

# STARTING POINT: MATURITY!

In the beginning, was the Maturity, and the Maturity was with Industry, and the Maturity was Industry!

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Industry, accounting for over 20% of the EU economy and directly employing some 35 million people and providing over 80% of merchandise exports, is key to future progress and prosperity. Small and medium-sized enterprises represent over 99% of all European businesses - a similar distribution in Portugal. The vast majority are family businesses - and are our economic and social backbone.

While the European Industry still has a competitive edge over many high added-value products and services, it is undergoing a significant transformation towards a greener and more digital Industry to guarantee its future global competitiveness.

Digitalisation and its associated digital technologies transform the face of Industry, and the way value is created, delivered and captured. Digitalisation powers the emergence of new business models, enables Industry to be more efficient, provides workers with new skills and supports the decarbonisation of the economy by providing a source of clean technological solutions and actively contributing to the European Green Pact.

The current general and specific competitive environment that traditional and new industries are subject to, against the backdrop of a period of global economic uncertainty on the horizon, poses significant challenges, in particular, to domestic Industry when it wants to engage in green and digital evolution.

The opportunity exists: to create and deliver differentiating value propositions, to act effectively and more efficiently. In other words, the chance to be more competitive and in a sustainable way - the desideratum that Portuguese companies cannot ignore.

The opportunity exists, and there are also barriers and risks. Barriers and risks of internal and external origin. Ignorance or lack of confidence around the potential and the benefit, or the empirical overestimation of the necessary cost and effort, with the resulting understanding, that it is not worth it or that it is not for us, inevitably places the company in a quadrant characterised by an essentially delayed and then reactive behaviour.

Barriers are recognised. But they will not be insurmountable. However, it seems opportune to recall the recognised axiom that to transform or evolve presupposes change. And change may necessarily cover different dimensions. The organisational structure may evolve, resources may be readapted, the way

we transform and generate value may be redesigned and the skills we want to ensure may be enriched. We, therefore, have significant challenges. Starting with the organisational culture and the preparedness of the organisation as a whole.

When the Industry is faced with the challenge of its ecological and digital transformation / evolution, it is also faced with a vision of what it will look like in the future. The benefits arising from operationalising this Vision vary from Industry to Industry and company to company! To exploit the full potential that they may be able to develop, they must adopt a roadmap that guides, in an aligned way, the transformation/evolution process. While it is true that a large part of companies sees digitalisation as an inexorable opportunity, it is also true that most, anchored in uncertainty and a comprehension deficit, still do not have a properly structured plan for the development, implementation and adoption of the digital technologies that will play a relevant role in their Industry.

The transformation/evolution around digitalisation is not just about the adoption of technologies. Due to the comprehensiveness, scope, and multidisciplinary involved and the multiple challenges of internal and external scope, industry digitalisation initiatives recommend a properly cared, judicious and structured approach. A result of the lack of a structured approach is the proliferation of disconnected initiatives, or, to some extent, the creation of an environment of "digital fragmentation". Since the initiatives to be developed need to be unified so that the organisation can attain the full potential inherent in its digital Vision.

Successfully overcoming the challenges of a 'digital transformation' requires having a global vision for the organisation and a good understanding of the 'current situation', namely regarding the various dimensions inherent to this 'transformation'. Having a global vision that the whole organisation understands means

considering three fundamental pillars, namely those related to:

1. business model - how does the company want to create, deliver and capture value in the future;
  2. internal processes - how does the company want to develop its work activity and with which technologies and tools;
  3. customer relationship - how does it want to manage the customer's needs and expectations throughout the life cycle of the product or service it delivers to them.
- A structured approach to transformation is, therefore, fundamental. Consequently, it is relevant to adopt and follow a methodology that supports the entire journey inherent to Digital Transformation.

Where to start?

To answer this question, and to think about Portuguese companies and capitalising all its experience in this domain, INESC TEC has developed a Digital Transformation methodology that comprises of four main steps.

The first step is to know and understand the starting point. We have referred to this step as assessing the company's Maturity in the context of its Digital Transformation scope.

Assessing Maturity means knowing and understanding the starting point well in the organisation's different dimensions: resources, processes, systems and technologies, organisation and strategy, culture and people, products and services. Each dimension is structured in a set of assessment vectors that consider several requirements oriented to each analysis vector. After assessing the collection of vectors underlying a certain dimension, the respective Maturity level is calculated. The quantification of the organisation's overall level of Maturity is obtained through the weighted average of the maturities of each dimension considered. A second important step is the definition,

communication and adoption of a digitalisation Vision for the company, aligned with its global strategy. This Vision should consider the different dimensions referenced in the previous step.

The next step focuses on planning the implementation of the actions that lead to the desired evolution. Thus, based on the Vision defined above, this step comprises of identifying priorities, defining goals to be achieved, and identifying proofs of concept to be developed, implemented, and validated. From here, several action plans may promote the advancement of the Maturity level in the various dimensions previously considered. This set of action plans can be seen as the detail of a global Roadmap.

Execution is the next step.

Execution is understood as the operationalisation of the outlined transformation plan. Tasks and deliverables are scheduled, key indicators to assess impact are defined, strategies and partnerships to support implementation are identified, risks are identified, budgets are calculated and resources are allocated.

The end of the implementation leads to a new starting point. The company is ready for a new iteration! Ready for a further Maturity evaluation with the assessment of the level of progress achieved. With greater Maturity, the company will also be, for sure, more competitive. This is your new starting point to attain a higher level of Maturity. In a context of high uncertainty, the rebuild of the economy in the coming years recommends a set of public policies that revitalise the sustainable creation of social capital, and promote productivity, innovation, and, consequently, competitiveness in organisations, especially SMEs. The obligation of a recurrent maturity assessment exercise should be one of the essential elements in the subsequent development and transformation programs of the Portuguese Industry.

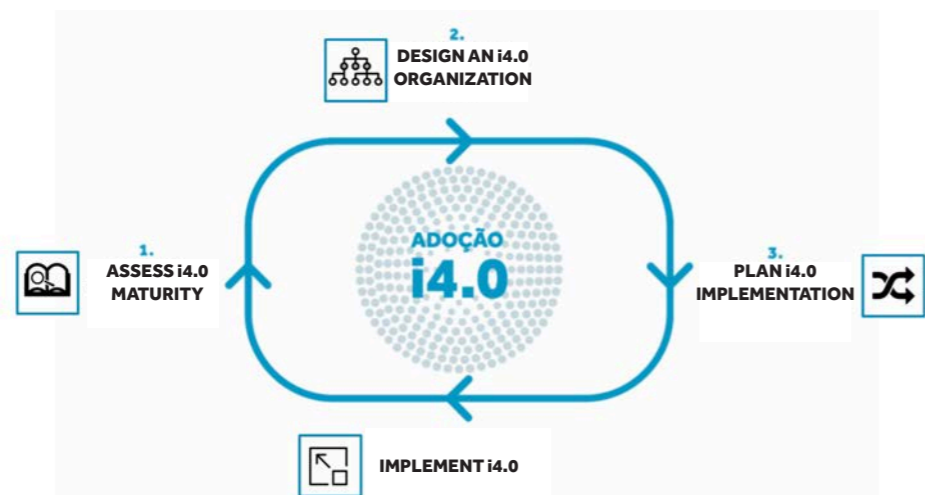


Figure 1 - Steps for i4.0 Maturity Assessment and Technological Roadmapping



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