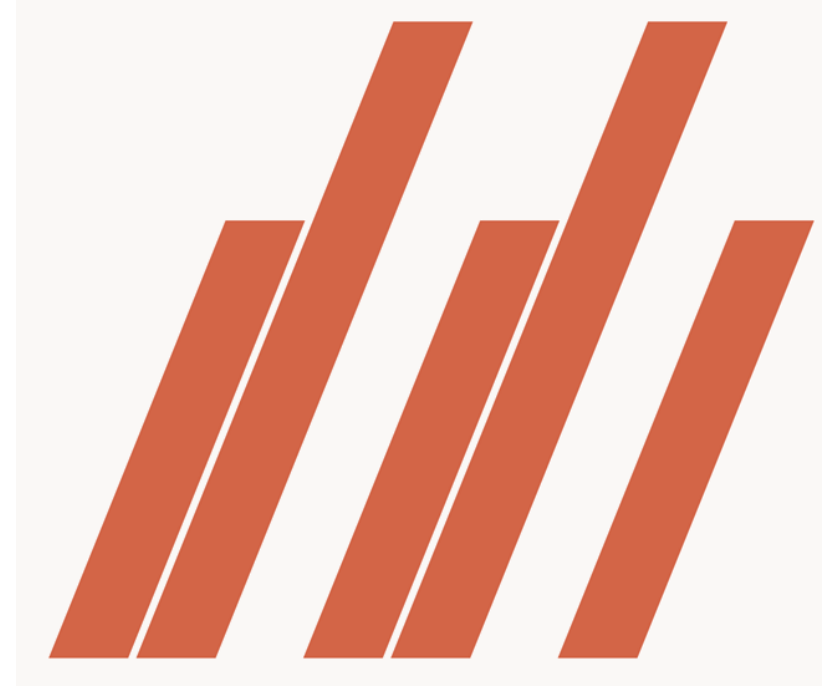


Welcome

12 October 2026
19 October 2026



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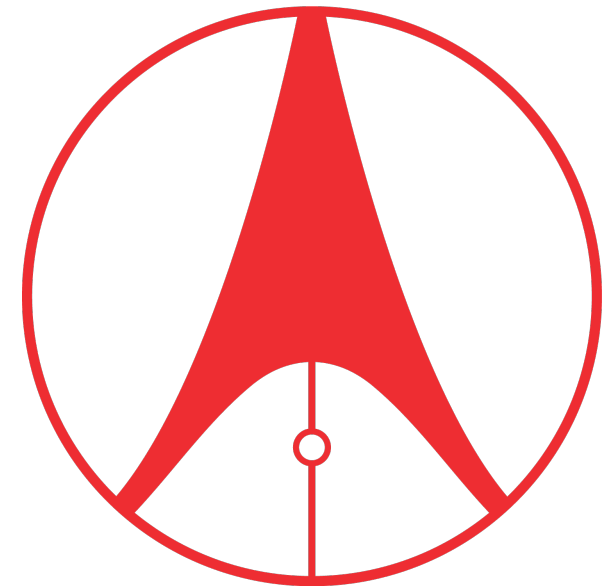
The name

Asinov

From Artificial Intelligence to Innovation

Inspired by the legacy of Isaac Asimov, ASINOV prepares leaders and innovators to turn Physical AI, autonomous systems and humanoid robotics into real-world impact.

- **Asimov's legacy:** thinking beyond technology about humans, robots and society.
- **Artificial Intelligence:** moving from digital models to systems that can perceive, decide and act in the physical world.
- **Innovation:** turning autonomous systems and Physical AI into concrete industrial applications.



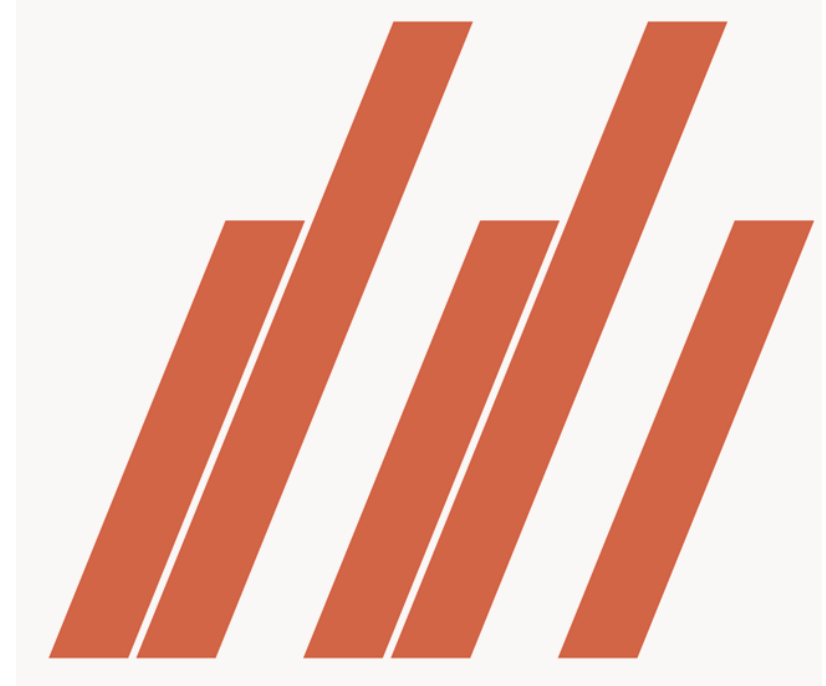
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Physical AI

AUTONOMOUS SYSTEM

Engineering intelligence for real-world robotic systems.



Powered by Fondation Inartis



5 engineering trends shaping tomorrow



Future of
robotics



Future of
mobility



Future of
space tech



Future of
bioengineering



Future of energy
+ sustainability

Future of robotics

Robotics is entering the era of physical AI, where the breakthrough is not just more machines but more intelligent ones. Powered by advances in AI, sensors, and motion control, a new generation of general-purpose robots can navigate autonomously, understand complex surroundings, and work safely alongside people—moving beyond factories into warehouses, hospitals, farms, hotels, and stores.

Autonomous Systems

We teach autonomous systems. Humanoids are our most complete learning platform.

	Autonomous Systems	An autonomous system can perceive its environment, make decisions and act toward a goal without constant human intervention.
	Core functions	perceive, understand, decide and act. Example: an autonomous humanoid robot can identify a box, decide to grasp it, adapt its movements and move it without a human commanding each action.
	The key difference	An automated system follows predefined instructions; an autonomous system adapts its behaviour to the situation in order to achieve a goal.
	Limitation	Autonomy is not absolute: a system may be autonomous for certain tasks while still remaining under human supervision.



From Autonomous Systems to Physical AI

We teach autonomous systems. Humanoids are our most complete learning platform.

	Autonomous Systems	Systems able to perceive their environment, make decisions and act with limited human intervention.
	Physical AI	Artificial intelligence embodied in machines that can sense, reason and act in the physical world.
	Embodied Intelligence	Intelligence that emerges from the interaction between AI, sensors, actuators, the body and the environment.
	Why do we use humanoid robots?	Humanoids are the most demanding and versatile embodiment of Physical AI. They combine perception, mobility, manipulation, human-machine interaction and autonomy in a single platform. They are also designed to operate in environments built for humans, using our doors, tools, workstations and workflows, making them an ideal platform to teach, test and integrate the full Physical AI stack.



The vocabulary of Asinov (1)

Words we use precisely when speaking about robotics and Physical AI.

1 Humanoid attention

Humanoids have captured public attention because they embody the full stack: perception, mobility, manipulation and interaction.

2 Humanoid definition

A humanoid robot is a robotic system whose morphology and interaction capabilities are designed to operate in human environments and perform tasks comparable to those carried out by humans.

Full humanoid: head, torso, two arms and two legs, potentially including hands and feet.

Fixed-mobility humanoid: head, torso and arms, but no legs; it may be mounted on a fixed support or installed on a mobile base.

Torsoid: a robot limited mainly to the torso, head and arms, designed for tasks such as manipulation or human interaction.

Anthropomorphic robot: a robot whose specific features — such as a hand, arm, face or joints — resemble those of a human, without the overall body necessarily being humanoid.



The vocabulary of Asinov (2)

Words we use precisely when speaking about robotics and Physical AI.

1

Cognition

AI increasingly powers the “cognitive” layer of robots: interpreting context, planning actions and adapting behaviour.

2

Understand & adapt

Robots must operate in messy, unpredictable real-world conditions — not only in fixed, scripted environments.

3

General-purpose robots

Robots designed to work beyond narrow, specialised settings and to support multiple tasks or workflows.

4

AI-orchestrated production Manufacturing is evolving toward environments where AI coordinates machines, data, workflows and human operators.

5

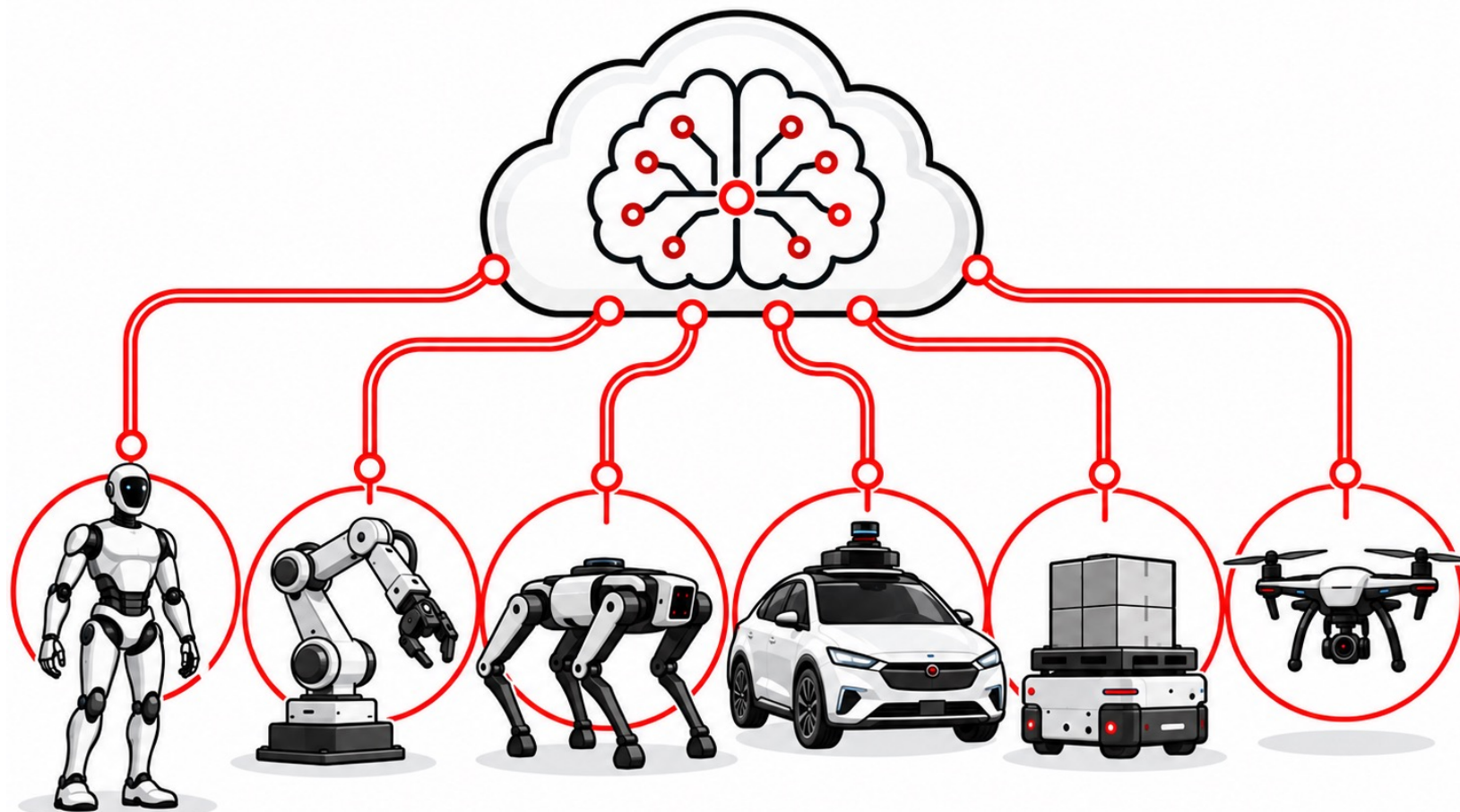
Robot Trainer

the professional who turns a capable robot into a productive worker.



LLM as the brain for Physical AI

LLMs provide the cognitive layer: understanding, reasoning and planning. Sensors perceive the world; robots act on it. The challenge is turning intelligence into safe, reliable action.



Three layers of physical AI's technology stack

MIND

Models (VLA vs. WM),
Software, Compute

VLA teaches robots how to act. World Models help them understand what their actions will cause

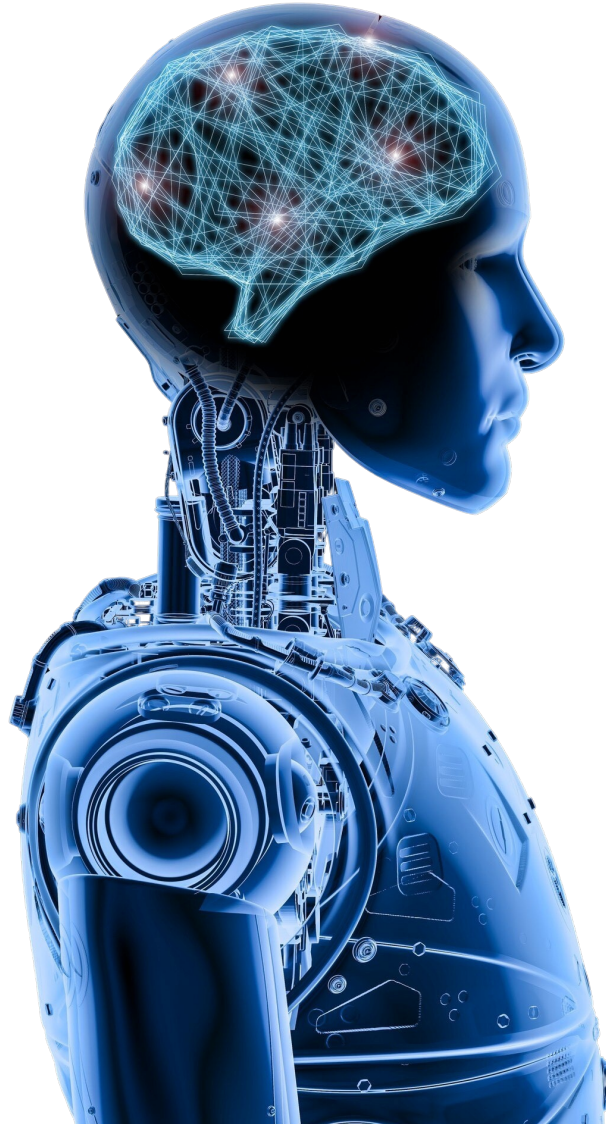
BODY

Power, Sensors,
Actuators, Structure

Learning loop

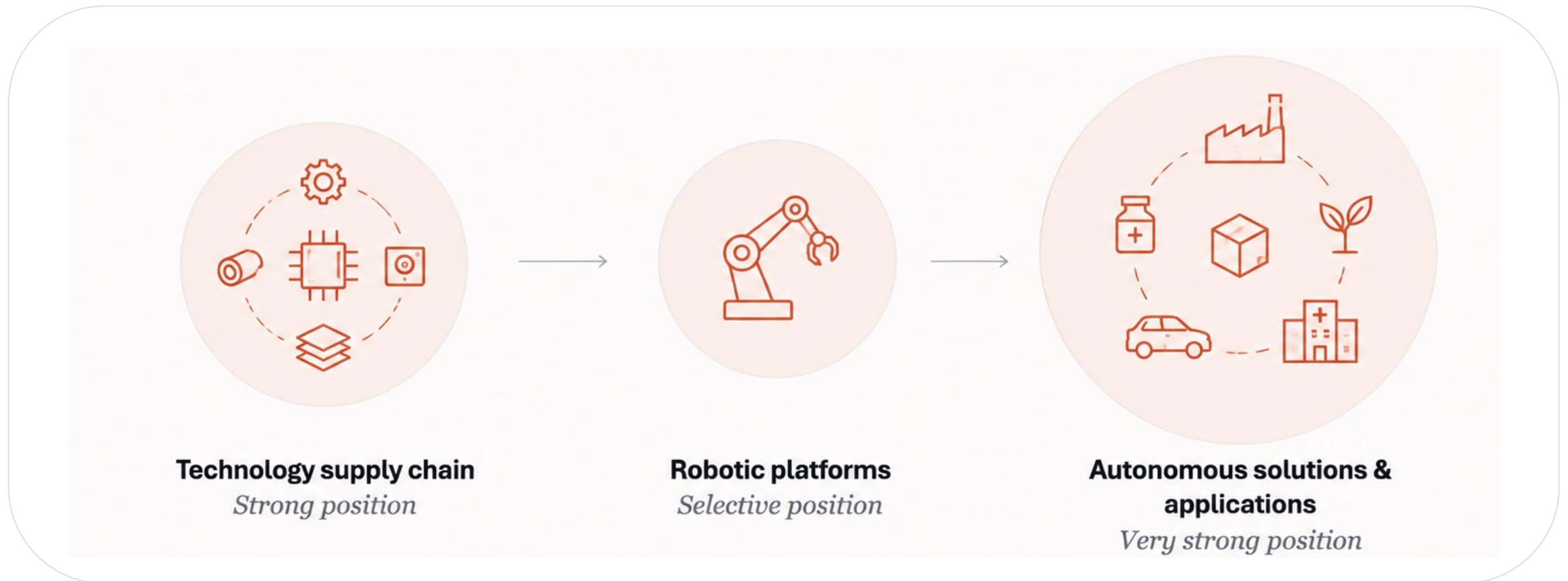
Training Centers or teleoperation

Synthetic data (digital twins & simulations)



Switzerland's Position in Physical AI

Do not compete to manufacture the cheapest robot. Build the smartest layers and deploy the most valuable solutions.



Switzerland's Position in Physical AI

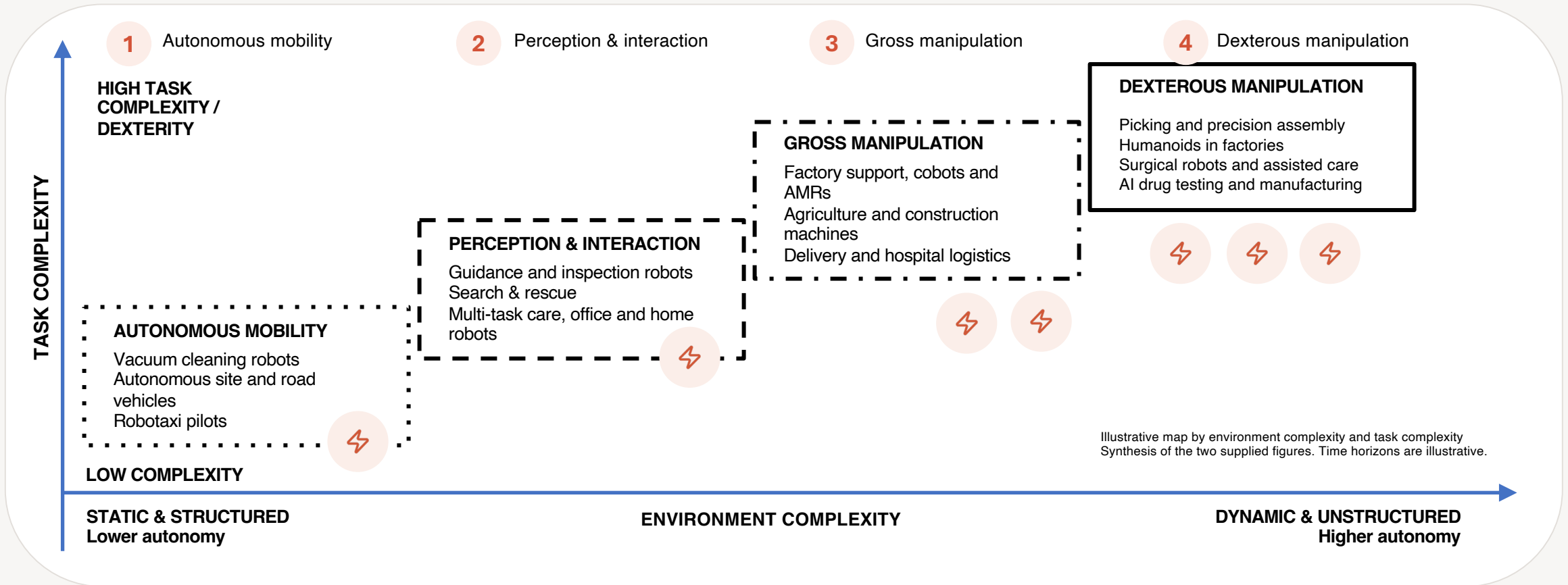
Do not compete to manufacture the cheapest robot. Build the smartest layers and deploy the most valuable solutions.

	Technology supply chain <i>Strong position</i>	Sensors (Sensirion), precision drives (maxon), positioning (u-blox / Fixposition), vision & perception (Leica / Sevensense), force sensing (Bota Systems), control & autonomy, AI / robotics software, precision mechanics, advanced materials, safety & certification.
	Robotic platforms <i>Selective position</i>	Industrial robotics, quadrupeds, drones, medical robotics, autonomous machines and selected humanoids. Switzerland should be selective where platforms are strategic, differentiated or application-specific.
	Autonomous solutions & applications <i>Very strong position</i>	Pharma and chemicals, medtech and hospitals, energy, construction, infrastructure, logistics, precision agriculture, watchmaking / microtechnology, food, defence and security, mobility and tourism.



PHYSICAL AI | SECTOR APPLICATIONS

Applications expand as autonomy and dexterity converge



TIME HORIZONS

2030

Task-specific systems

Cobots, robotaxi pilots, autonomous tractors and inspection support

2040

Autonomous workflows

Robot-supported care, logistics networks, precision agriculture and site operations

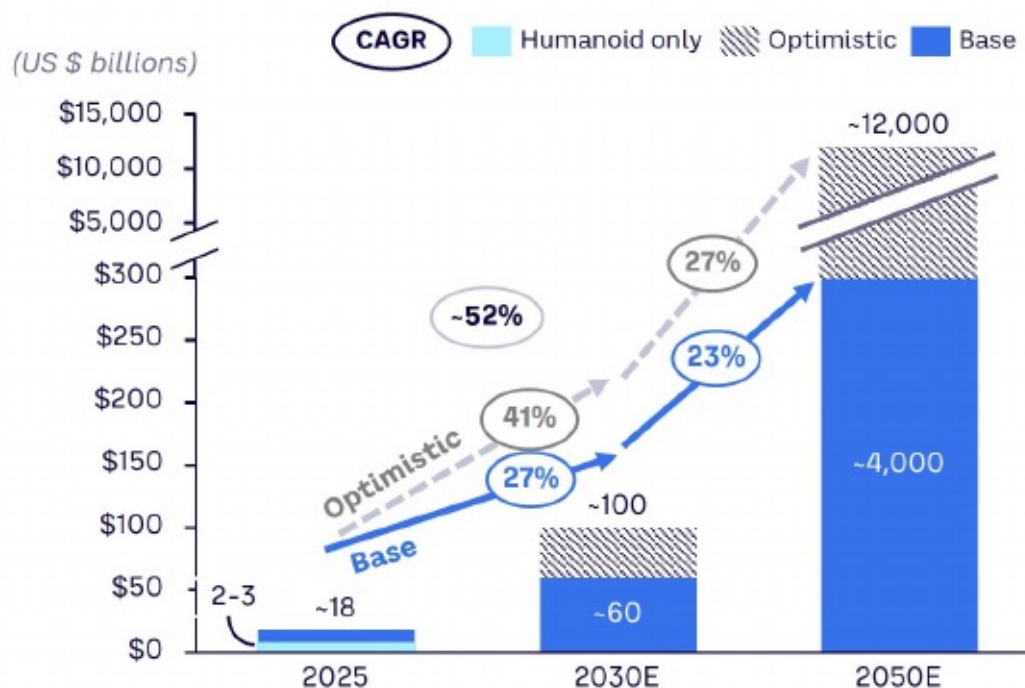
2040+

General-purpose humanoids

Domestic, care, manufacturing, logistics, services, construction and mining



Physical AI market growth



Wide forecast range driven by differences in market scope, AI penetration assumptions, adoption timing & modeling approaches

Current 2025 market size estimate is around \$18 billion,¹ of which humanoid robotics is \$2-\$3 billion

Near-term 2030 estimate is in the range of \$60-\$100 billion,² depending on different assumptions for overall robotics growth rate & AI penetration

Long-term 2050 estimate is in the range of \$4-\$12 trillion³; high divergence in forecast sources reflects different growth & adoption assumptions; optimistic forecast assumes widespread domestic deployment & broad labor substitution

Note: (1) Based on MarketsandMarkets, expanded 20% to include software platform and autonomous mobility scope; (2) base case assumes physical AI is 54% of ABI 2030 robotics estimate; optimistic case assumes similar % of more optimistic robotics forecasts (Mordor, GMI, etc.); (3) range based on multiple sources, including Barclays, Morgan Stanley, UBS, Deutsche Bank, Bank of America, McKinsey Global Institute, ABI Research, RBC Capital Markets, etc.
Source: Arthur D. Little



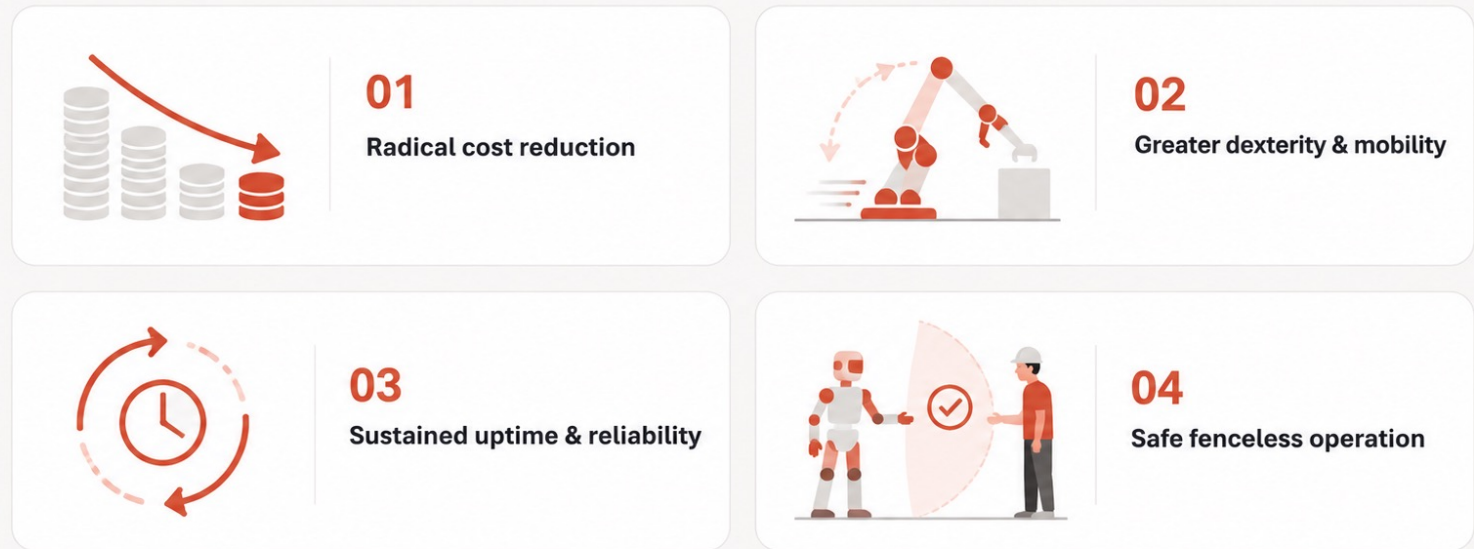
Four bridges to commercial viability

Robotics moves from promise to performance only when the economics and operations work.

FOUR BRIDGES TO COMMERCIAL VIABILITY: Cost | Dexterity | Uptime | Safety.

Overall, the future of robotics is best understood as the continuation of a mature market in industrial robots, with selective scaling of new general-purpose form factors. The entire sector is innovating around AI enablement, and technical capabilities are advancing quickly. But the next phase will be determined by whether robots can cross the gap from promise to performance in real-world environments. Widescale adoption of autonomous robots will depend on the economics of deployment and integration with existing systems.

Robotics-as-a-service models could help reduce capital barriers, but companies will need to clearly see where robots can create value rather than just technical wizardry.



From technical wizardry to operational value.



A robot is not a tool. It is a tool embedded in a system.

Choose the platform. Add the right tools. Connect the software. Integrate the system. Build the application.



The robot is the platform. The instrument defines the task.

- A robot should not be seen as a finished tool. It is a **platform** that becomes useful only once it is configured, equipped, connected and integrated into a broader system.
- We may start with an AGIBOT body, add a BrainCo haptic hand, integrate cameras or sensors from another supplier, and then connect these components through the appropriate software layer. Mechanical compatibility is only the first step. The real challenge lies in the interfaces, drivers, protocols, SDKs, data models and orchestration software that allow all these elements to operate as one coherent system.
- But there is **one more layer: system integration**. A robot never operates in isolation. It has to interact with people, machines, IT systems, workflows, safety procedures, production environments and business processes. The robot is therefore not the final tool; it is one component within a larger operational system.
- This is exactly where ASINOV positions itself. **Our alumni should be able not only to operate a robot, but to select the right platform, combine it with the appropriate tools and sensors, connect the software layers, and integrate the resulting solution into a real-world system.**



Switzerland's Position in Physical AI

Do not compete to manufacture the cheapest robot. Build the smartest layers and deploy the most valuable solutions.

1

Technology supply chain
Strong position

Sensors (Sensirion), precision drives (maxon), positioning (u-blox / Fixposition), vision & perception (Leica / Sevensense), force sensing (Bota Systems), control & autonomy, AI / robotics software, precision mechanics, advanced materials, safety & certification.

2

Robotic platforms
Selective position

Industrial robotics, quadrupeds, drones, medical robotics, autonomous machines and selected humanoids. Switzerland should be selective where platforms are strategic, differentiated or application-specific.

3

Autonomous solutions & applications
Very strong position

Pharma and chemicals, medtech and hospitals, energy, construction, infrastructure, logistics, precision agriculture, watchmaking / microtechnology, food, defence and security, mobility and tourism.



Turning supply chain constraints into wins

McKinsey
& Company

Industrials Practice

Turning humanoid supply chain constraints into billion-dollar wins

The robotics supply chain is the most underappreciated constraint on humanoid scale. But for companies that move now, it is the most significant opportunity in a generation.

This article is a collaborative effort by Ani Kelkar, Christian Jansen, Erik Sparre, Mark Patel, and Mikael Robertson, with Alexander Rauch and Robert Hess, representing views from McKinsey's Industrials Practice.



Switzerland's Position in Physical AI

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Hommage méritée à l'automation suisse

"C'est la véritable preuve qu'un savoir-faire né dans l'horlogerie de précision devient un langage industriel universel". Nous sommes au coeur de la raison d'être du Salon EPHJ. Avec cette citation extraite de la contribution du jour de [Xavier Comtesse Digital SHAPERS](#), mathématicien et Président de [Think tank Manufacture Thinking](#), parue dans l'[AGEFI, Nouvelle Agence Économique et Financière](#), nous saisissons mieux tout l'importance de l'automation industrielle, fleuron discret de l'arc jurassien et de son rôle qui va désormais bien au-delà de l'horlogerie. Cette analyse met en valeur le savoir-faire et l'ingéniosité de sociétés présentes chaque année à [EPHJ - The World of High Precision](#), telles que [Rollomatic SA](#), [Schaublin SA](#), [Willemin-Macodel SA](#), [CIPOSA SA](#), [Micro-Assembly Automation](#) ou [HUMARD Automation SA](#) mais nous pouvons également citer [Petitpierre SA](#), [CLA Clinical Laboratory Automation](#) ou [Precitrame Machines SA](#), [FLEURY](#), [Custom Automation](#) ou [Heliotis AG](#). Des entreprises capables de concevoir des machines uniques, selon le cahier des charges du client, avec un niveau d'autonomie associé à l'IA qui préfigure encore plus ce que seront les machines de demain. Toujours plus autonomes. Quelques lignes qui suffisent à démontrer comment l'intelligence collective d'un territoire peut irriguer toute une industrie de la haute précision avec des machines, des robots et des prototypes révolutionnaires. Démonstration en sera bientôt faite avec la sortie imminente de l'Innovation Digest EPHJ 2026 qui inclut de nombreuses innovations des entreprises évoquées dans ce bel article.

[#Industrie](#) [#Automation](#) [#Horlogerie](#) [#Machine](#) [#Robot](#) [#ArcJurassien](#) [#ephj](#) #

System-level architecture and components

Supply chain bottlenecks are most likely to emerge around actuators and sensing & perceptions systems

Risk of bottlenecks for humanoid robotics systems components

Low Scaled supply already exists in adjacent industries; some adaptations required for humanoid use

Medium Scaled supply already exists in adjacent industries; more extensive adaptations required for humanoid use

High Structural constraints will emerge

Sensing and perception systems:

- Vision systems (LiDAR/depth)
- Encoders (rotary and linear)
- 6-axis force/torque sensors
- Linear force sensors
- Tactile sensors

Battery modules:

- Battery packs
- Thermal/cooling systems

Actuators (linear):

- Ball screws
- Linear actuator integration
- Linear guides
- Planetary roller screws

Structural components:

- Frames and housing
- Precision mechanical parts
- Commodity mechanical



Compute and control platforms¹:

- AI compute /GPU modules
- Real-time control platforms
- Safety controls

Actuators (rotary):

- Driver board/power electronics
- Motor (brushless direct current motor and permanent magnet synchronous motor—neodymium-iron-boron [NdFeB])
- Bearings (cross-roller)
- Encoder
- NdFeB magnets (in motors)
- Gearbox
- Planetary gearboxes
- Cycloidal drives
- Harmonic/strain-wave drives

¹System-level bottleneck (integration and safety), not component capacity.

McKinsey & Company



Where Switzerland Can Lead

Physical AI is a stack: value is created by integrating sensing, intelligence, actuation, platforms and applications.

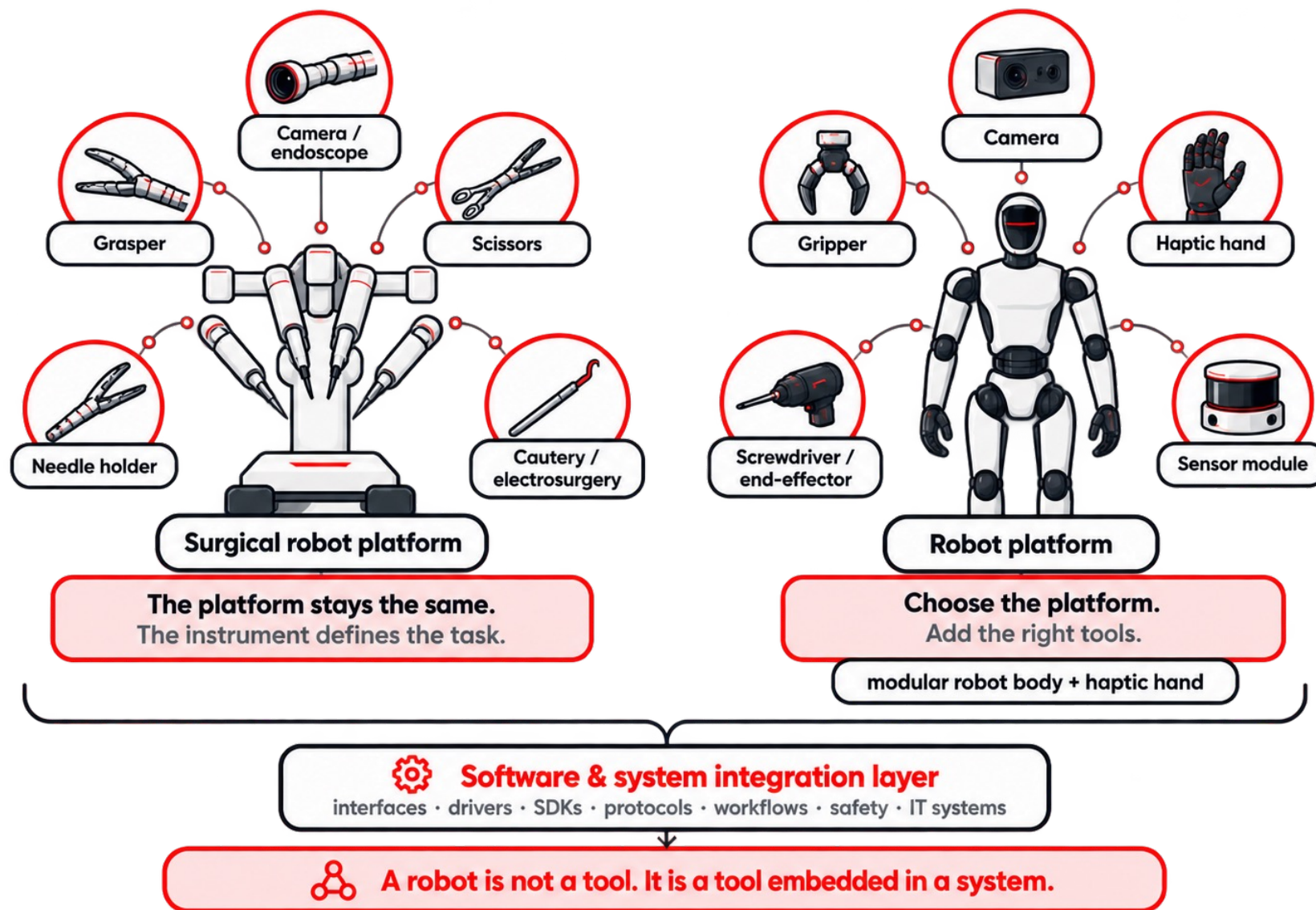
①	Physical world	Human · object · machine · environment · energy — the real-world context in which autonomous systems must operate safely and reliably.
②	Sensing / perception	Sensirion: pressure, flow, gas, temperature · u-blox: GNSS / IMU positioning · ams-OSRAM: optics, photonics, spectral vision · Mettler Toledo: industrial measurement and metrology.
③	Edge / compute / connectivity	NVIDIA · u-blox · ABB · HPE / Cray · Swisscom — perception → data fusion → AI → decision, close enough to the physical system to act in time.
④	Control / actuation	maxon · ABB · Schneider and others — motors, drives, servos, transmissions and manipulation systems that turn digital decisions into physical motion.
⑤	Robot / autonomous system	ANYbotics · ABB Robotics · Swiss-Mile · Rapyuta — humanoids, quadrupeds, drones, industrial robots and autonomous machines.
⑥	Applications	Industry · health · logistics · construction · defence · agriculture · mobility · energy — the domains where Switzerland can deploy high-value autonomous solutions.



SAME LOGIC
DIFFERENT DOMAINS

A robot is not a tool. It is a tool embedded in a system.

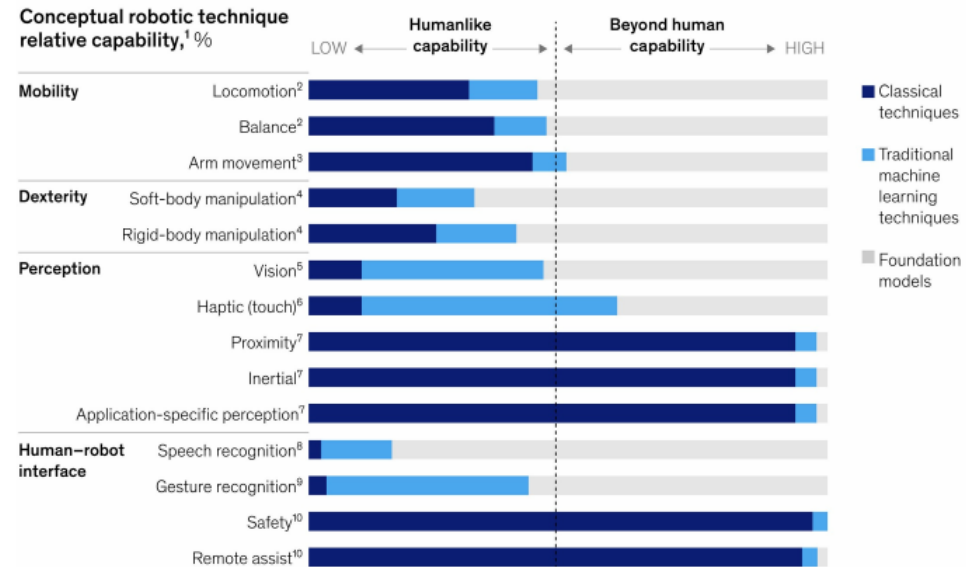
*From surgical robotics to
physical AI*



Robot investments by segment and geography

For many of the most critical and costly humanoid components the supplier ecosystem is still at the early stage for large-scale production, creating a significant opportunity for scale build-out.

As foundation models improve, they could potentially enable robot capabilities that equal or exceed those of humans.



¹Based on expert opinions. ²Traditional machine learning (ML) techniques allow robots to nearly reach this humanlike capability, but foundation models are needed to surpass it. ³Traditional ML techniques are sufficient to reach superhuman ability. ⁴Foundation models are essential even to match human ability. ⁵Traditional ML techniques (eg, convolutional neural networks) allow robots to nearly reach this human ability, but foundation models are needed to surpass it. ⁶Traditional ML techniques (if complemented by hardware advances) are sufficient to reach superhuman ability; foundation models can help but are not essential. ⁷Classical software (less advanced than ML) is sufficient to exceed human ability since the bar for human ability is quite low. ⁸Foundation models are essential to exceed human capability; state-of-the-art large language models have already likely exceeded baseline human ability. ⁹Foundation models are essential to exceed human capability; state-of-the-art vision language models have already likely exceeded baseline human ability. ¹⁰Limited scope for ML or foundation models since classical techniques have already exceeded human baseline for safety.

McKinsey & Company



Overview of technology readiness

COMPONENT		READINESS	COMMENT
Body	Power	Medium	• Battery technology has advanced through EV scale, but runtime, payload, charging & energy use still constrain mobile robots
	Actuators	Medium	• Mature component supply exists, but precise, compliant & energy-efficient actuation for dexterous physical interaction remains a core bottleneck
	Sensors	Low	• Cameras, LiDAR, microphones & radar are broadly mature & ready for use, although tactile sensing remains less developed
	Robot structure	High	• Robot bodies are increasingly buildable, but form-factor fit, stability, weight, robustness & task-specific design remain use-case dependent
Mind	Software	Medium	• Data, analytics, control & orchestration software are advancing, but integration across robots, workflows & safety layers is not yet standardized
	Models	Medium	• AI models & world models are promising, but broad real-world reasoning is immature; hybrid architectures are more realistic than one giant model
	Compute	Low	• AI compute is powerful, but robots need low-latency onboard reasoning within battery, heat, weight & safety constraints
Learning Loop	Real data	Medium	• The weakest layer: physical AI lacks large, reusable action & tactile datasets that link perception, action, force & physical outcome
	Synthetic data	Low	• Simulation is useful for vision, motion & virtual testing but remains weaker for contact, friction & manipulation; sim-to-real is still incomplete

■ High
 ■ Medium
 ■ Low

Source: Arthur D. Little



Strategic imperatives: what suppliers should do now

The window to shape the humanoid robotics supply chain is open: but narrowing.

01 Forge early co-development partnerships
Embed components before specifications are finalised.

02 Invest in safety & certification
Build SIL/ASIL, redundancy and compliance capabilities. (System integrity Level)

03 Standardise and design for modularity
Develop interoperable components and shape emerging interfaces.

04 Prove scalable manufacturing
Show credible volume readiness, secure inputs and consistent quality.

05 Build life-cycle revenue streams
Turn spares, maintenance, upgrades and diagnostics into profit pools.



Switzerland's Position in Physical AI

Do not compete to manufacture the cheapest robot. Build the smartest layers and deploy the most valuable solutions.

1

Technology supply chain *Strong position*

Technology supply chain — sensors (Sensirion), precision drives (maxon), positioning (u-blox / Fixposition), vision & perception (Leica / Sevensense), force sensing (Bota Systems), control & autonomy, AI / robotics software, precision mechanics, advanced materials, safety & certification.

2

Robotic platforms *Selective position*

Industrial robotics, quadrupeds, drones, medical robotics, autonomous machines and selected humanoids. Switzerland should be selective where platforms are strategic, differentiated or application-specific.

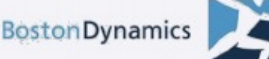
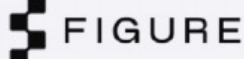
3

Autonomous solutions & applications *Very strong position*

Pharma and chemicals, medtech and hospitals, energy, construction, infrastructure, logistics, precision agriculture, watchmaking / microtechnology, food, defence and security, mobility and tourism.



Manufacturers of humanoid robotics

 BASE Early humanoid production platform SCALE ~1,100 units shipped in 2025; targeting 5,000 in 2026 GROWTH Scaling industrial humanoid manufacturing	 BASE Low-cost humanoid platform SCALE >5,100 units shipped in 2025; targeting 10K-20K in 2026 GROWTH Expanding mass-market humanoid production	 BASE Humanoid production platform SCALE >5,000 units shipped in 2025 GROWTH Accelerating industrial humanoid scaling	 BASE Internal humanoid deployment program SCALE Several thousand units planned inside Fremont factory; targeting ~1 m units by end of 2026 GROWTH Integrating humanoids into vertically integrated manufacturing workflows	 BASE Advanced humanoid robotics platform SCALE Commercial production of Atlas initiated in 2026; Hyundai building dedicated 30K-unit factory GROWTH Transitioning from R&D leadership to industrial deployment	 BASE General-purpose humanoid platform SCALE BotQ factory targets initial 12K annual capacity, scaling toward 100K GROWTH Building large-scale humanoid manufacturing platform
CHINA			US		

Note: The list of players is illustrative and not exhaustive
Source: Arthur D. Little



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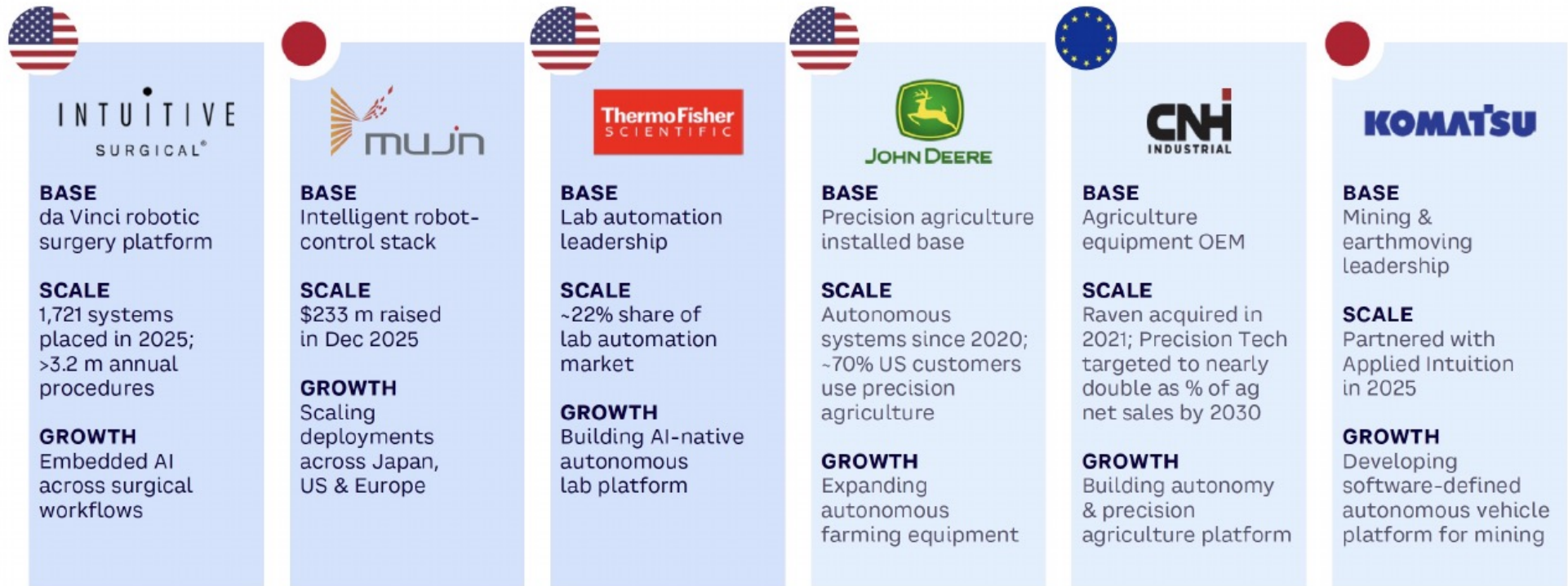
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Pharma and chemicals, medtech and hospitals, energy, construction, infrastructure, logistics, precision agriculture, watchmaking / microtechnology, food, defence and security, mobility and tourism.



Automation leaders across technology categories



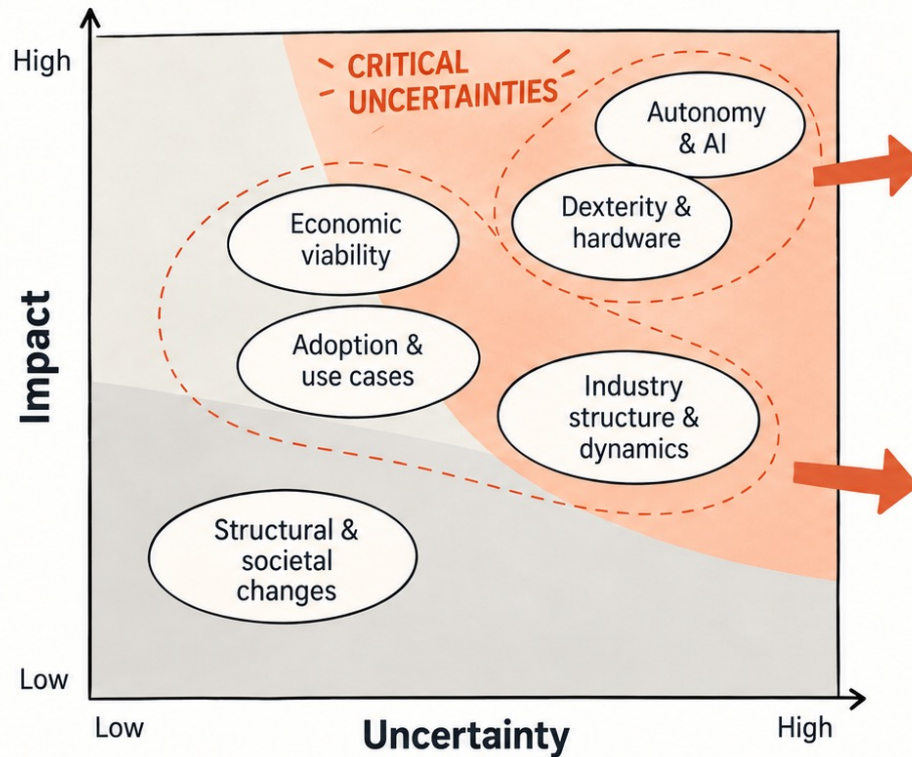
DEXTEROUS MANIPULATION

GROSS MANIPULATION

Note: The list of players is illustrative and not exhaustive
Source: Arthur D. Little



Strategic factors: breakthroughs vs. deployment scaling



TECHNOLOGY BREAKTHROUGHS

Determines whether advances in autonomy, AI & dexterity enable robots to perceive, reason & interact reliably in the real world.

PRIMARY BOTTLENECK



DEPLOYMENT SCALING

Determines how fast physical AI moves from pilots to scaled deployment, driven by economics, ecosystem maturity & operational reliability.

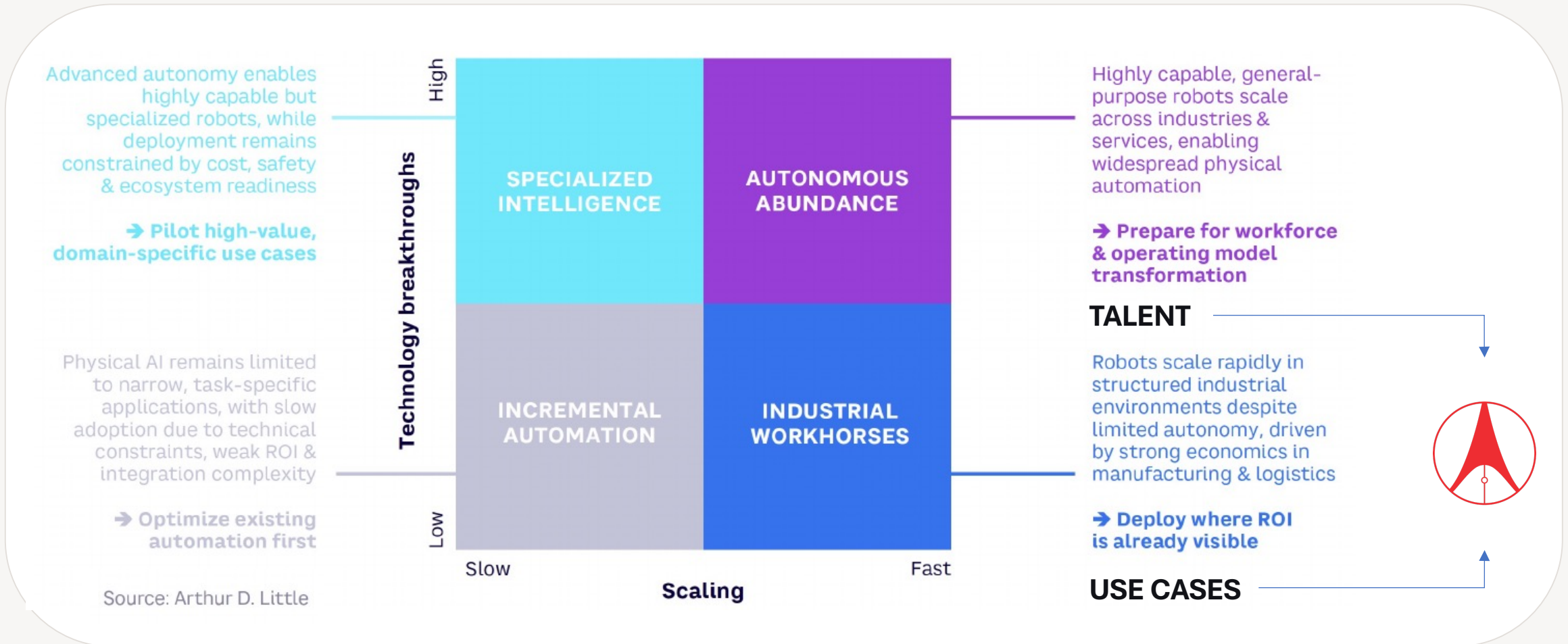


Source: Arthur D. Little

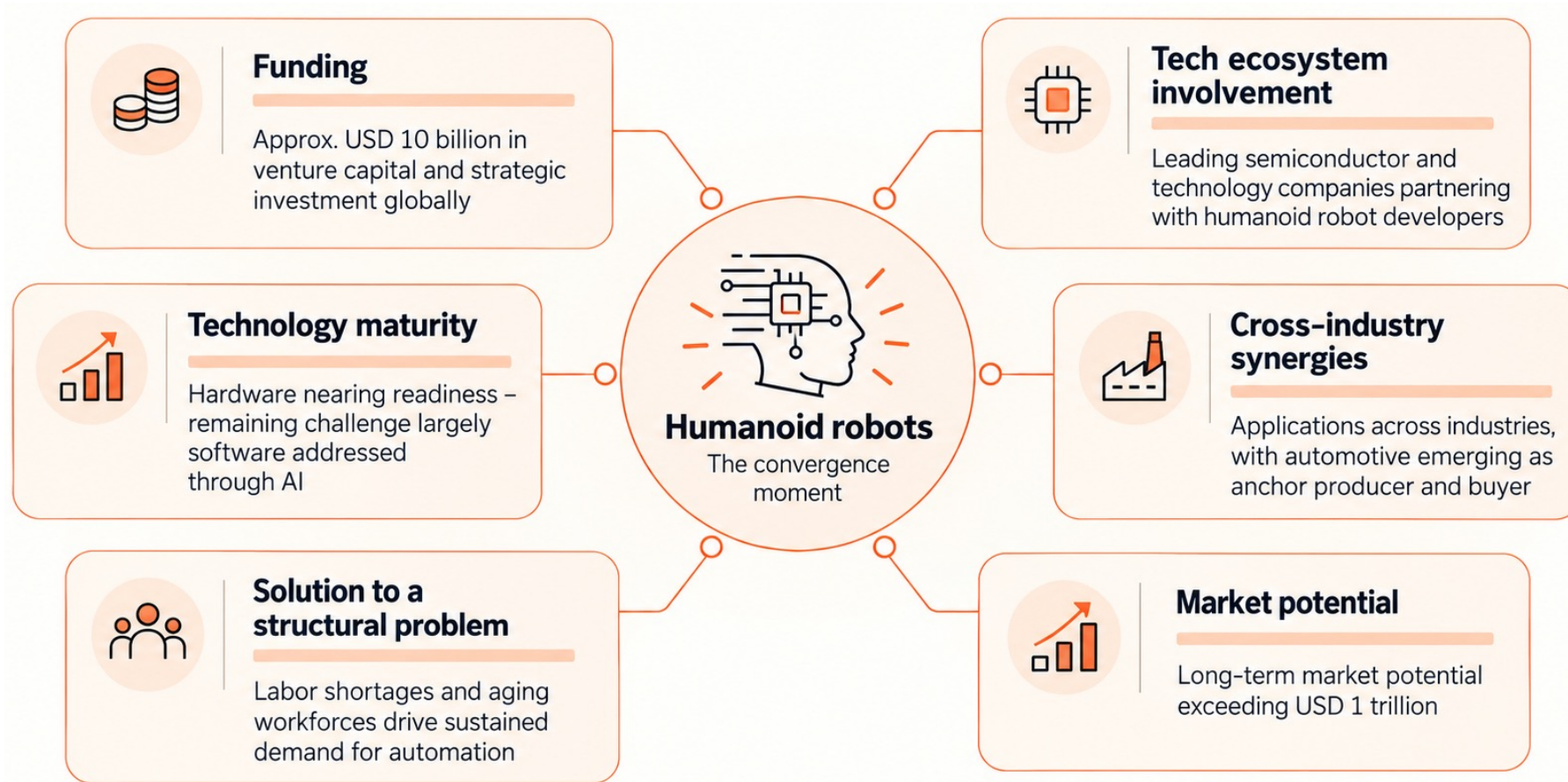
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Four future scenarios for Physical AI



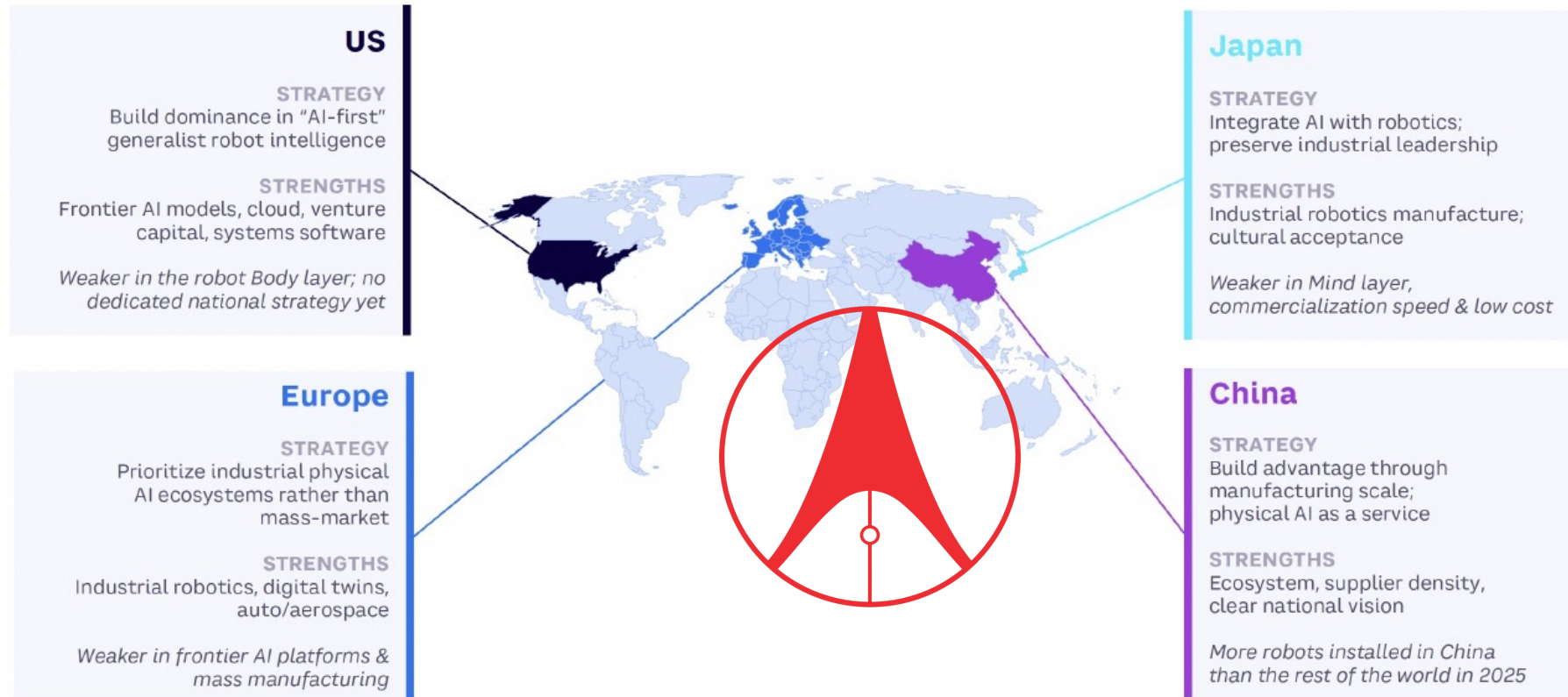
Four future scenarios for Physical AI & the reality !



ACTION

1

Regional strengths and strategies



Source: Arthur D. Little



What executives should do today

Act pragmatically and anchor deployment in real operational value — not technology narratives.

01 Identify and evaluate use cases

Train robot trainers ! Begin with scalable, repeatable applications where Physical AI is already good enough. Target high-value tasks unlocked by autonomy or dexterity.

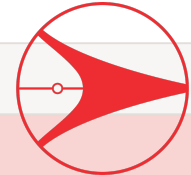


03 Test and pilot in stages

Use lower-risk, high-return cases. Scope pilots tightly and assess the full economics of deployment at scale.

02 Initiate no-regret moves

Strengthen operational data, digital connectivity, ecosystem capabilities and the regulatory conditions needed for deployment.

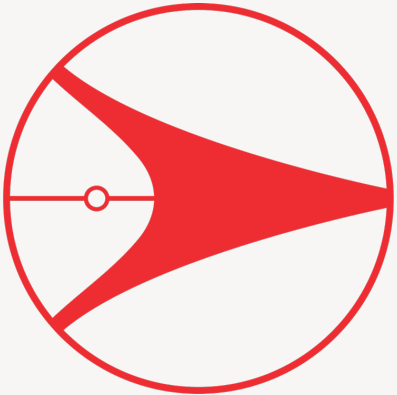


04 Plan the organisational impact

Define success, anticipate workforce and process changes, and manage transformation with robust change management.



Executive programme: AI & autonomous transformation



EXECUTIVE
PROGRAM

GENEVA | RENENS | LAUSANNE | BEIJING | SHENZHEN | SHANGHAI

LEADING THE AUTONOMY TRANSFORMATION

FROM PHYSICAL AI
TO INDUSTRIAL TRANSFORMATION
TWO ECOSYSTEMS, ONE TRANSFORMATION
SWITZERLAND x CHINA

-  **understand**
what is changing
-  **Experience**
what works
-  **Transform**
where to act

the
new
now
SOLUTIONS

Powered by
In Ar Ti S
Fondation Inartis

The next few years will decide who leads

The decisions made now:

- **where to pilot,**
- **what to measure,**
- **which provider to engage and how to develop the workforce**

will determine which organisations lead and which fall behind.

The winners will not be those pursuing full autonomy for its own sake, but those solving real operational problems, deploying early, learning quickly and building internal capabilities and data advantages.

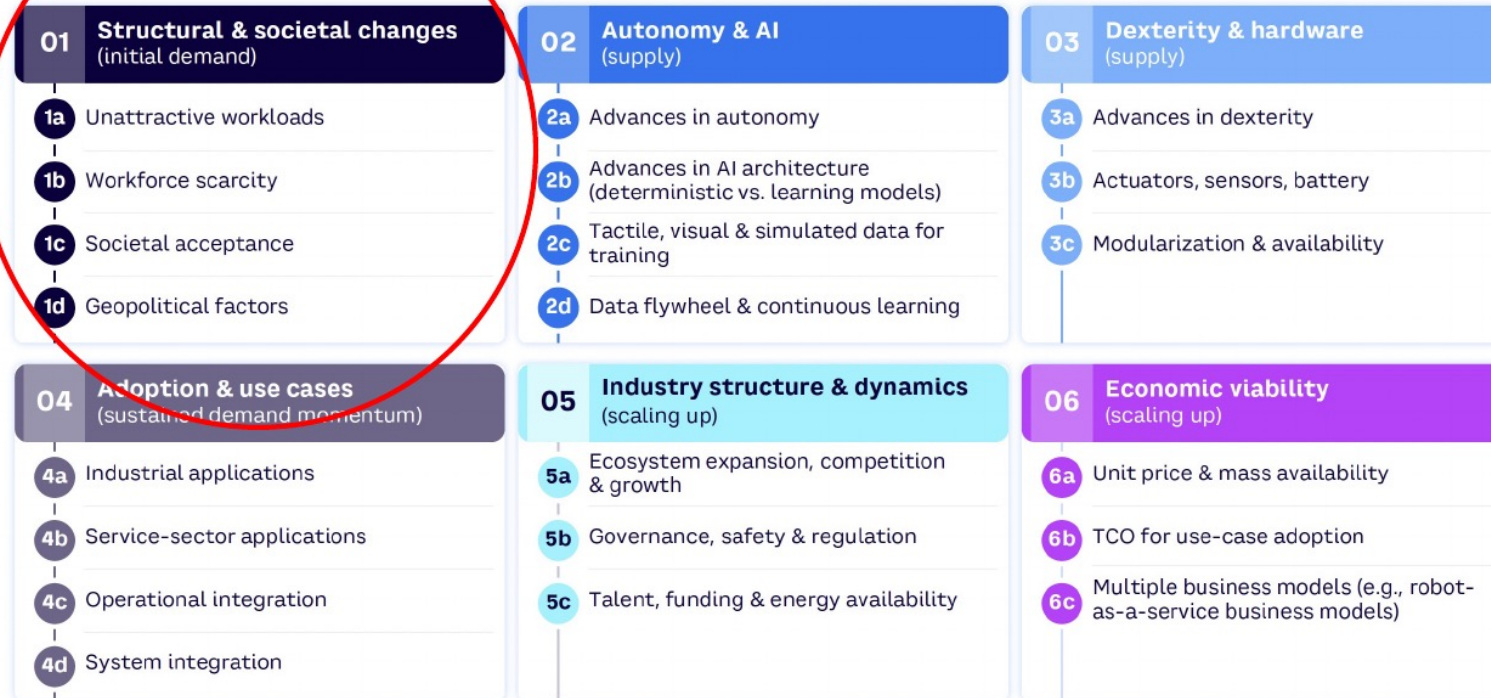


ACTION

2

Physical AI: anticipating structural & societal changes

Figure 14. Six sets of factors will shape future development

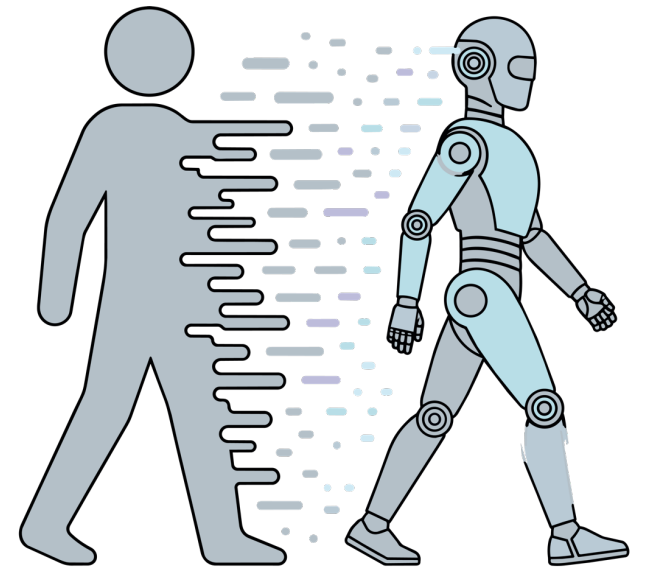


Source: Arthur D. Little



**"A robot may
not injure a
human being."**

— Isaac Asimov, *First Law of Robotics*

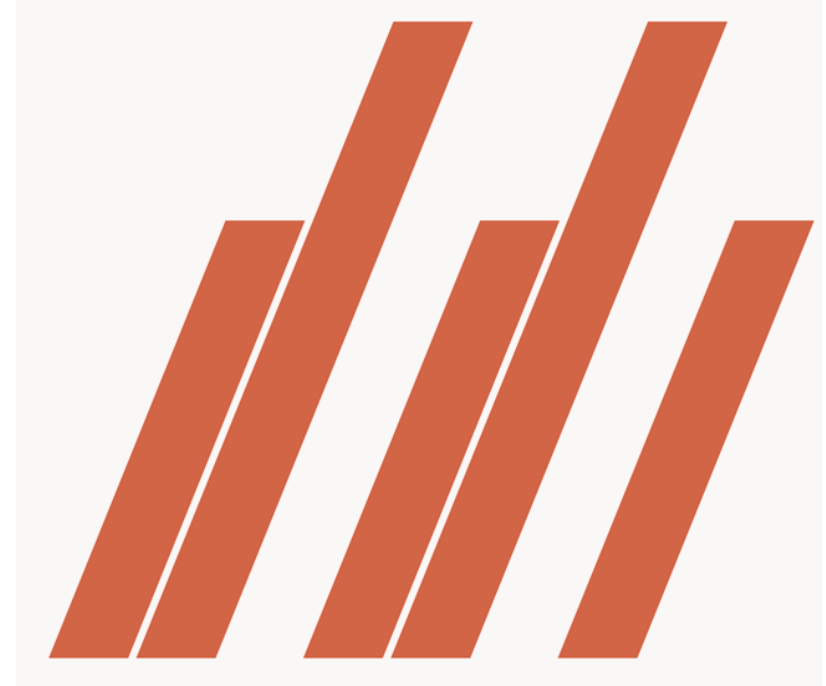


ACTION

3

Physical AI

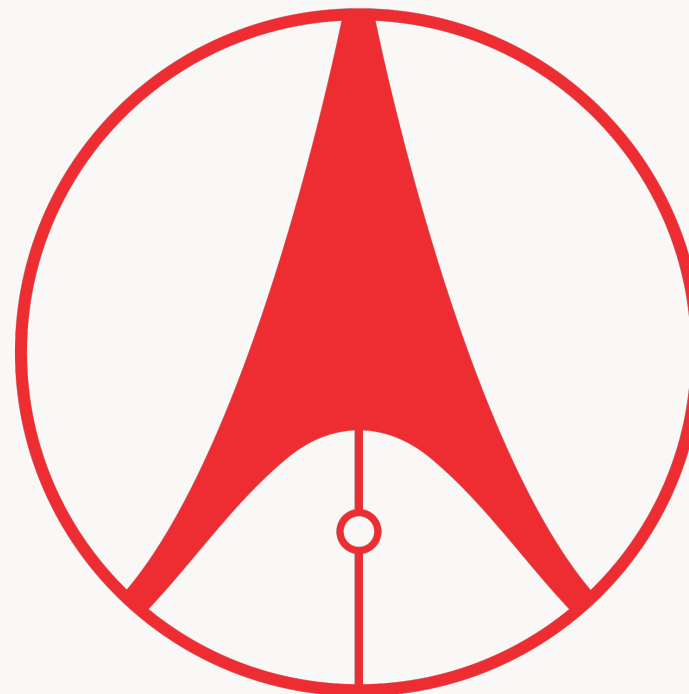
And SWITZERLAND



ASINOV OPEN DAY

The curriculum

Who we train · How they learn · The year · The outcome



We train deployment specialists

From crate to a working, safety-documented deployment.



WE PRODUCE

- Integration & deployment engineers
- They set up, tune, troubleshoot and deliver robots
- Using proven tools like ROS and vendor software
- Robots that work safely and reliably on a real site
- Software developers who learn robotics with us



WE DO NOT PRODUCE

- Research scientists
- We don't train people to invent new algorithms; universities do that well
- To join, you need programming experience and to be at ease with the command line and Git



The first six months in numbers

24

weeks

first half of 12 months

~700

hours

~29 h / week

~25

ECTS-eq.

at 28 h / ECTS

34

contact days

on site

~25

cohort

participants

1:3

robots

one for every three people



The pedagogy



Peer review

Another participant has to rebuild your work from your documentation.



Pass/fail projects

You move on when your project passes. Some get there faster than others.



Industry-led training

Industry partners, such as robot suppliers, teach their own technology.



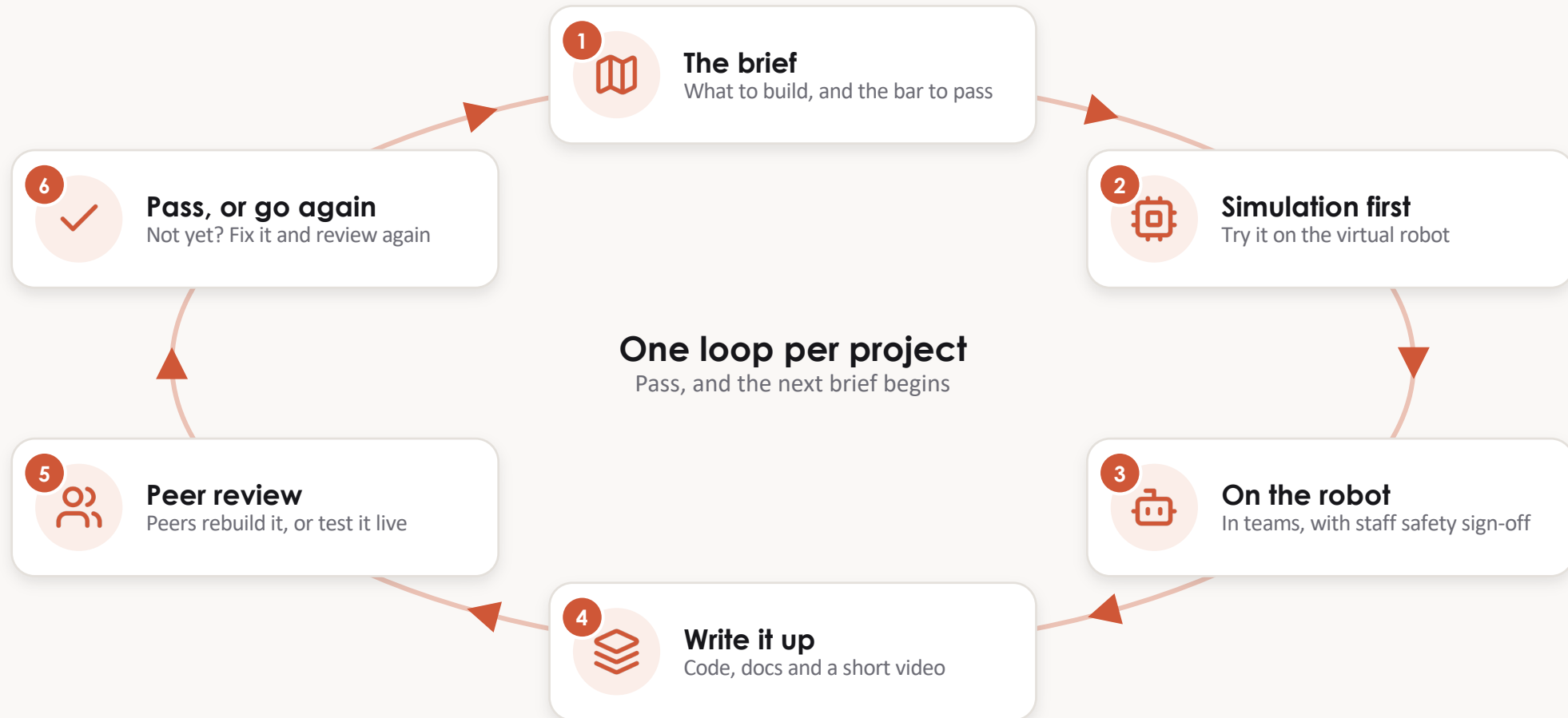
Proven tools

Participants learn to put existing tools to work.

Our staff sign off on robot safety. To move on, participants need both the AgiBot certificate and their peers' approval.



How a project runs



Built in from the first week

These robots will work around people.



Staff sign off on safety

Nobody works on a real robot without our staff's safety sign-off.



Ethics from the start

An ethics module in the first weeks, and a position paper on a real scenario midway.



The rules that apply

Swiss data protection, CE marking, the EU AI Act and the Machinery Regulation.



A safety case for every deployment

No capstone passes without a safety case for the site.



One year, two halves

WEEKS 1-24

Structured programme

- Seven phases, one project after another
- Teams show they can run a complete system
- Ends with the capstone in July 2027
- Includes robot supplier certification blocks, such as by Agibot

SELF-DIRECTED HALF

Work on a real use case

- An independent project, using the school's robots and lab
- For example, a project for the company that sponsors you or at a partner lab
- Participants can be the engineering team
- Plus a study tour in Shanghai to see the latest robots

Healthcare · Hospitality · Manufacturing · Maintenance · Autonomous operations · Personal care



Study tour (China)

Understand where Physical AI is heading by meeting the people already building it.

PURPOSE

- See what is coming next: observe the latest robots, platforms and applications beyond today's market.
- Understand the dynamics : technology maturity, business models, deployment speed and competitive positioning.
- Meet the ecosystem : OEMs, integrators, suppliers, researchers, start-ups and industrial users.
- Identify opportunities : spot relevant technologies, partners and use cases for Switzerland.
- Challenge assumptions : compare what is promised with what is actually being deployed.

ORGANISATION

- Destination: Shanghai / SIL / leading Physical AI ecosystem (options: Beijing & ShenZhen)
- Format: intensive study tour combining company visits, technology demonstrations and expert exchanges
- Participants: ASINOV cohort, faculty and Executive program participants
- Visits: robot manufacturers, component suppliers, integrators, research centres and application sites
- Method: observe → question → compare → debrief
- Outcome: each participant returns with a clearer view of what matters, what is mature and where to act next.



THE YEAR

Study tour (China)

Understand where Physical AI is heading by meeting the people already building it.



The phases



The capstone is the entry test for the second half. On Monday 12 July 2027, each team runs a complete scenario, safely, from start to finish.



Four specialisation tracks



TRACK A

Manipulation & Grasping

Picking up, placing and precise assembly with the G2's two arms.



TRACK B

Robot Learning

Teaching a robot new skills from data and simulation, and measuring the improvement.



TRACK C

Multi-Robot Coordination

Several robots sharing a space or working as a small fleet.



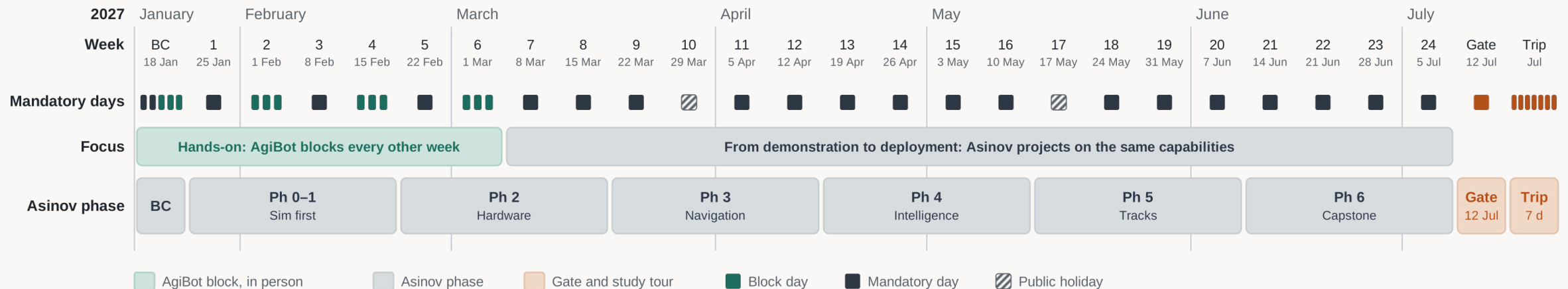
TRACK D

Human-Robot Interaction

A robot that takes a spoken request, plans it and carries it out, on robot service humanoids.



The first cohort, week by week



BC = bootcamp week, 18–22 Jan: Asinov onboarding Monday and Tuesday, G2 L1–L2 block Wednesday to Friday. Later blocks run Monday to Wednesday.



What a graduate understands



Perception & computer vision

How a robot sees, and where its vision can fail



Localisation, mapping & navigation

How a robot knows where it is and finds its way



Machine learning for robots

What learning from data can and can't do for a robot



System integration & architecture

How a robot fits into an existing site and its systems



Operational safety & compliance

The rules for running robots safely around people



Ethics & regulatory reasoning

The questions robots raise for privacy, work and dignity



What a graduate can do



Defining the task

Turn a client's need into tasks a robot can do, and say what it can't



Systems engineering

Build, tune and debug the software that runs a robot



Manipulation & grasping

Get a robot to pick up and place objects reliably



From simulation to the real robot

Test in simulation, then make it work on the machine



Robot behaviour design

Design behaviour that copes with faults and recovers



Running AI on the robot itself

Fit AI models onto the robot's own computer



System integration

Connect the robot to the site's systems, network and staff



Working with suppliers

Specify what's needed, compare vendors and work with their support



Documentation & reproducibility

Write it up so another team can run it again



JOIN THE CONSORTIUM

How to get involved



Asinov pairs a proven 42-style pedagogy and a Swiss–Chinese partner network. The first cohort starts on 18 January 2027.

01

Tell us your sector

and where robots could help

02

Bring what you have

experience, hardware or a real use case

03

Host a pilot

with our participants in the second half

JOIN THE CONSORTIUM

Certification



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01

Robot manufacturer / Agibot

and where robots could help

02

CHINA

SSIAT Shanghai

03

SWITZERLAND

Under discussion

ASINOV OPEN DAY

The ecosystem

MassChallenge · The Gate Challenge · Innokick · Asinov



Asinov naît au cœur d'un écosystème d'innovation

Des projets, des liens internationaux et des talents réunis sur un même site.



Un site, une fondation, des projets qui se croisent

La Fondation Inartis réunit entrepreneurs, étudiants, technologies et ressources pour transformer des idées en impact.

MassChallenge Switzerland

Accélérateur de startups sans prise de capital. Il offre mentorat et visibilité aux projets en croissance.

The Gate Challenge

Programme qui ouvre le marché chinois aux startups. Il connecte les équipes à des partenaires locaux.

Innokick

Initiation à l'innovation et à l'entrepreneuriat. Elle forme les innovateurs de demain.

Asinov

La prochaine révolution technologique ne concerne pas les logiciels. Elle porte sur l'intelligence incarnée.



Une pollinisation croisée sur un même site à Renens.



MassChallenge Switzerland : onze ans d'impact mesurable

1 175

startups accompagnées depuis 2016

2,9 milliards

de CHF levés

86 400

emplois générés

34

partenaires corporate engagés comme mentors



MassChallenge attire 1 500 projets par an

Une porte d'entrée qui rend l'écosystème visible mondialement.

ÉDITION 2025

Candidatures

1 538

Startups sélectionnées

8 %

1 538 candidatures en 2025, venues du monde entier.

34

pays représentés parmi les startups
sélectionnées

Top 8 %

Sélection annoncée par MassChallenge.



The Gate Challenge ouvre la porte de la Chine



1 mois

d'immersion à Shanghai

40

startups

Deuxième édition en 2026.

Investisseurs, hôpitaux, centres de R&D et industriels chinois.

Focus healthy aging

Medtech, biotech, foodtech.



Innokick forme les innovateurs de demain



Master HES-SO en Integrated Innovation for Product and Business Development.
À la frontière du design, de l'innovation et du design thinking.

90

crédits ECTS

40

étudiant·es par rentrée

Ateliers de Renens

Le lieu de formation



Trois piliers, un même terreau

MassChallenge

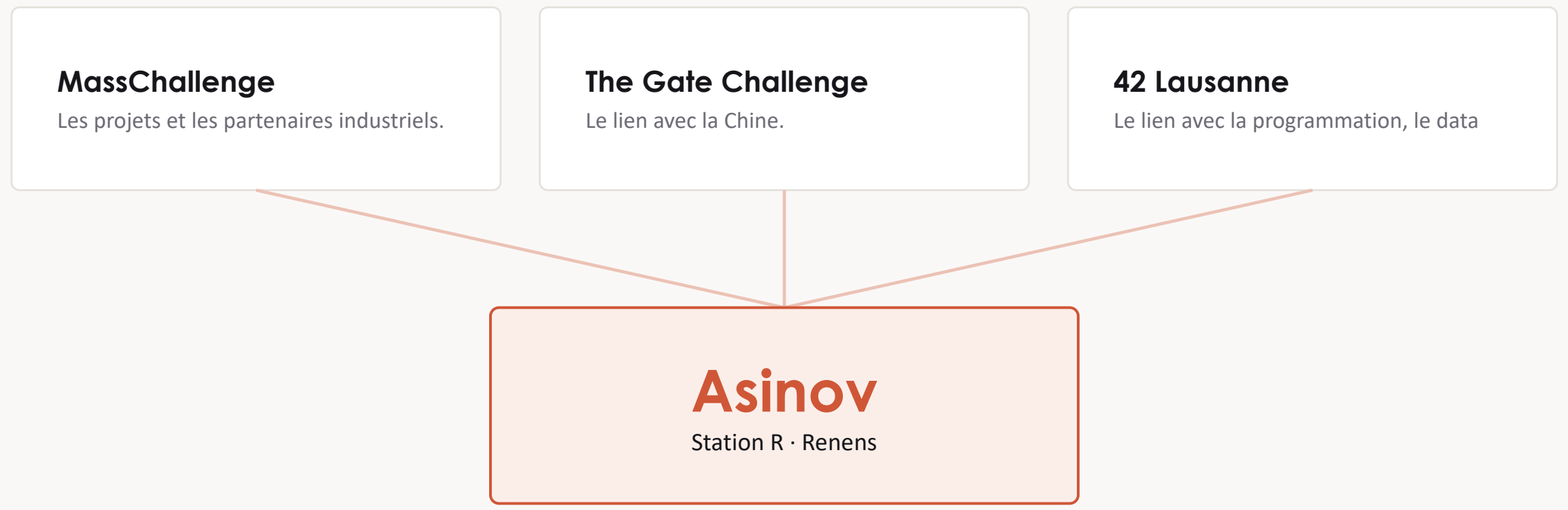
Les projets et les partenaires industriels.

The Gate Challenge

Le lien avec la Chine.

42 Lausanne

Le lien avec la programmation, le data



Asinov

Station R · Renens

Un écosystème réuni par la Fondation Inartis.

