The French AI Report 2024

Key Challenges, Financing Trends, and Emerging Champions

Chausson Partners | GALION•exe | Revaia

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Foreword

In February 2025, France will host the world's top leaders in Artificial Intelligence (AI) at the Summit for AI Action. This prestigious event, held less than a year after the AI Commission for the French government led by Philippe Aghion and Anne Bouverot, highlights France's bold vision for sustainable innovation. In the wake of the Olympic Games, the summit celebrates France's exceptional talent, scientific research, and industrial expertise while convening international and regional experts to chart the future of AI.

AI has emerged as one of the most transformative technological forces of our time, profoundly impacting research, businesses, education, and public discourse on a global scale. How we develop, deploy, train, and regulate AI is already profoundly shaping our daily lives, democratic systems, and national sovereignty.

Europe's long-standing investment in AI technologies has laid the groundwork for a flourishing innovation ecosystem and nurtured several future global leaders. France, in particular, is solidifying its leadership in AI, attracting substantial capital investment while building on decades of success in developing a robust technology ecosystem. Sustained capital flows are essential to fostering innovation, training engineers, creating jobs and integrating these transformative technologies into everyday life.

To accelerate progress and strengthen our competitive position, we must still enhance our capacity to finance local champions, foster deep collaboration between public and private investors and corporates, and build strategic alliances with international partners.

France has a unique opportunity, not just to lead but to contribute its considerable strengths to the global effort. With its world-class talents, cutting-edge research, vibrant innovation ecosystem, decarbonised and stable energy supply, and highly competitive infrastructure—including supercomputers, data centres, advanced communication networks, and available land for development—the country is home to startups tackling society's most pressing challenges.

These innovations also underscore the critical importance of establishing governance and ethical frameworks to uphold principles such as data protection, integrity, transparency, reliability, and fairness in AI systems.

France can harness AI's transformative potential to improve lives and set a benchmark for global excellence and responsibility.

The French government is fully committed to achieving this vision, working hand in hand with our partners to shape a future where AI serves the greater good of society.

Clara Chappaz,
Minister Delegate for Artificial Intelligence and Digital Affairs

Edito

"AI is redefining the way organizations operate and transform, and France is at the forefront of this development," said Microsoft CEO Satya Nadella during a recent visit to Paris. "France is globally recognized for its innovation and leadership in technology and AI. We are excited to be part of its thriving ecosystem," proclaimed OpenAI CEO Sam Altman as the company opened its Paris office. "Paris is a global center for innovation, and a magnet for tech talent," said Google CEO Sundar Pichai when launching an AI hub.

This praise from global AI leaders has been matched by a flood of international investment, validating France's historic strength in a technology that now dominates the innovation landscape.

The AI revolution is reshaping industries and disrupting value chains at an unparalleled pace.
The velocity of AI's evolution seems to accelerate by the day. Performance benchmarks of leading AI models continue to be surpassed by bold new challengers. Once-unrealistic architectures, like on-device GenAI, are becoming viable. The old rules of business are being shattered. The competition in countless markets is being scrambled, creating boundless opportunities. The possibilities to solve some of humanity's greatest challenges may be within our grasp.

Everything is in play, and nobody can say for sure how the future will unfold. However, we are certain of this: France has an essential role to play in shaping this AI future.

At this important junction, we wanted to clearly benchmark the state of France's AI ecosystem. This report distills insights from some of the brightest minds in the ecosystem – entrepreneurs, researchers, corporate executives, and investors – offering their perspectives on the fundamental challenges shaping the current frontiers of innovation in AI. The report features a detailed analysis of funding trends in both France and Europe, offering a holistic perspective on the ecosystem's growth and potential. It also includes a comprehensive mapping of France's emerging AI leaders, showcasing about 400 startups driving innovation across 5 critical areas: AI Infrastructure, Horizontal Applications, Vertical Applications, Health, and Sustainability.

Together, these elements paint a vivid picture of the momentum and potential of the French AI ecosystem. The time to seize this opportunity is now. As Mario Draghi stated in his 2024 innovation report: "We must unleash our potential for innovation."

We hope this collaborative effort provides you with a clearer understanding of where we are and where we are heading. May it inspire you, as it has inspired us, to continue fostering innovation and building a thriving AI ecosystem.

Alice Albizzati,
Founding Partner, Revaia

Willy Braun,
Founding Partner , Galion.exe

Laurence Hémery,
Managing Partner, Chausson Finance

Revaia

GALION.exe

Chausson Partners

Executive Summary

1. Key challenges to tackle in AI in 2024

French AI leaders outlined 8 main challenges we are facing, spanning from technical to business topics:

Open vs. Closed Systems – Balancing intellectual property control with open-source innovation requires strong governance to maintain competitiveness.

Access to Data & Use of Synthetic Data – Synthetic data is essential for overcoming data scarcity, preserving privacy, and enabling robust model development.

Agentic AI – Reliable autonomous AI demands well-engineered pipelines and evaluation frameworks to ensure multimodal performance.

Access to Compute – Cost-efficient APIs and fine-tuning open-source models help democratize AI while managing infrastructure constraints.

Go-to-Market Strategies – Differentiation hinges on early adopters, unique value propositions, and iterative use-case refinement.

Talent War – Bridging AI talent gaps demands stronger academic-industry ties and flexible research roles to boost mobility.

Evaluation & Governance – Trustworthy AI depends on rigorous, evolving benchmarks that address safety, privacy, and transparency.

Sustainability & Energy – AI's growing energy demands require efficiency innovations and grid investments for sustainable scaling.

2. Strong AI Investment Momentum in Europe, vibrant in France

- **AI now accounts for 20% of VC funding in Europe**, and the GenAI wave is just starting: ~70% of the capital is deployed from Seed to Series B

- Median AI deal sizes in Europe command **1.5–4x premiums** vs traditional software deals

- **Investment flows are well balanced** between vertical AI & horizontal AI applications as well as AI infrastructure

- **US investors play a pivotal role, contributing 50% of Series D+** and 20% of early-stage investments in European AI; corporate investors are also stepping in, representing 16% of VC funding in European AI startups at Series B and beyond.

- **France ranks second in Europe for AI,** capturing 22% of European investment flows, just behind the UK and ahead of Germany.

3. Emerging AI players in France

- Our report identifies **more than 400 emerging AI startups**, spanning Infrastructure, Horizontal Applications, and Vertical Applications.

- Unsurprisingly, **AI Infrastructure was the most heavily funded category in 2024**, driven by a standout deal: Mistral AI's $640M+ Series B.

- **Vertical Applications have the highest number of AI startups**, with 200 companies.

- Within Vertical apps, **Health AI stood out as particularly prolific**, with +60 startups, prompting us to dedicate a special focus to it.

- The **same applies to Climate & Sustainability AI**, which, while receiving half the funding of Health AI in 2024, also boasts +60 startups—a testament to its growing momentum.

.01 Key Challenges in the AI World in 2024

The future of AI lies in collaboration, with open source serving as a critical enabler of this vision. Developers and researchers openly share their work in Hugging Face: code, models, datasets, demos with the world.
This collaborative ecosystem is a powerhouse for innovation, breaking down barriers to entry and making knowledge more accessible to everyone.

By pooling resources and expertise, open-source also makes cutting-edge technologies more affordable and inclusive, stimulating innovation from the community, for the community. It is very important to also highlight the transparency of open-source, which encourages collective problem-solving and having everyone as "guardian of the temple".

That's why there shouldn't be only one voice in this industry, hence the relationship between open-source and closed-source is more than a zero-sum game.
On the contrary, the synergy between open and closed-source models is the key to a healthy and sustainable development of AI. Leading tech companies like Meta, Google, and Microsoft have demonstrated this by releasing impressive open models on Hugging Face while maintaining proprietary technologies for their core offerings. This hybrid model leverages the collaborative innovation of open source while ensuring the commercial viability and sustainability provided by closed source.

A balanced approach not only accelerates technological progress but also ensures that the benefits of AI reach as many people as possible while maintaining ethical a responsible practices.

Julien Chaumond
Co-founder & CTO Huggingface

🤗 **Hugging Face**

At Google, our approach is open. We aim to provide industrial companies with all the technological tools they need to embrace AI in alignment with their industries. We offer building blocks, leaving it to these companies to construct their AI solutions based on their specific needs.

Each industry, of course, needs to tailor models to its requirements, rather than the other way around. Above all, data must be treated as dynamic resources. How can we ensure the proper integration of the most recent data? How can we 'unlearn' when scientific knowledge evolves and reshapes the landscape? How can we guarantee the security and confidentiality of data? This requires a broad range of technical skills and expertise.

The coordination between the roles of Chief Technology Officer, Chief Data Officer, and Chief Information Security Officer is essential. Companies must take ownership of this issue and adapt it to define the model best suited to their activities.

Joëlle Barral
Research & Engineering Senior Director, Google DeepMind*

Google DeepMind

*Quote from Joelle Barral's interview in La Jaune et la Rouge, November 2024

For the large foundation models, either companies keep their models private (OpenAI/Anthropic/Gemini) or open-source the inference code and weights (Gemma/Qwen/DeepSeek/some Mistral). It's very rare for companies to open-source their training code and data, which is a bit of the secret sauce behind training these advanced models.

Still, it's certainly a nice effort to open-source the inference part, and a big upside for companies there is to build an ecosystem similar to what happened with open-source software. The goal is to convince the developers that will build the next-generation apps/services leveraging LLMs that using these open models is better than using the closed ones, and that's true for a variety of reasons, e.g. the possibility to choose between different providers, being able to host the model themselves, being able to run smaller versions of the models on the device, making it easier for the developers to debug things that they don't understand etc. The community will also provide performant model hosting software (vllm, ollama, HuggingFace TGI, etc.) so the model builders spend less time building such platforms.

The main downside of open sourcing is "losing control" a bit over the models.

This is also very reminiscent of how open-sourcing went for software. Initially, companies had concerns over open sourcing to preserve their intellectual property, but it's much more common nowadays, and I think this will extend more and more to foundation models as the "there is no moat" sentiment is more relevant than ever.

Finally, on collaboration between open-source communities and closed commercial entities, it's interesting to see that when companies open source a project, it tends to work better if the governance and development are handled in the open rather than just having the code developed in-house being released to the public every so often.

A good example for this is in ML frameworks, PyTorch was open-sourced by Meta and developed in the open, its governance has now been transferred to the Linux foundation and is used by a large majority of researchers nowadays. The main competitor TensorFlow created by Google was open-sourced but with changes being made mostly internally at Google and released to the public every so often this ended up not working as well in building an engaged community.

Laurent Mazaré
Co-Founder & CTO Kytuai

/ kyutai

The foundational nature of Large Multimodal Models (LMMs) highlights a bottleneck: limited amounts of training data, as much of the available internet has already been leveraged. While early breakthroughs came from scaling model sizes, those gains have plateaued, allowing smaller models to close the gap. Current architectures have reached their limits in factfulness, but advancements in reasoning remain possible through synthetic data and inference-time compute.

The next frontier will involve reasoning over longer contexts, accessing knowledge via external tools and performing actions.

Louis Abraham
Adjunct Professor at Sciences Po & Team Lead at H

The question of synthetic data is very relevant today.
At Kyutai, we use a significant portion of our computing resources to generate synthetic data. There are several public, synthetic datasets available for text (e.g., Dolphin), typically generated by very large models like GPT-4o. That said, in the audio domain, such datasets do not yet exist, which leads us to create them by combining text models with text-to-speech systems.

This is likely also useful for startups focused on specific verticals where data is scarce. Finally, it is also used for distilling large models into smaller ones—smaller models tend to learn better from synthetic data (this is the approach used by Microsoft's Phi models).

Laurent Mazaré
Co–Founder & CTO Kytuai
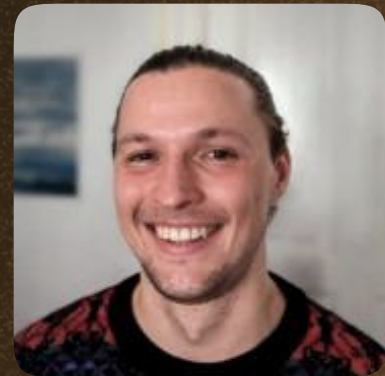
The question of data access is key at PriorLabs, since we are building foundation models to understand spreadsheets and databases. Unlike text and images, which are naturally shared online, tabular data remains locked away in enterprise systems - there's simply no incentive to make it public. This creates a unique challenge: how can we develop large-scale foundation models without compromising privacy or relying on massive public datasets?

Our solution starts with a fundamental shift in perspective. Synthetic data doesn't need to be an exact replica of real-world data. Instead, it should encode the core challenges and principles that underlie real-world scenarios, guiding models to learn not just patterns but how to think about data. For instance, we use generate datasets that emphasize Occam's Razor, making simpler data more common to encourage models to approach problems with straightforward solutions first.

At the same time, we systematically introduce edge cases, missing values, outliers, and complex non-linear relationships to ensure robustness and versatility.

By strategically using synthetic data to fill gaps in real datasets, especially in low-data regions or for rare events, we can accelerate model training while avoiding the risk of overfitting to specific datasets. This approach not only reduces privacy concerns but also allows us to precisely control what our models learn, avoiding both data contamination and biases.

Noah Hollmann
Co-founder PriorLabs

PRIOR
LABS

Agent is potentially the hottest topic in AI today but to go beyond mere demos, many details have to be figured out properly in a scientific manner.
The ability of AI to cover both multimodality (image, text, audio, etc.) and different levels of thinking, from learning to click on a button on a web page to planning a trip and its contingencies, is both a curse and a blessing.

Indeed, now we theoretically are able to have AI models taking the same inputs as us (e.g. an objective, like "Book a flight from Paris to SF", screenshots of a screen) and can output the same actions as us (clicks, types).

However, it is not because it is possible to quickly design such systems, that it will necessarily be as good as humans on these tasks.
One has to remember that LLMs means "Large Language Models" and that its output is the most likely token according to its training data distribution, and the right action might not be easily elicited from simple prompting.

Therefore, there is a big challenge today in systematically having engineering pipelines designed to optimize the likelihood that LLM components output the right answer, from preprocessing of the screenshots, to rephrasing the objective, through Few Shots learning.

In addition, having the right evaluation to ensure that these techniques actually help, and finding their right combination, is a challenge few people tackle today, but is necessary, and maybe sufficient, to the success of agents

Daniel Huynh
Co–founder LaVague

LaVague
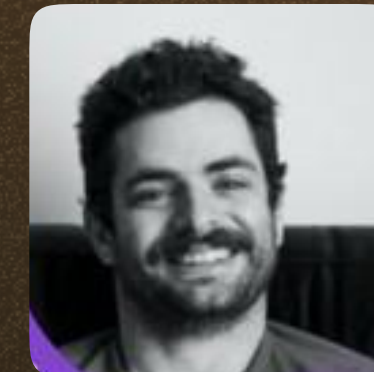
Agentic AI shifts the focus to autonomous use-cases, enabling LLMs to handle critical tasks with partial or full autonomy. The demand is immense, with agentic systems driving automation at scale. Applications range from consumer-level services like automated food ordering or trip booking to enterprise-grade solutions fully integrated into workflows and IT infrastructures (our playground).

Technically, building Agentic AI was not viable before due to limitations in LLM accuracy, context-windows, and infrastructure readiness. LLMs lacked the readiness for production-grade deployment required by Agents, where a LLM should try, learn, iterate.

Recent advancements have addressed these gaps. Enhanced features like instruct fine-tuning, assistant APIs, function calling, and output stabilization (e.g., dottxt) are enabling real-world implementations of agentic systems to move from concept to execution. Several challenges lie ahead, including ensuring accuracy, safety, and other critical factors. The market requires further evidence that agentic systems can effectively address real-world problems while adhering to compliance standards.

One key for short-term adoption is to choose a specific focus. For instance, at 2501, we chose to develop autonomous agents optimized for IT systems, particularly in SRE and Cloud Ops. This relies on the orchestration of multiple LLMs in a model-agnostic framework, ensuring seamless integration into complex infrastructures with optimal cost-performance efficiency.

**Alexandre Pereira**
Co–founder & CEO 2501

Access to computing has gone significantly better in 2024. GPU prices have gone down a lot: for instance, the Nvidia H100 flagship can be found below $2/hr and is much easier to find compared to the end of 2023. In the same way, the cost of text tokens generated by the different Application Programming Interface (API) providers has dropped a lot too (around 10x), so it's a lot less expensive to build products on top of them.

There are still challenges for startups that want to train foundation models, like Mistral, as it remains pretty expensive to do, especially because training frontier models use much more compute compared to last year. But, for most startups fine-tuning open-source LLMs should be fairly accessible, and these models have reached tremendous performance (see llama3, Qwen 2.5, or Deep Seek v3).

Most of the innovation will probably come through APIs that are easier to use directly and that make it possible to customise the models that they offer.
The big players there wouldn't be the pure cloud providers but companies that are both good at serving and building models, such as OpenAI, Google Cloud Platform, Anthropic, Mistral, Alibaba Cloud, etc. (Meta does not have an API offering yet, but advertises a standard API that multiple providers would share to provide inference on models from the llama family).

Laurent Mazaré
Co-Founder & CTO Kytuai

/ kyutai
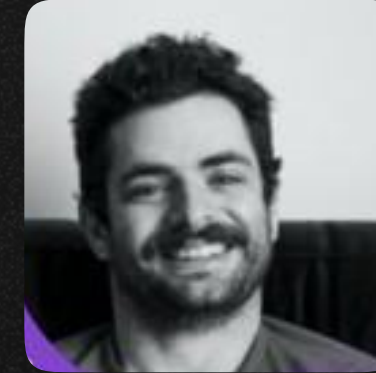
We're witnessing the rise of key players shaping the infrastructure layer on which startups are building AI products with cost-efficient solutions for LLM delivery and on-demand hosting.

In the first category, companies like Cerebras, Groq, and SambaNova are setting new norms. By leveraging proprietary or highly customized infrastructure, they're delivering state-of-the-art performance in terms of accuracy and speed.
For instance, flagship models like Llama 3.1 and 3.3 are now capable of processing up to 2,000 tokens per second at marginal costs.
This unlocks new opportunities, especially in agentic AI, where such instantaneity is critical for Chain-of-Thought (CoT) refinement and feedback loops, allowing AI agents to iterate in real time, refining task resolutions or correcting errors as they emerge.

On the hosting side, we're seeing a surge in providers like Baseten and Google Cloud Vertex, which simplify the deployment of LLMs. These platforms remove the complexity of GPU management and scalability, dramatically reducing the learning curve of production and time-to-production. This is particularly important for deploying customized setups tailored to advanced customers, such as corporations or governments, where off-the-shelf solutions from OpenAI or Anthropic might not always fit the brief.

Alexandre Pereira
Co-founder & CEO 2501

05.
GO TO MARKET STRATEGIES (1/2)

One of the unique challenges of AI companies in the current context is to navigate and avoid a hype trap. The AI hype can give companies the illusion of unlimited exponential growth, but most companies are currently dealing with early adopters, who are not representative of the mainstream market.

Today, companies need to leverage their early adopters to identify the Ideal Customer Profiles (ICPs), which will allow them to continue scaling in the mainstream market.

Gaëtan Gachet
former CSO, Algolia

Centrally planning the identification and prioritisation of use cases is the number one bottleneck to the speed of adoption of GenAI in companies. At Dust, we take a fundamentally different approach, by enabling progressively more complex and orchestrated use cases to be designed, deployed, and optimised by the business teams themselves rather than by central IT/Tooling teams.

There's more to gain from exploring many use cases concretely and iterating fast than by spending time planning when the actual experimentation and workforce training will always be the final judge of business value. There's no time to waste for companies to leverage this technology wave, and the talent that's best suited for it is hard to identify ex ante since it's people who have an iterative and exploratory mindset rather than a specific set of hard skills.

By being broadly deployed and letting use case emerge bottoms-up, Dust acts as "heat seeking software" for the talent in companies that's going to most accelerate with GenAI.

Gabriel Hubert
CEO & Co-founder Dust

I do not share the view that AI adoption in industry is currently of greater interest to large corporations than to SMEs or mid-sized companies, which may lack the necessary skills or data. On the contrary, I firmly believe that all entrepreneurs, from startups to SMEs and mid-sized companies, are considering how to harness the potential of AI.

The goal is to put AI in the hands of everyone to help them achieve their objectives. People remain the cornerstone more than ever! In this sense, the issue of training and support is absolutely vital.

Joëlle Barral
Research & Engineering Senior Director, Google DeepMind*

*Quote from Joelle Barral's interview in La Jaune et la Rouge, November 2024

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AI startups face the dual challenge of building trust while competing against well-established players who benefit from existing distribution networks. Startups must focus on laser-targeted positioning, leveraging early customers as ambassadors, and demonstrating immediate value. The goal isn't just to prove technical superiority, but to align with decision-makers who demand both ROI today and scalability for tomorrow.

One universal truth remains: the qualification process is key. It always starts with creating a genuine human relationship—understanding the client deeply, qualifying their needs, and building a clear action plan together.

Lara Khanafer,
x Kara.ai, xToucan, former country opener at Dataiku

Kara   TOUCAN TOCO   **dataiku**

AI startups face a dual go-to-market challenge: standing out and scaling up.

The dominance of general-purpose models like OpenAI and Anthropic's, which deliver exceptional versatility and adaptability, raises the bar for differentiation. To thrive, startups must carve out unique value propositions, positioning and product features that resist commoditization in a rapidly evolving market.

At the same time, distribution is an uphill battle. Established players have secured key partnerships with cloud giants and data platforms, granting them unparalleled customer access. For newcomers, success hinges on forging strategic alliances and mastering marketing and sales execution to break through and achieve sustainable growth.

Guillaume Duvaux
ex Algolia, ex Terality, ex Poolside.ai

algolia   **terality**   **poolside**

One of the biggest challenges for AI-driven startups is building a team of engineers who are not only technically exceptional but also deeply attuned to user needs and product dynamics. This is especially critical for a product with universal reach, like ours, which aims to transform the online shopping experience through AI. Cultivating a culture that empowers teams to develop their expertise while staying laser-focused on solving user problems—rather than pursuing technology for its own sake—is vital. This requires hiring individuals who are as passionate about the product as they are skilled in their craft.

Another key challenge lies in fostering a tech culture that seamlessly integrates AI research, AI engineering, and broader engineering disciplines. The toughest problems in AI often emerge at these intersections. For instance, at Joko, one of our primary challenges is mastering the interplay between search engines and LLMs, which demands a wide-ranging technical skill set. Scaling AI applications to support millions of users also brings significant infrastructure and ML Ops demands, making it essential to recruit engineers who are both technically adept and willing to dive into the complexities of real-world implementation. The good news is, continuous learning drives top talent!

Alexandre Hollocou
Co-founder and CTO Joko

The global competition for AI talent has created a unique challenge for startups. Success in this arena hinges on a delicate balance between attracting international experts and retaining local talent.
It is essential to maintain a positive net flux of talents. While France, and Europe more broadly, has strengthened its academic and research systems, with institutions like the European Research Council offering unparalleled funding opportunities, the region faces administrative and structural barriers that hinder its competitiveness.
Complex visa processes, limited mobility between academia and industry, and rigid public-private transitions contrast sharply with the fluidity seen in countries like the U.S.

Salaries remain a significant factor, but Europe's appeal lies equally in its quality of life, robust research grants, and the growing number of initiatives to bridge the gap between academia and industry.
Programs such as PR[AI]RIE-PSAI lead by PSL University demonstrate how collaboration across universities and companies can enhance the talent pipeline. For emerging startups, the challenge lies in striking the right balance—while tech giants offer lucrative packages and academia retains its prestige for top researchers, forging strategic partnerships can be key to attracting and collaborating with top talents.

Isabelle Ryl
Director of PR[AI]RIE-PSAI and Vice-President IA of PSL

In research, the challenges stem from the sheer scale of global efforts, which has turned it into a race—one that increasingly resembles an arms race.

This competition is further intensified by the fact that many researchers, whether permanent or temporary, in both public and private sectors, aim to work on a few high-visibility topics. These areas often promise access to extremely high salaries or other extraordinary material benefits.
As a result, many researchers strive to work on topics where they are structurally disadvantaged compared to major players like Google or Facebook, particularly due to limited access to computational resources. Additionally, there is a risk of losing expertise in areas outside these trending topics. Conversely, researchers without access to these resources may find themselves unable to keep up, leading to a growing divide. This creates a two-tier system within the research community.

The same dynamics apply to talent development, as the actors and mechanisms are often the same. In France, this issue has worsened in public research due to the rigid administrative dogma surrounding ethics and conflict-of-interest management. This approach tends to discourage—or sometimes outright prohibit—part-time arrangements for researchers working between academia and large industrial players, further exacerbating the problem.

Gaël Varoquaux
Co-founder Probabl, scikit-learn & Research director at Inria

:probabl. *Inria*

The race to build the ultimate AI has intensified the war for talent in a field with minimal IP protection, few trade secrets, and engineering expertise that translates to critical months of lead time.

Paris has emerged as a global AI hub, driven by elite education programs and early arrival of pioneering big tech players like Facebook AI Research in 2015 and DeepMind in 2018.
This influx of global tech leaders has turned Paris into a magnet for top AI talent, driving compensation packages to levels on par with those in the US. As a result, smaller startups face steeper challenges in hiring and must raise larger rounds to compete, further expanding the "AI premium" in funding.

Finally, the success of Chinese models amid hardware shortages underscores the need for hardware and low-level optimization specialists, a talent pool historically courted by hedge funds, like the firm behind DeepSeek.

Louis Abraham
Adjunct Professor at Sciences Po & Team Lead at H

SciencesPo. ● H

Beyond the benefits that AI assistants have delivered in the last couple of years, a series of questions remain about how they work, how safe and reliable they are, and whether the data they use is secure. Prioritising factors like privacy, safety, and reliability is easier said than done, especially when innovation moves faster than regulation.

And as a relatively new field, AI governance, which can be defined as a set of policies, frameworks and ethical guidelines aimed at ensuring the responsible use of AI technologies, lacks a universal framework, and regulatory guidelines are still evolving.

Even in critical industries such as health, only 30% of healthcare organisations have fully developed responsible strategies to address considerations such as bias and transparency.

We believe every provider of AI technologies should put in place checklists, including essential items such as: data protection, bias mitigation, validation framework and output reliability, embedded safety protocols, cybersecurity integrity, and transparent documentation.

Delphine Groll
Co–founder & COO Nabla

Nabla
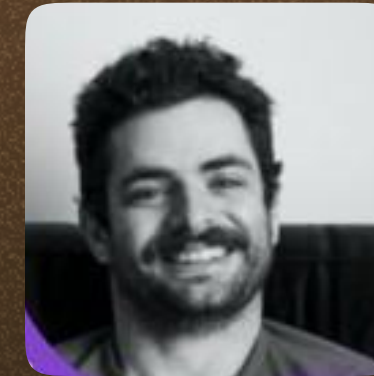
Evaluation has become a critical focus area in AI. While each new model release is accompanied by benchmarks touting performance improvements, the deeper issues of safety and, more importantly, reliability often remain unaddressed. The deployment of AI— particularly autonomous agents for critical tasks—will hinge on the community's ability to make AI both trustworthy and dependable.

As the demand for meaningful evaluation grows, we'll likely see the emergence of dedicated benchmark providers and benchmarks as go-to-market needs. Accuracy measurement is vital for end users, particularly in enterprise environments where interest in agentic AI is high but trust is not yet established.

For these applications to gain widespread adoption, developers must demonstrate transparency and reliability—showing "clean hands," so to speak. Trust will be the foundation upon which the next generation of AI applications is built.

Alexandre Pereira
Co–founder & CEO 2501

"Do you have benchmarks?" — It's the question we hear most often. But the truth is, model evaluation lacks a universal standard. Every team seems to approach it differently, which makes consistent benchmarking a challenge.

Evaluation seeks to answer seemingly simple questions: does the output meet the desired objective? How does model performance evolve? However, when you start to unfold the questions, you realise how complex it is, as performance evaluation involves numerous variables to consider.

Let's take a concrete example with the question of inference optimisation. We'd start with verifying if the base model replicates the accuracy reported in its original paper. But a key challenge is aligning on what "inference time" means—whether it includes end-to-end generation, warm-up time, or encoder/decoder processes.

Also, consistency in the evaluation environment, such as GPU configurations, preprocessing, and package versions, is critical to ensure valid comparisons. Even worse, metrics themselves can be contentious, as even standard ones may lack unanimous agreement on their calculation. When testing across diverse hardware and defining thresholds for optimisation, the process risks becoming highly intricate and chaotic.

The hard part is also making people properly setup the tech stack to make the proper evaluation happen. That means understanding the context(s), picking the right methods, and adapting them to real-world problems. And it's not a one-time thing either; this process involves constant testing as the model evolves.

Bertrand Charpentier
President & Chief Scientist Pruna AI

Pruna AI

SUSTAINABILITY & ENERGY

Meeting AI's energy demands will depend on ongoing innovation, investment, and cooperation. While data center electricity demand has been projected to rise significantly—potentially by 160% by 2030—recent developments in AI efficiency could influence these estimates. The U.S. may require substantial investments, potentially up to $50 billion for new data centers, while Europe faces significant grid upgrades, estimated at over $1 trillion to support future electric demand, including AI, heat pumps, and electric vehicles.

Large Language Models (LLMs) have been associated with high energy consumption due to their complex architecture and data demands. While a single ChatGPT query has been estimated to use up to 10x more power than a Google search, advancements in model efficiency, such as those seen in DeepSeek, could impact these figures. Training has traditionally required vast computational resources, and inference remains energy-intensive, though optimization techniques may help mitigate these costs. Tech giants, including Amazon and Microsoft, invested $110.2 billion in 2023, with projections reaching $200 billion by 2025—primarily for AI infrastructure, though future spending trends could shift as models become more efficient.

JB Rudelle
Venture Partner Galion.exe, co-founder Criteo & Zenon Research

Accelerating climate action through large-scale AI adoption is just as crucial as addressing the environmental impact associated with it.

Our data centers are over 1.5 times more energy-efficient than conventional data centers, and we have identified practices that can reduce the energy required to train an AI model by up to 100 times. The challenges ahead are immense. However, today's young engineers and researchers have many tools at their disposal to take part in this revolution and translate it into solutions that serve the greater good.

Joëlle Barral
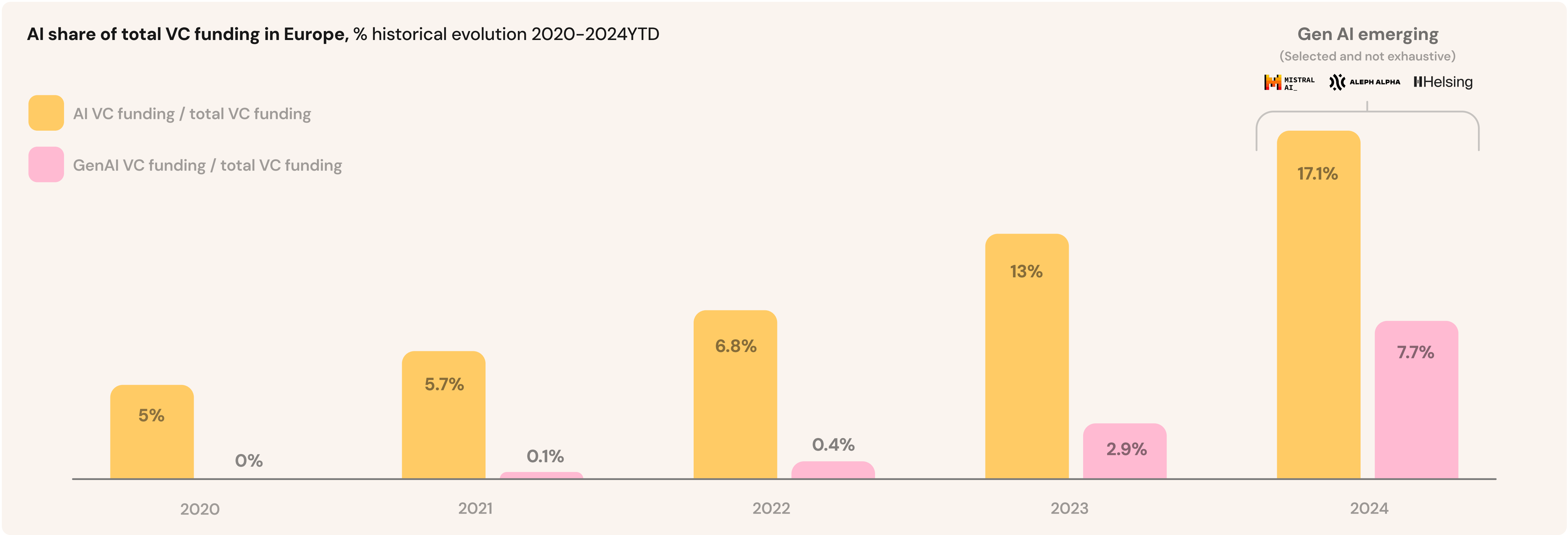Research & Engineering Senior Director, Google DeepMind*

*Quote from Joelle Barral's interview in <u>La Jaune et la Rouge</u>, November 2024

Funding the Future of AI: A France & Europe Overview

.02.1 Funding Landscape in Europe

ONE FIFTH OF VC MONEY IN EUROPE GOES INTO AI (AND GROWING FAST)

AI has for long been a technology enabler with long-standing application in software development within both the infrastructure and application layers; Today we see an explosion in AI investment triggered by the commercialization of GenAI models with a strong impact on the investment landscape


AI share of total VC funding in Europe, % historical evolution 2020–2024YTD

Gen AI emerging
(Selected and not exhaustive)

MISTRAL AI_   ALEPH ALPHA   Helsing

- AI VC funding / total VC funding
- GenAI VC funding / total VC funding

Year	AI VC funding / total VC funding	GenAI VC funding / total VC funding
2020	5%	0%
2021	5.7%	0.1%
2022	6.8%	0.4%
2023	13%	2.9%
2024	17.1%	7.7%

While AI has been an investment thesis for a while, Gen AI proliferation has channelled funding into AI-enabled tools and LLM companies
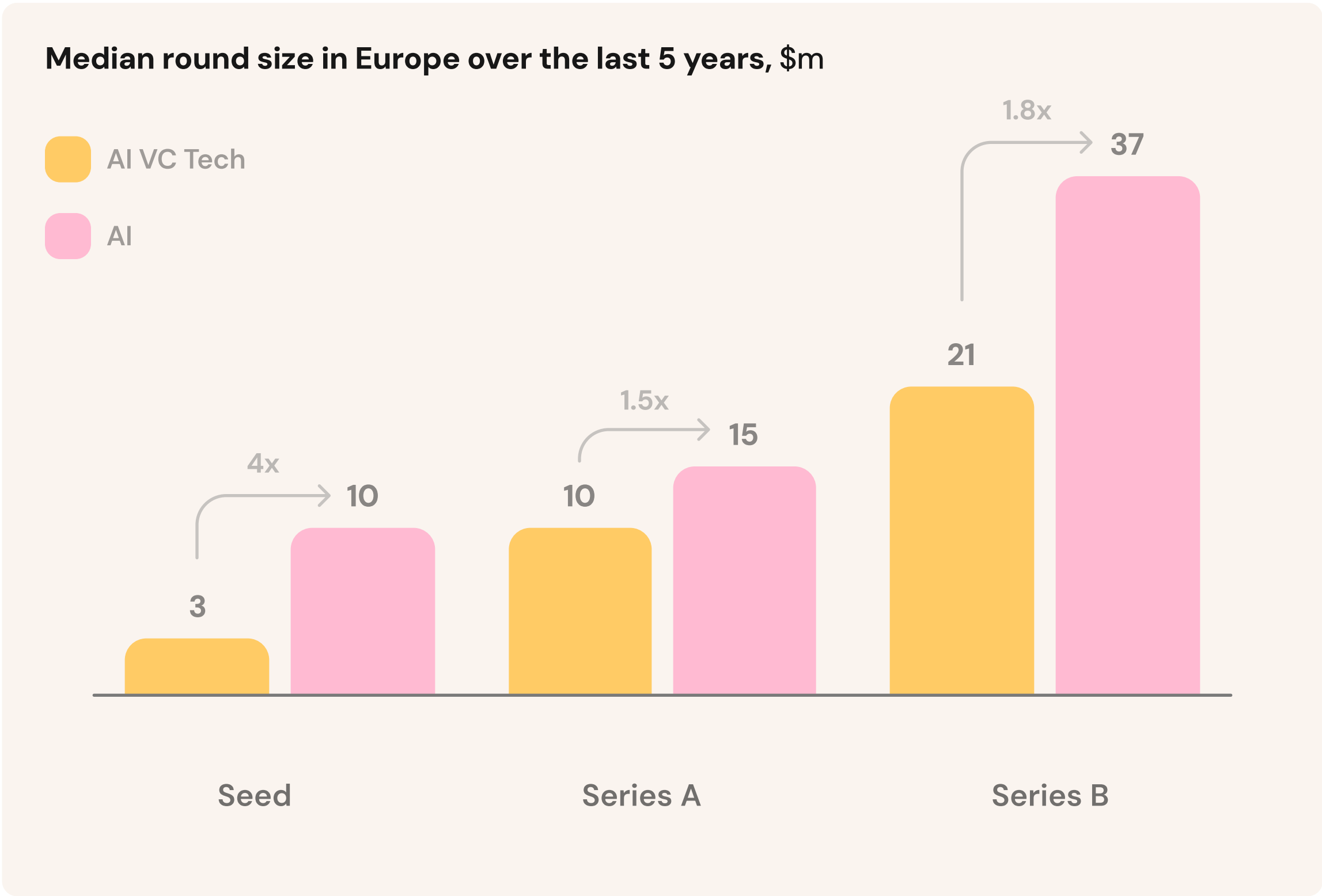
EUROPEAN CAPITAL FLOWS INTO AI: SPLIT BY STAGE AND ROUND SIZE

Milestone "**mega**" transactions are just the tip of the "**AI funding iceberg**" with deals getting done across the entire stage spectrum from with an acceleration in the earlier stages from Seed to Series B.
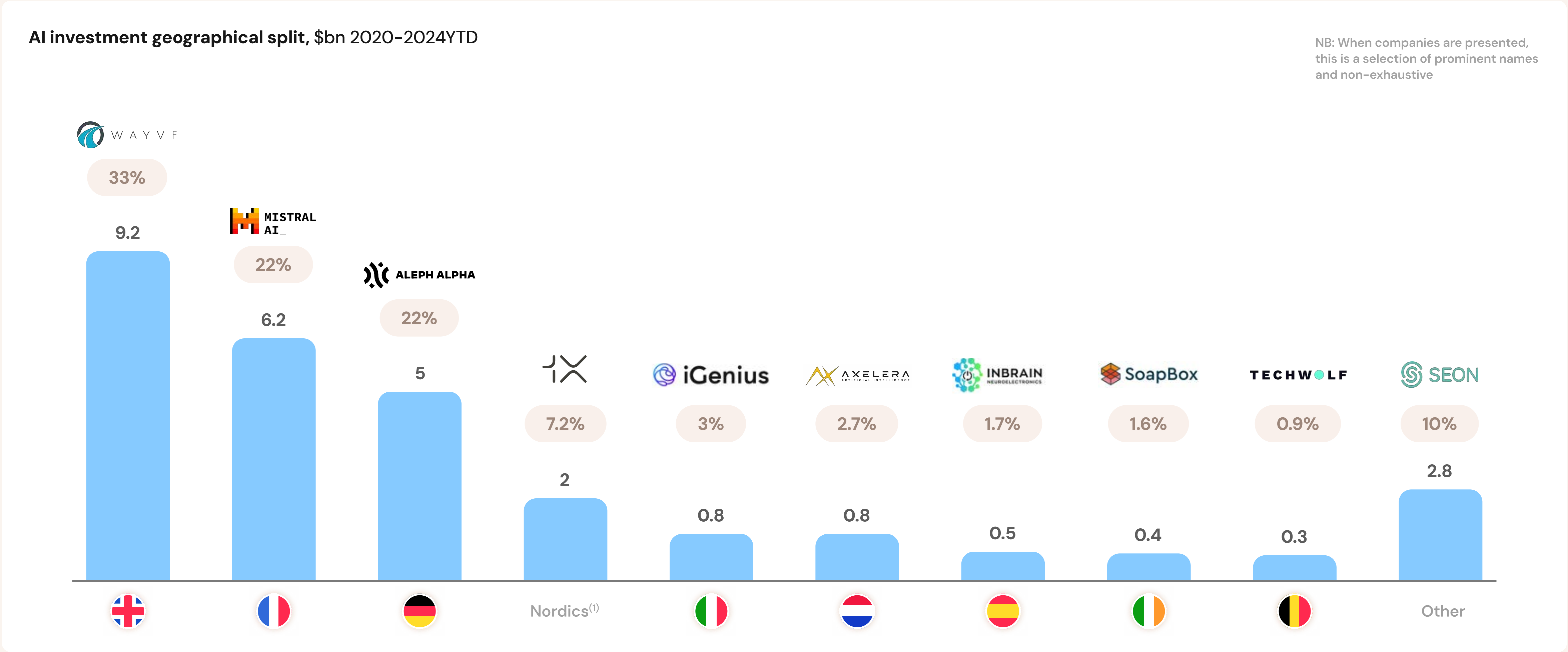
Europe AI VC investment by stage, $bn
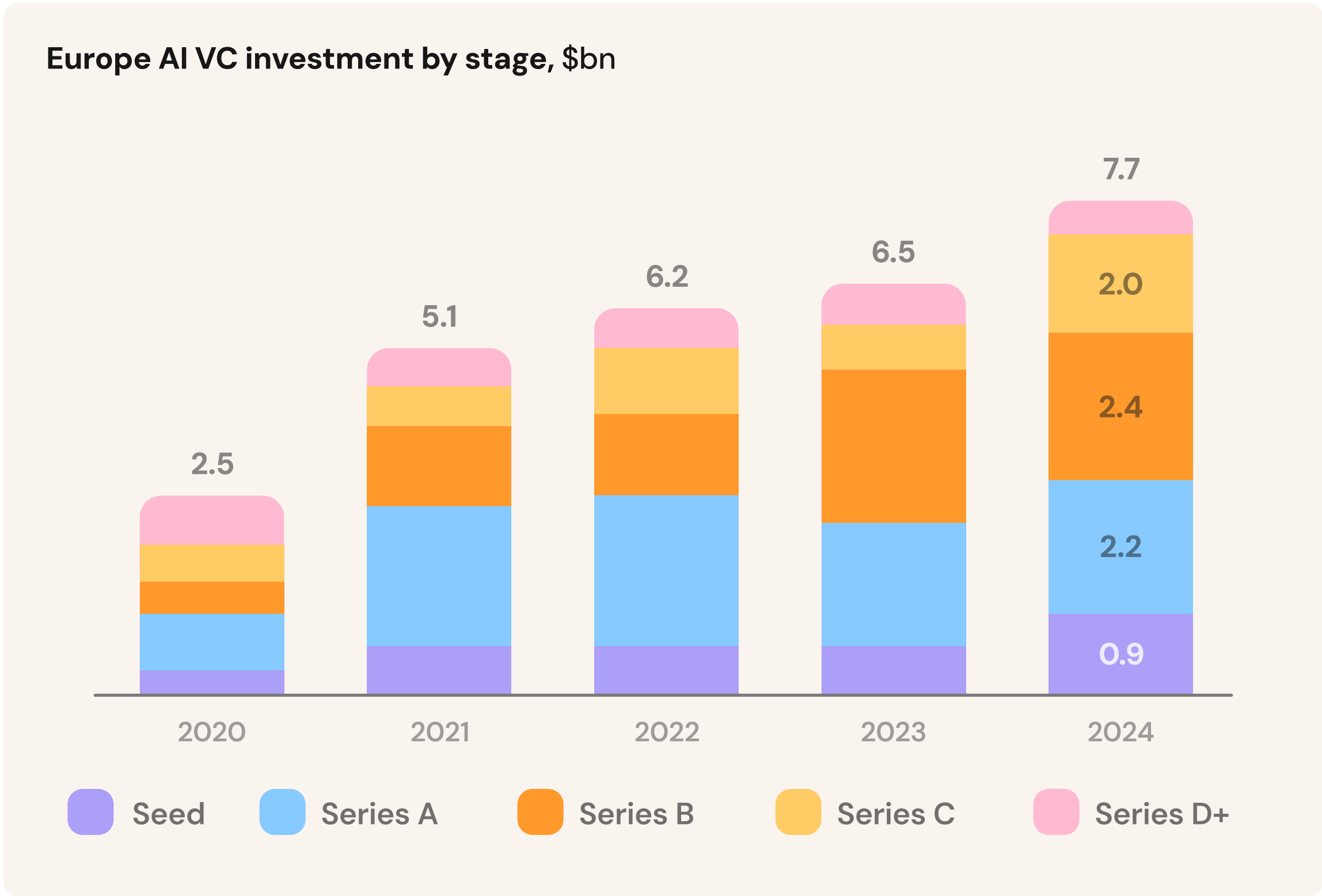
The (Gen)AI wave is just starting: ~70% of the capital is deployed from Seed to Series B with companies growing fast into consecutive rounds.

Median round size in Europe over the last 5 years, $m

AI deals command a significant size premium when compared to traditional software deals.
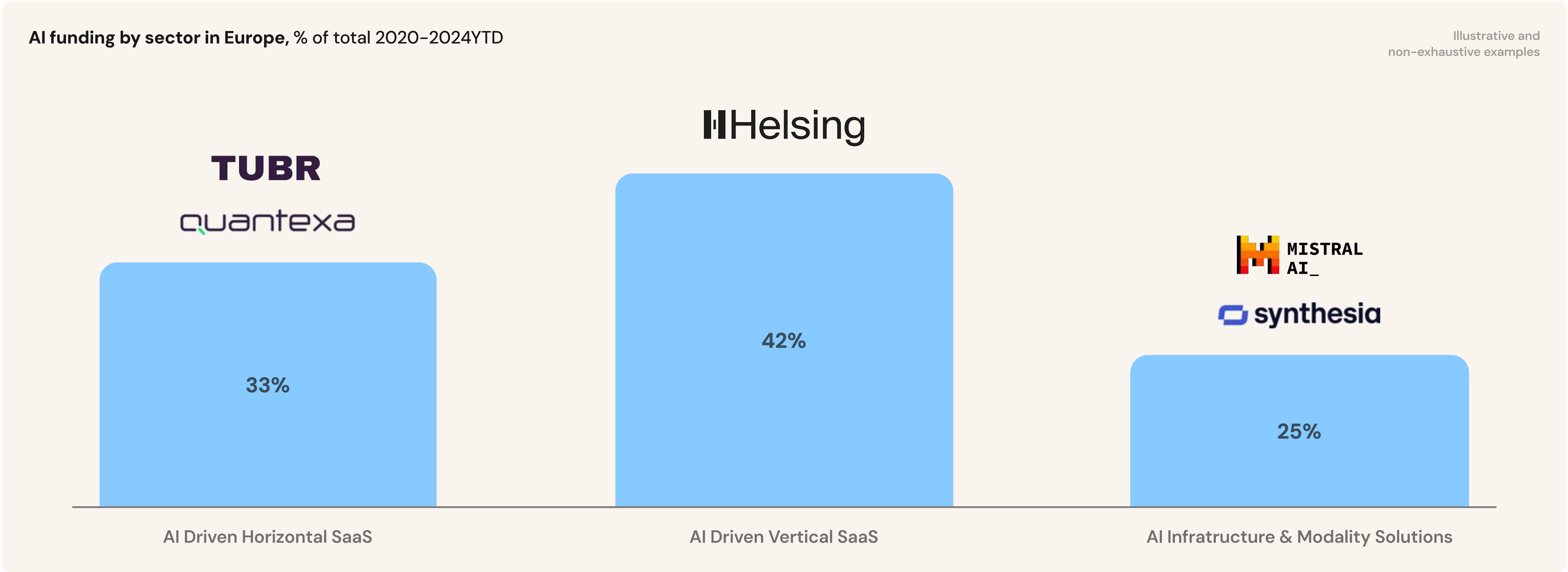
EUROPEAN CAPITAL FLOWS INTO AI: SPLIT BY COUNTRY

AI investment is concentrated in major European tech markets.
UK, France and Germany cover more than 70% of the invested amount.

AI investment geographical split, $bn 2020–2024YTD

NB: When companies are presented, this is a selection of prominent names and non–exhaustive

WAYVE
33%
9.2

MISTRAL AI_
22%
6.2

ALEPH ALPHA
22%
5

iX
7.2%
2

iGenius
3%
0.8

AXELERA ARTIFICIAL INTELLIGENCE
2.7%
0.8

INBRAIN NEUROELECTRONICS
1.7%
0.5

SoapBox
1.6%
0.4

TECHWOLF
0.9%
0.3

SEON
10%
2.8

🇬🇧 🇫🇷 🇩🇪 Nordics[1] 🇮🇹 🇳🇱 🇪🇸 🇮🇪 🇧🇪 Other

Source: Pitchbook and Revaia Analysis
Note: (1) Nordics includes Sweden. Norway, Denmark, Finland and Iceland.
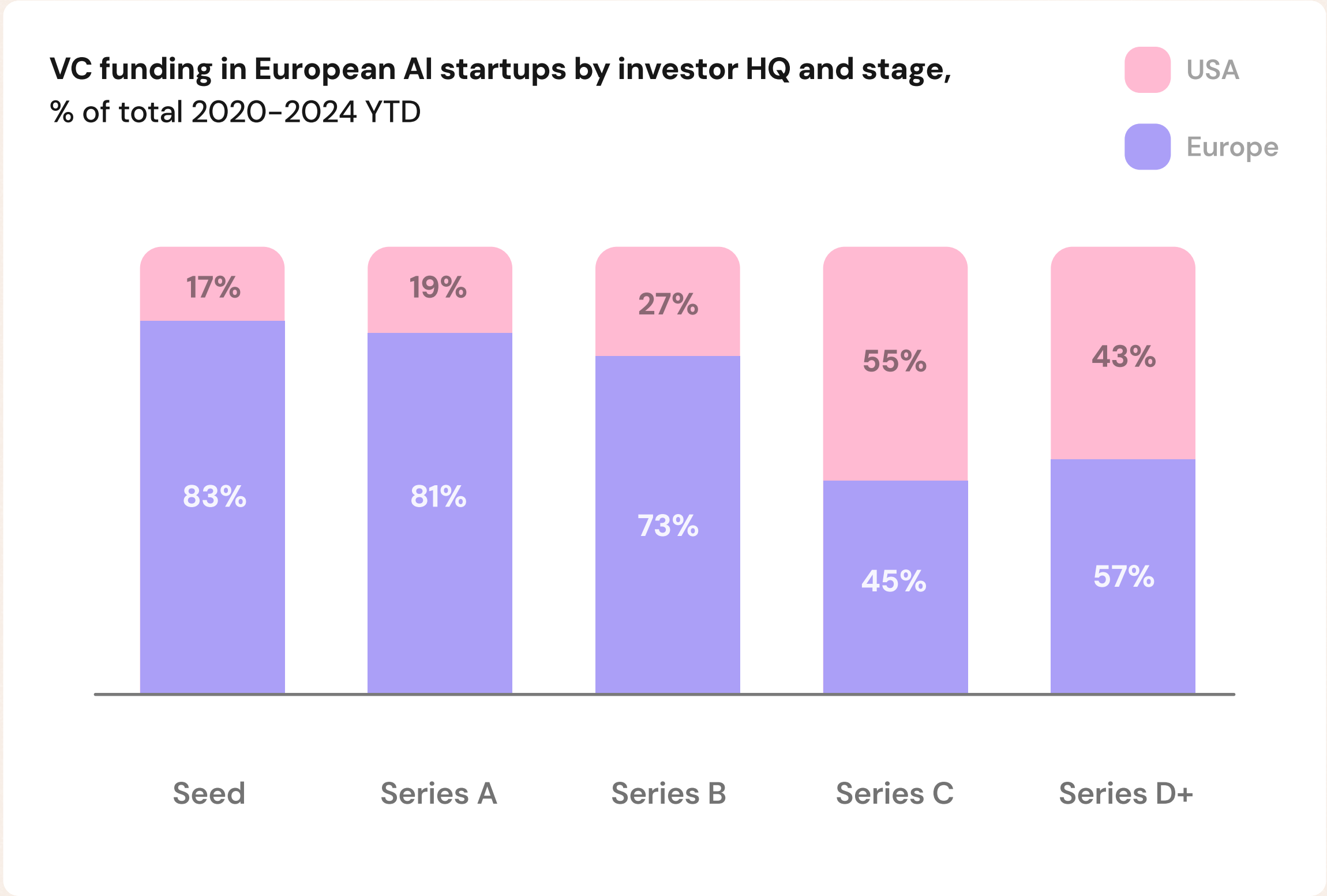
24

EUROPEAN CAPITAL FLOWS INTO AI: SPLIT BY SUB-SECTOR

AI-enabled vertical and horizontal software tools are proliferating on top of an evolving and expanding AI Infrastructure layer.

AI funding by sector in Europe, % of total 2020–2024YTD

Illustrative and non-exhaustive examples

33%	42%	25%
AI Driven Horizontal SaaS	AI Driven Vertical SaaS	AI Infratructure & Modality Solutions

AI is a powerful technology which is transforming industries by embedding in modern powerful software tools across both the vertical and horizontal application layer.

EUROPEAN CAPITAL FLOWS INTO AI:
INVESTOR PERSPECTIVE BY GEOGRAPHY AND BY CAPITAL TYPE

VC funding in European AI startups by investor HQ and stage,
% of total 2020–2024 YTD

Legend: USA | Europe

Stage	USA	Europe
Seed	17%	83%
Series A	19%	81%
Series B	27%	73%
Series C	55%	45%
Series D+	43%	57%

VC funding in European AI Series B+ startups by investor type,
% frequency of participation in deal count

Large pool of capital across stages

- Venture Capital — 75%
- Corporate — 16%
- Public Investor — 9%

Corporate investors increasingly deploying capital direct or via CVC arms :
Google, GV, Microsoft, M12, Orange Ventures, NVIDIA., European Innovation Council

Deals concentrated across few leading public investors :
bpifrance, British Patient Capital, European Innovation Council

US VC plays a pivotal role in Europe accounting for one fifth of the early stage investments and 50% of later stages.

US investors are making strides in investing in European AI companies especially at the more mature stages of the investment lifecycle.
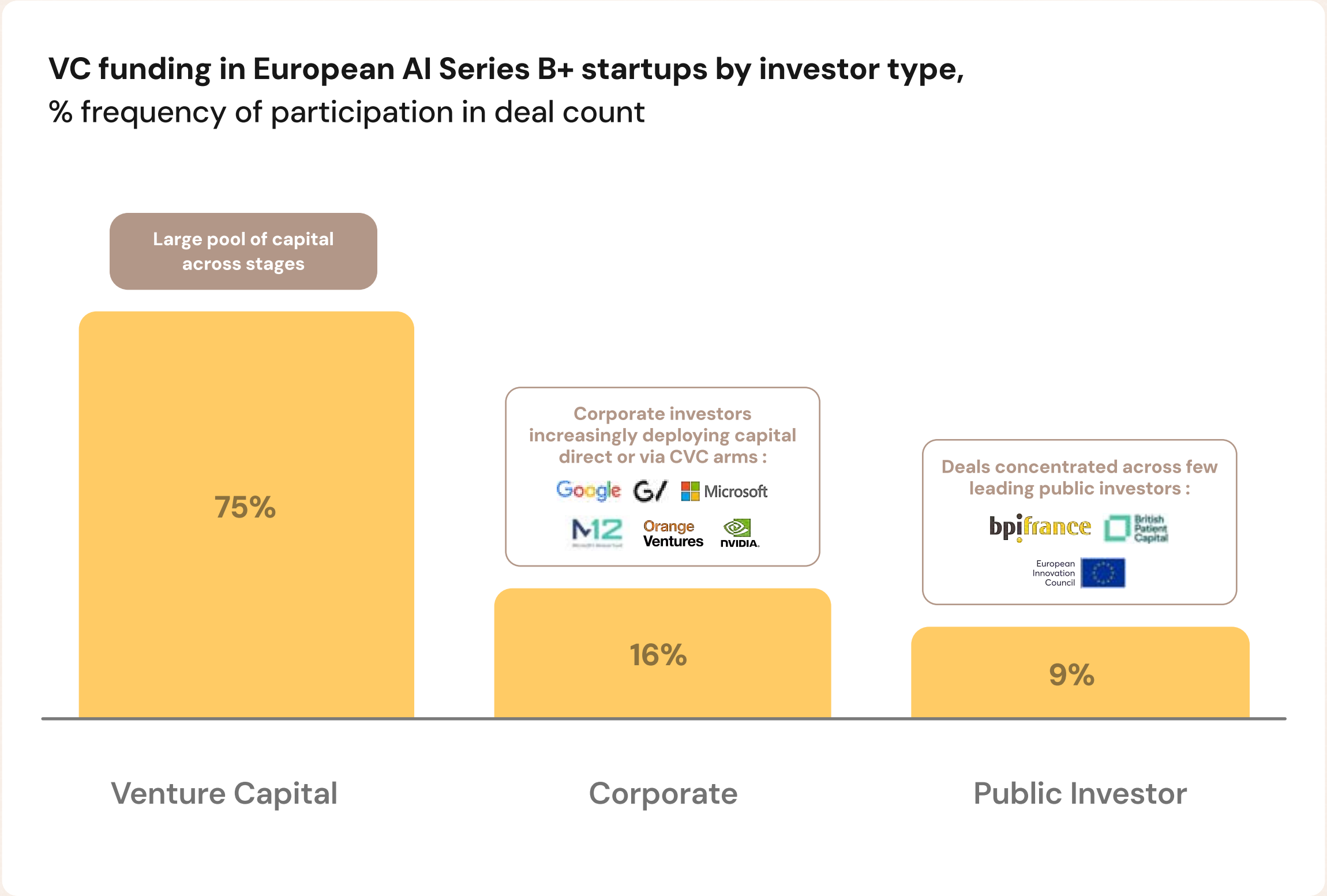
Most of the AI funding is deployed by traditional investors like venture capital funds across stages with an increasingly important role played by corporate VC and public institutions.

Most of the deals done are by VC investors from across Europe and the USA, with Corporates driving both innovation and adoption, alongside Public investors supporting the ecosystem.

INVESTMENT DYNAMICS IN AI

Financial institutions are increasingly leveraging AI to drive digital transformation, with applications across customer service, operational efficiency, and risk management.

BNP Paribas has been working on this transforming technology for years, with already over 750 use cases deployed across businesses.

We collaborates tightly with partners like Mistral AI to explore and implement new traditional and generative AI solutions, notably on hyper-personalized digital services, optimized treatment of client interactions and streamlined processes.

Looking ahead, our collective challenge will consist in seizing this unique opportunity to reshape modern banking, while being extra vigilant on ethics, sustainability and cybersecurity.

Renaud Dumora
Deputy Chief Operating Officer of BNP Paribas,
Head of Investment & Protection Services (IPS)

BNP PARIBAS

Corporates are increasingly positioning AI as a strategic and efficiency enabler, by leveraging robust infrastructure and fostering collaboration with large tech partners as well as start-ups. The success of GEN AI adoption depends significantly on advanced infrastructure, exemplified by Orange Business's GPU-as-a-service offerings in partnership with the start-up Light-on, as well as trust, brought by the security of data and training, proposed by several Orange solutions, which also feature turnkey services to democratize the use of AI among smaller businesses. Additionally, Orange massively deploys AI to optimize its infrastructure and reduce its carbon footprint, as well as to improve the quality of its services for its 290 million customers, within ethical and sustainable frameworks.

For progress to materialize, strong partnerships, shared expertise and collaboration among corporates, Tech companies, startups, as well as research institutions, are critical, especially for companies like Orange that will help bring AI and GEN AI benefits at scale for everyone in a sustainable way.
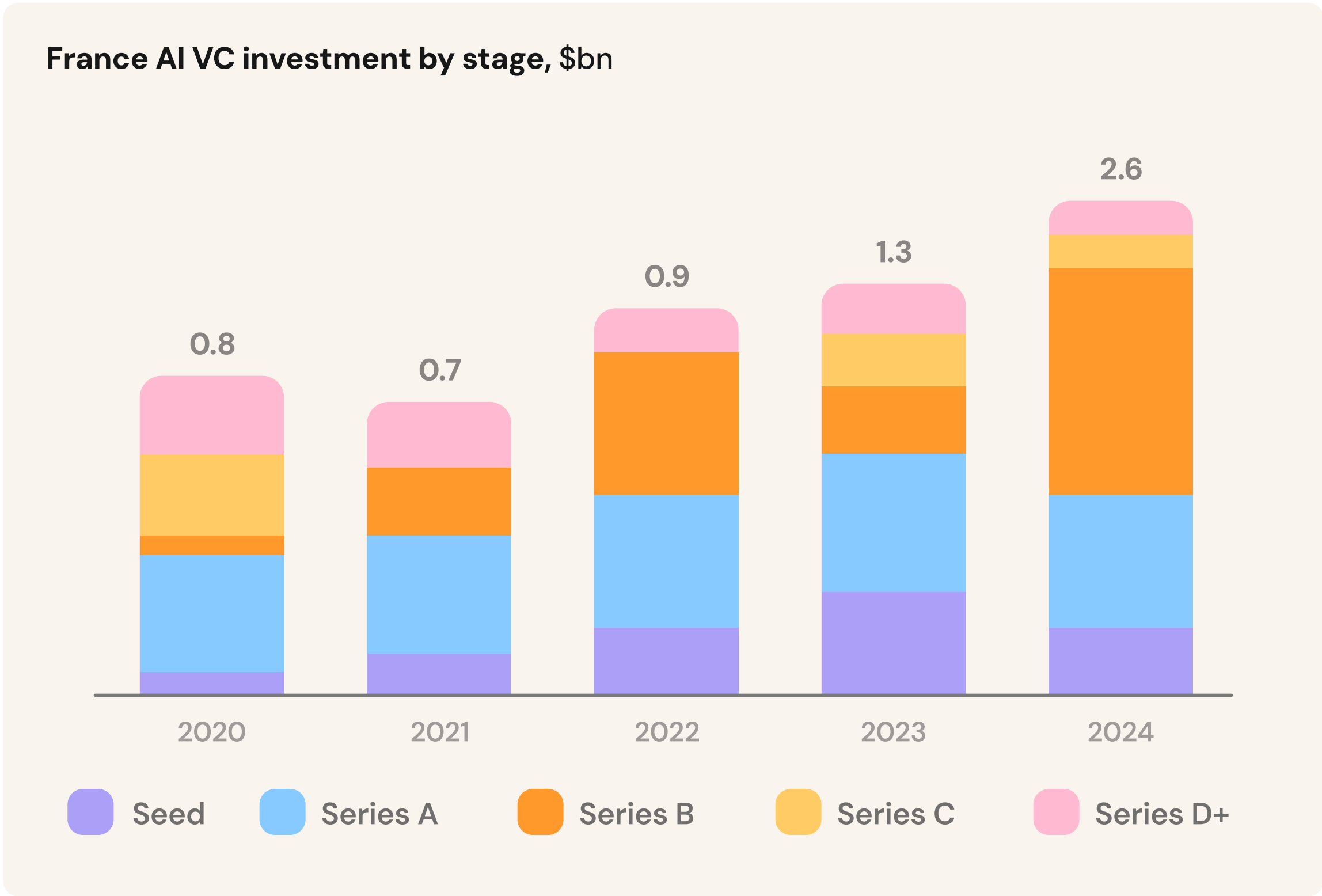
Jérôme Berger
Head of Group Strategy at Orange
President at Orange Ventures

orange

.02.2 Funding Landscape in France

FRANCE CAPITAL FLOWS INTO AI: SPLIT BY STAGE AND ROUND SIZE

France has seen a significant amount of AI investment especially in 2023 and 2024 following the emergence of LLM and Gen-AI leaders such as Mistral AI.

France AI VC investment by stage, $bn
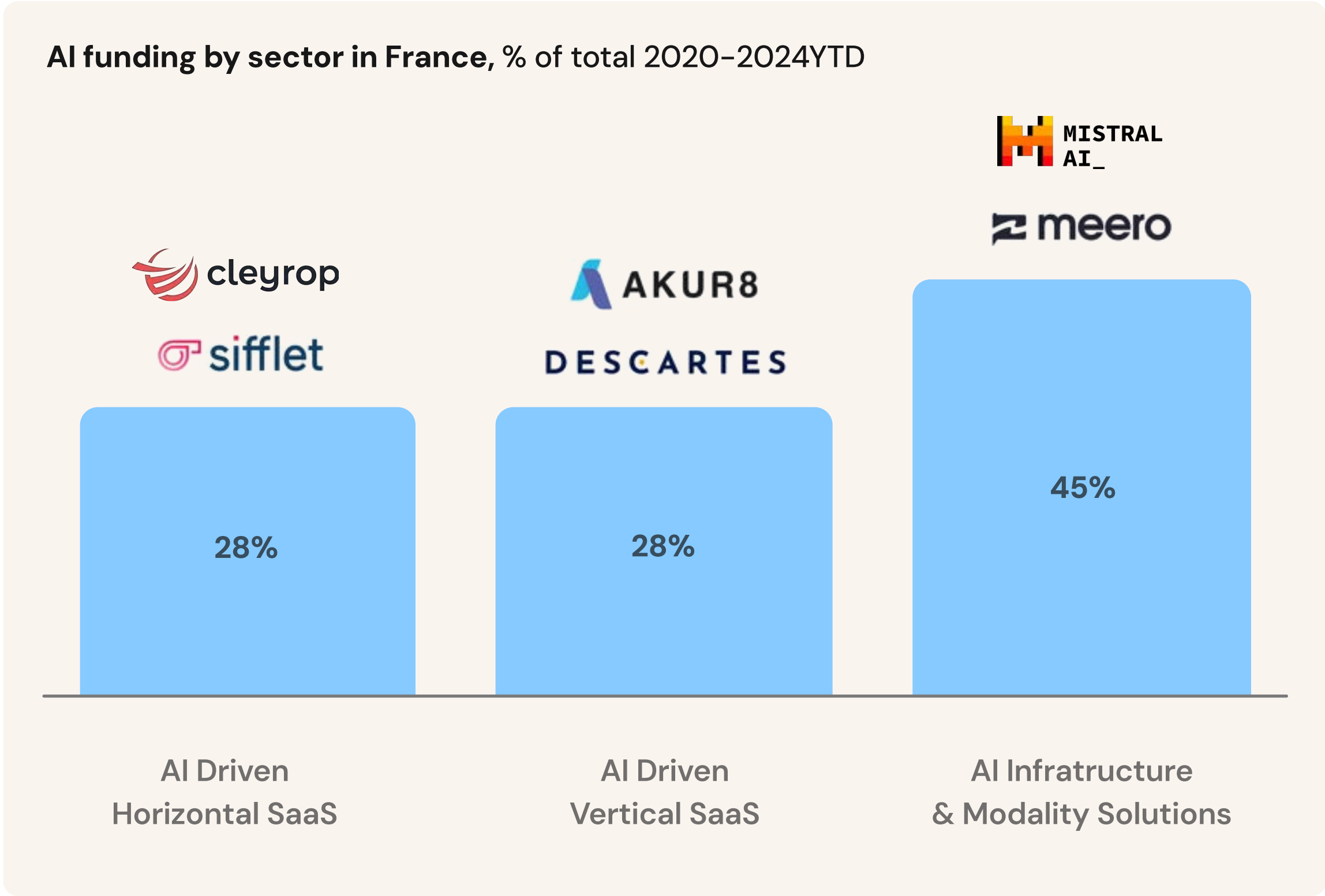

2024 is an outlier with significant amount of capital deployed in the Series B stage which includes Mistral's Series B of $640m+.

**Median round size in France over the last 5 years, $m**
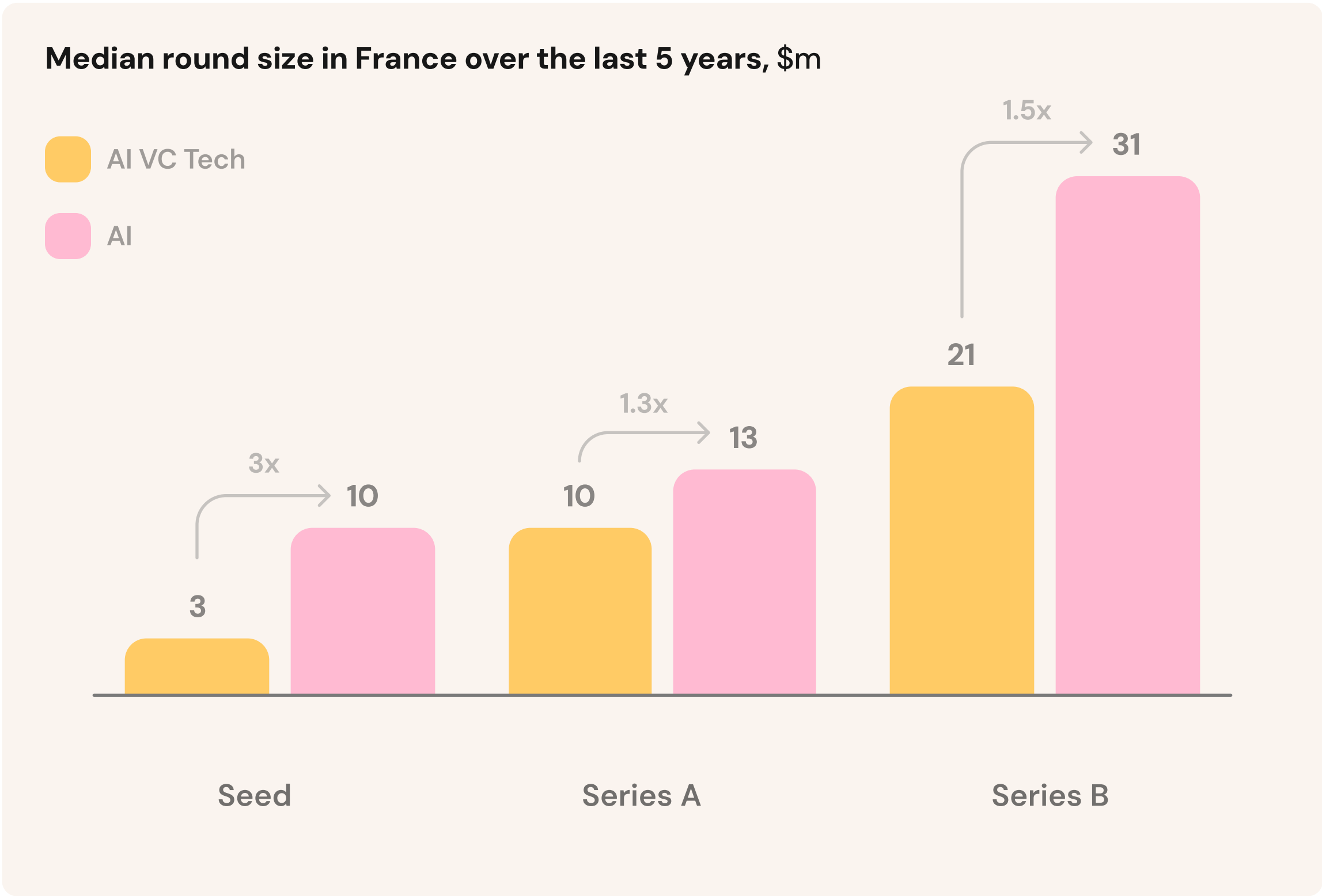
AI deals command a significant size premium when compared to traditional software deals.

FRANCE CAPITAL FLOWS INTO AI:
SPLIT BY SUB-SECTOR AND INVESTOR PERSPECTIVE

AI funding by sector in France, % of total 2020–2024YTD

28%	28%	45%
AI Driven Horizontal SaaS	AI Driven Vertical SaaS	AI Infrastructure & Modality Solutions

VC funding in French AI startups by investor HQ and stage,
% of total 2020–2024YTD

USA
Europe

	Seed	Series A	Series B	Series C	Series D+
USA	29%	28%	38%	12%	61%
Europe	71%	72%	62%	88%	39%

AI is a powerful technology which is transforming industries by embedding in modern powerful software tools.
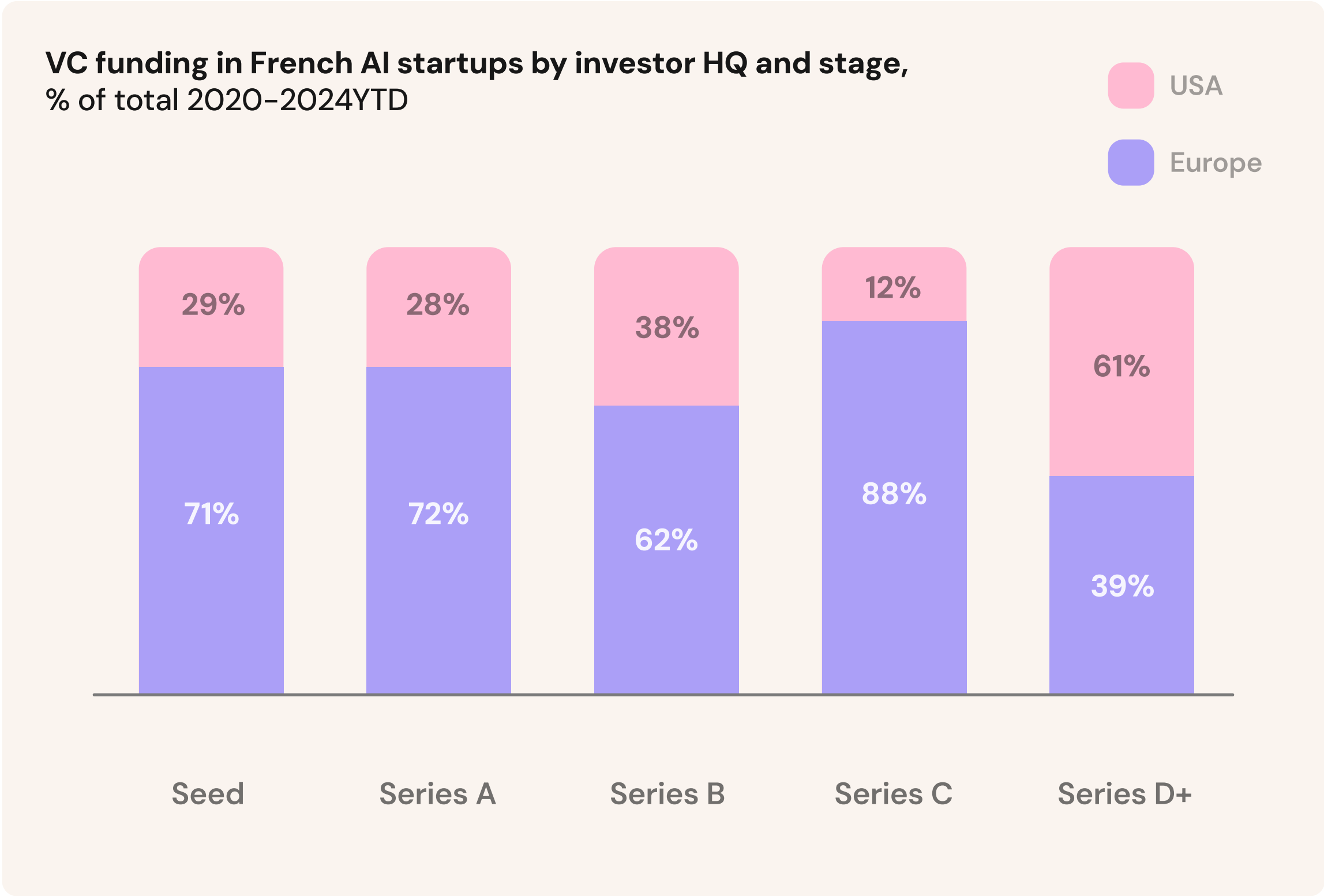
US investors are making strides in French AI funding, especially at Series D+ while earlier stages remain European-dominated.

Diversifying funding sources, with the right balance between American and European funding, is critical in the capital-intensive AI industry.
It opens access to varied expertise and networks.
A self-fulfilling prophecy emerges: early high-quality investors naturally attract other leading players, creating a virtuous cycle for the entire European ecosystem.

Charles Gorintin
Co-founder and CTO at Alan & Co-founding Advisor at Mistral

The strong presence of US funds in Europe boils down to two key factors. Their large fund sizes allow them to cut big checks without throwing off their risk profile, while keeping their portfolio balanced. On top of that, their matrix-based structure, combining vertical and geographical coverage, opens doors to deals and networks previously out of reach.

Antoine Moyroud
Partner at Lightspeed Venture Partners

.03 Mapping of Emerging
French AI champions

Methodology

Our analysis focuses on AI startups in France over the 2014-2024 period, segmented into two key categories: emerging startups (highlighted in the mappings) and trailblazers.

The methodology combines multiple sources and tools to ensure comprehensive and accurate insights.

Primary Sources:

1. Databases: Crunchbase (AI-tagged startups headquartered in France)
2. Sector mappings: France Digitale, Hub France IA, Resonance mapping
3. Proprietary CRMs: Chausson Partners and Galion
4. Additional equity story data & exits : CFNews, Pitchbook

Definitions and Filtering Methodology:

General criteria for all companies highlighted :

1. Headquartered in France (except for French teams in YC)
2. Demonstrate a recognizable specialization in AI (as a core enabler or as a clear differentiation angle)
3. Are not consulting-only companies
4. Completed a funding round in the past 4 years
5. Were not acquired, dissolved or in the process of being so

Emerging Startups also check those criteria:

1. Were created from 2014 onwards
2. Raised max €40M in their last funding round, unless founded in the last 5 years

Trailblazers also check those criteria:

1. Were created from 2010 onwards
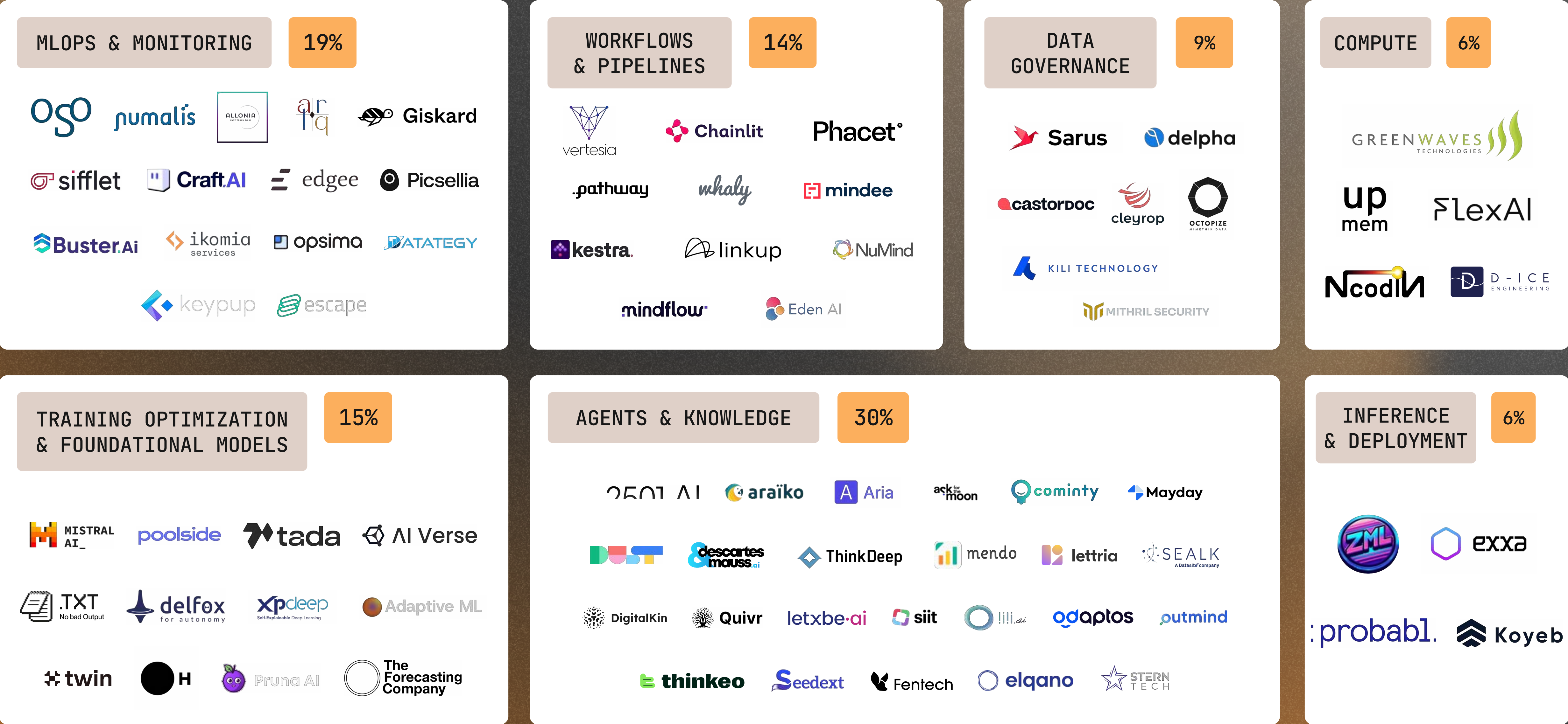2. Have raised over €40M in their last funding round

Exits highlight all french companies with an AI focus, that exited in 2024, no matter their previous equity story. If you believe you meet these criteria and should be included in the mapping, please fill out this Typeform.

AI Infrastructure & Agents

From hardware accelerators to AI agents, this segment focuses on the essential infrastructure enabling AI's scalability and intelligence. It encompasses key categories from computing power to ML development tools and data governance, this section is critical for the future of AI. With €1.3Bn in funding, this sector attracted the biggest share of investments in 2024, pushed by a few players' massive fundraising as the ones of Mistral or Poolside.

AI INFRASTRUCTURE & AGENTS
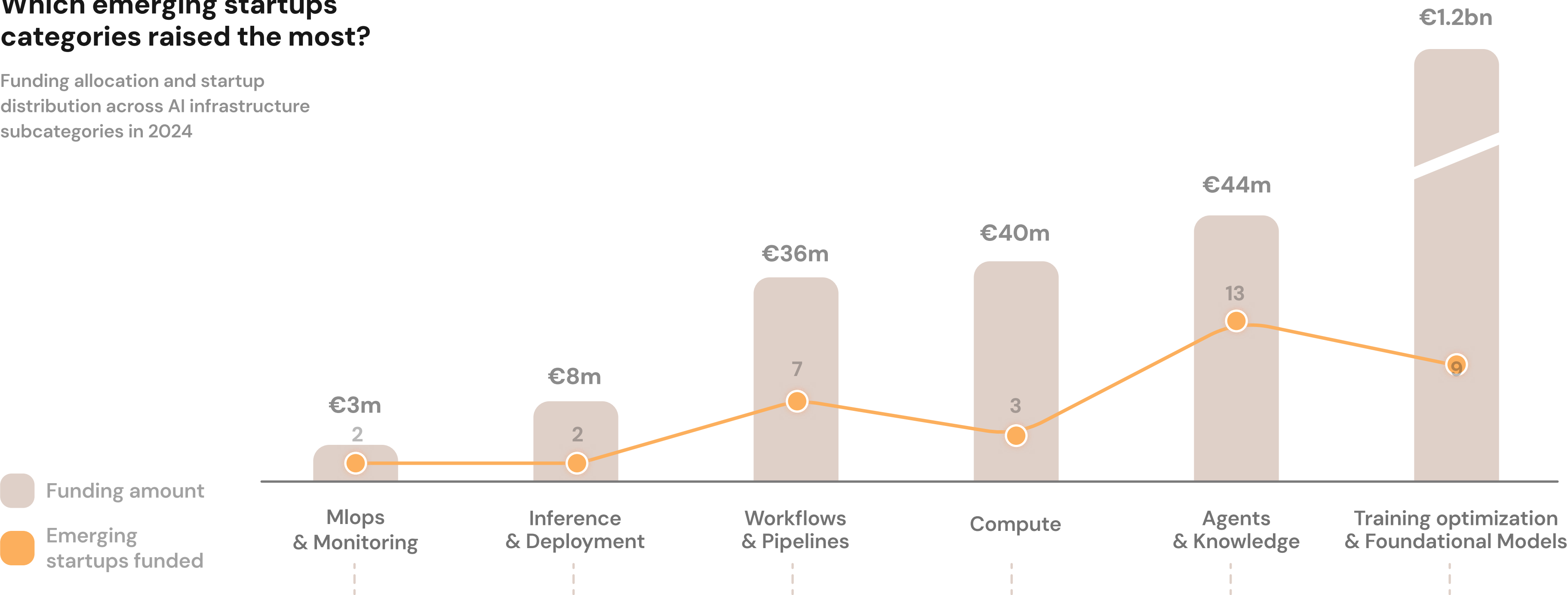# EMERGING STARTUPS MAPPING

MLOPS & MONITORING — 19%

OSO · numalis · ALLONIA · artiq · Giskard
sifflet · Craft.AI · edgee · Picsellia
Buster.Ai · ikomia services · opsima · DATATEGY
keypup · escape

WORKFLOWS & PIPELINES — 14%

Vertesia · Chainlit · Phacet°
pathway · whaly · mindee
kestra · linkup · NuMind
mindflow · Eden AI

DATA GOVERNANCE — 9%

Sarus · delpha
castordoc · cleyrop · OCTOPIZE
KILI TECHNOLOGY
MITHRIL SECURITY

COMPUTE — 6%

GREENWAVES TECHNOLOGIES
up mem · FlexAI
Ncodin · D-ICE ENGINEERING

TRAINING OPTIMIZATION & FOUNDATIONAL MODELS — 15%

MISTRAL AI_ · poolside · tada · AI Verse
.TXT No bad Output · delfox for autonomy · XpDeep Self-Explainable Deep Learning · Adaptive ML
twin · H · Pruna AI · The Forecasting Company

AGENTS & KNOWLEDGE — 30%

2501 AI · araïko · Aria · ask for the moon · cominty · Mayday
DUST · descartes & mauss.ai · ThinkDeep · mendo · lettria · SEALK A Datasite company
DigitalKin · Quivr · letxbe·ai · siit · lili.ai · odaptos · outmind
thinkeo · Seedext · Fentech · elqano · STERN TECH

INFERENCE & DEPLOYMENT — 6%

ZML · exxa
probabl · Koyeb

35

Which emerging startups categories raised the most?

Funding allocation and startup distribution across AI infrastructure subcategories in 2024

€1.2bn

€44m

€40m

€36m

13

€8m

€3m

7

2   2   3   9

● Funding amount

● Emerging
   startups funded

Mlops & Monitoring	Inference & Deployment	Workflows & Pipelines	Compute	Agents & Knowledge	Training optimization & Foundational Models

Biggest Fundraise Per Category

Emerging startups that raised the highest amount within their category in 2024

edgee	:probabl.	.pathway	FlexAI	DUST	MISTRAL AI_
€2.5m	€6m	€9m	€30m	€16m	€468m

2 Exits

Light⊙n

IPO Euronext – November 2024

Datakalab

Acquired by Apple – April 2024

Where are emerging startups in their equity story?

Emerging startups from our mapping split
per last funding range

>€20m

8 Startups
3 Years old average

MISTRAL AI · H · +5
poolside

€10m–€20m

5 Startups
3 Years old average

DUST · .TXT No bad Output · OSO
sifflet · mindee

€5m–€10m

12 Startups
4 Years old average

kestra. · lettria · Craft.AI · .pathway · +5
Pruna AI · descartes mauss.ai · :probabl.
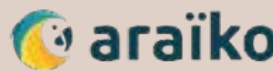
€2m–€5m

27 Startups
3 Years old average

AI Verse · Phacet° · mendo · linkup · tada · up mem · +16
escape · edgee · Aria · araïko · Eden AI

<€2m

26 Startups
4 Years old average

delpha · STERN TECH · 2501 AI · thinkeo · Quivr · arfiq · ThinkDeep · +13
elqano · opsima · DigitalTwin · The Forecasting Company · delfox for autonomy · Giskard

Trailblazers further on the way

AI infrastructure startups, founded from 2010 onwards, that raised >40M€ in their last funding round

1	data iku	– €200m
	2013	Series F

2	ZAMA	– €67m
	2019	Series A

3	Hugging Face	– €235m
	2016	Series D

4	SIPEARL	– €90m
	2019	Series A

Insights from AI Infrastructure & Agents Pioneers

Gabriel Hubert,
Co-founder & CEO, Dust

1. What are the main challenges to the adoption of AI tools?

To be broadly adopted, GenAI needs to integrate deeply with existing workflows and in particular internal, often sensitive data. It also needs to cater to the needs and capabilities of a broad class of knowledge workers, and high quality experiences that allow them to trust the results of their work with GenAI tools will be crucial.

2. Has the attitude of your prospects and clients changed in the past few semesters? How do you address it?

Customers are increasingly understanding a few things: (i) how much the current technology can already help, which increases the urgency of broad deployment on concrete use cases, (ii) how much more is going to be possible in the near term, which requires a comprehensive strategy to absorb numerous waves of upgrades and updates in the short time horizon to come, and (iii) how deeply the mindset of knowledge working will need to evolve to take full advantage of of stochastic tools (that can sometimes be wrong), requiring training on critical sense in interactions with these tools.

Dust is built on the mission to address these by offering a unified platform for companies to reduce and unify the cost of the transformation ahead for their workforce and focusing on high-quality user experiences for people who don't always have a technical background.

Insights from AI Infrastructure & Agents Pionners

Taha Zemmouri,
Co-founder & CEO, Eden AI

Eden AI

1. What are the main challenges to the adoption of AI tools?

The primary challenges in the adoption and implementation of AI solutions are multifaceted:

1. A major obstacle is the skills gap, characterized by a shortage of professionals with the expertise required to develop, deploy, and manage AI systems effectively.

2. Another critical issue is the quality of data, as AI systems depend on high-quality, relevant, and well-structured datasets to function optimally. Poor data quality can result in inaccurate predictions and unreliable outcomes, undermining the potential benefits of AI.

3. Ethical considerations also present a significant barrier to widespread adoption. Concerns surrounding bias in algorithms, privacy risks, and the responsible use of AI technologies often lead to hesitancy among stakeholders, requiring careful navigation to build trust and ensure compliance with ethical standards

2. Has the attitude of your prospects and clients changed in the past few semesters? How do you address it?

There has been a noticeable shift in how clients view and approach AI integration. Increasingly, businesses are recognizing AI not merely as a futuristic concept but as a practical tool to enhance efficiency and drive innovation in their operations. A key trend emerging from this shift is the demand for seamless integration. Clients seek AI capabilities that fit naturally into their existing systems, avoiding the need to adopt entirely new platforms.

There is a need to bridge the common gap between cutting-edge technical innovation and practical usability. Companies need to build simple tools, such as a unified API to integrate AI engines directly into their current applications. This approach, that we took at Eden.ai, simplifies the technical process and ensures a more streamlined user experience. To the same extent, our platform provides features such as a visual workflow builder and pre-built templates, designed to make AI adoption as accessible and straightforward as possible.

3. We often observe that identifying use cases can be the most challenging aspect of leveraging powerful tools capable of performing a wide range of tasks. How do you approach segmenting your prospect base, and how do you prioritize key use cases?

Our approach involves:

- **Client Collaboration:** We work closely with clients to understand their specific needs and challenges.

- **Industry Analysis:** By studying various sectors, we identify common pain points that AI can address.

- **Use Case Prioritization:** We focus on applications where AI can deliver immediate value, such as automating repetitive tasks, enhancing data analysis, and improving customer experiences.

This strategy ensures that our AI solutions are tailored to provide the most significant impact for our clients.

Horizontal AI

For this Horizontal AI section we chose to encompass solutions that can be applied across multiple industries, either as key technology enablers, or as solutions for specific enterprise departments. Technologies like computer vision or machine learning frameworks serve as the foundational pillars for countless applications, from cyber security to image enhancement. With more than 60 companies, this section is also well funded in 2024 with over €270m raised.

HORIZONTAL AI
EMERGING STARTUPS MAPPING

MARKETING & ADVERTISING — 19%

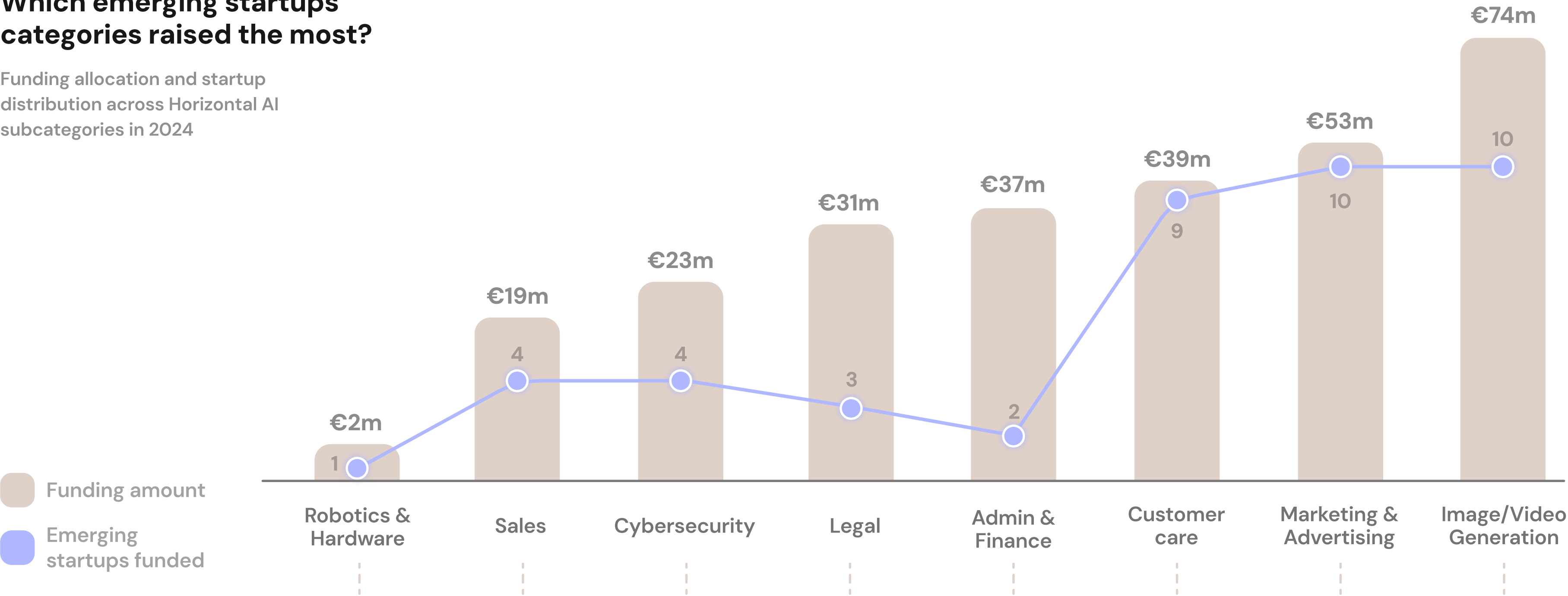KiOSK · Datacook · Kiliba · IMAGINO · wegrowads
contrast · AdCreative.ai · xpln.ai · krispy
notify AI · Addeus · SteerFox · WAX · Webyn.ai · WIZALY
ramdam · G · Frak. · TRAJAAN · Favikon.

HUMAN RESOURCES — 8%

Gojob · palm
maki · muzzo
NEOBRAIN · NAPTA
seeqle · 365 TALENTS

ADMIN & FINANCE — 6%

Gryzzly · Respaid
najar · pivot
Payflows · Theseus

LEGAL — 9%

angelaw · Formality
jimini · Tomorro
JUS MUNDI · naaia
DATA LEGAL DRIVE EOS GROUP · haiku
Dataleon

ROBOTICS & HARDWARE — 6%

phospho · Enchanted Tools
AUTOMATIKA · Vibiscus
WISEAR · POLLEN ROBOTICS

SALES — 10%

Steerlab · COGNEED · Modjo
ZELIQ · pinpo.ai · Praiz
humanlinker · EverReady
muchbetter.ai · tengo

CUSTOMER CARE — 13%

X · yampa · Klark · yuma
Sandra AI · Gladia · Glanceable · zefi
calldesk · DeepTalk · stonly
reecall · fullwhere · Actionable

IMAGE VIDEO CREATION — 13%

Photoroom · lipitt · omi
Flim · presti · Argil · veeton
pimento* · VEESUAL · solaya
seelab · MAGO AI · BeINK DREAM · Aive

CYBER SECURITY — 17%

GATEWATCHER · ANOZR WAY · BODYGUARD · HarfangLab · OGO
nijta · zygon · alphaguard · GLIMPS · cosmian
Qevlar AI · allpriv · DATADOME · TREMAU
sekoia · Qontrol · BforeAI · ShareID

Which emerging startups categories raised the most?

Funding allocation and startup distribution across Horizontal AI subcategories in 2024

	Robotics & Hardware	Sales	Cybersecurity	Legal	Admin & Finance	Customer care	Marketing & Advertising	Image/Video Generation
Funding amount	€2m	€19m	€23m	€31m	€37m	€39m	€53m	€74m
Emerging startups funded	1	4	4	3	2	9	10	10

- Funding amount
- Emerging startups funded

Biggest Fundraise Per Category

Emerging startups that raised the highest amount within their category in 2024

phospho	ZELIQ	BforAI	JUS MUNDI	Payflows	Gladia	IMAGINO	Photoroom
€2m	€12m	€15m	€22m	€25m	€16m	€25m	€40m

17 Exits

Wave
Acquired by Alan – June 2024

Leonardo.Ai
Acquired by Canva – July 2024

Spoke
Acquired by Salesforce – July 2024

CHAINTRUST by VISMA
Acquired by Visma – January 2024

iPAIDTHAT
Acquired by BPCE – September 2024

+12 exits

Where are emerging startups in their equity story?

Emerging startups from our mapping split per last funding range

>€20m

11 Startups
6 Years old average

JUS MUNDI · stonly · Photoroom · +8

€10m-€20m

10 Startups
4 Years old average

Enchanted Tools · omi · Gladia · BforeAI · TOMORRO · +5

€5m-€10m

13 Startups
4 Years old average

yuma · GLIMPS · BODYGUARD · VEESUAL · NAPTA · wegrowads · ANOZR WAY · +6

€2m-€5m

28 Startups
3 Years old average

yampa · jimini · Qevlar AI · Respaid · contrast · Aive · pimento* · AdCreative.ai · cosmian · reecall · humanlinker · +17

<€2m

43 Startups
3 Years old average

G · Frak. · Sandra AI · Praiz · haiku · TRAJAAN · Gryzzly · Theseus · solaya · TREMAU · angelaw. · wax · OGO · +30

Trailblazers further on the way

Horizontal AI startups founded from 2010 onwards, that raised >40M€ in their last funding round

1 Contentsquare – €400m
2012 — Series F

2 PIGMENT – €133m
2019 — Series D

3 CHAPSVISION DATA MAKES SENSE – €85m
2019 — Series C

4 PROPHESEE – €50m
2014 — Series C

Insight from Horizontal AI Pioneers

Florian Douetteau,
Co-founder & CEO, Dataiku

data iku

1. What GenAI has changed in your industry and for you specifically?

Before 2022, the focus of AI was largely on industrializing predictive modeling for traditional use cases like pricing optimization, demand forecasting, and improving manufacturing yield. These applications emphasized efficiency and accuracy but were rooted in relatively narrow domains. Post-2022, GenAI has introduced a paradigm shift, fostering an appetite for entirely new use cases that go beyond traditional predictive approaches.

The first wave of advancements has been marked by agentic technologies designed to automate analytical tasks such as finding, refining, and synthesizing information for strategic decision-making.
By removing operational bottlenecks—for example, streamlining insurance claims management—GenAI has unlocked opportunities for new business models and lines of revenue. The second wave has expanded into the realm of multimodal data, leveraging GenAI for complex applications involving images, video, and audio, which were historically challenging to manage. These use cases, like hospitals optimizing workflows through video analysis, demonstrate the potential to tackle previously intractable challenges.

2. Has the attitude of your clients changed in recent years?

There is a renewed interest among clients in investing in AI, but many lack a clear roadmap to achieve success. This uncertainty often leads them to adopt point solutions, often relying on consulting firms for implementation. Over time, as the market naturally evolves, organizations transition toward self-service capabilities, enabling them to replicate and adapt AI solutions across various business cases, thereby regaining control. Ultimately, they seek robust platforms that allow them to manage costs, risks, and deployment across a wide range of AI use cases.
This progression—from point solutions to self-service, and finally to platform-based management—reflects the typical maturation of AI adoption within enterprises.

3. What are the main challenges your clients face when adopting new AI-powered tools? How do these challenges vary by country or decision-maker function?

There are three main challenges to AI adoption. The first is the lack of skilled talent, as organizations require experts to build, support, and scale complex frameworks or advanced multimodal use cases. The second challenge lies in tying AI initiatives to measurable ROI, whether through the launch of innovative products or the realization of cost-saving transformations. Finally, cultural, political, and regulatory barriers hinder progress. Internal resistance, often stemming from fears or projects being restricted to top executives, and external concerns, such as anticipated regulatory changes, further slow adoption.

AI adoption varies significantly across sectors and geographies. Tech-native companies, particularly on the US West Coast, enjoy advantages such as easier access to skilled talent, well-defined business plans focused on new product development, and fewer perceived constraints. In contrast, traditional, non-tech-native companies in other regions often encounter more challenges. However, platforms like ours can play a pivotal role in helping these organizations overcome obstacles and achieve transformation through AI.

Most enterprises emphasize the need for robust control and governance when adopting AI. They require platform capabilities that regulate who can create and deploy AI solutions, ensuring that innovation occurs within a secure and structured framework. This approach allows organizations to confidently integrate AI into operations while minimizing risks and maintaining accountability across all departments.

Insights from Horizontal AI Pioneers

Matthieu Rouif,
Co-founder & CEO, Photoroom

Photoroom

1. What GenAI has changed in your industry and for you specifically?

GenAI is changing everything in creativity, marketing, and visual communication. High-quality images are now generated from a mood board or a prompt in a few seconds. For Photoroom, it unlocks the potential of accessible photo editing; users can create realistic backgrounds for their products.

GenAI has also democratized creativity, allowing individuals to create their own content and share unique stories, just like writing a book or mixing music. It's making art more emotionally engaging because it adapts to users' unique needs. This accessibility extends to people like "Magic Carol," a 91-year-old in Virginia who uses our solution to edit a photo book and newsletter for her retirement community. AI is enabling even those with minimal technical skills to explore visual storytelling.
We are excited at Photoroom about how AI makes visual craft more accessible and authentic. Our brains are wired to process images, and this evolution opens new doors for creativity.

2. Has the attitude of your clients changed in recent years?

Our customers range from millions of entrepreneurs to the largest commerce companies in the world, like Amazon or DoorDash. Millions of people from 5 years old to 90 years old are adopting GenAI because it makes software more accessible to get their job done.

This accessibility reduces costs significantly. Instead of paying $5,000 to a photo studio, users can now achieve professional results for just a few dollars. AI enables more customized and unique visuals, which is a game-changer. For example, some restaurants left Uber Eats because they didn't want to use the same images as their competitors. Now, AI allows them to create personalized visuals that differentiate their brand. Similarly, companies like Selency dream of showing customers how second-hand furniture fits into their living spaces, turning mood boards into customized reality.
Clients are also adapting quickly, with expectations rising for more sophisticated features.
They are getting used to what was magical only months ago and demanding even more.
The quantity of assets created by successful companies is skyrocketing, fundamentally reshaping marketing strategies.

3. What are the main challenges your clients face when adopting new AI-powered tools? How do these challenges vary by country or decision-maker function?

Our clients are looking for more control over GenAI features, even though Photoroom performs better than competitors in this area.
A significant challenge is ensuring that AI-generated content feels authentic and emotionally resonant. Clients want to tell their unique stories and connect deeply with their audience.
For instance, understanding the cultural and societal context of imagery is crucial, as it impacts the perception of authenticity.

Vertical AI

Unlike horizontal AI, vertical AI startups focus on solutions tailored to the unique needs of specific industries. From finance to manufacturing and logistics, these startups demonstrate the importance of domain expertise in creating value. With more than 90 startups listed, this section has the highest concentration of emerging startups, reflecting the rapid proliferation of sector–specific initiatives.

VERTICAL AI
EMERGING STARTUPS MAPPING

TRANSPORT & LOGISTICS — 15%

shipfix Veson Nautical · atoptima OPTIMIZATION INTELLIGENCE · Kardinal · flowlity

CUBE AI [beta] · DCbrain · RAILWAI · syroco

docloop · Find & Order · AMPHITRITE OCEAN DATA INTELLIGENCE · ML Ledger

WizyVision · FARI · wakeo

INDUSTRY & MANUFACTURING — 18%

deepomatic · cikaba · SAMP · inbolt · Oplit

Alteia · DIAGRAMS TECHNOLOGIES · BrightClue REVEAL HIDDEN VALUE · A²D ACQUIRE DECIDE

R MAN SYNC WAKE UP, GET IN SYNC! · CDS COGNITIVE DESIGN SYSTEMS · COGENGINES · APREX SOLUTIONS · aqc

dessia · DeepHawk · AMIRAL TECHNOLOGIES

FINTECH — 11%

Goodcity · Jared

Deal Makr · littlejohn · 73 STRINGS

DoorFeed · Avnear · Fintool

SESAMm · canari.dev

INSURTECH — 3%

Continuity

Dylogy

Qantev

EDTECH — 7%

stellia · Revyze

APTERO · nolej

POWERZ · Studeo.

AUTOMOTIVE — 3%

Linkbycar

Steer

PROOVSTATION

SURVEILLANCE & DEFENSE — 15%

RFence · outsight · Videtics Smart Vision for Life

heex · anavid® · Comand AI

XXII · TOUCH SENSITY · vizzia

veesion · DONECLE · neuroo Rendez vos systèmes intelligents

VizioSense · UPCITI

MEDIA & ENTERTAINMENT — 12%

Bridge.audio · Memorizer

Animaj PICTURE THIS! · MATCHTUNE

Kinetix · scenario

POWDER · DOCENT

Flagcat. · Moments Lab

SYNCHRONIZED

RETAIL & E-COMMERCE — 16%

easypicky · YZR · ugo

kleep · inpulse AI restaurant management · omny AI

mealz.ai · Sensefuel · Humanitics RETAIL PERFORMANCE

MyTraffic · metreecs · DataHawk

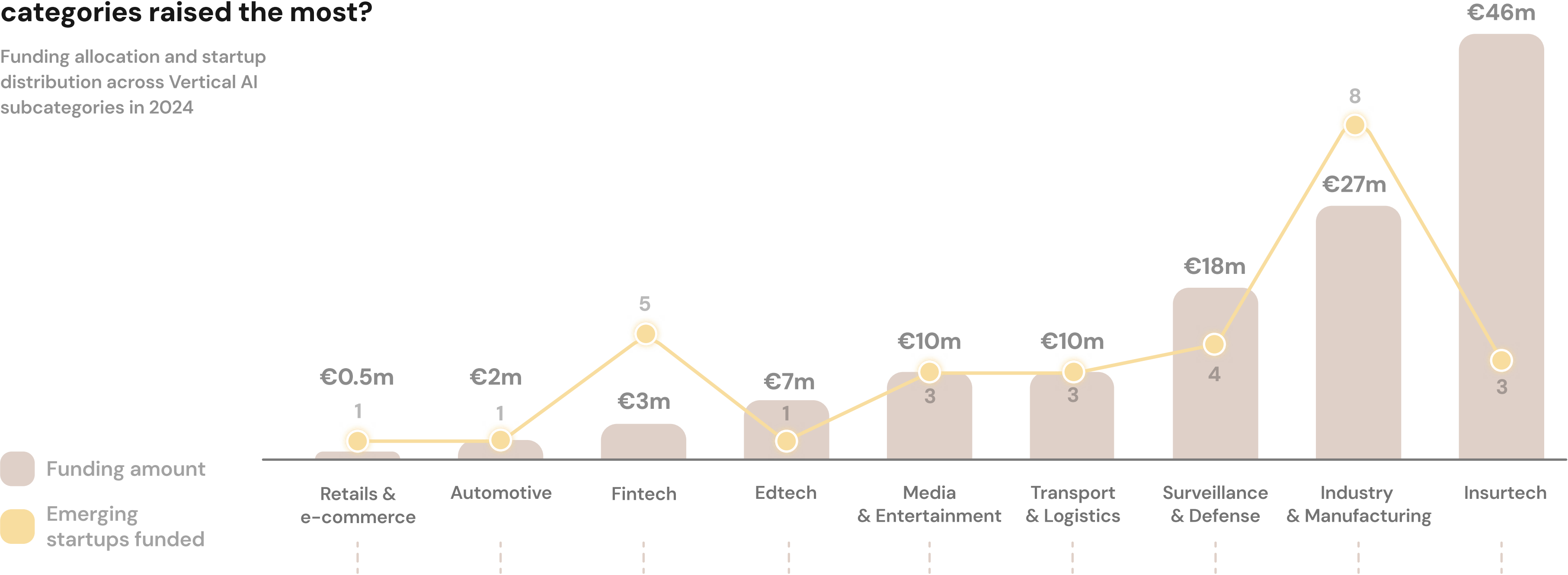pricemoov · PricingHUB Dynamic Pricing Solutions · PAARLY Pricing Intelligence & Competitor Monitoring

Which emerging startups categories raised the most?

Funding allocation and startup distribution across Vertical AI subcategories in 2024

Legend:
- Funding amount
- Emerging startups funded

Chart data by category:

Category	Funding amount	Emerging startups funded
Retails & e-commerce	€0.5m	1
Automotive	€2m	1
Fintech	€3m	5
Edtech	€7m	1
Media & Entertainment	€10m	3
Transport & Logistics	€10m	3
Surveillance & Defense	€18m	4
Industry & Manufacturing	€27m	8
Insurtech	€46m	3

Biggest Fundraise Per Category

Emerging startups that raised the highest amount within their category in 2024

metreecs	Linkbycar	littlejohn	Revyze	DOCENT	syroco	Comand AI	Alteia	Qantev
€450k	€2m	€1m	€7m	€5m	€8m	€9m	€15m	€34m

5 Exits

PRELIGENS
Acquired by Safran – Sept 2024

dreamquark
Acquired by Linedata – April 2024

COSMOTECH
Majority investment by Insight Partners – Dec 2024

heuritech
Acquired by Luxurynsight – Dec 2024

ROAV7
Acquired by Stapem Offshore – June 2024

Where are emerging startup in their equity story?

Emerging startups from our mapping split per last funding range

>€20m

6 Startups
7 Years old average

Animaj · outsight · MyTraffic +3

€10m–€20m

14 Startups
6 Years old average

wakeo · inbolt · Alteia · Continuity · vizzia +9

€5m–€10m

17 Startups
5 Years old average

Revyze · DoorFeed · Moments Lab · POWERZ · UPCITI · DataHawk · SAMP +10

€2m–€5m

20 Startups
6 Years old average

EvidenceB · dessia · YZR · PricingHUB · stellia · neuroo · APREX SOLUTIONS · Videtics · Sensefuel · Oplit · nolej +9

<€2m

37 Startups
4 Years old average

littlejohn · BrightClue · metreecs · Jared · DeepHawk · SYNCHRONIZED · AMPHITRITE · Linkbycar · atoptima · Deal Makr · ugo · A2D ACQUIRE DECIDE · Goodcity +24

Trailblazers further on the way

Vertical AI startups founded from 2010 onwards, that raised more than 40M€ in their last funding round

1	EXOTEC	– €293m	2015	Series D
2	meero	– €230m	2016	Series C
3	akeneo	– €135m	2013	Series D
4	AKUR8	– €108m	2018	Series D
5	BRAIN CUBE	– €83m	2009	Series B

Insights from Vertical AI Pioneers

Raphaël Arroche,
Co-founder & CEO, Jimini.ai

jimini

1. What are the major changes in the value chains, brought by innovative new entrants using AI such as yourself, and strategic challenges faced by lawyers and legal professionals?

AI-driven startups like Jimini AI are redefining the legal value chain by significantly enhancing efficiency, accuracy and improving knowledge sharing within a structure. Traditional workflows in legal research, drafting, and document review are being replaced or augmented by AI tools that process vast amounts of data rapidly, reducing human effort and error. These changes allow legal professionals to focus on higher-value tasks such as strategy, negotiation, client advisory and demonstrate greater value to customers.

In other words, AI enables lawyers to customize and scale their services in ways that weren't previously possible: traditionally, legal professionals relied solely on "labour" as their primary means of leverage. Today, they can harness a far more powerful and scalable form of leverage – AI gives the ability to not just cut costs, but scale a law firm 10x. However, these innovations introduce strategic challenges. Legal professionals face a steep learning curve in adopting these technologies, often compounded by skepticism about their reliability.

Also, we need to align these new disruptive technologies with ethical standards, particularly important for the profession, for example: ensuring AI to maintain confidentiality and meet professional quality benchmarks. This leads to special focus at product and AI level to ensure safeguards are in place and that every answer can be verified. Finally, it implies a profound redefinition of roles within law firms, as repetitive tasks are automated (historically often done by trainee or junior associates), pushing firms to invest in upskilling their workforce.

2. What GenAI specifically has changed in your industry and for you specifically?

GenAI has significantly reshaped the legal industry by automating repetitive, low-value tasks traditionally performed by interns or junior staff. This automation enables legal professionals to focus more on high-value, strategic activities, prompting organizations to rethink their internal structures and workflows. We can also imagine that this will have an impact in the years to come on democratizing access to sophisticated legal costs for the end client by streamlining processes such as contract drafting and legal research.

Furthermore, GenAI has improved knowledge sharing within organizations by enabling quick retrieval of the most relevant contract templates and legal precedents for specific contexts (for example). These advancements enhance the overall quality of legal services and create more value for clients and firms alike.

3. What are the key challenges of the adoption of AI tools by law firms or legal departments?

One significant challenge is trust and reliability. Legal professionals often hesitate to rely on AI outputs, fearing inaccuracies or a lack of transparency in decision-making processes. Another is integration. Many law firms operate with legacy systems that are difficult to synchronize with modern AI solutions, leading to friction in deployment. Also, we could quote change. It's one thing to make the best AI product, it's quite another to make sure it's used and deployed properly ("cultural resistance" is a challenge itself). This process can't be done without an internal willingness within the law firm and the legal department to "move the lines". Here, although this will become mainstream in a few years' time, for the time being the detection of "early-adopters" within these structures (in the sense of Technology Adoption Life Cycle, Crossing the chasm) appears essential

Insights from Vertical AI Pioneers

Katrin de Proyart,
Founder & CEO, Vizzia

vizzia

1. What GenAI has changed in your industry and for you specifically?

Generative AI is the future of video analytics on cameras, as it enables contextual scene understanding far beyond simple object detection (detecting cars or human silhouettes).

It allows for accurate and advanced searches, like detecting a person jumping over a fence or depositing certain types of waste. When leveraging LLMs, cloud-based actors will have a faster time to market, while on-premise players will follow with deployments in local data centers. Camera manufacturers, constrained by limited and low-power hardware, will lag further behind until their processors and models become more efficient.

2. Has the attitude of your clients changed in recent years?

Just as camera systems and video evidence have become widely accepted for safety enforcement, the acceptance of ethical video analytics is growing and becoming widespread.

There is a clear shift toward AI-driven efficiency. Law enforcement and city officials now prioritize automated analytics that help solve cases ten times faster. For example, with Vizzia, a vehicle suspected in a kidnapping can be found in seconds through rapid search.

At the same time, cybersecurity concerns are growing. Agencies demand secure solutions that protect sensitive data from breaches and unauthorized access.

3. What are the main challenges your clients face when adopting new AI-powered tools? How do these challenges vary by country or decision-maker function?

As our main customers are national police, cities, and governments, we must adapt to regulatory challenges that vary by country. In Europe, the GDPR and AI Act require strict data privacy compliance, pushing us to develop solutions with explicit consent and privacy-preserving AI, like privacy by design, strict access rules and explicit communication. But as public trust and data privacy are our core values, we didn't just build a compliant AI—we built a solution that inspires confidence while enhancing safety. Since GDPR compliance and trust are difficult to achieve together, Vizzia's fully compliant solution gives us a significant competitive edge that is hard to match.

Focus AI x Health

Artificial Intelligence is transforming healthcare by enabling faster diagnoses, personalized treatments, and improved patient management. France is a fertile ground for Health x AI startups, with more than 60 emerging startups listed, who raised more than €150m in 2024 alone.

AI X HEALTH
EMERGING STARTUPS MAPPING

"Emerging Startups" definition: French AI companies created from 2014 onwards, that completed a funding round after 2020 and last funding round <=€40M, unless created within the last 5years.

IMAGING AND DIAGNOSTIC TOOLS — 28%

MILVUE · braintale · Multiwave · SquareMind
azmed · INCEPTO · ImVitro · Primaa · BioSerenity
Gleamer · nurea · tribun HEALTH · Echoliv · HAWKCELL
BrightHeart · IMAGEENS · DAMAE MEDICAL · Avicenna.AI

TREATMENT & MEDICATION INTELLIGENCE — 18%

Synapse MED · HUVY. · inHEART · EPIGENE LABS
intradys · posos · raidium · surge · GeodAIsics
éo · Spotlight Medical · Ai4Dental

RESEARCH & DRUG DISCOVERY — 25%

DEEMEA · inato · DeepLife. · AQEMIA · SCIENTA Lab
WHITELAB GENOMICS · Biolevate · BIOPTIMUS · JUISCI · MEDDENOVO Drug Design
Helical · iktos AI · ORAKL ONCOLOGY · PraxySanté · Rhisa · THEREMIA

HEALTHCARE WORKFLOWS — 15%

implicity · KIRO
Anamnèse · faks · IAM
Nabla · docloop · VOLTA MEDICAL
pixee medical · Hopia

PATIENT PATHWAY — 14%

sêmeia · DTECTIO · i-Virtual
BIOSENCY Caring anytime, anywhere · QUANTIQ
Apricity HEALTH · allisone
pixacare · OKOMERA

53

Which emerging startups categories raised the most?

Funding allocation and startup distribution across health subcategories in 2024
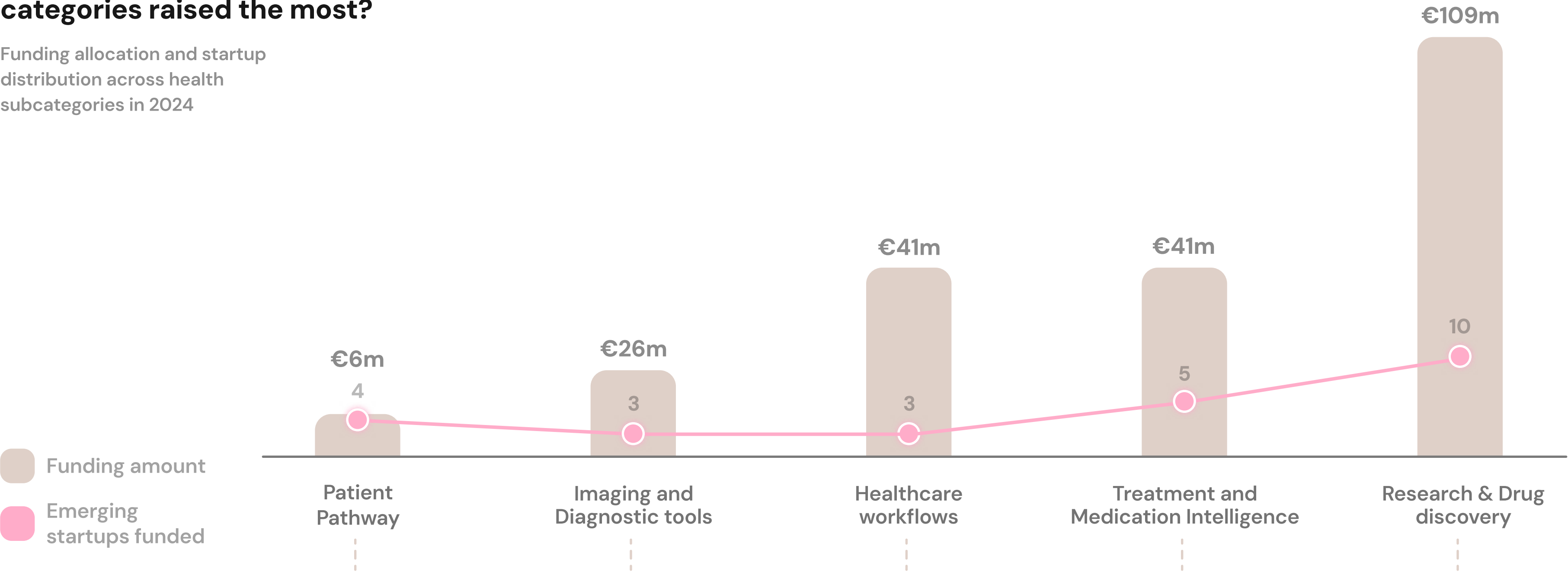
€109m

€41m   €41m

€6m   €26m

4   3   3   5   10

- Funding amount
- Emerging startups funded

Patient Pathway | Imaging and Diagnostic tools | Healthcare workflows | Treatment and Medication Intelligence | Research & Drug discovery

Biggest Fundraise Per Category

Emerging startups that raised the highest amount within their category in 2024

pixacare	azmed	Nabla	raidium	AQEMIA
€3m	€16m	€28m	€16m	€36m

3 Exits

sonio
Acquired by Samsung – Sept 2024

alicante
Acquired by Ospi – July 2024

PULSE AUDITION
Acquired by Essilor Luxottica – Dec 2024

Where are emerging startups in their equity story?

Emerging startups from our mapping split per last funding range

>€20m

10 Startups
6 Years old average

implicity Nabla AQEMIA **+7**

€10m–€20m

11 Startups
5 Years old average

a allisone inHEART tribun HEALTH azmed WHITELAB GENOMICS **+6**

€5m–€10m

12 Startups
5 Years old average

sêmeia posos BIOSENCY Caring anytime, anywhere HAWKCELL Biolevate Avicenna.AI faks **+5**

€2m–€5m

15 Startups
5 Years old average

Helical THEREMIA i-Virtual pixacare DEEMEA Primaa ImVitro BrightHeart Multiwave SCIENTA Lab SquareMind **+4**

<€2m

17 Startups
4 Years old average

OKOMERA DTECTIO MEDDENOVO Drug Design IMAGEENS nurea IAM intradys Ai4Dental GeodAisics EPIGENE LABS QUANTIQ Echoliv PraxySanté **+4**

Trailblazers further on the way

Health startups leveraging AI founded from 2010 onwards, that raised >40M€ in their last funding round

1 DentalMonitoring – **€150m**
  2016   Private Equity

2 diabeloop – **€70m**
  2015   Series C

3 lifen – **€50m**
  2015   Series C

4 OWKIN – **€220m**
  2016   Series B

Insights from AI x Health Pioneers

Delphine Groll,
Co-founder & COO, Nabla

Nabla

1. What major AI innovations impacted health practitioners the last few years?

When discussing AI in healthcare, much of the focus revolves around its role in diagnostics and care planning. However, a crucial yet overlooked insight is that physicians value medical decision-making above all else. It's the driving force behind their years of training and dedication to medicine. In contrast, clerical tasks, often tedious and time-consuming, are the aspect they are most eager to offload.

That's why the real breakthrough in AI lies in addressing clinical documentation. Tasks like coding, reporting, EHR updates, and billing, while essential, consume nearly half of physicians' time and often extend into evenings. In countries like the U.S., where precise documentation underpins liability coverage, compliance demands add to the strain. By automating these processes, AI helps restore physicians' focus to what matters most: patient care.

AI's ability to generate real-time clinical notes really transforms healthcare, by seamlessly producing structured documentation, updating codes, and integrating with EHRs. This minimizes administrative load, streamlining workflows, and refocusing physicians on patient care. The next step for AI in healthcare is clinical decision support, but regulatory challenges like FDA compliance remain significant. It will require careful development to ensure safety, trust, and usability.

2. What GenAI has changed in your industry and for you specifically?

Consider how AI has revolutionized clinical documentation in just a few years. Take Nuance's DAX product, later acquired by Microsoft, as a case in point. Between 2018 and 2023, DAX generated medical summaries after consultations using a labor-intensive "human in the loop" process. Speech-to-text technology produced a raw transcript, which was then sent overseas for processing, restructured, and finally delivered to the physician—often taking up to 8 hours to complete.

Today, cutting-edge tools can generate these summaries almost in real time—everything is ready within 10 seconds of the consultation. This evolution has brought significant improvements in both speed and quality. Large language models (LLMs), with their continuous advancements, now surpass the performance of human-in-the-loop processes in terms of accuracy and structuring.

Moreover, physicians can now personalize these tools through prompting—structuring notes in specific ways, adding custom dictionaries, or tailoring the AI assistant to their needs. This level of customization, which was incredibly challenging to achieve before, is now straightforward. The result is a combination of faster workflows, better accuracy, and fully personalized outputs. These advancements rely on multiple integrated models for tasks like note structuring, speech-to-text conversion, and customization, showcasing the power of AI in transforming clinical documentation

3. What are the next big challenges for you, and the rest of the players using AI dedicated to health practitioners?

The primary challenge for tech companies remains attracting and retaining top talent. The rapid evolution of AI technologies demands a workforce with specialized expertise, making the competition for skilled professionals particularly fierce.

In healthcare, the key issue is achieving large-scale adoption. While there are early champions, such as health systems in California, moving from first adopters to mass implementation requires significant effort. Even with a well-trained and implemented product, widespread adoption is not automatic. Vendors must be physically present to address skepticism and actively work to convince resistant stakeholders.

The adoption curve has progressed beyond early adopters and is entering the early majority, with signs of approaching the late majority. Healthcare providers are increasingly seeking vendors, not only to support physicians but also to enhance workflows for nurses and other staff.

In the U.S., the adoption process typically starts with a paid pilot program. Once the pilot is successful, negotiations for pricing take place, followed by the formalities of RFPs, legal agreements, and multi-year contracts, commonly for three years. Vendors also play a crucial role during these stages, helping to develop training and communication materials. Healthcare practitioners, aware of this dynamic, understand that vendors have limited leverage during the pilot phase but gain significant negotiating power once their solution is fully implemented and adopted.

The other critical challenge is building trust in AI systems. Key factors include explainability, transparency, and reliability. Vendors must demystify the "black box" nature of AI, reassuring users about the quality, stability, and accuracy of outputs. This is particularly important in healthcare, where trust is paramount. For instance, hallucinations (incorrect or fabricated outputs from LLMs) pose a significant risk. To address this, vendors are deploying advanced techniques, such as generative adversarial networks (GANs), to detect, mitigate, and correct errors in real-time. These systems are supported by rigorous evaluation scores to ensure reliability. Additionally, robust AI governance frameworks are essential to reinforce confidence, ensuring stakeholders are comfortable with the technology's performance and ethical compliance.

Insights from
AI x Health Pioneers

Thomas Clozel,
Co-founder & CEO Owkin

⊗ OWKIN

1. What is the biggest change in your industry recently ?

The most transformative shift in drug discovery will be driven by superintelligence and AI, enabling the creation of streamlined workflows and high-value agents to accelerate the discovery of new drugs, optimize clinical trials, and develop advanced diagnostic tools. Achieving this will require integration with multimodal datasets sourced from the world's leading hospitals, encompassing diverse data types such as imaging, dynamic measurements, and more.

The future is really about getting AI agents to achieve unprecedented productivity and ensuring robust connectivity to high-value datasets. Ultimately, this vision includes fully automated and robotized laboratories, controlled by AI agents, capable of uncovering groundbreaking biological insights. These advancements will enhance our ability to understand complex biological systems and precisely target mechanisms underlying cancer and other diseases, paving the way for revolutionary treatments.

2. What is the biggest challenge your industry is facing ?

he biggest challenge today lies in addressing the complexities of biology—particularly breakthrough biology —that surpass human understanding alone. To tackle this, we must develop an ecosystem of AI agents capable of comprehending such intricate biological systems. However, building effective models requires managing vast numbers of parameters and training foundation models on millions of data points.
This is the core mission of Bioptimus: embedding foundation models to extract actionable biomarkers.
Owkin is also advancing this approach with its Owkin K platform, leveraging AI agents to identify biomarkers that can guide the development of drugs targeting precise mechanisms and specific patient populations.

The concept of precision medicine often faces skepticism from investors and pharmaceutical companies.However, its potential to revolutionize patient care is undeniable, as it ensures treatments are tailored to individual needs. For precision medicine to achieve its full impact, it must be integrated from the earliest stages of drug development.

Maximilien Levesque,
Co-founder & CEO, Aqemia

AQEMIA

1. What major AI innovations impacted drug discovery the last few years?

Recent AI innovations, such as generative AI for molecule design and predictive models like AlphaFold for protein structures, have significantly accelerated drug discovery— a process that traditionally takes up to 15 years from research to market launch. AI is transforming the upstream stages of drug research.

One of the challenges faced by GenAI players in drug discovery is the inherent constraints and biases in historical data. Experimental datasets used to train the models can sometimes lead to dead ends, producing molecules that fail to perform as expected.

At AQEMIA, we go beyond merely finding molecules; we design them in the computer (in silico), leveraging theoretical physics to power our AI, freeing us from the limitations of past data. It also allows us to move faster, test more molecules simultaneously, and run multiple drug discovery programs in parallel—scaling up the entire drug discovery process, without relying on brute force or supercomputers.

2. What are the next big challenges (regarding tech, adoption, or bridging the chain from discovery to testing) for you, and the rest of the players using AI to identify new drugs?

Nothing designed on a computer holds value until it is validated in the lab. The proper integration of advanced technology and the expertise of chemists ensure that only the most promising molecules progress to laboratory testing.

Also, leveraging physics is crucial for optimizing key properties of the molecules such as solubility—an essential factor for drug manufacturing and patient administration—and for predicting efficacy and toxicity with greater precision.

After the discovery phase, the process moves into a critical stage: the lengthy and highly regulated clinical trial process, first conducted on animals and later on humans. Despite advancements and upstream optimization, success rates remain low—typically just a few percent—underscoring the complexity of the human body. In this context, humility is essential, as the intricate and often unpredictable interactions of molecules within the human system continue to challenge our understanding.

Focus AI x Climate

The climate crisis has sparked a wave of innovation and AI can play a major role in understanding, mitigating, and adapting to environmental challenges. From solving the water crisis to optimizing renewable energy, French startups are at the forefront of this critical intersection. Though twice less funded than the health category, there are similar in number of players with no less than 60 startups.

AI X CLIMATE
EMERGING STARTUPS MAPPING

AGRITECH & FOODTECH — 26%

- Herd
- aisprid
- KERMAP
- FINRES
- Aviwell
- abelio
- SOWIT
- irrigEasy
- MyEasy Farm
- MORFO
- Amaya
- OSIRIS
- BIOMEDE
- carbonfarm
- inarix
- MYDITEK

ENERGY — 14%

- NRGYBOX L'éclairage urbain à votre image
- BeeBryte New ways for energy efficiency
- BioEsol YOU ARE POWERFUL
- HIGHCAST
- OrusEnergy
- ELUM ENERGY
- homeys
- SKIPPER NDT
- purecontrol

WATERTECH — 9%

- leakmited
- Telaqua
- AQUATECH INNOVATION
- iADYS Interactive Autonomous DYnamic Systems
- BiOceanOr Biology For Ocean
- VORTEX-IO

GREEN PROPTECH — 9%

- ISTYA
- optee
- BIO POOL TECH
- sitowie
- Beeldi
- kelvin

CARBON MANAGEMENT — 20%

- greenbids
- KAYRROS
- sopht
- CO2 AI
- GreenPRAXIS
- kabaun
- FINGREEN AI
- fruggr
- netcarbon
- Iceberg Data Lab
- UPCYCLEA
- OUXO

CIRCULARITY — 11%

- ida
- Kikleo
- lixo
- kheoos
- CloudFret Sustainable Freight
- VoltR
- Fullsoon

NEW MATERIALS — 5%

- ENTALPIC
- altrove
- Osium AI

MOBILITY — 6%

- Pelikan Mobility
- Cocoparks
- fluctuo Mobility enablement
- Nelson
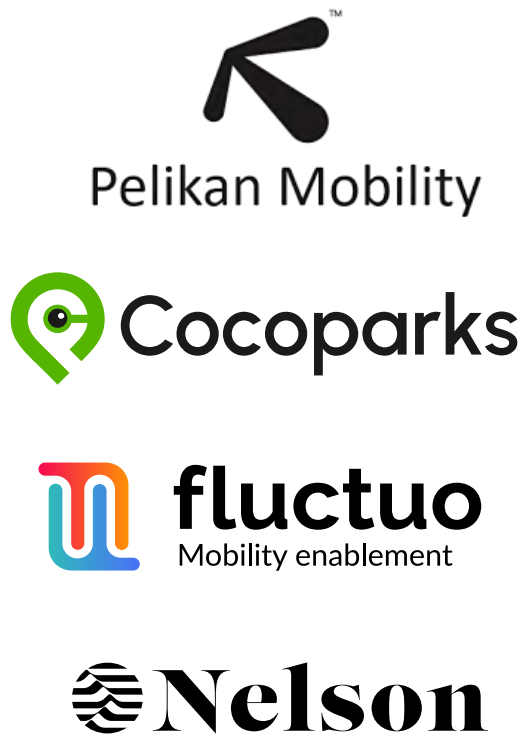
AI X CLIMATE
2024 IN REVIEW

Which emerging startups categories raised the most?

Funding allocation and startup distribution across climate subcategories in 2024

€20m

€17m

€13m

€11m

€9m

€7m

€4m   €4m

6

3   3   3

2   2

1   1

Circularity   Mobility   Proptech   Watertech   Agritech & Footech   New Materials   Energy   Carbon Managmt

Funding amount

Emerging startups funded

Biggest Fundraise Per Category

Emerging startups that raised the highest amount within their category in 2024

VoltR   Pelikan Mobility   optee   iADYS Interactive Autonomous Dynamic Systems   MORFO   ENTALPIC   ELUM ENERGY   Iceberg Data Lab

€4m   €4m   €4m   €7m   €8m   €9m   €13m   €9m

2 Exits

stonal

Majority investment by Aeron – May 2024

Space sense

Acquired by xFarm Technilogies – April 2024

60

Where are emerging startups in their equity story?

Emerging startups from our mapping split per last funding range

>€20m

1 Startups
8 Years old average

KAYRROS

€10m–€20m

3 Startups
7 Years old average

ELUM · CO2 AI · BeeBryte
New ways for energy efficiency

€5m–€10m

8 Startups
5 Years old average

Beeldi · MORFO · iADYS Interactive Autonomous Dynamic Systems · ENTALPIC
Aviwell · Kikleo · purecontrol · Iceberg Data Lab

€2m–€5m

26 Startups
4 Years old average

BIOMEDE · optee · kelvin° · ida · SKIPPER NDT · sopht
Herd · VoltR · FINRES · carbonfarm · leakmited **+15**

<€2m

25 Startups
5 Years old average
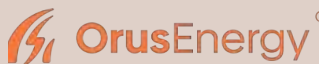
homeys · irrigEasy · fruggr · kabaun · Nelson · sitowie · SOWIT
Fullsoon · OrusEnergy · UPCYCLEA · Cocoparks · FINGREEN AI · BiOceanOr Biology For Ocean **+12**

Trailblazers further on the way

Climate startups leveraging AI founded from 2010 onwards, that raised >40M€ in their last funding round

1 INNOVAFEED – €250m
2016 · Series D

2 deepki – €150m
2014 · Series C

3 accenta. – €85m
2016 · Series C

Insights from AI x Climate Pioneers

Vincent Bryant,
Co-founder & CEO Deepki
deepki

GenAI helps Real Estate and Climate Tech industries have more data enrichment, better insights, and save time. At Deepki, we use GenAI in several practical examples such as extracting data from complicated unstructured documents (like financial reporting), answer complex requests that require several sources of structured and unstructured data, and extract automatically data from energy invoices for instances.

The significant interest in GenAI, and its rapid adoption on a large scale, has helped to broaden the market's focus on a wider range of AI technologies, which had previously been seen as too complicated to attract widespread interest and had remained for many a subject of fundamental research. The interest generated by GenAI enabled us to highlight more than 10 years of internal research in this area, showing the strength of these technologies, our comparative advantage and how these other AI technologies were already deeply integrated into our product and in our customers' use. This was also a tremendous opportunity to leverage these concrete examples, over the past 10 years, to explain how we apply GenAI to our use case today and how we intend to do it in the very short term.

What are the strategic challenges of real estate companies regarding Climate action?

Real estate companies need to evolve their real estate portfolio towards sustainability for four reasons. The first is to comply with local regulations such as SFDR or CSRD. The second is to have access to capital, such as Sustainability-Linked Loans in Europe. The third is to maintain the attractiveness of assets to increasingly demanding tenants, willing to offer their employees and customers sustainable and convenient buildings. The fourth is to protect the valuation of their assets, in particular to avoid brown discounting.

Taken together, these challenges illustrate the difficulty they have in identifying the transition and physical risks over their portfolio in 2050 and how best to mitigate them before? We are convinced that AI and GenAI are great tools to be wiser and more efficient, i.e. to better assess these risks and mitigate them more effectively and quickly. But these technologies remain tools, and our role is to master the complexity of these challenges so that these can benefit from this cutting-edge expertise.

What are the key challenges of adoption of AI for Climate action in the real estate industry?

The main challenges in adopting AI for climate action in the real estate sector are twofold. The first is data quality. Many players claim to offer GenAI-based models that help identify decarbonization investments, make decisions, and assess potential savings. In practice, the technologies are great and promising, provided a. they address a real practical use case, and b. they are trained on a differentiating learning source. If these two conditions are not met, it leads to either an opportunity cost or a lack of competitiveness. In a nutshell, GenAI technologies are excellent provided that they meet a real use case and are based on a real and reliable long standing data source.

The second point is the auditability of the results. Gen-Ai technologies are very relevant to integrate and enrich large volumes of data and save users time. However, for a given request, you can sometimes get different results. These hallucinations are incorrect or misleading results generated by AI models. They can be caused by various factors, including insufficient training data, incorrect assumptions made by the model, or biases in the data used to train the model. Unfortunately, since most models are black boxes, it is very difficult, if not impossible, to audit them. This lack of auditability can lead to not using these models for reporting purposes for example.

Our underlying conviction is that the quality of the result also depends on the depth of the business expertise of the players who develop these GenAI-based models. The question of auditability can be seen as a question of trust: to what extent does the market trust a supplier to develop and control GenAI-based models for a given use case? Only proven and recognised leading-edge expertise in this business use case can bring trust.

Insights from AI x Climate Pioneers

Hubert Baya Toda,
Founder & CEO, Leakmited

leakmited

1. What major AI innovations have impacted water management and leak detection in recent years?

One of the most groundbreaking innovations has been the integration of geographic and contextual data into AI models, a leap forward in tackling the persistent challenge of incomplete or unreliable data in the water industry. We've moved beyond analyzing pipelines solely based on material, diameter, or age. Today, we understand—and can prove—that context is equally critical. Factors like soil morphology, topography, and the urban environment significantly influence network vulnerabilities.

At Leakmited, we have pioneered the use of these contextual layers in our AI-powered Digital Twin models. By combining advanced analytics with a deep understanding of water networks, we offer utilities not just the ability to detect leaks but to predict future vulnerabilities and prioritize maintenance with precision. This approach allows us to simulate thousands of scenarios, turning what was once guesswork into a science of network optimization. The result? Less wasted water, lower costs, and a decisive step toward climate resilience.

2. What are the next big challenges for AI in water management?

The next frontier lies in data quality and trust. While AI has proven its value, water utilities often lack comprehensive datasets, especially for older networks. At Leakmited, we address this by combining AI with human expertise, bridging gaps in data to ensure that insights are accurate, actionable, and tailored to local realities.

Another challenge is scaling adoption globally. Many utilities hesitate to adopt AI due to its complexity or fears of "black-box" solutions. Transparency is key—we must ensure that AI models are explainable and auditable. At Leakmited, we focus on building trust by demonstrating clear ROI and enabling utilities to make confident, data-driven decisions.

Finally, AI must go beyond detection to drive systemic change. Climate change is intensifying pressure on water networks, making it essential to deploy AI solutions that not only address operational challenges but also guide strategic investment in climate-resilient infrastructure.

3. How is AI transforming the water industry in the context of climate action?

AI is redefining what's possible in water management by shifting the paradigm from reactive to proactive decision-making. In a world where climate change is exacerbating water scarcity and infrastructure stress, every drop matters. AI enables utilities to identify leaks early, optimize maintenance schedules, and reduce energy consumption in water distribution—all of which contribute to a lower carbon footprint.

At Leakmited, we take this transformation one step further by empowering utilities to simulate and model their networks, helping them prioritize investments in areas where the impact is greatest. For example, our solutions allow utilities to avoid overinvesting in healthy pipelines while targeting critical zones that drive water loss. By making water networks smarter and more efficient, AI is helping us conserve resources, adapt to climate challenges, and ensure a sustainable future for generations to come.

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Special Thanks

We would like to extend our heartfelt gratitude to everyone who contributed to this work, directly or indirectly. This report would not have been possible without your valuable insights, dedication, and expertise.

In particular, we acknowledge all direct contributors, listed below in alphabetical order by last name:
Louis Abraham (Sciences Po, H), Hubert Baya Toda (Leakmited), Joëlle Barral (Google), Jérôme Berger (Orange), Vincent Bryant (Deepki), Bertrand Charpentier (Pruna.ai), Julien Chaumond (Huggingface), Thomas Clozel (Owkin), Clara Chappaz (French Government), Florian Douetteau (Dataiku), Katrin Dimitrov (Vizzia), Renaud Dumora (BNP Parisbas), Guillaume Duvaux (Poolside), Delphine Groll (Nabla), Gaëtan Gachet (Algolia), Charles Gorintin (Alan, Mistral), Gabriel Hubert (Dust), Alexandre Hollocou (Joko), Noah Hollmann (PriorLabs), Lara Khanafer (Dataiku), Kevin Kuipers (Galion.exe), Maximilien Levesque (Aqemia), Laurent Mazaré (Kyutai), Antoine Moyroud (Lightspeed), Alexandre Pereira (2501), Isabelle Ryl (PRAIRIE & PSL), Jean–Baptiste Rudelle (Zenon, Galion.exe), Gaël Varoquaux (Inria), and Taha Zemmouri (Eden AI).

A special note of gratitude goes to Eden AI, whose tool significantly facilitated our efforts by automating key tasks such as logo collection and classification workflows. Their contribution was instrumental in streamlining several aspects of this project.

Your collective efforts have greatly enriched this project, and we remain deeply grateful for your support and commitment.

Disclaimer

This report on the AI landscape aims to provide informational support and insights into the AI ecosystem. However, it is important to note that the information presented herein may not be exhaustive and is subject to change.
The analyses, and methodologies outlined may evolve over time as new data and technologies emerge.

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