

Investment Management

Innovative services for Investors

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ICM Advisors is a highly specialized firm

Valuation & Technology Finance Equity Research &
Competitive
Intelligence

Innovation & Technology transfer

IP Value Management

ESTABLISHED IN GENEVA in 2002 – 16 YEARS OF OPERATIONS

MISSION

Support Investors and Companies in extracting economic and financial value from technology, brands and investments with innovative services, industrial and financial solutions

POSITIONING

- unique skills and experiences (Finance, Industry, Technology, IP)
- highly specialized & innovative industrial professional services portfolio
- roots in Industrial, Research & Innovation leading countries and cities

TRACK RECORD over 700 projects (Large Group, Mid-Corporation, SME, Start-up, Private-Public R&D, Industrial Clusters, Banking and Investors)

ICM Practices & Services

VALUATION & STRATEGY

TECHNOLOGY FINANCE & MONETIZATION

IP VALUE MANAGEMENT

INNOVATION & TECHNOLOGY TRANSFER

- Strategic and financial valuation of:
 - Tech-Businesses
 - Brand
 - Technology
 - Patent
 - Know-how
 - In-process R&D
 - Start-up
- Asset value development strategy

- Tech & IP Strategic due diligence for investors
- Dismissal
- Aggregation valuation
- IP Asset Monetization
- Tech Financing solutions
- M&A Mid-corporate and SME tech-driven
 - M&A target/scouting
 - Due diligence
 - M&A deal support
 - Post-integration

- Tech& IP Portfolio
 Assessment and Valuation
- IP Strategy
- Patent Portfolio optimization
- IP Operations
- IP Performance Measurement (IP KPI)
- IP Risk Management
- Licensing

- IRM[®] (Innovation Relationship Management) Application Platform of best practices, processes and infobases
- Competitive Market & Technology Intelligence
- Technology & IP Management
- Collaborative R&D Management
- Technology transfer management

EQUITY RESEARCH & COMPETITIVE INTELLIGENCE

- Distinctive Technology Equity Research & Insights
- Global integrated intelligence of markets, competitors, technology and IP
- Advanced on-line competitive intelligence services:
- Monitoring, briefings, analysis, research, scouting, insights

Unique advisory skills mix and intelligence capabilities

ADVISORY EQUITY RESEARCH & INTELLIGENCE IRM® CMTI **Proprietary** Intelligence **Robust CI Digital** Interdisciplinary practices & tools **Analysts skills Skills Platform** (>20 full time Valuation Methodologies Technology and IP professional) Competitive Intelligence System at Global Level Best IP Practices Time non. Market Competit. Industry Sectors Technologies Industry Sectors Strategy & Industries/Markets Global Finance Players Intellectual Property Technologies Competitive Branding/ Marketing Intelligence CI Processes/Practices Regulations svstem **Broad and deep Broad and deep** international experience experience (over 500 hundreds CI Monitoring/Alert (hundreds of projects) studies&projects) Research Insights Briefings....

ASSETS

- Skills Mix Advisors, Analysts, Industrial Experts
- Tools Robust Methodologies, Best Practices and Advanced Global Competitive Market and Technology Intelligence Systems
- Experiences over 400 hundreds projects since the foundation

INNOVATIVE SERVICE DELIVERY TECHNOLOGIES

■ IRMTM (Innovation Relationship Management) Platform – Web-based application environment for Competitive Intelligence, Technology Transfer, Technology/IP Management and Collaborative R&D

Extensive industrial and technology know-how



Aerospace	Green Buildings	Pharmaceuticals
Automotive	ICT	Private Equity
Biochips	Life Science	Public & Private Research
Chemistry	Luxury Goods & Services	Secondary Batteries
Cleantech	Materials	Semiconductors
Consumer Goods	Mechatronics	Smart Grid
Electronics	Media/Digital TV	Software
Energy & Environment	Medtech	Telecommunications
Equipment Manufacturing	Optics	Textile/Apparel
Fuel Cells	Packaging	Venture Capital

Roots in Industrial, Research & Innovation leading European countries and regions

Technology & Finance Practice Leadership



Pier Biga is Managing Director and Technology Finance Practice Leader for ICM Advisors and ICM International, leading international professional services network specialized in Technology assets and business Valuation, Valorization and Finance.

Mr. Biga has more than 40 years experience in leading edge global industrial corporations and advisory firms. His specialties include business and Innovation/Technology strategy, business and Intangible Assets valuation, Technology Transfer, Digital Transformation, Corporate and IP Finance.

Mr. Biga has an extensive experience in different industry sectors from high-tech to medium-tech manufacturing, consumer goods, luxury and financial services. He worked at global level with Large Corporations, SMEs, Financial Institutions, Public Research Organizations, Start-ups and Investors.

Previous positions have included: Corporate Director for BNL Bank Group member of Executive Directors Committee, Vice President Financial & Technology strategy Practice for ATKearney Europe, Senior Executive for AT&T Europe, Director of Manufacturing Consultancy for Sesam (Comau-Digital), Partner for Nolan & Norton Company, Professional Services Director for Digital Equipment Corporation and Associate Scientist at CERN.

He has authored a wide array of articles that appeared in industry, business and technology publications. Mr. Biga has led several senior executives/entrepreneurs development programs in leading corporate universities and corporate management schools.

Mr. Biga is graduated in Applied Electronics Physics at Turin University with Computer Science specialization at CERN Geneva. During his professional career has been educated in the best European and USA Public and Corporate Management School.

ICM Services for Investors

ICM Technology Finance Practice – Highlights (1)

- Financial and investment management expertise is a core competence of ICM integrated with its deep specialization in Technology Assets and Intellectual property (IP) Value management
- Since the foundation Technology Finance practice has been the focus of ICM
- Hundreds of IA and IP assets valuation and valorisation have been executed for:
 - equity investments
 - financial transaction
 - collateralization (asset-backed)
 - monetization (sale & licensing)
 - debt restructuring
 - intangible assets value communication
 - asset acquisition
 - company/technology targeting for M&A
- In our financial activities we leverage on Advanced Competitive Market & Technology Intelligence knowhow and technology platform
- For targeting, benchmarking and comparables we do periodic industry, technology and IP research in
 - Consumer goods
 - Industrial goods

ICM Technology Finance Practice – Highlights (2)

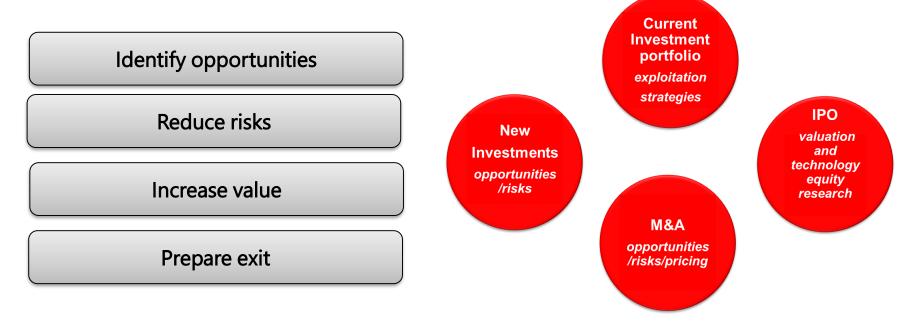
- We provide services to
 - Investors
 - Investments Banks
 - Private Equity
 - Venture Capital
 - Family Offices
 - Commercial banks
 - Government Funds
 - Companies (Large, Mid-size, SME)

- We collaborate with:
 - Financial advisors
 - M&A Advisors
 - Top Legal firms
 - Fiscal & Accounting firms
 - Investors Relations Agencies

Investment management support

Technology and Intellectual property portfolio plays a critical role in determining financial value and economical performance

ICM supports investors for different needs and purposes in different situations



Investment opportunities identification

- Market segments and technologies opportunity landscape
- Investment target case for
 - IPO
 - M&A
 - PE
 - VC
 - FO
- Potential target companies

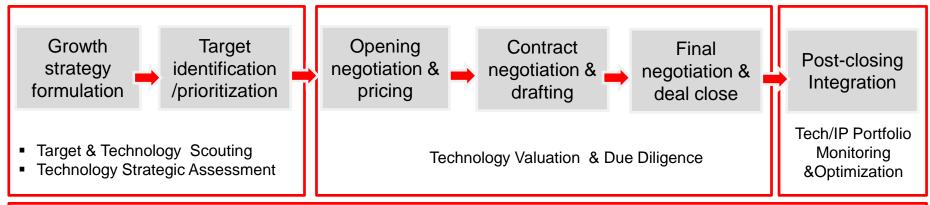
Target qualification and valuation

- Technology Equity Research Report: risk / opportunity technology profile
- Technology due-diligence
- Market clearance
- Technology / IP roadmap assessment

Value creation phase

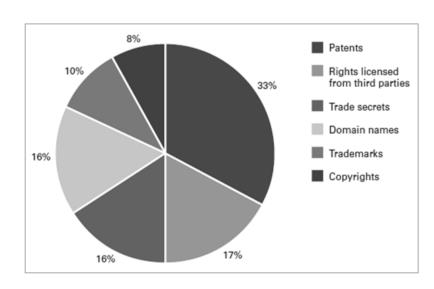
- Monetizing existing technology assets (know-how, patents)
- M&A opportunities
- Technology JVs
- Technology in-licensing
- Technology Value communication (Technology Equity Research update)
- Technology / IP portfolio valuation
- Technology / IP strategy and roadmap
- Technology and IP risk monitoring
- Technology leverage for exit

Recurrent Competitive Market & Technology Intelligence

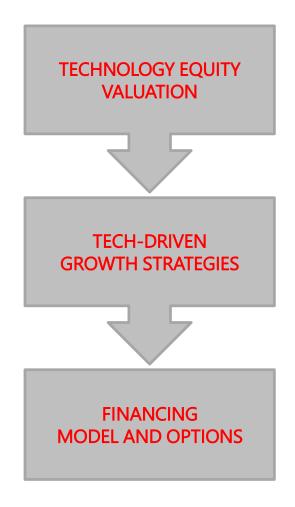


Advanced Competitive Intelligence System (Market, Competitors, Players, Technology, IP) /Tech Data Room





Services for companies in the investors' portfolio



Technology Assets Competitiveness

- Industrial Product/Process Technologies
- Digital platforms (functionality,,... architecture)
- Know-How (Industry, applications, technology)
- Patents
- Trade Secrets

Growth options

- New Market Segments
- New services
- New business model
- Acquisitions
- R&D Ventures
- Equity
- Debt
- IPO
- M&A

Technology Equity Research Services

Investments in technological SMEs – the needs of investors (1)

- The European technology-based SMEs base is:
 - Very interesting
 - Underestimated
 - Relatively known
- The value of 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 class of assets, the strategies in question and the possible additional opportunities of valorization often not considered
- Technological assets have a significant value both in-business use and stand-alone
- Experience shows both excessive evaluations of target companies compared to their development potential and undervaluation of the assets themselves
- Almost all the technology-based listed companies at AIM (UK,IT), Euronext, SDAX and BX Swiss have a business model strongly dependent on the technology of both product/process and digital platform and its intellectual property

Investments in technological SMEs – the needs of investors (2)

- The quality of the technologies and the patents can influence the value of the shares:
 - Positively in cases of launching new innovative products, presence of important royalties of licensing and IP-based business model
 - Negatively in the presence of disputes, the resignation of inventors, the presence of innovative high intensity by competition, substitution of technology
- Many of the investments in SMEs are patient capital, investors need to make sure that the company in which they have invested have a technology roadmap that allows them to maintain the competitive advantage, and a management system that ensures full exploitation
- The coverage of listed SMEs by analysts 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.
- To attract international investors it is important to improve the communication of the value of these assets

Investments in technological SMEs – key questions from investors

- 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

Investments in technological SMEs – risks/opportunities

RISKS

- Impact of technology and patents on development plans
- Level of innovation
- Competitive positioning attachable (substitute technologies, time-to-market, lack of know-how)
- Weak patent portfolio
- Competitive innovation intensity (headto-head and hidden) in companyspecific technologies
- Presence of IP-based contracts
- Sustainability of R&D investments needed to compete
- Market Clearance (Freedom-To-Operate)
- Loss of know-how to exit key inventors
- Weak processes of technology/IP management

OPPORTUNITY

- Technology uniqueness
- Applications potential out of core market
- Possibility of IP-Business Model
- Using the value of technology and IP assets as equity
 - JV
 - Partnership
- Licensing-out
- Licensing-in to reduce time-to-market
- Licensing-in to build a competitive patent portfolio
- Use of technology assets as collateral for financial operations

SME Tech – Technology Equity Research for investors

SME Tech is an innovative service for listed European SMEs and potential IPO

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

- Provide relevant elements to support the economic and financial valuation process in the IPO process
- Understand more about the opportunities and risks associated with technological assets (know-how, patents, technologies, in-process R&D, software..) that are critical for the sustainability of the listed SMEs development plans
- Effectively communicating the value of technological assets to the market by integrating the available Equity Research
- Monitor enhancement opportunities with integrated market information, competitors, technologies and IP
- Assessing the strength, risks and potential of technological assets and their impact on performance

SME Tech – Technology Equity Report

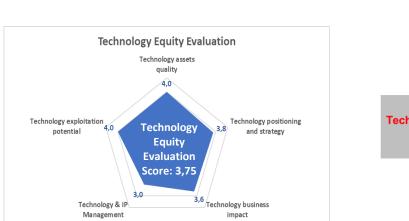
- The *Technology Equity Report* is a report that contains information and evaluation elements of the technological assets of a SME necessary for the investment management process from identification and evaluation of the opportunity, to listing and to recurrent investor information
- The *Technology Equity 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
- SME Tech is aimed at:
 - Investors
 - Entities involved in the listing process (Investment, Advisors, Nomad, Specialist,..)
 - Listed and potentially IPO companies
 - Investor Relations firm
 - Banks

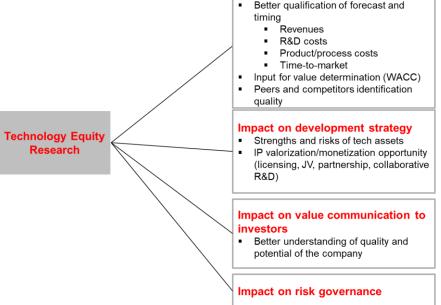
The report is structured in the following sections:

- Company profile
- Development strategies
- Key financials
- Evaluation of the technology portfolio (Technology Equity Score[®])
 - Technology positioning and strategy
 - Technology assets quality
 - Technology business impact
 - Technology & IP management
 - Technology potential
- Impact of technology on development strategy

Technology Equity Research - E-Health

The ABC group is one of the largest European player in the E-Health, E-welfare and well-being sectors





Impact on company valuation

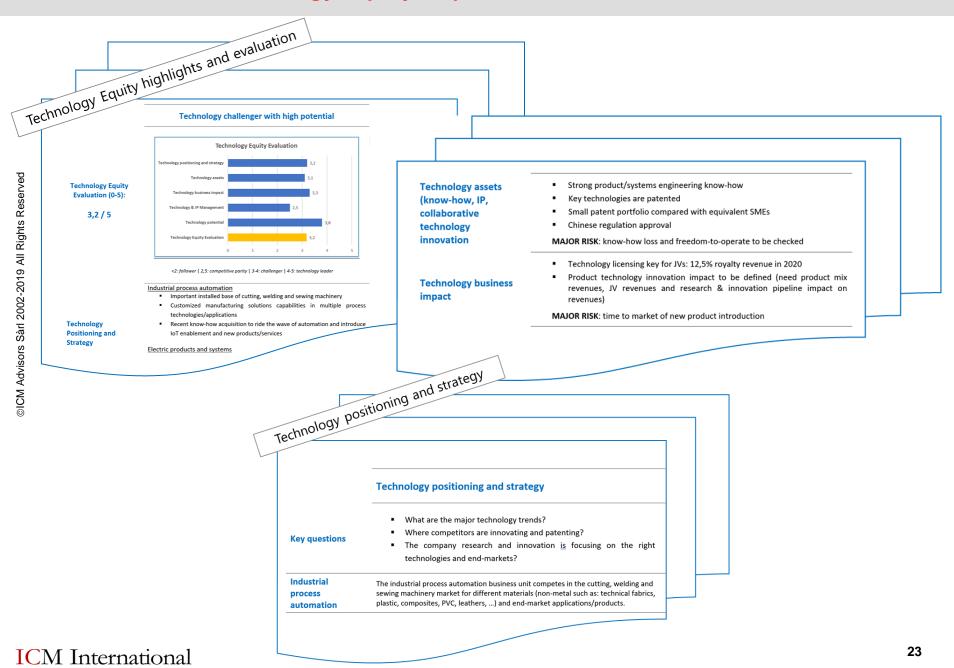
Technology financial impact

The existing and in-development technology assets impact on the following dimensions:

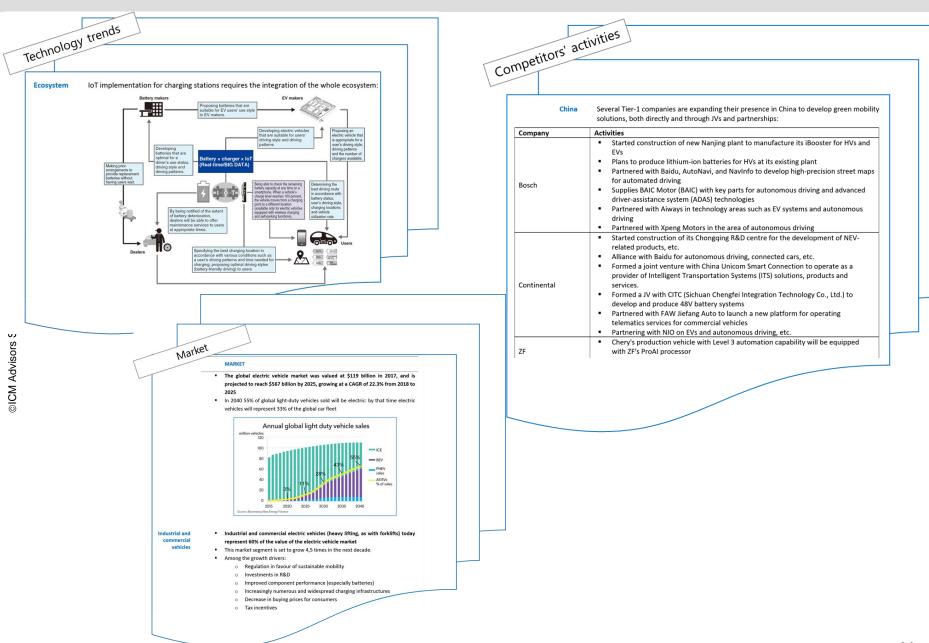
- Increase of up/cross-selling revenues on loyal (95%) customer base: 15%
- Cost savings through systems rationalization / integration: 2,5 3 M€/year
- Capex/opex flexibility: high due to systems / applications full ownership
- Investments in software development: 13 M€ in 2018
- Total client Cost of Ownership (TCO) competitiveness: generally high, medium in some applications currently in re-engineering phase
- Operating cash flow sustains R&D investments in line with industry

The financial impact of technology assets, capabilities and innovation in delivery business model (cloud, SaaS, hybrid) is already in progress and can significantly improve in next 2-3 years.

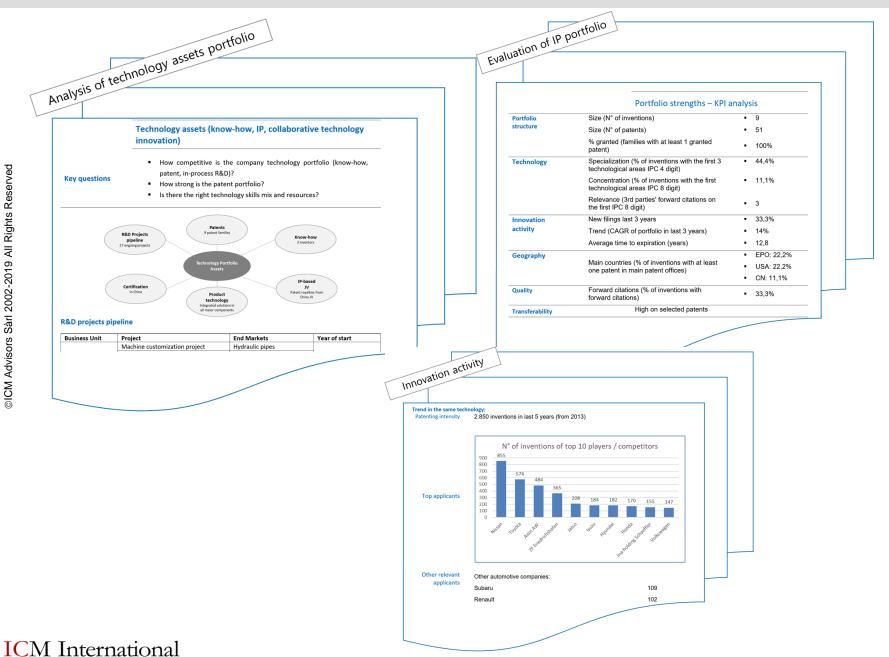
Technology Equity Report – Electrical vehicles (1)



Technology Equity Report – Electrical vehicles (2)



SME Tech - Technology Equity Report – Electrical vehicles (3)



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Industry expertise & projects track record

Industry expertise & projects track record (1)

INDUSTRY	PROJECTS
PHARMA/BIOTECH	 Reproductive genetics IP assessment & Strategy Accelerator JV design with leading USA University Cell based therapy oncology 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
	 In-process R&D projects portfolio for partnership R&D and Technology know-how valuation for partnership Early-stage R&D project valuation for transfer World Wide Licensing Strategy Licensee target & assessment Licensing royalty valuation Patent portfolio valuation for start-up Licensing T&Cs and standard contract design
MEDTECH	 IP Landscape for licensing Wearable technology & IP landscape Technology and patent assessment for acquisition Technology commercialisation processes design and set-up for a TTO

Industry expertise & projects track record (2)

INDUSTRY	PROJECTS
DIGITAL & ICT	 Customer Communication Management SaaS platform valuation for PE/IPO SaaS Platform Technology & IP Valuation for funding strategy E-commerce platform valuation for start-up R&D project assessment for blockchain technology 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
TELECOM	R&D Unit Technology Know-how AssessmentIntangible and IP Assets Valuation
MEDIA	 Event study for stock trend analysis R&D project assessment

Industry expertise & projects track record (3)

INDUSTRY	PROJECTS
ADVANCED MATERIALS NANOTECHNOLOGY COMPOSITES PLASTICS	 Market scouting, technology licensing of adhesive superhydrophobic and self-cleaning films
	 Technology and IP due diligence and risk analysis Patent FTO (Freedom-To-Operate) for acquisition IP assessment for Patent strategy Patent Transferability Assessment
	 Separation of plastic from complex waste products competitive technology intelligence for Private Equity investment Bio-plastic market & technology analysis for funding

INDUSTRY	PROJECTS
ENERGY	 Smart Grid technology data bank for IP strategy Fusion Technology Patent Portfolio Valuation for IP holding setup Technology & IP Monitoring, Tech Strategy, Competitive Landscape monitoring for target acquisition National Energy Cluster strategy
CLEANTECH	 Waste Management assets and company valuation for sale 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

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Industry expertise & projects track record (4)

INDUSTRY	PROJECTS
INDUSTRIAL	 M&A EMS listed company Technology & know valuation for licensing Electronics manufacturing business valuation for shareholder exit EMS Market analysis for M&A targeting
	 Patent portfolio assessment, benchmark and economic value contribution Patent portfolio landscape for investors
ELECTRONICS	 Market and technology scouting for patent licensing-out
PACKAGING STEEL AUTOMOTIVE MECHATRONICS INDUSTRY 4.0	 Industrial & IP assessment IP Strategy Industrial plan
	 Technology know-how and IP valuation for licensing Technology valuation for vehicle tracking application
	 SME Cluster technology/application strategy Collaborative R&D project valuation Recurrent Targeting for collaborative R&D I4.0 Technology licensing-in for Industrial Vending I4.0 Advanced remote maintenance application valuation

ICM International

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Industry expertise & projects track record (5)

INDUSTRY	PROJECTS
AEROSPACE & DEFENSE	 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 Selfhealing 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 expertise & projects track record (6)

INDUSTRY	PROJECTS
INVESTORS PRIVATE EQUITY VENTURE CAPITAL FAMILY OFFICE CORPORATE BANKING	 Technology Equity Research for Health Digital services listed company Technology 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 IP Loan product design and pilot Intangible assets & IP Valuation for debt restructuring Industrial & Technology Score for lending R&D project assessment for automated platform for private investments

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