



**EXPERT SYSTEM GROUP
HALF-YEARLY REPORT
AS OF 30/06/2019**



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CORPORATE BODIES

Board of Directors

<i>Chairman of the Board of Directors</i>	MARCO VARONE
<i>Chief Executive Officer</i>	STEFANO SPAGGIARI
<i>Director</i>	PAOLO LOMBARDI
<i>Director</i>	ANDREA MELEGARI
<i>Director</i>	GABRIELLA FRANZINI
<i>Director</i>	MARCELLO PELLACANI
<i>Independent Director</i>	ALBERTO SANGIOVANNI VINCENTELLI
<i>Independent Director</i>	STEFANO PEDRINI

Board of Statutory Auditors

<i>Chairman of the Board of Statutory Auditors</i>	ALESSANDRO AUGUSTO
<i>Standing Auditor</i>	ANDREA CUOGHI
<i>Standing Auditor</i>	ANTONIO TAZZIOLI

CONSOLIDATED FINANCIAL STATEMENTS AS OF 30/06/2019



BALANCE SHEET

ASSETS	30/06/2019	31/12/2018
A) SUBSCRIBED CAPITAL, UNPAID		
Total subscribed capital, unpaid (A)		
B) FIXED ASSETS		
I - Intangible fixed assets		
1) Start-up and expansion costs	781,534	852,302
2) Development costs	10,700,664	10,166,571
3) Industrial patent and intellectual property rights	343,589	290,046
4) Concessions, licences, trademarks and similar rights	15,159	3,132

5) Goodwill	2,161,648	3,421,599
6) Fixed assets in progress and payments on account	-	-
7) Other	-	-
Total intangible fixed assets	14,002,593	14,733,649
II - Tangible fixed assets		
1) Land and buildings	346,106	351,650
2) Plant and machinery	1,920	4,994
4) Other assets	370,063	358,780
Total tangible fixed assets	718,089	715,423
III - Non-current financial assets		
1) Equity investments		
b) Associates	-	251,266
d-bis) Other companies	309,471	57,005
Total equity investments	309,471	308,271
2) Receivables		
a) Due from subsidiaries		
Within 12 months	100,689	100,012
b) Due from associates		
Within 12 months	-	321,555
After 12 months	-	390,000
d-bis) Due from others		
Within 12 months	418,553	
Total Receivables (2)	519,242	811,567
3) Other securities	86,020	85,703
Total non-current financial assets	914,733	1,205,541
Total fixed assets (B)	15,635,415	16,654,614

C) CURRENT ASSETS

I - Inventories

3) Contract work in progress	16,121	109,312
Total inventories	16,121	109,312

II) Receivables

1) Due from customers

Within 12 months	13,018,599	15,792,097
After 12 months		
Total receivables due from customers	13,018,599	15,792,097

2) Due from subsidiaries

Within 12 months	135,972	67,965
After 12 months	26,787	26,787
Total receivables due from subsidiaries	162,759	94,752

3) Due from associates

Within 12 months	-	13,420
After 12 months		
Total receivables due from associates	-	13,420

5-bis) Tax receivables

Within 12 months	875,620	1,087,020
After 12 months	-	-
Total tax receivables	875,620	1,087,020

5-ter) Prepaid taxes

Within 12 months	645,357	575,345
After 12 months	1,439,965	1,226,896
Total prepaid taxes	2,085,322	1,802,241

5-quater) Other receivables

Within 12 months	4,259,184	3,578,204
After 12 months	2,285,372	2,108,779
Total other receivables	6,544,556	5,686,983

Total receivables	22,686,855	24,476,513
III - Current financial assets		
1) Equity investments in subsidiaries	4,775,574	4,775,574
4) Other equity investments	8,400	8,400
6) Other securities	20,074	174,229
Total current financial assets	4,804,048	4,958,203
IV - Cash and cash equivalents		
1) Bank and postal deposits	16,855,528	7,880,364
3) Cash at bank and in hand	2,643	2,420
2) Cheques	-	-
Total cash and cash equivalents	16,858,171	7,882,784
Total current assets (C)	44,365,195	37,426,812
D) ACCRUALS AND DEFERRALS	596,626	577,090
TOTAL ASSETS	60,597,236	54,658,516

BALANCE SHEET

LIABILITIES	30/06/2019	31/12/2018
A) GROUP SHAREHOLDERS' EQUITY		
I) Share capital	399,357	358,590
II - Share premium reserve	42,425,454	35,076,223
IV - Legal reserve	71,718	43,899
VI - Other reserves, indicated separately		
Extraordinary reserve	2,008,739	1,194,367
Merger surplus reserve	376,622	376,622
Reserve for unrealised exchange gains	398,956	180,049

Miscellaneous other reserves	640,776	729,221
Total other reserves	3,425,093	2,480,259
VII - Cash flow hedging reserve	(61,351)	(38,596)
VIII - Retained earnings (losses)	(24,351,694)	(18,902,814)
IX - Profit (loss) for the period	(4,023,233)	(3,780,886)
X - Negative reserve for treasury shares in portfolio	(25,493)	(159,187)
Total consolidated shareholders' equity	17,859,850	15,077,489
Shareholders' equity pertaining to minority interests		
Minority interests in capital and reserves	-	-
Profit (loss) pertaining to minority interests	-	-
Total shareholders' equity pertaining to minority shareholders	-	-

Total consolidated shareholders' equity	17,859,850	15,077,489
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B) PROVISIONS FOR RISKS AND CHARGES

1) Pensions and similar obligations	4,341	4,341
2) Taxation, including deferred	1,037,373	995,040
3) Derivative financial instruments - liabilities	61,351	38,596
4) Other	15,000	15,764

Total provisions for risks and charges (B)	1,118,065	1,053,741
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C) EMPLOYEE SEVERANCE INDEMNITY

2,261,029	2,143,307
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D) PAYABLES

1) Bonds		
Within 12 months	454,500	-
After 12 months	4,545,500	5,000,000
Total bonds	5,000,000	5,000,000
4) Payables due to banks		
Within 12 months	5,241,679	4,925,611

After 12 months	10,350,244	8,124,081
Total payables due to banks	15,591,923	13,049,692
5) Payables due to other lenders		
Within 12 months	148,231	733,731
After 12 months	1,815,884	1,686,596
Total payables due to other lenders	1,964,115	2,420,327
6) Payments on account		
Within 12 months	353,397	236,256
After 12 months	469,085	402,988
Total payments on account	822,481	639,244
7) Trade payables		
Within 12 months	2,822,413	2,807,819
Total trade payables	2,822,413	2,807,819
12) Tax payables		
Within 12 months	865,030	1,254,649
Total tax payables	865,030	1,254,649
13) Payables due to social security institutions		
Within 12 months	467,414	572,886
Total payables due to social security institutions	467,414	572,886
14) Other payables		
Within 12 months	1,897,666	2,074,263
Total other payables	1,897,666	2,074,263
Total payables	29,431,043	27,818,880
E) ACCRUALS AND DEFERRALS	9,927,248	8,565,098

INCOME STATEMENT

INCOME STATEMENT	30/06/2019	30/06/2018
A) VALUE OF PRODUCTION		
1) Sales and service revenues	11,872,691	12,864,257
3) Changes in contract work in progress	(93,190)	4,272
4) Own work capitalised	2,762,333	2,340,337
5) Other revenues and income		
Operating grants	-	2,000
Other	814,099	692,130
Total other revenues and income (5)	814,099	694,130
TOTAL VALUE OF PRODUCTION (A)	15,355,933	15,902,996
B) COSTS OF PRODUCTION:		
6) Raw materials, consumables and goods for resale	590,724	955,030
7) For services	4,766,742	4,438,521
8) Use of third-party assets	889,498	712,640
9) Personnel:		
a) Salaries and wages	7,211,810	7,429,903
b) Social security costs	1,958,157	1,901,801
c) Employee severance indemnity	269,005	288,871
d) Pensions and similar charges	-	-
e) Other costs	2,563	8,366
Total personnel costs (9)	9,441,534	9,628,941
10) Amortisation, depreciation and write-downs:		
a) Amortisation of intangible fixed assets	3,696,741	3,547,817
b) Depreciation of tangible fixed assets	93,633	90,701
d) Write-down of receivables included in current assets and of cash and cash equivalents	-	-

Total amortisation, depreciation and write-downs (10)	3,790,374	3,638,518
12) Provisions for risks	-	-
14) Sundry operating expenses	100,481	96,887
TOTAL COSTS OF PRODUCTION (B)	19,579,353	19,470,537

DIFFERENCE BETWEEN REVENUES AND COSTS OF PRODUCTION	(4,223,420)	(3,567,541)
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C) FINANCIAL INCOME AND EXPENSES

15) Income from equity investments		
Total income from equity investments (15)	-	-
16) Other financial income:		
a) From receivables classified as fixed assets		
From subsidiaries	677	
From associates	-	15,307
Total financial income from receivables classified as fixed assets	677	15,307
c) From securities included in current assets	-	-
d) Other income		
Other	8,150	11,091
Total other income (d)	8,150	11,091
Total other financial income (16)	8,826	26,398
17) Interest and other financial expenses	(231,432)	(236,618)
17-bis) Exchange gains and losses	182,661	326,998
Total financial income and expenses (C) (15+16-17+-17-bis)	(39,944)	116,777

D) VALUE ADJUSTMENTS OF FINANCIAL ASSETS AND LIABILITIES:

18) Revaluations:	-	-
19) Write-downs:	-	-

Total value adjustments to financial assets and liabilities (D) (18-19)	-	-
PRE-TAX RESULT (A-B+-C+-D)	(4,263,364)	(3,450,763)
20) Income taxes for the period – current, deferred and prepaid		
Current taxes	(614)	(120,539)
Deferred and prepaid taxes	240,744	(174,573)
Total income taxes for the period – current, deferred and prepaid	240,131	(295,112)
21) Consolidated profit (loss) for the period	(4,023,233)	(3,745,876)
Profit (loss) for the period pertaining to minority shareholders	-	-
Profit (loss) for the period pertaining to the Group	(4,023,233)	(3,745,876)

CASH FLOW STATEMENT

A. Cash flows from operating activities (indirect method)	30/06/2019	31/12/2018
Profit (loss) for the period	(4,023,233)	(3,780,886)
Income taxes	(240,131)	649,631
Interest expense/(income)	240,207	440,766
(Dividends)	-	-
(Capital gains)/Capital losses from asset disposals	-	(668)
1. Profit/(Loss) for the period before income taxes, interest, dividends and capital gains/losses from disposals	(4,023,157)	(2,691,157)
Allocation to provisions	269,005	444,780
Amortisation/Depreciation of fixed assets	3,790,374	7,775,594
Write-downs due to impairment	-	90,938
Adjustments to financial assets and liabilities associated with derivatives, non-monetary derivative financial instruments	(61,351)	(17,672)

Other adjustments for non-monetary items	(133,054)	(399,762)
Total adjustments for non-monetary items with no balancing entry in net working capital	3,864,974	7,893,878
2. Cash flows before changes in net working capital	(158,183)	5,202,721
Changes in net working capital		
Decrease/(Increase) in inventories	93,190	(10,104)
Decrease/(Increase) in receivables due from customers	2,718,912	(3,511,459)
Increase/(Decrease) in trade payables	197,831	118,517
Decrease/(Increase) in accrued income and prepaid expenses	(19,536)	5,214
Increase/(Decrease) in accrued expenses and deferred income	1,362,151	1,967,050
Other decreases/(Other increases) in net working capital	(1,360,810)	(1,116,176)
Total changes in net working capital	2,991,737	(2,546,958)
3. Cash flows after changes in net working capital	2,833,554	2,655,763
Other adjustments		
Interest collected/(paid)	(240,207)	(440,766)
(Income taxes paid)	-	-
Dividends collected	-	-
(Use of provisions)	(86,959)	(72,341)
Other collections/(payments)	4	-
Total other adjustments	(327,166)	(513,107)
Cash flows from operating activities (A)	2,506,388	2,142,655
<i>Tangible fixed assets</i>		
(Investments)	(96,298)	(122,158)
Disinvestments	-	1,337
<i>Intangible fixed assets</i>		
(Investments)	(2,965,686)	(5,367,254)
Disinvestments	-	-
<i>Non-current financial assets</i>		
(Investments)	290,809	(77,362)

Disinvestments	-	-
<i>Current financial assets</i>		
(Investments)	154,155	(340,726)
Disinvestments	-	-
(Acquisition of subsidiaries net of cash and cash equivalents)		
Disposal of subsidiaries net of cash and cash equivalents		
Cash flows from investing activities (B)	(2,617,020)	(5,906,163)
<i>Third party financing</i>		
Increase/(Decrease) in short-term payables due to banks	57,159	35,398
New loans	5,829,278	5,752,097
(Loan repayments)	(3,800,418)	(5,375,895)
<i>Own equity</i>		
Share capital increase against payment	7,000,000	-
(Repayments of share capital)	-	-
Disposal/(Purchase) of treasury shares	-	-
(Dividends and advances on dividends paid)	-	-
Cash flows from funding activities (C)	9,086,019	411,601
Increase/(Decrease) in cash and cash equivalents (A ± B ± C)		
Cash and cash equivalents at start of period	7,882,785	11,234,690
Cash and cash equivalents at period end	16,858,172	7,882,784
Increase/(Decrease) in cash and cash equivalents	8,975,387	(3,351,906)

INTERIM MANAGEMENT REPORT



Dear Shareholders,

This report is prepared, in compliance with the provisions of art. 40 of Italian Legislative Decree no. 127/1991, supplementing the Consolidated Financial Statements, in order to provide all additional information, useful for better and clearer knowledge of the performance of the consolidated companies, which cannot be deduced by simply reading the Consolidated Financial Statements and the Explanatory Notes.

GROUP STRUCTURE AND BUSINESS ACTIVITIES

Expert System is an Italian company, listed on the AIM of Borsa Italiana (EXSY), with registered offices in Europe and North America, which develops cognitive computing software that simulates the human ability to understand, which can be used in the analysis of big data and unstructured information, such as documents, news and articles, reports, emails and customer communications. The cognitive approach of Cogito software ensures users a higher return on their investments, driving companies and government agencies to choose the solutions offered by Expert System. The ability to understand, analyse, manage, archive, identify and share knowledge is a priority

aspect for any modern company aiming to successfully grow its business. The relentless growth in content in terms of speed, volume, variety and location represents a critical factor necessary for handling information and making it usable and for remaining highly competitive. In relation to this, through in-depth analysis of textual content, Cogito transforms data into intelligence, exploiting it throughout the organisation to extract strategic value from the information available, making it a key component for any organisation that intends to discover knowledge, improve customer assistance and strengthen decision-making processes.

The potential of the Cogito technology is thus extremely transversal, and includes the following:

Knowledge Management

Cogito improves knowledge management processes, making it possible to search for and share information with the speed and precision needed for large-scale information analysis. It assists companies in accessing and using all the information available to support the most strategic activities, increase and share knowledge, grow profits and improve productivity.

Customer Support

The Cogito technology, used to set up personalised, intuitive services (chatbots, automated questions and answers, virtual assistants and others) aids organisations in simplifying access to support, both when it is provided directly to customers and when it is routed to customer care staff. Quick and accurate understanding of the customer's requests, available any time and on any device, offers a top-level automated customer support experience.

Corporate Intelligence

Cogito aids organisations in leveraging any type of information, including that deriving from social media, to obtain strategic data on the market and competitors. The knowledge extracted from social media, for example, may be used through real-time intelligence activities to identify trends, acquire a comprehensive view of customers and competitors and make timely, informed decisions.

Risk Reduction

Cogito aids organisations in identifying the right information at the right time: monitoring thousands of sources, it identifies risks before they turn into threats, generating value for risk management strategies. In this way, it meets the need to be informed as soon as possible of the

information that could influence global assets or the supply chain, such as acts of violence, natural disasters, disruptive innovation or external forces that could impact the markets.

Process Automation

Cogito's cognitive computing features make it possible to automate numerous long, complicated activities: applying smart automation to complaints management, but also to activities such as the review of compliance requirements, the underwriting of new policies, control of contracts, fraud detection and interactions with customers. Cogito provides an ROI that can be measured in terms of both reduction in costs and improvement of quality, while guaranteeing quicker and more accurate processing in all steps of business processes.

Due to the unique nature of its technological products and services, Expert System is today chosen by a wealth of customers that successfully operate in a vast range of businesses, including:

Banks and insurance

Many of the leading global banks and insurance companies have adopted Cogito technology to develop:

- Cognitive process automation solutions based on the processing of information that is particularly time-consuming and subject to human error. Exploiting Cogito's ability to understand text much in the way humans do, many complex activities are automated, such as assessing claims for insurance reimbursements, customer support via digital channels and the extraction of the different codes included in health insurance forms;
- cutting-edge customer support solutions, with improved user experience provided through interfaces mainly based on natural language. Offering a service capable of replying to requests without having to translate them into complex banking language has been positively received and appreciated by customers, because it is intuitive and focuses on real needs.
- assessment of operational risk, for example in assessing the risk profile of a loan application;
- anti-money laundering, by identifying the abstract relations between unlawful conduct and the parties implicated in business activities, who are pretending to operate legally.

Media and Publishing

Expert System's cognitive technology has been chosen by some of the leaders in the publishing sector:

- to guarantee increased availability of content;
- to develop new products and services;
- to increase the opportunities to monetise articles and news.

Through the understanding of online content, the solutions proposed to the publishing and media sector automatically tag, classify and categorise content, linking data to other pertinent texts from the same source or those related to other information sources. Cogito technology automates entity extraction, relations, categories and subjects present in the content and optimises the automatic generation of metadata and links based on tags previously identified.

Companies in this sector thus attract new visitors and differentiate their products, engaging users through personalised experiences and incentivising the use of content.

Government organisations

Expert System boasts extensive experience working with public administration bodies and government agencies, developing solutions that can improve the ability to manage the complexity of information and make it available to serve and protect the community more effectively.

Searches are only one of the areas of improvement linked to the implementation of Cogito technology. The ability to precisely identify significant bodies and classify content while it changes makes it possible to extend and increase the accessibility of the large amount of information collected by the public administration.

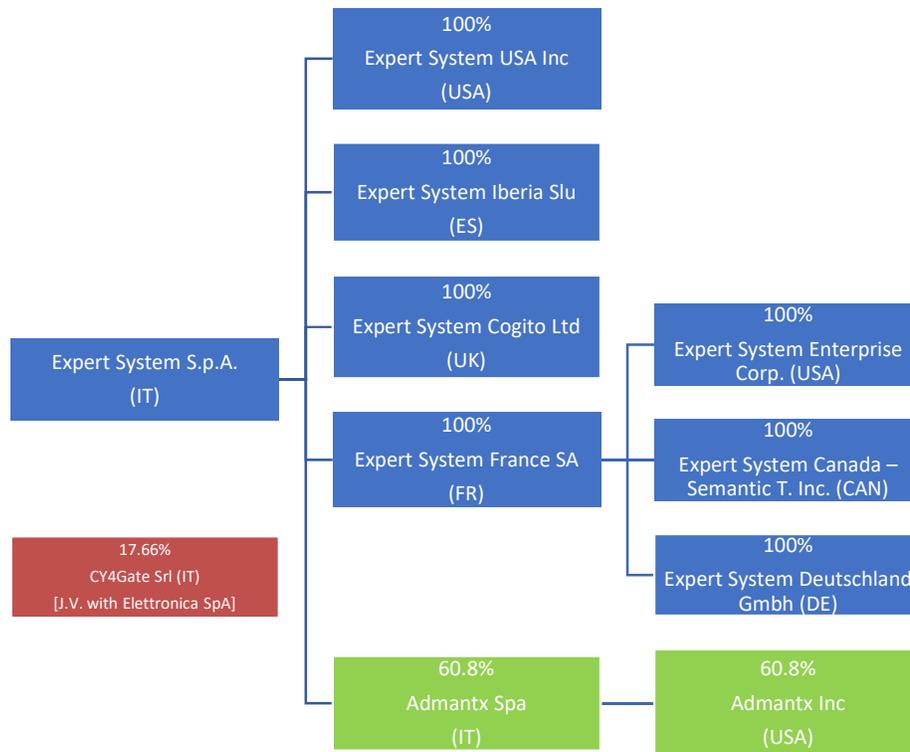
Energy

Due to its extensive, consolidated experience in the energy sector, working with some of the largest and most important energy companies in the world, Expert System not only knows the typical language of the sector, but also the types of challenges it must handle.

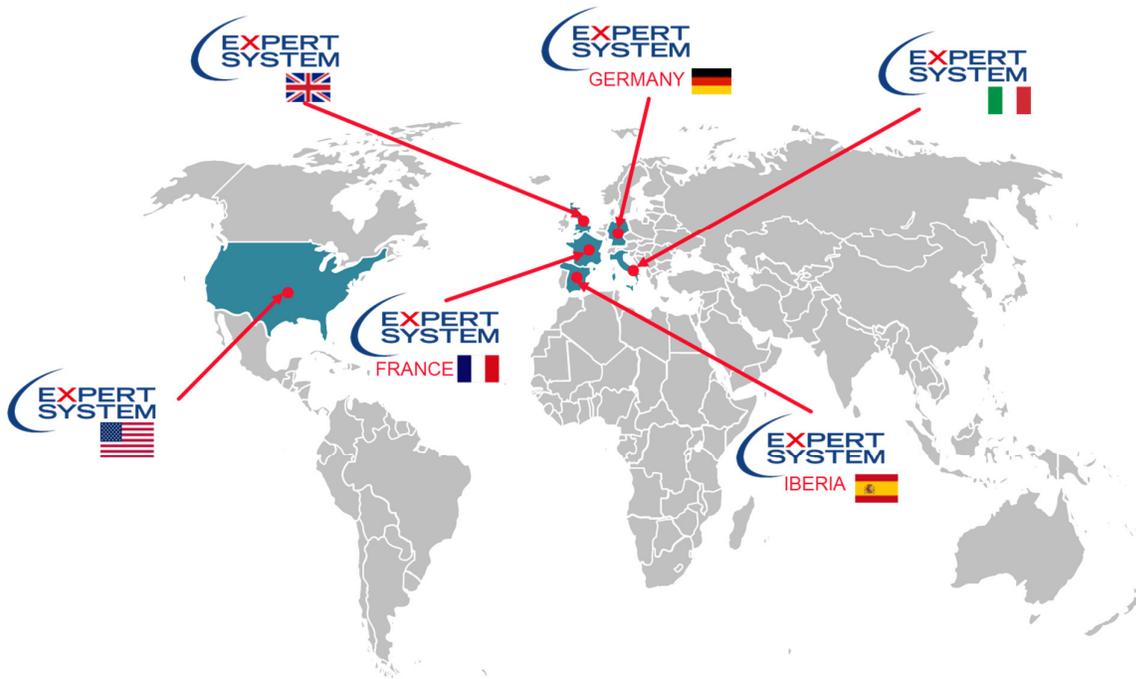
In a sector that features enormous amounts of information, an exclusive vocabulary and reliance on data-based decision-making processes, Cogito's cognitive technology provides a knowledge graph (Sensigrafo) that includes rich, scientifically specific sector ontology based on millions of definitions of terms and concepts, correlated with another million relations. This ensures that all the data is defined in the context of the project domain and that it is fully available and accessible via search.

Through Cogito: the knowledge archived in the various record management applications is made immediately available for all knowledge management applications; over one billion documents have been tagged for some of the largest energy companies in the world; customers are offered practically unlimited automated extraction and tagging capacity; similar concepts in a variety of sources are connected to make the information understandable and usable by all applications; and patterns are identified in the information and critical signs are acquired that improve the predictive analysis models.

Over the last few years, the Group has consolidated its unique business characteristics, providing services to corporate and government intelligence, taking on the structure represented by the following chart:



The Expert System Group now boasts a global presence and infrastructure, with offices located in Italy, Spain, France, Germany, United Kingdom and USA.



OPERATING CONDITIONS AND BUSINESS DEVELOPMENT

(art. 40, par. 2, letter c of Italian Legislative Decree no. 127/91)

Artificial intelligence, automation and robotics play a growing role in the ways that companies interact with customers and employees.

According to the analyst services IDC¹, worldwide spending on artificial intelligence (AI) systems is forecast to reach \$ 35.8 billion in 2019, an increase of 44.0% on the amount spend in 2018. With industries investing aggressively in projects that utilise AI software capabilities, IDC expects that spending on artificial intelligence systems will more than double to \$ 79.2 billion in 2022 with a compound annual growth rate (CAGR) of 38.0% over the 2018-2022 forecast period.

¹Source: "Worldwide Spending on Artificial Intelligence Systems Will Grow to Nearly \$35.8 Billion in 2019, According to New IDC Spending Guide", IDC (March 2019)

The number of enterprises that have implemented artificial intelligence (AI) grew by 270% in the last four years and tripled in the past year, according to the Gartner² CIO Survey 2019. The results showed that organisations across all industries use AI in a variety of applications.

Forrester³, an authoritative independent technological solutions research firm, forecasts that the RPA market will reach a volume of \$ 1.7 billion by the end of 2019, due to the ability of RPA technology to support the repetitive, day-to-day activities of employees while improving the customers experience.

In Forrester's opinion, the value of these technologies, which should be considered relatively recent, will be taken into consideration by an increasing number of organisations, to favour better engagement of customers and employees. Forrester names the multinationals Blue Prism and UiPath, which have signed strategic partnerships with Expert System.

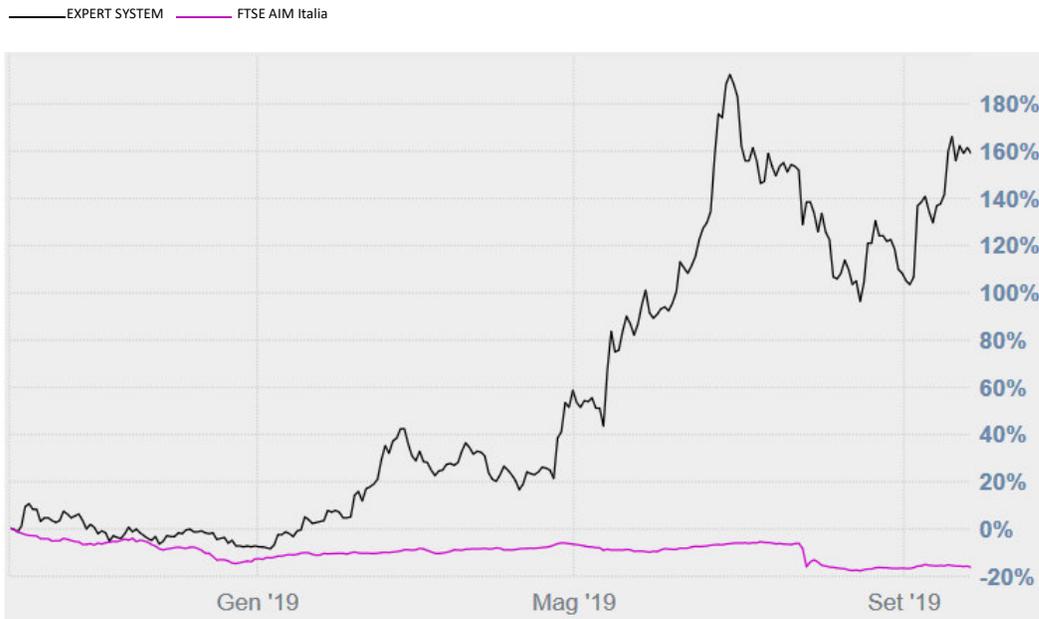
The performance of the Expert System share as of 26/09/2019 is presented below:

Market	AIM Italia – MAC
Share capital	€ 399,357
Capitalisation	€ 129,443,490
Minimum parcel	1.00
Reference price	€ 3.20 – 26/09/2019 h 17.35.10
Official price	€ 3.2413 – 25/09/2019
1-month performance	+ 13.48%
6-month performance	+ 92.19%
1-year performance	+ 153.97%

The chart below instead shows the share performance in the last 12 months: in particular, the chart compares the Expert System performance against that of the FTSE AIM Italia index (Source: www.borsaitaliana.it)

²Source: "Gartner Survey Shows 37 Percent of Organizations Have Implemented AI in Some Form", Gartner (January 2019)

³Source: The Forrester Tech Tide™: AI, Automation, And Robotics For Customers And Employees, Q2 2019 (May 2019)



On 18 April 2019, by deed recorded and authenticated by Notary Rolando Rosa (index no. 123889, folder 22611), the Extraordinary Shareholders' Meeting of Expert System resolved upon a divisible share capital increase and/or the issue of convertible bonds, pursuant to articles 2443 and 2420 ter of the Italian Civil Code, with powers delegated to the Board of Directors, for a maximum of € 10,000,000 including share premium, through the issue of new ordinary shares without par value, also excluding the option right pursuant to art. 2441, paragraph 5 of the Italian Civil Code.

The resolutions taken at the mentioned Extraordinary Shareholders' Meeting were thus implemented by the Board of Directors, which on 23 April 2019, by deed recorded and authenticated by Notary Rolando Rosa (index no. 123907, folder 22626) decided to partially exercise powers delegated to it, resolving on a divisible capital increase, excluding option rights, for a maximum total amount of € 7,000,000.20, through the issue of a maximum of 3,888,889 ordinary shares without par value, to be offered for subscription exclusively to ERGO S.r.l., a newly-established company controlled by a pool of private investors. The newly issued shares were offered at a subscription price of € 1.80 per share, of which € 0.01 allocated as share capital increase and € 1.79 to the share premium reserve.

As a result, the Board of Directors retains the option to execute the powers assigned to it by the Extraordinary Shareholders' Meeting on 18 April 2019, relating to the portion not exercised to date for a total of € 2,999,999.80.

The share capital increase enabled Expert System to accelerate its process of growth and support the Group's global development. The proceeds from that capital increase may be used to expand several highly strategic areas for the company, such as the commercial and pre-sales area, the technical team dedicated to the indirect channel and the investment in technological components to simplify the implementation of Expert System solutions by strategic partners.

With the aim of supporting increasingly more organisations to accelerate and simplify the adoption of artificial intelligence in processes that require the capacity to manage large volumes of data and textual information, Expert System released Cogito® 14.4 at the end of April 2019. The new release of Cogito, forming the basis of the entire Expert System commercial offering, makes the acquisition of new knowledge through the enrichment of the knowledge graph even faster, improves the machine learning phase by taking advantage of the interaction with users and adds intelligence to processes automation, by easily integrating with platforms for the Robotic Process Automation (RPA). Expert System's knowledge graph, the core of Cogito, is the richest conceptual database for the understanding of natural language on the market. In order to enable organisations to enhance and customise knowledge already present in the knowledge graph, new functions have been introduced to import specific knowledge from any type of information source (e.g., internal archives, as well as external resources such as Wikipedia or Geonames) and accurately identify references to entities such as people, businesses, places, etc. The new Cogito release makes it possible to speed up the implementation of projects using advanced machine learning techniques. Through an intuitive web application, less experienced users will also have the opportunity to interact with the system to make the extraction of the data needed to develop the machine learning model faster and more accurate. In this way, all the most expensive phases of the process are simplified, such as the initial ones typically using sets of data noted manually. In addition to reducing manual work, the ability to intervene at any time of the process solves the problem of having to start from scratch every time, allowing accurate and timely data quality control. Lastly,

a specific connector allows the integration of Cogito functions with the most common platforms of Robotic Process Automation (RPA), to extend automation to complex processes, which require cognitive capacity similar to human processes.

In 2019, Expert System confirmed its success in the application of artificial intelligence as part of the insurance sector processes, with the launch of the collaboration with AXA XL, which uses Cogito® to enhance its capabilities in Property Risk Engineering in order to facilitate the analysis of real estate appraisals. By automating the process of reading real estate appraisals through natural language processing, AXA XL's "Risk Consulting" team can expand the spectrum of documentation and the volume of statements that can be examined, focusing the time dedicated to risk engineering on high impact areas and more effectively mitigating customer-side risk, also allowing insurers to reduce the time required to formulate quotes. For AXA XL's specialist risk consultants, all this makes it possible to extrapolate the key information and data from over 100 pages of technical appraisals in just a few minutes. By automating some parts of the relationship analysis process, insurance experts can spend more time on understanding customer needs and providing advice to insurers who, in turn, can offer better solutions and faster quotes to brokers and customers.

Also in the insurance field, a partnership with Swiss Re has been launched, based on the use of advanced features of Cogito for understanding natural language. As a result, the customer achieved greater efficiency by automating business processes such as risk analysis or assessing claims for reimbursement. Automatically synthesising the information from various open sources and strengthened by its in-depth knowledge of the insurance market, Cogito supported Swiss Re in identifying news that could be the source of possible future losses.

In the area of development of the indirect channel, starting in April 2019, the e-learning platform was made available for using and programming Cogito, with the intention of allowing increasingly greater pools of users to access ever more intelligent solutions, capable of profoundly transforming company processes. The launch of this process, which to date has resulted in the issue of 139 certifications to just as many professionals from 21 companies in 18 different countries, will contribute to supporting the Group's future revenues, while increasing the efficiency offered to customer companies, to gain the maximum advantage from the

functionalities included in the Cogito platform and integrate it with the best solutions available on the market.

In terms of recognitions, in 2019, Expert System was included for the fifth year in a row among the “KM 100”, the 100 Knowledge management companies that stood out in 2019 at global level, by the main information provider KMWorld. In selecting organisations to be included in the list, KMWorld considers the insights gathered by the personal interactions with companies during interviews and events, evaluating how companies were able to help customers solve certain business problems, and by checking product updates to ensure that the functions progress to meet evolving requirements.

Expert System was also mentioned in the Intelligent Insurtech 2019 report, referring to the ability to use Artificial Intelligence to develop natural language programming, which can understand texts in a manner similar to human understanding, in a fraction of the time. The company was noted for its work with large companies in the insurance field, for the purpose of offering customers services such as chatbots, questions & answers using natural language, automatic email classification and intelligent search applications. Cogito technology was mentioned due to its ability to automate various processes, such as claims management, policy underwriting, audit support, third party risk management, anti-money laundering and legal compliance procedures.

Also note that on 03 May 2019, a first share capital increase was carried out, by way of powers granted to the Board of Directors, in implementation of the “2018-2020 Stock Grant Plan”.

The incentive plan envisages the free assignment to employees of Expert System S.p.A. and its subsidiaries (personal and without transfer option) of a maximum 800,000 rights to receive, again free of charge (in the ratio of 1:1) ordinary shares of the Issuer, subject to the achievement of certain performance and/or personal objectives in each of the three financial years closing 31 December 2018, 2019 and 2020.

3 May 2019 saw the initial share capital increase in implementation of the “2018-2020 Stock Grant Plan”, which led to issue of the first tranche of 76,600 new shares through the free share capital increase of € 766, using funds for the same amount from the extraordinary reserve.

On 28 June 2019, by deed recorded and authenticated by Notary Rolando Rosa (index no. 124101, folder 22757) and by virtue of the powers granted to the Board of Directors, the third and last share capital increase was carried out in implementation of the “Temis 2016-2020 Stock Grant Plan”.

The stock grant plan envisaged the free assignment to employees or directors of Temis S.A., now Expert System France S.A., of 978,967 shares.

The plan was implemented by the issue of 721,245 new shares and the remaining 257,722 shares through the assignment of treasury shares held by the Company.

The share capital increase led to the issue of the third tranche of 111,151 new shares through a free share capital increase of € 111.151, using funds for that amount from the extraordinary reserve. On the same date, again in implementation of the “Temis 2016-2020 Stock Grant Plan”, the company arranged the free-of-charge assignment to beneficiaries of 64,431 treasury shares, equal to 25% of the total value of the plan.

Note that on 26 March 2019, the Board of Directors of Expert System S.p.A. resolved to recapitalise the investee Expert System France S.A. for € 300,000, by waiving part of the financial receivables due from the subsidiary, with the dual objective of covering losses for the year and strengthening the equity and financial structure of the investee company.

Lastly, on 23 April 2019, for the same purposes as that described above, the Board of Directors of Expert System S.p.A. resolved to recapitalise the investee company Expert System Iberia S.L.U. by waiving part of the financial receivables due from the subsidiary, amounting to € 1,500,000.

OPERATING PERFORMANCE

(art. 40, par. 1 of Italian Legislative Decree no. 127/91)

General financial performance

The risks connected with a further heightening of global trade tensions and with a slowdown of growth in China continue to weigh on the outlook for the world economy. Uncertainty also persists over the timeframe and arrangements for the United Kingdom's withdrawal from the European Union (Brexit). Long-term yields have declined in advanced countries, affected by the poorer growth prospects and by the more accommodative stance of the main central banks: in particular, the Federal Reserve has indicated the possibility of future reductions in interest rates.

Economic activity in the euro area remains weak and prone to downward risks, and inflation is still at low levels. In the second quarter of the year, the GDP rose by 0.2% compared to an increase of 0.4% in the previous quarter. The ECB Governing Council has extended the time horizon over which it expects to keep interest rates low and has set out the details of a new series of refinancing operations. It announced that, in the absence of improvements, additional monetary stimulus will be required, and has discussed the options that could be used.

According to the latest cyclical indicators, economic activity in Italy may have remained unchanged or decreased slightly in the second quarter. The main contributory factor is the weak industrial cycle, common to Germany too, caused by persisting trade tensions. Despite the contraction in international trade, exports grew moderately in the first four months of the year. Uncertainty over developments in the global context is nevertheless reflected in firms' unfavourable assessments of the outlook for foreign orders. However, the current account surplus has widened again; Italy's negative net international investment position is close to balance.

The slowdown in the prices of energy products and the weak economic cycle are curbing inflation, which decreased to 0.8 per cent in June (0.4 per cent excluding the food and energy components). According to the surveys, firms and households' inflation expectations remain subdued, even if they have been revised slightly upwards on the first quarter of the year. The evolution of the uncertainty over budget policy has affected the yield spread between Italian and German government bonds, which increased in May and decreased from the first week of June onwards. Contributory factors to this fall, at a time of a generalised decline in risk premiums due to the prospect of monetary accommodation, were the revision of the deficit forecast for this year and the resulting decision by the European Commission not to recommend the launch of an excessive deficit Procedure against Italy. However, the yield spread of Italian government securities and

German government securities remains higher than the level prevailing in April 2018. Bank lending to the private sector weakened slightly; growth in loans to households remained solid, while lending to firms contracted slightly. Last year's increase in banks' bond funding costs has so far had little effect on the interest rates applied to loans, in part thanks to the high level of liquidity and the improvement in banks' balance sheets; nevertheless, credit access conditions tightened for smaller firms.

Continued tensions over trade policies, by curbing exports and adversely affecting firms' propensity to invest, would undermine the recovery in economic activity projected for the second half of 2019 in Italy and the euro area. On the domestic side, a heightened uncertainty about budget policy from next year on could generate new turbulence in the financial markets and influence firms' investment plans; a virtuous circle between fiscal policy and financial conditions could instead boost economic activity. Inflation risks, stemming on the one hand from increases in energy prices, and on the other from weak economic activity, are balanced overall.

(Source: Bank of Italy Economic Bulletin 3/2019)

Operating performance of the Expert System Group

(art. 40, par. 1 of Italian Legislative Decree no. 127/91)

The consolidated half-yearly financial report as of 30 June 2019, which includes the consolidated data of subsidiaries included in the scope of consolidation, as well as those of the parent company Expert System S.p.A., shows the following (figures in Euro):

CONSOLIDATED EXPERT SYSTEM GROUP			Main income statement figures	EXPERT SYSTEM S.P.A.		
H1 2018	H1 2019	CHANGE		H1 2018	H1 2019	CHANGE
15,902,996	15,355,933	(3%)	Value of production	10,856,071	9,952,617	(8%)
70,977	(433,046)	> -100%	Gross operating profit (EBITDA)	2,679,545	723,167	(73%)
(3,567,541)	(4,223,420)	18%	Operating result (EBIT)	1,105,476	(896,591)	> -100%

(3,745,876)	(4,023,233)	7%	Net profit (loss)	877,322	(974,927)	> -100%
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In order to provide a better outline of the performance and the operating result, the following tables provide a reclassification of the value added Income Statement, a reclassification of the Balance Sheet by business area and in financial terms and the more significant financial statement ratios.

Main income statement figures

(art. 40, par. 1-bis of Italian Legislative Decree no. 127/91)

The reclassified income statement of the Expert System Group is shown below (in Euro):

Consolidated Income Statement	30/06/2019	30/06/2018	Change
Sales revenues	11,872,691	12,864,257	(991,566)
Change in inventories	(93,190)	4,272	(97,462)
Own work capitalised	2,762,333	2,340,337	421,997
Sundry income	814,099	694,130	119,969
Value of operating production	15,355,933	15,902,996	(547,063)
Cost of operating materials and overheads	(6,347,444)	(6,203,078)	(144,367)
Value added	9,008,488	9,699,918	(691,430)
Personnel costs	(9,441,534)	(9,628,941)	187,406
EBITDA	(433,046)	70,977	(504,023)
Amortisation, depreciation and provisions	(3,790,374)	(3,638,518)	(151,856)
EBIT	(4,223,420)	(3,567,541)	(655,879)
Financial area result	(39,944)	116,777	(156,721)
Ordinary profit (loss)	(4,263,364)	(3,450,763)	(812,601)

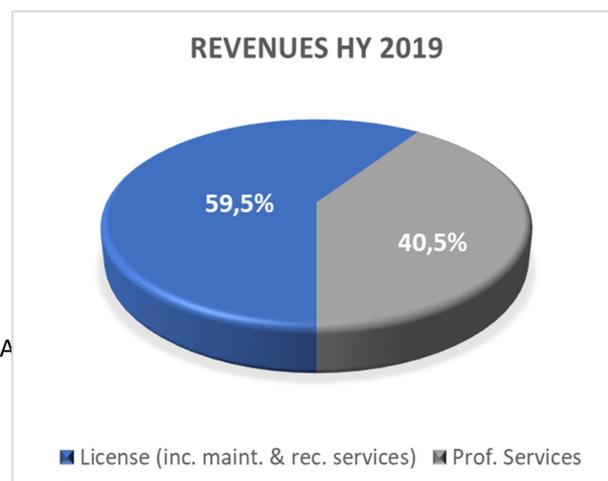
Extraordinary area result	-	-	-
Pre-tax result	(4,263,364)	(3,450,763)	(812,601)
Income taxes	240,131	(295,112)	535,243
Net profit (loss)	(4,023,233)	(3,745,876)	(277,358)

Revenues as of 30 June 2019 came to € 11,872,691, representing around 34% of the revenues forecast for the entire year. That value is in line with the historical revenues from the first half, influenced by the seasonality of the business, with the exception of the first half of 2018, which recorded revenues of 45% of the amount forecast for the entire year.

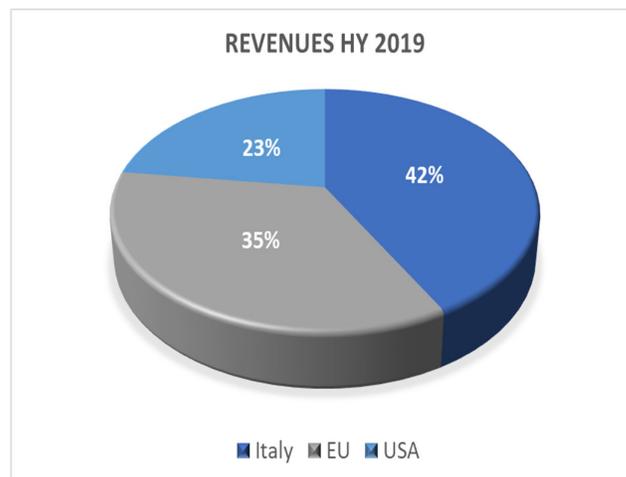
The most important objective achieved in the first half of 2019 was the success of the strategy the company has pursued over the last few years to change the revenue mix, targeting larger business customers comprising the major European and US large corporations and government agencies, focusing on sectors with a higher growth potential, also by consolidating partnerships that offer a strengthening of the indirect channel.

The breakdown of revenues from licences as of 30 June 2019 shows the considerable predominance of the recurring revenues from licences, which rose from 79% to 91%, compared to the component of permanent licences, which has become marginal. Thus, this confirms excellent results for the company, achieved due to the efforts made to change the business model, which guarantees greater stability in revenues and cash flows over time.

The chart below shows that 59.5% of revenues come from licences and maintenance and 40.5% come from professional services:



The breakdown of revenues by geographic area, based on the nationality of the customers of each Group company is as follows:



Confirming the internationalisation of the business carried out by the company, 58% of revenues as of 30 June 2019 derived from sales on foreign markets (35% to European customers and 23% to US customers). In particular, revenues on the European market (excluding Italy) and on the UK market increased by a total of 28%, mainly due to the positive performance of sales in the UK and France. In the UK the strengthening of Expert System in the insurance market continued. The increase in revenues in France demonstrates the effectiveness of the process of reorganising the French subsidiary carried out in the last few years. On the Italian market revenues dropped by

16%, also due to the complex political and economic situation in the first half of 2019, which fed into a climate of uncertainty and slowed the finalisation of several sales agreements. Expert System's position on the US government market was strengthened, showing an increase of 16% in revenues.

The decrease in EBITDA in the first half of 2019 on the first half of 2018, with substantially stable costs, is mainly due to the fact that the value of revenues realised as of 30 June 2018, equal to 45% of the yearly total, was much higher than the historical average of 34%, which is substantially applicable as a forecast for the current year. Moreover, it must be noted that half-year revenues were impacted by possible postponements of projects, which may partly alter, even significantly, the temporary results in a specific country.

EBIT was negative for € 4,223,420, also in view of the amortisation of intangible fixed assets for € 3,696,741, referring mainly to capitalised development costs (the latter € 10,700,664 net of amortisation as of 30/06/2019) and to the consolidation difference for € 1,113,730, most of which associated with the goodwill of Group companies.

The net loss was € 240,131, after the release of prepaid taxes for € 4,023,233.

In terms of providing a better description of the Company's profits, the table below outlines certain profitability ratios:

Profitability ratios	30/06/2019	30/06/2018
Net ROE	(0.18)	(0.33)
Gross ROE	(0.19)	(0.30)
ROI	(0.18)	(0.14)
ROS	(0.36)	(0.28)

Main balance sheet figures

The company's reclassified balance sheet, compared with 31/12/2018, is shown below (in €):

Consolidated Balance Sheet	30/06/2019	31/12/2018	Change
Net intangible fixed assets	14,002,593	14,733,649	(731,055)
Net tangible fixed assets	718,089	715,423	2,665
Equity investments and other non-current financial assets	4,666,856	4,568,003	98,853
Fixed assets	19,387,538	20,017,076	(629,537)
Short-term financial assets	4,775,574	4,775,574	-
Inventories	16,121	109,312	(93,190)
Receivables due from customers	13,018,599	15,792,097	(2,773,499)
Other receivables	5,916,133	5,321,954	594,179
Accrued income and prepaid expenses	596,626	577,090	19,536
Short-term operating assets	24,323,053	26,576,027	(2,252,974)
Trade payables	(2,822,413)	(2,807,819)	(14,594)
Payments on account	(353,397)	(236,256)	(117,140)
Tax and social security payables	(1,332,444)	(1,827,535)	495,091
Other payables	(1,897,666)	(2,074,263)	176,597
Accrued expenses and deferred income	(4,648,179)	(3,883,738)	(764,441)
Short-term operating liabilities	(11,054,098)	(10,829,611)	(224,487)
Net working capital	13,268,955	15,746,416	(2,477,461)
Employee severance indemnity	(2,261,029)	(2,143,307)	(117,722)

Tax and social security payables	-	-	-
Accrued expenses and deferred income after 12 months	(5,279,069)	(4,681,359)	(597,710)
Other medium and long-term liabilities	(1,587,150)	(1,456,729)	(130,420)
Medium-term liabilities	(9,127,249)	(8,281,396)	(845,853)
INVESTED CAPITAL	23,529,245	27,482,095	(3,952,851)
Shareholders' equity	(17,859,850)	(15,077,489)	(2,782,362)
Net medium/long-term financial position	(16,711,629)	(14,810,677)	(1,900,952)
Net short-term financial position	11,042,235	2,406,071	8,636,164
OWN EQUITY AND NET FINANCIAL DEBT	(23,529,244)	(27,482,095)	3,952,851

Fixed assets decreased by € 629,537, against a reduction in net intangible assets of € 731,055, resulting from the combined effect of capitalised development costs net of amortisation of € 534,093, the decrease in goodwill net of amortisation of € 146,221 and the reduction in the net consolidation difference of € 1,113,730.

Taking into consideration current operations, a decrease in working capital of € 2,477,461 was recorded, mainly due to:

- the decrease in trade receivables of € 2,773,499;
- the increase in other receivables of € 594,179, resulting mainly from the increase in receivables for financed research project grants;
- the reduction of tax and social security payables by € 495,091;
- the increase in deferred income of € 1,387,417.

For the purpose of better describing the company's capital strength, the table below shows certain financial statement ratios relating to both (i) the methods of financing medium/long-term investments and to the (ii) composition of sources of financing, compared to the same ratios in the consolidated financial statements as of 31 December 2018.

Fixed asset funding ratios	30/06/2019	31/12/2018
Fixed asset/equity margin	(1,527,688)	(4,939,587)
Fixed asset/equity ratio	0.92	0.75
Fixed assets/liabilities and equity margin	19,032,120	13,471,127
Fixed assets/liabilities and equity ratio	1.98	1.67

Fixed assets/equity ratio of loans	30/06/2019	31/12/2018
Liabilities due within 12 months (A)	12,250,329	12,605,215
Liabilities due after 12 months (B)	20,559,808	18,410,714
Own equity (C)	17,859,850	15,077,489
Total debt ratio (A+B)/C	1.84	2.06

The capital assets and related fixed assets to equity ratio express how the Company manages to finance its fixed assets.

The fixed asset/equity margin and its associated ratio (which significantly improved on the previous year's figure), which correlate the value of shareholders' equity with fixed assets (as quantified in the table below), provide us with information on the company's capacity (or not) to finance all fixed assets with its own equity.

	30/06/2019	31/12/2018

Shareholders' equity (A)	17,859,850	15,077,489
Net intangible fixed assets	14,002,593	14,733,649
Net tangible fixed assets	718,089	715,423
Equity investments and other non-current financial assets	4,666,856	4,568,003
Fixed assets (B)	19,387,538	20,017,076
Fixed asset/equity margin (A-B)	(1,527,688)	(4,939,587)
Fixed asset/equity ratio (A/B)	0.92	0.75

The negative result of the fixed asset/equity margin with the correlated ratio at less than one, despite the significant improvement on the previous year's figure, indicates that in order to meet its long-term financial commitments the Company must, for the moment, seek third party financing (financial indebtedness).

The fixed assets/liabilities and equity margin and its related ratio instead also use medium/long-term liabilities as reference.

	30/06/2019	31/12/2018
Shareholders' equity (A)	17,859,850	15,077,489
Net medium/long-term financial position (B)	16,711,629	14,810,677
Other medium and long-term liabilities (C)	1,587,150	1,456,729
Employee severance indemnity (D)	2,261,029	2,143,307
Fixed assets (E)	19,387,538	20,017,076
Fixed assets/liabilities and equity margin (A + B + C + D - E)	19,032,120	13,471,127
Fixed assets/liabilities and equity ratio (A + B + C + D)/E	1.98	1.67

The positive results for the fixed assets/liabilities and equity margin (also improving on the previous year's figure), with the related ratio higher than one, highlights the relationship between medium/long-term sources and fixed assets, i.e. long-term business investments.

Main financial figures

The net financial position as of 30/06/2019 is as follows (in €):

Consolidated net financial position	30/06/2019	31/12/2018	Change
Bank deposits	16,855,528	7,880,364	8,975,164
Cash at bank and in hand	2,643	2,420	223
Cheques	-	-	-
Treasury shares	-	-	-
Cash and cash equivalents and treasury shares	16,858,171	7,882,784	8,975,387
Current financial assets	28,474	182,629	(154,155)
Bonds and convertible bonds (within 12 months)	(454,500)	-	(454,500)
Payables due to shareholders for loans (within 12 months)	-	-	-
Payables due to banks (within 12 months)	(5,241,679)	(4,925,611)	(316,067)
Payables due to other lenders (within 12 months)	(148,231)	(733,731)	585,500
Advances for overseas payments	-	-	-
Short-term portion of loans	-	-	-
Financial receivables	-	-	-
Short-term financial payables	(5,844,410)	(5,659,342)	(185,067)
Net short-term financial position	11,042,235	2,406,071	8,636,164

Bonds and convertible bonds (after 12 months)	(4,545,500)	(5,000,000)	454,500
Payables due to shareholders for loans (after 12 months)	-	-	-
Payables due to banks (after 12 months)	(10,350,244)	(8,124,081)	(2,226,164)
Payables due to other lenders (after 12 months)	(1,815,884)	(1,686,596)	(129,288)
Advances for overseas payments	-	-	-
Long-term portion of loans	-	-	-
Financial receivables	-	-	-
Net medium/long-term financial position	(16,711,629)	(14,810,677)	(1,900,952)
NET FINANCIAL POSITION	(5,669,393)	(12,404,606)	6,735,213

The improvement of € 6,735,231 in the Net Financial Position as of 30/06/2019 was mainly due to the capital increase subscribed by Ergo S.r.l. for € 7,000,000.

Economic and equity situation of the parent company

The economic and equity data of the parent company Expert System S.p.A. as of 30 June 2019 are shown in the following tables:

Expert System S.p.A. Income Statement	30/06/2019	30/06/2018	Change
Sales revenues	7,584,544	8,956,045	(1,371,501)
Change in inventories	0	(18,113)	18,113
Own work capitalised	1,858,514	1,455,121	403,393
Sundry income	509,559	463,017	46,542
Value of operating production	9,952,617	10,856,071	(903,454)

Cost of operating materials and overheads	(4,515,965)	(4,185,704)	(330,262)
Value added	5,436,652	6,670,368	(1,233,715)
Personnel costs	(4,713,485)	(3,990,823)	(722,663)
EBITDA	723,167	2,679,545	(1,956,378)
Amortisation, depreciation and provisions	(1,619,757)	(1,574,069)	(45,688)
EBIT	(896,591)	1,105,476	(2,002,066)
Financial area result	(57,074)	170,829	(227,903)
Ordinary profit (loss)	(953,665)	1,276,304	(2,229,969)
Extraordinary area result	0	0	0
Pre-tax result	(953,665)	1,276,304	(2,229,969)
Income taxes	(21,262)	(398,982)	377,720
Net profit (loss)	(974,927)	877,322	(1,852,249)

Sales and service revenues, which refer to licences, maintenance fees and professional services, decreased from € 8,956,045 as of 30/06/2018 to the current € 7,584,544: that change was impacted both by a changed seasonality in revenues, which in the first half of 2018 had a greater weight out of annual turnover than the historic trend, and by the domestic political and economic instability and its resulting negative impact on the propensity of some companies to free up investments.

EBITDA decreased from € 2,679,545 to € 723,167, also affected by an increase in personnel costs, up by € 722,663 compared to the first half of 2018, due to the expansion of the commercial and technical areas.

EBIT was negative for € 896,591. Of the € 1,560,354 amortisation of intangible fixed assets, € 1,423,350 referred to capitalised development costs. It should be remembered that these group activities are concentrated in the Italian headquarters.

The financial area result, negative for around € 57,074 (positive for € 170,829 as of 30/06/2018), was affected on the one hand by financial expenses for € 220,571, in line with the first half of 2018, and on the other by the recognition of exchange gains and losses with a positive balance of € 67,511 (€ 317,008 as of 30/06/2018) due to the USD exposure of Expert System S.p.A. in relation to trade receivables and loans disbursed to subsidiaries.

Given the above, net of provisions for deferred taxes for € 21,262, the net loss was € 974,927.

Expert System S.p.A. Balance Sheet	30/06/2019	31/12/2018	Change
Net intangible fixed assets	7,398,566	6,903,124	495,442
Net tangible fixed assets	588,934	582,182	6,752
Equity investments and other non-current financial assets	32,463,004	31,646,478	816,526
Fixed assets	40,450,504	39,131,784	1,318,720
Short-term financial assets	4,775,574	4,775,574	0
Inventories	0	0	0
Receivables due from customers	9,325,280	9,752,781	(427,501)
Other receivables	10,387,440	8,679,643	1,707,797
Accrued income and prepaid expenses	258,584	413,459	(154,875)
Short-term operating assets	24,746,878	23,621,457	1,125,421
Trade payables	(2,092,482)	(2,015,347)	(77,136)
Payments on account	(353,397)	(234,980)	(118,416)
Tax and social security payables	(905,687)	(1,201,166)	295,478
Other payables	(1,923,487)	(1,762,690)	(160,798)
Accrued expenses and deferred income	(1,895,808)	(908,668)	(987,140)

Short-term operating liabilities	(7,170,862)	(6,122,851)	(1,048,011)
Net working capital	17,576,016	17,498,606	77,410
Employee severance indemnity	(2,261,029)	(2,143,307)	(117,722)
Tax and social security payables	0	0	0
Accrued expenses and deferred income after 12 months	(2,799,392)	(2,141,052)	(658,340)
Other medium and long-term liabilities	(645,690)	(456,248)	(189,442)
Medium-term liabilities	(5,706,112)	(4,740,607)	(965,505)
INVESTED CAPITAL	52,320,407	51,889,782	430,625
Shareholders' equity	(44,756,480)	(38,754,162)	(6,002,318)
Net medium/long-term financial position	(15,414,004)	(13,642,341)	(1,771,664)
Net short-term financial position	7,850,077	506,720	7,343,357
OWN EQUITY AND NET FINANCIAL DEBT	(52,320,407)	(51,889,782)	(430,625)

The change in fixed assets, which in the first half of the year increased by € 1,318,720, was mainly due to the increase in equity investments and other non-current financial assets, which rose by € 816,526, due to the additional loans disbursed to subsidiaries and associates during the half-year (amounting to € 637,995 including interest, against repayments of € 300,000). Lastly, note should be taken of an increase of € 439,090 in the portion of receivables due beyond the year for research project grants.

During the half-year, the exposure to the banking system and other lenders increased by € 2,542,231, mainly due to new disbursements received for € 5,700,000 against repayments totalling € 3,214,918.

An analysis of current operations showed an increase of € 1,125,421 in short-term assets, determined primarily by the positive change in other receivables, up by € 1,707,797, partially offset by the decrease in trade receivables, down by € 427,501.

Current liabilities increased by € 1,048,011, mainly due to the increase in deferred income, attributable to typical revenues that accrued beyond the first half of the year, in addition to a substantial balance of the remaining changes in short-term payables.

The difference between current assets and liabilities showed a slight change compared to that recorded as of 31/12/2018, amounting to € 17,576,016.

Lastly, medium and long-term liabilities increased by € 965,505, mainly due to the increase of € 658,340 in accrued expenses and deferred income after 12 months and the increase in other liabilities expiring after 12 months of € 189,442.

As a result, net invested capital came to € 52,320,407 (€ 51,889,782 as of 31/12/2018), recording a positive change of € 430,625.

Net financial position of Expert System S.p.A.	30/06/2019	31/12/2018	Change
Bank deposits	13,663,934	5,550,033	8,113,901
Cash at bank and in hand	2,167	2,144	23
Treasury shares			
Cash and cash equivalents and treasury shares	13,666,101	5,552,177	8,113,924
Current financial assets	8,400	8,400	0
Bonds and convertible bonds (within 12 months)	(454,500)		(454,500)
Payables due to shareholders for loans (within 12 months)			
Payables due to banks (within 12 months)	(5,241,679)	(4,925,611)	(316,067)
Payables due to other lenders (within 12 months)	(128,245)	(128,245)	0

Advances for overseas payments			
Short-term portion of loans			
Financial receivables			
Short-term financial payables	(5,824,424)	(5,053,856)	(770,567)
Net short-term financial position	7,850,077	506,720	7,343,357
Bonds and convertible bonds (after 12 months)	(4,545,500)	(5,000,000)	454,500
Payables due to shareholders for loans (after 12 months)			
Payables due to banks (after 12 months)	(10,350,244)	(8,124,081)	(2,226,164)
Payables due to other lenders (after 12 months)	(518,260)	(518,260)	0
Advances for overseas payments			
Long-term portion of loans			
Financial receivables			
Net medium/long-term financial position	(15,414,004)	(13,642,341)	(1,771,664)
NET FINANCIAL POSITION	(7,563,928)	(13,135,621)	5,571,693

The figure regarding the improvement in the net financial position, which came to € 7,563,928 (€ 13,135,621 as of 31/12/2018) benefited from the contribution deriving from operations for € 969,773 and from the capital increase subscribed by Ergo S.r.l. for € 7,000,000, net of investment expenses of € 2,507,844, of which € 1,858,514 relating to development costs.

THE ENVIRONMENT, PERSONNEL AND RISKS

(art. 40, par. 1-bis of Italian Legislative Decree no. 127/91)

The Environment

In the first half of the year there was no damage to the environment for which Expert System was ultimately declared guilty. During the half year, no sanctions or penalties were imposed upon the company for environmental offences or damages.

On 30 June 2008, Expert System S.p.A. obtained ISO 9001:2008 certification.

The latest audit of the ISO 9001:2015 certification was performed on 13/09/2019, and is valid until 28/06/2020.

Personnel

During the half-year there were no workplace fatalities for registered employees and no serious accidents occurred in the workplace causing serious or very serious injury to registered employees. Furthermore, there are no recorded charges concerning occupational diseases of employees or former employees, or mobbing proceedings.

Expert System also carried out investments in personnel safety in compliance with Italian Legislative Decree no. 81/08. All personnel were given training on the safety of workers and supervisors and refresher courses were provided to first aid personnel and members of the fire safety team.

Description of the main risks and uncertainties to which the Group is exposed

Pursuant to art. 2428 no. 1 of the Italian Civil Code, the main risks to which the Group is exposed are as follows:

Risks associated with trade receivable collection times: Expert System's business activities are characterised by customer payment timing that cannot easily be determined and can occasionally be several months, also in relation to the type of assignment and the contingent general economic situation. Any lengthening of payment times by customers can lead to Expert System needing to finance the related current capital needs. Such situations can therefore have a negative effect on the Company's income, equity and financial position. The above takes on further significance in consideration of the relevance of the trade receivables due from European public entities. These receivables can have longer and more difficult to predict collection times compared to receivables due from private customers.

Risks associated with the internationalisation: Expert System has initiated an internationalisation process in the hope that an appreciable part of its revenues can be generated from sales outside its domestic market, in Europe over the US market which represents an important area to be covered on both the public and private front. In this respect, Expert System could be exposed to risks typically associated with operating at international level, including those relating to changes in local economic conditions, policies, taxes and regulations together with risks associated with the complexity of conducting business in distant geographic areas, as well as those linked to changes in foreign exchange rates versus non-EU countries. Unfavourable events occurring in such areas could have negative effects on the Company's business and growth prospects, and on its income, equity and financial position. The following table shows the exchange rates applied to translate the Financial Statements of the subsidiaries:

CURRENCY	Exchange rate as of 28/06/2019	Average exchange rate H1 2019
USD	1.1380	1.1298
CAN	1.4893	1.5069
GBP	0.89655	0.87363

Risks associated with related party transactions: Expert System has concluded commercial and financial transactions with related parties, and as part of its operations could continue to do so. The main relations with related parties refer primarily to commercial transactions such as licence sales and purchases, maintenance fees, technical and/or sales consultancy, administrative services contracts and leases. The financial contracts instead refer mainly to loans disbursed by Expert System S.p.A. to Group companies. In particular, last March Expert System adopted an intercompany financing plan which envisages the parent company's disbursement to subsidiaries of loans of an amount sufficient to provide them with the funding necessary to meet their expense and investment commitments. The intercompany financing plan offers subsidiaries a simpler way

to obtain funding on the market and therefore overall facilitates execution of the Group's business plan. All the transactions performed were at arm's length.

Risks associated with the protection of intellectual property rights: To protect corporate value, the Company has registered the Expert System and COGITO trademarks. The core portion of COGITO software has also been patented in the United States.

Interest rate risk: the interest rate risk management policy aims to limit this volatility, first and foremost through the identification of a balanced mix of fixed and floating rate loans, and also by using derivatives which limit the fluctuations in interest rates, whilst derivative instruments or similar are not generally used purely for trading purposes.

Information is provided below on the fair value, amounts and the nature of each category of derivative financial instruments put into place by the Company, with breakdown by class, taking into account aspects such as the instruments' characteristics and their purpose.

The Company has signed the following derivative contracts:

a) CREDIT AGRICOLE

- Derivative contract type: IRS no. 65611/2017, unlisted, signed on 25/09/2017, expiring on 30/01/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: CREDIT AGRICOLE mortgage no. 0106917000000, originated for € 1,000,000, signed on 25/09/2017 and expiring on 30/01/2023;
- Notional amount at the reference date (30/06/2019): € 800,000;
- Amount of the liability hedged at the reference date (30/06/2019): € 800,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 16,145.92;
- fair value at the start of the hedge: zero.

b) BANCO BPM

- OTC derivative contract “Maximum rate with fractioned premium” ID 790526 F 00104961 D 00038973 signed on 24/07/2017 and expiring on 31/12/2022;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 400,000;
- Liability hedged: BANCO BPM mortgage no. 03703813, originated for € 400,000, signed on 24/07/2017 and expiring on 31/12/2022;
- Notional amount at the reference date (30/06/2019): € 311,111;
- Amount of the liability hedged at the reference date (30/06/2019): € 311,111;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 3,159.77;
- fair value at the start of the hedge: zero.

c) UNICREDIT

- OTC interest rate contract, the “Interest rate swap contract” deal no. 130618-0001 signed on 13/06/2018 and expiring on 30/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 2,000,000;
- Liability hedged: UNICREDIT mortgage no. 8031148, originated for € 2,000,000, signed on 13/06/2018 and expiring on 30/06/2023;
- Notional amount at the reference date (30/06/2019): € 1,600,000;
- Amount of the liability hedged at the reference date (30/06/2019): € 1,600,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 15,837.00;
- Fair value at the start of the hedge: zero.

d) UBI

- Derivative contract type: IRS no. 171206/2018, unlisted, signed on 24/10/2018, expiring on 24/10/2021;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: UBI mortgage no. 1276551, originated for € 1,000,000, signed on 24/10/2018 and expiring on 24/10/2021;
- Notional amount at the reference date (30/06/2019): € 835,768;
- Amount of the liability hedged at the reference date (30/06/2019): € 835,768;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 6,773.07;
- Fair value at the start of the hedge: zero.

e) CREDIT AGRICOLE

- Derivative contract type: IRS no. 69745/2019, unlisted, signed on 22/05/2019, expiring on 22/05/2024;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: CREDIT AGRICOLE mortgage no. 0120308000000, originated for € 1,000,000, signed on 22/05/2019 and expiring on 22/05/2024;
- Notional amount at the reference date (30/06/2019): € 1,000,000;
- Amount of the liability hedged at the reference date (30/06/2019): € 1,000,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 17,205.38;
- fair value at the start of the hedge: zero.

f) INTESA SANPAOLO

- Derivative contract type: IRS no. 31011814, unlisted, signed on 28/06/2019, expiring on 15/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 500,000;
- Liability hedged: loan originated for € 500,000, signed on 28/06/2019 and expiring on 15/06/2023;
- Notional amount at the reference date (30/06/2019): € 437,500;
- Amount of the liability hedged at the reference date (30/06/2019): € 437,500;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 2,230.00;
- fair value at the start of the hedge: zero.

Organisation and management model pursuant to Italian Legislative Decree 231/2001

Italian Legislative Decree no. 231 of 8 June 2001 introduced administrative liability of legal entities, companies and associations with or without legal status into Italian law. This decree envisages the exemption from administrative liability for companies adopting effective and efficient organisation and management models suitable to preventing offences that could be committed by senior officers of the Company.

Expert System S.p.A. decided to arrange the preparation of an Organisation and Management Model and a Code of Conduct, also to reflect the Company's broader corporate policy, which specify the action and initiatives undertaken to sensitise all its personnel (from management to employees), external collaborators and partners in relation to transparent and fair company management, in compliance with current legal regulations and with the fundamental business ethics principles in pursuing the corporate purpose. In this context, through adoption of the Organisation and Management Model envisaged in Italian Legislative Decree 231/2001, Expert System S.p.A. intends to pursue the objective of making the existing set of rules and controls also compliant with the aim of preventing the offences indicated in the decree.

The Organisation and Management Model and the Code of Conduct were approved by the Board of Directors of Expert System S.p.A. on 21 December 2016.

Adoption of the model refers solely to the parent company Expert System S.p.A. as the law considers the group to be a single organisation only in economic terms. A group is not an entity and therefore cannot be considered the direct centre for attributing liability for an offence, and therefore cannot be classified as one of the entities indicated in art. 1 of Decree 231.

The Code of Conduct, on the other hand, is applicable to Group companies as it expresses the general principles of company and corporate conduct that the Group accepts as its own and with which all employees, managers and directors are expected to comply. The Code of Conduct therefore has a different reach than the Organisation and Management Model, as the Model responds to specific provisions of the Decree, whilst the ethics principles contained in the Code of Conduct are the basic rules of conduct for the lawful exercise of business activities.

The Organisation and Management Model was developed around the real situations typical of the Company's operations, i.e. real activities and functions of the Company and consequently real risks of the related potential offences.

For each department in which an underlying risk situation was found to exist, one or more protocols were defined for decision-making and operations, containing the rules to be followed when conducting activities. The protocols draw inspiration from the rule of ensuring that the various steps in the decision-making process are documented and verifiable, wherever possible to trace the reasons behind the decision.

In particular, suitable procedures were defined to prevent the following offences:

- offences against P.A. and its assets;
- computer crimes and unlawful data processing;
- organised crime;
- falsification offences and industry and trade-related criminal offences;
- corporate offences;
- offences for the purpose of terrorism or overthrow of democratic order;
- criminal offences against the individual;
- market abuse offences;

- offences in violation of occupational health and safety regulations;
- anti-money laundering and receiving stolen goods;
- copyright violation offences;
- offences related to fraudulent statements to judicial authorities;
- environmental offences;
- offence of employing individuals without a valid residence/work permit.

Exemption from administrative liability as governed by art. 6 par. 1 of Italian Legislative Decree no. 231/2001 envisages the setup within the entity of a Supervisory Body as an element of fundamental importance. This Body has independent powers of initiative and control, with the duties of supervising the operations of and compliance with the Model and verifying its updating by the Board of Directors.

The Expert System S.p.A. Supervisory Body has three members: one internal and two external. All the members have proven expertise and professionalism. The presence of the internal member meets the requirement, from the outset, of giving the Supervisory Body immediate and in-depth knowledge of the entity's structure and its business organisation based on actual company operations.

This solution was considered the most suitable, based on the characteristics of the organisational structure, to guaranteeing the effectiveness of controls institutionally expected of the Supervisory Body and compliance with the related provisions in the recently approved Confindustria Guidelines.

In order to ensure the necessary stability and continuity of the Body's actions, it is envisaged that members hold office for a period of 3 years from the date of appointment.

It was also decided that the appointment, and termination if necessary, of the Supervisory Body should be the responsibility of the Board of Directors, which should make such arrangements in full compliance with the law and also on the basis of recommendations in the Confindustria Guidelines.

DEVELOPMENT ACTIVITIES

(art. 40, par. 2, letter a of Italian Legislative Decree no. 127/91)

As part of Expert System's strategy, the large investments in research and development have been and continue to be key elements in the company's success, crucial to retaining its competitive edge and remaining at state of the art in the field of artificial intelligence applied to understanding natural language.

The costs incurred for these activities were capitalised, also within the context of certain multi-year national and international research projects that have seen the Company's involvement. These activities involved the Cogito artificial intelligence platform and the products that use the platform to address the most common use cases of customers.

As regards the development tools used to personalise projects, the greatest effort was focused on creating a completely new version of Cogito Studio, which will be released in the next few months, and can be used to create custom projects simply and quickly.

Other areas of significant activity during the second half of the year were:

- release of the new version of Cogito Intelligence Platform;
- release of the beta version of Cogito for Life Science;
- restructuring and expansion of the knowledge graph for numerous languages (German, Arabic, Dutch and Chinese);
- new developments in intelligent analysis of complex documents.

Business outlook

(art. 40, par. 2, letter c of Italian Legislative Decree no. 127/91)

A significant effort is under way, as demonstrated by several factors linked to the evolution of the business model, to expand the company's international scope with a profile of a supplier of absolute cutting-edge AI platforms and solutions. The capital increase carried out in April supports this effort, which will demonstrate its results in particular in the medium term, following an initial phase of implementation of the various activities, starting with the significant expansion of the sales force. In particular, the US market, as well as the main European markets, will be the subject of significant investments in sales & marketing to intercept an ever-increasing supply of cognitive AI solutions.

For 2019 the objective is to achieve revenues of around € 33 million, in line with that set out in the Strategic Guidelines, with EBITDA in the range of € 5-6 million, influenced by several investments made ahead of schedule, for the purpose of international development and acquiring new market shares. The Management is working on the new 2020-2022 Business Plan, which will be presented in the next few months.

TREASURY SHARES

(art. 40, par. 2, letter d of Italian Legislative Decree no. 127/91)

As of 30 June 2019, the parent company Expert System S.p.A. held 12,278 treasury shares. The change compared to the 76,709 treasury shares held as of 31/12/2018 is attributable to the assignment of 64,431 treasury shares following the maturity on 28/06/2019 of the third tranche of the Temis 2016-2020 Stock Grant Plan, already approved by the Shareholders' Meeting of 28/06/2016.

EXPLANATORY NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS AS OF 30/06/2019



FORM AND CONTENT OF THE FINANCIAL STATEMENTS

The consolidated financial statements as of 30/06/2019, comprising the balance sheet, income statement, cash flow statement and explanatory notes, have been drawn up in compliance with Italian Legislative Decree no. 127/1991 supplemented, with regard to the aspects not specifically envisaged by the decree, by the national accounting standards published by the Italian Accounting Body (OIC) and, in the absence thereof, by those of the International Accounting Standard Board (IASB) and the Financial Accounting Standards Board (FASB); they are accompanied by the Management Report.

They are also accompanied by the following documents:

- List of the companies included in the consolidated financial statements and of the equity

investments:

Companies consolidated line-by-line (pursuant to art. 26)

Other equity investments in subsidiaries and associates

- Statement of reconciliation between shareholders' equity and loss for the period of the parent company and the corresponding consolidated balances.

The amounts are expressed in units of Euro.

The Financial Statements of the companies included in the scope of consolidation have been drawn up by the respective management bodies on the basis of the accounting standards mentioned above.

Exceptions

No exceptional cases were identified that required recourse to the exceptions set forth under art. 29, sections 4 and 5 of Italian Legislative Decree no. 127/1991.

Transposition of Directive 34/2013/EU.

With reference to the Financial Statements for the years starting from 1/1/2016, Italian Legislative Decree no. 139 of 18/08/2015 (so-called "financial statement decree"), published in the Official Gazette no. 205 of 4/9/2015, issued to implement Directive EU no. 34 of 26/6/2013, amended the Italian Civil Code with the aim of aligning the provisions contained therein on the regulation on the Financial Statements of corporations to the new EU provisions.

The above-mentioned directive replaced the EU regulation in force with the purpose of improving the extent of information provided by the accounting document and start a process of simplification of the regulation that governs the preparation and publication of the Financial Statements.

In this context of reform, also the Italian Accounting Body (OIC), in compliance with the institutional purposes set by law, reviewed 20 accounting standards, which are used with regard to the practical aspects of the new regulatory structure.

The amendment to the financial statements of corporations concerned in particular:

- the documents that make up the Financial Statements;

- the accounting policies;
- the content of the Balance Sheet and the Income Statement;
- the measurement criteria;
- the content of the Explanatory Notes.

Principles for consolidating equity investments (*articles 31 and 33 of Italian Legislative Decree no. 127/91*)

The consolidated financial statements comprise the financial statements of Expert System S.p.A. and of the foreign companies over which it directly or indirectly exercises control as of 30/06/2019 (art. 30, Italian Legislative Decree No. 127/91).

The assets and liabilities of the consolidated companies are included on a line-by-line basis. The book value of equity investments held by the parent company in directly and indirectly controlled companies is eliminated against the related shareholders' equity. The difference between the acquisition cost and the shareholders' equity of the investee companies as of the date control is acquired is distributed, where possible, to the assets and liabilities of the investees, net of deferred taxes. Any remaining difference, if positive and if the recognition requirements of OIC 24 are met, is recognised in the item "Goodwill" under intangible fixed assets. The remaining difference that cannot be allocated to asset and liability items or to goodwill is recorded in item 'B14 Sundry operating expenses' in the income statement.

Goodwill is amortised on the basis of a useful life estimated at 5 years, taking into account all available information to estimate the period in which the economic benefits will be achieved.

Expert System considered it appropriate to exclude ADmantX S.p.A., with headquarters in Naples and which the Group directly controls, and ADmantX Inc., with headquarters in the USA and which the Group indirectly controls. Both companies provide semantic solutions for the advertising market, offering advertisers software that is able to automatically determine which ads are most suitable for advertising on a given website.

The equity investment in ADmantX S.p.A. as of 30/06/2019 is not considered functional with regard to the group's objectives and, in fact, scouting activities have been underway for the purpose of identifying a strategic partner, of an industrial and/or financial nature, to whom a

significant or total holding in the company may be transferred, which permits ADmantX to more fully express its potential on a market such as that of ADtech which has features and methods very different from the Expert System business model.

Conversion to Euro of the Financial Statements of foreign companies (*art. 38, par. 1, letter b of Italian Legislative Decree no. 127/91*)

The Financial Statements of the foreign companies are translated into Euro according to the following criteria:

- the assets and liabilities at the exchange rate in force as of the period end date;
- the income and expenses by applying the average of the period exchange rates;
- the shareholders' equity components at the rate in force in the related formation period.

The exchange differences deriving from the conversion of the shareholders' equity using the original formation exchange rates at the time of acquisition compared to those in force as of the Balance Sheet date are booked directly to shareholders' equity, together with the differences between the economic result expressed using the average exchange rates and the economic result expressed in Euro using the exchange rates in force as of the end of the period to the item "Translation differences reserve", included under "Other reserves".

The payable and receivable items and those concerning costs and revenues between the companies included in the scope of consolidation, are eliminated. In detail, the gains and losses deriving from transactions between Group companies not yet realised vis-à-vis third parties are eliminated, if significant.

The annual Financial Statements of the individual companies approved by the Shareholders' Meeting or drawn up by the Board of Directors for approval, have been reclassified and adjusted if necessary to align them with the accounting standards adopted by the Group. For companies with year-end dates other than that for the consolidated financial statements, specific interim reports are prepared.

Reference date of the Consolidated Financial Statements (*art. 30 of Italian Legislative Decree no. 127/91*)

The reference date of the Consolidated Financial Statements, 30/06/2019, coincides with the closing date of the interim financial statements of companies included in the scope of consolidation.

List of companies included in the scope of consolidation (art. 38, par. 2, letters a) to d) of Italian Legislative Decree no. 127/91)

List of equity investments included in the scope of consolidation using the line-by-line method

Company name	Registered offices	Currency	SE as of 30/06/2019	Share capital	Profit/(Loss) 30/06/2019	Group direct holding	Group indirect holding
Expert System Iberia S.L.U.	Barcelona (ESP)	€	(1,089,666)	2,603,000	(705,656)	100%	
Expert System France S.A.	Paris (FRA)	€	1,414,886	199,269	113,547	100%	
Expert System Deutschland GmbH	Heidelberg (DEU)	€	(1,351,337)	25,000	(391,097)		100%
Expert System Cogito Ltd.	London (UK)	£	(973,898)	1,000	(81,091)	100%	
Expert System USA Inc.	Alexandria (USA)	\$ USA	(4,799,452)	1	415,727	100%	
Expert System Enterprise Corp.	Rockville (USA)	\$ USA	(6,011,195)	200	(1,263,809)		100%
Expert System Canada – Semantic Technologies Inc.	Montreal (CAN)	\$ Can.	(180,207)	1,000	(29,918)		100%

List of other equity investments in subsidiaries and associates

Name	Italian city or Foreign country	Capital previous year in €	Profit (Loss) previous year in €	Shareholders' equity previous year in €	% held as of 30/06/2019
ADmantX S.p.A.	Naples	223,359	(248,062)	327,923	60.80%

ADmantX Inc.	West Hartford CT 06133-0024, USA	8,875	27,035	(2,490,011)	60.80%
CY4Gate S.r.l.	Rome	321,000	(963,329)	3,422,445	17.66%

Changes in the scope of consolidation

The scope of consolidation has not changed compared to the previous year.

MEASUREMENT CRITERIA

(art. 38, par. 1, letter a of Italian Legislative Decree no. 127/91)

The measurement criteria adopted for the drafting of the Consolidated Financial Statements are in line with those used by the parent company, supplemented where necessary by the accounting standards adopted for specific Consolidated Financial Statements items.

The measurement of the individual items is carried out on a prudent basis and with a view to the business as a going-concern, and taking into account the economic function of the asset and liability elements on the basis of the principle of prevalence of substance over form.

The measurement criteria have remained unchanged with respect to the previous year.

In particular, the following measurement criteria were adopted.

Intangible fixed assets

Intangible fixed assets are recognised, up to the recoverable value, at purchase or production cost, inclusive of any accessory charges, and are amortised systematically in relation to the residual possible useful life, possibly written down if as of the year-end date the estimated recovery value of the fixed assets is permanently lower than the cost.

Tangible fixed assets

Tangible fixed assets are recorded at the date of transfer of the risks and benefits associated with the assets acquired and recognised, up to the recoverable value, at purchase or production costs net of the related accumulated depreciation, including all the costs and accessory charges directly

attributable.

The cost is revalued, if necessary, in accordance with monetary revaluation laws and, in any event, does not exceed the market value.

The cost of the fixed assets whose use is limited over time is systematically depreciated each year on the basis of the economic-technical rates established in relation to the residual useful life.

In the event that, irrespective of the depreciation already recognised, permanent losses in value (impairment) are registered, the fixed assets are written down in relation to the residual useful life. If the reasons for the write-downs no longer exist in subsequent years, the original value is written back. Fixed assets in progress and advances to suppliers are recorded under the assets on the basis of the cost incurred and/or the payment on account made inclusive of the directly attributable costs.

Equity investments

Equity investments are recognised at purchase and/or subscription cost, inclusive of accessory charges, and are written down in the presence of impairment losses.

Debt securities

Debt securities are recognised at the time of delivery of the security and classified as non-current assets or current assets, depending on their allocated use.

Investment securities

Listed and unlisted non-current debt securities are measured individually, assigning the specific cost incurred to each security.

Current securities

Securities which do not represent fixed assets are recognised at purchase cost or estimated realisable value taken from market trends, whichever is the lower.

Inventories

Contract work in progress is measured on the basis of the percentage of completion criterion: costs, revenues and the job profit are recognised on the basis of the progress of production activities. For the application of this criterion the hours worked method is adopted.

Derivative financial instruments

Derivative financial instruments are recognised at fair value, corresponding with the market value, if any, or with the value obtained from measurement models and approaches that ensure a reasonable approximation of the market value. Financial instruments for which these methods could not be applied are measured on the basis of purchase price.

The present value is recorded among Balance Sheet assets in a specific item of non-current financial assets or current assets, depending on the allocated usage, or among liabilities in a specific item under provisions for risks and charges.

The cash flow hedges have a balancing entry in a shareholders' equity reserve or, for the ineffective portion, in the Income Statement.

Receivables

Receivables are recorded as non-current assets or as current assets on the basis of their allocated use/source compared to the core business.

Receivables must be recognised in the Financial Statements at amortised cost, taking into account the time factor and the estimated realisable value. The company opted:

- not to discount the receivables as the effective interest rate is not significantly different from the market interest rate;
- not to apply the amortised cost criterion to receivables due in less than 12 months;
- not to apply the amortised cost criterion as the transaction costs, fees and all other differences between the original value and value at the due date are negligible.

Receivables are thus recognised at their estimated realisable value based on the debtors' solvency situation and the historical evolution of losses on receivables.

The receivables are recognised at estimated realisable value via allocations to the bad debt provision, recorded as a direct deduction from the asset and determined in relation to the risk of loss emerging from specific analysis of the individual positions and in relation to the past performance of the losses on receivables, as well as the country risk.

Cash and cash equivalents

Cash and cash equivalents as of 30/06/2019 are measured at nominal value.

Accruals and deferrals

Accrued income and prepaid expenses, and accrued expenses and deferred income are recognised on an accruals basis.

Accrued income, classed as receivables for the period, were measured at their estimated realisable value.

Accrued expenses, classed as payables, were measured at nominal value.

Provisions for risks and charges

Provisions for risks and charges are set aside to cover losses or payables which are certain or likely to exist but, in respect of which, the amount or date of occurrence cannot be determined at period-end. The provisions reflect the best possible estimate on the basis of the elements available.

The pension provision is established to cover the commitments accrued at period end vis-à-vis those with the right to a pension.

The provision for taxation includes the deferred tax liabilities associated with consolidation adjustments, when the effective manifestation with regard to one of the subsidiaries is probable.

Employee severance indemnity

This reflects the liability, subject to revaluation by means of specific indices and net of the advance paid out, accrued by all the employees of the Group as of 30/06/2019, in compliance with the provisions of the law and current employment agreements.

Payables

The Company opted not to apply the amortised cost criterion to current payables (due in less than 12 months) and to other payables when the difference between the original value and the value at the due date is negligible, rendering the application of this criterion immaterial.

Furthermore, no account was taken of the “time factor” and payables due after 12 months were not discounted as the difference between the effective interest rate and the market rate is immaterial.

Payables not measured using the amortised cost criterion are therefore recognised at their nominal value.

Criteria for the translation of amounts stated in foreign currency

Monetary assets and liabilities outstanding at the end of the period, originally expressed in currencies of countries not complying with the Euro, are expressed in the Financial Statements at the exchange rate in force at the end of the period. Gains and losses on the translation of the receivables and payables mentioned above using the exchange rate as of the Balance Sheet date are respectively credited and charged to the Income Statement.

Assets and liabilities in non-monetary currency are recognised at the exchange rate in force at the time of purchase.

Costs and revenues

These are stated on a prudent basis in accordance with the accruals principle.

Income taxes for the period

Current income taxes are recognised, for each company, on the basis of the estimate of the taxable income in compliance with the rates and current provisions as of the period end date in each country, taking into account any applicable exemptions and the tax credits possible due.

Prepaid and deferred taxes are calculated on the temporary differences between the value

assigned to an asset or liability in the Financial Statements and the corresponding values recognised for tax purposes, on the basis of the rates in force at the time the temporary differences will reverse. Prepaid taxes are only recognised if reasonable certainty exists with respect to their future recoverability.

CHANGES IN FIXED ASSETS

(art. 38, par. 1, letter b-bis of Italian Legislative Decree no. 127/91)

Intangible fixed assets

Intangible fixed assets amounted to € 14,002,593 (€ 14,733,649 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Start-up and expansion costs	Development costs	Industrial patent and intellectual property rights	Concessions, licences, trademarks and similar rights	Goodwill	Other intangible fixed assets	Fixed assets in progress	Total intangible fixed assets
Balance at start of the period								
Cost	2,296,745	33,989,943	1,038,677	19,052	14,357,634	38,464	-	51,740,515
Amortisation (Accumulated amortisation)	1,444,443	23,823,372	748,631	15,920	10,936,035	38,464	-	37,006,865
Book value as of 31/12/2018	852,302	10,166,571	290,046	3,132	3,421,599	-	-	14,733,649
Changes in the period								
Increases due to purchases	92,304	2,766,317	97,824	12,353	-	-	-	2,968,797
Reclassifications	-	-	-	-	-	-	-	-
Decreases due to sales and disposals								
Amortisation in the period	161,771	2,230,414	44,280	326	1,259,951	-	-	3,696,741

Other changes	1,301	1,810	-	-	-	-	3,111
Total changes	(68,166)	534,093	-	12,027	(1,259,951)	-	(781,997)
Balance at end of the period							
Cost	2,389,049	36,756,259	1,136,500	31,405	14,357,634	38,464	54,709,311
Amortisation (Accumulated amortisation)	1,607,515	26,055,596	792,911	16,246	12,195,986	38,464	40,706,717
Book value as of 30/06/2019	781,534	10,700,664	343,589	15,159	2,161,648	-	14,002,593

Goodwill

Goodwill, recognised for € 2,161,648 net of amortisation, includes the following values:

- € 146,221, net of € 1,315,990 amortisation, deriving from the subsidiary Expert System Iberia S.L.U. following acquisition of the business unit of Isoco at the time Expert System Iberia S.L.U. was incorporated;
- € 901,697, net of € 732,803 amortisation, deriving from the goodwill recognised among assets of the subsidiary Expert System France S.A.;
- € 2,161,648 is the value deriving from replacing the book value of the parent company's equity investments in the consolidated companies with the corresponding net capitals at the time of acquisition, net of amortisation and depreciation applied on initial consolidation. This value, generated at the time of netting the book value of the equity investments held by the parent company against the shareholders' equity of the consolidated subsidiaries, was recognised under intangible fixed assets and is amortised on a straight-line basis for 5 years.

In particular, the total of € 2,161,648 was calculated as follows:

- € 836,031 (net of € 7,614,479 total post-acquisition amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System France S.A.;
- € 13,789 (net of € 124,102 total post-acquisition amortisation) from the

consolidation into the Expert System Group of the subsidiary Expert System Iberia S.L.U.;

- € 263,910 (net of amortisation of € 2,375,189) from the sub-consolidation into the subsidiary Expert System France S.A. of the companies in turn controlled by said Expert System France S.A.

Breakdown of start-up and expansion costs (art. 38, par. 1, letter d of Italian Legislative Decree no. 127/91)

The breakdown of start-up and expansion costs is shown in the following table.

	Balance at start of the period	Increases in the period	Amortisation in the period	Other changes	Total changes	Balance at end of the period
Establishment/article of association amendment costs	16,957		5,970		(5,970)	10,988
Start-up costs	536,439	5,198	92,345	(1,301)	(88,448)	447,991
Admission to stock market listing	298,906	87,106	63,456		23,650	322,556
Total	852,302	92,304	161,771	(1,301)	(70,768)	781,534

The costs recorded are reasonably correlated to long-term benefit over several years, and are systematically amortised in relation to their residual useful life.

Tangible fixed assets

Tangible fixed assets amount to € 718,089 (€ 715,423 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Land and buildings	Plant and machinery	Industrial and commercial equipment	Other tangible fixed assets	Total tangible fixed assets
Balance at start of the period					

Cost	456,980	218,291	1,558	2,291,206	2,968,035
Depreciation (Accumulated depreciation)	105,330	213,297	1,558	1,932,427	2,252,612
Book value as of 31/12/2018	351,650	4,994	-	358,780	715,423
Changes in the period					
Disposals					
Increases due to purchases				92,989	92,989
Amortisation in the period	5,544	3,074		85,015	93,633
Other changes				(3,309)	(3,309)
Total changes	(5,544)	(3,074)		11,283	2,665
Balance at end of the period					
Cost	456,980	218,291	1,558	2,384,195	3,061,024
Depreciation (Accumulated depreciation)	110,874	216,371	1,558	2,014,133	2,342,936
Book value as of 30/06/2019	346,106	1,920	-	370,063	718,089

The item “Other assets”, which includes residual balances which cannot be classified in the previous items, amounted to € 370,063 (€ 358,780 in the previous year), and is made up as follows:

	Balance at start of the period	Changes in the period	Balance at end of the period
Office furniture	108,312	(11,157)	97,155
Electronic office machines	205,091	25,334	230,426
Motor vehicles	-	-	-
Ordinary office machines	8,300	(2,921)	5,379

Signage	2,610	(2,610)	-
Mobile phones	8,426	(107)	8,319
Motorcycles	-	4,250	4,250
Office furniture and fittings	26,041	(1,506)	24,535
Total	358,780	11,283	370,063

Non-current financial assets - Equity investments, other securities and derivative financial instruments

The equity investments not included in the scope of consolidation amounted to € 309,471 (€ 308,271 in the previous year).

Other securities classed as non-current financial assets amounted to € 86,020 (€ 85,703 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Equity investments in associates	Equity investments in other companies	Total equity investments	Other securities
Book value as of 31/12/2018	251,266	57,005	308,271	85,703
Changes in the period			-	317
Increases due to purchases		1,200	1,200	
Reclassifications	(251,266)	251,266	-	
Book value as of 30/06/2019	-	309,471	309,471	86,020

Note that the equity investment in CY4 Gate S.r.l. was reclassified from the item “equity investments in associates” to the item “equity investments in other companies”, as it did not meet the requirements to be considered an associate.

The breakdown of the value of equity investments in other companies is as follows:

Description	Book value
Okkam S.r.l.	1,000
Conai	5
UTE TIC x CAT	1,200
Confidimpresa	5,000
Distretto Tecnologico Trentino S.c.a.r.l.	1,000
Buzzoole Holdings Limited	50,000
CY4Gate S.r.L	251,266
Other equity investments in other companies	309,471

Non-current financial assets - Receivables

Receivables classed as non-current financial assets amounted to € 519,242 (€ 811,567 in the previous year). These refer to receivables due from the associate CY4Gate S.r.l. and the subsidiary ADmantX S.p.A.

The breakdown and the changes in the individual items are presented as follows:

	Opening nominal amount	Opening bad debt provision	Opening net value	Allocations to the bad debt provision	Use of bad debt provision	(Write-downs)/ Write-backs	Other increases/ (decreases)	Closing nominal amount	Closing bad debt provision	Closing net value
Due from subsidiaries - within 12 months	100,012	-	100,012	-	-	-	677	100,689	-	100,689
Due from associates - after 12 months	390,000	-	390,000	-	-	-	(390,000)	-	-	-
Due from associates - within 12 months	321,555	-	321,555	-	-	-	(321,555)	-	-	-

Other receivables - within 12 months	-	-	-	-	-	-	418,553	418,553	-	418,553
Total	811,567	-	811,567	-	-	-	(292,326)	519,242	-	519,242

SIGNIFICANT CHANGES IN OTHER ASSET AND LIABILITY ITEMS

(art. 38, par. 1, letter c of Italian Legislative Decree no. 127/91)

Current assets - Inventories

Inventories included under current assets amounted to € 16,121 (€ 109,312 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Balance at start of the period	Change during the period	Balance at end of the period
Raw materials and consumables	-	-	-
Contract work in progress	109,312	(93,190)	16,121
Total inventories	109,312	(93,190)	16,121

Current assets - Receivables

Receivables included under current assets amounted to € 22,686,855 (€ 24,476,513 in the previous year).

The breakdown of the individual items is as follows:

	Within 12 months	After 12 months	Total nominal value	(Provisions for risks/bad debt provision)	Net value
Due from customers	13,278,767	-	13,278,767	(260,168)	13,018,599
Due from subsidiaries	135,972	26,787	162,759	-	162,759
Due from associates	-	-	-	-	-

Tax receivables	875,620	-	875,620	-	875,620
Prepaid taxes	645,357	1,439,965	2,085,322	-	2,085,322
Other receivables	4,259,184	2,285,372	6,544,556	-	6,544,556
Total	19,194,900	3,752,123	22,947,023	(260,168)	22,686,855

The bad debt provision was recognised as an adjustment to receivables due from customers for:

- € 190,180 by the parent company;
- € 21,780 by Expert System Iberia SLU;
- € 24,043 by Expert System France SA;
- € 24,165 by Expert System Enterprise Corp.

Receivables due from subsidiaries, amounting to € 162,759, are amounts due from the subsidiary ADmantX S.p.A., excluded from the scope of consolidation as explained in the introduction.

Receivables due from others totalled € 6,544,556 (€ 5,686,983 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Opening value	Change	Closing value
Security deposits	398,506	223,511	622,017
Payments on account	134,913	11,497	146,409
Receivables for research project grants	4,559,302	904,689	5,463,990
Receivables due from factoring companies	411,841	(364,548)	47,293
Other receivables	182,421	82,424	264,845
Total	5,686,983	857,573	6,544,556

Details of receivables for development project grants within and after 12 months are presented

below by company:

	Expert System S.p.A.	Expert System Iberia S.L.U.	Expert System France S.A.
Receivables for project grants within 12 months	2,307,625	115,325	818,570
Receivables for project grants after 12 months	1,788,337	434,133	-
Total	4,095,962	549,458	818,570

Breakdown of grant receivables by project

Expert System S.p.A.	Receivables due within 12 months	Receivables due after 12 months
Horizon 2020	284,570	426,125
Horizon 2020 - EIT Digital	177,187	527,427
PON		115,000
PON R&C 2007-2013	619,696	
POR FESR Apiae		257,285
POR FESR Lazio	243,648	
European Project - Tender ISEC	178,478	
MISE (Ministry of Economic Development)	560,155	
MIUR (Ministry of Education, Universities and Research)	243,892	462,500
Total	2,307,625	1,788,337

Expert System Iberia S.L.U.	Receivables due within 12 months	Receivables due after 12 months
EVEREST		-
DANTE	59,850	-

X-LIME-ES	55,475	-
TRIVALENT	-	16,227
LETSCROWD	-	54,938
COINFORM	-	62,304
CICCERO	-	13,855
ELG		124,753
KDRIVE		92,306
XLIME		69,750
Total	115,325	434,133

Expert System France S.A.	Receivables due within 12 months	Receivables due after 12 months
PRESIDIO	197,681	
Reference value	8,636	
COMBI	75	
ADR PRISME	101	
ITRAC	126,783	
E-Compliance	815	
Faucon	185,111	
Pythia	56,688	
Social Trust	161,492	
Solomon	81,188	

Total	818,570	-
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Current assets - Financial assets

Current financial assets amounted to € 4,804,048 (€ 4,958,203 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Balance at start of the period	Changes in the period	Balance at end of the period
Current equity investments in subsidiaries	4,775,574	-	4,775,574
Other current equity investments	8,400	-	8,400
Other current securities	174,229	(154,155)	20,074
Total	4,958,203	(154,155)	4,804,048

The item “Current equity investments in subsidiaries”, amounting to € 4,775,574, includes the 60.80% equity investment in the subsidiary ADmantX S.p.A. held by the parent company, and excluded from the scope of consolidation for the reasons outlined in the introduction.

The value of the equity investment in ADmantX S.p.A. was not written down on the basis of the appraisal, carried out in accordance with art. 2343-ter, par. 2 of the Italian Civil Code by Mauro Zavani, listed in the *Ordine dei Dottori Commercialisti ed Esperti Contabili* (Association of Chartered and Qualified Accountants) of Massa Carrara, an appraisal which valued the company ADmantX S.p.A. at a total of € 11,072,000. In respect of said valuation, confirmed by the aforementioned share capital increase, the equity investment in ADmantX S.p.A. was not written down as it is not below the fair value.

Receivables - Breakdown by maturity (art. 38, par. 1, letter e of Italian Legislative Decree no. 127/91)

The table below shows the breakdown of receivables by maturity:

	Balance at start of the period	Change during the period	Balance at end of the period	Portion due within 1 year	Portion due after 1 year	Of which with a residual duration of over 5 years
Current receivables due from customers	15,792,097	(2,773,499)	13,018,599	13,018,599	-	-
Current receivables due from subsidiaries	94,752	68,007	162,759	135,972	26,787	-
Current receivables due from associates	13,420	(13,420)	-	-	-	-
Current tax receivables	1,087,020	(211,400)	875,620	875,620	-	-
Current prepaid tax assets	1,802,241	283,081	2,085,322	645,357	1,439,965	-
Other current receivables	5,686,983	857,573	6,544,556	4,259,184	2,285,372	-
Total	24,476,513	(1,789,658)	22,686,855	18,934,732	3,752,123	-

Receivables due from customers - Breakdown by geographic area

	Receivables due from customers	Invoices to be issued	CN to be issued	Other trade receivables	Total
Italian customers	4,086,266	3,366,889	-	-	7,453,155
EU customers	1,907,167	981,181	-	-	2,888,348
Non-EU customers	1,119,899	1,817,365	-	-	2,937,264
Total	7,113,331	6,165,435	-	-	13,278,767
Bad debt provision	(260,168)	-	-	-	(260,168)
Total	6,853,163	6,165,435	-	-	13,018,599

Current assets - Cash and cash equivalents

Cash and cash equivalents included under current assets amounted to € 16,858,171 (€ 7,882,784 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Balance at start of the period	Change during the period	Balance at end of the period
Bank and postal deposits	7,880,364	8,975,164	16,855,528
Cash at bank and in hand	2,420	223	2,643
Cheques	-	-	-
Total	7,882,784	8,975,387	16,858,171

Accrued income and prepaid expenses (art. 38, par. 1, letter f of Italian Legislative Decree no. 127/91)

Accrued income and prepaid expenses amounted to € 596,626 (€ 577,090 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Balance at start of the period	Change during the period	Balance at end of the period
Prepaid expenses	577,090	(36,233)	540,857
Accrued income	-	55,769	55,769
Total accrued income and prepaid expenses	577,090	19,536	596,626

	Deferrals within 12 months	Deferrals after 12 months	Deferrals after 5 years
Personnel recruitment and training	4,406	433	-
Rent and leases payable	100,306	-	-
Insurance	27,033	-	-
Fees	51,515	70,587	-

Consultancy	10,152	20,023	-
Maintenance	16,440	227	-
Rentals	19,717	-	-
Sundry services	9,297	642	-
Software	29,688	8,853	-
Internet costs	2,891	8	-
Royalties	103,129	-	-
Hardware	-	-	-
Public relations costs	29,819	-	-
Other deferrals	35,140	550	-
Total	439,532	101,324	-

Shareholders' equity

The shareholders' equity as of 30/06/2019 amounted to € 17,859,850 (€ 15,077,489 as of 31/12/2018).

With regard to the changes during the half-year, that described in detail in the first part of this report is summarised below:

- on 23 April 2019, the Board of Directors decided to partially exercise the powers delegated to it by the Extraordinary Shareholders' Meeting of 18 April 2019, to increase the share capital for a maximum of € 10 million, through the issue of new ordinary shares without par value, also excluding the option right pursuant to art. 2441, par. 5 of the Italian Civil Code. Thus, a divisible share capital increase was approved, excluding option rights, for a maximum total amount of € 7,000,000.20, including share premium, of which € 38,888.89 attributable to share capital, through the issue of a maximum of 3,888,889 ordinary shares

without par value, fully subscribed by ERGO S.r.l., a newly-established company controlled by a pool of private investors;

- on 3 May 2019 the first share capital increase delegated to the Board of Directors was carried out, in implementation of the incentive plan called the “2018-2020 Stock Grant Plan”, which led to issue of the first tranche of 76,600 new shares through the free share capital increase of € 766, using funds for the same amount from the extraordinary reserve;
- on 28 June 2019, by deed recorded and authenticated by Notary Rolando Rosa (index no. 124101, folder 22757) and by virtue of the powers granted to the Board of Directors, the third and last share capital increase was carried out in implementation of the “Temis 2016-2020 Stock Grant Plan”. The share capital increase led to the issue of the third tranche of 111,151 new shares through a free share capital increase of € 1,111.51, using funds for that amount from the extraordinary reserve. On the same date, again in implementation of the “Temis 2016-2020 Stock Grant Plan”, the Company arranged the free-of-charge assignment to beneficiaries of 64,431 treasury shares, equal to 25% of the total value of the plan.

The following tables disclose the change during the period in the individual items which make up the shareholders’ equity. “Other changes” include the changes relating to the fair value of derivatives.

	Balance at start of the period	Allocation of profit for the period	Increases	Stock grant	Decreases	Other changes	Profit (loss) for the period	Balance at end of the period
Share capital	358,590	-	38,889	1,878	-	-		399,357
Share premium reserve	35,076,223	-	6,961,111	388,120	-	-		42,425,454
Legal reserve	43,899	27,819	-		-	-		71,718
Other reserves								
Extraordinary reserve	1,194,367	1,338,063	-	(523,692)		-		2,008,739
Merger surplus reserve	376,622	-	-		-	-		376,622
Reserve for unrealised exchange gains	180,049	218,907	-		-	-		398,956
Miscellaneous other reserves	729,221	-	-		88,445	-		640,776
Total other reserves	2,480,259	1,556,970	-		88,445	-		3,425,093
Cash flow hedging reserve	(38,596)	-	-		-	(22,755)		(61,351)
Retained earnings (losses)	(18,902,814)		(3,780,886)		-	(1,667,994)		(24,351,694)
Profit (loss) for the period	(3,780,886)	3,780,886					(4,023,233)	(4,023,233)
Negative reserve for treasury shares in portfolio	(159,187)	-	-	133,694	-	-		(25,493)
Total Group shareholders' equity	15,077,489	5,365,675	3,219,114		88,445	(1,690,750)	(4,023,233)	17,859,850
Shareholders' equity pertaining to minority interests								
Total consolidated shareholders' equity	15,077,489	5,365,675	3,219,114		88,445	(1,690,750)	(4,023,233)	17,859,850

Share capital

Share capital is composed as follow:

Description	Opening balance, number	Opening balance, nominal value	Shares subscribed during the period, number	Shares subscribed during the period, nominal value	Closing balance, number	Closing balance, nominal value
Ordinary shares	35,859,031	-	4,076,640	-	39,935,671	-
Total	35,859,031	-	4,076,640	-	39,935,671	-

Miscellaneous other reserves

The "Miscellaneous other reserves" are composed as follows:

Description	Amount
PIA Reserve provision	141,000

Other reserves	409,881
Translation reserve	89,895
Total	640,776

Cash flow hedging reserve

The information required by article 38, par. 1 letter o-quater of Italian Legislative Decree no. 127/1991 on changes occurring during the period is summarised in the following table:

	Cash flow hedging reserve
Balance at start of the period	(38,596)
Changes in the period	
Change in fair value	(22,755)
Balance at end of the period	(61,351)

Provisions for risks and charges

Provisions for risks and charges are recorded under liabilities for a total of € 1,118,065 (€ 1,053,741 in the previous year).

The breakdown and the changes in the individual items are presented as follows

	Provision for pensions and similar obligations	Provision for taxes, including deferred	Derivative financial instruments - liabilities	Other provisions	Total provisions for risks and charges
Balance at start of the period	4,341	995,040	38,596	15,764	1,053,741
Provision in the period		42,332	22,755		65,088
Use in the period					
Other changes				(764)	(764)
Balance at end of the period	4,341	1,037,373	61,351	15,000	1,118,065

These are set aside to cover losses or payables which are certain or likely to exist but, in respect of which, the amount or date of occurrence could not be determined at period end.

In measuring these provisions, the general principles of prudence and accrual accounting were observed, and no generic risk provisions were set up without economic justification.

Contingent liabilities were recorded in the Financial Statements and booked to provisions given they were deemed likely and that the amount can be reasonably estimated.

EMPLOYEE SEVERANCE INDEMNITY

The employee severance indemnity is recorded under liabilities for € 2,261,029 (€ 2,143,307 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Employee severance indemnity
Balance at start of the period	2,143,307
Provision in the period	269,005
Use in the period	(101,367)
Other changes	(49,915)
Total changes	117,722
Balance at end of the period	2,261,029

This refers to the actual amounts accrued due to employees in compliance with law and the applicable employment contracts, in consideration of any form of continuous pay.

The provision corresponds to the total of individual indemnities accrued by employees at the close of the financial year, net of any advances provided, and is equal to the amount that would have been due to employees if they had ended their employment on said date.

Payables

Payables are recorded under liabilities for a total of € 29,431,043 (€ 27,818,880 in the previous year).

The breakdown of the individual items is as follows:

	Balance at start of the period	Changes in the period	Balance at end of the period
Bonds	5,000,000	-	5,000,000
Payables due to shareholders for loans	-	-	-
Payables due to banks	13,049,692	2,542,231	15,591,923
Payables due to other lenders	2,420,327	(456,212)	1,964,115
Payments on account	639,244	183,237	822,481
Trade payables	2,807,819	14,594	2,822,413
Tax payables	1,254,649	(389,619)	865,030
Payables due to social security institutions	572,886	(105,472)	467,414
Other payables	2,074,263	(176,597)	1,897,666
Total	27,818,880	1,612,162	29,431,043

The Company opted not to apply the amortised cost criterion and not to discount the payables.

The accounting policies adopted by the Company were:

- not to discount and not to apply the amortised cost criterion to payables due in less than 12 months;
- not to discount the payables as the effective interest rate is not significantly different from the market interest rate;
- not to apply the amortised cost criterion as the transaction costs, fees and all other

differences between the original value and value at the due date are negligible.

Payables are therefore recognised at nominal value.

The item “Bonds” is composed of the bond issued by Expert System S.p.A., comprising 50 non-convertible bonds with a par value of € 100,000 each, for a total of € 5,000,000, reserved to professional investors and fully subscribed by the Strategic Fund Trentino Alto Adige managed by Finint Investments SGR S.p.A.

The main terms and conditions of the Bond Loan are as follows:

Amount	Nominal amount of € 5,000,000.00
Issue date	31/07/2015
Maturity	31/12/2024, date of redemption of the bond loan
Issue price	100% of the nominal value of each bond
Interest rate	Gross annual fixed rate of 4% with half-yearly payments from January 2016
Bond structure	Amortising with 4 years of pre-amortisation

Payables - breakdown by maturity (art. 38, par. 1, letter e of Italian Legislative Decree no. 127/91)

Information relating to the breakdown of payables by maturity is provided below:

	Balance at start of the period	Change during the period	Balance at end of the period	Portion due within 1 year	Portion due after 1 year	Of which with a duration of over 5 years
Bonds	5,000,000	-	5,000,000	454,500	4,545,500	-
Payables due to shareholders for loans	-	-	-	-	-	-

Payables due to banks	13,049,692	2,542,231	15,591,923	5,241,679	10,350,244	119,798
Payables due to other lenders	2,420,327	(456,212)	1,964,115	148,231	1,815,884	-
Payments on account	639,244	183,237	822,481	353,397	469,085	-
Trade payables	2,807,819	14,594	2,822,413	2,822,413	-	-
Tax payables	1,254,649	(389,619)	865,030	865,030	-	-
Payables due to social security institutions	572,886	(105,472)	467,414	467,414	-	-
Other payables	2,074,263	(176,597)	1,897,666	1,897,666	-	-
Total payables	27,818,880	1,612,162	29,431,043	12,250,329	17,180,714	119,798

Payables secured by collaterals on company assets (art. 38, par. 1, letter e of Italian Legislative Decree no. 127/91)

The information concerning collaterals on company assets is presented below:

	Payables backed by mortgages	Payables not backed by collaterals	Total
Bonds	-	5,000,000	5,000,000
Payables due to banks	239,195	15,352,728	15,591,923
Payables due to other lenders	-	1,964,115	1,964,115
Payments on account	-	822,481	822,481
Trade payables	-	2,822,413	2,822,413
Tax payables	-	865,030	865,030
Payables due to social security institutions	-	467,414	467,414
Other payables	-	1,897,666	1,897,666

Total payables	239,195	29,191,847	29,431,043
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Accrued expenses and deferred income (*art. 38, par. 1, letter f of Italian Legislative Decree no. 127/91*)

Accrued expenses and deferred income are recorded under liabilities for a total of € 9,927,248 (€ 8,565,098 in the previous year).

The breakdown and the changes in the individual items are presented as follows:

	Balance at start of the period	Change during the period	Balance at end of the period
Accrued expenses	152,471	(25,266)	127,204
Deferred income	8,412,627	1,387,417	9,800,044
Total accrued expenses and deferred income	8,565,098	1,362,151	9,927,248

Breakdown of deferred income:

	Due within 12 months	Due after 12 months	Due after 5 years
Hosting fees	175,979	-	-
Research project grants	3,033,150	2,320,579	-
Tax credits	531,768	759,831	-
Licences	137,380	-	-
Maintenance	2,394,596	-	-
Provision of services	415,425	-	-
Other deferrals	31,335	-	-

Total	6,719,633	3,080,410	-
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Accrued expenses and deferred income were calculated on an accruals basis during the year.

For multi-year accruals and deferrals, the conditions that led to their original recognition were verified, where necessary, applying the necessary changes.

Accruals and deferrals represent the adjusting entries for the year, accounted for using the accrual principle.

The criteria adopted for the valuation and conversion of amounts stated in foreign currency for these items are reported in the first part of these Explanatory Notes.

As of 30/06/2019, no accruals and deferrals had a duration of more than five years.

AMOUNT OF FINANCIAL CHARGES BOOKED DURING THE PERIOD TO THE VALUES RECORDED UNDER BALANCE SHEET ASSETS, SEPARATELY FOR EACH ITEM

(art. 38, par. 1, letter g of Italian Legislative Decree no. 127/91)

During the period, no financial charges were booked to values recorded under Balance Sheet assets.

INFORMATION ON THE INCOME STATEMENT

Revenue recognition

Revenues from product sales are recognised at the moment of the transfer of risks and benefits, which normally corresponds to the delivery or shipment of the goods.

Financial revenues and those deriving from the provision of services are recognised on an accrual basis.

Revenues and income and costs and expenses relating to currency transactions are determined at the current exchange rate on the date the transaction is completed.

Income and charges relating to sale and purchase transactions with compulsory buy-back/sell-back obligation, including the difference between the forward and spot prices, are recognised for the amounts accrued for the year.

Value of production

Description	Previous period	Current period	Change
Sales and service revenues	12,864,257	11,872,691	(991,566)
Changes in contract work in progress	4,272	(93,190)	(97,462)
Own work capitalised	2,340,337	2,762,333	421,997
Other revenues and income	694,130	814,099	119,969
Total	15,902,996	15,355,933	(547,063)

Sales and service revenues by geographic area

(art. 38, par. 1, letter i of Italian Legislative Decree no. 127/91)

The Income Statement figures as of 30/06/2019 are expressed in comparison with those as of 30/06/2018, as envisaged in the OICs for interim financial reports.

The breakdown of revenues by geographical area is shown below:

Geographic area	Current period balance
Revenues – Italy	4,931,549
EU revenues	2,869,384
Non-EU revenues	4,071,758
Total	11,872,691

Other revenues and income

Other revenues and income are recorded under value of production in the Income Statement for a total of € 814,099 (€ 694,130 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Tax credits	216,136	273,056	56,920
Capital grants	365,957	412,917	46,961
Operating grants	2,000	-	(2,000)
Sundry reimbursements	61,975	78,051	16,076
Other revenues	47,574	36,963	(10,610)
Contingent assets	488	13,111	12,623
Total	694,130	814,099	119,969

Costs for services

Costs for services are recorded under costs of production in the Income Statement for a total of € 4,766,742 (€ 4,438,521 in the previous year).

The breakdown of the individual items is as follows:

	Previous period balance	Current period balance	Change
Utilities	134,912	113,473	(21,440)
Maintenance and repair costs	34,039	120,757	86,719
Consultancy	2,456,133	2,548,344	92,211
Directors' fees	462,341	468,109	5,768
Statutory and Independent Auditors' fees	10,591	22,515	11,924
Commission expense	25,143	22,107	(3,036)
Advertising	192,288	171,597	(20,691)
Personnel services	164,388	282,195	117,808

Trade fairs and corporate events	145,382	91,581	(53,800)
Jointly owned property expenses	64,213	79,826	15,613
Non-financial services from finance companies and banks	26,078	25,991	(86)
Insurance	56,225	90,495	34,270
Entertainment costs	42,005	39,068	(2,936)
Travel and accommodation costs	518,140	514,049	(4,091)
Rental costs	56,268	58,184	1,916
Other	50,375	118,450	68,074
Total	4,438,521	4,766,742	328,221

Use of third party assets

Costs for the use of third-party assets are recorded under costs of production in the Income Statement for a total of € 889,498(€ 712,640 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Rent and leases payable	393,277	428,380	35,103
Cloud rental	107,605	264,086	156,481
Truck rental	-	-	-
Other vehicle rental	96,994	96,350	(644)
Hardware rental	17,148	1,043	(16,105)
Royalties	97,616	99,640	2,023
Total	712,640	889,498	176,858

Personnel costs

The item includes all expenses for employees, including therein merit pay increases, promotions, automatic cost-of-living increases, the cost of holidays accrued but not taken and provisions required by law and collective contracts.

Sundry operating expenses

Sundry operating expenses are recorded under costs of production in the Income Statement for a total of € 100,481 (€ 96,887 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Taxes and duties	33,471	39,445	5,975
Losses on receivables	497	-	(497)
Magazine and newspaper subscriptions	2,158	30,983	28,825
Other operating expenses	60,761	30,052	(30,710)
Total	96,887	100,481	3,594

Interest and other financial expenses (art. 38, par. 1, letter l of Italian Legislative Decree no. 127/91)

The breakdown of the item “Interest and other financial expenses” is shown below:

	Previous period	Current period	Change
Interest on bond payables	100,264	100,000	(264)
Interest on mortgages	80,822	82,909	2,087
Interest on factoring	30,242	8,761	(21,480)
Surety commissions	2,428	12,798	10,370
Overdraft fees	10,348	11,066	719

Loan fees	3,163	6,516	3,353
Other financial expenses	9,351	9,381	30
Total	236,618	231,432	(5,186)

Income taxes

The breakdown of the individual items is as follows:

	Current taxes	Previous years' taxes	Deferred taxes	Prepaid taxes	Income (expenses) from compliance with tax consolidation/tax transparency	Total
IRES	614	-	42,332	-	-	42,946
IRAP	-	-	-	-	-	-
Prepaid taxes	-	-	-	(283,076)	-	(283,076)
Total	614	-	42,332	(283,076)	-	(240,131)

REVENUES OR COSTS OF EXCEPTIONAL SIZE OR INCIDENCE

(art. 38, par. 1, letter m of Italian Legislative Decree no. 127/91)

No data to report.

OTHER INFORMATION

Statement of reconciliation between shareholders' equity and result for the period of the parent company and the corresponding consolidated balances

	Shareholders' equity	of which: profit (loss) for the period
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Balances as per the Financial Statements of the parent company	44,756,480	(974,927)
Adjusted balances as per the Financial Statements of the parent company	44,756,480	(974,927)
Effect of the valuation of equity investments using the line-by-line method		
- Elimination of the book values of the investees	(17,843,407)	-
- Shareholders' equities of the investees	(5,900,116)	
- Investees' profit (loss) for the period	(2,237,612)	(2,237,612)
- Amortisation of consolidation differences	(849,820)	(849,820)
Fixed assets sale adjustments	(63,088)	21,029
Other adjustments	(2,586)	19,231
Total adjustments	(26,896,630)	(3,047,172)
Group shareholders' equity and result for the period	17,859,850	(4,022,099)
Consolidated shareholders' equity and result for the year	17,859,850	(4,022,099)

Breakdown of personnel

The information concerning personnel is presented below, pursuant to art. 38, par. 1, letter n) of Italian Legislative Decree 127/1991:

	Average no. in current period	Average no. in previous period
Senior Managers	-	-
Middle management	36	48
Employees	196	182
Total	232	230

Fees for the directors and statutory auditors of the parent company

The information concerning the fees of the directors and statutory auditors of the parent company

for the performance of these functions also in other companies included in the scope of consolidation, as per art. 38, par. 1, letter o) of Italian Legislative Decree no. 127/1991, is presented below:

	Directors	Statutory Auditors
Fee	392,000	7,467

Derivative financial instruments (art. 38, par. 1, letter o-ter of Italian Legislative Decree no. 127/91)

For the following categories of derivative financial instruments, information is provided on their fair value, amounts and nature, changes in value through profit or loss and those recorded under equity reserves:

Information (referring to the current half-year) is provided below on the fair value, amounts and nature of each category of derivative financial instruments put into place by the Company, with breakdown by class, taking into account aspects such as the instruments' characteristics and their purpose.

The Company has signed the following derivative contracts:

a) CREDIT AGRICOLE

- Derivative contract type: IRS no. 65611/2017, unlisted, signed on 25/09/2017, expiring on 30/01/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: CREDIT AGRICOLE mortgage no. 0106917000000, originated for € 1,000,000, signed on 25/09/2017 and expiring on 30/01/2023;
- Notional amount at the reference date (30/06/2019): € 800,000;
- Amount of the liability hedged at the reference date (30/06/2019): € 800,000;
- Underlying financial risk: interest rate risk;

- Fair value of the derivative contract: negative mark to model fair value of € 16,145.92;
- fair value at the start of the hedge: zero.

b) BANCO BPM

- OTC derivative contract “Maximum rate with fractioned premium” ID 790526 F 00104961 D 00038973 signed on 24/07/2017 and expiring on 31/12/2022;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 400,000;
- Liability hedged: BANCO BPM mortgage no. 03703813, originated for € 400,000, signed on 24/07/2017 and expiring on 31/12/2022;
- Notional amount at the reference date (30/06/2019): € 311,111;
- Amount of the liability hedged at the reference date (30/06/2019): € 311,111;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 3,159.77;
- fair value at the start of the hedge: zero.

c) UNICREDIT

- OTC interest rate contract, the “Interest rate swap contract” deal no. 130618-0001 signed on 13/06/2018 and expiring on 30/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 2,000,000;
- Liability hedged: UNICREDIT mortgage no. 8031148, originated for € 2,000,000, signed on 13/06/2018 and expiring on 30/06/2023;
- Notional amount at the reference date (30/06/2019): € 1,600,000;
- Amount of the liability hedged at the reference date (30/06/2019): € 1,600,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 15,837.00;

- Fair value at the start of the hedge: zero.

d) UBI

- Derivative contract type: IRS no. 171206/2018, unlisted, signed on 24/10/2018, expiring on 24/10/2021;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: UBI mortgage no. 1276551, originated for € 1,000,000, signed on 24/10/2018 and expiring on 24/10/2021;
- Notional amount at the reference date (30/06/2019): € 835,768;
- Amount of the liability hedged at the reference date (30/06/2019): € 835,768;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 6,773.07;
- Fair value at the start of the hedge: zero.

e) CREDIT AGRICOLE

- Derivative contract type: IRS no. 69745/2019, unlisted, signed on 22/05/2019, expiring on 22/05/2024;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: CREDIT AGRICOLE mortgage no. 0120308000000, originated for € 1,000,000, signed on 22/05/2019 and expiring on 22/05/2024;
- Notional amount at the reference date (30/06/2019): € 1,000,000;
- Amount of the liability hedged at the reference date (30/06/2019): € 1,000,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 17,205.38;
- fair value at the start of the hedge: zero.

f) INTESA SANPAOLO

- Derivative contract type: IRS no. 31011814, unlisted, signed on 28/06/2019, expiring on 15/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 500,000;
- Liability hedged: loan originated for € 500,000, signed on 28/06/2019 and expiring on 15/06/2023;
- Notional amount at the reference date (30/06/2019): € 437,500;
- Amount of the liability hedged at the reference date (30/06/2019): € 437,500;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 2,230.00;
- fair value at the start of the hedge: zero.

Financial non-current financial assets recorded at a value exceeding “fair value”
(art. 38, par. 1, letter o-quarter of Italian Legislative Decree no. 127/91)

No data to report.

Off-balance sheet commitments, guarantees and potential liabilities
(art. 38, par. 1, letter h of Italian Legislative Decree no. 127/91)

The following table shows off-Balance Sheet commitments, guarantees and potential liabilities:

	Opening balance	Closing balance	Change
SURETIES	2,109,432	1,824,058	(285,374)
- to subsidiaries	600,000	600,000	-

- to other companies	1,509,432	1,224,058	(285,374)
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These refer to surety guarantees to banks for € 1,224,058. The remaining € 600,000 refers to the specific surety guarantee regarding an unsecured loan of the same amount taken out in 2017, issued in favour of the subsidiary ADmantX S.p.A. (residual debt of € 306,415). With regard to the main changes during the half-year, the following is noted:

- the discharge on 10/01/2019 of the guarantee of € 500,000 issued by Banca MPS S.p.A. to the former shareholders of Temis S.A., now Expert System France S.A., as part of closing of the acquisition of the French group finalised in September 2015. That discharge followed the full payment of the guaranteed creditors by Expert System S.p.A.;
- the discharge on 30/01/2019 of the surety of € 494,400 undertaken in favour of the investee company Okkam S.r.l.

Related party transactions (art. 38, par. 1, letter o-quinquies of Italian Legislative Decree no. 127/91)

Information concerning transactions with related parties is provided below.

Trade and financial transactions

Company	Financial payables	Financial receivables	Trade receivables	Trade payables	Sales	Purchases
ADMANTX SPA	-	127,476	135,972	-	56,563	-
EXPERT SYSTEM USA INC	-	5,136,257	1,105,264	58,905	77,657	50,883
EXPERT SYSTEM COGITO LTD	-	700,532	914,508	65,001	362,582	24,521
CY4GATE SRL	-	418,553	10,980	-	15,998	-
EXPERT SYSTEM IBERIA S.L.U.	-	2,317,449	1,207,204	35,678	169,002	16,293
EXPERT SYSTEM FRANCE SA	-	1,409,242	1,045,480	186,937	492,432	22,925
EXPERT SYSTEM ENTERPRISE CORP	-	1,613,747	2,828,651	68,472	396,082	33,327

EXPERT SYSTEM DEUTSCHLAND GMBH	-	756,484	160,379	-	106,468	-
EXPERT SYSTEM CANADA Semantic Technologies Inc	-	-	24,172	-	7,554	-
Total	-	12,479,740	7,432,610	414,994	1,684,338	147,949

Trade transactions

Company	Payables	Receivables	Guarantees	Commitments	Costs	Revenues
ADMANTX SPA	-	135,972	-	-	-	55,886
EXPERT SYSTEM USA INC	58,905	1,105,264	-	-	50,883	44,346
EXPERT SYSTEM COGITO LTD	65,001	914,508	-	-	24,521	358,044
CY4GATE SRL	-	10,980	-	-	-	9,000
EXPERT SYSTEM IBERIA S.L.U.	35,678	1,207,204	-	-	16,293	144,814
EXPERT SYSTEM FRANCE SA	186,937	1,045,480	-	-	22,925	481,374
EXPERT SYSTEM ENTERPRISE CORP	68,472	2,828,651	-	-	33,327	385,739
EXPERT SYSTEM DEUTSCHLAND GMBH	-	160,379	-	-	-	102,587
EXPERT SYSTEM CANADA Semantic Technologies Inc	-	24,172	-	-	-	7,554
Total	414,994	7,432,610	-	-	147,949	1,589,345

Financial transactions

Company	Payables	Receivables	Guarantees	Commitments	Expenses	Income
ADMANTX SPA	-	127,476	-	-	-	677
EXPERT SYSTEM USA INC	-	5,136,257	-	-	-	33,311

EXPERT SYSTEM COGITO LTD	-	700,532	-	-	-	4,539
CY4GATE SRL	-	418,553	-	-	-	6,998
EXPERT SYSTEM IBERIA S.L.U.	-	2,317,449	-	-	-	24,188
EXPERT SYSTEM FRANCE SA	-	1,409,242	-	-	-	11,058
EXPERT SYSTEM ENTERPRISE CORP	-	1,613,747	-	-	-	10,342
EXPERT SYSTEM DEUTSCHLAND GMBH	-	756,484	-	-	-	3,881
EXPERT SYSTEM CANADA Semantic Technologies Inc	-	-	-	-	-	-
Total	-	12,479,740	-	-	-	94,993

These relations, which do not include atypical and/or unusual transactions, are regulated by normal market conditions. Information on the nature of these transactions is provided below.

With the subsidiary ADmantX S.p.A.:

Sales

- Lease agreement for property in Naples, Via Nuova Poggioreale 60/L, Centro Polifunzionale Inail, where the company has its registered offices: half-yearly lease instalment of € 2,542;
- Sub-letting agreement for local office in Modena, Viale Virgilio 58/M1: half-yearly lease instalment of € 1,839;
- Sub-letting agreement for local office in Milan, Piazza Cavour: half-yearly lease instalment of € 3,000;
- Services contract relating to accounting support, company economic-financial consultancy, secretarial and general services:
 - Fee for accounting support, business consultancy and recruiting for € 12,000;
 - Fee for secretary activities for € 600;
 - Fee for general services (telephone, cleaning services and materials, security,

electricity, stationery, management software maintenance): lump-sum payment for € 4,364 calculated as 4.15% of the costs incurred by Expert System S.p.A.

- Sale of licences for € 30,000;
- Reimbursement of insurance expenses for € 792;
- Reimbursement of other expenses for € 550;
- Granting of a loan of € 100,000, bearing interest in 2018 for € 677.

The Balance Sheet items affected by these contracts are reclassified in the following accounts:

- B.III.2 Receivables due from subsidiaries;
- C.II.2 Receivables due from subsidiaries.

The Income Statement items are reclassified within the following accounts:

- A.1 Sales and service revenues;
- A.5 Other revenues and income

With the subsidiary Expert System USA Inc.:

- Loan granted to the subsidiary for € 4,952,973, bearing interest of € 33,311 in the first half of 2019.

Sales

- Maintenance fees for € 26,362;
- Professional services provided for € 17,289;
- Reimbursement of other expenses for € 695.

Purchases

- Provision of professional services by the subsidiary for € 50,883.

With the subsidiary Expert System Cogito Ltd.:

- Loan granted to the subsidiary for € 669,424, bearing interest of € 4,539 in the first half of 2019.

Sales

- Professional services provided for € 167,536;

- Granting of licences for € 130,103;
- Maintenance fees for € 9,539;
- Reimbursement of other expenses for € 50,866.

Purchases

- Costs for sundry reimbursements for € 24,521.

With the subsidiary Expert System Iberia S.L.U.:

- Loan granted to the subsidiary for € 2,096,000, bearing interest of € 24,188 in the first half of 2019.

Sales

- Professional services provided for € 62,493;
- Granting of licences for € 6,210;
- Reimbursement of other expenses for € 62,485;
- Maintenance fees for € 13,627.

Purchases

- Professional services provided by the subsidiary for € 16,293.

With the subsidiary Expert System France S.A.:

- Loan granted to the subsidiary for € 1,335,432, bearing interest of € 11,058 in the first half of 2019.

Sales

- Professional services provided for € 94,997;
- Granting of licences for € 266,599;
- Maintenance fees for € 73,296;
- Reimbursement of other expenses for € 46,483.

Purchases

- Professional services provided by the subsidiary for € 22,925.

With the subsidiary Expert System Enterprise Corp.:

- Loan granted to the subsidiary for € 1,537,786, bearing interest of € 10,342 in the first half of 2019.

Sales

- Granting of licences for € 41,879;
- Professional services provided for € 86,416;
- Maintenance fees for € 231,847;
- Reimbursement of other expenses for € 25,598.

Purchases

- Provision of professional services by the subsidiary for € 33,327.

With the subsidiary Expert System Deutschland GmbH:

- Loan granted to the subsidiary for € 750,000, bearing interest of € 3,881 in the first half of 2019.

Sales

- Professional services provided for € 40,693;
- Granting of licences for € 14,400;
- Maintenance fees for € 15,438;
- Reimbursement of other expenses for € 32,056.

With the subsidiary Expert System Canada – Semantic Technologies Inc.:

Sales

- Maintenance fees for € 7,554.

With the associate Cy4Gate S.r.l.:

- Loan granted to the associate for € 390,000, bearing interest of € 6,998 in the first half of 2019.

Sales

- Maintenance fees for € 9,000.

Off-Balance Sheet agreements (*art. 38, par. 1, letter o-sexies of Italian Legislative Decree no. 127/91*)

Note that there is no information regarding the nature and economic objective of Off-Balance Sheet agreements.

Information on fees pursuant to art. 38, par. 1, letter o-septies of Italian Legislative Decree 127/1991

Details are provided below of the amounts paid to the independent auditors, BDO Italia S.p.A., for audit of the consolidated accounts, other audit services, tax consultancy services and non-audit services provided to the Group:

	Tax consultancy costs and other audit services performed	Audit service costs
Expert System S.p.A.	17,680	11,673
Expert System France S.A.	3,500	-
Expert System Iberia S.L.U.	3,842	-
Expert System Deutschland GMBH	7,118	-
Expert System Cogito Ltd.	-	-
Expert System Enterprise Corp.	13,958	-
Expert System USA Inc.	5,311	-
Expert System Canada – Semantic Technologies Inc.	-	-

Significant events after 30/06/2019

(art. 38, par. 1, letter o-decies of Italian Legislative Decree no. 127/91)

On 02/08/2019, as a result of that approved by the Board of Directors of Expert System S.p.A. on 29/07/2019, by deed recorded and authenticated by Notary Rolando Rosa (index no. 124224, folder 22815), the Company issued a floating rate non-convertible bond loan of a nominal total amount of € 5,000,000 (five million 0/100), expiring on 2 August 2026, represented by a single registered certificate. The bond loan, named “Obbligazioni Expert System 2019-2026” and represented by 50 bonds that cannot be split, with a unit nominal value of € 100,000, was fully subscribed by Unicredit S.p.A.

Moreover, as regards prestigious recognition, again in 2019 the American magazine KMWorld, a global benchmark in the field of Knowledge Management, included the Cogito platform among the “KMWorld Trend Setting Products” of 2019”, which, through radical innovation and continuous evolution increase the potential of knowledge management. This recognition was awarded due to Cogito’s special features, which offers its users new updates in the areas of knowledge graphs, machine learning and RPA to help organisations accelerate and simplify the adoption of artificial intelligence in their business workflows.

At the same time, Expert System was selected by the US company Gartner, global leader in strategic consulting, research and analysis in the Information Technology field, for the Gartner Magic Quadrant for Insight Engines, the most prestigious global recognition of solutions for research and analysis of corporate information, granted to just 13 companies worldwide. It is a recognition that rewards the unique features of the Cogito® artificial intelligence technology, the strong degree of confirmed customer satisfaction, the excellent results achieved in terms of accuracy in the various business use situations (often part of the most extensive strategic processes, such as insurance market claims management), cutting-edge professional services and innovation through constant attention for research and development activities.

Chairman of the Board of Directors
Marco Varone



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