



**EXPERT SYSTEM S.P.A.
FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31/12/2018**



CONTENTS

1. **Report on Operations as at 31/12/2018**
2. **Financial Statements of Expert System S.p.A. as at 31/12/2018**
3. **Explanatory Notes of Expert System S.p.A. as at 31/12/2018**
4. **Independent Auditors' Report as at 31/12/2018**
5. **Report of the Board of Statutory Auditors as at 31/12/2018**

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

REPORT ON OPERATIONS OF THE FINANCIAL STATEMENTS AS AT 31/12/2018



Dear Shareholders,

the financial year ended 31/12/2018 posted a profit of € 1,584,789, compared to a loss of € (1,071,519) in the previous year.

GENERAL CONTEXT OF THE AIM ITALIA

Dear Shareholders,

Expert System, an international leader in Cognitive Computing and Text Analytics, has been listed since February 2014 on the AIM Italia (Alternative Investment Market), i.e. the Borsa Italiana market dedicated to Italian small and medium enterprises with high growth potential, which receive strategic financial support from it for implementing its development and internationalisation plants.

For AIM Italia, 2018 was an extremely significant year for the number of prices and amount of capital collected, for the benefit of various sectors, which include not only the financial sector but the industry, technology and lifestyle sectors, confirming a positive trend driven by significant growth in demand for prices from SMEs. The performance of the list was also able to benefit from a particularly favourable scenario due to the following factors:

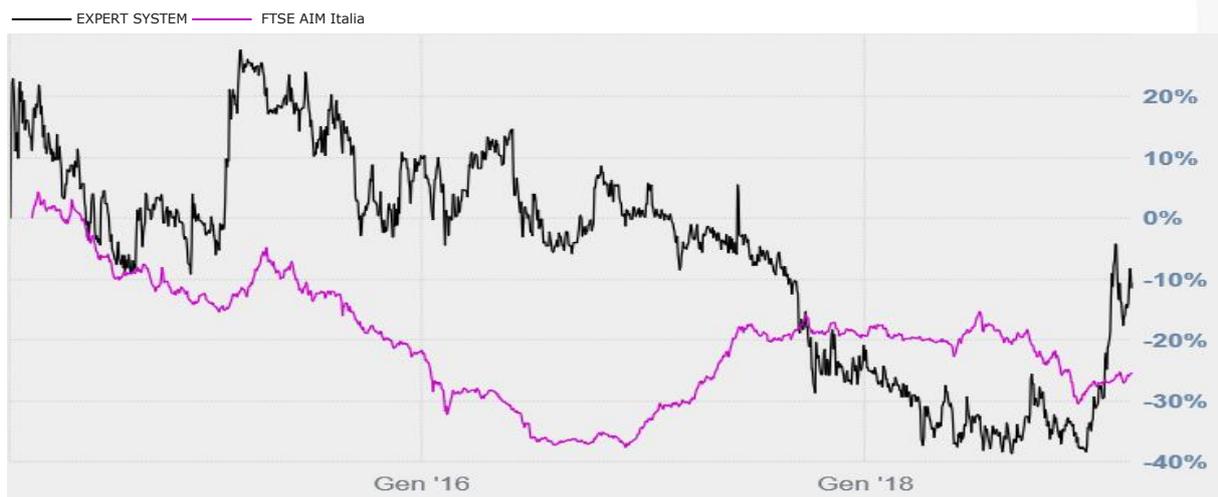
- the final approval by the Parliament of the 2019 Financial Act, which establishes the obligation for ISPs (Individual Savings Plans) to invest 3.5% of their funding in SMEs. Considering that, in the last 18 months, € 18.5 billion has been collected, the initiative envisaged by the Financial Act provides a significant boost to IPOs and equity investments, stimulating liquidity expectations for the AIM as early as 2019;
- the authorisation by the European Commission of the tax incentives for investment in the risk capital of innovative SMEs. The Commission’s authorisation sanctions the compliance of incentives with the European Guidelines on State aid intended to promote investments for the financing of risk, extending the applicability of tax incentives, already in force for investments in innovative start-ups, to innovative SMEs. In particular, tax incentives provide for individuals: deduction for IRPEF purposes of 30% of the invested amount, for a maximum deductible investment in each tax period of € 1 million. For legal entities, a deduction for IRES purposes of 30% of the amount invested for the maximum deductible investment in each tax period of € 1.8 million is introduced. For the definitive implementation of this measure, we must await the relevant MEF-MISE decree;
- the renewal, also for 2019, of the concession which recognises a tax credit on 50% of the consulting costs incurred for the listing on the stock exchange of the SMEs up to 2020, with an allocation of € 80 million for the three-year period 2019-2021. The manoeuvre will complete the package of “Finance for growth” incentives, which provides measures to make it easier for businesses to access finance, promote a more favourable environment for productive investments and encourage company capitalisation.

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

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) to 25/03/2019. In particular, the chart compares the Expert System performance against that of the FTSE AIM Italia index (Source: www.borsaitaliana.it)



OPERATING CONDITIONS AND BUSINESS DEVELOPMENT

Artificial Intelligence is the driver of a change that concerns not only the way companies work, that are setting up today increasingly more as data-driven companies, i.e. organisations able to make business decisions starting from an objective analysis of data, but also people’s daily lives.

The Big Data Text Analytics sector Expert System is engaged in is expanding strongly. Though to different extents, this applies at national, European and global levels, continuing to attract increasingly more significant business investments that point to an even more important role in the global economy in the future. Expenditure in Analytics is dedicated, based on the cases, to software (databases and tools to capture, process, view, and analyse data, applications for specific business processes), services (software customisation, integration with company information systems, process reengineering consulting), and infrastructure resources (computing capacity, servers, and storage systems to be used in the creation of Analytics

services), and, looking forward, will be geared towards the search for even greater speed, i.e. the capacity to analyse data and respond rapidly, if possible in real time, to business needs, thanks to intelligent learning mechanisms and the advent of Machine Learning and Deep Learning techniques.

Within this sector, Expert System targets a wide range of companies, focused in particular on the insurance, financial and banking sectors, publishing and government, in which numerous stakeholders are present who must manage a large quantity of unstructured information, proposing their Robotics Process Automation (RPA) solutions, which make it possible to automate these information intelligence processes.

The opportunities offered in this area were highlighted by Forrester Research, an independent research firm among the world leaders in the innovation and technology market, in the *“Look To Four Use Case Categories To Push RPA And AI Convergence. Text Analytics Returns the Way”* report, 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.*

In order to promote the growth of its customers, Expert System makes Cogito available, i.e. a platform able to collect all information inside and outside the company that is significant from a managerial and strategic point of view, categorising it in order to accurately extract only the most relevant information.

Similar to the situation in 2017, also in 2018 the challenges, benefits and practical applications of Artificial Intelligence were central to the second edition of the *“Cogito AI Day”*, which was held in Paris on 18 October 2018. During the event, major industry analysts such as Forrester and Accenture presented their practical vision of artificial intelligence, market impact and future business developments. The various speeches included those from Belfius Bank, Swiss Re, Zurich, Crédit Agricole CIB and SEB Group, who demonstrated that, thanks to the use of AI solutions to support automation and corporate information management processes, they were able to obtain real advantages such as cost reduction and the improvement its customers’ experience.

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.

The year ending on 31/12/2018 also saw Expert System's presentation of two new products dedicated to the insurance world, particularly receptive to issues such as automation of processes and the consequent increase in operating effectiveness and efficiency, dedicated to the management of requests for reimbursement 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.

Again in this area, Expert System participated, alongside speakers from various countries, at the international event of the Generali Group "AI Summit", held on 11 and 12 October, to share the most innovative technological projects - implemented in fraud, management of requests for reimbursement and other business areas - which made it possible to significantly improve operating efficiency within the Generali Group. Expert System also implemented an initiative entitled "How Expert System AI Is Transforming Insurance", to analyse in depth the

value and the functioning of artificial intelligence technologies in supporting automation of processes.

The Company intends to continue its path of growth, first of all with a greater penetration of the markets already covered with the current offer, in particular, the US, Germany and France. In addition, Expert System aims to accelerate its growth in the indirect channel, and to focus increasingly more on large multinational customers and in specific sectors such as the financial and insurance sectors, with the production of Cogito solutions for specific vertical direct and indirect markets. Finally, the Company intends to further raise the portion of recurring licenses with respect to perpetual ones, as well as increase the margins and profitability of projects. As at 31/12/2018 the Expert System Group directly or indirectly includes the following business entities:

COMPANY	Equity investment	Indirect investment through	Control	Activity carried out
Expert System USA Inc.	100.00%	N.A.	YES	Semantic software activities in the Information technology field
Expert System Enterprise Corp.	100.00%	Expert System France S.A.	YES	Semantic software activities in the Information technology field
Expert System Cogito Ltd.	100.00%	N.A.	YES	Semantic software activities in the Information technology field
Expert System Iberia S.L.U.	100.00%	N.A.	YES	Semantic software activities in the Information technology field
Expert System France S.A.	100.00%	N.A.	YES	Semantic software activities in the Information technology field
Expert System Canada – Semantic Technologies Inc.	100.00%	Expert System France S.A.	YES	Semantic software activities in the Information technology field
Expert System Deutschland GMBH	100.00%	Expert System France S.A.	YES	Semantic software activities in the Information technology field
ADmantX S.p.A.	60.80%	N.A.	YES	Software platform for contextualising on-line advertising on a semantic basis
ADmantX Inc.	60.80%	ADmantX S.p.A.	YES	Software platform for contextualising on-line advertising on a semantic basis

Expert System considered it appropriate to continue excluding ADmantX S.p.A. and ADmantX Inc. from the Group's scope of consolidation. In fact, 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. Expert System has, over time, reduced its equity investment in ADmantX S.p.A. to the current 60.8%, no longer considering it part of its long-term strategic objectives, since the on-line advertising market has specific characteristics which call for considerable experience in the sector, in addition to the availability of dedicated resources.

OPERATING PERFORMANCE

General financial performance

¹In 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

¹ Source: Bank of Italy, Economic Bulletin no. 1/2019

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 tenuous 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.

Financial performance of the Company

The year ending 31 December 2018 closed with a profit of € 1,584,789.

The table below shows the results achieved in the last two years in terms of the value of production, EBITDA and pre-tax result.

	31/12/2018	31/12/2017
Value of production	23,112,851	19,254,068
EBITDA	6,813,100	3,309,453
Pre-tax result	2,470,622	(1,277,476)

The value of production, equal to € 23.1 million, grew by roughly 20% compared to the previous year, ending with an amount equal to € 19.3 million. This increase, together with the reduced growth of the cost of operating materials and overheads (approx. +1%) and personnel costs (+3.6%) led to a considerable improvement in profit margins compared to the previous year, with an EBITDA of € 6.8 million, up by more than 104% compared to the figure of € 3.3 million recorded in 2017. The improvement in pre-tax profit, amounting to € 2.5 million (negative by € 1.3 million as at 31/12/2017), is equally significant as it is also affected by a rise in amortisation/depreciation (up 8%), closely related to higher investments in development activities, and also reflects the prudential write-down of the equity investment in a foreign subsidiary.

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 financial Balance Sheet and the more significant financial statement ratios.

Main Income Statement figures

The Company's reclassified Income Statement, compared with that of the previous year, is shown below (in Euro):

Main Income Statement figures	31/12/2018	31/12/2017	Change
-------------------------------	------------	------------	--------

Net revenues	18,977,922	15,529,468	3,448,454
Change in inventories	(39,209)	(571,692)	532,483
Own work capitalised	3,101,046	3,225,947	(124,901)
Operating grants	2,000	46,402	(44,402)
Grants relating to assets	500,456	559,366	(58,910)
Sundry income	570,636	464,575	106,061
Cost of materials and overheads	(8,275,135)	(8,202,213)	(72,922)
Value added	14,837,716	11,051,854	3,785,862
Cost of labour	(8,024,616)	(7,742,402)	(282,214)
EBITDA	6,813,100	3,309,452	3,503,648
Amortisation, depreciation, write-downs and other provisions	(4,541,857)	(3,274,897)	(1,266,960)
EBIT	2,271,243	34,554	2,236,687
Financial income and expenses	199,379	(1,312,032)	1,511,411
Ordinary profit	2,470,622	(1,277,476)	3,748,098
Net extraordinary components	0	0	0
Pre-tax result	2,470,622	(1,277,476)	3,748,098
Income taxes	(885,833)	205,957	(1,091,790)
Net profit (loss)	1,584,789	(1,071,519)	2,656,308

The table above shows how sales revenues were equal to approximately € 19 million in 2018, net of changes in inventories, showing growth of over 22% compared to 2017. The increase in revenues is due to the growth in the Italian and European market where Expert System consolidated its presence by focusing its commercial efforts on promising sectors such as, for example, the banking and the insurance sector, which saw very successful case histories.

Fixed assets for internal work recorded a very similar value to that of the previous year, thus confirming Expert System's significant commitment to developing technologies and applications with high innovative content. Other revenues are also in line with those of the previous year.

The cost of operating materials and overheads, which increased by less than 1%, rose from € 8.2 million to € 8.3 million. Personnel costs rose by 3.6%, from € 7.7 million to € 8 million.

As a result of the above, EBITDA as at 31/12/2018 equalled € 6.8 million, growing by around 106% compared to 2017, also thanks to the cost rationalisation and optimisation action taken by Expert System, which is believed will allow the recovery of additional profitability also in the future.

EBIT also shows an improvement, despite an increase in amortisation/depreciation of 8% compared to the previous year, from € 3.2 million to € 3.5 million, and despite the write-down

of an equity investment in a foreign subsidiary of € 1 million, amounting to € 2.3 million against € 0.03 million as at 31/12/2017.

Financial management, amounting to a positive € 0.2 million (negative € 1.3 million as at 31/12/2017), is the result, on the one hand, of the substantial balance in the value of financial expenses (€ 0.5 million in 2017 and € 0.4 million in 2018) incurred in connection with the debt contracted to the banking system and the subscribers of the bond loan, and on the other, the positive effect of the dollar exposure, which had an impact of € 0.4 million, due to unrealised exchange gains, mainly tied to intercompany loan agreements.

In terms of providing a better description of the Company's profits, the table below outlines certain profitability ratios, compared with the same ratios relating to the previous year's Financial Statements.

	31/12/2018	31/12/2017
Net ROE	0.04	(0.03)
Gross ROE	0.07	(0.03)
ROI	0.06	0.00
ROS	0.17	0.00

Main Balance Sheet figures

The Company's reclassified Balance Sheet, compared with that of the previous year, is shown below (in Euro):

Balance Sheet	31/12/2018	31/12/2017	Change
Net intangible fixed assets	6,903,124	6,881,909	21,215
Net tangible fixed assets	582,182	629,668	(47,486)
Equity investments and other non-current financial assets	31,646,477	29,700,250	1,946,227
Fixed assets	39,131,783	37,211,828	1,919,955
Short-term financial assets	4,775,574	4,583,074	192,500
Inventories	-	39,209	(39,209)
Receivables due from customers	9,752,781	7,415,708	2,337,073
Other receivables	8,679,643	7,027,164	1,652,479
Accrued income and prepaid expenses	413,459	484,463	(71,004)
Short-term operating assets	23,621,457	19,549,619	4,071,839
Trade payables	(2,015,347)	(1,585,486)	(429,861)
Payments on account	(234,981)	(759,920)	524,939
Tax and social security payables	(1,201,166)	(965,347)	(235,819)
Other payables	(1,762,690)	(2,885,886)	1,123,196

Accrued expenses and deferred income	(908,668)	(1,230,651)	321,982
Short-term operating liabilities	(6,122,851)	(7,427,289)	1,304,438
Net working capital	17,498,606	12,122,329	5,376,277
Employee severance indemnity	(2,143,307)	(1,876,192)	(267,115)
Tax and social security payables	-	-	-
Accrued expenses and deferred income after 12 months	(2,141,052)	(1,118,738)	(1,022,313)
Other medium and long-term liabilities	(456,248)	(310,659)	(145,589)
Medium-term liabilities	(4,740,607)	(3,305,589)	(1,435,017)
INVESTED CAPITAL	51,889,781	46,028,567	5,861,214
Shareholders' equity	(38,754,161)	(37,187,045)	(1,567,116)
Net medium/long-term financial position	(13,642,341)	(13,492,536)	(149,805)
Net short-term financial position	506,721	4,651,013	(4,144,292)
OWN EQUITY AND NET FINANCIAL DEBT	51,889,781	46,028,567	5,861,214

The change in fixed assets, which in 2018 increased by € 1.9 million, was mainly due to the increase in equity investments (net of provisions for write-downs of € 1 million) and other non-current financial assets, which rose by € 1.6 million, net of € 0.3 million, related to the unrealised positive exchange difference, mainly due to the additional loans disbursed to subsidiaries and associates during the year (amounting to € 2.3 million including interest, down compared to € 5.1 million disbursed in 2017). Lastly, note should be taken of an increase of € 0.9 million in the portion of receivables due beyond the year for research project grants, partly offset by a decrease of € 0.6 million in the portion of prepaid taxes that can be re-absorbed after 12 months.

On the whole, like in 2017, a substantial balance is noted between fixed assets and shareholders' equity, which both stood at around € 39 million, highlighting how long-term investments are essentially financed with own funds.

During the year, the exposure to the banking system and other lenders increased by € 1 million, due to new disbursements received during the year for € 5.6 million against repayments totalling € 4.6 million.

An analysis of current operations showed an increase of € 4.1 million in short-term assets, determined primarily by the positive change in trade receivables, up by € 2.3 million, other receivables, which rose by € 1.7 million, and short-term financial assets, up by € 0.2 million. In respect of this, a decrease in inventories and accruals and deferrals of € 0.1 million was recorded.

By contrast, an analysis of the current liabilities shows a decrease of € 1.3 million due to the combined effect of the increase in trade payables of € 0.4 million, the decrease in advances from customers of € 0.5 million, the decrease in other payables of € 1.1 million, the decline in accruals and deferrals of € 0.3 million and the increase in social security payables of € 0.2 million.

The difference between current assets and liabilities increased by € 5.4 million compared to the previous year, standing at € 17.5 million (compared to € 12.1 million in 2017).

Lastly, medium and long-term liabilities increased by € 1.4 million, mainly due to the increase of € 1 million in accrued expenses and deferred income after 12 months and the increase in payables for employee severance indemnities of € 0.3 million.

As confirmation of the Company's capital strength, 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, compared to the same ratios in the Consolidated Financial Statements in the previous year.

	31/12/2018	31/12/2017
Fixed asset/equity margin	(377,622)	(24,784)
Fixed asset/equity ratio	0.99	1.00
Fixed assets/liabilities and equity margin	15,864,274	15,654,604
Fixed assets/liabilities and equity ratio	1.41	1.42

Capital assets and related fixed assets to equity ratio:

These two indicators are an expression of how the Company manages to finance 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 to finance all fixed assets with its own equity.

Fixed asset/equity margin: shareholders' equity - fixed assets

Shareholders' equity	38,754,161
Net intangible fixed assets	6,903,124
Net tangible fixed assets	582,182
Equity investments and other non-current financial assets	31,646,478

Fixed assets	39,131,784
Fixed asset/equity margin	(377,622)
Fixed asset/equity ratio	0.99

The result of the fixed asset/equity margin with the correlated ratio practically equal to one indicates that the company is able to meet its long-term financial commitments with its permanent funding.

The *Fixed assets/liabilities and equity margin* and its related *ratio* also take as a reference medium/long-term liabilities. In the case of Expert System S.p.A. they show a more than satisfactory correlation between medium and long-term funding and investments.

Fixed assets/liabilities and equity margin:

Shareholders' equity	38,754,161
Net medium/long-term financial position	13,642,341
Other medium and long-term liabilities	456,248
Employee severance indemnity	2,143,307
Fixed assets	(39,131,784)
Fixed assets/liabilities and equity margin	15,864,274
Fixed assets/liabilities and equity ratio	1.41

Main financial figures

As at 31/12/2018 the financial position of Expert System S.p.A. was negative and equal to € 13.1 million, showing an increase of € 4.3 million compared to the negative figure of € 8.8 million of the previous year.

Net Financial Position	31/12/2018	31/12/2017	Change
Bank deposits	5,550,033	8,840,305	(3,290,272)
Cash at bank and in hand	2,144	2,796	(652)
Cash and cash equivalents	5,552,177	8,843,101	(3,290,924)
Current financial assets	8,400	8,400	-
Bonds and convertible bonds (within 12 months)			
Payables due to shareholders for loans (within 12 months)			
Payables due to banks (within 12 months)	(4,925,611)	(3,910,162)	(1,015,449)

Payables due to other lenders (within 12 months)	(128,245)	(290,325)	162,080
Advances for overseas payments			
Short-term portion of loans			
Financial receivables			
Short-term financial payables	(5,053,856)	(4,200,487)	(853,369)
Net short-term financial position	506,721	4,651,014	(4,144,293)
Bonds and convertible bonds (after 12 months)	(5,000,000)	(5,000,000)	-
Payables due to shareholders for loans (after 12 months)			
Payables due to banks (after 12 months)	(8,124,081)	(7,846,031)	(278,050)
Payables due to other lenders (after 12 months)	(518,260)	(646,505)	128,245
Advances for overseas payments			
Long-term portion of loans			
Financial receivables			
Net medium/long-term financial position	(13,642,341)	(13,492,536)	(149,805)
NET FINANCIAL POSITION	(13,135,620)	(8,841,522)	(4,294,098)

The figure relating to the deterioration of the net financial position, standing at € 13.1 million (€ 8.8 million as at 31/12/2017), is mainly attributable to the growth in working capital of € 3.8 million.

Despite this worsening, the ratios shown below, compared with the same ratios in previous year, show a substantial balance.

	31/12/2018	31/12/2017
Primary liquidity	2.61	2.44
Secondary liquidity	2.61	2.44
Debt	0.68	0.70
Rate of coverage of fixed assets	1.41	1.42

Primary liquidity

LIQUID ASSETS:

Banks and current account receivables	5,550,033
Cash on hand	2,144
Liquid assets	5,552,177

DEFERRED ASSETS

Receivables due from customers (within 12 months)	9,752,781
Receivables due from subsidiaries (within 12 months)	6,073,715
Receivables due from associates (within 12 months)	13,420
Tax receivables (within 12 months)	403,227
Prepaid tax assets (within 12 months)	206,261
Receivables due from others (within 12 months)	1,983,020
Current financial assets	4,783,974
Accrued income and prepaid expenses	413,459
Deferred assets	23,629,857

CURRENT LIABILITIES

Payables due to banks (within 12 months)	4,925,611
Payables due to other lenders (within 12 months)	128,245
Payments on account (within 12 months)	234,981
Trade payables (within 12 months)	2,015,347
Payables due to subsidiaries (within 12 months)	267,966
Tax payables (within 12 months)	771,949
Payables due to social security institutions (within 12 months)	429,217
Other payables (within 12 months)	1,494,724
Accrued expenses and deferred income (within 12 months)	908,668
Current liabilities	11,176,708

The formulae are shown below.

Primary liquidity: (La+DI)/Cl

$$(5,552,177+23,629,857)/11,176,708 = 2.61$$

The primary liquidity ratio stands at 2.61, highlighting how the inflows deriving from the most liquid entries of current assets are comfortably able to cover the short-term outflows consisting of current liabilities.

Secondary liquidity

CA (including inventories)/CL

$$(5,552,177+23,629,857)/11,176,708 = 2.61$$

The secondary liquidity ratio also stands at 2.61, given no inventories are present as at 31/12/2018, and is to be considered positive.

Debt ratio

Third party financing/net capital

Current liabilities (without accruals and deferrals) (A)	10,268,040
Payables for bonds (after 12 months)	5,000,000
Payables due to banks (after 12 months)	8,124,081
Payables due to other lenders (after 12 months)	518,260
Payments on account (after 12 months)	306,512
Provisions for risks and charges	149,736
Employee severance indemnity	2,143,307
M/L-term liabilities (B)	16,241,896
TOTAL THIRD PARTY FINANCING (A+B)	26,509,936

Third party financing = 26,509,936

Net capital = 38,754,161

Debt ratio = 26,509,936/38,754,161 = 0.68

The debt ratio highlights the existing ratio of third party funds to own capital. It makes it possible to verify the risk connected with the company's level of dependency on external sources of financing. The value of the ratio equal to 0.68 shows how Expert System mainly resorted to internal funding sources, allowing it to limit the business risk linked to the burden of financial expenses deriving from using other lenders' capital.

Rate of coverage of fixed assets

Net capital (A)	38,754,161
Payables for bonds (after 12 months)	5,000,000
Payables due to banks (after 12 months)	8,124,081
Payables due to other lenders (after 12 months)	518,260
Payments on account (after 12 months)	306,512
Provisions for risks and charges	149,736
Employee severance indemnity	2,143,307
M/L-term liabilities (B)	16,241,896
Net intangible fixed assets	6,903,124
Net tangible fixed assets	582,182
Equity investments and other non-current financial assets	31,646,477

Fixed assets (C)	39,131,783
Rate of coverage of fixed assets (A+B)/C	1.41

The rate of coverage of fixed assets, standing at 1.41, indicates that fixed assets, and consequently the long-term investments, are entirely financed from consolidated liabilities.

Information on the environment and personnel

Taking into account the Company's social role, as also outlined in the document on the Report on Operations of the Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili (National Institute of Chartered Accountants), it is deemed appropriate to provide the following information on the environment and on personnel.

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.

During the year, Expert System also invested in staff safety in compliance with Italian Legislative Decree no. 81/08. In fact, all personnel were given training on the safety of workers and supervisors. In addition, refresher courses were also provided to first aid personnel and members of the fire safety team.

The Environment

In the first half of the year there was no damage to the environment for which Expert System was ultimately declared guilty. During the 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 9001:2000 certification.

The latest review of the ISO 9001:2015 certification was performed on 22/06/2018, and is valid until 21/06/2019.

Risks

Pursuant to art. 2428, par. 3.6-bis of the Italian Civil Code, the main risks to which the Company 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 and is considering the future expansion of its operating market to private international customers, it cannot be ruled out at this time that there will be no difficult to collect receivables.

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.

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 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.

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.

Investments

Investments were made in the following areas during the year:

Fixed assets	Acquisitions during the year
Land and buildings	0
Plant and machinery	0
Industrial and commercial equipment	0
Other assets	76,580

Development activities

The ongoing investments in research and development activities is a key element in the Expert System strategy and it is necessary to remain state of the art in the cognitive technology field applied to unstructured data, therefore being able to satisfy the growing customer demand and retain its competitive advantage for customers. The costs incurred for these activities were capitalised, also within the context of certain multi-year national and international research projects that have seen the Company's involvement. These activities involved the

Cogito semantics platform and the products that use the platform to address the most common cases of customer usage.

As regards the development tools used for project customisation, the greatest efforts focused on improving the usability of the development tools, optimising automatic learning components and developing a new business rules execution engine.

Other 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.

Relations with subsidiaries, associates, parent companies and sister companies

These relations are described in the specific paragraph of the Explanatory Notes to the Financial Statements.

Treasury shares and shares/holdings in parent companies

Direct or indirect ownership of treasury shares or shares in parent companies is illustrated below.

Description	No. held	Nominal value	Share capital (%)
Treasury shares	76,709		0.21%
Shares/Holdings			
Parent companies			

Shares/holdings purchased	No.	Nominal value	Share capital (%)	Consideration
Treasury shares				
Shares/Holdings				
Parent companies				

Shares/holdings sold	No.	Nominal value	Share capital (%)	Consideration
Treasury shares	64,430		0.18%	-
Shares/Holdings				
Parent companies				

Business outlook

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.

List of secondary offices (art. 2428, par. 5 of the Italian Civil Code)

In compliance with the provisions of Article 2428 of the Italian Civil Code, the Company’s secondary operating offices are shown below:

Address	Location
Piazza Cavour 7	20121 Milan (MI)
Viale Virgilio 56/Q	41123 Modena (MO)
Viale Virgilio 48/H	41123 Modena (MO)
Viale Virgilio 58/M1	41123 Modena (MO)
Via Nuova Poggioreale 60/L	80143 Naples (NA)
Via dei Mille 35	00185 Rome (RM)
Strada le Grazie 15	37134 Verona (VR)

Allocation of profit (loss) for the year

We propose to the shareholders’ meeting to allocate the profit for the year of € 1,584,789.18:

- € 27,818.70 to increase the legal reserve;
- € 218,907.38 to increase the exchange rate adjustment reserve;
- € 1,338,063.10 to increase the extraordinary reserve.

We thank you for the confidence shown in us and invite you to approve the Financial Statements as presented here.

Chairman of the Board of Directors

Marco Varone

FINANCIAL STATEMENTS FOR THE YEAR ENDED 31/12/2018

BALANCE SHEET

ASSETS	31/12/2018	31/12/2017
A) SUBSCRIBED CAPITAL, UNPAID		
Total subscribed capital, unpaid (A)	0	0
B) FIXED ASSETS		
<i>I - Intangible fixed assets</i>		
1) Start-up and expansion costs	298,906	513,984
2) Development costs	6,207,423	6,150,743
3) Industrial patent and intellectual property rights	393,663	191,940
4) Concessions, licences, trademarks and similar rights	3,132	3,860
5) Goodwill	0	0
6) Fixed assets in progress and payments on account	0	20,798
7) Other intangible fixed assets	0	585
Total intangible fixed assets (I)	6,903,124	6,881,910
<i>II - Tangible fixed assets</i>		
1) Land and buildings	351,650	362,737
2) Plant and machinery	4,994	11,142
4) Other assets	225,538	255,789
Total tangible fixed assets (II)	582,182	629,668
<i>III - Non-current financial assets</i>		
1) Equity investments		

a) Subsidiaries	16,043,407	13,191,495
b) Associates	251,266	251,266
d) Other companies	57,005	57,138
Total equity investments (1)	16,351,678	13,499,899
2) Receivables		
a) Due from subsidiaries		
Within 12 months	603,533	360,176
After 12 months	12,551,972	14,000,306
Total receivables due from subsidiaries	13,155,505	14,360,482
b) Due from associates		
Within 12 months	321,555	43,823
After 12 months	390,000	690,000
Total receivables due from associates	711,555	733,823
Total Receivables (2)	13,867,060	15,094,305
Total non-current financial assets (III)	30,218,738	28,594,204

Total fixed assets (B)	37,704,044	36,105,782
-------------------------------	-------------------	-------------------

C) CURRENT ASSETS

I) Inventories

3) Contract work in progress	0	39,209
Total inventories (I)	0	39,209

II) Receivables

1) Due from customers		
Within 12 months	9,752,781	7,415,708
Total receivables due from customers (1)	9,752,781	7,415,708
2) Due from subsidiaries		

Within 12 months	6,073,715	3,457,407
After 12 months	26,787	26,787
Total receivables due from subsidiaries (2)	6,100,502	3,484,194
3) Due from associates		
Within 12 months	13,420	34,831
Total receivables due from associates (3)	13,420	34,831
4-bis) Tax receivables		
Within 12 months	403,227	306,215
Total tax receivables (4-bis)	403,227	306,215
4-ter) Prepaid taxes		
Total prepaid taxes (4-ter)	214,718	828,237
5) Due from others		
Within 12 months	1,983,020	2,988,712
After 12 months	1,392,495	491,022
Total receivables due from others (5)	3,375,515	3,479,734
Total receivables (II)	19,860,163	15,548,919
<i>III - Current financial assets</i>		
1) Equity investments in subsidiaries	4,775,574	4,583,074
4) Other equity investments	8,400	8,400
6) Other securities	0	0
Total current financial assets (III)	4,783,974	4,591,474
<i>IV - Cash and cash equivalents</i>		
1) Bank and postal deposits	5,550,033	8,840,305
3) Cash at bank and in hand	2,144	2,796
Total cash and cash equivalents (IV)	5,552,177	8,843,101
Total current assets (C)	30,196,314	29,022,703

D) ACCRUALS AND DEFERRALS

Accrued income and prepaid expenses	413,459	484,463
-------------------------------------	---------	---------

Total accruals and deferrals (D)	413,459	484,463
---	----------------	----------------

TOTAL ASSETS	68,313,817	65,612,948
---------------------	-------------------	-------------------

BALANCE SHEET

LIABILITIES	31/12/2018	31/12/2017
--------------------	-------------------	-------------------

A) SHAREHOLDERS' EQUITY

I - Share capital	358,590	357,207
-------------------	---------	---------

II - Share premium reserve	35,076,223	35,980,236
----------------------------	------------	------------

III - Revaluation reserves	0	0
----------------------------	---	---

IV - Legal reserve	43,899	43,899
--------------------	--------	--------

V - Statutory reserves	0	0
------------------------	---	---

VII - Other reserves, indicated separately

Extraordinary or optional reserve	1,190,773	1,493,354
-----------------------------------	-----------	-----------

Merger surplus reserve	376,622	376,622
------------------------	---------	---------

Reserve for unrealised exchange gains	180,049	180,049
---------------------------------------	---------	---------

Miscellaneous other reserves	140,999	141,000
------------------------------	---------	---------

Total other reserves	1,888,443	2,191,025
----------------------	-----------	-----------

VII - Cash flow hedging reserve	(38,596)	(20,924)
---------------------------------	----------	----------

IX - Profit (loss) for the year	1,584,789	(1,071,519)
---------------------------------	-----------	-------------

X - Negative reserve for treasury shares in portfolio	(159,187)	(292,879)
---	-----------	-----------

Total shareholders' equity	38,754,161	37,187,045
-----------------------------------	-------------------	-------------------

B) PROVISIONS FOR RISKS AND CHARGES

1) Pensions and similar obligations	4,341	4,341
-------------------------------------	-------	-------

2) Taxation, including deferred	91,799	0
3) Derivative financial instruments - liabilities	38,596	20,924
4) Other	15,000	50,414

Total provisions for risks and charges (B)	149,736	75,679
---	----------------	---------------

C) EMPLOYEE SEVERANCE INDEMNITY	2,143,307	1,876,192
--	------------------	------------------

D) PAYABLES

1) Bonds		
After 12 months	5,000,000	5,000,000
Total bonds (1)	5,000,000	5,000,000
4) Payables due to banks		
Within 12 months	4,925,611	3,910,162
After 12 months	8,124,081	7,846,031
Total payables due to banks (4)	13,049,692	11,756,193
5) Payables due to other lenders		
Within 12 months	128,245	290,325
After 12 months	518,260	646,505
Total payables due to other lenders (5)	646,505	936,830
6) Payments on account		
Within 12 months	234,981	759,921
After 12 months	306,512	234,980
Total payments on account (6)	541,493	994,901
7) Trade payables		
Within 12 months	2,015,347	1,585,486

Total trade payables (7)	2,015,347	1,585,486
9) Payables due to subsidiaries		
Within 12 months	267,966	873,332
Total payables due to subsidiaries (9)	267,966	873,332
12) Tax payables		
Within 12 months	771,949	602,759
Total tax payables (12)	771,949	602,759
13) Payables due to social security institutions		
Within 12 months	429,217	362,588
Total payables due to social security institutions (13)	429,217	362,588
14) Other payables		
Within 12 months	1,494,724	2,012,554
Total other payables (14)	1,494,724	2,012,554
Total payables (D)	24,216,893	24,124,643
E) ACCRUALS AND DEFERRALS		
Accrued expenses and deferred income	3,049,720	2,349,389
Total accruals and deferrals (E)	3,049,720	2,349,389
TOTAL LIABILITIES	68,313,817	65,612,948

INCOME STATEMENT

	31/12/2018	31/12/2017
A) VALUE OF PRODUCTION		
1) Sales and service revenues	18,977,922	15,529,468
3) Changes in contract work in progress	(39,209)	(571,692)
4) Own work capitalised	3,101,046	3,225,947
5) Other revenues and income		
Operating grants	2,000	46,402
Other	1,071,092	1,023,942
Total other revenues and income (5)	1,073,092	1,070,344
Total value of production (A)	23,112,851	19,254,067
B) COSTS OF PRODUCTION:		
6) Raw materials, consumables and goods for resale	1,293,465	1,004,853
7) For services	6,287,351	6,470,330
8) Use of third-party assets	570,337	653,631
9) Personnel:		
a) Salaries and wages	5,821,002	5,636,281
b) Social security costs	1,740,667	1,672,293
c) Employee severance indemnity	444,780	420,857
e) Other costs	18,167	12,970
Total personnel costs (9)	8,024,616	7,742,401
10) Amortisation, depreciation and write-downs:		
a) Amortisation of intangible fixed assets	3,378,010	3,117,232
b) Depreciation of tangible fixed assets	123,847	122,251
d) Write-down of receivables included in current assets	40,000	0

Total amortisation, depreciation and write-downs (10)	3,541,857	3,239,483
12) Provisions for risks	0	35,414
14) Sundry operating expenses	123,982	73,400
Total costs of production (B)	19,841,608	19,219,512
Difference between the value and costs of production (A-B)	3,271,243	34,555
C) FINANCIAL INCOME AND EXPENSES		
15) Income from equity investments		
Other	0	0
Total income from equity investments	0	0
16) Other financial income:		
a) From receivables classified as fixed assets		
From subsidiaries	192,652	180,479
From associates	26,584	23,713
Total financial income from receivables classified as fixed assets	219,236	204,192
c) From securities included in current assets	0	0
d) Other income		
Other	1,132	17,360
Total other income (d)	1,132	17,360
Total other financial income (16)	220,368	221,552
17) Interest and other financial expenses		
Other	434,460	463,064
Total interest and other financial expenses (17)	434,460	463,064
17-bis) Exchange gains and losses	413,471	(1,070,519)
Total financial income and expenses (C) (15+16-17+-17-	199,379	(1,312,031)

bis)

D) VALUE ADJUSTMENTS OF FINANCIAL ASSETS AND LIABILITIES

19) Write-downs		
Of equity investments	1,000,000	0
Total write-downs of equity investments (19)	1,000,000	0
Total value adjustments (D) (18-19)	(1,000,000)	0
PRE-TAX RESULT (A-B+-C+-D)	2,470,622	(1,277,476)
20) Income taxes for the year – current, deferred and prepaid		
Current taxes	180,515	58,572
Deferred and prepaid taxes	705,318	(264,529)
Income taxes for the year – current, deferred and prepaid (20)	885,833	(205,957)
21) Profit (loss) for the year	1,584,789	(1,071,519)

CASH FLOW STATEMENT, INDIRECT METHOD

A) CASH FLOWS FROM OPERATING ACTIVITIES (INDIRECT METHOD)	31/12/2018	31/12/2017
Profit (loss) for the year	1,584,789	(1,071,519)
Income taxes	885,833	(205,957)
Interest expense (income)	214,091	241,512
(Capital gains)/Capital losses from asset disposals	(449)	10
Profit/(Loss) for the year before income taxes, interest, dividends and capital gains/losses from disposals	2,684,264	(1,035,953)
Allocation to provisions	536,579	456,271
Amortisation/Depreciation of fixed assets	3,501,857	3,239,483
Other adjustments for non-monetary items	908,201	192,821
TOTAL ADJUSTMENTS FOR NON-MONETARY ITEMS WITH NO BALANCING ENTRY IN NWC	4,946,637	3,888,575

CASH FLOWS BEFORE CHANGES IN NWC	7,630,900	2,852,622
CHANGES IN NET WORKING CAPITAL		
Decrease/(Increase) in inventories	39,209	571,692
Decrease/(Increase) in receivables due from customers	(2,337,072)	(1,986,413)
Increase/(Decrease) in trade payables	429,861	188,657
Decrease/(Increase) in accrued income and prepaid expenses	71,003	265,792
Increase/(Decrease) in accrued expenses and deferred income	700,331	(946,767)
Other decreases/(Other increases) in net working capital	(3,810,820)	260,003
Total changes in net working capital	(4,907,488)	(1,647,035)
CASH FLOWS AFTER CHANGES IN NWC	2,723,413	1,205,587
OTHER ADJUSTMENTS		
Interest collected (paid)	(214,091)	(241,512)
(Income taxes paid)	(298,170)	(14,136)
(Use of provisions)	(195,407)	(394,036)
TOTAL OTHER ADJUSTMENTS	(707,669)	(649,684)
CASH FLOWS FROM OPERATING ACTIVITIES (A)	2,015,744	555,903
(Investments in tangible fixed assets)	(76,580)	(87,340)
Disinvestments of tangible fixed assets	668	2,602
(Investments in intangible fixed assets)	(3,399,225)	(3,748,076)
Disinvestments of intangible fixed assets	0	0
(Investments in non-current financial assets)	(2,624,534)	(4,255,199)
Disinvestments of non-current financial assets	0	0
(Investments in current financial assets)	(192,500)	(430,000)
Disinvestments of current financial assets	0	1,002,398
CASH FLOWS FROM INVESTING ACTIVITIES (B)	(6,292,171)	(7,515,615)
THIRD PARTY FINANCING		
Increase/(Decrease) in short-term payables due to banks	35,327	1,982
New loans	5,550,400	3,600,000
(Loan repayments to banks and other lenders)	(4,582,554)	(5,111,867)
Increase/(Decrease) in third party financing	1,003,174	(1,509,885)
OWN EQUITY		
Share capital increase against payment	0	9,996,800
Change in other reserves	(17,672)	(13,970)
Increase/(Decrease) in own equity	(17,672)	9,982,830
CASH FLOWS FROM FINANCING ACTIVITIES (C)	985,502	8,472,945
INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS (A+B+C)	(3,290,925)	1,513,233

Cash and cash equivalents at start of year	8,843,101	7,329,877
Cash and cash equivalents at year end	5,552,177	8,843,101
INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS	(3,290,925)	1,513,225

EXPLANATORY NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31/12/2018



Explanatory Notes - Introductory section

Dear Shareholders,

these Financial Statements, submitted for your review and your approval, highlight a profit for the year of € 1,584,789, compared to a loss of € (1,071,519) in the previous year.

Business

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;
- Publishing and Media, a business offered the opportunity to simplify information retrieval and access to archives through tagging and browsing, increasing faceted revenues and creating value by simplifying the introduction of digital products and services. Added to this is the increased productivity in the editorial content creation and management with automated tagging, content linking and enrichment, and support for investigative journalism through intuitive and facilitated analysis of content and information streams;
- Government organisations, which Cogito effectively provides with defence and intelligence support, as a resource for law enforcement sectors in crime control and prevention, offering new insight to combat criminal and illegal trafficking networks and proactively accompanying analysts in their investigations, particularly osInt and geoInt. In more general terms, Expert System's experience is partnered with the various public administration bodies and government agencies, for which it develops solutions that can improve the ability to manage the complexity of information and make it available to serve and protect the community more effectively.

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

- **Knowledge management:** the business knowledge management software created by Expert System helps companies to fully exploit the value of all unstructured information available in their business datasets to support the most strategic activities such as customer engagement, decision-making processes and security and intelligence activities. Cogito is able to understand any text content, regardless of the output format (research, survey data, regulatory and compliance reports, procedural information, news, tweets, etc.), and enables corporate and government organisations to rely on different types of data available internally or from external sources, such as the Internet and social media;
- **Process automation:** in our increasingly competitive market of today, technological innovation can offer banks and insurance companies effective tools to face the main challenges of business, automating the processes based on information processing, such as interaction with customers, management of reimbursement requests and form management, which traditionally call for considerable manual input. With its ability to understand text in a manner similar to humans, cognitive automation makes it possible to drastically reduce operating costs and increase customer satisfaction, allowing the automation of different processes through cognitive computing technologies, text analytics and natural language processing;
- **Virtual assistant:** Cogito simplifies the support process for customers requiring assistance, through artificial intelligence algorithms that allow users to interact directly with the company using natural language, simulating a normal conversation. The client assistants also automatically provide appropriate content, facilitate purchases and help customers find the right information quickly, 24/7. Through the ability to precisely understand customers' language and their problems, they can provide targeted responses that take account of specific needs. This makes the customer service simpler, personalised and always available, significantly improving customer experience;
- **Corporate Intelligence,** business coverage that today has to be able to incorporate the masses of information available to make informed decisions relating to strategic

processes, for which Cogito cognitive technology analyses and summarises knowledge, providing organisations with intelligence that is usable, prompt and strategic. This occurs through effective management of structured and unstructured information, which allows:

- combination of internal knowledge with other sources of information to generate a new level of analysis and understanding;
 - provision of real-time knowledge on strategic initiatives;
 - mitigation of operational and reputation risks;
 - mapping of business information and knowledge in real time;
 - satisfaction of regulatory compliance requirements;
 - due diligence performance on companies, partners, individuals and any other third party;
 - self-service access to data by corporate teams and analysts.
- **Big data extraction and enhancement:** the identification of content elements and the extraction of big data and personalised concepts is an intrinsic and highly advanced function of Expert System technology. Counting on millions of word and concept definitions and on several million relations already defined, Cogito cognitive technology includes context-based language meaning, reading the content in a very human-like way. This means that the capacity can be increased to automatically understand content and identify the most significant information in the text. It is possible to identify, tag or extract persons, places, organisations, companies, URLs, e-mail addresses, telephone numbers and values such as dates, currencies and denominations, percentages and practically any data considered necessary. Unlike other text analytics approaches, with Cogito's data extraction software there are no lists to create or even to manage;
 - **Automatic classification:** semantic and cognitive processing enables a broad and thorough analysis, including classification, on large structured and unstructured datasets, performing automatic classification and categorisation and document tagging, and can also be integrated as a fully automated classification system. This is made possible by Cogito Discover, software that guarantees the identification, classification and accessibility of the most extensive knowledge sources for more effective research and analysis.

Significant events during the year

During the year ended 31/12/2018, Expert System consolidated its role as vendor of software solutions based on Artificial Intelligence applied to text management. Cogito solutions today are available to important global partners, whose numbers are constantly growing, and are used to better manage the automation processes developed by each of them 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, considering that it will represent the industrial revolution of the near future.

With reference to the significant events occurred during the year, the following should be noted.

On 28/06/2018, duly recorded by Notary Rolando Rosa (index no. 123026, folder 21969) and by the powers granted to the Board of Directors, the second share capital increase was carried out in implementation of the “Temis 2016-2020 Stock Grant Plan”.

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

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

The share capital increase led to the issue of the second tranche of 138,320 new shares through a free share capital increase of € 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.

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

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

Similar to the previous years, in 2018, Expert System’s technological offering was appreciated for its versatility and direct correlation with the income performance of its customers. As regards some of the strengths that also led to the conclusion of new and promising collaborations in 2018, we should mention:

- the ability to monitor network communications aimed at understanding the reputation of trademarks and people, and the subsequent development of genuine reputational

indices based on scientific algorithms and goals, preferable to the data processing of analysts that are more subjective and costlier;

- the automation of requests for information from employees of large companies, who therefore increase their independence, with gains in terms of efficiency, acceleration of processes and the ability to provide responses in real time;
- in the insurance segment, the design of automatic referencing systems able to analyse the large volumes of incoming documents relating to claims, classify them based on a customised taxonomy, extracting all their key information and automatically connecting it to the most appropriate complaints folder. This has made it possible to significantly improve complaint referencing processes, thus reducing processing times;
- the offer of better and innovative digital experiences to the customers of its partners, which are distinguished by simplified access to information on web portals and apps, thanks to the implementation of extremely intuitive and functional language solutions. In addition to this, the increased ability to identify customer needs, problems and expectations, by leveraging feedback and translating it to competitive and market intelligence.

Expert System was also actively present in various conferences and meetings at global level, regarding the business applications in the area of artificial intelligence: first of all, it is worth noting the participation 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.

Note should also be taken of the collaboration, in partnership with the “L’Orientale” University of Naples, for the completion of the project entitled “L’intelligenza artificiale contro il cyberbullismo” (artificial intelligence against cyber bullying), which was presented on 8 November as part of the 32nd edition of Futuro Remoto, the Naples Science Festival, 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 addition to this, Expert System attended 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 ed Intelligenza artificiale nelle aziende. From data to value” (Deep Learning and artificial Intelligence in companies. From data to value). The event highlighted what differentiates Cogito from the other AI technologies based solely on the machine learning and the unique functions of its 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.

In 2018, Expert System achieved several prestigious awards, including the following:

- the inclusion for the third consecutive year of Cogito Discover in the “Trend Setting Products 2018” list, compiled by the prestigious US magazine KMWorld, the main reference point worldwide in the Knowledge Management sector. 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; for Expert System, this represents the recognition of the excellence and uniqueness of its technological approach;
- inclusion in the special ranking list, which lists the world’s best solutions offered by companies operating in Knowledge Management, compiled by KMWorld magazine, named “KMWorld 100 Companies that Matter 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, in the report “The Forrester Wave™:AI-based Text Analytics Platforms, Q2 2018”, 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. Expert System’s Cogito platform was awarded for its ability to combine the accuracy of semantic understanding and natural language processing with the advantages of other Artificial Intelligence technologies, such as

machine learning, to allow organisations to carry out the real-time extraction and analysis of strategic information from different sources. Lastly, Forrester Research rewarded 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;

- the selection by the US company Gartner, global leader in strategic consulting, research and analysis in the Information Technology field, for the Gartner Magic Quadrant for Insight Engines, the most prestigious global recognition of solutions for research and analysis of corporate information, granted to just 13 companies worldwide. It is a recognition that rewards the unique features of the Cogito artificial intelligence technology, the 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;
- inclusion by Gartner in the Knowledge Graph among the 5 high transformation potential emerging technologies, in the “Hype Cycle for Emerging Technologies” report. The report analysed 35 emerging technologies at different levels of maturity and arranged them on the “hype” curve, which summarises the market maturity timeframe and the impact potential. 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;
- as already said, the maintenance of the qualification as Innovative SME, which recognised the Company’s strong propensity towards technological innovation in developing its own business model.

Significant events after the close of the year

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.

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 the wake of the positive results recorded in 2018, also 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 stand out 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.

Finally, on 26/03/2019, the Board of Directors of Expert System S.p.A. resolved to recapitalise the investee company Expert System France S.A. by waiving part of the financial receivables due from the subsidiary, amounting to € 300,000.

Transposition of Directive 34/2013/EU

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

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

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

The amendment to the Financial Statements of corporations concerned in particular:

- the documents that make up the Financial Statements;
- the accounting policies;
- the content of the Balance Sheet and the Income Statement;
- the measurement criteria;
- the content of the Explanatory Notes.

Introduction

The Financial Statements as at 31/12/2018, of which these Explanatory Notes constitute an integral part pursuant to art. 2423, par. 1, of the Italian Civil Code, were prepared on a going concern basis and correspond to the results of the accounting records regularly kept. They are prepared in compliance with the principle of clarity and with the aim of providing a true and fair view of the financial position of the Company and the result for the year.

Due to the rounding of the amounts in euro, in some statements containing detailed data, the sum of the details may differ from the amount shown in the total line.

These Explanatory Notes are prepared in compliance with the restrictions set by the XBRL taxonomy currently in force.

General accounting policies

In preparing the Financial Statements for the year, the following general policies were followed (art. 2423-bis of the Italian Civil Code):

- the measurement of items is based on prudence and in the assumption of a going concern;
- the recognition and presentation of the items took into account the substance of the transaction or contract;
- only the profits realised at the close of the year were stated;
- income and expenses relating to the year were considered, regardless of the date of collection or payment;
- the risks and losses relating to the year were considered even if known after its end.

It should be noted that:

- pursuant to art. 2423, par. 3, of the Italian Civil Code, if the information requested by specific legal provisions is insufficient to provide a true and fair view of the corporate position, additional information deemed useful for the purpose is also provided;
- pursuant to art. 2423, par. 3-bis of the Italian Civil Code, there was no compliance with the obligations of recognition, measurement, presentation and disclosure when such compliance would have had an immaterial impact in providing a true and fair view.

The structure of the Balance Sheet and of the Income Statement is as follows.

The Balance Sheet and Income Statement reflect the provisions of articles 2423-ter, 2424 and 2425 of the Italian Civil Code, as amended by Italian Legislative Decree no. 139/2015.

It is also specified that:

- for each item of the Balance Sheet and the Income Statement, the amount of the item corresponding to the previous year was indicated;
- the entry of the Balance Sheet and Income Statement items was made according to the principles of articles 2424-bis and 2425-bis of the Italian Civil Code;
- there are no heterogeneous elements included in the individual items;
- the values of the Financial Statements items in the current year are perfectly comparable with those of the Financial Statements of the previous year, with the exception of item A.5 "Other revenues and income", with a separate indication of operating grants, which was affected by a different subdivision of operating grants and, consequently, also of the residual item "others". This reclassification, in order to render the Financial Statements homogeneous and comparable, also concerned the 2017 Financial Statements, which were amended accordingly. Please refer to the paragraph on this item for a review of the amounts that have contributed to the formation of the same.

No exceptional cases were identified that required the use of the deviations set forth under art. 2423, par. 4 and 5, and the art. 2423-bis, par. 2 of the Italian Civil Code.

Consolidated Financial Statements

It should be noted that the Company is obliged, in its capacity as parent company, to prepare the Consolidated Financial Statements since it is listed on the AIM market of Borsa Italiana.

Measurement criteria

The measurement criteria adopted are those specifically provided for by art. 2426 and the other provisions of the Italian Civil Code, as amended by Italian Legislative Decree no. 139/2015, and have not changed from those of the previous year, taking into account what will be specified further down with regard to the application of the national accounting standards.

As already specified, in application of the materiality principle, there was no compliance with the obligations of recognition, measurement, presentation and disclosure when such

compliance would have had an immaterial impact in providing a true and fair view. In particular, the criteria identified for implementation of the principle were:

- as permitted by OIC 15, the Company opted not to apply the amortised cost criterion and related discounting of the valuation of receivables due in less than 12 months and, for those due beyond 12 months, as the transaction costs, fees paid between the parties and all other differences between the original value and value at the due date are negligible;
- as permitted by OIC 19, the Company opted not to apply the amortised cost criterion and related discounting of the valuation of payables due in less than 12 months and, for those due beyond 12 months, as the transaction costs, fees paid between the parties and all other differences between the original value and value at the due date are negligible.

For the valuation of specific cases not expressly regulated by the above-mentioned regulations use was made to the national accounting standards published by the Italian Accounting Body (OIC) and the Italian National Institute of Chartered Accountants.

In particular, the following measurement criteria were adopted to draft the Financial Statements.

EXPLANATORY NOTES - ASSETS

FIXED ASSETS

Intangible fixed assets

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
6,903,124	6,881,910	21,214

These are recorded at their historical acquisition cost and stated net of amortisation applied over the years and booked directly to the individual items.

Start-up and expansion costs and development costs with long-term benefits were recognised under assets with the consent of the Board of Statutory Auditors. They are amortised over a period not exceeding five years.

Under development costs, the expenses for personnel employed and outside technical consultancy used in development activities were capitalised for a total of € 3,101,046, amortised over a period of 5 years.

Details of capitalised costs broken down by project are shown below:

Type of projects capitalised in 2018	Cost per project
Cogito Answer	199,503
Cogito Discover	93,240
Cogito Intelligence Platform	703,350
Core Platform	2,018,777
Cogito Studio	86,176
Overall total	3,101,046

Industrial patent and trademarks are amortised at an annual rate of 10%, whilst intellectual property rights (software) are amortised over 3/5 years.

Improvements to third-party assets are amortised according to rates that depend on the duration of the contract.

Changes in intangible fixed assets

(art. 2427, par. 1, point 2 of the Italian Civil Code)

	Start-up and expansion costs	Development costs	Industrial patent and intellectual property rights	Concessions, licences, trademarks and similar rights	Goodwill	Fixed assets in progress and payments on account	Other intangible fixed assets	Total
Cost	1,282,704	21,546,289	776,340	19,052	33,444	20,798	38,463	23,717,090
Amortisation (Accumulated amortisation)	768,720	15,395,546	584,400	15,192	33,444	-	37,879	16,835,181
Net value as at 31/12/2017	513,984	6,150,743	191,940	3,860	-	20,798	584	6,881,910
Increases due to purchases	39,227	3,101,046	279,750	-	-	-	-	3,420,023
Amortisation in the year	254,305	3,044,366	78,026	729	-	-	584	3,378,009
Other changes	-	-	-	-	-	(20,798)	-	(20,798)
Total changes in the year	(215,078)	56,681	201,724	(729)	-	(20,798)	(584)	21,216
Cost	1,321,931	24,647,335	1,056,090	19,052	33,444	-	38,463	27,116,315

Amortisation (Accumulated amortisation)	1,023,025	18,439,912	662,426	15,921	33,444	-	38,463	20,213,190
Net value as at 31/12/2017	298,906	6,207,424	393,664	3,132	-	-	-	6,903,125

Breakdown of start-up and expansion costs and development costs

(art. 2427, par. 1, point 3 of the Italian Civil Code)

The breakdown of start-up and expansion costs and the reasons for their recognition are shown below. The breakdown of development costs is provided in the first section of these Explanatory Notes.

Pursuant to and in accordance with art. 2426, par. 1, point 5 of the Italian Civil Code, until the amortisation of start-up and expansion and development costs is completed, dividends may be distributed only if sufficient reserves remain available to cover the amount of non-amortised costs (6,506,329).

Start-up and expansion costs

Description of costs	Value as at 31/12/2017	Increase in the year	Decrease in the year	Amortisation in the year	Value as at 31/12/2018
Share capital increase	513,984	39,227	-	254,305	298,906
Total	513,984	39,227	-	254,305	298,906

Measurement and reasons of the value reductions applied to intangible fixed assets (art. 2427 par. 1, point 3-bis of the Italian Civil Code)

No intangible fixed assets were written down since their amortisation was deemed to represent a correct criterion which considers their residual useful life, in accordance with a systematic plan.

Tangible fixed assets

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
582,182	629,668	(47,486)

These are booked at acquisition cost and adjusted by the corresponding accumulated depreciation.

The book value takes account of additional expenses and costs incurred in using the fixed asset, deducting trade and cash discounts of any significant amount from the cost.

Depreciation charges, booked to the Income Statement, were calculated on the basis of the type of use and technical-economic life of the assets, based on the residual useful life criteria, which we believe to be fully represented by the following rates, unchanged with respect to the previous year and halved in the year the asset enters use:

- buildings: 3%
- plant and machinery: 20%
- vehicles: 25%
- furniture and fittings: 12%
- electronic machines: 10% - 20%

Land and buildings

Description	Amount	
Historical cost	456,980	
Depreciation of previous years	(94,243)	
Balance as at 31/12/2017	362,737	of which land totalling € 87,400
Acquisitions during the year	-	
Depreciation in the year	(11,087)	
Balance as at 31/12/2018	351,650	of which land totalling € 87,400

Plant and machinery

Description	Amount
Historical cost	218,291
Depreciation of previous years	(207,149)
Balance as at 31/12/2017	11,142
Acquisitions during the year	0
Depreciation in the year	(6,148)
Balance as at 31/12/2018	4,994

Industrial and commercial equipment

Description	Amount
Historical cost	1,558
Depreciation of previous years	(1,558)
Balance as at 31/12/2017	-
Acquisitions during the year	-
Depreciation in the year	-
Balance as at 31/12/2018	-

Other assets

Description	Amount
Historical cost	1,633,602
Depreciation of previous years	(1,377,813)
Balance as at 31/12/2017	255,789
Acquisitions during the year	76,580
Decreases in the year	(219)
Depreciation in the year	(106,612)
Balance as at 31/12/2018	225,538

	Land and buildings	Plant and machinery	Industrial and commercial equipment	Other tangible fixed assets	Total tangible fixed assets
Cost	456,981	218,291	1,558	1,647,112	2,323,942
Depreciation (Accumulated depreciation)	94,243	207,149	1,558	1,391,324	1,694,274
Book value as at 31/12/2017	362,737	11,142	-	255,789	629,668
Increases due to purchases	-	-	-	76,580	76,580
Decreases	-	-	-	219	219
Depreciation in the year	11,087	6,148	-	106,612	123,847
Total changes	(11,087)	(6,148)	-	(30,251)	(47,486)
Cost	456,981	218,291	1,558	1,708,856	2,385,686
Depreciation (Accumulated depreciation)	105,330	213,297	1,558	1,483,318	1,803,503
Book value as at 31/12/2018	351,651	4,994	-	225,538	582,182

Based on an accurate application of accounting standard OIC 16, and also following a review of the estimate of the useful life of instrumental properties, we separated the portion of the cost relating to the plots of land of the above.

The value assigned to these areas was identified on the basis of a flat-rate estimate criterion which allows the allocation of the unit cost, deemed consistent at a rate of 20% of the cost of the property net of capitalised ancillary costs and any revaluations carried out.

Therefore, depreciation charges relating to the value of the aforesaid land were no longer allocated, deeming them, on the basis of updated Company estimates, to be property assets not subject to degradation and with an unlimited useful life.

It should be noted that none of the assets still existing in the Company's assets have been subject to monetary revaluations or voluntary revaluations pursuant to Italian Law no. 72 of 19/03/1983, no. 413 of 30/12/1991 and no. 342 of 21/11/2000.

Measurement and reasons of the value reductions applied to tangible fixed assets (art. 2427 par. 1, point 3-bis of the Italian Civil Code)

No intangible fixed assets were written down since their amortisation was deemed to represent a correct criterion which considers their residual useful life, in accordance with a systematic plan.

Non-current financial assets

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
30,218,738	28,594,204	1,624,534

Treasury shares

As specified in the introduction to these notes, during the year the Company, as part of the "Stock Grant Temis 2016-2020" plan assigned 64,430 treasury shares to the beneficiaries, former employees or directors of the company Temis S.A., today Expert System France S.A., acquired in 2015.

To date, these types of plan are not governed by current OICs, and they are not even deemed to be subject to the application of the accounting model IFRS 2 ("Share-based Payment") until this is introduced in our system, subject to a related ruling by the main national accounting standards (as reported in Assonime note 101/2017). As a consequence, in these Financial Statements for the year, this assignment of shares had a use of the extraordinary reserve as balancing entry for an amount equal to the number of attributed shares multiplied by the average book value, without affecting the Income Statement and, therefore, the result for

2018, according to the arrangement shared by Consob with Communication no. DEM/2053725 of 30 July 2002.

Derivative financial instruments

Even if embedded in other financial instruments, derivative financial instruments are initially recognised when the Company acquires the related rights and obligations. They are measured at fair value at the initial recognition date and at the end of each financial year. The changes in derivative financial instruments used to hedge changes in expected cash flows of another financial instrument or a planned transaction were recognised in a reserve under shareholders' equity.

The cash flow hedging reserve includes the changes in fair value of the effective component of the derivative financial instruments used as cash flow hedges.

Derivative financial instruments with a negative fair value are recognised among Provisions for risks and charges.

The Company has signed the following derivative contracts:

e) 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.

f) 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.

g) 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.

h) 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.

The simplified approach was adopted to measure simple hedging transactions as the elements envisaged in OIC 32 are present.

Equity investments

Equity investments in subsidiaries and associates, recorded under non-current financial assets, are valued at purchase or subscription cost.

The other equity investments are recorded at purchase or subscription cost.

The equity investments recognised under fixed assets represent a long-term and strategic investment by the Company.

With regard to the equity investment in the subsidiary Expert System France S.A., the decision was taken to effect a write-down of € 1 million through the creation of a specific bad debt provision, as better specified below.

Changes in equity investments, other securities and derivative financial instruments classed as fixed assets (art. 2427 par. 1, point 2 of the Italian Civil Code)

	Equity investments in subsidiaries	Equity investments in associates	Equity investments in other companies	Total equity investments
Cost	13,191,495	251,266	57,138	13,499,899
Book value as at 31/12/2017	13,191,495	251,266	57,138	13,499,899
Changes in the year	2,851,912	-	(133)	2,851,779
Total changes	2,851,912	-	(133)	2,851,779
Cost	16,043,407	251,266	57,005	16,351,678
Book value as at 31/12/2018	16,043,407	251,266	57,005	16,351,678

With regard to the changes in equity investments in subsidiaries, the change of € 2,851,912 is attributable to:

- the subscription by Expert System S.p.A. of a share capital increase of the subsidiary Expert System France S.A. for € 2,751,912, by waiving the financial receivables due

from the same investee company;

- the corresponding subscription of a share capital increase of the subsidiary Expert System Iberia S.L.U. for € 1,100,000, by waiving the financial receivables due from the same investee;
- the write-down of € 1,000,000 of the book value of Expert System France S.A., for which reference should be made to the content of these Notes.

With regard to information on non-current financial assets pursuant to art. 2427-bis, par. 1, point 2 of the Italian Civil Code, note that no non-current financial assets are recognised in the Financial Statements at amounts higher than their fair value.

Changes in non-current financial assets: receivables

Receivables

Description	Due within 12 months	Due after	Due after	Total	Of which relating to transactions with buy-back obligation	Fair Value
		12 months	5 years			
Subsidiaries	603,533	12,551,973	-	13,155,505		
Associates	321,555	390,000	-	711,555	-	-
Book value as at 31/12/2018	925,088	12,941,973	-	13,867,060		

With reference to these amounts, note that they were disbursed in implementation of an interest-bearing intercompany financing plan which envisages Expert System S.p.A.'s disbursement to its subsidiaries of loans of an amount sufficient to provide these subsidiaries with the funding necessary to meet their expense and investment commitments. The plan, approved by the Board of Directors of Expert System S.p.A. on 07/02/2019, is valid until 07/02/2020.

The changes during the year were as follows:

	Balance at start of year	Changes in the year	Balance at year end	Portion due within 12 months	Portion due after 12 months
Long-term receivables - subsidiaries	14,360,482	(1,204,977)	13,155,505	603,533	12,551,972
Long-term receivables - associates	733,823	(22,268)	711,555	321,555	390,000
Total long-term receivables	15,094,305	(1,227,245)	13,867,060	925,088	12,941,972

In compliance with the resolution of the Board of Directors relating to intercompany loans of 07/02/2019, on the long-term receivables due from subsidiaries, totalling € 12,551,972, an

interest rate “agreed or which would have been agreed for a similar loan agreement between independent companies” was applied, assuming the reference market to be that on which Expert System operates since “it is the lender’s market which must be considered ‘significant’” (see Ministerial Circular no. 32/1980, chapter IV).

The change in long-term receivables from subsidiaries, equal to a negative € 1,204,977, is attributable to additional loans disbursed to the investee companies for € 2,646,935, net of the waiver of financial receivables for € 3,851,912 described previously.

As described in the paragraph of the Report on Operations entitled “Significant events after the close of the financial year”, part of the long-term receivables from subsidiaries, equal to € 300,000, will be used to re-capitalise the subsidiary Expert System France S.A. with the dual objective of covering the losses for the year while strengthening the equity and financial position of the investee companies.

The breakdown of equity investments in subsidiaries owned directly or through a trust company or an intermediary (art. 2427, par. 1, point 5 of the Italian Civil Code)

In compliance with the provisions of art. 2427 par. 1, point 5 of the Italian Civil Code, provided below are the details regarding the book value and any changes regarding the equity investments in subsidiaries, based on the situation as at the date of the latest Financial Statements approved.

Details on equity investments in subsidiaries

Information on equity investments in subsidiaries:

Name	Italian city or Foreign country	Share capital in €	Share held in %	Book value or corresponding receivable	SE as at 31/12/2018	Profit (Loss) 2018	Fair Value
Expert System France S.A.	Paris, France	2,681,384	100%	14,894,815	1,023,945	(1,203,036)	-
Expert System Cogito Ltd.	London, UK	1,118	100%	1,248	(998,074)	(309,453)	-
Expert System Iberia S.L.U.	Barcelona, Spain	1,103,000	100%	1,147,344	(1,883,941)	(259,042)	Between € 1,552,000 and € 2,011,000 **
Expert System USA Inc.	Delaware, USA	1	100%	1	(4,554,741)	(47,080)	-
Total				16,043,408			

* As indicated in the appraisal signed by Accuracy, dated December 2014

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

Company	Italian city or Foreign country	Share capital in €	Shareholders' equity (excluding profit/loss for the year)	Profit (Loss) 2018	Share held (%)
Expert System Enterprise Corp.	Rockville, USA	175	(3,239,755)	(906,433)	100.00%
Expert System Canada - Semantic Technologies Inc.	Montreal, Canada	641	(97,728)	1,420	100.00%
Expert System Deutschland GMBH	Heidelberg, Germany	25,000	48,763	(1,009,004)	100.00%

As a result of the impairment test on investees, the Company prudentially deemed it appropriate to write down the book value of Expert System France S.A. for € 1 million.

This write-down is deemed to be prudent, especially as a result of the time when it is carried out: the corporate reorganisation process which has been ongoing for several years, which led to a considerable use of resources and a significant rationalisation of the Company's organisational structure, was concluded in 2018, the reason for which it is believed that from 2019 onwards operating and financial performance should significantly improve compared to the past.

Breakdown of equity investments in associates owned directly or through a trust company or an intermediary (art. 2427, par. 1, point 5 of the Italian Civil Code)

In compliance with the provisions of art. 2427 par. 1, point 5 of the Italian Civil Code, provided below are the details regarding the book value and any changes regarding the equity investments in associates, based on the situation as at the date of the latest Financial Statements approved.

Information on equity investments in associates:

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%.

Breakdown of long-term receivables by geographic area (art. 2427, par. 1, point 6 of the Italian Civil Code)

In relation to the provisions in the last part of art. 2427, par. 1, point 6 of the Italian Civil Code, with reference to the indication of the breakdown by geographic area of the receivables, the following is highlighted.

Geographic area	Long-term receivables - subsidiaries	Long-term receivables - associates	Total long-term receivables
Italy	100,012	711,555	811,567
EU	6,390,142	-	6,390,142
Non-EU	6,665,351	-	6,665,351
Total	13,155,505	711,555	13,867,060

Analysis of the value of non-current financial assets

	Book value
Equity investments in other companies	57,005
Receivables due from subsidiaries	13,155,505
Receivables due from associates	711,555

Breakdown of the value of equity investments in other companies:

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
Total	57,005

Breakdown of the value of long-term receivables due from subsidiaries:

Description	Book value
Financial receivables due from Expert System USA Inc.	5,071,749
Financial receivables due from Expert System Cogito Ltd.	697,351
Financial receivables due from Expert System Iberia S.L.U.	3,663,261
Financial receivables due from Expert System Enterprise Corp.	1,593,602
Financial receivables due from Expert System France S.A.	1,696,927
Financial receivables due from Expert System Deutschland GMBH	332,603
Financial receivables due from ADmantX S.p.A.	100,012
Total	13,155,505

Breakdown of the value of long-term receivables due from associates:

Description	Book value
Receivables due from CY4Gate S.r.l.	711,555
Total	711,555

CURRENT ASSETS

Warehouse inventories

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

These are contract work in progress, recognised 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.

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

This method was adopted as the contract work in progress has a duration of more than one year (i.e. a works contract requiring a time investment of more than twelve months) and as the requirements envisaged in Italian accounting standard OIC 23 are met.

The measurement criteria adopted remained unchanged with respect to the previous year and are outlined in the first part of these Explanatory Notes.

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
0	39,209	(39,209)

	Value at start of year	Changes during the year	Value at year end
Contract work in progress	39,209	(39,209)	0
Total inventories	39,209	(39,209)	0

Current assets - receivables

Receivables

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

The Company opted:

- a) not to discount the receivables as the effective interest rate is not significantly different from the market interest rate;
- b) not to apply the amortised cost criterion to receivables due in less than 12 months;
- c) 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.

The receivables were therefore valued at their estimated recoverable amount.

The adjustment of the nominal value of receivables into line with the estimated realisable value is obtained using the appropriate bad debt provision, taking into consideration any impairment indicators. Receivables originally due within twelve months and later transformed into long-term receivables are recorded in Balance Sheet under non-current financial assets.

Receivables

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
19,860,163	15,548,918	4,311,245

A significant portion of the receivables as at 31/12/2018, totalling € 4,577,013, is in foreign currency. Criteria for the translation of amounts stated in foreign currency in these Explanatory Notes.

Analysis of the changes and the maturity of current receivables (art. 2427, par. 1, point 4 of the Italian Civil Code)

	Balance at start of year	Changes in the year	Balance at year end	Portion due within 12 months	Portion due after 12 months
Current receivables due from customers	7,415,708	2,337,072	9,752,780	9,752,781	-
Current receivables due from subsidiaries	3,484,194	2,616,308	6,100,502	6,073,715	26,787
Current receivables due from associates	34,831	(21,411)	13,420	13,420	-
Current tax receivables	306,215	97,012	403,227	403,227	-
Current prepaid tax assets	828,237	(613,519)	214,718	206,261	8,457
Current other receivables	3,479,734	(104,219)	3,375,515	1,983,020	1,392,495
Total current receivables	15,548,919	4,311,244	19,860,163	18,432,424	1,427,739

Changes in current receivables

Receivables for a significant amount as at 31/12/2018 are composed as follows:

Receivables for a significant amount due from subsidiaries as at 31/12/2018:

Description	Due within 12 months	Due after 12 months
Due from ADmantX S.p.A.	67,965	26,787
Due from Expert System USA Inc.	1,054,432	-
Due from Expert System Cogito Ltd.	822,716	-
Due from Expert System France S.A.	564,106	-
Due from Expert System Iberia S.L.U.	1,062,390	-
Due from Expert System Enterprise Corp.	2,427,993	-
Due from Expert System Deutschland GMBH	57,792	-
Receivables due from Expert System Canada - Semantic Technologies Inc.	16,322	-
Total	6,073,715	26,787

Tax receivables as at 31/12/2018, amounting to € 403,227, are broken down as follows:

Description	Due within 12 months	Due after 12 months
Bonus credit – Italian Decree Law no. 66/14	4,421	-
Non-taxable tax credits for R&D, Italian Decree Law no. 70/2011	2,311	-

Non-taxable tax credits for R&D, Italian Min. Decree no. 17, 27 May 2015	349,688	-
IRES (corporate income tax) credits	32,593	-
VAT receivables	14,214	-
Total	403,227	-

Prepaid tax assets as at 31/12/2018, amounting to € 214,718, are broken down by due date as follows:

Description	Due within 12 months	Due after 12 months	Total
Prepaid tax assets	206,261	8,457	214,718
Total	206,261	8,457	214,718

With regard to R&D-related tax receivables, note that these amounts were recognised as Expert System S.p.A. is a beneficiary eligible for grants envisaged for companies that invest in research and development pursuant to Italian Ministerial Decree no. 17 of 27 May 2015.

In Prepaid tax assets of € 214,718, prepaid taxes were recorded amounting to € 206,261, deriving from tax losses carried forward from previous years of € 819,419 (€ 3,252,521 net of uses made in 2018 of € 2,393,102), given the conditions required by accounting standards for the accounting of the future tax benefit were satisfied, in particular, the reasonable certainty that, in the future, the Company will generate sufficient taxable income to allow said losses to be absorbed.

Other receivables, totalling € 3,375,515 as at 31/12/2018, are composed as follows:

Description	Due within 12 months	Due after 12 months
Receivables due from Okkam	119,871	-
Receivables due from personnel	9,150	-
Guarantee deposits in cash	254.3	43,248
Sundry receivables	11,864	-
Supplier for credit notes to be received	879	-
Advances to suppliers	84,213	-
Receivables for research project grants	1,756,789	1,349,247
Total	1,983,020	1,392,495

Receivables for research project grants due within no later than 12 months refer to all receivables accrued as at 31/12/2018, relating to sums that the Company has to collect in that respect.

Details of receivables for research project grants are presented below:

Tender type	Within 12 months	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

Breakdown of current receivables by geographic area (art. 2427, par. 1, point 6 of the Italian Civil Code)

In relation to the provisions in the last part of art. 2427, par. 1, point 6 of the Italian Civil Code, with reference to the indication of the breakdown by geographic area of the receivables, the following is highlighted.

Details of current receivables by geographic area

Geographic area	Italy	EU customers	Non-EU customers	Customers for invoices to be issued Non-EU	Customers for invoices to be issued ITALY	(Bad debt provision)	Total
Current receivables due from customers	4,607,787	52,500	1,650,905	628,497	3,003,271	(190,180)	9,752,781
Current receivables due from subsidiaries	94,752	2,507,003	3,498,746				6,100,502
Current receivables due from associates	13,420						13,420
Current tax receivables	403,227						403,227
Current prepaid tax assets	214,718						214,718
Current other receivables	3,364,296	11,219					3,375,515
Total current receivables	8,698,200	2,570,722	5,149,652	628,497	3,003,271	(190,180)	19,860,163

The adjustment of the nominal value of receivables to the estimated realisable value was obtained through the appropriate bad debt provision, which underwent the following changes during the year, as described in the following table:

Description	Bad debt provision pursuant to art. 2426 of the Italian Civil Code	Bad debt provision pursuant to art. 106 of Italian Presidential Decree no. 917/1986	Total
Balance as at 31/12/2017	108,779	41,401	150,180

Use in the year	-	40,000	40,000
Provision in the year	-	-	-
Balance as at 31/12/2018	108,779	81,401	190,180

Current financial assets

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

Securities recorded under current assets, if present, are valued at the lower of purchase cost and the realisable value taken from market trends.

Reference was made to the Milan Stock Market for comparing the cost. With regard to unlisted securities, reference was made to the listings of similar securities (at nominal value adjusted on the basis of the market rate of return).

The equity investments recorded under current assets, given they do not constitute permanent investments, are valued at the lower of purchase cost the realisable value taken from market trends, by applying the specific cost method.

Reference was made to the Milan Stock Market for comparing the cost.

Financial assets

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
4,783,974	4,591,474	192,500

Information is provided below on the equity investments held directly or indirectly through subsidiaries, associates (art. 2427, par. 1, point 4, of the Italian Civil Code).

Analysis of changes in current financial assets (statement)

	Balance at start of	Changes during the	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	-	-	-
Total current financial assets	4,591,474	192,500	4,783,974

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.

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 €	Shareholder s' 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%

Cash and cash equivalents

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
5,552,177	8,843,101	(3,290,924)

Analysis of the changes in cash and cash equivalents (art. 2427, par. 1, point 4 of the Italian Civil Code)

	Balance at start of year	Changes during the	Balance at year end
Bank and postal deposits	8,840,305	(3,290,272)	5,550,033
Cash at bank and in hand	2,796	(652)	2,144
Total cash and cash	8,843,101	(3,290,924)	5,552,177

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

The cash and cash equivalents, represented by cash at bank and in hand and bank deposits, were recorded at par value.

The balance represents cash and cash equivalents and the existence of cash and assets at the close of the year.

Receivables with a residual duration of more than five years (art. 2427, par. 1, point 6 of the Italian Civil Code)

There are no current receivables with a residual duration of more than five years.

Receivables with a buy-back/sell-back obligation (art. 2427, par. 1, point 6-ter of the Italian Civil Code)

At the end of the year, there were no long-term receivables and current receivables, which envisage the buy-back/sell-back obligation for the purchaser.

D) ACCRUALS AND DEFERRALS

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

Accruals and deferrals 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.

They measure income and charges whose accrual is early or deferred with respect to the actual date of payment and/or of the document; they disregard the date of payment or collection of the relative income and expense, common to two or more financial years and distributable on a time basis.

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

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
413,459	484,463	(71,004)

Analysis of the changes in accrued income and prepaid expenses (art. 2427, par. 1, point 4 of the Italian Civil Code)

	Balance at start of year	Changes during the	Balance at year end
Accrued income	-	-	-
Prepaid expenses	484,463	(71,004)	413,459
Total accrued income and	484,463	(71,004)	413,459

The breakdown of the time is detailed below (art. 2427, par. 1, point 7 of the Italian Civil Code).

Prepaid expenses	Due within 12 months	Due after 12 months	Due after 5 years
Rent and leases payable	17,028	-	-
Other deferrals	11,916	245	307
Insurance	5,095	-	-
Fees	25,709	40,182	429
Consultancy	26,629	23,984	-
Hardware	60,445	-	-
Maintenance	703	328	-
Rentals	20,138	-	-
Personnel recruitment and training	17,716	1,750	-
Sundry services	37,677	457	241
Software	53,516	10,638	-
Internet costs	58,310	15	-
Overall total	334,881	77,601	977

Capitalised financial expenses (art. 2427, par. 1, point 8 of the Italian Civil Code)

The Company has not capitalised financial expenses at the values recorded in the assets of the Balance Sheet.

EXPLANATORY NOTES - LIABILITIES AND SHAREHOLDERS' EQUITY

SHAREHOLDERS' EQUITY

Pursuant to art. 2427, par. 1, points 4 and 7-bis of the Italian Civil Code, commented on below are the main components of the Shareholders' equity and the relevant changes.

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
38,754,161	37,187,045	1,567,116

Changes in shareholders' equity

	Balance at start of year	Allocation of previous year's profit		Other changes			Profit/loss for the year	Balance at year end
		Other allocations	Increases	Decreases	Reclassifications			
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	-		302,581		-		1,190,773
Merger surplus reserve	376,622	-				-		376,622
Reserve for unrealised exchange gains	180,049	-				-		180,049
Miscellaneous other reserves	141,000	-		1		-		140,999
Total other reserves	2,191,025	-		302,582		-		1,888,443
Cash flow hedging reserve	(20,924)	-		17,672		-		(38,596)
Profit (loss) for the year	(1,071,519)	-	1,071,519			-	1,584,789	1,584,789
Negative reserve for treasury shares in portfolio	(292,879)	-	133,692			-		(159,187)
Total shareholders' equity	37,187,045	-	1,374,100	1,391,773		-	1,584,789	38,754,161

Breakdown of miscellaneous other reserves

Description	Amount
PIA Reserve provision	141,000
Reserve for rounding off of €	(1)
Total	140,999

Availability and use of shareholders' equity (art. 2427, par. 1, point 7-bis of the Italian Civil Code)

Items of shareholders' equity are distinguished according to origin, possibility of use, distributability and use in the three previous years.

Source, possibility of use and distributability of the items in the shareholders' equity

	Amount	Origin/ nature	Possibility of use	Available portion*	Summary of uses made in the three previous years - for coverage of losses
Share capital	358,590		B	-	-
Share premium reserve	35,076,223	Capital reserve	A, B, C**	35,076,223	-
Legal reserve	43,899	Profit reserve	B***	-	-
<i>Other reserves</i>					
Extraordinary reserve	1,190,773		A, B, C	1,190,773	2,201,809
Merger surplus reserve	376,622	Profit reserve	A, B, C	376,622	-
Reserve for unrealised exchange gains	180,049	Profit reserve	A, B, C****	-	-
Miscellaneous other reserves	140,999			-	-
Total other reserves	1,888,443			1,567,395	2,201,809
Cash flow hedging reserve	(38,596)	Reserve for derivative financial instruments		-	-
Negative reserve for treasury shares in portfolio	(159,187)	Profit reserve		(159,187)	-
Total	37,169,372			36,484,431	2,201,809
<i>Undistributable portion</i>				6,506,329	
<i>Residual distributable portion</i>				29,978,102	

Key: A: for share capital increase; B: for coverage of losses; C: for distribution to shareholders; D: for other statutory restrictions; E: other

* net of any reserve for treasury shares in portfolio and the retained earnings

** pursuant to art. 2431 of the Italian Civil Code: usable to cover losses and for capital increases. Not usable for distribution to shareholders until the legal reserve reaches 1/5 of the share capital

*** pursuant to art. 2430 of the Italian Civil code: only when the legal reserve reaches 1/5 of the share capital will the excess become actually available

**** until the net profit is realised, it is not usable for distribution

Note that none of the reserves shown in the above table must be subject to taxation, if distributed.

Origin, possibility of use and distributability of miscellaneous other reserves

Description	Amount	Origin/ nature	Possibility of use	Available portion
PIA Reserve provision	141,000	Profit reserve	A, B, C	-
Reserve for rounding off of € units	(1)			
Total	140,999			

Key: A: for share capital increase; B: for coverage of losses; C: for distribution to shareholders; D: for other statutory restrictions; E: other

This reserve was allocated by means of resolution of the shareholders' meeting dated 15 July 2008, referring to the funded research project entitled "Teliar" which avails itself of the Financial concessions as per measure 2.1.a Integrated Concessions Package - PIA Innovazione - envisaged by the P.O.N. "Sviluppo Imprenditoriale Locale" (2nd Call) Project Application A02/1276/P - 44415/13 Decree for provisional granting of the concessions no. 150160 dated 20/03/2006. This reserve is restricted until conclusion of the aforementioned project and is therefore unavailable.

Information on the cash flow hedging reserve

The changes in the cash flow hedging reserve were as follows (art. 2427-bis, par. 1, point 1b)-quater) of the Italian Civil Code.

Analysis of the changes in cash flow hedging reserve (table)

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

The change in value of the reserve expresses the adjustment to fair value of the derivative instrument as at 31/12/2018.

As required by art. 2427 par. 1, point 4 of the Italian Civil Code, information is provided below on the formation and use of shareholders' equity items:

	Share capital	Legal reserve	Reserves	Profit/loss for the year	Total
At start of previous year	276,703	43,899	29,157,910	(1,202,777)	28,275,736
Allocation of profit for the year				1,202,777	1,202,777
- other allocations					
Other changes					
- Increases due to share capital increase	80,504		9,916,296		9,996,800
- Cash flow hedging reserve adjustment			(13,970)		(13,970)
- Decreases			(1,202,777)		(1,202,777)
Profit/loss for the previous year				(1,071,519)	(1,071,519)
At close of previous year	357,207	43,899	37,857,458	(1,071,519)	37,187,045
Allocation of profit for the year				1,071,519	1,071,519
Other changes					
- Increases due to share capital increase	1,383		(1,383)		-
- Cash flow hedging reserve adjustment			(17,672)		(17,672)
- Other decreases			(1,071,520)		(1,071,520)
Profit/loss for the current year				1,584,789	1,584,789
At close of current year	358,590	43,899	36,766,883	1,584,789	38,754,161

The balance of "Reserves" at 31/12/2018 expresses the net value of the following reserves:

Share premium reserve	35,076,223
Extraordinary reserve	1,190,773
Merger surplus reserve	376,622
Reserve for unrealised exchange gains	180,049
Other reserves	140,999
Cash flow hedging reserve	(38,596)
Negative reserve for treasury shares in portfolio	(159,187)
Total	36,766,883

In compliance with the provisions of accounting standard no. 28 on shareholders' equity, the following supplementary information is provided.

Shareholders' equity includes the following: reserves or other provisions that, in the event of distribution, do not contribute to the formation of the taxable income of the Company regardless of the period they are established.

Reserves or other provisions that, in the event of distribution, do not contribute to the formation of the taxable income of shareholders regardless of the period they are established.

Reserves	Value
Share premium reserve	35,076,223
	35,076,223

Reserves incorporated in the share capital

None.

Negative reserve for purchase of treasury shares

The changes in treasury shares were as follows:

Description	31/12/2017	Increases	Decreases	31/12/2018
Expert System S.p.A.	292,879	-	(133,692)	159,187

In compliance with the provisions of the law, the percentage is within the limit set by articles 2357 and 2357-bis of the Italian Civil Code.

B) PROVISIONS FOR RISKS AND CHARGES

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

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

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

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
149,736	75,679	74,057

	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	-	20,924	50,414	75,679
Changes in the year					
Provision in the year	-	91,799	-		91,799
Use in the year	-		-	(35,414)	(35,414)
Other changes	-	-	17,672		17,672
<i>Total changes</i>	-	91,799	17,672	(35,414)	74,057
Balance at year end	4,341	91,799	38,596	15,000	149,736

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

Other provisions amounted to € 35,414 at 31/12/2018 and mainly refer to a dispute arising in the final part of 2017.

C) EMPLOYEE SEVERANCE INDEMNITY

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.

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
2,143,307	1,876,192	267,115

Analysis of the changes in employee severance indemnity (art. 2427, par. 1, point 4 of the Italian Civil Code)

	Employee severance indemnity
Balance at start of year	1,876,192
<i>Changes in the year</i>	
Provision in the year	444,780
Use in the year	86,215
Other changes	(91,450)
<i>Total changes</i>	267,115
Balance at year end	2,143,307

The provision allocated represents the actual amount owed by the Company, as at 31/12/2018, to employees in the workforce at said date, net of advances paid.

D) PAYABLES

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

The amortised cost criterion was not applied as the effects are immaterial to providing a true and fair view. The payables are therefore recorded at nominal value.

Discounting was not performed on payables due within less than 12 months as the effects are immaterial when compared to the undiscounted value.

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
24,216,893	24,124,643	92,250

In relation to the provisions in the last part of art. 2427, par. 1, point 6 of the Italian Civil Code, the payables existing as at 31/12/2018 are broken down by geographic area according to the following table.

Analysis of the changes and the maturity of payables (art. 2427, par. 1, points 4 and 6 of the Italian Civil Code)

	Balance at start of year	Changes during the year	Balance at year end	Portion due within 12 months	Portion due after 12 months	Of which: portion due after 5 years
Bonds	5,000,000	-	5,000,000	-	5,000,000	1,363,600
Payables due to banks	11,756,193	1,293,499	13,049,692	4,925,611	8,124,081	132,362
Payables due to other lenders	936,830	(290,325)	646,505	128,245	518,260	-
Payments on account	994,901	(453,408)	541,493	234,980	306,512	-
Trade payables	1,585,486	429,861	2,015,347	2,015,347	-	-
Payables due to subsidiaries	873,332	(605,365)	267,967	267,967	-	-
Tax payables	602,759	169,190	771,949	771,949	-	-
Payables due to social security institutions	362,588	66,629	429,217	429,217	-	-
Other payables	2,012,554	(517,831)	1,494,723	1,494,723	-	-
Total payables	24,124,643	92,250	24,216,893	10,268,040	13,948,853	1,495,962

The most significant payables as at 31/12/2018 are analysed below.

The balance of payables due to banks as at 31/12/2018, amounting to € 13,049,692, including mortgage borrowings, expresses the actual amount due in principal, interest and accessory expenses accrued and payable. The list is shown below:

Description	Due within 12 months	Due after 12 months	Due after 5 years
Advances on receivables	587	-	-
Bank overdrafts	49,611	-	-
Amounts to be paid	19,566	-	-
Banco Desio - Loan	126,876	-	-
Banco Desio - Loan	247,506	252,494	-
Bper - Loan	770,659	195,326	-
BPM - Loan	140,336	248,986	-
BPM - Loan	88,889	266,667	-
Cariparma - Loan	200,000	700,000	-
Carisbo - Mediocredito	400,000	900,000	-
Credem - Loan	101,643	77,068	-
Emilbanca - Loan	351,959	1,274,142	-
MPS - Loan	200,000	300,000	-
Banca CARIGE mortgage	22,538	95,499	132,362
Banca CARIGE mortgage	304,178	153,688	-
San Felice 1893 Banca Popolare - Loan	268,912	136,177	-
UBI - Loan	202,939	171,084	-
UBI - Loan	329,411	670,589	-
Unicredit - Loan	400,000	400,000	-
Unicredit - Loan	300,000	750,000	-
Unicredit - Loan	400,000	1,400,000	-
Total payables	4,925,612	7,991,718	132,362

Payables due to other lenders as at 31/12/2018

Description	Due within 12 months	Due after 12 months	Due after 5 years
SOSEM subsidised loan	128,245	518,260	-
Total	128,245	518,260	-

The item "Payments on account" includes advances received from customers relating to work in progress amounting to € 541,493 which is detailed below by job and by expected duration of the job (amounts in €):

Project	Advance amount	Due within 12 months	Due after 12 months
Horizon 2020	448,042	234,980	213,062
POR FESR Lazio	93,450	-	93,450
Overall total	541,492	234,980	306,512

The payable for bonds corresponds to the total residual principal amount as at 31/12/2018, according to the repayment plan.

The balance of payable for bonds, amounting to € 5,000,000, is attributable to the issue of a bond loan reserved for professional investors, fully subscribed by the Fondo Strategico 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

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 "Tax payables" only includes liabilities for certain and specific taxes, since the liabilities for probable or uncertain taxes with regard to the amount or timing, or, if existing, rather deferred taxes, are recorded in liability item B.2 (Provision for taxes).

The item includes payables for IRAP taxes amounting to € 121,942, net of the advances paid over for € 58,573.

The payables to tax authorities also include amounts withheld at source totalling € 654,327.

Payables due to others include amounts due to directors for € 154,802, amounts due to employees for holiday entitlement not taken, salaries and bonuses accrued for € 1,325,614 and minor payables for € 14,308.

Breakdown of payables by geographic area (art. 2427, par. 1, point 6 of the Italian Civil Code)

The breakdown of payables as at 31/12/2018 by geographic area is shown in the table below.

Details of payables by geographic area

Geographic area	Italy	EU	Non-EU	Invoices to be received	Total
Bonds	5,000,000	-	-	-	5,000,000
Payables due to banks	13,049,692	-	-	-	13,049,692
Payables due to other lenders	646,505	-	-	-	646,505
Payments on account	541,493	-	-	-	541,493
Trade payables	1,712,200	63,094	14,385	225,668	2,015,347
Payables due to subsidiaries	-	224,961	43,005	-	267,966
Tax payables	771,949	-	-	-	771,949
Payables due to social security institutions	429,217	-	-	-	429,217
Other payables	1,494,724	-	-	-	1,494,724
Payables	23,645,779	288,055	57,390	225,668	24,216,893

The following payables are backed by collaterals on company assets (art. 2427, par. 1, point 6 of the Italian Civil Code).

Analysis of the payables backed by collaterals on company assets (table)

	Total payables backed by collaterals	Payables not backed by collaterals	Total
	Payables backed by mortgages		
Bonds	-	5,000,000	5,000,000
Payables due to banks	250,400	12,799,292	13,049,692
Payables due to other lenders	-	646,505	646,505
Payments on account	-	541,493	541,493
Trade payables	-	2,015,347	2,015,347
Payables due to subsidiaries	-	267,966	267,966
Tax payables	-	771,949	771,949
Payables due to social security institutions	-	429,217	429,217
Other payables	-	1,494,724	1,494,724
Total payables	250,400	23,966,492	24,216,893

Note that the Carige loan, amounting to € 250,400, with a residual debt as at 31/12/2018 of € 250,400, taken out in 2018, is secured by a mortgage on the property owned by Expert System S.p.A. in Naples for € 500,800 (art. 2427, par. 1, point 6, of the Italian Civil Code).

Payables with a buy-back/sell-back obligation (art. 2427, par. 1, point 6-ter of the Italian Civil Code)

At the end of the reporting period, there were no transactions, which envisage the buy-back/sell-back obligation for the purchaser.

E) ACCRUED EXPENSES AND DEFERRED INCOME

Measurement criteria and entry in the Financial Statements (art. 2427, par. 1, point 1 of the Italian Civil Code)

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
3,049,720	2,349,389	700,331

Accruals and deferrals 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.

The breakdown of the item is detailed as follows (art. 2427, par. 1, point 7 of the Italian Civil Code).

Description	Amount
Deferred income for research project grants	2,123,258
Deferred income on R&D tax credit	508,853
Other deferred income	335,001
Accrued expenses	82,608
	3,049,720

Analysis of the changes of accrued expenses and deferred income

	Balance at start of year	Changes during the year	Balance at year end
Accrued expenses	98,382	(15,773)	82,609
Deferred income	2,251,007	716,104	2,967,112
Total accrued expenses and deferred income	2,349,389	700,331	3,049,720

Deferred income referring to grants relating to assets on research projects, are detailed below by project funded and maturity within/after 12 months:

	Deferred income for research project grants	Within 12 months	After 12 months
EIT DIGITAL	143,665	33,522	110,144
h2020	709,585	122,655	586,930
L.P.6/99	62,678		62,678
PON FCS	271,548	35,641	235,907
PON R&C 2007-2013	462,840	69,829	393,011
POR FESR Apiae	248,931	8,355	240,576
POR FESR Lazio	224,011	45,321	178,691
Total	2,123,258	315,322	1,807,935

Part of the deferred income, amounting to € 389,103, instead refers to grants envisaged for companies investing in research and development pursuant to Italian Ministerial Decree no. 17 of 27 May 2015.

The item breaks down as follows:

Deferred income – grants pursuant to Italian Min. Decree no. 17 of 27/05/2015	Item total	Within 12 months	After 12 months
Deferred income	508,853	175,898	332,955
Overall total	508,853	175,898	332,955

The breakdown of other deferred income is as follows:

Deferred income	Item total	Within 12 months	After 12 months
Hosting fees	212	212	-
Provision of services	26,711	26,711	-
Revenues for maintenance fees	184,835	184,674	161
Licences	122,912	122,912	-
Other revenues	331	331	-
Overall total	335,001	334,840	161

EXPLANATORY NOTES - INCOME STATEMENT

A) VALUE OF PRODUCTION

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
23,112,851	19,254,067	3,858,784

Description	31/12/2018	31/12/2017	Changes
Sales and service revenues	18,977,922	15,529,468	3,448,454
Changes in contract work in progress	(39,209)	(571,692)	532,483
Own work capitalised	3,101,046	3,225,947	(124,901)
Other revenues and income	1,073,091	1,070,344	2,747
	23,112,851	19,254,067	3,858,783

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.

Details on the sales and service revenues broken down by geographic area (art. 2427, par. 1, point 10 of the Italian Civil Code)

Geographic area	Current year balance
Italy	12,639,357
EU	1,720,045
Non-EU	4,618,520
Total	18,977,922

Details of capitalised costs broken down by project are shown below:

Type of projects capitalised in 2018	Cost per project
Cogito Answer	199,503
Cogito Discover	93,240

Cogito Intelligence Platform	703,350
Core Platform	2,018,777
Cogito Studio	86,176
Overall total	3,101,046

The item “Other revenues and income”, totalling € 1,073,091, includes:

- operating grants for € 2,000, which refer to grants received for personnel hired;
- € 500,456 relating to the portion pertaining to the year of grants related to assets, determined in proportion to the amortisation of the costs of R&D to which they refer;
- € 175,890 as revenues accrued for the obtainment of R&D tax credits;
- € 394,745 of various other income, broken down as follows:

Description	Amount
Chargeback of costs to subsidiaries	213,501
Grants	18,369
Use of provision for legal dispute risks	35,414
Property income	14,760
Reimbursement of other expenses	43,751
Royalties	9,250
De minimis contributions	21,202
Insurance reimbursements	766
Capital gains from fixed asset disposals	668
Refunds of excess INPS contributions paid	28,352
Reimbursements for financed training activities	2,640
Contingent assets for lower taxes	890
Other minor revenues	5,183
Overall total	394,745

Capital grants

The Group receives grants from various bodies (European Community according to the methods envisaged in Horizon 2020, Ministry of Education, Universities and Research, Ministry of Economic Development and other institutions) aimed at financing research and development projects.

These grants are classified under grants related to assets since they are contributions targeted at financing long-term investments. As regards the accounting of these grants, the indirect method envisaged by OIC 16 was chosen, involving the deferral of said grants in proportion to the amortisation of the costs of R&D to which they refer.

B) COSTS OF PRODUCTION

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
19,841,608	19,219,512	622,096

Description	31/12/2018	31/12/2017	Changes
Raw materials, consumables and goods for	1,293,465	1,004,853	288,612
Services	6,287,351	6,470,330	(182,979)
Use of third-party assets	570,337	653,631	(83,294)
Salaries and wages	5,821,002	5,636,281	184,721
Social security costs	1,740,667	1,672,293	68,374
Employee severance indemnity	444,780	420,857	23,923
Other personnel costs	18,167	12,970	5,197
Amortisation of intangible fixed assets	3,378,010	3,117,232	260,778
Depreciation of tangible fixed assets	123,847	122,251	1,596
Write-down of receivables included in current assets	40,000	-	40,000
Provision for risks	-	35,414	(35,414)
Sundry operating expenses	123,982	73,400	50,582
Total	19,841,608	19,219,512	622,096

Costs for raw materials, consumables and goods for resale and Service costs

These are strictly related to the information disclosed in the relevant part of the Report on Operations and to the trend in point A (Value of production) of the Income Statement.

Service costs

Service costs are recorded under costs of production in the Income Statement for a total of € 6,287,351 (€ 6,470,330 in the previous year).

The breakdown of the individual items is as follows:

Description	31/12/2018	31/12/2017	Changes
Insurance	36,836	27,805	9,031
Meal vouchers	107,199	107,023	176
ISO Certification	2,000	3,000	(1,000)
Directors' fees	894,472	1,100,000	(205,528)
Consultancy	3,471,706	3,715,687	(243,981)
Grants	102,527	135,213	(32,686)
Board of Statutory Auditors' emoluments	14,560	14,726	(166)
Charitable donations	1,840	2,290	(450)
Maintenance (plants, furniture, etc.)	51,164	35,666	15,498
Commissions	-	5,750	(5,750)
Sundry reimbursements	175,188	156,319	18,869
Administrative services	32,088	39,835	(7,748)

Commercial services	48,992	15,931	33,061
Marketing services	55,938	45,555	10,382
Cleaning services	46,114	49,581	(3,468)
Security services	3,240	3,280	(40)
AIM listing services	123,065	141,734	(18,670)
Supply of food and beverages	2,150	3,270	(1,120)
Jointly owned property expenses	38,111	33,606	4,505
Operating expenses	7,087	12,543	(5,457)
Rental costs	108,754	110,727	(1,974)
Transfer costs	535,883	406,561	129,322
Bank charges and fees	32,467	41,465	(8,998)
Legal costs	164,949	44,654	120,296
Postal expenses	3,337	1,405	1,932
Recruitment and hiring expenses	66,507	62,058	4,448
Translations	12,456	6,385	6,071
Utilities	148,723	148,261	462
Overall total	6,287,351	6,470,330	(182,979)

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 € 570,337 (€ 653,631 in the previous year).

The breakdown of the individual items is as follows:

Description	31/12/2018	31/12/2017	Changes
Rent and leases payable	216,935	201,991	14,944
Truck rental	0	67	(67)
Other vehicle rental	145,341	159,017	(13,676)
Cloud rental	208,061	281,556	(73,495)
Hardware rental	0	11,000	(11,000)
Overall total	570,337	653,631	(83,294)

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.

Depreciation of tangible fixed assets

Depreciation has been calculated on the basis of the useful life of the asset and its use in the production phase.

Sundry operating expenses

Sundry operating expenses are recorded under costs of production in the Income Statement for a total of € 123,982 (€ 73,400 in the previous year).

The breakdown of the individual items is as follows:

Description	31/12/2018	31/12/2017	Changes
Magazine and newspaper subscriptions	3,451	4,112	(661)
Other costs	3,996	1,656	2,340
Non-deductible costs	45,386	15,484	29,902
Taxes and duties	20,743	17,058	3,685
Capital losses	219	226	(7)
Fines and penalties	2,514	1,559	955
Membership fees	47,673	33,304	14,369
Overall total	123,982	73,399	50,583

C) FINANCIAL INCOME AND EXPENSES

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
199,379	(1,312,031)	1,511,410

Income from equity investments (art. 2427, par. 1, point 11 of the Italian Civil Code)

No data to report.

Interest and other financial expenses (art. 2427, par. 1, point 12 of the Italian Civil Code)

Description	Subsidiaries	Associates	Other	Total
Interest on bonds	-	-	200,000	200,000
Bank and postal interest	-	-	-	-
Medium-term credit interest	-	-	176,359	176,359
Discounts and financial expenses	-	-	37,325	37,325
Interest on loans	-	-	-	-
Other expenses on financial transactions	-	-	20,776	20,776
Total	-	-	434,460	434,460

Breakdown of interest and other financial expenses by payable type (table)

	Interest and other financial expenses
Bond loans	200,000
Payables due to banks	213,684
Other	20,776
Total	434,460

Other financial income

Description	Subsidiaries	Associates	Other	Total
Interest on bonds	-	-	-	-
Bank and postal interest	-	-	213	213
Interest on loans	192,652	26,584	-	219,236
Other income	-	-	919	919
Total	192,652	26,584	1,132	220,368

Criteria for the translation of amounts stated in foreign currency

Receivables and payables originally stated in foreign currency, recorded on the basis of exchange rates applicable on the date on which they arose, are brought into line with current exchange rates at year end.

In detail, the assets and liabilities which represent the monetary Balance Sheet elements in currency (receivables, payables, cash and cash equivalents) are recognised at the spot exchange rate as at the year-end date and the related exchange gains and losses are respectively credited and charged to the Income Statement under item 17-bis Exchange gains and losses.

Any net gain from the year-end adjustment of items in foreign currency is included in the profit for the year and, on approval of the Financial Statements and subsequent allocation of the profit, the part not absorbed by any loss for the year is recognised to a non-distributable reserve until realisation.

By contrast, the non-monetary assets and liabilities in foreign currency (tangible and intangible fixed assets, equity investments and other securities which grant the right to participate in the risk capital of the issuer, inventories, advances for the purchase and sale of goods and services, prepaid expenses and deferred income) are recognised at the exchange rate in force at the time of purchase.

Exchange gains and losses

As regards total net gains in the Income Statement, the unrealised valuation-related component is positive by € 398,956, € 13,465 as unrealised exchange losses, mainly referring to loans in currency other than € granted to group companies, net of unrealised exchange gains for € 412,421. Realised exchange gains for € 36,786 and realised exchange losses for € 22,271 are also added.

The amount of € 398,956 is recorded in an undistributable reserve until it is subsequently realised.

Income taxes for the year

Income taxes are allocated on an accrual basis; therefore, they represent:

- the allocations for taxes paid or to be paid for the year, calculated according to the applicable rates and regulations;
- the amount of deferred or prepaid taxes in relation to the temporary differences that have arisen or been eliminated in the year.

Deferred and prepaid IRES (corporate income tax) is calculated on the temporary differences between the values of assets and liabilities determined in accordance with statutory criteria and the corresponding tax values, applying the IRES rate of 24%.

Deferred and prepaid IRAP (regional business tax) is calculated on the temporary differences between the values of assets and liabilities determined in accordance with statutory criteria and the corresponding tax values, applying the rate of 3.9%.

Balance as at 31/12/2018	Balance as at 31/12/2017	Change
885,833	(205,957)	1,091,790

Taxes	Balance as at 31/12/2018	Balance as at 31/12/2017	Changes
<i>Current taxes</i>	180,515	58,572	121,943
IRES	0	0	0
IRAP	180,515	58,572	121,943
<i>Previous years' taxes</i>			
<i>Deferred (prepaid) taxes</i>	705,318	(264,529)	969,847
IRES	705,318	(264,529)	969,847
IRAP	0	0	0
Total	885,833	(205,957)	1,091,790

Taxes pertaining to the year were recorded.

A reconciliation between the tax charge in the Financial Statements and the theoretical tax charge is shown below.

Reconciliation between the tax charge in the Financial Statements and the theoretical tax charge (IRES)

Description	Value	Taxes
Theoretical tax charge (%)		24%
Profit (loss) for the year	1,584,789	380,349
Temporary differences taxable in subsequent years:		
Unrealised exchange gains	(412,421)	(98,981)
	(412,421)	(98,981)
Temporary differences deductible in subsequent years:		
Unrealised exchange losses	13,465	3,232
	13,465	3,232
Reversal of temporary differences from previous years		
Changes in foreign currency items due to collections in foreign currency	(111,351)	(26,724)
Use of the provision for credit risks	(35,414)	(8,499)
	(146,765)	(35,224)
Differences that will not be reversed in subsequent years		
Increases	2,266,017	543,844
Decreases	(313,707)	(75,290)
	1,952,310	468,554
Taxable income	2,991,378	717,931
Previous losses	(2,393,102)	(574,344)
ACE (AID FOR ECONOMIC GROWTH)	(598,276)	(143,586)
Current income taxes for the year		0

Calculation of taxable income for IRAP purposes

Description	Value	Taxes
Difference between the value and costs of production	11,335,858	
Costs not relevant for IRAP purposes	1,439,259	
Revenues not relevant for IRAP purposes	(204,243)	
Tax wedge	(7,984,916)	
	4,585,959	
Theoretical tax charge (%)	3.9	180,515
Temporary differences taxable in subsequent years:		
Tax base for IRAP purposes	4,585,959	
Current IRAP for the year		180,515

It should be noted that the Company carries out productive activities for IRAP purposes in several regions (Emilia Romagna, Trentino Alto Adige, Campania, Lazio, Veneto and Lombardy); for this reason the overall taxable basis is determined proportionally to the

amount of the remuneration and consideration due to employees and long-term collaborators operating in the various regions, against the total amount of remuneration and consideration. Pursuant to art. 2427, par. 1, point 14 of the Italian Civil Code, the required information on deferred and prepaid taxes is shown below:

Deferred/prepaid taxes

Deferred tax is expressed by the increase in the provision for deferred taxation amounting to € 91,799 and the decrease in prepaid tax assets for € 613,519, applying a 24% tax rate.

Deferred taxes were calculated according to the global allocation method, taking account of the cumulative amount of all temporary differences, based on the average rate in force at the time the temporary differences will be reversed.

Prepaid taxes were recorded given there is reasonable certainty as to the existence, in the years in which the temporary deductible differences will carry forward, in respect of which prepaid taxes were recognised, of a taxable income not lower than the amount of the differences that will be cancelled.

The main temporary differences that involved the recognition of deferred and prepaid taxes are indicated in the table below, together with the associated effects.

Recognition of deferred and prepaid taxes and subsequent effects:

	IRES	IRAP
A) Temporary differences		
Total deductible temporary differences	13,465	-
Total taxable temporary differences	(559,186)	-
Net temporary differences	(545,721)	-
B) Tax effects		
Provision for deferred (prepaid) taxes at start of year	(828,237)	-
Deferred (prepaid) taxes for the year	705,318	-
Provision for deferred (prepaid) taxes at year end	(122,919)	-

Breakdown of taxable temporary differences

Description	Amount at the end of the previous year	Change during the year	Amount at year end	IRES tax rate	IRES tax effect
Adjustment for legal risks	70,652	(35,414)	35,238	24%	8,457
Total	70,652	(35,414)	35,238		8,457

Breakdown of deductible temporary differences

Description	Amount at the end of the previous year	Change during the year	Amount at year end	IRES tax rate	IRES tax effect
Reversal of unrealised exchange losses for collections of receivables in foreign currency	25,758	111,351	137,109	24%	32,906
Unrealised exchange gains	923,762	412,421	1,336,183	24%	320,684
Unrealised exchange losses	(1,077,333)	(13,465)	(1,090,798)	24%	(261,792)
Total	(127,813)	510,307	382,494		91,799

Information on the tax losses

	Current year			Previous year		
	Amount	Tax rate	Prepaid taxes recognised/ (used)	Amount	Tax rate	Prepaid taxes recognised/ (used)
Tax losses						
- in the year				137,081	24%	32,899
- in previous years	3,252,522	24%	780,605	3,115,441	24%	747,706
Total tax losses	3,252,522	24%	780,605	3,252,522	24%	780,605
Use in the year	(2,393,102)	24%	(574,345)			
Tax losses carried forward as recoverable with reasonable certainty	859,420	24%	206,261	3,252,522	24%	780,605

Prepaid taxes recognised in the Financial Statements of € 206,261 were maintained, deriving from tax losses carried forward, net of uses in 2018, given the conditions required by accounting standards for the accounting of the future tax benefit were satisfied, in particular, the reasonable certainty that, in the future, the Company will generate sufficient taxable income to allow said losses to be absorbed.

Amount and nature of the individual revenue/cost elements/costs of an exceptional size or impact (art. 2427, par. 1, point 13 of the Italian Civil Code)

It should be noted that no individual revenue or cost items of an exceptional size or impact were recorded in 2018.

EXPLANATORY NOTES - OTHER INFORMATION

With reference to the year ended as at 31/12/2018, this section of the Explanatory Notes provides, according to the arrangement provided for by XBRL taxonomy and in compliance with the provisions of art. 2427 of the Italian Civil Code and other legal provisions, the following information:

- employment figures;
- fees, advances and loans granted to directors and statutory auditors and commitments undertaken on their behalf;
- independent Auditor fees;
- class of shares issued by the Company;
- securities issued by the Company;
- information on the other financial instruments issued by the Company;
- off-Balance Sheet commitments, guarantees and potential liabilities;
- information on equity and loans allocated to a specific business;
- information on related party transactions;
- information on off-Balance Sheet agreements;
- information on significant events after the close of the year;
- companies preparing the Consolidated Financial Statements for the largest/smallest group of companies in which they are a subsidiary;
- information on derivative instruments;
- summary Financial Statements of the Company exercising management and coordination activities;
- information relating to start-ups, including social vocation, and innovative SMEs;
- proposed allocation of profit or loss coverage.

It should also be noted that, in the final comment to these Explanatory Notes, the following information was provided:

- any significant effects of the changes in currency exchange rates after the close of the year (art. 2427, par. 1, point 6-bis of the Italian Civil Code);
- investments involving unlimited liability;
- information pursuant to art. 1, par. 125 of Italian Law no. 124 of 4 August 2017.

It should be noted that the following information has been provided in these Notes:

- statement and information on revaluations;
- reserves and provisions to be taxed if distributed.

Employment figures

(art. 2427, par. 1, point 15 of the Italian Civil Code)

The average Company workforce, expressed in AWU, broken down by category, underwent the following changes with respect to the previous year.

Workforce	31/12/2018	31/12/2017	Changes
Middle management	28	23	5
Employees	130	129	1
	158	152	6

The national labour contract applied is the contract for the services-trade sector (latest update of 01/04/2015).

Information on fees due to the directors and statutory auditors (art. 2427, par. 1, point 16 of the Italian Civil Code)

Pursuant to law, the total fees due to directors and the audit body are shown below (art. 2427, par. 1, point 16 of the Italian Civil Code).

Fees, advances and loans granted to directors and statutory auditors and commitments undertaken on their behalf (statement)

	Directors	Statutory Auditors
Fee	996,947	14,560

Information on fees due to the independent auditor (art. 2427, par. 1, point 16-bis of the Italian Civil Code)

Pursuant to law, the fees due for services provided by the independent auditors BDO Italia S.p.A. and entities belonging to its network during the year are stated below:

Independent Auditor fees (statement)

	Value
Independent audit of the annual accounts	22,000
Total Independent Auditor fees	22,000

Classes of shares issued by the Company (art. 2427, par. 1, point 17 of the Italian Civil Code) Analysis of the classes of shares issued by the Company (statement)

Description	Shares subscribed during the year, number	Opening balance, number	Closing balance, number
Ordinary shares	138,320	35,720,711	35,859,031
Total	138,320	35,720,711	35,859,031

During the year, 138,320 new ordinary shares were subscribed without par value in implementation of the “Temis 2016-2020 Stock Grant” Plan.

For further details on the transactions mentioned here, please refer to the initial part of the Explanatory Notes.

Bonus shares, bonds convertible into shares, securities or similar assets issued by the Company (art. 2427, par. 1, point 18 of the Italian Civil Code)

The shares and securities in circulation as at 31/12/2018 were as follows:

Shares and securities issued by the Company	No.	Rate	Maturity	Assigned rights
Ordinary shares	35,859,031			
Bonds	50	4%	31/12/2024	

Analysis of the securities issued by the Company

	No.	Assigned rights
Bonus shares		
Convertible bonds		
Warrants		
Options*		
Other securities or similar assets		

*please refer to what is specified in another paragraph in the Explanatory Notes

Information on the financial instruments issued by the Company (art. 2427, par. 1, point 19 of the Italian Civil Code)

Following the share capital increase of 2016, the Company issued 2,497,552 warrants, free of charge, in the ratio of 1 warrant for every new share subscribed by those subscribing to the share capital increase.

The Warrants, known as “Warrant Expert System S.p.a. 2016-2018” and listed on the AIM Italia market managed by Borsa Italiana, are entitled to subscribe to a maximum of 652,388 conversion shares, without par value, with the same characteristics of Expert System shares in circulation.

Following the conclusion of the second and last period of exercise of the Warrant Expert System S.p.A. 2016-2018, included between 1 October 2018 and 31 October 2018, during which no warrants were exercised, 2,497,136 warrants in issue and not exercised are to have

all rights considered forfeited, becoming invalid to all intents and purposes, since no additional period is envisaged for their exercise.

The Company has also issued a bond loan comprising 50 non-convertible bonds with a par value of € 100,000 each, for a total of € 5,000,000. The bond loan issue is reserved for professional investors and was fully subscribed by the Fondo Strategico 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

Introduction, off-Balance Sheet commitments, guarantees and potential liabilities (art. 2427, par. 1, point 9 of the Italian Civil Code)

As at the year-end date, the following guarantees were outstanding:

	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.

Equity allocated to a specific business (art. 2427, par. 1, point 20 of the Italian Civil Code)

The Company has not allocated equity for a specific business.

Loans allocated to a specific business (art. 2427, par. 1, point 21 of the Italian Civil Code)

At the year-end date in question, the Company does not have loan agreements for a specific business.

Financial leasing transactions (art. 2427, par. 1, point 22 of the Italian Civil Code)

The Company has no financial lease agreements as at 31/12/2018.

Information required by law with regard to start-ups, including social vocation and SMEs

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 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.

Details of capitalised costs broken down by project are shown below:

Type of projects capitalised in 2018

Type of projects capitalised in 2018	Cost per project
a) Cogito Answer	199,503
b) Cogito Discover	93,240

c) Cogito Intelligence Platform	703,350
d) Core Platform	2,018,777
e) Cogito Studio	86,176
Overall total	3,101,046

Before moving on to a brief description of the individual projects, please note that capitalised research and development costs (relating to employees and external technical consultants), equal to € 3,101,046, are more than 3% (€ 693,386) of the higher value between the production value (€ 23,112,851) and costs (€ 19,841,608), thus satisfying one of the three requirements for maintaining its status as an innovative SME; the second requirement satisfied to maintain its status as innovative SME relates to the possession of an exclusive right (US application number 11/744, 479 - publication date 1/3/2011 - registration date 4/5/2007 - priority date 4/5/2007).

The patent is named "METHOD AND SYSTEM FOR AUTOMATICALLY EXTRACTING RELATIONS BETWEEN CONCEPTS INCLUDED IN TEXT".

a) Cogito Answers

This is Expert System's product for search functions in multiple entities and objectives that use our semantic capabilities. It exploits semantics technology to offer natural language search using a Knowledge Base.

The main objectives are:

- facilitating access to information in a simple and clear manner;
- simplifying the construction from the functional as well as architectural perspective.

Development activities in 2018 further regarded the following functions:

- FAQ search;
- document search;
- sponsored content search;
- text analysis;
- integration of the semantic engine;
- crawlers;
- analytics;
- environment.

b) Cogito Discover

In 2018, the document chunking mechanism was implemented.

The aim of the chunking function is to increase performance for large input documents.

The implementation of this function significantly improved the analysis time of large documents, producing excellent results especially with regard to the pure extraction projects, where the results merging algorithm has less of an impact (no cuts are actually carried out).

c) Cogito Intelligence Platform

The Cogito Intelligence Platform was based on the Trek indexing and search engine, (also developed internally in Expert System). In 2018, development involved the creation of a semantic data model on elastic engine.

While as regards the issues of scalability, availability and security, the use of Elasticsearch is fully aligned with the product guidance. From a functional point of view, it was instead necessary to extend the set of basic features.

The specialisation work concerned three different and complementary aspects:

- the testing of various models for the representation of semantic information, to the search for the elements that would make it possible to implement the indexing and search scenarios typical of the CIP product;
- the integration in the search paradigm of the information accessibility criteria (meaning both the visibility of the documents and the visibility of the data associated to these) typical of use of the CIP tool;
- the need to change the nature of the ratios over time, allowing the nature of the semantic analysis that is carried out on the indexed documents to be modified.

d) Core Platform

The set of information and knowledge used by Cogito to comprehend texts is saved within the knowledge graph and represents the most valuable asset of the Cogito platform. The activities carried out in 2018 regarded:

- **Development of the Cogito NLP engine for the Dutch language**, to expand the offer of the software stack of packages linked to Cogito Studio for specific sectors on which Expert System intends to grow (the insurance/banks area), it was necessary to add full support for some new languages. Among these, it was decided to prioritise Dutch;

- **Categorisation and extraction rules:** the result of the work performed in 2018 on the engine is a new system that allows for the implementation of more linear customer solutions and with reduced efforts in terms of the time and personnel involved, as well as providing Expert System with greater control over the tuning of categorisation and text mining solutions.

e) Cogito Studio

Cogito Studio was designed to create a tool for developing rules (and more) that combines the power of Cogito technology (disambiguation and rules) with a flexible tool more in keeping with the times. The activities carried out in 2018 regarded:

- **Implementation of a rules configuration environment:** the choice made to rely on a professional IDE proved to be a successful one, which provided us with a series of native functions that would have been difficult to re-create on a home-made solution. The ability to work in the same environment for the linguistic development and implementation logics of a project enables us to significantly reduce debug times and ensure collaboration within the team. In addition, it should allow linguists to have more autonomy in developing projects that require data processing operations that are not too complex;
- **Use Case of predictive annotation for extractions of textual elements:** the analysis activity carried out in 2018 focused on identifying a paradigm for the use of machine learning techniques in Cogito Studio, with the aim of producing a module (MLX-Wapiti) that integrates the complexity of the core part of machine learning, and at the same time ensuring the configurability of a use case (Active Learning), which also makes it possible to automate the tagging part with a simple and fast interface functional to entities' large-scale tagging.

Information on related party transactions (art. 2427, par. 1, point 22-bis of the Italian Civil Code)

The information concerning transactions of the parent company Expert System S.p.A. with related parties is presented below.

Trade and financial transactions

Company	Financial payables	Financial receivables	Trade receivables	Trade payables	Sales	Purchases
ADMANTX S.P.A.	-	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 S.R.L.	-	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 S.A.	-	1,696,927	564,106	164,012	683,306	164,012
EXPERT SYSTEM ENT. CORP	-	1,593,602	2,427,993	35,145	1,042,802	34,578
EXPERT SYSTEM DEUT. 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 S.P.A.	-	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 S.R.L.	-	13,420	-	-	-	86,690
EXPERT SYSTEM IBERIA S.L.U.	19,386	1,062,390	-	-	20,736	506,257
EXPERT SYSTEM FRANCE S.A.	164,012	564,106	-	-	164,012	659,741
EXPERT SYSTEM ENT. CORP	35,145	2,427,993	-	-	34,578	1,019,760
EXPERT SYSTEM DEUT. 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	Profits
ADMANTX S.P.A.	-	126,799	-	-	-	12
EXPERT SYSTEM USA INC.	-	5,071,749	-	-	-	72,439
EXPERT SYSTEM COGITO LTD.	-	697,351	-	-	-	14,056
CY4GATE S.R.L.	-	711,555	-	-	-	25,584
EXPERT SYSTEM IBERIA S.L.U.	-	3,663,261	-	-	-	54,563
EXPERT SYSTEM FRANCE S.A.	-	1,696,927	-	-	-	23,565
EXPERT SYSTEM ENT. CORP	-	1,593,602	-	-	-	23,042
EXPERT SYSTEM DEUT. 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: 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 company consultancy € 24,000;
 - Fee for secretary activities € 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 for € 100,000 bearing interest for 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

- Granting of licences for € 214,145;
- Provision of professional services for € 257,537;
- 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;
- Maintenance fees for € 10,517;
- Reimbursement of other expenses for € 21,486.

Purchases

- Professional services provided 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;
- Reimbursement of other expenses for € 9,270;
- Maintenance fees for € 434,465.

Purchases

- Professional services provided 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;
- Reimbursement of other expenses for € 3,948;
- Maintenance fees for € 59,320.

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

- Maintenance fees for € 7,500;
- Provision of professional services for € 79,190.

Information on off-Balance Sheet agreements (art. 2427, par. 1, point 22-ter of the Italian Civil Code)

The Company has no off-Balance Sheet agreements in place.

Information on significant events after the close of the year (art. 2427, par. 1, point 22-quater of the Italian Civil Code)

Please refer to the preamble of this document.

Companies preparing the Consolidated Financial Statements for the largest/smallest group of companies in which they are a subsidiary (art. 2427, par. 1, points 22-quinquies and 22-sexies of the Italian Civil Code)

The Company prepares the Consolidated Financial Statements in its capacity as parent company.

Information on the fair value of derivative financial instruments (art. 2427, par. 1, point 1 of the Italian Civil Code)

For the information required by article 2427-bis, par. 1, point 1 of the Italian Civil Code, please refer to the previous paragraphs of these Notes.

Information on the fair value of non-current financial assets (art. 2427-bis, par. 1, point 2 of the Italian Civil Code)

There are no non-current financial assets recorded at a value exceeding their fair value.

Information on the company or body that exercises the management and coordination activities (art. 2497-bis, par. 4 of the Italian Civil Code)

The Company is not subject to management and coordination activities by a third party company or entity.

Statement and information on revaluations

Please refer to the information provided in the other paragraph of these Explanatory Notes.

Reserves and provisions to be taxed if distributed

Please refer to the information provided in the other paragraph of these Explanatory Notes.

Investments involving unlimited liability

Pursuant to art. 2361, par. 2 of the Italian Civil Code, it should be noted that the Company did not assume any investments in other companies involving unlimited liability.

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

It is hereby announced that, pursuant to Italian Law no. 124/2017, paragraphs 125-129 of art. 1, the so-called annual Law on market and competition, in 2018, our company collected, to partially cover the costs incurred and/or by way of contributions, the following amounts (cash criterion):

Recipient name	Name of lender	Amount (figures in €)	Collection date	Reason	Project
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
	AUTONOMOUS PROVINCE OF TRENTO	21,202	01/01/2018 – 31/12/2018	DE MINIMIS CONTRIBUTION	Reduction of the property rental fee in Rovereto (TN)

In the absence of clear indications from the Ministry, the Company became aware of a recent Assonime circular in which 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, during the year ended 31/12/2018, the Company received the following benefits:

- The R&D tax credit envisaged pursuant to Italian Law 190/2014 accrued in 2017 for € 203,307 and used for offsetting in 2018.

It should also be noted that in the Financial Statements for the year ended 31/12/2018, the following benefits are recognised on an accrual basis:

- R&D tax credit envisaged pursuant to Italian Law 190/2014 accrued in 2018 for € 349,688 which will be used for offsetting in 2019.

Proposed allocation of the profit (loss) for the year (art. 2427, par. 1, point 22-septies of the Italian Civil Code)

We propose to the shareholders' meeting to allocate the profit for the year of € 1,584,789.18:

- € 27,818.70 to increase the legal reserve;
- € 218,907.38 to increase the exchange rate adjustment reserve;
- € 1,338,063.10 to increase the extraordinary reserve.

Changes in currency exchange rates (art. 2427, par. 1, point 6-bis of the Italian Civil Code)

Compared to the year-end date as at 31/12/2018 no significant exchange rate changes occurred.

These Financial Statements, composed of the Balance Sheet, Income Statement and Explanatory Notes, give a true and fair view of the financial position and the result for the year and correspond to the accounting records.

Chairman of the Board of Directors

Marco Varone



www.expertsystem.com

ir@expertsystem.com

Registered offices

Rovereto (TN)
Via Fortunato Zeni, 8
38068 Rovereto (TN) – Italy
Tel. +39 0464 443300

Administrative offices

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



EXPERT SYSTEM S.p.A.

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

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 financial statements

Opinion

We have audited the financial statements of EXPERT SYSTEM SPA (the Company), 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 financial statements give a true and fair view of the financial statements of the Company as at 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 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 Financial Statements

Management is responsible for the preparation and fair presentation of the 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 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 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 Financial Statements

Our objectives are to obtain reasonable assurance about whether the 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 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 Company'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 Company to cease to continue as a going concern.
- Evaluated the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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 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 its consistency with the financial statements and the 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 financial statements of EXPERT SYSTEM S.p.A. as at December 31, 2018 and on its 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 financial statements of EXPERT SYSTEM S.p.A. 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

EXPERT SYSTEM S.p.A.
Via Fortunato Zeni 8, Rovereto (Trento)
Share capital € 358,590.31 fully paid-in
Tax Code and Modena Register of Companies no. 02608970360
Trento Economic and Administrative Index ref. no. 212386

REPORT OF THE BOARD OF STATUTORY AUDITORS
ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31
DECEMBER 2018

To the shareholders of Expert System S.p.A.

The draft financial statements as at and for the year ended 31 December 2018, which the Board of Directors submits for your approval, were prepared in accordance with the provisions of article 2423 et seq. of the Italian Civil Code.

Activity carried out

During the year ended 31 December 2018 we supervised the compliance with law, and the Articles of Association, and compliance with the principles of sound management. In completing this assignment we made use of indications provided in the Code of Conduct for Boards of Statutory Auditors as recommended by the Italian National Institute of Chartered Accountants.

The supervisory tasks were performed through:

- action taken to verify compliance with the provisions of law and the Articles of Association;
- attendance of meetings of the Corporate Bodies;

- acquisition of information on the audits performed by the Independent Auditors.

With reference to the activity carried out in 2018, note that:

- we attended the shareholders' meetings and meetings of the Board of Directors, conducted in accordance with governing statutory, legal and regulatory instructions, and for which we can reasonably confirm that the actions decided comply with the law and the Articles of Association and are not manifestly imprudent, risky, in conflict of interest or such as to jeopardise the integrity of the company capital;
- we obtained information from the Directors on the general operating performance, on business outlook and on the most significant transactions - in terms of extent or characteristics - performed by the company, and we can reasonably confirm that the action taken complies with the law and the Articles of Association and are not manifestly imprudent, risky, in conflict of interest or in conflict with the resolutions adopted by the shareholders' meeting or such as to jeopardise the integrity of the company capital;
- we received no significant data or information from the Independent Auditors that would require comment in this report;
- we acquired knowledge of and supervised the adequacy of the company's organisational structure, also by obtaining information from the department managers. In this respect, note that we have no particular matters to report;
- we assessed and supervised over the adequacy of the administrative and

accounting system and its reliability in correctly reporting upon operating events, by obtaining information from the department managers and by examining corporate documents. Also in this respect we have no particular matters to report;

- no reports were received pursuant to art. 2408 of the Italian Civil Code and no opinions were issued that would be required under specific legal regulations.

1. Annual Financial Statements

With regard to supervision over the presentation of the annual financial statements, we confirm that:

- we verified their general format, their general compliance with law as regards their format and content, and in this respect have no particular matters to report;
- we expressed our consent to the recognition under balance sheet assets of development costs totalling € 3,101,046;
- to the best of our knowledge, in preparing the financial statements the Directors did not deviate from legal provisions pursuant to art. 2423, paragraphs 4 and 5, and art. 2423-bis, par. 2, of the Italian Civil Code;
- we verified correspondence between the financial statements and the events and information that came to our knowledge while performing our duties, and in this respect have no matters to report.

2. Conclusions

Based on the audits performed and information exchanged with the

Independent Auditors, and also taking into account their report issued on 2 April 2019 with no irregularities found, to the extent of our specific responsibilities we believe that the annual financial statements as at 31 December 2018, as prepared by the Directors, can meet with your approval. In thanking you for the trust placed in us, we invite you to resolve accordingly.

Milan, 2 April 2019

THE STATUTORY AUDITORS

Alessandro Augusto

Andrea Cuoghi

Antonio Tazzioli