 -  **2M+** of fixed users
- Collection and management of data related to food risk for EFSA, as for example: OGM statistics coming from all the EU member states
 -  **3000+** scientific users
- Data collection and storage employed for Intellectual property (IP) management and for the global organization of WIPO which today has 119 member states
 -  **10M+** documents to support businesses



OUR TRAINING ROOM

OUR EXPERTISE IN DEALING WITH COMPLEX ENVIRONMENTS GAVE US THE OPPORTUNITY TO BOOST OUR SKILLS AND IMPROVE OUR OFFER



OUR CHALLENGE

- Build up trust on our ability to understand customer's needs
- Expertise to promote our reputation as agents able to offer innovative solutions
- Understand and help customers to meet all their needs

MAIN CLIENTS





LARGE ENTERPRISE / DATA INTEGRATION

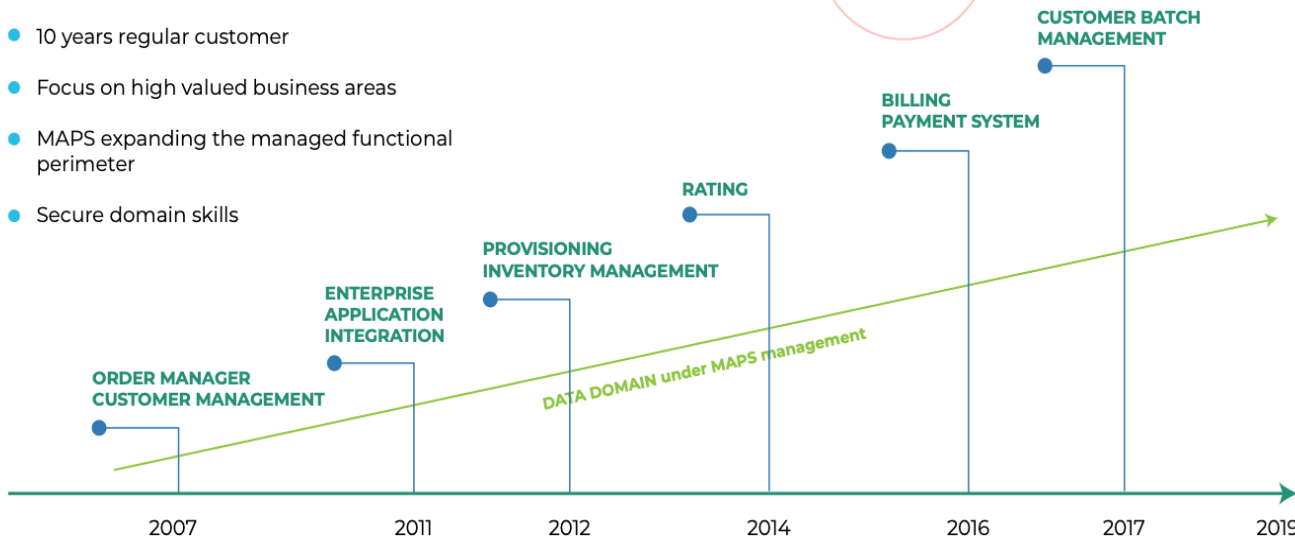
DATA INTEGRATION SMARTAGGREGATOR SMARTNEBULA

LARGE **DATA** FLOW
DATA GENERATED IN DIFFICULT CONTEXT
«CORE» **DATA**


VODAFONE CUSTOMER OPERATIVE MODEL



- 10 years regular customer
- Focus on high valued business areas
- MAPS expanding the managed functional perimeter
- Secure domain skills



SOME DATA

-  **30M+** mobile users
-  **2M+** landline users
-  **10M+** daily recurrent charges
-  **1G+** new offers
-  **1300+** managed data flows



LARGE ENTERPRISE / SMARTAGGREGATOR

DATA INTEGRATION SMARTAGGREGATOR SMARTNEBULA

WE ARE ABLE TO MEET ALL THE NEW NEEDS INTRODUCED BY THE **DIGITAL TRANSFORMATION**
 WE BUILD UP KNOWLEDGE FROM DATA
 DECISION-MAKING AND SUPPORT SYSTEMS FOR THE HUMAN DECISION-MAKING PROCESS

SAMPLE QUESTIONS

- Which power constraints absorbed by the electricity grid can I impose on my client tomorrow?
- What are the chances of a fault on an electrical grid within the next 30 days?
- Are my production facilities respecting all the set points?
- How social networks are dealing with this topic?



ARTIFICIAL INTELLIGENCE

- PREDICTIVE SYSTEMS
- MACHINE LEARNING
- DECISION RULES



INTERNET OF THINGS (IoT)

- INFORMATION RETRIEVAL



SOCIAL MEDIA

- SOCIAL MEDIA LISTENING

MAIN FEATURES

- **Real-time** data ingestion and information retrieval
- Pluggable:
 - Data Connectors
 - **Machine Learning models** for predictions
 - **Operational Research** Algorithms for Planning
 - **Rule-based reasoning** for decision support
 - **Natural Language Processing** tools for information retrieval
 - Domain specific **knowledge bases** for semantic interoperability
- Full **interoperability** via API

MAIN CLIENTS



VERTICAL SOLUTIONS





LARGE ENTERPRISE / SMARTAGGREGATOR

DATA INTEGRATION SMARTAGGREGATOR SMARTNEBULA

WE ARE ABLE TO MEET ALL THE NEW NEEDS INTRODUCED BY THE **DIGITAL TRANSFORMATION**
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KONICA MINOLTA

SEARCH and PRIORITY

Need: To enrich its offer for the small and medium size companies with high value services.

SOTA: Workplace Hub, and Market place.

Key elements

- MAPS as Partner in the KM Digital Transformation
- 2 POCs: HyDocs and SmartCalendar
- Search & Priority - is the solution brought from an R&D idea to a production ready product for the Workplace Place Hub
- Read data from heterogeneous systems and creates a representation of the user tasks and meetings



OPERATIONAL HISTORIAN

Need: To implement an highly scalable, easy to deploy, operational historian using non proprietary technologies to reduce TCO.

SOTA: Third-party commercial historian. Manual extraction of shift production data.

Key elements

- Real-time data acquisition from 100+ equipment @ up to 10K tags per second.
- Automated BI integration reduced shift data analysis effort from hours to seconds.
- Fully virtualized for maximum scalability.
- Simplified life cycle management via automated delivery on a multi-tenant environment.
- Self-configurable dashboards.



SMART ARBITRAGE

Need: To automate arbitraging of crypto assets (Bitcoin, Ethereum, Teether, etc.) from multiple trading exchanges.

SOTA: Manual identification of arbitrage opportunities and order placement.

Key elements

- Real-time aggregation of market data from 20+ exchanges.
- Highlighting of best arbitrage opportunities.
- Automatic execution of chain of orders.
- Real-time self-adjustment mechanism to respond to changing market conditions.



LARGE ENTERPRISE / SMARTNEBULA

DATA INTEGRATION SMARTAGGREGATOR **SMARTNEBULA**

MANAGE AND CONTROL THE EXCHANGE OF DOCUMENTATION WITH SUPPLIERS
ADMINISTRATIVE EFFICIENCY

SAMPLE QUESTIONS

- Does supplier's staff have the required qualifications and certifications for what they are doing?
- Do I fulfil the Legality Protocol signed for the contract? Is the suppliers' staff regularly hired?
- Is the supplier working with the agreed people and means in my building sites?
- May I reduce the risk of non-compliance with the 231 Model?

SOME DATA

 **70.000+**
managed **documents** in 2018

 **1600+**
single platform users

 **1500+**
suppliers selected by our customers and invited to exchange documents

OUR CHALLENGE

- Identify specialized areas where controlled and managed information exchange is particularly relevant
- Efficient exchange of information along production chains
- Massive digitization of information
- Risk reduction for both workers and companies
- Promote positive relations with the supervisory authorities

MAIN CLIENTS



VERTICAL SOLUTIONS



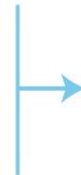


**HEALTHCARE
INDUSTRY**

/ DATA DRIVEN GOVERNANCE

DATA DRIVEN GOVERNANCE PATIENT JOURNEY

LEVERAGE DATA TO IMPROVE
QUALITY AND EFFICIENCY OF
HEALTHCARE



- QUALITY AND PERFORMANCE EVALUATION
- DECISION SUPPORT FOR IMPROVED MANAGEMENT OF HEALTHCARE

EXAMPLES OF SOME NEEDS

- Evaluate Appropriateness of Referral Requests for a better planning of services, and to measure the adherence of GPs behaviour to the given guidelines
- Management control of healthcare companies, and evaluation of their efficiency
- Evaluate and control the quality and efficiency of outpatient departments
- Evaluate and report all the indicators linked to the quality of the services provided by a specific facility
- Production and management of information flow between Local and Central Health Authorities
- Definition of Cohorts and selection of Patients that should be included in specific assistance programs, e.g. diabetes

SOME DATA



80MLN+
Clinical documents
analysed



100+
Installations



10MLN+
Patients

FEATURES

- Developing market: Low maturity, not many excellence
- Relevant opportunities for the application of the semantic technology, supported by user centered applications
- Data analysis with distinctive elements, such as the ability to exploit non-structured data
- Analysis services provided through the "Knowledge as a Service" modality

MAIN CLIENTS



VERTICAL SOLUTIONS





HEALTHCARE INDUSTRY / DATA DRIVEN GOVERNANCE

DATA DRIVEN GOVERNANCE PATIENT JOURNEY

LEVERAGE DATA TO IMPROVE
QUALITY AND EFFICIENCY OF
HEALTHCARE

- QUALITY AND PERFORMANCE EVALUATION
- DECISION SUPPORT FOR IMPROVED MANAGEMENT OF HEALTHCARE

REFERRAL REQUEST APPROPRIATENESS

Need: To improve the level of appropriateness of referral requests with respect to given guidelines for a higher quality of care and a better use of healthcare resources.

As is: Manual verification of a limited sample of referral requests.

Key elements:

- A tool that enables SMEs to formalise guidelines into business rules.
- Automated analysis and verification of 100% referral requests.
- Integrated clinical governance tools.

Benefits:

- Increased adherence to guidelines.
- Reduced waiting lists.

APPROPRIATENESS OF THERAPIES

Need: To improve the level of appropriateness of drug therapies with respect to given clinical targets.

As is: Ad-hoc reporting from Local Health Authority repositories.

Key elements:

- Definition of Cohorts and of target Sub-Cohorts.
- KPI calculation.
- Benchmarking against targets.
- Configurable reporting.

Benefits:

- Increased adherence to guidelines.
- Uniformity in base concept definition for new cohorts extraction.

ADMINISTRATIVE REPORTING

Need: To reduce the administrative burden and to maximise the coverage of delivered clinical activities in administrative reports.

As is: Manual cross review of clinical records, which may require additional enquiries to clinicians and staff.

Key elements:

- Reporting process modelling for data extraction, validation and reprocessing
- Automated extraction of relevant clinical events (e.g. procedures, supplies, medications).
- Optimised reporting strategy for reimbursements.

Benefits:

- Increased reporting coverage.
- Reduced administrative times and costs and clinician effort on non-care activities.



HEALTHCARE INDUSTRY / PATIENT JOURNEY

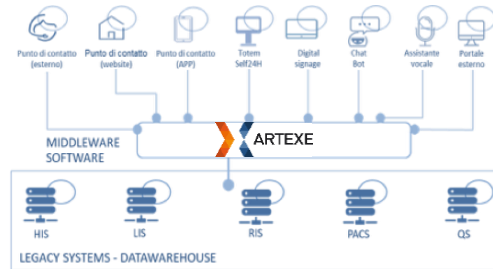
DATA DRIVEN GOVERNANCE PATIENT JOURNEY

LEADER SOLUTIONS IN HOSPITALITY (HEALTHCARE)

- GUIDE PATIENTS THROUGH THE HEALTHCARE SYSTEM
- HELP HOSPITALS TO DELIVER HIGHER QUALITY SERVICES IN AN EFFICIENT WAY

EXAMPLES OF NEEDS

- Efficient patient's flow management inside the hospital: waiting time reduction, waiting management, patients' redistribution, patients' guidance
- Efficient communication with patients
- Simplify the reservation, payment, specialist and non-specialist report collection system



SOME DATA

- 500+** installations
- 17MLN+** patients
- 70%** of the public hospitals are our customers, with opportunities for up-selling
- the 3** Italian leading private companies are our customers

FEATURES

- Expanding market: low maturity and few excellences
 - Wide presence in the public healthcare system
 - Prestigious customers among private healthcare organisations
- Complete solution
- Proprietary hardware able to generate loyalty and recurrent incomes
- On-going internationalization

MAIN CLIENTS

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VERTICAL SOLUTIONS

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GZOOM /GZOOM SOLUTION

DRIVE INSTITUTIONS TO REACH THEIR GOALS USING DATA

- HELP INSTITUTIONS TO FORMALISE, PLAN AND REACH THEIR OBJECTIVES
- EVALUATE PERFORMANCES AND REPORT ON RESULTS

EXAMPLES OF NEEDS

- Define institution's strategic, operational and individual objectives
- Define and measure the Key Performance Indicator
- Risk management
- Personal data management (GDPR)
- Processes and projects control
- Internal and public reports (transparency)

GZOOM SOLUTION



SOME DATA



40+

Customers



30%+

Revenues from fees



6

customers segment, for each segment important references

MAIN CLIENTS



FEATURES

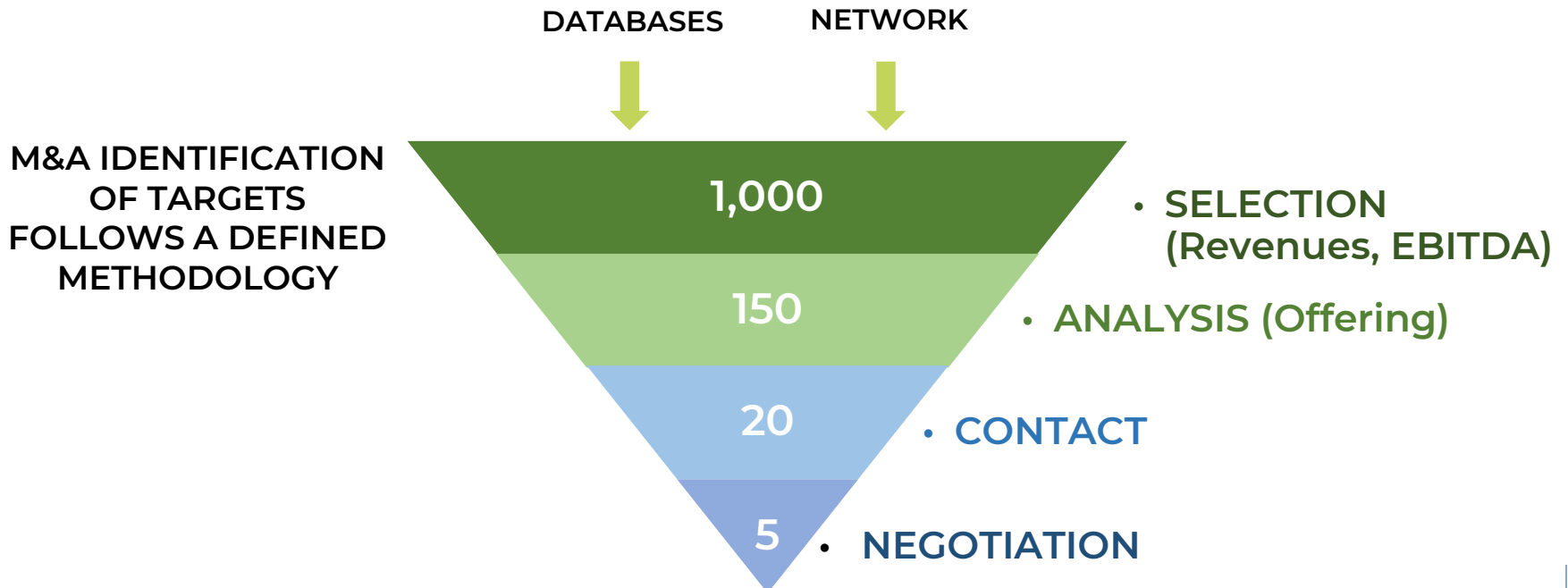
- Open source software business model
- Complete solutions
- Investment Terminated
- Regulatory compliance is one of the drivers for purchasing
- 12 up-selling modules

VERTICAL SOLUTIONS



M&A ACTIVITIES

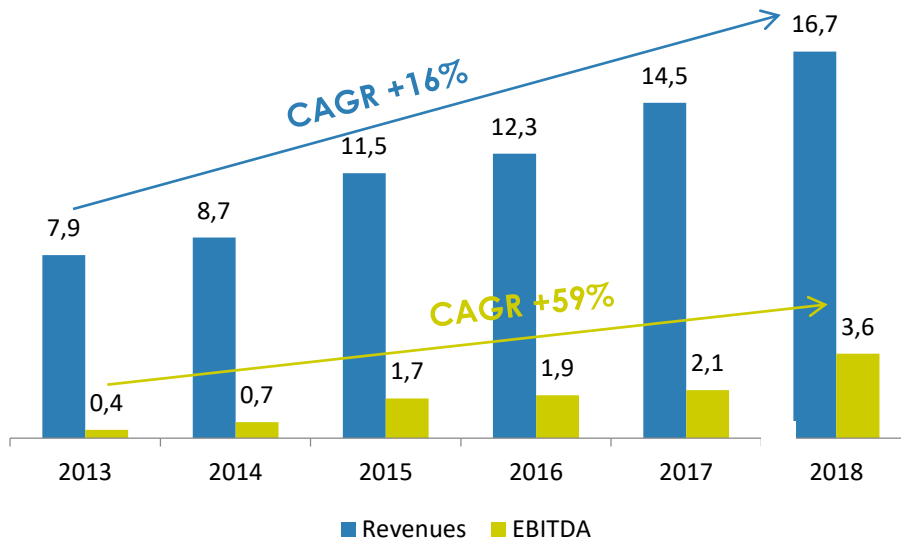
		MARKET	OFFER	SYNERGIES
2012	IGCONSULTING	Healthcare	Data driven governance for Healthcare providers	A new software solution (Clinika) was developed, that analyses narrative text data of clinical documents
2018	ARTEXE	Healthcare	Software and Hardware solutions for hospital acceptance	New proposition for Patient Journey
2019	royalty	Retail	Customer Experience	Patient Experience (Customer Experience in Healthcare)





ECONOMIC AND FINANCIAL RESULTS

ECONOMIC PERFORMANCE



**REVENUES (2018: €16.7 mln)
HAVE AN AVERAGE ANNUAL
GROWTH OF 16%**

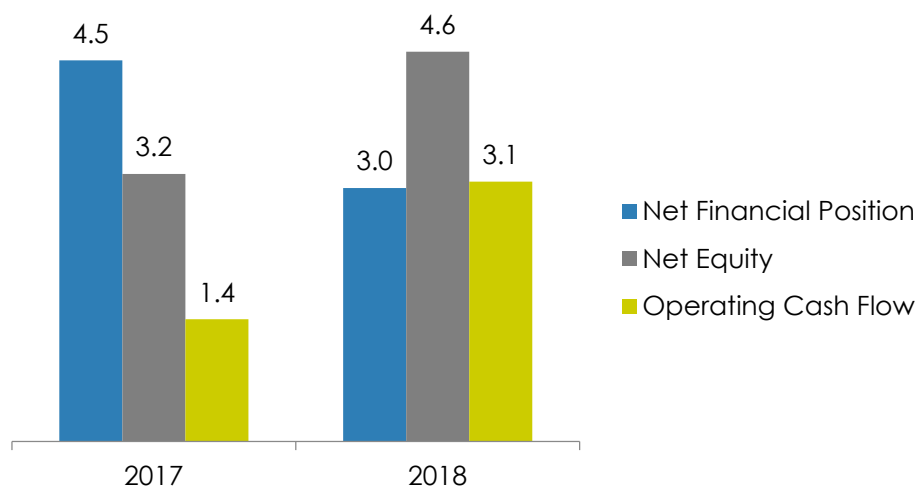
**EBITDA (2018: €3.6mln)
INCREASES FASTER THAN
REVENUES: AVERAGE ANNUAL
GROWTH OF 59%**

EBITDA MARGIN 2018: 21%

- Revenues from fees increase faster than total revenues (CAGR: 70%)
- Revenues from proprietary solutions increase faster than total revenues and they represent 43% of the total
- Churn rate based on revenues is less than 1%

^(*) 2017 and 2018 Proforma

FINANCIAL PERFORMANCE



2018 NFP EQUAL TO €3.0 mln (€4.5 mln in 2017), that includes €4.0 mln of theoretical debt related to the effects of a call option for the 30% of MAPS Healthcare

2018 OPERATING CASH FLOW EQUAL TO €3.1 mln

CASH CONVERSION
excellent and constant cash conversion used for acquisitions and investments

INDICATORS	2017	2018
Debt/Equity	1.43	0.65
Debt/EBITDA	2.36	0.82
Operating Cash Flow / EBITDA	0.76	0.84

Revenues

€8.35mln

Recurrent fees

24%

2018: 20%

EBITDA

€1.79mln

EBITDA margin: 20%

Contribution margin

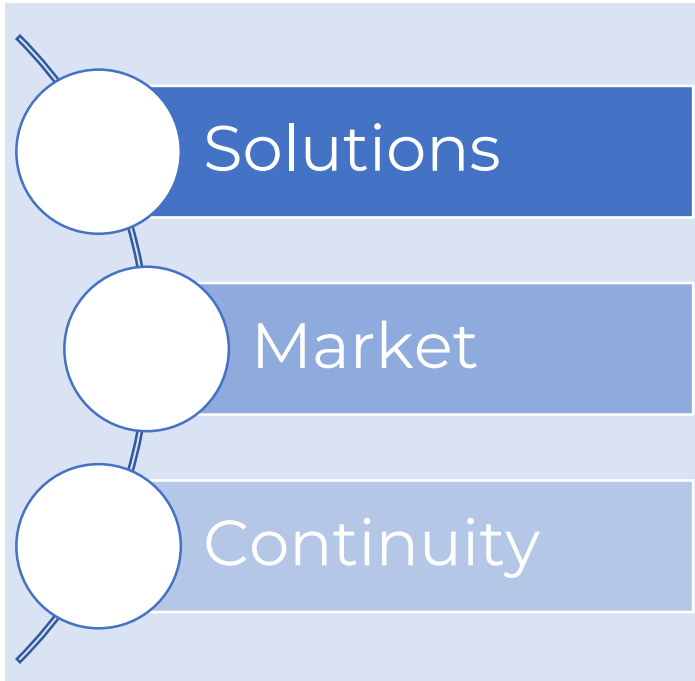
43%

1H2018: 42%

- Internationalization path started: agreement with Atos Group – German healthcare operator – for Patient Journey
- Acquisition of 100% of Roialty, platform for digital loyalty and customer experience management
- Gzoom (performance management solution) has been adopted by several new customers (e.g. Puglia Region, Catania Municipality)
- KOS – important Italian healthcare operator – contracts Artexe for the reengineering of its Patient Journey
- Renewal of framework contract with EFSA (European Food Safety Authority)



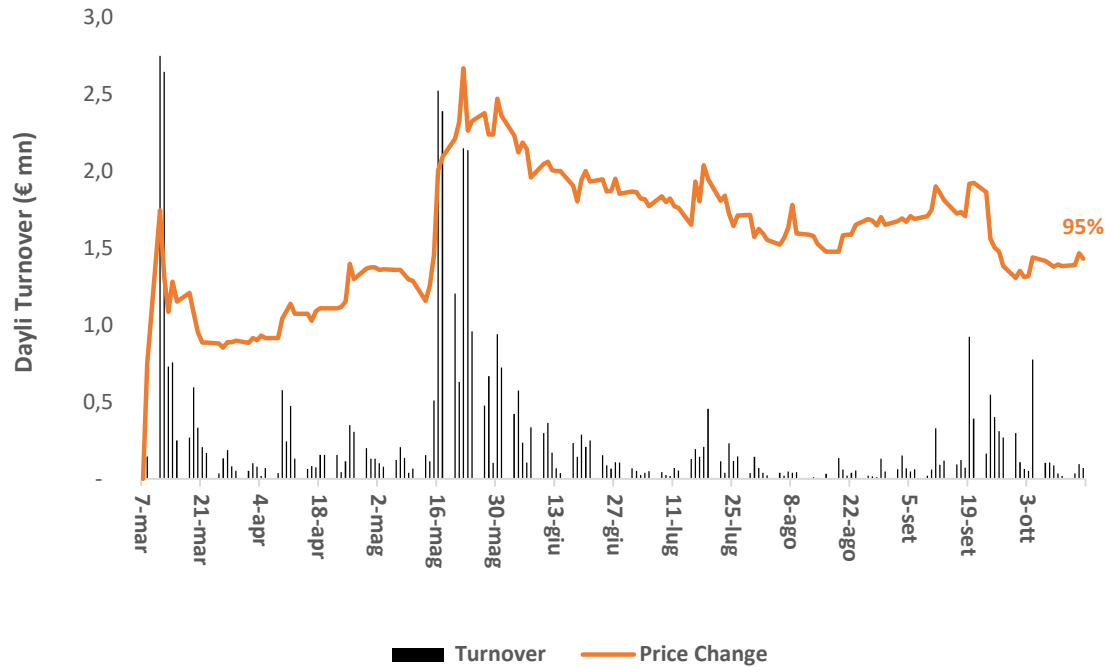
**STRATEGY
INVESTMENT OPPORTUNITY**



OBJECTIVES	ACTIONS
<ul style="list-style-type: none"> • Increase the market shares of our solutions • Develop new software solutions 	<ul style="list-style-type: none"> • Investments in Research&Solutions • Investments in Sales area
<ul style="list-style-type: none"> • Enlarge our customer base • Acquisitions to expand into areas where valuable digital data are generated 	<ul style="list-style-type: none"> • Investments in relationship management • Investments in Sales area
<ul style="list-style-type: none"> • Retain customers and partners • Retain key employees 	<ul style="list-style-type: none"> • Investments in HR • Investments in Sales area

INVESTMENT OPPORTUNITY

- Scalability, thanks to proprietary software solutions
- Profitability and cash conversion
- Customers loyalty
- M&A track record
- High potential of Digital Transformation market
- Highly qualified employees



Market	AIM Italia
Bloomberg	MAPS:IM
ISIN	IT0005364333
IPO Date	5 th March 2019
IPO Price	€1.628 (€1.90 before Warrant assignment)
Price as of 4 th October 2019	€3.190
Performance from IPO	+96%



MAPS
SHARING KNOWLEDGE