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Think big, act small and fast

Using data science to accelerate portfolio value creation

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Key takeaways

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Data science transformation empowers business leaders to make smarter decisions, quicker, and more often. It does this by widening a company's data lens well beyond an individual or team's ability to analyze and act upon all of the data sources that matter.

Using data science to enhance decision-making enables businesses to seize the opportunities and avoid the pitfalls of ever-evolving markets and the increasingly complex global business ecosystem.

It is possible to optimize business performance in this way rapidly and sustainably, with improvements evident within weeks of starting a data science transformation program.

Progress is both rapid and cumulative, with a flywheel effect quickly transferring gains from one function or division to another. The faster a company learns, the more competitive it becomes.

Companies starting out on this journey do best when they think big – planning to effect a company-wide vision for data science transformation – but act small and fast, focusing on operations that can benefit first and quickest from forward-thinking data management.

The greatest area of opportunity for data science transformation is in mid-sized businesses with turnovers in the range €100m-€1bn, often the size of private equity portfolio businesses.

Data science transformation is a powerful way for private equity firms to create foundational portfolio value.

Forward-thinking private equity firms are now applying data science transformation to their own operations, particularly in identifying portfolio businesses ripe for sustainable improvement.

The private equity market context

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Private equity firms are facing a market correction broadly in line with the macroeconomic climate today. Of the three levers that private equity funds rely on to create value within their portfolio companies – multiple expansion, deleveraging, and operational improvement – it is only operational improvement that remains a viable option today.

After more than a decade of rising equity multiples, valuations have dropped abruptly since the beginning of the year. Interest rates are also rising around the world, making the cost of debt in private equity deals much more expensive.

> **The one sector that has remained consistent and so increasingly attractive to private equity investors is tech-enabled business, companies that have data science capabilities baked in to their philosophy from first concept.**

Private equity firms continue to operate in an increasingly competitive environment, as supply for capital from investors has slowed in the face of rising demand for fundraising. After a long period of growing demand for private equity, investors are becoming pickier and invest only with private equity funds with the highest returns. The opportunities for growth afforded by data science transformation are yet to be realised in most mid-sized, €100m-€1bn turnover companies that private equity firms often invest in. This is why this topic is of such relevance to this sector.

What is data science transformation and why does it matter?

Applying data science to a company's operations offers leaders the opportunity to transform their business. To achieve this, first they need to bring into their day-to-day operational planning data that details all aspects of the business; data that is clean, reliable, easy to access, and up-to-date. With a comprehensive data infrastructure as a foundation, companies can use this with impact, to improve the health of their business and ensure it is set for long-term, sustainable success.

That said, navigating and thriving in today's business ecosystem is ever more challenging. Leaders are required to consider and evaluate more data sources and bigger data sets than ever before as they seek to make the right decisions for their operations. There are just too many data inputs for humans – individually or in teams – to ingest and interpret fast enough to have impact on decision-making, as they have historically.

Human intelligence prefers simpler, single-factor explanations of the world but struggles to cope when four, five, or more factors interact. Yet if you can't measure market dynamics properly, you can't steer or optimize performance. This is why – at a time of keen competition and global volatility, uncertainty, complexity, and ambiguity – the ability for companies to detect and act on genuine signals has never been more highly prized.

One of the most effective and efficient ways for businesses to make better decisions, faster, and more often is to transform their data science operations.

This means putting a good base of usable data in place along with a team that knows how to use it – and then actually using it. Data science expertise and the application of algorithms and tools that accurately model ever-more complex markets enable businesses to become increasingly reactive and evidence-based in their response to changing dynamics. By widening the data lens, by increasing the number and scope of factors under active consideration, and by managing data better at scale, leaders can outflank their competitors.

Applying data science to business decision-making enables more and more decisions to be made better than chance. When hundreds and then thousands of decisions are made better than chance – through faster, better-informed feedback loops – leaders can identify more reliable signals, at speed, while at the same time ignoring both noise and erroneous signals. Cumulatively, these marginal gains aren't just additive; they're multiplicative. The faster a business learns about the shifting dynamics of its market, the more competitive it becomes by an order of magnitude.

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Two mini case-studies

1. A challenger financial institution

The two primary functions of a retail bank are to boost sales of loans while at the same time managing risk, ensuring that loans do not become bad debt on which over-exposed customers default. This is particularly important in a period of global shockwaves and unpredictability, from COVID to Russia's war in Ukraine. Ekimetrics enabled a challenger bank, taken private, to move from retrospective risk assessment a month after the end of each quarter to monitoring exposure in near real-time. By bringing in more external data, by structuring and analyzing the data that matters to the business as-live, we helped the leadership make better sales decisions and grow at pace.

Two mini case-studies

2. A multi-brand consumer goods manufacturer

The biggest single marketing investment for consumer goods businesses is in retail promotions, with promotional spend often dwarfing advertising investment. Promotions incentivize retailers to give more shelf-space to brands while at the same time attracting consumers to buy more products, more often. Traditionally, our client created a calendar of promotions at the start of each year based on the previous year's activity and sales performance. This approach suffered because it was frozen in the past, based on a mix of experience and intuition, and unable to account for competitor activity and rapid changes in consumer behavior. We helped a multi-brand consumer goods manufacturer to adopt a more dynamic way of working with its data. We enabled the company to transform its data science capabilities to gather better-quality market signals quicker, empowering brand teams to make better, more responsive decisions, to significantly enhance the return on investment of their promotional spend, and to create a better-informed new product development strategy.

2

How can businesses leverage data science best to accelerate value creation?

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It is often (though not always) the case that, the bigger the business, the greater the data science maturity and the more advanced the data science capability within the organization.

As with digital transformation some years ago, multinationals have been in the vanguard of data science transformation. It is often true that mid-sized businesses – categorized in this paper as those turning over more than €100m – may not be as far down the data science transformation journey as global blue chips. That said, leaders of most mid-sized firms understand the value, power, and potential of data science and the application of AI and machine learning to enhance business decision-making; to enable them to make smarter, quicker, better-informed decisions at scale. And while they may be slow to get going, they can accelerate faster thanks to the inherent agility of a smaller organization.

There are three approaches that businesses typically take in this space.

TOOLS-FIRST

Buying off-the-shelf tools to bring about data science transformation.

PEOPLE-FIRST

Hiring data scientists and building a bespoke data science solution in-house.

HYBRID – PLUS ADVICE

Selecting the right tools, building a team of data scientists to maximize business impact, and engaging experienced, external experts to accelerate change.

The tools-first approach almost always fails, attempting as it does to fit the square peg of a company's specific data science needs into the round hole of an off-the-shelf data management platform. No one provider offers the entire chain of data services required and comprehensive suites of services tend to be too rigid. Simply buying a product does nothing to address the cultural change needed to become a data-driven company. Tools require team members brought on board to run them, and training to learn how to use them to best effect. Products alone cannot bring about long-term, sustainable data science transformation and enhanced decision-making.

Creating a team from scratch is also time-consuming and something of a mythical, promised land. You need to start by hiring a seasoned head of data – one with experience with a variety of different tools as well as a strong intuition of business impact – to make the right data architecture choices and develop a long-term data strategy. With a leader in place, you need a team who can execute that strategy. And yet recruiting data scientists to develop an in-house solution can result in hiring second- or third-tier quality data scientists who are required – from a blank sheet of paper – to reinvent the wheel. It's challenging to build a team from scratch when you haven't yet determined your data roadmap and what mix of profiles you need. It's even harder to retain them.

Think big, act small

Genuine data science transformation requires a business both to use a variety of tools to build a data platform – one that can ingest, store, align, and consolidate all of the data that matters in a business – and then put that platform to work in a progressive series of use cases that demonstrate value as you go. In our and our clients' experience, it is the middle – hybrid – way that is by far the most effective, both for global multinationals and mid-sized businesses.

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By working with third-party experts who have effected data science transformation many times before, businesses can build their long-term data vision. They can then assist in recruitment the right team members and at the same time start to implement a data platform and change the way business operates. Thinking big – with a company-wide vision of the data platform and organization as the overarching goal – but acting small by quickly implementing a few well-selected use cases, businesses can make measurable, tangible progress in a handful of key areas fast. There is then a flywheel, accelerating effect, as the same, transformative approach is applied to other aspects of the business according to a strategic roadmap for change. The first use cases enhance and enlarge the core data available, demonstrate the value of the platform, and serve to excite colleagues in other functions to start using data smarter.

Thinking big – with a company-wide vision of the data platform and organization as the overarching goal – but **acting small** by quickly implementing a few well-selected use cases, businesses can make measurable, tangible progress in **a handful of key areas fast**.

Businesses just starting out on a data science transformation journey often identify initial use cases around data visualization and descriptive performance statistics using medium-sized data sets.

These use cases are critical for creating the foundation of reusable data that can be built upon, and simply having clean, timely, visualizable data can already have a powerful impact on how business decisions are taken. This then establishes a base that can pave the way to AI and machine learning based on complex algorithms using multiple, big data sets to predict customer behaviour and even develop new products and services.

This approach immediately brings experienced, external data scientists and engineers to assess a company's prevailing data science maturity. This, in turn, allows them to determine what foundational platforms are required to identify and to prioritize the opportunities that more rigorous data science transformation could deliver in terms of smarter, quicker decision-making at scale. This rapid evaluation of context and opportunity allows us to outline the potential for data science transformation as well as likely hazards and speedbumps along the way.

Critically, this approach quickly identifies areas where the biggest impact can be made first, enabling businesses to reap the rewards and demonstrate value within as little as eight weeks. Ekimetrics' approach pairs mid-to-long-term transformational change with the rapid demonstration of business value in two or three immediate use cases.

3

Why is this so important for private equity?

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Given the imperative for private equity firms to steer portfolio businesses to optimal value during a typical three-to-five-year ownership window, data science transformation has become increasingly necessary in recent years.

It is one of the most sustainable, impactful ways to accelerate portfolio value creation. It enables them to make smarter, quicker decisions more often and at scale, outperform the market, and so grow quickly and also sustainably. Indeed, data science transformation is today one of the leading routes to optimizing value and enhancing ROI.

The sweetspot for private equity portfolio businesses is often in the €100m-€1bn, mid-sized company range. As mentioned earlier, this is precisely the size of business which – with a few, notable exceptions – has yet to fully capitalize on the potential for data science transformation. By starting on the journey towards data science maturity, portfolio companies make themselves more competitive and drive lifts in their valuation multiples. This is because, among other factors, in so doing they enhance their ability to make smarter decisions more quickly (through business intelligence and analytics), and to delight their customers with streamlined experiences (responsive products). Indeed, even before a business has fully implemented its data science vision, the act of starting on the journey can already have a positive impact. Simply creating a clear roadmap that tells the story and concretely lays out the steps to such a transformation can change both how a company itself is perceived and, in time, how it is valued.

Data science transformation is today one of the leading routes to optimizing value and enhancing ROI.

Three examples of Ekimetrics' work with mid-sized private equity portfolio businesses are detailed below. Each one demonstrates the immediate results that data science transformation can bring to operational efficiency, profitability, and portfolio value.

Three mini, private equity portfolio company case studies

1. Improving efficiency in identifying carers

Finding suitable, long-term carers for children whose birth parents cannot care for them is challenging – to say the least. For national and local government care services, it can be like finding the proverbial needle in a haystack. Not only are there more children in the care system than carers prepared to volunteer. Of those who do put themselves forward, fewer than one percent end up fulfilling that role, following a stringent series of up to ten different checks, reviews, and interviews. As a result, government care services have traditionally had to invest very heavily at the top of the funnel – with digital advertising, literature, in-person events and so on – to source a pool from which fewer than one in 100 will be successful.

We worked with a leading social care company – itself a private equity portfolio business and the recipient of a government contract in a major, developed economy – to improve the efficiency and radically cut the cost of recruiting carers. This involved a data science transformation project which enabled the business to identify the traits and characteristics of successful carers, and so drive efficiencies throughout the recruitment process. In this way, we dramatically improved ROI.

Three mini, private equity portfolio company case studies

2. Automating a complex supplier ecosystem

Creating products that combine component parts from multiple different suppliers demands that manufacturers keep a close eye on a bewildering array of variables, factors, and contracts simultaneously. With sufficiently comprehensive, accurate, and timely analysis, manufacturers have the opportunity to control and maintain profitability by managing input costs. Yet many businesses try – and fail – to do this manually, an approach especially badly suited to today's global supply chain, with significant uncertainty and galloping inflation for raw materials.

Working with a consumer goods business, we ran a data science transformation program that automated the work of a five-strong team into a comprehensive, near-real-time, Enterprise Resource Planning dashboard. By integrating and automating the pipeline data right across the company's supply chain, we created an on-demand, self-service platform that enabled it to make the data useable, keep track of all cost inputs as prices fluctuate, and maintain profitability.

Three mini, private equity portfolio company case studies

3. Breaking down silos to bring data together into a single platform

Ekimetrics enabled a leading chain of high street opticians to serve its customers better across all channels by designing and introducing cloud-based, datalake architecture that brought together all of its data from all departments and functions. By mirroring the company's physical business environment, we transformed its customer experience. But rather than try to change everything at once, we added new data use cases at three-monthly intervals through a bespoke, 'data as a service' platform. The platform was straightforward for everyone in the business – including those who were not data-savvy or digitally native – to adopt with ease.

New use cases integrated seamlessly with existing operational systems such as Salesforce. The datalake architecture was deployed on Microsoft Azure, with data processing delivered via Databricks and Py-Spark, and reporting using PowerBI. The success of this transformation project stemmed from Ekimetrics converting our deep understanding of our client's company strategy into a phased, operational roadmap.

that enabled it to make the data useable, keep track of all cost inputs as prices fluctuate, and maintain profitability.

In each of these three examples, we demonstrated the value for a mid-sized business in structuring and interpreting data in the right way to generate insights to enhance performance and ROI. In each of these examples, there were immediate benefits which had a flywheel effect, propelling these private equity portfolio companies on the path to wholesale data science transformation. In this way, we enabled their parent private equity firms to accelerate portfolio value creation.

Enhancing value in invested companies through data science transformation can take many forms, covering capabilities, sales and marketing effectiveness, and operational excellence.

This includes: stock optimization, pricing and promotional strategy, store location optimization, omnichannel sales and marketing strategy, logistics delivery optimization, demand forecasting, customer engagement, marketing mix optimization, and client churn detection and cross sell. See Figure 1., below.

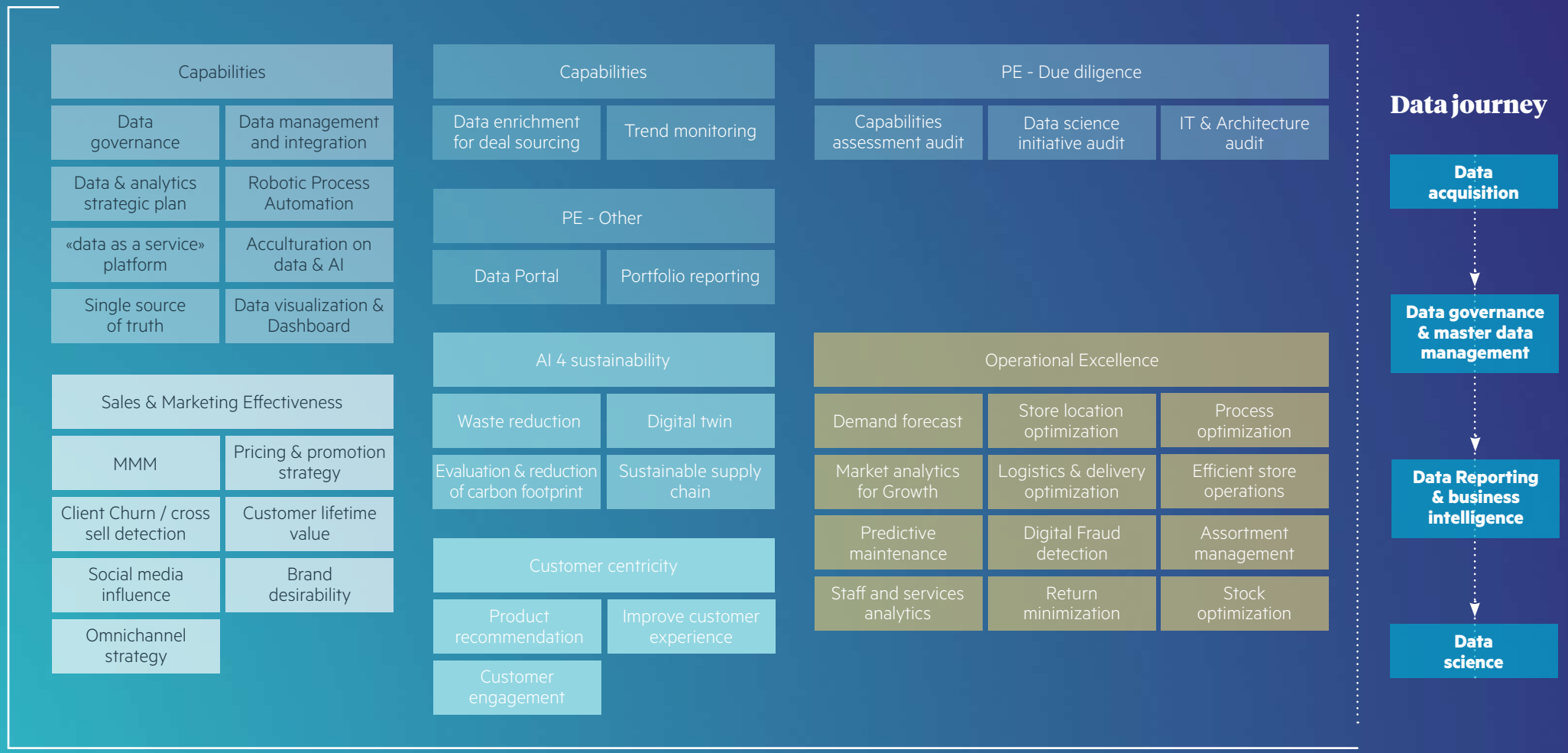

Figure 1. Potential business cases for data science transformation in portfolio companies

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Data science transformation for private equity firms' own operations

Private equity firms are typically lean, nimble operations. Although the companies they own may have tens of thousands of employees, private equity funds themselves tend to be orders of magnitude smaller. Nevertheless, the application of data science also offers opportunities for private equity firms, too, most notably in deal sourcing – assessing and analyzing the essential characteristics of mid-sized businesses to identify, quickly and reliably, potential future targets.

As in portfolio businesses, data science has the ability to transform decision-making, making it better, quicker, and more reliable. While the flames are yet to catch across the industry, private equity firms cannot avoid the maturity curve in the long term. Those who have successfully applied the principles of data science transformation to portfolio businesses are in the vanguard of applying it to their own businesses. Those at the forefront reap the biggest rewards, and in deal sourcing they will make it quicker and more straightforward to find the right businesses in which to invest. Private equity funds enjoy an edge if they are able to identify potential targets earlier than their competitors or that their competitors haven't considered. There can be significant benefits to speed and proprietary knowledge in deal-making, and data science can help to deliver this advantage.

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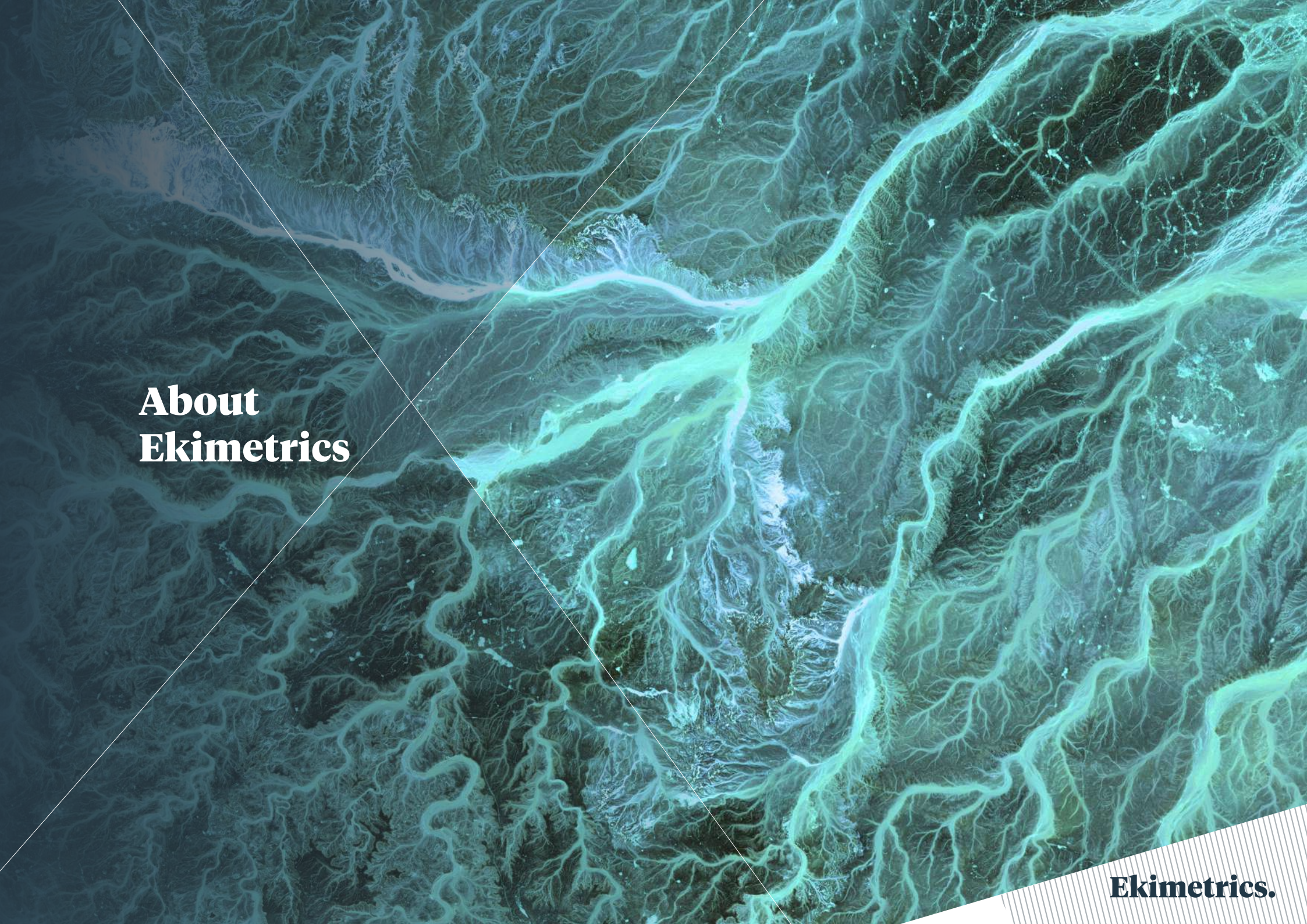
As in portfolio businesses, **data science** has the ability to **transform decision-making,** making it **better, quicker, and more reliable.**



About Ekimetrics

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Ekimetrics was founded in 2006 and is a European leader in data science for business. The company's mission is to help customers audit their data opportunities, enrich their analytical capital, and deploy actionable solutions to maximize their marketing and operational performance and re-energize their business models.

With more than 320 data scientists, Ekimetrics is one of the largest independent teams in Europe. Ekimetrics' focus is delivering short-term gains while ensuring the long-term development of its customers' data assets. Since its foundation, Ekimetrics has undertaken more than a thousand data science projects in over 50 countries, generating more than €1bn in profit for its customers.

The Ekimetrics sustainability journey

Ekimetrics works with many of the world's leading businesses to accelerate sustainable business transformation through the application of data science and artificial intelligence. We are one of more than 150 companies to be a signatory to the CEC: La Convention des Entreprises pour le Climat, a multi-sectoral organisation that aims to help businesses create a sustainable future together by successfully reconciling both economic and ecological imperatives. Ekimetrics is also committed to higher standards and responsibilities in its own business practice, en route to attaining B-Corp status in 2022 and Net Zero by 2025 under a Science-Based Targets (SBT) roadmap.

Key data points:

16 years' experience in data science

More than **350 clients** (CAC40, Fortune 500)

+320 data scientists and data experts

€1bn+ profit generated for clients

4 offices in Paris, London, New York, and Hong Kong

More than **a thousand** data science assignments

Contact

Ready to talk or simply curious to learn more?
Reach out to our experts to understand how your private equity challenges can be tackled through data science.

Elisa Chen, Senior Manager,
Ekimetrics France
elisa.chen@ekimetrics.com

Ivan Vlahinic, Partner,
Data transformation, Ekimetrics UK
ivan.vlahinic@ekimetrics.com

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