

# The World of Software 2036

Strategic Foresight for Business  
and Policymakers

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and Policymakers

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# Executive Summary

## The future belongs to those who shape it today.

The software industry is undergoing structural transformation. Technologies that were considered science fiction two years ago are now being used in production, and business models that were taken for granted for decades are being undermined within just a few years. Market structures are being renegotiated, and the global competition for technological leadership has reached a new level.

The question of which skills, business models and technologies will shape the software industry in 2036, and how companies will remain competitive amid these upheavals, is more open—and urgent—than ever before. It also arises in a political environment that seemed unthinkable just a few years ago. Geopolitical fragmentation, moves towards decoupling and the pressure for digital sovereignty are no longer abstract political concepts, but day-to-day operational realities. To make the right strategic decisions today, companies need to take a strategic view of the future.

Based on a qualitative survey of experts and executives from the software industry and adjacent sectors, this report highlights possible developments and future scenarios, and outlines strategic areas for action for companies and policymakers to guide decisions today.

### Overview

The chapter ↗»Humans and the Social Dimension« describes how requirements for education and individual skills are shifting, and how direct social relationships and trust will become central in the future.

↗»Organisations and Corporate Structures« shows which processes, organisational structures and capabilities will form the foundation for the future competitiveness of software companies.

The chapter ↗»Market and Business Models« illustrates how pricing and licensing models, software products and services, technologies and solutions will change, and where companies can gain competitive advantages in the future.

Finally, the report outlines fields of action for both ↗companies and ↗policymakers, showing how they can position themselves today for future success.



## Key Findings

- **AI disrupts business models**

Business models that rely on human labour, such as body leasing, hourly IT services, FTE outsourcing and offshore body shopping, are under pressure.

- **Customer understanding, proximity, trust and social skills are becoming central**

Translators are needed between business, IT, data, regulation and people. Customer, business and market proximity are becoming competitive advantages. Trust can no longer be treated as a given but must be actively created, secured and demonstrated.

- **AI agents fundamentally change the role and nature of software**

Software itself becomes an entity that performs work, orchestrates AI agents and executes business processes. The decisive factor is therefore the ability to translate business outcomes into agent-capable architectures.

- **Customers will increasingly pay for measurable results**

Customers are increasingly buying results instead of software: an optimised supply chain, a remediated vulnerability, a deployed feature or a successful compliance audit. Outcome- and value-based pricing is therefore gaining importance, especially in B2B business.

- **Domain knowledge becomes a competitive advantage**

Domain knowledge, specialisation and expertise in specific industries and application areas are becoming more important. The key is the connection between domain knowledge and an understanding of AI, as pure coding becomes less distinctive, while industry, process and customer understanding become more important.

- **Data becomes the foundation of new business models**

Data is the basis for proving effectiveness, further developing business models and continuously improving solutions. It is not just the possession of data that matters, but its quality, contextualisation, governance and responsible use.

- **Companies must scale AI from pilot projects to strategic capability**

Pilot projects and individual use cases are not enough: companies must systematically integrate AI into organisations and processes, build data and agent platforms, clarify governance and enhance organisational adaptability.

- **Policymakers should realign education, regulation, infrastructure and European sovereignty**

According to respondents, there is a need for broad AI and tech skills, leaner and outcome-oriented regulation, targeted investment in scalable projects and solutions, and the development of European AI infrastructure, foundation models, inference capacity and industrial software.



## Methodology

The study report is based on qualitative interviews with executives and decision-makers from companies with different areas of focus, including software services, software products, internal software departments and other related areas. The survey period ran from calendar week 13 to calendar week 19 of 2026.

The report categorises trends and developments based on the interviews conducted. The aim of the study is to highlight key patterns, recurring observations and emerging trends from the discussions; the results are therefore not statistically representative but reflect the assessments and experiences of the respondents. The report does not represent the position, evaluation or expert assessment of Bitkom or the relevant working group.



# Inhalt

	<b>Executive Summary</b>	4
<b>1</b>	<b>Humans and the Social Dimension</b>	8
	1.1 Education and Skills	8
	1.2 Trust and Relationships	10
<b>2</b>	<b>Organisations and Corporate Structures</b>	11
	2.1 AI-Driven Software Development	11
	2.2 Compliance and Sovereignty	12
<b>3</b>	<b>Market and Business Models</b>	13
	3.1 AI Orchestration and Agentic Systems	13
	3.2 Ecosystems and Platforms	14
	3.3 Outcome- and Value Based Pricing	15
	3.4 Data-Driven Business Models	16
	3.5 Domain Knowledge and Vertical Specialisation	17
<b>4</b>	<b>Strategic Action Areas for Companies</b>	18
	4.1 Data Availability and Quality	18
	4.2 AI Transformation and Scaling	19
	4.3 Culture and Leadership	20
	4.4 Skills and Role Profiles	21
	4.5 Transformation of the Business Model	22
<b>5</b>	<b>Strategic Action Areas for Policymakers</b>	23
	5.1 Education and Training	23
	5.2 Effective and Efficient Regulation	24
	5.3 Sustainable Investments	25
	5.4 European Sovereignty	26
<b>6</b>	<b>Conclusion</b>	27
<b>7</b>	<b>Methodology</b>	28

# 1 Humans and the Social Dimension

How requirements and skills evolve at an individual and social level

The software world of the future will not only place new technical requirements on people; it will also change which skills people need and what collaboration in AI-influenced systems will be based on.

## 1.1 Education and Skills

The picture is as follows: the software world of the future demands not less human competence, but a different weighting of skills — human-AI collaboration, architecture, system and orchestration skills, data literacy, domain knowledge, judgement, responsibility and translation capabilities.

**Agility, adaptability and lifelong learning** form the essential skills needed to thrive in a software world continually transformed by artificial intelligence. »The most valuable human skill will be the ability to learn quickly, adapt perspectives and let go of the established.«

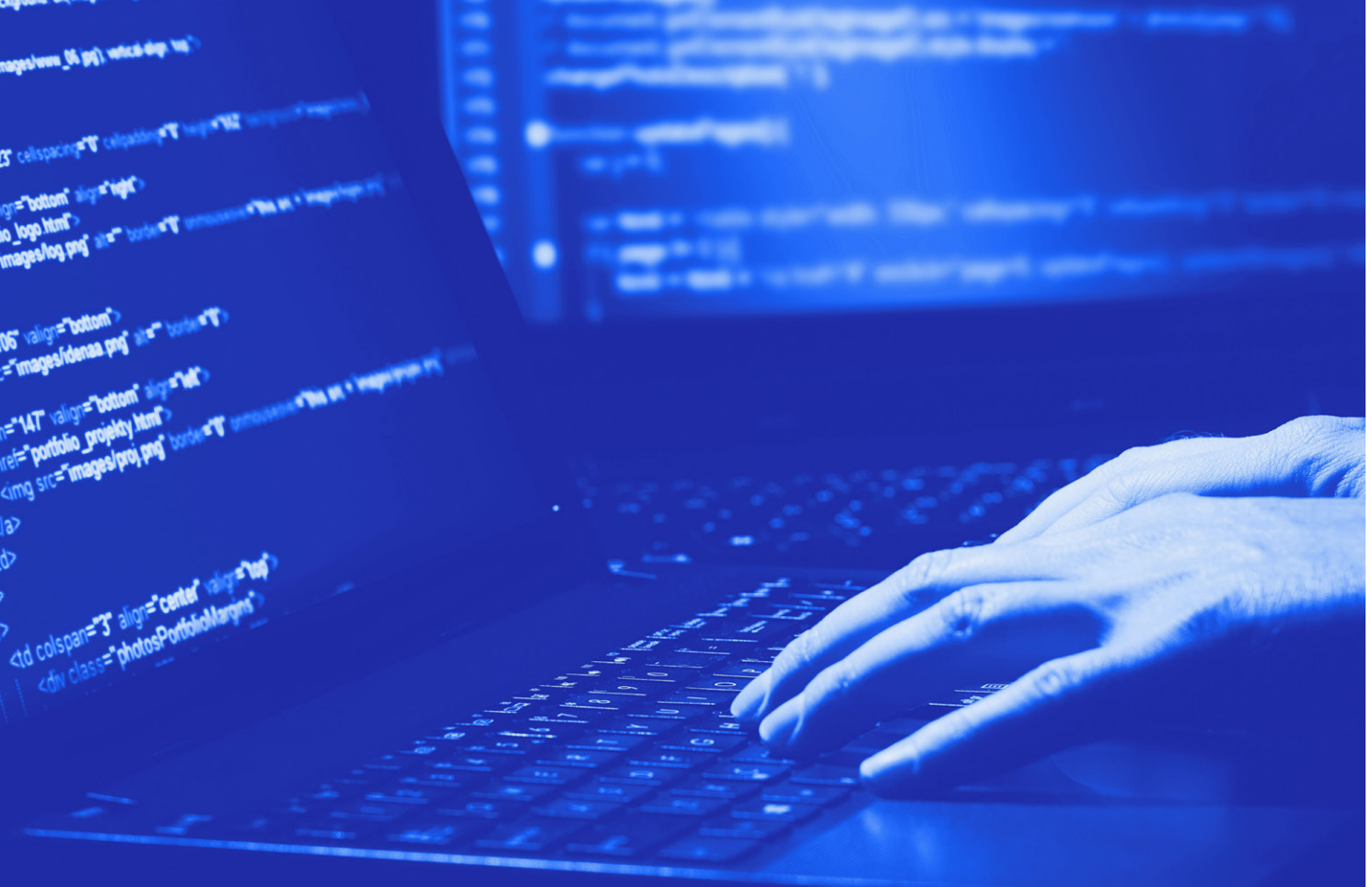
This shift is particularly evident in software development: traditional core skills such as manual coding may quickly lose significance or even become obsolete. The ability to continuously adapt to new technological possibilities, changing role profiles and dynamic work processes is moving to the fore. As skills and knowledge quickly become outdated, the ability to learn remains valuable.

AI agents can already generate code, tests, standard logic and programming languages on command in many areas. The human contribution is therefore shifting increasingly towards goal definition, architecture, context, quality and

responsibility. This increases the complexity and speed of typical tasks and work steps in software development. Skills such as **human-AI collaboration, judgement, the refinement of AI results, creativity, and strategic and systemic thinking** are coming to the fore.

**Architecture, system and orchestration skills** are becoming more important than mere execution, because complex systems made up of platforms, services and agents need to be designed so that they are stable, interoperable and secure. »Not traditional programming, but the design, training and orchestration of AI agent systems. Those who understand how to combine and control AI models purposefully will have the core skill of the industry.«

At the same time, traditional core skills are losing significance. This mainly affects tasks that are highly routinised, standardised or execution-oriented: pure tech know-how, tool operation skills and routinisable standard tasks lose their status as differentiating features. Specialisation in individual programming languages is also losing value; concepts, architecture and an understanding of objectives matter more than syntax. Traditional project management as a core skill — such as Gantt charts, burn-down charts, sprint velocity tracking and long waterfall cycles — is also losing significance.



Parts of today's database administration, as well as purely execution-focused UI/UX design and prototyping roles, are shifting towards AI-supported models.

**Data literacy** will be critical throughout the entire software development lifecycle: »[Critically questioning data, contextualizing it, and deriving well-founded product and management decisions from it.](#)« The amount of AI-generated data is increasing the need to interpret it critically and make it usable in relation to business goals.

**Responsible AI, compliance, trust, security, and governance** will become part of domain expertise as AI autonomy grows, with issues of liability, trust, security and governance becoming increasingly important.

An **understanding of domains, customers and users** will also be combined with AI literacy. People will increasingly act as translators between business, IT, data, regulation and people. Domain knowledge and systemic thinking form the human counterbalance to automation. When machines write code,

communication with stakeholders and translation between subject matter, regulation and technology become leadership tasks.

## 1.2 Trust and Relationships

While, at the individual level, skills requirements, role profiles and the ability to learn are shifting, trust is moving to the fore at the social level. Direct relationships, social skills and trust-based collaboration will become core skills and long-term assets in the software world of the future. As AI becomes more deeply integrated into software development, business processes and decision support, skills that AI cannot replicate are gaining importance.

»The greatest transformation does not lie in the technology itself, but in the interplay between people and technology and the impact they create together.«

Mareike Leopold, Global Head of People IT & Processes, Gerresheimer

**Social and relational skills** include the ability to listen and to build and maintain stakeholder relationships directly. They also involve bringing the right people together and creating trustworthy spaces for exchange and cooperation.

**Customer, business and market proximity** are also gaining importance. Customer proximity, business proximity, physical presence, local reliability and regional market knowledge are becoming competitive advantages in certain markets. Against this background, software providers are evolving into partners «with extensive technical expertise, enabling their customers to further develop their business with AI». Purely transactional provider relationships and tool vendors without business proximity are losing relevance.

**Trust** becomes the central prerequisite for successful action. The more interconnected and AI-supported systems become, and the larger and more disruptive value propositions become, the more distrust becomes part of the context. Trust can no longer be treated as a given but must be actively established, secured and demonstrated.

**Responsibility, judgement and governance skills** form the foundation for this. Pure technical implementation without responsibility, judgement, human legitimacy and transformation capability is insufficient. Explainability, security and regulatory compliance are becoming central trust anchors. To build trust, judgement, courage and a willingness to take responsibility are required. »In an increasingly networked and AI-supported world where distrust might grow, the knowledge and ability to build and secure trust will be indispensable.«

A »human, strategic and trust-based connection«, as well as the ability to »bring the right people together at the right time in trustworthy spaces that enable exchange and cooperation«, will be the basis for successful action in an AI-shaped future.

# 2 Organisations and Corporate Structures

How requirements and skills evolve at corporate and organisational level

How must companies adapt processes, roles, responsibilities, and governance models to a software world shaped by AI?

## 2.1 AI-Driven Software Development

Software development is changing fundamentally. Conceptual design, architecture, abstraction, review and feedback are becoming central skills in collaborative work with AI. This not only alters individual tasks in software development, but also the demands placed on organisations, processes and governance models.

Software development is becoming highly automated and AI-supported. AI agents are taking over routine tasks and parts of the software lifecycle — from requirements to implementation and deployment — while human approval remains relevant at appropriate points. Purely manual coding and testing are losing significance as core services; code itself is becoming a commodity. Standard logic such as CRUD endpoints, forms, database migrations and trivial unit tests is becoming less central to the human role.

Consequently, body leasing, hourly based IT services and traditional IT consulting for standard tasks such as test automation, code reviews and documentation are coming under pressure. Human coding factories and development pyramids, whose value relies on the volume of human labour, are losing viability. When an AI agent can take on the work of multiple developers, billing models based on headcount or hours come under pressure.

This also shifts who can develop and operate software solutions: domain experts can build production-ready solutions with AI-powered tools, not just simple no-code prototypes. In future, organisations will need to clarify which tasks AI agents handle, what tools and data access they receive, and where decision-making authority or approvals lie.

»I am optimistic about the software industry in 2036. If AI takes over the grunt work in future, we will hopefully have more time for what digitalisation often struggles with today: asking the right questions, making good decisions and finding solutions that are truly needed.«

Oliver Hehlert, Managing Director, Adesso Insurance Solutions

Accordingly, **systems thinking, agent orchestration, review and evaluation** are gaining importance as organisational skills. Development and design processes must be fundamentally aligned with the business value they are intended to create. **Domain expertise, customer understanding, agent-system engineering and outcome design** are therefore becoming crucial. The focus is less on individual technical execution and more on the ability to structure and translate business goals so that they can be transformed into measurable results by AI-supported systems.

## 2.2 Compliance and Sovereignty

As AI agents increasingly take over parts of the software lifecycle, control, traceability and clear responsibilities are becoming crucial. This is especially true in times of geopolitical fragmentation and in heavily regulated industries. Compliance and sovereignty have therefore become central organisational prerequisites for AI-driven software development.

**Compliance- and Sovereignty-by-Design** are becoming foundations not only for software systems, but also for organisations, their processes and their technical capabilities. These requirements do not affect individual technical decisions alone; they must also be structurally reflected in organisational, governance and development processes.

**Sovereignty skills and strategic control** are gaining importance as companies aim to maintain control over their AI systems and data. Sovereign and compliance cloud models are becoming more significant; questions of data storage, operation, access and control are central components of software and AI strategy. Local inference, local data and local governance are becoming relevant technical sovereignty options for European companies. »Geopolitical fragmentation (digital sovereignty, EU AI Act, etc.) drives regionally hosted, regulation-compliant software models. Especially in Europe, I see strong growth in this area. Companies want control over their AI systems and data.«

Data protection, transparency and human oversight can be leveraged as brand promises and trust advantages in this context. Compliance and sovereignty are therefore becoming not only regulatory requirements, but also potential differentiators for software systems and AI applications: »Those who natively provide compliance and data sovereignty outperform the generic providers.«

**Compliance-by-Design as an engineering and architectural skill** means compliance is not checked retrospectively, but must be considered from the outset in the development of software systems. Compliance is then not a post-project check, but an integral part of product architecture and the development process.

**Auditability, evidence and governance skills** are becoming central, especially in the use of AI and agents. Opacity will no longer suffice: every agent action, every commit, every code change and every data query must be auditable, subject to approval and logged securely for audit purposes. It must be traceable who approved what, when and which data was used. »The ability to build explainable, secure and regulation-compliant AI systems and to demonstrate this will become a crucial competitive advantage, especially in the European market.«

Especially in regulated industries, it will not be enough for code to function: traceability and auditability are becoming prerequisites for the productive use of AI agents.

**Trust, safety, compliance and responsible AI skills** are therefore becoming fundamental areas of expertise. They are not downstream control functions, but part of the development, operation and management of software and AI systems.

# 3 Market and Business Models

The previous chapters have shown that AI is transforming not only software development, organisation and governance, but also the market logic of software. This raises the question of which types of software, business models and skills will be sustainable in future and offer competitive advantages.

## 3.1 AI Orchestration and Agentic Systems

In future, software will be less a standalone tool used by humans and more an entity that performs tasks, orchestrates AI agents and executes business processes. In doing so, it must remain transparent, secure and auditable.

»The crucial question for the software industry in 2036 will not be whether we'll use AI—everyone will—but whether we'll truly use AI to manage our businesses or just treat it as a tool for efficiency. I'm convinced: The winners will be those who turn their digital processes and agreements into real, verifiable intelligence—and thus make decisions they can defend.«

Kai Stübane, Managing Director DACH, DocuSign

AI-native platforms and agentic AI orchestrators manage end-to-end business processes such as planning, procurement, production and service. »The critical factor will be the ability to translate business outcomes into agent-capable architectures.«

**Agent system engineering** and **AI orchestration** are therefore becoming a new form of system architecture. Organisations must determine which agent receives which tools, data and decision-making authority. AI and agent expertise therefore includes the embedding, management, monitoring, explainability, safeguarding and cost-effective operation of autonomous systems.

Under this model, agents become auditable team members. The core value lies less in individual functions and more in orchestration, governance and domain knowledge.

Traditional legacy and on-prem software are losing significance as the dominant model. Feature SaaS without AI differentiation is also under pressure because AI can level out feature differences within months, making software without its own data intelligence or learning systems more interchangeable.

Standalone middleware, iPaaS and ETL suites are losing significance as independent categories because their functions are increasingly being integrated into agent systems. Business models based on human labour as a bottleneck are also under pressure. This includes per-seat SaaS, FTE-based IT outsourcing, offshore body shopping, and large development and support pyramids.

## 3.2 Ecosystems and Platforms

With agentic systems, the focus shifts from the value of individual applications, standalone solutions and isolated products to ecosystems, data spaces and collaborative structures in which they operate. As a result, **platform, ecosystem and interoperability expertise** is becoming the next central market logic.

»Software platforms are increasingly becoming the infrastructure layer of our society. Germany needs to develop further into a #MakerLand in this area.«

Dr. Michael Müller-Wünsch, CIO, Otto

**Interoperability and connectivity** are becoming central requirements. Integrated, compatible and cross-functional models are replacing isolated solutions. »A tool that can only do one thing and does not integrate into a platform will have no market in 2036.« The importance of platforms is rising because software increasingly operates in connected process chains, data flows and partner structures. Regulatory and economic reasons are putting further pressure on proprietary lock-in and silo models. As a result, interoperable, open and collaborative approaches are gaining significance.

**Platform and lifecycle expertise** is becoming particularly valuable when platforms represent the entire lifecycle and create connectivity for additional actors. Platforms combine compliance, workflows, AI and data network effects, and improve continuously through use. »Value is created through **interplay, not individual components**.« A small number of hyper-scaling platforms and specialised vertical platforms will form the foundation on which others build.

**Ecosystem and collaboration expertise** determines whether software, data, services and partners are effectively bundled. Industry and use-case platforms create value not only through technology, but also through active network management. Interoperable, sovereign data and cooperation spaces with open standards, clear governance and shared responsibility are becoming established as the foundation. »Platform collaborations bundling software, data, services and partners« will become the model for the future.

Standalone solutions and point solutions without platform connectivity are losing significance. The same applies to on-premises solutions without a clear business rationale and tool-centric business models. Business models without interfaces and continuous digital process chains are also coming under pressure. Data silos, proprietary lock-in models, isolation, lack of transparency and intentional incompatibility are becoming less sustainable. Pure product sales in B2B without digital connectivity, services and ongoing networking will no longer suffice.



### 3.3 Outcome- and Value Based Pricing

When software performs tasks and automates processes, it changes what customers are paying for. The focus is on the measurable benefits it produces.

Customers are increasingly buying outcomes and capabilities instead of software — such as an optimised supply chain, a resolved issue, a deployed feature or a successful compliance audit. This means the software business is becoming more [»impact- and outcome-oriented: it is not the technology used, but the measurable benefits for companies and society that matter. Software will be sold as a result, based on measurable outcomes.«](#)

**Outcome- and value-based pricing** is becoming more important in B2B: payment is made for delivered business value. Purchasing and finance functions demand visible ROI; outcome-based contracts better align incentives between provider and user around delivered business value. [»Outcome-based pricing replaces per-seat SaaS because AI agents can reliably measure and bill results, such as resolved tickets, detected defects, saved energy, generated revenue, etc.«](#)

This gives rise to **value engineering** as a core skill and possible career path: business goals are translated into measurable, billable agent outcomes. For the software industry, this means not only explaining technology and innovation, but also demonstrating implementation — through concrete use cases, pilot projects, scalable best practice and learning networks, particularly for SMEs.

Pure licence- and seat-based SaaS models without a link to usage or value are losing significance. The same applies to perpetual licensing with annual maintenance and static one-time purchase products when licence models do not offer an added-value layer. Manual service models without scaling, FTE outsourcing and offshore body shopping are also under pressure. [»Gone will be the models based on human labour as a bottleneck: classic per-seat SaaS, FTE-based IT](#)

[outsourcing and offshore body shopping, along with the lower two-thirds of today's development and support pyramid.«](#) At the same time, AI software must be continuously trained, updated and scaled. Static products do not economically support modern AI infrastructure.

**Consumption-based pricing** for AI infrastructure — such as tokens, credits or compute per call — complements these outcome logics. In addition, micro-subscriptions enable fine-grained billing of interconnected services across industry boundaries.

Value is shifting from the software interface to trained intelligence and measurable impact. [»When an AI achieves in an hour what a team used to take a week to accomplish, the billing model inevitably collapses. Only providers who switch to outcome accountability will survive.«](#)

## 3.4 Data-Driven Business Models

As software is increasingly billed on the basis of measurable results, the importance of the data on which these results depend is also growing: data is the foundation for demonstrating impact, further developing business models and continuously improving solutions with new information. Business models that make corporate data available and usable will gain importance in future. The same applies to solutions that continuously learn from generated data.

**Data as a business foundation** is therefore becoming central. Business data and expertise in data and AI are evolving into strategic prerequisites for data-driven business models. Data and Infrastructure-as-a-Service are gaining importance, including trusted, interoperable data spaces, edge/cloud hybrids and compliance-by-design.

**Data literacy across the entire lifecycle** includes collection via edge and sensors, data quality, governance, sovereignty and use in AI systems. [»Those who can structure, share and use data responsibly and scalably will win.«](#) Industries, critical infrastructures and SMEs in particular need trusted data spaces and hybrid edge/cloud infrastructures for this purpose. Data use without trust, interoperability, compliance-by-design and sovereignty logic becomes less sustainable.

**Context, quality and governance skills** determine whether real value arises from data. Unstructured raw data without context and governance is not enough as a supposed competitive advantage. AI can analyse very large amounts of data, but value is created only when data quality, context and governance are right. It is therefore not just about possessing a lot of data, but about structuring, sharing and using it responsibly and scalably. [»The key is the ability to build learning systems from data with the right context, quality and governance. Data is the raw material; context intelligence is the refinery.«](#)

**Data fluency as a decision-making capability** is also becoming central. Data must be questioned, contextualised and distilled to its essence for product and management decisions. A flood of data without decision-making capability loses value if companies are not able to derive viable decisions from it.

**Data access, training data and network effects** are becoming competitive factors. Control over training data is gaining importance; network effects and data monopolies are becoming more significant. Competition is therefore shifting towards data access, training data and network effects. Data is becoming the foundation of learning systems, continuous optimisation and AI-based services.

Software without industry, process and data context is losing relevance in this context.



## 3.5 Domain Knowledge and Vertical Specialisation

Data access, training data and network effects are becoming key foundations of data-driven business models. However, the depth of expertise, industry context and process understanding behind these solutions — and the ability to translate them into industry-specific applications — are also crucial. What role does domain knowledge play as a competitive advantage when software increasingly relies on data and AI?

»2036 will not be about the best AI winning, but about the company that most clearly understands which problem it solves, and for whom. AI is the turbo, but without direction, you are just speeding in circles. Our real competitive advantage is not the algorithm; it is the accumulated trust, deep domain knowledge and the ability to drive the right change. We need to transfer this knowledge into systems now, empower our people and provide guidance in a world full of tools. The technology is ready. The question is: are we?«

Antje König, COO, Retail AI

**Domain knowledge, specialisation and industry expertise** in specific sectors and application areas are becoming a competitive edge. This is a gap that AI currently cannot fully bridge. The synergy between domain knowledge and an understanding of AI is crucial: people who can understand technical issues and apply AI strategically are in demand.

**Vertical SaaS, deep integration and industry-specific specialisation** are gaining importance in fields such as pharma, energy, manufacturing, automotive, finance and banking, defence and healthcare. Process and industry knowledge, customer and user understanding, as well as regional market insight, are becoming central differentiators. Generic software lacking industry, process or context knowledge is losing relevance. Generic solutions that are not highly customisable are under pressure. Pure technical and coding differentiation

without domain expertise is not enough. Generic AI platforms are less viable as a standalone competitive advantage if proprietary domain knowledge is not embedded in the systems.

**Industry, sector and process understanding** are becoming more important than mere software-building capability. »The key skill is no longer primarily 'building software', but deeply understanding industry, sector and process logic.«

This shift arises because pure coding is becoming commoditised, while domain expertise is not being commoditised in the same way. As AI undertakes operational work, market, customer and process knowledge are gaining relative importance. Proprietary domain knowledge must be systematically captured, curated and embedded as contextual or training knowledge in AI solutions. At the same time, the physical and digital worlds are becoming more integrated: machines, materials, supply chains, operational data and customer applications are becoming fields of differentiation.

**Customer and user understanding** is becoming a long-term asset. Direct access to real industry and customer issues is becoming crucial. Those who understand customers and their needs can create genuine value with solutions. »For the software industry, critical skills in 2036 will include, above all, a deep understanding of customers and users. It will be even more important to capture the real needs of users.«

**Proprietary domain knowledge as a competitive advantage** must be actively secured and integrated into systems. Global AI platforms could flood vertical markets with generic solutions. At the same time, expert knowledge is currently being prepared and made available for AI training, for example through RLHF or expert data generation. As AI is integrated into increasingly specialised processes, more specialist knowledge flows into the models. Whether domain knowledge remains a lasting human stronghold or merely a temporary advantage is therefore uncertain. The window of opportunity to convert proprietary domain knowledge into long-term competitive advantages is narrow.

# 4 Strategic Action Areas for Companies

The previous chapters have described which developments could shape the software world of the future: new market logics, data-driven business models, platforms, agentic systems and vertical specialisation.

The following section describes areas of transformation in which decisions made today will determine future competitiveness. What prerequisites must companies meet to make effective use of AI, automation and data-based business models?



## 4.1 Data Availability and Quality

No algorithm is better than the data on which it is trained. Companies must not only possess data, but also collect it at sufficient quality, structure it and make it usable in order to automate processes, make knowledge available and deploy AI systems effectively. »Anyone who does not organise their data cannot use AI meaningfully, no matter how good the models become.« Future viability therefore depends on progressing from mere data possession to productive data use.

### Key strategic levers include:

- **Making data usable for AI**  
Data must be systematically organised, quality-assured, and made usable for AI.
- **Streamlining system landscapes**  
Fragmented system landscapes, outdated ERP silos, inconsistent article master data and a lack of governance must be actively streamlined.
- **Transitioning from product companies to data companies**  
Companies need to transition further from being product companies to becoming data companies.
- **Thinking about data strategy holistically**  
Data strategy, governance, quality and the business model perspective must be considered together.

## 4.2 AI Transformation and Scaling

Companies must systematically integrate AI into their organisations and processes and transform themselves into AI-first organisations. »Technologies, data and concepts are often available, but are not used consistently due to a lack of time, uncertainty or organisational inertia.« Pilot projects and individual use cases need to be systematically scaled. AI must become a strategic capability and the »default operating layer«. »In concrete terms, this means developing a unified data and agent platform with clear governance, identity and evaluation.«

»In future, humans and AI will work side by side in organisations. The winners will be the companies that can orchestrate and continuously evolve this interplay most effectively.«

Vera Valeria Jakobsen, Vice President Digital, Munich Airport

### Key strategic levers include:

- **Understanding AI as a strategic capability**  
AI is becoming the new default operating layer across the entire value chain.
- **Building a data and agent platform**  
A unified data and agent platform is needed with clear governance, identity, and evaluation.
- **Creating cross-departmental structures**  
AI departments, ethics committees or AI advisory boards support cross-functional analysis and help address silo thinking, lack of standards and unclear governance.
- **Systematically scaling pilot projects**  
Use-case-driven programmes, clear decision-making structures and experimental spaces help scale individual use cases.
- **Strengthening organisational adaptability**  
To keep pace with technological developments, organisations must develop processes that allow them to adapt more quickly.

## 4.3 Culture and Leadership

To succeed in the AI era, both corporate culture and leadership culture must change fundamentally. »A central hurdle lies less in the technology itself and more in the lack of systemic understanding. Software, data and AI are still too often seen as IT topics, rather than strategic leadership responsibilities.« AI is becoming a leadership task — otherwise, innovations will remain »isolated and reactive instead of impact-oriented and long-term.«

»The software industry in 2036 will be defined by companies' ability to continuously anticipate change. It is no longer enough merely to react to market shifts. Today, companies must establish structures that enable them to learn faster, make bold decisions and understand technology as a strategic space for creation.«

Michael Brugger, Chief Digital Officer & VP Digital Business, LEONHARD KURZ Stiftung & Co. KG

### Key strategic levers include:

- **Treat AI enablement as a top priority**  
Leadership must understand AI as a strategic top priority and not as a »delegable IT topic«. It is crucial to empower the organisation holistically: through people enablement, technical empowerment and psychological support. AI literacy is therefore not gained solely through new tools, but also through leadership, guidance and proactive change management.
- **Consider change levers together**  
Mindset, people, processes and governance must be understood as central change levers.
- **Keep responsibility with people**  
Responsibility remains with people; decision-making foundations are brought as close as possible to those executing the work.
- **Address people, leadership, and culture**  
The greatest hurdle is not seen in the technology, but in the people, leadership, and culture.
- **Develop adaptability and flexibility**  
Many people are not technically or psychologically prepared for major changes. The pace of technological development overwhelms even those who are interested; adaptability therefore becomes a crucial prerequisite for productively managing AI-driven change.

## 4.4 Skills and Role Profiles

Business models and revenue architecture must be transformed if they are to remain economically viable in the AI era. Organisations need to focus fundamentally on the value they aim to generate. This means »developing processes, KPIs and contracts away from FTE and seat logic and towards outcome-based thinking.«

### Key strategic levers include:

- **Establish AI literacy as basic training**  
Leaders and teams must be able to use, critically evaluate and responsibly apply AI.
- **Renegotiate role profiles**  
Role profiles between IT, specialist departments and leadership must be renegotiated.
- **Strengthen internal upskilling**  
Employees must be actively involved and systematically trained. Internal upskilling is becoming more important than permanent reliance on external expertise. Experienced employees should also be specifically supported in developing new skills in order to embed AI literacy sustainably within the organisation.
- **Develop bottleneck skills**  
Domain knowledge plus AI orchestration is becoming a bottleneck skill.
- **Expand technology skills**  
Traditional technology skills remain relevant, but must be combined with AI, data, process and orchestration knowledge.
- **Rethink the skills shortage**  
The skills shortage is described as a lack of profiles that combine domain knowledge with AI orchestration.

## 4.5 Transformation of the Business Model

Business models and revenue architecture must be transformed if they are to remain economically viable in the AI era. Organisations need to focus fundamentally on the value they aim to generate. This means »developing processes, KPIs and contracts away from FTE and seat logic and towards outcome-based thinking.«

### Key strategic levers include:

- **Adjust business model and revenue architecture**  
The business model and revenue architecture need to be adapted to AI agents, data and agent platforms, and measurable outcomes. If the existing economic logic of a business model no longer holds, transforming the business model becomes a prerequisite.
- **Align the organisation with AI and outcome skills**  
The organisation, procurement, legal, HR and operational lines will be aligned with AI and outcome skills.
- **Connect technology with the organisation**  
Technology alone does not deliver value if the organisational model, incentives and skills profiles do not keep pace.

# 5 Strategic Action Areas for Policymakers

This chapter outlines areas for action for policymakers to help shape a successful future for the software sector today. The following points should be understood as recommendations or potential strategic levers.

## 5.1 Education and Training

Education, higher education, vocational training and lifelong learning should be seen as strategic levers. This requires appropriate investment and reforms. »Germany trains software developers, but the bottleneck lies elsewhere: there is a lack of people who can combine domain knowledge with AI orchestration.«



### Key strategic levers include:

- **Develop AI and technology skills across society**  
AI and technology skills should be developed across society more broadly. AI education should be seen as the foundation for the next decade, not as optional continuing education. Market and technology pressures make widespread AI literacy a prerequisite for competitiveness.
- **Strengthen education in technological terms**  
Education should be comprehensively strengthened in AI and traditional technologies.
- **Modernise educational pathways**  
Educational pathways should be modernised to connect domain knowledge with AI orchestration.
- **Reframe the skills shortage and promote hybrid profiles**  
The skills shortage should not primarily be framed as a lack of traditional software developers, but as a shortage of hybrid profiles. The economy needs people who can connect domain-specific areas with agent systems and translate between technology, business processes, data, and specific applications.

## 5.2 Effective and Efficient Regulation

Regulation should become leaner, more efficient and more targeted. It should no longer act as a barrier to innovation, but should instead provide legal certainty and enable innovation.

Small and medium-sized enterprises are overwhelmed by documentation requirements, while large platform providers from the US simply factor bureaucracy into their costs. The result: Europe regulates itself out of the race instead of monetising its value advantage. Policymakers should create an »environment that promotes iterative development and experimental approaches, similar to those practised in other leading economies. This facilitates faster adaptation to new circumstances and more efficient handling of bureaucratic processes, for example, in business formation.« Regulation should focus on outcomes, not tools. Legislation should concentrate on »which requirements the outcome must meet: traceability, auditability, non-discrimination. Technology moves too quickly for tool-specific laws.«

### Key strategic levers include:

- **Adapt legislation to the pace of technological change and accelerate review cycles**

Technology moves faster than European legislative cycles. Directives and laws should therefore be subject to significantly faster review cycles so that regulatory requirements can be regularly adapted to technological developments.

- **Create coherent regulation**

Regulation should be designed to be coherent, principle-based and reliably applicable in practice.

- **Regulate with an outcome-oriented approach**

Outcome-oriented regulation should define requirements such as traceability, auditability, and non-discrimination, rather than prescribing specific tools.

- **Establish experimental spaces**

Sandbox models, experimental spaces, fast lanes, and binding processing deadlines should be established nationwide.

- **Relieve SMEs**

SMEs should not be overwhelmed by documentation obligations, while large platform providers can absorb the cost of bureaucracy.

## 5.3 Sustainable Investments

Investments should prioritise scalable projects and initiatives. The »consolidation of European AI and software players must be politically enabled and not reflexively viewed as a competition issue.« Sovereignty is not achieved through subsidies for numerous pilot projects, but through scalable initiatives. Public procurement should be used effectively as a strategic lever.

### Key strategic levers include:

- **Deploy public funds in a targeted, effective, and transparent manner**  
Public funds should be used in a targeted, effective over the long term and transparent way. Support and innovation policies should focus more on scalable impact, connectivity and sustainability. Political decisions require well-founded analyses, clear explanations of impact and transparent communication to ensure trust and acceptance.
- **Significantly strengthen digital infrastructure and treat it as a foundation for sovereignty**  
Digital infrastructure should be understood as the basis for automation, autonomous driving and technological sovereignty, and should be significantly strengthened accordingly. This includes GPU clusters in European data centres, fast networks and publicly accessible datasets.
- **Invest structurally in skills**  
AI education, hands-on retraining programmes and tax incentives for businesses should be understood as structural investments.
- **Align funding policies with scaling**  
Support and innovation policies should focus more on scalable impact, connectivity, and sustainability.
- **Justify impact transparently**  
Political decisions require sound analysis, clear explanations of impact and transparent communication to ensure trust and acceptance.

## 5.4 European Sovereignty

European sovereignty should not only be understood as a political project, but also as an economic one. Sovereignty must become a key factor for the region — not as isolation, but in the sense of »resilient sovereignty options alongside US and Chinese stacks.« This includes building Europe’s own infrastructures and capacities, as well as strengthening the European single market.

### Key strategic levers include:

- **Establish Europe’s own AI layer**  
Europe should establish a significant AI layer by 2036, encompassing infrastructure, foundation models, inference, and industrial software.
- **Understand sovereignty as the ability to act**  
Sovereignty should not be interpreted as isolation but as the ability to act alongside US and Chinese stacks. Geopolitical fragmentation and decoupling trends heighten the risk of external dependencies; therefore, it is crucial to strengthen technological capabilities, infrastructures, and strategic options.
- **Strengthen the single market, domestic demand and capital markets for scaling**  
The European single market for software, AI and data should be completed to enable scaling. The biggest obstacle lies not in talent, research or ideas, but in capital, the single market and scalability. Hyperscale requires a domestic market with true scale effects and deep capital markets for late-stage financing. Only if European providers gain early access to large markets, capital and demand can scalable AI and software champions emerge.
- **Concentrate capital on scalable champions and enable real scaling**  
Public and private capital should be targeted at a few scalable champions and late-stage financing should be strengthened. It is crucial to address scaling barriers not through many individual projects but through focused financing, market access, and growth conditions. Sovereignty emerges from strong players with real scaling, not merely from subsidies for many individual projects.
- **Consider AI and industrial policy together**  
AI and industrial policy should be aligned: competitive electricity prices, sovereign compute and inference capacity, and modern education systems.

```
209 $( "#limit_val" ).a(a);
210 update_slider();
211 function(limit_val);
212 $( "#word-list-out" ).e(" ");
213 var b = k();
214 h();
215 var c = 1(), a = " ", d = parseInt(
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## 6 Conclusion

The software industry is facing a profound structural transformation. In the future, software will exist less as a stand-alone tool operated by people, and more as an agentic system that executes tasks, orchestrates processes and produces measurable outcomes. This will change value creation, organisation, skills requirements and business models alike.

At the heart of this transformation is the shift from execution to impact. Pure coding, manual testing, time-based services and traditional licence or seat models are under pressure if AI agents can take over large segments of the software lifecycle. The sustainable models will be those that demonstrate their value through outcomes, verifiable business benefits and continuously learning systems. For companies, this means that competitiveness does not arise solely from the use of new AI tools. What is crucial is the ability to connect data, domain knowledge, architecture, governance and customer understanding to create reliable, secure and economically effective solutions.

As AI-based software increasingly assumes tasks agentially — especially in an environment of growing geopolitical uncertainty — data sovereignty, traceability, regulatory reliability and industry-specific expertise are becoming genuine differentiators. Those who integrate compliance,

security and European data residency natively into products, platforms and processes, rather than adding them retroactively, can leverage trust as a competitive advantage.

However, the results also make it clear: the window for strategic adaptation is limited. Companies need to organise their data foundation, systematically scale AI, develop role profiles and align business models with outcome logics. Policymakers must create reliable, innovation-friendly frameworks, modernise education and training, strengthen European AI infrastructure and focus regulation more on outcomes than on tools.

The software world of 2036 will ultimately not be less human, but human in a different way. While execution becomes more automated, judgement, responsibility, trust, domain understanding and strategic orchestration are gaining importance. The companies and locations best positioned for the future will be those that recognise this shift early and create the organisational, technological and political prerequisites today.

# 7 Methodology

Client

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<b>Methodology</b>	Structured qualitative survey
<b>Surveyed target group</b>	Decision-makers from companies with different areas of focus: software product companies (own product business, e.g. standard software, SaaS, industry-specific applications), software service companies (project and order-based, e.g. IT consulting, system integration, managed services, custom software), in-house software development (non-software companies) and others.
<b>Sample size</b>	n=12
<b>Survey period</b>	Calendar week 13 to calendar week 19, 2026

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What will the software world look like in 2036, and what must businesses and policymakers do today to actively shape it? Based on qualitative interviews with executives and experts from the software world, the study report sketches possible future scenarios for an AI-shaped software economy and highlights possible areas for action for businesses and policymakers to help set the right course today.

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