



SME Tech[©]

Technology Equity Research
Platform

AIM Italia

INVESTING IN TECHNOLOGICAL SMEs – ISSUES AND OPPORTUNITIES

The European and in particular Italian industrial base of technological SMEs is **very interesting, undervalued and relatively known.**

The value of these SMEs with a high level of innovation is largely due to the quality and potential of technological assets (know-how, patents, innovation capacity).

The problem for the investor is to evaluate this new class of assets, the strategies in place and the possible additional methods of valorization often not considered.

Technological assets have a significant value both in-business use and stand-alone as well. Experience shows both excessive evaluations of target companies compared to their development potential and undervaluation of the assets as well.

40% of the technology-based companies listed at AIM Italia have a business model strongly dependent on the product/process and digital platform technology and their intellectual property.

The technologies and the patents quality can influence the shares' value positively in cases of launching new innovative products, presence of important licensing quotas, IP-based business model, **but also negatively** in presence of: high intensity innovation from the competition, litigation with inventors, technology substitution.

Many of the investments in SMEs are *Patient Capital*, investors must assure that the company in which they have invested have a technology/application roadmap that allows them to maintain the competitive advantage.

The analysts' coverage of AIM listed SMEs is currently limited. Coverage in general and especially on technological aspects is costly for lack of information and sophisticated intelligence. This causes an informational asymmetry that leads to *Equity Stories* often incomplete. Moreover, to attract international investors it is necessary to significantly improve the communication of the value of these assets.

ICM Advisors, to meet the above-mentioned needs of investors and companies, has developed a dedicated services platform for listed Companies on the AIM Italia of Borsa Italiana called SME Tech[©]. The platform is based on concrete cases and experiences of ICM matured in hundreds of valuations, technology due diligence and advanced market and technology intelligence activities at international level in different industrial sectors.

WHAT ARE THE KEY QUESTIONS FOR INVESTORS?

The main technology business related questions from investors are:

- What are the major technology trends?
- Where competitors are innovating and patenting?
- The company research and innovation is focusing on the right technologies and end-markets?
- How technology innovation reduces product costs/differentiation?
- How to reduce time-to-market?
- Can the technology be licensed or used to build JVs around it?
- What technology acquisition can improve the competitiveness?
- How competitive is the company technology portfolio (know-how, patent, in-process R&D)?
- How strong is the patent portfolio?
- Is there the right technology skills mix and resources?
- How the revenue forecast depends from new product/technology introduction pipeline?
- How the company funds R&D? Does it have the resources from cash flows?
- How the technology risks are managed (people leave, freedom-to-operate, ...)?
- Is there a specific job role devoted to technology exploitation?
- What is the technology potential for new applications/market segments?

Equity research for SME frequently do not have answer for the above questions, technology risks are hidden and can jeopardize business plans.

WHAT IS THE SME Tech[©] PLATFORM?

SME Tech[©] is a Technology Equity Research and Intelligence platform of innovative services for companies listed on the AIM Italia of Borsa Italiana, MTF dedicated to small and medium-sized Italian companies that want to invest in their growth.

WHO IS IT ADDRESSED TO?

SME Tech[©] address the qualification and valuation needs of:

- Institutional Investors
- Entities involved in the listing process (Investors, Advisors, Nomad, Specialist, Other)
- Listed companies and potentially ones
- Investor Relations

WHAT ARE THE OBJECTIVES?

SME Tech[©] aims to enrich the availability of relevant information and evaluations on medium/high-Tech SMEs for the following objectives:

- to identify the relevant technology elements necessary for the economic and financial evaluation in the IPO process;
- to further qualify the opportunities and risks associated with technological assets (know-how, patents, technologies, in-process R&D, software, ...) that are critical to the competitiveness and business plan sustainability;
- effectively communicate the value of technological assets to the market by integrating the existing Equity Research;
- monitoring valorization opportunities with integrated market information, competitors, technologies and IP;
- evaluating the strength, risks and potential of technological assets and their impact on performance.

WHAT ARE THE TECHNOLOGY RISKS AND OPPORTUNITIES?

Evaluating an investment in an SME where technology, know-how and intellectual property determine the competitive advantage and the expected performance of industrial plans requires an accurate analysis of risks and opportunities.

Among the main risks we underline the following:

- technology and patents impact on development plans (revenues, costs, time-to-market);
- innovation level;
- competitive positioning threats (substitute technologies, time-to-market, lack of know-how);
- strengths/weaknesses of the patent portfolio;
- competitors innovation (head-to-head and hidden) in company-specific technologies;
- presence of IP-based contracts terms & conditions;
- cash flow sustainability for the R&D investments necessary to compete;
- market clearance (Freedom-To-Operate);
- loss of know-how caused by exit of key inventors;
- adequacy of Technology/IP management processes.

At the same time opportunities are not always well identified or are off the radar of the company's core business, for examples the:

- technology uniqueness;
- possible applications outside the target market;
- possible implementation of an IP Business Model;
- use of technology and IP assets value as equity in Joint Ventures and Partnerships;
- technology licensing-out as additional source of revenues;
- licensing-in to reduce the time-to-market;
- licensing-in to build a competitive patent portfolio;
- technology assets as collateral for financial operations.

WHAT SERVICES ARE AVAILABLE?

The platform provides the following professional and intelligence services:

- Technology Equity Research Report
- Technology/IP opportunities monitoring

WHAT IS THE TECHNOLOGY EQUITY RESEARCH REPORT?

The Technology Equity Research report is a document that contains information, insights and valuation elements of the technological assets needed for the investment management process from identifying and evaluating the opportunity, listing and investors communication.

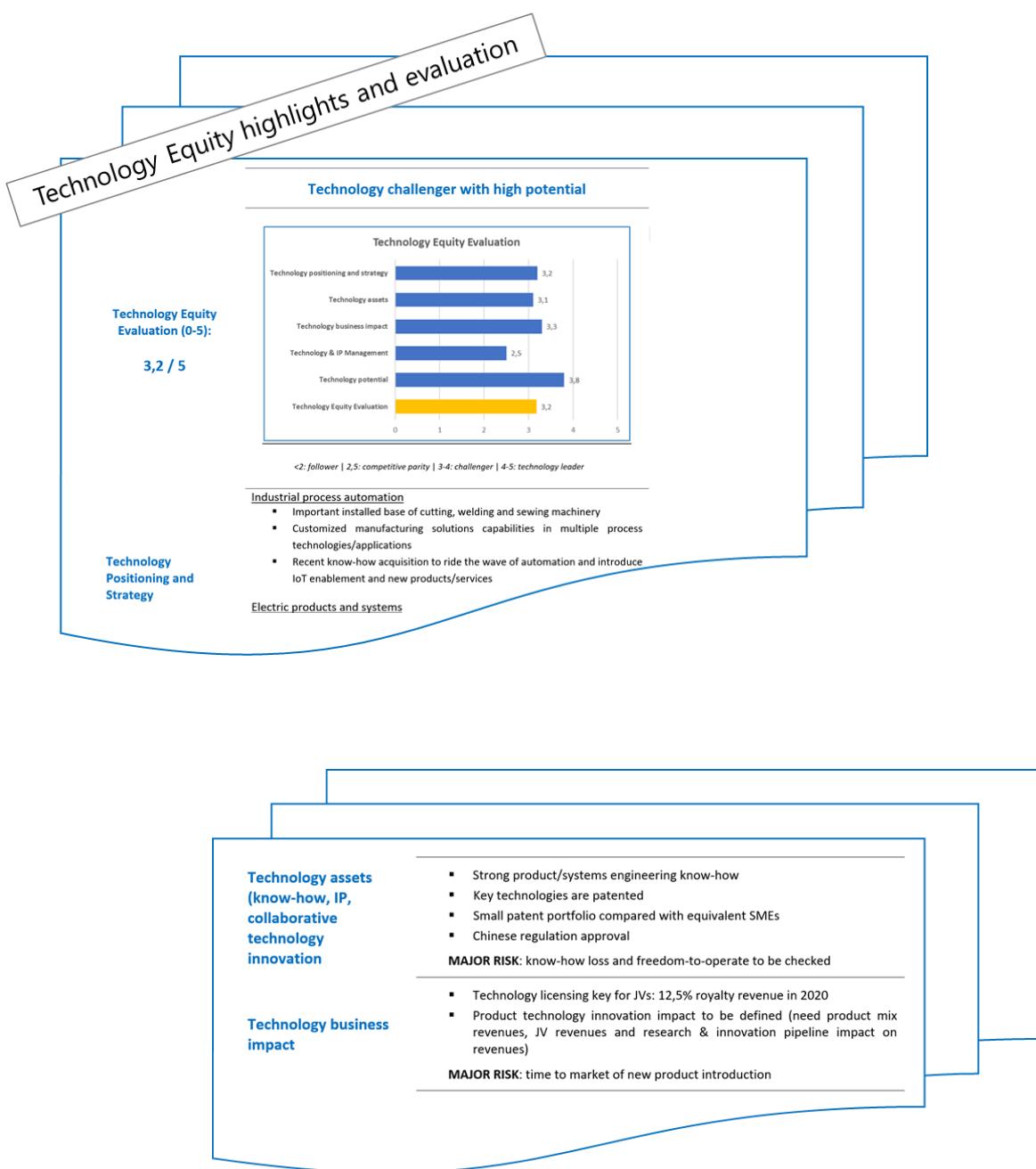
The report is structured in the following sections:

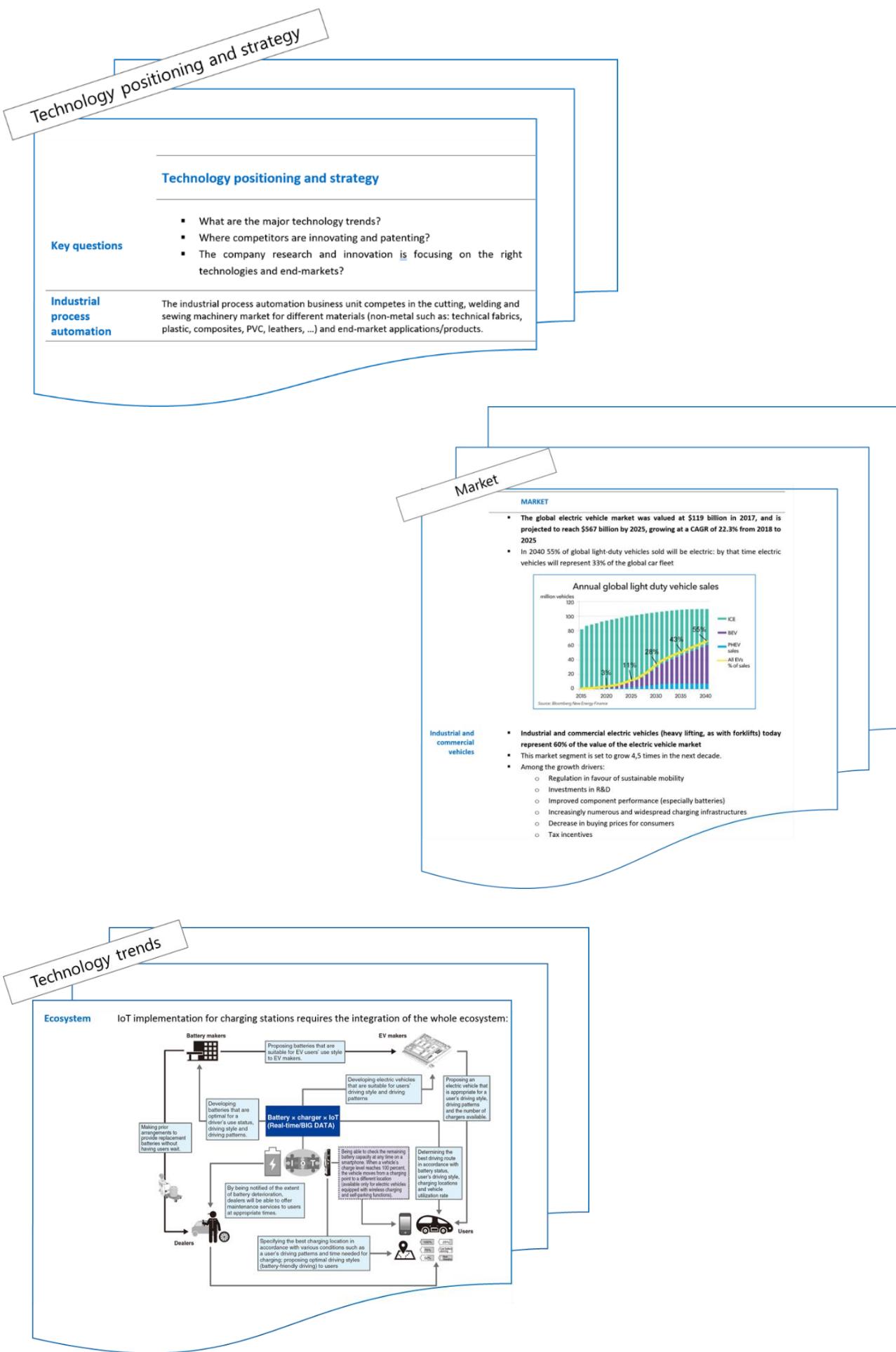
- Technology Equity highlights and evaluation
- Company profile: activities, strategies, financials, performance
- Technology positioning and strategy: product / technology portfolio, markets, competitors
- Technology assets (know-how, IP, collaborative technology innovation): analysis of the technological and IP portfolio
- Technology business impact: impact of technology on strategy and business plans
- Technology and IP management
- Technology potential: valorization opportunities

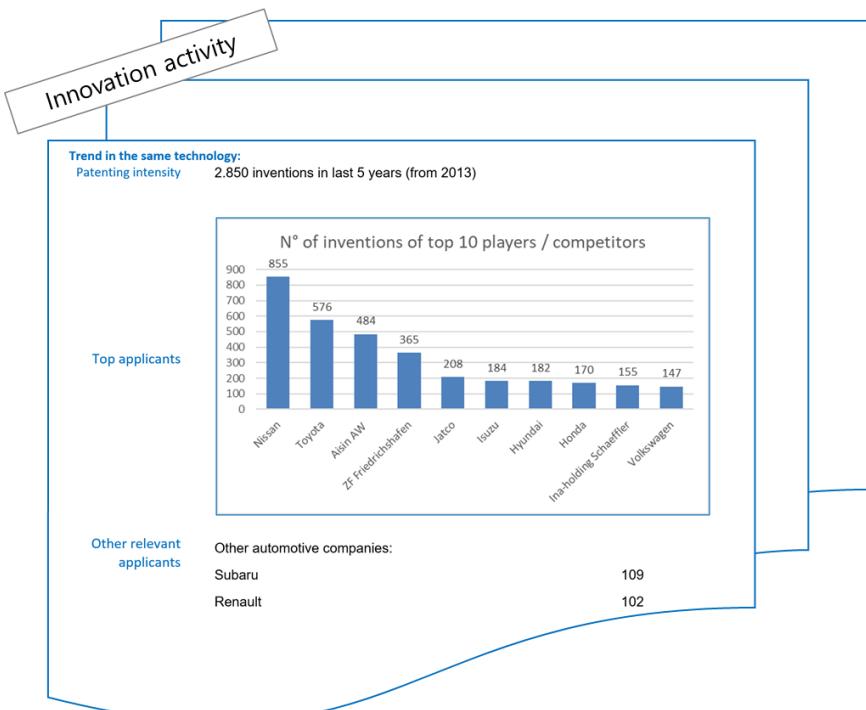
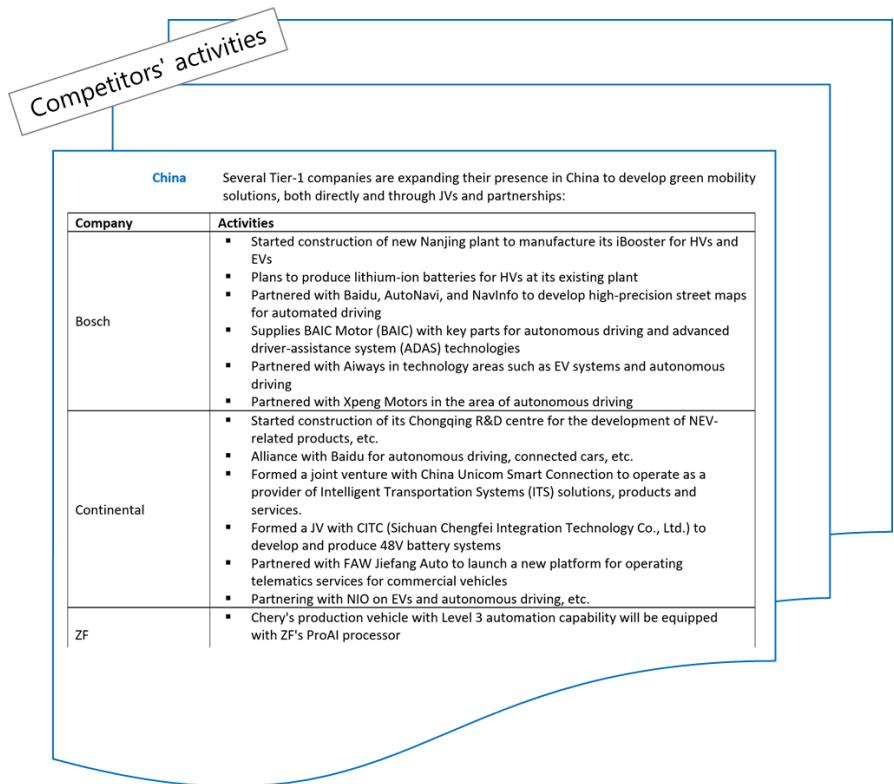
The information used comes from public sources, corporate documents and ICM intelligence and evaluations data bases.

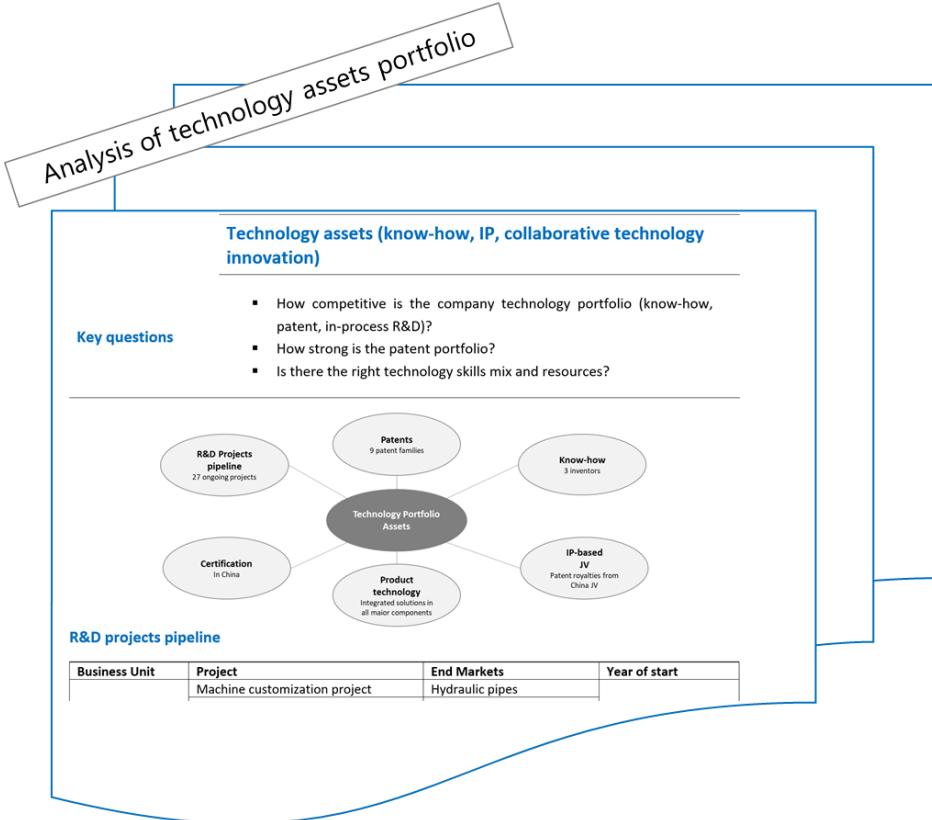
Technology and industrial property must be effectively communicated in business terms from the IPO document and then to investors. Particularly in technology-based SMEs where the development strategy is centered around technological capabilities and the patent portfolio.

The Technology Equity Research Report is a document that highlights asset value elements in terms of strength, potential and risk mitigation and their impact on development strategies and economic-financial outcomes.









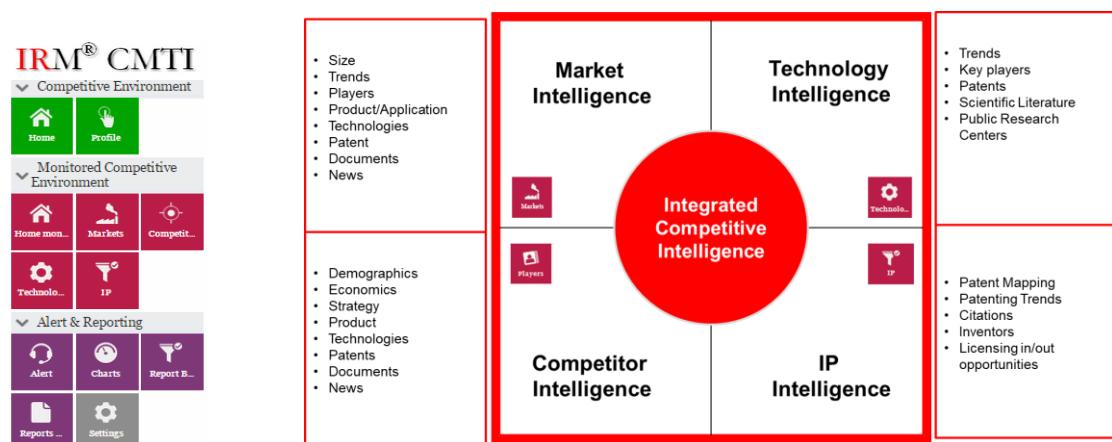
Portfolio strengths – KPI analysis		
Portfolio structure	Size (N° of inventions)	▪ 9
	Size (N° of patents)	▪ 51
	% granted (families with at least 1 granted patent)	▪ 100%
Technology	Specialization (% of inventions with the first 3 technological areas IPC 4 digit)	▪ 44,4%
	Concentration (% of inventions with the first technological areas IPC 8 digit)	▪ 11,1%
	Relevance (3rd parties' forward citations on the first IPC 8 digit)	▪ 3
Innovation activity	New filings last 3 years	▪ 33,3%
	Trend (CAGR of portfolio in last 3 years)	▪ 14%
	Average time to expiration (years)	▪ 12,8
Geography	Main countries (% of inventions with at least one patent in main patent offices)	▪ EPO: 22,2% ▪ USA: 22,2% ▪ CN: 11,1%
Quality	Forward citations (% of inventions with forward citations)	▪ 33,3%
Transferability	High on selected patents	

WHAT IS TECHNOLOGY RISKS/OPPORTUNITIES MONITORING?

The activity of investment management and asset valorization requires a continuous availability of updated information and early warning. This to improve the responsiveness of investors and companies to seize opportunities, reduce risks and improve the selectivity of investments.

ICM maintains the information bases and analyses of the Technology Equity Research Report through a technology risks/opportunities monitoring process implemented on the cloud computing proprietary application **CMTI (Competitive Market & Technology Intelligence)** that integrates market, competitors, technologies and IP information of the listed companies and target potentially quotable.

CMTI focuses on the technological dimensions of competitiveness, such as markets and technology trends, competitors R&D strategies and technology and IP portfolio, licensing and acquisition opportunities.



HOW THE SERVICES ARE PROVIDED?

ICM provides services both on-demand and recurring mode.

In on-demand mode the Technology Equity Research Report is provided one-time to investors for the valuation of the investment.

In the recurring mode, the Technology Equity Research Report and its update is provided on a periodic basis (typically quarterly). Are also provided the on-line access to updated information and the alerting service concerning the selected technologies and competitors.

WHAT IS THE ICM ADVISORS TRACK RECORD IN TECHNOLOGY ASSET VALUATION AND MANAGEMENT?

INDUSTRY	PROJECTS
DIGITAL & ICT	<ul style="list-style-type: none"> ▪ SaaS Platform Technology & IP Valuation for funding strategy ▪ E-commerce platform valuation for startup ▪ E-Logistics Industry and technology briefing for assessing licensing / cooperation partnership ▪ Printing technology platform competitive intelligence for product development ▪ Digital TV Services and Technology strategy ▪ Set-top box and smart card technology licensing ▪ Smart City landscape and visioning
ENERGY	<ul style="list-style-type: none"> ▪ Smart Grid IP data bank for IP strategy ▪ Patent Portfolio Valuation for Fusion Technology ▪ Technology & IP Monitoring, Tech Strategy, Competitive Landscape monitoring ▪ Energy Cluster strategy
MECHATRONICS	<ul style="list-style-type: none"> ▪ Cluster technology/application strategy ▪ Collaborative R&D project valuation ▪ Recurrent Targeting for R&D collaboration
ELECTRONICS	<ul style="list-style-type: none"> ▪ Technology & know valuation for licensing ▪ Electronics manufacturing business valuation for shareholder exit ▪ EMS Market analysis for M&A targeting
CLEANTECH	<ul style="list-style-type: none"> ▪ Environmental Dredging Technology and patent valuation ▪ Cleantech cluster Technology & IP assessment ▪ Green Building - Economic Valuation of Intangible Assets/IP and patent portfolio build-up to activate technology transfer

INDUSTRY	PROJECTS
BIOTECH	<ul style="list-style-type: none"> ▪ Reproductive genetics <ul style="list-style-type: none"> ▪ IP assessment & Strategy ▪ Accelerator JV design with leading USA University ▪ Cell based therapy oncology <ul style="list-style-type: none"> ▪ In-process R&D Due diligence ▪ Valuation for fund raising ▪ Licensing contract design & closing with Big Pharma ▪ Patent and technology monitoring for patent strategy formulation
PHARMA	<ul style="list-style-type: none"> ▪ World Wide Licensing Strategy ▪ Licensee target & assessment ▪ Licensing royalty valuation ▪ Patent portfolio valuation for start-up ▪ Licensing T&Cs and contract design
NANOTECHNOLOGY	<ul style="list-style-type: none"> ▪ Market scouting, technology licensing of adhesive superhydrophobic and self-cleaning films
MEDTECH	<ul style="list-style-type: none"> ▪ IP Landscape for licensing ▪ Wearable technology & IP landscape ▪ Technology and patent assessment for acquisition ▪ Ultrasound denervation applications
COMPOSITES	<ul style="list-style-type: none"> ▪ Technology and IP due diligence and risk analysis ▪ Patent FTO (Freedom-To-Operate) ▪ IP assessment for Patent strategy ▪ Patent Transferability Assessment

INDUSTRY	PROJECTS
TELECOM	<ul style="list-style-type: none"> ▪ R&D Unit Technology Know-how Assessment ▪ Intangible and IP Assets Valuation
PACKAGING	<ul style="list-style-type: none"> ▪ Patent portfolio assessment, benchmark and economic value contribution ▪ Patent portfolio landscape for investors
PLASTICS	<ul style="list-style-type: none"> ▪ Separation of plastic from complex waste products ▪ competitive technology intelligence ▪ Bio-shopper market & technology analysis
TECHNOLOGY TRANSFER ORGANIZATION	<ul style="list-style-type: none"> ▪ Technology commercialisation processes design and set-up
STEEL	<ul style="list-style-type: none"> ▪ Market and technology scouting for patent licensing-out
WHITE GOODS	<ul style="list-style-type: none"> ▪ Industrial & IP assessment ▪ IP Strategy ▪ Industrial plan
AUTOMOTIVE	<ul style="list-style-type: none"> ▪ Technology know-how and IP valuation for licensing ▪ Technology valuation for vehicle tracking application

INDUSTRY	PROJECTS
AEROSPACE & DEFENCE	<ul style="list-style-type: none"> ▪ Analysis & structuring of technology/patent portfolio for large aerospace & defense corporation (civil & military aircraft, avionics and space) ▪ Multi-year licensing initiative (transferability assessment, technology marketing, licensing deal management of IP portfolio for large aerospace & defense corporation) ▪ Technology assessment to identify commercialization potential of the Self-healing of and Recycling Composites technology ▪ Technology and IP related monitoring of technology and competition for Aircraft Maintenance Service providing company ▪ Technology and IP competitive intelligence services for carbon composite manufacturing company ▪ Development of the strategic plan national aerospace industry including mapping of OEM, suppliers, R&D centers, universities and collaborative R&D projects for national platform (ACARE and ESA) ▪ Technology valuation (Technology Equity Score) of an aerospace engineering company ▪ Technology assessment to identify commercialization potential of the Three-dimensional virtual Space Simulation technology ▪ Valuation of the technology capabilities of 34 mechatronics SMEs suppliers in the aerospace market ▪ Assessment of IP Portfolio of a special aircraft manufacturer to identify technology clusters for commercialization ▪ Value proposition and technology transfer of a high performance welding technology for aerospace light weight materials ▪ Identify value proposition of aerospace technologies for automotive applications ▪ Technology transfer brokerage for testing device of aerospace coating resistance tests ▪ Transferability study for aerospace electrical connector technology. Initiate and management of licensing deal

INDUSTRY	PROJECTS
PRIVATE EQUITY	
VENTURE CAPITAL	<ul style="list-style-type: none"> ▪ IP Valuation for several M&A deals ▪ Technology and IP Due diligence ▪ Technology Intelligence for M&A scouting ▪ Technology & IP Risk assessment for M&A deals ▪ Freedom-To-Operate FTO for investment decision
FAMILY OFFICE	
CORPORATE BANKING	<ul style="list-style-type: none"> ▪ IP Loan product design and pilot ▪ Intangible assets & IP Valuation for debt restructuring ▪ Industrial & Technology Score for lending

ICM Advisors Profile

ICM Advisors is an international independent firm specializing in valuation, valorization strategy and finance of intangible assets (brand, technologies, patents, know-how, R&D, software) and associated businesses.

ICM Advisors is a member firm of ICM International leading European professional services network specialized in valuation, valorization, finance of intangible assets, equity research, competitive intelligence and technology transfer.

The firm is focused on the industrial-financial value of the assets both in use in the business and stand-alone as well. The financial know-how is a core competence of ICM that has been integrated with a deep know-how and specialization of Technology & IP Asset Management and market. The mix of skills present in ICM has allowed a unique positioning on the European market of high specialization professional services. ICM Advisors is one of the first European firm that provides integrated professional services with industrial and financial solutions that use IP and intangible assets as collateral.

The high seniority of its advisors with international experience in many industries and with multi-disciplinary skills such as marketing, technology, business strategy, economic-financial valuation, corporate finance and development of international markets enables comprehensive valuation of businesses and the core IP and intangible assets.

ICM owns a proprietary advanced Competitive Market & Technology Intelligence (CMTI) platform in order to support sophisticated analysis and valuation.

For investors (Asset Managers, Private Equity, Venture Capital, Investment Banks and Family Offices) our services cover the entire investment process from the identification of opportunities, risk assessment, valuation and investment valorization.

For listed technology SMEs we deliver an innovative Technology Equity Report that integrates the usual equity research with technology positioning, insights, impact on competitiveness and expected financial performance.

Our specialization is often used in the field of investment management, M&A and IPO for industrial assessments of the brand, technologies, R&D portfolio and know-how as well as to identify opportunities for monetizing assets with extraordinary financial operations or licensing.

ICM counts among its clients investors and companies (large, mid-cap, SMEs, startups). Clients choose ICM for its highly specialized expertise, innovative services, advanced research units and the high service quality.

Our network operates at pan-European level with offices in Germany, Switzerland, Italy and partners in USA and APAC.

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