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TRANSFORMATION OF BUSINESS MODELS: METHODOLOGY FOR TRANSITION TO THE “AI-FIRST” PARADIGM

Purpose. To provide a conceptual basis and a clear methodology for transforming business into a company with a priority for artificial intelligence (AI-First), help reduce the risks of developing projects based on artificial intelligence and effectively translate them from the experimental phase to industrial exploitation.

Methodology. Methods used: comparative analysis – to demonstrate the fundamental difference between the two approaches to the promotion of artificial intelligence; analysis of applications and secondary data – to illustrate theoretical positions and show how transformation is realized in practice; theoretical analysis and formalization – for the identification of key elements to understand and the formation of a conceptual basis for research.

Findings. A clear conceptual understanding of the AI-First company as an organization is given, where artificial intelligence (AI) is not an additional tool, but the fundamental basis of strategy, operating model and culture. The investigation reveals its key characteristics. It is shown that in the Ukrainian market there are AI-native startups and traditional companies undergoing AI-transformation, but the number of full-fledged AI-First organizations is still limited. It is indicated on a clear framework that helps to make a strategic choice between two approaches before promoting artificial intelligence. A comprehensive methodology has been developed for the transformation of companies into organizations with a priority to artificial intelligence.

Originality. The differences are systematized between the approaches of “in-depth knowledge of artificial intelligence” and “implementation of processes around artificial intelligence” as two different paradigms of digital transformation. A conceptual model of the AI-First company has been proposed, which integrates artificial intelligence across all levels of management – from strategic to operational. A comprehensive analysis of companies undergoing the path to AI-First transformation has been completed. It is necessary to introduce a new approach to science before assessing enterprise readiness for AI transformation through the prism of culture, processes, technology and data.

Practical value. Creation of an applied methodology for company transformation in the “AI-First” format, which can be used to develop core strategies for digital modernization. Detailed criteria for choosing between advanced processes with additional artificial intelligence and their constant are to provide managers with tools for making informed strategic decisions.

Keywords: *artificial intelligence, AI-First company, digital transformation, business model*

Introduction. In the modern business landscape, artificial intelligence is transitioning from an instrument for specific process automation to a strategic asset that defines a new paradigm of business organization. In the context of global digital transformation, companies actively integrating AI into their business models gain significant competitive advantages – specifically, enhanced operational efficiency, forecasting accuracy, product personalization, and accelerated decision-making. However, despite the rapid development of technology, the majority of organizations are unprepared for a systemic transition from traditional management models to those built around artificial intelligence.

The problem is that a significant part of companies implements AI pointwise – within individual processes or departments – without changing the strategic architecture

of the business. This approach limits the potential of technologies, reducing their role to a tool for automation, rather than a driver of innovation. The lack of a clear methodology for the transition from experimental solutions to full-scale AI systems creates a gap between technical achievements and organizational readiness for their practical use.

The problem becomes even more relevant in the context of Ukraine, where the IT sector remains one of the most dynamic sectors of the economy. Despite the presence of a strong human resource potential, a developed startup environment, and government initiatives in the field of digitalization, the number of companies that have fully transitioned to the “AI-First” paradigm remains limited. In most cases, Ukrainian enterprises only integrate individual AI solutions into existing processes without carrying out a deep organizational restructuring. This indicates the lack of an established scientifically based model for implementing the “AI-First” principles in corporate governance.

Furthermore, current research focuses mainly on the technical or analytical aspects of AI, while the managerial, strategic, and cultural dimensions of its integration remain poorly understood. As a result, companies face difficulties in formulating AI strategy, building an appropriate organizational culture, and defining the roles of employees and AI in the decision-making process.

Therefore, a scientific problem arises – to develop a systematic approach to the transformation of organizations into “AI-First” companies, which would combine conceptual, methodological and applied aspects of this process. Solving this problem involves studying the structure, principles and mechanisms of functioning of AI-First organizations, analyzing international and Ukrainian experience, as well as forming practical recommendations for adapting this model to the conditions of the Ukrainian economy. It is the need to overcome this gap between the theory and practice of implementing AI that determines the relevance and scientific significance of this study.

Literature review. A number of recent works focus on formalizing the concept of “AI-First” as a strategic orientation of a company that places AI at the core of the business model, products and operations. Ruokonen and Ritala [1] describe archetypes of AI-First strategies and highlight key success factors, from access to data to organizational capabilities to execute AI initiatives. This line of research emphasizes that an algorithm alone without an appropriate organizational infrastructure provides limited benefit.

Systematic reviews and empirical studies show that AI integration changes employee roles, decision-making mechanisms, skill requirements, and learning cultures in organizations. Murire [2] summarizes the evidence base on how AI projects generate cultural changes (shifts to experimentation, continuous learning, human-in-the-loop practices), but also highlights the risks of resistance and ethical challenges.

Recent research in Technovation and related journals examines how incumbents build AI capabilities through organizational learning, dynamic capabilities (sensing, seizing, reconfiguring), and cross-functional collaboration models. Ritala, et al. [3] propose a framework for incremental knowledge acquisition, data investment, and MLOps infrastructure as key elements of the transition from pilots to scale.

Practical studies and reviews in recent years have focused on MLOps practices (CI/CD for models, drift monitoring, model registries, feature stores) as a mandatory infrastructure for AI-First companies. The work by Chatterjee, et al. [4] also emphasizes the role of leadership and microfoundations (individual skills, behaviors) in ensuring the effective implementation of AI tools in business processes. A growing number of reviews document the set of technical and organizational practices required for the stable operation of models in production.

In parallel, a significant body of literature is devoted to AI risk management issues: transparency, accountability, data security, avoiding bias, and regulatory compliance. The proposed governance frameworks reflect the need to combine technical measures (access control, logging, prompt/content filter testing) with procedural and organizational practices (roles, policies, escalations) [5, 6]. This is a key component for stakeholder trust and scaling AI initiatives.

Recent analytical works (economic reviews and empirical articles) are starting to show mixed results on how investments in AI affect the productivity and financial performance of firms. The gains are often linked to a systemic approach (data + infrastructure + organizational changes) [7, 8]. While single technical implementations rarely provide sustainable competitive advantages [9, 10]. This strengthens the argument that “AI-First” is not just a technology, but a holistic organizational transformation [11].

While recent publications are rapidly accumulating knowledge about individual elements of the AI transition (strategy, MLOps, governance), the following gaps are noticeable: not enough applied methodologies that describe the transformation of large or conservative industrial companies in a step-by-step manner; a lack of research that combines technical practices with an analysis of corporate culture and role changes in the long term; and few works that focus specifically on national contexts (regulatory, labor market, ecosystem readiness). These gaps justify the need for applied research and methodologies that take into account local characteristics – this is where the contribution of this study lies.

Purpose. The purpose of the article is to form a scientifically based concept of the transformation of organizations to the “AI-First company” model and to develop a methodology that ensures the transition from the experimental use of artificial intelligence to its integration into the strategic, operational and cultural core of the business. Additionally, the goal is to determine the features of the development of the AI-First companies’ ecosystem in Ukraine, analyze key examples of such organizations and establish the conditions under which national enterprises can make an effective transition to the “AI-First” paradigm. To achieve this goal, the following research tasks were set: to analyze theoretical approaches to defining the essence of a company with a priority of artificial intelligence and the differences between traditional, AI-enabled and AI-First organizations; to investigate current trends in the global transformation of business models under the influence of artificial intelligence and highlight key examples of international AI-First companies; to develop a conceptual model of an AI-First organization that reflects the relationship between management levels, processes, technologies and cultural mechanisms; to formulate a methodology for the transition of traditional companies to the AI-First model; to identify the criteria for choosing between modernizing existing processes with AI and completely redesigning them according to the “AI-First” principle.

Methods. The research methodology is based on a combination of systemic, analytical and comparative approaches to studying the processes of business model transformation under the influence of artificial intelligence. The research was implemented in three interconnected stages: theoretical and conceptual, analytical and applied. The reliability of the results is ensured by triangulation of methods, a combination of qualitative analysis with quantitative data (statistics of the IT specialist market, investments in the AI-sphere, the share of automated processes).

Thus, the research methodology is based on a comprehensive approach that combines theoretical modeling, analysis of practical experience and synthesis of manage-

ment decisions aimed at forming a methodology for the transition of organizations to the “AI-First” model.

Results. Over the past year, AI companies such as OpenAI, Anthropic, Databricks, and Jasper AI have catalyzed fundamental changes in the business landscape. For example, Aragon AI, a nine-person startup, reached \$10 million in annual revenue in just two years [12]. In another case, Jasper AI, a company with a team that could fit in a single meeting room, reached \$100 million in annual recurring revenue in a year [13]. These examples are not exceptions, but the first signs of a profound market transformation.

The essence of artificial intelligence goes far beyond the popular term. It is a new way of building businesses, where AI capabilities shape how people are organized, resources are allocated, and decisions are made [14].

Companies that have mastered this approach are not just accelerating – they are transforming themselves, achieving fundamentally higher quality in everything they do.

While some companies are just experimenting with AI within the old rules, others are completely rebuilding their business around it. They are not adding AI to the structure, but making it the structure itself, its operational center. This changes everything, and most importantly, the role of humans.

AI takes over the execution of tasks, the development and implementation of strategies. Humans move to a higher level: they become the ones who train and guide AI, interpret its results, make key decisions and bear the final responsibility.

An AI-First company is an organizational paradigm where AI is not an add-on tool, but rather a fundamental part of the strategy, operating model, and corporate culture. An AI-First company represents a radical departure from traditional organizational forms. Unlike enterprises that use AI as an auxiliary tool to optimize existing processes, AI-First organizations design their architecture around AI capabilities from the start (Fig. 1).

An AI-First approach means integrating AI into the core of strategy, operations, and products. It involves a transformation from command (imperative) interaction (users explicitly tell the computer what to do via menus) to intention (declarative) interaction (users formulate a goal, and AI determines the steps to achieve it). Such companies are characterized by continuous learning and evolution, adaptive business models and a culture of experimentation. AI-First companies transform traditional hierarchical models into network structures. Instead of rigid vertical relationships, adaptive systems are

formed, where human experience and AI capabilities are combined into problem-oriented networks.

The AI-First organization structure includes three distinct levels: a strategic decision-making level, an operational coordination level, and an executive level. At the first level, top management and AI systems collaborate on a long-term vision. At the second level, hybrid teams of managers and AI supervisors are formed to optimize cross-functional processes. At the third level, autonomous AI agents perform routine tasks while humans focus on creative problem-solving.

AI-First companies view data not as a byproduct of operations, but as a strategic asset for monetization. They use artificial intelligence to analyze vast amounts of data and uncover valuable insights that can be sold to other organizations.

Thanks to AI technologies, such companies are able to offer hyper-personalized products and services at scale. AI algorithms analyze individual preferences, habits, and behaviors of consumers, creating a unique experience for each customer.

The fundamental difference lies in large-scale automation to achieve efficiency and scalability. AI-First organizations systematically replace human labor on repetitive tasks with AI systems, if the quality meets established standards.

Instead of traditional AI-First functional separation, companies are implementing AI-Pod models – cross-functional teams optimized for AI workloads. These autonomous units include data scientists, machine learning engineers, product managers and subject matter experts. Alongside the AI-Pod, AI competency networks are being created – functional skill groups organized around specific AI expertise that span across AI-Pods to facilitate knowledge sharing and functional excellence.

The transition to an AI-First paradigm requires fundamental changes in organizational culture. This includes creating a data culture where every employee is encouraged to be an “AI-worker” and the use of AI becomes a natural part of the work process. AI-First transformation requires a structured approach to change management that considers not only technological implementation, but also cultural and human aspects. Effective implementation involves transparent communication about changes in roles and work processes.

AI-First companies position artificial intelligence as infrastructure, not a tool. This means that business plans foresee that AI will generate insights, make predictions and perform tasks, forming the basis for competitive advantage and innovative development.

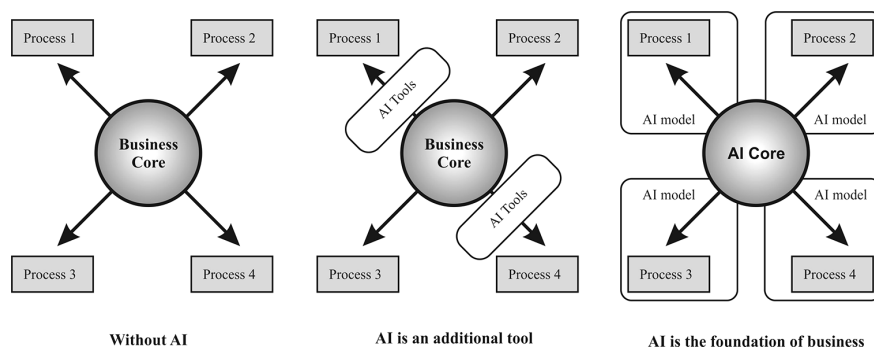


Fig. 1. Company models depending on the role of AI

The concept of an AI-First company represents a fundamental organizational innovation that requires re-thinking traditional approaches to strategic management, organizational design and corporate governance in the context of digital transformation of the modern business environment (Table 1).

Consider a standard financial transaction like paying a supplier. This clear and standardized process is a great example to demonstrate the difference between two approaches: a simple transformation, where AI only improves an existing process, and an “AI-First” approach, where the entire process is built around artificial intelligence from the beginning.

The standard workflow for paying a supplier includes the following steps:

1. Receipt and registration of an invoice.
2. Verification of details and details.
3. Reconciliation of the invoice with the purchase order.
4. Internal approval procedure.
5. Formation and planning of payment.
6. Archiving of primary documentation.

In an “AI-enhanced” approach, the basic process structure remains the same, but AI is integrated at key stages to improve efficiency. For example, intelligent systems automatically read and verify invoice data, and dedicated AI models detect discrepancies with orders. Approvals can be granted automatically based on analysis of previous decisions, and payment terms are optimized for efficient cash flow management.

In contrast, the “AI-based” approach does not improve the old process, but completely rethinks it, making artificial intelligence the central executor. In such a model, AI systems proactively analyze completed orders and work reports to independently determine which payments should be made.

Payment is initiated autonomously based on system verification, and AI itself takes on the continuous management of relationships with suppliers: monitors the quality of their work, optimizes payment terms, and resolves non-standard situations.

In the era of digital transformation, the concept of an “AI-centric company” is evolving from a buzzword to a real business model. However, a key question arises: can existing companies successfully undergo such a profound transformation, or is this approach only effective for businesses built around AI from the ground up?

An “AI-First” company is an organization that builds its entire operations around artificial intelligence, unlike those that use AI only in a few places. In such a company, key elements – decision-making, business processes, and team structure – are shaped by and in line with AI logic.

Employees act as coordinators of AI agents and feedback providers for continuous improvement, and systems dynamically adapt in real time.

Artificial intelligence is deeply integrated into product development, customer interactions, and the business model itself. Becoming an “AI-First” company can be done either by building it from scratch using this principle, or by completely transforming an existing business.

Companies that integrate AI are expected to see a comprehensive increase in operational efficiency. They tend to operate with smaller teams, and their key value is determined by the speed with which analytical insights from continuously processed data are translated into concrete actions.

This transformation is not limited to the world of technology giants like Google, NVIDIA, or OpenAI, for whom technology is the end product. It is also actively embracing progressive companies from traditional industries. These players are using technology as a key competitive advantage, aggressively investing in the development, acquisition, and implementation of innovations.

Their goal is to fundamentally rethink their core businesses in sectors such as finance, retail, logistics, manufacturing, or healthcare (Table 2).

We have identified a number of technologically advanced foreign companies that are currently undergoing a deep transformation to become “AI-First”. They are comprehensively reviewing their internal processes, corporate culture, and customer interaction models.

Table 1

The difference in the role of AI in the strategy, operations and culture of companies

	Strategy	Operating model	Corporate culture
AI-First company (artificial intelligence is the foundation)	The entire business model, products, services, and operations are built around the capabilities of artificial intelligence	Key processes are automated and optimized by AI models	The staff is focused on AI, key roles are data scientists, ML engineers, and AI product managers
	AI is the “engine” of business, without which a company cannot function	Decision-making, personalization, forecasting, risk management – everything is implemented through AI	A culture of experimentation, rapid learning, and data-driven decision-making
A company where AI is an additional tool	AI is used to improve the efficiency of individual processes, but is not the basis of the business	Individual departments or functions have AI tools (e.g., marketing automation, sales analytics)	AI expertise is isolated, often in the form of a separate lab or R&D department
		The basic logic of business remains traditional, decisions are made by people	The culture is changing gradually, most employees are not involved in AI processes
A company without AI	All processes, products, and solutions are built on human experience, manual operations, and classic algorithms	Lack of automation, all decisions are made by people	Classic hierarchy, lack of AI expertise
		The data is used for reporting, but not for training models	A culture of stability, a minimum of innovation

Table 2

A sample of companies that primarily use artificial intelligence

Company	Transformations primarily based on AI
Visa	End-to-end implementation of AI in all business processes: fraud detection, payment authorization, real-time analytics and other key areas
Tesla	The technology that underlies both the products themselves (cars) and the processes of their creation (production) and use (customer experience)
Intuit	The company’s strategy includes several key areas: fundamentally rethinking core processes (such as TurboTax and QuickBooks), using generative AI to engage with clients and advisors, and fostering a culture of continuous experimentation
Morgan Stanley	Transformation of management business lines and consulting services based on artificial intelligence
Walmart	The company is embracing AI across the board, using it to modernize operations from supply chains to pricing. At the same time, generative AI is being used to take customer service to the next level, and the integration of copilots is helping employees work more efficiently
GE HealthCare	A radical transformation of areas such as clinical imaging, diagnostics, and the functioning of medical devices. This approach involves a fundamental review of both the products themselves and the services provided on their basis
Nestle	Transforming business processes in product research and development, manufacturing, and marketing using artificial intelligence. In-house development of an artificial intelligence platform

These organizations have already moved beyond pilot projects and moved to implementing industrial AI systems, retraining personnel, and adapting management structures. For them, AI is a key strategic asset, not an auxiliary function. Their experience proves that success in implementing AI depends not only on technology and data, but also on their deep integration with culture, people, and business processes.

Regarding Ukraine, as of 2023, there were 243 active companies in the field of artificial intelligence in the country [15]. However, the full-scale invasion has made its own adjustments to the development of the AI ecosystem. According to the analytics of the DOU.ua portal for the period from February 2024 to February 2025, the total number of specialists in the IT industry remained almost unchanged – at the level of up to 300 thousand. That is, today Ukraine is among the top ten countries of the European Union in terms of the number of IT specialists (Fig. 2).

Despite the challenges, the industry continues to be one of the key ones for the country’s economy. Ukraine is actively working on a strategy for promoting AI and formulating relevant laws for effective control. The initiator of projects in the AI sphere in Ukraine is the Ministry of Digital Transformation. The state’s goal is to enter

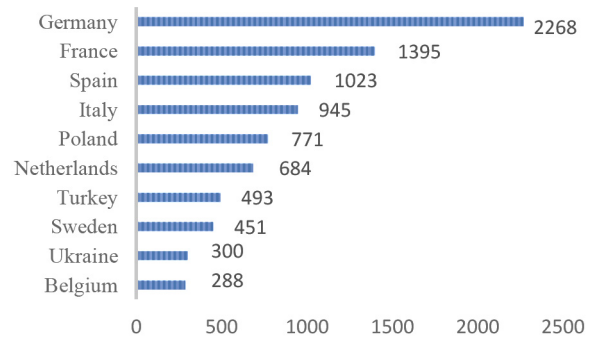


Fig. 2. Number of IT specialists by country according to Eurostat data as of 2024 (in thousand people)

the top 3 countries in the world in terms of development and integration of AI in the public sector by 2030 [16].

Ukraine has already launched Diia.AI, the world’s first state AI assistant based on the Google Gemini 2.0 Flash model. In the first days of operation, more than 35,000 Ukrainians used the service, which is capable of not only answering questions but also providing state services directly in chat [17]. Ukraine also presented its national LLM, focused on the needs of the state, business, and society. Its own LLM should strengthen national security, as data will be stored and processed in Ukraine, and the model itself will become the foundation for the creation of thousands of Ukrainian-language AI products.

The country is characterized by the presence of AI-native startups and traditional companies with AI transformation [18, 19]. There are still a limited number of fully-fledged “AI-First” organizations (companies with artificial intelligence as a priority). The most illustrative examples of the AI-First approach are Grammarly and People.ai.

Grammarly was valued at \$13 billion in 2021, making it the most valuable startup with Ukrainian roots. In May of this year, Grammarly raised a record \$1 billion for the Ukrainian tech sector. Part of these investments helped finance two significant acquisitions: the Coda collaboration platform and the Superhuman premium email app.

The company is currently transforming from a single-product grammar checker to a multi-agent AI platform. The company’s management plans to change its name to better reflect its evolution from grammar correction to an ecosystem of AI tools. The planned rebranding, driven by the transition from a single-product identity to a multi-agent artificial intelligence platform, is one of the key transformations in the company’s history.

This strategic transformation is a clear example of the company’s transition to an “AI-First” model, in which artificial intelligence becomes the basis for creating value, personalizing user experiences, and automating communications. Thanks to the new architecture, Grammarly is gradually transforming into an intelligent platform for managing written interaction, where AI agents not only correct text, but also analyze context, style, emotional tone, and professional communication standards.

In addition, the company is actively investing in the development of its own language models and learning mechanisms on corporate data, which allows it to maintain competitive advantages over global giants. In the future, such a strategy may make Grammarly the first Ukrainian world-class technology brand that has fully implemented an ecosystem approach to artificial intelligence.

People.ai is not just a CRM system with additional features. It is a platform whose architecture is designed from the very beginning to solve business problems with the help of artificial intelligence, which fully corresponds to the company's AI-First definition. It transforms "raw" communication data into structured information and predictive insights. Its core value and functionality are built around the collection, analysis and use of data with the help of artificial intelligence to optimize sales and marketing processes.

Thanks to this architecture, People.ai provides automatic integration of data from various sources – email, calendars, CRM systems and communication platforms – which allows you to form a single analytical picture of customer interactions. The system not only records events, but also offers recommendations for improving sales efficiency, identifies priority deals and predicts the probability of their closure.

In the future, the company is developing the direction of "AI Sales Copilot", within which artificial intelligence acts as an assistant to the sales manager, helping to make informed decisions in real time. This approach does not simply automate operations, but creates a new model of customer relationship management, in which data, algorithms and analytics form the basis of strategic business development.

Another well-known Ukrainian IT product company, MacPaw, which develops software mainly for macOS and iOS, announced a complete reboot of the company in September 2025, launching the "MacPaw AI Strategy 2025–2026", which turns it into an AI-First company. It deliberately made part of the strategy public in order to attract the best AI specialists from Ukraine and the world to work on such ambitious tasks. The company clearly defined that from now on, every new and existing product will be created with AI at the core, and not as an additional feature. The central element is not a chatbot, but an intelligent layer that will unite all MacPaw products. Its task is to understand the user's context, accumulate experience and act as the "nervous system" of the ecosystem, while maintaining privacy and security.

The success of these pilots will determine whether AI realizes its potential as a disruptive force or remains a promising development.

Most often, experiments are launched by IT departments to test the technical ability of the technology to solve local problems. However, this approach lacks the systematicity and strategic vision necessary for deep company transformation. In view of this, teams exploring AI are advised to focus on five main areas of action: set a time frame for innovation, synchronize AI strategy, avoid common mistakes, select and catalog processes, and become a leader of team collaboration.

First, you need to make sure that the allocated time is enough for the entire cycle: from testing and development to launch and analysis of results. It is important that the division's plan does not contradict the overall company strategy and fits into the defined innovation framework. You need to decide which business processes will become a field for experiments and determine the approach: either you strengthen an existing process with AI, or create a new one, the basis of which is AI. Here you need to restrain the desire to start too many projects at once or drag out the experimentation phase without

determining the further course of action. It is important to build a strong partnership with HR and IT, but leave the leadership of the AI initiative behind you. The synergy of these three teams will allow you to achieve results that no division can achieve alone.

We have developed a methodology for transforming companies into "AI-First" organizations that systematically covers five key aspects: culture and strategy, people, business processes, technology, and data and knowledge (Table 3).

The developed methodology involves a systematic transition from the fragmented use of artificial intelligence to the full integration of AI into all levels of the organization's activities, when artificial intelligence becomes the core of decision-making, process optimization, and value creation.

At the first level of transformation, an AI-oriented strategy is formed, which defines the vision, goals and indicators of the effectiveness of using artificial intelligence. Within this direction, the company forms a strategic roadmap for the transition to the AI-First model; creates internal values focused on experimentation, innovation and data-based learning; introduces data-based leadership that supports decision-making based on analytics, not intuition. The culture of the organization should promote trust in technology and openness to change.

According to modern research, companies that create an "AI mindset" at the early stages demonstrate faster scaling of innovative products [21, 22].

The second direction involves the formation of interdisciplinary teams, where data analysts, engineers, product managers and domain industry specialists work together. The main tasks of this stage are: developing AI competence at all levels of management (not just technical specialists); creating a system of retraining personnel and training on the ethical use of AI; forming internal competence centers that accumulate knowledge and best practices. The human factor is critical: without changing management skills and thinking, even the best algorithms do not produce a sustainable effect.

The third element of the methodology is aimed at rethinking business processes through the prism of automation, analytics and autonomous decision-making. Each process is assessed for its automation potential. Processes that can be rebuilt from scratch, rather than just optimized, are identified.

A system of pilot AI projects with clear metrics (accuracy, ROI, adoption rate) is being implemented. At this stage, the organizational capacity to integrate the results of experiments into ongoing activities is being formed.

The choice between whether to improve an existing process with AI or to rebuild it according to the principle of "AI-First" goes far beyond the technical issue. It is, in essence, a strategic decision that must take into account the company's business goals, its technological limitations and personnel qualifications. Table 4 describes the logic applied to this decision. The logic is a balance between risk and potential: the company assesses whether it will bring more benefit from gradual improvement of the existing system or a radical transformation with support for artificial intelligence.

The technology direction covers the creation of a technological foundation that ensures the development, testing, deployment and monitoring of AI models. Key

Methodology for transforming into an “AI-First” company

Aspect	Stage	Stage content	Stage results
Culture and strategy	Vision and strategic value hypothesis	Formalize how AI creates economic impact in 3–5 priority scenarios (growth, efficiency, risks). Anchor these in a strategic map of goals and KPIs	AI strategy manifesto; value and risk map; AI governance framework; target AI Operating Model; 12–24 month roadmap
	Governance model (AI governance)	Roles, decision rights, risk escalation, Responsible/Trustworthy AI policies (transparency, security, non-discrimination), aligned with regulatory requirements	
	AI Operating Model	Strategy becomes a portfolio of cases, budgeting, team design, model lifecycle, and feedback mechanisms between business and technology	
	Cultural mechanisms	Experimentation (demos, retrospectives), evidence-based decision-making standards, a reward system for learning initiatives, and reuse of artifacts	
People (organizational capabilities)	Roles and competencies	Define a skills matrix for business roles (AI product manager, process owner), technical (DS/ML, MLOps, data engineer), control (model risk, security, ethics), and line “AI users”	Competency matrix; curriculum; pod/CoE organizational design; change management plan and adoption metrics
	Development routes	AI literacy programs for all; in-depth tracks for critical roles; mentoring and internal communities of practice	
	Team design	Cross-functional AI pods tied to business value; CoE (center of expertise) for standards and platform; built-in risk management roles	
	Change management	Stakeholder map, change narrative, two-way feedback channels; user adoption and performance metrics	
Business processes (reengineering for AI)	Case selection	Portfolio through the prism of value/viability/data readiness/risk. Start with 3–5 “quick wins” and 1–2 strategic hard cases	Portfolio and prioritization; process maps; operational playbooks; set of KPI/OKRs by case
	Process redesign	Integrate AI into critical decision points, redefine the roles of humans and models (Human-in-the-Loop/On-the-Loop), and establish SLAs for quality and response time	
	Operational artifacts	As-is/to-be process maps, escalation policies, exception playbooks, front- and back-office instructions	
	Measurability	For each case – business metrics (revenue/margin/cost/risks), operational (TAT, FTR), models (AUC, F1, latency, drift), user acceptance	
Technologies (platform and engineering)	Reference architecture	Integration layers with business systems, feature service (feature store), experiment management, model registry, CI/CD for models (MLOps), quality/drift monitoring, security and secrets	Approved architecture; minimal AI platform; catalogs of services and templates; security and operational policies
	Modularity and compatibility	LLM agnostic, on-premises/cloud deployment, API gateways, agent orchestration, A/B testing instrumentation	
	Reliability and safety	Access control, logging, leak protection, prompt/content filtering vulnerability testing, SRE practices for AI services	
	Engineering standards	Pipeline templates, reproducibility requirements, model documentation, “responsibility maps” between the business and the platform	
Data and knowledge	Data management	Data catalogs and ownership schemes, data quality and lineage, privacy and localization policies, access standards and versioning	Data catalog and owners; quality/access policies; vector knowledge core; data economics and reuse metrics
	Preparation and enrichment	Collection/cleansing pipelines, synchronization with domain systems, feature creation, data drift assessment	
	Knowledge management	Corporate taxonomies, vector repositories for semantic search, verified sources for RAG, knowledge validation process by subject matter experts	
	Data as an asset	Data economy models (TCO/ROI), metrics for reuse of datasets and features, legal agreements for sharing with partners	

components are: MLOps infrastructure that guarantees a continuous life cycle of models (CI/CD, model registry, feature store, monitoring); cloud platforms and containerization (for example, Kubernetes, AWS SageMaker, Azure ML, or local GPU servers); integration of API solutions for communication between analytical modules and business systems (ERP, CRM, SCM). The technological component must meet standards of security, reliability and ethical data use.

The technology direction covers the creation of a technological foundation that ensures the development, testing, deployment and monitoring of AI models. Key

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The fifth direction of the methodology is dedicated to data management and the creation of mechanisms for accumulating organizational knowledge. A single strategy for

Logic of selection by criteria

Criterion	Improve with artificial intelligence if...	Rebuild with AI first if...
Strategic importance and impact	The goal is to incrementally improve existing performance or achieve quick tactical results	The process is critical to gaining competitive advantage; the goal is radical transformation or the creation of new business models
Organizational readiness and risks	The company is risk-averse, has limited resources for change, or only needs minor staff training	The company has a high readiness for innovation, takes significant initial risks, and has developed change management competencies
Efficiency of the current process	The existing process is functioning stably, but has potential for optimization due to the presence of “bottlenecks”	The existing process is inefficient, outdated, or unable to meet future business requirements
Process execution frequency	The process is performed infrequently, or its impact in each individual case is extremely high	The process is high-frequency, plays a key role in business transformation, and has high profitability potential
The potential contribution of AI	The role of AI is to automate individual stages, improve forecasting, or provide point-by-point analytical conclusions	The role of AI is to fundamentally change the way we achieve a goal, unlock new opportunities, or completely replace large blocks of work
Data availability and potential	High-quality, structured data is available to train models based on existing process steps	There is an opportunity to attract and effectively use new, previously unavailable data sources
Complexity and interconnections	The process is deeply integrated into legacy systems, making radical changes too risky and disruptive	The process is relatively isolated, or its relationships with other systems also benefit from a comprehensive restructuring
Modularity of the existing process	The existing process has a modular structure that allows point-by-point integration of AI into individual segments with minimal impact on the system as a whole	The modularity of the process allows for its complete but gradual replacement, sequentially updating each module to a version built around AI
Resource allocation	The approach is optimal under conditions of limited resources (budget, time, talent) as it allows for faster implementation with potentially lower investment	The approach requires significant investment and a long development time, and also involves the possibility of attracting highly qualified AI specialists

working with data is being formed: collection, cleaning, storage, labeling, access and protection. A data catalog and metadata system are being introduced. A model training cycle is being implemented, taking into account data drift. Data is not considered a by-product, but an asset that creates value, similar to financial or material resources.

The five directions of the methodology form a dynamic system in which the development of each component reinforces the others. For example, the implementation of MLOps without changing the culture and skills of employees does not give results; data management without a clear AI strategy is of no value; changes in processes should be accompanied by the development of competencies and technological means.

Thus, the methodology involves a gradual, iterative transition – from vision formation to infrastructure creation, staff training and deployment of AI models at all levels of the company’s activities.

The proposed model can be used: to assess the readiness of the organization to implement AI; as a transformation roadmap for IT companies, banks, energy and industrial enterprises; to adapt state and corporate digital transformation strategies focused on intelligent management systems.

In the context of Ukraine, this methodology is especially important, as it allows you to combine technological modernization with the development of human potential, forming a sustainable national ecosystem of “AI-First” companies.

Conclusions. As artificial intelligence becomes an integral part of corporate transformation, strategic decisions regarding its application will determine future market leaders. The presented methodology offers a

structured, cross-functional approach that provides business units with tools for independent navigation in this process. By combining experimentation with strategic product development and clearly distinguishing where it is worth only improving processes with the help of AI, and where – rebuilding them from scratch, organizations can make a confident transition from local pilot projects to a large-scale impact on the entire business. Although this path is not easy, such an approach makes it quite realistic and achievable.

Further development in this direction should be directed to empirical case studies of Ukrainian companies that implement AI solutions in production and management processes; development of industry methodologies adapted to the specifics of the energy, financial, oil and gas and defense sectors.

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Трансформація бізнес-моделей: методологія переходу до парадигми «AI-First»

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Мета. Надати концептуальну основу й чітку методологію для перетворення бізнесу на компанію із пріоритетом штучного інтелекту (AI-First), допомогти знизити ризики під час упровадження проєктів із штучного інтелекту та ефективно перевести їх із експериментальної фази у промислову експлуатацію.

Методика. Використані методи: порівняльного аналізу – для демонстрації фундаментальної різниці між двома підходами до впровадження штучного інтелекту; аналізу прикладів і вторинних даних – для ілюстрації теоретичних положень і показу, як трансформація відбувається на практиці; теоретичного аналізу й узагальнення – для визначення ключових понять і формування концептуальної бази дослідження.

Результати. Дано чітке концептуальне визначення AI-First компанії як організації, де штучний інтелект (AI) є не додатковим інструментом, а фундаментальною основою стратегії, операційної моделі й культури. Дослідження виділяє її ключові характеристики. Показано, що на ринку України існують AI-native стартапи та традиційні компанії, що проходять AI-трансформацію, однак кількість повноцінних AI-First організацій поки що обмежена. Указано на чіткий фреймворк, що допомагає зробити стратегічний вибір між двома підходами до впровадження штучного інтелекту. Розроблена комплексна методологія для перетворення компаній на організації із пріоритетом штучного інтелекту.

Наукова новизна. Систематизовані відмінності між підходами «удосконалення за допомогою штучного інтелекту» й «побудови процесів навколо штучного інтелекту» як двома різними парадигмами цифрової трансформації. Запропонована концептуальна модель AI-First компанії, що інтегрує штучний інтелект у всі рівні управління – від стратегічного до операційного. Здійснений порівняльний аналіз компаній, що проходять шлях до AI-First трансформації. Дослідження вводить у науковий обіг новий підхід до оцінювання готовності підприємства до AI-трансформації через призму культури, процесів, технологій і даних.

Практична значимість. Створення прикладної методології трансформації компаній у формат «AI-First», яку можуть використовувати керівники для розробки власних стратегій цифрової модернізації. Розроблені критерії вибору між удосконаленням процесів за допомогою штучного інтелекту та їх повною перебудовою забезпечують управління інструменти для прийняття обґрунтованих стратегічних рішень.

Ключові слова: *штучний інтелект, AI-First компанія, цифрова трансформація, бізнес-модель*

The manuscript was submitted 03.09.25.