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EQUITY RESEARCH

EXPERT.AI
RESEARCH STUDY

BUY
TP 1.4€
Up/Downside: 43%

Expert.ai: An AI pure player

Against a backdrop of unprecedented market growth, we look at the AI ecosystem, natural language processing and finally Expert.ai's proposed solution, which is well positioned for substantial growth and has outlined interesting targets both in its 2022-2024 business plan and in its Green market positioning.

There are four main reasons for the current explosion in AI: the attainment, over the past five years, of computing power suited to the operation of modern deep learning algorithms; the massive amount of classified data in the world (by 2025, there will be around 175 Zettabytes); the sharp drop in the cost of training AI systems (which still has an important carbon footprint); and finally the massive increase in global investment in AI (according to IDC, in 2022 alone, more than $120B was invested and, by 2026, investment will exceed $300B).

It was against this backdrop that ChatGPT, the first app in history to reach 100m users in just two months, was launched and the world was given a glimpse of what AI is capable of, from analytics to natural language generation. One issue that remains at the heart of the situation is improving human intervention in process efficiency. Forrester points out that a hybrid approach between machine learning and human intervention is preferable to a purely mechanical approach, as it enables greater efficiency in the initial stages (from data acquisition to value generation), greater transparency in the processes and greater accuracy in the results. That's exactly where Expert.ai's technology is now positioned.

After revolutionising its business model, aggressively penetrating the US market and optimising its natural language processing platform, Expert.ai published its 2022-2024 business plan at the end of December 2022. This plan is based on sustained growth, a reduction in costs of more than €14m and marks the end of the period of change in activity by forecasting 2024 as the year of return to Break Even.

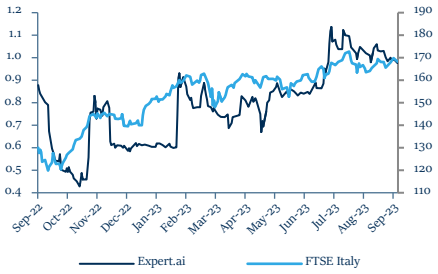
In this research, after analysing the 2022-2024 BP, we present our expected business development, in line with the company's cost cuts, but more cautious in terms of Revenues growth. Hoping that the company will be able to overperform our expectations. The reduction in expected Revenue growth has been counterbalanced both by a lower firm specific risk, which thanks to the last 4.1m capital raise has now a much more solid cash balance, and exploding trading multiples on all comparables. For all of these reasons we are reiterating our TP of €1.4.

Key data	
Price (€)	1.0
Industry	Packaged Software
Ticker	EXAI-IT
Shares Out (m)	63.910
Market Cap (m €)	62.4
Average trading volumes (k shares / day)	3.612

Ownership (%)	
Ergo s.r.l.	8.1
GUM SpA	7.2
Marco Varone	5.2
Free float	74.4

EPS (€)	12/23e	12/24e	12/25e
Estimates	-0.11	-0.03	0.03
Change vs previous estimates (%)	na	na	-42.15

Performance (%)	1D	1M	YTD
Price Perf	-1.4	-4.3	58.2
Rel FTSE Italy	-0.3	-7.4	31.6



TP ICAP Midcap Estimates	12/22	12/23e	12/24e	12/25e
Sales (m €)	31.7	34.2	39.0	44.9
Current Op Inc (m €)	-23.1	-6.3	-1.1	3.6
Current op. Margin (%)	na	na	na	8.0
EPS (€)	-0.37	-0.11	-0.03	0.03
DPS (€)	0.00	0.00	0.00	0.00
Yield (%)	0.0	0.0	0.0	0.0
FCF (m €)	-25.2	-7.1	-2.4	1.0

Valuation Ratio	12/23e	12/24e	12/25e
EV/Sales	2.4	2.1	1.8
EV/EBITDA	31.0	10.7	6.6
EV/EBIT	na	na	23.0
PE	na	na	29.6

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Description

Expert.ai has established itself as a leading company in the field of natural language processing and AI. The main mission of expert.ai is to enable organisations to extract value from unstructured text data. The expert.ai platform uses advanced AI algorithms to understand the meaning of texts in a similar way as a human would. Text analysis solutions can be used for extracting information from documents, categorising content, identifying topics and sentiments, and automating processes. The main areas of activity to date are: Insurance, Banking, Media and Life sciences. Expert.ai stands out for the quality of its AI technologies, achieved through continuous massive investments in R&D, and for its approach based on semantic language understanding.

SWOT Analysis

Strengths

- Proprietary platform and growing Annual Recurring Revenues
- Longstanding experience in a booming market
- Technological advantage and innovative Green hybrid AI approach
- Geographical diversification of revenues (ITA and USA mainly)

Weaknesses

- Small dimension and brand recognition compared to big-tech competitors
- Limited cash availability post massive investments in 2022 and cost cut in progress
- Time needed for the selling process and personalization of the solution

Opportunities

- ChatGPT provoked worldwide interest and curiosity towards Natural Language Processing (NLP) and Large Language Models (LLMs)
- Clients are now ready more then ever to embrace AI technologies
- Generative AI capabilities could be leveraged complementarily to Expert.ai `s technology
- Outsourcing the generation of new verticals to third party vendors

Threats

- Market concentration and disruptive technological advancement of Big techs
- Risk to lose market share (cost cut taking place while market is booming)
- Increasing interest rates merged with low cash availability

The AI ecosystem

The launch of ChatGPT on the 3rd of November 2022 by OpenAI and its CEO Sam Altman revolutionised the very concept of artificial intelligence, bringing it closer than ever to humans and in particular to their language. Today, according to Gartner, 45% of CEOs worldwide have been encouraged by ChatGPT to increase their investment in artificial intelligence, 70% of companies have already begun to explore the concept of generative AI, and 19% have launched pilot projects based on artificial intelligence.

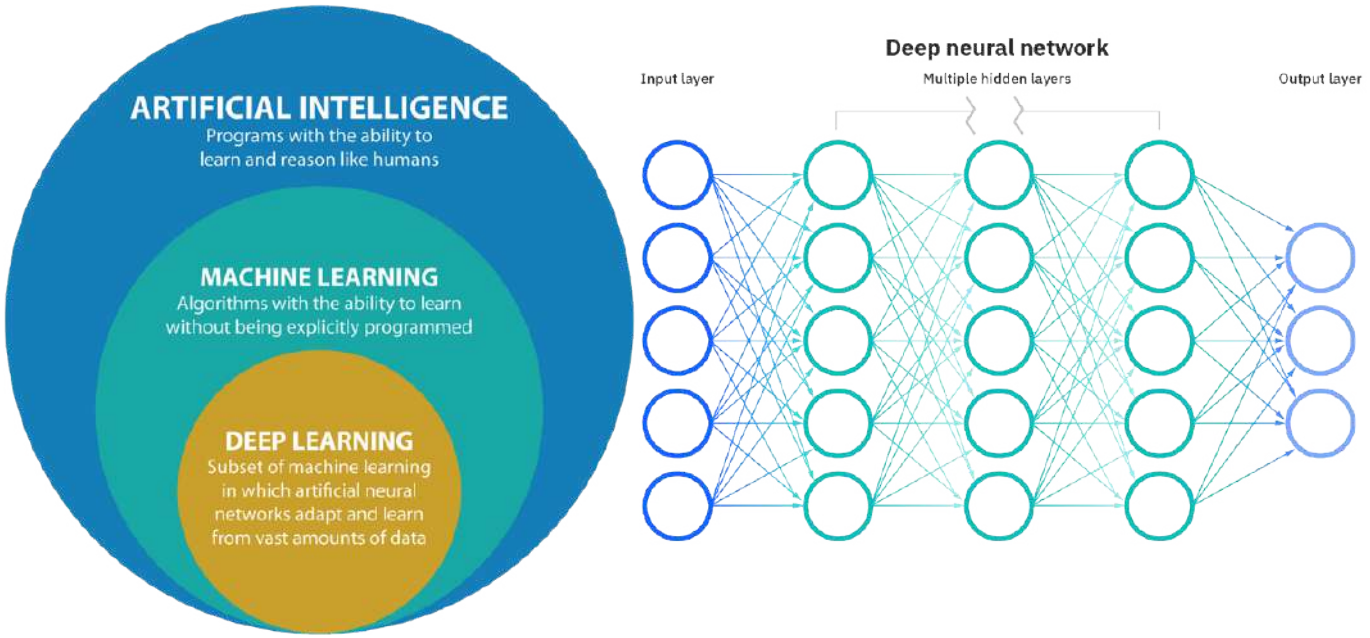
Bill Gates, after seeing the AI GPT model successfully answer 59 out of 60 questions on an AP biology test in 2022, declared without hesitation that this was the most important technological development since the graphical user interface in 1980, and later stressed that "the development of artificial intelligence is just as crucial as the creation of microprocessors, personal computers, the internet and the telephone". He also stated that "artificial intelligence will change the way people work, learn, travel, obtain health services and communicate with each other" and finally that "soon, the days before artificial intelligence will seem as distant as the days when, to interact with a computer, you had to type prompts in C:> rather than touch a screen".

But to better define what we mean by artificial intelligence, we need to take a step back. AGI (artificial general intelligence) is a general artificial intelligence capable of learning any task or subject. Simple' artificial intelligence refers to a model capable of solving a specific problem or offering a specific service. ChatGPT, for example, is an artificial intelligence capable of learning to chat.

In its simplest form, AI is capable of combining computing and large data sets with the ultimate goal of solving problems. Machine Learning and Deep Learning are the two main subsets of the artificial intelligence world that, through the application of algorithms, create complex systems capable of making predictions or classifications on the basis of input data.

The main difference between machine learning and deep learning lies in the way the algorithm is able to learn. Whereas in traditional Machine Learning, learning is more dependent on human intervention, which is called upon to define the hierarchy of characteristics of the input data in order to understand the differences between them, and therefore requires structured/labelled data, Deep Learning is able to extract the main characteristics of the data more autonomously, and therefore more easily scalable, using neural networks (with three or more layers). Thanks to deep learning, it is possible to supply unstructured data to a system and obtain an 'automatic' result.

Main categories of artificial intelligence and graphical representation of a simple neural network



Source: IBM.com

When we talk about generative AI, we're referring to deep learning models that are able to take data (for example from wikipedia, or any other usable piece of writing) and learn to statistically generate the best possible result, based on previous learning. Generative models have been applied to data analysis for years, but deep learning has broadened the scope to include images, language recognition and much more.

Simplified data labelling and structuring, which are no longer strictly necessary and time consuming, will enable companies to plunge into this world at unprecedented speed and increasingly apply the power of this technology to the most business-critical missions.

The most common applications to date can be divided into five main categories:

-Automatic speech recognition: using natural language processing (NLP), it converts spoken human language into written form; Siri, for example, uses this technology to enable voice-activated searches;

-Customer services: using automated virtual assistants, customers can be supported in their contacts with businesses or public authorities. They are generally tasked with answering the most frequently asked questions, whether it's tracking a shipment, solving a problem, providing a service or anything else.

-Computer vision: capable of transforming images or videos into usable information and making decisions on the basis of this information. Some applications of this technology include recognising subjects in photographs, analysing X-ray images for hospitals and autonomous car driving.

AI for automatic speech recognition, customer services and computer vision

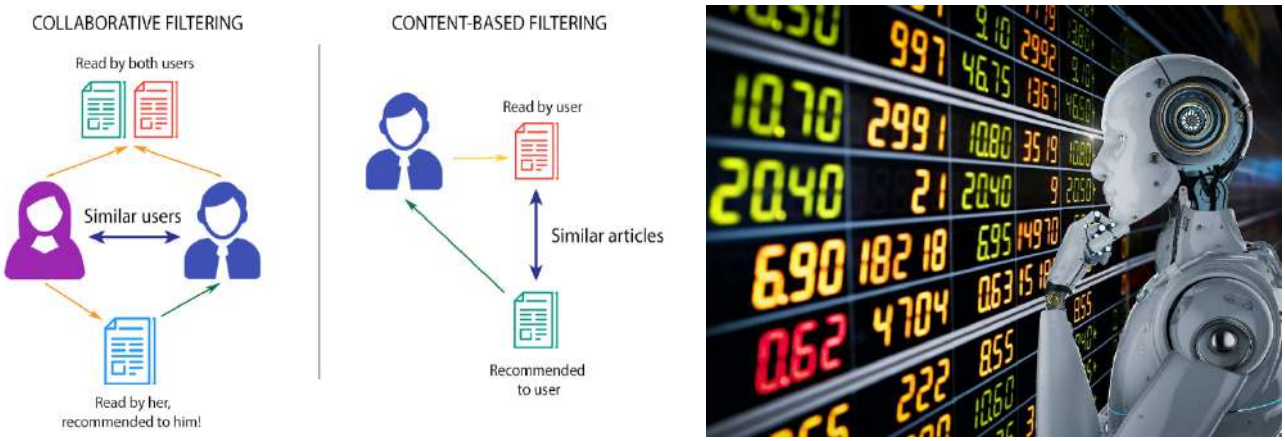


Source: Nvidia website

-Recommendation engines: capable of using information about a customer's consumption habits and, by identifying specific trends, enabling the application of targeted sales strategies. They are distinguished from collaborative filtering, which suggests items that another user with similar interests to ours has enjoyed, and content-based filtering, which suggests content similar to what we have enjoyed in the past.

-Automated stock trading: aimed at optimising portfolios according to changing market conditions, there are also several high-frequency trading platforms capable of executing thousands or millions of trades a day without any human intervention.

AI for recommendation engines and automated stock trading.



Source: Nvidia website

Natural language processing

In a study published in November 2022, Forrester indicated that in the field of natural language processing, AI based on machine learning still cannot act 100% autonomously, human knowledge remains essential for many use cases, which is why hybrid AI (a mix of knowledge-based AI and AI based on machine learning) must be favoured in order to provide the most accurate NLP solutions.

Knowledge-based AI must go through a combination of human-coded rules (linguistic rules when we talk about NLP) and filtered by specific domain and associated lexicon and taxonomy in order to produce a desired result.

Machine learning-based AI reverses this process and, by observing certain outputs and inputs, attempts to identify patterns probabilistically. Humans can label or annotate the text in order to 'shape' and direct the model towards a desired pattern or specific direction. In general, even the deep learning process begins with humans labelling images according to their content.

AI process based on knowledge or Machine Learning (ML) and example of sentence labelling



Source: Forrester

While large language models such as GPT-3, GPT-4 and BERT reduce NLP's reliance on human intervention, Forrester argues that significant time and resource investment is required in the following areas: obtaining and managing training data (obtaining quality data is crucial and can rely on synthetic data generation, automatic labelling, oversampling and manual labelling); initial model training (highly uncertain and requiring several iterations and attention); explanation of Machine Learning models (neural networks, for example, require mathematical algorithms that are difficult to visualise, so, particularly in deep learning techniques, explanation of the model remains a challenge); accuracy audits (models may require constant monitoring and retraining, usually with a human in the loop, to operate effectively).

Purely knowledge-based AI is not sustainable in the long term, as not every linguistic rule can be coded for every language in the world, but human intervention can still be seen as a critical process in the training loop. Knowledge-based AI applications are: more accurate from the outset (they are based on long-standing experience and business cases); can be deployed more quickly (no training is required) and require less ongoing support; typically use automatic labelling tools (to be verified only); are 100% explainable and provide in-depth support for complex business outcomes.

For the characteristics highlighted, a hybrid NLP solution should be preferred over knowledge-based solutions and solutions based on Large Language Models (LLMs) alone in order to optimise every aspect of the process.

Characteristics of knowledge-based AI, ML-based AI and hybrid AI

	Knowledge Based AI	ML-Based AI	Hybrid AI
Day1 accuracy	Yes	No	Yes
Training data	Not needed	Needed	For ML part
Data Labelling	Not needed	Needed	Auto-labelling
Time to Value	Fast	Slow	Fast
Transparency	Yes	Depends on Algorithms	Less Algorithms-based
Self-learning	No	Yes	For ML part
Future Fit	No	Yes	Yes

Source: Forrester

Expert.ai's hybrid AI platform

Expert.ai has developed and launched in 2022 its proprietary platform, capable of applying hybrid artificial intelligence to natural language in order to simplify the understanding of complex documents (contracts, emails, reports, etc.) and less complex written documents, such as simple messages, and thus simplify the extraction of value from unstructured data.

Key use cases in terms of initial data/document analysis include: extracting clauses from complex contracts, analysing call centre transcripts to optimise quality, examining complex medical documents (including research documents) to extract critical data, and analysing requests for proposals to identify and classify features/requirements.

In terms of the company's offerings, prior to entering the various verticals, the company is involved in the following: automating commercial interactions with customers; analysing conversations between customers and the company; commercial semantic search (to understand not just single words, but also their meaning in context); offering contract analysis services (from clause analysis to claims management, including the comparison of different contracts); and, finally, General Data Protection Regulation (GDPR) compliance services.

The Expert.ai platform is capable of handling the most complex use cases while remaining simple and intuitive, avoiding time-consuming and costly manual activities so you can make faster, more informed decisions.

From text documents to usable information

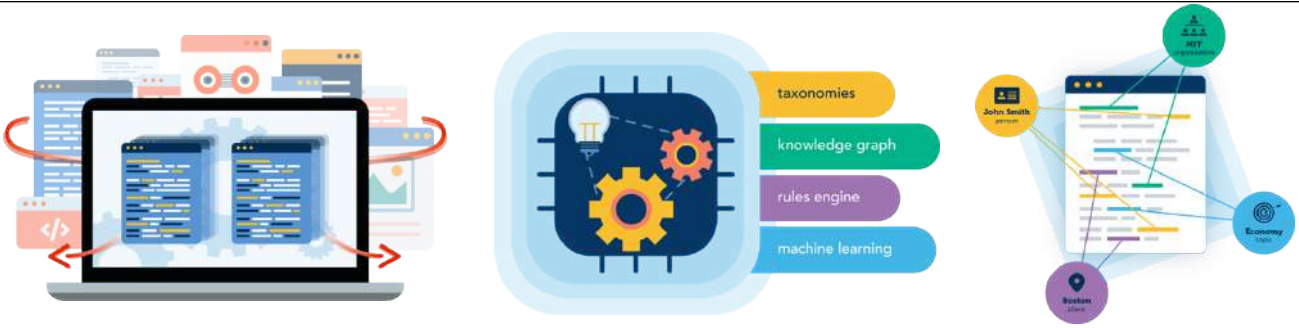


Source: Expert.ai website

Compared with other technological approaches, Expert.ai's proprietary platform allows for faster development times thanks to its openness (guaranteed through massive investments in the past years), which enables the integration of new artificial intelligence approaches as the technology progresses: large language models (GPT, BERT...); process automation solutions (Blue Prism, Automation anywhere and UiPath...); Business Analytics tools (Qlik, Tableau, Snowflake and SalesForce); audio and video platforms (anyclip, apptek) and productivity tools; and CRM (ServiceNow, Slack, SugarCRM, Google C Suite and Oracle e-Business Suite).

Companies need a hybrid and flexible approach to AI, capable of supporting natural language processing and integrating machine learning techniques and LLMs in order to benefit in terms of cost, development time and functionality (such as deployability, scalability and security). An additional level of difficulty is introduced when it becomes necessary to understand industry or company-specific terminology. Expert.ai has extensive experience in sectors such as insurance, technology, finance and media and the platform has proven total flexibility in embracing new technologies. The knowledge models developed over time by Expert.ai enable sector-specific knowledge and experience to be converted into models based on rules, concepts and relationships between specific concepts. As many knowledge models are ready to use, Expert.ai's client companies can quickly improve the level of accuracy of the solutions applied to their specific business case. Once the main demand-opportunities have been analysed, companies can optimise their decision-making process by partially automating language-intensive processes and more easily identifying customer satisfaction.

From text documents to usable information

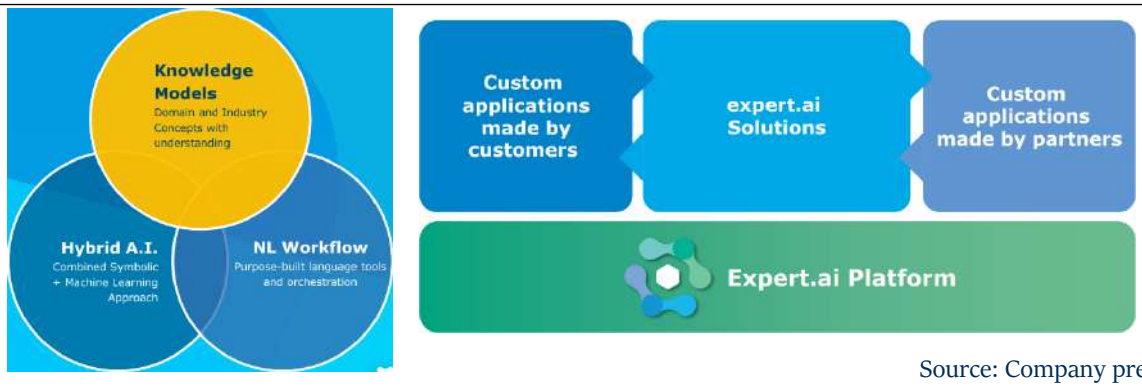


Source: Expert.ai website

Most of AI platforms are built like Black Boxes. Black boxes's based decisions are increasingly becoming not only an internal problem for companyes but also a regulatory one. The problem with this kind of approach is that natural language processing (and understanding) tools are based on Machine Learning techniques. ML-only models are trained on massive data sets throung large Language Models, this training process requires a massive amount of computational power, with a huge carbon footprint and a negative impact on the environment. Expert ai's technology can reduce up to 100x the pollution produced in the training phase, and up to 25% in the prediction phase. In addition to **Sustainability** the company's technology is centered on human partecipation in the loop which guarantees **Transparency** and **Explainability** of all processes.

The proprietary Hybrid NLP platform, thanks to its integration with knowledge models and its ability to manage company workflows in an integrated way, offers seven key features that make it unique in the competitive context : - Total **process explicability** ; - **Low dependency on data**, which enables optimal results to be obtained even in the absence of training data; - **Flexibility**, the platform can be offered on-premise or on private and public Clouds; - **Scalability**: performance can be optimised both with more training data and with deeper knowledge structuring, and in addition, the openness of the platform also allows partner companies to develop custom applications and indirect verticalisations, enabling indirect customer acquisition; - **Efficiency**: the fast, efficient architecture is a valid alternative to the computational cost of neural networks; - **Absence of bias**: the symbolic approach enables a more regular and directly correctable process.

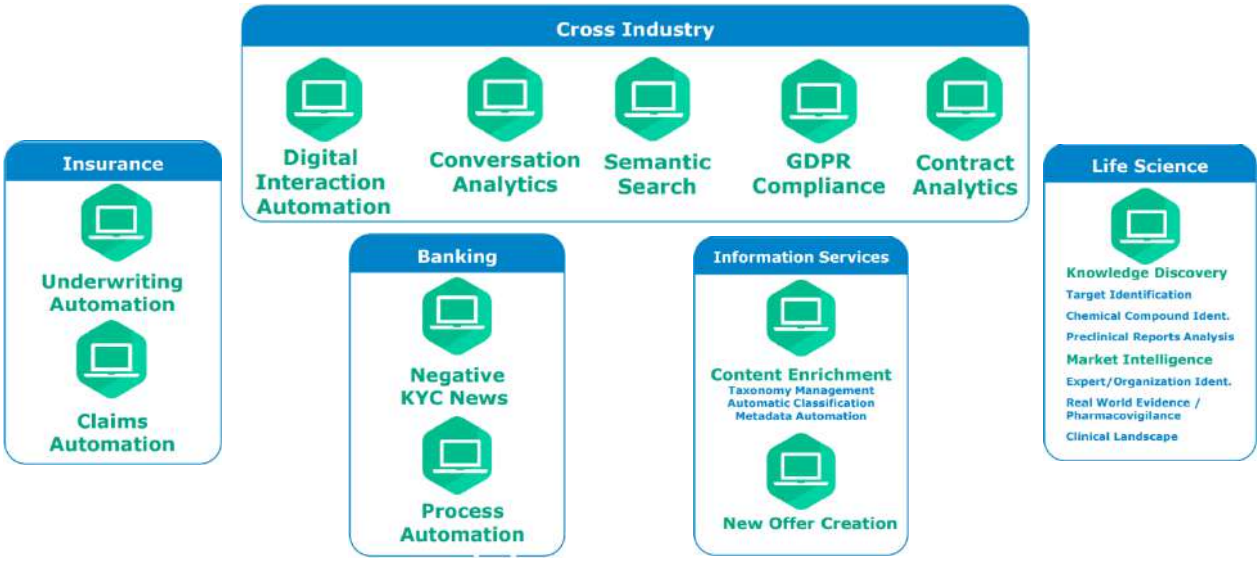
The pillars of the Expert.ai platform and product positioning



Source: Company presentation

Within the different sectors, these capabilities are channelled to offer specific services according to sectorial needs (both in terms of processes and products). In the insurance sector, for example, contract analysis (to automate the insurance underwriting process) and claims analysis (exploiting both digital interaction capabilities, understanding conversations and, finally, linking them to account analysis) are crucial. In the financial sector, the identification, grouping and characterisation of external news (negative KYC news) and the automation of processes (such as the collection of judicial information, notarial deeds, death certificates, decrees, etc.). Other sectors include media and life sciences.

General platform capabilities and potential sector-specific applications



Source: Company presentation

Business Cases

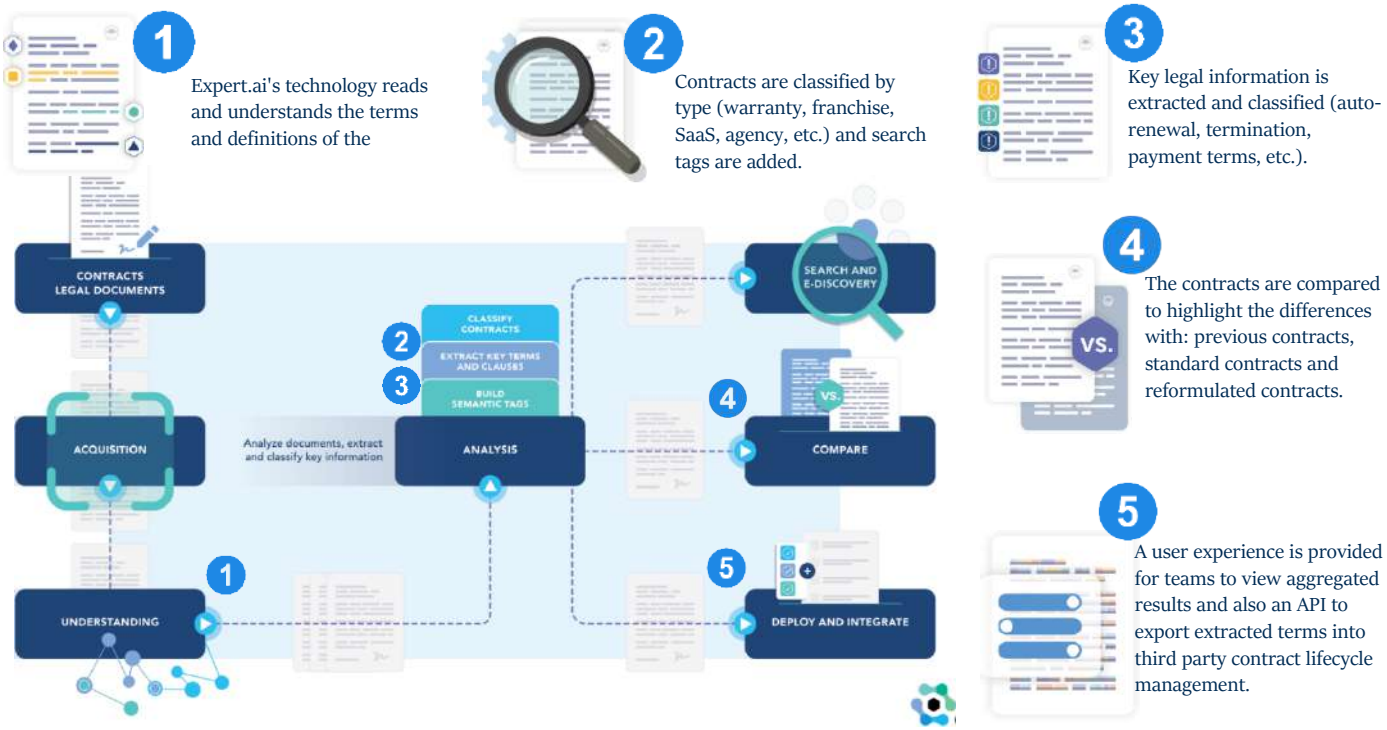
Insurance sector: The three main areas of application of the Expert.ai platform in the insurance sector are: risk engineering (AI is used to assess risks, highlight unit exposures and policy inconsistencies), contract review (prior to the underwriting process, limits leakage and unintended risk exposures, thereby ensuring contract certainty) and claims management (extracting relevant claims data, linking the claim to the policy, and highlighting fraud).

Policy Review / Contract Analytics - Zurich Insurance

Zurich Insurance's lack of standardised processes created a mismatch between different policy clauses, internal best practice and reference contracts, resulting in: massive audit processes, high volumes of audit requests and an increased risk of unconscious exposure.

Thanks to the Contract Analytics service, which provides companies with AI tools capable of reading, understanding and extracting legal terms, industry-specific language and contract clauses (termination dates, payment terms, renewal conditions, etc.), Zurich Insurance has optimised the process of classifying policies and clauses.

Expert.ai's contract analysis process and capabilities



Source: Company presentation, Business Cases on website and TP ICAP Midcap elaboration

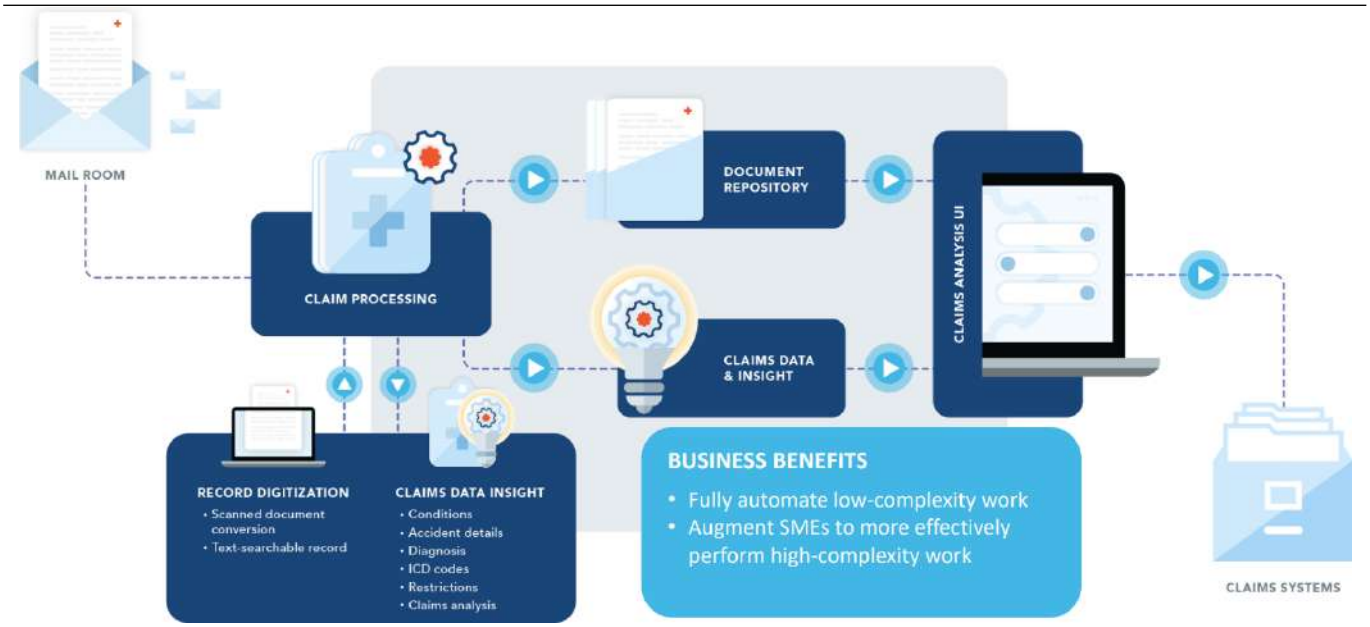
Thanks to the solution proposed by Expert.ai, the client was able to streamline the contract reading process (which requires not only specialist skills but also time and significant financial outlay), by concentrating human review on supervising the process and checking entitlements. As a result, Zurich was able to save around 8 hours of review time for each policy and acquire the reading and analysis capabilities of 8 Full Time Equivalents (FTEs), thereby optimising the underwriting process.

Claims management / Process Automation - Generali

The growing volume of complaints was challenging Generali's ability to respond quickly to customer queries, exposing the company to the risk of procedural errors, a potentially sub-optimal customer experience and high helpdesk management costs.

Thanks to the integration of Expert.ai's solution into the company's processes, it was able to start classifying incoming calls with greater ease, while extracting their key characteristics and channelling them to the reference team to undertake the internal control process more quickly.

Expert.ai's accelerated claims process



Source: Company presentation

Using Expert.ai proprietary technology applied to a road accident case as an example, it is able to first collect key information about the accident, analyse reference medical reports (analysing clinical data and highlighting third-party sources of information) and, once the severity of the situation has been assessed, arrive at a plausible and appropriate range of reimbursement to submit to the insurance team (if deemed plausible and appropriate).

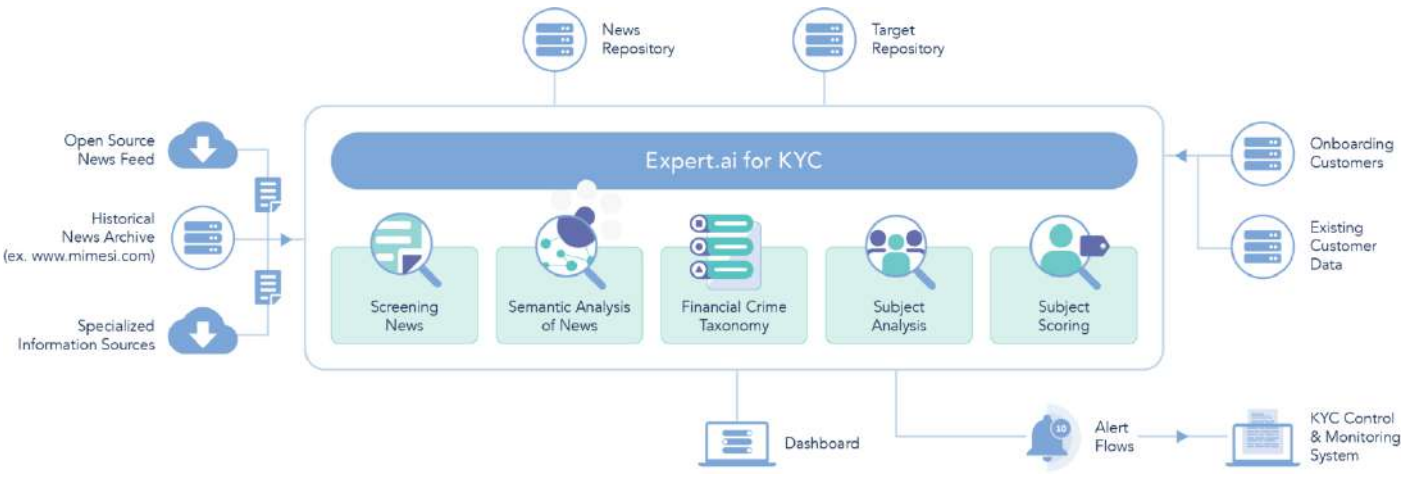
Process optimisation has enabled Generali to improve claims processing and distribution times by 80%, reducing the time taken to reach an agreement in health-related cases from 8 to 1 day.

KYC operations for finance - private customer

Finally, a third area of application is the financial sector, where managing the flow of stakeholder information is crucial to monitoring business continuity, facilitating anti-money laundering practices and ultimately ensuring alignment with corporate compliance. Thanks to the platform's filtering activity, companies can: collect judicial/extrajudicial data, notarial deeds, decrees, exemptions, development plans on the reference company or client companies, channelling the flow of information as they wish.

The platform is capable of processing up to 40,000 news items a day, recognising more than 60 different types of offence. Once an importance value has been assigned to each piece of information, the tool is able to alert the banking system (or the financial institution concerned) to any critical issues and feed interactive dashboards to make the information accessible.

Analysis of KYC management by Expert.ai



Source: Company presentation

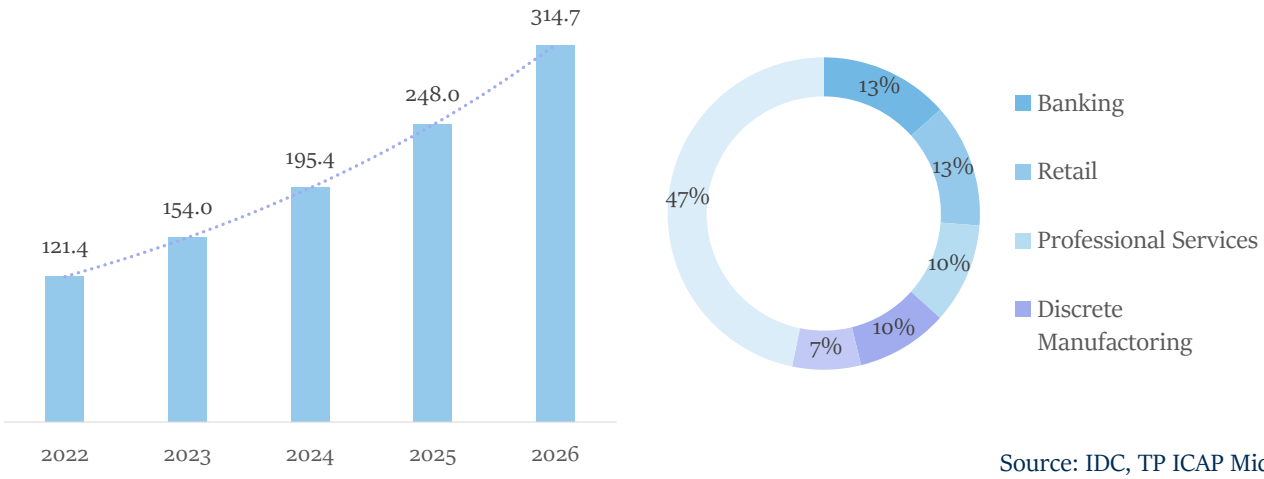
Global spending on AI-centric systems expected to exceed $300B in 2026

IDC forecasts that global spending on artificial intelligence (including software, hardware and related services) will reach $154 billion by 2023 (+26.9% YoY), then register a CAGR of 27% over the next three years to exceed the $300 billion mark by 2026.

Companies that are unable to integrate the capabilities of artificial intelligence tools into their processes will not be able to automate repetitive and time-consuming processes, the more difficult it will be to deliver the most data-driven recommendations and decisions with speed and accuracy, and for this reason they will inevitably lose competitiveness.

According to IDC, the first areas of application for artificial intelligence in all sectors will be the integration of virtual agents (applicable at every point of contact between the customer and the company, from training to complaints management and after-sales services), the optimisation and improvement of sales processes and, finally, consultancy services linked to the recommendation of programmes and services. Banking and retail will be the sectors investing most in AI in 2023, followed by professional services, discrete manufacturing and process manufacturing, while the media sector will see the highest growth rate over the next five years, exceeding 30%.

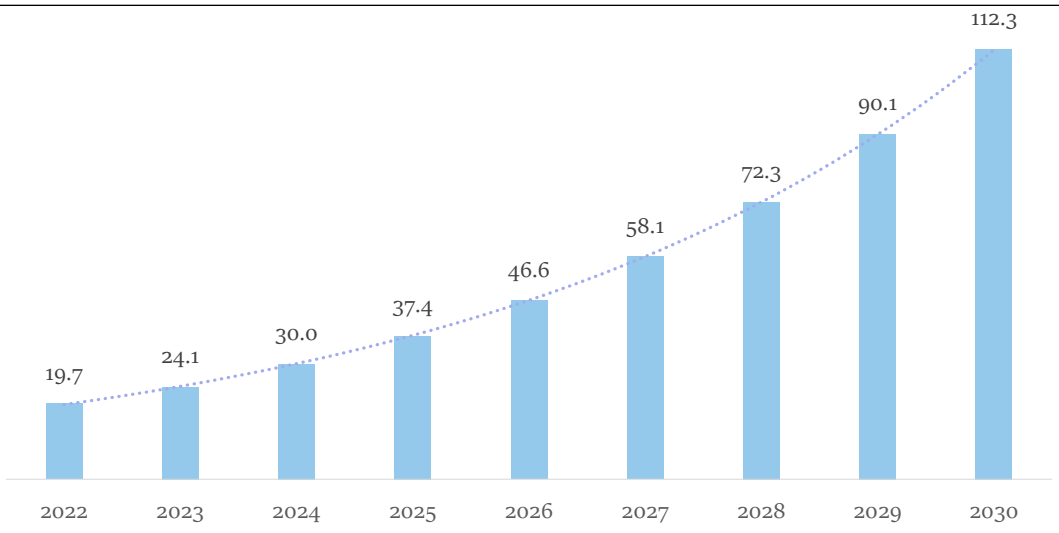
Global AI expenditure CAGR 2023-2026 of 26.9% and forecast expenditure in 2023 by main sector



Source: IDC, TP ICAP Midcap

The global natural language processing (NLP) market has been estimated by Fortune Business Insight to be worth around $19.7 billion in 2022, including $9 billion in North America. The sector is expected to reach $24.1 billion in 2023 and to grow at a CAGR of 24.6% between 2023 and 2030, reaching $112.3 billion in 2030. The main NLP applications on offer will be voice recognition, sentiment analysis, virtual agents, chatbots, text analysis and natural language generation.

The global NLP market is expected to grow at a CAGR of 24.6% between 2023 and 2030.



Source: Fortune Business Insight, TP ICAP Midcap

Key income statement indicators

Over the past few years, Expert.ai has moved from a business model based on perpetual licences and professional services to one based on annual recurring revenues (ARR), leveraging the proprietary NLP platform under continuous development. Revenues have remained stable but their composition has changed massively, with ARR reaching €18.8m in 2022 (up from €12.1m in 2020), marking a 2020-2022 CAGR of 24.6%. ARR have generated 59% of revenues in 2022, up from 39.5% in 2020, underlining a growing base of customers committed to the longer term. ARR include contracts, maintenance and hosting, which in 2022 have respectively generated €15m (versus €14.1m YoY), €3.4m (versus €3.5m YoY) and €1m (versus €0.7m YoY).

The composition of Revenues highlights a growing geographical dependence on the United States, while Italy, Europe and the rest of world have remained stable over the last three years. ARR in the European region reported a 2020-2022 CAGR of 21.8%, while North America of 32.9%.

Professional services, the secondary source of revenues, are expected to decline in importance over the next few years, in line with a growing focus on ARR.

The company, from 2020 to 2022, has invested more than €25m in research and development, in order to continue to establish itself as a technological leader in the reference sector. Expert.ai's technology has been cited by KMWorld (Knowledge Management) as one of the world's top 50 companies in Artificial Intelligence, and by Forrester in its two reports dedicated to text analysis platforms (Q2 2022) for both its people-centric and document-centric approach. While from the restructuring over 14m of opex will be cut, we do not expect a significative cut in R&D investment.

Composition and geographical breakdown of Revenues (excluding R&D in line with international accounting principles)

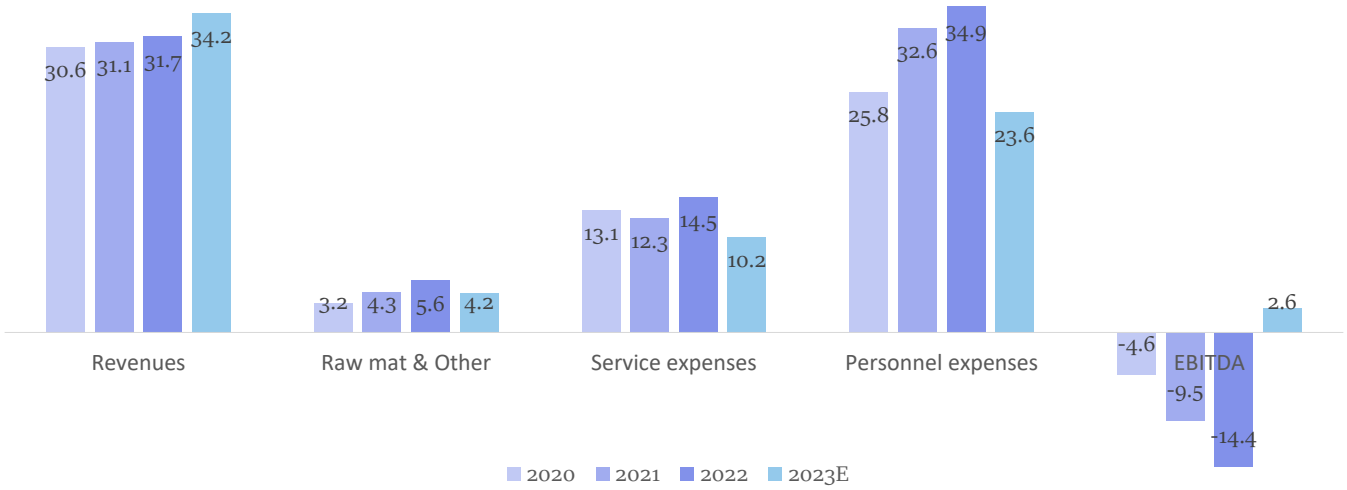


Source: Expert.ai Financial Statement, TP ICAP Midcap

In terms of cost structure, the main expenses are attributable to services and personnel. While Revenues have increased year on year, mainly driven by USA and Italy (as previously analysed), EBITDA has been negatively impacted by rising costs, generating a loss of -14.4m in 2022. Over the past few years, Expert.ai has invested heavily to : develop its new business model based on recurring revenues ; continue developping the platform's technology and capabilities ; grow in Europe and in North America ; specialise in certain industry verticals such as insurance, banking and media. This has resulted in massive expenditure on non-recurring opex for external consultancy (technology suppliers/consultants), sales and marketing and some overlapping roles in North America.

The company's 2022-2024 industrial plan will focus on cost cuts. The massive investment phase has ended and will enable Expert.ai to reduce staff costs by over €11m and service costs by more than €4m, which we expect, coupled with expected revenue growth of €2.5m, will result in EBITDA of €2.6m in 2023 (more cautious than the €6m presented in the industrial plan). The 2023 scenario in the graph below highlights the Revenues and costs expected post-restructuring.

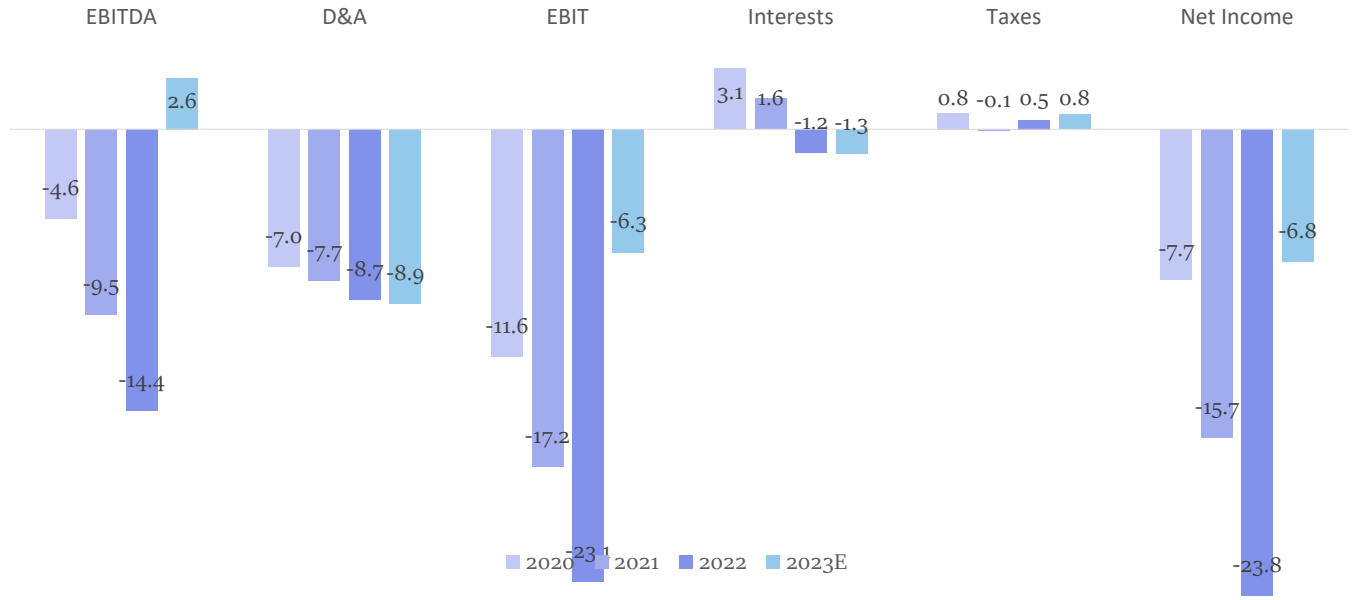
From Revenues to EBITDA: cost structure and dynamics 2020-2023E



Source: Expert.ai Financial Statement, 2022-2024 Business Plan and TP ICAP Midcap

We expect growth in D&A 2023 to be slightly lower due to lower R&D investments in 2023. Our estimations on Interest expenses increase in line with the growth in Net Debt (use of cash) and the rise in interest rates (a more favourable exchange rate effect will counterbalance their rise). Taxes remained stable in line with the loss-making income statement, with a positive impact on the tax credit (5.1m in 2022, compared with 3.3m in 2021) which should benefit Expert.ai in the coming years.

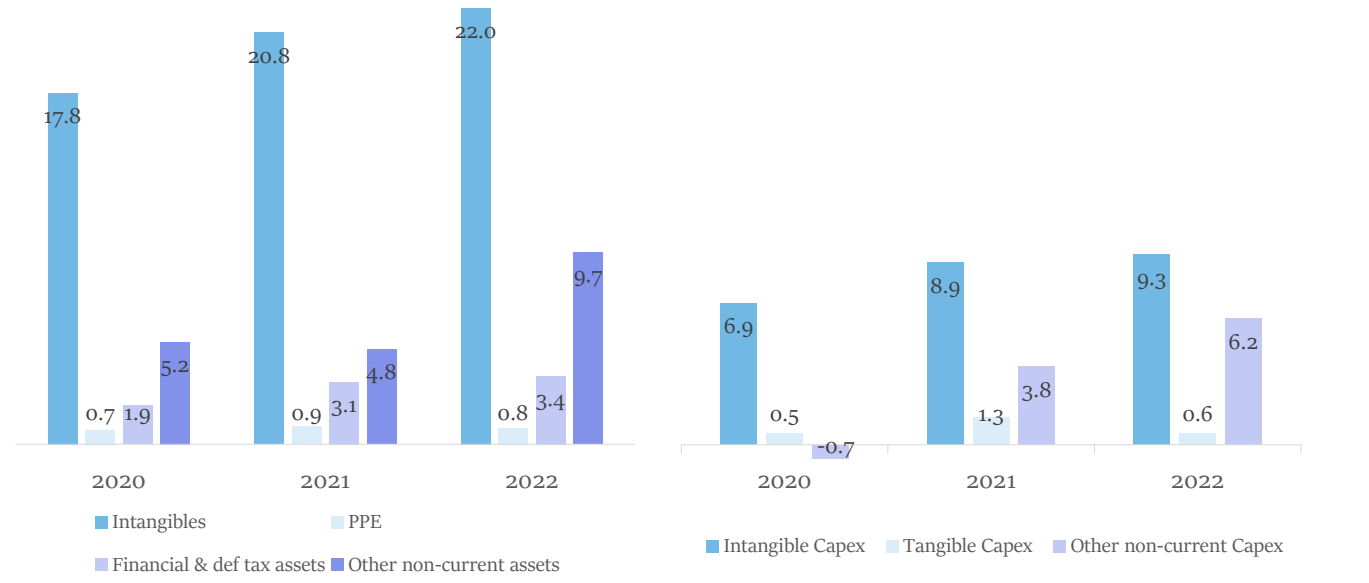
From EBITDA to Net Income 2020-2023E



Source: Expert.ai Financial Statement, TP ICAP Midcap

With regard to non-current assets on the balance sheet, we can clearly see that the company relies on intangible assets, such as the proprietary platform, and that, the main capex investments is R&D. Regarding PPE, financial assets and deferred tax assets, they do not have a significant dimension, unlike 'other non-current assets'. The more Expert.ai succeeds in signing long-term contracts and improving the size of its order book, the more this is reflected in cash flow as "other non-current investment" and in the balance sheet with an increase in "other non-current assets". Other non current assets include mainly long term commercial credits (majority) and reasearch grants to be received. In 2022 the mix rose up to 9.7m (vs 4.8m YoY).

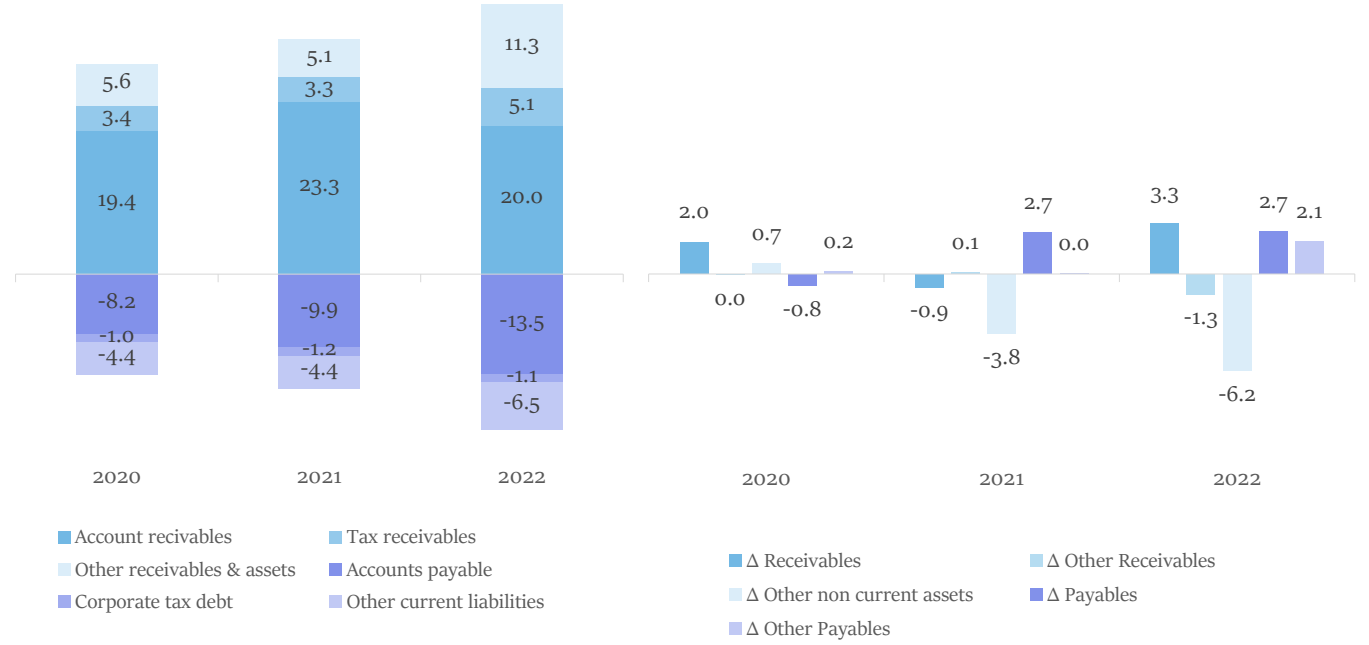
Non-current assets and investments 2020-2022



Source: Expert.ai Financial Statement, TP ICAP Midcap

Working capital is heavily dependent on short term commercial credits, which in 2022 amounted to 70% of revenues (vs. 82% YoY). While short term commercial credits decreased, long term ones increased massively (as analysed in the previous paragraph), the mix of the two have absorbed cash. Commercial debts and other payables increased each year and generated around €4.8m in cash in 2022. In 2022 working capital dynamics generated €0.6m, which slightly supported the cash absorption due to investments.

Dynamics of working capital and corresponding cash generation 2020-2022



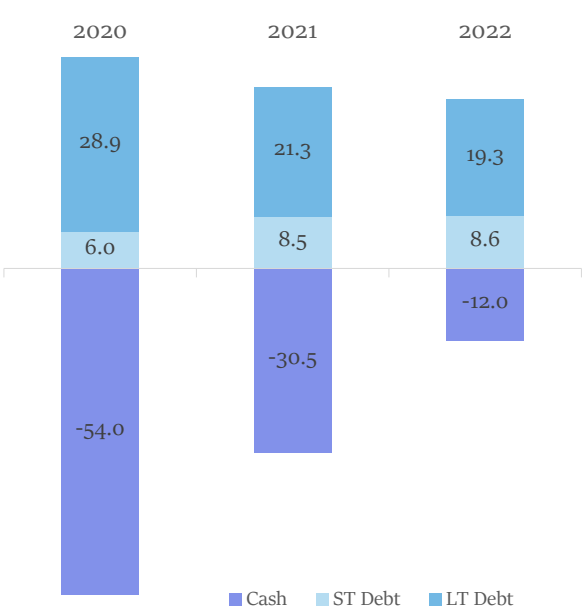
Source: Expert.ai Financial Statement, TP ICAP Midcap

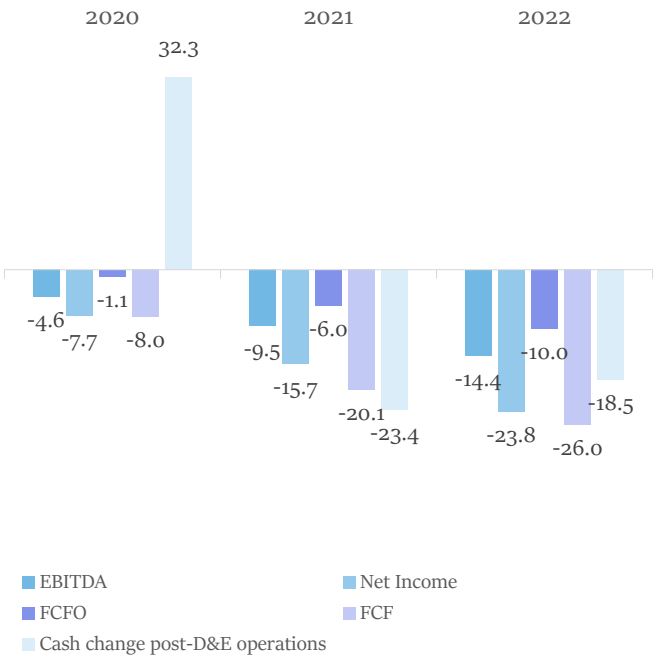
With regard to the net financial position, starting from the €54m of cash recorded at the end of 2020 Expert.ai has invested massively, mainly in: entering the North American market; developing and launching new platform functionalities; moving from a perpetual licence structure to an annual recurring revenue structure; and finally targeting specific commercial verticals.

Operating activities alone absorbed €-1.1m in 2020, €-6m in 2021 and €-10m in 2022, while capex investments absorbed €-6.8m in 2020, €-14.1m in 2021 and €-16m in 2022. Investments were financed mainly by a capital increase (and stock options/subsidies) of €31m in 2020, €2.6m in 2021 and €7.4m in 2022. Expert.ai had residual cash balance of €12m at end 2022.

During 2023, the company raised an additional 4m, mainly due to the entry of new partner GUM SpA in the BoD, the pro forma net debt after the entry of the new shareholder is of 11.9m (vs 15.9m at end 2022).

Past dynamics of net financial position and cash generation





Source: Expert.ai Financial Statement, TP ICAP Midcap

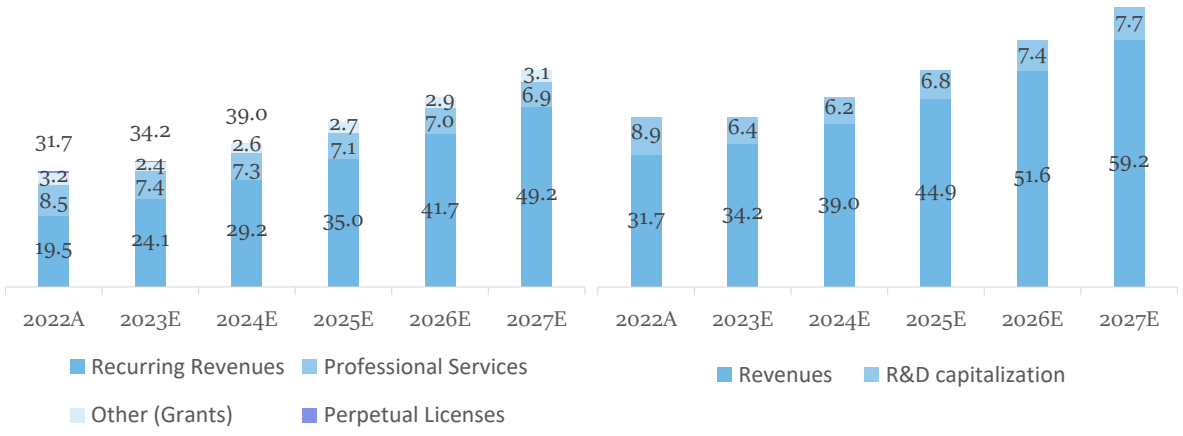
Financial projections

Our projections have been drawn up with the aim, firstly, of transparently highlighting the impact of the cost reductions presented in the 2022-2024E business plan and, secondly, of conservatively projecting an expected future trend in a more cautious scenario than that presented in the 2022-2024 business plan by the company.

We expect revenues to grow from €31.7m in 2022 to €59.2m in 2027E, representing a CAGR of 13.3% (when IDC forecasts a CAGR of 26.9% between 2022 and 2026 for AI-centric systems worldwide). The growth rate is expected to be lower in the first year (8.1% in 2023) due to a decrease in both revenues from professional services and perpetual licenses. We then expect from 2024 on a growth rate between 14% and 15% per year. While revenues from perpetual licences will disappear from 2024 onwards, and we anticipate a slight reduction in R&D investment (in order to optimise cash generation in the short term), recurring revenues from licences will drive growth, with an expected increase of 24% in 2023, 21% in 2024 and between 18% and 20% from 2025 to 2027.

In order to reduce cash absorbtion in the short term, we expect R&D investment to be below €7m in 2023 and 2024 (€6.7m and €6.6m respectively, compared with €9.3m invested in 2022).

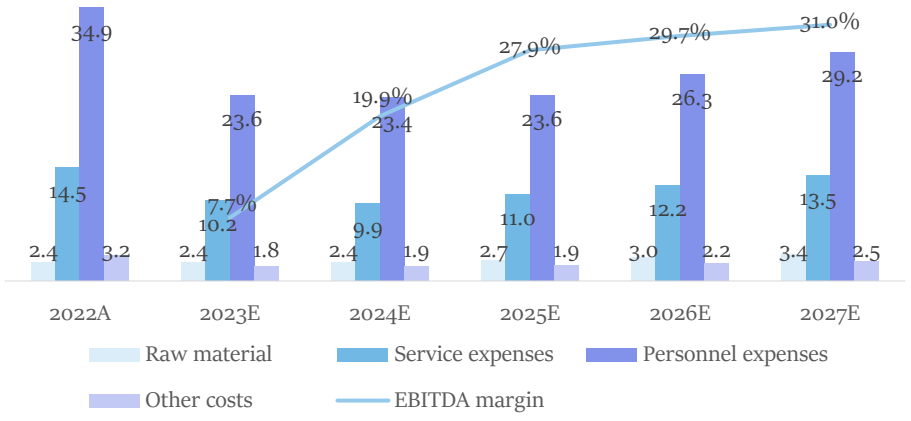
Revenues main drivers and R&D capitalization forecasts 2022-2027 (€m)



Source: Expert.ai Business Plan 2022-2024, TP ICAP Midcap

In 2023, the cost reduction outlined in the industrial plan will lead to a €4.3m reduction in service expenses (lower general and administrative costs, fewer external technology consultants and lower external sales); an €11.3m reduction in personnel costs (finer management structure, fewer overlapping roles and a partner-led model in non-core markets); third-party costs will also be reduced through the elimination of unnecessary office space (and associated rent). The EBITDA margin is expected to reach 7.7% in 2023, 19.9% in 2024 and 27.9% in 2025 (the first period in which we expect positive FCF).

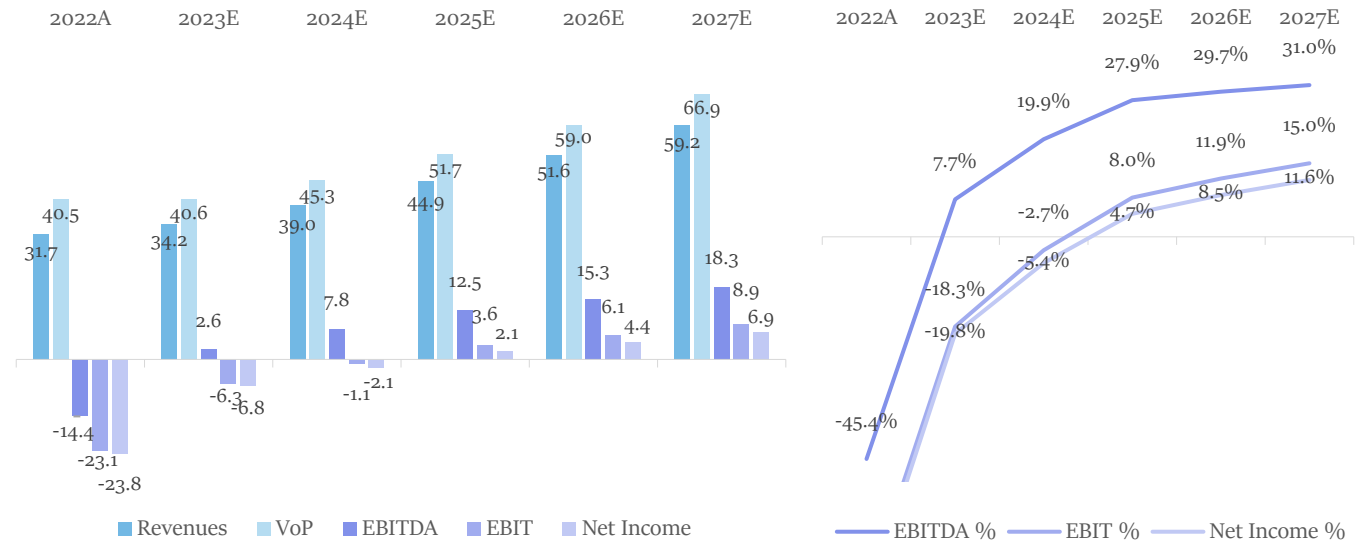
Cost structure and EBITDA margin forecast 2022-2027 (€m)



Source: Expert.ai Business Plan 2022-2024, TP ICAP Midcap

The massive cost reduction combined with an expected revenue growth of 8.1% will allow Expert.ai to reach a positive EBITDA of €2.6m in 2023, which combined with a D&A of €8.9m (vs €8.7m YoY) will lead to an EBIT of €-6.3m and finally, after financing costs and taxes, to a net income of €-6.8m (vs €-23.8m YoY). While growth will continue, the model based on the proprietary platform and ARR will allow Expert.ai to capture the massive sectoral expected growth on the topline while maintaining a stable cost structure (which will grow less than proportionally). Following our estimates, in 2025 marginality targets will be met and the company will start generating positive free cash-flow. Our estimates for 2027 (last explicit period) highlight an EBITDA margin of 31% (on revenues), an EBIT margin of 15% and a Net Income margin of 11.6%, with an FCF of around €4.8m.

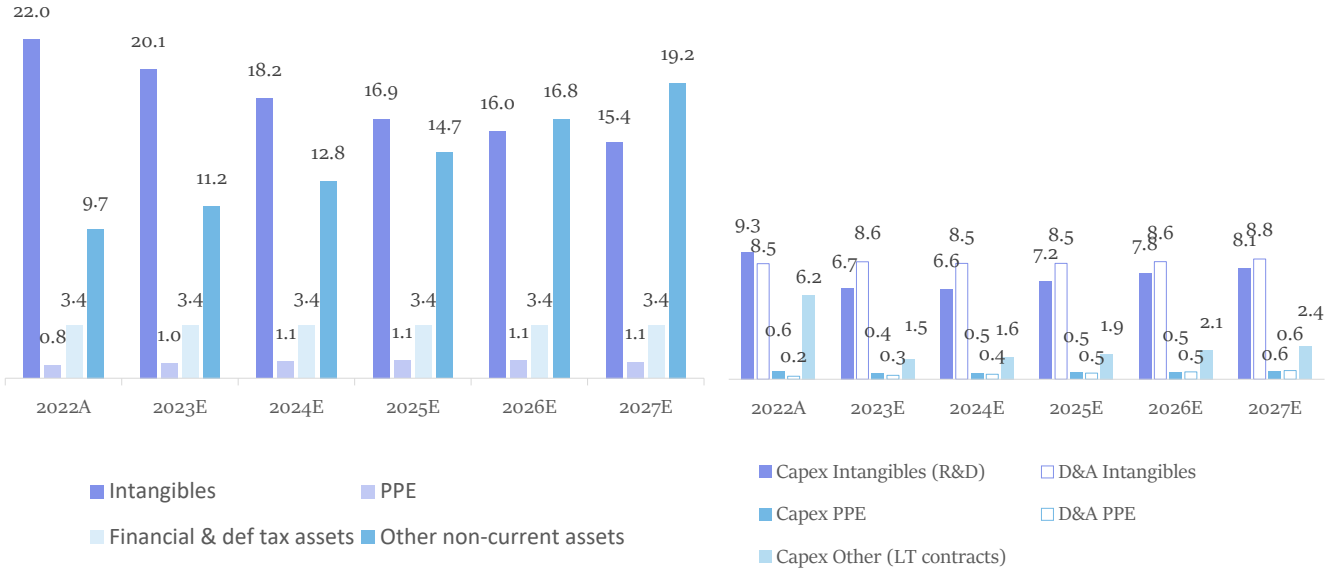
Forecasts for the main P&L indicators 2022-2027 (€m)



Source: Expert.ai Business Plan 2022-2024, TP ICAP Midcap

As far as non-current intangible assets are concerned, the massive investment phase is over and from next year onwards, D&A should be worth more than capex (especially R&D), which is why we expect intangible assets on the balance sheet to fall from €22m in 2022 to €15.4m in 2027. Tangible assets will remain stable. Finally, other non-current assets should gradually increase, following business growth and long term contract signings.

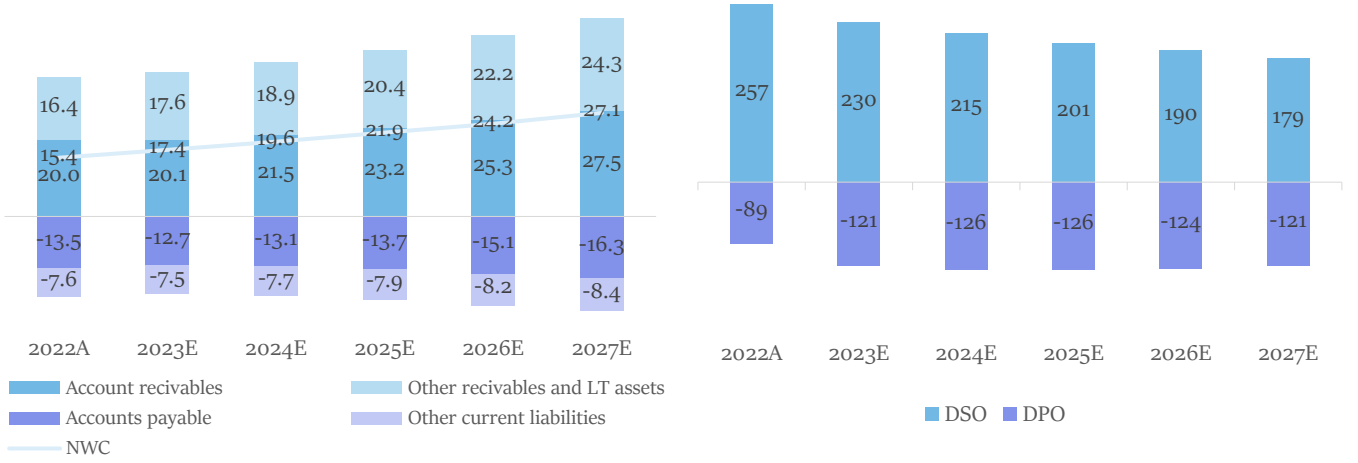
Non-current assets, capital expenditure and D&A forecasts 2022-2027



Source: Expert.ai Business Plan 2022-2024, TP ICAP Midcap

On the working capital side, we expect receivables to increase in line with revenue growth, showing a gradual efficiency in collecting credit from customers with a downward trend in DSO, tax receivables should gradually decrease but will be counterbalanced by the growth in 'other non current assets'. On the payables side, although costs will be massively reduced, we expect Expert.ai to be able to maintain total current liabilities in 2023 at around €20.2m (vs €21.1m YoY), underlining an optimal ability to pay late its suppliers (the €10m reduction in staff costs will partly contribute to increasing DPO). We expect DPO to gradually decrease after the Business Plan period. Working capital, we estimate, will absorb on average between €2.9m and €2m per annum.

Working Capital forecasts 2022-2027

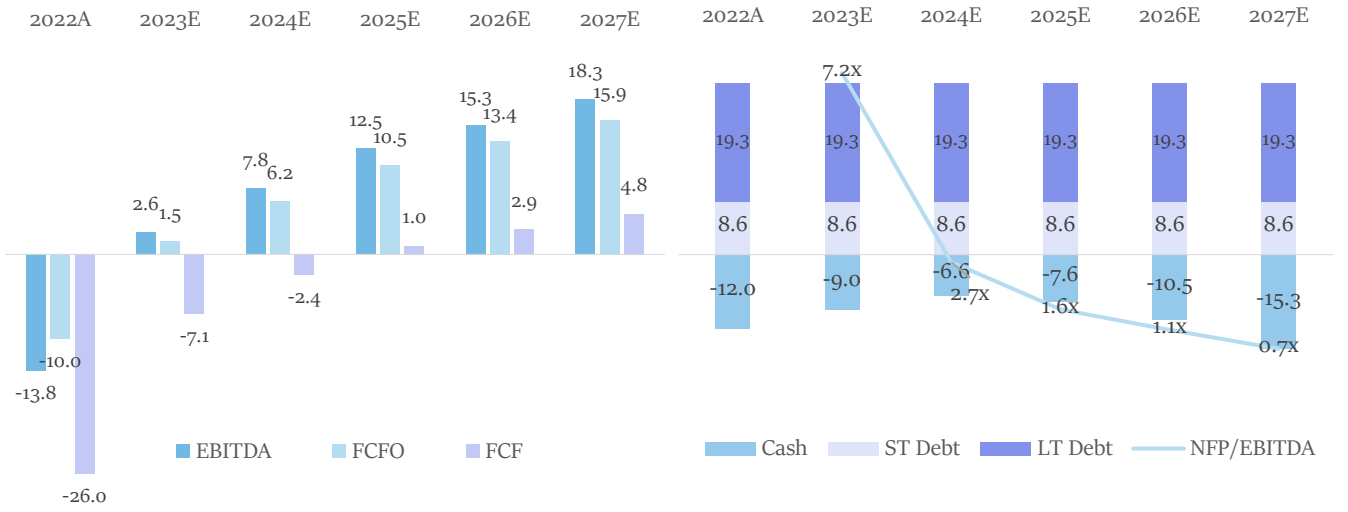


Source: Expert.ai Business Plan 2022-2024, TP ICAP Midcap

By 2023, the company will reach a €-0.5m operative cash generation (vs €-9.4m) and a FCF of €-7.1m (vs €-26m YoY). We estimate that FCF will reach €-2.4m in 2024, €1m in 2025, €2.9m in 2026, and finally €4.8m in 2027.

The cash burn of €7.1m in 2023 will be offset by a 4.1m capital raise (performed in July 2023). The EBITDA growth to €2.6m (vs €6.5m in Expert.ai's BP 2022-2024), will allow Expert.ai to mark an NFP/EBITDA ratio of 7.2x. In 2024, we forecast an EBITDA of €7.8m (vs €16m presented in Expert.ai's BP), with NFP/EBITDA reaching 2.7x. And finally the €12.5m EBITDA and €1m FCF expected for 2025 will lead to a 1.6x NFP/EBITDA multiple.

Forecasts for cash generation and net financial position 2022-2027



Source: Expert.ai Business Plan 2022-2024, TP ICAP Midcap

Evaluation of the stock

To determine Expert.ai's intrinsic value, we apply the DCF method (with a weighting of 70%) and the comparables method (with a weighting of 30%). Six companies (one Italian and five American) were selected as partially comparable in terms of business characteristics (often based on proprietary solutions), sector of activity and geographical area of reference. The relative valuation model is based on EV/Sales (weighted at 30%).

The valuation does not take into account potential future mergers and acquisitions, only expected organic growth. In terms of financial strength, the company wil face a period of transition over the next two years, aimed at restoring cash generation and margin efficiency. Taking an optimal NFP/EBITDA ratio of 3x as a benchmark, we believe that the company will be in a position to increase its capital expenditure well above 9m, or perform M&A operations from end 2024 on.

DCF method

Main drivers of normalized NOPAT and FCF :

-EBITDA margin normalised at 31% of revenues from 2027E on;

-Capital expenditure and administrative expenses at 10% of revenues from 2032E;

-Net working capital stabilised at 16% of sales from 2032E;

-Corporate income tax rate of 27.9% in 2023E.

Discount rate :

Risk-free rate of 4.2% (Italian 10-year BTP, average of the last 6 months).

-Equity risk premium of 8.3% (Source: Damodaran website)

Specific size premium of 1% (small player and low availability of liquidity in a fast-changing sector)

-Re-Levered beta of 0.8x

-Long-term growth rate of 3%.

-Cost of equity of 11.9% with an equity weighting of 80%

-Cost of debt of 3.6% with a debt weighting of 20%.

-WACC of 10.2%.

Beta calculation evidence

Beta Calculation						
	Peers	Ticker	Beta 3YR	Gearing	Tax rate	Unlevered
Country:						
United States	Alteryx, Inc. Class A	AYX-US	-0.1x	-30%	25.0%	-0.1x
Italy	Almawave S.p.A.	AIW-IT	0.2x	8%	27.9%	0.2x
United States	C3.ai, Inc. Class A	AI-US	1.5x	32%	25.0%	1.2x
United States	Paycom Software, Inc.	PAYC-US	1.2x	7%	25.0%	1.1x
United States	Splunk Inc.	SPLK-US	1.0x	-6%	25.0%	1.0x
United States	Twilio, Inc. Class A	TWLO-US	0.9x	24%	25.0%	0.8x
	Average		**0.8x**	**6%**	**25.5%**	**0.7x**
	Expert.ai Group	**EXAI-IT**		**20%**	**27.9%**	
	Re-Levered Beta	**0.80**				

Source: FactSet, TP ICAP Midcap

DCF valuation method

FY (€m)	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Revenues	**31.7**	**34.2**	**39.0**	**44.9**	**51.6**	**59.2**	**66.4**	**73.0**	**78.6**	**82.8**	**85.2**
% change		*8.1%*	*14.1%*	*15.1%*	*14.9%*	*14.6%*	*12.3%*	*9.9%*	*7.6%*	*5.3%*	*3.0%*
EBITDA	(14.4)	2.6	7.8	12.5	15.3	18.3	20.6	22.6	24.4	25.7	26.4
% change			*197.0%*	*61.1%*	*22.0%*	*19.8%*	*12.3%*	*9.9%*	*7.6%*	*5.3%*	*3.0%*
% Sales		*7.7%*	*19.9%*	*27.9%*	*29.7%*	*31.0%*	*31.0%*	*31.0%*	*31.0%*	*31.0%*	*31.0%*
D&A	8.7	8.9	8.9	8.9	9.2	9.4	9.8	9.9	9.7	9.3	8.5
% Sales	*27.5%*	*26.0%*	*22.7%*	*19.9%*	*17.7%*	*16.0%*	*14.8%*	*13.6%*	*12.4%*	*11.2%*	*10.0%*
EBIT	(23.1)	(6.3)	(1.1)	3.6	6.1	8.9	10.8	12.7	14.6	16.4	17.9
% Sales	*-72.9%*	*-18.3%*	*-2.7%*	*8.0%*	*11.9%*	*15.0%*	*16.2%*	*17.4%*	*18.6%*	*19.8%*	*21.0%*
Taxes	(0.5)	(0.8)	(0.2)	0.2	0.5	0.8	1.5	2.2	3.0	4.0	5.0
Tax rate	*27.9%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*13.6%*	*17.2%*	*20.7%*	*24.3%*	*27.9%*
NOPAT	**-22.6**	**-5.5**	**-0.8**	**3.4**	**5.7**	**8.1**	**9.3**	**10.5**	**11.6**	**12.4**	**12.9**
D&A	8.7	8.9	8.9	8.9	9.2	9.4	9.8	9.9	9.7	9.3	8.5
CAPEX	(15.3)	(8.6)	(8.7)	(9.5)	(10.5)	(11.1)	(11.3)	(11.1)	(10.6)	(9.7)	(8.5)
% Sales	*(48.2%)*	*(25.2%)*	*(22.2%)*	*(21.2%)*	*(20.3%)*	*(18.8%)*	*(17.0%)*	*(15.3%)*	*(13.5%)*	*(11.8%)*	*(10.0%)*
NWC	5.7	6.2	6.7	7.3	7.4	7.9	8.7	9.3	9.8	10.1	10.2
% change		*10.1%*	*8.4%*	*7.5%*	*2.3%*	*6.0%*	*10.1%*	*7.7%*	*5.4%*	*3.1%*	*0.8%*
% Sales	*17.9%*	*18.2%*	*17.3%*	*16.1%*	*14.4%*	*13.3%*	*13.0%*	*12.8%*	*12.5%*	*12.3%*	*12.0%*
Δ NWC	5.8	(0.6)	(0.5)	(0.5)	(0.2)	(0.4)	(0.8)	(0.7)	(0.5)	(0.3)	(0.1)
% Sales	*18.4%*	*-1.7%*	*-1.3%*	*-1.1%*	*-0.3%*	*(0.8%)*	*(1.2%)*	*(0.9%)*	*(0.6%)*	*(0.4%)*	*(0.1%)*
FCF	**-23.3**	**-5.8**	**-1.2**	**2.3**	**4.2**	**6.0**	**7.0**	**8.6**	**10.2**	**11.6**	**12.8**
Discounted FCF		**-5.7**	**-1.0**	**1.8**	**3.1**	**4.0**	**4.2**	**4.7**	**5.0**	**5.2**	**5.2**

Source: TP ICAP Midcap

Valuation Summary and evidences

WACC Calculation	
Rf rate 10YR BTP	4.18%
Size premium	1.00%
Beta (re-levered)	0.80 x
Market Premium	8.3%
Cost of equity	**11.9%**
Interest Rate	5.0%
Tax rate	27.9%
Cost of debt	**3.6%**
% equity	80.0%
% debt	20.0%
WACC	**10.2%**

Valuation Summary		
Sum of discounted FCF		26.5
Discounted TV		74.2
Enterprise Value		**100.7**
Net Debt		15.9
Provisions		3.8
Financial Assets		0.5
Equity Value		**81.6**
# of shares		63.9
Target Price	**€**	**1.3**
Potential upside		***25.4%***

Source: TP ICAP Midcap

Sensitivity analysis of intrinsic value per share

TGR \ WACC	9.6%	9.9%	10.2%	10.5%	10.8%
2.0%	1.28	1.20	1.13	1.06	0.99
2.5%	1.37	1.28	1.20	1.12	1.05
3.0%	1.47	1.37	1.28	1.19	1.12
3.5%	1.58	1.47	1.37	1.28	1.19
4.0%	1.72	1.59	1.48	1.37	1.28

€ 1.3

Source: TP ICAP Midcap

Based on the DCF valuation model, Expert.ai's intrinsic value is €1.28/share. In an optimistic scenario, with a 4% terminal growth rate and a 9.6% WACC rate the company's stock would be woth 1.72€. In a very conservative scenario with a terminal growth rate of 2% (when AI is one of the most attractive sector of today) and a WACC of 10.8% the stock would be worth 0.99€.

Description of comparables and main characteristics

C3.ai, Inc. provides enterprise AI software for digital transformation. It offers the C3ai Suite for the development and deployment of large-scale AI, predictive analytics and IoT applications, as well as a range of pre-built AI applications.

Almawave SpA is an Italian company specialising in AI software, natural language analysis and Big Data management. It offers solutions for text and speech analysis, multi-channel contact management and customer experience via several proprietary platforms.

Alteryx, Inc. provides self-service data analytics software. Its subscription-based platform enables organisations to prepare, blend and analyse data from a variety of sources and benefit from data-driven decisions.

Twilio, Inc. develops cloud-based communications software, platforms and services. Its products include Twilio flex, messaging, programmable voice, programmable video, elastic SIP trunking and IoT.

Paycom Software, Inc. offers cloud-based human resources management software delivered in SaaS mode. It provides the functionality and data analysis that businesses need to manage the entire HR lifecycle, including talent acquisition, time and labour management, payroll and HRM.

Splunk, Inc. develops and markets cloud-based software solutions. Its products include Splunk cloud, Splunk light and Splunk enterprise. It also offers solutions for IT operations, security, IoT, application analytics and business performance analysis.

The relative valuation using the EV/Sales multiple returns a value of €1.6, with a potential upside of 60.2%. This valuation methodology was chosen to capture North American technology companies that are investing heavily as Expert.ai but do not yet have good margins (C3.ai, for example, has net debt of over $600m, while its sales are expected to grow substantially over the next few years, but still negative EBITDA values are forecasted). A 10% discount factor was applied prudentially to the multiple figure.

EV/Sales evaluation elements

Company Name	Ticker	Country	Market Value (M€)		EV/Sales		
			Equity	EV	2023E	2024E	2025E
Alteryx, Inc. Class A	AYX-US	USA	1,794	2,552	2.9 x	2.6 x	2.3 x
Almawave S.p.A.	AIW-IT	Italy	142	132	2.2 x	1.9 x	1.7 x
C3.ai, Inc. Class A	AI-US	USA	3,391	2,562	8.7 x	7.3 x	5.6 x
Paycom Software, Inc.	PAYC-US	USA	16,525	15,474	9.6 x	8.0 x	6.7 x
Splunk Inc.	SPLK-US	USA	19,578	20,779	5.8 x	5.2 x	4.6 x
Twilio, Inc. Class A	TWLO-US	USA	11,158	8,990	2.4 x	2.2 x	1.9 x
			Mean		5.3 x	4.5 x	3.8 x
			Median		**4.4 x**	**3.9 x**	**3.4 x**
			Harmonic Mean		3.8 x	3.3 x	2.8 x

EV/Sales	2023	2024	2025
Figure	31.8	36.5	42.2
Multiple	4.4	3.9	3.4
Multiple at -10% discount	3.9	3.5	3.1
Enterprise Value	**125.0**	**127.8**	**130.1**
Bridge 2021	22.1	24.5	23.5
Equity	**102.8**	**103.2**	**106.6**
Diluted number of shares	63.9	63.9	63.9
Price/Share	1.6	1.6	1.7
Average		1.6	
% upside (downside)		60.2%	

Source: FactSet, TP ICAP Midcap

The DCF model is considered the most accurate and firm specific valuation method for Expert.ai's unique characteristics, as no listed company with similar size or revenue streams can be considered as perfectly comparable. For this reason we have given DCF a weighting of 70%, with 30% allocated to the relative EV/Sales, resulting in a final TP of €1.4/share, resulting in an upside potential of around 36%.

Valuation final results

Valution method	Target Price	Weight	Target Price
DCF	1.3	70.0%	**1.4**
Multiples EV/Sales	1.6	30.0%	
Target Price	1.4	100%	36%

Source: FactSet, TP ICAP Midcap

FINANCIAL DATA

Income Statement	12/20	12/21	12/22	12/23e	12/24e	12/25e
Sales	30.6	31.1	31.7	34.2	39.0	44.9
Changes (%)	na	1.6	1.9	8.1	14.1	15.1
Gross profit	29.7	29.1	29.3	31.8	36.6	42.3
% of Sales	97.0	93.8	92.5	93.0	93.8	94.1
EBITDA	**-4.6**	**-9.5**	**-14.4**	**2.6**	**7.8**	**12.5**
% of Sales	-15.0	-30.5	-45.4	7.7	19.9	27.9
Current operating profit	**-11.6**	**-17.2**	**-23.1**	**-6.3**	**-1.1**	**3.6**
% of Sales	-38.0	-55.4	-72.9	-18.3	-2.7	8.0
Non-recurring items	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	-11.6	-17.2	-23.1	-6.3	-1.1	3.6
Net financial result	-2.5	-1.0	-1.5	-1.3	-1.3	-1.3
Income Tax	0.8	-0.1	0.5	0.8	0.2	-0.2
Tax rate (%)	9.9	-0.5	2.0	10.0	10.0	10.0
Net profit, group share	**-7.7**	**-15.7**	**-23.8**	**-6.8**	**-2.1**	**2.1**
EPS	na	na	na	na	na	0.03

Financial Statement	12/20	12/21	12/22	12/23e	12/24e	12/25e
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Tangible and intangible assets	17.0	19.2	21.1	19.4	17.6	16.3
Right of Use	1.5	2.5	1.7	1.7	1.7	1.7
Financial assets	0.1	0.1	0.5	0.5	0.5	0.5
Working capital	9.6	11.5	5.7	6.2	6.8	7.3
Other Assets	7.1	7.9	12.6	14.1	15.7	17.6
Assets	35.2	41.1	41.7	42.0	42.3	43.4
Shareholders equity group	46.9	32.0	17.5	14.8	12.7	14.8
Minorities	0.0	0.0	0.0	0.0	0.0	0.0
LT & ST provisions and others	3.4	4.2	3.8	3.8	3.8	3.8
Net debt	-19.1	-0.7	15.9	18.9	21.3	20.3
Other liabilities	4.0	5.6	4.5	4.5	4.5	4.5
Liabilities	35.2	41.1	41.7	42.0	42.3	43.4
Net debt excl. IFRS 16	-19.1	-0.7	15.9	18.9	21.3	20.3
Gearing net	-0.4	-0.0	0.9	1.3	1.7	1.4
Leverage	4.2	0.1	-1.1	7.2	2.7	1.6

Cash flow statement	12/20	12/21	12/22	12/23e	12/24e	12/25e
CF after elimination of net borrowing costs and taxes	-2.5	-7.9	-16.7	2.1	6.8	11.1
ΔWCR	1.4	1.9	6.7	-0.6	-0.5	-0.5
Operating cash flow	-1.1	-6.0	-10.0	1.5	6.2	10.5
Net capex	-6.8	-14.1	-16.1	-8.6	-8.7	-9.5
FCF	-7.9	-19.6	-25.2	-7.1	-2.4	1.0
Acquisitions/Disposals of subsidiaries	0.0	0.0	0.0	0.0	0.0	0.0
Other investments	0.0	0.0	0.0	0.0	0.0	0.0
Change in borrowings	8.4	-5.0	-2.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Repayment of leasing debt	0.0	0.0	0.0	0.0	0.0	0.0
Equity Transaction	31.9	1.2	8.7	4.1	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0
Change in net cash over the year	32.3	-23.4	-18.5	-3.0	-2.4	1.0

ROA (%)	na	na	na	na	na	4.9%
ROE (%)	na	na	na	na	na	14.2%
ROCE (%)	na	na	na	na	na	24.3%

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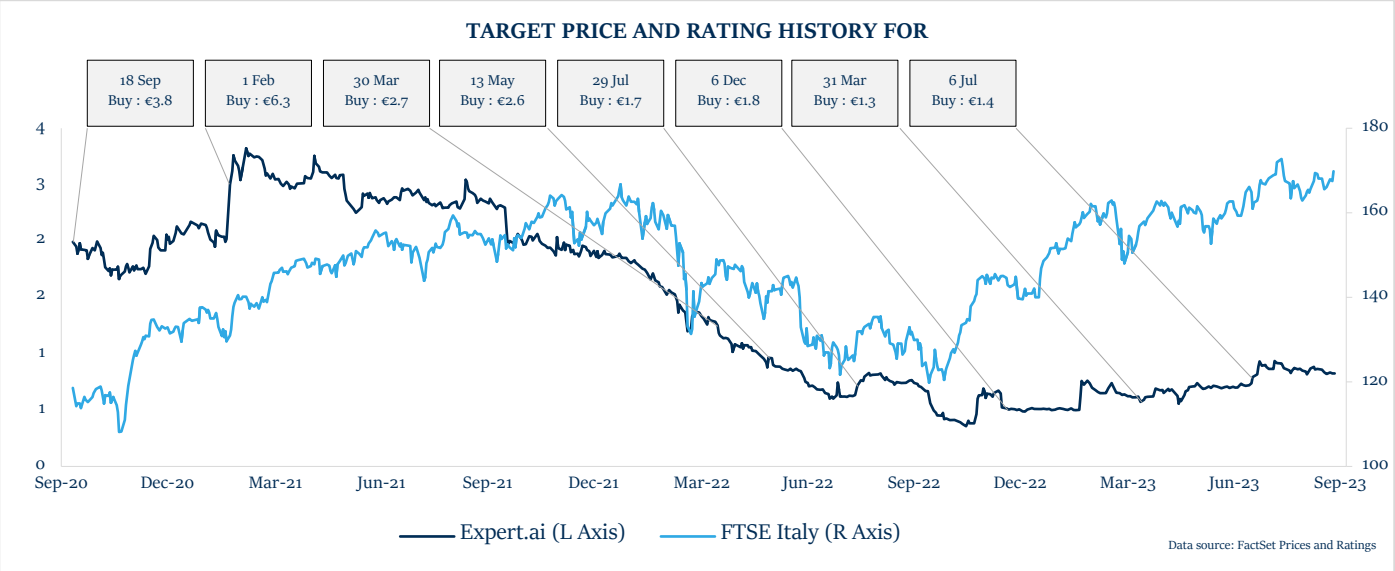
Methodology

This Report may mention evaluation methods defined as follows:
1. DCF method: discounting of future cash flows generated by the company's operations. Cash flows are determined by the analyst's financial forecasts and models. The discount rate used corresponds to the weighted average cost of capital, which is defined as the weighted average cost of the company's debt and the theoretical cost of its equity as estimated by the analyst.
2. Comparable method: application of market valuation multiples or those observed in recent transactions. These multiples can be used as references and applied to the company's financial aggregates to deduce its valuation. The sample is selected by the analyst based on the characteristics of the company (size, growth, profitability, etc.). The analyst may also apply a premium/discount depending on his perception of the company's characteristics.
3. Assets and liabilities method: estimate of the value of equity capital based on revalued assets adjusted for the value of the debt.
4. Discounted dividend method: discounting of estimated future dividend flows. The discount rate used is generally the cost of capital.
5. Sum of the parts: this method consists of estimating the various activities of a company using the most appropriate valuation method for each of them, then realizing the sum of the parts.

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History of investment rating and target price – Expert.ai



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Rating	Recommendation Universe*	Portion of these provided with investment banking services**
Buy	80%	66%
Hold	16%	44%
Sell	3%	25%
Under review	1%	100%

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