CONNEXUS | 2026
black sea tech forum

Robots have left the cage

Where robotics stands today, and where it is heading

Konstantin Dinev
Managing Director
ROBOTOPLUS

Automation, Robotics and Smart Agriculture | 6 October 2026

ICT CLUSTER VARNA
BSMEPA BULGARIAN SMALL AND MEDIUM ENTERPRISES PROMOTION AGENCY
BAPHA
BRAIN++ AI FACTORY
ARC FUND

How did we get here?

Three eras of robots

1960s – 2000s

Caged

Fast and precise, but fenced off. One job, a million times.

2008 →

Collaborative

Cobots work beside people. Many need no fence.

2023 →

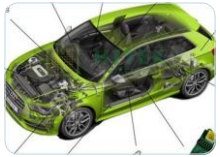
Cognitive

AI lets robots follow simple instructions. Labs first, factories next.

Before: build a fence. Now, often: give the robot a clear goal.

So where does it work today?

Where robots work best



Car and electronics

Robots weld and paint cars

5 million in factories worldwide

Warehouses

The shelf drives to you

1 million+ at Amazon

Surgery

A surgeon steers robot arms

3 million+ procedures a year

Robotaxis

No one in the driver's seat

Waymo: 500,000+ rides a week

Farming

A robot sprays and weeds the crop

Weeding pays. Picking lags

What the leaders share

A structured world and a clear return on every task

Sensors see, AI thinks, robots act

Sources: IFR 2024 and 2026; Amazon via Forbes; Intuitive FY2025; TechCrunch; RoboticsBiz

Most factories are not a car line.

Change the factory or the robot?

A Adapt the factory to the robot

Like demolishing the house to fit a new sofa

Fences, fixtures, tidy parts

Fast, but rigid

or

B Adapt the robot to the factory

Like buying a sofa that fits the house

Works in spaces built for people

Flexible, but less reliable

Humanoids sell the shortcut: no rebuilt factory. That is why investors and carmakers back them. Example: Hyundai plans Atlas in its car plants from 2028. A plan, not yet deployed.

Answer: a mix. Fixed, high-volume tasks stay with dedicated arms.

Sources: Industrial Robotics Hub; Siemens via Automation World; Korea Herald

Why not just buy the shortcut?

The demo gap

Staged and steered

Tesla's 2024 drink-serving robots were remote-operated (Forbes).

Tricks, not skills

Pouring drinks, folding laundry, a backflip: each is a separate trick.

Simple still takes weeks

Even a plain robot cell takes weeks to set up. A new humanoid task takes longer.

95% **right = 1 failure in 20 tasks.**

A factory needs far better than that.

Sources: Forbes (Szczerba, Jul 2026); Standard Bots; Industrial Robotics Hub

And what holds it back?

Robots are short of data

15 trillion

tokens (word pieces) of text one language model learned from (Llama 3)

vs

about 1 million

real robot episodes in one big shared dataset

Language and video: predictable gains

Bigger models fed more text and video got better in a predictable way: more data in, better model out.

Robots: the flywheel starts once they work

Until then, someone must show a robot every towel fold. Once a robot is good enough to work and learn on the job, every job becomes data. Like robotaxis.

Language models had the internet. Robots will have their own jobs.

Sources: Meta AI; Open X-Embodiment; Kaplan 2020; OpenAI Sora 2024; Generalist AI

Where do we start? With the easy floor.

What we do at Robotoplus

Structured world — *AgiBot robots working today, from the floor to the front desk* — **Open world**

Cleaning robots

Cleaning today

Cleaning an airport hall.

Sweeps, scrubs, mops. Rides the elevator.

Robot dogs

Inspecting today

A plant inspection round.

Climbs stairs and rough ground.

Humanoids

Welcoming guests today

A showroom, a hotel, a stage.

Reception, entertainment, hospitality. Next: factory pilots.

How we work

1. **Consult**
2. **Integrate with you**
3. **Rent and pilot**
4. **Train and support**

Labour is short in Bulgaria and Romania. Start with one task and rent before you buy.

Sources: robotoplus.com; AGIBOT product pages

Where it is heading

1 **Robots are the physical layer**

Sensors see, AI thinks, robots act: the next step after sensors and AI

2 **Who adapts decides the path**

Expect a mix: robots adapt, factories tidy up

3 **Data decides the pace**

Robots have no internet to learn from yet

Over to the panel: sensors and chips · AI in farming · systems integration · Society 5.0

The fence is coming down where tasks are structured. Now: can we integrate, trust and afford them?

Start with one task. **robotoplus.com**