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BEYOND THE TOOLS: MAKING AI-DRIVEN DEVELOPMENT WORK

ABB Robotics

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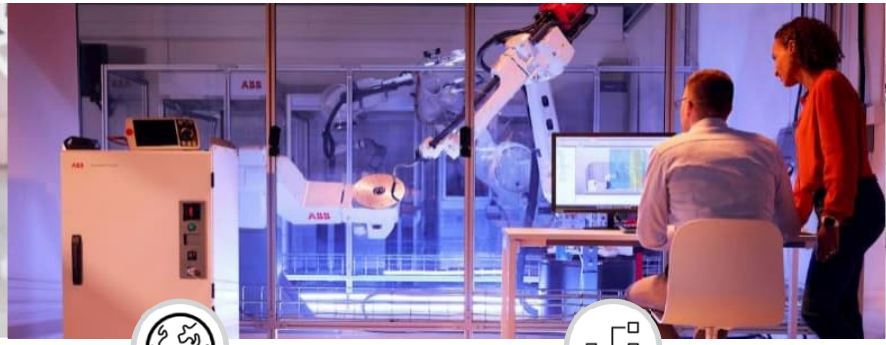
A world-leading robotics company
Unrivalled breadth of offering









Comprehensive robotics solutions provider

Comprehensive mechatronics platform with leading software and controllers

A global leader, including in China

Winning via deep domain expertise and unmatched customer integration

Global pure-play platform

Presence in 50+ countries with an expansive sales & services network and manufacturing in three trading blocks

Tech leadership across diverse & further diversifying markets

Stripes earned in automotive, consumer products & electronics leveraged into new markets

Leading in industrial AI / software & AI-enabled solutions

80% + of offering is software/ AI enabled

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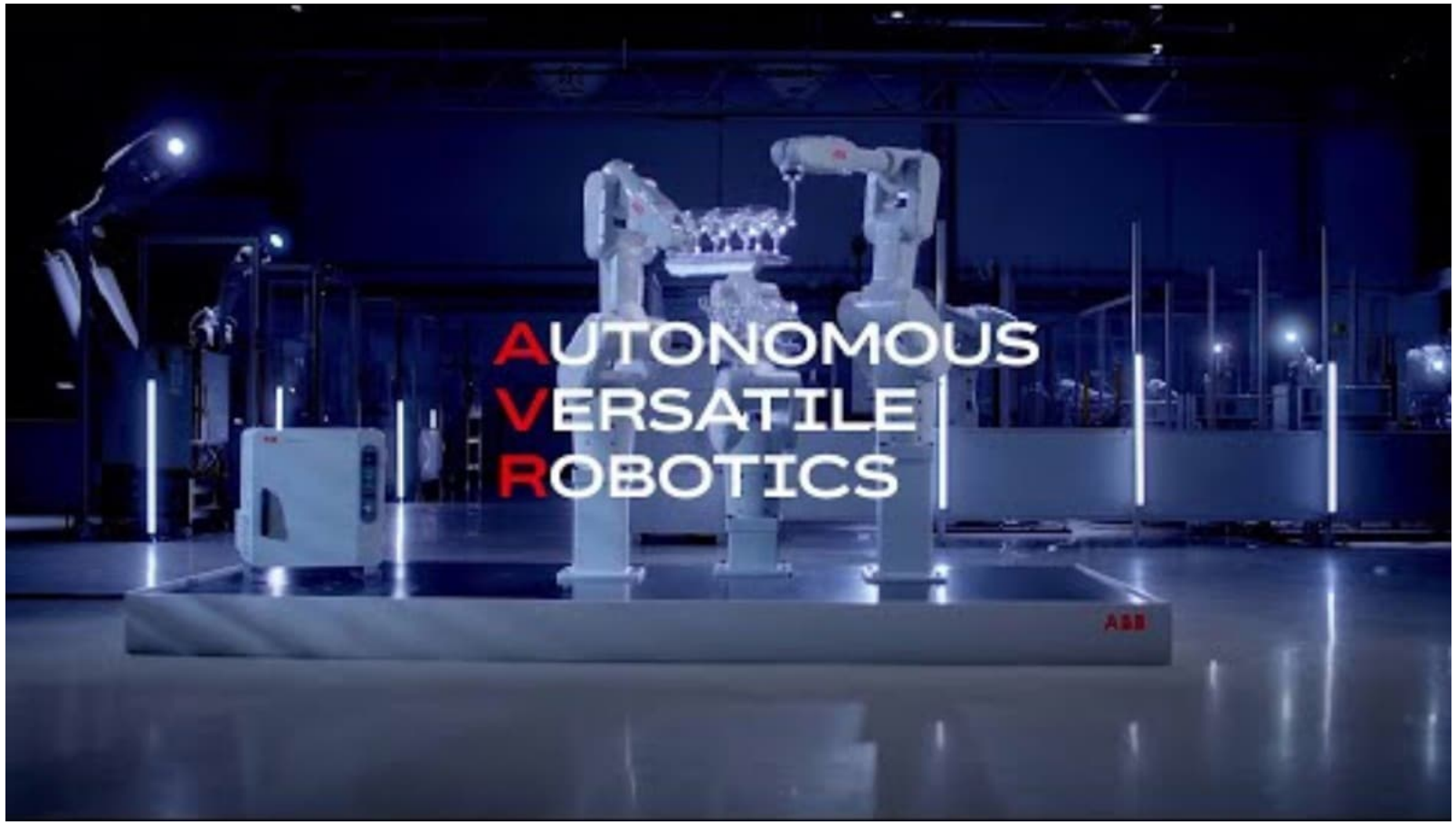
The Era of Industrial Physical AI



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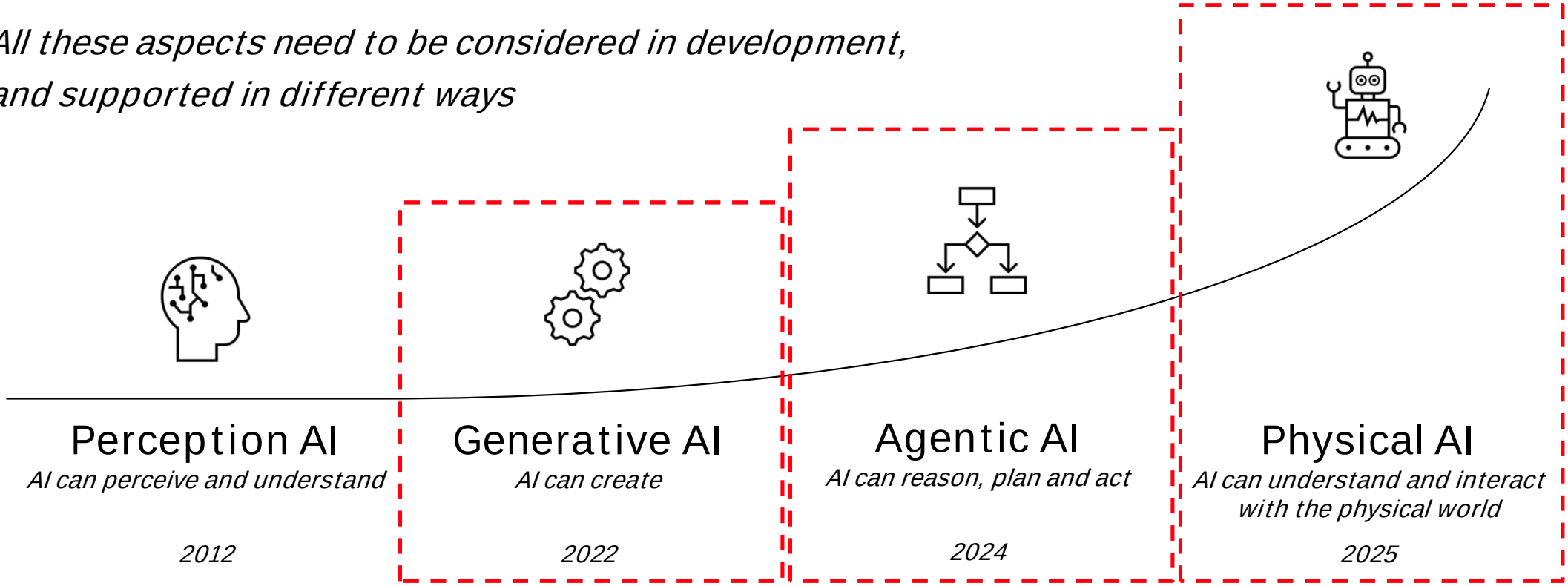
Rapidly evolving technology

All these aspects need to be considered in development, and supported in different ways



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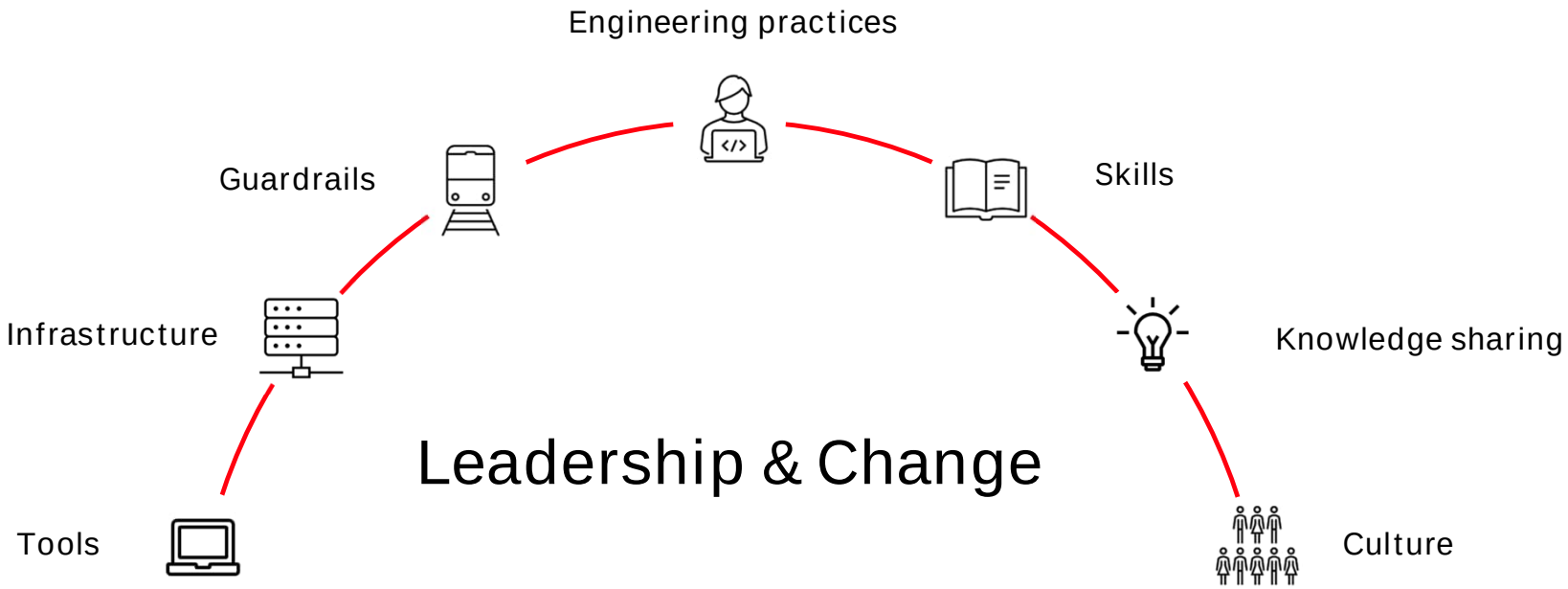
Enablers



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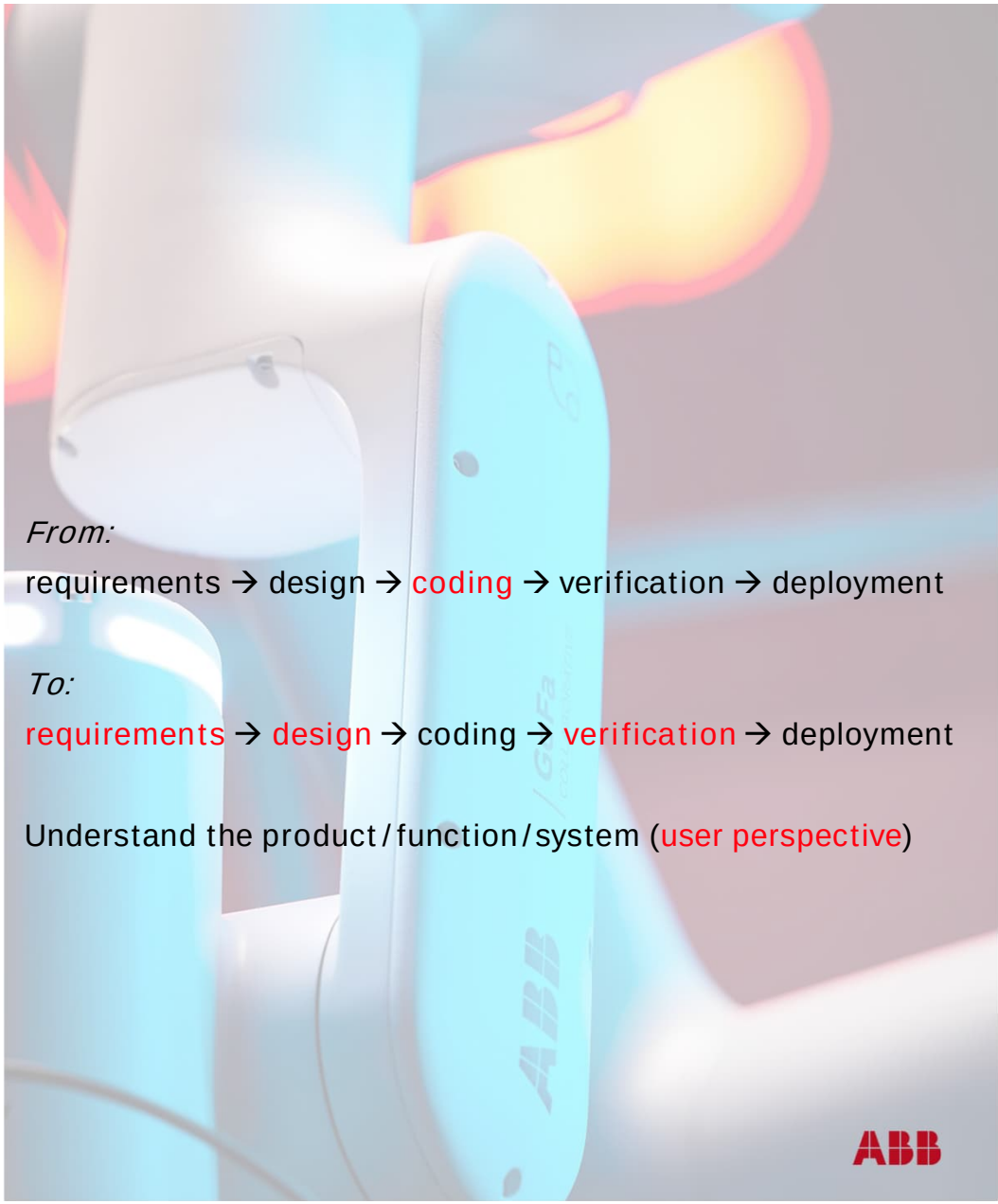
The change & the human in the loop
Typical questions often raised by engineers

*”What can I do **differently** today when a task that used to take me **several days**, now only takes **a few hours to complete**? ”*

*”As more and more **code is generated by AI**, I see myself going from mastering **coding**, to mastering **definition of the right inputs** and **achieving the right results**.”*

*”How can I **trust** the output and how do I know that the **quality** of the generated output is as good – or better – than what **I can do myself**?”*



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Codebase needs to become AI-ready



Basic agent instructions



Build is clear and easy for agents to execute



Automated tests



Static Analysis



Linting/Formatting

These are the basics before letting agents work autonomously on a codebase

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Enabling AI-driven development

Easy to set up and use

Build a common place to share knowledge

Start with real, boring, labour-intensive tasks

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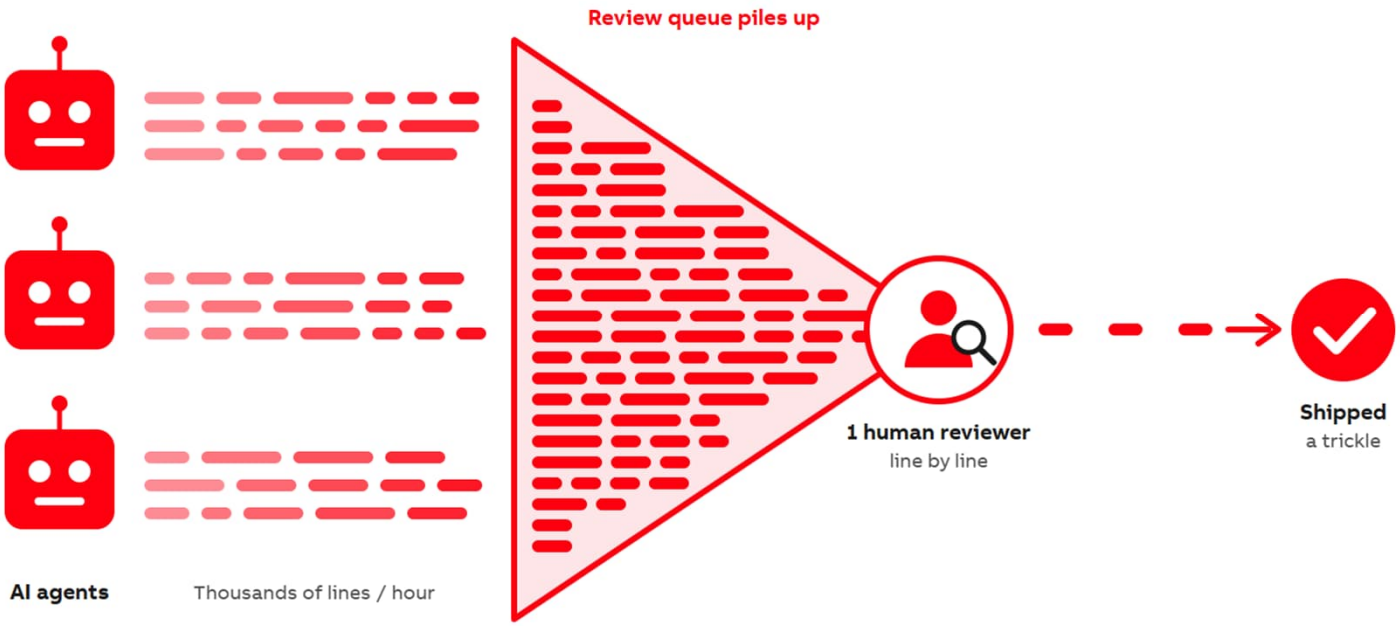
Code Review
The last line of defence



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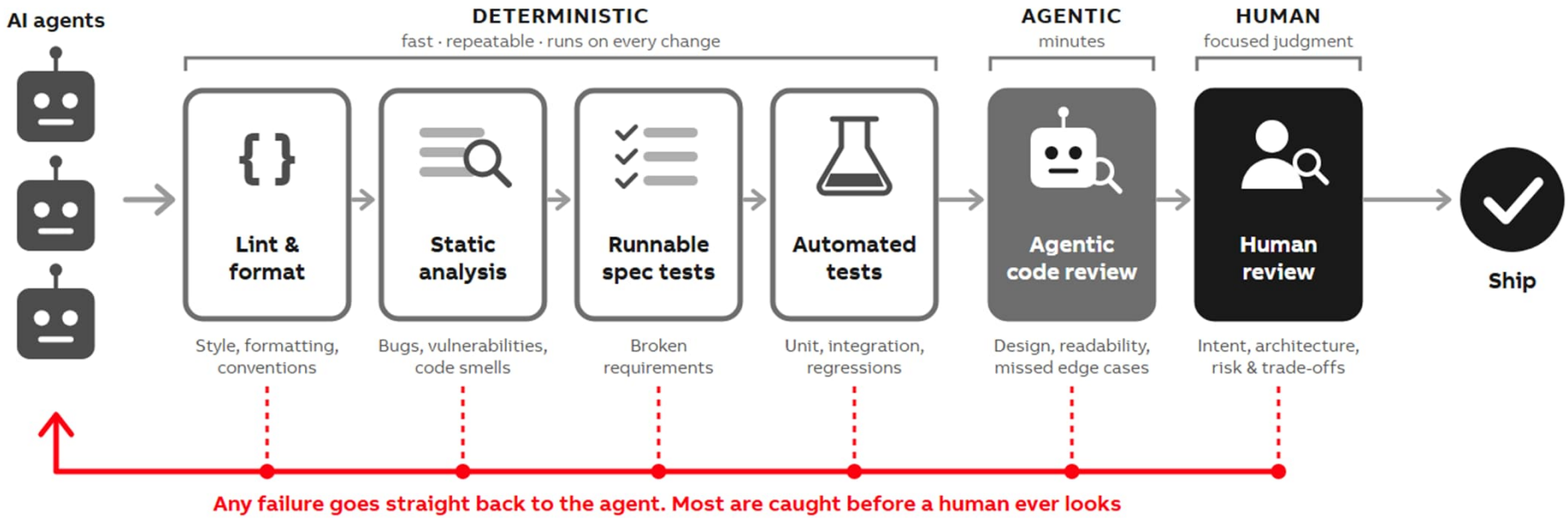
Make Code Review easier
The quality feedback loop for agents



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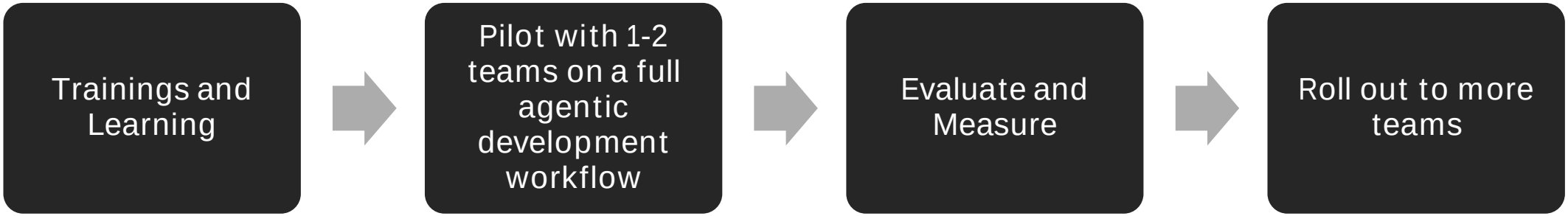
How to go about it



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How leadership can support the change
Take-aways

- Lead by example
- Show interest
- Be curious
- Encourage AI use
- Demos in teams and across teams
- Working sessions in teams
- Provide technical challenges, events, hackathons
- Build a culture of innovation
- Explore new things and push the boundaries
- Provide a place for Q&A and hands-on problem solving
- Have a vision and a strategy
- Knowledge sharing!
- Build a community of practice, local and global
- Identify the forerunners
- Training & skills
- Documentation, guardrails
- Provide tools and infrastructure
- Short decision loop
- Host frequent talks and sessions
- Allow mistakes – it’s ok to fail
- Don’t limit credits!

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