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STUDY OF THE REGIONAL CAPACITIES IN CE (PARTNER COUNTRIES)

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STUDY OF THE REGIONAL CAPACITIES IN CE (PARTNER COUNTRIES)

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0.2	23.05.2025	The analysis of the survey results is completed	**UNIBO**
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EXECUTIVE SUMMARY

This report is part of Work Package 1 of the Digi-B-Well project. It is dedicated to the development of an evidence-based picture of how Central-European regions can move toward a human-centred, resilient and sustainable digital transformation**.** Drawing on the goals of the EU Digital Decade and the Industry 5.0 agenda, the study diagnoses current capacities across businesses, public administrations and universities in eight Member States and identifies the practices most likely to close the gap between ambition and reality.

Structure and Content. The document unfolds in four main parts. Chapter 1 sets the policy scene, linking Digi-B-Well to cohesion funding, Digital Europe, and national RRF plans. Chapter 2 details the conceptual framework, the T+IGLOO, which treats Technology, Individual, Group, Leadership, Organisation and Over-arching context as interlocking levers of change. Chapter 3 presents the empirical study, while Chapter 4 presents the results and the main findings. Finally, Chapter 5 distils key messages for both the project's forthcoming Digital-Well-Being Toolkit and for regional policy makers.

Methodology. We employed a mixed-methods online survey during the first quarter of 2025, gathering 127 complete responses from SMEs, large companies, public bodies and universities. Seventeen challenges were rated for severity, and fourteen candidate practices were rated for both perceived effectiveness and ease of implementation. Results were mapped onto a severity–ease matrix to flag "quick wins" and "high-value but hard-to-do"

Results. The analysis revealed a cluster of readily deployable digital solutions, integrated communication-and-data platforms, clear transformation roadmaps, continuous upskilling, cross-functional knowledge-sharing and reverse mentoring that promise high returns for relatively modest effort. More ambitious yet essential steps, co-designing change with employees, empowering autonomous transformation teams and putting technostress safeguards in place, ranked high on impact but low on ease, signalling the need for targeted support. Sector differences emerged as well. In **academia**, high-impact practices drift toward the "hard-to-do" quadrant: universities understand the value of co-design, technostress prevention or autonomous project teams, yet long procedural chains and rigid governance slow adoption. **Public administrations** display a pragmatic conservatism: they prize standardisation and clearly structured leadership but hesitate when asked to experiment or to devolve decision-making, keeping transformative practices at arm's length. **SMEs** show a focused realism, embracing interventions that are simple, tactical and yield immediate benefit; however, they lack bandwidth for measures that demand formalisation, deep cultural shifts or long strategic horizons.

Taken together, the matrices suggest that while coordination and competence are universally recognised foundations, each sector's organisational logic shapes the perceived feasibility of

more ambitious, people-centred reforms. This underscores the need for context-sensitive support mechanisms when translating Industry 5.0 principles into day-to-day change.

Recommendations. To ensure a successful digital transformation across Central Europe, the report advances three mutually reinforcing directions. First, invest in systemic enablers, tool integration, skill programmes and leadership development, within a single, adequately financed pathway rather than through isolated initiatives. Second, tailor interventions to context by using self-diagnostic tools such as T+IGLOO to match practices with each organisation's readiness level and governance culture. Third, de-risk high-value, people-centred practices by earmarking facilitation time, budget and external expertise so that co-design, technostress mitigation and decentralised team structures can take root. These measures translate Industry 5.0 principles into actionable levers and guide the forthcoming Digi-B-Well Digital-Well-Being Toolkit from diagnosis to concrete action.

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ACRONYMS & ABBREVIATIONS

TERM	DESCRIPTION
3A	Assessment → Awarenness → Action, the iterative change cycle
AI	Artificial Intelligence
CE	Central European/Central Europe
DT	Digital Transformation
IT	Information Technology
EU	European Union
HFE	Human Factors and Ergonomics
ICT	Information and Communication Technology
IS	Implementation Science
IGLOO	Individual – Group – Leader – Organisational – Over-arching Context
JD-R	Job-Demands Resource Model
SMEs	Small and Medium Enterprises
TIGLOO	Technology - Individual – Group – Leader – Organisational – Over-arching Context
TAM	Technology Acceptance Model
WP	Work Package
WPI	Workplace Innovation

D1.2.3.

STUDY OF THE REGIONAL CAPACITIES IN CE

1. INTRODUCTION

The present deliverable **D 1.2.3 "Study of Regional Capacities in Central Europe"** sits at the turning-point of **Work Package 1**, where the project moves from *diagnosing* digital-transition barriers to *mobilising* the resources that will nourish the forthcoming toolkit and on-line platform. Building on the project proposal's call for a **human-centric, territorially balanced digital transformation** Digi-B-Well project, we pursue three specific aims:

- **Map the distribution of digital-transition capacities** in terms of infrastructure, management readiness, and people-centred culture across the Central-European regions engaged in Digi-B-Well.
- **Prioritise challenges versus actionable practices**, thus providing evidence-based guidance for the toolkit's Assessment → Awareness → Action approach and flow, previously formalised in Deliverable 1.2.1.
- **Align the empirical picture with EU policy targets** set by the Digital Decade, Industry 5.0 concept and allied initiatives, so that regional recommendations speak the language of current funding and regulatory frameworks.

Therefore, the current goal is to understand how much *"capacity for a human-centred digital transition"* already exists in Central Europe, where the gaps lie, and which actions can realistically close them. Recent research shows that regional strengths and bottlenecks, not national averages, largely determine the pace and equity of digital transformation. Place-based policies are now the Commission's preferred lever to tackle the persistent "digital divide within the Union" (European Commission, 2021; Laguna, J. 2024). A regional capacities survey, therefore, may provide the missing evidence layer between high-level EU targets and the operational realities faced by firms, public bodies and universities. Indeed, from the outset, the current proposal framed digitalisation as **a deep organisational and cultural transition**, one that demands strategic planning, human-centred design, and regional adaptation.

1.1. LINKS TO PREVIOUS DELIVERABLES

To achieve these aims, we integrate four streams of prior work. The baseline survey reported in **D 1.1.1** mapped a first constellation of infrastructure, skill and cultural barriers. Based on a multi-country survey and a network analysis of perceived obstacles, the report identified five interlocking clusters of barriers: outdated infrastructure, digital skill gaps, cultural resistance, lack of leadership, and resource constraints. Crucially, the data revealed that these barriers were not evenly

distributed. Its network analysis already hinted that the pattern of obstacles was not homogeneous across different types of organisations in Central Europe. Building on that insight, **D 1.1.2** assembled a catalogue of good practices for protecting digital well-being during transformation. While the document was framed as an initial catalogue, the process of identifying and tracking good practices has continued beyond the formal deadline. New cases were collected throughout 2024 and early 2025, enriching the repertoire of actionable solutions and directly informing the current study's focus on what makes an intervention both effective and feasible in context.

A more systematic methodology was introduced in **Deliverable 1.2.1**, which codified the conceptual structure that guides both the present survey and the upcoming toolkit. The key contribution was the **"3A framework"** – a dynamic cycle of *Assessment* → *Awareness* → *Action* – designed to help organisations move from recognising their own barriers to identifying meaningful, tailored responses. This framework also incorporates four strategic considerations that cut across all phases: organisational maturity, readiness, demographic factors, and cybersecurity implications. These lenses are reflected in the way we have designed the survey and structured our analysis.

The fourth pillar of the preparatory work was **Deliverable 1.2.2**, a foresight exercise that brought together trend-mapping, survey data, and expert interviews to construct four plausible future scenarios for digitalisation in Central Europe. Four alternative futures*, Digital Drift*, *Tech with a Human Touch, Beyond the Human Age*, *Disconnected and Disillusioned*, demonstrated that capacities need to be robust across divergent socioeconomic trajectories. These ranged from optimistic trajectories, such as *Tech with a Human Touch,* to more critical outlooks like *Disconnected and Disillusioned*. Each scenario offered a stress test for the assumptions behind our pillars and practices. Could a given intervention still be relevant under economic uncertainty? Would a region's capacity hold up in the face of demographic shrinkage or accelerating AI automation? These are the types of questions the foresight process allowed us to ask and answer in advance.

Together, these four deliverables form the conceptual and empirical backbone of D 1.2.3. They have clarified what we need to measure (D 1.1.1), what responses are available and promising (D 1.1.2), how to structure the path to change (D 1.2.1), and how to future-proof our reasoning (D 1.2.2). The present study builds directly on this groundwork and extends it by offering a regionalised, comparative view of capacity strengths and weaknesses, so that actions can be not only effective, but also precisely targeted.

1.2. OBJECTIVE AND STRUCTURE OF THE PRESENT DELIVERABLE

Scholars in innovation and implementation science argue that **digital readiness is path-dependent and highly sensitive to regional context**, from broadband infrastructure to local labour-market skills and governance cultures (e.g., European Commission, 2024). Aggregated national indicators often hide these gradients, leading to "one-size-fits-all" programmes that under-serve lagging areas. The objective of this deliverable was to **quantify** Central Europe's capacity across the T+IGLOO pillars by combining a mixed-methods survey with foresight findings. This involved **prioritising** challenges and implementable practices using a severity-ease matrix. Additionally, we aimed to **benchmark** our results against the Digital Decade targets related to skills, infrastructure, and business uptake. Ultimately, this process was intended to **inform** the Toolkit's Action layer with practices that local actors have already identified as both effective and feasible.

The evidence base is a mixed-methods survey administered in early 2025 to partner and non-partner organisations. After quality filtering, we retain 127 complete responses from eight Central-European countries, spanning SMEs, large enterprises, public institutions and academia. Items cover 17 commonly cited challenges and 14 candidate practices, each rated on perceived **severity**, **effectiveness** and **ease of implementation**. Descriptive statistics and a first sample profile are being processed in parallel and will be inserted at the start of Chapter 5.

The remainder of the deliverables is organised as follows. **Chapter 2** recounts the project journey to date and locates this study within it. **Chapter 3** offers a concise literature frame, blending implementation science, T+IGLOO theory and Industry 5.0. **Chapter 4** details the study design and presents results using charts and a severity-versus-ease priority matrix. **Chapter 6** discusses implications, cross-checks them against EU benchmarks, and sketches actionable lines for regions and sectors. We close with conclusions, references and technical annexes.

2. THEORETICAL GROUNDINGS AND PRINCIPLES

2.1. IMPLEMENTATION SCIENCE AND DIGITAL TRANSFORMATION

When speaking about digital transformation, it is easy to assume that change happens once the right technologies are acquired. However, a growing body of literature, especially within the field of *implementation science*, has shown that the real challenge lies not in the **technology itself**, but in the **social, organisational and behavioural mechanisms** that determine whether such technologies become truly embedded in practice (Damschroder et al., 2009; Nilsen, 2015).

The first line of inquiry into this issue comes from the field of Human Factors and Ergonomics (HFE), which has long studied how individuals interact with systems, particularly in safety-critical environments like aviation, healthcare, or manufacturing. In the HFE tradition, successful technology adoption depends on elements such as **perceived usefulness**, **usability**, **trust**, and **cognitive workload**. If a tool is hard to use, poorly explained, or generates ambiguity, it will likely be resisted, regardless of how powerful or efficient it may be. Trust in automation, for instance, has become a key concern in the deployment of AI-enabled systems: workers who do not understand how decisions are made, or who fear being monitored, will often find ways to bypass or resist new tools (Obina & Adenike, 2022). Similarly, the perception of usefulness must go beyond managerial expectations and be grounded in what *employees themselves* consider valuable for their work (Venkatesh et al., 2003). The HFE literature provides precise metrics and models to assess these factors, from TAM (Technology Acceptance Model; Davis, 1989) to more recent socio-technical frameworks, such as the User Acceptance of Information Technology (Venkatesh et al., 2003).

At the same time, when we look at what the digital revolution is bringing to everyday life and work, the reasoning cannot only stop at what we are developing in terms of technological solutions and how useful these are perceived to be, how easy they are to use and to what extent we can trust them. Another essential point to keep in mind when talking about digital transition is the broader scope of Implementation Science, i.e. the science that guides the process of implementing some solution within the organisation. Originally developed in the field of health services, implementation science offers a set of tools and frameworks to understand how and why certain innovations succeed or fail when introduced into complex systems (Damschroder et al., 2022).

In the context of digital transition, this lens is particularly powerful. It helps move beyond superficial narratives of "digitisation as progress" and instead asks a deeper question: **under what conditions does digital innovation actually improve the way people work, interact, and thrive?** Implementation science redirects attention to what it calls "determinants of adoption," such as organisational culture, leadership commitment, readiness, feedback loops, and the alignment of new practices with existing values and workflows. These determinants apply just as much to an SME in Brno trying to automate logistics as to a public hospital in Bologna upgrading its telehealth systems. In both cases, the success of the transition does not depend solely on the tool but more on **how the tool is designed, introduced, supported, and sustained into the workpalce**.

This perspective also aligns with the European Commission's strategic shift toward place-based, human-centred policies. The Digital Decade targets may be framed in terms of broadband coverage or AI uptake, but underneath those indicators lies a fundamental issue of **implementation capacity**.

In other words, do organisations have the conditions they need to act on those opportunities?

This is where the integration of implementation science into the Digi-B-Well framework becomes essential: it provides both the diagnostic tools and the language to interpret what digital readiness really means, and how it unfolds across layers of context and action. In short, it allows us to ask not only "what is lacking?" but also "what is working, and why?"

Applied to digital transformation, this means recognising that the most innovative technology will fail if it is implemented in a context where workflows are rigid, communication is fragmented, or change is seen as threatening. Implementation science helps make sense of these failures, not as technical issues, but as **systemic mismatches** between the innovation and its context.

In Digi-B-Well, we adopt this dual perspective. We acknowledge the importance of individual acceptance factors like usability and trust, but we embed them in a broader analysis of **organisational capacity and social mechanisms**. The transition is not just about "digitising processes" but about **changing how people work, interact and solve problems together**. By combining insights from HFE and IS, we seek to get a deeper understanding of what truly drives sustainable digital transformation, not only from the top down, but from the inside out.

2.2. THE T+IGLOO FRAMEWORK

One of the most compelling insights to emerge from implementation research in recent years is that **technology is not a passive element** in organisational change. It is not merely a tool to be used or resisted, but an **active force** that shapes behaviours, restructures power dynamics, and alters expectations – both within and beyond the organisation. In its original form, the IGLOO model with its five levels, Individual, Group, Leader, Organisation, Overarching context, was designed to capture the multi-level dynamics that shape the implementation of new practices in organisations (Nielsen & Randall, 2012). Its power lies in acknowledging that change is not linear: what happens at one level (e.g., an employee's motivation) is often constrained or enabled by dynamics at other levels (e.g., leadership clarity or organisational culture). But it lacked one crucial piece: a place for the technology itself.

What about the technology itself?

This question was not trivial. Much of the literature assumes that the "technology" to be implemented is stable, neutral, or functionally obvious. Yet, both Human Factors research and Implementation Science studies show that **the nature of the technology** (i.e., its complexity, its perceived usefulness, its usability, its perceived threat, or even the way it is introduced) can have very different consequences across levels. A technology that is intuitive and empowering at the individual level may trigger resistance at the group level if it threatens existing power balances. A highly automated system might support leaders in strategic planning but erode trust among employees if it is experienced as opaque or controlling. Likewise, a technology co-designed with users may be adopted more smoothly because it reflects local needs and mental models, reducing the perceived mismatch between work-as-imagined and work-as-done.

Take, for instance, a **predictive maintenance AI** in a manufacturing SME: at the individual level, it may reduce manual workloads but raise anxiety about role obsolescence. At the team level, it might dissolve traditional coordination routines, making informal expertise less visible. At the leadership level, the tool may be seen as a strategic asset, but only if the leadership has the literacy to interpret its outputs. At the organisational level, the same system may create tensions between production and IT departments, especially if integration is rushed or vendor driven. And at the contextual level, the regulatory environment (e.g., data sovereignty laws) may delay its deployment altogether.

Or consider the rise of **autonomous AI agents** that can perform tasks across departments, booking meetings, writing reports, summarising emails, or interacting with clients. These agents do not simply "support" human workers, they **redefine roles and responsibilities**, challenge existing workflows, and raise ethical and social questions: Who is accountable for decisions made by the agent? What skills are now redundant? Who retains knowledge when the "worker" is an algorithm?

The same applies to external interactions. A **public-sector chatbot** may speed up citizen requests, but if it lacks empathy or clear escalation paths, it can eventually erode trust. In universities, **AI-driven tutoring tools** may personalise learning, but also reduce human contact, impacting motivation and engagement, especially for vulnerable students. The very **design choices** behind these technologies – degree of control, user interface, data transparency – become central to whether they are embraced, tolerated, or rejected.

Therefore, Digi-B-Well introduced the **T+IGLOO model** to fill this gap. The "T" stands for **Technology**, not just as a background feature, but as a dynamic and **relational variable**: something that interacts with, amplifies, or disrupts the mechanisms operating at each level of the IGLOO model. By foregrounding technology, T+IGLOO allows us to explore how the *nature* of the digital tool, its level of automation, usability, transparency, co-design, or perceived threat, interacts with all five levels of the system.

This means we no longer ask only *"how ready is the organisation?"*, but also *"what kind of technology are we dealing with?"* and *"what effects is it likely to have across the system?"*

Technology is thus not a passive input, but a driver and mediator of change.

This conceptual shift is what tells us not only where change happens, but how **technology modifies the logic of change**. Drawing on recent work such as Scholze and Hecker (2023), who extended the JD-R model to include digital job demands and resources, we can now better appreciate how *availability*, *dependency*, and *intensification* (as demands) and *autonomy*, *collaboration*, and *efficiency* (as resources) are often side-effects of specific technological affordances. Their research shows how **a single feature – like real-time messaging – can be either a stressor or a support**, depending on the user, the context, and the support systems around it. In other words, we can examine not just where capacities are strong or weak, but also how the characteristics of the relevant technologies influence those capacities by connecting specific challenges and practices to the various levels of T+IGLOO. Some of our survey items, for instance, reflect directly on usability, perceived threat, or the clarity of strategic alignment around new tools. Others highlight organisational or group-level reactions to technological change. The mapping between challenges, practices, and T+IGLOO levels allows us to reconstruct how friction, or momentum, builds within systems.

This is precisely why the current study anchors its actions not only in barrier identification, but also in a layered understanding of **what kind of technology is being implemented, and with what organisational, human, and contextual consequences**. T+IGLOO is not just a diagnostic tool. It is a way to design change with greater precision, so that practices are not just adopted, but actually *work*.

Ultimately, this enriched model supports the very goal of Digi-B-Well: to identify **implementable actions** that consider not just the setting, but also the *nature of the innovation itself*. A practice that works in one context may fail in another, not because the organisation is less "mature," but because the underlying technology makes different demands on people, roles and routines. T+IGLOO may help us see these interdependencies more clearly and thus design responses that are more grounded, more human-centric, and more sustainable.

2.3. MECHANISMS AND READINESS: WHAT BLOCKS OR ENABLES CHANGE

No matter how advanced the technology or how well-structured the model, successful implementation hinges on one crucial condition: **readiness**. But readiness is not just a checklist of capabilities. It is a complex, dynamic state that spans psychological attitudes, structural enablers, leadership behaviours, and cultural norms. The literature on organisational change, especially the work of Nielsen et al. (2010, 2017), has emphasised that implementation is not a matter of compliance but of **engagement**: people must see the change as meaningful, feel confident in their role within it, and trust that the organisation supports (vs. not punishes) experimentation.

At the indvidual level, readiness begins with **perceived self-efficacy**, that is, the belief that one has the skills to cope with the demands of new systems. It is reinforced by psychological safety: the shared sense that it is safe to ask questions, report problems, or challenge how a technology is used. Without these conditions, employees are likely to withdraw, mask confusion, or comply superficially, producing what Nielsen calls "silent resistance" (Nielsen & Randall, 2012). This form of resistance is subtle but deeply consequential: rather than overt pushback, it manifests as disengagement, delay, passive non-use or partial adoption. Crucially, this silence is not necessarily oppositional, it can be **protective**, even **adaptive**, a way for employees to guard against changes perceived as misaligned with professional norms or unworkable in practice. Technostress literature echoes this concern: when employees feel **overwhelmed**, **monitored**, or **replaced** by technology, even the most well-intended interventions can backfire. Scholze and Hecker (2023) show how availability pressures, dependency on unstable systems, and increased pace of communication are among the top "digital job demands" that erode motivation and increase.

Moreover, Nielsen & Noblet (2018) suggest that resistance in these cases may reflect **a system's attempt to preserve internal coherence** in the face of external pressure. When readiness is low, resistance can signal where the organisation needs to listen more closely, not where it should push harder.

In this sense, "resistance" may be a form of **resilience**: a cautious filtering of changes that lack contextual fit, a defence against poorly timed or overly rigid interventions. Recognising this critical dynamic helps avoid the trap of interpreting all resistance as dysfunction. It becomes instead a **diagnostic cue**, one that invites dialogue, sense-making, and redesign.

At the group level, readiness depends on trust and coherence. Teams need shared mental models about how to integrate a tool, and the space to adjust workflows collaboratively. A software that

enhances productivity in one team might sow confusion in another if coordination norms are unclear. At this level, peer influence also matters when early adopters are vocal and respected, uptake spreads. In other words, when sceptics dominate, inertia takes over.

Leadership, too, plays a key role, not just in setting the direction, but in *modelling the change*. Leaders who visibly engage with new systems, acknowledge initial friction, and respond to employee feedback send a powerful signal: *"This is a learning process, not a performance test."* Conversely, top-down deployments with no room for adaptation often trigger pushback. As Nielsen & Randall (2012) argue, the **fit between intervention and context** must be constantly re-evaluated – what works in a start-up may fail in a bureaucracy, and vice versa.

At the organisational level, mechanisms of readiness include **clear governance**, **resource allocation**, and **flexibility in procedures**. Are there people explicitly responsible for supporting implementation? Are time and training allocated, or is this yet another burden added to an already overloaded system? Are there feedback loops to spot early warning signs and course-correct?

Readiness here is not about slogans or ambition but about infrastructures of support.

Finally, at the contextual level, that is across regions, sectors, or policy frameworks, readiness is shaped by incentives, regulation, and access. Public bodies may face compliance pressures; SMEs may be paralysed by uncertainty about funding or fear of making the "wrong" tech bet. Universities, conversely, may be rich in ideas but slow in execution due to internal silos or lack of strategic prioritisation.

The value of the T+IGLOO model is precisely this: it helps us **map and interconnect these readiness mechanisms** across layers. It reminds us that barriers are rarely isolated. A weak signal at the individual level, a doubt, a delay, a sigh, can reflect deeper misalignments upstream. And an apparently "ready" organisation may still fail if the technology it adopts is perceived as untrustworthy or if it threatens existing power balances. Therefore, **readiness is not a given, it must be cultivated**. And to do so, we must understand where resistance comes from and how to transform it into commitment.

2.4. THE INDUSTRY 5.0 LENS AND THE WORKPLACE INNOVATION AS A STRATEGIC ENABLER

Over the past two decades, the dominant narrative of digitalisation in Europe has been shaped by the paradigm of **Industry 4.0**: a vision centred on automation, efficiency, and cyber-physical systems (Dos Santos et al., 2021). While this model has driven impressive gains in productivity and industrial integration, it has also drawn criticism for being overly techno-centric, often overlooking the social and human consequences of technological change (Elnadi & Abdallah, 2024). In response to these limitations, the European Commission has launched a new narrative: **Industry 5.0**. Not a replacement, but a rebalancing. Industry 5.0 retains the ambition of technological advancement, but embeds it within a framework defined by **human-centricity, resilience, and sustainability** (Nahavandi, 2019).

What does this mean in practice? It means that the measure of success is no longer *only* how smart or fast a process is, but *how well it supports people, adapts to shocks, and contributes to long-term*

wellbeing. Technologies must not just be adopted, instead, they must be aligned with human values, accessible across territories, and designed to empower rather than displace.

This lens resonates deeply with the core values of Digi-B-Well. The capacities we aim to map, such as managerial, infrastructural, and cultural, are not abstract competencies, but real conditions that determine whether people can flourish in digitised workplaces. The "Action" practices we assess in our survey (e.g., co-design labs, participatory leadership, feedback loops) are not productivity hacks, but **instruments of inclusion, engagement, and shared sense-making**. In this sense, the Industry 5.0 lens provides not just strategic alignment with EU priorities but a moral and ethical anchor for our entire methodology.

Moreover, Industry 5.0 explicitly recognises **regional diversity** as a strength to be nurtured, not a problem to be smoothed out (Brown & Greenbaum, 2017). It calls for **place-sensitive solutions**, where digital transitions are tailored to local assets, constraints, and cultures. This matches perfectly with our use of the T+IGLOO model and the regional-capacity survey, both of which foreground the importance of context. A practice that works in a Berlin-based design agency may not translate to a public hospital in Rijeka or a rural SME in Southern Poland. But both can be Industry 5.0-aligned, as long as the guiding values remain intact: human dignity, resilience to disruption, and responsible innovation.

In a world facing mounting social, demographic, and ecological challenges, the human-centric ethos of Industry 5.0 also reinforces our attention to **digital wellbeing**. Technologies that intensify pressure, erase boundaries, or increase surveillance without support mechanisms are not simply "tools with side effects" – they are **systemic risks**. Conversely, technologies that foster autonomy, creativity, and collective intelligence can be powerful resources for motivation and renewal, as argued also by the JD-R literature (Scholze & Hecker, 2023).

Industry 5.0 is not a background narrative but a compass: it orients our understanding of what "capacity" really means in a digital transition. It reminds us that progress is not just about diffusion, but about direction. And it challenges both researchers and policymakers to ask:

Are we truly ready to implement this, and more importantly, should we? What's the best way to move forward?

In answering to this question, it helps to remind ourselves that while digital transformation is often framed in terms of infrastructure, data, or productivity, its success hinges on something much more human: **how people work together**. This is where the concept of **Workplace Innovation (WPI)** becomes indispensable. Far from being a vague HR trend, WPI refers to a well-documented set of organisational practices that aim to simultaneously improve business performance and quality of working life by **empowering employees**, **enhancing collaboration**, and **supporting continuous learning** (Totterdill, 2015; Oeij et al., 2017).

Workplace innovation goes beyond surface-level interventions. It redesigns the way decisions are made, teams are structured, and change is enacted. It includes practices like shared leadership, autonomous workgroups, co-design of processes, and integrated learning pathways, all of which foster a **sense of agency and ownership**. These principles are not just ethically sound; they are **empirically linked** to innovation outcomes, adaptability, and long-term engagement, especially during technological transitions (Dhondt et al., 2021).

In Digi-B-Well, these principles are embedded in both the *Awareness* and the *Action* phase of our methodology. Many of the "implementable practices" surveyed, such as participatory design labs, digital peer mentoring, and voice-enabled feedback mechanisms, are drawn directly from the WPI tradition. Importantly, we do not treat them as neutral options on a menu. Their success depends on **contextual readiness** and **alignment with the organisational system**, as outlined in the T+IGLOO model. A feedback app, for instance, may fail if hierarchical structures block upward voice. A cross-functional team can break silos but only if protected time and cross-departmental legitimacy are ensured.

WPI is also relevant at the **territorial level**. European research shows that regions which support workplace innovation, not just digital tools, tend to perform better in terms of inclusive growth, resilience, and sustainability (Pot et al., 2021). This suggests that enhancing regional capacity means not just installing infrastructure, but **cultivating the conditions for meaningful work** – where people feel they can contribute, adapt, and thrive.

In our perspective, WPI provides a **missing link** between the high-level goals of Industry 5.0 and the everyday reality of digital adoption. It helps turn abstract values such as human-centricity, autonomy, innovation, into actionable practices. This is why, in the discussion chapter, we will interpret the results of our survey not only in terms of gaps, but also in terms of **strategic leverage points**: places where small changes in how people work can enable much larger transitions in how organisations transform.

3. STUDY DESIGN & METHODOLOGY

3.1. OBJECTIVE OF THE STUDY

The aim of this study is not to measure digitalisation in abstract terms, but to understand what enables or blocks organisations from leading a healthy, inclusive and territorially balanced digital transition. In other words, the focus is not on what has been digitalised, but on whether the necessary capacities are in place to sustain digital transformation over time, across different sectors and regions, and in a way that centres human wellbeing.

This perspective reflects a fundamental shift in how the European Union, and the scientific community, has come to understand digital transition. Instead of focusing solely on connectivity or automation levels, recent frameworks such **as Industry 5.0, the Digital Decade Policy Programme, and the New European Innovation Agenda** call for a deeper analysis of the enabling conditions: organisational readiness, leadership culture, digital skills, employee engagement, participatory governance, and resilience to disruption. These capacities are essential rather than secondary since they are fundamental prerequisites for any digital innovation to achieve sustainable value.

In Digi-B-Well, this logic is embedded in the evolution from the original IGLOO model to the T+IGLOO framework, where Technology is recognised not as a passive object, but as an active and relational component that shapes how change unfolds across organisational levels. Against this background, Deliverable 1.2.3 aims to answer a set of interconnected research questions:

- To what extent are organisations in Central Europe ready and equipped to undertake a human-centred digital transition?
- How are the perceived barriers to digitalisation distributed across types of organisations?
- Which practices are already recognised as effective and feasible, and where are the gaps between what is needed and what is realistically implementable?
- How do these insights vary when viewed through the T+IGLOO lens, and what does this tell us about where to intervene first?

The objective, in short, is to move from a generic picture of digitalisation to a layered capacity profile, one that reflects both the assets, and the constraints present in different territorial and organisational contexts. This is essential not only to tailor the Digi-B-Well Toolkit and Platform, but also to support policymakers, managers and institutional leaders in targeting investments, incentives, and training efforts where they are most likely to produce systemic, human-centred results.

Therefore, the study is not only diagnostic, but it is also strategic. We provide the groundwork for a new kind of intervention logic by generating evidence on what organisations can already do, what they struggle with, and what practices have the best balance between effectiveness and ease of adoption: one that is adaptive, context-sensitive, and capable of guiding real choices in complex, evolving digital landscapes.

3.2. STUDY DESIGN

The survey instrument at the heart of this study was developed iteratively. Its structure and content draw directly from the conceptual foundations laid in D1.1.1 (mapping of digitalisation challenges), D1.1.2 (catalogue of practices), and especially D1.2.1 (methodological framework and the 3A cycle: *Assessment → Awareness → Action*). Moreover, the logic of the T+IGLOO model guided how each item was positioned within the survey: every challenge or practice corresponds to one or more levels in the model (individual, group, leadership, organisation), while the technological dimension ("T") served as an interpretive key across all levels.

The survey was conducted online via Qualtrics, leveraging partner networks across the Digi-B-Well consortium. It was available in the different languages of the Consortium (i.e., English, Italian, German, Slovenian, Slovakian, Croatian, Hungarian and Polish), with supporting materials and dissemination coordinated locally to maximise accessibility. Importantly, the survey was positioned not as an audit or evaluation tool, but as an opportunity for reflection and input, a feature that likely contributed to the high completion rate and the inputs of qualitative responses.

The design of this study follows a **mixed-methods logic**, integrating structured quantitative measures with open-ended, qualitative insights. On one hand, we needed comparable metrics across countries, sectors, and organisational types; on the other, we sought to preserve the voices of participants, whose lived experiences and interpretations often reveal nuances that predefined scales may miss.

3.2.1. Measures

The survey used in this study was designed to capture the regional and organisational conditions that shape the capacity to lead human-centred digital transitions. Rather than focusing on digital maturity in a narrow technical sense, the questionnaire probed into how organisations perceive their current challenges, what practices they find feasible and effective, and how these are distributed across levels and settings. Structurally, the instrument was organised into four core sections, each aligned with the conceptual architecture of the Digi-B-Well project.

The result is a dataset that is both structured and sensitive: it enables comparative analysis across multiple dimensions while still preserving the interpretive openness necessary to explore context-dependent mechanisms. On average, the survey required 12–15 minutes to complete. It was pre-tested internally to ensure clarity and reviewed by project partners to ensure cross-cultural readability across the participating countries. In the next section, we describe in detail how the survey was structured, which constructs it measured, and how the responses are being used to generate the analyses and visual outputs

The first section focused on **background and organisational profile**. Respondents were asked to indicate their country, sector, type of organisation (e.g., SME, large company, public institution, university), size (based on number of employees), and their individual role or position within the organisation. Additional questions captured gender, age group, and whether the organisation was already involved in the Digi-B-Well project. These data were essential for segmenting the sample and interpreting patterns in a comparative frame.

The second section addressed **barriers and challenges** (Table 1). Participants were presented with a list of **17 potential challenges**, each rated on a 5-point Likert scale ranging from 1 = "Not a challenge" to 5 = "Major challenge". The items spanned all three pillars defined in the Digi-B-Well

methodology, that is, *Technology & Infrastructure, Management & Strategy, People & Culture*, and were mapped against the T+IGLOO model. For example, challenges like "lack of digital infrastructure" are aligned with the technological and organisational levels; "employee resistance to change" is linked to the individual and group levels, while "absence of a clear digital strategy" is related to leadership and organisation. Each item also corresponded to a stage in **the 3A cycle**. For example, challenges reflect primarily the Assessment and Awareness phases by helping identify where problems are most strongly perceived.

Table 1. The complete list of challenges included in the present study

LIST OF POTENTIAL CHALLENGES (PC)	
PC1	Outdated or insufficient digital infrastructure (e.g., slow internet connections, old computers or software, limited cloud storage)
PC2	Low level of process digitisation (many workflows still done manually or on paper instead of using digital tools).
PC3	Fragmented software systems (different programs from various providers that are not necessarily well-integrated together).
PC4	Cybersecurity risks and concerns about data privacy (e.g., fear of hacking, misuse of personal information).
PC5	Limited skills and knowledge to effectively use digital technology among employees (e.g., difficulty using cloud-based tools like Google Drive or adjusting hybrid work setups).
PC6	Reluctance to adopt new ways of working among employees (e.g., "We've always done it this way" mindset, fear of the unknown).
PC7	Low awareness of the benefits and goals of digital transformation (leading to fear, confusion, or lack of motivation).
PC8	Stress from coping with the demands of a digital work environment (e.g., feeling overwhelmed by too many digital tools, difficulty disconnecting after work hours, or stress caused by learning too many new tools at once).
PC9	Misalignment between departments and teams (e.g., different workflows, conflicting priorities, uneven digital skills).
PC10	No dedicated digital transformation team or role (no clear person or group responsible for driving digital changes).
PC11	Managerial reluctance to adopt new ways of working (e.g., conservative leadership styles, reluctance to try new tools and platforms).
PC12	Limited skills, knowledge and competencies among managers on how to effectively use digital tools and manage digital innovation projects (e.g., lack of familiarity with key digital platforms, struggling to interpret data or inability to foster a culture of innovation)
PC13	Lack of a clear digital transformation strategy (e.g., projects are done ad-hoc without long-term planning or coordination).
PC14	Inflexible organisational structures and bureaucracy (e.g., long approval processes, rigid policies slowing down change).
PC15	Budget or funding constraints (limited money available for digital investments).

PC16	Legal and regulatory barriers (e.g., complicated compliance requirements, outdated laws that don't fit digital solutions).
PC17	Low willingness or limited familiarity among clients or users with digital tools and services (e.g., preferring to visit in person or use paper forms instead of online platforms, or lacking access to or confidence in using digital tools).

Respondents were then asked to share any other digitalisation-related challenges their organisation were facing to provide valuable insights into specific concerns not covered by the pre-coded items.

The third section focused on **digitalisation practices** (Table 2). Here, 14 candidate solutions were proposed, each briefly described in plain language and grounded in the literature on workplace innovation, organisational change, and digital transition.

Table 2. The complete list of digitalisation practices included in the present study

LIST OF DIGITALISATION PRACTICES (DP)	
DP1	Implement **digital literacy programs** by providing regular training sessions to improve employees' proficiency with digital tools, covering areas such as collaboration platforms, cybersecurity, and data management
DP2	Organise **digital transformation awareness campaigns**, for example, conduct semi-annual meetings with the CEO, to communicate the objectives and benefits of digital transformation, addressing fears and misconceptions.
DP3	Implement **technostress prevention strategies**, for example, introduce "No-Meeting Wednesdays," a "No work messages after 18:00" policy, or mindfulness programs, to mitigate overload related to technology use.
DP4	Provide employees with **opportunities to raise their voices**, give feedback, and share concerns, for example, by creating a channel for anonymous feedback or organising open discussion meetings.
DP5	Establish **peer mentorship** by pairing tech-savvy employees with those less comfortable with digital tools.
DP6	Facilitate **interdepartmental and cross-functional knowledge exchange**, for example, by organising regular sessions where teams share insights, challenges, and successes related to digital initiatives.
DP7	Form a **cross-functional and semi-autonomous team** responsible for overseeing and coordinating digital transformation efforts and having real decision-making power over workflows, tools, and objectives.
DP8	**Actively involve employees** in identifying digitalisation priorities, opportunities and designing solutions, for example, through workshops, participatory design sessions, or innovation labs.
DP9	Provide **leadership training**, offering programs focused on digital literacy, strategic thinking, fostering employee-driven innovation, and creating trust-based, empowering cultures.
DP10	Encourage **leaders to actively facilitate employee involvement** in decision-making about digitalisation, for example, by involving frontline employees in joint planning sessions or organising regular team consultations
DP11	Set clear **digital transformation goals and strategies** by developing and communicating a roadmap that outlines both short-term and long-term objectives

DP12	**Standardise communication and data management tools** by adopting unified platforms for communication and project management to reduce variability while enhancing interoperability and transparency
DP13	**Redesign work structures** to support autonomy and reduce unnecessary hierarchical barriers, for example, by empowering teams to make operational decisions without multiple levels of approval.
DP14	**Promote a culture of experimentation and employee-driven innovation**, for example, by allocating time for creative tasks, rewarding innovative activities, or setting up an "ideas marketplace" where employees can propose and develop initiatives during work time

For each practice, respondents were asked to provide two separate ratings, each on a 5-point Likert scale:

- Effectiveness: "To what extent would this practice help address your challenges?"
  (1 = Ineffective at all to 5 = Effective)
- Ease of implementation: "How feasible would it be for your organisation to implement this practice?"
  (1 = Difficult at all to 5 = Easy)

This dual evaluation enabled us to construct a **priority matrix** that plots each practice along two axes, impact and feasibility, allowing for the identification of "quick wins," "hard nuts," and other strategic categories.

In addition to the numeric ratings, the design of this section incorporated an **adaptive open-text mechanism**: *If a respondent rated a practice 1 or 2 (low effectiveness or low feasibility)*, a follow-up field automatically appeared asking them to explain why:

"Why do you think this practice would be difficult to implement in your organisation?"

"Why do you think this practice would not be effective in your context?"

These qualitative responses provided insight into the **perceived contextual or organisational mechanisms** that inhibit implementation, closely aligning with the analysis of "fit" and resistance mechanisms discussed earlier in this report (cf. 2.3). In practice, participants used these fields to express concerns or share their views, giving us a deeper window into how practices may interact with context and in their daily worklife.

A final open text field asked participants to suggest any **additional practices** they considered promising or relevant in their sector or region, contributing to an expanding, bottom-up repository of strategies.

3.3. SAMPLE

The final sample for this study consists of **127 respondents**, all of whom completed the survey in full and passed internal consistency and plausibility checks. Although not large in absolute terms, this sample reflects a diverse cross-section of organisational actors from across Central Europe, including a range of institutional types, functional roles, and demographic profiles.

3.3.1. Country of current employment

Participants came from **eight EU countries** (Figure 1), with the largest groups located in Slovakia (24%), Italy (22%), and Poland (15%), followed by Croatia (13%), Hungary (9%), Germany and Slovenia (both 7%), and a small number (3%) from other EU member states. While this spread offers a useful territorial snapshot, it must be noted that sample sizes per country are insufficient to support reliable statistical comparisons across national contexts. For this reason, in the main analysis we focus on sectoral and organisational patterns, rather than country-level differences.

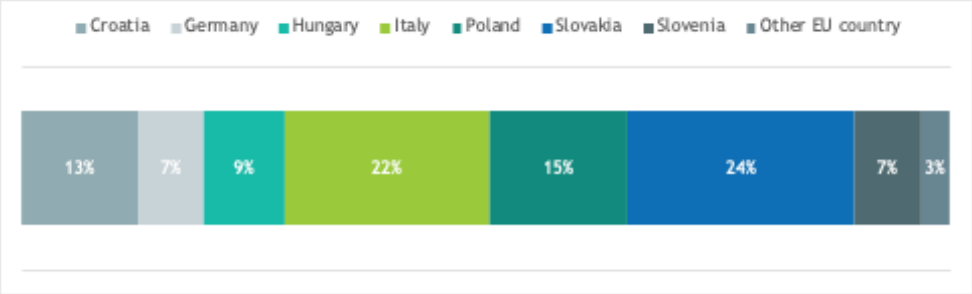

Figure 1. Survey participants by Countries

3.3.2. Organisational affiliation and type

In terms of organisational type, the sample is well-balanced: 35% of respondents work in SMEs, followed by 26% in public institutions, 24% in academia, and 15% in large enterprises. This distribution reflects the tripartite structure at the heart of the Digi-B-Well project, which targets transformation processes in small and medium-sized enterprises, public administration, and higher education as key leverage points for regional innovation and wellbeing.

The cross-tabulation of organisational type by country reveals some noteworthy patterns. For instance, over half of the Italian respondents work in academia, while Polish and Croatian respondents are more concentrated in public institutions. Slovak participants show a wider spread, with strong representation from both SMEs and large companies. While we do not draw statistical conclusions from these patterns, they offer a first indication of how digitalisation capacities may be embedded differently across national innovation systems.

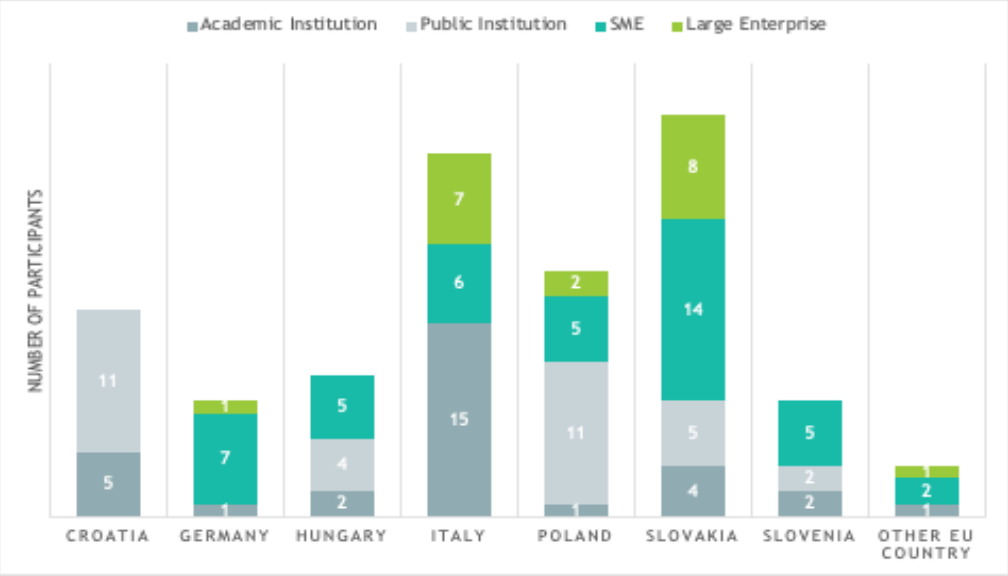

Figure 2. Survey participants by organisation types and countries

3.3.3. Job position and contract type

Respondents also vary meaningfully in terms of **job position**. The majority self-identified as mid-level professionals (56%), followed by managers and supervisors (22%), interns or entry-level employees (14%), and executives or directors (8%). This suggests that most answers reflect operational or tactical perspectives, rather than purely strategic or top-level views. These voices are especially valuable in a study focused on implementability, as they often come from those directly engaged in digital workflows and daily practices.

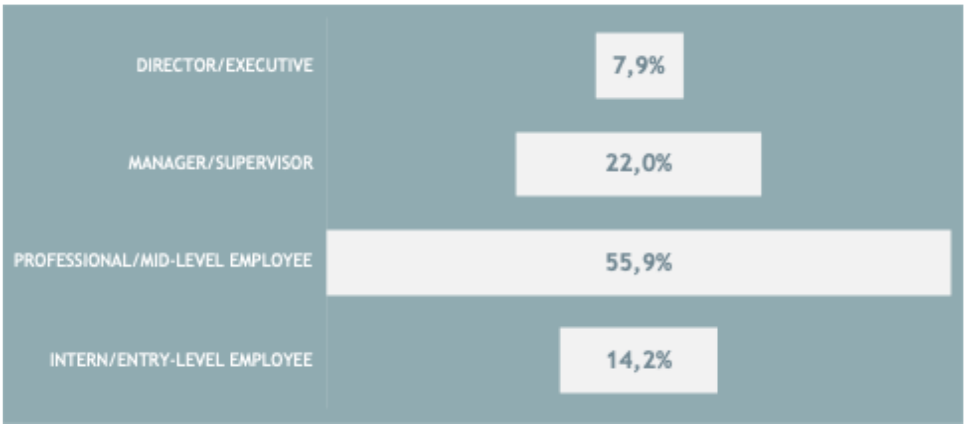

Figure 3. Survey participants by job position

Employment conditions are also quite stable: 67% of respondents have permanent contracts, while 28% are on temporary terms and 5% are freelance or self-employed. This composition reinforces the credibility of the dataset, as most participants are likely to have longitudinal insight into their organisation's digital trajectory and internal dynamics.

3.3.4. Gender and age

The **gender balance** is moderately skewed: 57% of respondents identify as female, 41% as male, and 2% preferred not to disclose. While not statistically significant, this slight overrepresentation of women may reflect the inclusion of large public and academic sectors, where female participation tends to be higher in many Central European countries.

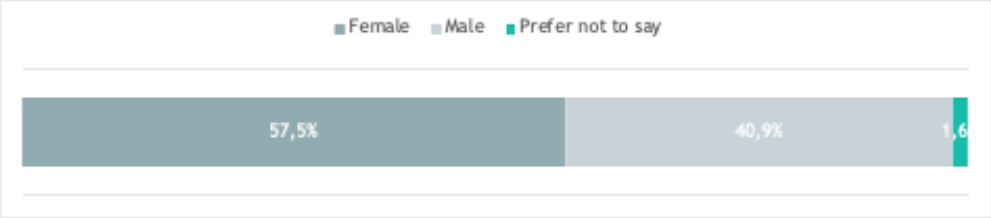

Figure 4. Survey participants per gender

Age-wise, the sample leans toward mid-career professionals. The largest group falls in the **35–44 age** bracket (40%), followed by 45–54 (24%), and 25–34 (18%). Younger participants (18–24) make up 9%, while only 8% fall in the 55–64 range, and just one respondent is over 65.

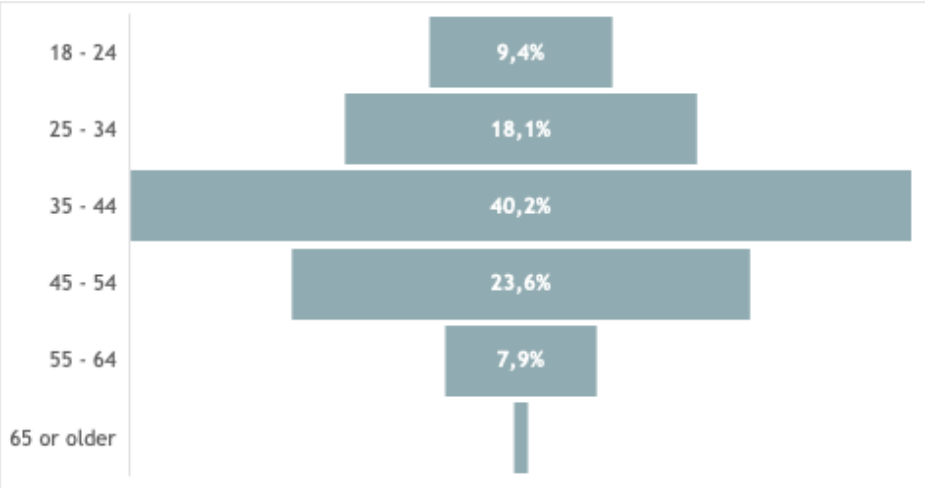

Figure 5. Survey participants per age

This age profile suggests a plausible predominance of digitally active professionals, many of whom have both managerial experience and direct exposure to new tools and workflows, a critical combination when assessing both the challenges and the perceived feasibility of digital practices.

4. FINDINGS

4.1.1. Perceived challenges to digital transformation

The first block of the survey asked participants to evaluate the extent to which their organisation faces a series of 17 digitalisation-related challenges. Each item was rated on a 5-point Likert scale, where 1 = “Not a challenge”, 3 = “Moderate challenge”, and 5 = “Major challenge”.

Overall, responses paint a picture of distributed and partially latent challenges. Mean scores range from **2.89 to 3.46**, clustering around the neutral point. This suggests that participants often

experience digitalisation challenges in a non-binary, ambivalent way – as frictions that may surface depending on specific projects, organisational conditions, or leadership dynamics.

Still, some challenges emerged with relatively higher agreement:

- **Budget or funding constraints** (Challenge 15) received the highest average score (**3.46**), with significant differences between organisational types (ANOVA $p = 0.05$). It is the biggest challenge for academic institutions, and, expectedly, not as much of a challenge for large enterprises.
- **Cybersecurity risks and data privacy concerns** (Challenge 4) followed closely (**mean = 3.35**), reflecting a widely shared concern that spans across sectors. In an era of increasing cyber threats and regulatory scrutiny, this challenge may be seen less as a technical question and more as a condition for institutional trust and operational resilience.
- **Fragmented or incompatible software systems** (Challenge 3) also scored highly (**mean = 3.33**), especially in public and academic contexts. In these environments, digitalisation may often accumulate as a **layering of tools rather than a strategic redesign**, producing friction instead of fluency.

Other challenges hovered around the neutral midpoint, with **notable leanings** depending on organisational type. For instance:

- **Lack of digital strategy** (Challenge 13, mean = 3.28) points to persistent gaps in long-term vision and coordination.
- **Technostress and digital overload** (Challenge 8, mean = 3.23) highlight the **emotional cost** of constant adaptation and tool proliferation.
- **Employee reluctance to change** (Challenge 6) and **misalignment between departments** (Challenge 9) reflect deeper cultural and structural tensions, whose impact may vary significantly across organisational settings.

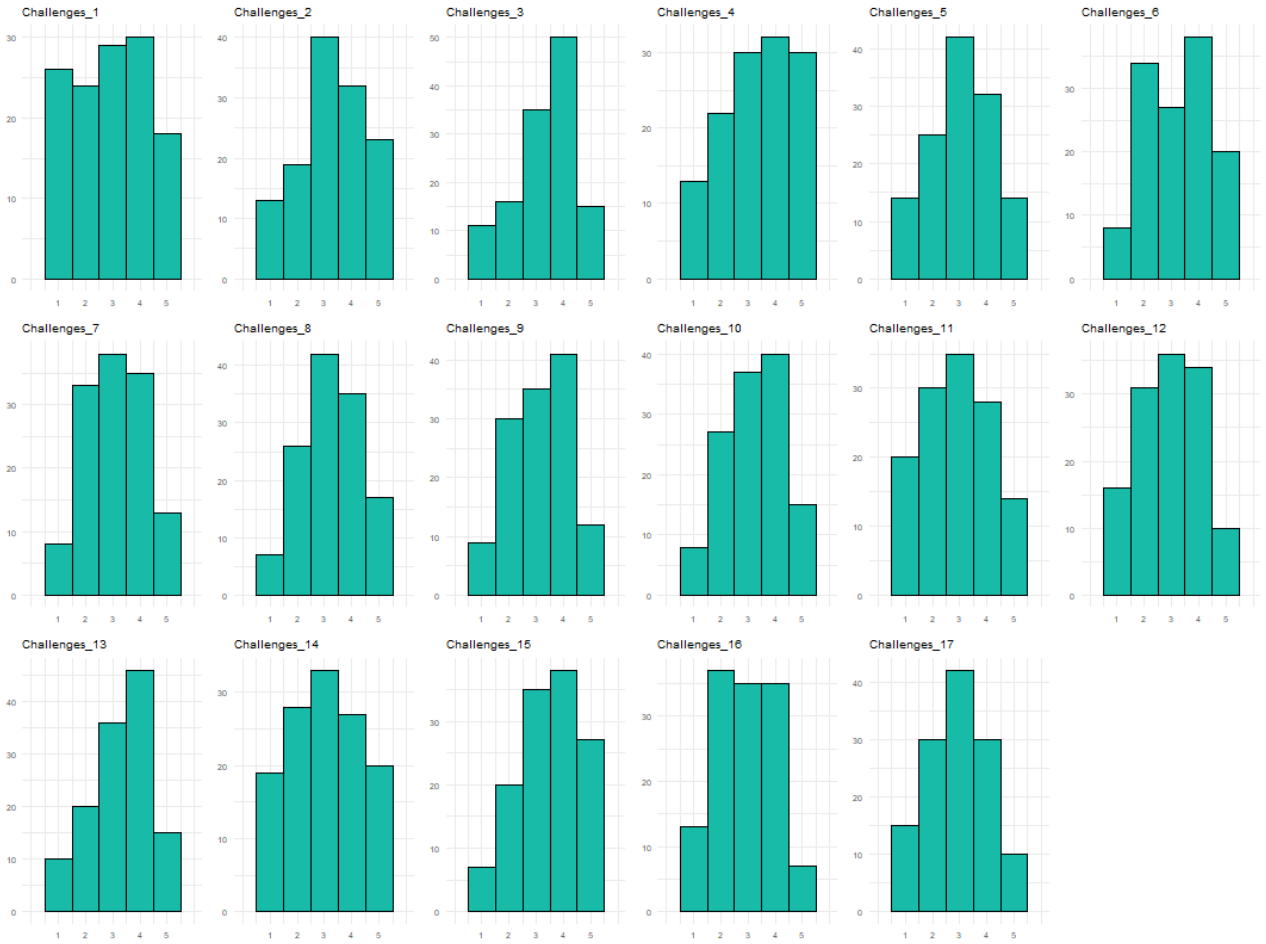

Figure 6. Distribution of Responses Across the 17 Identified Challenges

Table 3. Perceived challenges to digital transformation: Descriptive statistics and sectoral differences

PC	MEAN	SD	F	p	ACADEMIA	LARGE	PUBLIC	SME	ANY DIFFERENCE PER SECTOR?
PC1	2.92	1.35	3.96	0.01**	**3.52**	2.63	3.06	**2.52**	SME-Academia
PC2	3.26	1.22	3.36	0.02*	3.26	3.05	**3.79**	**2.95**	SME-Public
PC3	3.33	1.11	1.96	0.12	3.71	3.11	3.36	3.14	
PC4	3.35	1.29	0.38	0.77	3.42	3.05	3.39	3.39	
PC5	3.06	1.16	3.62	0.02*	3.26	2.95	**3.45**	**2.66**	SME-Public
PC6	3.22	1.19	3.71	0.01*	3.29	3.21	**3.7**	**2.82**	SME-Public
PC7	3.09	1.09	2.25	0.09	3.06	3.32	3.39	2.80	
PC8	3.23	1.09	0.61	0.61	3.35	3.11	3.36	3.09	
PC9	3.13	1.1	4.79	0.01**	3.26	3.11	**3.61**	**2.70**	SME-Public
PC10	3.21	1.1	2.98	0.03*	3.42	2.79	3.55	3.00	No differences
PC11	2.89	1.24	2.26	0.08	3.03	2.95	3.21	2.52	
PC12	2.93	1.16	2.16	0.1	3.23	3.00	3.06	2.59	
PC13	3.28	1.11	2.29	0.08	3.61	3.21	3.42	2.98	
PC14	3.01	1.29	15.42	0.001***	**3.84**	**2.84**	**3.42**	**2.18**	Large -Academia; SME-Academia; SME-Public
PC15	3.46	1.15	2.74	0.05*	**3.9**	**3.00**	3.39	3.39	Large -Academia

PC16	2.89	1.09	5.68	0.01**	**3.32**	2.74	**3.18**	**2.43**	SME-Academia; SME-Public
PC17	2.92	1.12	3.57	0.02	2.84	2.89	**3.42**	**2.61**	SME-Public

When comparing sectors (Table 3), the most consistent contrast emerged between **SMEs and public institutions**. In several items, including **digital skills among employees (Challenge 5)**, **lack of digital roles (Challenge 10)**, and **departmental misalignment (Challenge 9)**, public institutions consistently reported **higher levels of perceived challenge**, often above the neutral midpoint, whereas SMEs tended to hover closer to neutrality or below. This could suggest that public organisations experience more systemic inertia, but also that SMEs, being more agile or informal, may underreport frictions that are present but not framed as "challenges."

Interestingly, **legal and regulatory obstacles (Challenge 16)** were rated as significantly more challenging by **academic and public institutions**, an insight that confirms how compliance and policy constraints weigh differently across organisational fields. Where research ethics, procurement laws, or public accountability are involved, even well-intentioned digital initiatives may stall.

Notably, no single item was rated as "not a challenge" by the majority. Even the lowest-scoring items (Challenges 11, 12, 16) remain in the zone of ambiguity, not clear dismissals. This may suggest that resistance to digital transformation is rarely binary, but instead composed of layered, context-sensitive tensions.

4.1.2. Perceived challenges to digital transformation per age, gender and job position

Beyond the aggregated results, we explored how perceptions of digitalisation challenges vary across different groups within the organisational ecosystem. Two dimensions were analysed: **job position** – comparing mid-level professionals ("employees") to managers and executives, and **age group**, distinguishing between younger (18–34), mid-career (35–44), and older professionals (45+). These comparisons allow us to understand not only *what* is perceived as challenging, but *by whom*, a crucial question when designing capacity-building interventions.

4.1.2.1. Differences by job position: employees vs managers

Interestingly, the t-tests revealed no statistically significant differences in the perception of challenges between employees and managers across any of the 17 items. All *p*-values remained above the conventional threshold of 0.05, suggesting that while small variations exist, they do not reach statistical relevance in this sample. Still, some interpretive patterns emerge worth noting.

For example, **managers** tended to rate **cybersecurity risks and data privacy concerns (Challenge 4)** and a **low level of process digitisation (Challenge 2)** slightly higher than employees (mean = 3.61 vs 3.27 and 3.45 vs 3.17, respectively). This may reflect their broader exposure to strategic risk or their involvement in compliance and system design decisions. Conversely, **employees** reported marginally higher concern for **technostress (Challenge 8)** and **lack of**

interdepartmental alignment (Challenge 9), both of which affect daily workflows more directly and may signal pressure points where top-down digital plans meet bottom-up realities.

The absence of strong polarisation is, in itself, a noteworthy result: it suggests that digitalisation is experienced as a shared challenge across organisational levels. This alignment may reflect a growing organisational awareness of systemic digital complexity, or it may mask latent differences that only emerge in more informal or role-specific discussions.

4.1.2.2. Differences by age group: generation matters?

Age-related patterns were more pronounced. ANOVA tests revealed statistically significant differences ($p < 0.05$) for three challenges:

- **Fragmented software systems (Challenge 3)**: both the 35–44 and 45+ age groups rated this challenge significantly higher than the 18–34 group. This could reflect the fact that more experienced professionals are exposed to **legacy systems**, inter-platform inconsistencies, or carry a stronger sense of how well (or poorly) integration supports real workflows. For younger staff, who may be more adaptable to multitool environments or simply less attached to long-standing processes, fragmentation may feel less problematic.
- **Managerial reluctance to adopt new practices (Challenge 11)** and **limited digital skills among managers (Challenge 12)** were also rated significantly higher by the 35–44 group compared to the youngest cohort. These two findings point to a **critical middle layer**: mid-career professionals, often tasked with translating strategy into execution, may experience the gap between leadership vision and digital reality more acutely. Their dual exposure – both upward to decision-makers and downward to operational teams – may position them as sensitive barometers of organisational readiness.

In other items, although differences did not reach statistical significance, interesting trends still emerge. For example, the **oldest group (45+)** consistently rated barriers higher than younger respondents, particularly in areas like **cybersecurity (Challenge 4)**, **funding constraints (Challenge 15)**, and **regulatory barriers (Challenge 16)**. This may indicate a more cautious, risk-aware mindset, informed by institutional memory or a deeper understanding of procedural inertia.

Conversely, **the youngest group (18–34)** showed generally lower concern across most challenges. While this could reflect genuine optimism or fluency with digital tools, it may also reflect less exposure to the systemic and managerial dimensions of digital transformation, dimensions that become more visible with seniority and strategic responsibility.

4.1.2.3. Gender comparisons: aligned perspectives

Finally, a comparison based on **gender** revealed no statistically significant differences across any of the 17 challenge items. Both male and female respondents, as well as those who preferred not to disclose their gender, showed **remarkably similar response patterns**. This suggests that perceptions of digital transformation barriers are not strongly mediated by gender, at least within

the organisational settings and sample represented here. The challenges appear to cut across roles and identities, reaffirming their structural, rather than personal nature.

4.1.3. Perceived Effectiveness of Digitalisation Practices

The second part of the survey invited participants to evaluate the **effectiveness of 14 digitalisation practices**, solutions ranging from technical training to leadership development and structural redesign. Each practice was presented in plain language and rated on a 5-point Likert scale, where 1 = "Not effective at all", 3 = "Neutral", and 5 = "Very effective". This section aimed to move beyond perceived barriers and explore what kinds of actions are considered promising by practitioners themselves, based on their experiences and contexts.

Overall, the results show a clear tendency toward **positive evaluations**. All 14 practices received mean scores well above the neutral point, with values ranging from **3.40 to 4.16**. This suggests that participants not only recognise the presence of challenges but also believe in concrete, implementable pathways to address them. Among the most highly rated practices were those that combine **technical clarity, cross-cutting benefits, and immediate applicability**.

The highest-rated item was the **standardisation of communication and data management tools** (Practice 12), with a mean score of **4.16**. This result reflects a strong demand for **interoperability and digital coherence** across departments and platforms, especially in multi-site or cross-functional organisations. It confirms what many qualitative studies have also shown: fragmentation may undermine even well-designed digital strategies, and unifying the infrastructure often generates immediate productivity gains and user confidence.

Other highly rated practices include:

- **Developing a clear digital transformation strategy with a roadmap of short- and long-term goals** (Practice 11, mean = 3.93)
- **Establishing peer mentoring programs** (Practice 5, mean = 3.93)
- **Providing digital-skills training programs for employees** (Practice 1, mean = 3.92)

These solutions, while diverse, share a common trait: they are **structural without being invasive**. They align with the idea of **Workplace Innovation** as described in 2.4: actions that are rooted in participation, learning, and system-level alignment rather than top-down enforcement.

Notably, even the practices with the lowest mean ratings were still above neutral:

- **Participatory design processes** (Practice 8, mean = 3.58)
- **Formation of autonomous digital transformation teams** (Practice 7, mean = 3.62)
- **Structural redesign to increase autonomy and reduce bureaucracy** (Practice 13, mean = 3.62)

These lower scores may indicate not a lack of belief in the **value** of such practices, but concerns about their **feasibility or institutional readiness** – a theme we will revisit in the next section on ease of implementation.

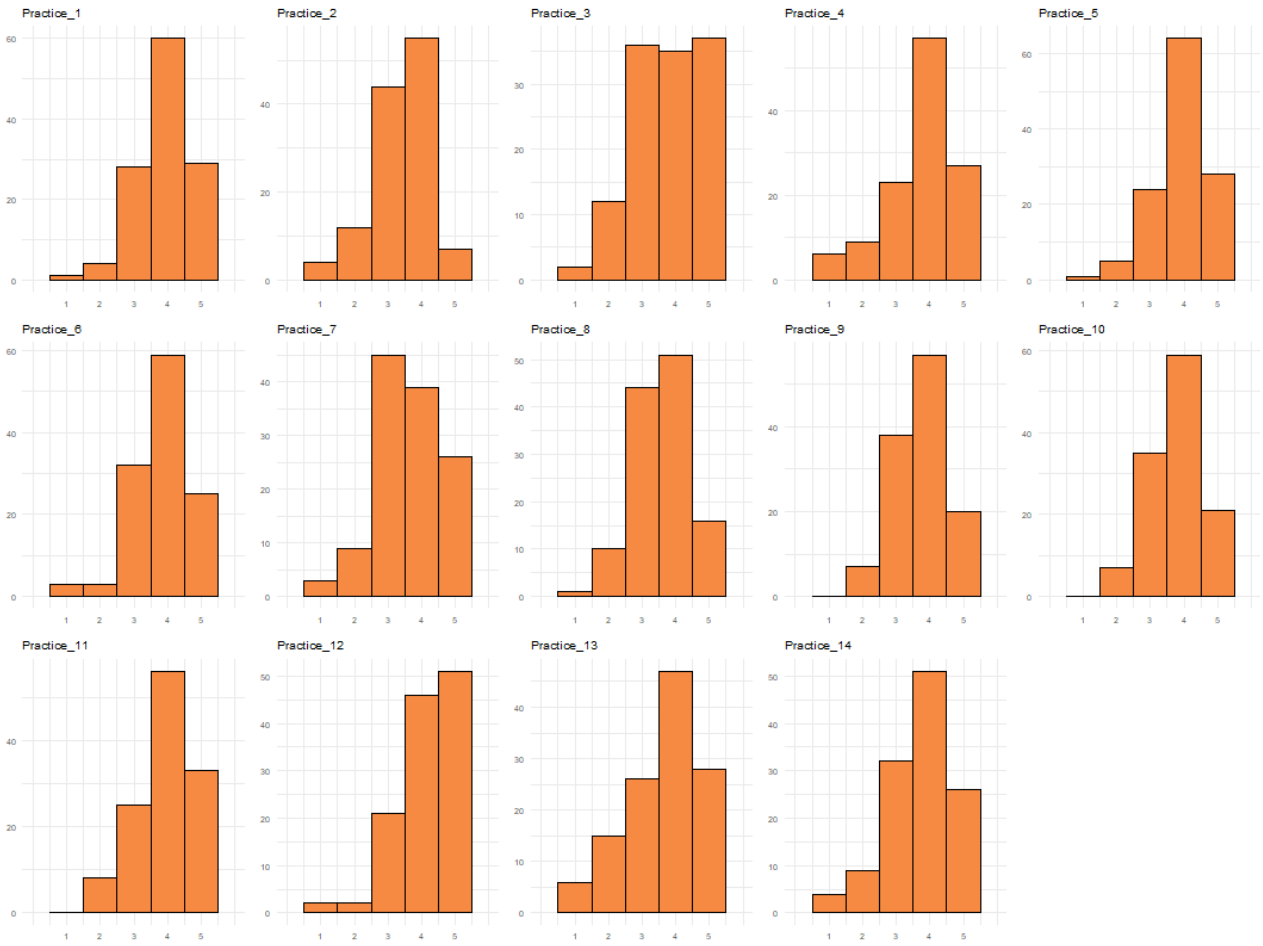

Figure 7. Distribution of Perceived Potential Effectiveness of the 14 Digitalisation Practices

Table 4. Perceived Potential Effectiveness of digital transformation practices: Descriptive statistics and sectoral differences

DP	MEAN	SD	F	p	ACADEMIA	LARGE	PUBLIC	SME	ANY DIFFERENCE PER SECTOR?
DP1	3.92	0.82	1.28	0.29	4.00	4.17	3.94	3.75	
DP2	3.40	0.87	1.76	0.16	3.41	3.78	3.42	3.23	
DP3	3.76	1.04	0.92	0.43	4.04	3.67	3.61	3.75	
DP4	3.74	1.04	0.49	0.69	3.63	4.00	3.73	3.7	
DP5	3.93	0.81	0.42	0.74	4.00	4.06	3.82	3.91	
DP6	3.82	0.87	0.74	0.53	3.93	4.00	3.67	3.8	
DP7	3.62	0.98	2.67	0.05*	3.93	3.83	3.67	3.32	No differences
DP8	3.58	0.85	1.11	0.35	3.7	3.83	3.52	3.45	
DP9	3.74	0.80	3.16	0.03*	3.93	4.06	3.76	3.48	SME-Large

DP10	3.77	0.80	0.17	0.92	3.81	3.83	3.79	3.7	
DP11	3.93	0.86	0.20	0.90	3.85	4.06	3.94	3.93	
DP12	4.16	0.88	1.59	0.20	4.07	4.5	3.97	4.23	
DP13	3.62	1.12	0.73	0.54	3.85	3.61	3.67	3.45	
DP14	3.70	0.99	1.11	0.35	3.63	4.06	3.76	3.57	

Comparative analysis by organisation type revealed **relatively small differences**, with no strong sectoral polarisation. However, only one practice did yield statistically significant contrasts:

- **Leadership training (Practice 9)** was rated significantly higher by **large enterprises** than SMEs (p = 0.03), suggesting that in more structured environments, **formal leadership development** is seen as both possible and impactful.

Interestingly, practices related to **employee empowerment and voice,** such as feedback channels, team consultation, and co-design, were rated consistently well across all sectors (means between 3.70 and 3.80), reinforcing the insight that **inclusive governance mechanisms** are seen as universally valuable, even in contexts with very different institutional logics.

4.1.4. Perceived effectiveness of digital solutions per age, gender and job position

To deepen our understanding of how digitalisation practices are perceived across the organisational landscape, we examined how respondents' **job position, gender** and **age group** influenced their evaluations of effectiveness.

4.1.4.1. Differences by position: employees vs managers

The t-tests comparing mid-level professionals (“employees”) and senior profiles (managers and executives) revealed no statistically significant differences for any of the practices. All p-values exceeded the 0.05 threshold, indicating that the perceived effectiveness of digitalisation strategies is **broadly shared across hierarchical levels**.

However, a closer look at the mean values reveals **micro-patterns of interest**. Employees consistently rated practices slightly higher than managers, particularly in areas like:

- **Participatory design and co-creation** (Practice 8: mean = 3.67 vs 3.49)
- **Peer mentoring** (Practice 5: mean = 3.94 vs 3.80)
- **Employee voice and feedback channels** (Practice 4: mean = 3.80 vs 3.71)

These differences, while not statistically significant, hint at an underlying dynamic: employees may value more highly those practices that amplify their agency, that is, initiatives where they are not just recipients of change, but co-authors of it. This aligns with findings in workplace innovation literature, which suggest that psychological ownership and perceived influence increase perceived value.

Conversely, managers tended to score slightly higher on practices that reflect coordination and alignment (e.g., Practice 6: cross-functional knowledge sharing). These trends, while subtle, mirror the distinct lenses through which transformation is experienced: one from the ground of implementation, the other from the vantage point of orchestration.

4.1.4.2. Differences by age: cautious confidence vs optimistic pragmatism

The ANOVA tests across age groups also revealed **no statistically significant differences** for any of the practices at the $p < 0.05$ level. However, once again, the pattern of mean scores offers fertile ground for reflection.

Younger respondents (18–34) tended to rate practices either equally or slightly higher than older peers across most items. For example, they expressed strong support for:

- **Digital literacy programs** (mean = 4.00)
- **Unified communication platforms** (mean = 4.29, the highest among all groups)
- **Peer mentoring and participatory initiatives**

This might seem paradoxical at first: younger employees are often assumed to already be digitally fluent. But their strong ratings could signal **recognition of the value these practices offer to others,** suggesting a "solidarity effect" where more digitally confident workers still appreciate efforts to uplift collective competence.

Mid-career professionals (35–44), on the other hand, provided **more cautious assessments**, with lower mean scores on several practices (e.g., Practice 2: awareness campaigns; Practice 8: co-design). This group may be more attuned to organisational inertia or more sceptical about the real-world follow-through of such initiatives. Their slightly lower ratings could reflect a realistic, but not pessimistic, appraisal of what it takes to move from idea to implementation.

Older participants (45+) gave relatively **stable and consistent scores**, without extreme highs or lows. This steadiness might reflect **institutional memory and strategic perspective**, a view shaped by years of experience, perhaps tempered by prior transformations that were either successful or short-lived.

Interestingly, the practice with the lowest inter-age variability was the development of a clear digital roadmap (Practice 11), which scored between 3.82 and 4.08 across all age groups. This suggests that direction-setting remains a cross-generational priority, a rare point of alignment in an otherwise stratified perception field.

4.1.4.3. Gender comparisons: shared evaluations across identities

An analysis of gender differences in the perceived effectiveness of digitalisation practices revealed **no statistically significant variation** across any of the 14 items. Both male and female respondents, as well as those who chose not to disclose their gender, showed highly consistent patterns of evaluation. This finding reinforces the idea that perceptions of what works in digital transformation are not fundamentally shaped by gender, at least within the scope and composition

of our sample. Instead, participants appear to converge around a shared understanding of which practices support inclusive, effective change – an encouraging sign for the development of universal, cross-cutting strategies.

4.1.5. Perceived Ease of Implementation of Digitalisation Practices

Understanding which practices are seen as effective is only one part of the equation. Equally important is how feasible those practices are perceived to be within current organisational settings. To explore this, respondents were asked to rate each of the 14 digitalisation practices on a 5-point Likert scale, where 1 = "Not feasible at all", 3 = "Doable", and 5 = "Very easy to implement". This framing is essential: a score around 3 does not signal doubt, but rather a recognition that while implementation is possible, it may require effort, adaptation, or support.

The general picture that emerges is **cautiously optimistic**. Most practices received mean scores at or just above the "doable" threshold, with values ranging from **2.58 to 3.30**. This suggests that participants perceive many of these practices as **realistically implementable**, albeit with varying degrees of ease. In contrast to the strong confidence seen in effectiveness ratings, here the message is more balanced: "Yes, we can do this, but it might be a stretch."

Among the more implementable practices, three stand out:

- **Providing employees with opportunities to share feedback and raise concerns** (Practice 4, mean = 3.30)
- **Organising awareness campaigns** (Practice 2, mean = 3.28)
- **Setting clear digital transformation goals and roadmaps** (Practice 11, mean = 3.23)

These practices combine conceptual clarity with low operational resistance: they are seen as achievable through communication, coordination, and leadership commitment, without requiring heavy investment or structural overhaul.

Conversely, the following practices received the lowest scores, albeit still near the "doable" zone:

- **Redesigning organisational structures** (Practice 13, mean = 2.58),
- **Establishing semi-autonomous DT teams** (Practice 7, mean = 2.61),
- And **fostering a culture of experimentation** (Practice 14, mean = 2.75)

These practices are not rejected, rather, they are acknowledged as complex. Participants may agree with the principle, but anticipate challenges in alignment, resourcing, or institutional support.

While many practices were rated similarly across sectors, the analysis revealed a number of statistically significant differences that are worth highlighting. These differences offer important insight into how organisational context shapes not just willingness, but capacity to act.

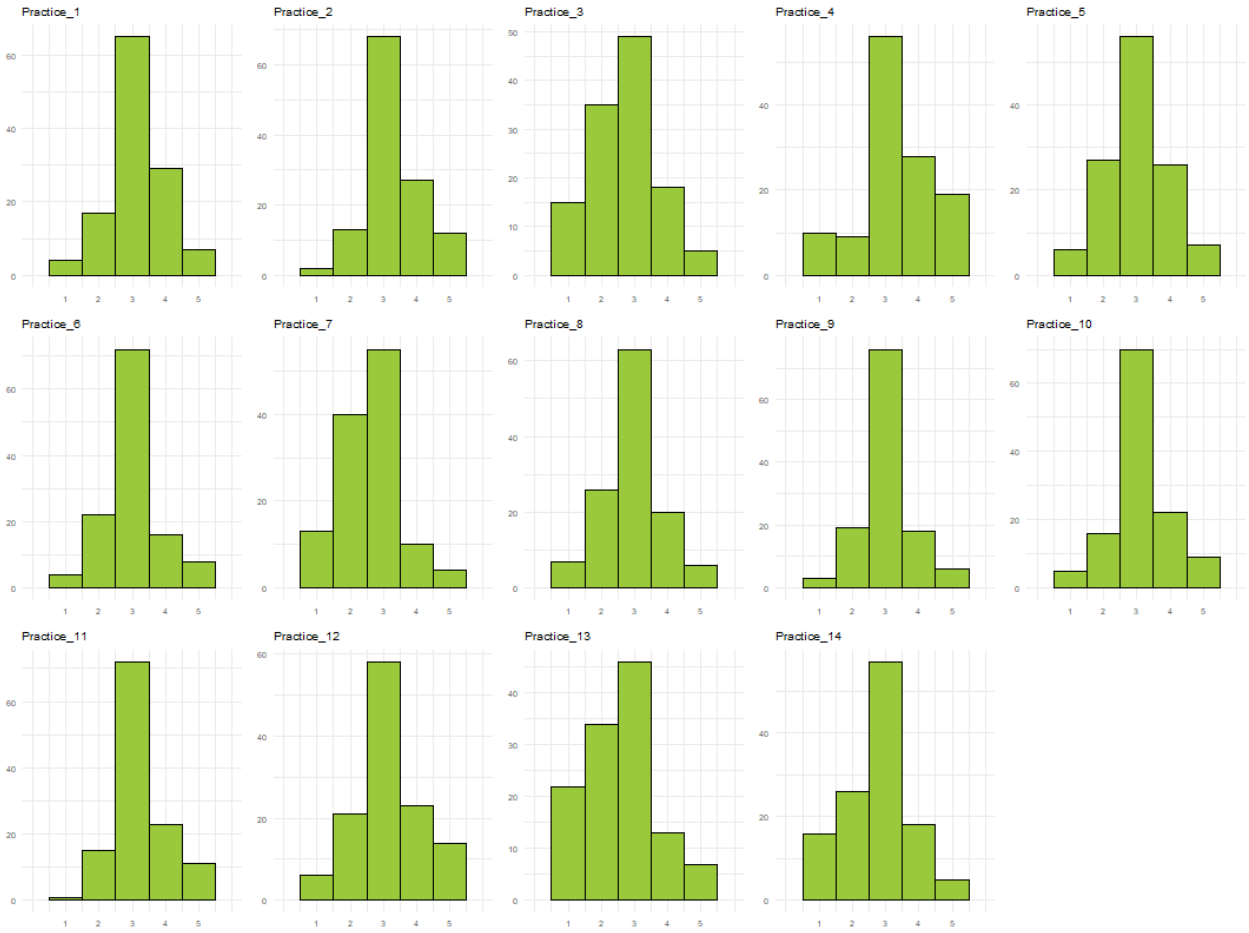

Figure 8. Distribution of Perceived Ease of Implementation of the 14 Digitalisation Practices

Table 5. Perceived Ease of Implementation of digital transformation practices: Descriptive statistics and sectoral differences

DP	MEAN	SD	F	p	ACADEMIA	LARGE	PUBLIC	SME	ANY DIFFERENCE PER SECTOR?
DP1	3.15	0.85	4.15	0.01	3.22	3.61	2.79	3.18	Large-Public
DP2	3.28	0.85	1.22	0.30	3.52	3.17	3.12	3.30	
DP3	2.70	1.00	0.03	0.99	2.74	2.72	2.67	2.68	
DP4	3.30	1.08	0.30	0.83	3.37	3.33	3.15	3.36	
DP5	3.01	0.93	1.86	0.14	3.00	3.39	2.76	3.05	
DP6	3.02	0.84	2.74	0.05	2.81	3.28	2.79	3.20	No difference
DP7	2.61	0.91	2.08	0.11	2.67	3.06	2.45	2.50	
DP8	2.93	0.90	0.88	0.46	3.04	3.17	2.91	2.80	
DP9	3.04	0.78	1.14	0.34	2.96	3.33	3.06	2.95	
DP10	3.11	0.87	1.71	0.17	2.85	3.44	3.12	3.14	
DP11	3.23	0.81	0.75	0.52	3.22	3.17	3.09	3.36	
DP12	3.15	1.00	0.84	0.47	2.89	3.17	3.18	3.27	
DP13	2.58	1.08	3.89	0.01	2.15	3.22	2.52	2.64	Large- Academia
DP14	2.75	1.00	3.24	0.02	2.52	3.39	2.73	2.66	Large-Academia; SME-Large

One of the clearest gaps emerged on **Practice 1 – Digital literacy training**. **Large enterprises** rated this practice as significantly more feasible than public institutions ($p < 0.01$). The interpretation here is fairly intuitive: large organisations often have dedicated training departments, may offer easy access to e-learning platforms, and have more budgetary flexibility to offer structured upskilling programs. Public institutions, in contrast, may face bureaucratic limitations, slower procurement cycles, and fragmented systems that make even basic training logistics difficult to coordinate.

Another telling difference concerned **Practice 13 – Redesigning structures to support autonomy**. This practice had the lowest overall mean across all sectors, but the score was particularly low among **Academic institutions** (mean = 2.15), and significantly higher among **Large enterprises** (mean = 3.22; $p = 0.01$). In many public and academic settings, the idea of reducing hierarchical layers may clash with statutory governance models, rigid faculty roles, or long-standing traditions of procedural control. In contrast, some large enterprises, especially in tech-driven or innovation-focused sectors, have already experimented with **agile structures, team autonomy, and flatter hierarchies**, making the idea not only thinkable but operationally familiar.

A final noteworthy contrast was found in **Practice 14 – Promoting a culture of experimentation and innovation**. Again, large enterprises scored this practice as significantly easier to implement compared to both **academic institutions** and **SMEs** ($p < 0.05$). Here, cultural readiness may play a key role. Large organisations often formalise innovation through structured programs, labs, or incentives, while smaller or more traditional organisations may find it difficult to legitimise experimentation, especially if workloads are high, failure is stigmatised, or success is defined narrowly through efficiency.

4.1.6. Differences in perceived ease of implementation by job position, age and gender

4.1.6.1. Differences by job position: employees vs managers

To explore how professional role may influence the perceived feasibility of digital practices, we compared responses from mid-level professionals (labelled "employees") with those from managers and executives. The results, based on independent sample t-tests, indicate that for most practices, no statistically significant differences emerged. This suggests a broad convergence in how employees and managers evaluate the effort required to implement digital transformation strategies – a meaningful finding in itself.

However, one practice did reach statistical significance:

- **Practice 11 – Developing and communicating a clear digital transformation roadmap** was rated as significantly more doable by **employees (mean = 3.36)** than by **managers (mean = 3.03)** ($p = 0.037$). This gap is intriguing because it may suggest that employees perceive clarity and strategic

direction as more achievable, possibly because they tend to focus on the operational benefits and communication potential of such a roadmap. In contrast, managers – often responsible for drafting and defending strategic plans – may be more aware of the institutional hurdles, competing agendas, or lack of alignment that can derail such efforts. Their slightly more cautious evaluation likely reflects a practical understanding of what it takes to move from strategic intent to committed action.

Beyond this, several patterns, though not statistically significant, managers and employees largely agree on what is doable, even though they may differ in where they see friction, who they see as responsible, and what they perceive as the real constraints. For example, regarding **Practice 2 (awareness campaigns)** and **Practice 3 (technostress prevention)**, managers tended to rate the feasibility slightly higher than employees (3.49 vs 3.20 and 2.91 vs 2.61, respectively). This may reflect a perception among leaders that such initiatives are within their reach of influence, that is, initiatives they can initiate, endorse, or frame within existing communication structures.

Conversely, employees rated the feasibility of **Practice 11 (DT roadmap)** and **Practice 12 (unified communication platforms)** higher, hinting that technological alignment and strategic clarity are not seen as abstract ideals, but as practical, expected necessities from the operational side. For structural and cultural interventions, such as **Practice 13 (autonomy-enhancing redesign)** and **Practice 14 (experimentation culture)**, employees again gave slightly higher scores. This may reflect a latent desire for change, a hope that systems might evolve to give them more agency and voice.

These differences, subtle as they are, point to the importance of cross-level dialogue in planning any digital transformation initiative: what one group sees as "doable," the other may see as demanding strategic negotiation.

4.1.6.2. Differences in perceived ease of implementation by age group

Responses were compared across three age groups: 18–34, 35–44, and 45 and over. While most differences did not reach statistical significance, **two practices did emerge as significantly different** across age groups, and several other trends provide useful interpretive insights.

The first statistically significant difference concerned:

- **Practice 10 – Encouraging leaders to actively involve employees in digitalisation decision-making**, which was rated significantly more feasible by the **18–34 group (mean = 3.44)** than by respondents aged **35–44 (mean = 2.90)** (p = 0.02). This result may reflect **generational differences in expectations toward leadership**: younger professionals may assume, or hope, that leaders are open to participation, while mid-career professionals, often closer to actual decision-making processes, may be more aware of hierarchical inertia, misalignment, or limited follow-through.

The second and more pronounced difference was observed in:

- **Practice 12 – Standardising communication and data platforms**, rated highest by the youngest group (**mean = 3.62**), and significantly lower by the **35–44 group (mean = 2.86)** ($p < 0.01$).
  This is particularly striking given that 35–44 year-olds typically hold key coordination or managerial roles. The lower score could reflect **institutional fatigue**. In other words, many in this group may have already experienced previous platform migrations, failed integrations, or siloed systems that make full standardisation feel more like an aspiration than an attainable goal. For younger employees, by contrast, the expectation of interoperability and intuitive digital tools is **embedded in their everyday user experience**, both inside and outside work.

Overall, the age-related differences suggest a divergence in experience and expectation. While younger professionals may be more optimistic about what is possible, mid-career respondents seem more attuned to the institutional complexity that can slow implementation, even for practices they support in principle. For example, **Practice 1 (digital skills training)** was rated as more doable by younger participants (mean = 3.41) than those in the 35–44 group (mean = 3.00), possibly because they perceive digital upskilling as a norm, not a disruption. Older respondents, meanwhile, show a mix of cautious feasibility and reflective realism, often shaped by prior waves of reform or innovation. What emerges is not a generational conflict, but a stratification of feasibility frames: younger workers assume digital enablement, mid-career professionals manage its complications, and senior staff weigh it against broader systems and risks. Indeed, for **Practice 3 (technostress prevention)**, older respondents (45+) rated it as more feasible (mean = 3.00) than the younger groups. This may reflect **greater sensitivity to overload**, or greater seniority in roles that could permit policy-level action (e.g., setting meeting limits, modelling boundaries).

Recognising these lenses can help tailor implementation strategies – not only to organisational structure, but also to the lifecycle of employee experience.

4.1.6.3. Gender comparisons: convergence in feasibility perception

As in the previous sections, the analysis of gender differences revealed **no statistically significant variation** in the perceived ease of implementation of the 14 digitalisation practices. Male and female respondents, as well as those who preferred not to disclose their gender, reported consistently similar scores across all items. This convergence suggests that feasibility assessments are likely shaped more by structural and organisational factors than by individual identity variables. In the context of Digi-B-Well's objectives, this is an encouraging finding: it implies that barriers to implementation are perceived as systemic, not personal, and that solutions designed to increase feasibility can be developed without strong gender-based segmentation.

4.2. FROM EVALUATION TO PRIORITISATION: THE SEVERITY-EASE MATRIX

Up to this point, the analysis has treated **effectiveness** and **ease of implementation** as separate dimensions, each offering insight into how digitalisation practices are perceived by organisations.

Effectiveness identifies the strategies that have proven successful in theory, while ease of implementation assesses how practical and achievable a solution is within a specific context. In reality, decision-making rarely takes place in a vacuum, as numerous factors and stakeholders come into play. Therefore, organisations require a comprehensive approach that merges these two critical dimensions, effectiveness and feasibility, into a clear and actionable prioritisation framework. This framework would enable leaders to make informed choices that balance ideal solutions with practical considerations, ensuring that initiatives can be successfully executed in the real world.

Therefore, we elaborated the **Effectiveness–Ease Matrix**. Adapted from models in innovation management and strategic planning, this tool maps each practice on a two-dimensional plane:

- The **X-axis** represents **ease of implementation**: how feasible or operationally realistic a practice is, given current capacities.
- The **Y-axis** reflects **perceived effectiveness**: how likely the practice is to produce meaningful, positive outcomes in the context of digital transformation.

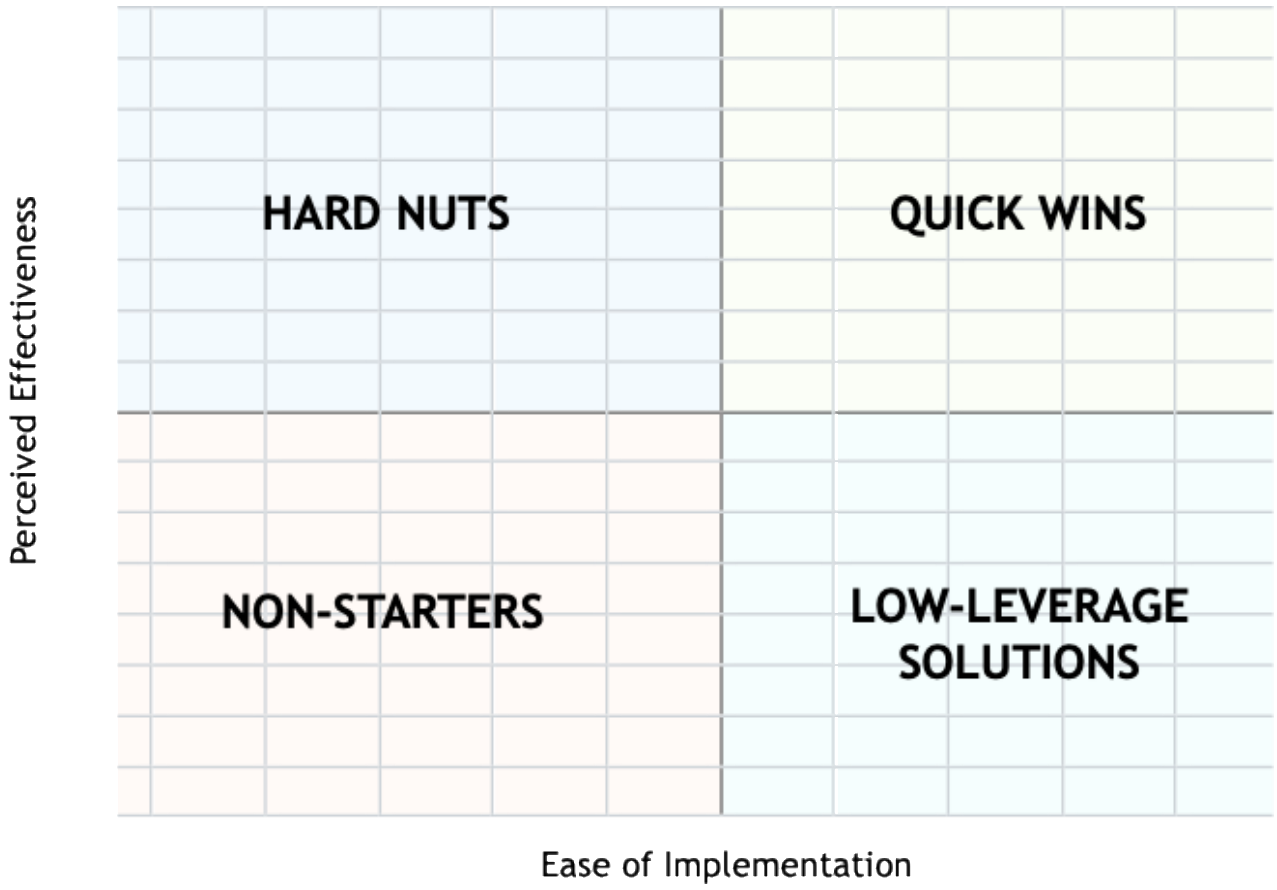

Figure 9. The Severity-Ease Matrix: Perceived effectiveness and Ease of implementation

By plotting all 14 practices within this matrix, we can identify **four distinct strategic quadrants** (Figure 9):

1. **Quick Wins** (high ease, high effectiveness): Practices that are both impactful and implementable. These are ideal starting points that is, low resistance, high return.
2. **Hard Nuts** (low ease, high effectiveness): These are valuable but complex practices. They may require support, redesign, or targeted investment to unlock their full potential.
3. **Low-Leverage Solutions** (high ease, low effectiveness): Actions that are simple to roll out but perceived as offering limited impact. They may be useful for signalling change or building momentum, but shouldn't be overestimated.
4. **Non-Starters** (low ease, low effectiveness): These are practices that are seen as both difficult and not particularly useful, either because they do not fit the organisational context or because they require conditions that are not currently present.

This logic allows us to move from **passive description to active prioritisation**. It helps organisations focus not only on "what sounds good," but on what makes sense to do next, strategically, feasibly, and in alignment with their current state of readiness.

In the sections that follow, we visualise this matrix in several ways: first in aggregate form (across all respondents), and then segmented by organisation type and job position. These views offer not only a snapshot of perceptions but also a **decision-support framework** for planning human-centred digital transitions across diverse contexts.

4.2.1. Reading the priority matrix: identifying quick wins and strategic levers

The figure below plots the 14 digitalisation practices along the two empirical axes of **perceived effectiveness (Y)** and **ease of implementation (X)**. Rather than using arbitrary scale thresholds, both axes are divided using the **empirical means** across the entire sample, capturing how practices compare *relative to each other*, not to abstract ideals. This approach highlights not only what is "good" or "easy," but what is exceptional within the current perception landscape.

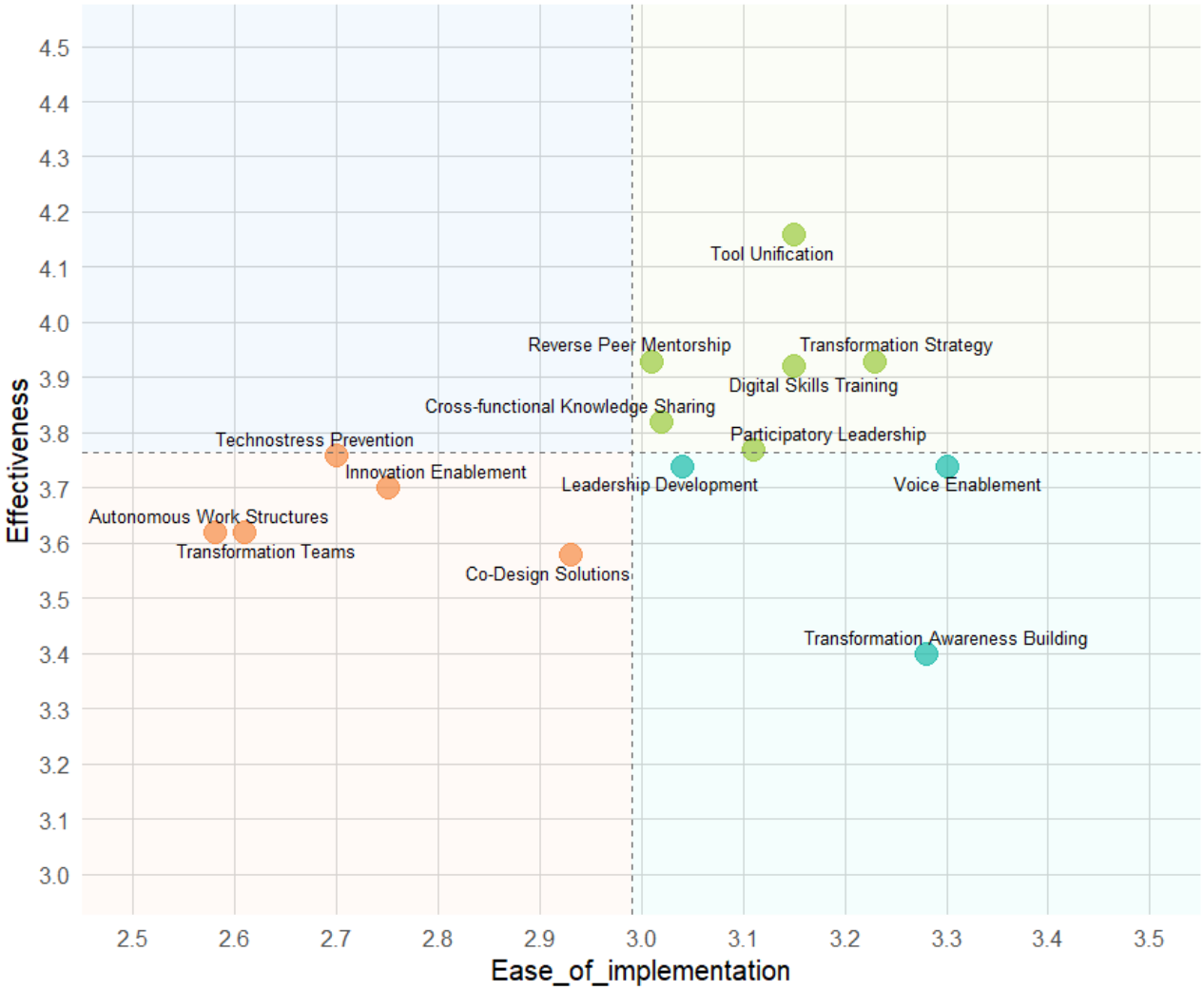

Figure 10. The Severity-Ease Matrix of the present Study

4.2.1.1. Quick Wins - High effectiveness, high feasibility

These practices are perceived as both impactful and realistically implementable. They align well with current capacities and are ideal candidates for near-term action.

- **Tool Unification** (Practice 12): Implementing unified platforms for communication and data management to reduce fragmentation and foster transparency.
- **Transformation Strategy** (Practice 11): Establishing and communicating a clear digital roadmap with short- and long-term goals.
- **Digital Skills Training** (Practice 1): Regular upskilling programs to improve employees' fluency with digital tools.

Also closely aligned with this quadrant, though slightly closer to the feasibility threshold, are:

- **Participatory Leadership** (Practice 10): Encouraging leadership styles that involve employees in decisions and planning.

- **Reverse Peer Mentorship** (Practice 5): Engaging younger, digitally savvy staff to support colleagues in acquiring new skills.
- **Cross-Functional Knowledge Sharing** (Practice 6): Facilitating structured collaboration across departments to spread digital learning and align practices.

While not all of these are operationalised the same way across organisations, they are perceived as legitimate, useful, and deliverable with moderate effort.

4.2.1.2. Hard Nuts - High effectiveness, low feasibility

This quadrant does not contain practices, which is itself an important insight. Most high-impact practices are either seen as implementable or as constrained on both axes. That said, **Reverse Peer Mentorship** and **Knowledge Sharing** come close to this zone, sitting **right at the boundary**. It could be advantageous to delve deeper into this topic, especially in contexts where fostering cross-function collaboration or promoting hierarchical openness presents greater challenges.

4.2.1.3. Low-Leverage Moves - Low effectiveness, high feasibility

These are practices that organisations feel confident they could implement, but whose perceived payoff is more modest. While they may play a supportive or preparatory role, they are unlikely to be game-changers on their own. A reflection to consider regarding the practices in this quadrant highlights the expectations and outcomes linked to these strategies. They call for time, vision, and the active involvement of many stakeholders to truly shine. While organisations may face challenges in embracing these commitments, the potential for impactful change is within reach.

- **Voice Enablement** (Practice 4): Providing structured opportunities for employees to give feedback or raise concerns.
- **Transformation Awareness Building** (Practice 2): Promoting digitalisation objectives and benefits through internal communication campaigns.
- **Leadership Development** (Practice 9): Offering digital leadership training to build strategic capabilities among managers.

Leadership development sits **close to the centre of the matrix**, suggesting it may carry more potential than other low-leverage items, especially if framed appropriately or paired with more systemic interventions.

4.2.1.4. Non-Starters - Low effectiveness, low feasibility

Practices in this quadrant are perceived as both difficult to implement and offering limited value in the current context. Importantly, this does not mean they are flawed, but rather that organisational conditions may not yet be ready for their activation.

- **Autonomous Work Structures** (Practice 13): Flattening hierarchies and redesigning governance to empower teams with greater decision-making authority.

- **Transformation Teams** (Practice 7): Setting up cross-functional units with autonomy to drive digital change initiatives.
- **Co-Design Solutions** (Practice 8): Involving employees directly in shaping digital tools and processes via workshops or innovation labs.
- **Technostress Prevention** (Practice 3): Policies or programs aimed at reducing digital overload and promoting sustainable tech use.
- **Innovation Enablement** (Practice 14): Cultivating a culture of experimentation and creative problem-solving from the bottom up.

Notably, **Technostress Prevention** and **Innovation Enablement** lie very close to the effectiveness threshold, indicating that with the right support, they could shift into more favourable quadrants. Their current positioning may reflect resource constraints, cultural hesitations, or a lack of clear ownership.

This matrix is not static. It captures how current perceptions distribute practices in relation to one another, not in isolation. Practices near the centre (like leadership training or co-design) may shift with minimal effort. Others may require long-term groundwork or institutional change. While none of these are outright dismissed, they might be seen as **misaligned with current capacities and readiness levels**. Organisations may choose to **postpone or reframe** these practices, or explore why they are failing to gain traction despite their theoretical value.

For strategic planners and implementation teams, this map is a starting point for prioritised, context-sensitive action, grounded in what the field itself believes to be both worthwhile and workable.

Furthermore, the matrix does not merely visualise individual practices, it reflects how perceived impact and feasibility are shaped by deeper organisational and technological mechanisms. When viewed through the lens of the T+IGLOO model, important patterns emerge.

Practices positioned in the upper-right quadrant, the “quick wins”, are largely those that are technically defined, structurally anchored, and individual, team and leader-enabled. These include actions like roadmap planning, digital training, and platform standardisation, practices that are seen as visible, measurable, and institutionally legitimate.

They operate at all levels of the model, thus valuing a multi-level comprehensive approach and targeted intervention strategies.

Conversely, the lower-left quadrant, the so-called “non-starters”, contains practices that engage more directly with **human, cultural, and relational dynamics**: co-design, autonomous teams, and structural redesign. These reside in the Individual, Group, and Cultural context layers of T+IGLOO, where implementation depends not on tools or policies, but on **trust, distributed ownership, and permission to challenge existing norms**. These conditions are harder to define, harder to control, and often deeply rooted in institutional history.

The “hard nuts” and the “low-leverage solutions” quadrants are equally revealing. It houses practices that are **valued in principle but perceived as structurally difficult**: for example, reverse mentorship or cross-functional knowledge exchange. These often cut across levels in T+IGLOO, requiring synchronisation between individual action, leadership support, and organisational flexibility. Their presence in this quadrant suggests **latent potential** – strategies worth pursuing, but only with targeted adaptation or enabling conditions.

The matrix becomes more than a prioritisation tool. It is a **mirror of organisational logic**, showing where readiness is explicit, where it is conditional, and where it is yet to be negotiated. For project teams, policymakers, and internal champions, it offers a concrete map: not of barriers, but of **where to build next.**

4.2.2. Sector-specific matrices: exploring contextual feasibility

While the aggregate matrix provided a general overview of how practices are positioned across all respondents, the following four visualisations disaggregate the data by organisational sector. Each matrix captures how participants within a given context, academia, public institutions, SMEs, and large enterprises, evaluate the relative effectiveness and ease of implementation of the proposed digitalisation practices. This layered view enables a deeper understanding of how sector-specific dynamics, constraints, and capacities shape the perceived actionability of transformation efforts.

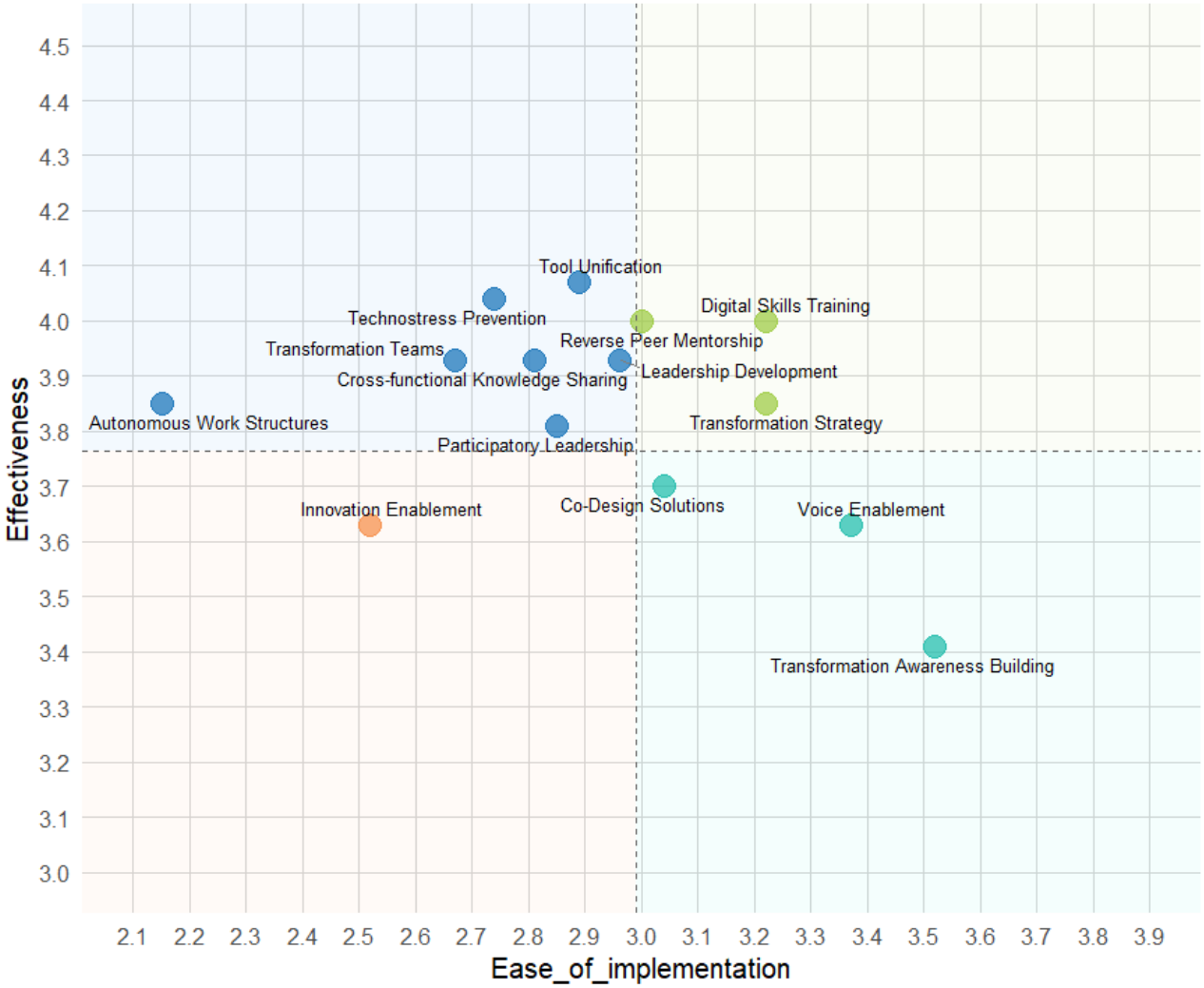

Figure 11. The Severity-Ease Matrix for Academia

4.2.3. Academia: high trust, low agility

The matrix for academic institutions shows a striking concentration of practices in the upper-left quadrant: high effectiveness, low-to-moderate ease of implementation. This configuration suggests a mature understanding of what matters, coupled with a shared frustration about what is realistically achievable within academic systems.

Several high-potential practices, such as **Tool Unification, Digital Skills Training, Leadership Development, and Transformation Strategy**, hover close to the vertical threshold but remain on the left side. This implies that while the academic sector recognises their value, internal structures, siloed departments, or bureaucratic constraints may limit their deployability. **Reverse Peer Mentorship** and **Cross-Functional Knowledge Sharing** are seen as very effective but not trivially easy to launch, confirming the pattern that collaboration is desired but not frictionless.

The presence of **Technostress Prevention** and **Transformation Teams** among the most effective items also reflects a culture that is cognitively aware of pressure and fragmentation, but not

necessarily equipped with agile mechanisms to respond. Their position suggests that burnout is visible, but countermeasures require buy-in and policy leverage.

Notably, **Innovation Enablement** is perceived as both hard to realise and only moderately effective, pointing to a possible mismatch between innovation narratives and the lived reality of overburdened researchers or fragmented governance. Similarly, **Voice Enablement** and **Awareness Campaigns** are seen as highly feasible, but their effectiveness remains limited, perhaps because communication without structural change is seen as superficial.

The academic context appears strategically lucid but operationally constrained. There is clarity about what would help, but a persistent gap between ideas and institutional capacity to act.

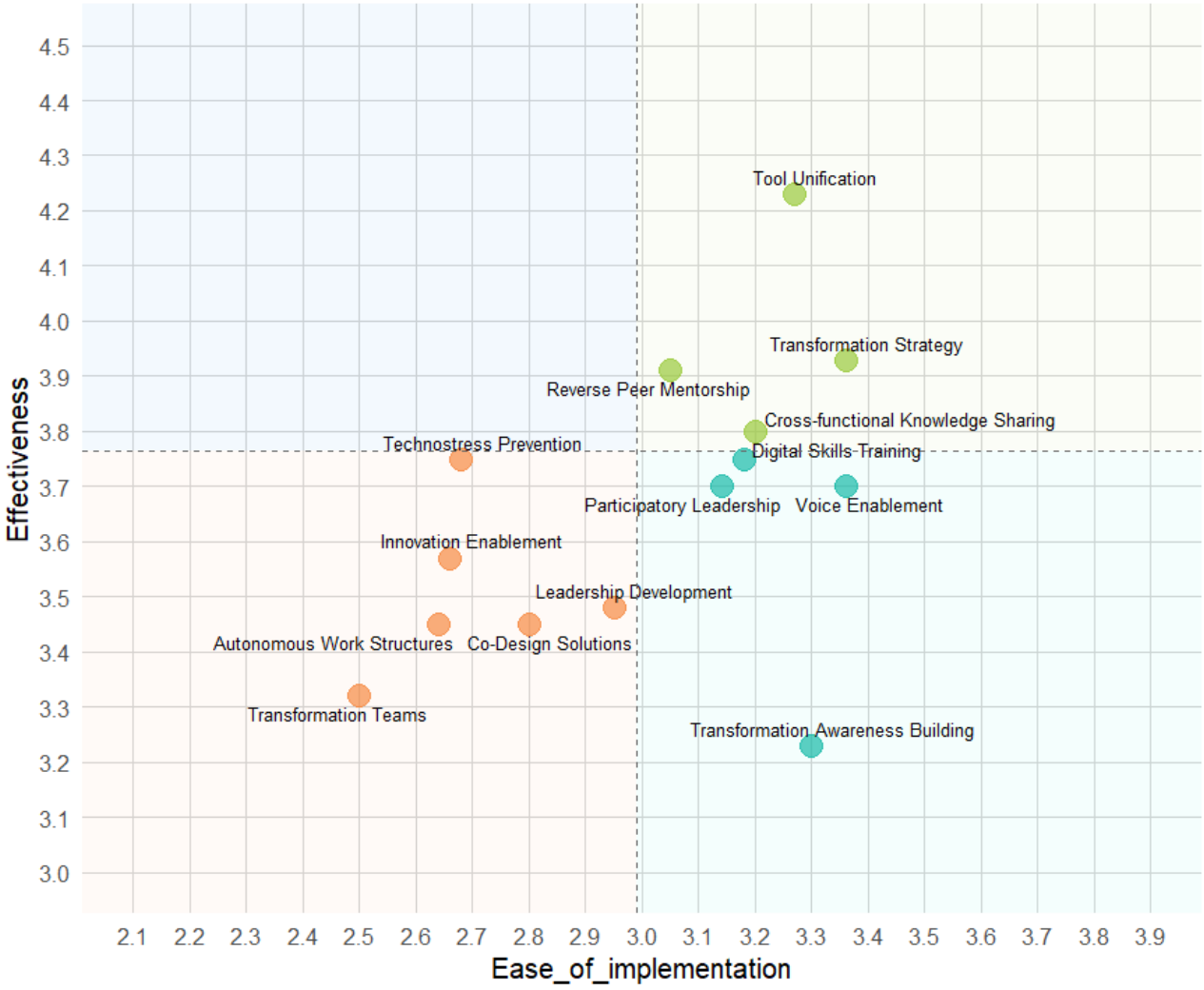

Figure 12. The Severity-Ease Matrix for SMEs

4.2.4. SMEs: value in pragmatism, limits in capacity

The matrix for small and medium-sized enterprises reveals a sector that is pragmatic, opportunity-driven, and aware of its operational boundaries. The distribution of practices shows a more

compressed range, especially along the Y-axis (effectiveness), suggesting that SMEs may have lower variation in expectations or a more cautious optimism regarding what really works.

The "**Quick Wins"** quadrant is clearly dominated by:

- **Tool Unification**, **Transformation Strategy**, **Reverse Peer Mentorship** and **Cross-functional Knowledge Sharing**. These practices are seen as both useful and doable – likely because they speak to coordination, clarity, and immediate productivity gains, all of which are highly valued in resource-constrained environments.

Interestingly, **Digital Skills Training**, **Participatory Leadership and Voice Enablement** are also quite close to the quick wins zone, hinting at a willingness to invest in people when the return on learning is tangible. However, Participatory Leadership and Voice Enablement, while feasible, hover just below the effectiveness threshold, perhaps reflecting a possible cultural gap in adopting distributed leadership styles or a tendency toward informal rather than structured participation.

In the "**Non-Starters"** quadrant, we again see a familiar triad:

- Autonomous Work Structures, Transformation Teams, and Co-Design Solutions. These are practices that require formalisation, sustained attention, or cultural readiness that many SMEs may lack the structure or time to invest in.

What is most notable here is how **Technostress Prevention, Innovation Enablement, and Leadership Development** sit in the low-to-medium zones for both feasibility and effectiveness. This suggests that while SMEs may *recognise* these topics, they may not yet see them as actionable levers, either due to scale, immediate pressure, or lack of internal champions. The perception may be summarised as: "Yes, these matter, but we don't have the bandwidth right now."

At a first glance, therefore, SMEs appear as realists with focused ambition. Their priorities lean toward operational streamlining and strategic alignment, rather than structural or cultural experimentation. They are willing to act – but in areas where the return is clear, the cost is manageable, and the rollout is fast.

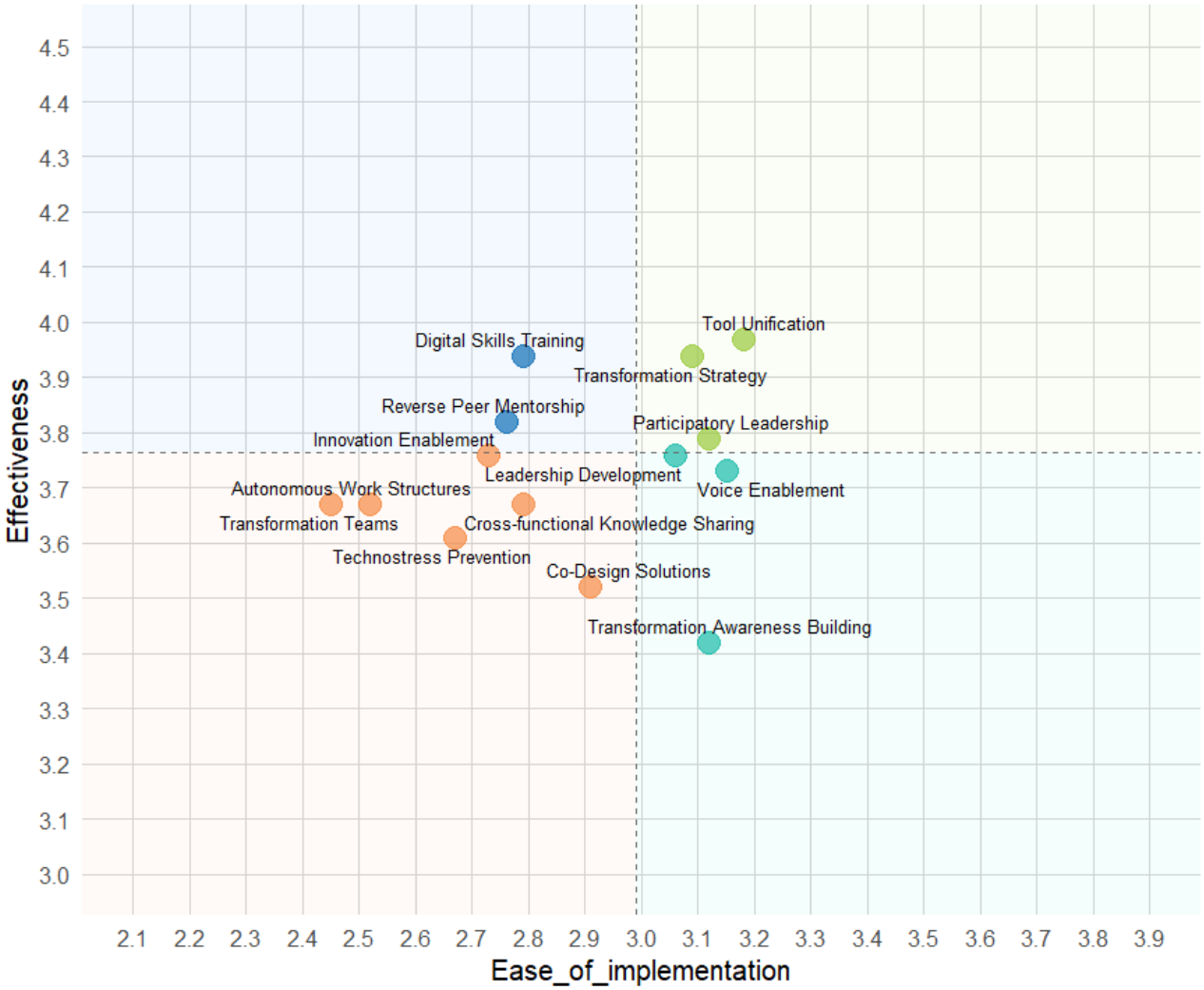

Figure 13. The Severity-Ease Matrix for Public Institution

4.2.5. Public Institutions: operational caution meets selective confidence

The matrix for public institutions displays a relatively broad spread of digitalisation practices across all four quadrants, reflecting a sector that appears to be selective in what it trusts and cautious in what it attempts to do.

At the top right, there is a small, focused cluster:

- **Tool Unification, Transformation Strategy, and Participatory Leadership**. These practices are perceived as both effective and doable, likely because they align with institutional imperatives such as standardisation, strategic planning, and formalised governance. Their success may depend less on agility and more on clear mandates and stable infrastructure, features commonly found in public bodies.

Interestingly, **Voice Enablement and Leadership Development** sit right on the horizontal feasibility threshold, suggesting that while these are seen as structurally possible, their impact may

depend heavily on how seriously participation and upskilling are taken beyond surface-level deployment.

In contrast, the bottom left quadrant, **"Non-Starters",** is densely populated. Here we see practices like:

- **Transformation Teams, Autonomous Work Structures, Co-Design Solutions, Cross-Functional Knowledge Sharing and Technostress Prevention** are perceived as both difficult and only moderately useful. In a sector that is highly regulated, risk-averse, and often dependent on national directives, it is not surprising that initiatives requiring autonomy, culture change, or deep redesign are viewed with scepticism – even if the need for them is acknowledged in theory.

The only **Innovation Enablement** strategy, conceptually rich practice, is positioned near this low-ease zone. This likely reflects bureaucratic silos and hierarchical inertia, which can dampen the spread of learning and dilute the appetite for experimentation.

What emerges is a sector with well-defined operational anchors, willing to move on strategic communication and infrastructure, but less agile when it comes to distributed leadership, adaptability, or informal innovation. Any policy aimed at boosting digital maturity in the public sector will need to work with, not against, these internal dynamics.

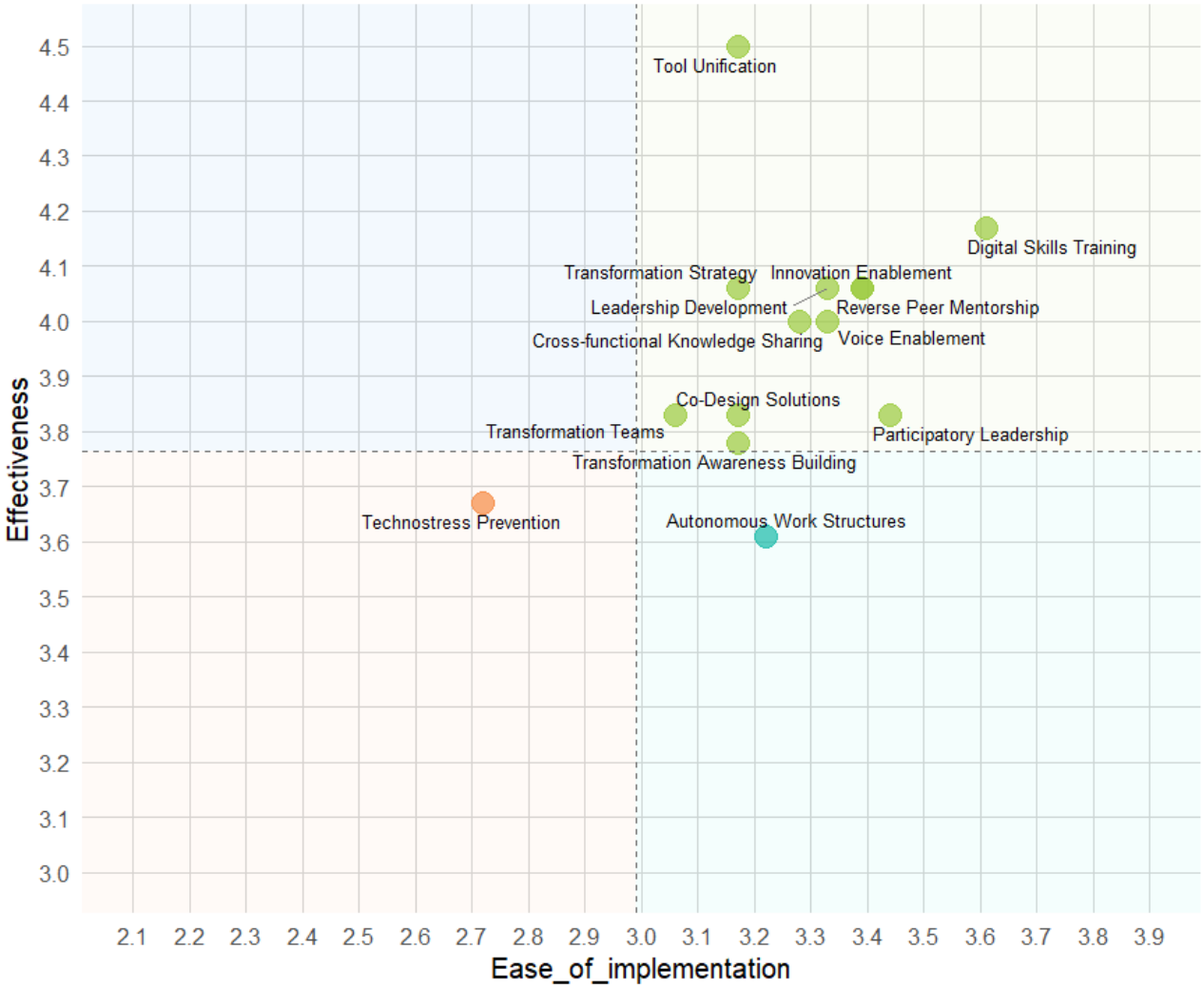

Figure 14. The Severity-Ease Matrix for Large Enterprise

4.2.6. Large Enterprises: structurally equipped, culturally divided

Among all four matrices, the one for large enterprises is the most concentrated in the upper-right quadrant, suggesting a context that is technologically mature, structurally enabled, and strategically aligned with many of the proposed digitalisation practices.

A cluster of practices lies confidently in the **quick wins quadrant**, including **Tool Unification**, **Digital Skills Training**, **Transformation Strategy**, **Leadership Development**, **Reverse Peer Mentorship** and, **Cross-Functional Knowledge Sharing.**

This reflects an organisational context where resources, systems, and top-down support make these practices not only desirable but also realistic. Large companies often have centralised infrastructures, dedicated roles, and a culture of structured rollout, which helps turn strategic initiatives into operational realities. Other practices, such as **Participatory Leadership, Voice Enablement, and Innovation Enablement**, are also rated highly for both dimensions, though

slightly closer to the centre. This suggests that cultural transformation efforts are gaining traction, even if they require more time and negotiation than infrastructure or training initiatives.

The lower-left non-starters quadrant is notably sparse, with only **Technostress Prevention** clearly positioned here. This may indicate that, despite digital overload being a known risk, it is still under-prioritised, or that responsibility for managing stress is externalised (e.g., seen as a personal rather than organisational issue).

Autonomous Work Structures, while not rated low in effectiveness, fall below the feasibility line, suggesting that hierarchical models still dominate, and that full decentralisation remains aspirational for most large firms.

Large enterprises appear capable but selectively cautious. They have the tools and structures to deliver, but still weigh cultural shifts with a certain conservatism, perhaps because the cost of internal disruption is higher in large-scale environments.

4.2.7. Cross-sector reflections: shared anchors, structural asymmetries

Looking across the four sector-specific matrices, a coherent picture emerges – one that reveals both shared priorities and distinct organisational logics shaping the perceived feasibility of digital transformation practices.

Across all sectors, **Tool Unification, Transformation Strategy and Digital Skills Training** consistently appear as top-tier "quick wins". These practices are not just seen as useful, they are viewed as realistically implementable. Their success reflects a collective recognition that coordination and competence are foundational to digital transition. Importantly, these are also practices that tend to be technologically anchored, supported by budget lines, and legitimised by policy narratives, making them desirable and possibly safe.

However, the comparison also exposes sharp asymmetries. In academia, many high-value practices are viewed as difficult to implement, suggesting a system that is cognitively ready but procedurally stuck. Public institutions, in turn, show signs of pragmatic conservatism: they seem to prefer standardisation and structured leadership, but resist deeper forms of experimentation or decentralised control.

SMEs paint a different picture altogether. Their matrices express a form of focused realism, such as a willingness to engage with what is simple, tactical, and directly beneficial. Yet they also signal limited bandwidth for practices that require formalisation, cultural transformation, or long-term strategic layering.

Large enterprises, on the other hand, show a distribution that is structurally favourable: most practices are perceived as both valuable and doable. Still, even here, deep changes like autonomous structures or technostress prevention remain at the margins, either due to inertia, perceived risk, or the cost of internal disruption.

For the Digi-B-Well project, this insight is strategic. It reminds us that toolkit design, policy recommendations, and capacity-building efforts must go beyond listing best practices. They must be context-sensitive, timing-aware, and structurally grounded. meeting organisations not where we wish they were, but where they are. In this sense, the T+IGLOO dimensions are not just theoretical layers but can be filters through which organisations interpret capacity, constraint, and legitimacy.

Table 6. Distribution of Digitalisation Practices, Barriers and Implementation Traits Across Organisational Sectors

SECTOR	Most Promising Practices (Quick Wins)	Structural or Cultural Barriers (Non-Starters / Hard Nuts)	Implementation Logic (Key Traits)
ACADEMIA	Digital Skills Training, Reverse Peer Mentorship, Transformation Strategy	Innovation Enablement, Transformation Awareness Building	Strategically aware but procedurally constrained. High trust in ideas, low system agility.
PUBLIC INSTITUTIONS	Tool Unification, Transformation Strategy, Participatory Leadership	Technostress Prevention, Transformation Teams, Autonomous Work Structures	Selectively confident. Favour strategic order; resist autonomy and structural experimentation.
SMES	Tool Unification, Cross-functional Sharing, Transformation Strategy	Transformation Teams, Autonomous Work Structures, Co-Design solutions	Pragmatic and bandwidth-sensitive. Prioritise short-term return over deep reform.
LARGE ENTERPRISES	Tool Unification, Digital Skills Training, Innovation Enablement	Technostress Prevention, Autonomous Work Structures	Structurally capable, culturally cautious. Ready to act, but selective in deep change.

5. FINAL REFLECTIONS

The results of this study offer a grounded snapshot of how organisations across Central Europe are positioned with respect to digital transformation. Rather than pointing to a universal readiness or resistance, what emerges is a map of selective capacities, latent tensions, and highly context-dependent perceptions of what can and should be done.

Across the board, there is shared consensus on a few critical pillars: the need for shared digital tools, upskilling of employees, and the existence of a clear transformation strategy. These elements are consistently viewed as both effective and feasible, regardless of sector or organisational size, which confirms their status as core enablers of any successful transition. In this sense, the study reinforces previous EU-level policy directions that emphasise interoperability, capacity building, and structured planning (European Commission, 2021).

At the same time, the findings expose deep differences in how organisations perceive the viability of more systemic or cultural interventions. Practices such as co-design, technostress prevention, or structural decentralisation, though conceptually aligned with human-centric innovation and the Industry 5.0 pillars, are widely seen as difficult to implement or only modestly effective. This suggests that the problem is not conceptual resistance, but operational and structural feasibility: many organisations may agree with the "what" but struggle with the "how." Indeed, while the dominant EU policy discourse increasingly embraces the vision of Industry 5.0, one centred on *human-centricity*, *resilience*, and *sustainability* (Breque et al., 2021).

Our findings suggest a much less mature terrain when it comes to the actual implementation of Industry 5.0's most emblematic principles.

This disconnect reveals a deeper tension: organisations may endorse the values of Industry 5.0 at the narrative level, but still operate within systems that are structurally rooted in logics of control, efficiency, and vertical accountability. The idea of engaging frontline employees in digital innovation through participatory design, praised in theory for its ability to foster alignment between *work-as-imagined* and *work-as-done* (Dekker, 2015), is in practice held back by time constraints, lack of facilitation capacity, and uncertainty about how to manage bottom-up inputs.

Co-design is not overlooked, rather, it is an approach that is still in the process of being fully realised.

Similarly, technostress prevention strategies, including disconnection policies, mindfulness programs, or protected focus time, are widely acknowledged as important in the literature (La Torre et al., 2019; Tarafdar et al., 2015), but are seen as low-leverage or too soft to justify institutional attention. In highly operational or hierarchical contexts, psychological well-being is still treated as an individual matter, rather than an organisational responsibility. This gap speaks to the slow integration of psychosocial risk management into digital policy-making, despite strong evidence that

unmanaged digital overload correlates with burnout, presenteeism, and reduced learning capacity (Day et al., 2012).

The third and perhaps most structural point of resistance concerns decentralisation. While the rhetoric of agility, autonomous teams, and empowered networks abounds in innovation circles, many organisations continue to operate within rigid approval structures, fragmented responsibilities, and risk-averse leadership cultures (Edmonson et al., 2023). The idea of giving teams real power over workflows, budgets, or tools often runs into legal barriers, legacy systems, or implicit norms of micromanagement. In this light, the consistent placement of "autonomous work structures" at the bottom-left of the priority matrix is not surprising, it reflects not only feasibility concerns, but a latent anxiety around loss of control and accountability.

Taken together, these insights challenge the assumption that the main barrier to a human-centric digital transition is *awareness*. On the contrary, what we observe is a growing awareness matched with systemic inertia. Industry 5.0 cannot be advanced through vision statements alone – it requires new institutional arrangements, shared frameworks for co-responsibility, and the redefinition of what counts as measurable impact. Without this, even the best-framed practices will remain aspirational – *ethically sound but operationally sidelined*.

Sectoral comparisons make this even clearer. While large enterprises appear to possess the infrastructure and leadership culture to mobilise a broad set of interventions, SMEs tend to gravitate toward tactical, cost-efficient measures. Public institutions, meanwhile, show a willingness to align with formal strategies but often lack the agility to experiment or decentralise. Academia reflects high awareness but internal barriers that prevent implementation at scale.

Overall, these patterns reveal an important insight: digital transformation involves more than just best practices; it also hinges on factors such as fit, readiness, and timing. To be effective, support systems – whether they involve EU funding, national guidelines, or local capacity-building – must be designed with these factors in mind, rather than treating them as separate from the process.

5.1. REGIONAL CAPACITIES AND SYSTEMIC LEVERS

When we speak of "regional capacities" in the context of digital transformation, we are not merely referring to the number of digital tools in use or the percentage of hybrid workers. Instead, we refer to a

> System's latent ability to absorb, adapt, and align around change, an ability shaped as much by internal dynamics as by external policy environments.

The findings of this study reveal that such capacities are not evenly distributed, nor do they map neatly onto sectoral boundaries or organisational contexts. Rather, they emerge at the intersection of technology readiness, organisational climate, and institutional flexibility, a triad that mirrors the logic of the T+IGLOO model.

For example, in organisations where digital tools are standardised and understood (high T), but where decision-making remains centralised and experimental behaviours are not rewarded (low G and L), the capacity to scale meaningful innovation remains thin. Similarly, institutions that report high awareness of digital goals (high O), but low employee engagement or weak leadership skills (low I and L) show symbolic alignment without strategic traction, a disconnect that weakens resilience and slows systemic adaptation. In this sense, one of the most significant conceptual contributions emerging from this study is the potential of the T+IGLOO model to act as a diagnostic framework for reading, anticipating, and supporting digital transformation trajectories, thus enhancing a multi-level and synergistic approach.

Indeed, unlike static models that assess capacity in aggregate terms (e.g., digital infrastructure scores or training participation rates), T+IGLOO offers a multi-dimensional and interactionist perspective. It assumes that the capacity to transform does not reside in one domain (technology, leadership, culture), but in the alignment and mutual reinforcement among five key levels:

T (Technology): How usable, advanced, inclusive, or threatening is the technology being adopted?

I (Individual): Are individuals skilled, motivated, satisfied, and psychologically supported in the transition?

G (Group): Are team dynamics enabling collaboration, feedback, and peer learning?

L (Leadership): Is leadership visionary, digitally fluent, and trusted by employees?

O (Organisation/Context): Are the policies, workflows, structures and budgets in place to scale innovation?

Each level can be high or low in capacity, and each influences the others in recursive and sometimes paradoxical ways. For example, an organisation may invest heavily in new platforms but lack strategic guidance or change leadership, resulting in scattered adoption and tool fatigue (high-T, low-L). Also, an organisation may have team-level innovation bubbling informally, but encounter friction when attempting to formalise or scale such efforts across departments (high-G, low-O). Otherwise, an organisational context may frustrate employees who are digitally literate and eager, but constrained by outdated tools or policies that limit agency (A high-I, low-T).

This framing allows us to read the results of our study not just as a list of challenges or practice ratings, but as latent patterns of imbalance or synergy across the TIGLOO layers. For instance, the widespread concern about fragmented systems and insufficient infrastructure reflects a T-drag that undermines otherwise competent or motivated actors at the I or L level. The strong support for peer mentorship and cross-functional knowledge sharing, despite their operational difficulty, points to aspirational strength in the G layer, an untapped social potential that lacks enabling structures. The resistance to technostress prevention and co-design practices may indicate a misalignment

between I and O layers: individuals feel the strain or would welcome participation, but the organisation neither legitimises nor resources such practices.

By mapping these interdependencies, the T+IGLOO model reveals where capacity-building efforts may succeed or stall. More importantly, it helps organisations and policymakers understand that:

Simply focusing on a single layer will not bring about necessary changes to the overall system. It is essential to thoroughly analyse the interactions among the various components to achieve a comprehensive understanding.

For example, rolling out digital skills training (I) without enabling participatory leadership (L) or coherent strategy (O) may lead to disillusionment rather than empowerment. Similarly, introducing autonomous team structures (G) without addressing perceived technostress or decision-making bottlenecks (I + L) may increase pressure rather than flexibility.

From a regional capacity perspective, this means moving beyond sector-based or national comparisons and instead fostering context-specific configurations of support.

Beyond the specific differences across sectors and roles, our findings reveal recurring **patterns of constraint** or forms of resistance and inertia that appear not as explicit refusals of digital transformation, but potential **structural and cognitive bottlenecks** that can shape what organisations, managers and employees consider possible.

Importantly, the study surfaces three types of capacity traps common across the region:

- **The Legibility Trap**: Many organisations appear to prioritise practices that are easily justifiable to funders or external evaluators – e.g., platform integration or training programmes – while neglecting those that require longer timelines or subjective indicators, such as co-creation, well-being, or cultural change. This favours compliance over transformation. This tendency reflects what Scott (1998) called **"legibility"**: institutions gravitate toward initiatives that can be seen and counted by external actors, often favouring **symbolic alignment over transformative learning**.
- **The Capacity-Inertia Loop**: Regions with lower infrastructural investment or support systems often limit their ambition not because of resistance, but because of chronic overextension. Transformation is not blocked, it is simply *out of reach* given operational pressures. In other words, even when participants value advanced or participatory practices, they tend to **downgrade their feasibility**, often citing overload, time constraints, or administrative burden. This echoes the logic of **bounded rationality** (March & Olsen, 1989),

where systems under pressure reduce their ambition not out of resistance, but as a way to avoid systemic overreach.

- **The Symbolic Implementation Risk**: Some organisations report adopting transformation roadmaps or participatory tools, but without embedding them into daily practice. This produces a dangerous form of *performative alignment*, where the rhetoric of change masks a lack of follow-through, ultimately undermining trust and learning. This reflects a well-documented phenomenon in organisational sociology named **decoupling** (Meyer & Rowan, 1977), where formal structures serve a symbolic function, **projecting legitimacy** without necessarily shifting practices on the ground.

Despite these challenges, islands of adaptive capacity are clearly visible, acting as precursors of system readiness. Regional capacity is less about static capability and more about adaptive momentum. The ability to diagnose barriers, redistribute agency, and activate collective learning represents a possible engine of transformation. To support this, future policy and technical support must go beyond capacity *building* and focus on capacity *enabling*: removing friction, funding not just equipment but experimentation, and building bridges between what's institutionally visible and what's systemically vital.

5.2. POLICY AND PRACTICE: WHAT SHOULD BE PRIORITISED

If the ambition of digital transformation in Central Europe is to be realised in a way that is effective, inclusive, and sustainable, then strategies must go beyond prescribing "what works" in general. They must identify what is likely to work, where, and under what conditions (Nielsen & Randall, 2012).

Our findings suggest that three strategic priorities should guide regional and organisational investment over the coming years:

1. INVEST IN SYSTEMIC ENABLERS, NOT ISOLATED ACTIONS

Practices like tool unification, digital skills training, and leadership development consistently rank high in both perceived impact and feasibility. But they only become transformative when embedded in coherent systems. Rather than funding isolated workshops or one-off initiatives, policymakers should support integrated programmes that connect technological upgrades with organisational routines, leadership culture, and participatory mechanisms.

Example: A digital literacy programme should not only teach platform use but also enable cross-team collaboration, enhance data ethics, and support mental wellbeing through smart use of digital tools.

2. PRIORITISE CONTEXTUAL FIT AND SECTOR-SPECIFIC PATHWAYS

Different sectors and organisational types show distinct patterns of perceived feasibility. This points to the need for tailored intervention pathways, not one-size-fits-all toolkits. Public institutions may

benefit more from structured roadmaps and leadership support, while SMEs may need lightweight, actionable practices, and academic institutions require structural flexibility and protected time to experiment.

Implication: Funding mechanisms should include diagnostic components (e.g., TIGLOO self-assessments) to help organisations choose what fits their current readiness and internal logics.

3. SUPPORT "HARD-TO-DO BUT HIGH-VALUE" PRACTICES WITH DEDICATED FACILITATION

Some practices, such as co-design, technostress prevention, and decentralisation, are widely recognised as valuable (Breque et al., 2021) but consistently perceived as difficult to implement. Rather than abandoning these to a single entity, they should be seen as strategic levers that require external facilitation as well.

Policy lever: Offer capacity-building support via regional intermediaries, peer mentoring, or external facilitation units. Make these practices visible and legitimate, not optional or exceptional.

In addition, across all interventions, attention should be paid to psychological safety, trust, and distributed ownership, as these soft elements often determine the success of technical interventions (Nielsen & Randall, 2012) The T+IGLOO model can be used as an action-planning framework, helping actors align priorities not only vertically (from technology to leadership) but horizontally (across silos and stakeholder groups).

The recommendations outlined above gain further salience when seen through the lens of **ongoing EU policy developments** over the past five years. From the framing of twin transitions in the European Green Deal, to the measurable targets of the Digital Decade, and the growing regulatory focus on trust, data and AI, the current European environment provides both **windows of opportunity** and **structural constraints** that shape regional capacity.

The 2019 European Green Deal and updated Skills Agenda launched the idea that digital proficiency is not just an economic issue, but a cohesion imperative. Our findings on uneven digital literacy, perceived technostress, and organisational readiness clearly resonate with this framing. Targeted upskilling and distributed learning models, especially in SMEs and public bodies, should be seen as enablers of territorial equity, not just productivity.

The Recovery and Resilience Facility (2020–2021) provided significant digital earmarks to national and regional governments. Many CE countries used this momentum to develop digital transformation plans. However, our study suggests that the implementation readiness at the local level is mixed: funding exists, but the capacity to translate it into inclusive and human-centric strategies remains variable. T+IGLOO can serve as a practical tool to guide future funded digital actions, ensuring they address not just tools and infrastructure (T), but leadership (L) and engagement (I-G) layers too.

The Industry 5.0 Community of Practice (CoP5.0) introduced a new framing: sustainable, resilient, and human-centric transformation. Despite this culturalshift, as shown earlier, many of the practices that embody this vision ,such as co-design, decentralisation, and well-being, are perceived as low feasibility or not prioritised. This reveals a policy-practice gap that risks undermining the spirit of Industry 5.0. Policymakers are encouraged to use this insight to adjust support organisational mechanisms, offering facilitation and legitimacy to “soft” but strategic interventions.

From the Data Act and Digital Markets Act (2023) to the AI Act (2024), the EU has been constructing a complex regulatory landscape. These changes impose new demands on public institutions and SMEs, often with limited legal or technological readiness. The Over-arching and the Organisational Context helps us locate these barriers not as attitudinal, but structural and policy-driven, thus reinforcing the need for regulatory simplification and targeted support.

The Digital Decade Policy Programme and the launch of the Regional Digital Capacity Platform (2025) now offer benchmarking data at the regional level. Our own survey data, especially when triangulated with these emerging datasets, can provide bottom-up validation or complementarity to the EU monitoring dashboards. Embedding T+IGLOO in these platforms could help move from descriptive indicators to actionable diagnostics.

5.2.1. Final Remarks and Outlook

This deliverable represents a crucial milestone in the Digi-B-Well project. Through a mixed-method investigation involving over 120 professionals from Central Europe, we have identified the systemic challenges and practical levers that influence organisations' abilities to lead or lag in digital transformation.

Our findings indicate that digitalisation is not merely a technical update but represents a profound institutional shift where technology, leadership, culture, and well-being intersect, sometimes in synergy and often in tension. The T+IGLOO framework has proven useful not only as an analytical tool but also as a means to navigate this complexity across various levels, sectors, and systems.

We observed encouraging signs, including a widespread belief in the value of shared tools, upskilling, and participatory leadership. However, we also noted instances of hesitation, feelings of overload, and a tendency to deprioritise human-centric practices when they are seen as "too difficult." These contradictions are not failures but signs of transitional strain, where change becomes possible.

Going forward, this work will directly inform the design of the Digi-B-Well Toolkit and Platform, which aim to provide actionable guidance, flexible resources, and diagnostic tools to support capacity building in critical areas. Our goal is not to prescribe a single path but to offer structured support that enables organisations and regions to discover their own sustainable ways forward.

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