

Foreword

We are at a turning point.

Artificial intelligence is not just another innovation in the long history of digital technology. Given the pace of its adoption, the diversity of its applications, and the far-reaching nature of its effects, it is driving a systemic transformation of the economy, the workplace, and organizations. It has now emerged as a defining factor in industrial, social, and political trajectories.

Like any major disruption, AI acts as a disruptor, an accelerator, and a revealer. It does not create the vulnerabilities of businesses and economies out of thin air; rather, it acts as a mirror reflecting their operating models, revealing their fundamentals, past decisions, strengths, and shortcomings. Early uses of AI often follow a substitution model, automating or replicating existing tasks within current frameworks. However, this initial phase very quickly gives way to a more profound qualitative and systemic overhaul, which brings about lasting changes to organizations, business lines, and value creation models.

This transformation is taking place against a unique backdrop, marked by heightened geopolitical tensions, intense technological competition, critical dependencies, and a continuous acceleration of innovation cycles. AI is thus becoming a matter of sovereignty—a sovereignty that is at stake not only at the level of nation-states or major European strategies, but also—in very concrete terms—at the level of individual companies: sovereignty over data, expertise, technological and organizational choices, and the ability to make decisions, exercise judgment, and avoid being at the mercy of others.

The pace and complexity of the ongoing transformations require that any effort to integrate AI be grounded in a forward-looking approach and a medium- to long-term vision, based on a clear understanding of the company's current situation: its production activities, its organization, its management, as well as its mastery of data, knowledge, and skills. These dimensions serve as essential drivers for initiating a virtuous cognitive cycle, based on the ability to act, learn, and transform continuously.

In the face of this dynamic, two opposing yet symmetrical attitudes emerge. On the one hand, haste: On the one hand, a proliferation of uncoordinated experiments, technological upheaval, and poorly managed promises of quick gains. On the other, a wait-and-see attitude: postponing decisions, fear of risks, and the hope that the transformation will stabilize on its own. Both of these approaches come with high costs, which are often invisible in the short term: disorganization, a loss of purpose, long-term technological dependencies, the erosion of skills, and social tensions.

The real challenge, therefore, is not to choose between acting or waiting. It is to understand, act, and anticipate, so as to steer the changes and disruptions brought about by AI toward positive outcomes—outcomes that benefit the company’s health and create value for all its stakeholders: shareholders, executives, managers, employees, users, and customers.

It is within companies that a decisive part of this transformation is taking place. Not exclusively in laboratories, nor solely in the public sector, but at the heart of productive organizations - where AI actually intersects with job roles, tasks, skills, management, investments, innovation, and the real world of work. This intermediate – mesoscopic - level is a key level for analysis and action, situated at the interface between the macroscopic dynamics of the economy and individual trajectories.

In many companies, this reality plays out in scenes that have become all too familiar. Around the boardroom table, the questions pile up:

- Should we deploy generative AI tools?
- In which areas?
- What will be the impact on work organization, employment, and skills?
- How can we secure data, manage technological dependencies, and comply with regulatory requirements while remaining competitive?
- How can we avoid both inaction and irreversible decisions?

In these situations, AI appears less as a turnkey solution and more as a mirror of the company. It reveals the strength—or fragility—of organizations, the quality of management, the maturity of skills, and the ability to learn collectively. It challenges existing governance models and forces a rethinking of the balance between economic performance, social responsibility, and control over strategic decisions.

It is in this context that the concept of the augmented and learning organization takes on its full meaning. An augmented enterprise is not an automated or dehumanized enterprise: it is defined by its ability to integrate AI in a controlled manner, by aligning technologies, skills, organization, and management, and by steering its choices rather than being at their mercy. An enterprise capable of building, over the long term, innovation trajectories compatible with quality of work, trust, and operational autonomy.

A learning organization is one that experiments and learns, integrates the knowledge and capabilities it acquires into its human processes and information architecture.

The transformations driven by AI are rapid, complex, and deeply systemic. They must be understood at multiple levels:

- Macroscopic, to understand the technological, economic, geopolitical, and regulatory dynamics,
- Microscopic, to grasp the effects on individuals and career paths,

- And above all, mesoscopic, at the level of companies, professions, skills, management, and work organization. It is at this level that truly effective AI integration pathways are built.

This methodological choice guided the collective work presented in this book. Stemming from an audit process, the sharing of experiences, and reflection conducted within the FNEP, this work draws on the diversity of backgrounds and expertise involved. It offers analytical frameworks and guidelines for approaching the adoption of AI in an informed, gradual, and responsible manner.

This book does not claim to offer universal solutions or to definitively predict future developments. Its aim is to provide insight, tools, and guidance for decision-making. At a time when AI is emerging as a defining factor in economies and organizations, it offers executives, managers, employee representatives, and public policymakers the keys to act now—without haste or inaction—and to embed the integration of AI into sustainable paths of progress for the company and all its stakeholders.

The work presented in this book is the result of a collective effort led within the FNEP. The work of the team of auditors and coordinators formed the basis for the analyses and proposals developed. Each chapter and subchapter was written by the auditor with the most relevant expertise based on their professional background, field experience, and interest in the topics covered.

The book opens with an introduction that offers insights and context regarding this particular moment of massive growth in the use of artificial intelligence in society and in business.

- The first chapter provides an overview at the macroscopic level, focusing on three major determinants: the technological framework, AI value chains, and geopolitical, regulatory, and normative dynamics. It offers insights into the rapid evolution of AI technologies, the structure of their ecosystems, and regulatory challenges, particularly in the European context.
- The second chapter, titled “Diagnosis: AI and Employment,” focuses on the meso-level of the enterprise. It offers concrete analyses of observable and actionable trends in employment, occupations, and skills, as well as methodological guidelines for addressing the design, experimentation, and learning cycles of AI solutions within organizations. It calls for action that is both bold and measured.
- The third chapter is devoted to the organizational and managerial transformations brought about by the widespread or intensive use of AI. It builds on the changes already set in motion by digital technology, while highlighting a shift in scale and depth.

- The fourth chapter presents a case study on the startup Actionable. Its lean organizational structure facilitates the rapid integration of technological disruptions and makes it a prime case study, whose lessons can inform more complex organizations. It also illustrates the capacity for new players to emerge, a process that artificial intelligence accelerates.
- The fifth chapter is devoted to the collective framework within which the deployment of artificial intelligence takes place. It analyzes the dynamics of data sharing and governance, as well as the structuring role of European and international initiatives in standardization and regulation. By shedding light on the conditions governing the flow of resources, the organization of trust, and the dissemination of technologies, it demonstrates that companies' ability to leverage AI depends largely on their integration into these collective frameworks.
- Chapter 6 is devoted to an analysis of the key drivers of change in technology, the legal, regulatory, and standards environment, and the upcoming disruptions in corporate information architecture.
- The concluding chapter provides a summary of the analyses, offers avenues for reflection to support future developments on key issues, and presents the main recommendations detailed in this book.

This collaborative effort was based on a method of sharing experiences and reflections rooted in the professional practices of auditors, enriched by periods of collective work, regular exchanges, and in-depth discussions conducted within a European context. It has fostered a deeper awareness of the complexity of AI-related issues, as well as an increased understanding and capacity for action, both for auditors and for the management team engaged in this rapidly evolving field.