PUBLIC POLICIES FOR INDUSTRY

The economic development policy must be understood as consistent action at different layers enabling or influencing the maximisation of the economic and social trajectory of a given community, considering its existing heritage of values, institutions, knowledge and individual initiative.

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The economic development is the result of the human initiative towards the production of goods and services, in order to meet the underlying demand, or the outcome of the production initiative itself. Seemingly, it all comes down to a decision by a social agent and the mobilisation of human, financial and physical resources that enable production. In fact, it is a much more complex process, subject to different layers of decision-making or causality, the understanding of which is paramount to grasp the differences in the distribution of economic activity within a country's territory – the so-called regional asymmetries –, as well as the different economic development of countries, their paths and future potential. This process is neither deterministic nor fatalistic, as there are no predetermined tracks; however, it is crucial to analyse its depth and inertia, in order to enable virtuous processes of economic development and improvement of social well-being.

Therefore, and firstly, it is necessary to place the individual initiative towards the production of goods and services within the social and institutional frameworks, which encompass the values and social achievement principles that lead individual action. A value system that rewards merit and initiative, and makes each individual responsible for his or her social position, tends to favour entrepreneurship and risk tolerance. Likewise, an institutional framework that favours interpersonal and intergenerational trust tends to strengthen cooperation mechanisms inherent to the production process, and crucial to optimise the use of resources, namely savings and labour.

Secondly, the individual initiative relies on the mobilisation of specific and general knowledge provided by society, through the individual socialisation process, educational and professional training and the processes of dissemination and acquisition of tacit knowledge available in the different social and professional groups.

This means that economic development policy must be understood as consistent action at different layers enabling or influencing the maximisation of the economic and social trajectory of a given community, considering its existing heritage of values, institutions, knowledge and individual initiative. Thus, a development policy requires:

- a deep knowledge of anthropological, social, and institutional aspects, an assessment of the levels of education and formal and tacit knowledge, which led a given community to the point where it stands at the moment of political decision;

- a plan to change this combination of circumstances, acknowledging the different degrees of inertia - from the deepest, or structural, to the most circumstantial - and different response times. The plan ought to be realistic, i.e., feasible in terms of time and mechanisms necessary to implement the required changes;

- a consistent framework of incentives capable of inducing individual behaviours and initiatives, the elements that will ensure the adoption of said changes by the target community.

Hence, and considering the fact that development trajectories rely on the connection between overlapping levels of key-elements of economic and social dynamics, the social, institutional and economic policy must define, after careful analysis:

- transformation objectives that consider inertia, hurdles and response times of each of said levels;

- the supply of public goods (necessary to the desired transformation). – By nature, public goods must be provided by the community.

Some of the critical areas of the economic and social dynamics are associated with:

-› the nature, intensity and dynamics of the national or regional innovation system, i.e., the coordination between education, production and dissemination of new knowledge and professional training;

-› the ability to coordinate the production and innovation systems, with regard to understanding the problems associated with the production of goods and services (like meeting or addressing new market or societal demand), as well as the production system's capability to absorb public goods provided by the innovation system.

The nature, quality and timing of the provision of public goods generated via an innovation system is one of the pillars of the process of economic innovation, and the core of a modern industrial policy. This means not to resist changes, defend incumbent agents or pre-select winners. It is not a matter of preserving what already exists and safeguarding crystallised interests. On the contrary, it means addressing the challenges of technological or market changes, by adjusting existing structures, in a decentralised process of absorbing the public goods available. The success of this process relies on understanding and focusing on the production structures, as well as on the education, technological research and development, and.
The evolution of the national productive sector, particularly of the industrial sectors in the Norte and Centro regions of Portugal, is a good example of the importance of the supply of public goods, adapted to the development stage of the business units::

-› the creation, as of the 1980s, of a network of Technological Infrastructures that encompassed the Institutes for New Technologies - INT (with INESC TEC as one of the beneficiaries) and the Technological Centres (sectorial entities). The latter were instrumental in supporting the modernisation and increasing the competitiveness of the respective sectors, particularly the SMEs, in domains ranging from quality or certification, to Research and Innovation. Complementary, the INT helped bring scientific knowledge to companies, by developing, adapting, integrating and disseminating it, directly or in close collaboration with the Technological Centres, through processes of valorisation and transfer of knowledge and highly qualified human resources. The most comprehensive and publicised case is the transformation of the Footwear sector, in which the Portuguese Footwear Technological Centre and INESC TEC played a very relevant role. However, it is also important to highlight the work developed by INEGI, ISQ and IPN, or the Technological Centres for Metalworking (CATIM), Textile and Clothing (CITEVE) and Mould-making (CENTIMFE) industries.

-› in 2008, the adoption of the Clusters policy led to several initiatives in sectors considered strategic for the national economy. It became possible to develop and implement comprehensive and integrated strategies and action plans, thus consolidating the cooperation networks, coordinating different investment sources, and expanding value chains, namely through intersectoral cooperation. A good example of the success of such approaches is PRODUTECH – Production Technologies Cluster, which managed to bring together, around a common development agenda, different subsectors of the cluster and the main sectors of the Portuguese manufacturing industry.

-› this response of the national industry enabled a greater and more qualified participation in the European programmes and initiatives in the manufacturing area. Some examples: Portugal's key role in the MANUFUTURE Technology Platform, in EFFRA - European Factories of the Future Research Association, and in EIT MANUFACTURING (KIC). , The share of approximately 4% attained by national entities (including companies, many of which SMEs) in the European funding programme associated to the PPP Factories of the Future, thus surpassing the national average of approximately 1.6% (source: ANI, 2020).

This blend of knowledge, technologies and qualified human resources (the result of policies and public and private investment, at national and European level), combined with a diversified and dynamic interface system (covering the innovation cycle), and a system of investment incentives (financial and fiscal), contributed to the notable 2011 reaction of industrial companies. The reaction overcome both the contraction of domestic demand and the effects of the crisis on the markets. , together with a successful approach to global markets and new competitors.
In this sense, one must consider these factors when analysing:

-› the increase in exports in terms of GDP, from 30.1% in 2010 to 43.5% in 2019 (15.4 percentage points increase);

-› the rise of Portugal in the European Innovation Scoreboard, reaching "Strong Innovator" level.

The need to promote the coordination between public policies and business strategies concerning research, innovation and training will play a key role in the Portuguese and European industry – nowadays facing new and disruptive challenges, namely those highlighted in the MANUFUTURE Vision 2030 document[1]. The response to this new framework will be even more effective and efficient if it:

-› considers and benefits from the accumulated experience and successes over the last three decades, and,

-› contributes to the definition, by the different stakeholders, of ambitious objectives, targets and commitment levels, consistent with a maximisation of the implicit accomplishment capability.

[1] MANUFUTURE Vision 2030, http://www.manufuture.org/wp-content/uploads/Manufuture-Vision-2030_DIGITAL.pdf