



**EXPERT SYSTEM GROUP
CONSOLIDATED FINANCIAL STATEMENTS
AS AT 31/12/2018**



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CORPORATE BODIES

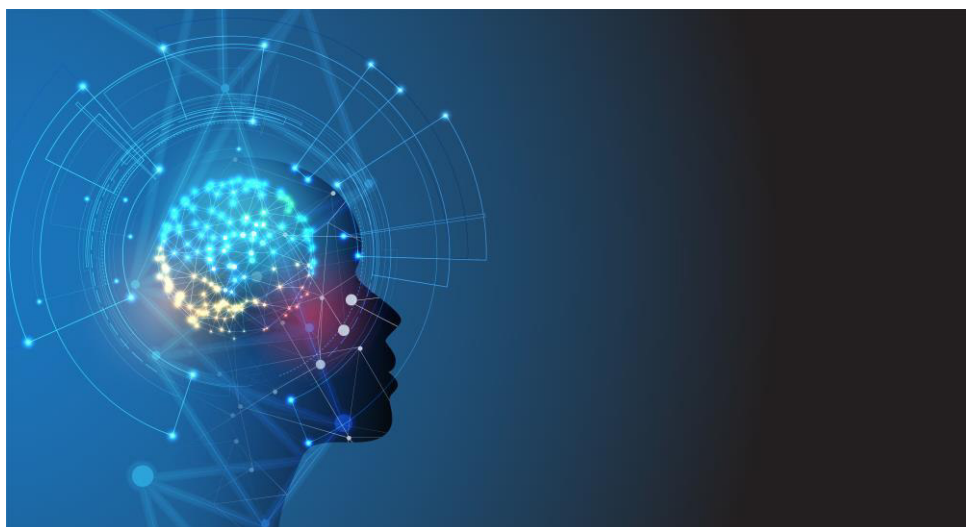
Board of Directors

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

Board of Statutory Auditors

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

CONSOLIDATED FINANCIAL STATEMENTS AS AT 31/12/2018



BALANCE SHEET

ASSETS	31/12/2018	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	852,302	1,230,579
2) Development costs	10,166,571	9,643,245
3) Industrial patent and intellectual property rights	290,046	34,232
4) Concessions, licences, trademarks and similar rights	3,132	3,860
5) Goodwill	3,421,599	6,010,757
6) Fixed assets in progress and payments on account	-	20,798
7) Other	-	585
Total intangible fixed assets	14,733,649	16,944,056

II - Tangible fixed assets		
1) Land and buildings	351,650	362,737
2) Plant and machinery	4,994	11,142
4) Other assets	358,780	417,988
Total tangible fixed assets	715,423	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		
a) Due from subsidiaries		
Within 12 months	100,012	-
b) Due from associates		
Within 12 months	321,555	
After 12 months	390,000	733,823
Total Receivables (2)	811,567	733,823
3) Other securities	85,703	85,952
Total non-current financial assets	1,205,541	1,128,180
Total fixed assets (B)	16,654,614	18,864,103

C) CURRENT ASSETS

I - Inventories		
3) Contract work in progress	109,312	99,207
Total inventories	109,312	99,207
II) Receivables		
1) Due from customers		
Within 12 months	15,792,097	12,384,149

Total receivables due from customers	15,792,097	12,384,149
2) Due from subsidiaries		
Within 12 months	67,965	33,982
After 12 months	26,787	26,787
Total receivables due from subsidiaries	94,752	60,768
3) Due from associates		
Within 12 months	13,420	34,831
Total receivables due from associates	13,420	34,831
5-bis) Tax receivables		
Within 12 months	1,087,020	1,428,438
Total tax receivables	1,087,020	1,428,438
5-ter) Prepaid taxes		
Within 12 months	575,345	464,391
After 12 months	1,226,896	1,677,790
Total prepaid taxes	1,802,241	2,142,181
5-quater) Other receivables		
Within 12 months	3,578,204	4,056,590
After 12 months	2,108,779	993,497
Total other receivables	5,686,983	5,050,086
Total receivables	24,476,513	21,100,454
III - Current financial assets		
1) Equity investments in subsidiaries	4,775,574	4,583,074
4) Other equity investments	8,400	8,400
6) Other securities	174,229	26,002
Total current financial assets	4,958,203	4,617,476
IV - Cash and cash equivalents		
1) Bank and postal deposits	7,880,364	11,221,661
3) Cash at bank and in hand	2,420	3,029

2) Cheques	-	10,000
Total cash and cash equivalents	7,882,784	11,234,690

Total current assets (C)	37,426,812	37,051,827
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D) ACCRUALS AND DEFERRALS	577,090	582,304
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TOTAL ASSETS	54,658,516	56,498,234
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LIABILITIES	31/12/2018	31/12/2017
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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	1,194,367	1,493,354
Merger surplus reserve	376,622	376,622
Reserve for unrealised exchange gains	180,049	180,049
Miscellaneous other reserves	729,221	823,334
Total other reserves	2,480,259	2,873,359
VII - Cash flow hedging reserve	(38,596)	(20,924)
VIII - Retained earnings (losses)	(18,902,814)	(11,325,963)
IX - Profit (loss) for the year	(3,780,886)	(8,339,127)
X - Negative reserve for treasury shares in portfolio	(159,187)	(292,879)
Total consolidated shareholders' equity	15,077,489	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	15,077,489	19,275,808
B) PROVISIONS FOR RISKS AND CHARGES		
1) Pensions and similar obligations	4,341	4,341
2) Taxation, including deferred	995,040	872,557
3) Derivative financial instruments - liabilities	38,596	20,924
4) Other	15,764	50,595
Total provisions for risks and charges (B)	1,053,741	948,418
C) EMPLOYEE SEVERANCE INDEMNITY		
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	4,925,611	3,910,091
After 12 months	8,124,081	7,846,031
Total payables due to banks	13,049,692	11,756,122
5) Payables due to other lenders		
Within 12 months	733,731	1,465,781
After 12 months	1,686,596	1,836,515
Total payables due to other lenders	2,420,327	3,302,296
6) Payments on account		
Within 12 months	236,256	869,024
After 12 months	402,988	234,980
Total payments on account	639,244	1,104,005
7) Trade payables		
Within 12 months	2,807,819	2,224,541
Total trade payables	2,807,819	2,224,541

12) Tax payables		
Within 12 months	1,254,649	1,130,313
Total tax payables	1,254,649	1,130,313
13) Payables due to social security institutions		
Within 12 months	572,886	698,739
Total payables due to social security institutions	572,886	698,739
14) Other payables		
Within 12 months	2,074,263	2,583,753
Total other payables	2,074,263	2,583,753
Total payables	27,818,880	27,799,769
E) ACCRUALS AND DEFERRALS	8,565,098	6,598,047
TOTAL LIABILITIES	54,658,516	56,498,234

INCOME STATEMENT

	31/12/2018	31/12/2017
A) VALUE OF PRODUCTION		
1) Sales and service revenues	28,697,152	26,136,230
3) Changes in contract work in progress	10,104	(527,733)
4) Own work capitalised	5,043,857	5,552,488
5) Other revenues and income		
Operating grants	2,000	46,402
Other	1,757,421	1,600,167
Total other revenues and income (5)	1,759,421	1,646,570
TOTAL VALUE OF PRODUCTION (A)	35,510,534	32,807,555
B) COSTS OF PRODUCTION:		

6) Raw materials, consumables and goods for resale	1,819,978	1,614,418
7) For services	8,778,559	8,915,207
8) Use of third-party assets	1,411,278	1,673,817
9) Personnel:		
a) Salaries and wages	14,364,475	14,831,234
b) Social security costs	3,739,407	3,952,410
c) Employee severance indemnity	444,780	513,013
d) Pensions and similar charges	-	-
e) Other costs	18,529	12,970
Total personnel costs (9)	18,567,191	19,309,628
10) Amortisation, depreciation and write-downs:		
a) Amortisation of intangible fixed assets	7,577,660	7,184,613
b) Depreciation of tangible fixed assets	197,934	219,907
d) Write-down of receivables included in current assets and of cash and cash equivalents	90,938	102,421
Total amortisation, depreciation and write-downs (10)	7,866,532	7,506,942
12) Provisions for risks	-	35,414
14) Sundry operating expenses	295,548	248,162
TOTAL COSTS OF PRODUCTION (B)	38,739,086	39,303,588
DIFFERENCE BETWEEN REVENUES AND COSTS OF PRODUCTION	(3,228,552)	(6,496,033)
C) FINANCIAL INCOME AND EXPENSES		
15) Income from equity investments		
Total income from equity investments (15)	-	-
16) Other financial income:		
a) From receivables classified as fixed assets		
From subsidiaries	12	-
From associates	26,584	23,724

Total financial income from receivables classified as fixed assets	26,596	23,724
c) From securities included in current assets	-	2,783
d) Other income		
Other	1,341	17,608
Total other income (d)	1,341	17,608
Total other financial income (16)	27,937	44,115
17) Interest and other financial expenses	(486,852)	(513,781)
17-bis) Exchange gains and losses	556,212	(1,721,557)
Total financial income and expenses (C) (15+16-17+-17-bis)	97,297	(2,191,223)
D) VALUE ADJUSTMENTS OF FINANCIAL ASSETS AND LIABILITIES:		
18) Revaluations:	-	-
19) Write-downs:	-	-
Total value adjustments to financial assets and liabilities (D) (18-19)	-	-
PRE-TAX RESULT (A-B+C+-D)	(3,131,255)	(8,687,256)
20) Income taxes for the year – current, deferred and prepaid		
Current taxes	(187,176)	(62,830)
Deferred and prepaid taxes	(462,455)	410,960
Total income taxes for the year – current, deferred and prepaid	(649,631)	348,129
21) Consolidated profit (loss) for the year	(3,780,886)	(8,339,127)
Profit (loss) for the year pertaining to minority shareholders	-	-
Profit (loss) for the year pertaining to the Group	(3,780,886)	(8,339,127)

CASH FLOW STATEMENT

A. Cash flows from operating activities (indirect method)	31/12/2018	31/12/2017
Profit (loss) for the year	(3,780,886)	(8,339,127)
Income taxes	649,631	(348,129)
Interest expense/(income)	440,766	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	(2,691,157)	(8,061,871)
Allocation to provisions	444,780	513,013
Amortisation/Depreciation of fixed assets	7,775,594	7,404,520
Write-downs due to impairment	90,938	102,421
Adjustments to financial assets and liabilities associated with derivatives, non-monetary derivative financial instruments	(17,672)	-
Other adjustments for non-monetary items	(399,762)	-
Total adjustments for non-monetary items with no balancing entry in net working capital	7,802,940	8,019,955
2. Cash flows before changes in net working capital	5,111,783	(41,916)
Changes in net working capital		
Decrease/(Increase) in inventories	(10,104)	528,276
Decrease/(Increase) in receivables due from customers	(3,420,521)	(1,998,392)
Increase/(Decrease) in trade payables	118,517	(1,793,282)
Decrease/(Increase) in accrued income and prepaid expenses	5,214	421,334
Increase/(Decrease) in accrued expenses and deferred income	1,967,050	(637,619)
Other decreases/(Other increases) in net working capital	(1,116,176)	1,675,468
Total changes in net working capital	(2,456,020)	(1,804,214)
3. Cash flows after changes in net working capital	2,655,763	(1,846,130)
Other adjustments		
Interest collected/(paid)	(440,766)	(625,600)
(Income taxes paid)	-	-

Dividends collected	-	-
(Use of provisions)	(72,341)	(75,299)
Other collections/(payments)	-	-
Total other adjustments	(513,107)	(700,899)
Cash flows from operating activities (A)	2,142,655	(2,547,030)
<i>Tangible fixed assets</i>		
(Investments)	(122,158)	(98,028)
Disinvestments	1,337	991
<i>Intangible fixed assets</i>		
(Investments)	(5,367,254)	(5,756,206)
Disinvestments	-	-
<i>Non-current financial assets</i>		
(Investments)	-	(36,578)
Disinvestments	0	-
<i>Current financial assets</i>		
(Investments)	(340,726)	(430,000)
Disinvestments	0	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)	(5,906,163)	(5,046,177)
<i>Third party financing</i>		
Increase/(Decrease) in short-term payables due to banks	35,398	99,097
New loans	5,752,097	3,600,000
(Loan repayments)	(5,375,895)	(5,111,867)
<i>Own equity</i>		
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)	411,601	9,764,957
Increase/(decrease) in cash and cash equivalents (A ± B ± C)		
Cash and cash equivalents at start of year	11,234,690	9,062,940
Cash and cash equivalents at year end	7,882,784	11,234,690
Increase/(decrease) in cash and cash equivalents	(3,351,906)	2,171,750

REPORT ON OPERATIONS



Dear Shareholders,

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

GROUP STRUCTURE AND BUSINESS ACTIVITIES

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

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:

Banks and insurance companies, 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.

In this regard, note that in 2018, Expert System presented two new products dedicated to the world of insurance for reimbursement request management and the signing of policies and contracts. These processes are at the heart of the digital transformation of insurance as they are based on the handling of large volumes of data containing high risk and unstructured information.

The two new products are:

- **Cogito for Claims**, for the management of requests for reimbursement. The automation of the entire process improves customer services, reduces operating times and promptly intercepts any signs of fraud. With Cogito it is possible to identify relevant information, compare claims and insurance coverage limits, and obtain useful suggestions for the final assessments, thanks to the automatic document recognition (claim form, medical report, invoice, summons, etc);
- **Cogito for Underwriting**, for the signing of contracts. Through automation of the process of

signing contracts, 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. Cogito® proposes an estimate of the insurance coverage and other elements to complete a quote or draw up a contract based on the data indicated by the customer and the risk profile.

In this sector, although highly competitive, Expert System has been able to consolidate key partnerships at global level, gaining the trust of companies such as Zurich, Lloyd's, Generali, Intesa Sanpaolo, Crédit Agricole;

Publishing and Media, a business which is 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. Also in this context, Expert System has achieved several successful case histories, including collaborations with Dow Jones, Wolters Kluwer, Les Echos and Corriere della Sera;

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. In these strategic areas, Expert System has distinguished itself at a global level, working alongside numerous governmental entities, such as the United States Departments of Agriculture and Justice, the French Ministry of Interior, the French Ministry of Economy and Finance, the Italian Chamber of Deputies.

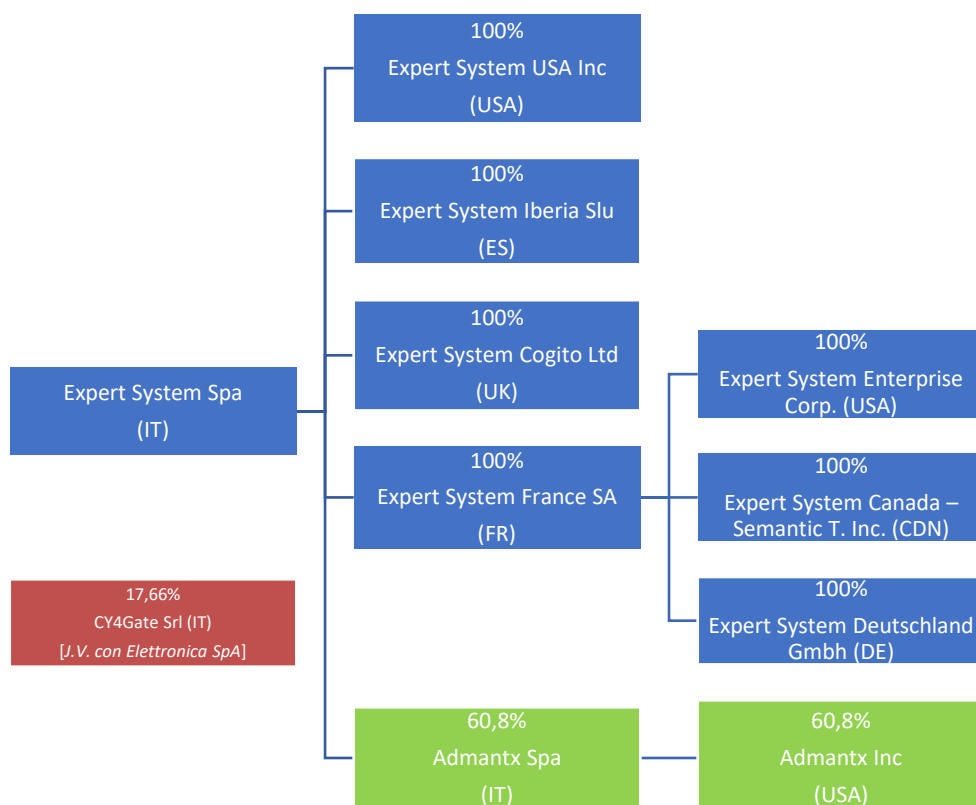
By understanding the meaning of every word based on context with its software, and applying this capacity on a large scale to the automatic analysis of millions of documents, Expert System technology transforms available information into usable knowledge, offering numerous and different uses, such as 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;

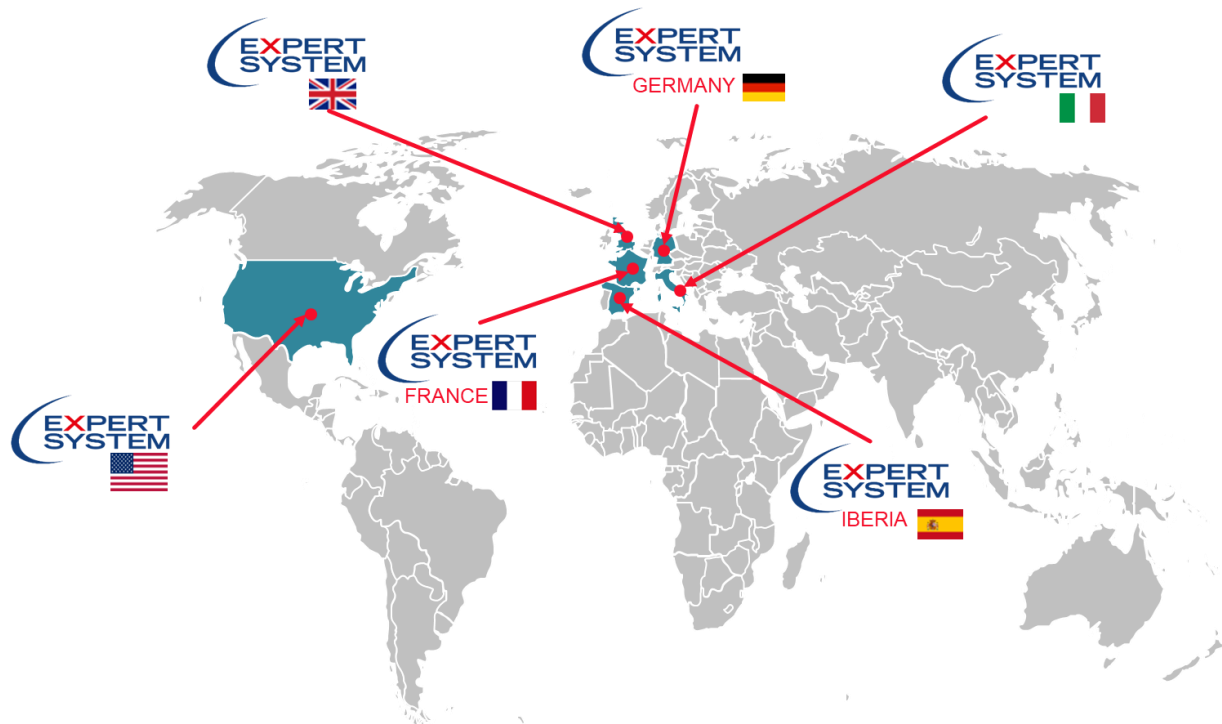
- **Corporate Intelligence**, business coverage that today has to be able to incorporate the masses of information available to make informed decisions relating to strategic processes, for which Cogito cognitive technology analyses and summarises knowledge, providing organisations with intelligence that 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.



OPERATING CONDITIONS AND BUSINESS DEVELOPMENT

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

The Artificial Intelligence (AI) market continues to grow at a rapid rate. Global investments in AI in 2018 were characterised by a positive trend due to the increase in the number of companies that started projects based on the use of cognitive computing software. The benefits in terms of revenue and leadership in the respective sectors and segments, achieved by companies that use technologies such as Cogito® to drive its innovation, increase competitors' interest in entering the market, thus fostering prospects for further growth in the sector in the near future.

The major areas of interest for these investments are the customer service systems and, in general, those applications that exploit highly complex cognitive capacity, combining machine learning techniques, language processing and understanding of texts. These are made available to companies that successfully leverage AI cognitive systems as part of their digital transformation

strategies. These strategies support businesses, for example, improving their processes by making them more efficient, customising their customer relationships and preventing fraud. An ever-increasing number of governments are using AI to guarantee the safety of their citizens.

In 2018, major investments in cognitive systems were made in the banking and retail industry, attracted by the possibility of using automated intelligence systems and to develop automated customer care agents. More generally speaking, text analytics technologies are driving the development of the Robotic Process Automation (RPA), i.e. the innovation and digital transformation phase that involves all business sectors. RPA's ability to make business workflows more efficient and advanced, has rapidly evolved towards ever greater efficiency and quality in all the most strategic areas, where the intelligent management of unstructured data and information plays a fundamental role by correctly understanding the meaning of text.

From a geographical point of view, companies in the United States accounted for more than 60% of AI-related expenditure, followed by companies in Western Europe and China.

Also in 2018, the Italian Big Data Analytics sector also confirmed the positive trend of the last 3 years, with growth of 26% compared to the previous year¹.

About one third of large Italian companies uses the analysis of Big Data to take practical decisions. The positive results achieved, in terms of advantages over competitors, encourage businesses to continue to invest in Analytics management projects, in order to take best advantage of the opportunities provided by software such as Cogito®. The number of small-medium businesses has also increased, that are mature from a technological perspective in terms of approaching data analysis in a non-traditional manner.

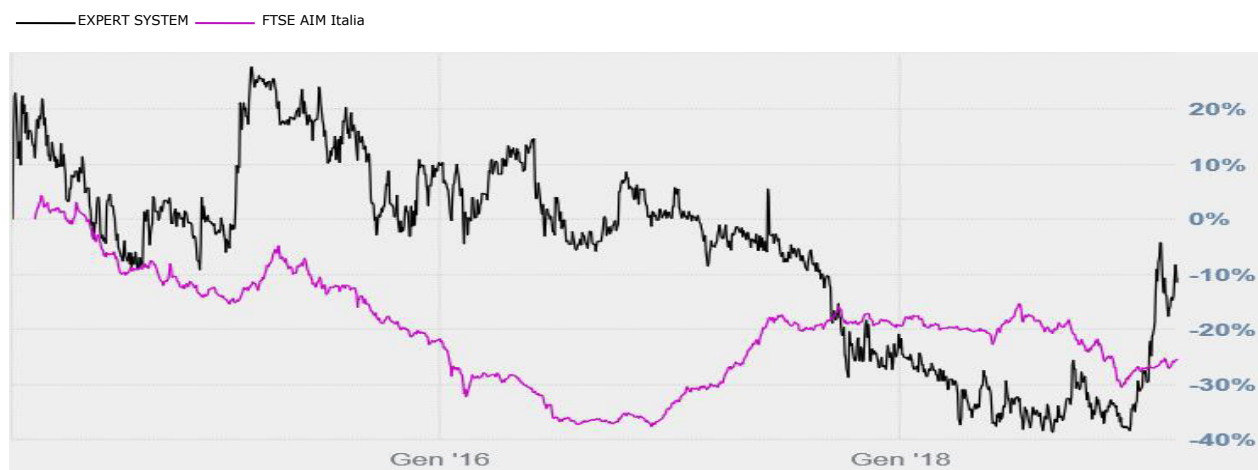
Many companies are beginning to see the benefits of Artificial Intelligence and computing applications in their businesses, which has made it possible to overcome scepticism of these applications that was widespread up until a few years ago, and triggered a virtuous trend that is seeing increasingly more businesses use AI.

The performance of the Expert System share as at 25/03/2019 is presented below:

¹ Source: Alessandro Piva, "Big Data Analytics in Italia: mercato da 1,4 miliardi" (Big Data Analytics in Italy: a market of € 1.4 billion), *Osservatori*, Big Data Analytics & Business Intelligence Observatory of the Milan Polytechnic Management School, web, 21 November 2018

Market	AIM Italia – MAC
Share capital	€ 358,590
Capitalisation	€ 59,726,802
Minimum parcel	1,000.00
Reference price	€ 1.665 – 25/03/2019 17.35.12 hrs
Official price	€ 1.6656 - 22/03/2019
1-month performance	- 6.98%
6-month performance	+ 32.14%
1-year performance	+ 27.59%

The chart below instead shows the share performance from the IPO (18/02/2014) as at 25/03/2019. In particular, the chart compares the Expert System performance against that of the FTSE AIM Italia index (Source: www.borsaitaliana.it).



On 28/06/2018, duly recorded by Notary Rolando Rosa (index no. 123026, folder 21969 Expert System S.p.A.) 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 € 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.

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.

At the same time, the extraordinary shareholders' meeting resolved to revoke for the part not used, equal to € 3,449.80, the authorisation to increase the share capital and issue convertible bonds pursuant to articles 2443 and 2420-ter of the Italian Civil Code, attributed to the Board of Directors by resolution of the Extraordinary Shareholders' Meeting assumed on 7 July 2017, approving the consequent amendment to article 5 of the Articles of Association.

Note that in the second and last period of exercise of the Expert System S.p.A. 2016-2018 Warrant ("Warrants") included between 1 October 2018 and 31 October 2018 (included), no warrants were exercised.

In July 2018, Expert System confirmed the maintenance of the Innovative SME requirements and subsequent registration in the special section of the Trento Chamber of Commerce, proof of the Company's strong propensity for technological innovation in developing its business model.

During the year, the process of consolidation of the role of Expert System as vendor of software solutions based on Artificial Intelligence applied to text management was implemented. It increases the importance of the indirect channel in the dissemination of Cogito® solutions, which are customised to take full advantage of the automation processes that each of them develops in their business areas. Expert System continues to make Cogito® increasingly more effective and efficient in processing language issues to facilitate the development of artificial intelligence which will represent the industrial revolution of the near future.

In order to provide an important opportunity for representatives of the business world, analysts and experts, and to discuss the challenges, benefits and practical applications of artificial intelligence, Expert System organised the second edition of the "Cogito AI Day", which was held in Paris on 18 October 2018. During the event, Forrester and Accenture industry analysts presented their practical vision of artificial intelligence, the impact on the market and future business developments. Belfius Bank, Swiss Re, Zurich, Crédit Agricole CIB and SEB Group have, by contrast, shown that they are using artificial intelligence solutions to support automation and business information management processes to cut costs and improve the customer experience.

At the centre of the debate are three key concepts: the ability to understand the meaning of business information to obtain maximum value; the automation of processes to increase

effectiveness, operational efficiency and achieving high quality standards in the processing of unstructured information as well as automatic management of large volumes of data; the possibility of having the proper knowledge at the right time in order to make decisions in the best and most timely manner.

Cogito AI Day was followed by the event “Artificial intelligence: experience the future for your business strategy”, organised by Expert System on 22 May in Milan and on 5 June in Rome 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. To discuss these topics, the representatives of major companies, already Expert System customers, such as SNAM, Leonardo, Esselunga, Enel, A2A, were involved as speakers. The new role of corporate intelligence and risk management has been emphasised, which must monitor and prevent potential threats by providing decision-makers with all strategic information, rather than managing critical situations already under way.

In terms of technological partnerships, we 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 linked to the Robotic Process Automation (RPA) in which text analytics is an essential asset capable of enabling intelligent management of unstructured data and information by correctly understanding the meaning of the texts. In this market, artificial intelligence has played an increasingly more central role in digital innovation and transformation strategies in all business sectors, with a view to supporting decision-making processes and increasing operating efficiency.

These opportunities have been highlighted by Forrester Research in the *“Look To Four Use Case Categories To Push RPA And AI Convergence. Text Analytics Leads the Way”*, highlighting the main growth drivers with which process automation is able to create value, i.e.:

- Analytics that solves nagging platform issues;
- Chatbots that boss around RPA bots;
- IoT events that trigger digital workers;
- text analytics that increases the value of RPA right now.

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

Dow Jones, globally recognised as the world's most reliable source of economic information with prestigious brands such as the Wall Street Journal, Dow Jones Newswires, Factiva, Barron's, MarketWatch and Financial News, uses Cogito® artificial intelligence to develop unstructured content, and to ensure immediate access for the benefit of its customers, a technology able to process 1.5 million articles per day and extract all useful details, metadata, and knowledge for Dow Jones products. The main benefit related to the use of artificial intelligence is a more effective information retrieval experience, with a particular focus on events, people and companies that matter in the business world.

The Cogito® platform is widely used by many large banking and financial entities to understand and process unstructured information with maximum precision, and transform it into actionable information through a combination of semantic analysis, understanding of natural language and specific machine learning algorithms.

With the new partnership signed with Rabobank in the Netherlands, Expert System continues its growth and international development strategy, adding a new objective for Cogito in the banking sector. The interest in advanced AI solutions has grown, in particular, on the part of organisations in highly regulated sectors such as the financial sector, characterised by exponential growth in unstructured information like corporate documents, e-mail, customer interactions. Artificial intelligence, thanks to the ability to apply the human understanding approach on a large scale, is

revolutionising the world of banks given that managing unstructured information is a critical issue, especially for financial institutions.

Expert System's development strategy today allows it to provide an insurance offer of unquestioned global standing, which has led to significant results in recent years with customers such as Zurich Insurance Group, Lloyd's of London and Generali. Corporate competitiveness in the insurance sector makes it necessary to ensure high efficiency which translates to improved quality of the offer, a reduction in costs, simplification of compliance and prompt dialogue with increasingly more demanding customers.

In line with its innovation and digitalisation strategy, the Generali Group will benefit from Cogito®'s unique advantages in managing large volumes of non-structured information, for the automatic classification of about 1 million e-mails that the insurance company receives every year in relation to customer support. The insurance Group is therefore taking advantage of the artificial intelligence potential of Cogito® technology in Spain, for the management of business processes in order to extend the benefits of artificial intelligence and cognitive computing to other business areas too.

In 2018, Expert System earned various important recognitions.

Gartner, global leader in Information Technology consulting, research and analysis, included the Knowledge Graph in 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 arranges them on the "hype" curve, which summarises the market maturity timeframe and the impact potential.

Gartner's reporting confirms the quality of the process initiated by Expert System and its technological core, in the form of a Knowledge Graph, i.e. a knowledge mapping system that makes it possible to produce information by associating concepts, activities, objects, processes and people.

Also in 2018, Expert System was selected for the Gartner Magic Quadrant for Insight Engines, the most prestigious global recognition of solutions for research and analysis of corporate information, granted to just 13 companies worldwide. It is a recognition that rewards the unique features of the Cogito® artificial intelligence technology, the commitment to innovation through the constant focus on research and development activities, cutting-edge professional services, 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) and high level of confirmed customer satisfaction.

In terms of awards, it should also be noted that, for the third consecutive year, the prestigious US magazine KMWorld, the main reference point at global level in the Knowledge Management sector, included Cogito Discover on the “Trend Setting Products 2018” list, recognising the excellence and uniqueness of Expert System’s technological approach. The list includes the best technological solutions, in terms of creativity and utility, to support organisations in fundamental processes for business growth such as knowledge management and digital transformation.

A group of industry experts and market analysts that works together under the guidance of the KMWorld magazine, included Expert System in the “KMWorld 100 Companies that Matter in Knowledge Management” rankings, which lists the best solutions worldwide offered by companies operating in Knowledge Management. 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.

Forrester Research, an independent research company and global leader in the innovation and technology market, in the “The Forrester Wave™: AI-based Text Analytics Platforms, Q2 2018” report, attributed Expert System’s Cogito technology 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.

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. The simple monitoring of social channels is no longer 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. However, it is instead necessary to have more advanced solutions to acquire this knowledge. Expert System's Cogito platform can be integrated in business intelligence platforms to maximise its capacity, adding the intelligence needed to more accurately process relevant information and therefore offer more efficiency, quality and speed. The 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.

Lastly, Forrester Research rewards the constant commitment to the development of increasingly more advanced functions and the consolidated experience of Expert System in all the main market sectors by including it in the new "Now Tech: AI-Based Text Analytics Platforms, Q2 2018" report, 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 specialised in artificial intelligence technologies.

In the Artificial Intelligence sector, Expert System's leadership remains strong, as also demonstrated by the Company's active participation in global conferences and meetings regarding the business applications relating to artificial intelligence.

Expert System participated, with Intesa Sanpaolo, in Milan Digital Week, scheduled from 15 to 18 March. During a workshop dedicated to Artificial Intelligence, the potential of digital transformation and the value of the cognitive potential for companies were explained.

Expert System participated in the Canadian Reinsurance Conference (CRC) held in Toronto on 19 April, with Swiss Re. Each year, the CRC brings together industry experts and stakeholders to discuss the themes and trends affecting the insurance industry. In 2018, the focus of the event was "Reimagine Insurance" and there were a series of add-on sessions dedicated to various topics, such as, for example, underwriting of policies, predictive analyses and behavioural economics.

CyCon (International Conference on Cyber Conflict) 2018 is the international conference organised by NATO Cooperative Cyber Defence Centre of Excellence in Tallinn (Estonia), from 29 May to 1 June 2018. The event, in which Expert System participated, attracted more than 500 experts and decision makers from companies, military and government organisations, to discuss legal and technological matters, strategies and future prospects regarding the field of cyber defence. The speakers at the workshop entitled “The potential of Open Source Intelligence” included Andrea Melegari, SEVP Defense, Intelligence and Security of Expert System. During his speech, “Supercharge your OSINT with Artificial Intelligence”, Melegari will give a live demonstration on how artificial intelligence can support Cyber Threat Intelligence analysts.

As part of R2B (SMAU), the reference event in the innovation and digital sectors for Italian businesses and professionals, held on 8 June in Bologna, during the workshop entitled “Deep Learning and artificial Intelligence in companies. From data to value”, Expert System explained what differentiates Cogito from the other AI technologies based solely on the machine learning and the unique functions of Cogito cognitive technology, which exploits the most advanced artificial intelligence techniques by combining machine learning and deep learning with natural language processing algorithms and semantic understanding.

As part of the “Digital Transformation of Public Administration in Europe” seminar held in Brussels on 12 October by the European delegation of the Emilia-Romagna region and ERRIN (European Regions Research and Innovation Network), Expert System also gave a speech entitled “Automate 75% of your tasks with AI technologies” to explain how the Artificial Intelligence technologies support PA analysts and operators by automating the most repetitive tasks that require a greater amount of time. The initiative was aimed at tackling the current digital challenges of the public administration, by examining the resources to be put in place in order to increase the efficiency of the PA and stimulate its economic growth. In the process of digital transformation, to which the Emilia-Romagna region is heavily committed, the ability to find, organise and manage the information, impacts and radically transforms the way of working in public organisations.

As part of the international event of the Generali Group Generali “AI Summit”, held on 11 and 12 October, Expert System was one of the speakers from various countries to share the most

innovative technological projects - implemented in fraud, management of reimbursement requests and other business areas - which made it possible to significantly improve the operating efficiency within the Generali Group. Expert System, as sponsor of the event, participated, with an exhibition space and speech entitled "How Expert System AI Is Transforming Insurance", dedicated to the in-depth study of the value and the functioning of artificial intelligence technologies to support the automation of processes.

Expert System collaborated, in partnership with the "L'Orientale" University of Naples, for the implementation of the "Artificial intelligence against cyber bullying" project, which was presented on 8 November as part of the 32nd edition of Futuro Remoto, the Naples Festival of Science which, this year, was dedicated to "Re-Generation", understood as a vision of sustainable and shared development at the base of social innovation. The laboratory has drawn the attention of the public, particularly of students, to the phenomenon of cyber bullying, that is affecting young people increasingly more today and highlighted that the language used on a daily basis can cause offence and acts of cyber bullying. In between interactive experiences, science shows and scientific speed dating with the universities of Campania, visitors participated in meetings with representatives of the world of research and innovation.

APPROVAL OF THE CONSOLIDATED FINANCIAL STATEMENTS

The Consolidated Financial Statements as at 31/12/2018 were approved by the Board of Directors on 26 March 2019 and audited.

OPERATING PERFORMANCE

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

General financial performance

In 2018, the global growth rate stood at 3.7%, down slightly compared to the previous year (3.8%). This trend was affected by the signs of cyclical deterioration in many advanced and emerging economies; the prospects for global trade continue to worsen, after the slowdown in the first part

of 2018. The uncertainties regarding the economic situation had repercussions on the international financial markets, with a decline in long-term yields and a fall in share prices. The global outlook is also affected by the risks relating to a negative outcome of trade negotiations between the United States and China, the possible heightening of financial tensions in emerging countries and the manner in which Brexit will take place.

In the Eurozone, growth weakened. In November, industrial production fell significantly in Germany, France and Italy. Inflation, albeit remaining widely positive, fell due to the slowdown in the prices of energy commodities. The Governing Council of the ECB confirmed its intention to maintain significant monetary stimulus for a prolonged period.

An escalation of trade tensions remains a key source of risk looking forward. Further worsening could affect the perception of the global risk status, with unfavourable implications for growth, especially in consideration of high levels of public and private debt. These potential trigger factors certainly include a “no deal” scenario as regards the UK’s exit from the European Union and a greater than expected slowdown in the Chinese economy.

In Italy, where the growth rate of 2018 should reach a value of between 0.9% and 1%, the economic indicators show, especially in the second half of the year, a contraction in domestic demand, particularly in investments and, to a lesser extent, household spending. It is plausible to believe that the investment plans of companies operating in the industry and services are more contained as a result of both political and economic uncertainty and trade tensions.

The performance of Italian exports was still favourable in the second half of the year. However, the slowdown in global trade influenced the forward-looking assessments of companies regarding foreign orders. The current account balance remains broadly positive. Italy’s balance of payments continues to improve, falling to just over 3% of GDP at the end of September;

Overall inflation fell to 1.2% in December, especially due to the slowdown in energy commodity prices. The trend in the core inflation component, calculated by excluding the unprocessed food and energy commodities from the inflation calculation, remained weak (0.5%), while companies’ expectations over the trend in prices were revised downwards slightly.

Sovereign risk premiums decreased, as a result of the agreement between the Italian Government and the European Commission on budget programmes. The spread between Italian and German

government bonds in mid-January was around 260 basis points, 65 less than the highs of November, despite the overall conditions of the financial markets remaining tenser than those observed before the summer.

The credit supply conditions remained generally relaxed. The interest rates on loans are only slightly higher than in May, before the tensions arose on the Government bond market. However, looking forward, the persistently high level of sovereign yields and the cost of bank funding will continue to push the cost of credit up.

The GDP growth projections for 2019 (Bank of Italy and IMF) stood at 0.6% for Italy, down by 0.4% compared to previous assessments. The more unfavourable data on economic activity observed in the last part of 2018 contributed to this revision, which reduced the growth already acquired for the average of this year by 0.2 points; as did the downsizing of company investment plans, observed in the latest surveys, and the prospects of a slowdown in global trade. On the other hand, the effects on growth of the agreement reached by the Italian Government with the European Commission were moderately positive: the favourable impact of the decrease in long-term interest rates fully offsets that of the corrective measures applied to the manoeuvre.

Inflation would gradually increase from 1.0% in 2018 to 1.5%, taken as an average over the next two years, as a result of the increase in private salaries and the gradual alignment of inflation expectations. In addition to the global factors of uncertainty already mentioned, downside risks for growth are linked to the possibility of a fresh rise in sovereign yields, a faster deterioration of lending conditions in the private sector and a further slowdown in the propensity to invest on the part of businesses. However, a more marked return of tensions on yields of Government bonds could instead boost higher growth rates.

Operating performance of the Expert System Group

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

The Consolidated Financial Statements as at 31 December 2018, which includes the consolidated data of subsidiaries in the scope of consolidation as well as those of the parent company Expert System S.p.A., show the following (figures in €):

CONSOLIDATED EXPERT SYSTEM GROUP			Main Income Statement figures	EXPERT SYSTEM S.P.A.		
FY 2017	FY 2018	CHANGE		FY 2017	FY 2018	CHANGE
32,807,555	35,510,534	8%	Value of production	19,254,068	23,112,851	20%
1,046,323	4,637,981	343%	Gross operating profit (EBITDA)	3,309,453	6,813,100	106%
(6,496,033)	(3,228,551)	50%	Operating result (EBIT)	34,556	2,271,243	>1,000%
(8,339,127)	(3,780,886)	55%	Net profit (loss)	(1,071,519)	1,584,789	248%

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

Main Income Statement figures

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

The reclassified Income Statement of the Group is shown below (in €):

Consolidated Income Statement	31/12/2018	31/12/2017	Change
Sales revenues	28,697,152	26,136,230	2,560,922
Change in inventories	10,104	(527,733)	537,838
Own work capitalised	5,043,857	5,552,488	(508,631)
Sundry income	1,759,421	1,646,570	112,851
Value of operating production	35,510,534	32,807,555	2,702,980
Cost of operating materials and overheads	(12,305,363)	(12,451,604)	146,241

Value added	23,205,171	20,355,951	2,849,221
Personnel costs	(18,567,191)	(19,309,628)	742,437
EBITDA	4,637,981	1,046,323	3,591,658
Amortisation, depreciation and provisions	(7,866,532)	(7,542,356)	(324,176)
EBIT	(3,228,551)	(6,496,033)	3,267,482
Financial area result	97,296	(2,191,223)	2,288,520
Ordinary profit	(3,131,255)	(8,687,256)	5,556,001
Extraordinary area result	-	-	-
Pre-tax result	(3,131,255)	(8,687,256)	5,556,001
Income taxes	(649,631)	348,129	(997,760)
Net profit (loss)	(3,780,886)	(8,339,127)	4,558,241

The value of production was € 35,510,534 (€ 32,807,555 as at 31 December 2017), up 8%. Sales revenues totalled € 28,697,152, marking an increase of 10% compared to 31 December 2017 equal to € 26,136,230.

This positive result was achieved thanks to the increase in the sale of recurring licences and the solid performance both in Italy and abroad, where 56% of revenues were generated.

Commercial efforts were focused on sectors with the highest growth potential in order to reach strategic deals with larger customers, consisting of the biggest and most important companies, multinationals and government agencies. In the enterprise segment, where Expert System confirmed its strong presence in the banking and insurance sector, growth was concentrated in Italy, Spain and the United Kingdom, with the acquisition of important new orders. In the government sector, the increase in turnover was particularly significant in the USA, also thanks to

the progress of the major investments made in recent years, which began to produce clear effects. The foreign component of revenues is composed of 33% of European turnover, whereas the portion of US revenues accounts for 23%. The increase in turnover regarded sales achieved in Spain, which recorded an increase of 95%. A significant increase of 64% in revenues was also recorded in the UK, which, in particular, expresses the Company's achievements on the UK market in the insurance sector. Expert System continues to consolidate its positioning on the Italian market, which is characterised by a significant increase in turnover of 32%.

The positive trend in revenues was finally influenced by the growth in the recurring revenues component: the incidence of the sale of licences with a recurring nature increased considerably, which, in 2018 amounted to 72% of total licences (41% as at 31/12/2017), in line with the Company strategy aimed at stabilising revenues and cash flows over time.

With regard to the other items included in the value of production, the increase in fixed assets for own work capitalised amounted to € 5,043,857 as at 31 December 2018 (€ 5,552,488 as at 31 December 2017). The reduction in capitalisations compared to 2017 is interpreted with a view to focusing on Research and Development activities, by favouring certain key issues and markets.

EBITDA is positive for € 4,637,981 (€ 1,046,323 as at 31 December 2017). This significant increase in profitability was made possible not only thanks to the increase in the absolute value of sales revenues and sundry income, but also the strategies adopted with regard to the composition of revenues, the containment of the cost of operating materials and overheads and the reduction in personnel costs. The breakdown of revenues was 59% from licenses and maintenance, 40% from professional services with the remaining 1% from other services. The significance of the component relating to licence sales and maintenance ensures higher profits, as they are not directly associated with incurring variable costs. The improvement in profitability was achieved also thanks to the global reorganisation of the team dedicated to professional services, which made it possible to improve the subdivision of activities in different markets and vertical sectors, increasing efficiency.

Personnel costs amounted to € 18,567,191 as at 31 December 2018 compared to € 19,309,628 as at 31 December 2017, marking a 4% reduction, highlighting the solid results obtained thanks to

the process of human resources streamlining and rationalisation that took place in 2018, and which would have determined an even greater improvement in the EBITDA, up to € 5,330,544, if we consider that, in 2018, extraordinary indemnities of € 692,563 were paid.

Amortisation, depreciation and provisions of € 7,866,532 are mainly related to capitalised development costs, the amortisation of which amounts to € 4,542,441, and the amortisation of the consolidation difference resulting from the acquisitions of € 2,250,010.

EBIT was negative by € 3,228,551, an improvement of 50% compared to the negative value as at 31 December 2017 of € 6,496,033.

Financial management recorded a positive result of € 97,296 as at 31 December 2018 (negative € 2,191,223 as at 31 December 2017), due mainly to the favourable performance of the dollar, which affected the adjustment of the Financial Statements values into dollars, mostly concerning loans to subsidiaries.

The net loss came to € 3,780,886, an improvement of 55% compared to the loss of € 8,339,127 as at 31 December 2017.

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

Income Statement	Italy		EU & UK		USA		Group	
	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018	31/12/2017	31/12/2018
Revenues	12,847,066	15,594,692	5,889,262	6,644,726	6,872,169	6,467,840	25,608,496	28,707,256
Value of Production	17,062,343	19,564,692	8,607,391	9,115,960	7,137,820	6,829,883	32,807,555	35,510,534
EBITDA	1,963,641	3,651,902	(1,366,962)	464,284	449,643	521,795	1,046,322	4,637,980
Net profit (loss)	(2,620,522)	(736,299)	(2,905,123)	(1,076,501)	(586,185)	256,340	(8,339,128)	(3,780,886)

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

Profitability ratios	31/12/2018	31/12/2017
Net ROE	(0.2)	(0.3)
Gross ROE	(0.17)	(0.31)
ROI	(0.12)	(0.23)
ROS	(0.11)	(0.25)

Main Balance Sheet figures

The Group's reclassified Balance Sheet as at 31/12/2018, compared with that as at 31/12/2017, is shown below (in €):

Consolidated Balance Sheet	31/12/2018	31/12/2017	Change
Net intangible fixed assets	14,733,649	16,944,056	(2,210,407)
Net tangible fixed assets	715,423	791,868	(76,444)
Equity investments and other non-current financial assets	4,568,003	3,826,254	741,750
Fixed assets	20,017,076	21,562,177	(1,545,101)
Short-term financial assets	4,775,574	4,583,074	192,500
Inventories	109,312	99,207	10,104
Receivables due from customers	15,792,097	12,384,149	3,407,948
Other receivables	5,321,954	6,018,231	(696,276)
Accrued income and prepaid expenses	577,090	582,304	(5,214)

Short-term operating assets	26,576,027	23,666,965	2,909,062
Trade payables	(2,807,819)	(2,224,541)	(583,278)
Payments on account	(236,256)	(869,024)	632,768
Tax and social security payables	(1,827,535)	(1,829,052)	1,517
Other payables	(2,074,263)	(2,583,753)	509,490
Accrued expenses and deferred income	(3,883,738)	(3,023,288)	(860,450)
Short-term operating liabilities	(10,829,611)	(10,529,658)	(299,953)
Net working capital	15,746,416	13,137,307	2,609,109
Employee severance indemnity	(2,143,307)	(1,876,192)	(267,115)
Tax and social security payables			
Accrued expenses and deferred income after 12 months	(4,681,359)	(3,574,759)	(1,106,600)
Other medium and long-term liabilities	(1,456,729)	(1,183,398)	(273,331)
Medium-term liabilities	(8,281,396)	(6,634,350)	(1,647,046)
INVESTED CAPITAL	27,482,095	28,065,134	(583,038)
Shareholders' equity	(15,077,489)	(19,275,808)	4,198,320
Net medium/long-term financial position	(14,810,677)	(14,682,546)	(128,131)
Net short-term financial position	2,406,071	5,893,220	(3,487,149)
OWN EQUITY AND NET FINANCIAL DEBT	(27,482,095)	(28,065,135)	583,040

Fixed assets amounting to € 20,017,076 (€ 21,562,178 as at 31 December 2017) decreased by € 1,545,101, mainly due to the reduction in net intangible fixed assets of € 2,210,407, partially offset by the increase in equity investments and other non-current financial assets of € 741,750. The reduction in net intangible fixed assets is due to the combined effect of the decrease in amortisation and the increase mainly linked to the capitalisation of development costs.

The increase in equity investments and other non-current financial assets is mainly due to the increase of € 1,118,433 in the portion of receivables for research project grants due after 12 months, partly offset by a decrease of € 450,894 in the portion of prepaid taxes that can be re-absorbed after 12 months.

As regards current operations, there was an increase of € 2,909,062 in short-term operating assets, essentially due to the increase in receivables from customers of € 3,407,948, partially offset by the decrease in other receivables of € 696,276. The decrease in receivables due from others is mostly linked to the decline in the portion of receivables for research project grants due within the year. Short-term operating liabilities increased by € 299,953 due to the combined effect of the increase in trade payables (€ 583,278) and accrued expenses and deferred income (€ 860,450), against a decrease in payments on account (€ 632,768) and other payables (€ 509,490). The increase in accrued expenses and deferred income relates mostly to the increase in deferred income of € 737,433, in line with the increase in revenues compared to 2017. The decrease in payments on account is due to the lower value in 2018 of advances on grants received for projects financed with respect to 2017.

Net working capital is thus € 2,609,109 higher than in the previous year. The broadly positive value for net working capital enabled the Company to record a substantial balance in operations management, in which short-term assets and liabilities are compared.

Medium and long-term liabilities increased by € 1,647,046 mainly due to the increase of € 1,106,600 in accrued expenses and deferred income after 12 months, resulting from the increase in deferred income on grants received for financed projects.

The table below shows certain Financial Statements ratios relating to both (i) the methods of financing medium/long-term investments and to the (ii) composition of sources of financing:

Fixed asset funding ratios	31/12/2018	31/12/2017
Fixed asset/equity margin	(4,939,587)	(2,286,370)
Fixed asset/equity ratio	0.75	0.89
Fixed assets/liabilities and equity margin	13,471,127	15,455,767
Fixed assets/liabilities and equity ratio	1.67	1.72

Fixed assets/equity ratio of loans	31/12/2018	31/12/2017
Liabilities due within 12 months (A)	12,605,215	12,882,242
Liabilities due after 12 months (B)	18,410,714	17,742,137
Own equity (C)	15,077,489	19,275,808
Total debt ratio (A+B)/C	2.06	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' equity with fixed assets (as quantified in the table above), provide us with information on the company's capacity (or not) to finance all fixed assets with its own equity.

Shareholders' equity (A)	15,077,489
Net intangible fixed assets	14,733,649
Net tangible fixed assets	715,423
Equity investments and other non-current financial assets	4,568,003
Fixed assets (B)	20,017,076
Fixed asset/equity margin (A-B)	(4,939,587)
Fixed asset/equity ratio (A/B)	0.75

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)	15,077,489
Net medium/long-term financial position (B)	14,810,677
Other medium and long-term liabilities (C)	1,456,729
Employee severance indemnity (D)	2,143,307
Fixed assets (E)	20,017,076
Fixed assets/liabilities and equity margin (A + B + C + D - E)	13,471,127
Fixed assets/liabilities and equity ratio (A + B + C + D)/(E)	1.67

Main financial figures

The net financial position as at 31/12/2018 is as follows (in €):

Consolidated net financial position	31/12/2018	31/12/2017	Change
Bank deposits	7,880,364	11,221,661	(3,341,297)
Cash at bank and in hand	2,420	3,029	(609)
Cheques	0	10,000	(10,000)
Treasury shares			
Cash and cash equivalents and treasury shares	7,882,784	11,234,690	(3,351,906)

Current financial assets	182,629	34,402	148,226
Bonds and convertible bonds (within 12 months)			
Payables due to shareholders for loans (within 12 months)			
Payables due to banks (within 12 months)	(4,925,611)	(3,910,091)	(1,015,520)
Payables due to other lenders (within 12 months)	(733,731)	(1,465,781)	732,050
Advances for overseas payments			
Short-term portion of loans			
Financial receivables			
Short-term financial payables	(5,659,342)	(5,375,872)	(283,470)
Net short-term financial position	2,406,071	5,893,220	(3,487,149)
Bonds and convertible bonds (after 12 months)	(5,000,000)	(5,000,000)	0
Payables due to shareholders for loans (after 12 months)			
Payables due to banks (after 12 months)	(8,124,081)	(7,846,031)	(278,050)
Payables due to other lenders (after 12 months)	(1,686,596)	(1,836,515)	149,919
Advances for overseas payments			
Long-term portion of loans			
Financial receivables			
Net medium/long-term financial position	(14,810,677)	(14,682,546)	(128,131)
NET FINANCIAL POSITION	(12,404,606)	(8,789,326)	(3,615,280)

The figure relating to the worsening of the net financial position, which stands at € 12,404,606, nonetheless improving with respect to expectations, is mainly attributable to the growth in working capital of € 2,456,020.

THE ENVIRONMENT, PERSONNEL AND RISKS

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

The Environment

During the year there was no damage to the environment for which Expert System was ultimately declared guilty. During the 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 22/06/2018, and is valid until 21/06/2019.

Personnel

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

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

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

(art. 40, par. 1 and 2, point d-bis, of Italian Legislative Decree no. 127/91)

The main risks to which the Group is exposed are as follows:

Risks associated with trade receivable collection times: Expert System’s business activities are characterised by customer payment timing that cannot easily be determined and can occasionally be several months, also in relation to the type of assignment and the contingent general economic situation. Any lengthening of payment times by customers can lead to Expert System needing to finance the related current capital needs. Such situations can therefore have a negative effect on the Company’s income, equity and financial position. The above takes on further significance in consideration of the relevance of the trade receivables due from European public entities. These receivables can have longer and more difficult to predict collection times compared to receivables due from private customers. Although as part of its normal operations Expert System makes use of bank credit facilities, it cannot be ruled out at this time that there will be no positions difficult to collect.

Risks associated with the internationalisation: An appreciable portion of Expert System’s revenues is generated by sales outside its domestic market, in Europe and on the US market, which represent an important area to be monitored both on 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 31/12/2018	Average rate 2018
USD	1.1450	1.1810
CAN	1.5605	1.5294
GBP	0.89453	0.88471

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

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

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

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

The Company has signed the following derivative contracts:

a) 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 (31/12/2018): € 900,000;
- Amount of the liability hedged at the reference date (31/12/2018): € 900,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 14,928.05;
- Fair value at the start of the hedge: zero.

b) BANCO BPM

- OTC derivative contract “Maximum rate with fractioned premium” ID 790526 F 00104961 D 00038973 signed on 24/07/2017 and expiring on 31/12/2022;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 400,000;
- Liability hedged: BANCO BPM mortgage no. 03703813, originated for € 400,000, signed on 24/07/2017 and expiring on 31/12/2022;
- Notional amount at the reference date (31/12/2018): € 355,556;
- Amount of the liability hedged at the reference date (31/12/2018): € 355,556;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 3,368.61;
- Fair value at the start of the hedge: zero.

c) UNICREDIT

- OTC interest rate contract, the “Interest rate swap contract” deal no. 130618-0001 signed on 13/06/2018 and expiring on 30/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 2,000,000;
- Liability hedged: UNICREDIT mortgage no. 8031148, originated for € 2,000,000, signed on 13/06/2018 and expiring on 30/06/2023;
- Notional amount at the reference date (31/12/2018): € 1,800,000;
- Amount of the liability hedged at the reference date (31/12/2018): € 1,800,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 13,877.70;
- Fair value at the start of the hedge: zero.

d) UBI

- Derivative contract type: IRS no. 171206/2018, unlisted, signed on 24/10/2018, expiring on 24/10/2021;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;
- Liability hedged: UBI mortgage no. 1276551, for an original amount of € 1,000,000, signed on 24/10/2018 and expiring on 24/10/2021;
- Notional amount at the reference date (31/12/2018): € 1,000,000;
- Amount of the liability hedged at the reference date (31/12/2018): € 1,000,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 6,421.44;
- Fair value at the start of the hedge: zero.

Organisation and management model pursuant to Italian Legislative Decree no. 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 no. 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;
- cybercrimes and unlawful data processing;
- organised crime;
- falsification offences and industry and trade-related criminal offences;
- corporate offences;
- offences for the purpose of terrorism or overthrow of democratic order;
- criminal offences against the individual;
- market abuse offences;
- offences in violation of occupational health and safety regulations;
- anti-money laundering and receiving stolen goods;
- copyright violation offences;
- offences related to fraudulent statements to judicial authorities;
- environmental offences;
- offence of employing individuals without a valid residence/work permit.

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

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

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

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

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

DEVELOPMENT ACTIVITIES

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

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

- release of the new version of Cogito Intelligence Platform 5.0;
- updating of Cogito components for the analysis of Life Science contents;
- restructuring and expansion of the knowledge graph for the Arabic and Dutch languages;
- new developments on the creation of automatic text summaries.

Business outlook

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

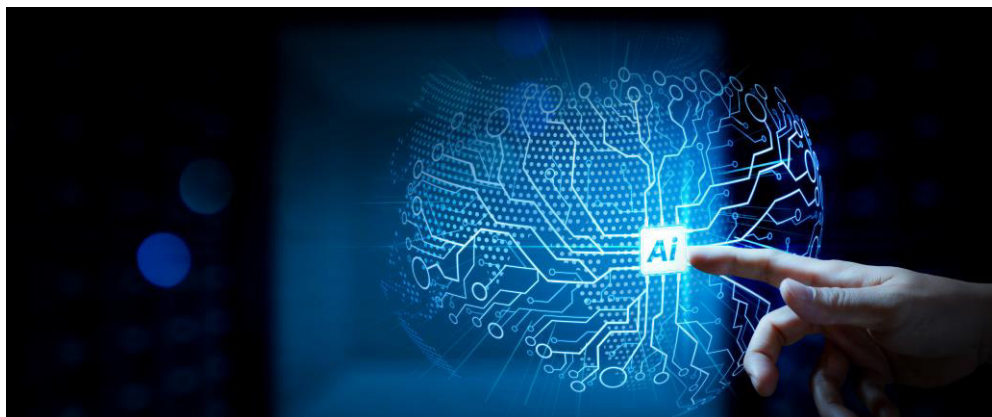
For 2019, the Company confirms the growth trend that has already characterised the last two years of company management. The results recorded in 2018 mark a significant moment of positive discontinuity in terms of profit margins, confirming the quality of the medium-long term strategies pursued by the Company in favour of the commercial expansion and the continuous improvement of the Cogito technological platform. In particular, the 2019 targets declared in the previous year are confirmed and supported by the significant maturing of the reference market, from new customers of international standing acquired and by the progressively evolving partnerships with “third parties”, as well as by the growing portion of the licence component of a “recurring” nature.

TREASURY SHARES

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

As at 31 December 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 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 31/12/2018



FORM AND CONTENT OF THE FINANCIAL STATEMENTS

The Consolidated Financial Statements as at 31/12/2018, comprising the Balance Sheet, Income Statement, Cash Flow Statement and Explanatory Notes, have been drawn up in compliance with the regulations set out in chapter III (articles 25 to 43) of Italian Legislative Decree no. 127/91 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.

and by the following documents:

- List of the companies included in the Consolidated Financial Statements and of the equity investments:
 - Companies consolidated line-by-line (pursuant to art. 26)
 - Other equity investments in subsidiaries and associates
- Statement of reconciliation between shareholders' equity and loss for the year of the parent company and the corresponding consolidated balances.

The amounts are expressed in units of Euro.

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

above.

Exceptions

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

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.

Scope of consolidation (*art. 38, par. 2, letter a, of Italian Legislative Decree no. 127/91*)

Consolidation and conversion principles (*articles 31 and 33 of Italian Legislative Decree no. 127/91*)

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

The Consolidated Financial Statements comprise the Financial Statements of Expert System S.p.A. and of the foreign companies over which it directly or indirectly exercises control as at 31/12/2018 (please refer to the table below for an exact definition of the scope of consolidation).

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 at 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 31/12/2018 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 € according to the following criteria:

- the assets and liabilities at the exchange rate in force as at 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 at 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 € using the exchange rates in force as at 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. It is specified that companies with closing dates other than the reference date of the Consolidated Financial Statements are not included in the scope of consolidation.

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

The reference date of the Consolidated Financial Statements, on 31/12/2018, coincides with the closing date of the Financial Statements of companies included in the scope of consolidation.

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

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

Company name	Registered offices	Currency	SE as at 31/12/2018	Share capital	Profit/(Loss) 31/12/2018	Group direct holding	Group indirect holding
Expert System Iberia S.L.U.	Barcelona (ESP)	€	(1,883,941)	1,103,000	(259,042)	100%	
Expert System France S.A.	Paris (FRA)	€	1,023,945	2,681,384	(1,203,036)	100%	
Expert System Deutschland GmbH	Heidelberg (DEU)	€	(960,241)	25,000	(1,009,004)		100%
Expert System Cogito Ltd.	London (UK)	£	(892,807)	1,000	(276,815)	100%	
Expert System USA Inc.	Alexandria (USA)	\$ USA	(5,215,179)	1	(53,906)	100%	
Expert System Enterprise Corp.	Rockville (USA)	\$ USA	(4,747,386)	200	(1,037,866)		100%
Expert System Canada – Semantic Technologies Inc.	Montreal (CAN)	\$ Can.	(150,289)	1,000	2,215		100%

List of other equity investments in subsidiaries and associates

Name	Italian city or Foreign country	Capital previous year in €	Profit (Loss) previous year in €	Shareholders' equity previous year in €	% held as at 31/12/2018
ADmantX S.p.A.	Naples	223,359	(248,062)	327,923	60.80%
ADmantX Inc.	West Hartford CT 06133-0024, USA	7,064	(2,486,176)	(54)	60.80%

CY4Gate S.r.l.	Rome	321,000	(885,544)	385,774	17.66%
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Changes in the scope of consolidation

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

MEASUREMENT CRITERIA

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

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

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

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

In particular, the following measurement criteria were adopted.

Intangible fixed assets

Intangible fixed assets are recognised, up to the recoverable value, at purchase or production cost, inclusive of any accessory charges, and are amortised systematically in relation to the residual possible useful life, possibly written down if as 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 advances to suppliers are recorded under the assets on the basis of the cost incurred and/or the payment on account made inclusive of the directly attributable costs.

Equity investments

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

Debt securities

Debt securities, if present, 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.

Furthermore, no account was taken of the "time factor" and receivables due after 12 months were

not discounted as the difference between the effective interest rate and the market rate is immaterial.

Cash and cash equivalents

Cash and cash equivalents as at 31/12/2018 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.

Provisions for risks and charges

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

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

The provision for taxation includes not only deferred tax expenses connected to the individual consolidated companies, but also the deferred tax expenses 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 31/12/2018, 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 the value at the due date is negligible, rendering the application of this criterion immaterial.

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

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

Criteria for the translation of amounts stated in foreign currency

Monetary assets and liabilities outstanding at the end of the 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 at 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 at the period end date in each country, taking into account any applicable exemptions and the tax credits possible due.

Prepaid and deferred taxes are calculated on the temporary differences between the value assigned to an asset or liability in the Financial Statements and the corresponding values

recognised for tax purposes, on the basis of the rates in force at the time the temporary differences will reverse. Prepaid taxes are only recognised if reasonable certainty exists with respect to their future recoverability.

CHANGES IN FIXED ASSETS

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

Intangible fixed assets

Intangible fixed assets amounted to € 14,733,649 (€ 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 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	39,227	5,082,980	279,750	-	-	-	-	5,401,956

Reclassifications	-	-	-	-	-	-	20,798	-
Decreases due to sales and disposals								
Amortisation in the year	443,363	4,542,441	23,936	729	2,566,607	585	-	7,577,660
Other changes	25,859	17,213	-	-	(22,552)	-	-	20,521
Total changes	(378,277)	523,326	255,814	(729)	(2,589,159)	(585)	(20,798)	(2,210,407)
Balance at year end								
Cost	2,296,745	33,989,943	1,038,677	19,052	14,357,634	38,464	-	51,740,515
Amortisation (Accumulated amortisation)	1,444,443	23,823,372	748,631	15,920	10,936,035	38,464	-	37,006,865
Book value as at 31/12/2018	852,302	10,166,571	290,046	3,132	3,421,599	-	-	14,733,649

Goodwill

Goodwill, recognised for € 3,421,599 net of amortisation, includes the following values:

- € 292,442, net of € 1,169,769 amortisation, deriving from the subsidiary Expert System Iberia S.L.U. following acquisition of the business unit of Isoco at the time Expert System Iberia S.L.U. was incorporated;
- € 901,697, net of € 732,803 amortisation, deriving from the goodwill recognised among assets of the subsidiary Expert System France S.A.;
- € 2,250,010 is the value deriving from replacing the book value of the parent company's equity investments in the consolidated companies with the corresponding net capitals at the time of acquisition, net of amortisation and depreciation applied on initial

consolidation. This value, generated at the time of netting the book value of the equity investments held by the parent company against the shareholders' equity of the consolidated subsidiaries, was recognised under intangible fixed assets and is amortised on a straight-line basis for 5 years.

In particular, the total of € 2,250,010 was calculated as follows:

- € 1,694,612 (net of € 6,778,449 total post-acquisition amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System France S.A.;
- € 27,578 (net of € 110,313 total post-acquisition amortisation) from the consolidation into the Expert System Group of the subsidiary Expert System Iberia S.L.U.;
- € 524,307 (net of amortisation of € 2,097,226) 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.

Information is provided below on the most significant changes during the year:

- the increase in item "Industrial patent and intellectual property rights" for € 279,750 is mainly linked to the capitalisation by Expert System Spa of the licence relating to the implementation of SAP ERP;
- the increase in "Development costs", totalling € 5,082,980, can be broken down as follows:
 - € 3,101,046 as the capitalisation carried out by the parent company of costs relating to employees and costs for external consultancy used in development, illustrated in the Explanatory Notes of Expert System S.p.A.;
 - € 518,562 as the development costs of the subsidiary Expert System Iberia S.L.U.;
 - € 1,072,223 as the development costs of the subsidiary Expert System France S.A.;
 - € 223,768 as the development costs of the subsidiary Expert System Usa Inc;
 - € 128,258 as the development costs of the subsidiary Expert System Enterprise Corp;
 - € 39,123 for the exchange rate adjustment as at 31/12/2018 of the development

costs of the subsidiary Expert System Enterprise Corp, capitalised in previous years.

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

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

	Balance at start of year	Increases in the year	Amortisation in the year	Other changes	Total changes	Balance at year end
establishment/article of association amendment costs	29,029		12,072		(12,072)	16,957
start-up costs	687,566	38,662	176,986	12,803	(151,127)	536,439
Admission to stock market listing	513,984	39,227	254,305		(215,078)	298,906
Total	1,230,579	77,889	443,363	12,803	(378,277)	852,302

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 € 715,423 (€ 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 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				79,095	79,095
Depreciation in the year	11,087	6,148		180,698	197,934
Other changes					-
Total changes	(11,087)	(6,148)		(101,603)	(118,839)
Balance at year end					
Cost	456,980	218,291	1,558	2,291,207	2,968,036
Depreciation (Accumulated depreciation)	105,330	213,297	1,558	1,932,427	2,252,612
Book value as at 31/12/2018	351,650	4,994	-	358,780	715,423

The item "Other assets", which includes residual balances which cannot be classified in the previous items, amounted to € 358,780 (€ 417,988 in the previous year), and is made up as follows:

	Balance at start of year	Changes in the year	Balance at year end
Office furniture	126,044	(17,732)	108,312
Electronic office machines	233,033	(27,942)	205,091
Motor vehicles	2,003	(2,003)	0
Ordinary office machines	13,625	(5,325)	8,300
Signage	3,150	(540)	2,610
Mobile phones	6,400	2,026	8,426
Office furniture and fittings	33,733	(7,692)	26,041
Total	417,988	(59,208)	358,780

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

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

Other securities classed as non-current financial assets amounted to € 85,703 (€ 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)	(249)
Increases due to purchases				

Book value as at 31/12/2018	251,266	57,005	308,271	85,703
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As regards equity investments in associates, these refer to the investment in the associate CY4Gate S.r.l. The relevant information is reported below:

Name	Italian city or Foreign country	Tax code (for Italian companies)	Share capital in €	Profit (Loss) previous year in €	Shareholders' equity in €	Share held in €	Share held in %	Book value or corresponding receivable
CY4Gate S.r.l.	Rome	13129151000	321,000	(885,544)	385,774	56,704	17.66%	251,266
Total								251,266

With reference to the equity investment in the associate CY4Gate S.r.l., on 02/02/2018, as agreed before the Notary Elena Signori with Offices in Formello (Rome), the associate resolved, pursuant to art. 2482 bis of the Italian Civil Code, the reduction of the share capital from € 300,000 to € 231,443.52, subsequently establishing to increase said share capital by € 89,556.48 in total, to € 321,000, against payment and with the issue of new equity investments to be offered to the shareholders proportionally to the stakes they already hold pursuant to art. 2481-bis first paragraph of the Italian Civil Code, with premium reserve of € 3,910,443.52.

As Expert System S.p.A. waived the subscription right granted to it on the capital increase resolved, the stake has decreased to 17.66%.

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 amounted to € 811,567 (€ 733,823 in the previous year). These refer to receivables due from the associate CY4Gate S.r.l. and the subsidiary ADmantX S.p.A..

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

	Opening nominal amount	Opening bad debt provision	Opening net value	Allocations to the bad debt provision	Use of bad debt provision	(Write-downs)/Write-backs	Other increases/(decreases)	Closing nominal amount	Closing bad debt provision	Closing net value
Due from subsidiaries - within 12 months	-	-	-	-	-	-	100,012	100,012	-	100,012
Due from associates - after 12 months	733,823	-	733,823	-	-	-	(343,823)	390,000	-	390,000
Due from associates - within 12 months	-	-	-	-	-	-	321,555	321,555	-	321,555
Total	733,823	-	733,823	-	-	-	77,744	811,567	-	811,567

SIGNIFICANT CHANGES IN OTHER ASSET AND LIABILITY ITEMS

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

Current assets - Inventories

Inventories included under current assets amounted to € 109,312 (€ 99,207 in the previous year).

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

	Balance at start of year	Change during the year	Balance at year end
Raw materials and consumables	-	-	-
Contract work in progress	99,207	10,104	109,312
Total inventories	99,207	10,104	109,312

Current assets - Receivables

Receivables included under current assets amounted to € 24,476,513 (€ 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	16,052,871	-	16,052,871	(260,774)	15,792,097
Due from subsidiaries	67,965	26,787	94,752	-	94,752
Due from associates	13,420	-	13,420	-	13,420
Tax receivables	1,087,020	-	1,087,020	-	1,087,020
Prepaid taxes	575,345	1,226,896	1,802,241	-	1,802,241

Other receivables	3,578,204	2,108,779	5,686,983	-	5,686,983
Total	21,374,825	3,362,462	24,737,287	(260,774)	24,476,513

Receivables due from subsidiaries, amounting to € 94,752, are amounts due from the subsidiary ADmantX S.p.A., excluded from the scope of consolidation as explained in the introduction.

Receivables due from associates, amounting to € 13,420, are amounts due from the company Cy4Gate S.r.l.

Receivables due from others totalled € 5,686,983 (€ 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	150,945	398,506
Payments on account	159,208	(24,295)	134,913
Receivables for research project grants	4,092,614	466,688	4,559,302
Receivables due from factoring companies	423,990	(12,149)	411,841
Other receivables	126,713	55,708	182,421
Total	5,050,086	636,897	5,686,983

Details of receivables for development project grants within and after 12 months are presented below by company:

	Expert System S.p.A.	Expert System Iberia S.L.U.	Expert System France S.A.
Receivables for project grants within 12 months	1,756,789	197,940	558,673

Receivables for project grants after 12 months	1,349,247	306,337	390,316
Total	3,106,036	504,277	948,989

Breakdown of grant receivables by project

Expert System S.p.A.	Receivables due within 12 months	Receivables due after 12 months
Horizon 2020	284,570	426,125
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	619,696	-
POR FESR Lazio	-	243,648
European Project - Tender ISEC	178,478	-
Horizon 2020 - EIT Digital	177,187	-
POR FESR Apiae	-	257,285
Mise (Ministry of Economic Development) - FCS	-	307,189
Total	1,756,789	1,349,247

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

EVEREST	82,615	-
K-DRIVE	-	92,306
LETSCROWD	-	54,938
TRIVALENT	-	27,039
COINFORM	-	62,304
XLIME	-	69,750
XLIME-ES	55,475	-
Total	197,940	306,337

Expert System France S.A.	Receivables due within 12 months	Receivables due after 12 months
PRESIDIO	197,680	-
Reference value	8,636	-
COMBI	75	-
ADR PRISME	101	-
ITRAC	126,783	-
E-Compliance	815	-
Faucon	-	185,111
Pythia	56,688	-
Social Truth	167,895	205,205

Total	558,673	390,316
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Current assets - Financial assets

Current financial assets amounted to € 4,958,203 (€ 4,617,476 in the previous year).

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

	Balance at start of year	Changes in the year	Balance at year end
Current equity investments in subsidiaries	4,583,074	192,500	4,775,574
Other current equity investments	8,400	-	8,400
Other current securities	26,002	148,227	174,229
Total	4,617,476	340,727	4,958,203

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

The change in “Current equity investments in subsidiaries”, equal to € 192,500, is attributable to the contribution, on 03/10/2018 in favour of ADmantX S.p.A., of an amount paid to the future share capital increase account, with the intention of making available to the investee company the necessary financial resources to continue its business and attain its strategic objectives.

The breakdown of equity investments in subsidiaries recognised as current assets, owned directly or through a trust company or an intermediary

Name	Italian city or Foreign country	Tax code (for Italian companies)	Share capital in €	Profit (Loss) previous year in €	Shareholders' equity in €	Share held in €	Share held in %	Book value or corresponding receivable
ADmantX S.p.A.	Naples	02634571208	223,359	(248,062)	327,923	135,802	60.80%	4,775,574
Total								4,775,574

The value of the equity investment in ADmantX S.p.A. was not written down on the basis of the appraisal, carried out in accordance with art. 2343-ter, par. 2 of the Italian Civil Code by Mauro Zavani, listed in the Ordine dei Dottori Commercialisti ed Esperti Contabili (Association of Chartered and Qualified Accountants) of Massa Carrara, an appraisal which valued the company ADmantX S.p.A. at a total of € 11,072,000. This appraisal was definitely enhanced by the share capital increase of the subsidiary ADmantX S.p.A., resolved by the extraordinary shareholders' meeting of 04/08/2015. That occasion saw the entry of new investors in the shareholding structure, for a total outlay of € 2,160,000, of which € 2,132,633 share premium, allowing the new shareholders to become owners of an aggregate 12.6% of the new share capital, therefore now estimated at € 17,160,000. In respect of said valuation, confirmed by the aforementioned share capital increase, the equity investment in ADmantX S.p.A. was not written down as it is not below the fair value.

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

Company	Italian city or Foreign country	Share capital	Shareholders' equity	Profit/(Loss) 2017	Share held in %
ADmantX Inc.	West Hartford CT 06133-0024, USA	€ 7,064	(€ 2,486,176)	(€ 54)	60.80%

Other securities for € 174,229 held by Expert System Deutschland GMBH, were classified as sums intended for temporary investments.

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

The table below shows the breakdown of receivables by maturity:

	Balance at start of year	Change during the year	Balance at year end	Portion due within 12 months	Portion due after 12 months	Of which with a residual duration of over 5 years
Current receivables due from customers	12,384,149	3,407,948	15,792,097	15,792,097	-	-
Current receivables due from subsidiaries	60,768	33,984	94,752	67,965	26,787	-
Current receivables due from associates	34,831	(21,411)	13,420	13,420	-	-
Current tax receivables	1,428,438	(341,418)	1,087,020	1,087,020	-	-
Current prepaid tax assets	2,142,181	(339,940)	1,802,241	575,345	1,226,896	-
Other current receivables	5,050,086	636,897	5,686,983	3,578,204	2,108,779	-
Total	21,100,454	3,376,059	24,476,513	21,114,051	3,362,462	-

Receivables due from customers - Breakdown by geographic area

	Receivables due from customers	Invoices to be issued	CN to be issued	Other trade receivables	Total
Italian customers	4,668,971	3,003,271	-	-	7,672,242
EU customers	2,585,373	564,357	-	-	3,149,730

Non-EU customers	4,590,262	640,637	-	-	5,230,899
Total	11,844,606	4,208,265	-	-	16,052,871
Bad debt provision	(260,774)	-	-	-	(260,774)
Total	11,583,832	4,208,265	-	-	15,792,097

Current assets - Cash and cash equivalents

Cash and cash equivalents included under current assets amounted to € 7,882,784 (€ 11,234,690 in the previous year).

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

	Balance at start of year	Change during the year	Balance at year end
Bank and postal deposits	11,221,661	(3,341,297)	7,880,364
Cash at bank and in hand	3,029	(609)	2,420
Cheques	10,000	(10,000)	-
Total	11,234,690	(3,351,906)	7,882,784

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

Accrued income and prepaid expenses amounted to € 577,090 (€ 582,304 in the previous year).

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

	Balance at start of year	Change during the year	Balance at year end
Prepaid expenses	582,304	(5,214)	577,090
Accrued income	-	-	-

Total accrued income and prepaid expenses	582,304	(5,214)	577,090
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Breakdown of prepaid expenses:

	Deferrals within 12 months	Deferrals after 12 months	Deferrals after 5 years
Personnel recruitment and training	20,190	1,750	-
Rent and leases payable	107,750	-	-
Insurance	20,279	-	-
Fees	26,443	40,182	429
Consultancy	26,629	23,984	-
Maintenance	10,143	328	-
Rentals	22,834	-	-
Sundry services	47,037	458	241
Software	66,867	10,639	-
Internet costs	58,414	15	-
Royalties	-	-	-
Hardware	60,445	-	-
Public relations costs	18,500	-	-
Other deferrals	12,981	245	307
Total	498,512	77,601	977

Shareholders' equity

The shareholders' equity existing at the end of the year amounted to € 15,077,489 (€ 19,275,808 in the previous year).

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

	Balance at start of year	Other allocations	Increases	Decreases	Other changes	Profit (loss) for the year	Balance at year end
Share capital	357,207	-	1,383	-	-		358,590
Share premium reserve	35,980,236	-	167,506	(1,071,519)	-		35,076,223
Legal reserve	43,899	-	-	-	-		43,899
Other reserves							
Extraordinary reserve	1,493,354	-	3,595	(302,581)	-		1,194,368
Merger surplus reserve	376,622	-	-	-	-		376,622
Reserve for unrealised exchange gains	180,049	-	-	-	-		180,049
Miscellaneous other reserves	823,334	-	-	(94,113)	-		729,221
Total other reserves	2,873,359	-	3,595	(396,693)	-		2,480,260
Cash flow hedging reserve	(20,924)	-	-	(17,672)	-		(38,596)

Retained earnings (losses)	(11,325,963)		(8,339,127)	-	762,275		(18,902,814)
Profit (loss) for the year	(8,339,127)	8,339,127				(3,780,886)	(3,780,886)
Negative reserve for treasury shares in portfolio	(292,879)	-	133,692	-	-		(159,187)
Total Group shareholders' equity	19,275,808	8,339,127	(8,200,456)	(1,318,378)	762,275	(3,780,886)	15,077,489
Shareholders' equity pertaining to minority interests							
Total consolidated shareholders' equity	19,275,808	8,339,127	(8,200,456)	(1,318,378)	762,275	(3,780,886)	15,077,489

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	409,844
Translation reserve	178,378
Total	729,221

Expected cash flow hedging reserve

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

	Expected cash flow hedging reserve
Balance at start of year	(20,924)
Changes in the year	(17,672)
Change in fair value	-
Balance at year end	(38,596)

Provisions for risks and charges

Provisions for risks and charges are recorded under liabilities for a total of € 1,053,741 (€ 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 taxation, including deferred	Derivative financial instruments - liabilities	Other provisions	Total provisions for risks and charges
Balance at start of year	4,341	872,557	20,924	50,595	948,418
Provision in the year		122,483		583	
Use in the year				(35,414)	
Other changes			17,672		
Balance at year end	4,341	995,040	38,596	15,764	1,053,741

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.

The increases relate to allocations in the year. The decreases refer to uses in the year.

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 € 2,143,307 (€ 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 year	1,876,192
Changes in the year	

Provision in the year	444,780
Use in the year	86,215
Other changes	(91,450)
Total changes	267,115
Balance at year end	2,143,307

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 € 27,818,880 (€ 27,799,769 in the previous year).

The breakdown of the individual items is as follows:

	Balance at start of year	Changes in the year	Balance at year end
Bonds	5,000,000	-	5,000,000
Payables due to shareholders for loans	-	-	-
Payables due to banks	11,756,122	1,293,570	13,049,692
Payables due to other lenders	3,302,296	(881,969)	2,420,327
Payments on account	1,104,005	(464,761)	639,244

Trade payables	2,224,541	583,278	2,807,819
Tax payables	1,130,313	124,336	1,254,649
Payables due to social security institutions	698,739	(125,853)	572,886
Other payables	2,583,753	(509,490)	2,074,263
Total	27,799,769	19,111	27,818,880

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

The accounting policies adopted by the Company were:

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

Payables are therefore recognised at nominal value.

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

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

Amount	Nominal amount of € 5,000,000.00
Issue date	31/07/2015

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

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

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

	Balance at start of year	Change during the year	Balance at year end	Portion due within 12 months	Portion due after 12 months	Of which with a duration of over 5 years
Bonds	5,000,000	-	5,000,000	-	5,000,000	1,363,600
Payables due to shareholders for loans	-	-	-	-	-	-
Payables due to banks	11,756,122	1,293,570	13,049,692	4,925,611	8,124,081	132,362
Payables due to other lenders	3,302,296	(881,969)	2,420,327	733,731	1,686,596	-
Payments on account	1,104,005	(464,761)	639,244	236,256	402,988	-
Trade payables	2,224,541	583,278	2,807,819	2,807,819	-	-
Tax payables	1,130,313	124,336	1,254,649	1,254,649	-	-

Payables due to social security institutions	698,739	(125,853)	572,886	572,886	-	-
Other payables	2,583,753	(509,490)	2,074,263	2,074,263	-	-
Total payables	27,799,769	19,111	27,818,880	12,605,215	15,213,665	1,495,962

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

The information concerning collaterals on company assets is presented below:

	Payables backed by mortgages	Payables not backed by collaterals	Total
Bonds	-	5,000,000	5,000,000
Payables due to banks	250,400	12,799,292	13,049,692
Payables due to other lenders	-	2,420,327	2,420,327
Payments on account	-	639,244	639,244
Trade payables	-	2,807,819	2,807,819
Tax payables	-	1,254,649	1,254,649
Payables due to social security institutions	-	572,886	572,886
Other payables	-	2,074,263	2,074,263
Total payables	250,400	27,568,480	27,818,880

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

Accrued expenses and deferred income are recorded under liabilities for a total of € 8,565,098 (€ 6,598,047 in the previous year).

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

	Balance at start of year	Change during the year	Balance at year end
Accrued expenses	264,117	(111,646)	152,471
Deferred income	6,333,930	2,078,697	8,412,627
Total accrued expenses and deferred income	6,598,047	1,967,051	8,565,098

Breakdown of deferred income:

	Due within 12 months	Due after 12 months	Due after 5 years
Hosting fees	2,821	-	-
Research project grants	709,158	3,728,888	-
Tax credits	523,044	952,310	-
Licences	178,912	-	-
Maintenance	1,990,720	161	-
Provision of services	265,145	-	-
Other deferrals	61,468	-	-
Total	3,731,268	4,681,359	-

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

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

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

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

As at 31/12/2018, no accruals and deferrals had a duration of more than five years.

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

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

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

INFORMATION ON THE INCOME STATEMENT

Revenue recognition

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

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

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

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

Value of production

Description	Previous period	Current period	Change
Sales and service revenues	26,136,230	28,697,152	2,560,922
Changes in contract work in progress	(527,733)	10,104	537,837
Own work capitalised	5,552,488	5,043,857	(508,631)
Other revenues and income	1,646,570	1,759,421	112,851
Total	32,807,555	35,510,534	2,702,979

Sales and service revenues by geographic area

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

The Income Statement figures as at 31/12/2018 are expressed in comparison with those as at 31/12/2017, as envisaged in the OICs for interim financial reports.

The breakdown of revenues by geographical area is shown below:

Geographic area	Current year balance
Revenues – Italy	12,662,014
EU revenues	5,722,676
Non-EU revenues	10,312,462
Total	28,697,152

Other revenues and income

Other revenues and income are recorded under value of production in the Income Statement for a total of € 1,759,421 (€ 1,646,570 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Tax credits	425,885	523,037	97,152
Capital grants	779,126	890,634	111,508
Operating grants	46,402	2,000	(44,402)
Sundry reimbursements	119,621	161,366	41,745
Other revenues	275,536	165,457	(110,079)
Contingent assets	-	16,927	16,927
Total	1,646,570	1,759,421	112,851

Costs for services

Costs for services are recorded under costs of production in the Income Statement for a total of € 8,778,559 (€ 8,915,207 in the previous year).

The breakdown of the individual items is as follows:

	Previous year balance	Current year balance	Change
Utilities	294,384	273,534	(20,850)
Maintenance and repair costs	149,104	94,079	(55,025)
Consultancy	4,857,536	4,818,953	(38,583)
Directors' fees	1,235,212	996,947	(238,265)
Statutory and Independent Auditors' fees	21,163	22,282	1,119
Commission expense	50,742	25,143	(25,599)

Advertising	314,566	410,963	96,397
Personnel services	425,368	314,646	(110,722)
Trade fairs and corporate events	150,894	184,684	33,790
Jointly owned property expenses	33,606	116,139	82,533
Non-financial services from finance companies and banks	56,583	49,506	(7,077)
Insurance	181,601	114,705	(66,896)
Entertainment costs	80,896	110,841	29,945
Travel and accommodation costs	830,436	1,023,407	192,971
Rental costs	116,277	113,326	(2,951)
Other	116,840	109,404	(7,436)
Total	8,915,207	8,778,559	(136,649)

Note that the items comprising costs for services as at 31 December 2018 were subject to a more precise disclosure compared to the previous period. For this reason it was necessary to adjust the corresponding items of the Financial Statements as at 31 December 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 € 1,411,278 (€ 1,673,817 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
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Rent and leases payable	822,015	799,126	(22,889)
Cloud rental	292,764	219,097	(73,667)
Truck rental	67	-	(67)
Other vehicle rental	185,673	190,840	5,168
Hardware rental	21,100	8,285	(12,815)
Royalties	352,199	193,930	(158,269)
Total	1,673,817	1,411,278	(262,539)

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 € 295,548 (€ 248,162 in the previous year).

The breakdown of the individual items is as follows:

	Previous period	Current period	Change
Taxes and duties	128,989	105,967	(23,022)
Losses on receivables	55,070	509	(54,561)
Magazine and newspaper subscriptions	7,348	6,499	(849)
Other operating expenses	56,755	182,573	125,818

Total	248,162	295,548	47,386
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Interest and other financial expenses (*art. 38, par. 1, letter l, of Italian Legislative Decree no. 127/91*)

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

	Previous period	Current period	Change
Interest on bond payables	200,000	200,000	-
Interest on mortgages	205,937	176,359	(29,578)
Interest on factoring	48,756	51,505	2,749
Surety commissions	22,879	7,138	(15,741)
Overdraft fees	18,631	22,019	3,388
Loan fees	5,786	8,169	2,383
Other financial expenses	11,791	21,662	9,871
Total	513,781	486,852	(26,929)

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	6,661	-	153,158	-	-	159,819
IRAP	180,515	-	-	-	-	180,515
Prepaid taxes	-	-	-	309,297	-	309,297
Total	187,176	-	153,158	309,297	-	649,631

REVENUES OR COSTS OF EXCEPTIONAL SIZE OR INCIDENCE

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

No data to report.

OTHER INFORMATION

Statement of reconciliation between shareholders' equity and result for the 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	38,754,162	1,584,789
Adjusted balances as per the Financial Statements of the parent company	38,754,162	1,584,789
Effect of the valuation of equity investments using the line-by-line method		
- Elimination of the book values of the investees	(16,043,407)	906,920
- Shareholders' equities of the investees	(1,267,574)	
- Investees' profit (loss) for the year	(4,558,388)	(4,558,388)

- Amortisation of consolidation differences	(1,722,190)	(1,722,190)
Fixed assets sale adjustments	(84,117)	42,058
Other adjustments	(995)	(34,075)
Total adjustments	(23,676,672)	(5,365,675)
Group shareholders' equity and result for the year	15,077,490	(3,780,886)
Consolidated shareholders' equity and result for the year	15,077,490	(3,780,886)

Breakdown of personnel

The information concerning personnel is presented below, pursuant to art. 38, par. 1, letter n) of Italian Legislative Decree no. 127/1991:

	Average no. in current year	Average no. in previous year
Senior Managers	-	-
Middle management	47	63
Employees	167	168
Total	214	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, par. 1, letter o) of Italian Legislative Decree no. 127/1991, is presented below:

	Directors	Statutory Auditors
Fee	996,947	14,560

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

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

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

The Company has signed the following derivative contracts:

a) 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 (31/12/2018): € 900,000;
- Amount of the liability hedged at the reference date (31/12/2018): € 900,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 14,928.05;
- Fair value at the start of the hedge: zero.

b) BANCO BPM

- OTC derivative contract "Maximum rate with fractioned premium" ID 790526 F 00104961 D 00038973 signed on 24/07/2017 and expiring on 31/12/2022;
- Purpose: hedging;
- Transaction with no principal swap;

- Notional amount of the contract: € 400,000;
- Liability hedged: BANCO BPM mortgage no. 03703813, originated for € 400,000, signed on 24/07/2017 and expiring on 31/12/2022;
- Notional amount at the reference date (31/12/2018): € 355,556;
- Amount of the liability hedged at the reference date (31/12/2018): € 355,556;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 3,368.61;
- Fair value at the start of the hedge: zero.

c) UNICREDIT

- OTC interest rate contract, the “Interest rate swap contract” deal no. 130618-0001 signed on 13/06/2018 and expiring on 30/06/2023;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 2,000,000;
- Liability hedged: UNICREDIT mortgage no. 8031148, originated for € 2,000,000, signed on 13/06/2018 and expiring on 30/06/2023;
- Notional amount at the reference date (31/12/2018): € 1,800,000;
- Amount of the liability hedged at the reference date (31/12/2018): € 1,800,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 13,877.70;
- Fair value at the start of the hedge: zero.

d) UBI

- Derivative contract type: IRS no. 171206/2018, unlisted, signed on 24/10/2018, expiring on 24/10/2021;
- Purpose: hedging;
- Transaction with no principal swap;
- Notional amount of the contract: € 1,000,000;

- Liability hedged: UBI mortgage no. 1276551, for an original amount of € 1,000,000, signed on 24/10/2018 and expiring on 24/10/2021;
- Notional amount at the reference date (31/12/2018): € 1,000,000;
- Amount of the liability hedged at the reference date (31/12/2018): € 1,000,000;
- Underlying financial risk: interest rate risk;
- Fair value of the derivative contract: negative mark to model fair value of € 6,421.44;
- Fair value at the start of the hedge: zero.

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

No data to report.

Off-Balance Sheet commitments, guarantees and potential liabilities

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

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

	Opening balance	Closing balance	Change
SURETIES	2,564,869	2,109,432	(455,437)
- to subsidiaries	600,000	600,000	-
- to other companies	1,964,869	1,509,432	(455,437)

These are surety guarantees to banks for € 1,015,032, which refer for € 500,000 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 amount of the guarantee is equal to what Expert System undertook to pay within 3 years after the acquisition date. Note that this guarantee was extinguished on 10/01/2019 following the full payment of the guaranteed creditors by Expert System S.p.A. The remaining € 1,094,400 are formed:

- for € 600,000 of the specific surety guarantee regarding an unsecured loan of the same amount taken out in 2017, issued in favour of the subsidiary ADmantX S.p.A. (residual debt of € 380,992);
- € 494,400 is made up of the surety undertaken in favour of the investee company Okkam S.r.l.

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

Information concerning transactions with related parties is provided below.

Trade and financial transactions

Company	Financial payables	Financial receivables	Trade receivables	Trade payables	Sales	Purchases
ADMANTX SPA	-	126,799	67,965	-	85,722	-
EXPERT SYSTEM USA INC	-	5,071,749	1,054,432	7,860	709,749	-
EXPERT SYSTEM COGITO LTD	-	697,351	822,716	40,315	575,258	167,635
CY4GATE SRL	-	711,555	13,420	-	114,084	-
EXPERT SYSTEM IBERIA S.L.U.	-	3,663,261	1,062,390	19,386	560,820	20,736
EXPERT SYSTEM FRANCE SA	-	1,696,927	564,106	164,012	683,306	164,012
EXPERT SYSTEM ENTERPRISE CORP	-	1,593,602	2,427,993	35,145	1,042,802	34,578
EXPERT SYSTEM DEUTSCHLAND GMBH	-	332,603	57,792	-	152,542	-
EXPERT SYSTEM CANADA Semantic Technologies Inc	-	-	16,322	-	16,322	-
Total	-	13,893,847	6,087,135	266,718	3,940,605	386,961

Trade transactions

Company	Payables	Receivables	Guarantees	Commitments	Costs	Revenues
ADMANTX SPA	-	67,965	-	-	-	85,709
EXPERT SYSTEM USA INC	7,860	1,054,432	-	-	-	637,311
EXPERT SYSTEM COGITO LTD	40,315	822,716	-	-	167,635	561,202
CY4GATE SRL	-	13,420	-	-	-	86,690
EXPERT SYSTEM IBERIA S.L.U.	19,386	1,062,390	-	-	20,736	506,257
EXPERT SYSTEM FRANCE SA	164,012	564,106	-	-	164,012	659,741
EXPERT SYSTEM ENTERPRISE CORP	35,145	2,427,993	-	-	34,578	1,019,760
EXPERT SYSTEM DEUTSCHLAND GMBH	-	57,792	-	-	-	147,567
EXPERT SYSTEM CANADA Semantic Technologies Inc	-	16,322	-	-	-	16,322
Total	266,718	6,087,135	-	-	386,961	3,722,368

Financial transactions

Company	Payables	Receivables	Guarantees	Commitments	Expenses	Income
ADMANTX SPA	-	126,799	-	-	-	12
EXPERT SYSTEM USA INC	-	5,071,749	-	-	-	72,439
EXPERT SYSTEM COGITO LTD	-	697,351	-	-	-	14,056

CY4GATE SRL	-	711,555	-	-	-	25,584
EXPERT SYSTEM IBERIA S.L.U.	-	3,663,261	-	-	-	54,563
EXPERT SYSTEM FRANCE SA	-	1,696,927	-	-	-	23,565
EXPERT SYSTEM ENTERPRISE CORP	-	1,593,602	-	-	-	23,042
EXPERT SYSTEM DEUTSCHLAND GMBH	-	332,603	-	-	-	4,975
EXPERT SYSTEM CANADA Semantic Technologies Inc	-	-	-	-	-	-
Total	-	13,893,847	-	-	-	218,236

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

With the subsidiary ADmantX S.p.A.:

Sales

- Lease agreement for property in Naples, Via Nuova Poggio Reale, Centro Polifunzionale Inail, where the Company has its registered offices: yearly lease instalment of € 5,083;
- Sub-letting agreement for local office in Modena, Via Virgilio 56/Q: yearly lease instalment of € 3,677;
- Sub-letting agreement for local office in Milan, Piazza Cavour: half-yearly lease instalment of € 6,000;
- Services contract relating to accounting support, company economic-financial consultancy, secretarial and general services:
 - Fee for accounting support and business consultancy for € 24,000;
 - Fee for secretary activities for € 1,200;

- Fee for general services (telephone, cleaning services and materials, security, electricity, stationery, management software maintenance): lump-sum payment for € 6,761 calculated as 4.15% of the costs incurred by Expert System S.p.A.
- Sale of licences for € 30,000;
- Reimbursement of insurance expenses for € 1,338;
- Contract for the provision of data scientist services for € 7,526;
- Granting of a loan of € 100,000, bearing interest in 2018 for € 12.

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

- C.II.2 Receivables due from subsidiaries

The Income Statement items are reclassified within the following accounts:

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

With the subsidiary Expert System USA Inc.:

- Loan granted to the subsidiary for € 4,922,692, bearing interest in 2018 for € 72,439.

Sales

- Granting of licences for € 551,210;
- Provision of professional services for € 30,442;
- Maintenance fees for € 52,402;
- Reimbursement of other expenses for € 3,257.

With the subsidiary Expert System Cogito Ltd.:

- Loan granted to the subsidiary for € 670,721, bearing interest in 2018 for € 14,056.

Sales

- Provision of professional services for € 257,537;
- Granting of licences for € 214,145;
- Reimbursement of other expenses for € 87,927;
- Maintenance fees for € 1,593.

Purchases

- Costs for sundry reimbursements for € 167,635.

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

- Loan granted to the subsidiary for € 3,466,000, bearing interest in 2018 for € 54,563.

Sales

- Provision of professional services for € 151,889;
- Granting of licences for € 322,365;
- Reimbursement of other expenses for € 21,486;
- Maintenance fees for € 10,517.

Purchases

- Provision of professional services by the subsidiary for € 19,386;
- Costs for sundry reimbursements for € 1,350.

With the subsidiary Expert System France S.A.:

- Loan granted to the subsidiary for € 1,634,174, bearing interest in 2018 for € 23,565.

Sales

- Provision of professional services for € 91,656;
- Granting of licences for € 305,322;
- Maintenance fees for € 183,038;
- Reimbursement of other expenses for € 76,838.

Purchases

- Professional service activities performed by the subsidiary for € 13,983;
- Development activities performed by the subsidiary for € 150,029.

With the subsidiary Expert System Enterprise Corp.:

- Loan granted to the subsidiary for € 1,528,384, bearing interest in 2018 for € 23,042.

Sales

- Granting of licences for € 495,863;
- Provision of professional services for € 80,162;
- Maintenance fees for € 434,465;
- Reimbursement of other expenses for € 9,270.

Purchases

- Provision of professional services by the subsidiary for € 34,578.

With the subsidiary Expert System Deutschland GmbH:

- Loan granted to the subsidiary for € 330,000, bearing interest in 2018 for € 4,975.

Sales

- Provision of professional services for € 81,448;
- Granting of licences for € 1,500;
- Maintenance fees for € 59,320;
- Reimbursement of other expenses for € 5,300.

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

Sales

- Maintenance fees for € 15,977;
- Reimbursement of other expenses for € 345.

With the associate Cy4Gate S.r.l.:

- Loan granted to the associate for € 690,000, bearing interest in 2018 for € 25,584.

Sales

- Professional services provided for € 79,190;
- Maintenance fees for € 7,500.

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

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

Information on fees pursuant to art. 38, par. 1, letter o-septies of Italian Legislative Decree no. 127/1991

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

	Tax consultancy costs and other audit services performed	Audit service costs
Expert System S.p.A.	37,710	22,000
Expert System France S.A.	13,500	27,174
Expert System Iberia S.L.U.	29,660	2,995
Expert System Deutschland GMBH	10,738	-
Expert System Cogito Ltd.	-	-
Expert System Enterprise Corp.	62,881	-
Expert System USA Inc.	5,080	-
Expert System Canada – Semantic Technologies Inc.	-	-

Information pursuant to art. 1, par. 125 of Italian Law no. 124 of 4 August 2017

It is hereby stated that, pursuant to Italian Law no. 124/2017, paragraphs 125-129 of art. 1, i.e. the annual law for the market and competition, in 2018, the Group Companies collected, to partially cover the costs incurred and/or by way of contributions, the following amounts (cash criterion):

<i>Recipient name</i>	<i>Name of lender</i>	<i>Amount (figures in €)</i>	<i>Collection date</i>	<i>Reason</i>	<i>Project</i>
Expert System S.p.A.	EC	46,023	13/07/2018	STATEMENT BALANCE	680676 — OptEEemAL — H2020-EeB-2014-2015/H2020-EeB-2015
	MIUR	84,659	20/07/2018	BALANCE	PON01_01687 SINTESYS - Security and INTElligence SYStem
	MIUR	336,296	18/12/2018	BALANCE	PON01_01687 SINTESYS - Security and INTElligence SYStem
	EC	213,062	25/05/2018	ADVANCE	787061 — ANITA — H2020-SEC-2016-2017/H2020-SEC-2016-2017-2
	LAZIO INNOVA	36,308	18/07/2018	ADVANCE	COURIER DOMANDA NO. A0113-2017-13652 of 31/01/2017 CUP code F83G17000860007 Public Notice “Aerospace and Security” of which under Dec. no. G13676 of 21/11/2016 – POR FESR LAZIO 2014 – 2020 – Integrated Projects
	EIT DIGITAL	38,095	11/09/2018	ADVANCE	18189 - CREEP
	EIT DIGITAL	19,048	12/10/2018	ADVANCE	18189 - CREEP
Expert System Iberia S.L.U.	AUTONOMOUS PROVINCE OF TRENTO	21,202	01/01/2018 – 31/12/2018	DE MINIMIS CONTRIBUTION	Reduction of the property rental fee in Rovereto (TN)
	EC	39,900	14/09/2018	ADVANCE	700367 — DANTE — H2020-FCT-2014-2015/H2020-FCT-2015
	EC	186,913	30/04/2018	ADVANCE	770302 - Co-inform - H2020-SC6-CO-CREATION-2016-2017/H2020-SC6-CO-CREATION-2017
Expert System France S.A.	CDTI	143,595	09/05/2018	ADVANCE	XLIMEES/GRESLADIX (EXP 00092172 / IDI-20160805)
	EC	56,687	23/02/2018	ADVANCE	800893 - Pythia
	Région Île-de-France	79,333	17/07/2018	ADVANCE	Faucon
	BPI Financement	51,563	24/07/2018	ADVANCE	Innovagora
	Association Nationale de la Recherche et de la Technologie	43,712	24/09/2018	BALANCE	Vigiterm
Région Île-de-France	54,335	13/11/2018	ADVANCE	Itrac	

In the absence of clear indications from the Ministry, the Company conformed to a recent Assonime circular which states that non-selective advantages or those accessible by all companies according to predetermined general criteria are considered to be excluded from reporting obligations, as is the case for tax benefits.

It is equally noted that Expert System S.p.A., in the year ended 31/12/2018:

- received the benefits relating to the R&D tax credit envisaged pursuant to Italian Law no. 190/2014 accrued in 2017 for € 203,307 and used for offsetting in 2018;
- recognised, on an accrual basis, the benefit relating to the R&D tax credit envisaged pursuant to Italian Law no. 190/2014 accrued in 2018 for € 349,688 which will be used for offsetting in 2019.

In addition, Expert System Iberia SLU accounted, on an accrual basis, for the benefit relating to “Deducciones Fiscales por la realización de determinadas actividades (Investigación y Desarrollo e Innovación Tecnológica)”, set out in accordance with law no. 27/2014 of Impuesto Sobre Sociedades, accrued in 2018 for € 98,515.

Lastly, Expert System France S.A., in 2018:

- collected € 611,933 in relation to the “Crédit d'Impôt Recherche (CIR)” envisaged in accordance with article 244-quater B of Code Général des Impôts (CGI), accrued in 2017;
- recognised on an accrual basis the “Crédit d'Impôt Recherche (CIR)”, benefit, set out in article 244-quater B of the Code Général des Impôts (CGI), accrued during 2018 for € 155,695.

Significant events after 31/12/2018

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

With the aim of supporting increasingly more organisations to accelerate and simplify the adoption of artificial intelligence in processes that require the capacity to manage large volumes of data and textual information, Expert System announced the release of Cogito® 14.4 for the end of April. The new release of Cogito, forming the basis of the entire Expert System commercial offering, makes the acquisition of new knowledge through the enrichment of the knowledge graph even faster,

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

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

process, insurance experts can spend more time on understanding customer needs and providing advice to insurers who, in turn, can offer better solutions and faster quotes to brokers and customers.

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

Lastly, note that on 26/03/2019, the Board of Directors of Expert System S.p.A. resolved to recapitalise the investee Expert System France S.A. for € 300,000, by waiving part of the financial receivables due from the subsidiary, with the dual objective of covering losses for the year and strengthening the equity and financial structure of the investee company.

Events after the end of the financial year had no effect on the 2018 Consolidated Financial Statements, from an equity, financial and economic perspective.

Chairman of the Board of Directors
Marco Varone



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EXPERT SYSTEM S.p.A.

Independent auditor's report pursuant to article 14 of
Legislative Decree n. 39, dated January 27, 2010

Consolidated financial statements at 31 December 2018

This report has been translated into English from the original, which was prepared in Italian and represents the only authentic copy, solely for the convenience of international readers.

Independent auditor's Report

pursuant to article 14 of Legislative Decree n. 39, dated January 27, 2010

To the shareholders of
EXPERT SYSTEM S.p.A.

Report on the consolidated financial statements

Opinion

We have audited the consolidated financial statements of EXPERT SYSTEM SPA and its subsidiaries (the "Expert System Group"), which comprise the balance sheet as of December 31, 2018, the statement of income, the statement of changes in equity, the cash flow statements and related explanatory notes.

In our opinion the consolidated financial statements give a true and fair view of the financial position of Expert System Group as of December 31, 2018 and of the result of its operations for the year then ended in accordance with the Italian regulations and accounting principles governing financial statements.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Company in accordance with the ethical and independence requirements applicable in Italy to the audit of financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Italian regulations and accounting principles governing financial statements and, within the terms provide by the law, for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the holding Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA Italia will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISA Italia, we exercise professional judgment and maintain professional scepticism throughout the audit. We also have:

- Identified and assessed the risks of material misstatement of the financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluded on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtained sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We have communicated with those charged with governance, as properly identified in accordance with ISA Italia, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have also provided those charged with governance with a statement that we have complied with relevant ethical and independence requirements applicable in Italy, and communicated with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We described those matters in the auditor's report.

Report on other legal and regulatory requirements

Opinion pursuant to article 14, paragraph 2, letter e) of Legislative Decree n. 39/10

The directors of EXPERT SYSTEM S.p.A. are responsible for the preparation of the report on operations of EXPERT SYSTEM S.p.A. as at December 31, 2018, including their consistency with the consolidated financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard (SA Italia) n. 720B in order to express an opinion on the consistency of the report on operations, with the consolidated financial statements of EXPERT SYSTEM S.p.A. as at December 31, 2018 and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the report on operations is consistent with the consolidated financial statements of EXPERT SYSTEM Group as at December 31, 2018 and is compliant with applicable laws and regulations.

With reference to the assessment pursuant to article 14, paragraph. 2, letter e) of Legislative Decree n. 39/10 based on our knowledge and understanding of the entity and its environment obtained through our audit, we have nothing to report.

Bologna, April 2, 2019

Signed by
BDO Italia S.p.A.
Alessandro Gallo
Partner