TRANSFORMATIVE AI & DATA SOLUTION

TRAIDA FRAMEWORK

TRAIDA
CARDS OVERVIEW

VERSION: NOVEMBER 04, 2024

TRAIDA

Knowledge repository with an educational purpose on AI and data solutions

Operational tool to assist the transformation of IS/IT

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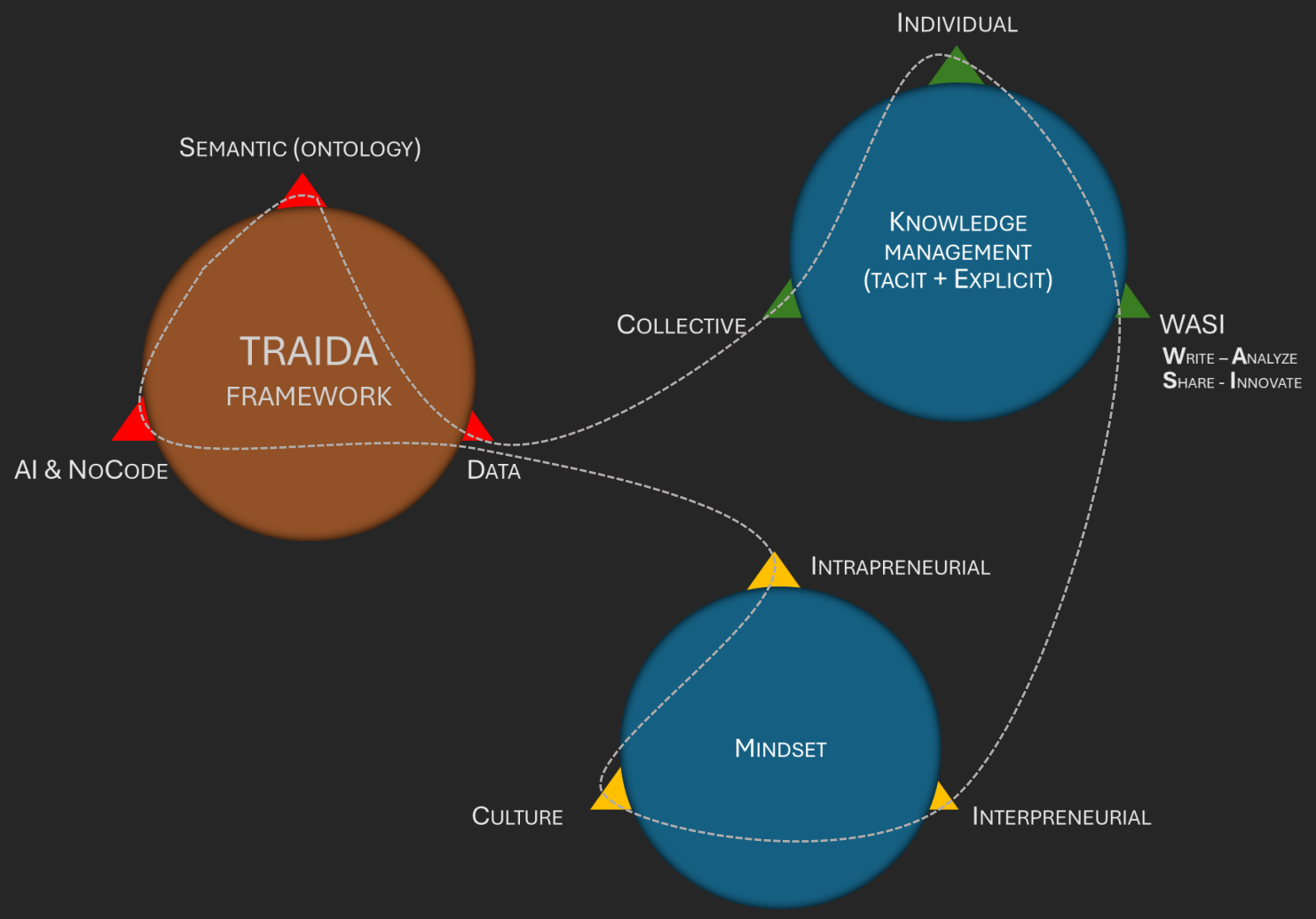
TRAIDA FRAMEWORK

AI STRATEGY



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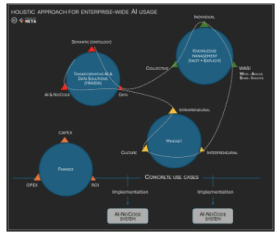
TRAIDA | AI Knowledge | Mindset | Resources

ENGAGE-META COMMUNITY

Accumulating knowledge to achieve sustainable success with AI

Open-source think tank focused on AI at scale



The Engage-Meta approach to organizing practices for the successful deployment of AI and data solutions at scale within an enterprise revolves around three strategic spheres:

- **TRAIDA** — IT architecture for the implementation of AI systems, NoCode, and data solutions based on the TRAIDA framework (Transformative AI and Data solutions).
- **AI KNOWLEDGE** — Knowledge management for training AI systems.
- **MINDSET** — Promote the positive use of AI systems.

A fourth sphere complements the system to address financial aspects.

The practices of those spheres are universal and adapt according to the company's context.

Subscribe to our social medias

Pierre Bonnet, the founder of the community

With over 30 years of experience in the computer industry as an expert in Enterprise Architecture and data governance, Pierre Bonnet is the founder of Engage-Meta.

Since 2022, he has been working with AI experts based in Vietnam (PDF). He is the originator and principal author of the TRAIDA framework for Transformative AI and Data Solutions. He is also an experienced entrepreneur in the tech and beverage industries. He has formalized an innovative approach to accumulating knowledge through a framework called META, which stands for Motion, Engagement, Treasury, and Assurance. This framework includes an additional process named WASI, which stands for Write, Analyze, Share, and Innovate. This process is important for formalizing the knowledge needed to train AI systems.

To contact me: pierre.bonnet@hlfl-consulting.com — My PROFESSIONAL PROFILE (PDF).

If you want to PARTNER WITH US

TRAIDA

Using the TRAIDA framework (Transformative AI and Data Solutions) to build your minimum viable technical architecture for scaling AI systems, NoCode, and data management. More information HERE.

AI KNOWLEDGE

Using the WASI process (Write, Analyze, Share, Innovate) to transform tacit knowledge (both individual and collective) into explicit knowledge across the organization and to better train AIs. More information HERE.

MINDSET

Using the META framework (Motion, Engagement, Treasury, Assurance) in conjunction with the WASI process to cultivate a positive mindset at work and increase value creation with AI. More information HERE.

TRAIDA

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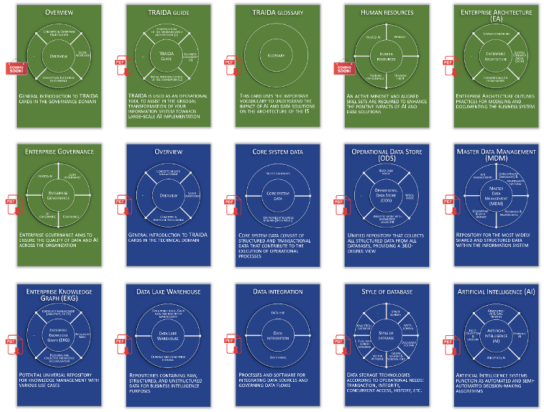
TRAIDA | AI Knowledge | Mindset | Resources

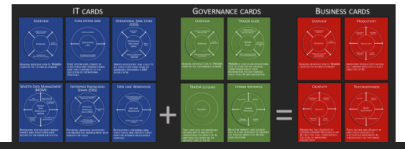
TRAIDA

AI & Data Solutions

In this sphere, you will find best practices for building your minimum viable technical architecture to scale AI. You will need to clarify your data management systems, likely using knowledge graph technology, and possibly a NoCode database depending on the complexity of your business. To analyze needs and conduct a phased transformation, we have defined the TRAIDA framework (Transformative AI and Data Solutions) which contains essential knowledge both technically and in terms of governance. Download the PDF for each TRAIDA card below. The content is free to use (open source, creative commons). You are free to utilize it for your needs, including in commercial activities, provided that you please cite the original source engage-meta.com.



Click here or on the image to download the PDF of the global map. The TRAIDA framework consists of 20 cards and 65 topics to address AI and the associated data solutions. Here you will find 9 technical cards (30 topics), 6 governance cards (17 topics) and 5+ business cards (18 topics). Each TRAIDA card is accompanied by a concise documentation that explains its importance in improving data quality and the use of AI on a large scale within the company. With its 20 cards and 65 topics, it offers a comprehensive view of enterprise architecture approached through the lens of data management and AI.



KNOWLEDGE

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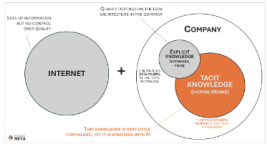
AI KNOWLEDGE

Accumulation

In this sphere, you will find practices that promote the transformation of tacit knowledge into explicit knowledge. This transformation is strategic for being able to train your AI systems with maximum value. It essentially involves documenting the know-how of your operators. This work represents a significant investment, but the return on investment, thanks to AI, is immediate. The more you formalize and accumulate knowledge over time, the more you can create AI assistants that are available on demand, as well as integrate them into your operational processes to enhance the overall performance of the company.

Knowledge management to power AI



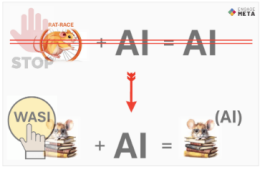
In the company, only about 20% to 40% of knowledge is formalized in the form of databases and documents. The remaining 60% to 80% of knowledge remains trapped in the minds of employees. However, all this knowledge is necessary to train AI. Therefore, programs must be initiated to transform tacit knowledge into explicit knowledge and to improve the quality of those information reserves. They are strategic for the success of AI and for achieving the expected productivity gains.

Most of the time, the company lacks precise self-awareness. Documentation is scattered across different departments, databases contain only a small portion of the manipulated information, team turnover leads to losses in certain practices, and overall quality is unsatisfactory. However, in the realm of AI, all this knowledge is essential for training. Therefore, it is crucial to not only improve the quality of existing data management but also to extend this management to encompass all tacit knowledge.

Personal Knowledge: To level up AI, enhancing knowledge management systems to capture and organize explicit knowledge is crucial. This ensures that information is accessible and up-to-date. Simultaneously, tapping into the rich reservoir of individual tacit know-how can unlock innovative solutions and creative strategies. The motivation to convert personal tacit knowledge into explicit form is twofold: firstly, to assert human expertise in an era increasingly dominated by artificial intelligence, and secondly, to facilitate the systematic accumulation of knowledge. By articulating and sharing personal insights, individuals not only contribute to the collective intelligence but also provide valuable data and knowledge that can be used to train AI systems. This symbiotic relationship between personal knowledge and AI can lead to more sophisticated and intuitive technology that complements human capabilities, fostering a collaborative environment where both can thrive.

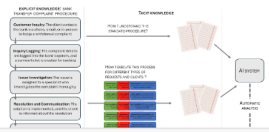
Collective Knowledge: Collective knowledge within an organization is a powerful asset, formed by aggregating the explicit and tacit knowledge of individuals within departments and across interdepartmental boundaries. The amalgamation of this knowledge is essential for enterprises, as it fosters innovation, efficiency, and competitive advantage. It is estimated that a significant percentage of an organization's knowledge is tacit, residing in the minds of its employees, and remains unexploited. Accumulating this vast reservoir of implicit understanding is vital for organizational growth and adaptability. Artificial intelligence stands as both the conduit and the repository for this knowledge, capable of capturing, analyzing, and disseminating insights throughout the organization. AI systems help transform tacit knowledge into explicit knowledge, making it accessible and actionable, thereby solidifying the foundation of collective intelligence within an enterprise.

Enterprise Architecture: At the organizational level, cultivating a mindset that values and facilitates knowledge accumulation is paramount. Enterprise Architecture (EA) serves as the technical scaffold, enabling the scaling of knowledge from individual contributors to the organizational tapestry. Together, these elements not only empower AI integration within enterprises but also amplify its application and adoption, ensuring that AI solutions are both innovative and in sync with human expertise.



Soft skills are the bedrock of professional development, with critical thinking at the forefront. To bolster critical thinking, one must focus on enhancing writing skills for clear communication, honing analytical abilities to decipher complex issues, fostering innovation to navigate and create change, and promoting a culture of sharing to disseminate knowledge. In an AI-enabled enterprise, where human and AI co-work, critical thinking and writing skills are even more essential as they help achieve the best combination of human and machine intelligence. AI needs clear guidance and instruction from human co-workers to produce its best results, which are subsequently validated by humans (human-AI feedback loop).

In conclusion, mastering the art of writing, analyzing, sharing, and innovating is critical to harness the full potential of AI. Effective knowledge management, particularly the transformation of tacit knowledge into explicit knowledge, is essential for training AI and advancing organizational intelligence. This is the WASI effect. You can read more about the WASI effect HERE.



In this figure, you have an example of transforming tacit knowledge into explicit knowledge to enhance AI training. Here, the user is asked to formalize their knowledge on the critical use of a standard process described by the company, as well as to explain the use cases of this process in order to adapt it to real-world situations. All this written knowledge is then given to the AI to obtain a critical analysis of the standard process, thereby identifying areas for improvement. This principle of formalizing tacit knowledge can be repeated regularly (weekly, monthly, biannually, annually) to establish a continuous process improvement loop. Without AI, formalizing all this knowledge would be pointless as manual exploitation would be too costly. AI removes the barriers to

MINDSET

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MINDSET

Critical Thinking

In this sphere, you will find key principles to help raise awareness that AI necessitates a profound change in the relationship between humans and work. With the increasing intelligence of systems, it is no longer sufficient to simply execute standard and repetitive processes at work. Such processes will simply be automated by AI. Everyone must then formalize their knowledge clearly and precisely. Humans, therefore, need to enhance their work capabilities through innovation, creativity, critical thinking, and sharing. It is essential to break out of the rat race and cultivate a culture of intrapreneurship and interpreneurship. Without the right mindset at work, AI will replace positions where the added value becomes low.

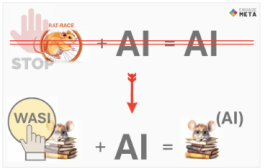
The WASI process

WASI stands for: Write, Analyze, Share and Innovate.

How to escape the intellectual rat race that hinders your progress in projects and may become fatal with the rise of AI? Being in the rat race is like going around in circles in your work and life without seeing how to improve your future. When you let time pass without taking control, you end up no longer fighting for a better future and merely hanging on day by day. You work somewhat like a robot and distract yourself with social media and easily accessible leisure activities.

This procrastination is a poison that prevents us from building beautiful things and progressing harmoniously. To overcome it, you need to find reasons to act and even an obligation to take action. I try to provide some guidance on how to achieve this in my book "The META-Entrepreneur," but here I want to emphasize the opportunity AI offers to help you escape the rat race.

But be careful, to fully utilize your AI assistants, you will need to learn to write with high precision. This is the only way for the AI to truly understand you and respond with relevance and high quality. You will also need to develop a critical mind to analyze the AI's responses and ask it to redo, adjust, correct, clarify, rephrase, complete, and justify the results. This cycle of writing and critical analysis will significantly increase your intellectual capacity. It's the opposite effect of TikTok, which tends to dull the mind.



It's quite simple to understand, and it boils down to two principles:

- Firstly, to use AI effectively, you will need to completely take control of your way of thinking and working. You can no longer be passive and perform tasks like a robot. This applies to all professions, even if you are a software developer. You will need to think more before acting to better understand what you are doing so you can formalize it in writing and then use it to train your personal AI assistants. You will then do this collectively, following your managers' guidelines.
- Secondly, you are no longer alone in facing your anxieties and blockages when moving forward and taking action. The more you enrich your AI assistants, the more they will help you find positive solutions to create your projects and improve your working conditions. As your AI practice improves, you will also be able to find AI assistants on the market that suit you best. No discipline or field of knowledge is inaccessible to you thanks to AI. You have access to a powerful intellectual force for just a few dollars a month with ChatGPT 4o. There's no need to wait for your company to provide you with this tool; you can use it at home with your own data.

That's not all! Writing and analysis will also allow you to discover new things and therefore innovate. Your creative intelligence will unlock, and you will then leave the rat race to become an augmented person thanks to AI. Finally, if you work in a team, you can share your knowledge with others to further increase your capacity to innovate.

Ultimately, the Write, Analyze, Share, and Innovate (WASI) cycle is the key to unlocking the infernal cage of the rat race.

Use the META to evaluate your state of mind

MOTION: clarify your DNA

The Motion element should help you find a deep and lasting reason that compels you to act positively. It is not just about motivation, which can fluctuate depending on circumstances, but an obligation that forces you to act positively even when you are tired or discouraged. Tenacity in overcoming challenges and accepting a time horizon of several years before achieving success are crucial for having a good

LET'S TAKE A CLOSER LOOK AT TRAIDA

20+ CARDS

9 IT Cards

6 governance Cards

6 business Cards

To have a unified vision of data and knowledge to run AIs

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To manage updates, versions, and security

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To align technical decisions with business needs

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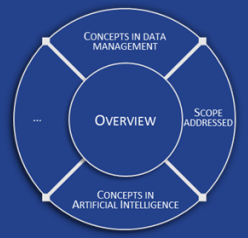
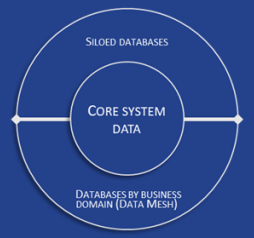
9 IT cards

Overview



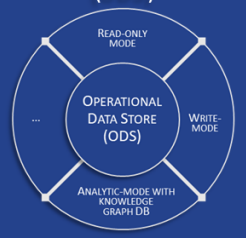
General introduction to TRAIDA cards in the technical domain

Core System Data



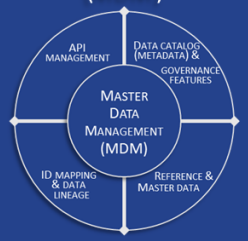
Core system data consist of structured and transactional data that contribute to the execution of operational processes

Operational Data Store (ODS)



Unified repository that collects all structured data from all databases, providing a 360-degree view

Master Data Management (MDM)

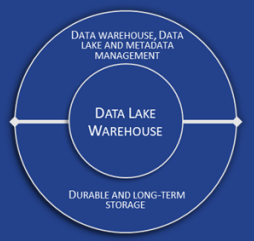


Repository for the most widely shared and structured data within the information system

Enterprise Knowledge Graph (EKG)

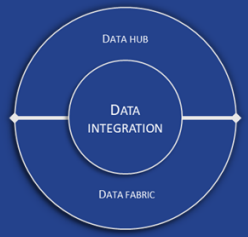
Potential universal repository for knowledge management with various use cases

Data Lake Warehouse



Repositories containing raw, structured, and unstructured data for business intelligence purposes

Data Integration

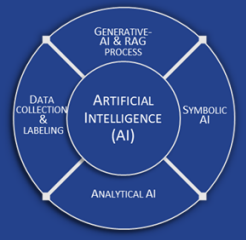


Processes and software for integrating data sources and governing data flows

Style of Database

Data storage technologies according to operational needs: transaction, integrity, concurrent access, history, etc.

Artificial Intelligence (AI)



Artificial Intelligence systems function as automated and semi-automated decision-making algorithms

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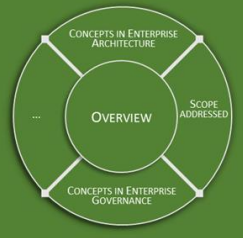
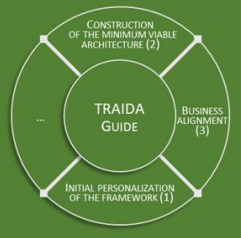
6 Governance cards

Overview



General introduction to TRAIDA cards in the governance domain

TRAIDA guide



TRAIDA is used as an operational tool to assist in the gradual transformation of your information system towards large-scale AI implementation

TRAIDA glossary

This card lists the important vocabulary to master to understand the impact of AI and data solutions on the architecture of the IS

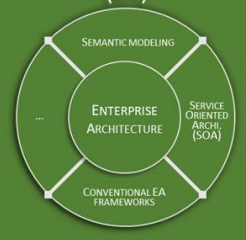
Human resources

An active mindset and aligned skill sets are required to enhance the positive impacts of AI and data solutions

Enterprise Governance

Enterprise governance aims to ensure the quality of data and AI across the organization

Enterprise Architecture (EA)



Enterprise Architecture outlines practices for modeling and documenting the business system

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5+ Business cards

Overview

General introduction to TRAIDA cards in the business domain

Productivity

Improving productivity across all company processes is a key objective of AI

Creativity

Enhancing the creativity of certain company processes is an AI objective that complements the goal of improving productivity

Trustworthiness

Trust in data and AI must be objectively assessed to successfully implement AI throughout the enterprise

Treasury & Assurance

Properly managing budgets and mastering value analysis are essential for successfully scaling AI

Your card

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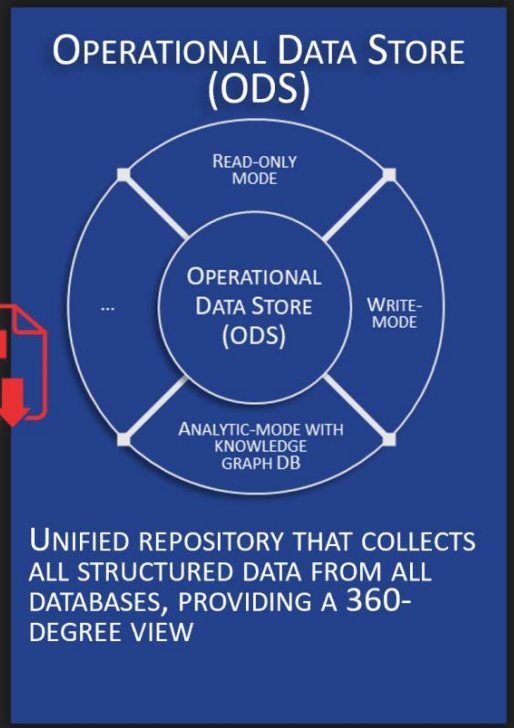
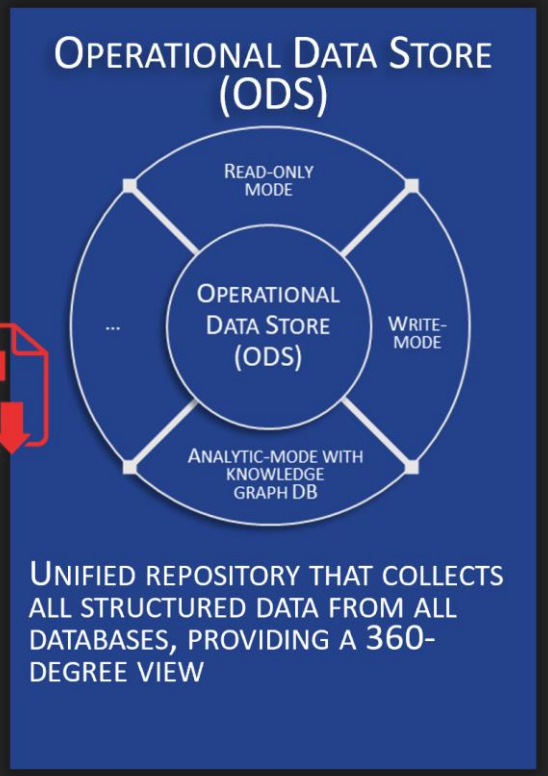


EACH CARD IS DESCRIBED IN FOUR SECTIONS AND A SET OF TOPICS



1. CONDITIONS OF SUCCESS

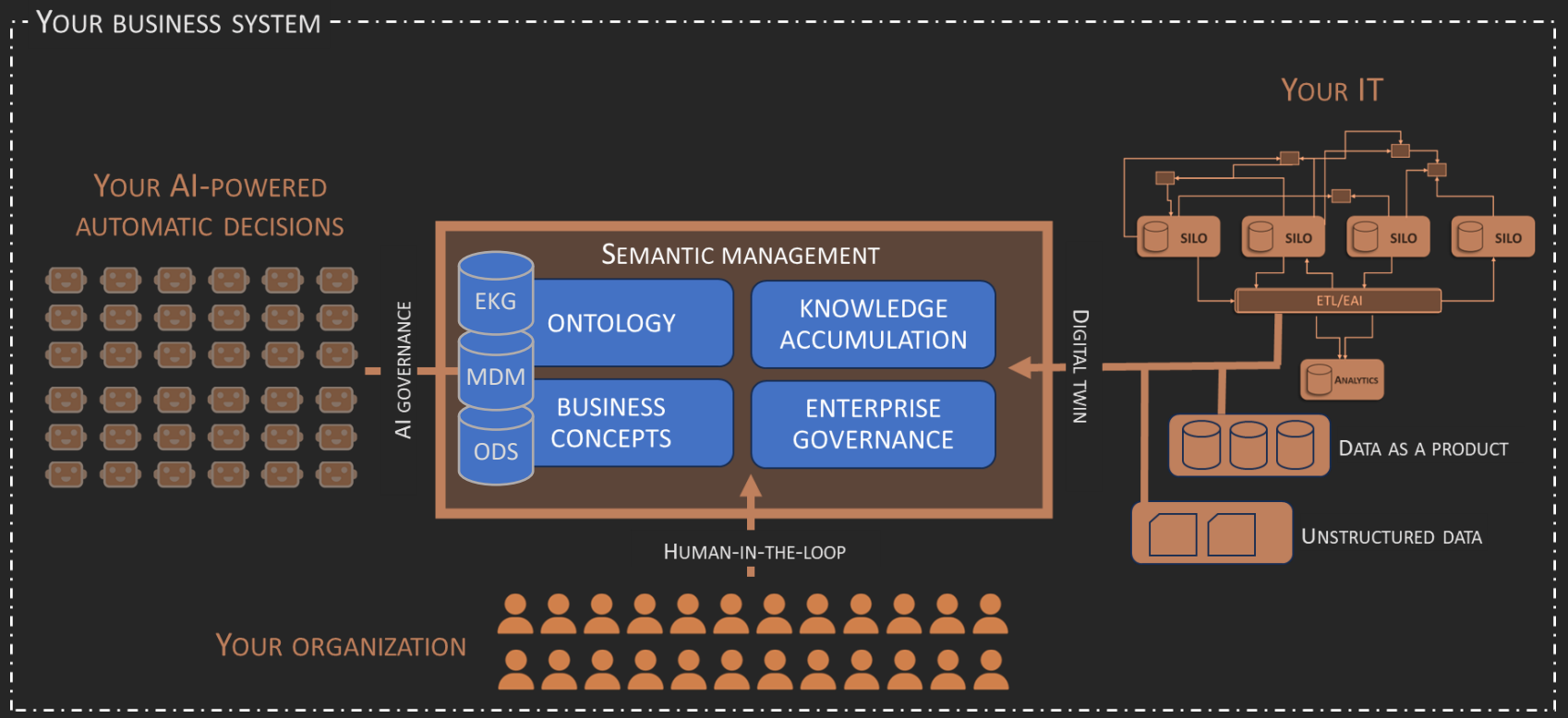
2. TOPICS: IMPORTANCE OF THIS CARD FOR YOUR TRANSFORMATIVE AI

3. BLUEPRINT

4. YOUR SITUATION & OBJECTIVES

TRAIDA IS BASED ON AN ARCHITECTURAL VISION

Minimum Viable Scale architecture



EKG — Enterprise Knowledge Graph

MDM — Master Data Management

ODS — Operational Data Store

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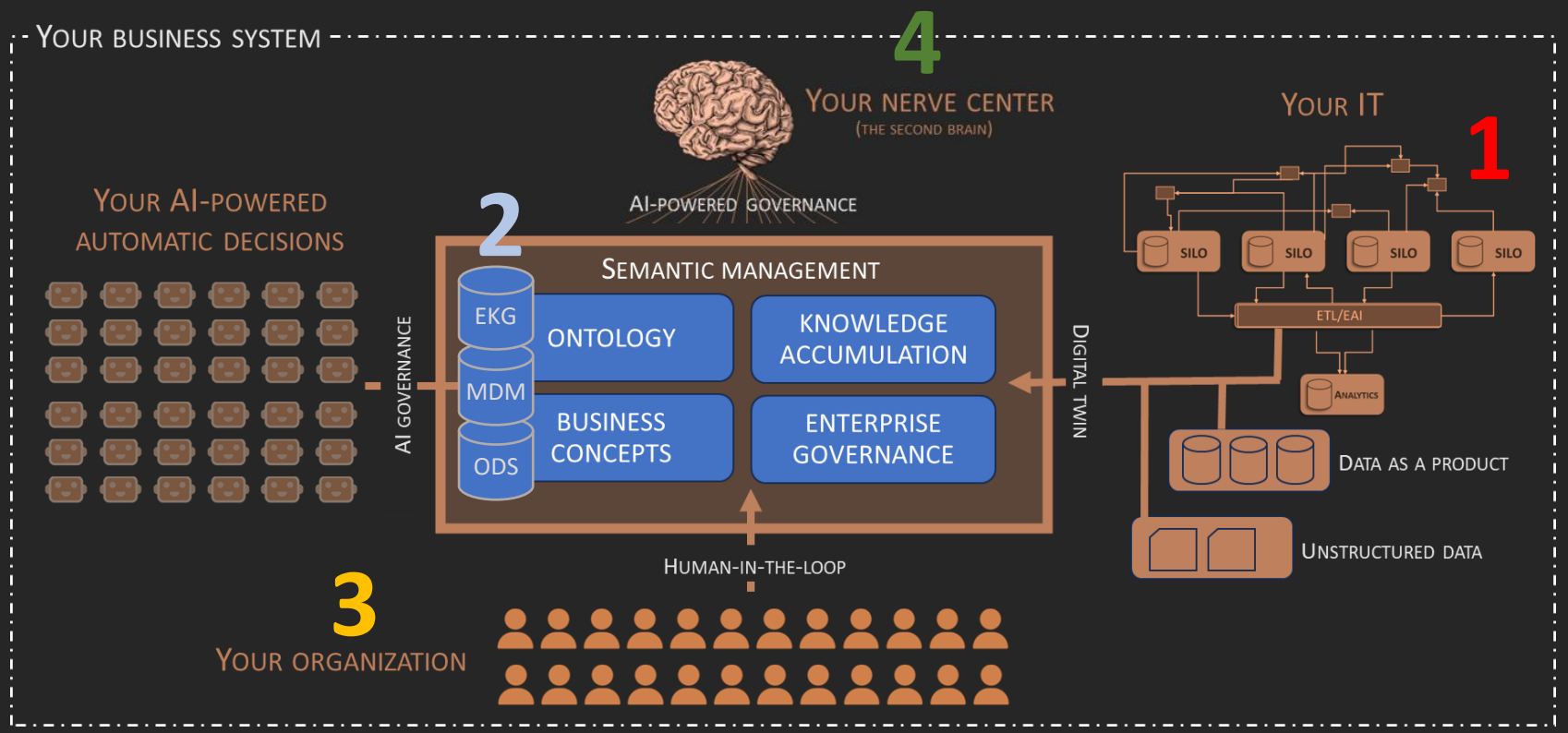
POINTS OF ATTENTION TO STUDY CAREFULLY



1 INTEGRATION

2 GOVERNANCE

3 MINDSET

4 TRUSTED-AI

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EXAMPLE

Regulatory repository with AI and knowledge graphs

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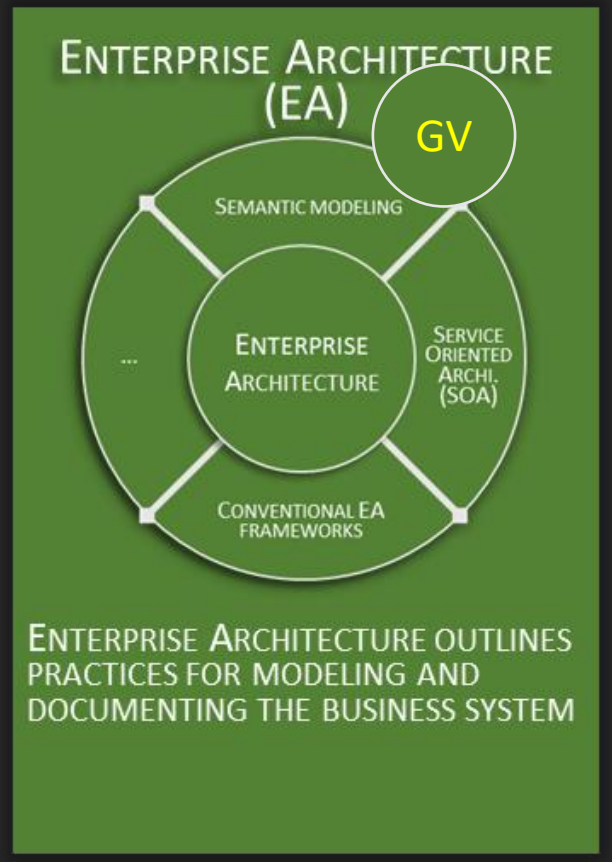

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IT

Regulatory management with EKG

GV

Semantic modeling

BIZ

Compliance process

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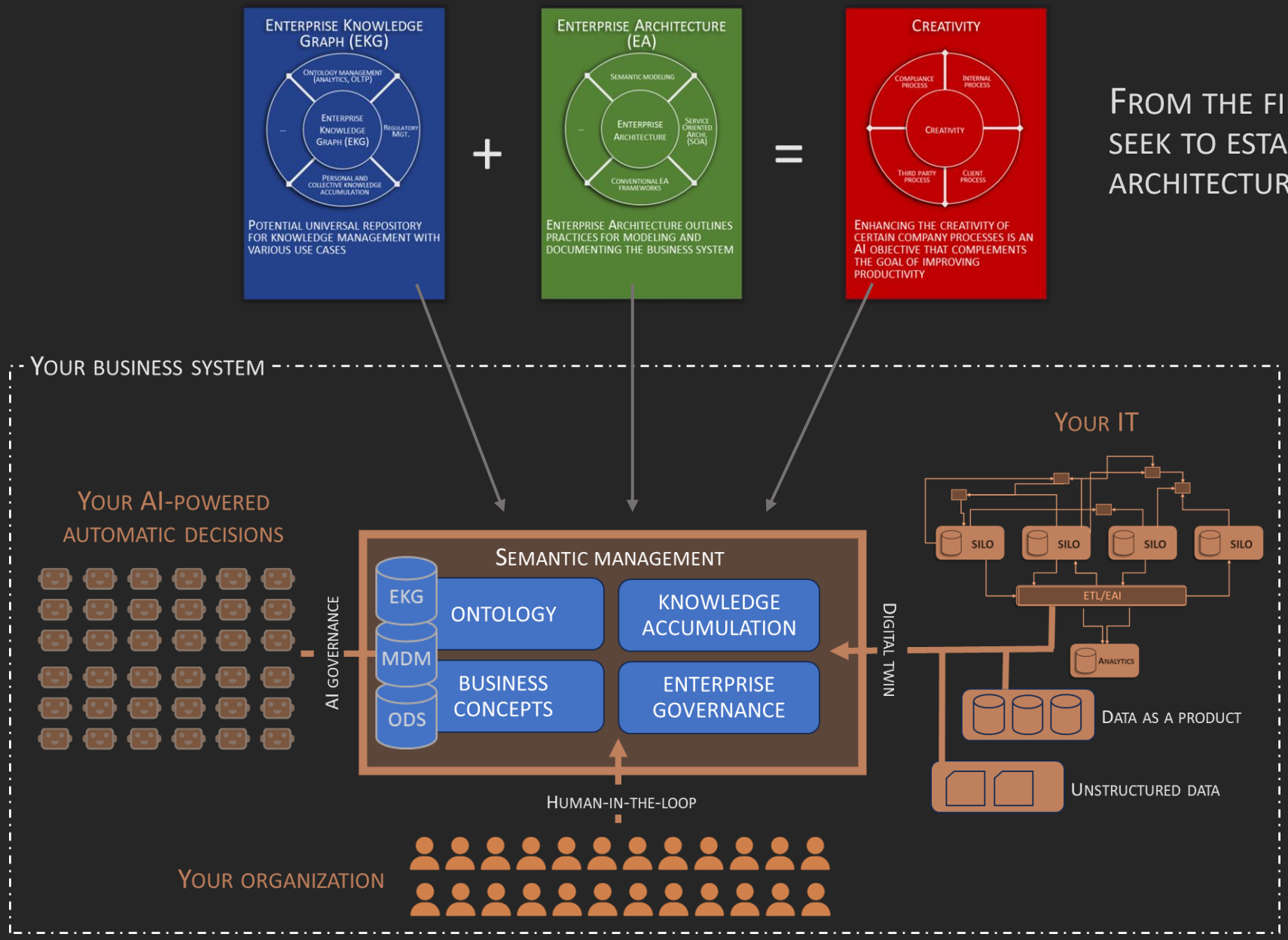
From the first AI use case, we seek to establish your minimum architecture to scale



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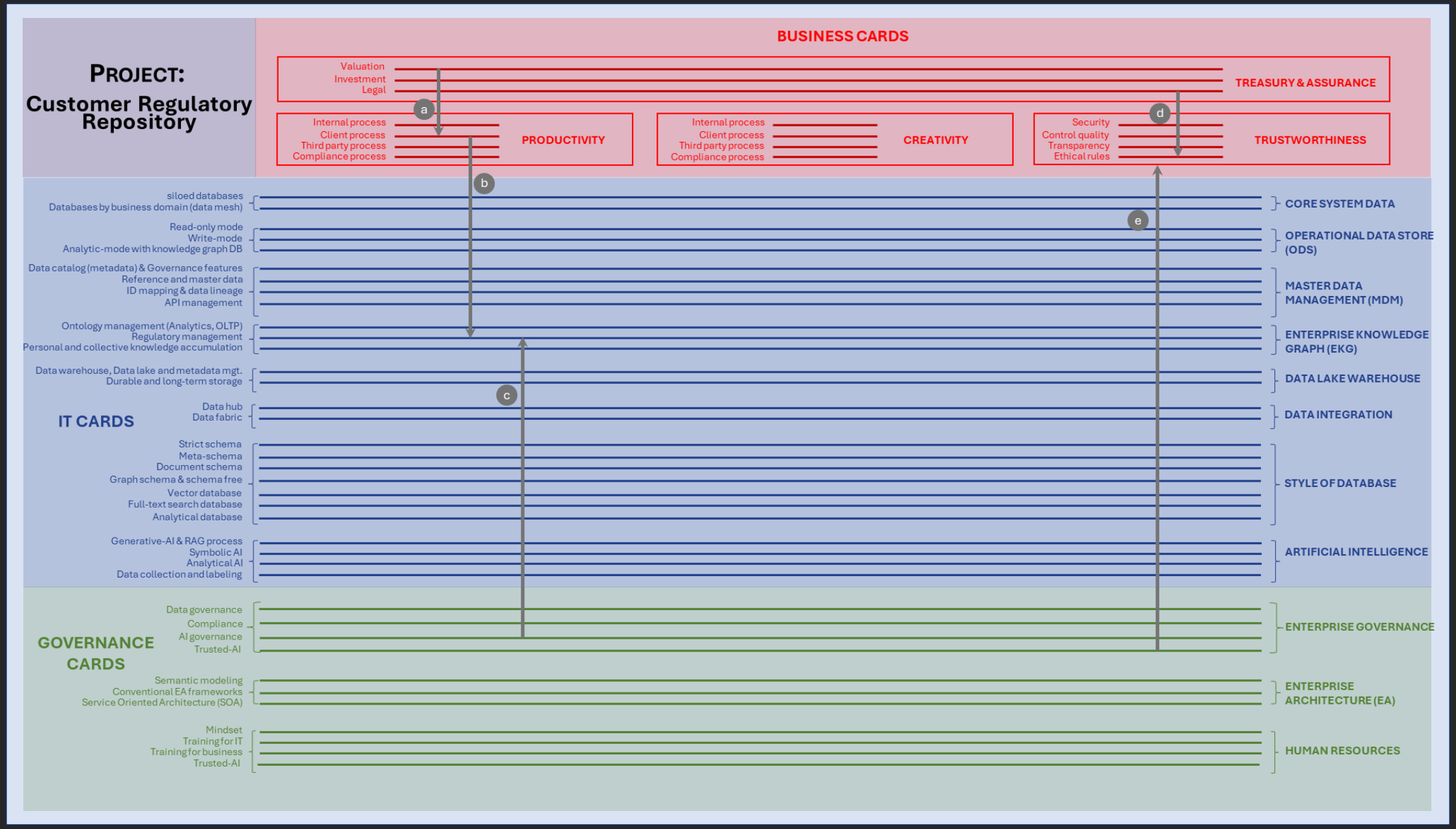

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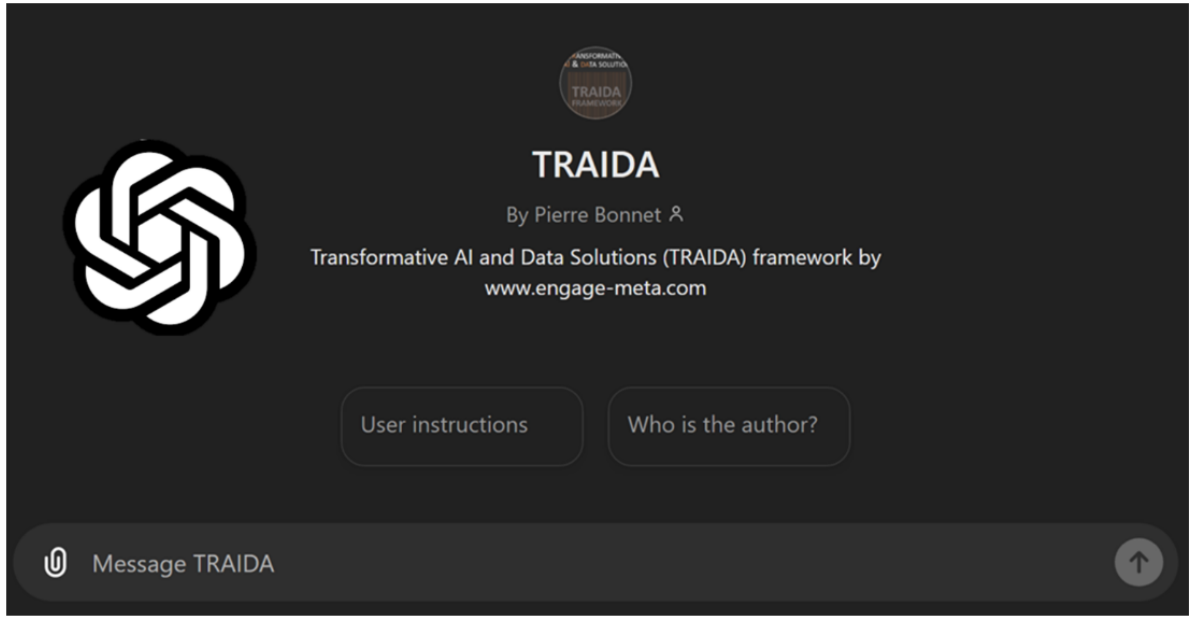
DIRECT ACCESS: HTTPS://CHATGPT.COM/G/G-MM1JDGGJF-TRAIDA

Use the TRAIDA GPT AI assistant for free



Access to the TRAIDA GPT.

User instructions: You upload the description of your project (your PDF files) and the TRAIDA GPT will proceed with a comparative analysis using the TRAIDA framework. When uploading, you write, "give me the mapping for [your project name]." You can also ask the TRAIDA GPT any questions about AI and data solutions, and they will respond while taking into account the knowledge available in the TRAIDA framework.

Knowledge base used for training the TRAIDA GPT AI assistant: slide deck TRAIDA overview, TRAIDA all cards (PDFs) and the Instruction prompt (PDF).

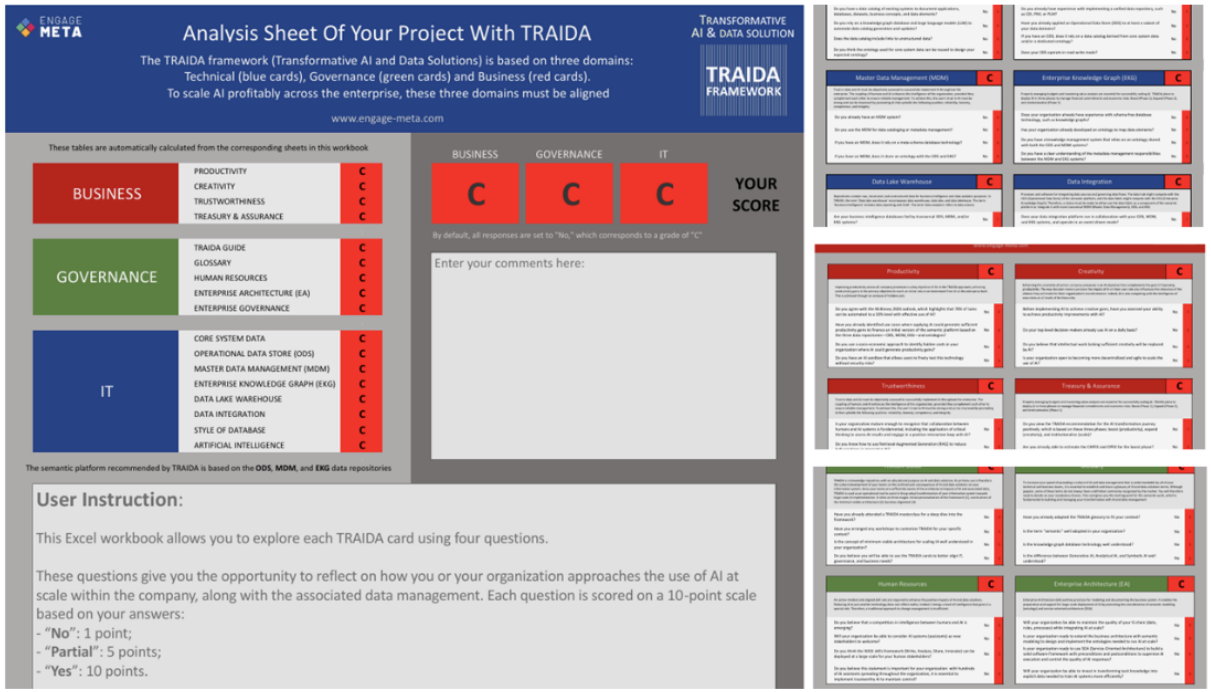
DIRECT ACCESS: HTTPS://ENGAGE-META.COM/TRAIDA-FRAMEWORK/

Download the TRAIDA analysis Excel sheet

Do you have an AI project to evaluate or an AI skills assessment to formalize? TRAIDA can help you.

With the TRAIDA analysis Excel sheet, you can explore the areas of the TRAIDA framework using four fundamental questions for each of the TRAIDA business (red), governance (green), and technical (blue) cards.

- Download the PDF version for an overview.
- Download the Excel version to conduct a test analysis.



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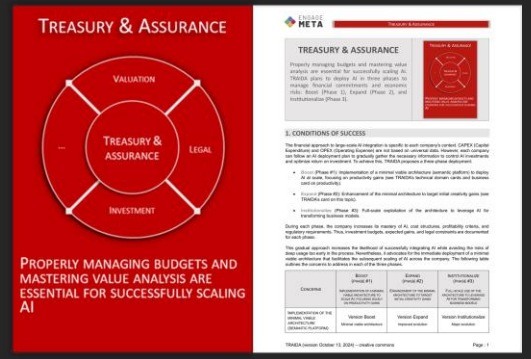
IT – BIZ ALIGNMENT

TRANSFORMATIVE
AI & DATA SOLUTION

TRAIDA
FRAMEWORK

5 Business cards



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TRAIDA FRAMEWORK

OVERVIEW

GENERAL INTRODUCTION TO TRAIDA CARDS IN THE BUSINESS DOMAIN

OVERVIEW

General introduction to TRAIDA cards in the business domain. No matter how powerful a new technology is, its use is unlikely to be profitable if it doesn't sufficiently take into account the requirements of the business. This is especially true for AI, whose use cases are limitless and which raises questions about human employability.

1. CONDITIONS OF SUCCESS

The TRAIDA framework (Transformative AI and Data Solutions) is based on three domains:

1. Technical (blue cards).
2. Governance (green cards).
3. Business (red cards).

The business domain is based on these three fundamental objectives that support the profitability of AI:

1. **Achieving productivity gains**. These gains address business inefficiencies by eliminating hidden costs. The productivity card of the business domain is the first to be considered for enterprise-wide AI deployment. It is used during the "Boost" phase of the AI transformation plan (see TRAIDA Treasury & Assurance card).
2. **Transforming business models**. This transformation is more secure when productivity gains are already significant. The creativity card of the business domain comes into play following the productivity card. It is used to modify business models during the "Institutionalize" phase of the AI transformation plan (see TRAIDA Treasury & Assurance card).
3. **Building human trust in AI**. Without this trust, it is difficult to scale AI within the organization, as users may harbor doubts and resistance. AI's reliability must be regularly demonstrated and monitored. The TRAIDA Trustworthiness business card addresses this issue, viewing AI as a new stakeholder to be integrated into the organization.

2. IMPORTANCE OF THIS CARD FOR YOUR TRANSFORMATIVE AI

Regardless of how powerful a new technology may be, if its use does not sufficiently consider business requirements, it is unlikely to be profitable. This is even more true with AI, whose use cases are limitless and which raises questions about human employability. In other words, without serious business management, AI will at best be a failure with no vital consequences for the company and at worst a black hole that will eventually destroy it. **In this drastic context, if you are discovering the impacts of AI, you would be well advised to first consult the business domain cards and the Human Resources card from the governance domain**.

Business domain overview

General introduction to TRAIDA cards in the business domain. No matter how powerful a new technology is, its use is unlikely to be profitable if it doesn't sufficiently take into account the requirements of the business. This is especially true for AI, whose use cases are limitless and which raises questions about human employability

PRODUCTIVITY

- ❑ INTERNAL PROCESS
- ❑ CLIENT PROCESS
- ❑ THIRD PARTY PROCESS
- ❑ COMPLIANCE PROCESS

CREATIVITY

- ❑ INTERNAL PROCESS
- ❑ CLIENT PROCESS
- ❑ THIRD PARTY PROCESS
- ❑ COMPLIANCE PROCESS

TRUSTWORTHINESS

- ❑ QUALITY CONTROL
- ❑ TRANSPARENCY
- ❑ ETHICAL RULES
- ❑ SECURITY

TREASURY & ASSURANCE

- ❑ VALUATION
- ❑ INVESTMENT
- ❑ LEGAL

PRODUCTIVITY

IMPROVING PRODUCTIVITY ACROSS ALL COMPANY PROCESSES IS A KEY OBJECTIVE OF AI

PRODUCTIVITY

Improving productivity across all company processes is a key objective of AI. In the TRAIDA approach, achieving productivity gains is the primary objective to reach an initial return on investment from AI at the enterprise level. This is achieved through an analysis of hidden costs.

1. CONDITIONS OF SUCCESS

In the TRAIDA approach, achieving productivity gains is the primary objective to reach an initial return on investment from AI at the enterprise level. In other words, AI is first deployed to improve existing processes before being used for business model transformation. This is an important step aimed at securing initial successes and gaining experience, allowing for more creative action later on.

According to the consulting firm McKinsey (2024), 70% of tasks performed by each employee can be automated by 50% thanks to AI. This represents a significant source of productivity that does not require disrupting business models. By leveraging this productivity potential, the benefits for managing the transformation with AI are as follows:

- It does not require prior consideration of changing business models.
- In the event of failure, it does not disrupt the company's operations.
- It offers the opportunity to achieve financial gains through incremental deployments, without tunnel effects or big-bang scenarios.

These productivity gains must cover the cost of the minimal architecture necessary for AI deployment at the enterprise level (see the TRAIDA technical cards, particularly ODS, MDM, and EKG). To recall, the goal is to set up a semantic platform from the deployment of the first AI use case. Since the cost of this architecture is added to that of the initial use cases, it is important for it to become profitable quickly.

Let's take the example of a company starting its transformation in this way:

- An impact study shows that AI will save two workdays per employee. With 10 employees, each with an average monthly salary of 5,000 euros, the total payroll is 600,000 euros per year. The estimated productivity gain is 60,000 euros per year, or 240,000 euros over four years. This amount is allocated for implementing the first version of the minimal viable architecture for AI.
- The workload saved by this AI exceeds 200 days per year. This productivity gain will enable team reorganization and increase value creation (see the TRAIDA business card for Creativity).
- Once in place, the semantic platform serves as a springboard to quickly deploy additional AI and data governance mechanisms, thus adding other use cases that will target both productivity gains and creativity in business models.
- Before committing this 240,000-euro budget, a decision-making dossier demonstrates the reality of the expected gains and proposes a roadmap with intermediate results. An initial release of 20% of the financial resources is used to develop an AI prototype. Thus, the initial commitment of 48,000 euros represents the maximum financial risk to confirm that the business and technical

Productivity

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Achieving productivity gains is the primary objective to reach an initial return on investment from AI at the enterprise level

Productivity gains based on hidden costs management

Quality-related extra costs

Reduction of errors; production defects

Non-productivity extra costs

Poor resource utilization; time loss

Absenteeism-related extra costs

Unplanned absences; difficulty in replacing and reorganizing

Turnover-related extra costs

Loss of knowledge; loss of motivation

Workplace accident-related extra costs

Lack of employee information; poor practices

Social climate-related extra costs

Conflicts; lack of communication

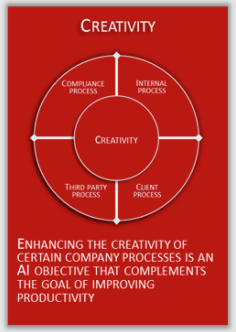
../..

CREATIVITY

ENHANCING THE CREATIVITY OF CERTAIN COMPANY PROCESSES IS AN AI OBJECTIVE THAT COMPLEMENTS THE GOAL OF IMPROVING PRODUCTIVITY

CREATIVITY

Enhancing the creativity of certain company processes is an AI objective that complements the goal of improving productivity. The way decision-makers perceive the impact of AI on their own role also influences the relevance of the choices they will make for their organization's transformation. Indeed, AI is also competing with the intelligence of executives at all levels of the hierarchy.



1. CONDITIONS OF SUCCESS

To ensure the large-scale integration of AI into the company, TRAIDA proposes a three-phase transformation plan:

1. The TRAIDA productivity business card is used to improve work processes through AI. The goal is to achieve concrete results based on the existing situation, while postponing a deeper transformation of the organization and business models (see the TRAIDA Productivity Map).
2. Subsequently, an initial version of the minimum viable architecture to scale AI is implemented. This leads to the semantic platform recommended by TRAIDA with ODS, MDM, and EKG repositories (see respective TRAIDA technical cards). The profitability of this platform is achieved through the productivity gains generated during the previous phase.
3. Finally, thanks to the experience gained from implementing AI for productivity gains and the availability of the semantic platform, the TRAIDA creativity card is activated to transform the organization and business models with better risk control.

To maximize the profitability of AI-driven creativity and ensure stakeholder support, the company's ambition for its medium- and long-term transformation must be clearly defined. **Since AI raises concerns about the employability of individuals responsible for the company's activities, total transparency regarding the transformation strategy is essential** and is based on the following observations:

- AI improves people's daily lives, especially in health and education. In these areas, AI assistants will increase the availability of services with a quality superior to that offered by humans without AI. They will be accessible remotely by isolated individuals and poor countries. Thus, humanity should benefit from AI to better meet basic needs, including agriculture, transport, construction, etc. The more citizens become happy users of AI, the more its use will be facilitated in companies with the support of employees. In other words, the more a company trains its employees in using AI in their daily lives, the more it prepares for its positive integration into its own organization.
- AI will alter business models in all industries due to intelligence superior to that of humans. They will have to learn to collaborate with it.
- AI will have multiple forms: replacement AI to fully substitute humans; collaborative AI when it enhances human capabilities; and autonomous AI when it performs new tasks that humans have never undertaken.
- AI is multi-channel, meaning it can absorb written knowledge, as well as audio, visual, tactile, and perhaps even olfactory inputs. In this context, the fusion of AI and robotics opens up possibilities for versatile and human-free warehouses and factories.

Creativity

Enhancing the creativity of certain company processes is an AI objective that complements the goal of improving productivity. The way decision-makers perceive the impact of AI on their own role also influences the relevance of the choices they will make for their organization's transformation. Indeed, AI is also competing with the intelligence of executives at all levels of the hierarchy

To ensure the large-scale integration of AI into the company, TRAIDA proposes a three-phase transformation plan

Creativity gains based on business models transformation

1. **The TRAIDA productivity business card is used to improve work processes through AI**

The goal is to achieve concrete results based on the existing situation, while postponing a deeper transformation of the organization and business models

2. **Subsequently, an initial version of the minimum viable architecture to scale AI is implemented**

This leads to the semantic platform recommended by TRAIDA with ODS, MDM, and EKG repositories (see respective TRAIDA technical cards). The profitability of this platform is achieved through the productivity gains generated during the previous phase

3. **The TRAIDA creativity card is activated to transform the organization and business models with better risk control**

Thanks to the experience gained from implementing AI for productivity gains and the availability of the semantic platform

TRUSTWORTHINESS

TRUST IN DATA AND AI MUST BE OBJECTIVELY ASSESSED TO SUCCESSFULLY IMPLEMENT AI THROUGHOUT THE ENTERPRISE

TRUSTWORTHINESS

Trust in data and AI must be objectively assessed to successfully implement AI throughout the enterprise. The coupling of humans and AI enhances the intelligence of the organization, provided they complement each other to ensure reliable management. To achieve this, the user's trust in AI must be strong and can be improved by promoting AI that upholds the following qualities: reliability, honesty, competence, and integrity.

1. CONDITIONS OF SUCCESS

With generative, symbolic, or analytical AI, the dialogue between humans and computers is not limited to the deterministic scope of traditional software. Indeed, AI adapts to management situations by considering unforeseen events and incomplete information. Thus, the user no longer merely manages data to execute a predefined process but engages in a constructive dialogue with the AI to obtain responses tailored to their work situation.

For example, when a doctor classifies domestic accidents according to administrative criteria, they select values in the management application's interface: the time slot of the accident, location, object involved, height of the fall, water level, type of fire, etc. This data is used for statistical studies. The more precise the classification, the more time this administrative task consumes for the doctor. With AI, it is no longer necessary to predefine possible classifications in advance. The practitioner simply expresses the accident's context in natural language, and the AI handles its classification. By using voice input processed by the AI, the doctor further reduces the time spent on classifying each accident. The old application, at least its user interface, becomes obsolete. As such, the scope of digitization through AI is broader than that of traditional software.

TRAIDA advises first leveraging this strength to enhance productivity without changing existing applications and processes, and then focusing on creativity to deeply transform the organization and applications (see TRAIDA's business cards on productivity and creativity).

In other words, AI invites the user to contribute knowledge, clearly articulate their requests, analyze the responses, and ask for clarifications or additional information when needed. Thanks to this more intelligent dialogue between humans and machines, new task automations become possible. This setup is especially powerful for logics not fixed in algorithms, benefiting from the collaboration between the user and the machine.

The need for trust

This human-AI coupling increases the organization's intelligence, provided they complement each other to ensure reliable management. To achieve this, the user's trust in the AI must be strong, built on the following qualities:

Trustworthiness

Trust in data and AI must be objectively assessed to successfully implement AI throughout the enterprise. The coupling of humans and AI enhances the intelligence of the organization, provided they complement each other to ensure reliable management. To achieve this, the user's trust in AI must be strong and can be improved by promoting AI that upholds the following qualities: reliability, honesty, competence, and integrity

The human-AI coupling increases the organization's intelligence, provided they complement each other to ensure reliable management

To achieve this, the user's trust in the AI must be strong, built on the following qualities

1. **Reliability** → Working professionally within a domain of expertise
2. **Honesty** → Telling the truth and not seeking to deceive or manipulate others
3. **Competence** → Possessing the necessary skills to be reliable in the domain of expertise
4. **Integrity** → Acting according to ethical standards and the company's values

TREASURY & ASSURANCE

PROPERLY MANAGING BUDGETS AND MASTERING VALUE ANALYSIS ARE ESSENTIAL FOR SUCCESSFULLY SCALING AI

TREASURY & ASSURANCE

Properly managing budgets and mastering value analysis are essential for successfully scaling AI. TRAIDA plans to deploy AI in three phases to manage financial commitments and economic risks: Boost (Phase 1), Expand (Phase 2), and Institutionalize (Phase 3).

1. CONDITIONS OF SUCCESS

The financial approach to large-scale AI integration is specific to each company's context. CAPEX (Capital Expenditure) and OPEX (Operating Expense) are not based on universal data. However, each company can follow an AI deployment plan to gradually gather the necessary information to control AI investments and optimize return on investment. To achieve this, TRAIDA proposes a three-phase deployment:

- **Boost** (Phase #1): Implementation of a minimal viable architecture (semantic platform) to deploy AI at scale, focusing on productivity gains (see TRAIDA's technical domain cards and business card on productivity).
- **Expand** (Phase #2): Enhancement of the minimal architecture to target initial creativity gains (see TRAIDA's card on this topic).
- **Institutionalize** (Phase #3): Full-scale exploitation of the architecture to leverage AI for transforming business models.

During each phase, the company increases its mastery of AI, cost structures, profitability criteria, and regulatory requirements. Thus, investment budgets, expected gains, and legal constraints are documented for each phase.

This gradual approach increases the likelihood of successfully integrating AI while avoiding the risks of deep usage too early in the process. Nevertheless, it advocates for the immediate deployment of a minimal viable architecture that facilitates the subsequent scaling of AI across the company. The following table outlines the concerns to address in each of the three phases.

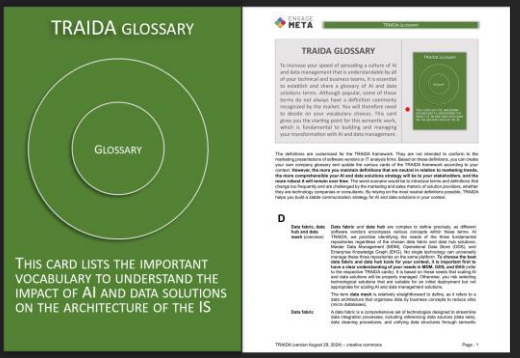
CONCERNS	BOOST (PHASE #1) IMPLEMENTATION OF A MINIMAL VIABLE ARCHITECTURE TO SCALE AI, FOCUSING SOLELY ON PRODUCTIVITY GAINS	EXPAND (PHASE #2) ENHANCEMENT OF THE MINIMAL ARCHITECTURE TO TARGET INITIAL CREATIVITY GAINS	INSTITUTIONALIZE (PHASE #3) FULL-SCALE USE OF THE ARCHITECTURE TO LEVERAGE AI FOR TRANSFORMING BUSINESS MODELS
IMPLEMENTATION OF THE MINIMAL VIABLE ARCHITECTURE (SEMANTIC PLATFORM)	Version Boost Minimal viable architecture	Version Expand Improved evolution	Version Institutionalize Major evolution

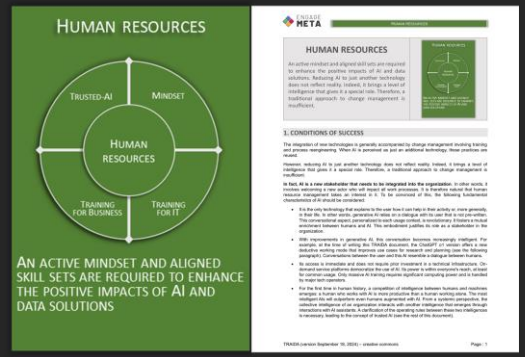
Treasury & Assurance

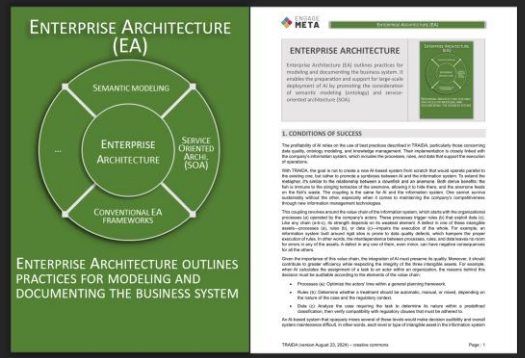
Properly managing budgets and mastering value analysis are essential for successfully scaling AI. TRAIDA plans to deploy AI in three phases to manage financial commitments and economic risks: Boost (Phase 1), Expand (Phase 2), and Institutionalize (Phase 3)

CAPEX	+	OPEX	=	ROI
Implementation of a minimal viable architecture to scale AI, focusing solely on productivity gains		**Boost** AI – Phase #1	—	Productivity gain
Enhancement of the minimal architecture to target initial creativity gains		**Expand** AI – Phase #2	—	Creativity gain
Full-scale use of the architecture to leverage AI for transforming business models		**Institutionalize** AI – Phase #3	—	Business models transformation

6 Governance cards







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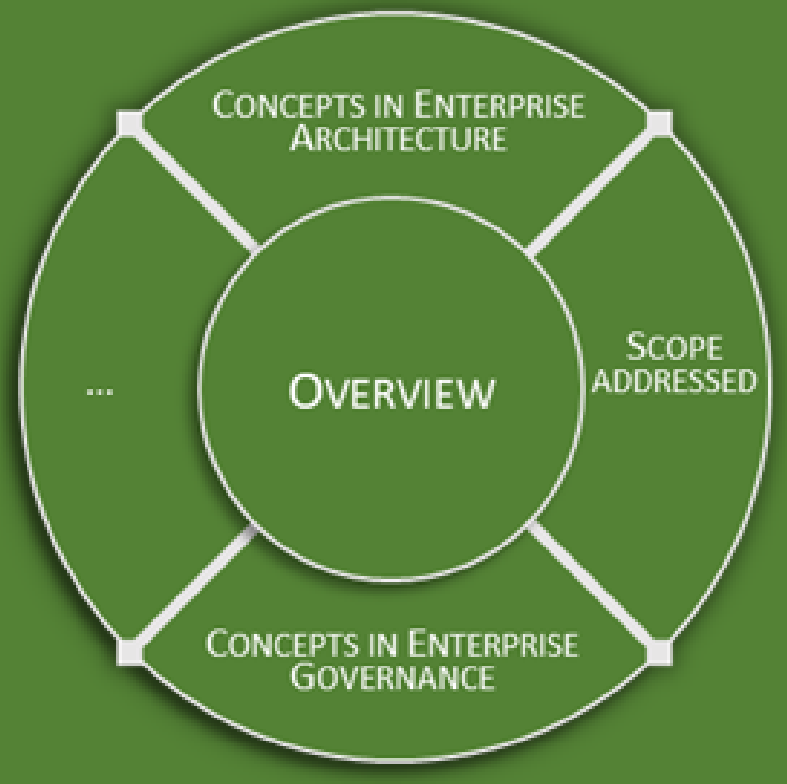
TRAIDA FRAMEWORK

OVERVIEW



GENERAL INTRODUCTION TO TRAIDA CARDS IN THE GOVERNANCE DOMAIN

GOVERNANCE OVERVIEW

General introduction to TRAIDA cards in the governance domain. The cards in this domain are universal and apply to all business contexts. You select the practices that correspond to your needs and complete them to manage a roadmap for implementing your minimum architecture to scale AI and data management solutions in your company.

1. CONDITIONS OF SUCCESS

The TRAIDA framework (Transformative AI and Data Solutions) is based on three domains:

1. Technical (blue cards).
2. Governance (green cards).
3. Business (red cards).

To scale AI profitably across the enterprise, these three domains must be aligned.

The field of governance is based on a foundational principle: **AI is not just a new technology, but a stakeholder to be integrated into the company**. In other words, it is a kind of super collaborator that can intervene in all processes. It optimizes the way people work, helps humans be more productive, and makes decisions with a level of autonomy that depends on its configuration. This is a revolution that is transforming the world.

The benefits of AI are already visible, but this is only the beginning. Innovation in this field is dynamic. As of the writing of this TRAIDA card (September 2024), competition among players in the field is primarily focused on the IT infrastructure necessary for AI training. However, the next step is already in sight, with the idea that the benefits of these massive trainings on billions of parameters are approaching an asymptote in the creation of intelligence.

Moreover, after absorbing the entire Internet, sources of information are not infinite, which poses a structural limit to the large-scale training of AI models. **It is, therefore, time to open a new chapter to improve generative AI with an additional intelligence called deductive**, meaning it is capable of conducting complex reasoning based on a chain of thought.

Generative AI would then be able to question itself about the user's request, and then about the results it proposes to improve the relevance of its final answer. During this reflection, it can detect issues in the initial request, inconsistencies in the data, and gaps in information that it will seek to fill either on its own or with the support of the user. This system reduces hallucinations and refines the quality of the final answer.

With innovations like this, and others sure to follow, it is likely that artificial general intelligence (AGI) will emerge by 2030. It is not a certainty, but it signals at least that much more powerful AIs will be available in the coming years. AI will be able to address any problem with a level of intelligence superior to the best human experts in the relevant field.

Governance domain overview

General introduction to TRAIDA cards in the governance domain. The cards in this domain are universal and apply to all business contexts. You select the practices that correspond to your needs and complete them to manage a roadmap for implementing your minimum architecture to scale AI and data management solutions in your company

TRAIDA GUIDE

- ❑ INITIAL PERSONALIZATION OF THE FRAMEWORK
- ❑ CONSTRUCTION OF THE MINIMUM VIABLE ARCHITECTURE
- ❑ BUSINESS ALIGNMENT

GLOSSARY

- ❑ TERMS

HUMAN RESOURCES

- ❑ MINDSET
- ❑ TRAINING FOR BUSINESS
- ❑ TRAINING FOR IT
- ❑ TRUSTED-AI

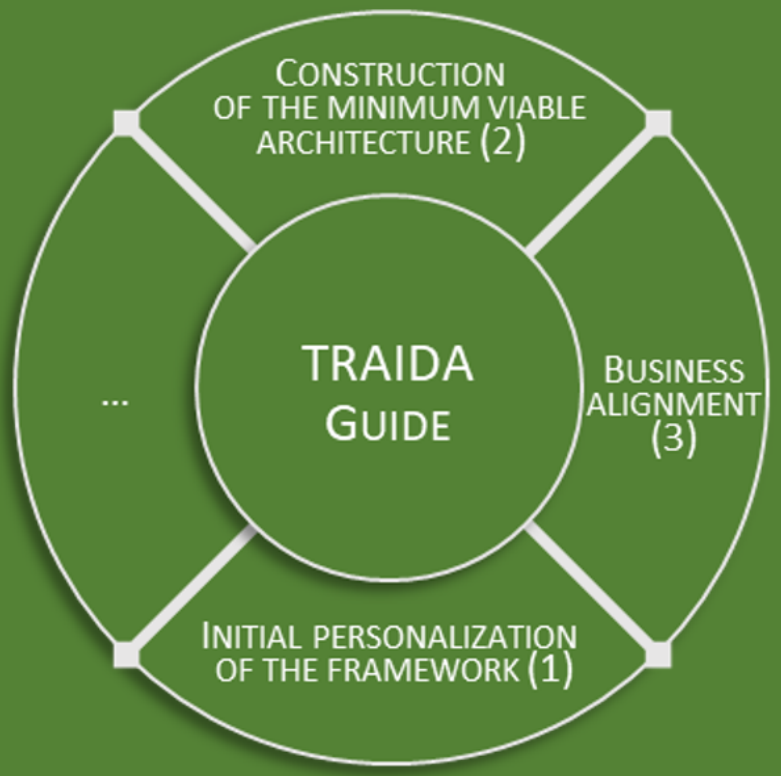
ENTERPRISE ARCHITECTURE (EA)

- ❑ SEMANTIC MODELING
- ❑ SERVICE ORIENTED ARCHITECTURE (SOA)
- ❑ CONVENTIONAL EA FRAMEWORKS

ENTERPRISE GOVERNANCE

- ❑ DATA GOVERNANCE
- ❑ COMPLIANCE
- ❑ AI GOVERNANCE
- ❑ TRUSTED-AI

TRAIDA GUIDE

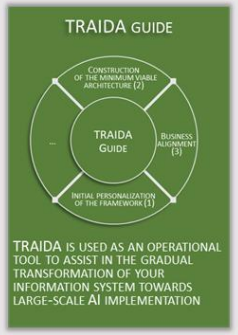


TRAIDA IS USED AS AN OPERATIONAL TOOL TO ASSIST IN THE GRADUAL TRANSFORMATION OF YOUR INFORMATION SYSTEM TOWARDS LARGE-SCALE AI IMPLEMENTATION

ENGAGE META

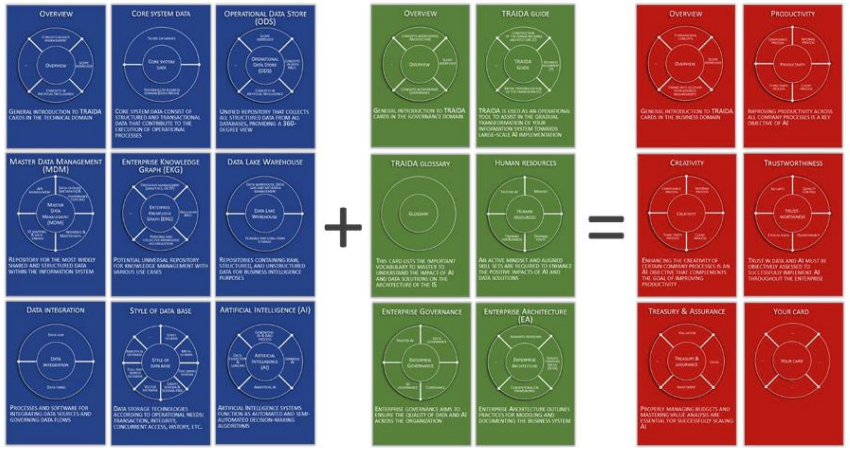
TRAIDA GUIDE

TRAIDA is a knowledge repository with an educational purpose on AI and data solutions. Its primary use is therefore the culture development of your teams on the architectural consequences of AI and data solutions on your information system. Once your teams are sufficiently aware of the architectural impacts of AI and associated data, TRAIDA is used as an operational tool to assist in the gradual transformation of your information system towards large-scale AI implementation. It relies on three stages: Initial personalization of the framework (1); construction of the minimum viable architecture (2); business alignment (3).



1. CONDITIONS OF SUCCESS

Thanks to its ready-to-use knowledge base, the TRAIDA framework helps you spread a uniform culture of AI and data solutions among your teams. It's an essential step before utilizing the framework for the transformation of your information system with AI.



TRAIDA consists of technical cards (blue), governance cards (green), and business cards (red). Each card is described in writing and revolves around a set of a few key topics that the company must consider.

This sharing of knowledge fosters the commitment of stakeholders to the success of projects and the quality of their results over the long term. Even if you already have significant AI expertise and a good

TRAIDA FRAMEWORK

TRAIDA Guide

TRAIDA is a knowledge repository with an educational purpose on AI and data solutions. Its primary use is therefore the culture development of your teams on the architectural consequences of AI and data solutions on your information system. Once your teams are sufficiently aware of the architectural impacts of AI and associated data, TRAIDA is used as an operational tool to assist in the gradual transformation of your information system towards large-scale AI implementation. It relies on three stages: Initial personalization of the framework (1); construction of the minimum viable architecture (2); business alignment (3)

Legend

Masterclass: half-day conference for a large audience

Workshops: a couple of half-day meetings with stakeholders

Spread a uniform culture of AI and data solutions

Thanks to its ready-to-use knowledge base, the TRAIDA framework helps you spread a uniform culture of AI and data solutions among your teams. It's an essential step before utilizing the framework for the transformation of your information system with AI

TRAIDA Masterclass (1)

Initial personalization of the framework

This initial customization is not final since the framework undergoes regular changes during the iterations in the subsequent stages. At this stage, however, it is important to establish the initial pillars of the business on which the AI and data strategy must rest

TRAIDA Workshops (2)

Construction of the minimum viable architecture

To construct the minimal architecture necessary for scaling AI, you will need to deeply assimilate each of the TRAIDA cards to objectively compare them with your existing setup and then with your business objectives

AI transformation projects

Business alignment

This stage is devoted to the analysis and adaptation of business cards that serve to question the architecture developed in the previous step

TRAIDA Implementation (3)

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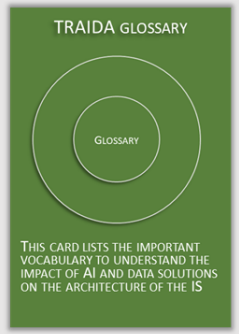
TRAIDA FRAMEWORK

TRAIDA GLOSSARY

THIS CARD LISTS THE IMPORTANT VOCABULARY TO UNDERSTAND THE IMPACT OF AI AND DATA SOLUTIONS ON THE ARCHITECTURE OF THE IS

TRAIDA GLOSSARY

To increase your speed of spreading a culture of AI and data management that is understandable by all of your technical and business teams, it is essential to establish and share a glossary of AI and data solutions terms. Although popular, some of these terms do not always have a definition commonly recognized by the market. You will therefore need to decide on your vocabulary choices. This card gives you the starting point for this semantic work, which is fundamental to building and managing your transformation with AI and data management.



The definitions are customized for the TRAIDA framework. They are not intended to conform to the marketing presentations of software vendors or IT analysis firms. Based on these definitions, you can create your own company glossary and update the various cards of the TRAIDA framework according to your context. **However, the more you maintain definitions that are neutral in relation to marketing trends, the more comprehensible your AI and data solutions strategy will be to your stakeholders, and the more robust it will remain over time**. The worst scenario would be to introduce terms and definitions that change too frequently and are challenged by the marketing and sales rhetoric of solution providers, whether they are technology companies or consultants. By relying on the most neutral definitions possible, TRAIDA helps you build a stable communication strategy for AI and data solutions in your context.

D

Data fabric, data hub and data mesh (overview)

Data fabric and **data hub** are complex to define precisely, as different software vendors encompass various concepts within these terms. At TRAIDA, we prioritize identifying the needs of the three fundamental repositories regardless of the chosen data fabric and data hub solutions: Master Data Management (MDM), Operational Data Store (ODS), and Enterprise Knowledge Graph (EKG). No single technology can universally manage these three repositories on the same platform. **To choose the best data fabric and data hub tools for your context, it is important first to have a clear understanding of your needs in MDM, ODS, and EKG** (refer to the respective TRAIDA cards). It is based on these needs that scaling AI and data solutions will be properly managed. Otherwise, you risk selecting technological solutions that are suitable for an initial deployment but not appropriate for scaling AI and data management solutions.

The term **data mesh** is relatively straightforward to define, as it refers to a data architecture that organizes data by business concepts to reduce silos (micro databases).

Data fabric

A data fabric is a comprehensive set of technologies designed to streamline data integration processes, including referencing data sources (data sets), data cleaning procedures, and unifying data structures through semantic

Glossary

To increase your speed of spreading a culture of AI and data management that is understandable by all of your technical and business teams, it is essential to establish and share a glossary of AI and data solutions terms. Although popular, some of these terms do not always have a definition commonly recognized by the market. You will therefore need to decide on your vocabulary choices. This card gives you the starting point for this semantic work, which is fundamental to building and managing your transformation with AI and data management

D

- ❑ Data fabric, data hub and data mesh (overview)
- ❑ Data fabric
- ❑ Data hub
- ❑ Data mesh

E

- ❑ Enterprise Knowledge Graph (EKG)

M

- ❑ Master Data Management (MDM)

O

- ❑ Operational Data Store (ODS)
- ❑ Ontology

S

- ❑ Semantic modeling

HUMAN RESOURCES

AN ACTIVE MINDSET AND ALIGNED SKILL SETS ARE REQUIRED TO ENHANCE THE POSITIVE IMPACTS OF AI AND DATA SOLUTIONS

HUMAN RESOURCES

An active mindset and aligned skill sets are required to enhance the positive impacts of AI and data solutions. Reducing AI to just another technology does not reflect reality. Indeed, it brings a level of intelligence that gives it a special role. Therefore, a traditional approach to change management is insufficient.

1. CONDITIONS OF SUCCESS

The integration of new technologies is generally accompanied by change management involving training and process reengineering. When AI is perceived as just an additional technology, these practices are reused.

However, reducing AI to just another technology does not reflect reality. Indeed, it brings a level of intelligence that gives it a special role. Therefore, a traditional approach to change management is insufficient.

In fact, AI is a new stakeholder that needs to be integrated into the organization. In other words, it involves welcoming a new actor who will impact all work processes. It is therefore natural that human resource management takes an interest in it. To be convinced of this, the following fundamental characteristics of AI should be considered:

- It is the only technology that explains to the user how it can help in their activity or, more generally, in their life. In other words, generative AI relies on a dialogue with its user that is not pre-written. This conversational aspect, personalized to each usage context, is revolutionary. It fosters a mutual enrichment between humans and AI. This embodiment justifies its role as a stakeholder in the organization.
- With improvements in generative AI, this conversation becomes increasingly intelligent. For example, at the time of writing this TRAIDA document, the ChatGPT o1 version offers a new deductive working mode that improves use cases for research and planning (see the following paragraph). Conversations between the user and this AI resemble a dialogue between humans.
- Its access is immediate and does not require prior investment in a technical infrastructure. On-demand service platforms democratize the use of AI. Its power is within everyone's reach, at least for common usage. Only massive AI training requires significant computing power and is handled by major tech operators.
- For the first time in human history, a competition of intelligence between humans and machines emerges: a human who works with AI is more productive than a human working alone. The most intelligent AIs will outperform even humans augmented with AI. From a systemic perspective, the collective intelligence of an organization interacts with another intelligence that emerges through interactions with AI assistants. A clarification of the operating rules between these two intelligences is necessary, leading to the concept of trusted AI (see the rest of this document).

Human resources

An active mindset and aligned skill sets are required to enhance the positive impacts of AI and data solutions. Reducing AI to just another technology does not reflect reality. Indeed, it brings a level of intelligence that gives it a special role. Therefore, a traditional approach to change management is insufficient

General skills necessary for working with AI

Knowledge management

Formalizing individual and collective knowledge in writing

Maximize benefits from AI-driven automation

Identifying tasks that benefit from partial or total automation with AI

Personal development

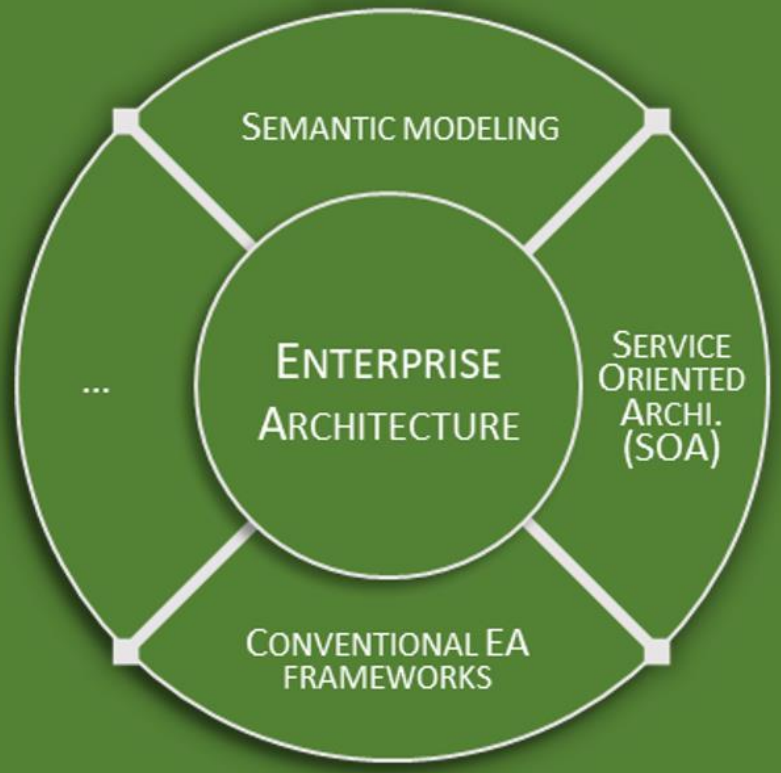
Supporting personal development so that actors engage positively in their work with AI

Write	Analyze	Share	Innovate

Legend

WASI: Write, Analyze, Share, Innovate

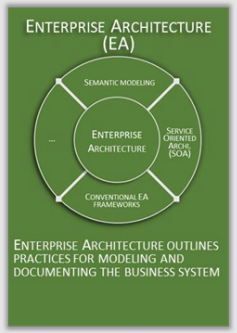
Enterprise Architecture (EA)



Enterprise Architecture outlines practices for modeling and documenting the business system

ENTERPRISE ARCHITECTURE

Enterprise Architecture (EA) outlines practices for modeling and documenting the business system. It enables the preparation and support for large-scale deployment of AI by promoting the consideration of semantic modeling (ontology) and service-oriented architecture (SOA).



1. CONDITIONS OF SUCCESS

The profitability of AI relies on the use of best practices described in TRAIDA, particularly those concerning data quality, ontology modeling, and knowledge management. Their implementation is closely linked with the company's information system, which includes the processes, rules, and data that support the execution of operations.

With TRAIDA, the goal is not to create a new AI-based system from scratch that would operate parallel to the existing one, but rather to promote a symbiosis between AI and the information system. To extend the metaphor, it's similar to the relationship between a clownfish and an anemone. Both derive benefits: the fish is immune to the stinging tentacles of the anemone, allowing it to hide there, and the anemone feeds on the fish's waste. The coupling is the same for AI and the information system. One cannot survive sustainably without the other, especially when it comes to maintaining the company's competitiveness through new information management technologies.

This coupling revolves around the value chain of the information system, which starts with the organizational processes (a) operated by the company's actors. These processes trigger rules (b) that exploit data (c). Like any chain (a-b-c), its strength depends on its weakest element. A defect in one of these intangible assets—processes (a), rules (b), or data (c)—impairs the execution of the whole. For example, an information system built around rigid silos is prone to data quality defects, which hampers the proper execution of rules. In other words, the interdependence between processes, rules, and data leaves no room for errors in any of the assets. A defect in any one of them, even minor, can have negative consequences for all the others.

Given the importance of this value chain, the integration of AI must preserve its quality. Moreover, it should contribute to greater efficiency while respecting the integrity of the three intangible assets. For example, when AI calculates the assignment of a task to an actor within an organization, the reasons behind this decision must be auditable according to the elements of the value chain:

- Processes (a): Optimize the actors' time within a general planning framework.
- Rules (b): Determine whether a treatment should be automatic, manual, or mixed, depending on the nature of the case and the regulatory context.
- Data (c): Analyze the case requiring the task to determine its nature within a predefined classification, then verify compatibility with regulatory clauses that must be adhered to.

An AI-based system that opaquely mixes several of these levels would make decision audibility and overall system maintenance difficult. In other words, each level or type of intangible asset in the information system

Enterprise Architecture (EA)

Enterprise Architecture (EA) outlines practices for modeling and documenting the business system. It enables the preparation and support for large-scale deployment of AI by promoting the consideration of semantic modeling (ontology) and service-oriented architecture (SOA)

Legend

EA: Enterprise Architecture

SOA: Service Oriented Architecture

Information management in AI

Ontology & Knowledge management

SOA

Information management in AI

Conventional EA framework

Business architecture

Process modeling

Data architecture

Logical data model, physical data schema

Application architecture

Rules, software

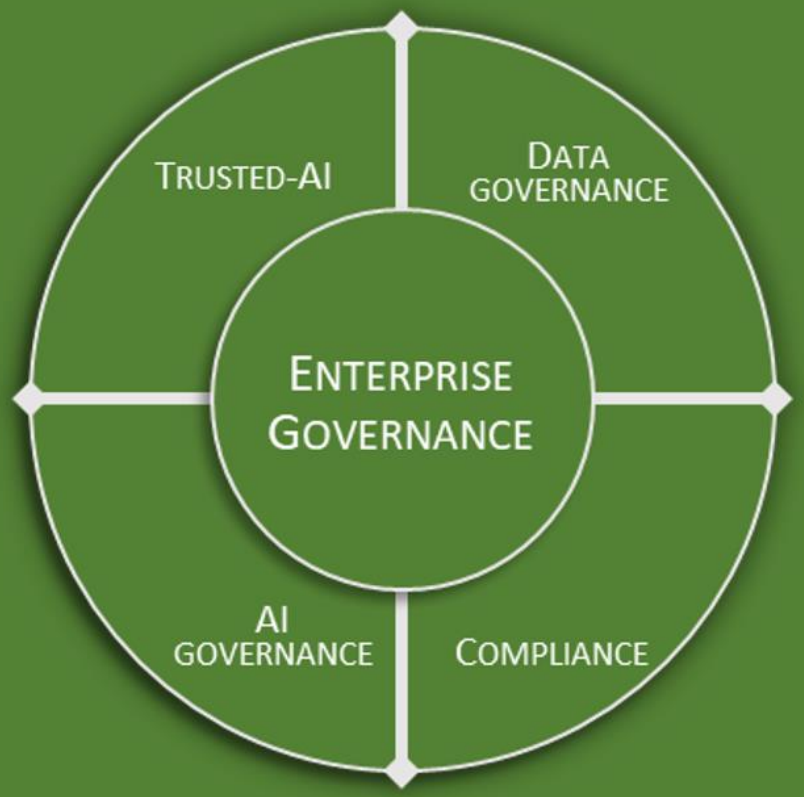
Technical architecture

Infrastructure, security

AI-Powered automatic governance

Supervision of AIs by an independent AI

ENTERPRISE GOVERNANCE



ENTERPRISE GOVERNANCE AIMS TO ENSURE THE QUALITY OF DATA AND AI ACROSS THE ORGANIZATION

ENTERPRISE GOVERNANCE

Enterprise governance aims to ensure the quality of data and AI across the organization. It revolves around risk management and regulatory compliance, the application of ESG (Environmental, Social, and Governance) and CSR (Corporate Social Responsibility) principles, as well as ensuring the reliability of the IT system.

1. CONDITIONS OF SUCCESS

Enterprise governance ensures that decision-making and management processes are conducted in compliance with the company's internal rules and regulations. Given the complexity of the organization, it often mobilizes significant human and technical resources. These resources focus on two major areas: risk control and regulatory compliance. The following key domains of governance are then considered:

- The management of internal risks and compliance with industry-specific regulations.
- The application of ESG (Environmental, Social, and Governance) principles for non-financial performance and their translation into regulations.
- The application of CSR (Corporate Social Responsibility) principles and their translation into regulations.

IT management is delegated to the governance of the information system, which uses frameworks such as COBIT and ITIL, as well as enterprise architecture with TOGAF (see TRAIDA card on Enterprise Architecture).

Governance quality

The quality of enterprise governance increases with its level of automation.

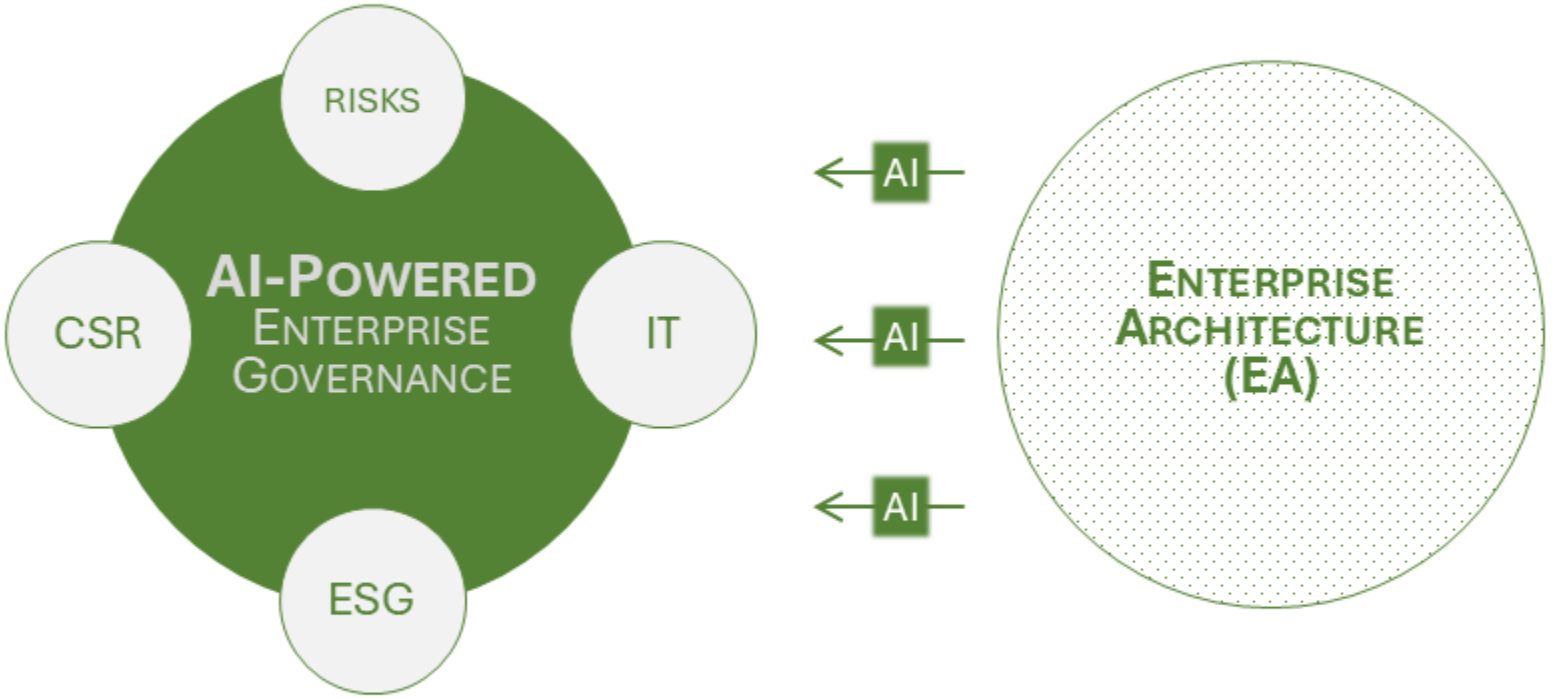
In other words, the less human intervention is required to execute processes, the more governance is embedded in the software code. For example, the control of an expense commitment amount, based on a matrix that cross-references actors and needs, is integrated into the order processing software. However, if this matrix or software has flaws, it challenges governance as seriously as a human error would. A balance between controlled automation and human intervention is a goal to be clarified, especially since AI enhances this potential for automation and shifts the usual balance.

It introduces new use cases depending on the context of each company. Here are some examples for illustration:

- A human resources management AI is integrated into the employee promotion process to automate certain decision-making steps that were previously exclusively human. Enterprise governance ensures that this AI's training aligns with HR policy and complies with regulations, such as CSR criteria.
- The organization finds that increasing the use of AI for decision-making correlates with a decrease in informal communication between actors. Enterprise governance examines the risk of

Enterprise governance

Enterprise governance aims to ensure the quality of data and AI across the organization. It revolves around risk management and regulatory compliance, the application of ESG (Environmental, Social, and Governance) and CSR (Corporate Social Responsibility) principles, as well as ensuring the reliability of the IT system



Legend

CSR: Corporate Social Responsibility

ESG: Environmental, Social, and Governance

9 IT CARDS

DATA ←

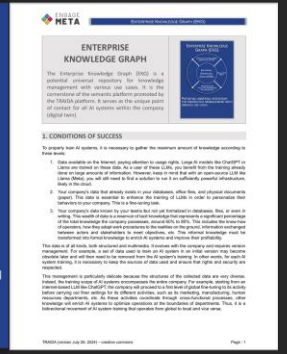
AI →

Overview

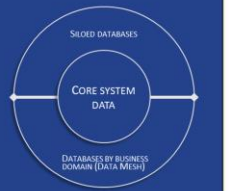
General introduction to TRAIDA cards in the technical domain

Enterprise Knowledge Graph (EKG)

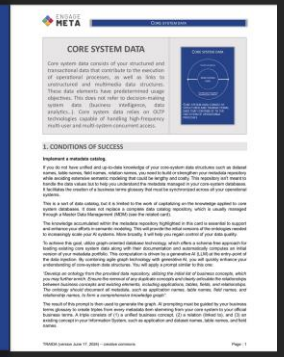
Potential universal repository for knowledge management with various use cases



Core System Data



Core system data consist of structured and transactional data that contribute to the execution of operational processes



Data Lake Warehouse

Repositories containing raw, structured, and unstructured data for business intelligence purposes

Operational Data Store (ODS)

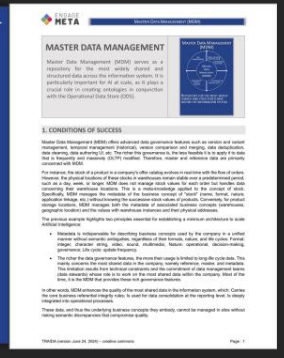
Unified repository that collects all structured data from all databases, providing a 360-degree view

Data Integration

Processes and software for integrating data sources and governing data flows

Master Data Management (MDM)

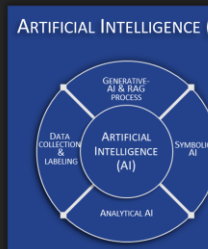
Repository for the most widely shared and structured data within the information system



Style of Database

Data storage technologies according to operational needs: transaction, integrity, concurrent access, history, etc.

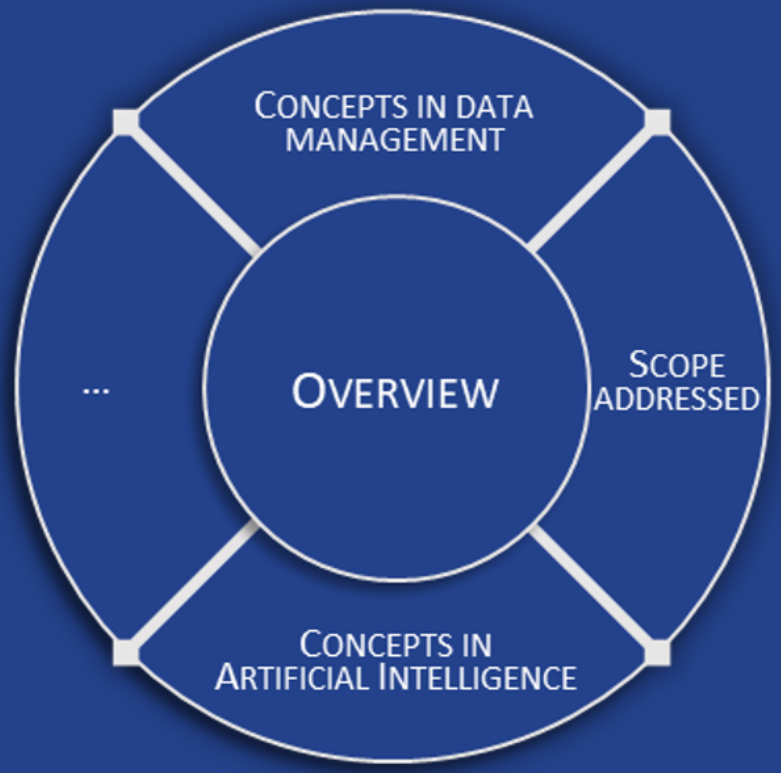
Artificial Intelligence (AI)



Artificial Intelligence systems function as automated and semi-automated decision-making algorithms

TRAIDA FRAMEWORK

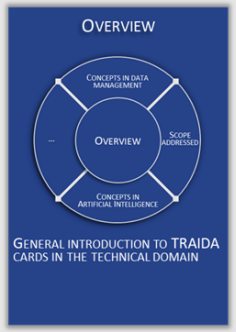
OVERVIEW



GENERAL INTRODUCTION TO TRAIDA CARDS IN THE TECHNICAL DOMAIN

IT DOMAIN OVERVIEW

General introduction to TRAIDA cards in the technical domain. The cards in this domain are universal and apply to all business contexts. You select the practices that correspond to your needs and complete them to manage a roadmap for implementing your minimum architecture to scale AI and data management solutions in your company.



1. CONDITIONS OF SUCCESS

The TRAIDA framework (Transformative AI and Data Solutions) is based on three domains:

1. Technical (blue cards).
2. Governance (green cards).
3. Business (red cards).

To scale AI profitably across the enterprise, these three domains must be aligned. The technical domain is based on a foundational principle that serves as the cornerstone of the entire TRAIDA approach: "***The idea of integrating AI with existing databases is rejected***." The reasons for this recommendation are as follows:

- A strong coupling between AI and the databases of the existing information system creates point-to-point connections that are fragile (difficult to maintain) and poorly auditable (lack of central governance). From a software engineering perspective, this coupling creates technical debt and must be replaced by loose coupling. This allows AI systems to be independent of the physical access layers to production databases.
- A new data repository is necessary to store the tacit knowledge required for AI training. This type of knowledge, also known as informal knowledge, exists in the minds of human actors and is increasingly necessary to enhance AI's capabilities. This new repository is disconnected from production databases and aligns with the objective of loose coupling.

To ensure this separation of concerns between AI and production systems, a semantic platform is implemented. It relies on three repositories that create a digital twin of the existing databases (see the respective TRAIDA cards):

- MDM (Master Data Management).
- ODS (Operational Data Store).
- EKG (Enterprise Knowledge Graph).

The semantic platform also integrates processes for data quality control and integration with production systems.

AI systems can then draw training data from this digital twin. The repositories are modeled using ontologies shared at the global enterprise level to ensure a unified view of the data.

IT DOMAIN OVERVIEW

GENERAL INTRODUCTION TO TRAIDA CARDS IN THE TECHNICAL DOMAIN. THE CARDS IN THIS DOMAIN ARE UNIVERSAL AND APPLY TO ALL BUSINESS CONTEXTS. YOU SELECT THE PRACTICES THAT CORRESPOND TO YOUR NEEDS AND COMPLETE THEM TO MANAGE A ROADMAP FOR IMPLEMENTING YOUR MINIMUM ARCHITECTURE TO SCALE AI AND DATA MANAGEMENT SOLUTIONS IN YOUR COMPANY

CORE SYSTEM DATA

- ❑ SILOED DATABASES
- ❑ DATABASES BY BUSINESS DOMAIN (DATA MESH)

OPERATIONAL DATA STORE (ODS)

- ❑ READ-ONLY MODE
- ❑ WRITE-MODE
- ❑ ANALYTIC-MODE WITH KNOWLEDGE GRAPH

MASTER DATA MANAGEMENT (MDM)

- ❑ DATA CATALOG (METADATA) & GV. FEATURES
- ❑ REFERENCE & MASTER DATA
- ❑ ID MAPPING & DATA LINEAGE
- ❑ API MANAGEMENT

ENTERPRISE KNOWLEDGE GRAPH (EKG)

- ❑ ONTOLOGY MANAGEMENT (ANALYTICS, OLTP)
- ❑ REGULATORY MANAGEMENT
- ❑ PERSONAL & COLLECTIVE KNOWLEDGE ACC.

DATA LAKE WAREHOUSE

- ❑ DATA WAREHOUSE, DATA LAKE & METADATA MGT.
- ❑ DURABLE AND LONG-TERM STORAGE

DATA INTEGRATION

- ❑ DATA HUB
- ❑ DATA FABRIC

STYLE OF DATABASE

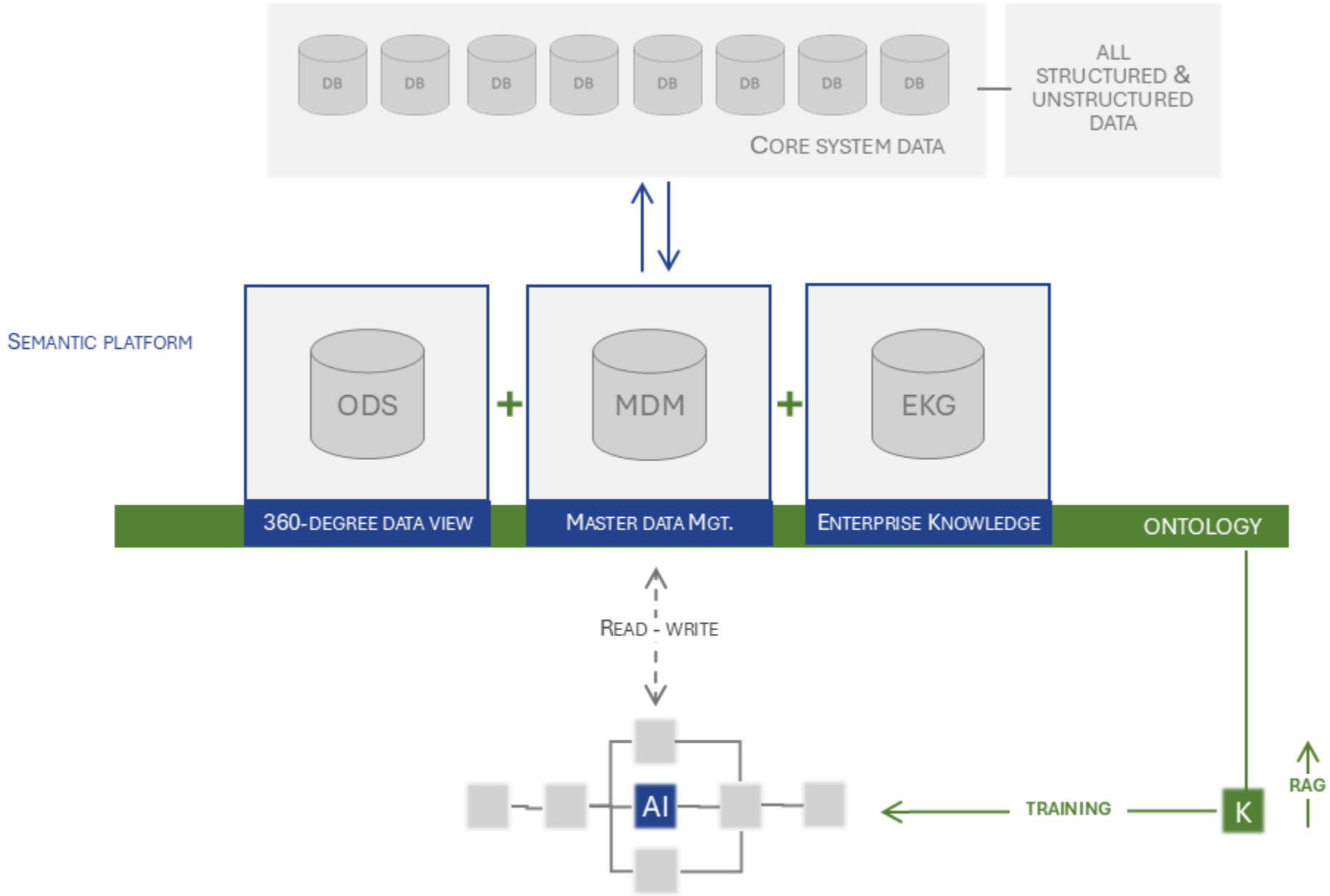
- ❑ STRICT-SCHEMA
- ❑ META-SCHEMA
- ❑ DOCUMENT SCHEMA
- ❑ GRAPH SCHEMA & SCHEMA-FREE
- ❑ VECTOR DATABASE
- ❑ FULL-TEXT SEARCH DATABASE
- ❑ ANALYTICAL DATABASE

ARTIFICIAL INTELLIGENCE (AI)

- ❑ GENERATIVE AI & RAG PROCESS
- ❑ SYMBOLIC AI
- ❑ ANALYTICAL AI
- ❑ DATA COLLECTION & LABELING

IT DOMAIN OVERVIEW
SEMANTIC PLATFORM

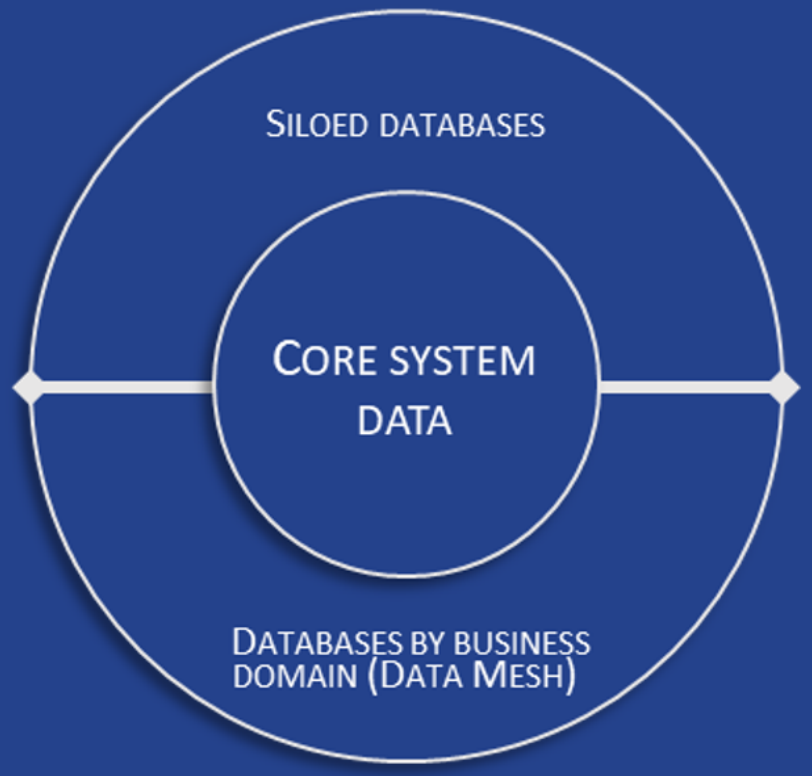
THE THREE REPOSITORIES ODS, MDM, AND EKG SHARE THE SAME ONTOLOGIES. THIS FIGURE IS A LOGICAL VIEW OF THE REPOSITORIES AND DOES NOT IMPLY THE USE OF ONE OR MULTIPLE TECHNOLOGIES FOR THEIR IMPLEMENTATION



LEGEND

EKG: ENTERPRISE KNOWLEDGE GRAPH
MDM: MASTER DATA MANAGEMENT
ODS: OPERATIONAL DATA STORE

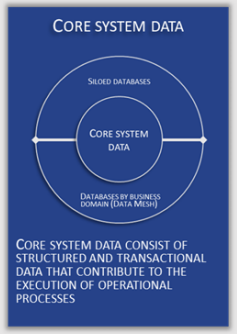
CORE SYSTEM DATA



CORE SYSTEM DATA CONSIST OF STRUCTURED AND TRANSACTIONAL DATA THAT CONTRIBUTE TO THE EXECUTION OF OPERATIONAL PROCESSES

CORE SYSTEM DATA

Core system data consists of your structured and transactional data that contribute to the execution of operational processes, as well as links to unstructured and multimedia data structures. These data elements have predetermined usage objectives. This does not refer to decision-making system data (business intelligence, data analytics…). Core system data relies on OLTP technologies capable of handling high-frequency multi-user and multi-system concurrent access.



1. CONDITIONS OF SUCCESS

Implement a metadata catalog.

If you do not have unified and up-to-date knowledge of your core-system data structures such as dataset names, table names, field names, relation names, you need to build or strengthen your metadata repository while avoiding extensive semantic modeling that could be lengthy and costly. This repository isn't meant to handle the data values but to help you understand the metadata managed in your core-system databases. It facilitates the creation of a business terms glossary that must be synchronized across all your operational systems.

This is a sort of data catalog, but it is limited to the work of capitalizing on the knowledge applied to core system databases. It does not replace a complete data catalog repository, which is usually managed through a Master Data Management (MDM) (see the related card).

The knowledge accumulated within the metadata repository highlighted in this card is essential to support and enhance your efforts in semantic modeling. This will provide the initial versions of the ontologies needed to increasingly scale your AI systems. More broadly, it will help you regain control of your data quality.

To achieve this goal, utilize graph-oriented database technology, which offers a schema-free approach for loading existing core system data along with their documentation and automatically computes an initial version of your metadata portfolio. This computation is driven by a generative AI (LLM) at the entry-point of the data injection. By combining agile graph technology with generative AI, you will quickly enhance your understanding of core-system data structures. You will apply a prompt similar to this one:

"Develop an ontology from the provided data repository, utilizing the initial list of business concepts, which you may further enrich. Ensure the removal of any duplicate concepts and clearly articulate the relationships between business concepts and existing elements, including applications, tables, fields, and relationships. The ontology should document all metadata, such as application names, table names, field names, and relationship names, to form a comprehensive knowledge graph".

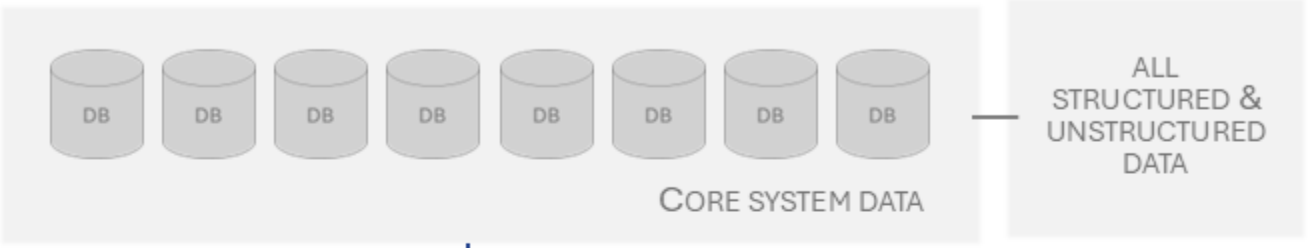
The result of this prompt is then used to generate the graph. AI prompting must be guided by your business terms glossary to create triples from every metadata item stemming from your core system to your official business terms. A triple consists of (1) a unified business concept, (2) a relation (linked to), and (3) an existing concept in your Information System, such as application and dataset names, table names, and field names.

Core system data

Core system data consists of your structured and transactional data that contribute to the execution of operational processes, as well as links to unstructured and multimedia data structures. These data elements have predetermined usage objectives. This does not refer to decision-making system data (business intelligence, data analytics...). Core system data relies on OLTP technologies capable of handling high-frequency multi-user and multi-system concurrent access

Legend

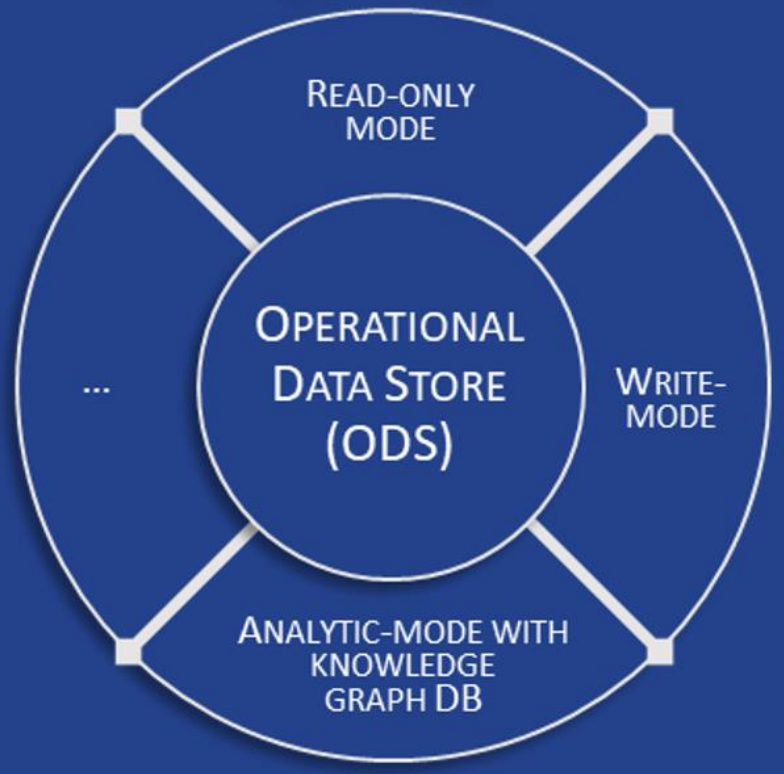
EKG: Enterprise Knowledge Graph



Injection
Data schemas, DB descriptions, system documentation, datasets...

AI prompt
Develop an ontology based on the description of core system data to create a catalog that outlines business concepts, their relationships, and their mapping to databases and systems. This catalog will be reused during the modeling of ontologies for the semantic platform to scale AI at the enterprise level

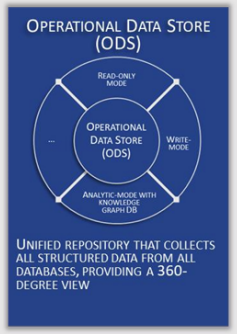
Operational Data Store (ODS)



Unified repository that collects all structured data from all databases, providing a 360-degree view

OPERATIONAL DATA STORE

The Operational Data Store (ODS) is a unified repository that collects all structured data from all databases, providing a 360-degree view. In practice, a read-only ODS can cover just one functional or business domain of the enterprise to build a unified view of data within this limited scope.



1. CONDITIONS OF SUCCESS

History

Since the beginning, information systems have gradually structured around multiple data sources. These systems generate information quality issues due to duplications and complex relations between objects stored in these different sources.

In the early 1990s, the need for a unified repository to consolidate these sources into a single point emerged. At that time, it was about preparing data downstream from business intelligence repositories like data warehouses. In this context, the term Operational Data Store (ODS) became widespread. It didn't introduce new storage technologies since the use of relational databases was the norm. It was used as a new data source exclusively for consultation in business intelligence. Although its data model needed to be properly constructed, it was not yet a semantic modeling. It was just necessary to ensure an organized structure of data for their use in decision-making systems, in a context where data warehouses presented significant constraints for the volumes of data managed.

A few decades later, the emergence of massive data storage technologies with big data made the use of ODS less useful: why spend money on this repository when it was possible to dump all data sources into big data? Unfortunately, experience showed that the lack of data structuring in big data harms the quality of analyses.

Today, many companies are dissatisfied with their big data projects partly due to the absence of an ODS upstream of decision-making systems. This results in a lack of semantics in big data that prevents leveraging the deep richness of data.

In parallel with the deployment of big data, the ODS survived outside the needs of decision-making systems, under different names and in a manner limited to certain business or functional domains. The most common are CDI (Customer Data Integration), PIM/PLM (Product Information Management / Product Lifecycle Management), and to some extent MDM (Master Data Management).

The return of the ODS

In this context of losing data meaning in decision-making systems, generative AI seems to offer a miraculous solution to regain meaning in data repositories, whether structured or not. Unfortunately, two new problems arise:

1. The use of AI on decision-making data sources (big data) is not sufficient since the company generally wants to leverage operational data in all its extent to train AIs, with the most accurate freshness level and sometimes in real-time for certain use cases.

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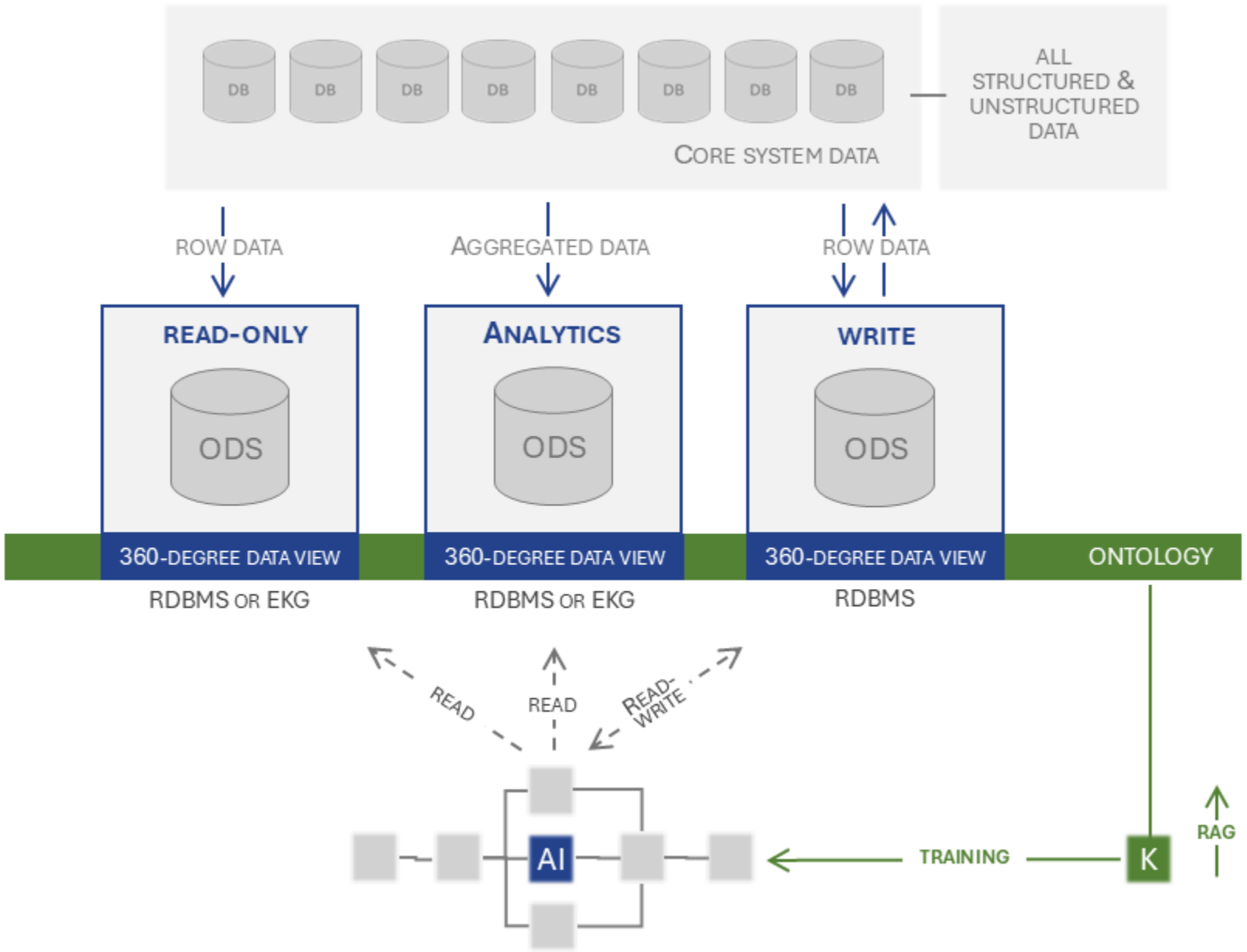


Legend

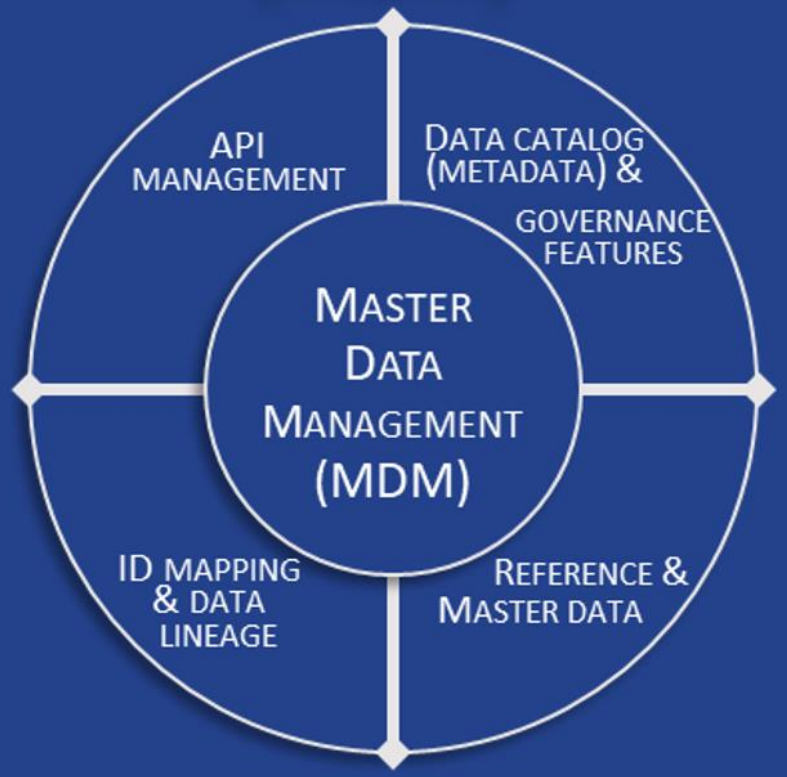
EKG: Enterprise Knowledge Graph

K: Knowledge

ODS: Operational Data Store

RDBMS: Relational database management system

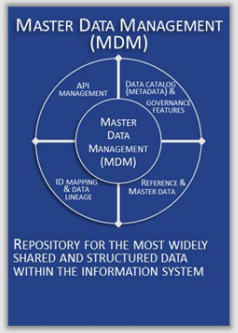
MASTER DATA MANAGEMENT (MDM)



REPOSITORY FOR THE MOST WIDELY SHARED AND STRUCTURED DATA WITHIN THE INFORMATION SYSTEM

MASTER DATA MANAGEMENT

Master Data Management (MDM) serves as a repository for the most widely shared and structured data across the information system. It is particularly important for AI at scale, as it plays a crucial role in creating ontologies in conjunction with the Operational Data Store (ODS).



1. CONDITIONS OF SUCCESS

Master Data Management (MDM) offers advanced data governance features such as version and variant management, temporal management (historical), version comparison and merging, data deduplication, data cleaning, data authoring UI, etc. The richer this governance is, the less feasible it is to apply it to data that is frequently and massively (OLTP) modified. Therefore, master and reference data are primarily concerned with MDM.

For instance, the stock of a product in a company's offer catalog evolves in real-time with the flow of orders. However, the physical locations of these stocks in warehouses remain stable over a predetermined period, such as a day, week, or longer. MDM does not manage stock values for each order but handles data concerning their warehouse locations. This is a meta-knowledge applied to the concept of stock. Specifically, MDM manages the metadata of the business concept of "stock" (name, format, nature, application linkage, etc.) without knowing the successive stock values of products. Conversely, for product storage locations, MDM manages both the metadata of associated business concepts (warehouses, geographic location) and the values with warehouse instances and their physical addresses.

The previous example highlights two principles essential for establishing a minimum architecture to scale Artificial Intelligence:

- Metadata is indispensable for describing business concepts used by the company in a unified manner without semantic ambiguities, regardless of their formats, nature, and life cycles: Format: integer, character string, video, sound, multimedia; Nature: operational, decision-making, governance; Life cycle: update frequency.
- The richer the data governance features, the more their usage is limited to long-life cycle data. This mainly concerns the most shared data in the company, namely reference, master, and metadata. This limitation results from technical constraints and the commitment of data management teams (data stewards) whose role is to work on the most shared data within the company. Most of the time, it is the MDM that provides these rich governance features.

In other words, MDM enhances the quality of the most shared data in the information system, which: Carries the core business referential integrity rules; Is used for data consolidation at the reporting level; Is deeply integrated into operational processes.

These data, and thus the underlying business concepts they embody, cannot be managed in silos without risking semantic discrepancies that compromise quality.

Master data management (MDM)

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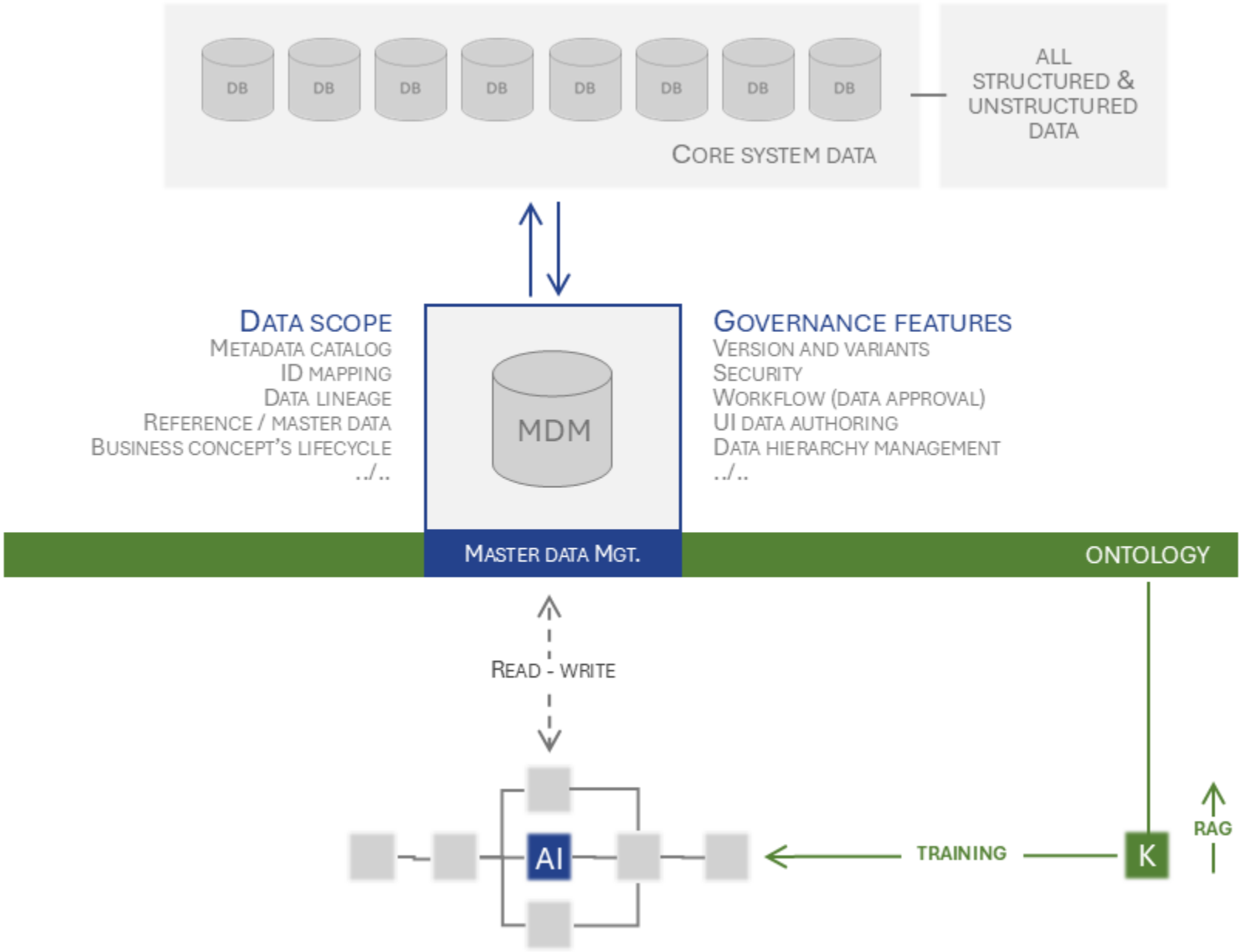
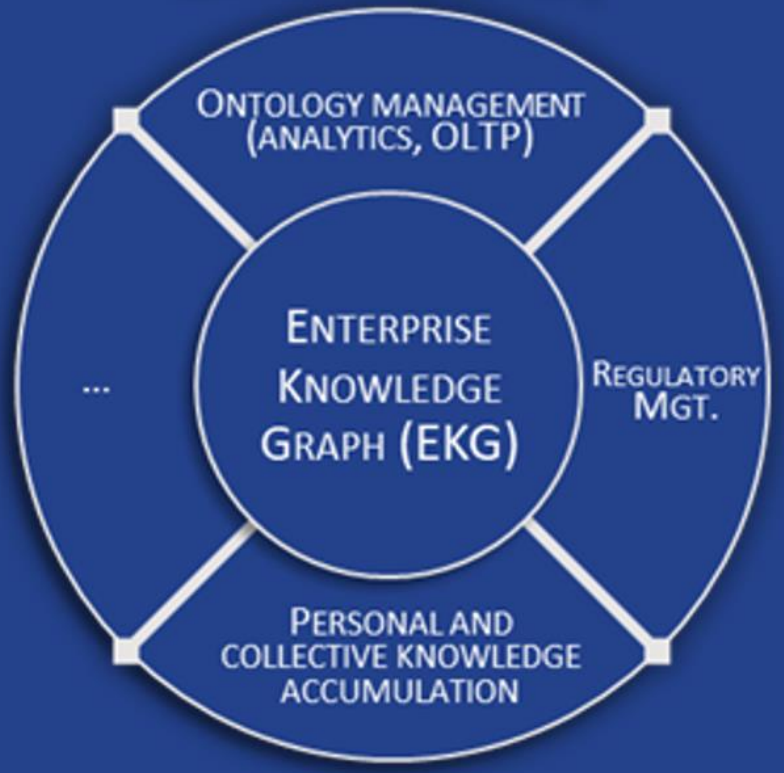


Legend

MDM: Master Data Management

Enterprise Knowledge Graph (EKG)



Potential universal repository for knowledge management with various use cases

ENTERPRISE KNOWLEDGE GRAPH

The Enterprise Knowledge Graph (EKG) is a potential universal repository for knowledge management with various use cases. It is the cornerstone of the semantic platform promoted by the TRAIDA platform. It serves as the unique point of contact for all AI systems within the company (digital twin).

1. CONDITIONS OF SUCCESS

To properly train AI systems, it is necessary to gather the maximum amount of knowledge according to three levels:

1. Data available on the Internet, paying attention to usage rights. Large AI models like ChatGPT or Llama are trained on these data. As a user of these LLMs, you benefit from the training already done on large amounts of information. However, keep in mind that with an open-source LLM like Llama (Meta), you will still need to find a solution to run it on sufficiently powerful infrastructure, likely in the cloud.
2. Your company's data that already exists in your databases, office files, and physical documents (paper). This data is essential to enhance the training of LLMs in order to personalize their behaviors to your company. This is a fine-tuning task.
3. Your company's data known by your teams but not yet formalized in databases, files, or even in writing. This wealth of data is a reservoir of tacit knowledge that represents a significant percentage of the total knowledge the company possesses, around 60% to 80%. This includes the know-how of operators, how they adapt work procedures to the realities on the ground, information exchanged between actors and stakeholders to meet objectives, etc. This informal knowledge must be transformed into formal knowledge to enrich AI systems and improve their profitability.

This data is of all kinds, both structured and multimedia. It evolves with the company and requires version management. For example, a set of data used to train an AI system in an initial version may become obsolete later and will then need to be removed from the AI system's training. In other words, for each AI system training, it is necessary to keep the sources of data used and ensure that rights and security are respected.

This management is particularly delicate because the structures of the collected data are very diverse. Indeed, the training scope of AI systems encompasses the entire company. For example, starting from an internet-based LLM like ChatGPT, the company will proceed to a first level of global fine-tuning to its activity before carrying out finer settings for its different activities, such as its marketing, manufacturing, human resources departments, etc. As these activities coordinate through cross-functional processes, other knowledge will enrich AI systems to optimize operations at the boundaries of departments. Thus, it is a bidirectional movement of AI system training that operates from global to local and vice versa.

Enterprise Knowledge Graph (EKG)

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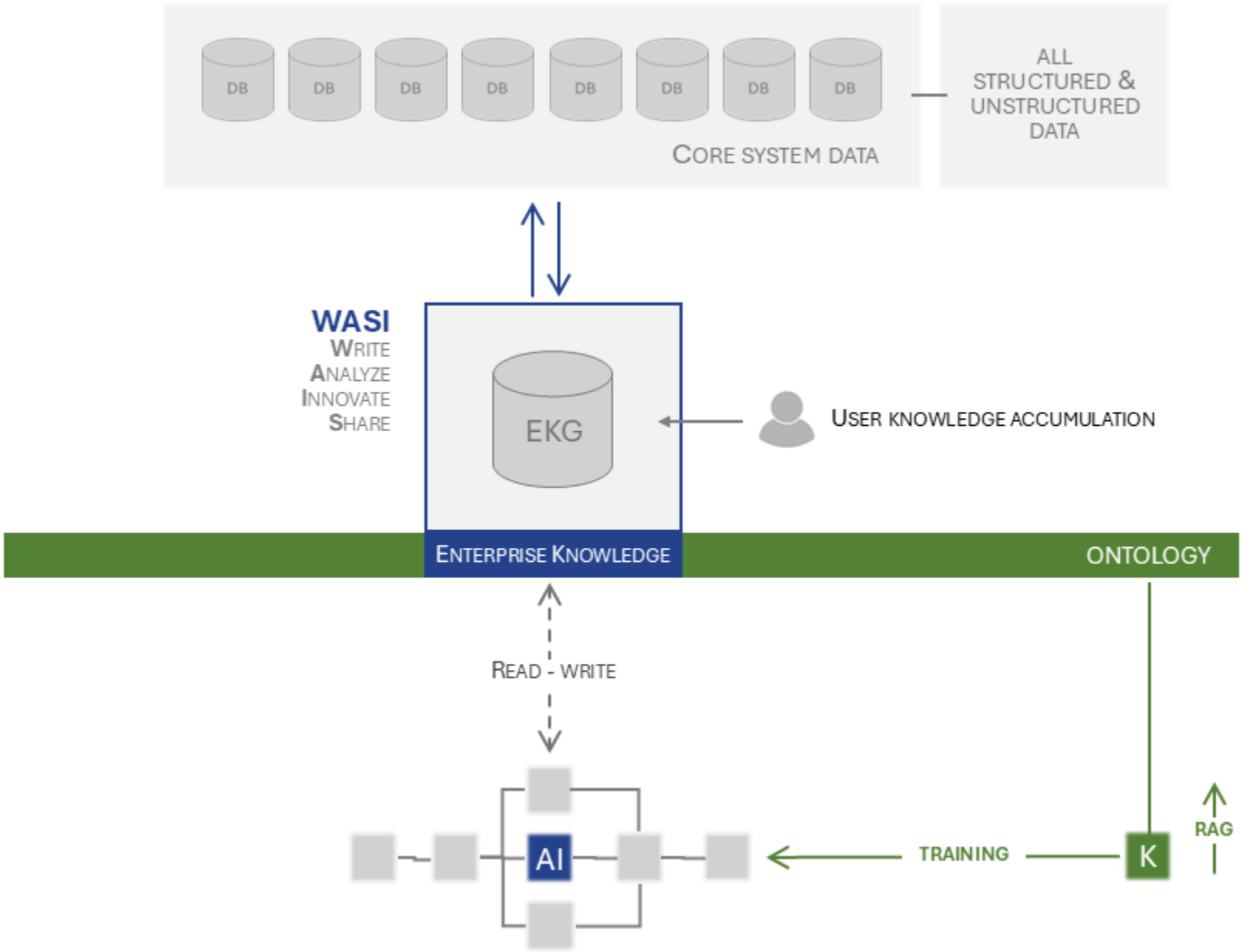
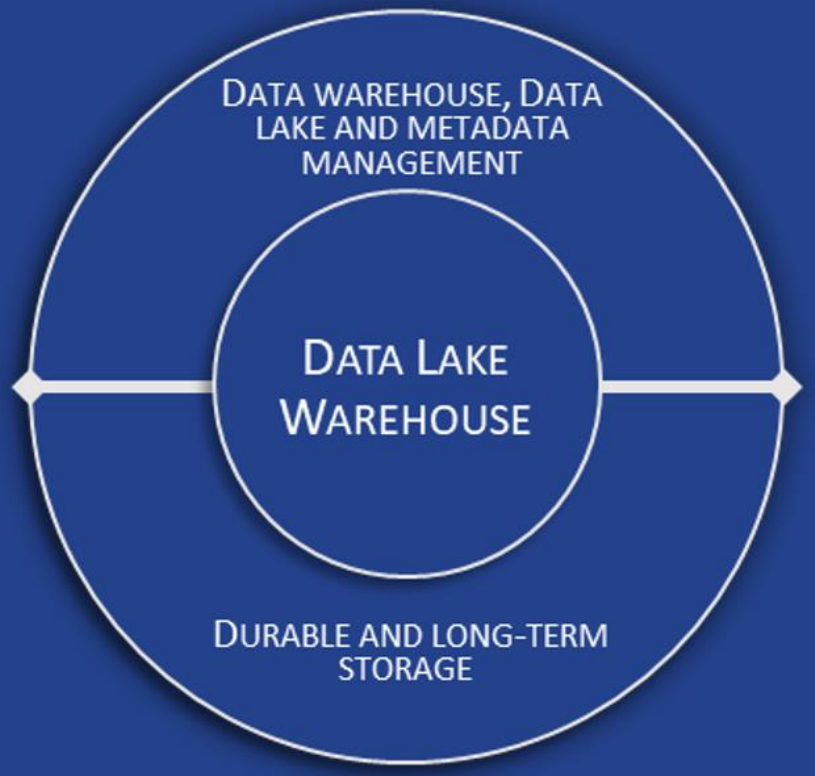


Legend

EKG: Enterprise Knowledge Graph

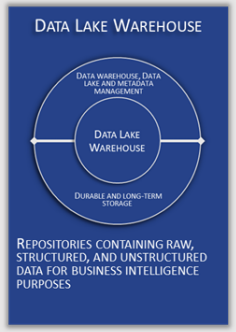
DATA LAKE WAREHOUSE



REPOSITORIES CONTAINING RAW, STRUCTURED, AND UNSTRUCTURED DATA FOR BUSINESS INTELLIGENCE PURPOSES

DATA LAKE WAREHOUSE

Repositories contain raw, structured, and unstructured data for business intelligence and data analytics purposes. In TRAIDA, the term 'Data lake warehouse' encompasses data warehouse, data lake, and data lakehouse. The term 'Business intelligence' includes data reporting and OLAP. The term 'data analytics' refers to data science.



1. CONDITIONS OF SUCCESS

When "big data" solutions do not fully meet expectations, most decision-makers believe that AI and knowledge graphs are the solution to better address data analysis needs. However, successfully integrating transformative AI at the decision-making system level requires clarifying the architecture. With TRAIDA, the effort made at the semantic platform level and with shared ontologies facilitates this integration. We will explain how in this TRAIDA card, but first, we need to clarify the meaning of the term "big data" by reducing it to the identification of multimedia databases. Since this term does not impose specific technologies or use cases, it becomes a commodity that is not structurally important for architectural choices.

We need to move beyond the term big data and return to the company's objectives in these two classic realms of decision-making IT, which we group under the generic term "Data Lake Warehouse":

- **Business Intelligence**: Focuses on reporting needs and structured data analysis. These data are described using metadata that provide their structures, definitions, and quality control rules. The technologies used are SQL-type databases and OLAP (Online Analytical Processing), including meta-schema and NoCode approaches. They are grouped under the generic term data warehouse.
- **Data Analytics**: Refers to the domain of data science, which works on more or less extensive multimedia data sets, with or without metadata. The goal is trend calculation, data discovery, detection of atypical cases, general classification, etc. The technologies used are NoSQL and schema-free. They are grouped under the generic term data lake.

AI's power is expressed in each of these two realms separately. However, it brings more potential when applied to a data repository that unifies the data warehouse and the data lake. This is the promise of new data lakehouse solutions. At the time of writing this TRAIDA card, the feedback from such solutions is still recent, making it difficult to assess their maturity. Nevertheless, it is certain that the convergence of data warehouse and data lake will be realized through such mechanisms:

- The ability to extend OLAP technologies to include multimedia data.
- Adding metadata management in the data lake to enhance query power and quality controls. These metadata must be shared with the OLAP part of the unified solution.
- Standardizing mass data storage solutions for both structured (enriched with their OLAP dimensions) and unstructured (multimedia) data inherent to the data lake.
- Unifying data manipulation languages between the data warehouse and the data lake necessary for injections, cleaning, aggregations, etc.

DATA LAKE WAREHOUSE

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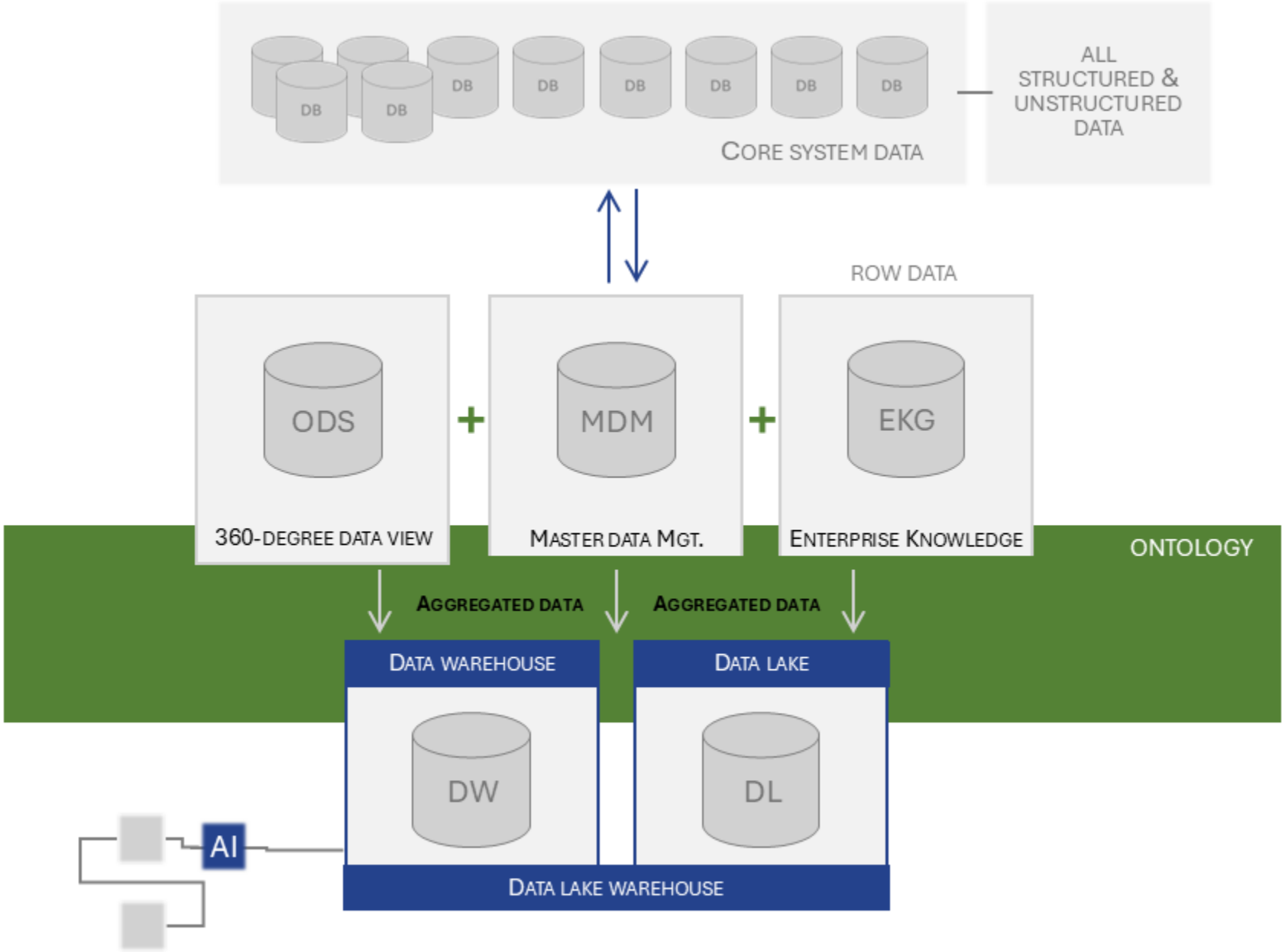


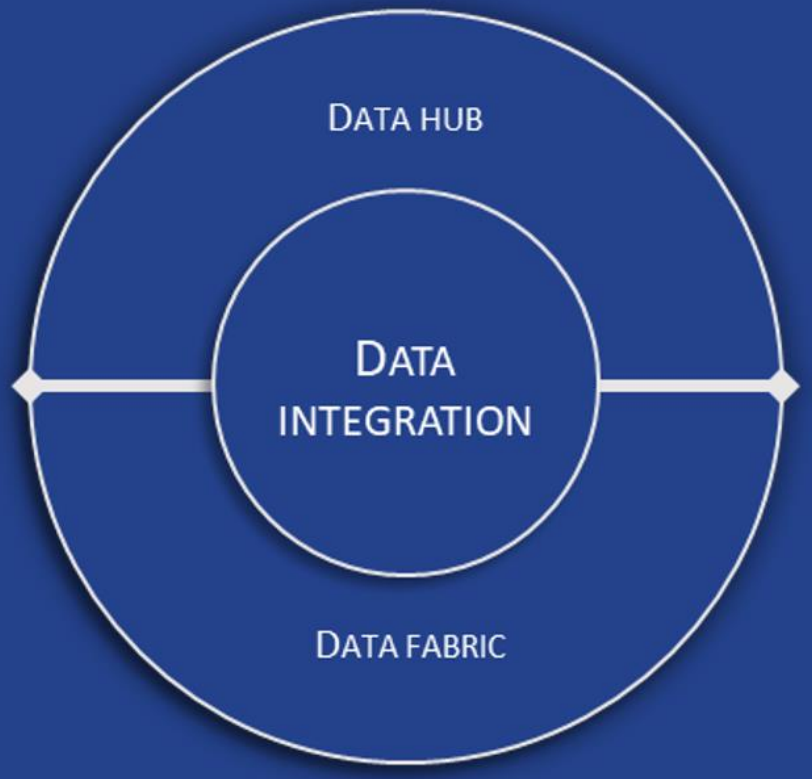
Legend

EKG: Enterprise Knowledge Graph

MDM: Master Data Management

ODS: Operational Data Store

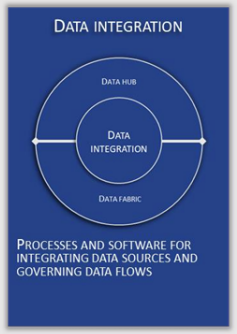
DATA INTEGRATION



PROCESSES AND SOFTWARE FOR INTEGRATING DATA SOURCES AND GOVERNING DATA FLOWS

DATA INTEGRATION

Processes and software for integrating data sources and governing data flows. The data hub might compete with the ODS (Operational Data Store) of the semantic platform; and the data fabric might compete with the EKG (Enterprise Knowledge Graph). Therefore, a choice must be made to either use the data fabric as a component of the semantic platform or integrate it with more transversal MDM (Master Data Management), ODS, and EKG.



1. CONDITIONS OF SUCCESS

Data integration synchronizes and transforms multiple sources of information to provide a standardized data flow to consumers. These consumers can be repositories like MDM (Master Data Management), ODS (Operational Data Store), EKG (Enterprise Knowledge Graph), data warehouses, data lakes or application systems and AI systems for training.

Historically, this need has been covered by ETL (Extract, Transform, Load) and EAI (Enterprise Application Integration). However, to handle the complexity of integration processes, specific developments are often necessary to adapt them. These implementations become a significant technical debt and create a high rigidity in data flow integration. This rigidity is incompatible with agile governance. For instance, a simple change in data type requiring several days of maintenance would be unacceptable in a business emergency.

To address this rigidity of ETL-EAI, data hub and data fabric solutions have emerged.

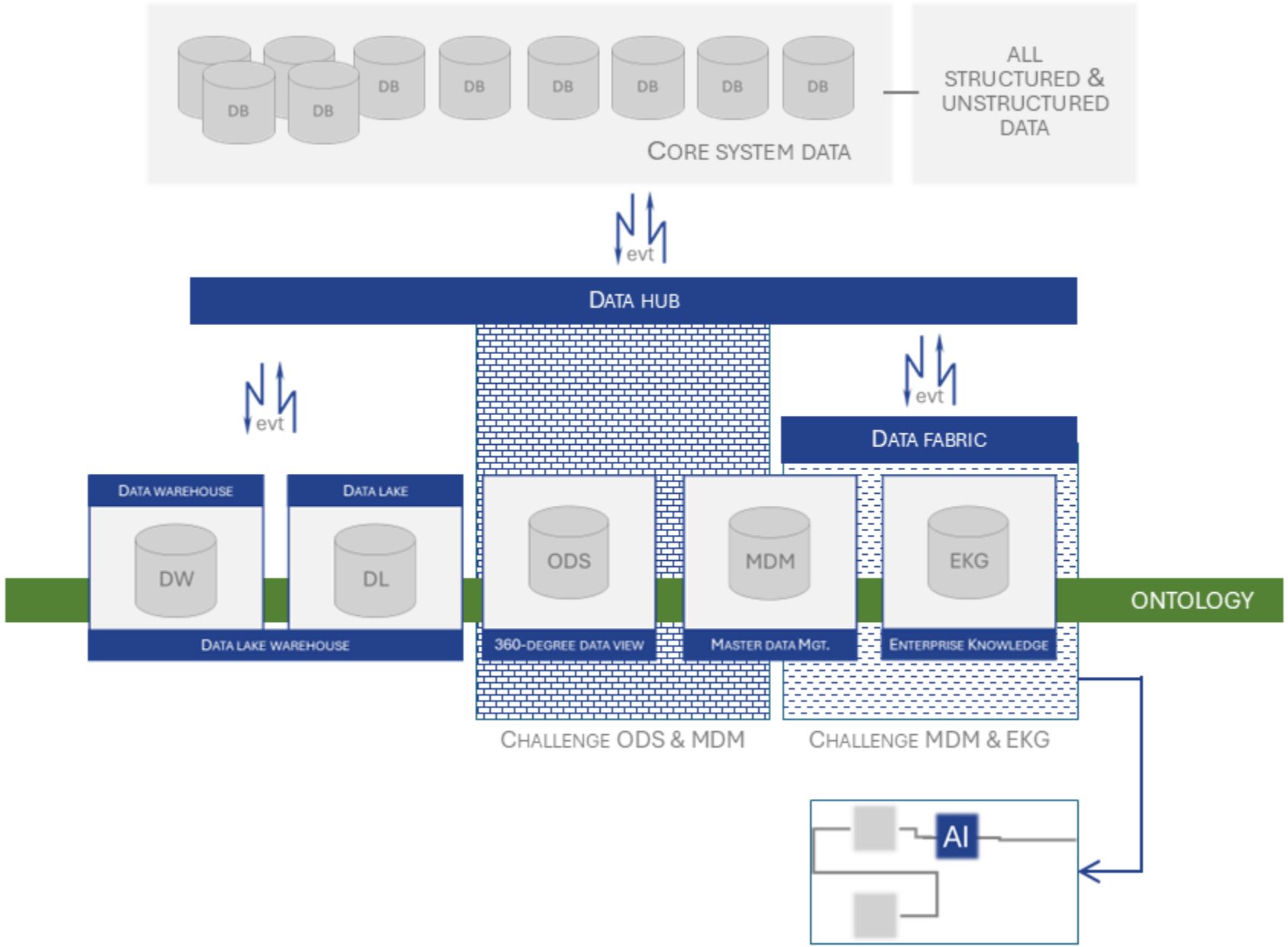
Although the boundaries of these solutions vary depending on software vendors, their value proposition is based on greater agility in data flow integration. To achieve this, they use metadata and repositories for information storage that contribute to flow management. Consequently, they not only integrate data flows but also manage repositories. As vendors of these solutions ride technological and marketing waves, defining a solid architectural framework is not straightforward.

In this difficult-to-decipher marketing context, TRAIDA approaches the choice of data hub and data fabric by considering that unified data repositories like MDM, ODS, and EKG (see respective TRAIDA cards) must be preserved. They form the foundation of the semantic platform for AI.

Therefore, when considering a data hub or data fabric solution, it is essential to evaluate its ability to provide robust MDM, ODS, EKG repositories or to integrate with those of the semantic platform. For example, if the data hub establishes a metadata catalog, its integration with the shared ontologies in the semantic platform must be carefully examined. Neglecting this issue would result in managing two metadata catalogs: one at the global level housed in the semantic platform and the other accompanying data flow integration in the data hub. These two catalogs should share the same ontologies to avoid creating silos, which could lead to poor data quality and high maintenance costs.

Data integration

Processes and software for integrating data sources and governing data flows. The data hub might compete with the ODS (Operational Data Store) of the semantic platform; and the data fabric might compete with the EKG (Enterprise Knowledge Graph). Therefore, a choice must be made to either use the data fabric as a component of the semantic platform or integrate it with more transversal MDM (Master Data Management), ODS, and EKG



Legend

DL: Data lake

DW: Data warehouse

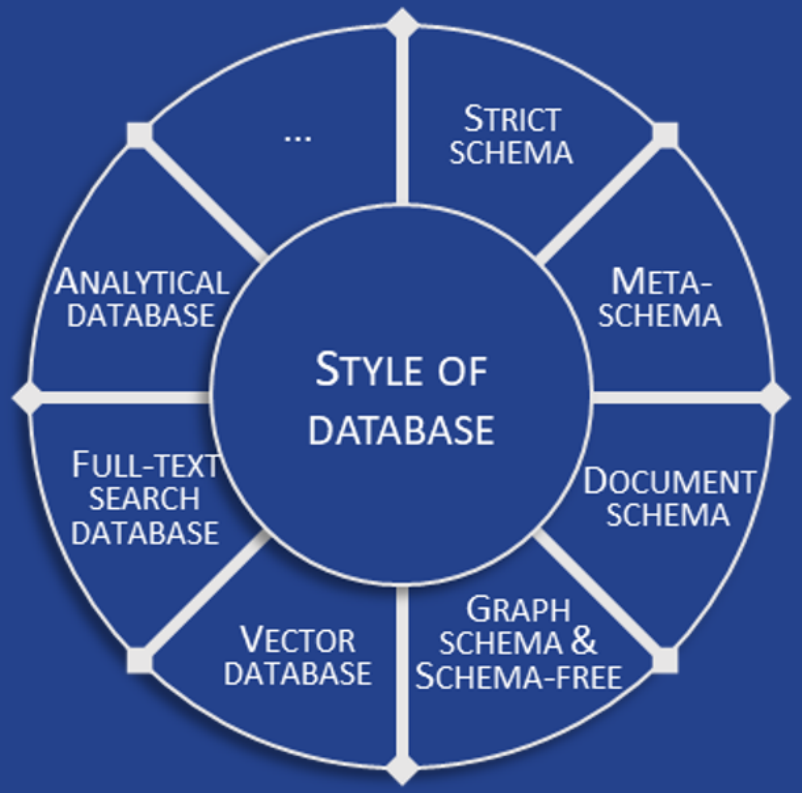
EKG: Enterprise Knowledge Graph

EVT: Event driven architecture

MDM: Master Data Management

ODS: Operational Data Store

STYLE OF DATABASE



DATA STORAGE TECHNOLOGIES ACCORDING TO OPERATIONAL NEEDS: TRANSACTION, INTEGRITY, CONCURRENT ACCESS, HISTORY, ETC.

STYLE OF DATABASE

Data storage technologies according to operational needs: transaction, integrity, concurrent access, history, data natures; volume, governance, etc. The choice of these technologies is important for deciding the architecture of the semantic platform and more specifically the MDM, ODS, and EKG repositories.

1. CONDITIONS OF SUCCESS

AI systems need to be integrated with semantic data management; otherwise, the training processes weaken and profitability does not materialize. It is thanks to metadata and ontologies that AI better understands the meaning of information. Generally, the quality level of the data provided to AI conditions the level of intelligence obtained at the end of their training and execution.

In this context, the choice of database technologies to successfully implement AI is fundamental. It takes into account these four essential needs for obtaining high-performing AI systems:

1. **Data labeling**: AI learning processes rely on metadata that serves as labels describing their usage context. For example, the metadata of a bank credit file provides the history of its subscription, the calculation of its score, and the relationships to business concepts such as the client and the financed asset. The boundary between metadata and operational data is not always stable. In practice, metadata exists through ontologies, that is, unified data models to be implemented in the semantic platform as described by TRAIDA, with MDM, ODS, and EKG repositories. Therefore, their management must be intelligently integrated with production databases and shared ontologies at the enterprise level.
2. **Description of multimedia data**: Documents (file, image, video, text…) are enriched with metadata that helps AI systems interpret them. They also document the relationships that exist with the business concepts operated by the company. For example, a client email is classified according to the nature of the request and attached to the client file.
3. **Data grouping for AI system training**: The training process of an AI requires injecting datasets of different formats and origins. For example, an AI assistant for customer relationship support is trained with product descriptions, a user guide from the online order website, an ebook published by the company, the FAQ, etc. This set of files must be kept in an archive to retain the memory of the training carried out. It will be necessary to audit the functioning of the AI and for unlearning processes when certain outdated or erroneously loaded information needs to be removed from the AI.
4. **Data injection in AI conversations** (with the RAG - Retrieval Augmented Generation technique): This involves enriching the content of AI queries with access to databases. For example, submitting a ChatGPT prompt about a client file automatically generates a read in a database to retrieve the most up-to-date client information. Thus, the AI accesses information beyond the data already injected at the time of its training. This injection principle is also used to verify and complete the response formulated by the AI; it is then an interesting way to detect hallucinations and trigger alert and correction processes.

Style of database

Data storage technologies according to operational needs: transaction, integrity, concurrent access, history, data natures; volume, governance, etc. The choice of these technologies is important for deciding the architecture of the semantic platform and more specifically the MDM, ODS, and EKG repositories

Legend

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?

- ✓ Volume
- ✓ Transactional
- ✓ Structure data
- ✓ unstructured data
- ✓ Maintenance agility
- ✓ Referential integrity
- ✓ Performance
- ✓ Metadata
- ✓ Governance
- ✓ ../..

→

+ Vector DB, full text indexing, OLAP

Examples: **Oracle, MySQL**
OLTP-ACID , Integrity, Reliability
Structured data, joins
Rigid software engineering lifecycle

Strict schema

Examples: **Airtable, Knack…** and model-driven solution
OLTP-ACID, integrity, reliability, less scalable than strict schema
Structured data, some unstructured data
Agile software engineering lifecycle

Meta-schema

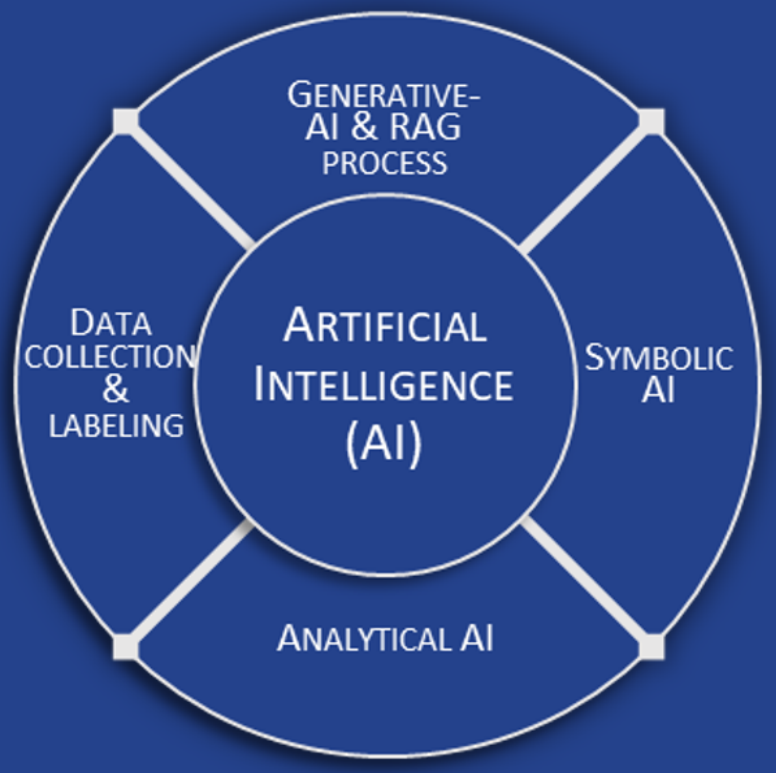
Examples: **MongoDB**
No meta-data, no foreign keys
Agile massive unstructured data storage
Data denormalization to recreate relations

Document-schema

Examples: **Neo4J, Stardog**
Meta-data, foreign keys, partial OLTP-ACID
Structured data, some unstructured data
Agile engineering lifecycle for knowledge accumulation
Strict schema enforcement through the application logic

Graph schema (schema free)

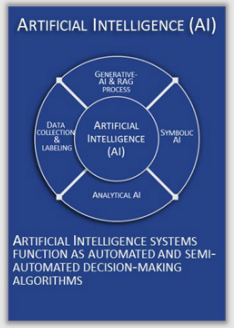
Artificial Intelligence (AI)



Artificial Intelligence systems function as automated and semi-automated decision-making algorithms

ARTIFICIAL INTELLIGENCE

Artificial Intelligence systems function as automated and semi-automated decision-making algorithms. The different types of AI (generative, symbolic, analytical) share ontologies to facilitate their integration and use at the enterprise level.



1. CONDITIONS OF SUCCESS

The interest in AI depends on the use cases of each company. Nevertheless, with broad application possibilities, significant gains are to be sought in all organizations. Indeed, AI covers a wide range of functionalities, such as:

- Creativity in communication and marketing, teaching, coaching, translation, text synthesis, report creation, financial optimization, customer tracking, trend calculations, pattern and video recognition, sound production, etc.

Beyond the specific case of a company, TRAIDA identifies two universal contributions of AI that do not depend on use cases. They form a strategic foundation so that stakeholders share certain fundamental objectives for the use of AI. Without this foundation, integrating AI into the organization encounters two riks:

- In the event of failure to implement AI in certain use cases, stakeholders may become demotivated. To counter this risk, it is important to have a framework that recalls the fundamental and shared objectives throughout the company.
- Poor implementation of AI leads to a misalignment with the company's fundamental objectives. Gains are then partially recognized by stakeholders. This context disrupts the organization and opens the debate towards questioning the profitability of AI. The strategic framework is necessary to counter this risk. It ensures that the contribution of AI for each use case aligns with the major objectives that bring stakeholders together.

To build this strategic foundation, the two universal contributions are as follows:

1. **Automate tasks**; that is, decision-making and the resulting actions.
2. **Accumulate and exploit knowledge**; in order to better control the organization.

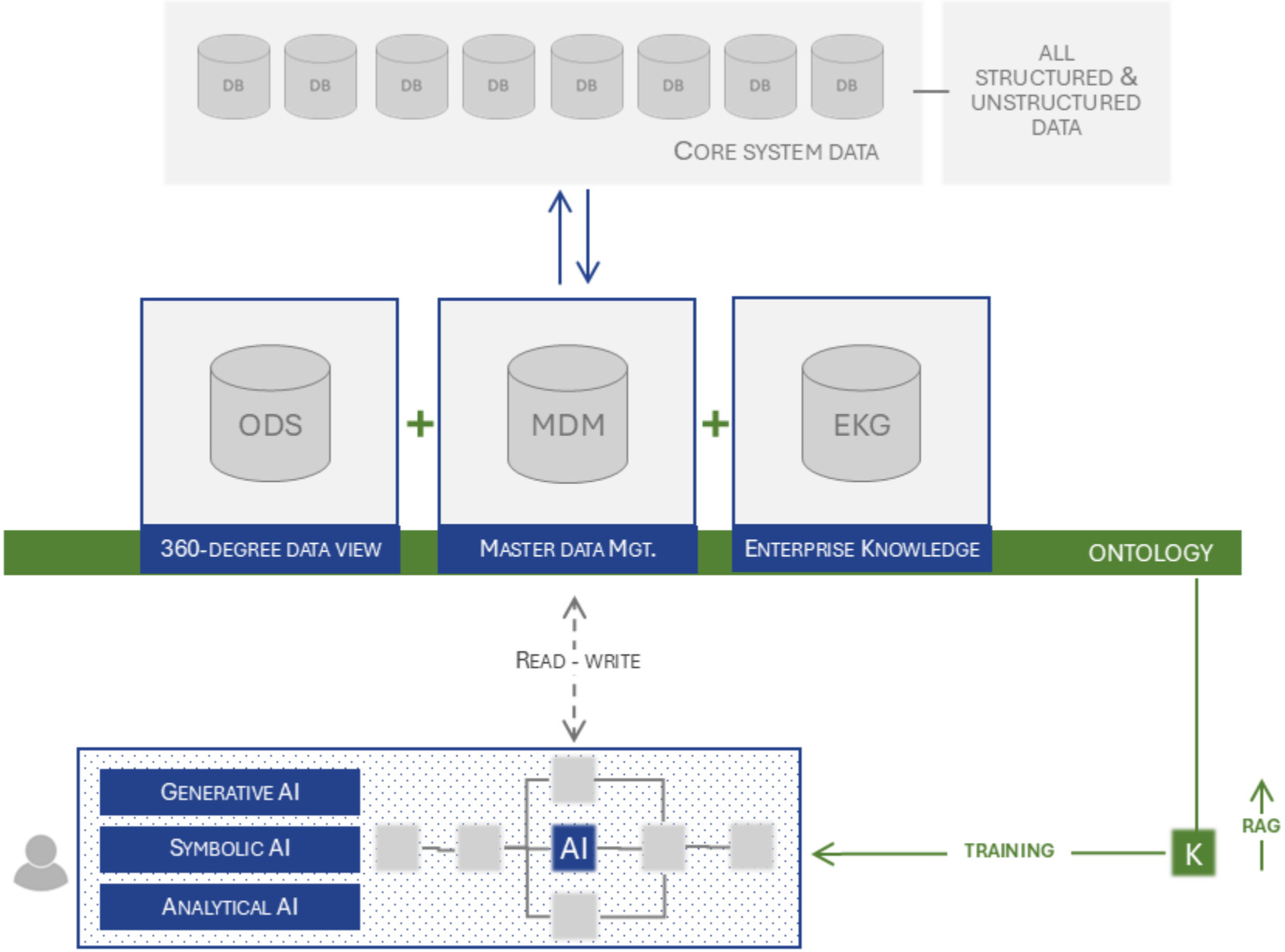
These two contributions are identified by the majority of AI experts, but their formulation in the specific context of each company remains to be done. Indeed, automation is intimidating and requires an explanation to situate it within a framework of overall activity improvement. Similarly, knowledge management has been a recurring theme for decades, without much motivation. However, with AI, it becomes strategic and profitable.

By formalizing the two universal contributions of AI in terms that suit your company, you build your strategic AI framework. This is a document of a few pages, a sort of charter on the fundamental objectives of the company with AI.

To guide you in drafting this framework, the two universal contributions are detailed in the following section.

Artificial Intelligence

Artificial Intelligence systems function as automated and semi-automated decision-making algorithms. The different types of AI (generative, symbolic, analytical) share ontologies to facilitate their integration and use at the enterprise level



Legend

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ENGAGE META

TRAIDA | AI Knowledge | Mindset | Resources

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If you find Engage-Meta's focus on digitalization and innovation valuable, consider becoming a partner. Simply provide a short testimonial, an email contact, and a link to your activity, and we'll add you to our partners' section. To confirm, send an acceptance email. Partnership is free and can be terminated at any time via email. You may also propose articles under your company's copyright, as an individual author, or under a creative commons license. Once validated, they'll be published on our blog with links to your offers and announced on our homepage and LinkedIn. You can contact me: pierre.bonnet@hlfl-consulting.com.

Since established in 2018, AI Academy Vietnam has positioned itself as one of the leading institutions in providing AI and Data-based solutions to enterprises. We foresee a coming wave of AI applications in enterprises that are expansive and transformative. To govern this transformative AI and data solutions under enterprise context, we seek to develop a holistic framework that takes into account not only technological aspects but also business and governance ones. For that reason, We pledge ourselves to the development of TRAIDA along with building an open community around it. With our experience and expertise in AI, We hope to contribute our best practices in enterprise AI implementations to the development and execution of TRAIDA.

Contact: Nguyen XUAN HOAI on Linkedin.

Boldo, a French startup founded in 2024, is developing a cutting-edge Enterprise Architecture Platform. We firmly believe that the successful transformation of businesses hinges on the Enterprise Architecture mindset, a belief that will only grow stronger as companies scale their AI capabilities in the coming years. Artificial Intelligence is crucial for both our own operations and those of our clients. As a small company, AI empowers us to achieve the productivity of a larger team with limited resources. For our customers, AI offers transformative potential to optimize their business processes and transform their business model. Joining Engage-Meta's network of partners offers us opportunities to: (1) Teach: a fundamental value cherished by our founders; (2) Learn: gaining insights and knowledge from other industry leaders; (3) Be Heard: in a qualitative and ethic environment. Reciprocally, our journey as a young company in the AI world will provide valuable perspectives on numerous topics addressed by the think tank.

Contact: Sylvain MELCHIOR on Linkedin.

Founded in 2019, Drinkizz is a private company, headquartered in Singapore. We are an innovative company providing the market with the world's first O.N.E drink (Organic Natural Energy). Our commitment to health and sustainability drives us to use only 100% natural and organic ingredients, providing a sustainable and durable energy to our customers. At Drinkizz, we also believe in the power of technology to enhance business operations and customer experiences. With over four years of experience in leveraging no-code and AI tools, we not only streamline our internal processes but also support other businesses in integrating these technologies to drive innovation and efficiency. Joining Engage-Meta as a partner is a natural step for us. We are excited about the opportunity to collaborate with other forward-thinking organizations, share our unique perspective on using No-code and AI, and contribute to the future of business and technology.

Contact : Dzoulou Vinci Savitri on Linkedin.

At Lancs Networks, our vision is to lead the future of global connectivity by harnessing the transformative power of Artificial Intelligence. We are committed to revolutionizing the way networks are managed, secured, and optimized, ensuring that our customers experience unparalleled reliability, efficiency, and innovation. Through the strategic integration of AI, we aim to create intelligent networks that not only adapt to the evolving demands of our digital world but also anticipate and address challenges before they arise. Our goal is to empower businesses and individuals with seamless, secure, and scalable solutions that drive growth and foster innovation. By continuously advancing our AI capabilities, we envision a future where Lancs Networks sets the standard for secured and intelligent networking, delivering superior performance and transforming the connectivity landscape across industries.

Contact: Mr. Ha The Truong on Linkedin.

Synodis, a Digital Services Provider specializing in APIs, integration, and artificial intelligence (AI), has chosen to collaborate with TRAIDA for several strategic and methodological reasons. TRAIDA stands out for its innovative and open approach, adopting a Creative Commons methodology that promotes transparency and collaboration in the fields of AI and enterprise architecture. This philosophy perfectly aligns with our vision of technological innovation and our commitment to providing cutting-edge solutions to our clients. By working with TRAIDA, we enrich our expertise with multidisciplinary operational consulting that provides a clear vision, workflows, stakeholders, and solutions to implement. We strengthen our market position while ensuring that our offerings are both innovative and aligned with international best practices.

Contact: Yann DE CAMBOURG on Linkedin.

Starting with Software Outsourcing Services for IBM USA (2003), VietSoftware International (VSII) has grown to become one of the leading software outsourcing companies in Vietnam. Not only being trusted and highly appraised by international customers in the field of Software Outsourcing Services, VSII is also a strategic partner for banks in Vietnam for the integration of middleware systems. Since 2015, the company has transformed into a high technology company, continues to expand and affirm its position in the fields of System Integration, Enterprise Solution Consulting and developing new platform for digital transformation using AI and Blockchain. Joining the Engage-Meta community as a partner will enable VietSoftware

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