

# EXPERT SYSTEM GROUP HALF-YEARLY REPORT AS AT 30/06/2018



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# **CORPORATE BODIES**

### **Board of Directors**

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

### **Board of Statutory Auditors**

Chairman of the Board of Statutory Auditors	ALESSANDRO AUGUSTO
Standing Auditor	ANDREA CUOGHI
Standing Auditor	ANTONIO TAZZIOLI



# CONSOLIDATED FINANCIAL STATEMENTS AS AT 30/06/2018



# **BALANCE SHEET**

ASSETS	30/06/2018	31/12/2017
A) SUBSCRIBED CAPITAL, UNPAID		
Total subscribed capital, unpaid (A)		
B) FIXED ASSETS		
I - Intangible fixed assets		
1) Start-up and expansion costs	1,037,156	1,230,579
2) Development costs	9,969,245	9,643,245
3) Industrial patent and intellectual property rights	60,343	34,232
4) Concessions, licences, trademarks and similar rights	3,496	3,860
5) Goodwill	4,715,376	6,010,757
6) Fixed assets in progress and payments on account	-	20,798
7) Other	293	585
Total intangible fixed assets	15,785,909	16,944,056

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### II - Tangible fixed assets

1) Land and buildings	357,193	362,737
2) Plant and machinery	8,068	11,142
4) Other assets	398,865	417,988
Total tangible fixed assets	764,127	791,868
III - Non-current financial assets		
1) Equity investments		
b) associates	251,266	251,266
d-bis) other companies	57,005	57,138
Total equity investments	308,271	308,405
2) Receivables		
b) Due from associates		
After 12 months	700,778	733,823
Total Receivables (2)	700,778	733,823
3) Other securities	79,070	85,952
Total non-current financial assets	1,088,119	1,128,180

Total fixed assets (B)	17,638,154	18,864,103
C) CURRENT ASSETS		
I - Inventories		
1) Raw materials and consumables	-	-
3) Contract work in progress	103,479	99,207
Total inventories	103,479	99,207
II) Receivables		
1) Due from customers		
Within 12 months	11,052,526	12,384,149
Total receivables due from customers	11,052,526	12,384,149
2) Due from subsidiaries		

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Within 12 months	38,244	33,982
After 12 months	26,787	26,787
Total receivables due from subsidiaries	65,030	60,768
3) Due from associates		
Within 12 months	-	34,831
Total receivables due from associates	-	34,831
5-bis) Tax receivables		
Within 12 months	1,398,605	1,428,438
After 12 months	-	-
Total tax receivables	1,398,605	1,428,438
5-ter) Prepaid taxes		
Within 12 months	772,145	464,391
After 12 months	1,203,618	1,677,790
Total prepaid taxes	1,975,764	2,142,181
5-quater) Other receivables		
Within 12 months	4,144,684	4,056,590
After 12 months	1,902,177	993,497
Total other receivables	6,046,862	5,050,086
Total receivables	20,538,787	21,100,454
III - Current financial assets		
1) Equity investments in subsidiaries	4,583,074	4,583,074
4) Other equity investments	8,400	8,400
6) Other securities	25,949	26,002
Total current financial assets	4,617,423	4,617,476
IV - Cash and cash equivalents		
1) Bank and postal deposits	9,409,685	11,221,661
3) Cash at bank and in hand	2,938	3,029
2) Cheques	-	10,000



Total cash and cash equivalents	9,412,623	11,234,690
Total current assets (C)	34,672,312	37,051,827
D) ACCRUALS AND DEFERRALS	692,226	582,304
TOTAL ASSETS	53,002,692	56,498,234

	BALANCE SHEET		
LIABILITIES		30/06/2018	31/12/2017
A) GROUP SHAREHOLDERS' EQUITY			
I) Share capital		358,590	357,207
II - Share premium reserve		35,076,223	35,980,236
IV - Legal reserve		43,899	43,899
VI - Other reserves, indicated separately			
Extraordinary reserve		1,190,773	1,493,354
Merger surplus reserve		376,622	376,622
Reserve for unrealised exchange gains		180,049	180,049
Miscellaneous other reserves		728,947	823,334
Euro rounding reserve		-	-
Total other reserves		2,476,390	2,873,359
VII - Cash flow hedging reserve		(33,887)	(20,924)
VIII - Retained earnings (losses)		(18,771,914)	(11,325,963)
IX - Profit (loss) for the year		(3,745,876)	(8,339,127)
X - Negative reserve for treasury shares in p	ortfolio	(159,187)	(292,879)
Total consolidated shareholders' equity		15,244,239	19,275,808
Shareholders' equity pertaining to minority	interests		



Minority interests in capital and reserves	-	-
Profit (loss) pertaining to minority interests	-	-
Total shareholders' equity pertaining to minority shareholders	-	-

Total consolidated shareholders' equity	15,244,239	19,275,808
B) PROVISIONS FOR RISKS AND CHARGES		
1) Pensions and similar obligations	4,341	4,341
2) Taxation, including deferred	880,694	872,557
3) Derivative financial instruments - liabilities	33,887	20,924
4) Other	15,181	50,595
Total provisions for risks and charges (B)	934,103	948,418
C) EMPLOYEE SEVERANCE INDEMNITY	2,035,178	1,876,192
D) PAYABLES		
1) Bonds		
After 12 months	5,000,000	5,000,000
Total bonds	5,000,000	5,000,000
4) Payables due to banks		
Within 12 months	4,336,798	3,910,091
After 12 months	7,613,196	7,846,031
Total payables due to banks	11,949,994	11,756,122
5) Payables due to other lenders		
Within 12 months	421,620	1,465,781
After 12 months	2,036,799	1,836,515
Total payables due to other lenders	2,458,418	3,302,296
6) Payments on account		
Within 12 months	548,559	869,024
After 12 months	825,917	234,980



Total payments on account	1,374,476	1,104,005
7) Trade payables		
Within 12 months	2,115,454	2,224,541
After 12 months	-	-
Total trade payables	2,115,454	2,224,541
12) Tax payables		
Within 12 months	812,805	1,130,313
Total tax payables	812,805	1,130,313
13) Payables due to social security institutions		
Within 12 months	587,840	698,739
Total payables due to social security institutions	587,840	698,739
14) Other payables		
Within 12 months	2,198,593	2,583,753
After 12 months	-	-
Total other payables	2,198,593	2,583,753
Total payables	26,497,579	27,799,769
Total payables	26,497,579	27,799,769
E) ACCRUALS AND DEFERRALS	8,291,594	6,598,047
TOTAL LIABILITIES	53,002,692	56,498,234

# **INCOME STATEMENT**

INCOME STATEMENT	30/06/2018	30/06/2017
A) VALUE OF PRODUCTION		
1) Sales and service revenues	12,864,257	8,442,300
3) Changes in contract work in progress	4,272	51,258
4) Own work capitalised	2,340,337	2,524,452

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### 5) Other revenues and income

Operating grants	2,000	-
Other	692,130	728,366
Total other revenues and income (5)	694,130	728,366

TOTAL VALUE OF PRODUCTION (A)	15,902,996	11,746,375
B) COSTS OF PRODUCTION:		
6) Raw materials, consumables and goods for resale	955,030	687,802
7) For services	4,438,521	4,291,528
8) Use of third-party assets	712,640	857,280
9) Personnel:	//0 .0	,
a) Salaries and wages	7,429,903	7,374,031
b) Social security costs	1,901,801	2,095,081
c) Employee severance indemnity	288,871	209,964
d) Pensions and similar charges	-	69,958
e) Other costs	8,366	5,025
Total personnel costs (9)	9,628,941	9,754,059
10) Amortisation, depreciation and write-downs:		
a) Amortisation of intangible fixed assets	3,547,817	3,194,084
b) Depreciation of tangible fixed assets	90,701	108,765
d) Write-down of receivables included in current assets and of cash and cash equivalents	-	10,000
Total amortisation, depreciation and write-downs (10)	3,638,518	3,312,849
12) Provisions for risks	-	-
14) Sundry operating expenses	96,887	138,496
TOTAL COSTS OF PRODUCTION (B)	19,470,537	19,042,014

### DIFFERENCE BETWEEN THE VALUE AND COSTS OF PRODUCTION (A-B) (3,567,541) (7,295,638)

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C) FINANCIAL INCOME AND EXPENSES		
15) Income from equity investments		
Other	-	-
Total income from equity investments (15)	-	-
16) Other financial income:		
a) From receivables classified as fixed assets		
From associates	15,307	12,446
Other		
Total financial income from receivables classified as fixed assets	15,307	12,446
c) From securities included in current assets	-	1,442
d) Other income		
Other	11,091	8,827
Total other income (d)	11,091	8,827
Total other financial income (16)	26,398	22,715
17) Interest and other financial expenses	(236,618)	(248,072)
17-bis) Exchange gains and losses	326,998	(1,144,963)
Total financial income and expenses (C) (15+16-17+-17-bis)	116,777	(1,370,320)
DI VALUE ADUUCTAGNITO OF FINANCIAL ACCETO AND HADUUTICO		
D) VALUE ADJUSTMENTS OF FINANCIAL ASSETS AND LIABILITIES:		
18) Revaluations:	-	1,228
		1,228
18) Revaluations:	-	1,228 - <b>1,228</b>
18) Revaluations: 19) Write-downs:	- - (3,450,763)	-
18) Revaluations: 19) Write-downs: Total value adjustments to financial assets and liabilities (D) (18-19)	- - (3,450,763)	1,228
18) Revaluations: 19) Write-downs: Total value adjustments to financial assets and liabilities (D) (18-19) PRE-TAX RESULT (A-B+-C+-D)	- - (3,450,763) (120,539)	1,228



Total income taxes for the year – current, deferred and prepaid	(295,112)	1,031,291
21) Consolidated profit (loss) for the year	(3,745,876)	(7,633,439)
Profit (loss) for the year pertaining to minority shareholders	-	-
Profit (loss) for the year pertaining to the Group	(3,745,876)	(7,633,439)

# **CASH FLOW STATEMENT**

A. Cash flows from operating activities (indirect method)	30/06/2018	31/12/2017
Profit (loss) for the year	(3,745,876)	(8,339,127)
Income taxes	295,112	(348,129)
Interest expense/(income)	219,090	625,600
(Dividends)	-	-
(Capital gains)/Capital losses from asset disposals	(668)	(215)
1. Profit/(Loss) for the year before income taxes, interest, dividends and capital gains/losses from disposals	(3,232,342)	(8,061,871)
Allocation to provisions	288,871	513,013
Amortisation/Depreciation of fixed assets	3,638,518	7,404,520
Write-downs due to impairment	-	102,421
Adjustments to financial assets and liabilities associated with derivatives, non- monetary	(12,963)	-
Other adjustments for non-monetary items	(272,731)	-
Total adjustments for non-monetary items with no balancing entry in net working capital	3,641,695	8,019,955
2. Cash flows before changes in net working capital	409,353	(41,916)
Changes in net working capital		
Decrease/(Increase) in inventories	(4,272)	528,276
Decrease/(Increase) in receivables due from customers	1,362,192	(1,998,392)
Increase/(Decrease) in trade payables	161,384	(1,793,282)
Decrease/(Increase) in accrued income and prepaid expenses	(109,922)	421,334

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Increase/(Decrease) in accrued expenses and deferred income	1,693,547	(637,619)
Other decreases/(Other increases) in net working capital	(1,909,204)	1,675,468
Total changes in net working capital	1,193,724	(1,804,214)
3. Cash flows after changes in net working capital	1,603,078	(1,846,130)
Other adjustments		
Interest collected/(paid)	(219,090)	(625,600)
(Income taxes paid)	-	-
Dividends collected	-	-
(Use of provisions)	(144,201)	(75,299)
Other collections/(payments)	-	-
Total other adjustments	(363,290)	(700,899)
Cash flows from operating activities (A)	1,239,787	(2,547,030)
Tangible fixed assets		
(Investments)	(63,628)	(98,028)
Disinvestments	1,337	991
Intangible fixed assets		
(Investments)	(2,389,670)	(5,756,206)
Disinvestments	-	-
Non-current financial assets		
(Investments)	-	(36,578)
Disinvestments	40,060	-
Current financial assets		
(Investments)	-	(430,000)
Disinvestments	54	1,273,643
(Acquisition of subsidiaries net of cash and cash equivalents)		
Disposal of subsidiaries net of cash and cash equivalents		
Cash flows from investing activities (B)	(2,411,848)	(5,046,177)
Third party financing		
Increase/(Decrease) in short-term bank payables	231,350	99,097
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New loans	2,203,458	3,600,000
(Loan repayments)	(3,084,815)	(5,111,867)
Own equity		
Share capital increase against payment	-	11,177,727
(Repayments of share capital)	-	-
Disposal/(Purchase) of treasury shares	-	-
(Dividends and advances on dividends paid)	-	-
Cash flows from funding activities (C)	(650,007)	9,764,957
Increase/(Decrease) in cash and cash equivalents (A $\pm$ B $\pm$ C)		
Cash and cash equivalents at start of year	11,234,690	9,062,940
		44 224 600
Cash and cash equivalents at year end	9,412,623	11,234,690



# 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 that simulates the human ability to understand, which can be used in the analysis of big data and unstructured information, such as documents, news and articles, reports, emails and customer communications. The cognitive approach of Cogito software ensures users a higher return on their investments, driving companies and government agencies to choose the solutions offered by Expert System, including automatic tagging and classification, business process automation based on artificial intelligence, chatbots and customer support systems, intelligent research and corporate and government intelligence solutions.

Cogito semantics technology, proprietary to Expert System, is now able to understand, analyse, manage, archive, identify and share knowledge, a priority aspect for any modern company aiming to successfully grow its business. The relentless growth in content in terms of speed, volume, variety and location, in fact, represents a critical factor necessary for handling information and making it usable and for remaining highly competitive.

#### EXPERT SYSTEM GROUP



For its strongly unique nature, Expert System is today chosen by a wealth of customers that successfully operate in a vast range of businesses, including:

- <u>Banks and insurance companies</u>, which have the option of optimising customer service through chatbots and self-help solutions in natural language and automatic e-mail management, whose contents, like those of other communications with their users (text messages, social media, etc.), can be analysed through automatic classification in order to capture requests, trends, problems and other useful indicators. It is also possible to automate operating processes with reference, for example, to reimbursement request management, mortgage approval or policy underwriting, facilitating the application of anti-money laundering laws and compliance with legal procedures;
- <u>Publishing and Media</u>, a business offered the opportunity to simplify information retrieval and access to archives through tagging and browsing, increasing faceted revenues and creating value by simplifying the introduction of digital products and services. Added to this is the increased productivity in the editorial content creation and management with automated tagging, content linking and enrichment, and support for investigative journalism through intuitive and facilitated analysis of content and information streams;
- Government organisations, which Cogito effectively provides with defence and intelligence support, as a resource for law enforcement sectors in crime control and prevention, offering new insight to combat criminal and illegal trafficking networks and proactively accompanying analysts in their investigations, particularly osInt and geoInt. In more general terms, Expert System's experience is partnered with the various public administration bodies and government agencies, for which it develops solutions that can improve the ability to manage the complexity of information and make it available to serve and protect the community more effectively.

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 technology transforms available information into usable knowledge, offering numerous and different uses, such as for example:

- Knowledge management: the business knowledge management software created by



Expert System helps companies to fully exploit the value of all unstructured information available in their business datasets to support the most strategic activities such as customer engagement, decision-making processes and security and intelligence activities. Cogito is able to understand any text content, regardless of the output format (research, survey data, regulatory and compliance reports, procedural information, news, tweets, etc.), and enables corporate and government organisations to rely on different types of data available internally or from external sources, such as the Internet and social media;

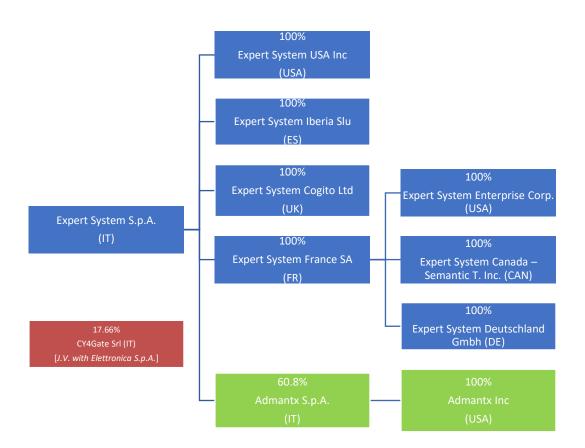
- Process automation: in our increasingly competitive market of today, technological innovation can offer banks and insurance companies effective tools to face the main challenges of business, automating the processes based on information processing, such as interaction with customers, management of reimbursement requests and form management, which traditionally call for considerable manual input. With its ability to understand text in a manner similar to humans, cognitive automation makes it possible to drastically reduce operating costs and increase customer satisfaction, allowing the automation of different processes through cognitive computing technologies, text analytics and natural language processing;
- Virtual assistant: Cogito simplifies the support process for customers requiring assistance, through artificial intelligence algorithms that allow users to interact directly with the company using natural language, simulating a normal conversation. The client assistants also automatically provide appropriate content, facilitate purchases and help customers find the right information quickly, 24/7. Through the ability to precisely understand customers' language and their problems, they can provide targeted responses that take account of specific needs. This makes the customer service simpler, personalised and always available, significantly improving customer experience;
- Corporate Intelligence, business coverage that today has to be able to incorporate the masses of information available to make informed decisions relating to strategic processes, for which Cogito cognitive technology analyses and summarises knowledge, providing organisations with intelligence that is usable, prompt and strategic. This occurs through effective management of structured and unstructured information, which allows:



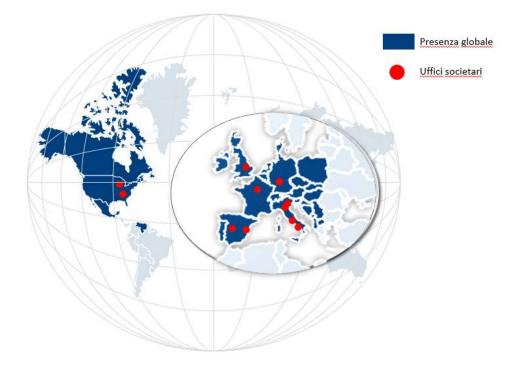
- combination of internal knowledge with other sources of information to generate a new level of analysis and understanding;
- provision of real-time knowledge on strategic initiatives;
- mitigation of operational and reputation risks;
- mapping of business information and knowledge in real time;
- satisfaction of regulatory compliance requirements;
- due diligence performance on companies, partners, individuals and any other third party;
- self-service access to data by corporate teams and analysts.
- **Big data extraction and enhancement**: the identification of content elements 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 and concept definitions 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;
- Automatic classification: semantic and cognitive processing enables a broad and thorough analysis, including classification, on large structured and unstructured datasets, performing automatic classification and categorisation and document tagging, and can also be integrated as a fully automated classification system. This is made possible by Cogito Discover, software that guarantees the identification, classification and accessibility of the most extensive knowledge sources for more effective research and analysis.

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





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



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## **OPERATING CONDITIONS AND BUSINESS DEVELOPMENT**

The Big Data Text Analytics sector Expert System is engaged in is expanding strongly. Though to different extents, this applies at national, European and global levels, continuing to attract increasingly large business investments that indicate an even more significant role in the global economy in the future.

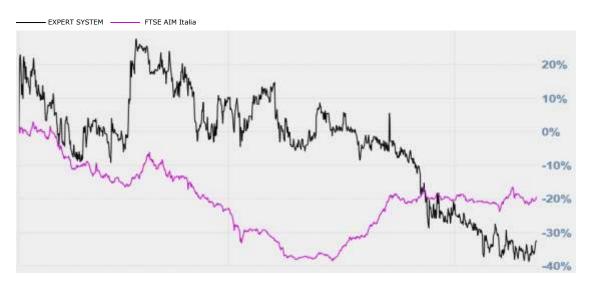
Considering the volume, variety and speed of business information today, smart technologies have now become a must for businesses to achieve the value needed to gain a competitive advantage. The life of analysts and knowledge workers engaged in transforming corporate data into easy-touse knowledge is a never-ending challenge, subject to pressure from the relentless growth of information and to improve work speed and quality. The value of Artificial Intelligence now available to organisations is essential in tackling and overcoming this challenge, transforming every text element into a valuable, ready-to-use resource.

In addition, the awareness of top management of companies in various sectors that applications like Cogito-based applications can carry strategic value for the near future continues to spread: Artificial Intelligence has become a powerful key asset for corporate and government entities which, in the years to come, will dedicate more and more resources to this type of application. The performance of the Expert System share as at 27/09/2018 is presented below:

Market	AIM Italia – MAC
Share capital	€ 358,590
Capitalisation	€ 45,214,652
Minimum parcel	1,000.00
Reference price	€ 1.255 – 27/09/2018 h 17.35.03
Official price	€ 1.2609 - 26/09/2018
1 month performance	+ 2.03%
6 month performance	- 4.20%
1 year performance	- 15.97%

The chart below instead shows the share performance from the IPO (18/02/2014) as at 27/09/2018. In particular, the chart compares the Expert System performance against that of the FTSE AIM Italia index (Source: <u>www.borsaitaliana.it</u>)





A recent study carried out in August 2018 by Equita Sim shows how the market is underestimating the Expert System share compared to international comparables. This figure represents a bonus factor in the future. One of the main reasons for interest in Expert System with respect to comparables is its ability to develop numerous practical uses in different sectors of text analytics and cognitive computing software, completely transforming previous approaches and increasing the number of possible functions.

On 28/06/2018, duly recorded by Notary Rolando Rosa (index no. 123026, folder 21969) and by the powers granted to the Board of Directors, the second 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.

The share capital increase led to the issue of the second tranche of 138,320 new shares through a free share capital increase of Euro 1,383.20, using funds for that amount from the extraordinary reserve. On the same date, again in implementation of the Temis 2016-2020 Stock Grant Plan, the company arranged the free-of-charge assignment to beneficiaries of 64,430 treasury shares, equal to 25% of the total value of the plan.



In line with its growth path, again in the first six months of 2018 Expert System further boosted its R&D and innovation strategy, with the aim of improving the efficiency and effectiveness of its solutions, exploiting the full power of Artificial Intelligence to simplify and optimise business processes and thereby provide an increasingly prompt response to the needs of customers.

Expert System further enhanced its Knowledge Graph, the heart of Cogito which contains millions of concepts, attributes and relationships between concepts, understands the meaning of words and phrases, disambiguates them and improves the state of the art of text analytics. In fact, through the "hybrid" approach that combines the rigour of manual activities underlying the knowledge graph with the expressive richness of language, as found in the real world, the Cogito disambiguation process is now enhanced, also allowing easy transfer of the knowledge acquired between different languages, with immediate benefits to the business world.

The specific features of the Knowledge Graph were also acknowledged by Gartner, global leader in Information Technology consulting, research and analysis, which included it among the 5 emerging high-transformation potential technologies in the "Hype Cycle for Emerging Technologies" report. The report analyses 35 emerging technologies at different levels of maturity and arranged them on the "hype" curve, which summarises the market maturity timeframe and the impact potential.

In the wake of the positive results in 2017, Cogito-based applications, combined with growth in the sector, allowed Expert System to finalise new partnerships and technological synergies, capable of bringing high strategic value to customer companies in the near future.

In the insurance industry, in Spain the Generali Group is implementing the artificial intelligence potential of Cogito<sup>®</sup> technology into its business process management. The insurance group, in line with its innovation and digitalisation strategy, will benefit from Cogito's unique advantages in managing large volumes of non-structured information for the automatic classification of about 1 million emails that the insurance company receives every year as part of customer support. The objective is to extend the benefits of artificial intelligence and cognitive computing also to other business areas.



In more general terms, it is Expert System's development strategy that today offers a product mix for insurance of absolute global standing, which has led to major results in recent years with customers such as Zurich Insurance Group, Lloyd's of London and Generali.

The insurance industry today is experiencing a decisive moment for digital transformation processes, which are steering its innovation paths. Business competitiveness is based on new levels of efficiency, which requires it to focus not only on product quality but also on cost reduction, simplification of compliance and prompt satisfaction of increasingly demanding customers. It is no mere chance that, at the heart of the digital transformation of insurance, there are two processes highly important to the sector based on the handling of large volumes of data, containing high-risk and unstructured information: claims management and the underwriting of policies and contracts, which are targeted by the two new products dedicated to insurance presented in the first half of 2018:

- <u>Cogito for Claims</u>, for claims management: Cogito's automatic document recognition (claim form, medical report, invoice, summons, etc.) makes it possible to identify relevant information, compare claims and insurance coverage limits, and obtain useful suggestions for the final assessments. The automation of the entire process reduces operating times, improves customer services and promptly intercepts any signs of fraud;
- <u>Cogito for Underwriting</u>, for the underwriting of contracts: on the basis of data indicated by the customer and the risk profile, Cogito proposes an estimate of the insurance coverage and other elements to complete a quote or draw up a contract. Through process automation, it is possible to manage the contractual arrangements more quickly and accurately - from underwriting to policy compliance analysis and assessment of the degree of risk.

In addition, with a view to sharing opportunities for change offered by modern Artificial Intelligence solutions with a wide range of risk management and corporate security managers, with a targeted focus on scenarios, organisations and managerial roles, Expert System organised the "Artificial Intelligence: experience the future for your business strategy" event in Milan on 22 May and on 5 June in Rome. During the meetings, the new role of corporate intelligence and risk management was highlighted, which can no longer be limited to managing the actual critical



situations, but must monitor and prevent potential threats, providing decision-makers with all the strategic information. To discuss these issues, representatives of important companies who are already Expert System customers, such as SNAM, Leonardo, Enel and A2A, were engaged as speakers.

In the first half of 2018 Expert System earned various major recognitions, in particular:

- the inclusion again for 2018 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. For the third consecutive year, KMWorld, the key point of reference worldwide in the Knowledge Management sector, awards Expert System's innovation: the Cogito® cognitive technology is the "Trend-Setting Product of the Year".

The companies selected for this recognition were distinguished by their highly advanced functions, innovation and success with customers and the business value generated for them;

- the inclusion by Forrester Research, an independent research company and global leader in the innovation and technology market, in the new report "Now Tech: AI-Based Text Analytics Platforms, Q2 2018", which aims to provide organisations wishing to undertake or consolidate text analytics activities with an assessment of the best functions and business advantages offered by the world's leading vendors of artificial intelligence technologies. The Forrester Research recognition rewards a Company's constant commitment to developing increasingly advanced functions and its consolidated experience in all major market sectors, and confirms its leadership in artificial intelligence;
- Forrester Research also selected Expert System for the "Now Tech: Social Listening Platforms, Q2 2018" report, focused on exposing the value and benefits of monitoring, analysis and creation of strategies for social listening. The social listening platforms offer valuable data to companies which, combined with other information flows (such as Voice of Customer monitoring, market research and competition analysis), can contribute to the



development and enhancement of user profiles to make them even more complete and detailed. To do this, it is necessary to have more advanced solutions for capturing this knowledge, especially as the simple monitoring of social channels is not sufficient to cover the wide spectrum of data available today, not only on social networks, but also on blogs, forums, review sites and so on. Expert System's Cogito platform combines the accuracy of semantic understanding and natural language processing with the advantages of other Artificial Intelligence technologies, such as machine learning, to allow organisations real-time extraction and analysis of strategic information from different sources. Cogito can also be integrated into business intelligence platforms to maximise its capacity, adding the intelligence to more accurately process relevant information and therefore offer more efficiency, quality and speed;

 in the wake of these awards, in the Forrester report "The Forrester Wave™: AI-based Text Analytics Platforms, Q2 2018", Expert System's Cogito technology received the highest score, among the 8 leading companies in the artificial intelligence market, for the depth of its text analysis, the advantages offered by combining semantic and machine learning rules as well as for its professional services organisation and specialisation in vertical sectors.

# **OPERATING PERFORMANCE**

### General financial performance

In the first six months of 2018, the main macroeconomic indicators highlight favourable short-term prospects for the global economy, though highlighting an increase in the risk that the global trade and the business of companies operating on international markets are curbed by the heightening of trade tension between the United States and its main economic partners. Among the major world economies, moreover, there is a divergence between the cyclical phase of the Eurozone and the US, where growth was driven by consumer spending, exports and fixed investments. The positive scenario for the labour and wages market was also confirmed, with significant effects on the purchasing power of households as well as a positive climate of consumer confidence.



Growth continues in the Eurozone, albeit at more moderate rates: indeed, a slowdown in GDP is confirmed (+0.3% compared to +0.4% in the first quarter; in the USA +1.0% compared to +0.5% in the first quarter).

In June, the unemployment rate in the Eurozone remained at the lowest levels of the previous month (8.3%). The Economic Sentiment Indicator (ESI) remained substantially unchanged in July compared to the previous three months: there was a decline for industry, construction and retail trade, while it improved in services and remains stable with reference to consumers.

A medium-term inflation adjustment of 2 per cent now appears to be close. Consequently, the Quantitative Easing (QE) is expected to halt by the end of 2018, even against interest rates that should remain at the current low levels in the short term.

In general, global trade continues to grow even if the introduction of import tariffs by the US administration is a significant downward risk factor for the coming months. In May, according to Central Plan Bureau data, global trade in volume terms increased further (+0.4%), against a slight decrease in trade for advanced countries (-0.3%), and a marked acceleration for emerging economies (+1.4%), driven in particular by Asian imports.

In Italy, growth continued, despite the signs of a slowdown emerging in the spring months. It is forecast that industrial production in the second quarter will remain stable, while service-related activities should help to support GDP growth by 0.2% compared to the previous quarter.

Exports were affected at the beginning of the year by slowing global trade, showing a decrease already in the first quarter. Employment reached values close to the highs of the start of 2008, an increase which involved both short-term and permanent jobs. While unemployment remained stable, youth unemployment fell and the wages trend continued to rise, albeit moderately.

Inflation, driven by the increase in energy commodity prices, came to 1.5% in June, while underlying inflation, which does not consider energy consumption and fresh food products, stood at 0.7%.

The increase in loans to businesses continued, favoured by relaxed supply conditions and limited financing costs, as well as by the good performance of investments. Likewise, the trend for loans to households remained steady, both for house purchases and consumer credit. Lastly, the incidence of impaired loans on total loans disbursed by banks continued to fall.



Also particularly significant was the financial markets volatility, which in Italy increased in the last part of the half-year in connection with the uncertainty over formation of the new Government, with a consequent increase in the Italian Government bond yield, also for shorter maturities, and a decrease in stock market prices, especially for the banking segment. These tensions were partially reabsorbed from the second week of June onwards after the new Government took office. (*Source: Bank of Italy Economic Bulletin 3/2018*)

### Operating performance of the Expert System Group

The consolidated half-yearly financial report as at 30 June 2018, 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):

CONSOLID	ATED EXPERT SY GROUP	<b>STEM</b>	Main income statement	EXPE	RT SYSTEM S.P.A	
H1 2017	H1 2018	CHANGE	figures	H1 2017	H1 2018	CHANGE
11,746,375	15,902,996	35%	Value of production	6,804,504	10,856,071	60%
(3,982,789)	70,977	102%	Gross operating profit (EBITDA)	(1,007,996)	2,679,545	366%
(7,295,638)	(3,567,541)	51%	Operating result (EBIT)	(2,400,852)	1,105,476	146%
(7,633,439)	(3,745,876)	51%	Net profit (loss)	(2,446,355)	877,322	136%

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	30/06/2018	30/06/2017	Change
Sales revenues	12,864,257	8,442,300	4,421,958
Change in inventories	4,272	51,258	(46,986)
Own work capitalised	2,340,337	2,524,452	(184,115)
Sundry income	694,130	728,366	(34,236)
Value of operating production	15,902,996	11,746,375	4,156,621
Cost of operating materials and overheads	(6,203,078)	(5,975,105)	(227,973)
Value added	9,699,918	5,771,270	3,928,648
Personnel costs	(9,628,941)	(9,754,059)	125,118
EBITDA	70,977	(3,982,789)	4,053,766
Amortisation, depreciation and provisions	(3,638,518)	(3,312,849)	(325,669)
EBIT	(3,567,541)	(7,295,638)	3,728,097
Financial area result	116,777	(1,369,093)	1,485,870
Ordinary profit	(3,450,763)	(8,664,730)	5,213,967
Extraordinary area result	-	-	-
Pre-tax result	(3,450,763)	(8,664,730)	5,213,967
Income taxes	(295,112)	1,031,291	(1,326,403)
Net profit (loss)	(3,745,876)	(7,633,439)	3,887,564



Revenues as at 30/06/2018 were up by 52.4%, the highest growth relating to sales in Italy, which recorded an 81% increase linked to the excellent performance of the sales network. There was also significant revenue growth abroad (+33%), particularly in the UK and Spanish markets. These results confirm the business internationalisation process undertaken by the company, in particular reconfirming success in the British insurance market.

The business strategy aims to change the revenue mix, targeting larger business customers comprising the major European and US large corporations and government agencies, focusing on sectors with a higher growth potential, also by consolidating partnerships that offer a strengthening of the indirect channel.

As at 30 June 2018, the breakdown of revenues was 41% from licenses, 17% from maintenance, 40% from professional services and 2% from a residual portion of other services. The significance of the component relating to licence sales ensures higher profits, as they are not directly associated with incurring variable costs.

It is also important to note another aspect that affected revenues in this half-year, in particular the temporary licences component on total revenues for licences which rose from 33% to 79%. This trend demonstrates the achievement of one of our strategic objectives as temporary licenses ensure stronger stability of revenues and cash flows over time.

As regards the other items under Value of Production, note that the changes from the increase in own work capitalised ( $\in$  2.3 million vs.  $\in$  2.5 million as at 30/06/2017) and other income represented mainly by R&D grants ( $\in$  0.7 million as 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 2018.

EBITDA rose from a negative  $\notin$  4 million to a positive  $\notin$  0.1 million. The return to profitability, earlier than forecast, was possible thanks to the containment of both the cost of materials and overheads, which rose less than proportionally to revenues, and personnel costs, which decreased also in absolute terms. The improvement in EBITDA would have been even more significant if it were considered that, in the first half of 2018, the workforce reorganisation and streamlining plan continued, resulting in payment of an extraordinary indemnity of approximately Euro 0.5 million.



EBIT was negative for  $\notin$  3.6 million, also in view of the amortisation of intangible fixed assets for  $\notin$  2.4 million, referring mainly to capitalised development costs (the latter  $\notin$  10.0 million net of amortisation as at 30/06/2018) and to the consolidation difference for  $\notin$  1.1 million, most of which associated with the goodwill of Group companies.

Financial management had a positive impact of  $\notin$  0.1 million, taking into account that the impact of USD exposure was positive for  $\notin$  0.3 million from unrealised exchange gains.

The net loss was € 3.7 million, after the release of prepaid taxes for € 0.3 million.

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

	lta	aly	EU8	&UK	U	SA	Gro	oup
Income Statement	30/06/2017	30/06/2018	30/06/2017	30/06/2018	30/06/2017	30/06/2018	30/06/2017	30/06/2018
Revenues	3,241,181	7,452,764	2,733,988	2,434,615	2,467,130	2,964,468	8,442,300	12,864,257
Value of Production	5,075,964	9,248,401	4,203,050	3,674,279	2,467,361	2,966,130	11,746,376	15,902,996
EBITDA	(2,133,915)	1,392,120	(815,368)	(1,086,997)	(1,033,504)	(234,634)	(3,982,789)	70,977
Net profit (loss)	(2,446,355)	(507,071)	(1,930,601)	(1,813,489)	(1,906,479)	(318,451)	(7,633,439)	(3,745,875)

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

Profitability ratios	30/06/2018	30/06/2017
Net ROE	(0.33)	(0.44)
Gross ROE	(0.30)	(0.50)
ROI	(0.14)	(0.31)
ROS	(0.28)	(0.86)

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# Main balance sheet figures

The company's reclassified balance sheet, compared with 31/12/2017, is shown below (in Euro):

Consolidated Balance Sheet	30/06/2018	31/12/2017	Change
Net intangible fixed assets	15,785,909	16,944,056	(1,158,147)
Net tangible fixed assets	764,127	791,868	(27,741)
Equity investments and other non-current financial assets	4,220,702	3,826,254	394,448
Fixed assets	20,770,737	21,562,177	(791,440)
Short-term financial assets	4,583,074	4,583,074	-
Inventories	103,479	99,207	4,272
Receivables due from customers	11,052,526	12,384,149	(1,331,623)
Other receivables	6,353,678	6,018,231	335,448
Accrued income and prepaid expenses	692,226	582,304	109,922
Short-term operating assets	22,784,983	23,666,965	(881,981)
Trade payables	(2,115,454)	(2,224,541)	109,087
Payments on account	(548,559)	(869,024)	320,465
Tax and social security payables	(1,400,645)	(1,829,052)	428,406
Other payables	(2,198,593)	(2,583,753)	385,160
Accrued expenses and deferred income	(3,530,061)	(3,023,288)	(506,773)
Short-term operating liabilities	(9,793,313)	(10,529,658)	736,346

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Net working capital	12,991,671	13,137,307	(145,636)
Employee severance indemnity	(2,035,178)	(1,876,192)	(158,985)
Tax and social security payables			-
Accrued expenses and deferred income after 12 months	(4,761,532)	(3,574,759)	(1,186,773)
Other medium and long-term liabilities	(1,760,020)	(1,183,398)	(576,621)
Medium-term liabilities	(8,556,729)	(6,634,350)	(1,922,380)
INVESTED CAPITAL	25,205,678	28,065,134	(2,859,455)
Shareholders' equity	(15,244,239)	(19,275,808)	4,031,569
Net medium/long-term financial position	(14,649,994)	(14,682,546)	32,552
Net short-term financial position	4,688,554	5,893,220	(1,204,666)
OWN EQUITY AND NET FINANCIAL DEBT	(25,205,679)	(28,065,134)	2,859,455

With regard to fixed assets, which decreased by  $\notin 0.8$  million, the change in intangible fixed assets (negative for  $\notin 1.2$  million) relates mainly to the capitalisation of development costs for  $\notin 2.3$  million, net of  $\notin 3.5$  million in amortisation, of which  $\notin 2$  million referring to capitalised development costs and  $\notin 1.1$  million to the consolidation difference.

For financial fixed assets, a reduction in prepaid taxes of  $\in$  0.4 million was recorded for the use of previous tax losses and an increase of  $\notin$  0.9 million in research project grant receivables after winning a number of tenders with European funding.

Taking into consideration the current business-related aspects, a slight decrease in working capital of  $\notin 0.1$  million was recorded, mainly due to the decrease in trade receivables of  $\notin 1.3$  million and the increase in deferred income for  $\notin 0.5$  million on the aforementioned research project grants.



The broadly positive value for net working capital 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 purpose of better describing the company's capital strength, the table below shows certain financial statement ratios relating to both (i) the methods of financing medium/long-term investments and to the (ii) composition of sources of financing, compared to the same ratios in the consolidated financial statements as at 31 December 2017.

Fixed asset funding ratios	30/06/2018	31/12/2017
Fixed asset/equity margin	(5,526,498)	(2,286,370)
Fixed asset/equity ratio	0.73	0.89
Fixed assets/liabilities and equity margin	12,918,693	15,455,767
Fixed assets/liabilities and equity ratio	1.62	1.72

Fixed assets/equity ratio of loans	30/06/2018	31/12/2017	
Liabilities due within 12 months (A)	11,021,669	12,882,242	
Liabilities due after 12 months (B)	18,445,191	17,742,137	
Own equity (C)	15,244,239	19,275,808	
Total debt ratio (A+B)/C	1.93	1.59	

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'

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equity with fixed assets (as quantified in the table below), provide us with information on the company's capacity (or not) to finance all fixed assets with its own equity.

Shareholders' equity (A)	15,244,239
Net intangible fixed assets	15,785,909
Net tangible fixed assets	764,127
Equity investments and other non-current financial assets	4,220,702
Fixed assets (B)	20,770,737
Fixed asset/equity margin (A-B)	(5,526,498)
Fixed asset/equity ratio (A/B)	0.73

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)	15,244,239
Net medium/long-term financial position (B)	14,649,994
Other medium and long-term liabilities (C)	1,760,020
Employee severance indemnity (D)	2,035,178

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Fixed assets (E)	20,770,737
Fixed assets/liabilities and equity margin (A + B + C + D - E)	12,918,693
Fixed assets/liabilities and equity ratio (A + B + C + D)/(E)	1.62

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 30/06/2018 is as follows (in Euro):

Consolidated net financial position	30/06/2018	31/12/2017	Change
Bank deposits	9,409,685	11,221,661	(1,811,976)
Cash at bank and in hand	2,938	3,029	(90)
Cheques	-	10,000	(10,000)
Treasury shares			
Cash and cash equivalents and treasury shares	9,412,623	11,234,690	(1,822,067)
Current financial assets	34,349	34,402	(54)
Bonds and convertible bonds (within 12 months)			
Payables due to shareholders for loans (within 12 months)			



NET FINANCIAL POSITION	(9,961,440)	(8,789,326)	(1,172,114)
Net medium/long-term financial position	(14,649,994)	(14,682,546)	32,552
Financial receivables			
Long-term portion of loans			
Advances for overseas payments			
Payables due to other lenders (after 12 months)	(2,036,799)	(1,836,515)	(200,283)
Payables due to banks (after 12 months)	(7,613,196)	(7,846,031)	232,835
Payables due to shareholders for loans (after 12 months)			
Bonds and convertible bonds (after 12 months)	(5,000,000)	(5,000,000)	-
Net short-term financial position	4,688,554	5,893,220	(1,204,666)
Short-term financial payables	(4,758,418)	(5,375,872)	617,455
Financial receivables			
Short-term portion of loans			
Advances for overseas payments			
Payables due to other lenders (within 12 months)	(421,620)	(1,465,781)	1,044,161
Payables due to banks (within 12 months)	(4,336,798)	(3,910,091)	(426,706)

The net financial position as at 30/06/2018, down by  $\leq 1.2$  million compared to the figure as at 31/12/2017, expresses the need for recourse to third-party funding and/or capital injections to support the company's business plan.

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In this respect, it should be emphasised that the Group continues to incur development costs for € 2.3 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 of the parent company Expert System S.p.A. as at 30 June 2018 are shown in the following tables:

Expert System S.p.A. Income Statement	30/06/2018	30/06/2017	Change
Sales revenues	8,956,045	4,924,421	4,031,625
Change in inventories	(18,113)	27,232	(45,344)
Own work capitalised	1,455,121	1,323,951	131,170
Sundry income	463,017	528,901	(65,883)
Value of operating production	10,856,071	6,804,504	4,051,567
Cost of operating materials and overheads	(4,185,704)	(3,759,741)	(425,963)
Value added	6,670,368	3,044,763	3,625,604
Personnel costs	(3,990,823)	(4,052,759)	61,937
EBITDA	2,679,545	(1,007,996)	3,687,541
Amortisation, depreciation and provisions	(1,574,069)	(1,392,856)	(181,213)
EBIT	1,105,476	(2,400,852)	3,506,327
Financial area result	170,829	(791,443)	962,272

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Ordinary profit	1,276,304	(3,192,295)	4,468,599
Extraordinary area result	-	-	-
Pre-tax result	1,276,304	(3,192,295)	4,468,599
Income taxes	(398,982)	745,940	(1,144,922)
Net profit (loss)	877,322	(2,446,355)	3,323,677

Sales and service revenues, which refer to licences, maintenance fees and professional services, rose from  $\notin$  4.9 million as at 30/06/2017 to the present  $\notin$  8.9 million. This change reflects the efforts made to change the target market to larger-sized customers, a strategy calling for longer customer acquisition times and considerable sales efforts, as well as an attempt to spread sales over the entire calendar year rather than concentrating revenues in the final quarter only. Customer concentration is confirmed in the following sectors: banking and insurance, energy, government and corporate intelligence.

EBITDA rose from a negative  $\leq$  1 million to a positive  $\leq$  2.7 million. For the parent company, as for the branches, there was a strong focus on the containment of the cost of operating materials and overheads, which rose less than proportionally to revenues, whilst personnel costs remained stable.

EBIT was positive for € 1.1 million. Of the € 1.6 million amortisation of intangible fixed assets, € 1.4 million refer to capitalised development costs. It should be remembered that these group activities are concentrated in the Italian headquarters.

The financial area result, positive for around  $\in$  0.1 million (negative for  $\in$  0.8 million as at 30/06/2017), was affected on the one hand by financial expenses for roughly  $\in$  0.2 million, in line with the first half of 2017, and on the other by the recognition of exchange gains and losses with a positive balance of  $\in$  0.3 million ( $\in$  -0.7 million as at 30/06/2017) due to the USD exposure of Expert System S.p.A. in relation to trade receivables and loans disbursed to subsidiaries.

Given the above, after the release of prepaid taxes for € 0.4 million, the net profit was € 0.9 million.



Expert System S.p.A. Balance Sheet	30/06/2018	31/12/2017	Change
Net intangible fixed assets	6,841,384	6,881,909	(40,525)
Net tangible fixed assets	615,259	629,668	(14,410)
Equity investments and other non-current financial assets	31,938,504	29,700,251	2,238,254
Fixed assets	39,395,147	37,211,828	2,183,318
Short-term financial assets	4,583,074	4,583,074	-
Inventories	21,096	39,209	(18,113)
Receivables due from customers	8,169,583	7,415,708	753,875
Other receivables	8,001,652	7,027,164	974,487
Accrued income and prepaid expenses	431,989	484,463	(52,473)
Short-term operating assets	21,207,395	19,549,618	1,657,777
Trade payables	(1,433,488)	(1,585,486)	151,997
Payments on account	(459,026)	(759,920)	300,894
Tax and social security payables	(791,238)	(965,347)	174,108
Other payables	(1,995,075)	(2,885,886)	890,811
Accrued expenses and deferred income	(1,752,055)	(1,230,651)	(521,404)
Short-term operating liabilities	(6,430,881)	(7,427,289)	996,408
Net working capital	14,776,513	12,122,329	2,654,184

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Employee severance indemnity	(2,035,178)	(1,876,192)	(158,985)
Tax and social security payables	-	-	-
Accrued expenses and deferred income after 12 months	(1,915,281)	(1,118,738)	(796,542)
Other medium and long-term liabilities	(879,145)	(310,660)	(568,485)
Medium-term liabilities	(4,829,603)	(3,305,591)	(1,524,012)
INVESTED CAPITAL	49,342,057	46,028,567	3,313,491
Shareholders' equity	(38,051,404)	(37,187,044)	(864,360)
Net medium/long-term financial position	(13,259,700)	(13,492,536)	232,835
Net short-term financial position	1,969,047	4,651,013	(2,681,966)
OWN EQUITY AND NET FINANCIAL DEBT	(49,342,057)	(46,028,567)	(3,313,491)

Fixed assets rose from  $\notin$  37.2 million as at 31/12/2017 to  $\notin$  39.4 million as at 30/06/2018. The variation is mainly attributable to the change in non-current financial assets, which rose by  $\notin$  2.2 million due to:

- the increase in the equity investments in Expert System Iberia for € 1.1 million and Expert
  System France for € 2.7 million following share capital increases;
- the decrease in receivables due from subsidiaries for € 2.1 million, mainly due to the waiver of parent company financial receivables due from Expert System Iberia and Expert System France for the above-mentioned share capital increases;
- the increase of € 0.8 million in research project grant receivables after winning a number of tenders with European funding;
- the reduction of  $\in$  0.3 million due to the release of prepaid taxes.



Working capital was a positive  $\notin$  14.8 million as at 30/06/2018 (a positive  $\notin$  12.1 million as at 31/12/2017), confirming the balance between current assets and current liabilities. The  $\notin$  2.6 million difference is mainly attributable to the negative change in trade receivables for  $\notin$  0.8 million, the increase in receivables due from others for  $\notin$  1 million and the decrease in payables due to others for  $\notin$  0.9 million. The two latter items changed due to the different credit and debit exposure to other Group companies.

As a result, net invested capital came to  $\notin$  49.3 million ( $\notin$  46 million as at 31/12/2017), recording a positive change of  $\notin$  3.3 million.

Net financial position of Expert System S.p.A.	30/06/2018	31/12/2017	Change
Bank deposits	6,422,852	8,840,305	(2,417,453)
Cash at bank and in hand	2,404	2,796	(391)
Treasury shares			
Cash and cash equivalents and treasury shares	6,425,257	8,843,101	(2,417,845)
Current financial assets	8,400	8,400	-
Bonds and convertible bonds (within 12 months)			
Payables due to shareholders for loans (within 12 months)			
Payables due to banks (within 12 months)	(4,336,888)	(3,910,162)	(426,725)
Payables due to other lenders (within 12 months)	(127,721)	(290,325)	162,604
Advances for overseas payments			
Short-term portion of loans			
Financial receivables			

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Short-term financial payables	(4,464,609)	(4,200,488)	(264,121)
Net short-term financial position	1,969,047	4,651,013	(2,681,966)
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)	(7,613,196)	(7,846,031)	232,835
Payables due to other lenders (after 12 months)	(646,505)	(646,505)	-
Advances for overseas payments			
Long-term portion of loans			
Financial receivables			
Net medium/long-term financial position	(13,259,700)	(13,492,536)	232,835
NET FINANCIAL POSITION	(11,290,653)	(8,841,522)	(2,449,131)

The net financial debt of the parent company rose by  $\in$  2.4 million, up from  $\in$  8.8 million as at 31/12/2017 to the current  $\in$  11.3 million. The disbursements linked both to investment spending and current assets contributed to the change, while as regards exposure to banks and other lenders, liabilities decreased in the first half of 2018 ( $\in$  2 million) and loan repayments were essentially balanced.



# 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 the ISO 9001:2015 certification was performed on 22 June 2018, reconfirming validity until 21 June 2019.

#### 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:

<u>Risks associated with trade receivable collection times</u>: 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.

<u>Risks associated with the internationalisation</u>: 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 30/06/2018	Average exchange rate H1 2018
USD	1.1658	1.2104
CAN	1.5442	1.5457
GBP	0.88605	0.87977

<u>Risks associated with related party transactions</u>: 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.

<u>Risks associated with the protection of intellectual property rights</u>: 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.

<u>Interest rate risk</u>: 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 contracts:

a) 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.

- Notional amount at the reference date (30/06/2018): € 127,459
- amount of the liability hedged at the reference date (30/06/2018): € 253,199.
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 639.96;
- fair value at the start of the hedge: zero.

## b) CARIPARMA

- Derivative contract type: IRS no. 65611/2017, unlisted, signed on 25/09/2017, expiring 30/01/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: CARIPARMA mortgage no. 0106917000000, originated for € 1,000,000, signed on 25/09/2017 and expiring on 30/01/2023.
- Notional amount at the reference date (30/06/2018): € 1,000,000;
- amount of the liability hedged at the reference date (30/06/2018): € 1,000,000.
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 16,330.54;
- fair value at the start of the hedge: zero.
- c) BANCO BPM
  - OTC derivative contract "Maximum rate with fractioned premium" ID 790526 F 00104961
    D 00038973 signed on 24/07/2017 and expiring on 31/12/2022;
  - Purpose: hedging;
  - Transaction with no principal swap;
  - Notional amount of the contract: € 400,000;
  - Liability hedged: BANCO BPM mortgage no. 03703813, originated for € 400,000, signed on 24/07/2017 and expiring on 31/12/2022.



- Notional amount at the reference date (30/06/2018): € 400,000;
- amount of the liability hedged at the reference date (30/06/2018): € 400,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 3,717.68;
- fair value at the start of the hedge: zero.

## d) UNICREDIT

- OTC interest rate contract, the "Interest rate swap contract" deal no. 130618-0001 signed on 13/06/2018 and expiring on 30/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 2,000,000;
- Liability hedged: UNICREDIT mortgage no. 8031148, originated for € 2,000,000, signed on 13/06/2018 and expiring on 30/06/2023.
- Notional amount at the reference date (30/06/2018): € 2,000,000;
- amount of the liability hedged at the reference date (30/06/2018): € 2,000,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 13,198.58;
- Fair value at the start of the hedge: zero.

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

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



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

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

Adoption of the model refers solely to the parent company Expert System S.p.A. as the law considers the group to be a single organisation only in economic terms. A group is not an entity and therefore cannot be considered the direct centre for attributing liability for an offence, and therefore cannot be classified as one of the entities indicated in 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 art. 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 for project customisation, the greatest efforts focused on improving the usability of the development tools, optimising automatic learning components and developing a new business rules execution engine.

Other sources of major research during the half-year included:

- integration of Discover into the Cogito Intelligence Platform and integration of a new open source repository;
- enhancement of the most recent version of Cogito Answers;
- restructuring and expansion of the knowledge graph for Russian and Chinese;
- release of Cogito 14.3.

## **TREASURY SHARES**

As at 30/06/2018, the parent company Expert System S.p.A. held 76,709 treasury shares. The change compared to the 141,139 treasury shares held as at 31/12/2017 is attributable to the

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assignment of 64,430 treasury shares following the maturity on 28/06/2018 of the second 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 30/06/2018



# FORM AND CONTENT OF THE FINANCIAL STATEMENTS

The consolidated financial statements as at 30/06/2018, 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.

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The amounts are expressed in units of Euro.

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

#### Exceptions

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

#### Transposition of Directive 34/2013/EU

With reference to the financial statements for the years starting from 1/1/2016, Italian Legislative Decree no. 139 of 18/08/2015 (so-called "financial statement decree"), published in the Official Gazette no. 205 of 4.9.2015, issued to implement Directive EU no. 34 of 26/6/2013, amended the Italian Civil Code with the aim of aligning the provisions contained therein on the regulation on the financial statements of corporations to the new EU provisions.

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

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

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

- the documents that make up the financial statements;
- the accounting policies;
- the content of the Balance Sheet and the Income Statement;
- the measurement criteria;
- the content of the explanatory notes.



#### Scope of consolidation - Consolidation and translation principles

The consolidated financial statements comprise the financial statements of Expert System S.p.A. and of the foreign companies over which it directly or indirectly exercises control as at 30/06/2018 (art. 30, Italian Legislative Decree 127/91).

The assets and liabilities of the consolidated companies are included on a line-by-line basis. The book value of equity investments held by the parent company in directly and indirectly controlled companies is eliminated against the related shareholders' equity. The difference between the acquisition cost and the shareholders' equity of the investee companies as of the date control is acquired is distributed, where possible, to the assets and liabilities of the investees, net of deferred taxes. Any remaining difference, if positive and if the recognition requirements of OIC 24 are met, is recognised in the item "Goodwill" under intangible fixed assets.

The remaining difference that cannot be allocated to asset and liability items or to goodwill is recorded in item 'B14 Sundry operating expenses' in the income statement.

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

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

The equity investment in ADmantX S.p.A. as at 30/06/2018 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 shareholders' equity using the original formation exchange rates at the time of acquisition compared to those in force as of the balance sheet date are booked directly to shareholders' equity, together with the differences between the economic result expressed using the average exchange rates and the economic result expressed in Euro using the exchange rates in force as of the end of the period to the item "Translation differences reserve", included under "Other reserves".

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

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

## 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, if necessary, in accordance with monetary revaluation laws and, in any event, does not exceed the market value.

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

In the event that, irrespective of the depreciation already recognised, permanent losses in value (impairment) are registered, the fixed assets are written down in relation to the residual useful life. If the reasons for the write-downs no longer exist in subsequent years, the original value is written back. Fixed assets in progress and 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.

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

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

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

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

## Cash and cash equivalents

Cash and cash equivalents as at 30/06/2018 are measured at nominal value.

#### Accruals and deferrals

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

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

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

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#### **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 yearend. The provisions reflect the best possible estimate on the basis of the elements available. The pension provision is established to cover the commitments accrued at period end vis-à-vis those with the right to a pension.

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

#### **Employee severance indemnity**

This reflects the liability, subject to revaluation by means of specific indices and net of the advance paid out, accrued by all the employees of the Group as at 30/06/2018, 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 therefore recognised at their nominal value.

## Criteria for the translation of amounts stated in foreign currency

Monetary assets and liabilities outstanding at the end of the 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  $\notin$  15,785,909 ( $\notin$  16,944,056 in the previous year). The breakdown and the changes in the individual items are presented as follows:



	Start-up and expansion costs	Development costs	Industrial patent and intellectual property rights	Concessions, licences, trademarks and similar rights	Goodwill	Other intangible fixed assets	Fixed assets in progress	Total intangible fixed assets
Balance at start of the year								
Cost	2,218,856	28,906,963	1,123,866	19,052	14,380,186	38,464	20,798	46,708,185
Amortisation (Accumulated amortisation)	988,277	19,263,719	1,089,634	15,192	8,369,428	37,879	-	29,764,128
Book value as at 31/12/2017	1,230,579	9,643,245	34,232	3,860	6,010,757	585	20,798	16,944,056
Changes in the year								
Increases due to purchases	7,091	2,357,336	39,200	-	-	-	-	2,403,626
Reclassifications	-	-	-	-	-	-	20,798	-
Decreases due to sales and disposals								
Amortisation in the year	216,397	2,022,293	13,089	364	1,295,381	293	-	3,547,817
Other changes	15,884	9,042	-	-	-	-	-	24,926
Total changes	(193,423)	326,001	26,111	(364)	(1,295,381)	(293)	(20,798)	(1,158,147)



Balance at end of the year								
Cost	2,249,677	31,264,299	798,127	19,052	14,380,207	38,464	-	48,749,826
Amortisation (Accumulated amortisation)	1,212,521	21,295,053	737,784	15,556	9,664,831	38,171	-	32,963,917
Book value as at 30/06/2018	1,037,156	9,969,245	60,343	3,496	4,715,376	293	-	15,785,909

## Goodwill

Goodwill, recognised for € 4,715,376 net of amortisation, includes the following values:

- € 438,633, net of € 1,023,548 amortisation, deriving from the subsidiary Expert System
  Iberia S.L.U. following acquisition of the business unit of Isoco at the time Expert System
  Iberia S.L.U. was incorporated;
- € 901,697, net of € 732,803 amortisation, deriving from the goodwill recognised among assets of the subsidiary Expert System France S.A.;
- € 3,375,016 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  $\in$  3,375,016 was calculated as follows:

€ 2,541,918 (net of € 5,931,143 total post-acquisition amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System France S.A.;



- € 41,367 (net of € 96,524 total post-acquisition amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System Iberia S.L.U.;
- € 786,460 (net of amortisation of € 1,835,072) 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 is illustrated in the following tables.

	Balance at start of the year	Increases in the year	Amortisation in the year	Other changes	Total changes	Balance at end of the year
establishment/article of association amendment costs	29,029		5,970		(5,970)	23,060
start-up costs	687,566	23,731	86,489	7,847	(70,605)	616,961
Admission to stock market listing	513,984	7,091	123,939		(116,848)	397,136
Total	1,230,579	30,822	216,397	7,847	(193,422)	1,037,156

# Breakdown of start-up and expansion costs:

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

## **Tangible fixed assets**

Tangible fixed assets amount to € 764,127 (€ 791,868 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	2,212,112	2,888,941
Depreciation (Accumulated depreciation)	94,243	207,149	1,558	1,794,123	2,097,073
Book value as at 31/12/2017	362,737	11,142	-	417,988	791,868
Changes in the year					
Disposals					
Increases due to purchases				66,988	66,988
Depreciation in the year	5,544	3,074		82,083	90,701
Other changes				(4,028)	(4,028)
Total changes	(5,544)	(3,074)		(19,124)	(27,741)
Balance at end of the year					
Cost	456,980	218,291	1,558	2,279,099	2,955,928
Depreciation (Accumulated depreciation)	99,787	210,223	1,558	1,880,234	2,191,802



Book value as at 30/06/2018	357,193	8,068	-	398,865	764,127
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The item "Other assets", which includes residual balances which cannot be classified in the previous items, amounts to € 398,865 (€ 417,988 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	126,044	(13,930)	112,115
Electronic office machines	233,033	(96)	232,937
Motor vehicles	2,003	(1,002)	1,002
Ordinary office machines	13,625	(4,420)	9,205
Signage	3,150	(270)	2,880
Mobile phones	6,400	4,440	10,840
Office furniture and fittings	33,733	(3,846)	29,887
Total	417,988	(19,123)	398,865

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

The equity investments not included in the scope of consolidation amounted to  $\in$  308,271 ( $\in$  308,405 in the previous year).

Other securities classed as non-current financial assets amount to € 79,070 (€ 85,952 in the previous year).

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



	Equity investments in associates	Equity investments in other companies	Total equity investments	Other securities
Book value as at 31/12/2017	251,266	57,138	308,405	85,952
Changes in the year		(133)	(133)	(6,882)
Increases due to purchases				
Book value as at 30/06/2018	251,266	57,005	308,271	79,070

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
Confidimpresa	5,000
Distretto Tecnologico Trentino S.c.a.r.l.	1,000
Buzzoole Holdings Limited	50,000
Other equity investments in other companies	57,005

## Non-current financial assets - Receivables

Receivables classed as non-current financial assets amount to € 700,778 (€ 733,823 in the previous year). These refer to receivables due from the associate CY4Gate S.r.l.



	Openin g nomina l amount	Opening bad debt provisio n	Openin g net value	Allocation s to the bad debt provision	Use of bad debt provisio n	(Write- downs) / Write- backs	Other increases/ (decreases )	Closing nomina I amoun t	Closing bad debt provisio n	Closing net value
Due from associate s after 12 months	733,823	-	733,823	-	-	-	(33,046)	700,77 8	-	700,77 8
Total	733,823	-	733,823	-	-	-	(33,046)	700,77 8	-	700,77 8

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

### **Current assets - Inventories**

Inventories included under current assets amount to € 103,479 (€ 99,207 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	-	-	-
Contract work in progress	99,207	4,272	103,479
Total inventories	99,207	4,272	103,479

## **Current assets - Receivables**

Receivables included under current assets amount to  $\in$  20,538,787 ( $\in$  21,100,454 in the previous year).

The breakdown of the individual items is as follows:

Within 12 months	After 12 months	Total nominal value	(Provisions for risks/bad debt provision)	Net value
---------------------	--------------------	---------------------------	---	-----------



Due from customers	11,280,760	-	11,280,760	(228,234)	11,052,526
Due from subsidiaries	38,244	26,787	65,030	-	65,030
Tax receivables	1,398,605	-	1,398,605	-	1,398,605
Prepaid taxes	772,145	1,203,618	1,975,764	-	1,975,764
Other receivables	4,144,684	1,902,177	6,046,862	-	6,046,862
Total	17,634,438	3,132,583	20,767,021	(228,234)	20,538,787

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

- € 150,180 by the parent company;
- € 27,225 by Expert System Iberia SLU;
- € 24,043 by Expert System France SA;
- € 23,589 by Expert System Enterprise Corp;
- € 3,197 by Expert System Deutschland GmbH.

Receivables due from subsidiaries, amounting to € 65,030, are receivables due from the subsidiary ADmantX S.p.A., excluded from the scope of consolidation as explained in the preamble.

Other receivables total € 6,046,862 (€ 5,050,086 in the previous year).

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

	Opening value	Change	Closing value
Security deposits	247,562	79,579	327,141
Payments on account	159,208	(51,300)	107,908
Receivables for research project grants	4,092,614	1,289,623	5,382,236
Receivables due from factoring companies	423,990	(321,308)	102,682



Other receivables	126,713	182	126,895
Total	5,050,086	996,775	6,046,862

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	Expert System France
Receivables for project grants within 12 months	2,785,239	-	760,267
Receivables for project grants after 12 months	1,292,553	544,178	-
Total	4,077,792	544,178	760,267

# Breakdown of grant receivables by project

Expert System S.p.A.	Receivables due within 12 months	Receivables due after 12 months
Horizon 2020	-	330,593
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	-	846,960
European Project - Tender ISEC	336,262	-



Tatal	2 705 220	4 202 552
Total	2,785,239	1,292,553

Expert System Iberia	Receivables due within 12 months	Receivables due after 12 months
EVEREST	-	82,615
DANTE	-	99,750
TRIVALENT	-	27,039
LETSCROWD	-	54,938
COINFORM	-	62,304
GRESLADIX - XLIMEES	-	55,475
KDRIVE	-	92,306
XLIME	-	69,750
Total	-	544,178

Expert System France	Receivables due within 12 months	Receivables due after 12 months
PRESIDIO	140,138	-
Inoova Gora	51,564	-
Reference value	8,636	-
СОМВІ	75	-
ADR PRISME	101	-



ITRAC	181,118	-
E-Compliance	815	-
Faucon	264,445	-
Pythia	113,375	-
Total	760,267	-

#### **Current assets - Financial assets**

Current financial assets amount to € 4,617,423 (€ 4,617,476 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	4,583,074	-	4,583,074
Other current equity investments	8,400	-	8,400
Other current securities	26,002	(54)	25,949
Total	4,617,476	(54)	4,617,423

The item "Current equity investments in subsidiaries", amounting to  $\notin$  4,583,074, includes the 60.80% equity investment in the subsidiary ADmantX S.p.A. held by the parent company, and excluded from the scope of consolidation for the reasons outlined in the 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  $\in$  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.

Other securities for € 25,949 held by Expert System Deutschland GmbH, were classified 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
Current receivables due from customers	12,384,149	(1,331,623)	11,052,526	11,052,526	-	-
Current receivables due from subsidiaries	60,768	4,262	65,030	38,244	26,787	-
Current receivables due from associates	34,831	(34,831)	-	-	-	-
Current tax receivables	1,428,438	(29,833)	1,398,605	1,398,605	-	-
Current prepaid tax assets	2,142,181	(166,417)	1,975,764	772,145	1,203,618	-
Other current receivables	5,050,086	996,775	6,046,862	4,144,684	1,902,177	-
Total	21,100,454	(561,667)	20,538,787	17,406,204	3,132,583	-



	Receivables due from customers	Invoices to be issued	CN to be issued	Other trade receivables	Total
Italian customers	3,452,293	2,066,672	-	-	5,518,965
EU customers	850,601	539,711	-	-	1,390,311
Non-EU customers	2,804,512	1,566,972	-	-	4,371,484
Total	7,107,406	4,173,354	-	-	11,280,760
Bad debt provision	(228,234)	-	-	-	(228,234)
Total	6,879,172	4,173,354	-	-	11,052,526

#### Receivables due from customers - Breakdown by geographic area

#### **Current assets - Cash and cash equivalents**

Cash and cash equivalents included under current assets amount to € 9,412,623 (€ 11,234,690 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	11,221,661	(1,811,976)	9,409,685
Cash at bank and in hand	3,029	(90)	2,938
Cheques	10,000	(10,000)	-
Total	11,234,690	(1,822,067)	9,412,623

#### Accrued income and prepaid expenses

Accrued income and prepaid expenses amount to € 692,226 (€ 582,304 in the previous year).

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	Balance at start of the year	Change during the year	Balance at end of the year
Prepaid expenses	582,304	106,827	689,130
Accrued income	-	3,095	3,095
Total accrued income and prepaid expenses	582,304	109,922	692,226

# Breakdown of prepaid expenses:

	Deferrals within 12 months	Deferrals after 12 months	Deferrals after 5 years
Personnel recruitment and training	11,314	1,625	-
Rent and leases payable	101,951	-	-
Insurance	46,010	-	-
Commissions	21,856	37,244	-
Consultancy	59,943	-	-
Maintenance	6,037	-	-
Rentals	31,684	-	-
Sundry services	78,095	-	-
Software	93,459	8,006	-
Internet costs	67,992	153	-



Royalties	91,760	-	-
Other deferrals	31,961	38	-
Total	642,064	47,067	-

## Shareholders' equity

The shareholders' equity existing at the end of the year amounted to  $\in$  15,244,239 ( $\in$  19,275,808 in the previous year).

Also note that on 28/06/2018, duly recorded by Notary Rolando Rosa (index no. 123026, folder 21969) and by the powers granted to the Board of Directors, the second 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.

The share capital increase led to the issue of the second tranche of 138,320 new shares through a free share capital increase of Euro 1,383.20, using funds for that amount from the extraordinary reserve. On the same date, again in implementation of the Temis 2016-2020 Stock Grant Plan, the company arranged the free-of-charge assignment to beneficiaries of 64,430 treasury shares, equal to 25% 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 year	Other allocation s	Increases	Decrease s	Reclassification s	Profit (loss) for the year	Balance at end of the year
Share capital	357,207	-	1,383	-	-		358,590
Share premium reserve	35,980,236	-	167,506	1,071,51 9	-		35,076,223
Legal reserve	43,899	-	-	-	-		43,899

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Other							
reserves							
Extraordinar							
y reserve	1,493,354	-	-	302,581	-		1,190,773
Merger							
surplus	376,622	-	-	_	-		376,622
reserve	570,022						570,022
Reserve for							
unrealised							
exchange	180,049	-	-	-	-		180,049
gains							
Miscellaneou							
s other	823,334	-	151	94,538	-		728,947
reserves	010,000			0 1,000			/ _0,0
Total other							
reserves	2,873,359	-	151	397,119	-		2,476,390
Cash flow							
hedging	(20,924)	-	-	12,963	-		(33,887)
reserve	(_0)0_1						(00)001 /
Retained							
earnings (2	11,325,963		(8,339,127	_	893,175		(18,771,914
(losses)	)		)		055,175		)
Profit (loss)						(3,745,876	
for the year (	(8,339,127)	8,339,127				(0)/ (0)0/ 0	(3,745,876)
Negative						,	
reserve for							
treasury	(292,879)	-	133,692	-	-		(159,187)
shares in	( <i>'</i> , ,		,				( / /
portfolio							
Total Group			(0.005.005			(0.745.076	
-	19,275,808	8,339,127	(8,036,395	1,481,60	893,175	(3,745,876	15,244,239
' equity			)	0		)	
Shareholders							
' equity							
pertaining to							
minority							
interests							
Total							
consolidated	10 275 909	0 220 127	(8,036,395	1,481,60	002 175	(3,745,876	15 244 220
shareholders	19,275,808	8,339,127	)	0	893,175	)	15,244,239
' equity							

# 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	35,720,711	-	138,320	-	35,859,031	-
Total	35,720,711	-	138,320	-	35,859,031	-

### Miscellaneous other reserves

The "Miscellaneous other reserves" are composed as follows:

Description	Amount
PIA Reserve provision	141,000
Other reserves	413,130
Translation reserve	174,817
Total	728,947

## 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	20,924
Changes in the year	
Change in fair value	12,963
Balance at end of the year	33,887



#### **Provisions for risks and charges**

Provisions for risks and charges are recorded under liabilities for a total of € 934,103 (€ 948,418 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)	(872,557)	(20,924)	(50,595)	(948,418)
Provision in the year		8,137			
Use in the year					
Other changes			(12,963)	35,414	
Balance at end of the year	(4,341)	(880,694)	(33,887)	(15,181)	(934,103)

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 € 2,035,178 (€ 1,876,192 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	1,876,192
Provision in the year	224,227
Use in the year	36,516
Other changes	(28,726)
Total changes	158,985
Balance at end of the year	2,035,178

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  $\in$  26,497,579 ( $\in$  27,799,769 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 banks	11,756,122	193,871	11,949,994
Payables due to other lenders	3,302,296	(843,878)	2,458,418



Payments on account	1,104,005	270,471	1,374,476
Trade payables	2,224,541	(109,087)	2,115,454
Tax payables	1,130,313	(317,508)	812,805
Payables due to social security institutions	698,739	(110,899)	587,840
Other payables	2,583,753	(385,160)	2,198,593
Total	27,799,769	(1,302,190)	26,497,579

The company opted not to apply the amortised cost criterion and not to discount the payables. The accounting policies adopted by the company were:

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

Payables are therefore recognised at nominal value.

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

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

Amount	
--------	--

Nominal amount of € 5,000,000.00

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

# Payables - 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	-	5,000,000	-	5,000,000	1,818,200
Payables due to banks	11,756,122	193,871	11,949,994	4,336,798	7,613,196	-
Payables due to other lenders	3,302,296	(843,878)	2,458,418	421,620	2,036,799	1,082,265
Payments on account	1,104,005	270,471	1,374,476	548,559	825,917	-
Trade payables	2,224,541	(109,087)	2,115,454	2,115,454	-	-
Tax payables	1,130,313	(317,508)	812,805	812,805	-	-



Payables due to social security institutions	698,739	(110,899)	587,840	587,840	-	-
Other payables	2,583,753	(385,160)	2,198,593	2,198,593	-	-
Total payables	27,799,769	(1,302,190)	26,497,579	11,021,669	15,475,911	2,900,465

# 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	63,155	11,886,839	11,949,994
Payables due to other lenders	-	2,458,418	2,458,418
Payments on account	-	1,374,476	1,374,476
Trade payables	-	2,115,454	2,115,454
Tax payables	-	812,805	812,805
Payables due to social security institutions	-	587,840	587,840
Other payables	-	2,198,593	2,198,593
Total payables	63,155	26,434,424	26,497,579



#### Accrued expenses and deferred income

Accrued expenses and deferred income are recorded under liabilities for a total of € 8,291,594 (€

6,598,047 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	264,117	105,733	369,850
Deferred income	6,333,930	1,587,814	7,921,743
Total accrued expenses and deferred income	6,598,047	1,693,547	8,291,594

# Breakdown of deferred income:

	Due within 12 months	Due after 12 months	Due after 5 years
Hosting fees	38,470	-	-
Research project grants	435,806	3,852,334	-
Tax credits	432,272	896,122	-
Licences	374,816	8,834	-
Maintenance	1,825,080	4,243	-
Provision of services	53,465	-	-
Other deferrals	302	-	-
Total	3,160,211	4,761,532	-

Accrued expenses and deferred income were calculated on an accruals basis during the year.

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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 30/06/2018, 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	8,442,300	12,864,257	4,421,958
Changes in contract work in progress	51,258	4,272	(46,986)
Own work capitalised	2,524,452	2,340,337	(184,115)



Other revenues and income	728,366	694,130	(34,236)
Total	11,746,375	15,902,996	4,156,621

#### Sales and service revenues

The income statement figures as at 30/06/2018 are expressed in comparison with those as at 30/06/2017, 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 table:

Geographic area	Current year balance
Revenues – Italy	5,914,153
EU revenues	2,228,034
Non-EU revenues	4,722,070
Total	12,864,257

#### Other revenues and income

Other revenues and income are recorded under value of production in the income statement for

a total of € 694,130 (€ 728,366 as at 30/06/2017).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Tax credits	125,577	216,136	90,559
Capital grants	315,358	365,957	50,599
Operating grants	-	2,000	2,000



Sundry reimbursements	61,051	61,975	924
Other revenues	226,380	47,574	(178,806)
Contingent assets	-	488	488
Total	728,366	694,130	(34,236)

#### **Costs for services**

Costs for services are recorded under costs of production in the income statement for a total of € 4,438,521 (€ 4,291,528 in the previous year).

The breakdown of the individual items is as follows:

	Previous year balance	Current year balance	Change
Utilities	143,010	134,912	(8,098)
Maintenance and repair costs	125,116	34,039	(91,078)
Consultancy	2,169,274	2,456,133	286,859
Directors' fees	631,117	462,341	(168,775)
Statutory and Independent Auditors' fees	7,280	10,591	3,311
Commission expense	29,076	25,143	(3,933)
Advertising	130,596	192,288	61,692
Personnel services	237,303	164,388	(72,915)
Trade fairs and corporate events	124,827	145,382	20,555
Jointly owned property expenses	13,878	64,213	50,336

#### EXPERT SYSTEM GROUP



Non-financial services from finance companies and banks	30,345	26,078	(4,267)
Insurance	50,820	56,225	5,405
Entertainment costs	28,879	42,005	13,125
Travel and accommodation costs	451,053	518,140	67,088
Rental costs	55,107	56,268	1,161
Other	63,848	50,375	(13,473)
Total	4,291,528	4,438,521	146,992

Note that the items comprising costs for services as at 30 June 2018 were subject to a more precise exposure compared to the previous period. For this reason it was necessary to adjust the corresponding items of the financial statements as at 30 June 2017.

#### 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  $\notin$  712,640 ( $\notin$  857,280 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Rent and leases payable	412,673	393,277	(19,396)
Cloud rental	152,007	107,605	(44,403)
Truck rental	67	-	(67)
Other vehicle rental	96,041	96,994	953



Hardware rental	15,746	17,148	1,402
Royalties	180,747	97,616	(83,130)
Total	857,280	712,640	(144,640)

#### Personnel costs

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

#### Sundry operating expenses

Sundry operating expenses are recorded under costs of production in the income statement for a total of  $\notin$  96,887 ( $\notin$  138,496 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Taxes and duties	85,076	33,471	(51,606)
Losses on receivables	25,488	497	(24,991)
Magazine and newspaper subscriptions	2,925	2,158	(767)
Other operating expenses	25,007	60,761	35,755
Total	138,496	96,887	(41,609)

#### Interest and other financial expenses

In relation to the matters laid down by art. 38.1, letter I) 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	100,264	100,264	-
Interest on mortgages	103,387	80,822	(22,565)
Interest on factoring	20,723	30,242	9,519
Surety commissions	10,378	2,428	(7,949)
Overdraft fees	8,769	10,348	1,578
Loan fees	2,334	3,163	829
Other financial expenses	2,216	9,351	7,135
Total	248,072	236,618	(11,454)

## Income taxes

The breakdown of the individual items is as follows:

	Current taxes	Previous years' taxes	Deferred taxes	Prepaid taxes	Income (expenses) from compliance with tax consolidation/tax transparency	Total
IRES	54,149	-	8,137	-	-	62,286
IRAP	66,390	-	-	-	-	66,390
Prepaid taxes	-	_	-	166,437	-	166,437
Total	120,539	-	8,137	166,437	_	295,112



# **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	38,051,402	877,322
Adjusted balances as per the financial statements of the parent company	38,051,402	877,322
Effect of the valuation of equity investments using the line-by-line method		
- Elimination of the book values of the investees	(16,972,878)	
- Shareholders' equities of the investees	(1,132,444)	
- Investees' profit (loss) for the year	(3,756,852)	(3,756,852)
- Amortisation of consolidation differences	(861,095)	(861,095)
Fixed assets sale adjustments	(105,148)	21,027
Other adjustments	21,256	(26,278)
Total adjustments	(22,807,163)	(4,623,198)
Group shareholders' equity and result for the year	15,244,239	(3,745,876)
Consolidated shareholders' equity and result for the year	15,244,239	(3,745,876)

# 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.

EXPERT SYSTEM GROUP



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 30/06/2018	Share capital	Profit/(Loss) 30/06/2018	Group direct holding	Group indirect holding
Expert System Iberia S.L.U.	Barcelona (ESP)	Euro	(2,024,732)	1,103,000	(399,833)	100%	
Expert System France S.A.	Paris (FRA)	Euro	687,373	2,681,384	(1,539,608)	100%	
Expert System Deutschland GmbH	Heidelberg (DEU)	Euro	(407,751)	25,000	(456,514)		100%
Expert System Cogito Ltd.	London (UK)	£	(867,206)	1,000	(251,214)	100%	
Expert System USA Inc.	Alexandria (USA)	\$ USA	(5,405,404)	1	(244,132)	100%	
Expert System Enterprise Corp.	Rockville (USA)	\$ USA	(4,467,352)	200	(757,833)		100%
Expert System Canada	Montreal (CAN)	\$ Can.	(145,453)	1,000	7,051		100%

#### List of other equity investments in subsidiaries and associates

Name	Italian city or Foreign country	Capital previous year in €	Profit (Loss) previous year in €	Shareholders' equity previous year in €	% held at 30/06/2018
ADmantX S.p.A.	Naples	223,359	(736,745)	383,486	60.80%
ADmantX Inc.	West Hartford CT 06133-0024, USA	7,064	(63,382)	(2,377,257)	60.80%



CY4Gate S.r.l. Rome	300,000	(798,639)	1,271,318	17.66%
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#### **Breakdown of personnel**

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

	Average no. in current year	Average no. in previous year
Senior Managers	-	-
Middle management	48	63
Employees	182	168
Total	230	231

#### 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	384,475	7,280

#### **Derivative financial instruments**

Pursuant to art. 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 contracts:

- A) 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.
- Notional amount at the reference date (30/06/2018): € 127,459
- amount of the liability hedged at the reference date (30/06/2018): € 253,199.
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 639.96;
- fair value at the start of the hedge: zero.

#### B) CARIPARMA

- Derivative contract type: IRS no. 65611/2017, unlisted, signed on 25/09/2017, expiring 30/01/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: CARIPARMA mortgage no. 0106917000000, originated for € 1,000,000, signed on 25/09/2017 and expiring on 30/01/2023.
- Notional amount at the reference date (30/06/2018): € 1,000,000;
- amount of the liability hedged at the reference date (30/06/2018): € 1,000,000.
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 16,330.54;
- fair value at the start of the hedge: zero.



## C) BANCO BPM

- OTC derivative contract "Maximum rate with fractioned premium" ID 790526 F 00104961
  D 00038973 signed on 24/07/2017 and expiring on 31/12/2022;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 400,000;
- Liability hedged: BANCO BPM mortgage no. 03703813, originated for € 400,000, signed on 24/07/2017 and expiring on 31/12/2022.
- Notional amount at the reference date (30/06/2018): € 400,000;
- amount of the liability hedged at the reference date (30/06/2018): € 400,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 3,717.68;
- fair value at the start of the hedge: zero.

## D) UNICREDIT

- OTC interest rate contract, the "Interest rate swap contract" deal no. 130618-0001 signed on 13/06/2018 and expiring on 30/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 2,000,000;
- Liability hedged: UNICREDIT mortgage no. 8031148, originated for € 2,000,000, signed on 13/06/2018 and expiring on 30/06/2023.
- Notional amount at the reference date (30/06/2018): € 2,000,000;
- amount of the liability hedged at the reference date (30/06/2018): € 2,000,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 13,198.58;
- Fair value at the start of the hedge: zero.

# 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,

EXPERT SYSTEM GROUP



the breakdown of off-balance sheet commitments, guarantees and contingent liabilities is illustrated in the following table:

	Opening balance	Closing balance	Change
SURETIES	2,564,869	2,489,280	(75,589)
- to subsidiaries	600,000	600,000	-
- to other companies	1,964,869	1,889,280	(75,589)

These are surety guarantees to banks for  $\in$  1,394,880, which refer for  $\in$  1,000,000 to the guarantee issued by Banca MPS S.p.A. to the former shareholders of Temis S.A., now Expert System France S.A., as part of closing of the acquisition of the French group finalised in September 2015. The guarantee total is equal to the amount Expert System is committed to paying within the 3 years after the acquisition date. The remaining  $\in$  1,094,400 is made up as follows:

- € 600,000 of the specific surety guarantee regarding an unsecured loan of the same amount started in 2017, issued in favour of the subsidiary ADmantX S.p.A.
- € 494,400 is made up of the surety undertaken in favour of the investee company Okkam
  S.r.I.

# 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 SPA	-	26,787	38,244	-	46,347	-



EXPERT SYSTEM USA INC	-	4,996,310	1,108,616	-	322,212	-
EXPERT SYSTEM COGITO LTD	-	697,940	588,394	8,149	324,769	114,596
CY4GATE SRL	-	700,778	-	-	14,807	-
EXPERT SYSTEM IBERIA S.L.U.	-	3,635,831	737,938	7,139	196,906	7,139
EXPERT SYSTEM FRANCE SA	-	1,070,665	234,525	153,589	249,195	153,589
EXPERT SYSTEM ENTERPRISE CORP	-	1,553,135	1,862,190	31,224	497,428	31,224
EXPERT SYSTEM DEUTSCHLAND GMBH	-	332,372	89,775	-	92,147	-
EXPERT SYSTEM CANADA Semantic Technologies Inc.	-	-	11,171	-	11,171	-
Total	-	13,013,818	4,670,853	200,099	1,754,980	306,547

### **Trade transactions**

Company	Payables	Receivables	Guarantees	Commitments	Costs	Revenues
ADMANTX SPA	-	38,244	-	-	-	46,347
EXPERT SYSTEM USA INC	-	1,108,616	-	-	-	289,137
EXPERT SYSTEM COGITO LTD	8,149	588,394	-	-	114,596	315,839
CY4GATE SRL	-	-	-	-	-	-
EXPERT SYSTEM IBERIA S.L.U.	7,139	737,938	-	-	7,139	169,772
EXPERT SYSTEM FRANCE SA	153,589	234,525	-	-	153,589	234,525



EXPERT SYSTEM ENTERPRISE CORP	31,224	1,862,190	-	-	31,224	486,639
EXPERT SYSTEM DEUTSCHLAND GMBH	-	89,775	-	-	-	89,775
EXPERT SYSTEM CANADA Semantic Technologies Inc.	-	11,171	-	-	-	11,171
Total	200,099	4,670,853	-	-	306,547	1,643,205

# **Financial transactions**

Company	Payables	Receivables	Guarantees	Commitments	Expenses	Income
ADMANTX SPA	-	26,787	-	-	-	-
EXPERT SYSTEM USA INC	-	4,996,310	-	-	-	33,075
EXPERT SYSTEM COGITO LTD	-	697,940	-	-	-	8,930
CY4GATE SRL	-	700,778	-	-	-	14,807
EXPERT SYSTEM IBERIA S.L.U.	-	3,635,831	-	-	-	27,133
EXPERT SYSTEM FRANCE SA	-	1,070,665	-	-	-	14,670
EXPERT SYSTEM ENTERPRISE CORP	-	1,553,135	-	-	-	10,789
EXPERT SYSTEM DEUTSCHLAND GMBH	-	332,372	-	-	-	2,372
EXPERT SYSTEM CANADA Semantic Technologies Inc.	-	-	-	-	-	-
Total	-	13,013,818	-	-	-	111,775



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.:

<u>Sales</u>

- 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 € 1,839;
- Sub-letting agreement for local office in Milan, Piazza Cavour: half-yearly lease instalment of € 3,000;
- Services contract relating to accounting support, company economic-financial consultancy, secretarial and general services:
  - Fee for accounting support and business consultancy for € 12,000;
  - Fee for secretary activities for € 600;
  - Fee for general services (telephone, cleaning services and material, security, electricity, stationery, management software maintenance): lump-sum payment for € 2,915 calculated as 4.15% of the costs incurred by Expert System S.p.A.
- Sale of licences for € 15,000;
- Reimbursement of insurance expenses for € 1,226;
- Contract for the provision of data scientist services for € 7,226.

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.:

EXPERT SYSTEM GROUP



 Loan granted to the subsidiary for € 4,834,863, bearing interest of € 33,075 in the first half of 2018.

#### <u>Sales</u>

- Granting of licences for € 265,054;
- Professional services provided for € 24,083.

## With the subsidiary Expert System Cogito Ltd.:

Loan granted to the subsidiary for € 676,231, bearing interest of € 8,930 in the first half of 2018.

#### <u>Sales</u>

- Professional services provided for € 148,750;
- Granting of licences for € 121,889;
- Reimbursement of other expenses for € 45,200.

#### **Purchases**

- Costs for sundry reimbursements for € 114,596.

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

 Loan granted to the subsidiary for € 3,466,000, bearing interest of € 27,133 in the first half of 2018.

#### <u>Sales</u>

- Professional services provided for € 71,243;
- Granting of licences for € 79,725;
- Reimbursement of other expenses for € 14,458;
- Maintenance fees for € 4,347.

#### Purchases

- Professional services provided by the subsidiary for € 7,139.

#### With the subsidiary Expert System France S.A.:

- Loan granted to the subsidiary for € 1,016,808, bearing interest of € 14,670 in the first half



of 2018.

### <u>Sales</u>

- Professional services provided for € 59,106;
- Granting of licences for € 27,658;
- Maintenance fees for € 92,175;
- Reimbursement of other expenses for € 55,586.

#### Purchases

- Professional services provided by the subsidiary for € 153,589.

## With the subsidiary Expert System Enterprise Corp.:

 Loan granted to the subsidiary for € 1,501,115, bearing interest of € 10,789 in the first half of 2018.

#### <u>Sales</u>

- Granting of licences for € 211,590;
- Professional services provided for € 48,768;
- Maintenance fees for € 221,983;
- Reimbursement of other expenses for € 4,298.

#### <u>Purchases</u>

- Professional services provided by the subsidiary for € 31,224.

#### With the subsidiary Expert System Deutschland GmbH:

Loan granted to the subsidiary for € 330,000, bearing interest of € 2,372 in the first half of 2018.

#### <u>Sales</u>

- Professional services provided for € 55,769;
- Granting of licences for € 1,500;
- Maintenance fees for € 30,272;
- Reimbursement of other expenses for € 2,233.



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

#### <u>Sales</u>

- Maintenance fees for € 11,171.

#### With the associate Cy4Gate S.r.l.:

Loan granted to the associate for € 690,000, bearing interest of € 14,807 in the first half of 2018.

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

#### Off-balance sheet agreements

Pursuant to art. 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 art. 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.	18,512	9,918
Expert System France S.A.	8,100	19,304
Expert System Iberia S.L.U.	26,319	-
Expert System Deutschland GmbH	5,968	-
Expert System Cogito Ltd.	-	-
Expert System Enterprise Corp.	29,464	-
Expert System USA Inc.	-	-
Expert System Canada – Semantic Technologies Inc.	_	-

# Significant events after 30/06/2018

On 11/07/2018, at the proposal of the Board of Directors and with the aim of expanding the skills and enhancing dialogue within the administrative body, the Shareholders' Meeting of Expert System S.p.A. resolved to increase the number of members of the Board of Directors to 8 and to appoint Stefano Pedrini as a new director who also meets the independence requirements. The appointed director will remain in office until the expiry of the current term of office of the other directors and, therefore, until the date of the shareholders' meeting called to approve the financial statements for the year ended 31 December 2019.

On the same date, the Shareholders' Meeting approved the "2018-2020 Stock Grant Plan" and the



related free-of-charge share capital increase, for the employees of Expert System S.p.A. and its subsidiaries, which provides for the free assignment (personal and without transfer option) of a maximum 800,000 rights to receive, again free of charge (in the ratio of 1:1), ordinary shares of the Issuer, subject to the achievement of certain performance and/or personal objectives in each of the three financial years closing 31 December 2018, 2019 and 2020. This plan is characterised by its aim to incentivise staff loyalty, encourage the alignment of the interests of beneficiaries with those of shareholders, link the remuneration of key managers to the effective creation of value and introduce retention and attraction policies for employees holding key positions.

On 11/07/2018, the "2018-2020 Stock Option Plan" and the related share capital increase against payment were also approved, for members of the Board of Directors, collaborators, consultants and employees of Expert System S.p.A. and its subsidiaries, which offers the assignment free of charge of 1,200,000 option rights to subscribe Expert System ordinary shares (in the ratio of 1:1) at a predefined price. The vesting of the option rights is subordinated to the achievement of certain performance and/or personal objectives established for each beneficiary. The options will be assigned to individuals and will not be transferable. This plan is also considered an instrument targeting direct involvement in the value creation process by individuals contributing to the growth and development of the Company and the Group.

It should also be remembered that in July 2018, reflecting the Company's strong appetite for technological innovation in developing its business model, Expert System confirmed the maintenance of the Innovative SME requirements and subsequent registration in the special section of the Trento Chamber of Commerce.

At the same time, on the technological partnerships front, note a further consolidation of the partnership between Expert System and the multinational Blue Prism (PRSM), listed on the AIM market of the London Stock Exchange, aimed at seizing the enormous market potential of Robotic Process Automation (RPA), which as a result of artificial intelligence plays an increasingly central role in digital innovation and transformation strategies across all business sectors. For this market, text analytics is an essential asset that enables "intelligent" management of unstructured data and information through the correct understanding of text meaning, with a view to supporting



decision-making processes and not merely increasing operating efficiency.

Expert System also partnered with Credit Agricole CIB in the development of the PanOptes project, targeting automated analysis and processing of public information flows as well as the management of unstructured content. PanOptes is a web portal that leverages collective intelligence to provide users with the most relevant information available in public data flows, identified through semantic analysis. It therefore uses solutions which, like Cogito, ensure the semantic processing of enormous volumes of textual content originating from different sources. In particular, Cogito was seen as important due to certain of its strengths, such as rapid implementation, ease of use, extensive vocabulary and its classification system.

In terms of prestigious awards, again in 2018 the US magazine KMWorld rewarded the excellence and uniqueness of Expert System's technological approach, including Cogito Discover among its 2018 trend setting products. The *"Trend Setting Products 2018"* list is a privilege granted only to the best technological solutions in terms of usefulness and creativity, able to help organisations in digital knowledge management and transformation, processes that are fundamental to business growth.

Also in 2018, Expert System was selected by the US company Gartner, global leader in strategic consulting, research and analysis in the Information Technology field, for the Gartner Magic Quadrant for Insight Engines, the most prestigious global recognition of solutions for research and analysis of corporate information, granted to just 13 companies worldwide. It is a recognition that rewards the unique features of the Cogito<sup>®</sup> artificial intelligence technology, the strong degree of confirmed customer satisfaction, the excellent results achieved in terms of accuracy in the various business use situations (often part of the most extensive strategic processes, such as insurance market claims management), cutting-edge professional services and innovation through constant attention for research and development activities.

# **Business outlook**

The Board of Directors believes that the excellent performance of the first half of 2018, with better distribution of revenues over the two half-years, will allow confirmation over the entire year of the guidance given. Market demand is becoming stronger and, combined with a mix of increasingly



specialised products and solutions, also channelled through a network of partners under construction, fuels trust in the business outlook for the near future.

Chairman of the Board of Directors Marco Varone





www.expertsystem.com

ir@expertsystem.com

# **Registered offices**

Rovereto (TN) Via Fortunato Zeni no. 8 38068 Rovereto (TN) – Italy Tel. +39 0464 443300

# **Administrative offices**

Modena (MO) Via Virgilio, 56/Q 41123 Modena (MO) – Italy Tel. +39 059 894011 Fax: +39 059 894099