

Whitepaper

The Analytics Translator

The Must-Have Role for AI-Driven Organizations

Executive Summary

- Many organizations have not seen return on their investment after developing their data and AI capabilities.
- It's imperative to account for all of the phases of an AI solution life-cycle. Find the right business problems to solve in the Ideation phase, discover if there is a viable business model during an Experimentation phase, and scale up in an Industrialization phase.
- Actively involving the business in every step of the process and putting them in the driver's seat is a critical element to success with data and AI.
- The analytics translator enables the execution of your company's AI strategy by finding the right use cases, liaising between business and data experts, and embedding AI solutions into your organization.
- To be successful, an analytics translator needs deep business understanding, takes ownership by nature, and is passionate about data and AI.

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Delivering Business Value with Data and AI

In recent years, numerous organizations have invested a great deal of time and money in developing their data and AI capabilities. Sold on the promises of accelerating top-line revenue growth or increasing the bottom-line, most business were off to a flying start. Now, a couple of years in, some organizations find themselves disillusioned. Stuck at running one-off analyses and proof-of-concepts that don't add any value, they are yet to see any return on their investments.

Luckily, this not true for all organizations. At Xebia, we have helped several organizations to succeed in building strong AI practices, delivering substantial value to both their business and their customers. This white paper is based on some of the lessons learned and describes how to overcome the most common difficulties when building AI solutions. The analytics translator plays a key role in the journey to success with data and AI. We will describe what this role is and why AI organizations cannot do without.

“An AI solution is a product or service that solves an end user problem by learning from data, as opposed to traditional IT solutions that are hand-coded by people. End users of these solutions can be your customers, but also employees. For instance, they recommend new clothes to users in a web shop by analyzing shopping patterns; predict how much a flight will cost for your next trip based on historical prices; or predict when a train will break down based on sensor and weather data.”

Moving Past One-Off Exercises Towards Value

For many organizations, the AI journey begins with one-off analyses and proof-of-concepts. These one-off exercises provide a cheap and quick way to get started. A flashy proof-of-concept can inspire and “wow” the business. Moreover, it allows testing the waters to find out what is possible with in-house data. By showing what AI is capable of, most organizations build their initial business support and sometimes even free-up funding.

“Our international Data Survey 2019 (1350 participants) showed that data is an essential part of the strategy for 79% of the organizations. At the same time, it lists taking models into production as the biggest new data science trend, above hot topics such as deep learning (#2) and IoT (#3). Although companies see data as an essential part, they have trouble turning their data and insights into valuable AI solutions.”

For a free download of the full report, please visit:

<https://xebia.ai/data-and-ai-survey>

While these one-offs are a great point to start, one has to realize that they are only a means to an end, not the end itself. Successful organizations know that “inspiration is cheap while rigor is expensive”. This makes them wary of falling into the trap of never moving past the stage of inspiration and cheap learnings. The road to value is long and winding; ideas have to be validated, value has to be measured, proof-of-concepts have to be transformed into production-worthy applications, and finally, the business has to adopt the solution. You are only able to see a positive return on investment if you make it all the way to the end. Luckily, there is a system that can help you get you there: the AI Solution Framework.

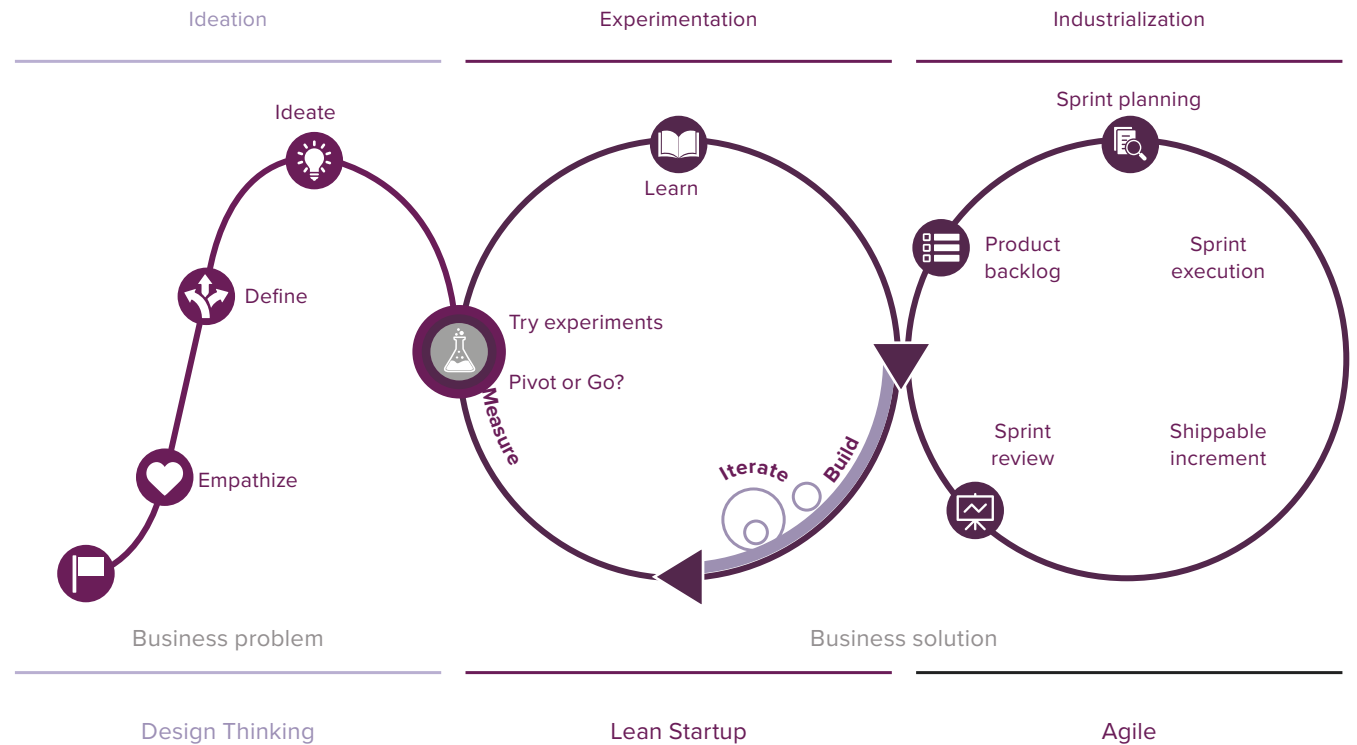
The AI Solution Framework

In order to build a valuable AI solution, you need to get two things right. One, make sure that the business problem you are addressing is the right one. Two, make sure that the solution satisfies the needs of your end user and is built correctly. These important keys to success are firmly embedded in the AI Solution Framework that is visualized in Figure 1. They are the recipe for finally leaving the one-off exercises behind.

The AI Solution Framework consists of three phases. Each phase aligns with a popular methodology. Ideation is based on the principles on Design Thinking that explores business problems and translates them into use cases. A use case is rapidly built into a prototype during Experimentation to discover if its business model is viable, following the philosophy of the Lean Startup. The Industrialization phase takes a validated prototype and builds it into a solution. The Agile methodology focuses on iteratively building products together with the end user to make sure the solution is built right. Successfully building a solution requires going through these three phases and knowledge of each of these methodologies.

When it comes to building valuable AI solutions, adopting this framework sets your organizations up for success. There is a catch however: it only works when the business is involved from the start.

Figure 1. AI Solution Process



Business Involvement Is Key

Data teams can build AI solutions achieving near perfect prediction scores. However, if the business is not properly involved and aligned, they will never succeed in creating value. Often, teams start experiments without involving key stakeholders to define the use case, or they build a solution without the end user in mind. As a result, the business either does not embrace the delivered solution or cannot fit it into their workflow.

The business needs to be in the driver seat to build valuable AI solutions. Here, however, organizations face a conundrum; how can you let the business drive the build of highly technical solutions without the technical expertise on a topic that is so different from traditional IT? This is where the analytics translator comes into play.

In the rest of this whitepaper, we will show how the analytics translator can help you to develop AI solutions that will actually create value for your organization.

Questions to Ask Yourself

- ✔ What are the biggest challenges in developing AI solutions within your organization?
- ✔ How is your workflow aligned with the phases in the AI Solution Framework?
- ✔ Who in your organization is responsible for all or any of these phases?

Problems an Analytics Translator Solves for Your Business

An analytics translator enables the execution of your company's AI strategy. Data engineers are good at developing robust applications. Data scientists are good at distilling intelligence from data. Business teams know their specific processes, habits, and work-arounds like no other. Still, there is a gap between data experts and business. Translators bridge it by solving three business problems for you.

Finding the Right Use Cases

Although there are many inspiring AI success stories, it is often challenging to find the use cases that fit your business needs. What are the most important business problems that can be solved with AI? Who is responsible for finding new problems and translating them into realistic use cases?

Figure 2. The Value Proposition Canvas

The Value Proposition Canvas is a valuable tool to translate your ideas into use cases. The canvas starts by mapping out what is expected from end users, what gets in their way, and what makes them happy. The canvas allows organizations to quickly identify promising use cases by pointing out how a use case relieves the pain for an end user and how it creates gains.

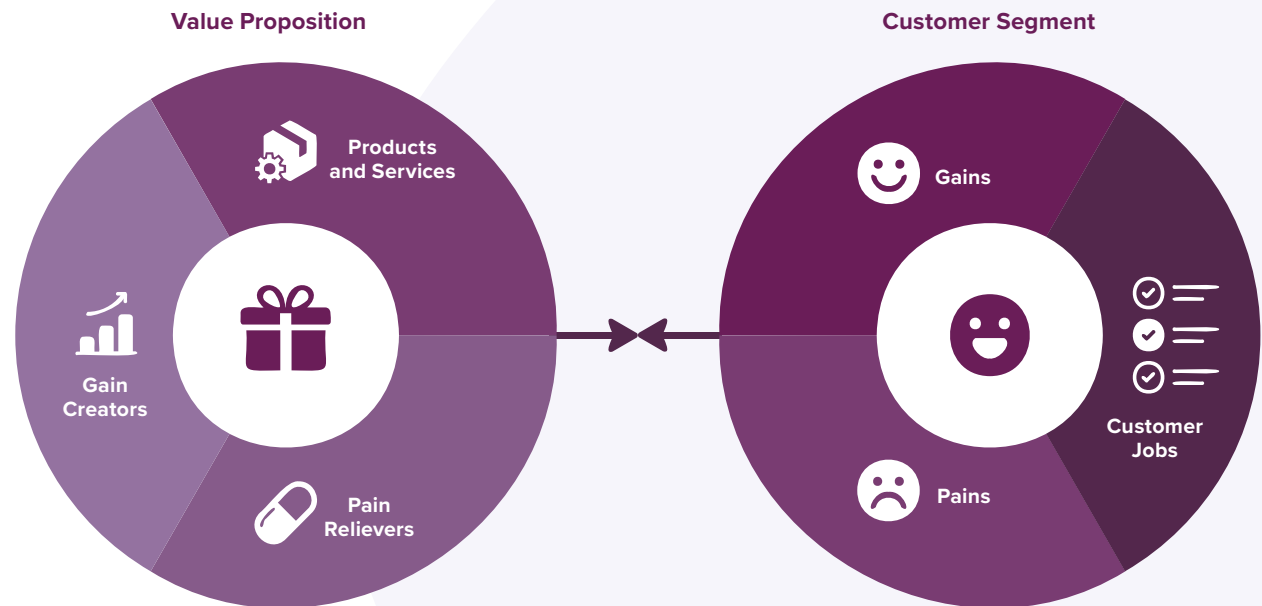


Figure 2. The Value Proposition Canvas /
© Business Model Foundry A

Liaising Between Business and Data Experts

You can come up with fantastic use cases that could improve your organization's performance, but they only provide value when they are implemented and used by the business. On one hand, the business won't accept or embed AI solutions they don't understand or trust. On the other hand, the traditional ways of working of the business often do not fit that of data experts. The business has to be brought into the process and connected to the data experts.

As a liaison between experts and business, analytics translators guarantee that the business understands and adopts the AI solutions. While the data experts focus on the implementation, Translators make sure that the output is actionable and fits business needs. They know how to communicate a business idea to the experts and embed the result in your organization.

"The analytics translator:

- 01.** *identifies high impact business problems that can be solved with data science,*
- 02.** *ensures that the data science and engineering team understands the business problem and are able to set out an appropriate analytical and data roadmap,*
- 03.** *and helps to interpret and deliver the outcome, embedding this in both the business and IT landscape of the organization.*

The analytics translator therefore needs to combine:

- 01.** *Deep domain expertise,*
- 02.** *An understanding of the different machine learning models and how they can realistically be applied*
- 03.** *Digital product management skills (entrepreneurship, product design, experimentation, backlog prioritization, and stakeholder management)."*

— Doron Reuter, AI Products & Partnerships Wholesale Banking Advanced Analytics, ING

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Embedding AI in Your Organization

Solving business problems using AI should not be confined to isolated business units but instead should be embedded in the organization. The adoption of AI requires not only technical changes such as building data ecosystems, but also depends on trust in AI and the integration of it into your workflows. It is very important that each and every employee understands what AI is and how it can impact the organization. We call this AI literacy.

In 2016, McKinsey Global Institute introduced what they call the age of analytics and described how organizations should compete in a data-driven world. One of the most important aspects of this model is that organizations need to become more open and collaborative by breaking down silos. When business departments learn what it means to be AI-driven, and what opportunities this brings, a pull for AI-applications and solutions will arise. If this is combined with a solid data science workflow and the right skills, tools, and techniques, organizations grow towards the highest level of AI maturity.

The analytics translator spreads ideas and success stories in order to make your organization AI literate. They build internal and external communities by, for instance, hosting internal innovation days, organizing hackathons, and teaching analytics workshops. Translators evangelize and educate to make your company aware of the usage and implications of data and AI.

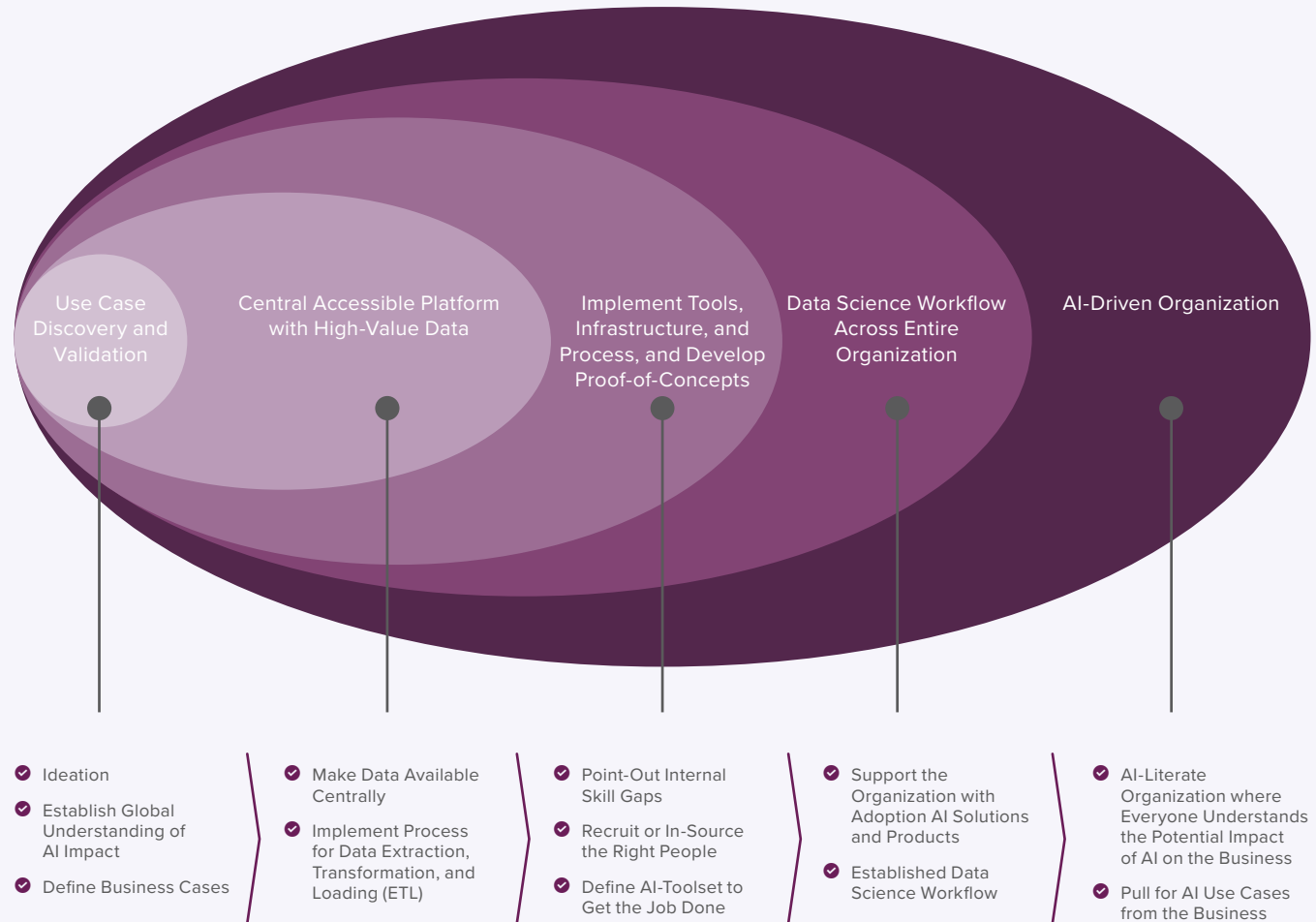


Figure 3. Advancing through maturity levels

Characteristics of an Analytics Translator

The analytics translator is the liaison between senior management, the business, and data experts. In one day, the Translator can be both a gatekeeper and a host for AI projects, brainstorm ideas with executives, and work with the data experts to prioritize the backlog of viable concepts. What characteristics make them suited for this role?

Understanding Your Business

First and foremost, analytics translators must understand your business. They are experts in their line of work: they know the KPIs that matter, are familiar with common AI use cases in their domain, and are able to manage the process to embed the resulting solution into the business process.

For instance, for a transportation company that is looking to optimize the routes their truck drivers take, a perfect predictive model is not enough to have impact: you need to have a deep understanding of a day in the life of a driver to really help them with an AI solution. Translators can identify the biggest potential, know who to involve, and help turn a use case into a success.

Takes Ownership by Nature

Starting and executing innovative projects asks for an entrepreneurial mindset. The Translator has to think and act like an entrepreneur to identify promising ideas and kick-start new initiatives. This means that analytics translators are part product owner and part product manager.

They develop roadmaps, report on status to senior management, and ensure timely delivery. analytics translators distill the best parts of Design Thinking, Lean Startup, and Agile into a framework optimized for advanced analytics. Their project management skills help to grow an idea into a prototype, and ultimately, into an AI solution.

Eat, Sleep, and Breathe AI

Analytics translators are passionate about data and AI. Their solid tech background sets them apart from similar roles such as product managers and product owners. As digital natives, they understand how these technologies are core parts of modern life. They may not be able to implement models themselves, but they have a deep appreciation for what is possible and what will soon be possible in AI. They know machine learning is useful for a lot of problems but also know when a heuristic model may be more appropriate. Ultimately, they know that data and models are not enough: these components have to be brought back to the business and their organization's strategy.

- ✔ **Usable** Find the UX that matches the business Job To Be Done, and deliver that experience
- ✔ **Valuable** Achieve business goals in exchange for delivering value to the business
- ✔ **Feasible** Can we build it with available technology and maintain it, with cost compatible with business goals?

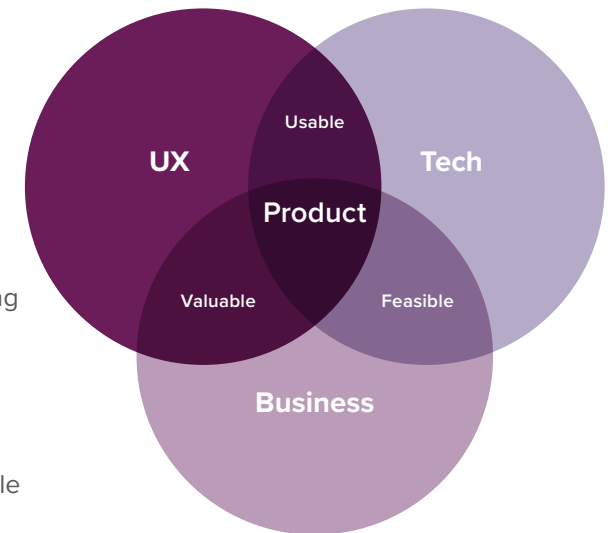


Figure 4. In this role, the analytics translator finds the sweet spot between UX, Tech, and Business

Questions to Ask Yourself

- ✔ **Have you identified a gap between data experts and your objectives?**
- ✔ **What could be the potential impact of an analytics translator on your business?**
- ✔ **Do you need help developing this role in your organization?**

Contact Xebia to connect with our consultants, get answers to your questions, and learn more about our analytics translator training program.

Find more information on how Xebia is driving innovation at xebia.com/data

Or, get in touch by visiting xebia.com/contact

About Xebia

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