

## UPDATE ON CORPORATE ACTIONS & STRATEGIC GUIDELINES

*March 2017*

# The European Leader in Cognitive Computing

## COMPANY PROFILE

FOUNDED IN MODENA (ITALY) IN 1989 AND LISTED ON THE AIM ITALIA STOCK EXCHANGE SINCE FEBRUARY 2014

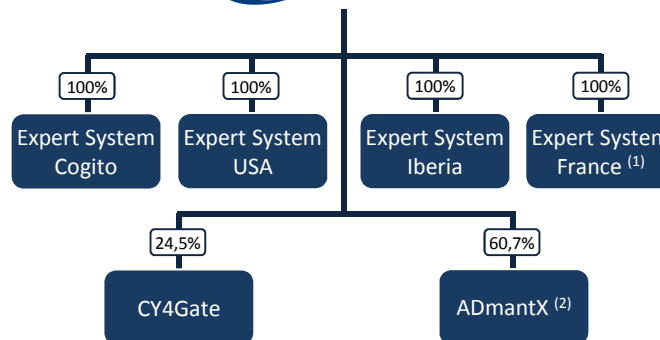
EXPERT SYSTEM IS THE BIGGEST EUROPEAN PURE VENDOR OF COGNITIVE COMPUTING & TEXT ANALYTICS SOFTWARE AND SOLUTIONS SPECIALIZED IN SEMANTIC TECHNOLOGY

EXPERT SYSTEM GROUP INCLUDES 10 INTERNATIONAL COMPANIES, LOCATED IN 6 DIFFERENT COUNTRIES

GLOBAL PUBLIC COMPANY (APPROX. 65% OF FREE FLOAT)

*International footprint with a presence in Italy, France, Spain, Germany, UK and North America*

■ Global Coverage  
● Company Offices/Labs



(1) It holds 100% of the following subsidiaries: Expert System Enterprise, Expert System Deutschland, Expert System Canada

(2) It holds 100% of ADmantX Inc. subsidiary

## BUSINESS OVERVIEW

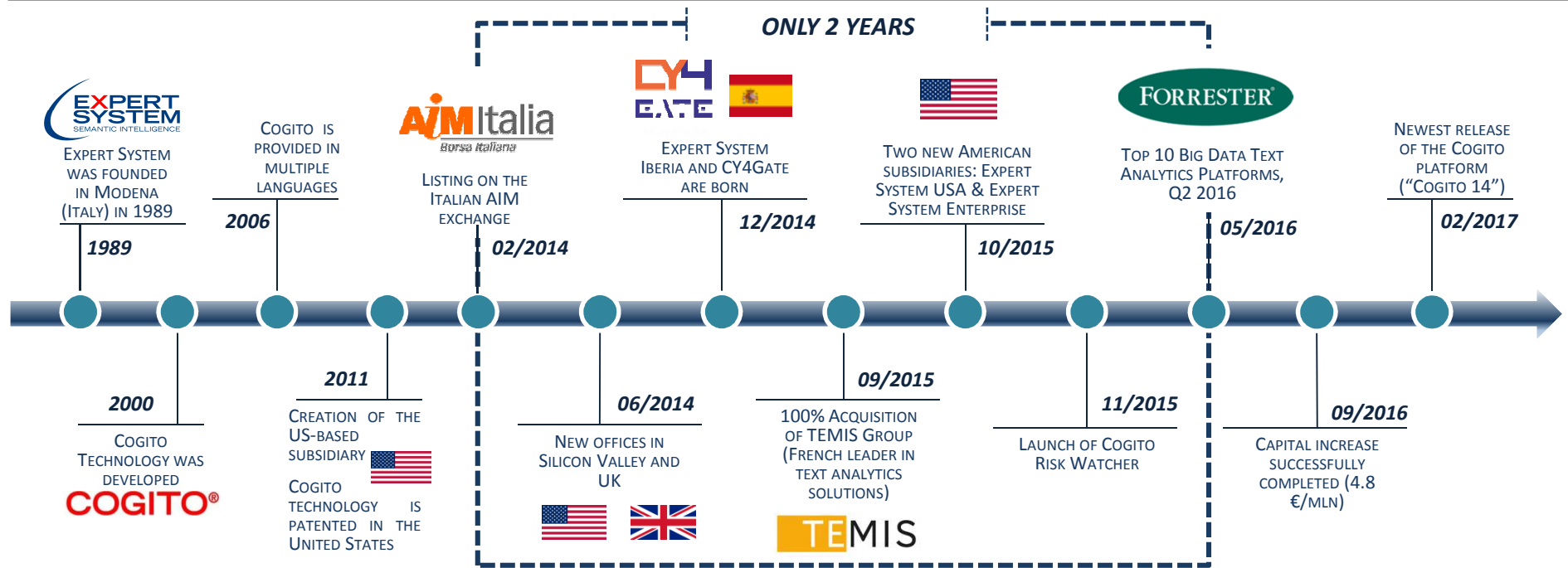
PATENTED SEMANTIC TECHNOLOGY, CALLED **COGITO**, WHICH IS A BUILDING BLOCK OF **COGNITIVE COMPUTING**, ALLOWS COMPUTERS TO “UNDERSTAND” THE MEANING OF CONCEPTS INCLUDED IN ANY TEXT

COGITO DOES NOT PROCESS CONTENT AS A SEQUENCE OF CHARACTERS, BUT IT IS A REAL SEMANTIC SOFTWARE THAT RELIES ON DEEP SEMANTIC ANALYSIS AND A RICH SEMANTIC NETWORK TO ENSURE A COMPLETE UNDERSTANDING OF A TEXT AS A PERSON WOULD

COGITO IS ABLE TO ORGANIZE A LARGE QUANTITY OF DATA COMING FROM DIFFERENT SOURCES IN A VERY SHORT PERIOD OF TIME, PROVIDING READY-TO-USE CONTENTS

*Cogito understands the meaning of words in different contexts, categorizing data by concepts and supporting organizations in becoming more efficient and effective*

# Development milestones, rich in international awards



## INDUSTRY RECOGNITION



Included in the prestigious **Gartner Magic Quadrant** among the **Top Ten Enterprise Search Solutions**



Named as a **Google for Work Search Technology Premier Partner**



Nominated in the **"100 Companies that Matter in Knowledge Management"** by **KMWorld**



Nominated in the **"Forrester Wave Big Data Text Analytics Platforms, Q2 2016: The 10 Providers that Matter Most and How They Stack Up"**



Winner of the **2016 LT-Innovate Award** (Linguistic Technologies Award) for **Best Language Technology**



Winner of the **2016 SIIA CODiE Awards** as **best Metadata Management Solution**

## Expert System confirms its market leading position



**Forrester**  
ES named Strong Performer  
("Big Data Text Analytics  
Platforms, Q2 2016: The 10  
Providers That Matter Most And  
How They Stack Up")

**KM World**  
Cogito Risk Watcher Trend-Setting  
Product of 2016  
"for its capabilities to discover connections  
between different sources, provides  
multiple scenarios as data emerges and  
does so in multiple languages"

**CODiE**  
Winner of CODiE  
Awards 2016 for  
"Best Metadata  
Management"

**LT-Innovate Award**  
Awarded the 2016 LT- Innovate Award  
(Linguistic Technologies Award) for  
Best Language Technology during  
the annual LT-Innovate Summit



**New corporate customers**  
Reference customers in  
Banking & Insurance

**Dedicated company for  
Federal & Government Business**



**Newest release of the Cogito platform – Cogito 14**  
that further simplifies robotic process automation and advanced information  
intelligence application  
This release adds new languages and features: (i) **Cogito Studio Express** (ii) **Cogito Knowledge  
Graph**, (iii) **Cogito API**

**Enriched offering for the  
Banking & Insurance  
sector**  
by extending the capabilities of  
the cognitive Cogito technology  
to new areas such as insurance  
claims management



**Integration of the Esri ArcGIS  
platform**  
(advanced geospatial analysis technology)  
with the cognitive Cogito technology from Expert  
System, extending it worldwide

**New international partnership**



**Successfully completed the offer of 2,609,552 newly issued ordinary shares, for a  
total capital increase of €4.7 millions**  
to support business expansion and R&D activities



# Group growth and Market expansion

## GROUP PERIMETER



**NOTE:** <sup>(1)</sup> Companies consolidated since September 2015 after Temis acquisition

## FINANCIALS HIGHLIGHTS

Figures in €/mln

|                     | 2015 <sup>(2)</sup> | 2016         |  |
|---------------------|---------------------|--------------|--|
| Sales               | 16,4                | 23,4<br>+43% | <b>STRONG GROWTH THANKS TO M&amp;A AND ORGANIC DEVELOPMENT</b>   |
| Value of Production | 23,2                | 29,6<br>+28% |  |
| Ebitda              | 1,5                 | (2,2)        | <b>NEGATIVE MARGINS DUE TO INCREASING SALES FORCE TO PENETRATE FOREIGN MARKETS &amp; R&amp;D COSTS</b> |
| Intangible Assets   | 18,5                | 18,4         | <b>GREAT VALUE OF R&amp;D ACTIVITIES (STABLE IN THE PERIOD DESPITE € 6,1 MLN AMORTIZATION)</b>         |
| Equity              | 20,7                | 16,4         | <b>EQUITY DECREASE DUE TO LOSSES (€ 8,1 MLN), PARTIALLY OFFSET BY CAPITAL INCREASE (€4,7 MLN)</b>      |
| NFP                 | 11,1                | 11,1         | <b>STEADY NET DEBT THANKS TO CAPITAL INCREASE SUCCESSFULLY COMPLETED IN SEPTEMBER 2016</b>             |

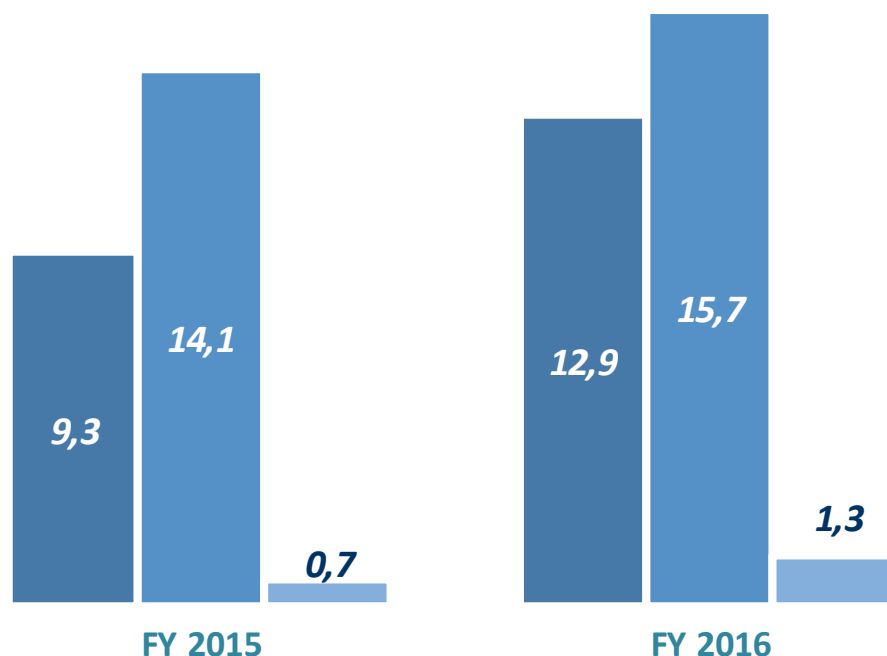
<sup>(2)</sup> Restated according to the new accounting method adopted in FY16 (DLgs. 18.8.2015 n. 139 - "decreto bilanci")

## Leading position in the Italian market



STABLE GROWTH THANKS TO WELL-ESTABLISHED MARKET POSITION

in Euro/mln



+12% in VoP, thanks to sales growth (+38% YoY)

Doubling Ebitda, despite increased personnel costs (+1mln YoY)

Net results is still negative due to considerable amortization (~2,6 mln in FY16) due to R&D and goodwill

■ Sales ■ VoP ■ Ebitda

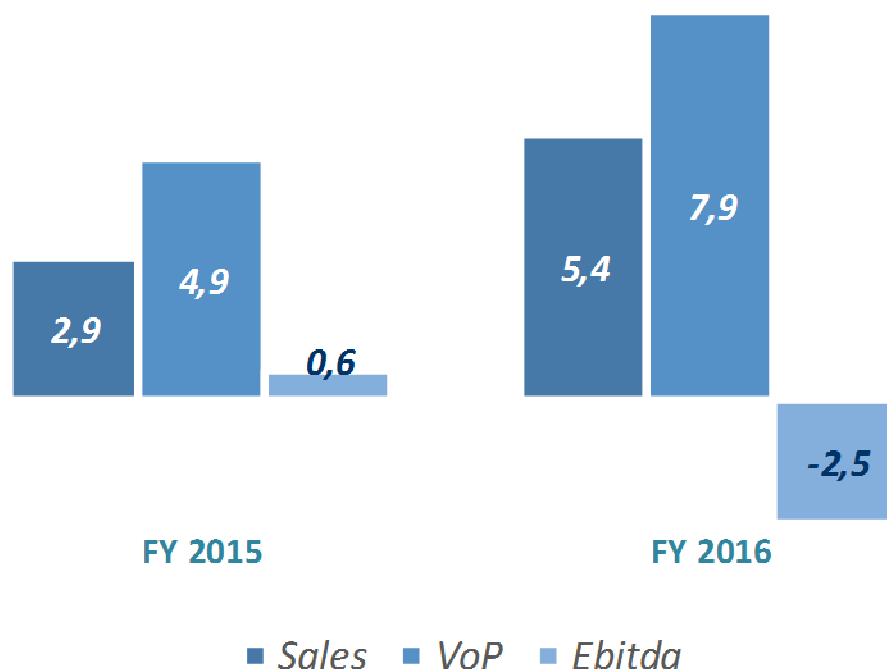
**NOTES:**

- Net financials of intercompany transactions
- FY2015 restated according to the new accounting method adopted in FY16 (DLgs. 18.8.2015 n. 139)

## Development of UE & UK market presence



in Euro/mln



**TEMIS BUSINESS INTEGRATION COMPLETED IN FY16 & COMMERCIAL DEVELOPMENT IN HIGH POTENTIAL MARKET**

**Revenues trend YoY (+89% in Sale & +61% in VoP) mainly due to M&A (Temis acquisition completed in Sept. 2015).**

**Negative margins in FY16 due to business reorganization after acquisition**

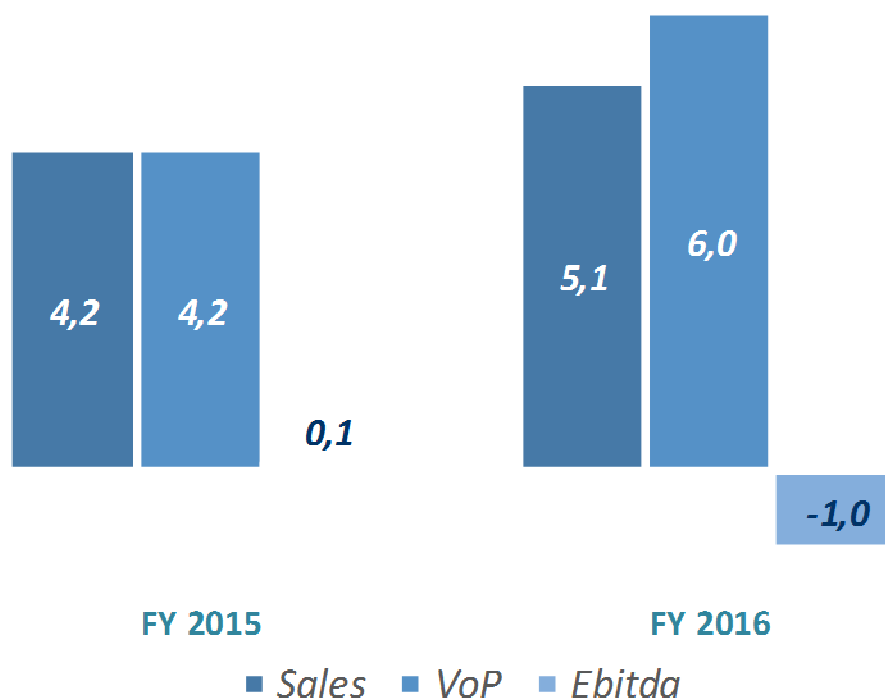
**NOTES:**

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## US market presence: investing for the future



in Euro/mln



**STRENGTHENING THE DIRECT SALES FORCE & SALES TO GOVERNMENT INSTITUTIONS**

Revenues trend YoY (+20% in Sale & +43% in VoP) mainly due to M&A (Temis acquisition completed at Sept. 2015).

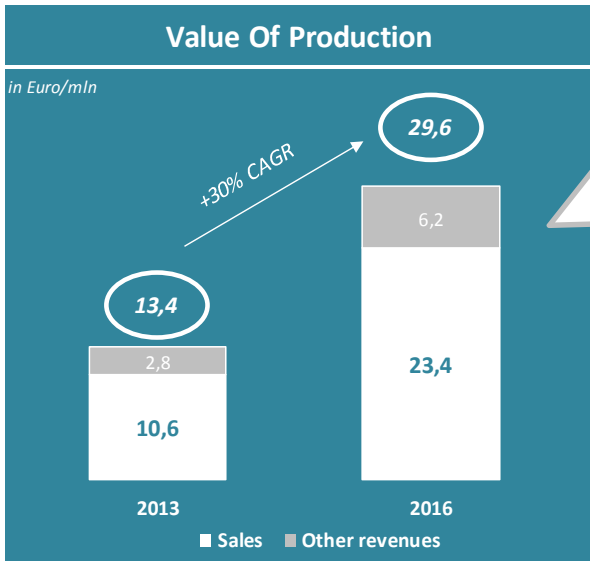
FY2016 margin affected by costs for business integration and commercial & organizational efforts to develop government sales (as for new company ES USA Inc.)

**NOTES:**

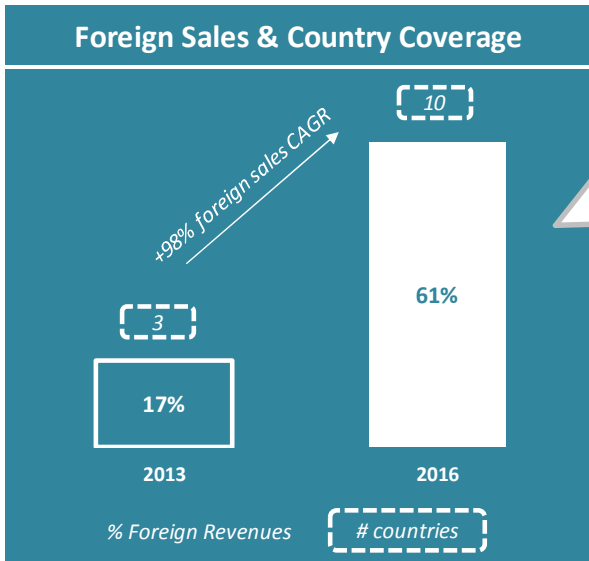
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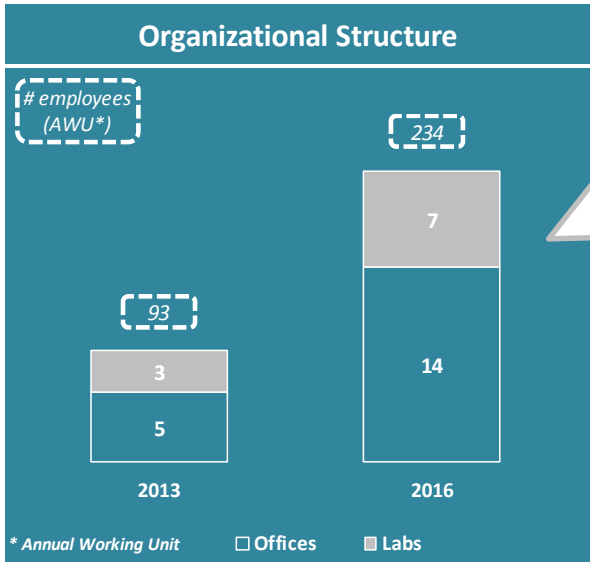
# History of growth from IPO to Today



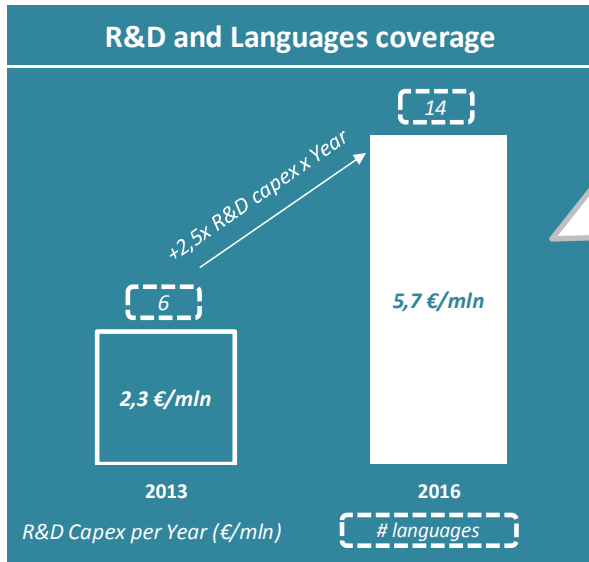
**Strong growth in Value of Production from IPO, also thanks to Temis acquisition in 2015**



**Focus on internationalization**  
Foreign revenues triple in the last 3 years  
Business areas increase from 3 to 10



**Great geographical and organizational expansion**  
160+ tech employees in the organigram



**Significant investments in R&D to expand semantic software offering and implement new languages**

# ES in the Global Top 10 of Big Data Text Analytics platform providers

The sample analyzed by Forrester Wave counts approximately **200 VENDORS IN THE BIG DATA TEXT ANALYTICS MARKET SEGMENT**

The top 10 vendors included in this research represent the **TOP 5% OF THE REFERENCE MARKET**

**EXPERT SYSTEM IS ONE OF THE TOP10 BIG DATA TEXT ANALYTICS PLATFORMS PROVIDERS. GLOBALLY, in the competitive landscape includes multinational groups with significant critical mass**

**IN A GLOBAL COMPETITION, EXPERT SYSTEM WAS NAMED A «STRONG PERFORMER» IN THE TOP 10 INCLUDING OUTSTANDING PLAYERS (AS HP, SAS, IBM, OPEN TEXT AND DIGITAL REASONING), DUE TO <sup>(1)</sup> :**

**Best in:**

**DATA ENRICHMENT CAPABILITIES**

**Strong in:**

**TEXT PRE-PROCESSING CAPABILITIES**

**LINGUISTIC TEXT PRE-PROCESSING CAPABILITIES**

**USER INTERFACE**

**TECHNICAL ARCHITECTURE, SCALABILITY**

**COGITO PERFORMS BETTER THAN OTHER SEMANTIC TECHNOLOGIES AND STATISTIC BASED TECHNOLOGIES (TESTED IN CUSTOMER «PROOF OF CONCEPT»):**

| TECH COMPARISON | COGITO          | OTHER SEMANTIC TECH. | STATISTIC BASED TECH. |
|-----------------|-----------------|----------------------|-----------------------|
| Horizontality   | <b>85%</b>      | 65%                  | 55%                   |
| Speed           | <b>500 KB/s</b> | 50 KB/s              | 500 KB/s              |
| Precision Rate  | <b>+++</b>      | ++                   | +                     |

Statistical-only approaches implement strong infrastructure capabilities to treat keyword-based search and statistics to classify contents, and are incapable of understanding the real context and providing poor results in terms of disambiguation of the precise meaning of words in a specific context

<sup>(1)</sup> SOURCE: «Forrester Wave™ Big Data Text Analytics Platforms, Q2 2016: The 10 Providers That Matter Most And How They Stack Up»

# Leading tech position in vertical business

Expert System has a patented semantic technology able to understand and automatically analyze texts (as a person does), with a **UNIQUE COMBINATION OF PRECISION, SPEED AND FLEXIBILITY OF USAGE, RELYING ON A DEEP MORPHOLOGICAL, GRAMMATICAL, LOGICAL AND ESPECIALLY SEMANTIC ANALYSIS**

## THE LEADING POSITION OF EXPERT SYSTEM IS BASED ON:

TECHNOLOGY

**Proprietary IP**

UNLIKE MOST COMPETITORS, THE CODE DOES NOT CONTAIN ANY OPEN SOURCE SOFTWARE; ALL OF THE CODE IS DEVELOPED INTERNALLY AND IS WHOLLY OWNED BY THE COMPANY AND PROTECTED BY TWO US PATENTS (NATIVE CODING)

**High scalable & flexible product**

HORIZONTAL TECHNOLOGY WITH BROAD APPLICATION, VIRTUALLY TO ANY FIELD AND AVAILABLE THROUGH API, ON PREMISE OR AS A SERVICE (SAAS), DIRECTLY OR THROUGH VENDORS OR SYSTEM INTEGRATORS

**Significant barriers to entry**

COGITO ENGINE HAS REQUIRED MORE THAN **15 YEARS** AND **400 YEARS/MEN** OF CONTINUOUS DEVELOPMENT AND IT IS REFERENCED BY BLUE CHIP CLIENTS

MAIN PRODUCTS

**COGITO DISCOVER**

**ANALYZE, UNDERSTAND, ENRICH AND ORGANIZE UNSTRUCTURED CONTENT**  
DRAMATICALLY IMPROVE YOUR ABILITY TO LEVERAGE CONTENT THROUGH POWERFUL AUTOMATIC DISAMBIGUATION, TAGGING AND CLASSIFICATION

**COGITO ANSWER**

**NATURAL LANGUAGE PROCESSING**  
BRIDGE THE GAP BETWEEN AMBIGUITY AND MEANING BY LEVERAGING A DEEP UNDERSTANDING OF CONTEXT AND SENTIMENT TO IMPROVE THE CUSTOMER EXPERIENCE AND SERVICE DELIVERY EFFECTIVENESS

**COGITO INTELLIGENCE PLATFORM**

**INFORMATION INTELLIGENCE**  
IDENTIFY ABSTRACT RELATIONSHIPS AND DETECT ASYMMETRICAL THREATS IN VAST QUANTITIES OF COMMUNICATIONS, DOCUMENTS, WEB AND SOCIAL CONTENT FROM VIRTUALLY ANY ACCESSIBLE SOURCE

**COGITO STUDIO**

**BUILD CUSTOM APPLICATIONS**  
BUILD AND DEPLOY CUSTOM APPLICATIONS THAT LEVERAGE UNSTRUCTURED INFORMATION TO PROVIDE THE RICH, TARGETED AND ACCURATE CONTENT DELIVERY YOUR USERS REQUIRE

INDUSTRIES

The Company has developed commercial applications of this technology, through **VERTICALIZATIONS DEDICATED TO DIFFERENT INDUSTRIES**

**BANKING & INSURANCE**

**ENERGY, OIL & GAS**

**GOVERNMENT & DEFENSE**

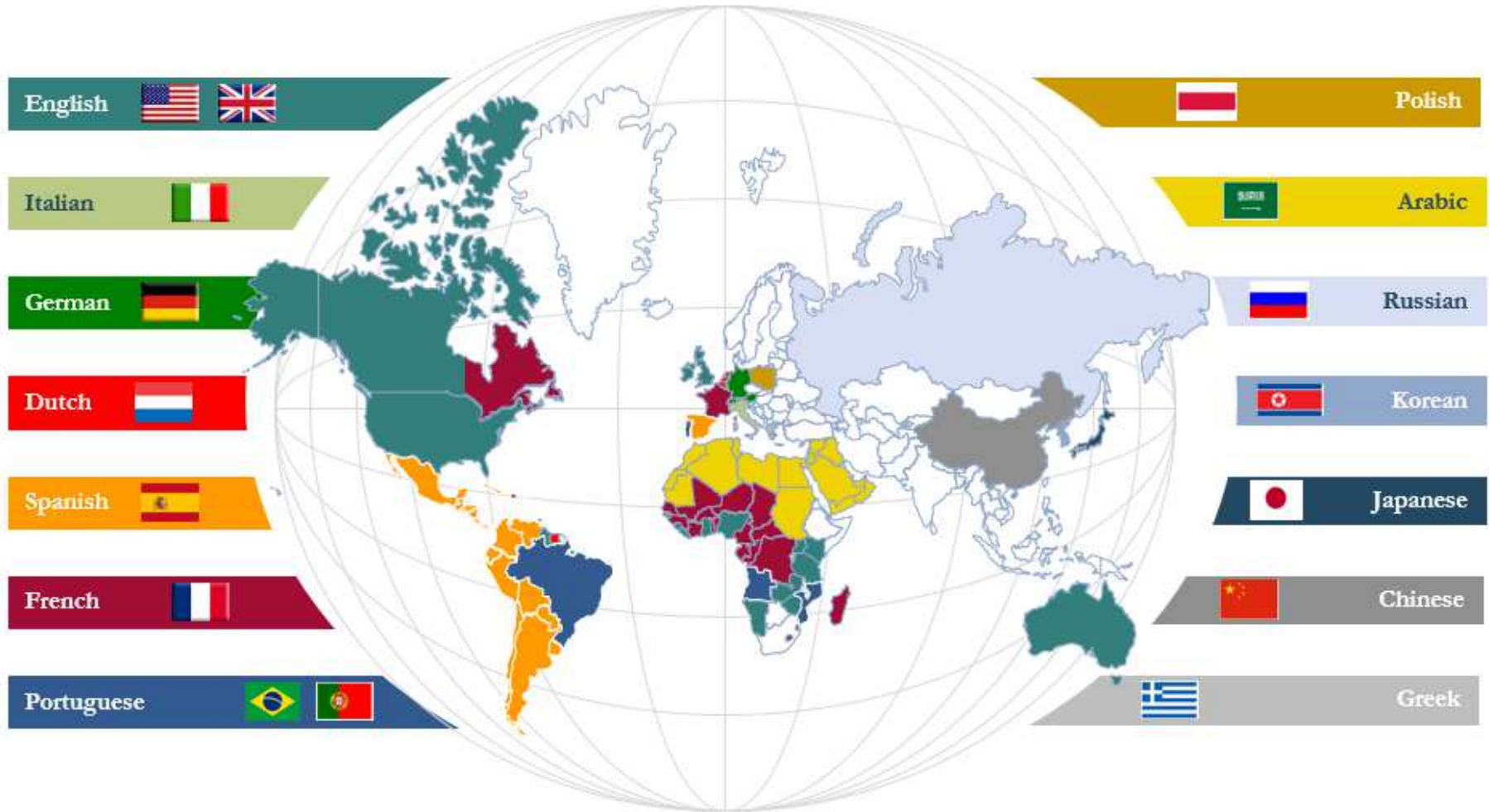
**MEDIA & PUBLISHING**

**LIFE SCIENCE & PHARMA**

**PUBLIC ADMINISTR.**

# Global Distribution Network

**COGITO TECHNOLOGY SUPPORTS 14 LANGUAGES**



**BLUE CHIP CLIENT BASE AMONG 100+ CUSTOMERS**

# Dramatic growth of Artificial Intelligence markets

## COGNITIVE SYSTEMS & AI FORECASTS

**\$47 billion in 2020**

Widespread adoption of cognitive systems and artificial intelligence (AI) across a broad range of industries will drive WORLDWIDE REVENUES FROM NEARLY \$8.0 BILLION IN 2016 TO MORE THAN \$47 BILLION IN 2020 (CAGR +55%)

**\$1,5 billion in banking in 2016**

The industries that invest the most in cognitive/AI systems in 2016 are banking and retail, followed by healthcare and discrete manufacturing (combined, these four industries will generate more than half of all worldwide cognitive/AI revenues in 2016)

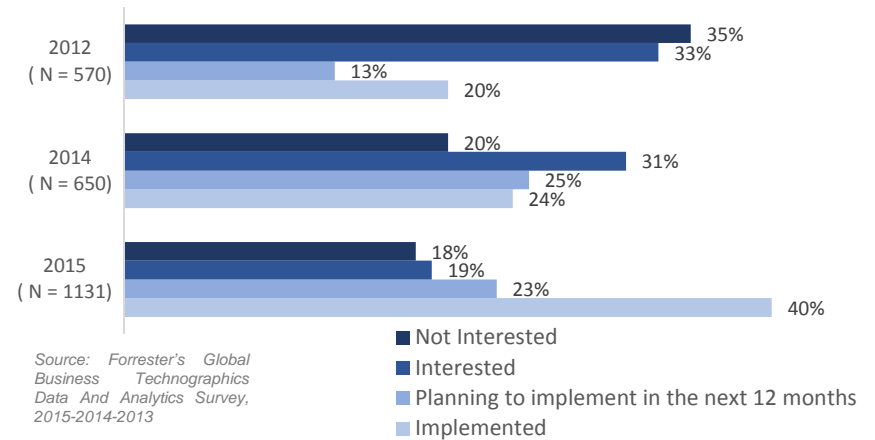
**\$6,2 billion in North America**

**NORTH AMERICA (US & CANADA) IS BY FAR THE LARGEST REGION FOR COGNITIVE/AI SPENDING WITH 2016 REVENUES APPROACHING \$6.2 BILLION.** Europe, the Middle East and Africa (EMEA) will remain the second largest region throughout the forecast, but cognitive/AI revenues from Asia/Pacific including Japan will nearly close the gap with EMEA by 2020.

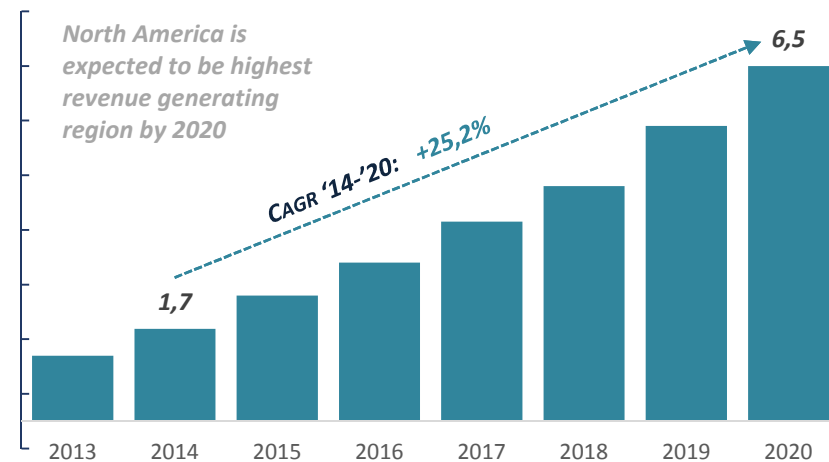
Source: Worldwide Semiannual Cognitive/Artificial Intelligence Systems Spending Guide from International Data Corporation (IDC)

## TEXT ANALYTICS MARKET

FORRESTER SURVEY ABOUT FIRM'S PLANS TO IMPLEMENT TEXT ANALYTICS



GLOBAL TEXT ANALYTICS MARKET (\$US Bn)



Source: World Text Analytics Market - Opportunities and Forecasts, 2013 - 2020



# Cogito transforms the way people find, comprehend & use information



## A UNIQUE TECHNOLOGY

*Includes built-in knowledge (knowledge graph)*

*Reads and understands the way that people do*

*Makes knowledge discovered in text actionable*

*Learns from human experience*

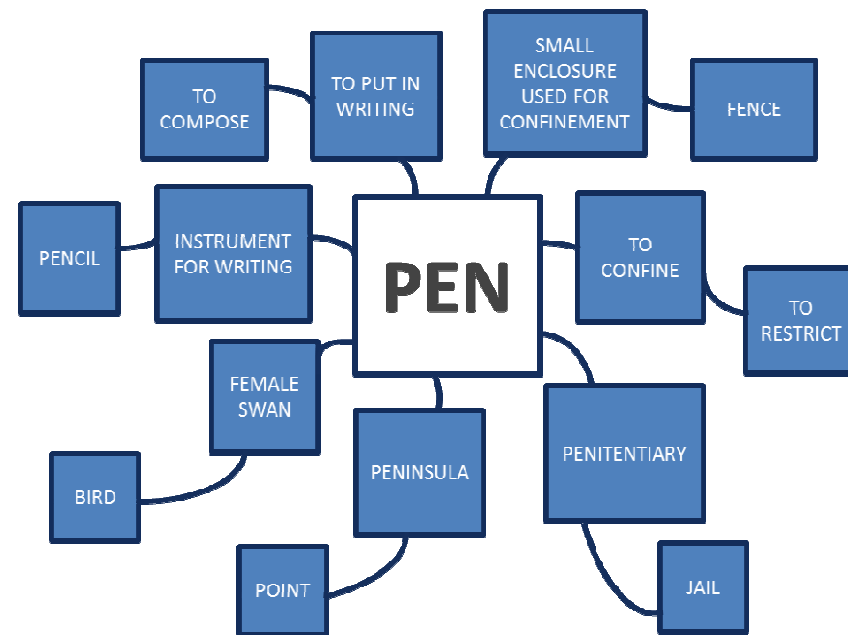
## COGITO'S KNOWLEDGE GRAPH

*Millions of concepts*

*All of their different meanings*

*Millions of relationships between meanings*

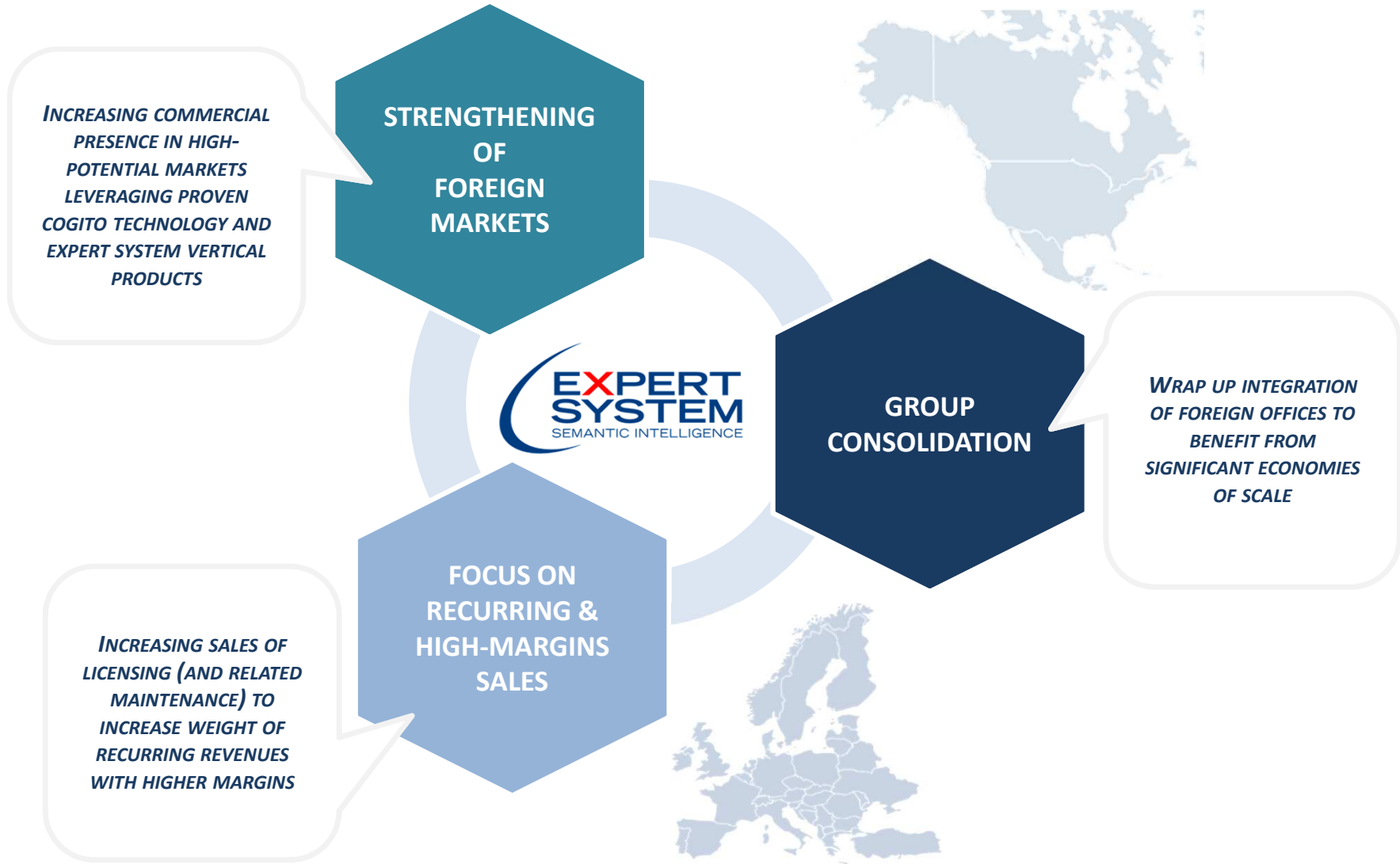
*Out of the box*





# Business and Market development based on 3 Pillars

EXPERT SYSTEM INTENDS TO PURSUE ITS GROWTH PLAN



# Market challenges for the next 3 years

## ITALY & RoW

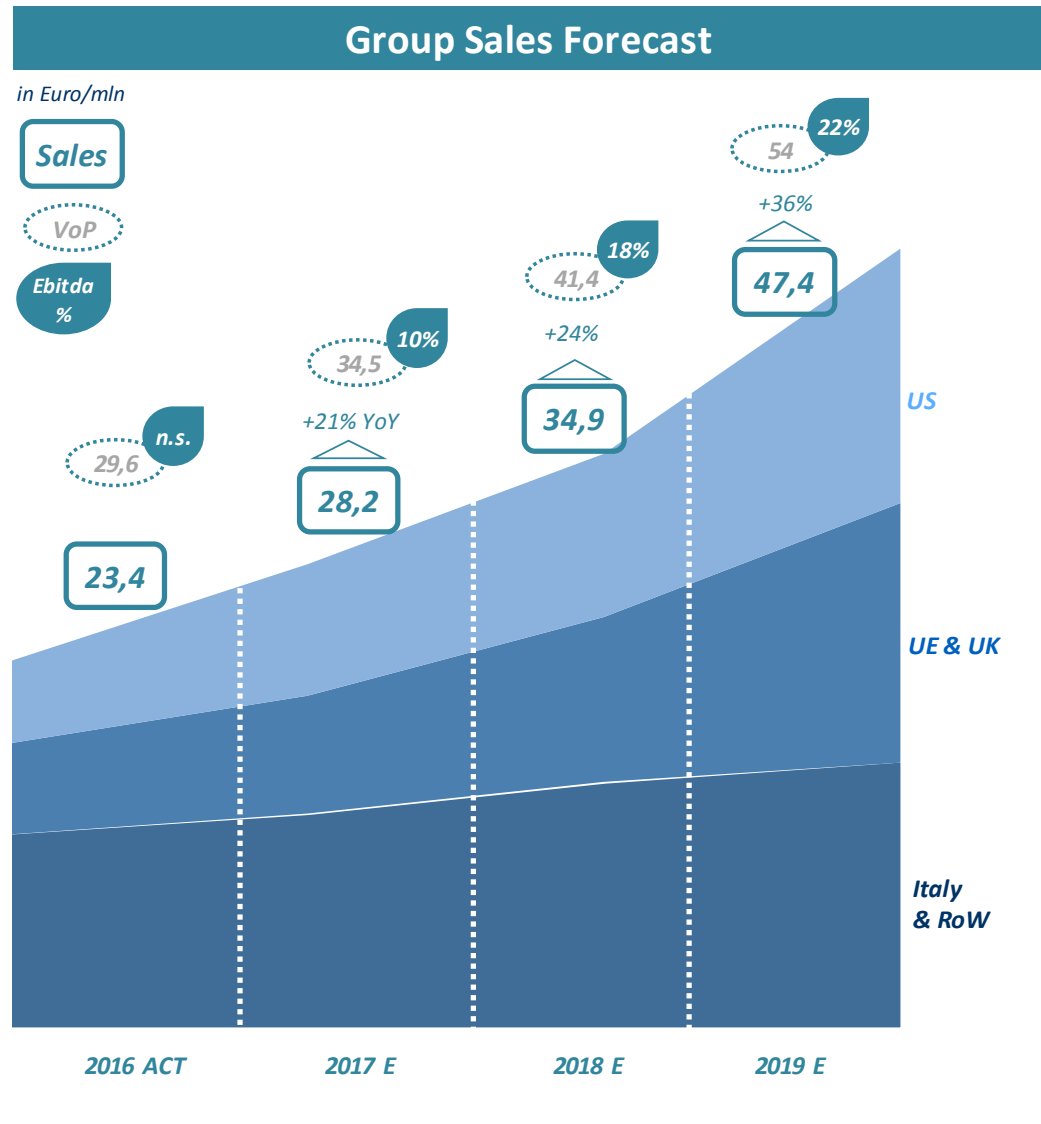
CONSOLIDATING **LEADING** MARKET POSITION  
 INCREASING PENETRATION IN **INSURANCE** AND **FINANCE** MARKETS  
 DEVELOPMENT OF **SWISS** MARKET

## UE & UK

STRATEGY FOR TARGETING **LARGE CORPORATIONS**  
 INCREASED FOCUS ON KEY **GOVERNMENT SALES**  
 INCREASING WEIGHT OF **LICENSING**  
 FOCUS ON **INSURANCE** AND **FINANCE** MARKETS  
 SELECTED **MANUFACTURING CUSTOMERS** ON **GERMAN** MARKET

## US

STRATEGY FOR TARGETING **LARGE CORPORATIONS**  
 INCREASED FOCUS ON KEY **GOVERNMENT SALES**  
 INCREASING WEIGHT OF **LICENSING**  
 NEW KEY CUSTOMERS IN **LIFE SCIENCE** MARKET  
 FOCUS ON **INSURANCE** AND **FINANCE** MARKETS



**NOTE:** Country sales net of intercompany transactions

## Global development in a growing market

Figures in €/mln

|                            | <u>2017</u> | <u>2018</u> | <u>2019</u> |  |  |   |
|----------------------------|-------------|-------------|-------------|--|--|---|
| <b>Sales</b>               | 28,2        | 34,9        | 47,4        | CAGR ~29% vs FY16  | INCREASING INTERNATIONAL SALES (APPROX. 70% IN 2019)                               | INCREASING SALES OF LICENSING (APPROX. 53% OF 2019 TOTAL SALES)           |
| <b>Value of Production</b> | 34,5        | 41,4        | 54,0        | STEADY INCOME FROM GRANT (APPROX. € 2 MLN PER YEAR) DUE TO ACKNOWLEDGMENT FOR STRATEGIC R&D ACTIVITIES |  | CAPITALIZED COST ALMOST € 5 MLN PER YEAR                                  |
| <b>Ebitda</b>              | 3,6         | 7,3         | 11,6        | MARGINS TURNAROUND IN THE PLAN THAT BECAME POSITIVE ALSO THANKS TO CHANGES IN THE SALES MIX            | OPERATING EFFICIENCY ALREADY FROM 2017 THANKS TO COST OPTIMIZATION STARTED IN FY16 | SIGNIFICANT ECONOMIES OF SCALE WITH SALES GROWTH                          |
| <b>Net Results</b>         | (3,4)       | 0,1         | 2,7         | BREAKEVEN IN 2018 (REQUIREMENT FOR LISTING ON MTA STAR)  |  | NET INCOME IN 2019, DESPITE CONSIDERABLE AMORTIZATION (APPROX. € 6.5 MLN) |
| <b>Capex</b>               | 4,7         | 4,9         | 5,0         | STEADY HIGH LEVEL OF CAPEX TO COMPETE GLOBALLY IN A HIGHLY CHALLENGING MARKET                          |  | DEVELOPMENT OF VERTICAL PRODUCT AND IMPROVEMENT OF COGITO TECHNOLOGY      |
| <b>NFP</b>                 | 9,8         | 9,7         | 5,5         | STEADY NET DEBT IN 2017-2018 THANKS TO MARGIN IMPROVEMENT AND LOW DSO OF INTERNATIONAL CUSTOMER        |  | NET DEBT IMPROVEMENT IN 2019 THANKS TO INCREASING OPERATING CASH FLOW     |

## Unique positioning in the fast growing AI market



**Global public company**  
Offices in Europe and North America



**Patented technology in USA, Award-winning**  
**Winner in EU and US software selections** for key customers thanks to the best-in-class platform



**Biggest European Pure Vendor** of cognitive computing & text analytics software and solutions



**Fast-growing international expansion** with both internal and external growth



**Strong client portfolio & partnerships, growing indirect sales channels** with vendors and system integrators



**> 90% precision**  
Term disambiguation



**20 Gigabytes/Day**  
Over 8 core



**400 Years**  
of human technology development



**Linear Scalability**  
Virtually unlimited information processing



**Easy Integration**  
Set of APIs to support development of semantic apps

# Disclaimer

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*This presentation contains forward-looking statements regarding future events (which impact Expert System's future results) that are based on current expectations, estimates and opinions of management.*

*These forward-looking statements are subject to risks, uncertainties and events that are unpredictable and depend on circumstances that might change in the future. As a result, any expectation on Expert System results and estimates set out in this presentation may differ significantly depending on changes in the unpredictable circumstances on which they are based.*

*Therefore, any forward-looking statements made by or on behalf of Expert System refer on the date they are made.*

*Expert System shall not undertake to update forward-looking statements to reflect any changes in the Company's expectations or in the events, conditions or circumstances on which any such statements are based.*

*Nevertheless, Expert System has a "profit warning policy", in accordance with Italian laws, that shall notify the market (under "price-sensitive" communication rules) regarding any "sensible change" that might occur in Company expectations on future results.*