



**EXPERT SYSTEM GROUP
HALF-YEARLY REPORT
As at 30/06/2017**



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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>	LUCA SCAGLIARINI
<i>Director</i>	MARCELLO PELLACANI
<i>Independent director</i>	ALBERTO SANGIOVANNI VINCENTELLI

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 AT 30/06/2017



BALANCE SHEET

ASSETS	30/06/2017	31/12/2016
A) SUBSCRIBED CAPITAL, UNPAID		
Total subscribed capital, unpaid (A)	0	0
B) FIXED ASSETS		
I - Intangible fixed assets		
1) Start-up and expansion costs	1,154,550	1,173,693
2) Development costs	9,227,531	8,517,071
3) Industrial patent and intellectual property rights	43,593	56,692
4) Concessions, licences, trademarks and similar rights	4,224	4,589
5) Goodwill	7,314,509	8,618,260
7) Other	1,373	2,160

Total intangible fixed assets	17,745,780	18,372,465
II - Tangible fixed assets		
1) Land and buildings	368,281	373,824
2) Plant and machinery	14,216	17,290
4) Other assets	490,430	523,408
Total tangible fixed assets	872,927	914,522
III - Non-current financial assets		
1) Equity investments		
b) associates	251,266	251,266
d-bis) other companies	57,138	57,138
Total equity investments	308,404	308,404
2) Receivables		
b) Due from associates		
After 12 months	696,748	701,809
Total receivables due from associates	696,748	701,809
d-bis) Due from others		
Total Receivables (2)	696,748	701,809
3) Other securities	81,388	81,388
Total non-current financial assets	1,086,540	1,091,601
Total fixed assets (B)	19,705,247	20,378,588

C) CURRENT ASSETS

I - Inventories		
1) Raw materials and consumables	7,535	8157
3) Contract work in progress	670,584	619,326
Total inventories	678,119	627,483
II - Receivables		
1) Due from customers		

Within 12 months	6,866,219	10,232,836
Total receivables due from customers	6,866,219	10,232,836
2) Due from subsidiaries		
Within 12 months	63,068	68,528
After 12 months	26,787	26,787
Total receivables due from subsidiaries	89,855	95,315
3) Due from associates		
Within 12 months	130,407	255,626
Total receivables due from associates	130,407	255,626
5-bis) Tax receivables		
Within 12 months	682,844	1,124,273
After 12 months	168,944	123,799
Total tax receivables	851,788	1,248,072
5-ter) Prepaid taxes	2,577,521	1,546,098
5-quater) Other receivables		
Within 12 months	4,459,596	6,232,652
After 12 months	1,557,630	1,245,897
Total other receivables	6,017,226	7,478,549
Total receivables	16,533,016	20,856,496
III - Current financial assets		
1) Equity investments in subsidiaries	4,153,074	4,153,074
4) Other equity investments	8,400	8,400
6) Other securities	1,267,090	1,299,646
Total current financial assets	5,428,564	5,461,120
IV - Cash and cash equivalents		
1) Bank and postal deposits	5,636,299	8,994,794
3) Cash at bank and in hand	3,044	68,146
Total cash and cash equivalents	5,639,343	9,062,940

Total current assets (C)	28,279,042	36,008,039
D) ACCRUALS AND DEFERRALS	1,144,948	1,003,638
TOTAL ASSETS	49,129,237	57,390,265

BALANCE SHEET

LIABILITIES	30/06/2017	31/12/2016
A) GROUP SHAREHOLDERS' EQUITY		
I - Share capital	280,310	276,703
II - Share premium reserve	25,408,688	25,408,688
III - Revaluation reserves	0	0
IV - Legal reserve	43,899	43,899
V - Statutory reserves	0	0
VI - Other reserves, indicated separately		
Extraordinary reserve	2,325,048	3,618,898
Merger surplus reserve	376,622	376,622
Reserve for unrealised exchange gains	0	180,049
Consolidation reserve	0	0
Translation differences reserve	0	0
Miscellaneous other reserves	788,214	419,128
Total other reserves	3,489,884	4,594,697
VII - Cash flow hedging reserve	(4,072)	(6,954)
VIII - Retained earnings (losses)	(11,625,969)	(5,193,900)
IX - Profit (loss) for the year	(7,633,439)	(8,125,531)

X - Negative reserve for treasury shares in portfolio	(292,879)	(560,395)
Total consolidated shareholders' equity	9,666,422	16,437,207
Shareholders' equity pertaining to minority interests		
Minority interests in capital and reserves	0	0
Profit (loss) pertaining to minority interests	0	0
Total shareholders' equity pertaining to minority shareholders	0	0

Total consolidated shareholders' equity	9,666,422	16,437,207
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B) PROVISIONS FOR RISKS AND CHARGES

1) Pensions and similar obligations	4,341	4,341
2) Taxation, including deferred	687,882	688,100
3) Derivative financial instruments - liabilities	4,072	6,954
4) Other	16,981	16,981

Total provisions for risks and charges (B)	713,276	716,376
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C) EMPLOYEE SEVERANCE INDEMNITY	1,762,623	1,670,520
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D) PAYABLES

1) Bonds		
After 12 months	5,000,000	5,000,000
Total bonds	5,000,000	5,000,000
3) Payables due to shareholders for loans		
After 12 months		
Total payables due to shareholders for loans		
4) Payables due to banks		
Within 12 months	4,665,397	5,046,595
After 12 months	8,497,674	8,595,385
Total payables due to banks	13,163,071	13,641,980
5) Payables due to other lenders		
Within 12 months	872,670	1,172,677

After 12 months	1,727,127	1,656,532
Total payables due to other lenders	2,599,797	2,829,209
6) Payments on account		
Within 12 months	1,739,290	2,247,323
After 12 months	396,014	135,706
Total payments on account	2,135,304	2,383,029
7) Trade payables		
Within 12 months	2,010,728	2,698,583
After 12 months	40,216	40,216
Total trade payables	2,050,944	2,738,799
12) Tax payables		
Within 12 months	650,188	864,641
Total tax payables	650,188	864,641
13) Payables due to social security institutions		
Within 12 months	1,209,708	1,410,643
Total payables due to social security institutions	1,209,708	1,410,643
14) Other payables		
Within 12 months	2,091,370	1,962,195
After 12 months	500,000	500,000
Total other payables	2,591,370	2,462,195
Total payables	29,400,382	31,330,496
E) ACCRUALS AND DEFERRALS	7,586,534	7,235,666
TOTAL LIABILITIES	49,129,237	57,390,265

INCOME STATEMENT

	30/06/2017	30/06/2016
A) VALUE OF PRODUCTION		
1) Sales and service revenues	8,442,300	8,570,966
3) Changes in contract work in progress	51,258	392,791
4) Own work capitalised	2,524,452	2,942,807
5) Other revenues and income		
Operating grants	0	197,983
Other	728,366	1,129,793
Total other revenues and income (5)	728,366	1,327,777
Total value of production (A)	11,746,376	13,234,341
B) COSTS OF PRODUCTION:		
6) Raw materials, consumables and goods for resale	687,802	448,179
7) For services	4,291,528	4,767,278
8) Use of third-party assets	857,280	640,309
9) Personnel:		
a) Salaries and wages	7,374,031	6,884,767
b) Social security costs	2,095,081	1,922,818
c) Employee severance indemnity	209,964	199,966
d) Pensions and similar charges	69,958	43,562
e) Other costs	5,025	47,004
Total personnel costs (9)	9,754,059	9,098,116
10) Amortisation, depreciation and write-downs:		
a) Amortisation of intangible fixed assets	3,194,084	2,834,713
b) Depreciation of tangible fixed assets	108,765	110,866
d) Write-down of receivables included in current assets and of cash and cash equivalents	10,000	
Total amortisation, depreciation and write-downs (10)	3,312,849	2,945,579

12) Provisions for risks		
14) Sundry operating expenses	138,496	179,141

Total costs of production (B)	19,042,014	18,078,602
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Difference between the value and costs of production (A-B)	(7,295,638)	(4,844,261)
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C) FINANCIAL INCOME AND EXPENSES

15) Income from equity investments		
Other	0	0
Total income from equity investments (15)	0	0
16) Other financial income:		
a) From receivables classified as fixed assets		
From associates	11,935	5,789
Other	511	0
Total financial income from receivables classified as fixed assets	12,446	5,789
c) From securities included in current assets	1,442	1,411
d) Other income		
Other	8,827	7,605
Total other income (d)	8,827	7,605
Total other financial income (16)	22,715	14,805
17) Interest and other financial expenses		
Other	248,072	323,182
Total interest and other financial expenses (17)	248,072	(323,182)
17-bis) Exchange gains and losses	(1,144,963)	(232,268)

Total financial income and expenses (C) (15+16-17+-17-bis)	(1,370,320)	(540,646)
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D) VALUE ADJUSTMENTS OF FINANCIAL ASSETS AND LIABILITIES:

18) Revaluations:

c) Of securities included in current assets	1,228	0
Total revaluations (18)	1,228	0
19) Write-downs:		
c) Of securities included in current assets	0	0
Total write-downs (19)	0	0
Total value adjustments to financial assets and liabilities (D) (18-19)	1,228	-
PRE-TAX RESULT (A-B+-C+-D)	(8,664,730)	(5,384,906)
20) Income taxes for the year – current, deferred and prepaid		
Current taxes	0	262
Deferred and prepaid taxes	(1,031,291)	(335,850)
Total income taxes for the year – current, deferred and prepaid	(1,031,291)	(335,589)
21) Consolidated profit (loss) for the year	(7,633,439)	(5,049,318)
Profit (loss) for the year pertaining to minority shareholders	-	-
Profit (loss) for the year pertaining to the Group	(7,633,439)	(5,049,318)

CASH FLOW STATEMENT

A) Cash flows from operating activities (indirect method)	30/06/2017	31/12/2016
Profit (loss) for the year	(7,633,439)	(8,125,531)
Income taxes	(1,031,290)	(579,158)
Interest expense/(income)	225,357	467,300
Exchange gains (losses)	1,144,963	(311,888)
(Capital gains)/Capital losses from asset disposals	0	0
1. Profit/(Loss) for the year before income taxes, interest, dividends and capital gains/losses from disposals	(7,294,408)	(8,549,277)

Allocation to provisions	289,922	566,869
Amortisation/Depreciation of fixed assets	3,302,849	6,300,309
Write-downs due to impairment	0	0
Adjustments to financial assets and liabilities associated with derivatives, non-monetary	0	0
Other adjustments for non-monetary items	0	0
Total adjustments for non-monetary items with no balancing entry in net working capital	3,592,771	6,867,178
2. Cash flows before changes in net working capital	(3,701,637)	(1,682,099)
Changes in net working capital		
Decrease/(Increase) in inventories	(50,636)	1,169,374
Decrease/(Increase) in receivables due from customers	3,487,296	(320,917)
Increase/(Decrease) in trade payables	(935,580)	(1,793,662)
Decrease/(Increase) in accrued income and prepaid expenses	(141,310)	34,765
Increase/(Decrease) in accrued expenses and deferred income	350,868	1,661,331
Other decreases/(Other increases) in net working capital	1,571,261	3,034,813
Total changes in net working capital	4,281,899	3,785,704
3. Cash flows after changes in net working capital	580,262	2,103,605
Other adjustments		
Interest collected/(paid)	(225,357)	(467,300)
Exchange gains (losses)	(1,144,963)	311,888
(Income taxes paid)	0	0
Dividends collected	0	0
(Use of provisions)	(190,920)	(16,045)
Other collections/(payments)	0	0
Total other adjustments	(1,561,240)	(171,457)
Cash flows from operating activities (A)	(980,978)	1,932,148
<i>Tangible fixed assets</i>		
(Investments)	(67,170)	(242,397)
Disinvestments	0	0
<i>Intangible fixed assets</i>		

(Investments)	(2,567,399)	(5,890,142)
Disinvestments	0	0
<i>Non-current financial assets</i>		
(Investments)	0	(245,534)
Disinvestments	5061	0
<i>Current financial assets</i>		
(Investments)	0	0
Disinvestments	32,556	46,000
(Acquisition of subsidiaries net of cash and cash equivalents)	0	0
Disposal of subsidiaries net of cash and cash equivalents	0	0
Cash flows from investing activities (B)	(2,596,952)	(6,332,073)
<i>Third party financing</i>		
Increase/(Decrease) in short-term bank payables	(22,050)	10,956
New loans	2,261,421	2,922,478
(Loan repayments)	(2,295,763)	(4,529,718)
Other changes	(651,929)	(607,986)
<i>Own equity</i>		
Share capital increase against payment		4,697,194
Other changes	859,773	(285,332)
Changes relating to derivative instruments	2,882	5,946
Disposal/(Purchase) of treasury shares	0	0
(Dividends and advances on dividends paid)	0	0
Cash flows from funding activities (C)	154,333	2,213,538
Increase/(Decrease) in cash and cash equivalents (A ± B ± C)	(3,423,597)	(2,186,387)
Cash and cash equivalents at start of year	9,062,940	11,249,327
Cash and cash equivalents at year end	5,639,343	9,062,940
Increase/(Decrease) in cash and cash equivalents	(3,423,597)	(2,186,387)

INTERIM MANAGEMENT REPORT



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 based on artificial intelligence algorithms that simulate the human ability to read and understand language similar to the way people do.

Making use of solutions proposed by Expert System, government organisations and companies from all sectors can find, analyse and use information more effectively to obtain strategic data from it and take the best decisions, automate information processes and reduce operating risks.

By understanding the meaning of every word based on context with its software, and applying this capacity on a large scale to the automatic analysis of millions of documents, Expert System transforms information into usable knowledge. Cogito semantics technology, proprietary to Expert System, therefore becomes a useful tool for successfully conducting business activities, ensuring unquestionable benefits in the following areas, amongst others:

- **Defence and public safety:** crime control and prevention, support for intelligence analysts;
- **Banks and insurance companies:** self-help solutions in natural language and automatic e-mail management, operating process automation, analysis of customer communications, application of anti-money laundering and legal procedures;
- **Media and Publishing:** automatic tagging systems, content correlation and enhancement, faceted navigation, simplified introduction of innovative digital products and services, intuitive content and data flow analysis;
- **Energy:** information management in the exploratory and production phases for oil and gas, trader activity support, management of information to protect production assets, the brand and employees on business travel, verification of the financial viability of counterparties and the prevention of accidents and production stoppages;
- **Healthcare and pharmaceutical industry:** analysis of information published in scientific and academic magazines, sector trend identification, patient opinion analysis, monitoring of rival product developments, identification and analysis of reports and publications by leading sector experts.

Now, unlike in the past, one of the precious assets of a business is represented by texts generated in-house, associated with general data or with detailed data and information not only in specific documents, but also in reports, presentations or analyses.

This information, if combined with content from social media or other external sources, can provide useful data to support as much recurring and daily activities as the more strategic activities such as, for example:

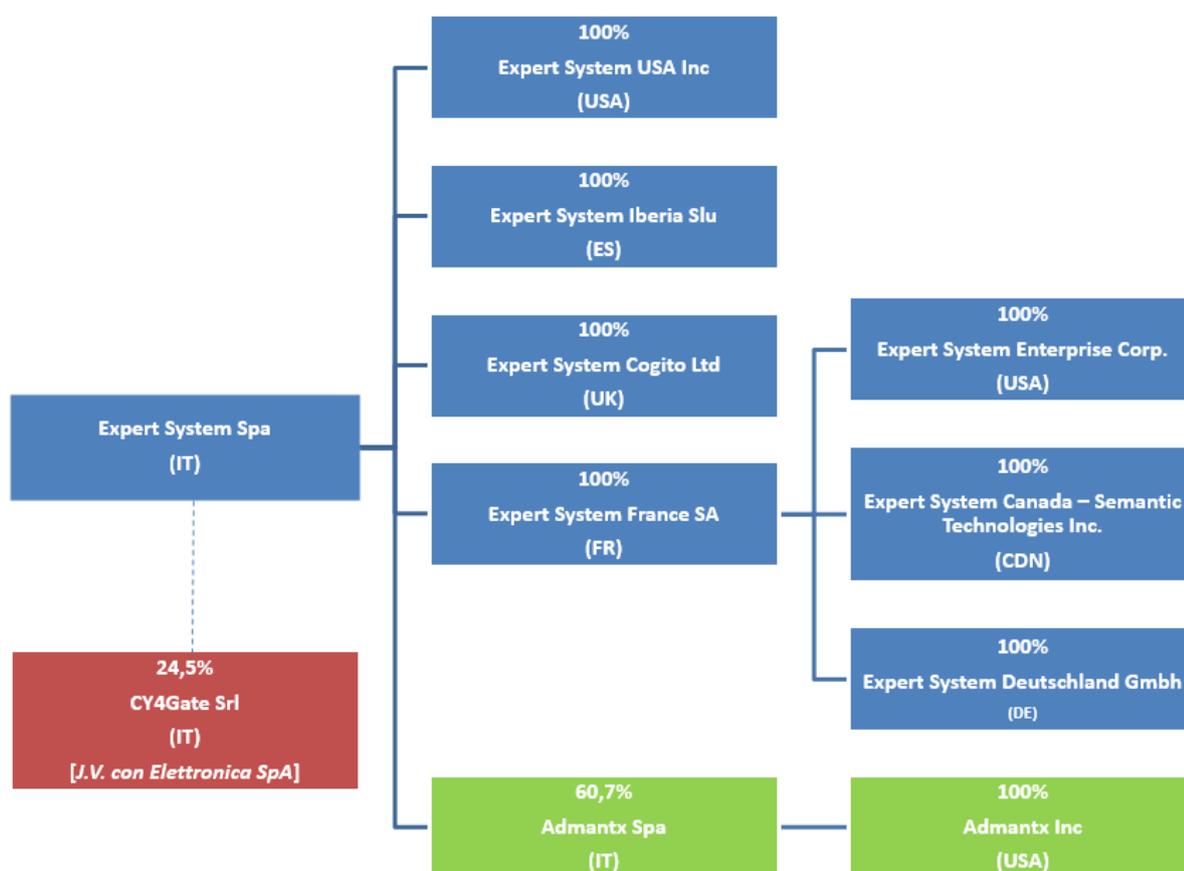
- **Customer requests management** addressed to customer assistance: in these circumstances, which can often give rise to a difficult situation involving not only the customer needing help, but also the call centre operators expected to provide them with support, Cogito simplifies the customer and operator support process, including in the form of FAQs, as it uses both the company's language and the customer's language, without needing to discard either of the two. It allows understanding of what customers say, leaving them free to express themselves in their normal fashion;
- **Process automation:** in our increasingly competitive market of today, technological

innovation can offer banks and insurance companies effective tools to face the main challenges of business, automating the processes based on information processing, such as interaction with customers, management of reimbursement requests and form management, which traditionally call for considerable manual input, reducing operating costs and increasing customer satisfaction. Artificial intelligence solutions offer a return on investment (ROI) that is real and measurable. By understanding human-like requests, in fact, they allow a fast and accurate process and the extraction of data useful in assessing the requests and accelerating the response process;

- **Big data extraction and enhancement:** the identification of elements in content and the extraction of big data and personalised concepts is an intrinsic and highly advanced function of Expert System technology. Counting on millions of word definitions and concepts and on several million relations already defined, Cogito cognitive technology includes context-based language meaning, reading the content in a very human-like way. This means that the capacity can be increased to automatically understand content and identify the most significant information in the text. It is possible to identify, tag or extract persons, places, organisations, companies, URLs, e-mail addresses, telephone numbers and values such as dates, currencies and denominations, percentages and practically any data considered necessary. Unlike other text analytics approaches, with Cogito's data extraction software there are no lists to create or even to manage;
- **Social media monitoring:** in all sectors, companies are acquiring increasing awareness of the potential and importance of the main digital channel where conversations begin: social media. The social media monitoring tools based on Expert System's cognitive technology allow companies to manage, analyse and extract data from billions of posts, profiles, comments and conversation threads. To capture the unique and personal methods used by customers to express themselves on social media, the expressions and, in general, the language in all its nuances have to be understood. If you need to understand what is being expressed, the best way is to be fully conversant with the language used. Instead of limiting itself to listening, through its cognitive capacity for understanding the exclusive aspects of social language (slang, jargon, acronyms and abbreviations, etc.) Cogito cognitive technology offers social media monitoring that helps

to capture and understand customers as they express themselves, understanding intent and sentiment present in the information. Expert System’s social media monitoring solutions offer up different capabilities, such as identifying trends and preferences or the first signs that something works (or not) in a product or service, so that it can be used to provide support to various company departments, from marketing intelligence to product development, from competition research to customer service.

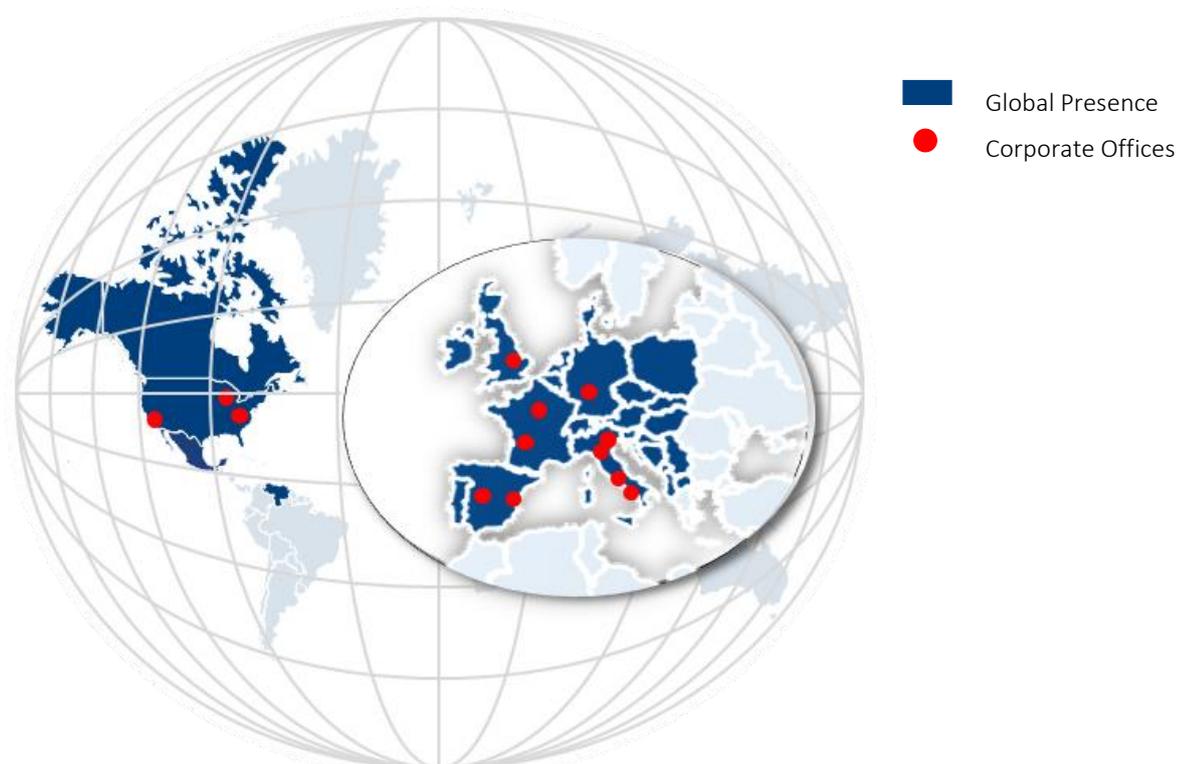
Expert System’s recent history has seen the company grow not only in the direction of the range of services offered to business and government intelligence, but also a geographic expansion in the European and North American markets, which give the Group the characteristics illustrated in the following chart:



The main events in the Group's growth in recent years were:

- the IPO on Borsa Italiana;
- the acquisition of two divisions operating in the semantic technology sector of the Spanish company ISOCO;
- the incorporation of CY4Gate S.r.l., in which our company holds a 24.5% stake, created from a joint venture with Italian company Elettronica S.p.A., a company operating in international cyber defence;
- the acquisition of Temis, a leading French company in text analytics solutions;
- the creation of an organisational structure in the United States targeted at meeting the growing requirements of private and public sector customers.

Thanks to the above, the Expert System Group now boasts a global presence and infrastructure, with fourteen offices located in Italy, Spain, France, Germany, United Kingdom and USA.



The enormous attention to the foreign markets meant that new managerial figures in the subsidiaries were gradually identified, considered important to achieving the corporate business

plan. Included in this context is the appointment of Louis Andre as new CEO of Expert System USA Inc., the Group company dedicated to the development of solutions for public organisations, including those operating in the Defence, Intelligence and Law Enforcement sectors.

At the same time, during the first half of the year the appointment was announced of Stefan Welcker as DACH Managing Director with the role of guiding Expert System's growth on the German-speaking market, in response to the growing interest in artificial intelligence in the area including Germany, Austria and Switzerland.

Lastly, France also saw the addition of a new managerial figure in Alain Biancardi, new Vice President Sales France, with the assignment of supporting development and accelerating the growth of the Group in France, focusing in particular on acquiring new customers, consolidation of brand awareness and, in parallel, on enhancing existing business relations.

OPERATING CONDITIONS AND BUSINESS DEVELOPMENT

Since February 2014 Expert System has been listed on the AIM Italia (Alternative Investment Market), i.e. the Borsa Italiana market dedicated to Italian small and medium enterprises with high growth potential. The strongly innovative nature of many businesses listed on this market has in the last few months benefited from a number of new regulatory provisions. To summarise:

- the introduction of IIPs (Individual Investment Plans) in the latest Stability Act. 70% of these new investment instruments must target the purchase of shares or bonds of Italian companies, of which 30% must be represented by SMEs, with tax exemptions envisaged under certain conditions on the capital gains realised on such investments;
- the subsidy envisaged for the investments in Innovative Small and Medium Enterprises (title achieved by Expert System on 3 August 2017, as described later in this report), which offers tax savings proportionate to the investments in the capital of these companies when certain conditions are met, including a minimum investment period of 3 years.

The performance of the Expert System share as at 28/09/2017 is presented below:

Market	AIM Italia – MAC
Share capital	280,310
Capitalisation	€ 41,788,545
Minimum parcel	1,000.00
Reference price	€ 1.50 - 28/09/2017, 16:56:23 hrs
Official price	€ 1.4908 - 28/09/2017
1 month performance	- 11.66%
6 month performance	- 17.99%
1 year performance	- 18.79%

The chart below instead shows the share performance from the IPO (18/02/2014) to 28/09/2017. In particular, the chart compares the Expert System performance against that of the FTSE AIM Italia index.



Since the company's listing on the AIM, management's enormous efforts sought to support the development and achievements of Expert System at international level, with a revenues percentage on the foreign markets reaching 61.61% as at 30/06/2017 and a significant presence also on the most important global market - the USA - where the organisation has two companies,

one covering the civil market and the other the government sector. The commercial development undertaken gradually acquired new and important customers who represent a major investment for the future, also with a view to growth on the reference market - Artificial Intelligence - which can be expected to call for the allocation of increasing resources and budgets for this type of applications.

Note that, with the aim of consolidating the international development trend and of evolving its proprietary technological platform, a few days after the close of the first half of the year (7 July 2017) the Shareholders' Meeting of Expert System S.p.A. resolved to delegate powers to the Board of Directors, pursuant to articles 2443 and 2420-ter of the Italian Civil Code, to arrange one or more share capital increases and/or issue convertible bonds within five years of the related resolution, also excluding option rights pursuant to article 2441, paragraphs 4.1 and 5 of the Italian Civil Code and in one or more tranches, all of which up to a maximum of € 10,000,000 (i.e. the combined total of any share capital increase or bond issue). This resolution will certainly allow Expert System, also in the near future, to rapidly obtain the funding necessary, and in the most flexible form possible, to quickly seize upon opportunities arising on the market, facilitating the procurement of funds needed to finance future investments.

On the technology front, the first half of 2017 again saw considerable activity centred around Cogito development, which led to the launch of a new release that further simplifies the development of advanced solutions for robotic process automation and information intelligence. Cogito 14, the latest version released by Cogito Labs, today offers customers the best semantic analysis technology through its key products, Cogito Studio and Cogito Discover. On the one hand, Cogito Studio Platform offers an integrated system for text analytics projects and includes Cogito Studio, a semantics application editor that allows assessment of the effectiveness of categorizing or configuring extraction from collections of documents, measuring precision and recall, and Cogito Studio Express, an ontology editor that provides a simple, accessible method for importing customer dictionaries and thesauri, envisaging how ontology is applied to the contents. Cogito Discover, on the other hand, is a scalable platform for the automatic generation of semantic big data and autotclassification that can be integrated into any application and workflow, and implemented on a cloud platform or hybrid environment.

Cogito is confirmed as the text analytics technology that forms the basis for all Expert System products, this time enhanced as a result of its integration with technological components acquired through Temis and in the number of languages supported, which now includes Portuguese and Russian. Cogito 14 therefore now supports 14 languages: Italian, English, Spanish, French, German, Portuguese, Russian, Korean, Chinese, Japanese, Arabic, Greek, Polish and Dutch.

Also note that the additional functions implemented included:

- Cogito Knowledge Graph, a rich knowledge base containing millions of concepts with their respective lexical formats, different properties and relationships useful to understanding and disambiguation of the meaning of the words and phrases contained in the texts. For this purpose, specific machine learning techniques are also used that help to enhance automatic understanding of the texts, unsupervised or with the supervision of experts in the field;
- Cogito API, which simplifies the development and integration of Cogito products into other platforms or pre-existing architectures, with obvious benefits in terms of implementation times.

Similarly to previous years, the first half of the year again saw the consolidation of important partnerships and technological synergies, made possible by the extensive experience gained by Expert System in information management for rapidly creating high-value added solutions. The partnership with Esri, a leader in geospatial solutions to support operating and decision-making processes, falls into this context. The integration of Esri's ArcGIS platform for the management of geospatial and georeferenced data with Expert System's Cogito semantic analysis technology, based on artificial intelligence algorithms, makes it possible to offer effective support to the intelligence analysts of any organisation in tactical and strategic analysis.

In the medical field, the versatile Cogito technology was chosen for the "OncoSNIFE[®]" programme, designed to give artificial intelligence support to the diagnosis and treatment of tumours with particular reference to processing data useful for assessing diseases. Some of the key aims of this project, in fact, will be to identify, analyse and correlate all information on patients resistant to tumour treatments so as to steer scientific research towards new and more effective therapies. Coordinated by the French company Oncodesign, specialising in

biotechnologies for the pharmaceutical industry, the French business partners for this programme were Sword (an international company based in Lyons, specialised in digital services and consulting) and Acobiom (based in Montpellier, specialising in particular in the research of new biological markers), with involvement also of university hospitals and academic research institutes (Hôpitaux Universitaires of Strasbourg, Centre George François Leclerc in Dijon and Institut Paoli Calmettes in Marseilles).

As regards the development of advanced software for robotic process automation, an important partnership also began with Eudata, an innovative industrial group founded in Milan in 2006, operating in the Customer Engagement sector. This partnership was launched with the aim of maximising the effectiveness of customer-business interaction, with a view to combining forces to work alongside companies innovating their relations with customers, exploiting the potential of artificial intelligence in assistance, sales support and marketing. Through the integration of Cogito cognitive technology and the Eudata omnichannel suite, companies will have the opportunity to rapidly implement chatbots. These systems generate the shift from the model in which individuals adapt to computers to that where the computer adapts to individuals' expectations, with dual benefits: offering users new means of access to information of interest through automatic human-like dialogue, i.e. freely expressed as it would via chat; increasing the operational efficiency of companies, automating repeat activities that do not call for specific capacity or specialist skills (recovery of standard information, most common support needs, requests for quotes, common offers, etc.).

The offer of innovative services based on automatic voice assistants, able to improve the customer experience and considerably reduce the workloads of customer service departments, also forms the basis of the technological integration between Cogito and the speech recognition of the new technology partner, Cedat 85, operating for over 30 years and a leader in the voice recognition technology market. The intention is to offer systems for interaction with customers and users which, in the role of virtual agents or assistants, are not only able to find the information concerned more easily than in the past, but also know how to immediately carry out the commands given. It is feasible to consider that this will open the door to new customer analytics opportunities, such as customer profile enhancement with identification of behaviour and new demands.

Cogito cognitive technology and its capacity for making the correspondence between demand and supply faster and more precise made possible the arrangement with APEC, the French employment agency, which will apply semantic analysis to the contents of job offers and CVs in the various selection stages. By applying Expert's semantics technology to the entire recruitment cycle, APEC intends to provide users of its proprietary search engine with more accurate and relevant results, automating the data management processes to correctly align job applications with job offers, and amongst others performing the following activities:

- identification of the duties involved in an offer;
- alignment of the know-how described in offers and applications;
- production of statistics on the type of employment, geographic distribution and other parameters.

The partnership agreement signed with Blue Prism, a global leader in System Integration services, is also of considerable importance. Using Expert System technology the partnership will simplify and further increase the adoption of artificial intelligence solutions.

The partnership will help the companies to accelerate the business transformation and innovation processes, particularly RPA (Robotic Process Automation). RPA is the leading field for mass adoption of artificial intelligence solutions, with prospects for further development and growth in this constantly expanding market. The main partnership segments to be developed include banking, insurance and automotive.

Also in this sector is a similar agreement signed with Sopra Steria, a European leader in Digital Transformation, which offers one of the most complete ranges of Consulting, Systems Integration, Software Development and Business Process Services available on the market at present. In this case, too, Expert System has allowed the new business partner to considerably improve the quality of services offered to its customers.

With regard to the enormous potential of cognitive solutions in the insurance sector, useful for automating complex business processes, combining a high degree of accuracy with lower and calculable implementation costs, note the global agreement signed with Zurich Insurance Ltd. Expert System's support will be provided for the automation and strategic innovation processes, making available all the benefits of Cogito artificial intelligence with short implementation times

and maximum efficiency, improving the quality of services provided by Zurich Insurance Ltd. to its customers.

This intense activity has earned several important recognitions during the first half of the year. In particular:

- the inclusion again for 2017 in the “KMWorld 100 Companies that Matter in Knowledge Management” rankings, compiled by a group of sector experts and market analysts working together under the guidance of the prestigious US magazine KMWorld to select the best solutions worldwide offered by companies operating in Knowledge Management. This event emphasises once again the distinctive features of Cogito technology and its capacity to ensure companies the best levels of accuracy and efficiency, supporting the management and strategic analysis of information through full understanding of the meaning of words and context;
- the inclusion by the prestigious Forbes magazine in an article on the top ten best Artificial Intelligence solutions destined to change the near future, allowing unstructured data to be extracted and analysed to rapidly identify the information necessary to support business decision-making processes;
- helping its customer BNL to win the “ABI Award for Innovation in Banking Services”. Expert System technology, in fact, allowed BNL to provide its employees with an “internal customer support” service that optimises help desk activities by exploiting the potential of Cogito information management. Cogito’s capacity to automatically process language, correctly understanding the meaning of sentences, associated with a customised taxonomy created in partnership with the Innovation Team of BPI, the consortium of the BNP Paribas Group in Italy, ensured maximum analysis precision and pertinent responses, with a significant saving in terms of time and resources;
- the selection by the US-based Gartner, global leader in strategic consulting, research and analysis in the Information Technology field, for the first “2017 Insight Engines Magic Quadrant” dedicated to business insight search applications, i.e. particularly advanced solutions to combine search simplicity with the most sophisticated analysis needs, thereby allowing companies to mine strategic information from available big data;
- the qualification as **Innovative SME**, unquestionable recognition of Expert System’s

propensity towards technological innovation in developing its own business model, supported by conspicuous R&D investments in Big Data Text Analytics and Cognitive Computing. This recognition will certainly allow those deciding to invest in the Group, for example by subscribing to the previously mentioned share capital increase approved on 07/07/2017, to benefit from the tax incentives offered by the “2017 Stability Act”.

OPERATING PERFORMANCE

General financial performance

The first six months of 2017 highlighted a widespread general recovery of the global economy and the economic growth forecasts have improved, as much in Italy as at global level. This expansion was determined first of all by private consumption, aided by the increase in disposable income and the favourable employment market conditions, with investments - including in the construction industry - driven by the improved forward-looking economic prospects. The same forecast of an improved international economy could form the basis for another boost to growth.

Commercial trade, sustained by the investment trend in most economies, has accelerated since the end of 2016, whilst in the financial markets volatility stands at a very low level. Uncertainty remains, however, about economic policies at global level, which could have negative repercussions on investor assessments. Any trade protection initiatives, in fact, could have an impact on international trade.

The macroeconomic scenario incorporates market expectations of a gradual adjustment to long-term interest rates and overall extension of credit conditions, consistent with the assumption that there will be no particular tension in the financial system, or instances of significant increases in volatility and risk premiums.

In this broader scenario, which shows signs of recover, Expert System’s reference market - the Global Text Analytics Market, part of the vast Artificial Intelligence sector - offers a glimmer of excellent medium/long-term development prospects, despite highlighting certain aspects typical of its more recent setup, if compared with business sectors that are far more mature and “traditional”. Note, in fact, how this growth phase is “patchy”, as not all potential customers

have completed their internal processes, often lengthy, needed to become aware of the opportunities offered by Text Analytics and the associated capacity for managing enormous amounts of data. Businesses need to be given time to understand how to plan the adoption and use of these technologies in their organisations.

At the same time, interaction with customers of significant size, i.e. large corporations and government entities, can lead to sales processes that are not always extremely fast, depending not only on particularly complex decision-making procedures, but also on the abandonment of prior technological solutions that often require longer times than market analysts assume. The various sector analyses in any event agree that gradual growth of the market can be forecast, both in terms of speed and the type of users and sectors, combining consolidated partnerships with the finance and insurance industries with rapid progress in the fields of public safety, healthcare and retail.

Operating performance of the Expert System Group

The consolidated half-yearly financial report as at 30 June 2017, 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):

Expert System Group			Main income statement figures	Expert System S.p.A.		
H1 2016	H1 2017	% Ch.		H1 2016	H1 2017	% Ch.
8,570,966	8,442,300	(2%)	Revenues	5,380,330	4,924,421	(8%)
13,234,341	11,746,376	(11%)	Value of production	7,697,000	6,804,504	(12%)
(1,898,682)	(3,982,789)	(110%)	Gross operating profit (EBITDA)	143,599	(1,007,996)	(802%)
(4,844,261)	(7,295,638)	(51%)	Operating result (EBIT)	(1,026,412)	(2,400,852)	(134%)
(5,049,318)	(7,633,439)	(51%)	Net profit (loss)	(1,104,612)	(2,446,355)	(121%)

Note that, for comparison purposes, the results as at 30/06/2016 take into account the new OIC provisions.

In order to provide a better outline of the performance and the operating result, the following tables provide a reclassification of the added value income statement, a reclassification of the Balance sheet by business area and in financial terms and the more significant financial statement ratios.

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

Consolidated Income Statement	30/06/2017	30/06/2016	Change
Sales revenues	8,442,300	8,570,966	(128,667)
Change in inventories	51,258	392,791	(341,533)
Own work capitalised	2,524,452	2,942,807	(418,355)
Sundry income	728,366	1,327,777	(599,411)
Value of operating production	11,746,375	13,234,341	(1,487,966)
Cost of operating materials and overheads	(5,975,105)	(6,034,907)	59,803
Value added	5,771,270	7,199,434	(1,428,163)
Personnel costs	(9,754,059)	(9,098,116)	(655,943)
EBITDA	(3,982,789)	(1,898,682)	(2,084,106)
Amortisation, depreciation and provisions	(3,312,849)	(2,945,579)	(367,270)
EBIT	(7,295,638)	(4,844,261)	(2,451,376)
Financial area result	(1,369,093)	(540,646)	(828,447)
Ordinary profit	(8,664,730)	(5,384,906)	(3,279,823)
Extraordinary area result	0	0	0
Pre-tax result	(8,664,730)	(5,384,906)	(3,279,823)
Income taxes	1,031,291	335,589	695,701
Net profit (loss)	(7,633,439)	(5,049,318)	(2,584,121)

Revenues as at 30/06/2017 recorded a growth from 47% in the first half of 2016 to more than 61% of total revenues from foreign sales, confirming the business internationalisation strategy adopted by the company.

A further aspect is also emphasised which had an impact on revenues this half, particularly the recurring revenues component in which licences increased from 47% in 2016 to 55%, a growth of almost 20%.

The business strategy aims to change the revenue mix, which as at 30/06/2017 was essentially in line with the same period of 2016, with the intention of 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.

As regards the other items under Value of Production, note that the changes from the increase in own work capitalised (€ 2.5 million vs. € 2.9 million as at 30/06/2016) and other income represented mainly by R&D grants (€ 0.7 million compared to € 1.3 million in the previous half-year) can be realigned to business standards over the second half of the year since they are attributable to temporary factors and to events occurring by the end of 2017.

EBITDA, negative for € 3.9 million despite operating costs being slightly lower than in the previous half-year, was affected by rising personnel costs (+7%) linked to the recruitment of highly qualified resources and at managerial level, indispensable to boosting the geographic expansion to new markets and the consolidation of existing markets, and to the level of technological expertise, i.e. to maintain the leadership position in the Cognitive Computing market.

It is considered reasonable to expect that these investments will in the short term generate a return to an initial profit margin by means of a considerable increase in revenues.

EBIT was negative for € 7.3 million, also in view of the amortisation of intangible fixed assets for € 3.2 million, referring mainly to capitalised development costs (€ 17.7 million net as at 30/06/2017) and to the consolidation difference for € 1.1 million, most of which associated with the goodwill of recently acquired companies.

In view of the above, and considering the impact of USD exposures on the financial management with a negative effect for € 1.1 million due to unrealised exchange losses, net of the allocation of € 1 million in prepaid taxes, the net loss was € 7.6 million.

The breakdown by geographic area, based on the country of origin of each Group company, is as follows:

Income Statement	Italy		EU&UK		USA		Group	
	30/06/2016	30/06/2017	30/06/2016	30/06/2017	30/06/2016	30/06/2017	30/06/2016	30/06/2017
Revenues	4,538,516	3,241,181	2,051,241	2,733,988	1,981,209	2,467,130	8,570,966	8,442,300
Value of Production	6,925,440	5,075,964	3,662,082	4,203,050	2,646,819	2,467,361	13,234,341	11,746,376
EBITDA	16,257	(2,133,915)	(722,028)	(815,368)	(1,192,911)	(1,033,504)	(1,898,682)	(3,982,789)
Net profit (loss)	(1,104,612)	(2,446,355)	(1,330,654)	(1,930,601)	(1,494,662)	(1,906,479)	(5,049,318)	(7,633,439)

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

Profitability ratios	30/06/2017	30/06/2016
Net ROE	- 0.44	- 0.25
Gross ROE	- 0.50	- 0.26
ROI	- 0.31	- 0.18
ROS	- 0.86	- 0.57

Main balance sheet figures

The company's reclassified balance sheet, compared with 31/12/2016, is shown below (in Euro):

Consolidated Balance Sheet	30/06/2017	31/12/2016	Change
Net intangible fixed assets	17,745,780	18,372,463	(626,683)
Net tangible fixed assets	872,927	914,523	(41,596)
Equity investments and other non-current financial assets	5,417,423	3,270,381	2,147,042
Fixed assets	24,036,129	22,557,366	1,478,763
Short-term financial assets	4,153,074	4,153,074	-
Inventories	678,119	627,484	50,635
Receivables due from customers	6,866,219	10,232,837	(3,366,618)
Other receivables	5,335,915	8,444,881	(3,108,967)

Accrued income and prepaid expenses	1,144,948	1,003,638	141,310
Short-term operating assets	18,178,275	24,461,914	(6,283,639)
Trade payables	(2,010,728)	(2,698,583)	687,855
Payments on account	(1,739,290)	(2,247,323)	508,033
Tax and social security payables	(1,859,896)	(2,275,284)	415,388
Other payables	(2,091,370)	(1,962,195)	(129,176)
Accrued expenses and deferred income	(3,483,727)	(3,595,666)	111,940
Short-term operating liabilities	(11,185,010)	(12,779,051)	1,594,041
Net working capital	6,993,265	11,682,863	(4,689,598)
Employee severance indemnity	(1,762,623)	(1,670,520)	(92,104)
Tax and social security payables			
Accrued expenses and deferred income after 12 months	(4,102,807)	(3,640,000)	(462,807)
Other medium and long-term liabilities	(1,649,506)	(1,392,298)	(257,208)
Medium-term liabilities	(7,514,937)	(6,702,818)	(812,118)
INVESTED CAPITAL	23,514,456	27,537,411	(4,022,955)
Shareholders' equity	(9,666,422)	(16,437,207)	6,770,787
Net medium/long-term financial position	(15,224,801)	(15,251,917)	27,116
Net short-term financial position	1,376,766	4,151,714	(2,774,949)
OWN EQUITY AND NET FINANCIAL DEBT	(23,514,456)	(27,537,411)	4,022,955

With regard to fixed assets, which increased by € 1.5 million, the change in intangible fixed assets (negative for € 0.6 million) relates mainly to the capitalisation of development costs for € 2.5 million, net of € 3.2 million in amortisation, of which € 1.8 million referring to capitalised development costs and € 1.1 million to the consolidation difference.

The equity investments and other financial fixed assets rose by € 2.1 million, against an increase in prepaid tax receivables of € 1.8 million.

Considering here the current business-related aspects, note the € 4.7 million decrease in working capital from € 11.7 million to € 7 million, mainly due to the reduction in current assets, the € 6.3 million change in which is mostly attributable to the decrease in trade receivables (€ 3.3 million), tax receivables and prepaid taxes (€ 1.2 million) and research project grants (€ 1.5 million).

The broadly positive value of this figure in any event means that a substantial balance in operations management can be reported, in which short-term assets and liabilities are compared.

For the purposes of a better description of 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 at 31 December 2016.

Fixed asset funding ratios	30/06/2017	31/12/2016
Fixed asset/equity margin	(14,369,707)	(6,120,161)
Fixed asset/equity ratio	0.40	0.73
Fixed assets/liabilities and equity	4,267,222	12,194,574
Fixed assets/liabilities and equity	1.18	1.55

Fixed assets/equity ratio of loans	30/06/2017	31/12/2016
Liabilities due within 12 months (A)	13,239,353	15,402,657
Liabilities due after 12 months (B)	18,636,928	18,314,735
Own equity (C)	9,666,422	16,437,207
Total debt ratio (A+B)/C	3.29	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 correlate the value of shareholders' equity with fixed assets (as quantified in the table above), provide us with information on the company's capacity (or not) to finance all fixed assets with its own equity.

Shareholders' equity (A)	9,666,422
Net intangible fixed assets	17,745,780
Net tangible fixed assets	872,927

Equity investments and other non-current financial assets	5,417,423
Fixed assets (B)	24,036,129
Fixed assets/equity margin (A-B)	(14,369,708)
Fixed assets/equity ratio (A/B)	0.40

The negative result of the fixed asset/equity margin with the correlated ratio at less than one 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.

Shareholders' equity (A)	9,666,422
Net medium/long-term financial position (B)	15,224,801
Other medium and long-term liabilities (C)	1,649,506
Employee severance indemnity (D)	1,762,623
Fixed assets (E)	(24,036,129)
Fixed assets/liabilities and equity margin (A + B + C + D + E)	4,267,222
Fixed assets/liabilities and equity ratio (A + B + C + D)/(E)	1.18

The positive results for the fixed assets/liabilities and equity 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 at 30/06/2017 is as follows (in Euro):

Consolidated net financial position	30/06/2017	31/12/2016	Change
Bank deposits	5,636,299	8,994,794	(3,358,496)
Cash at bank and in hand	3,044	68,146	(65,102)
Treasury shares			
Cash and cash equivalents and treasury shares	5,639,343	9,062,940	(3,423,598)
Current financial assets	1,275,490	1,308,046	(32,555)
Bonds and convertible bonds (within 12 months)			
Payables due to shareholders for loans (within 12 months)			
Payables due to banks (within 12 months)	(4,665,397)	(5,046,595)	381,198
Payables due to other lenders (within 12 months)	(872,670)	(1,172,677)	300,007
Advances for overseas payments			
Short-term portion of loans			
Financial receivables			
Short-term financial payables	(5,538,067)	(6,219,272)	681,205
Net short-term financial position	1,376,766	4,151,714	(2,774,949)
Bonds and convertible bonds (after 12 months)	(5,000,000)	(5,000,000)	
Payables due to shareholders for loans (after 12 months)			
Payables due to banks (after 12 months)	(8,497,674)	(8,595,385)	97,711
Payables due to other lenders (after 12 months)	(1,727,127)	(1,656,532)	(70,595)
Advances for overseas payments			
Long-term portion of loans			
Financial receivables			
Net medium/long-term financial position	(15,224,801)	(15,251,917)	27,116
NET FINANCIAL POSITION	(13,848,035)	(11,100,202)	(2,747,833)

The net financial position as at 30/06/2017, down by € 2.7 million compared to the figure as at 31/12/2016, expresses the need for recourse to third-party funding and/or capital injections to support the company's business plan.

In this respect, it should be emphasised that the Group continues to incur development costs for € 2.5 million, and therefore the recourse to third-party funding is almost exclusively attributable to planned technological investments.

Economic and equity situation of the parent company

The economic and equity data as at 30 June 2017 of the parent company Expert System S.p.A. are shown in the following tables:

Reclassified income statement of Expert System S.p.A.

Expert System S.p.A. Income Statement	30/06/2017	30/06/2016	Change
Sales revenues	4,924,421	5,380,330	(455,909)
Change in inventories	27,232	88,719	(61,488)
Own work capitalised	1,323,951	1,643,177	(319,225)
Sundry income	528,901	584,773	(55,873)
Value of operating production	6,804,504	7,697,000	(892,495)
Cost of operating materials and overheads	(3,759,741)	(3,670,830)	(88,911)
Value added	3,044,763	4,026,169	(981,406)
Personnel costs	(4,052,759)	(3,882,571)	(170,188)
EBITDA	(1,007,996)	143,599	(1,151,594)
Amortisation, depreciation and provisions	(1,392,856)	(1,170,010)	(222,846)
EBIT	(2,400,852)	(1,026,412)	(1,374,440)
Financial area result	(791,443)	(415,816)	(375,627)
Ordinary profit	(3,192,295)	(1,442,228)	(1,750,067)
Extraordinary area result	0	(0)	0
Pre-tax result	(3,192,295)	(1,442,228)	(1,750,067)
Income taxes	745,940	337,616	408,324
Net profit (loss)	(2,446,355)	(1,104,612)	(1,341,743)

Sales and service revenues, which refer to licences, maintenance fees and professional services, fell from € 5.4 million as at 30/06/2016 to the present € 4.9 million. This change reflects the efforts made to change the target market to larger-sized customers as well as a gradual change in the sale of licences, increasing the percentage of annual-recurring sales to the detriment of perpetual sales. These strategies call for longer customer acquisition times and a temporary decline in the sale value of the licence in addition to the need for considerable marketing efforts. EBITDA, negative for € 1 million despite operating costs remaining essentially in line with those as at 30/06/2016, was also affected by the increase in personnel costs which rose from € 3.9 million to € 4 million. This performance reflects that seen in reference to the consolidated

figures, particularly the need to recruit high-level managers and technology experts, i.e. able to facilitate implementation of the business plan in terms of geographic expansion and the market supply of state-of-the-art semantics technology solutions.

EBIT was negative for € 2.4 million, also in view of the amortisation of intangible fixed assets for € 1.3 million, referring mainly (€ 1.2 million) to capitalised development costs.

The financial area result, negative for around € 0.8 million (negative for € 0.4 million as at 30/06/2016), was affected on the one hand by financial expenses for roughly € 0.2 million, down compared to the first half of 2016 (€ 0.3 million), and on the other by the recognition of exchange gains and losses with a negative balance of € 0.7 million (€ 0.2 million as at 30/06/2016) due to the USD exposure of Expert System S.p.A. in relation to trade receivables and loans disbursed to subsidiaries. As a result, the net loss, after the allocation of prepaid taxes for € 0.7 million, was € 2.4 million.

Expert System S.p.A. balance sheet	30/06/2017	31/12/2016	Change
Net intangible fixed assets	6,239,431	6,251,067	(11,636)
Net tangible fixed assets	665,818	667,181	(1,363)
Equity investments and other non-current financial assets	28,399,285	25,668,740	2,730,545
Fixed assets	35,304,533	32,586,987	2,717,546
Short-term financial assets	4,153,074	4,153,074	0
Inventories	638,132	610,900	27,232
Receivables due from customers	4,003,807	5,429,296	(1,425,489)
Other receivables	7,129,698	7,503,858	(374,160)
Accrued income and prepaid expenses	791,468	750,255	41,213
Short-term operating assets	16,716,180	18,447,383	(1,731,204)
Trade payables	(1,236,415)	(1,396,828)	160,413
Payments on account	(1,717,445)	(2,238,142)	520,697
Tax and social security payables	(712,141)	(770,591)	58,450
Other payables	(1,894,382)	(1,669,344)	(225,038)
Accrued expenses and deferred income	(1,572,316)	(1,504,926)	(67,390)
Short-term operating liabilities	(7,132,697)	(7,579,831)	447,134
Net working capital	9,583,482	10,867,552	(1,284,070)
Employee severance indemnity	(1,762,623)	(1,670,520)	(92,104)
Tax and social security payables	0	0	0
Accrued expenses and deferred income after 12 months	(1,698,773)	(1,791,230)	92,457
Other medium and long-term liabilities	(1,112,030)	(854,823)	(257,208)
Medium-term liabilities	(4,573,427)	(4,316,573)	(256,854)
INVESTED CAPITAL	40,314,588	39,137,967	1,176,621

Shareholders' equity	(25,832,260)	(28,275,733)	2,443,473
Net medium/long-term financial position	(14,271,900)	(14,360,437)	88,537
Net short-term financial position	(210,428)	3,498,203	(3,708,631)
OWN EQUITY AND NET FINANCIAL DEBT	(40,314,588)	(39,137,967)	(1,176,621)

Fixed assets rose from € 32.6 million as at 31/12/2016 to € 35.3 million as at 30/06/2017. The variation is mainly attributable to the change in non-current financial assets, which rose by € 2.7 million due to the higher prepaid tax credits (€ 1.1 million) and the residual amounts provided in the form of financing to subsidiaries, net of the adjustment as at 30/06/2017 in the value of loans disbursed in USD.

Working capital was a positive € 9.6 million as at 30/06/2017 (a positive € 10.9 million as at 31/12/2016), confirming the balance between current assets and current liabilities. The € 1.3 million difference is mainly attributable to the negative change in trade receivables for € 1.4 million.

As a result, net invested capital came to € 40.3 million (€ 39.1 million as at 31/12/2016), recording a positive change of € 1.2 million.

Net financial position of Expert System S.p.A.	30/06/2017	31/12/2016	Change
Bank deposits	3,604,853	7,327,197	(3,722,343)
Cash at bank and in hand	2,793	2,680	113
Treasury shares			
Cash and cash equivalents and treasury shares	3,607,646	7,329,877	(3,722,231)
Current financial assets	1,010,798	1,010,798	0
Bonds and convertible bonds (within 12 months)			
Payables due to shareholders for loans (within 12 months)			
Payables due to banks (within 12 months)	(4,539,068)	(4,487,565)	(51,503)
Payables due to other lenders (within 12 months)	(289,804)	(354,906)	65,102
Advances for overseas payments			
Short-term portion of loans			
Financial receivables			
Short-term financial payables	(4,828,872)	(4,842,471)	13,599
Net short-term financial position	(210,428)	3,498,203	(3,708,631)
Bonds and convertible bonds (after 12 months)	(5,000,000)	(5,000,000)	0
Payables due to shareholders for loans (after 12 months)			
Payables due to banks (after 12 months)	(8,497,674)	(8,595,385)	97,711
Payables due to other lenders (after 12 months)	(774,226)	(765,052)	(9,174)
Advances for overseas payments			

Long-term portion of loans			
Financial receivables			
Net medium/long-term financial position	(14,271,900)	(14,360,437)	88,537
NET FINANCIAL POSITION	(14,482,328)	(10,862,234)	(3,620,094)

The net financial debt of the parent company rose by € 3.6 million, up from € 10.9 million as at 31/12/2016 to the current € 14.5 million. The disbursements linked to both investment spending and current assets contributed to the change, while as regards liabilities (€ 2.2 million) incurred in the first half of 2017 with banks and other lenders, the increases and decreases are essentially the same.

THE ENVIRONMENT, PERSONNEL AND RISKS

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 review of which was performed on 29 June 2017, reconfirming validity until 15 September 2018.

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 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. Although as part of its normal operations Expert System makes use of bank credit facilities, it cannot be ruled out at this time that there will be no positions difficult to collect.

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 at 30/06/2017	Average exchange rate H1 2017
USD	1.1412	1.083022
CAN	1.4785	1.444493
GBP	0.87933	0.86059

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. COGITO has also been patented in the United States. Though the Company has implemented the necessary measures to protect its intellectual property rights, it cannot be excluded that in the future third parties could perform activities that violate such rights, with negative effects on the Company’s and/or Group’s business and growth prospects and on the income, equity and financial position of the Company and/or Group.

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.

The company has signed the following derivative contract with CARIPARMA:

- Derivative contract type: IRS no. 59746/2014, unlisted;
- Purpose: hedging;
- Transaction with no principal swap on expiry;
- Initial notional amount € 1,200,000;
- Notional amount at the reference date (30/06/2017): € 377,246;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative fair value of € 4,072.46, client side;
- Liability hedged: CARIPARMA mortgage no. 04 107 008852280000, originated for € 1,200,000, signed on 23/12/2013.

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 article 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 article 6.1 of Italian Legislative Decree 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

The ongoing investments in research and development activities is a key element in the Expert System strategy and it is necessary to remain state of the art in the cognitive technology field applied to unstructured data, therefore being able to satisfy the growing customer demand and retain its competitive advantage for customers. 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 semantics platform and the products that use the platform to address the most common cases of customer usage.

As regards the development tools used to customise the projects, the greatest efforts focused on the inclusion and fine-tuning of machine learning/deep learning approaches, the enhancement of functions for the knowledge graph management (Sensigrafo) and completion of the integration with the components of the technology stack deriving from acquisition of the former Temis Group.

Other sources of major research in the period included:

- implementation of a new series of summary views of cognitive analysis performed by Cogito;
- development of new reporting functions integrated in the product Cogito Intelligence Platform;
- completion of the new link for Microsoft Sharepoint;
- completion of version 1.3 of Analyst WorkSpace, which integrates the new functions of data analysis and editing by analysts;
- development of a new version of Cogito Answers.

TREASURY SHARES

As at 30/06/2017, the parent company Expert System S.p.A. held 141,139 treasury shares. The change compared to the 270,000 treasury shares held as at 31/12/2016 is attributable to the assignment of 128,861 treasury shares following the maturity on 28/06/2017 of the first 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 AT 30/06/2017



FORM AND CONTENT OF THE FINANCIAL STATEMENTS

The consolidated financial statements as at 30/06/2017, 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 Report on Operations.

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 year 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.

Scope of consolidation - Consolidation and translation principles

The consolidated financial statements comprise the financial statements of Expert System S.p.A. and of the Italian and foreign companies over which it directly or indirectly exercises control.

The assets and liabilities of the consolidated companies are included on a line-by-line basis. The book value of the equity investments held by the parent company and by the other companies included in the scope of consolidation is eliminated against the related shareholders' equity. The difference between the acquisition cost and the shareholders' equity at current value 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.

The following companies have been excluded from the scope of consolidation: ADmantX S.p.A., with headquarters in Naples, which the Group directly controls, and ADmantX Inc. with headquarters in the USA, which the Group indirectly controls.

The equity investment in ADmantX S.p.A. as at 30/06/2017 is not considered functional with regard to the group's objectives and, in fact, scouting activities have been underway via a specialised advisor 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.

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 closing shareholders' equity using the original formation exchange rates with respect 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 the item "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 financial statements of individual companies were restated and adjusted, where 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.

Changes in the scope of consolidation

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

MEASUREMENT CRITERIA

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 statement 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 at 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 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 payments on account 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, and are recognised at their estimated realisable value.

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

Furthermore, no account was taken of the 'time factor' and receivables due beyond 12 months were not discounted as the difference between the effective interest rate and the market rate is immaterial.

Receivables not measured using the amortised cost criterion are recognised at their estimated realisable value.

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 at year end are valued 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 year, 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 year-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 at year end, 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 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 beyond 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 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 year, 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 year

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.

INFORMATION ON THE BALANCE SHEET

Intangible fixed assets

Intangible fixed assets amount to € 17,745,780 (€ 18,372,465 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	Total intangible fixed assets
Balance at start of the year							
Cost	1,728,297	23,701,613	1,125,041	19,052	14,380,186	38,464	40,992,653

Amortisation (Accumulated amortisation)	554,604	15,184,542	1,068,349	14,463	5,761,926	36,304	22,620,188
Write-downs	-	-	-	-	-	-	-
Book value as at 31/12/2016	1,173,693	8,517,071	56,692	4,589	8,618,260	2,160	18,372,465
Changes in the year							
Increases due to purchases	-	-	-	-	-	-	-
Reclassifications	-	-	-	-	-	-	-
Decreases due to sales and disposals	-	-	-	-	-	-	-
Amortisation in the year	99,848	1,776,235	13,099	364	1,303,751	787	3,194,084
Other changes	80,705	2,486,695	-	(1)	-	-	2,567,399
Total changes	(19,143)	710,460	(13,099)	(365)	(1,303,751)	(787)	(626,685)
Balance at end of the year							
Cost	1,808,620	26,174,695	1,125,041	19,052	14,380,186	38,464	43,546,058
Amortisation (Accumulated amortisation)	654,070	16,947,164	1,081,448	14,828	7,065,677	37,091	25,800,278
Book value as at 30/06/2017	1,154,550	9,227,531	43,593	4,224	7,314,509	1,373	17,745,780

Goodwill

Goodwill, recognised for € 7,314,509 net of amortisation, includes the following values:

- € 731,106, net of € 731,106 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;
- € 3,344, net of amortisation of € 30,099, deriving from the goodwill recognised among parent company assets;
- € 955,032, net of € 679,468 amortisation, deriving from the goodwill recognised among assets of the subsidiary Expert System France S.A.

The remaining € 5,625,027 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 € 5,625,027 was calculated as follows:

- € 4,236,531 (net of € 4,236,530 amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System France S.A.;
- € 68,946 (net of € 68,945 total post-acquisition amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System Iberia S.L.U.;
- € 1,319,550 (net of amortisation of € 1,319,548) 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.

In relation to the matters laid down by art. 38.1, letter d) of Italian Legislative Decree No. 127/1991, the breakdown of the start-up and expansion costs and development costs is illustrated in the following tables.

Breakdown of start-up and expansion costs:

	Balance at start of the year	Increases in the year	Amortisation in the year	Other decreases	Total changes	Balance at end of the year
Costs for establishment/amendments to articles of association	80,876	-	8,184	941	(9,125)	71,751
Start-up costs	652,435	81,645	-	-	81,645	734,080
Extraordinary transaction costs	685	-	342	-	(342)	343
Admission to stock market listing	439,698	-	91,322	-	(91,322)	348,376

Total	1,173,694	81,645	99,848	941	(19,144)	1,154,550
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The costs recorded are reasonably correlated to long-term benefit over several years, and are systematically amortised in relation to their residual useful life.

The item “Other intangible fixed assets”, which includes residual balances which cannot be classified in the previous items, amounts to € 1,373 (€ 2,160 in the previous year), and is made up as follows:

	Balance at start of the year	Changes in the year	Balance at end of the year
Substitute tax on loans	2,160	(787)	1,373
Total	2,160	(787)	1,373

Tangible fixed assets

Tangible fixed assets amount to € 872,927 (€ 914,522 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 year					
Cost	456,980	218,291	1,558	2,183,353	2,860,182
Depreciation (Accumulated depreciation)	83,156	201,001	1,558	1,659,945	1,945,660
Book value as at 31/12/2016	373,824	17,290	-	523,408	914,522

Changes in the year					
Disposals	-	-	-	3,021	3,021
Increases due to purchases	-	-	-	68,274	68,274
Depreciation in the year	5,544	3,074	-	100,147	108,765
Other changes	1	-	-	1,916	1,917
Total changes	(5,543)	(3,074)	-	(32,978)	(41,595)
Balance at end of the year					
Cost	456,980	218,291	1,558	2,225,434	2,902,263
Depreciation (Accumulated depreciation)	88,699	204,075	1,558	1,735,004	2,029,336
Book value as at 30/06/2017	368,281	14,216	-	490,430	872,927

The item “Other assets”, which includes residual balances which cannot be classified in the previous items, amounts to € 490,430 (€ 523,408 in the previous year), and is made up as follows:

	Balance at start of the year	Changes in the year	Balance at end of the year
Office furniture	164,581	(19,853)	144,728
Electronic office machines	278,683	(7,766)	270,917

Motor vehicles	6,010	(2,004)	4,006
Ordinary office machines	24,325	(2,102)	22,223
Signage	3,690	(270)	3,420
Mobile phones	4,694	2864	7,558
Office furniture and fittings	41,425	(3,847)	37,578
Total	523,408	(32,978)	490,430

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

The equity investments not included in the scope of consolidation amounted to € 308,404 (€ 308,404 in the previous year).

Other securities classed as non-current financial assets amount to € 81,388 (€ 81,388 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
Cost	251,266	57,138	308,404	81,388
Book value as at 31/12/2016	251,266	57,138	308,404	81,388
Changes in the year	-	-	-	-
Increases due to purchases	-	-	-	-
Total changes	-	-	-	-
Cost	251,266	57,138	308,404	81,388
Book value as at	251,266	57,138	308,404	81,388

30/06/2017				
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As regards equity investments in associates, these refer to the investment in the associate CY4Gate S.r.l.

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
ICT Sud	133
Confidimpresa	5,000
Distretto Tecnologico Trentino S.c.a.r.l.	1,000
Buzzoole Holdings Limited	50,000
Other equity investments in other companies	57,138
Total	57,138

Non-current financial assets - Receivables

Receivables classed as non-current financial assets amount to € 696,748 (€ 701,809 in the previous year). These refer to receivables due from the associate CY4Gate S.r.l.

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

	Opening nominal amount	Opening bad debt provision	Opening net value	Other increases/(decreases)	Closing nominal amount	Closing bad debt provision	Closing net value
Due from associates after 12 months	701,809	-	701,809	(5,061)	696,748	-	696,748
Total	701,809	-	701,809	(5,061)	696,748	-	696,748

Current assets - Inventories

Inventories included under current assets amount to € 678,119 (€ 627,483 in the previous year).

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

	Balance at start of the year	Change during the year	Balance at end of the year
Raw materials and consumables	8157	(622)	7,535
Contract work in progress	619,326	51,258	670,584
Total inventories	627,483	50,636	678,119

Current assets - Receivables

Receivables included under current assets amount to € 16,533,016 (€ 20,856,496 in the previous year).

The bad debt provision includes € 150,180 as the bad debt provision allocated by the parent company, € 21,780 as the bad debt provision of the subsidiary Expert System Iberia SLU and € 19,043 as the bad debt provision of the subsidiary Expert System France SA.

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	7,057,222	-	7,057,222	191,003	6,866,219
Due from subsidiaries	63,068	26,787	89,855	-	89,855
Due from associates	130,407	-	130,407	-	130,407
Tax receivables	682,844	168,944	851,788	-	851,788
Prepaid taxes	-	2,577,521	2,577,521	-	2,577,521

Other receivables	4,459,596	1,557,630	6,017,226	-	6,017,226
Total	12,393,137	4,330,882	16,724,019	191,003	16,533,016

Receivables due from subsidiaries, amounting to € 89,855, are receivables due from the subsidiary ADmantX S.p.A., excluded from the scope of consolidation as explained in the preamble.

Receivables due from associates, amounting to € 130,407, are composed of trade receivables due from the associate CY4Gate S.r.l.

Other receivables total € 6,017,226 (€ 7,478,549 in the previous year).

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

	Opening value	Change	Closing value
Security deposits	168,638	117,670	286,308
Payments on account	152,317	14,390	166,706
Receivables for development project grants	6,256,418	(981,882)	5,274,537
Receivables due from factoring companies	355,615	(212,117)	143,498
Other receivables	545,561	(399,883)	145,677
Total	7,478,548	(1,461,822)	6,017,226

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	3,243,075	317,176	510,604
Receivables for project grants after 12 months	704,157	431,607	67,918
Total	3,947,232	748,783	578,522

Breakdown of grant receivables by project

Expert System S.p.A.	Receivables due within 12 months	Receivables due after 12 months
Horizon 2020	-	589,157
Mise (Ministry of Economic Development) - FIT	252,966	-
MIUR (Ministry of Education, Universities and Research) - FAR	243,892	-
PON	-	115,000
PON R&C 2007-2013	1,952,119	-
POR FESR Lazio	33,903	-
European Project - Tender ISEC	760,195	-
Total	3,243,075	704,157

Expert System Iberia S.L.U.	Receivables due within 12 months	Receivables due after 12 months
DANTE	-	99,750
EVEREST	155,120	194,405
K-DRIVE	92,306	-
LETSCROWD	-	54,938
TRIVALENT	-	27,039
XLIME	69,750	-
XLIME-ES	-	55,475

Total	317,176	431,607
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Expert System France S.A.	Receivables due within 12 months	Receivables due after 12 months
PRESIDIO	137,601	-
Inoova Gora	51,564	-
Reference value	8,636	-
COMBI	75	-
ADR PRISME	111,708	-
RAPID	87,006	-
ITRAC	113,199	67,918
E-Compliance	815	
Total	510,604	67,918

Current assets - Financial assets

Current financial assets amount to € 5,428,564 (€ 5,461,120 in the previous year).

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

	Balance at start of the year	Changes in the year	Balance at end of the year
Current equity investments in subsidiaries	4,153,074	-	4,153,074
Other current equity investments	8,400	-	8,400
Other current securities	1,299,646	(32,556)	1,267,090
Total	5,461,120	(32,556)	5,428,564

The item "Current equity investments in subsidiaries", amounting to € 4,153,074, includes the 60.68% 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 preamble.

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.

The subsidiary ADmantX S.p.A. in turn holds the following interest, indirectly controlled by Expert System S.p.A.:

Company	City or Foreign country	Share capital	Shareholders' equity	Profit/(Loss) 30/06/2017	% held
ADmantX Inc.	West Hartford CT 06133-0024, USA	8,763	(2,536,991)	(94,385)	100.00%

The item "other securities" includes the following:

- bonds held by Expert System S.p.A., for a total of € 1,002,398;
- other securities for € 264,692 held by Expert System Deutschland GMBH, as sums intended for temporary investments.

Receivables - broken down by maturity

The information relating to the breakdown of the receivables by maturity is presented below, in accordance with art. 38.1, letter e) of Italian Legislative Decree No. 127/1991:

	Balance at start of the year	Change during the year	Balance at end of the year	Portion due within 1 year	Portion due after 1 year	Of which with a residual duration of over 5 years
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Current receivables due from customers	10,232,836	(3,366,617)	6,866,219	6,866,219	-	-
Current receivables due from subsidiaries	95,315	(5,460)	89,855	63,068	26,787	-
Current receivables due from associates	255,626	(125,219)	130,407	130,407	-	-
Current tax receivables	1,248,072	(396,284)	851,788	682,844	168,944	-
Current prepaid tax assets	1,546,098	1,031,423	2,577,521	-	2,577,521	-
Other current receivables	7,478,549	(1,461,323)	6,017,226	4,459,596	1,557,630	-
Total	20,856,496	(4,323,480)	16,533,016	12,202,134	4,330,882	-

Receivables due from customers - Breakdown by geographic area

	Receivables due from customers	Invoices to be issued	Other trade receivables	Total
Italian customers	2,444,049	868,689	-	3,312,738
EU customers	700,785	934,017	22,056	1,656,858
Non-EU customers	1,626,657	460,970	-	2,087,626
Total	4,771,491	2,263,675	22,056	7,057,222
Bad debt provision	(191,003)	-	-	(191,003)
Total	4,580,487	2,263,675	22,056	6,866,219

Current assets - Cash and cash equivalents

Cash and cash equivalents included under current assets amount to € 5,639,343 (€ 9,062,940 in the previous year).

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

	Balance at start of the year	Change during the year	Balance at end of the year
Bank and postal deposits	8,994,794	(3,358,495)	5,636,299
Cash at bank and in hand	68,146	(65,102)	3,044
Total	9,062,940	(3,423,597)	5,639,343

Accrued income and prepaid expenses

Accrued income and prepaid expenses amount to € 1,144,948 (€ 1,003,638 in the previous year).

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

	Balance at start of the year	Change during the year	Balance at end of the year
Prepaid expenses	1,003,638	141,310	1,144,948
Total accrued income and prepaid expenses	1,003,638	141,310	1,144,948

Breakdown of prepaid expenses:

	Deferrals within 12 months	Deferrals after 12 months	Deferrals after 5 years
Personnel recruitment and training	14,549	-	-
Rent and leases payable	116,975	-	-
Insurance	15,363	-	-
Commissions	24,918	41,710	-
Consultancy	123,698	17,679	-
Maintenance	8,572	-	-
Rentals	66,469	160	-
Sundry services	89,820	-	-

Software	343,624	55,555	-
Internet costs	71,682	211	-
Royalties	121,826	-	-
Other deferrals	32,138	-	-
Total	1,029,633	115,315	-

Shareholders' equity

The shareholders' equity existing at the end of the year amounted to € 9,666,422 (€ 16,437,207 in the previous year).

On 28/06/2017, duly recorded by Notary Rolando Rosa (index no. 121949, folder 21215) and by the powers granted to the Board of Directors, the share capital increase was carried out in implementation of the Temis 2016-2020 Stock Grant plan.

The stock grant plan envisages 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.

28 June 2017 saw the initial share capital increase in implementation of the Temis 2016-2020 Stock Grant plan, which led to issue of the first tranche of 360,623 new shares through the free share capital increase of € 3,606.23, using funds for the same 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 128,861 treasury shares, equal to 50% of the total value of the plan.

The following tables disclose the change during the year in the individual items which make up the shareholders' equity.

Balance at start of the	Other allocations	Increases	Decreases	Reclassifications	Profit (loss) for the year	Balance at end of the
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	year					year	
Share capital	276,703	-	3,607	-	-	-	280,310
Share premium reserve	25,408,688	-	-	-	-	-	25,408,688
Legal reserve	43,899	-	-	-	-	-	43,899
Other reserves	-	-	-	-	-	-	-
Extraordinary reserve	3,618,898	-	-	1,473,899	180,049	-	2,325,048
Merger surplus reserve	376,622	-	-	-	-	-	376,622
Reserve for unrealised exchange gains	180,049	-	-	-	(180,049)	-	-
Miscellaneous other reserves	419,128	1,432	370,516	-	-	-	788,214
<i>Total other reserves</i>	<i>4,594,697</i>	<i>1,432</i>	<i>370,516</i>	<i>1,473,899</i>	<i>-</i>	<i>-</i>	<i>3,489,884</i>
Cash flow hedging reserve	(6,954)	-	-	-	2,882	-	(4,072)
Retained earnings (losses)	(5,193,900)	(6,432,069)	-	-	-	-	(11,625,969)
Profit (loss) for the year	(8,125,531)	8,125,531	-	-	-	(7,633,439)	(7,633,439)
Negative reserve for treasury shares in portfolio	(560,395)	-	-	-	267,516	-	(292,879)
Total Group shareholders' equity	16,437,207	1,693,462	3,607	1,473,899	639,484	-	9,666,422

Shareholders' equity pertaining to minority interests	-	-	-	-	-	-	-
Total consolidated shareholders' equity	16,437,207	1,693,462	3,607	1,473,899	639,484	(7,633,439)	9,666,422

Share capital

Share capital is composed as follow:

Description	Opening balance, number	Opening balance, nominal value	Shares subscribed during the year, number	Shares subscribed during the year, nominal value	Closing balance, number	Closing balance, nominal value
Ordinary shares	27,670,330	-	360,623	-	28,030,953	-
Total	27,670,330	-	360,623	-	28,030,953	-

Miscellaneous other reserves

The "Miscellaneous other reserves" are composed as follows:

Description	Amount
PIA Reserve provision	141,000
Other reserves	413,819
Translation reserve	233,395
Total	788,214

Cash flow hedging reserve

The information required by article 38.1 letter o-quater) of Italian Legislative Decree no. 127/1991 on changes occurring during the year is summarised in the following table:

Cash flow hedging reserve	
Balance at start of the year	(6,954)
Changes in the year	-
Increase due to change in fair value	2,882
Balance at end of the year	(4,072)

Summary statement of the usability of the reserves

The information required by art. 2427, section 7-bis of the Italian Civil Code relating to the specification of the shareholders' equity items with reference to their origin, possibility of use and distributable nature, as well as their use in previous years, can be gathered from the following tables:

	Amount	Origin/nature	Possibility of use	Available portion	Summary of uses made in the three previous years - for coverage of losses	Summary of uses made in the three previous years - for other reasons
Share capital	280,310	-	-	-	-	-
Share premium reserve	25,408,688	capital reserve	share capital increase, coverage of losses, distribution to shareholders	15,014,444	-	-
Legal reserve	43,899	profit reserve	share capital increase, coverage of losses	-	-	-
Other reserves						
Extraordinary or optional	2,325,048	profit reserve	share capital increase, coverage of losses, distribution to	2,325,048	2,201,809	-

reserve			shareholders			
Merger surplus reserve	376,622	profit reserve	share capital increase, coverage of losses, distribution to shareholders	376,622	-	-
Miscellaneous other reserves	788,214	profit reserve		-	-	-
Total other reserves	3,489,884			2,701,670	-	-
Cash flow hedging reserve	(4,072)	profit reserve		-	-	-
Negative reserve for treasury shares in portfolio	(292,879)	profit reserve		-	-	-
Total	28,925,830			17,716,114	-	-
Residual distributable portion	-			17,716,114	-	-

Provisions for risks and charges

Provisions for risks and charges are recorded under liabilities for a total of € 713,276 (€ 716,376 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 year	4,341	688,100	6,954	16,981	716,376

Changes in the year	-	-	-	-	-
Provision in the year	-	-	-	-	-
Use in the year	-	-	-	-	-
Other changes	-	(218)	(2,882)	-	(3,100)
Total changes	-	(218)	(2,882)	-	(3,100)
Balance at end of the year	4,341	687,882	4,072	16,981	713,276

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 year 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 € 1,762,623 (€ 1,670,520 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 year	1,670,520
Changes in the year	-
Provision in the year	162,282
Settlements in the year	70,179
Total changes	92,103
Balance at end of the year	1,762,623

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 € 29,400,382 (€ 31,330,496 in the previous year).

The breakdown of the individual items is as follows:

	Balance at start of the year	Changes in the year	Balance at end of the year
Bonds	5,000,000	-	5,000,000
Payables due to shareholders for loans			
Payables due to banks	13,641,980	(478,909)	13,163,071
Payables due to other lenders	2,829,209	(229,412)	2,599,797
Payments on account	2,383,029	(247,725)	2,135,304
Trade payables	2,738,799	(687,855)	2,050,944
Tax payables	864,641	(214,453)	650,188
Payables due to social security institutions	1,410,643	(200,935)	1,209,708

Other payables	2,462,195	129,175	2,591,370
Total	31,330,496	(1,930,114)	29,400,382

Payables - Broken down by maturity

Information relating to the breakdown of payables by maturity is provided below, pursuant to art. 38.1, letter e) of Italian Legislative Decree 127/1991:

	Balance at start of the year	Change during the year	Balance at end of the year	Portion due within 1 year	Portion due after 1 year	Of which with a duration of over 5 years
Bonds	5,000,000	0	5,000,000	0	5,000,000	-
Payables due to shareholders for loans						-
Payables due to banks	13,641,980	(478,909)	13,163,071	4,665,397	8,497,674	-
Payables due to other lenders	2,829,209	(229,412)	2,599,797	872,670	1,727,127	-
Payments on account	2,383,029	(247,725)	2,135,304	1,739,290	396,014	-
Trade payables	2,738,799	(687,855)	2,050,944	2,010,728	40,216	-
Tax payables	864,641	(214,453)	650,188	650,188	-	-

Payables due to social security institutions	1,410,643	(200,935)	1,209,708	1,209,708	-	-
Other payables	2,462,195	129,175	2,591,370	2,091,370	500,000	-
Total payables	31,330,496	-1,930,114	29,400,382	13,239,351	16,161,031	-

Payables backed by collaterals on company assets

The information concerning collaterals on company assets is presented below, pursuant to art. 38.1, letter e) of Italian Legislative Decree No. 127/1991:

	Payables backed by mortgages	Payables not backed by collaterals	Total
Bonds	-	5,000,000	5,000,000
Payables due to banks	102,818	13,060,253	13,163,071
Payables due to other lenders	-	2,599,797	2,599,797
Payments on account	-	2,135,304	2,135,304
Trade payables	-	2,050,944	2,050,944
Tax payables	-	650,188	650,188
Payables due to social security institutions	-	1,209,708	1,209,708
Other payables	-	2,591,370	2,591,370
Total payables	102,818	29,297,564	29,400,382

Accrued expenses and deferred income

Accrued expenses and deferred income are recorded under liabilities for a total of € 7,586,534 (€ 7,235,666 in the previous year).

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

	Balance at start of the year	Change during the year	Balance at end of the year
Accrued expenses	131,190	20,317	151,507
Deferred income	7,104,476	330,551	7,435,027
Total accrued expenses and deferred income	7,235,666	350,868	7,586,534

Breakdown of deferred income:

	Due within 12 months	Due after 12 months	Due after 5 years
Hosting fees	42,456	1,468	-
Research project grants	316,936	3,354,991	-
Tax credits	221,252	643,241	-
Licences	491,315	90,984	-
Maintenance	2,100,294	12,123	-
Provision of services	154,973	-	-
Other deferrals	4,995	-	-
Total	3,332,219	4,102,807	-

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 at 30/06/2017, no accruals and deferrals had a duration of more than five years.

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	8,570,966	8,442,300	(128,667)
Changes in contract work in progress	392,791	51,258	(341,533)
Own work capitalised	2,942,807	2,524,452	(418,355)
Other revenues and income	1,327,777	728,366	(599,411)
Total	13,234,341	11,746,375	(1,487,966)

Sales and service revenues

The income statement figures as at 30/06/2017 are expressed in comparison with those as at 30/06/2016, as envisaged in the OICs for interim financial reports.

In relation to the matters laid down by art. 38.1, letter i) of Italian Legislative Decree No. 127/1991, the breakdown of revenues by geographic area is illustrated in the following tables:

Geographic area	Current period
Revenues – Italy	3,241,181
EU revenues	2,282,542
Non-EU revenues	2,918,577
Total	8,442,300

Other revenues and income

Other revenues and income are recorded under value of production in the income statement for a total of € 728,366 (€ 1,327,777 as at 30/06/2016).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Tax credits	339,449	125,577	(213,872)
Capital grants	645,407	315,358	(330,049)
Operating grants	197,983	-	(197,983)
Sundry reimbursements	22,283	61,051	38,769
Other revenues	46,524	226,380	179,855
Contingent assets	76,130	-	(76,130)
Total	1,327,777	728,366	(599,411)

Costs for services

Costs for services are recorded under costs of production in the income statement for a total of € 4,291,528 (€ 4,767,278 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Electricity	42,556	53,649	11,093
Maintenance and repair costs	117,527	125,116	7,589
Technical services and consultancy	125,899	1,111,869	(145,030)
Directors' fees	633,694	631,117	(2,577)
Statutory and Independent Auditors' fees	7,280	7,280	-
Commission expense	13,500	29,076	15,576
Advertising	147,619	130,596	(17,023)
Legal expense and consultancy	354,323	162,655	(191,668)
Tax, administrative and commercial consultancy	597,346	490,447	106,899
Telephone expenses	107,470	88,271	(19,199)
Non-financial services from finance companies and banks	44,474	30,345	(14,129)
Insurance	46,703	50,820	4,117
Entertainment costs	14,792	17,946	3,154
Travel and accommodation costs	301,169	130,248	(170,921)
Other	1,081,926	1,232,093	150,167
Total	4,767,278	4,291,528	(475,750)

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 € 857,280 (€ 640,309 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Rent and leases payable	446,491	412,673	(33,818)

Cloud rental	118,226	152,007	33,781
Truck rental	517	67	(451)
Other vehicle rental	65,074	96,041	30,966
Hardware rental	10,000	15,746	5,746
Royalties	-	180,747	180,747
Total	640,309	857,280	216,971

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 by and collective contracts.

Sundry operating expenses

Sundry operating expenses are recorded under costs of production in the income statement for a total of € 138,496 (€ 179,141 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Taxes and duties	57,682	85,076	27,394
Losses on receivables	-	25,488	25,488
Magazine and newspaper subscriptions	20,793	2,925	(17,868)
Other operating expenses	100,666	25,007	(75,659)
Total	179,141	138,496	(40,645)

Interest and other financial expenses

In relation to the matters laid down by art. 38.1, letter l) of Italian Legislative Decree No.

127/1991, the breakdown of the item "interest and other financial expenses" is illustrated in the following table:

	Previous period	Current period	Change
Interest on bond payables	100,511	100,264	(246)
Interest on mortgages	161,170	103,387	(57,783)
Interest on factoring	-	20,723	20,723
Surety commissions	47,756	10,378	(37,378)
Overdraft fees	11,082	8,769	(2,313)
Loan fees	1,277	2,334	1,057
Other financial expenses	1,387	2,216	830
Total	323,182	248,072	(75,110)

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
IRES	-	-	(219)	1,031,072	-
Total	-	-	(219)	1,031,072	-

OTHER INFORMATION

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

	Shareholders' equity	of which: profit (loss) for the year
Balances as per the financial statements of the parent company	25,832,260	(2,446,355)
Adjusted balances as per the financial statements of the parent company	25,832,260	(2,446,355)
Effect of the valuation of equity investments using the line-by-line method		
- Elimination of the book values of the investees	(13,191,495)	-
- Shareholders' equities of the investees	2,236,774	-
- Investees' profit (loss) for the year	(4,364,592)	(4,364,593)
- Amortisation of consolidation differences	(861,095)	(861,095)
	(16,180,408)	(5,225,688)
Other adjustments	14,570	38,604
Total adjustments	(16,165,838)	(5,187,084)
Group shareholders' equity and result for the year	9,666,422	(7,633,439)
Consolidated shareholders' equity and result for the year	9,666,422	(7,633,439)

List of companies included in the scope of consolidation

In relation to the matters laid down by art. 38.2, letters a) to d) of Italian Legislative Decree No. 127/1991, the following lists are presented:

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

Company name	Registered offices	Currency	SE as at 30/06/2017	Share capital	Profit/(Loss) 30/06/2017	Group direct holding	Group indirect holding
Expert System USA Inc.	Delaware (USA)	\$ USA	\$ (4,937,243)	\$ 0.88	\$ (501,901)	100.00%	
Expert System Enterprise Corp.	Rockville (USA)	\$ USA	\$ (3,990,112)	\$ 200	\$ (1,529,082)		100.00%
Expert System Cogito Ltd.	London (UK)	£	£ (730,160)	£ 1,000	£ (197,785)	100.00%	
Expert System Iberia S.L.U.	Barcelona (ESP)	Euro	€ (2,346,769)	€ 3,000	€ (655,777)	100.00%	
Expert System France S.A.	Paris (FRA)	Euro	€ 718,300	€ 1,332,072	€ (677,428)	100.00%	
Expert System Canada	Montreal (CAN)	\$ Can.	\$ (131,529)	\$ 1,000	\$ (45,048)		100.00%
Expert System Deutschland GMBH	Heidelberg (DEU)	Euro	€ (636,714)	€ 25,000	€ (367,571)		100.00%

List of other equity investments in subsidiaries and associates

Company name	Registered offices	Currency	Share capital	Group direct holding	Group indirect holding
ADmantX S.p.A.	Naples (Italy)	Euro	217,359	60.68%	-
ADmantX Inc.	West Hartford (USA)	\$	-	-	60.68%
CY4Gate S.r.l.	Rome (Italy)	Euro	300,000	24.50%	-

Breakdown of personnel

The information concerning personnel is presented below, pursuant to art. 38.1, letter n) of Italian Legislative Decree 127/1991:

	Average number 30/06/2017	Average number 31/12/2016
Senior Managers	-	-
Middle management	60	62
Employees	178	171
Total	238	233

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. 38.1, letter o) of Italian Legislative Decree No. 127/1991, is presented below:

	Directors	Statutory Auditors
Fee	527,718	7,280

Derivative financial instruments

Pursuant to article 38.1, letter o-ter) of Italian Legislative Decree 127/1991, 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 contract with CARIPARMA:

- Derivative contract type: IRS no. 59746/2014, unlisted, signed on 15/01/2014, expiring 31/12/2018;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,200,000;
- Liability hedged: CARIPARMA mortgage no. 04 107 008852280000, originated for € 1,200,000, signed on 23/12/2013 and expiring on 31/12/2018.
- Amount of the liability hedged at the reference date (30/06/2017): € 377,246;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 4,072.46;
- Fair value at the start of the hedge: zero

The fair value measurement used the mark to model calculation.

Off-balance sheet commitments, guarantees and potential liabilities

In relation to the matters laid down by art. 38.1, letter h) of Italian Legislative Decree No. 127/1991, the breakdown of off-balance sheet commitments, guarantees and contingent liabilities is illustrated in the following table:

	Opening balance	Closing balance	Change
<i>SURETIES</i>	3,728,067	3,016,865	(711,202)
- to subsidiaries	300,000	900,000	600,000
- to other companies	3,428,067	2,116,865	(1,311,202)

These refer to surety guarantees to banks for € 1,622,465. The remaining € 1,394,400 is made up as follows:

- € 300,000 for the guarantee given by Expert System S.p.A. to the subsidiary ADmantX S.p.A., assumed by means of a private agreement between Expert System S.p.A. and IMI Fondi Chiusi società di gestione del risparmio S.p.A. (IMI). In respect of said agreement Expert System S.p.A. undertakes to purchase from IMI, in the event the subsidiary ADmantX S.p.A. is unable to repay at the maturity dates set forth by the loan, the bond securities subscribed by IMI. The guarantee originally given for a maximum of 4 bonds with a nominal value of € 100,000 each for a total of € 400,000, has now dropped to € 300,000 following partial conversion of the bond issue by IMI;
- € 600,000 for the guarantee given by Expert System S.p.A. to the subsidiary ADmantX S.p.A., against the subsidiary's signing of an unsecured loan for € 600,000 with Unicredit S.p.A.;
- € 494,400 is made up of the surety undertaken in favour of the investee company Okkam S.r.l.

Related party transactions

The information concerning transactions with related parties is presented below, pursuant to art. 38.1, letter o-quinquies) of Italian Legislative Decree 127/1991.

Trade and financial transactions

Company	Financial payables	Financial receivables	Trade receivables	Trade payables	Sales	Purchases
ADMANTX S.P.A.	-	26,787	63,068	-	37,301	-
EXPERT SYSTEM USA INC.	-	4,191,202	967,534	8,536	194,434	8,536
EXPERT SYSTEM COGITO LTD	-	803,783	256,535	-	99,199	91,480
CY4GATE SRL	-	696,748	155,407	-	42,122	-
EXPERT SYSTEM IBERIA S.L.U.	-	3,924,762	468,388	11,769	178,612	11,769
EXPERT SYSTEM FRANCE S.A.	-	1,373,532	374,876	7,508	299,047	7,508
EXPERT SYSTEM ENT CORP.	-	1,563,095	1,105,595	46,758	530,415	46,758
EXPERT SYSTEM DEUTSCHLAND GMBH	-	-	200,633	6,982	81,668	6,982
Total	-	12,579,909	3,592,035	81,553	1,462,798	173,032

Trade transactions

Company	Payables	Receivables	Guarantees	Commitments	Costs	Revenues
ADMANTX S.P.A.	-	63,068	-	-	-	37,301
EXPERT SYSTEM USA INC.	8,536	967,534	-	-	8,536	166,505
EXPERT SYSTEM COGITO LTD.	-	256,535	-	-	91,480	92,734
CY4GATE S.R.L.	-	155,407	-	-	-	30,187
EXPERT SYSTEM IBERIA S.L.U.	11,769	468,388	-	-	11,769	151,471
EXPERT SYSTEM FRANCE S.A.	7,508	374,876	-	-	7,508	287,566
EXPERT SYSTEM ENT CORP	46,758	1,105,595	-	-	46,758	519,008
EXPERT SYSTEM DEUTSCHLAND GMBH	6,982	200,633	-	-	6,982	81,668
Total	81,553	3,592,035	-	-	173,032	1,366,440

Financial transactions

Company	Payables	Receivables	Guarantees	Commitments	Expenses	Income
ADMANTX S.P.A.	-	26,787	-	-	-	-
EXPERT SYSTEM USA INC.	-	4,191,202	-	-	-	27,929
EXPERT SYSTEM COGITO LTD	-	803,783	-	-	-	6,465
CY4GATE S.R.L.	-	696,748	-	-	-	11,935
EXPERT SYSTEM IBERIA S.L.U.	-	3,924,762	-	-	-	27,141
EXPERT SYSTEM FRANCE S.A.	-	1,373,532	-	-	-	11,481
EXPERT SYSTEM ENT CORP.	-	1,563,095	-	-	-	11,407
Total	-	12,579,909	-	-	-	96,358

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 Poggio Reale, 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, Via Virgilio 56/Q: half-yearly lease instalment of € 1,834;
- 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 and business consultancy € 12,000;
 - Fee for secretary activities € 600;
 - Fee for general services (telephone, cleaning services and material, security, electricity, stationery, management software maintenance): lump-sum payment

for € 2,903 calculated as 4.15% of the costs incurred by Expert System S.p.A.

- Sale of licences for € 15,000.

The balance sheet items affected by these contracts are reclassified in the following accounts:

- 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 € 4,163,272, bearing interest in 2017 for € 27,929

Sales

- Granting of licences for € 47,434;
- Maintenance fees for € 26,288;
- Professional services provided for € 87,787;
- Reimbursement of other expenses for € 4,996.

Purchases

- Costs for sundry reimbursements for € 8,536.

With the subsidiary Expert System Cogito Ltd.:

- Loan granted to the subsidiary for € 797,318, bearing interest in 2017 for € 6,464

Sales

- Professional services provided for € 72,731;
- Reimbursement of other expenses for € 20,003.

Purchases

- Costs for sundry reimbursements for € 91,480.

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

- Loan granted to the subsidiary for € 3,897,621, bearing interest in 2017 for € 27,141

Sales

- Professional services provided for € 50,231;
- Granting of licences for € 72,459;
- Reimbursement of other expenses for € 10,087;
- Maintenance fees for € 18,694.

Purchases

- Professional services provided by the subsidiary for € 11,769.

With the subsidiary Expert System France S.A.:

- Loan granted to the subsidiary for € 1,362,051, bearing interest in 2017 for € 11,481

Sales

- Professional services provided for € 50,742;
- Granting of licences for € 125,257;
- Maintenance fees for € 104,917;
- Reimbursement of other expenses for € 6,645.

Purchases

- Professional services provided by the subsidiary for € 7,508.

With the subsidiary Expert System Enterprise Corp.:

- Loan granted to the subsidiary for € 1,551,688, bearing interest in 2017 for € 11,407

Sales

- Granting of licences for € 277,780;
- Professional services provided for € 40,922;
- Maintenance fees for € 198,155;
- Reimbursement of other expenses for € 2,152.

Purchases

- Professional services provided by the subsidiary for € 46,758.

With the subsidiary Expert System Deutschland GmbH:

Sales

- Professional services provided for € 22,012;
- Granting of licences for € 19,200;
- Maintenance fees for € 39,037;
- Reimbursement of other expenses for € 1,419.

Purchases

- Professional services provided by the subsidiary for € 6,982.

With the associate Cy4Gate S.r.l.:

- Loan granted to the associate for € 685,971, bearing interest in 2017 for € 11,935.

The balance sheet item affected by this transaction is:

- III) Non-current financial assets, 2) Receivables, a) Due from subsidiaries

The income statement item is reclassified in the following account:

- Financial income and expenses, 16) Other financial income, d) other income

Sales

- Professional services provided for € 25,000;

The balance sheet item affected by this transaction was reclassified in the following account:

- II) Receivables, 1) Due from customers

The income statement item is reclassified in the following account:

- A.1 Sales and service revenues;

Off-balance sheet agreements

Pursuant to article 38.1 letter o-sexies) of Italian Legislative Decree no. 127/1991, note that there is no information regarding the nature and economic objective of agreements not recorded in the balance sheet.

Information on fees pursuant to art. 38.1, 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 pursuant to article 38.1 letter o-septies), Italian Legislative Decree no. 127/1991:

	Tax consultancy costs and other	
	audit services performed	Audit service costs
Expert System S.p.A.	20,000	11,000
Expert System France S.A.	77,517	19,132
Expert System Iberia S.L.U.	39,547	2,087
Expert System Deutschland GMBH	8,397	-
Expert System Cogito Ltd.	-	-
Expert System Enterprise Corp.	-	-
Expert System USA Inc.	5,706	-
Expert System Canada – Semantic Technologies Inc.	-	-

Significant events after 30/06/2017

On 07/07/2017, with Extraordinary Shareholders' Meeting minutes duly recorded by Notary Rolando Rosa (index no. 121989, folder 21233), it was resolved to delegate powers pursuant to article 2443 of the Italian Civil Code to increase the share capital for a maximum 5 years by up to a maximum € 10,000,000, and in accordance with article 2420-ter of the Italian Civil Code to grant the option of issuing convertible bonds for a maximum € 10,000,000.

As at the date of preparation of this half-yearly report, none of the powers delegated to the

Board of Directors had been exercised.

As mentioned previously, it should also be noted that on 3 August the Company was granted the title of Innovative SME by the Trento Chamber of Commerce. As a result of this title, which recognised the company's broad propensity towards technological innovation in developing its own business models, investors can benefit from the tax incentives offered by the 2017 Stability Act.

Lastly, we would like to report that, also after the end of the half year, the Group obtained important recognitions and results, in the wake of those confirmed as at 30/06/2017.

In the cyber security field, Expert System was awarded the tender promoted by AGID, the Italian Digital Agency, for a total of € 0.7 million. As a result, Cogito technology will be made available to the new operating platform which will be used in a major project regarding IT security in public administrations. The tender concerns the Cert-Pa (Computer Emergency Response Team for Public Administration), a section of the Prime Minister's Office which plays a particularly important role in the prevention and management of Public Administration IT security incidents since it analyses all the data and information available in relation to cyber security in order to prevent such incidents. Integrating the cyber threats analysis configuration with a specific semantics analysis system, the platform will monitor unstructured data from public access sources such as web sites, blogs, etc., but also from sources not directly accessible by all, such as the "dark web".

In the medical and healthcare area, Expert System's Cogito Lab activities continued in reference to projects that apply cognitive computing in support of the battle against cancer, helping to provide more efficient patient data management as well as reducing healthcare costs.

In particular, these activities follow two main threads: simplifying analysis, correlation and sharing of information useful to determining the efficacy of treatments and any recurring symptoms, and making the assessment process faster and more complete for various healthcare aspects, from the clinical aspects of improving the quality of care to those of an administrative nature for more effective cost control.

The medical and healthcare projects in progress in Expert System's Cogito Labs include:

- the previously mentioned OncoSNIFE®, designed to use artificial intelligence to support the diagnosis and treatment of tumours;
- S-Grouper, a tool that uses semantic analysis of discharge letters and other documents to support the enabling of automatic coding control processes in hospitals and helps to improve the quality of clinical governance administrative processes;
- TENECO - a TeleNeurosurgery Support System to memorise, classify, search and process clinical surgery and statistics and all patient data for care purposes (from hospital stay to final results, including any rehabilitation);
- the Pasteur project, based on a platform using Cogito to try to identify reliability indexes of medical content and indications published on the web without specific prior control of the sources.

As regards the financial sector, the strategic partnership with NominoData to support banks' anti-money laundering activities has been strengthened. Applying Cogito to the rich set of data made available by NominoData, intelligence gathering will be enhanced and will offer availability of even more complete results so as to increase the awareness and effectiveness of anti-money laundering activities, particularly in lending and insurance market organisations. NominoData, in fact, has an enormous amount of strategic data on financial crimes which, once analysed using Expert System's artificial intelligence tools will allow more complete and updated due diligence information to comply with business requirements.

Also as a result of this, Expert System's Cogito technology has been able, for the third consecutive year, to earn the "Trend-Setting Product of the Year" award from KMWorld, the key point of reference worldwide in the Knowledge Management sector. Making this prestigious result possible was once again Cogito's capacity to transform information into knowledge so as to satisfy even the widest range of business needs: combining speed, accuracy and analysis of tests of a vast scale, Cogito provides an effective response to the needs of businesses to accelerate the automation of business processes based on mass processing of data and information, introducing new levels of efficiency and a real boost to productivity.

Business outlook

The Board of Directors considers that in the second half of the year it will be possible to launch various projects and partnerships with top customers that offer consolidation of the dynamics and new opportunities emerging in the first half of 2017. This aspect will certainly be added to the typically seasonal nature of Expert System business, which normally has a much better performing second half, also due to the usual modus operandi of the Group's public and private customers. At the same time, remodelling of the revenues mix will continue in favour of recurring licensing revenue components, also through the creation of new partnerships with ICT sector leaders. Lastly, there will be a particular focus on strengthening the Group's presence in terms of products and a customer based characterised by extensive development potential, such as banking and insurance, a sector in which the Group has achieved enormously successful projects and case histories.

This improved performance will have repercussions not only on revenues, but also on the percentage increase in fixed assets for internal work, i.e. investments in development activities, which at the same time will make it possible to achieve higher income from R&D grants disbursed by public entities and government agencies.

In more general terms, the prospects for future growth are boosted by an expected CAGR in the Global Text Analytics Market, our reference market, of more than 25% in the period 2014-2020. In the shorter term, improvements are forecast on the US market, with an estimated 20% growth, and in Spain where +40% is expected by the end of 2017.

Based on these assumptions, it is plausibly expected that 2017 will show business volumes in line with those of the previous year, with a gradual recovery in profit margins already from 2018.

Chairman of the Board of Directors
Marco Varone



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