

MHP TREND REPORT

The Human Code of AI

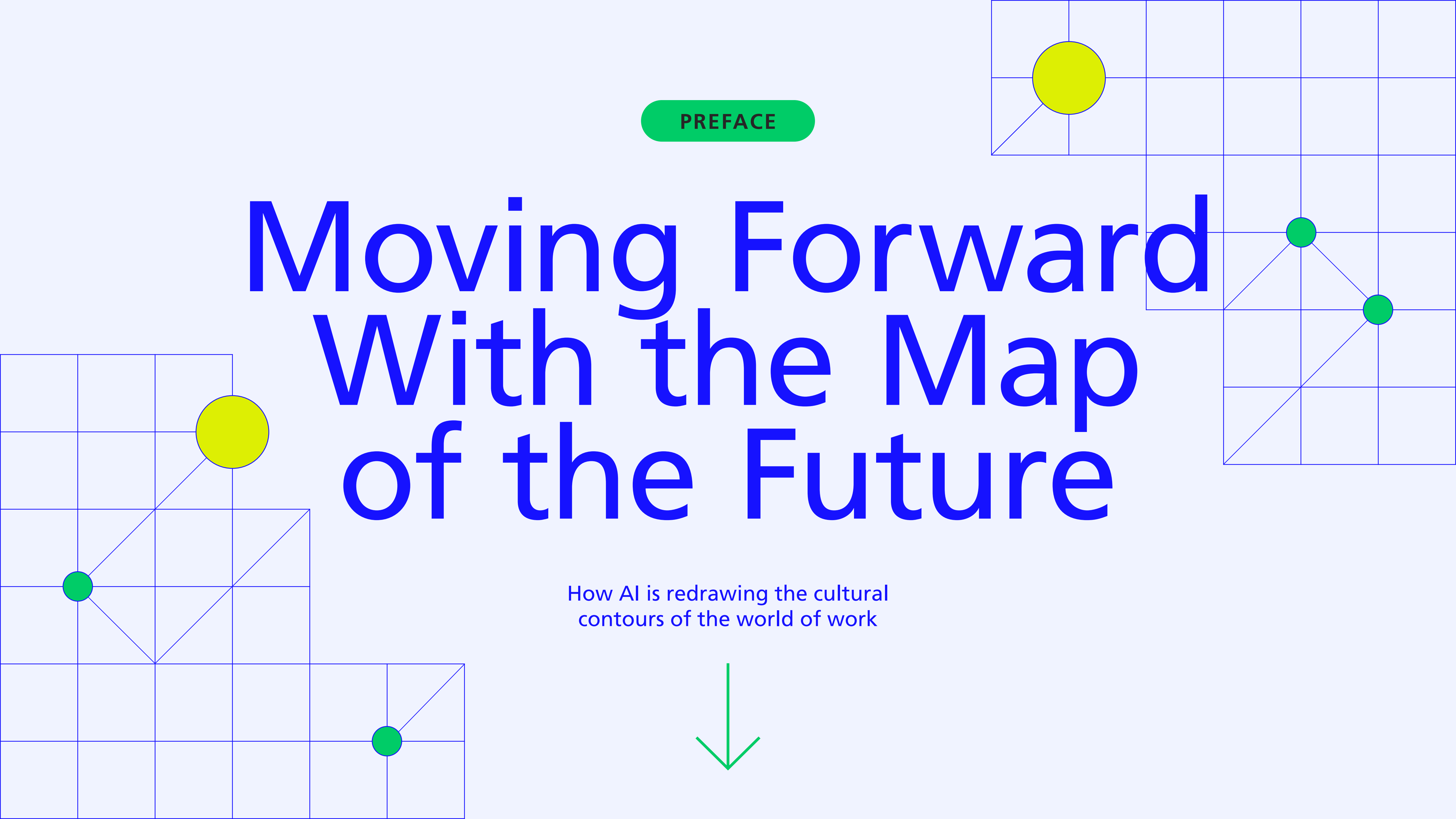
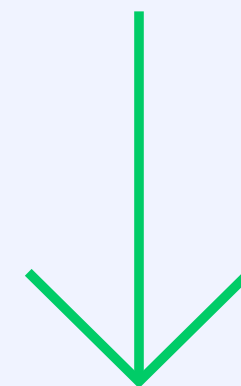
The new DNA of value creation
and why Europe is providing its
own ethical update



PREFACE

Moving Forward With the Map of the Future

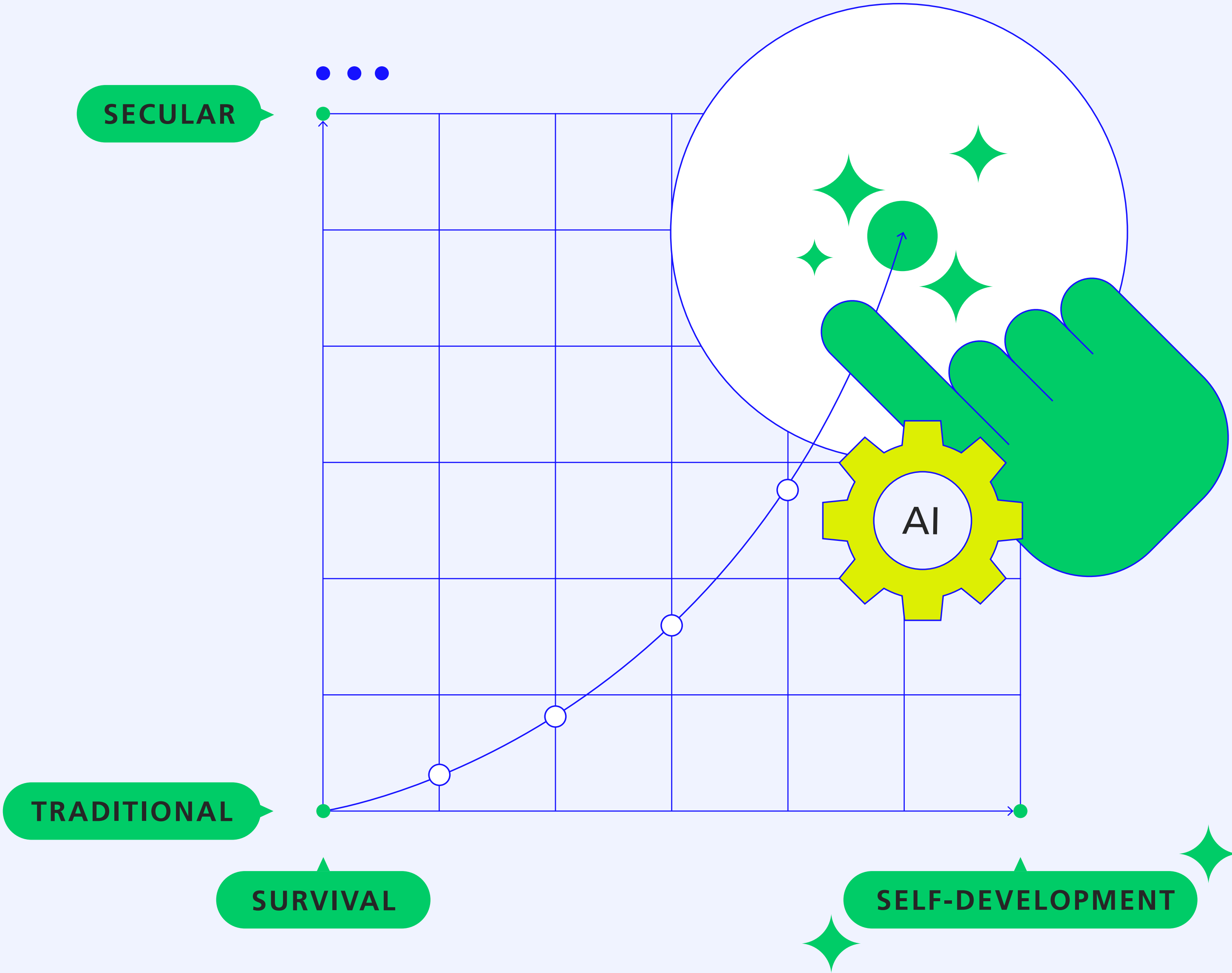
How AI is redrawing the cultural
contours of the world of work



Is there a constant in world history? The World Values Survey (WVS) *, one of the most ambitious projects to date on changing values over space and time, has established at least one significant rule. According to the study, societies are gradually moving from the bottom left to the top right of a “value matrix”: from pure survival to self-realization, from blind obedience to critical thinking. This change has been taking place since time immemorial. However, its pace has changed dramatically. Because artificial intelligence (AI) can do in months what used to take centuries. And, above all, it is moving the world of work back into “uncharted territory”.

A world where smartphone manufacturers become vehicle manufacturers. Where managers become interpreters of meaning because AI takes over the number crunching for them. Where Europe is discovering its own path, because trust and codetermination are becoming the most valuable currency.

* <https://www.worldvaluessurvey.org/WVSNewsShow.jsp?ID=467>

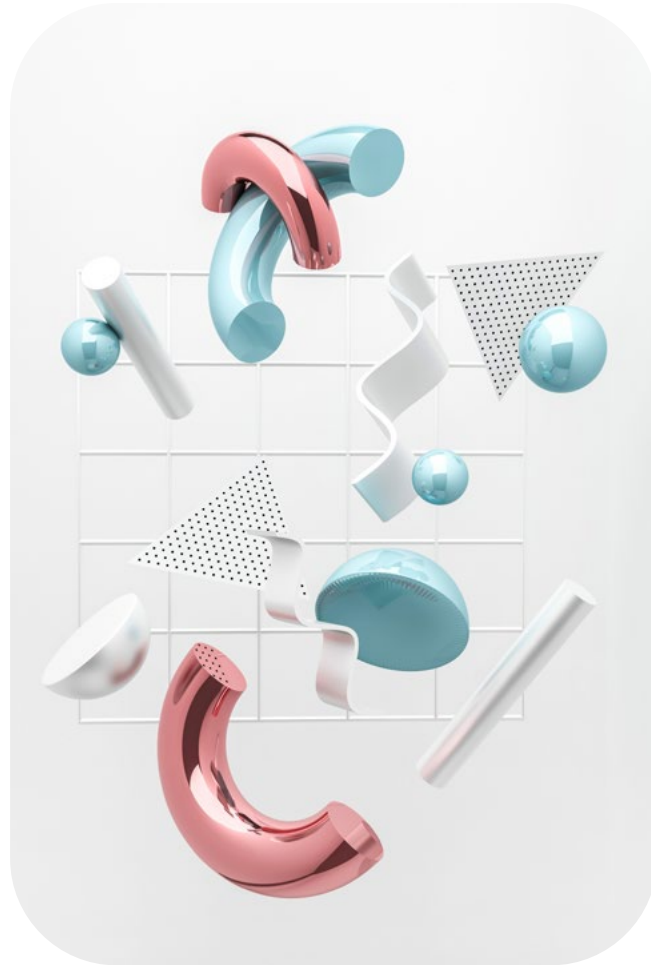


“The Human Side” on a Steep Trajectory

From efficiency to empathy. From standardization to creating meaning. The more diagonally a company is moving upwards, the more sustainable it is. Because while AI permeates the back end with precision and speed, the front end becomes the stage for the ultimate in human values:

Creativity, authenticity, connection and trust. These five chapters are a navigation compass for this new map—from the creative revolution to Europe’s advantage in trust. Do you already know where you want to end up?





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Industry X.0 The New Operating System is Called AI


How artificial intelligence is recoding the
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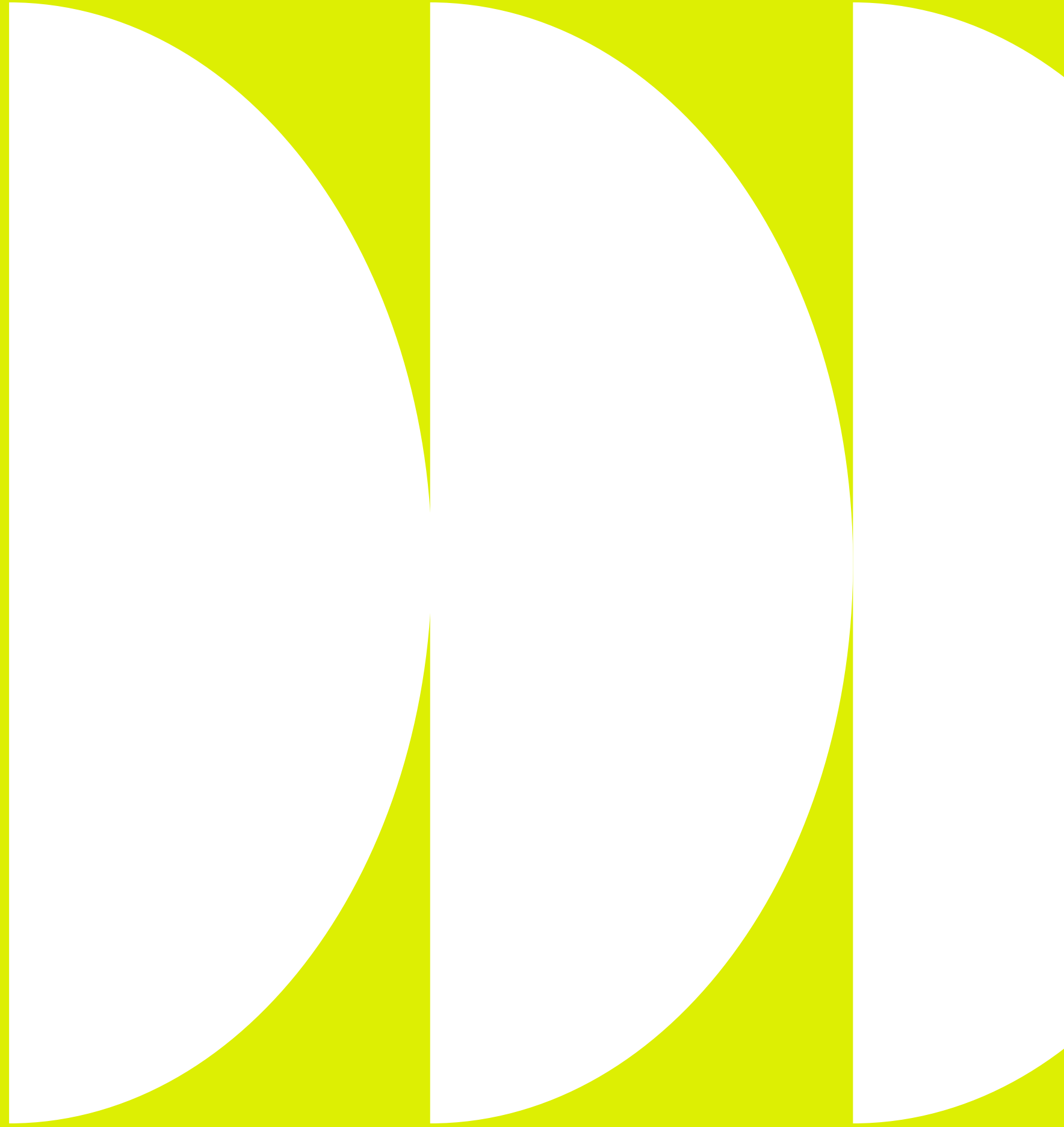
The New Machine Wreckers

Since ChatGPT produced the Gen-AI “big bang” in November 2022, artificial intelligence has transformed—in just a few years—from an exotic feature to ubiquitous general-purpose technology and flows as naturally as electricity does through sockets or water does through pipes. However, unlike previous basic technologies, AI is not content with a role as a simple raw material, but is completely reshaping the rules of the production game. It is changing what is produced. It is changing how it is produced. And above all: it is changing what will be important in the future.





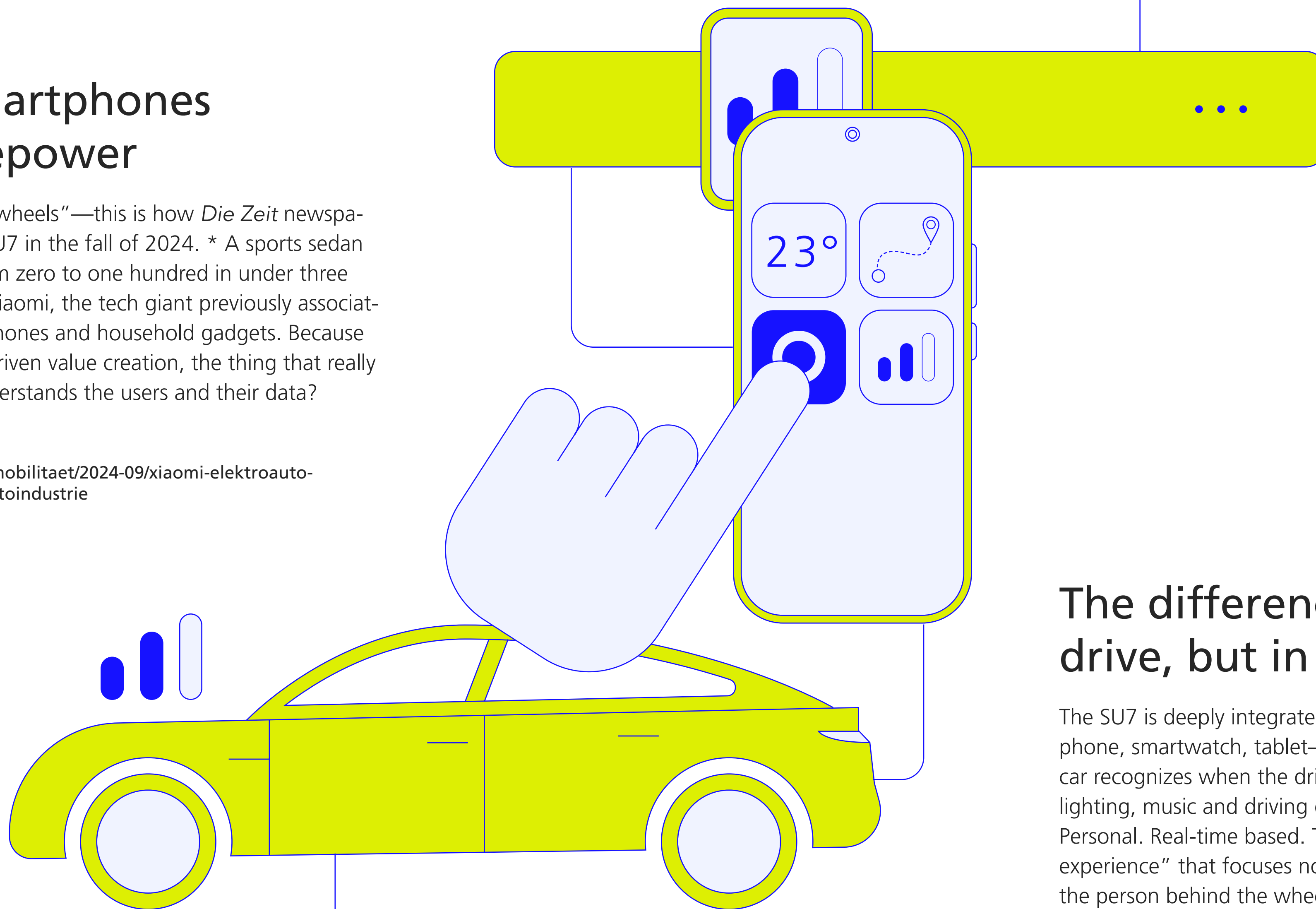
AI is not just a driver—it is a rewriter. It does not simply replace tools. It transforms data into a raw material that permeates everything—from the product to production. It redefines value creation. And it opens the doors for new players with new ideas.



When smartphones get horsepower

“A smartphone on wheels”—this is how *Die Zeit* newspaper described the SU7 in the fall of 2024. * A sports sedan that accelerates from zero to one hundred in under three seconds—built by Xiaomi, the tech giant previously associated more with cell phones and household gadgets. Because in the world of AI-driven value creation, the thing that really matters is: who understands the users and their data?

* <https://www.zeit.de/mobilitaet/2024-09/xiaomi-elektroauto-china-technologie-autoindustrie>



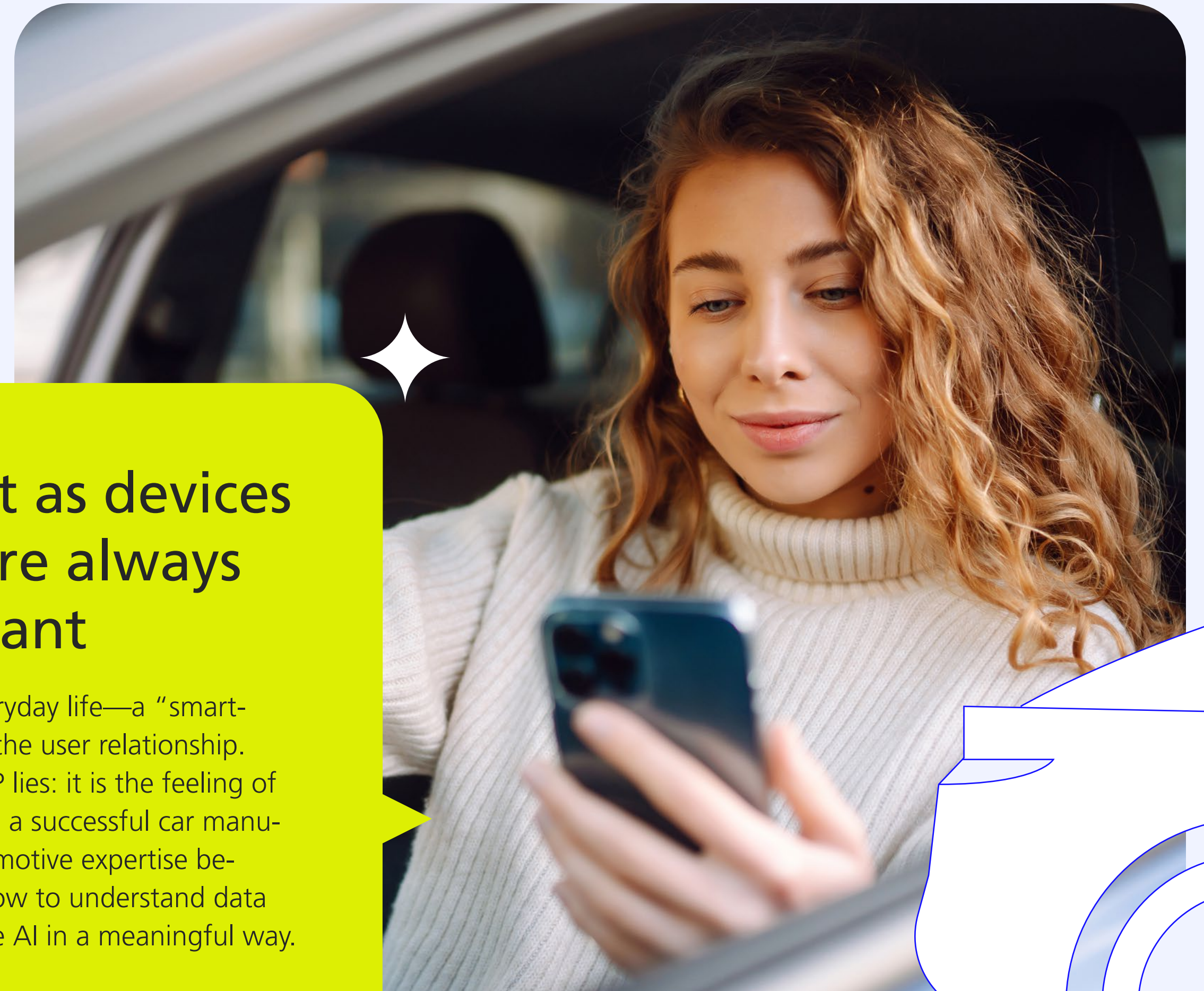
The difference is not in the drive, but in the algorithm.

The SU7 is deeply integrated into a digital ecosystem: Smartphone, smartwatch, tablet—everything is connected. The car recognizes when the driver is stressed or tired. Adjusts lighting, music and driving dynamics to match. Able to learn. Personal. Real-time based. The goal: An “empathetic driving experience” that focuses not just on the road, but also on the person behind the wheel.

Why a Car?

Because important as devices are, experiences are always even more important

The SU7 is just another interface in everyday life—a “smart-phone on wheels”. A seamless part of the user relationship. And this is precisely where the new USP lies: it is the feeling of being understood. This is why Xiaomi is a successful car manufacturer, even without decades of automotive expertise behind it. Because the company knows how to understand data streams, build ecosystems and integrate AI in a meaningful way.



Supply and demand become a continuous loop

Made possible by lightning-fast data acquisition and processing: Products adapt—in real time. Value is no longer created at the point of purchase, but in constant dialog between man and machine. The experience becomes the driving force. And it's not only Xiaomi:



Sells tractors—but actually provides analyses, efficiency improvements and harvest forecasts.



Supplies tools—but earns money with digital fleet management, replacement cycles and inventory software.



Manufactures construction machinery—but the real asset is data on utilization, maintenance & wear.



Provides industrial plants—but monetizes with "MindSphere", the smart IoT platform for the entire plant.

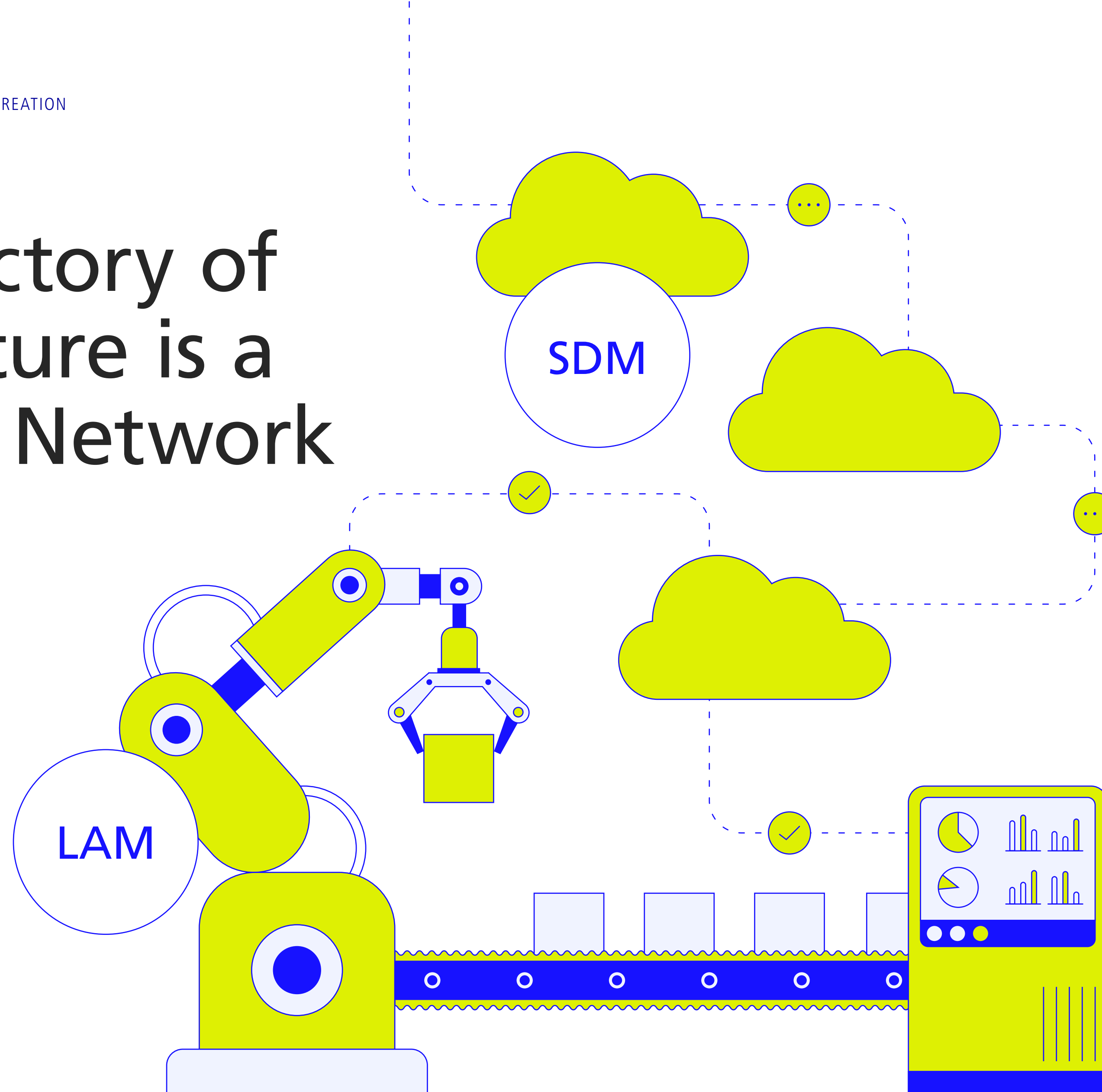
70%

estimated by the World Economic Forum: One study puts around 70% of new global value as already being generated by digitally-driven business models.
* Data processing—no longer the end product—is the central lever of value creation.



* https://www3.weforum.org/docs/WEF_Digital_Transition_Framework_2023.pdf

The Factory of the Future is a Neural Network



The smart production of tomorrow will not only process raw materials, but above all: information. The term Software Defined Manufacturing (SDM) describes just that: a system in which the production logic is decoupled from the hardware. All processes—from design to control—are software-based and adaptive.

Large Action Models (LAMs) are developing in parallel:

AI systems that not only generate content, but also carry out specific actions. From the click of a button to robot control on the shop floor. Claude 3.5 Sonnet, one of the latest GenAI systems, is already demonstrating how tasks that previously required real human interaction can be automated. *

SDM provides the software structure—LAMs provide the computing dynamics. Together, they are not only changing the way we work, but also the way we think about industrial production.

* https://ftsg.com/wp-content/uploads/2025/03/FTSG_2025_TR_FINAL_LINKED.pdf

The new "location issue" and the next industrial revolution

AI is also changing the logic of competitiveness. Wage levels and infrastructure used to be the deciding factors. The thing that matters today: Where can information be used most intelligently? Data becomes a link between previously unconnected players—for example, when a mechanical engineering company's sensor data suddenly makes it relevant for a research team in materials development. Or a machine manufacturer launches its in-house QA software as a product on the market. Industry is networking in a new way.

Machines are becoming smart. Processes adaptive. Products come alive. What we are experiencing is not simply an upgrade—it is a whole reframing of industrial value creation.



And with this, welcome to the era
of the new machine wreckers. Their
weapon is not hammers, but code.
And their aim is not to destroy the
present, but to reinvent the future.

The Rosetta Stone of the Digital Age

AI emerges as a new, universal language, demolishing former knowledge monopolies and radically democratizing skills



When Suddenly Everyone Can Do Everything. At the Touch of a Button.

The shift supervisor programs his CNC machine by voice command—without ever having learned a single line of G-code. The engineer designs complex 3D models as if she were chatting to a colleague about them over coffee. The elitist expert knowledge of the past is now just a prompt away. Generative AI turns this vision into reality. And as the universal lingua franca of the industry, it opens up previously isolated silos.




DeepL has been revolutionizing the landscape since 2017 as the "world's most accurate translator" (developed in Cologne, by the way), making many a translation job superfluous. However, technical progress is not limited to translation from German into English or Italian—i.e. from person to person. Because where DeepL was a modest bridge builder supporting the switch from one human language to another, AIs today create entire "knowledge galaxies" in which (almost) all knowledge can be exploited by everyone. With absolutely no "losses in translation":

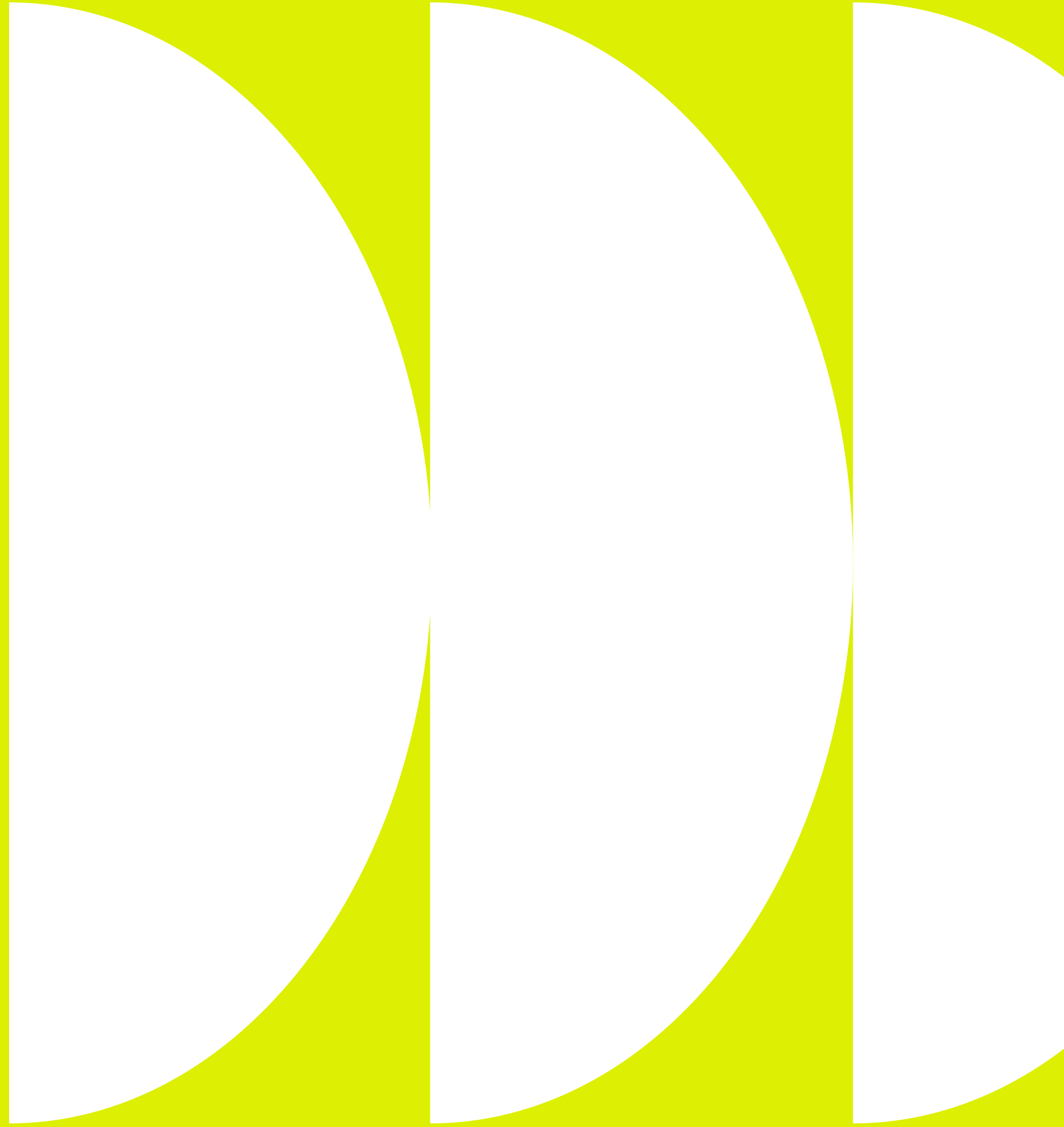


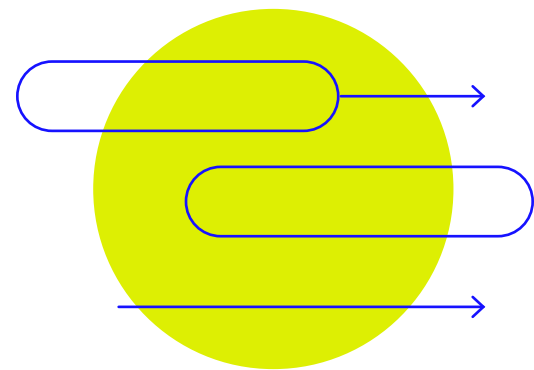
When every word becomes a spellbinding phrase

AI builds bridges between man and machine: A production manager simply states what she needs and the machine understands it—no complicated programming needed. Large Language Models transform operating data into instructions, detect errors, suggest repairs or analyze contracts automatically.



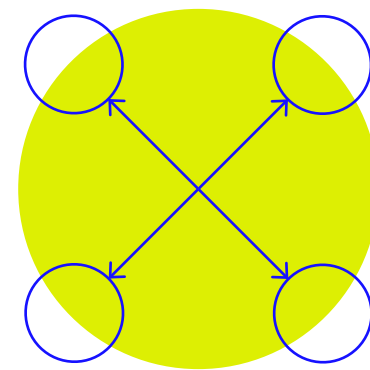
Technology is developing into the “global language” of industry. Anyone who has an idea can implement it directly. Text becomes code, thoughts become prototypes, words become reality. And in record time. Old knowledge silos are disappearing—and new role models, careers and opportunities are emerging. Whether as a professional or a career changer.





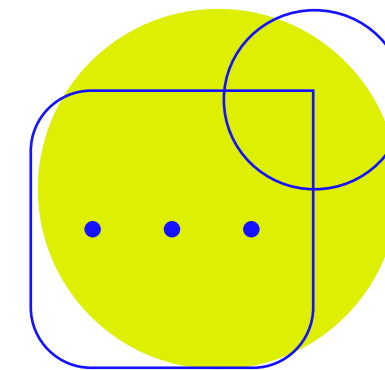
Getting from idea to product faster

Teams work more closely together thanks to the AI universal language. What used to take months now takes days: collecting requirements, creating designs, building models, testing, improving. AI simulates, recognizes weak points and learns from feedback—and the knowledge of all those involved flows directly into the process. Hidden founts of expertise from corporate silos are finally being unearthed. Finance, health, industry. Even notoriously sluggish industries suddenly find themselves agile.



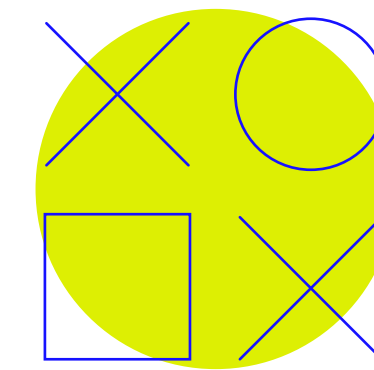
Open factories, shared production

Democratization through AI does not stop at the factory gate. Companies share production capacities via digital platforms, similar to how development teams work together on software on GitHub. Flexible networks are created in which everyone—manufacturers, suppliers, customers—work together and use resources efficiently. Open source factories and "manufacturing-as-a-service" are becoming a reality.



New teamworking, new challenges

More openness also means more coordination: Companies need to find rules for teamworking, quality and protection of ideas. New skills in dealing with each other and with technology are required. And last but not least, a new sense of community.



In search of the Industry 5.0 label

US economist and futurologist Jeremy Rifkin describes in his book "The Zero Marginal Cost Society" the development towards a new economic order called the "collaborative commons". He sees the third industrial revolution of today and tomorrow as inextricably linked to new democratic, collegial structures.

Technical update— human cultural change

The challenge for companies is to orchestrate these new forms of teamworking while protecting security, quality and intellectual property.

And furthermore, the human and interpersonal sphere needs to undergo an overhaul in personal skillsets and collaborative etiquette to ensure that the efficiency gains from AI are not consumed by agonizingly long coordination processes in an endless circle and new bureaucratic roadblocks. Because the future no longer belongs to those who know everything and share nothing. It rewards those who know what is possible—and who can help them achieve it.

From the Word to the World: The New Dimensions of Translation

01

Language → Code

IBM's Codenet demonstrates that 55 programming languages can be translated into each other. What this means in practice is that a machine operator needs only to describe the problem—in their own language, without any coding jargon: "The spindle vibrates at over 2,000 rpm." The AI then automatically generates diagnostic scripts for the control unit.

02

Language → Machine commands

Large Action Models (LAMs) translate operating data into instructions for action. Sensor messages about increased temperatures become automated cooling protocols, while the maintenance crew is alerted at the same time.

03

Language → Predictive analytics

"The pump in line 3 will fail in 72 hours"—such predictions are generated from operating data, historical logs and sensor readings by systems like Augmentir's Augie.

04

Language → Legal texts

AI systems in the legal arena such as Casetext or Harvey automatically convert colloquial descriptions of contract content ("I need a lease for a used automobile in the state of California") into concrete legal briefs and analyze existing documents—right down to the level of regional legal legislation.

Enter: ChatGPT Esc: Thinking for Yourself?

Problem? Give in your prompt. Solution? Returned immediately. Sounds smart, but actually makes you lazy. Because those who constantly outsource intelligence forget how to think for themselves and deprive themselves of existential skillsets.

YawnAI for the Brain?

If you know the answer is no more than an enter command away ... you can unlearn how to challenge for yourself. The award-winning American author and business journalist Nicholas Carr sums this fact up as “The Shallows” effect. Quick, automatic answers replace the ability to reflect deeply. People are becoming passive consumers of algorithm-generated solutions. There is now solid evidence to support this scientific hypothesis.



Welcome to the mental hammock

A study by the Center for Strategic Corporate Foresight and Sustainability shows that there is a significant negative correlation between AI use and critical thinking skills. People who often use AI assistants and digital helpers score worse on average in critical thinking tests. * The main reason: cognitive “outsourcing” or offloading—the habit of letting the AI solve problems reduces your own mental activity.

* <https://news.stanford.edu/stories/2025/07/chatgpt-open-ai-impact-schools-education-learning-data-research>



A major problem, not only at the individual level. A 2023 Stanford study shows that students who regularly use ChatGPT are less likely to develop original solutions. They tend to rely on ready-made answers. *

* <https://www.mdpi.com/2075-4698/15/1/6>



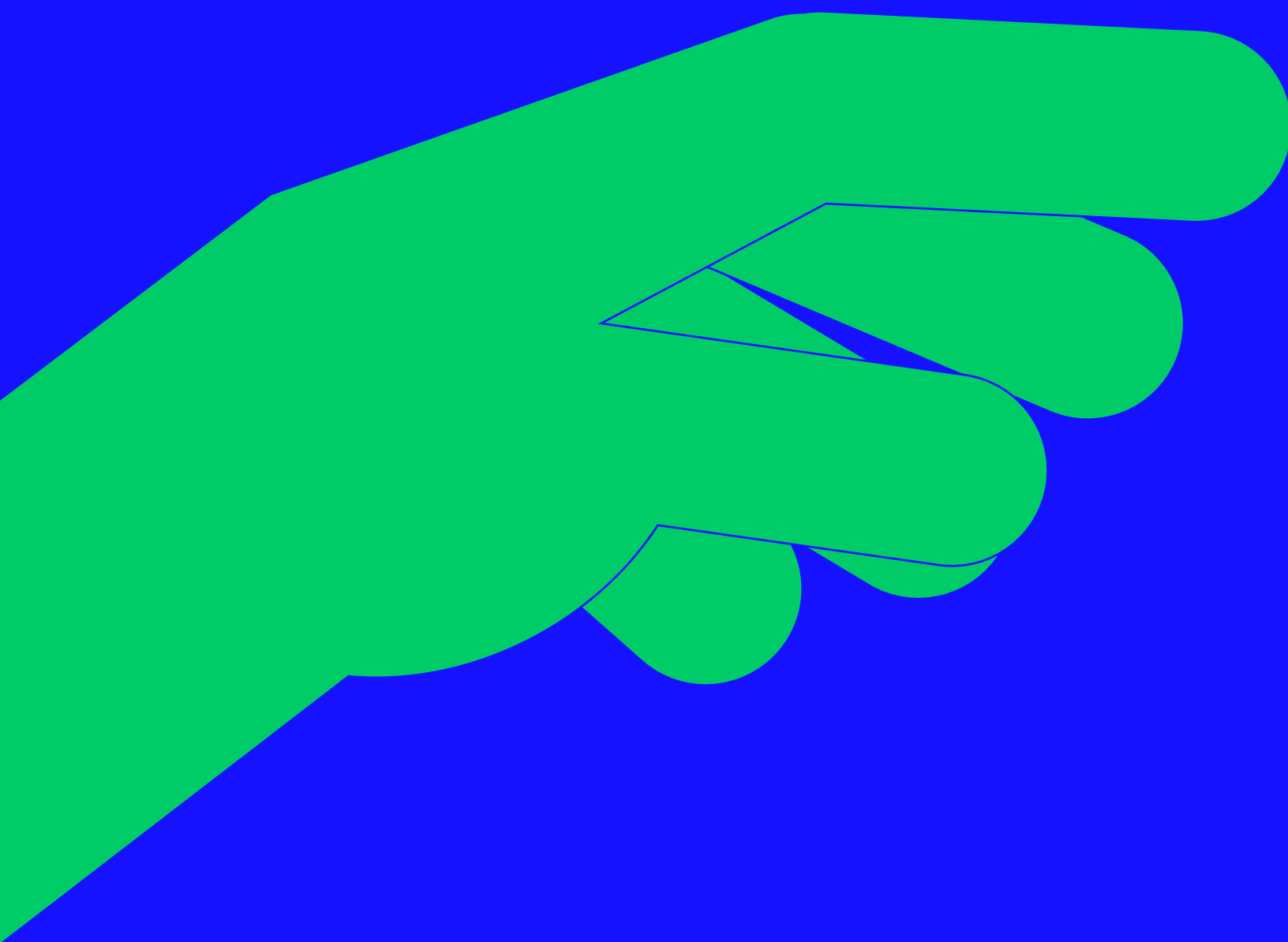
When evolution regresses

The danger of mental outsourcing to technical aids is nothing new. The syndrome first reached the wider public a few years ago with Google Maps as the focal point: Several studies indicate that excessive use of GPS maps seems to impair people's natural sense of direction. *

However, the effects today are new and particularly striking in an area that until just a few years ago seemed safe from the grasp of algorithms and machines: the products of human creativity.

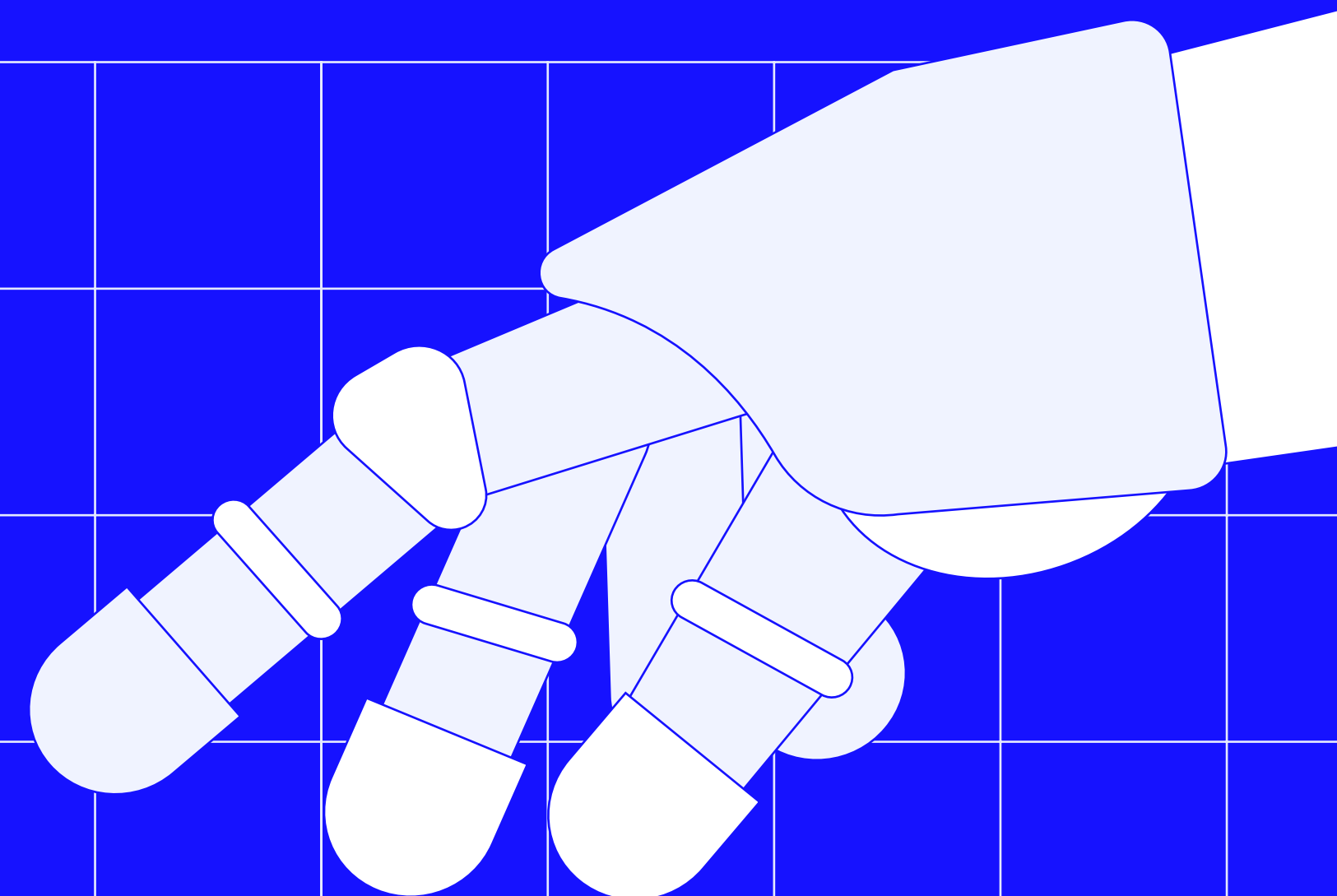
* <https://www.spektrum.de/frage/schaden-navis-dem-orientierungssinn/2255996>

We Can Outsource (Almost) Everything —But SHOULD We?



“Use it or lose it”: The universal rule applies not only to muscles or foreign languages, but also to cognitive abilities such as creative thinking. Especially as humans can do it better—at least, for now. AI art marks the beginning of the age of “OK” creativity.

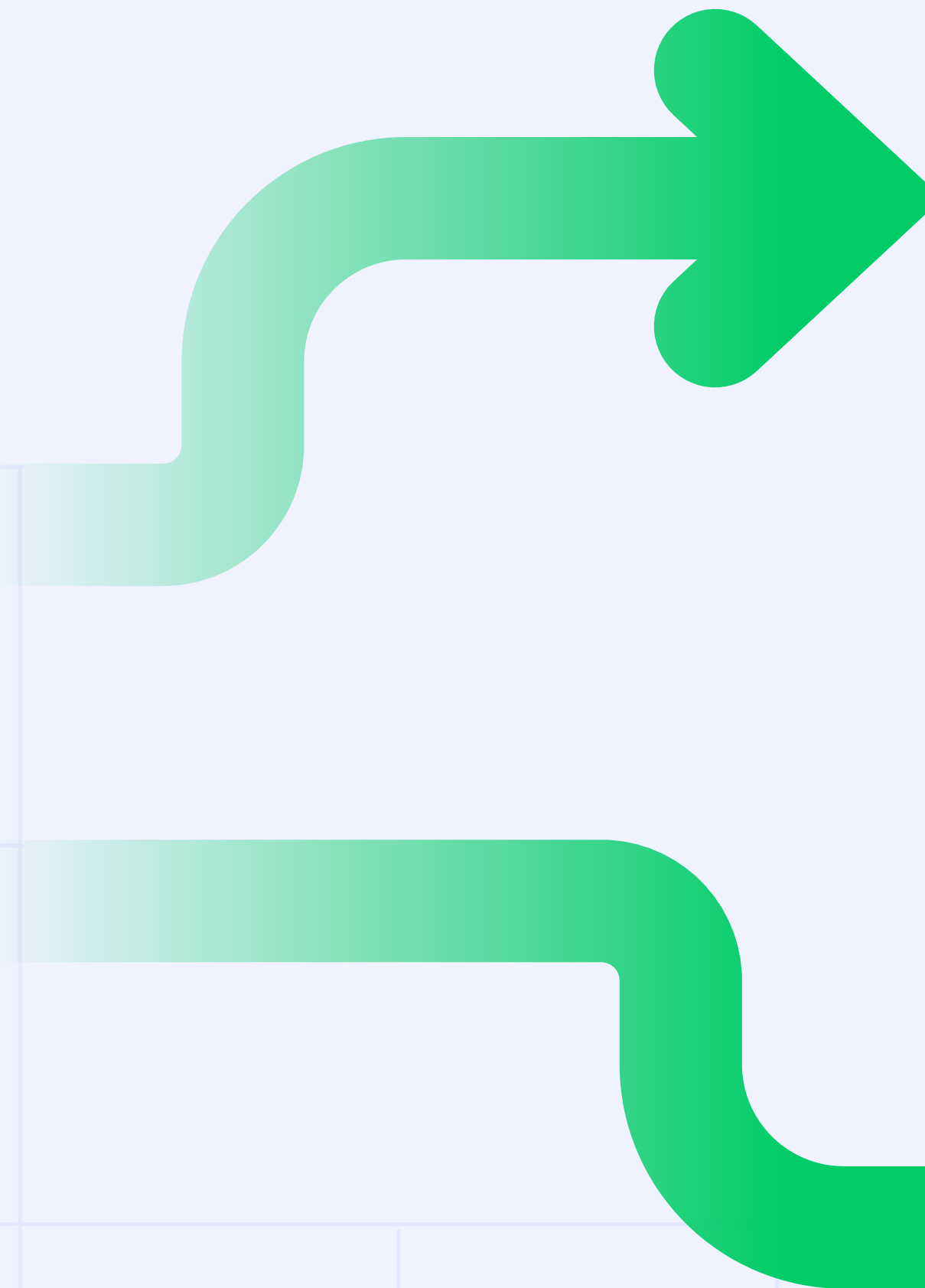
Whether it's PowerPoint, post, podcast—everything is suddenly at the same level: “quite nice”. The music of AI “Aiva” is impressive in terms of craftsmanship. But critics miss the emotional depth of human compositions. The result: Music that works, but doesn't actually move you.



The problem is systemic: AI is a devotee of the mainstream

Why is that? Because that's exactly how AI works—by default. It uses statistical models and prioritizes what is frequent and reliable. This inevitably leads to a creative flattening. Normal distribution instead of peaks and troughs performances.

And guardrails? Don't make things any better. They avoid harmful content for sure—but also suppress creative or provocative ideas. They prevent chaos as well as magic. So where are they, these stages for the human element? At least two paths appear to be viable:



WAY OUT #1

The solution in the system:
Turn bumps, rough edges and risks
from a bug back into a feature

If you want to stand out, you need to not be desperate to please. If you want to create something new, you have to challenge the old. There are already examples in the education and corporate scene that demonstrate this precise point:

SpaceX: Elon Musk regularly emphasizes the importance of failure for innovation. SpaceX tests prototypes publicly and uses failures as a source of data for improvements.

Educational institutions such as the Danish Kaospilots School consciously promote non-conformist thinking and experimental approaches. A model for the future. In a world where everyone relies on AI, those who think differently will win out. Those who courageously shorten instead of endlessly inflating. Those who get to the point—and do not scale toward mass production.

WAY OUT #2

The view to the outside: The resurgence of the human—creating AI-free oases

The 2022 OECD study confirms that nurses have a less than 10% probability of being automated, as their work depends heavily on compassion and interpersonal interaction. These professions are “robot-proof”. And not only that: They are experiencing a renaissance. Skilled trades such as carpentry and hairdressing are experiencing a renaissance in Germany. Because that which cannot be copied becomes valuable. And that which touches, stays.

“The future does not belong to those with the best algorithms—but to those with the deepest understanding of humanity.”

**SATYA NADELLA,
CEO OF MICROSOFT**

10%

According to a 2022 OECD study, the likelihood of care workers being automated is this low

* https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/12/equipping-health-workers-with-the-right-skills_cb2ff13c/9b83282e-en.pdf

Passion Can't Be Prompted

People are more than their brains—
and companies are more than their
figures



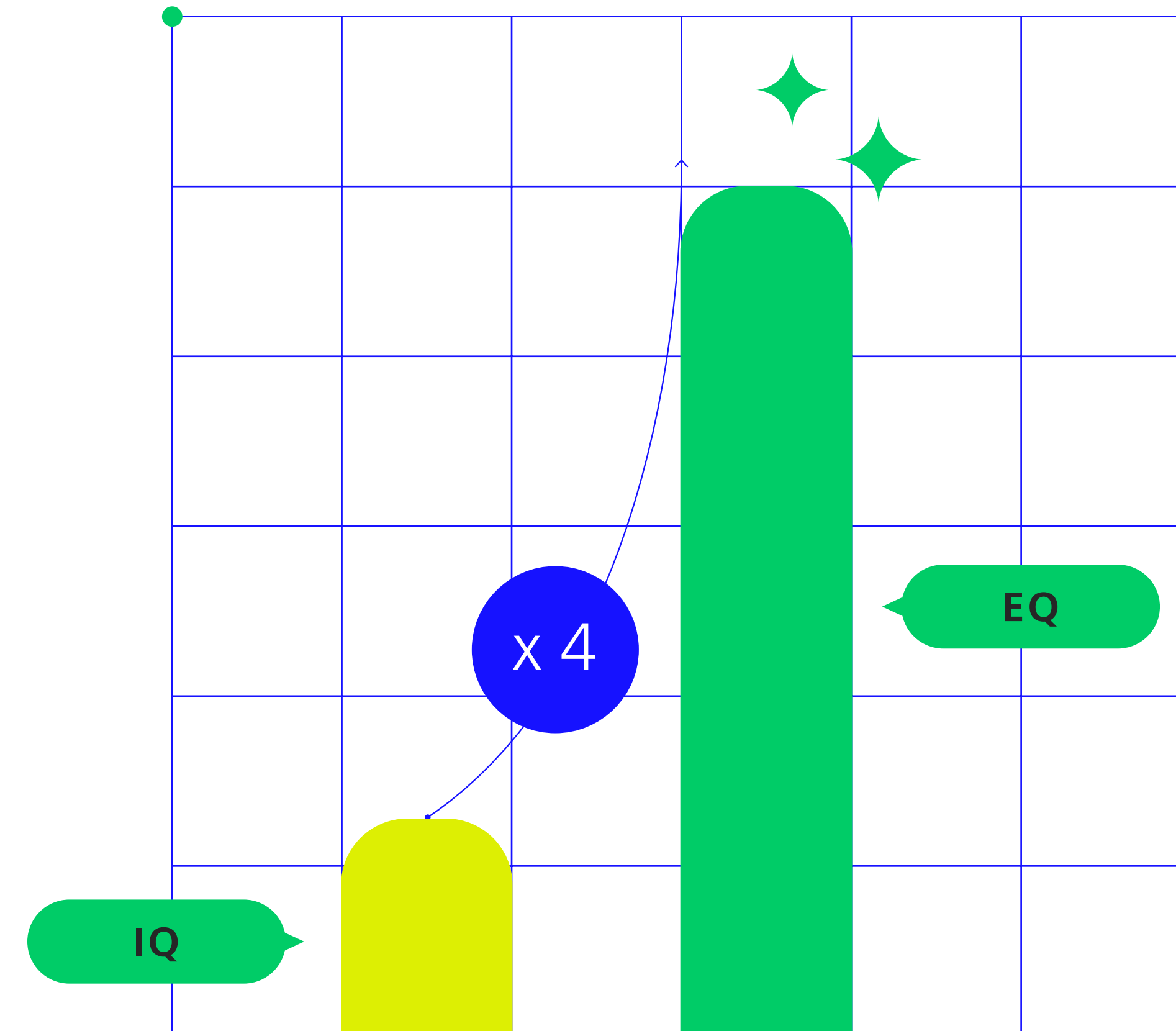
Hard Skills Rule(d).

Until now, success in the workplace has mainly meant developing technical skills. But when intelligence is just a browser extension away, people will have to redefine their USP. Empathic, non-technical soft skills are becoming a scarce commodity and the highest value lever.

Where is professional success decided—in the brain or the heart? A 40-year-old UC Berkeley study provides a clear result. EQ is four times stronger than IQ as a factor for predicting success. * And this already skewed relationship will become even more skewed in the future. The reasons are obvious:

* <https://www.manngroup.net/blog/The-Power-of-Emotional-Intelligence>

RELEVANCE FOR PROFESSIONAL SUCCESS



When the algorithm has its say—and nobody empathizes anymore

When people experience themselves as nothing more than dispensable appendages of automated processes, frustration arises. They work—but just go through the motions. They join in—but no longer with their heart and soul. Without passion or identification.

And the smarter the systems become, the greater the longing for meaning. The more automation runs in the background, the more important real cooperation becomes in the foreground. Because man and machine function according to two completely different sets of rules.

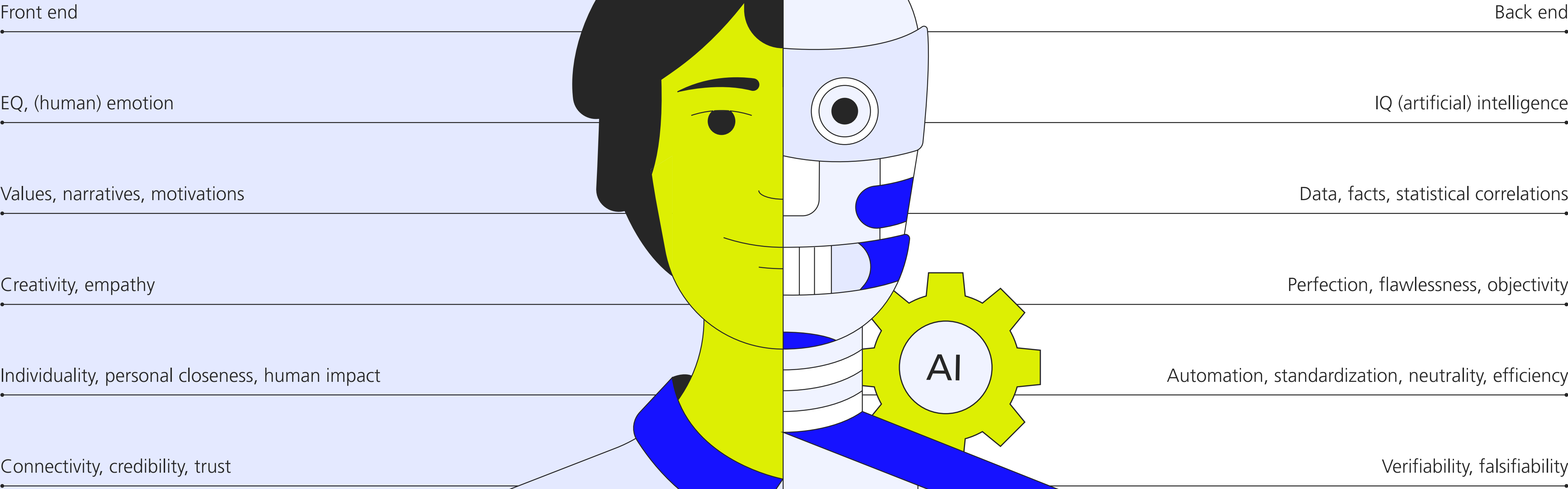


THE NEW CORPORATE IMAGE: AN EMOTIONAL OPERATING SYSTEM

AI in the back end, humanity in the front end. And in between, a strong “why” that holds everything together.

“Team Human”

“Team Machine”



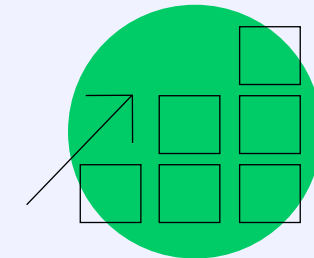
Human leadership instead of KPI domination

Every set of rules needs to be written and enforced. And that puts leadership and managers at the center of precisely this cultural change. Anyone who merely repeats data becomes obsolete. Instead, we need producers who embody a common “we” and “why” and offer an emotional home.

The boss of the future is not a controller. But rather a coach, a living stage and purpose interpreter. And although managers in particular need these skills, they are in fact essential skills for all employees in a modern company in which specialist knowledge is radically democratized and potentially open to everyone.

THE FOUR “I’S”

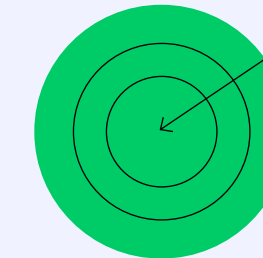
Transformational leadership—opportunities for human-centered leadership in the AI era



Idealized Influence

Exemplify values instead of showing PowerPoint charts. Credibility trumps status.

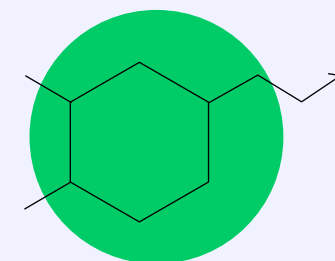
Managers become role models who authentically embody their values. In an age where AI creates perfect presentations, personal integrity matters more than ever.



Inspirational Motivation

Sharing visions in a rousing way—and making others believe in them.

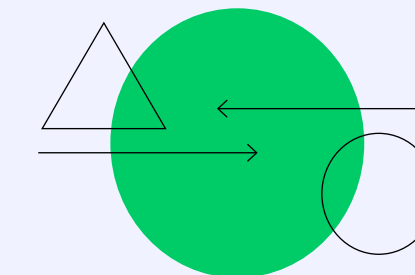
While AI analyzes data, human managers create emotional narratives that move teams and create meaning.



Intellectual Stimulation

The courage to leave gaps, room for questions. Those who dictate everything block new things.

Transformational leaders promote critical thinking and innovation—the exact things that algorithms cannot do: creative disruption and unconventional approaches to solutions.



Individual Consideration

Everyone is different. Good leadership recognizes precisely that.

Personalized management is becoming a differentiating feature, while AI systems deliver standardized solutions.

Rome of the Brave

How the “Sleeping Giant” in the field of AI is awakening in Europe and developing its own version of the future



A Continent Does Its Own Thing

For a long time, the narrative of the AI age sounded like a West Coast road trip with a Stars & Stripes flag on the trunk. The mantra: "Move fast and break things". But while Silicon Valley ignored the potholes, Europe put up important signage: Ethics, data protection, security. Many considered them to be dead weight. But in the future, these could be what avoids moral impasses, guarantee the primacy of the human element and thus also provide a valuable slipstream for the digital economy.





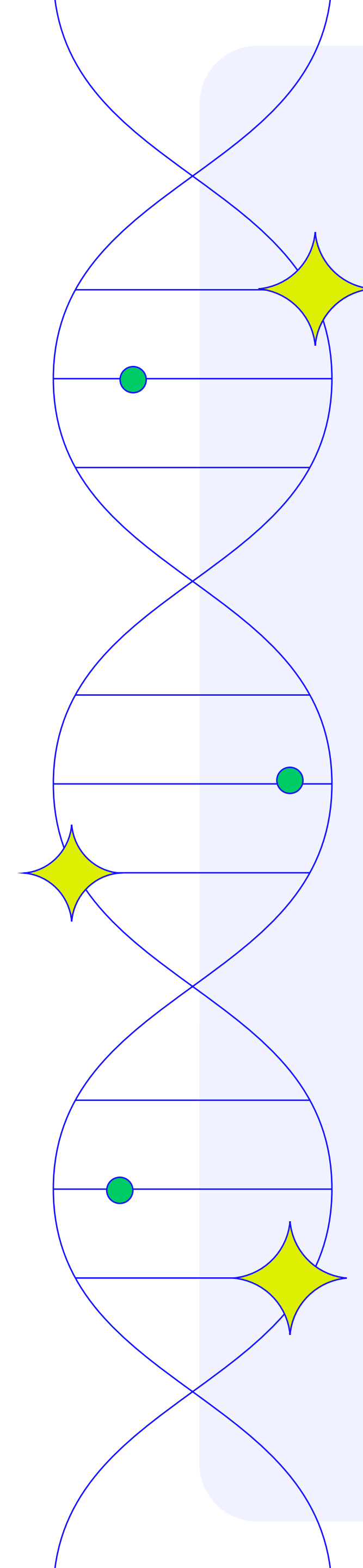
The EU AI Act: from anchor to export hit

The EU Regulation (EU) 2024/1689—the “AI Act” for short—is the world’s first comprehensive AI law. It categorizes models into risk classes, prohibits unacceptable uses (such as discriminatory social scoring), obliges high-risk systems to undergo audits and creates a digital CE marking path. Critics warn of bureaucracy. Others, however, recognize a kind of second GDPR effect. It is beyond dispute: The regulation has the potential to become the de facto global standard.

African regulators, for example, are already examining which passages of the AI Act they can adapt in order to professionalize their own markets. Europe is earning a reputation for making systems not just faster, but cleaner—this can create a new premium label.

The European DNA: precision meets purpose

However, the "old world" scores not only with laws, but also with business models. Once AI has become a general-purpose technology, an old topic becomes a differentiator again: the European industrial pedigree.



01

Industrial Precision

Industrial heavyweights are upgrading their portfolios: Siemens Healthineers automates diagnostics via AI-Rad Companion and significantly reduces diagnostic errors. Continental is developing ContiSense tires that detect microcracks and seal themselves using PressureProof—a mixture of sensor technology and material AI.

03

Medium-Sized Companies × Hidden Champions

Over 23,000 German niche "world market leaders light" (e.g. laser cutting systems) use AI—without any Silicon Valley PR. This distributes added value and reduces concentration risks.

02

Data Trust as a Commodity

Who will medical customers of the future prefer to entrust their CT images to—an anonymous US data center or an EU cloud with an audit trail and GDPR experience? African and Asian hospitals are increasingly opting for EU-certified providers.

04

Geostrategic Lever

Helsing shows that Europe is not copying tech hegemonies, but countering them: AI systems should prevent Chinese social scoring and balance US surveillance monopolies.

AI SUCCESS STORIES MADE IN EUROPE

CUTTING-EDGE RESEARCH

Obliges every model to undergo an ethics review before product maturity

📍 **TUM Institute for Ethics in AI**
Munich

HUMAN-CENTERED

ENGINEERING

INDUSTRY NETWORK

60+ groups + €150 B capital commitments

📍 **EU AI Champions Initiative**

SYSTEMIC INFRASTRUCTURE

ECOSYSTEM

Europe's largest AI ecosystem; research → commerce

📍 **IPAI**
Heilbronn

END-TO-END VALUE CREATION

DEFENSE

Vision-language-action models for eurofighters & drones

📍 **Helsing**
Berlin · Munich

"DEMOCRACY BY DESIGN"

SUPERCOMPUTING

EU GPU cluster for open foundation models

📍 **Leibniz Supercomputing Center (LRZ)**
Garching near Munich

INDEPENDENT OF US CLOUDS

OPEN-SOURCE HUB

1.7m models, 400k datasets, 600k spaces

📍 **Hugging Face**
Paris

EUROPE'S "GITHUB OF AI"

GENERATIVE AI

Image generator, faster than Midjourney, 12 B parameters

📍 **Black Forest Labs / Flux.1**
Freiburg

OPEN & PRO VARIANTS

IPAI: Innovation platform for human-centered AI

IPAI has been living the vision of becoming "The Global Home of Human AI" since 2022 and is now empowering over 80 member and partner companies and institutions in their AI transformation—collaboratively, hands-on and holistical-

ly. The next big step on this path: The 30-hectare IPAI CAMPUS in the north of Heilbronn, which will be built from the end of this year and will provide space for up to 5,000 people to work in the field of AI.

The European Counter-Model

IPAI's vision is to be an application-oriented AI innovation and collaboration platform based on European values. Its community brings together business, politics, society and administration to work together on new solutions based on European principles—trust, transparency and people-centered innovation.

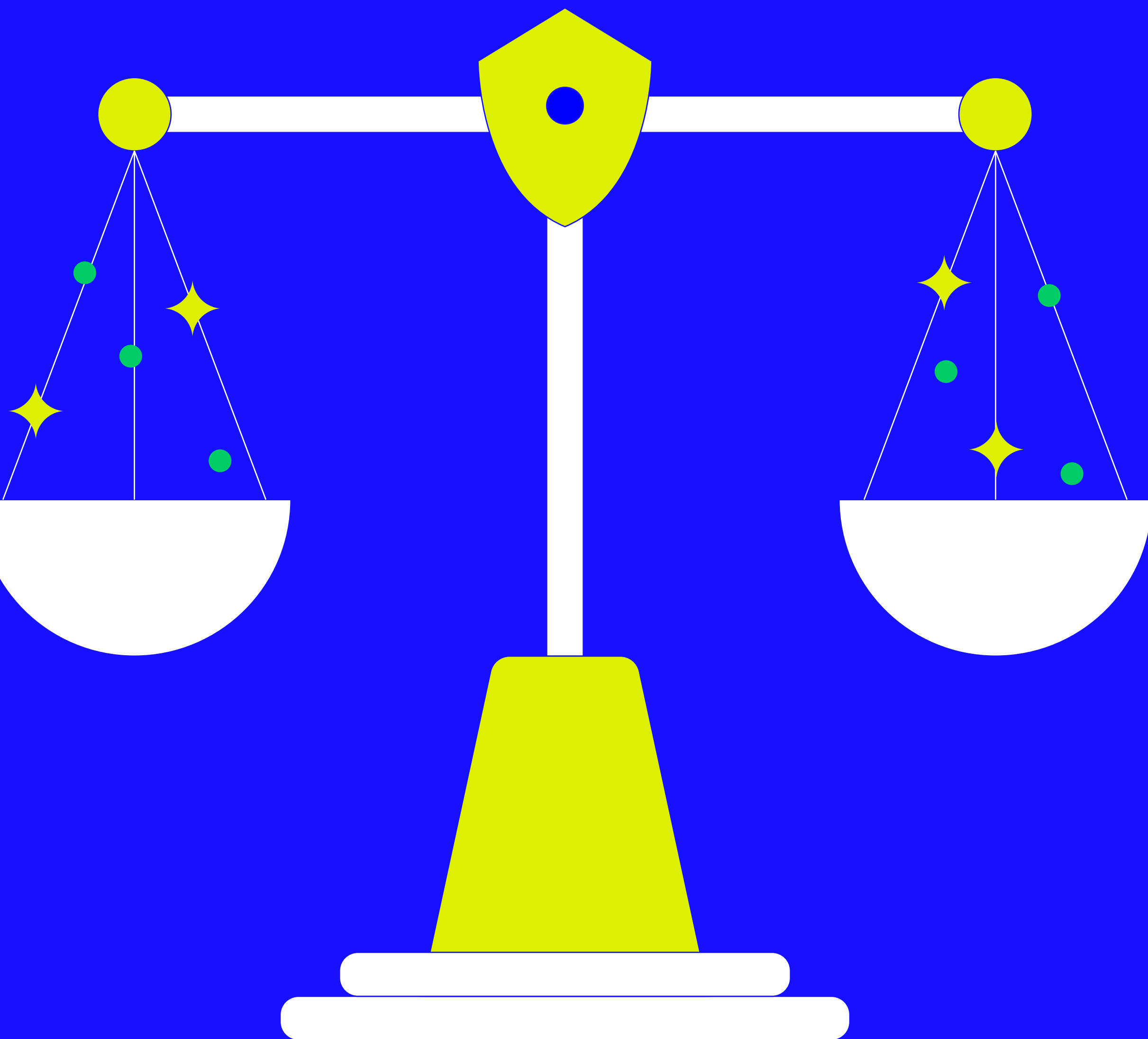
From SMEs to Global Players

IPAI is creating a robust ecosystem based on Europe's strengths together with members such as Audi, which is expanding its Neckarsulm site into an AI hub, medium-sized companies such as fischer, ebm-papst and global players such as SAP and Porsche. There are also partners such as TUM, Aleph Alpha, Fraunhofer IAO and imec, Europe's leading research center for nano- and microelectronics.



The Proof: AI Also Works Cooperatively

IPAI is a central future place that empowers organizations in their AI transformation—innovatively and collaboratively. It creates an application-centered AI ecosystem that is directly aligned with the needs of companies and institutions. Based on genuine added value for all, the European answer is based on cooperation and trust rather than monopolies.



Europe—The Cradle of AI Democracy Too?

Diverse in a small area, multilingual and with a highly diverse cultural history spanning centuries. Europe will never be the AI superpower in the Silicon Valley sense.

But that is precisely where its opportunity lies. As an ethical architect, as a cultural translator, as an industrial problem solver. Our continent can be the birthplace of an ecosystem that integrates rather than disrupts.



Frank Eisenhauer
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About MHP

MHP has been digitizing processes and products for around 300 global clients in mobility and manufacturing since 1996 as a technology and business partner, and supports them in their IT transformations along the entire value chain. For the management and IT consultancy, one thing is clear: digitalization is one of the most critical tools on the path to a better future. The company therefore provides Porsche AG both operational and strategic advice in areas such as customer experience and workforce transformation, supply chain and cloud solutions, platforms and ecosystems, big data and AI, and Industry 4.0 and intelligent products. The management consultancy is an international operation with headquarters in Germany and subsidiaries in the USA, Mexico, the UK, Romania, India, and China. Around 4,700 MHP employees share a common commitment to excellence and sustainable success. This is the aspiration that continues to drive MHP—today and in the future.

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