Automation is everywhere: from online shopping, to self-driving vehicles, to physical robots. The large number and variety of automation technologies that are available can be overwhelming. Choosing the right tool for each of your automation use cases is a noble goal, but not an easy one. This follow-up to Camunda's webinar on navigating the convergence of automation technologies provides valuable perspectives from guest speaker Forrester VP Analyst Craig Le Clair.

1 What are the first steps that companies can take toward leveraging AI and machine learning for their business processes?

Enterprises are unprepared for the opportunities that AI and machine learning (ML) advances will present. The approach to process reform is often tactical and defensive. The right balance between risk and innovation is lacking, and architectural decisions do not reflect recent automation trends.

Automation programs struggle in three areas: process, architecture, and culture. Each area presents challenges that can be understood, communicated to automation teams, and proactively addressed. Forrester's Automation Fabric (AF) research can form a simple checklist for these ten areas.

Forrester's Automation Fabric Principles

Process	Embrace the entire value stream or end to end process
	Use the right process automation technologies
	Leverage the latest process intelligence tools
Governance & Innovation	Embrace a governance framework
	Expand the role of AI
	Envision new workplace models
Architecture	Realize the importance of endpoint orchestration
	Use event-driven, microservice & cloud-native innovation
	Exploit data-first automation opportunities
	Achieve balance for business & professional development

2 Are there specific pain points that IT teams can address by migrating from monolithic applications to an event-driven architecture?

Applications should be decomposed into individual services whenever possible to improve agility and simplify maintenance. Endpoint orchestration is then the best way to address challenges presented by monolithic applications. It is the ability to bring together and manage automation endpoints in a cohesive manner. Endpoints could be people, software systems, physical devices, human work queues, RPA bots, API calls, AI-based decisions, an IoT sensor, or a robot. This approach addresses the three primary pain points that rise to the top:

1. Islands of horizontal and vertical automations must be kept to a minimum. These silos create redundant solutions, poor leverage of skills, future complexity and contribute to an organization's long-term technical debt.

2. Existing software assets are often overlooked.

3. Applications should be decomposed into individual services to improve agility and simplify maintenance.

3 How might your toolset evolve as your automation maturity grows in your organization?

Automation that leads with mobile, web apps, and social media, with basic digitization provides less differentiation than a few years ago. Enterprises now face a digital sameness. Investment returns for basic digital transformation have dwindled. These automations focused on simple sequential work patterns or bots to extract human tasks were the goal.

Going forward, process transformation will require AI-non deterministic patterns and these become more practical each day. For example, an [Autonomous Workplace Assistant (AWA)](#) can monitor an employee in basket, extract an incoming request, reach out to a generative model such as Google's Bard or OpenAI's ChatGPT to incorporate company data and procedures, and complete an action. These patterns move closer to the goal of an autonomous enterprise. Tools to compose, link to, or natively support AI-led process applications such as document automation, machine-learning decision management, generative AI, and conversational intelligence will be required.

4 What investments are you seeing organizations make during this time of economic downturn? We're seeing signs of continued investment in automation; what are you seeing on your side?

When it comes to automation, the world has changed. Despite significant benefits of automation that have been proven over the past several years, 2023 will see a slight dampening of automation velocity. Economic uncertainty is driving a more rational approach that taps the brakes on transformation to focus on core business drivers such as resilience and efficiency. Efforts will pay off for those with

the mettle to adjust to 2023 realities but also double down on automation to reap competitive advantage. Here is a sample:

- Data-driven automation will be hot. Most automation tackles static processes, but data insights are changing that. One-third of enterprises will prioritize data-driven automation, with data events from IoT or state changes in ML applications driving next-gen business process transformation. This recognition is sending ripples through process automation markets.

- Skill shortages will slow automation progress. 2023 will see slower progress in rolling out new automation support. The big issue is a lack of needed skills. These include a slower ramp for business developers to succeed with low-code development tools, skill gaps for professional developers across the AI spectrum, and a shortage of trained analysts and project managers for automation projects. Skills shortages are perpetual, but 2023 will be unusually difficult.

- Twenty-five percent of automation CoEs will reorganize. Centers of excellence (CoEs) gained prominence in the 2019 time frame, particularly with the surge in intelligent automation and robotic process automation. A central view helped scale automations, share and develop skills, and govern deployments. But things change, and in 2023 CoEs will migrate execution tasks such as training and implementation to the primary business lines that they support. Security review, automation architecture, and guardrail governance, the more strategic functions, will remain in automation CoEs. Low-code software improvements and the desire to federate to achieve scale will drive this shift.

And by the way, don't be surprised if you get a text from a robot that your order has been delivered. Labor shortages are forcing organizations to pursue robot workers to help their business function. No surprise, physical robotics is on the rise. Food service, janitorial services, commercial and home delivery, healthcare, and manufacturing will all benefit from autonomous mobile robots, collaborative robots, robot security guards, and drones for inspection.

About Camunda

Camunda enables organizations to orchestrate processes across people, systems, and devices to continuously overcome complexity and increase efficiency. With Camunda, business users and developers collaborate using BPMN to model end-to-end processes and run sophisticated automation with the speed, scale, and resilience required to stay competitive. Hundreds of enterprises such as Atlassian, ING, and Vodafone design, orchestrate, and improve business-critical processes with Camunda to accelerate digital transformation. To learn more visit **camunda.com**.