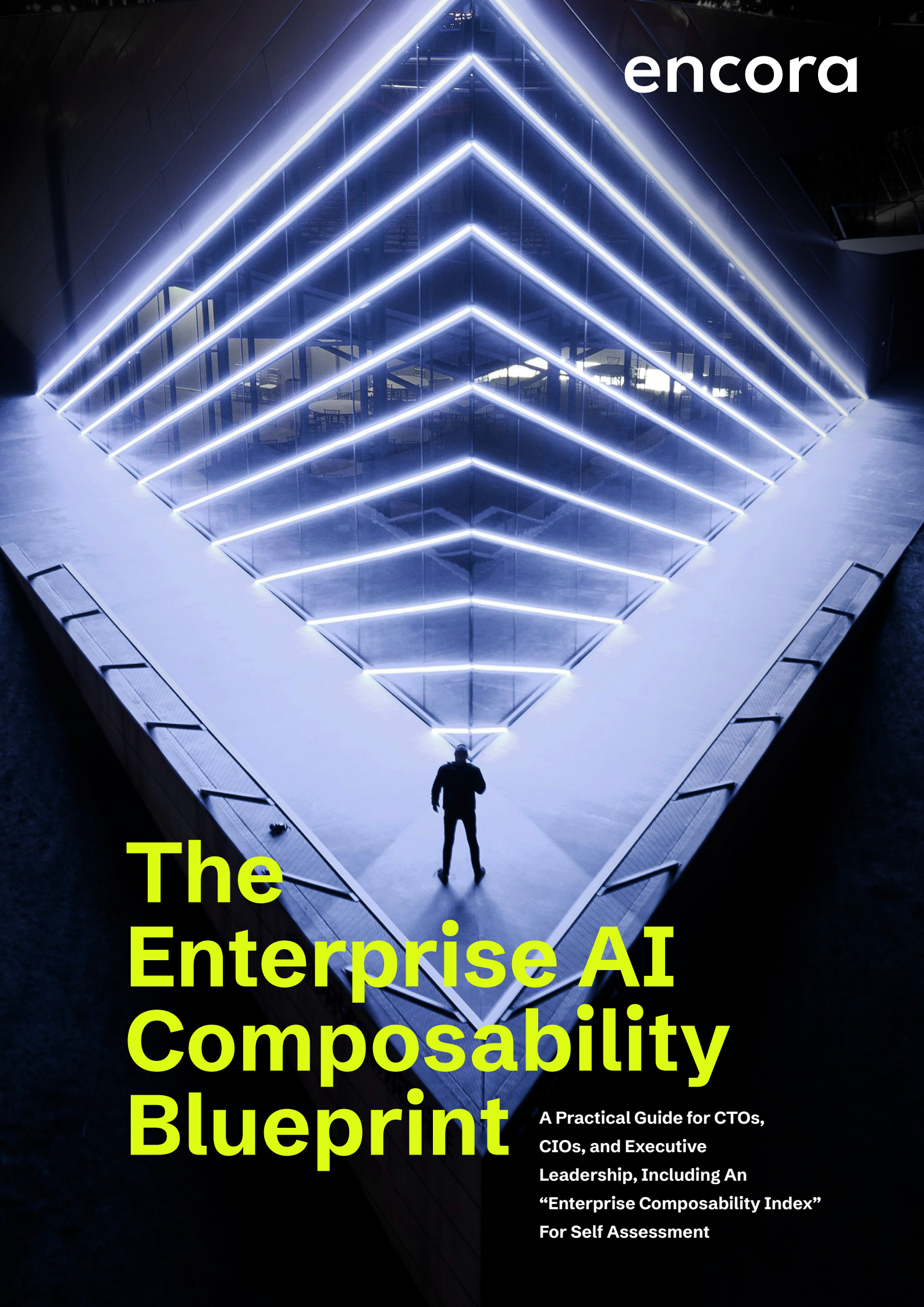


The background image is a high-angle, low-key photograph of a person standing in the center of a vast, modern architectural space. The ceiling is a complex, multi-layered structure of glowing blue neon lines that form a series of nested, downward-pointing triangles, creating a strong sense of depth and perspective. The person is silhouetted against the bright light from the ceiling. The overall color palette is dominated by deep blues and purples, with the bright blue of the neon providing a focal point.

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The Enterprise AI Composability Blueprint

A Practical Guide for CTOs,
CIOs, and Executive
Leadership, Including An
“Enterprise Composability Index”
For Self Assessment

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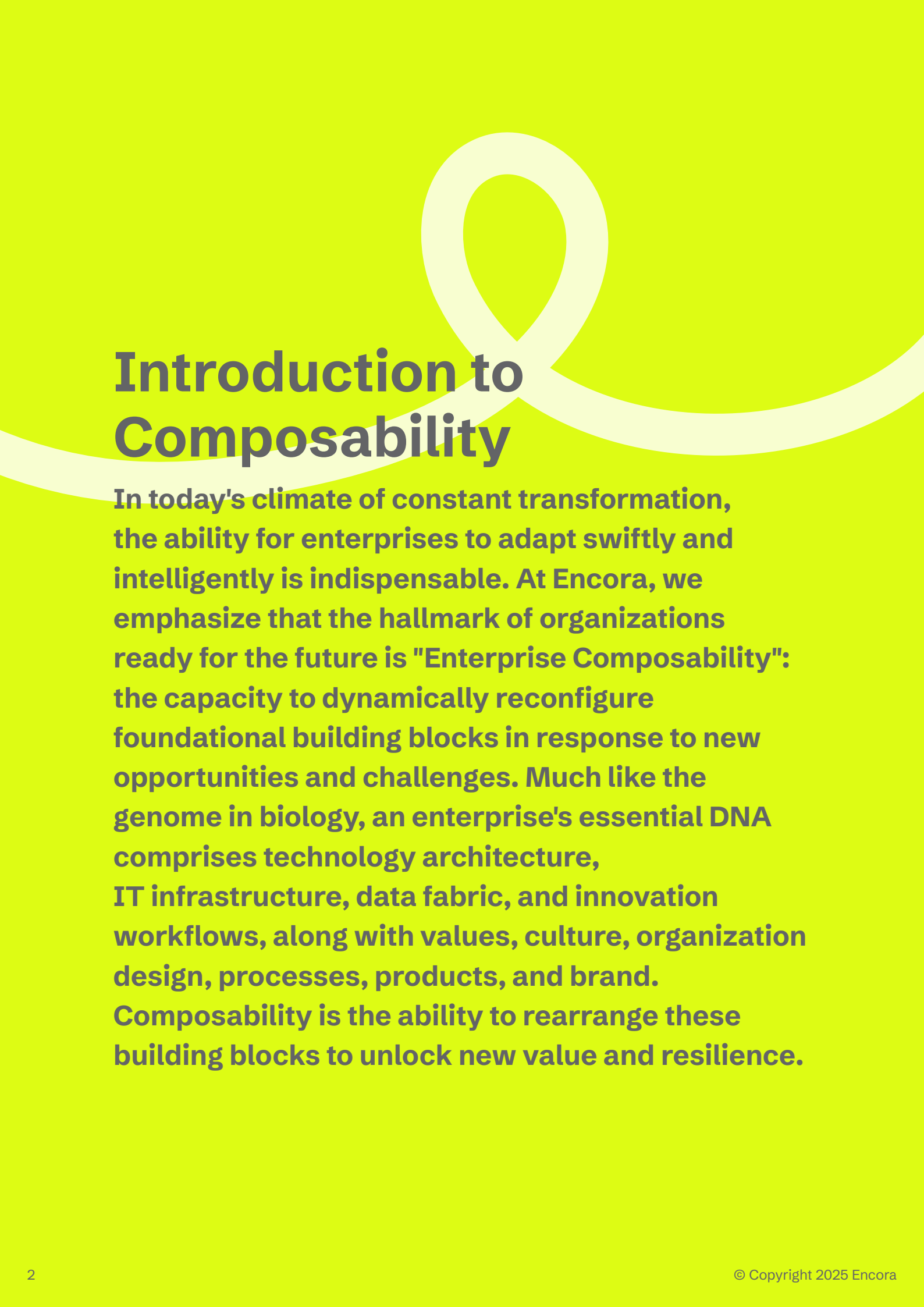
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Introduction to Composability

In today's climate of constant transformation, the ability for enterprises to adapt swiftly and intelligently is indispensable. At Encora, we emphasize that the hallmark of organizations ready for the future is "Enterprise Composability": the capacity to dynamically reconfigure foundational building blocks in response to new opportunities and challenges. Much like the genome in biology, an enterprise's essential DNA comprises technology architecture, IT infrastructure, data fabric, and innovation workflows, along with values, culture, organization design, processes, products, and brand. Composability is the ability to rearrange these building blocks to unlock new value and resilience.

Gen AI & Agents Make True Composability Possible

Let's be honest. True composability (the real-time adaptive Enterprise) is near-impossible to achieve, especially if an Enterprise wasn't born digital. If you are an Enterprise business and/or technology leader (the audience targeted by this whitepaper) then you would have built a successful career in digital transformation initiatives over the past 15 years. You would have driven your teams to adopt the cloud, modernized application architectures, put systems and pipelines in place to drive value from all that data. These contemporaneous developments were critical to maintain competitive advantage, and in many cases, businesses are better today than a decade ago, because of them. But true composability still eludes most Enterprises, because it is time and cost prohibitive to be truly adaptive. Or to put it in another way, changing while running requires fundamental re-engineering of not only your technology footprint, but also your workforce and culture. The good news is that developments in Artificial Intelligence, Large Language & Diffusion Models and the emergence of AI-powered Agents can now potentially bring Enterprises closer to achieving true composability than every before. But how do you know what you need to get there? This is where the Enterprise Composability Index comes in.

This whitepaper introduces the **(ECI) Enterprise Composability Index**—a framework for evaluating and accelerating your organization's readiness across two key axes: Technology Readiness and Engineering Readiness.

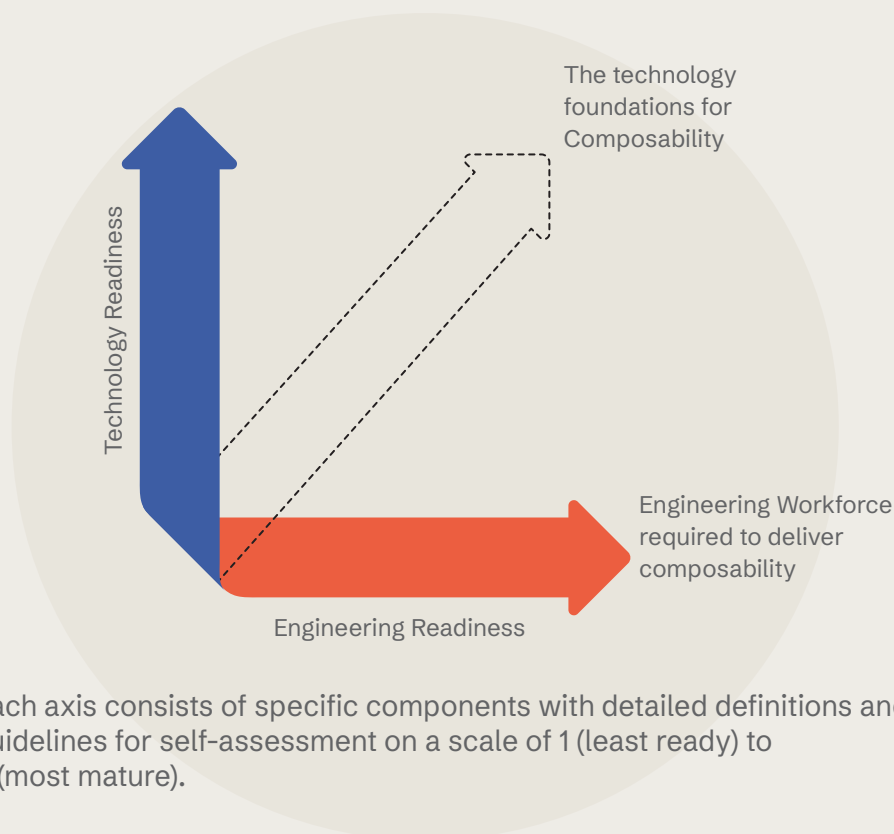
The Enterprise Composability Index

Enterprise Composability describes the ability for organizations to rapidly transform by re-composing their core building blocks. Digitally native companies have mastered this art, while others are striving to evolve. This model focuses on four crucial pillars—technology architecture, IT infrastructure, data fabric, and engineering workflows—integrated with traditional components like culture and process. The Composability Index offers a practical, quantifiable approach to assessing and enhancing readiness for enduring adaptability.

The Two Main Axes That Define Enterprise Composability in Today's Context

The Composability Index maps organizational maturity along two primary axes:

- Technology Readiness — Evaluates the flexibility, robustness, and modernity of technology architecture, IT infrastructure, data fabric, and platforms supporting innovation workflows.
- Engineering Readiness — Measures the agility, distribution, and AI-centricity of engineering and product development teams, as well as their capacity to leverage composable workflows.



Each axis consists of specific components with detailed definitions and guidelines for self-assessment on a scale of 1 (least ready) to 5 (most mature).

Figure 1
Axes That Define Enterprise Composability

Axis 1

Technology

Readiness

1

Cloud Dominant IT Infrastructure

Definition:

Examines how extensively enterprise IT infrastructure leverages cloud-native models for scalability and resilience.

- 1 Predominantly on-premises, legacy infrastructure; minimal cloud use.
- 2 Select cloud adoption for non-critical workloads; hybrid configuration with silos.
- 3 Partial migration of critical workloads; operational cloud management processes.
- 4 Majority cloud-based infrastructure; automated scaling and governance.
- 5 Fully cloud-native, multi-cloud strategy with infrastructure as code supporting all core functions.

How to measure:

Review infrastructure inventory, percentage of cloud-based workloads, and automation/governance maturity.

2

Technology Architecture for Composability

Definition:

The design and flexibility of technology platforms to enable modular, scalable, and interoperable systems; supports rapid innovation and reconfiguration.

- 1 Monolithic architecture; tightly coupled systems, little modularity.
- 2 Some modular components; limited flexibility for recomposition.
- 3 Service-oriented architecture for select platforms; basic interoperability.
- 4 Modular, API-driven architecture; supports composable business workflows.
- 5 Fully composable, event-driven architecture; seamless integration and rapid deployment of new solutions.

How to measure:

Analyze architectural diagrams, modularity, interoperability, and agility for launching new workflows.



3

Data Fabric Maturity

Definition:

The quality and scalability of data architecture, enabling real-time, secure, and intelligent data flow for analytics and AI across the organization.

- 1 Disparate, siloed data stores; limited accessibility.
- 2 Centralized data lake; moderate accessibility, basic governance.
- 3 Integrated data fabric; supports analytics and AI in select divisions.
- 4 Advanced data fabric; scalable, secure data available across most workflows.
- 5 Enterprise-wide, AI-ready data fabric; real-time, secure, accessible, and driving innovation workflows.

How to measure:

Evaluate data architecture maturity, accessibility, security, and readiness for AI-driven innovation.

4

Innovation Workflows Enablement

Definition:

Systems, platforms, and processes that empower rapid experimentation, prototyping, and deployment of ideas—leveraging composable technology and data assets.

- 1 Innovation is informal; ad hoc projects, little process support.
- 2 Isolated innovation teams; limited tools to scale pilot ideas.
- 3 Structured innovation workflows for select initiatives; some integration with core systems.
- 4 Enterprise-wide innovation platforms; rapid experimentation and integrated feedback loops.
- 5 Continuous, composable innovation workflows tightly linked to technology architecture, IT infrastructure, and data fabric.

How to measure:

Inventory innovation platforms, review workflow integration, and measure speed and scale of idea deployment.

5

Access to Specialized AI Infrastructure

Definition:

The enterprise's ability to leverage AI/ML platforms (on-premises or cloud) for advanced analytics, automation, and innovation.

- 1 No AI infrastructure; basic analytics only.
- 2 Pilot AI projects; limited scalability.
- 3 AI platforms supporting core business functions; moderate integration.
- 4 Scalable, secure, and cost-effective AI infrastructure; tightly integrated with business and innovation workflows.
- 5 AI infrastructure is an enterprise asset, widely accessible and powering distributed innovation.

How to measure:

Audit AI/ML infrastructure portfolio, integration levels, user access, and performance metrics.

7

API-First Enterprise Integration Layers

Definition:

The degree of integration across technology architecture, IT infrastructure, and data fabric using API-first principles.

- 1 Legacy, point-to-point connections; minimal API use.
- 2 APIs for select systems; mixed integration.
- 3 Growing API catalog; API-first for new projects.
- 4 Standardized API platform; robust governance.
- 5 Universal API-based integration; seamless interoperability across all enterprise building blocks.

How to measure:

Review integration landscape, catalog APIs, and evaluate developer and system adoption.

6

Customized Multi-Agent Orchestration Systems

Definition:

Platforms and tools that enable orchestration of multiple intelligent agents across innovation and operational workflows.

- 1 No orchestration; isolated automation.
- 2 Rudimentary agent collaboration for select processes.
- 3 Agents collaborate in discrete business areas; moderate orchestration.
- 4 End-to-end orchestration of agents across functions.
- 5 Adaptive, learning workflows with enterprise-wide multi-agent orchestration.

How to measure:

Map agent orchestration capabilities and their reach across innovation workflows.

Axis 2

Engineering Readiness

1

Globally Distributed Agile Product Organization

Definition:

The maturity and agility of globally distributed engineering teams in leveraging composable innovation workflows.

- 1 Centralized teams; limited agile practice.
- 2 Basic agile implementation in distributed teams.
- 3 Operationalized agile ceremonies and tools in global teams.
- 4 Highly agile, distributed teams; seamless innovation workflow integration.
- 5 Real-time collaboration, adaptive team structures, deep integration with composable innovation workflows.

How to measure:

Assess team distribution, agile adoption, and workflow alignment.

2

Full-Stack Software Engineering Capability

Definition:

Depth and breadth of engineering talent across technology architecture, IT infrastructure, and data fabric.

- 1 Siloed roles; limited composability.
- 2 Developing multi-disciplinary awareness.
- 3 Teams with end-to-end engineering skills across building blocks.
- 4 Full-stack capability is standard; fluid team structures and rapid innovation.
- 5 Cross-functional, multi-disciplinary teams mastering composable architecture and workflows.

How to measure:

Map skillsets, review projects, assess delivery capability.



3

Agent-Dominant SDLC and Engineering Workflows

Definition:

The use of intelligent agents in software development and innovation processes.

- 1 Manual workflows; little agent involvement.
- 2 Automation for routine tasks.
- 3 Agents embedded in development and deployment.
- 4 Agent-dominant workflows; humans oversee but agents drive innovation.
- 5 Autonomous, adaptive workflows; agents collaborate enterprise-wide.

How to measure:

Audit SDLC, quantify agent usage, and review workflow automation.

4

Human Workforce With AI-First Training & Mindset

Definition: Workforce capability and cultural orientation to harness AI, technology architecture, and innovation workflows.

- 1 Minimal AI awareness or training.
- 2 Initial training programs; sporadic adoption.
- 3 Embracing AI tools and composable workflows.
- 4 AI-first mindset; continuous upskilling, active innovation.
- 5 Workforce is AI-first, collaborative, and drives composable innovation across all building blocks.

How to measure: Review training, survey mindset, assess technology and workflow adoption.

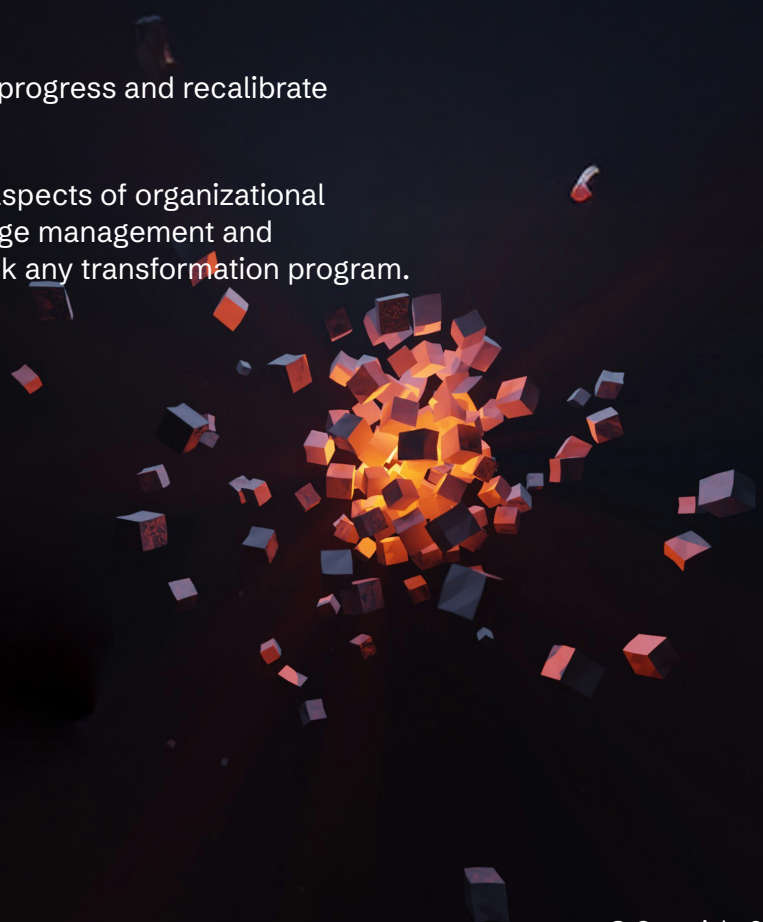
The Third “Hidden” Axis: Enterprise AI Readiness

Enterprise AI Readiness is a critical axis that encompasses both soft and hard factors necessary for an enterprise to adopt AI in a deep and effective manner. This readiness can be evaluated through several key parameters:

- 1. Executive Buy-In:** The commitment and support from top executives are crucial for the successful implementation of AI initiatives. Executive buy-in ensures that AI projects receive the necessary resources, attention, and strategic importance within the organization.
- 2. Strategic Alignment:** AI initiatives must align with the overall strategic goals of the enterprise. This alignment ensures that AI projects contribute to the broader objectives of the organization and deliver tangible business value.
- 3. Partner Ecosystem:** A robust partner ecosystem is essential for leveraging external expertise, technologies, and solutions. Collaborating with AI vendors, research institutions, and industry experts can accelerate the adoption and implementation of AI technologies.
- 4. Legal and Compliance Framework:** Adopting AI requires a comprehensive legal and compliance framework to address regulatory requirements, data privacy, and ethical considerations. Ensuring compliance with relevant laws and regulations is vital to mitigate risks and build trust with stakeholders.
- 5. Organization Design:** Composable organizations are structured differently from traditional siloed structures. While organizational silos are necessary in many cases, especially for large enterprises where scale and efficiency are key, they have to find ways to create flexibility in terms of roles and responsibilities, cross-functional integrations and promote adaptiveness over predictability.
- 6. Talent & Capabilities:** If only the engineering team is AI-ready, and knows how to maximize value from AI technology, it will significantly diminish the proliferation of composability through an organizations. Democratization of AI talent is a critical component of the truly adaptive organization.

Putting the Index to Use: Practical Steps

- Form cross-functional teams to assess each building block using the guidelines above.
- Score every dimension from 1 to 5; clarify strengths and gaps.
- Prioritize next steps for low-scoring areas to build enterprise composability.
- Create a tailored roadmap to strengthen technology architecture, IT infrastructure, data fabric, and innovation workflows.
- Schedule regular reviews to track progress and recalibrate the approach.
- Don't wait for the end to plan key aspects of organizational transformation. For example, change management and communications can make or break any transformation program.



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CEO Summary: The Blueprint for Infinite Adaptability

Enterprise Composability is a measurable and actionable path to building robust, future-ready organizations. The Composability Index enables leaders to diagnose, benchmark, and accelerate readiness across technology architecture, IT infrastructure, data fabric, and innovation workflows. By continually assessing and improving each building block, your enterprise will gain unparalleled agility and resilience in the face of disruption. Share this guide, start your evaluation, and lead your teams into a composable future.

Encora is a global digital engineering company built for a new era of AI-powered businesses. Forged in Silicon Valley, we grew up serving digital natives who demanded speed, scale, and flawless experiences. Today, we bring that same DNA to enterprises worldwide, enabling speed and hyper-adaptability, moving them further along their quest to become more composable and agile.

With two decades at the convergence of Cloud, Data, and AI, we help organizations move beyond rigid, legacy models to become composable enterprises, through adaptive systems designed to sense change and reconfigure in real time.

More than 9,500 engineers, designers, and domain experts across the Americas, Europe, India, and Southeast Asia give Encora the ability to combine nearshore agility with global scale. Backed by Advent International and Warburg Pincus, we deliver innovation acceleration and modernization across industries, powered by Encora AIVA™, our orchestration platform for AI-native engineering.

We believe the future won't be built by humans or machines alone, but by human creativity amplified by limitless machine intelligence. At Encora, that's how we help our clients build fast and adapt faster.

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