THE COLLECTIVE EFFICIENCY RATIONALE AND POLICY APPLICATIONS IN PORTUGAL

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ABSTRACT

This is a case on instrument policy design wholly embodied in the state of the art endogenous regional development theory. The family of *Collective Efficiency Strategies* (CES) was originally conceived in Portugal during the 2005/2009 legislative term and is very much replicable in other geographies and socio-economic environments, in emerging as well as in developed territories. They matter to deliver competitiveness and jobs by boosting business links among partnership members. Firms are indispensable to operate these networks but many other private, social and public agents whose action helps to internalise agglomeration and network externalities are also welcome. Four types of CES were launched, each aiming to address specific development bottlenecks: *Growth and Competitiveness Poles, Other Clusters, Urban Regeneration and Development Actions* and *Programmes for the Economic Enhancement of Endogenous Resources.* Taken together, they provide policy action to stimulate trade-oriented knowledge provision, innovation in goods and services or processes, urban economic drivers and sustainable and durable networks of economic activity in low-density territories. Before presenting the CES, the chapter provides the relevant theoretical background by underlining the major differences vis-à-vis traditional regional policy and explaining the key concept of collective efficiency. Some data on the application country helps to motivate the discussion. The instruments explanation here stems from a bird's eye zoom. Other chapters in this book complete the analysis of this innovative public policy case. Chapters 17 and 18 enter into details by deepening the CES formulation while Chapters 23 through 28 present some of their ongoing applications.

Keywords: collective efficiency; externalities; endogenous economic development; Portugal; NSRF.

RESUMO

Neste capítulo apresenta-se um caso de desenho de instrumentos de política no contexto analítico correspondente ao estado da arte da teoria do desenvolvimento regional endógeno. A família de *Estratégias de Eficiência Colectiva* (EEC) foi originalmente concebida em Portugal na legislatura 2005/2009 e é replicável noutras geografias e noutros ambientes socioeconómicos, tanto em territórios emergentes como territórios desenvolvidos. Elas visam

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promover a competitividade e o emprego estimulando cadeias de negócio entre membros de parcerias. As empresas são indispensáveis para o funcionamento destas redes mas muitos outros agentes privados, sociais e públicos cuja acção ajude a internalizar economias de aglomeração e rede são, igualmente, bem-vindos a estes instrumentos. Quatro tipos de EEC foram lançados, cada um dirigido a obstáculos específicos de desenvolvimento: *Pólos de Competitividade e Tecnologia, Outros "Clusters", Acções de Regeneração e Desenvolvimento Urbanos* e *Programas de Valorização Económica de Recursos Endógenos*. No seu conjunto, transmitem impulso político para estimular a provisão de conhecimento orientada para a criação de bens e serviços transaccionáveis, a inovação em bens e serviços ou processos, motores de desenvolvimento económico urbano e actividades económicas em rede sustentáveis e duradouras em territórios de baixa densidade. Antes de apresentar cada EEC, o capítulo fornece o enquadramento teórico relevante sublinhando as principais diferenças relativamente à política regional tradicional e explicando o conceito chave de eficiência colectiva. Dados sobre o país de aplicação dos instrumentos de política ajudam a motivar a discussão. A explicação dos instrumentos no presente texto segue uma macro-perspectiva. Outros capítulos do livro completam a análise deste caso de inovador de política pública. Os Capítulos 17 e 18 entram em pormenores aprofundando a formulação das EEC enquanto que os Capítulos 23 a 28 confrontam o leitor com algumas das suas concretizações.

Palavras-chave: eficiência colectiva; externalidades; desenvolvimento económico endógeno; Portugal; QREN.

1 Introduction

Portugal has designed and launched in the period 2005 to 2009 an innovative family of four policy instruments based on the collective efficiency concept. They are labelled as "collective efficiency strategies". This chapter aims to introduce the reader to these tools together with the relevant theoretical background.

The political motivation to intervene in the regional development field stemmed from the awareness of acute structural challenges in the Portuguese economy. This awareness included the perception of what were some the most important underlying causes. Market and government failures were preventing automatic adjustment mechanisms to work effectively to close the imbalances.

As it will become clear in the next section, those challenges commanded important behavioural changes on the part of all economic agents, including the government. A successful policy approach could not be limited strictly to the regional development "department". Indeed, serious actions from line policies with significant territorial impact, such as education, justice and infrastructure, were requested and as much coordinated as possible. In what follows, given the scope of this book, we must, however, confine ourselves to strict regional development policy and only to a fraction of what has been done in this field.

In the introductory chapter, we reviewed the main explanations for regional development. The most recent analytical avenue is known as endogenous regional development theory. It praises the role played by territorial features such as human capital endowments, institutional governance, entrepreneurship and social capital.

This chapter extends the survey of endogenous regional development theory to explain what collective efficiency is about and how important as a competitiveness driver this concept can be to overcome structural fragilities. To serve this purpose, we will elaborate a combination of a few neoclassical economics and industrial districts literature arguments that prove insightful to illuminate feasible policy actions to overcome significant development handicaps of the Portuguese economy. We believe the policy tools that we will present make up a coherent set of complementary responses to those handicaps.

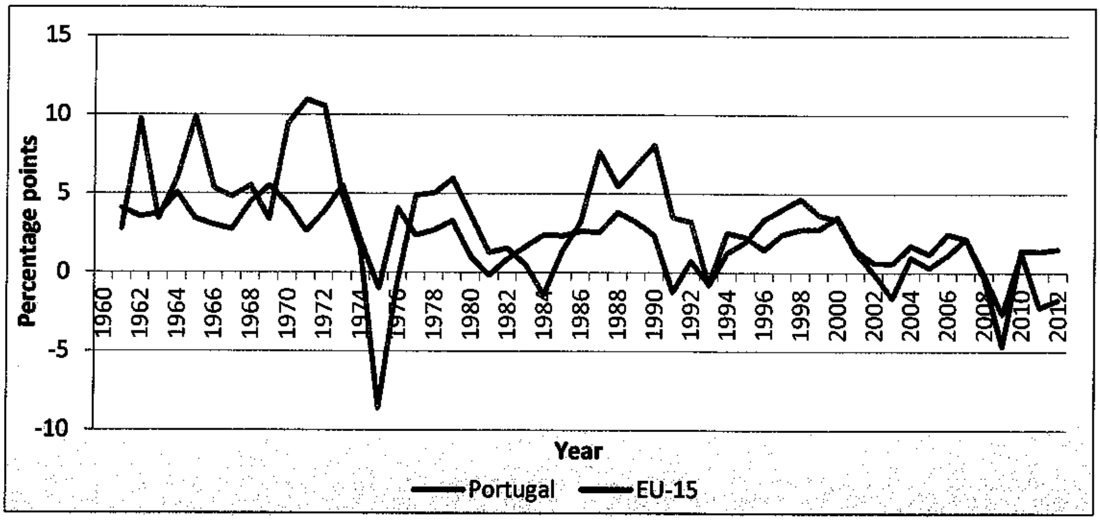
Although planned for the Portuguese economy, we believe the policy toolbox that we will present in this chapter contains insightful suggestions which are relevant as well to many other economies, both developed and developing ones.

So, we begin, in the following section, with a synopsis of the contemporaneous structural barriers to economic development in Portugal. They provided the political motivation to draft the new regional development policy tools. Section 3 offers the theoretical background necessary to appraise the value added by the collective efficiency notion. As such, points out and criticises the two key arguments that have dominated regional development policies wordwide and describes the paradigm shift that is currently taking place in some OECD countries. Collective efficiency, which is the concept underlying the policy instruments in this case, is explained in Section 4. The role for government action within this modern theoretical approach is then discussed in Section 5, where we also introduce the four collective efficiency instruments. Finally, a number of concluding remarks close the chapter.

2 Development obstacles in Portugal

After a long series of continued growth, real *per capita* GDP flattered and stopped converging to the EU-15 average from the year 2000 onwards (Chart 1). As a percentage of the EU-15 homologous figure, the Portuguese share was 31.6 in 1960, peaked at 53.7 in 1999 and is expected to fall to 48.1 in 2012. The reasons for the relative stagnation in the last decade are structural and various. Among the most critical ones, we may mention relatively low education levels of both workers and entrepreneurs, mismatch between demand for and supply of professional training, insufficient domestic competition, incipient market orientation of scientific outputs, slow and expensive justice services, excessive bureaucracy, long exposure to currency depreciation and devaluation episodes acting as artificial competitiveness inseminations, historical record of firm reliance on taxpayers' money, everything ending up in high accumulation of both external and public debts.

Chart 1—Growth rates of *per capita* GDP at 2000 market prices



Note: original data are the RVGDP series in Euros available in the AMECO database—European Commission (2011); the EU-15 series comprises the EU Member States as in 2000; West Germany is included up to 1990 and replaced by the reunited Germany from 1991 onwards.

Source: Author's computation from AMECO (2011)'s original series.

These reasons exist for decades but got unearthed clearly only when the economy stopped converging to the European Union average nearly ten years ago. This is so because of substantive changes in the international trade environment. Portugal co-founded the *European Free Trade Association* (EFTA) in 1960 and was the only developing country selling labour-intensive goods at zero rate tariffs to wealthy partners while enjoying the comfort of EFTA protectionism vis-à-vis external competition. This model led Portugal to specialise successfully in low-skill industrial products for many years, until the globalisation triumph at the end of the nineties.

Explanations for the role each reason above played during all this period fall outside the scope of this chapter; it suffices to say they have braked considerably the adjustment pace of the productive specialisation profile to the changing conditions in global competition. Fortunately, economic agents, including public authorities, are more aware of these development bottlenecks in recent years and some important sectoral policy measures are underway, from education improvements to red tape cuts. Yet, much more needs to be done on those obstacles with a determined view to the future—notably, more serious price regulation in oligopolistic markets and structural reforms on justice and health care system.

3 Theoretical background

Regional development policies worldwide have long been dominated by two influential lines of thought. First, a goal bias towards redistribution; second, the neoclassical growth theory. Subsection 3.1 justifies this standpoint. However, the first decade of the 21st century is witnessing a gradual change to the regional development method. Some dissatisfaction with long-term development impacts and economic theory evolution are leading an increasing number of countries to experiment non-traditional policy approaches. Such paradigm shift in regional development policy is unveiled in Subsection 3.2.

3.1 Traditional model of regional development policy

Let us look here to what has been the dominant policy perspective with respect to regional development worldwide, at least during the second half of the 20th century. As mentioned before, such perspective has been immensely shaped by two intellectual roadways. One is a policy bias in favour of income or resource redistribution. Another is the theoretical influence of neoclassical growth theory.

3.1.1 Redistributive goal orientation

The former influence means that the mainstream policy orientation has privileged *resource transfers* (from well-being to lagging-behind regions) to the stimulation of the *competitive* base of *all* territories. Regional policies were therefore envisaged as *Robin Hood* mechanisms that worked either through intergovernmental fiscal transfers or subsidisation of particular actions undertaken in less developed regions. Ear-marking or other strings attached to these transfers and linked to ultimate supply-side effects are normally absent of the policy framework. This political orientation seems to have been very much the result of realising economic development as an exclusive problem of poor (in the sense of low GDP) regions. Of course, this perception owes a lot to the misunderstanding of what economic development is about—recall the introductory chapter discussion and what comes in the next paragraph. Thus, the problem identification was simplified to gap comparisons. "Is your region below the average? Then take a grant" could caricature the political approach of higher level governments. For too long and in too many countries the policy mission has been the reduction of interregional development differentials. For example, when regional policy was given in the European Union a constitutional mission for the first time in 1986[1], its goal, named as *economic and social cohesion*, contained the following precise guideline: "In particular the Community shall aim at reducing disparities between the various regions and the backwardness of the least-favoured regions"—Article 130a of the EEC Treaty.[2]

[1] Via the *Single European Act*, SEA (1986), which revised the founding treaties of the European Communities.

[2] EEC: *European Economic Community*. This is the most comprehensive of the three European Communities launched in the 1950s upon which the European Union is built.

To conclude our reasoning against a redistributive use of regional development policy, please note the following three points. Firstly, income distribution is inherently an interpersonal income allocation matter, not an interregional income allocation issue. The public choice literature has accumulated considerable evidence on the fact that intergovernmental grants in favour of low-income jurisdictions engender a considerable *flypaper effect*, according to which "money sticks where it hits" instead of on the ultimate beneficiaries (let us say, the low income individuals).[3] Secondly, bear in mind that taxes or user charges levied on high-income regions comprise personal income captured from wealthy as well as poor individuals here. Sending their money to a low-income region, besides the flypaper effect, causes the subsidisation of both wealthy and poor individuals there. For sure, many people in a high-income territory will be financing the expenditure of wealthier individuals in a low-income territory, which stresses the unfairness and weak effectiveness of fiscal transfers as redistributive tools. Finally, and as a corollary to the earlier arguments, if the political aim is to *redistribute income*, then governments should simply *redistribute income*. So, public actions other than regional policy (e.g., social security budget operations and social policy at large) should instead be improved because they are fairer and more effective to achieve that purpose.

3.1.2 Neoclassical growth theory influence

The second long dominance came from neoclassical growth theory. Firstly, the development concept has been narrowed down to GDP. The difficulty to handling mathematically and empirically the *n*-dimensional notion of (regional) economic development led mainstream economists dealing with spatial issues to focus on one dimension only, one which played a pivotal role in most macro and microeconomics models and for which abundant statistics were available. Secondly, interregional real output *per capita* (or *per* working unit) differences were attributed to differences in the capital intensity ratio; the sake of analytical tractability explains the downplaying of other possible causes.[4]

The success of neoclassical economic reasoning had a great impact on policy-making all over the world and across all areas. In the case of regional policy, we may credit the well-known neoclassical proposition on the long-term interregional real convergence for the significant emphasis of regional policies on infrastructure provision and technological upgrading in lagging-behind territories. In a perfect mobility world, factor flows would respond automatically across borders to any initial capital intensity difference; their adjustment would

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[3] Money in the quoted expression refers to a block grant paid by a higher-level government to a lower-level government. In theory, this transfer triggers no substitution effects and should be split among the latter government and its residents so as to keep constant the share of total public revenue on their residents' income. Abundant empirical evidence offers a different result according to which the recipient government increases its revenue share *vis-à-vis* the constituency—thus, the quoted expression. See Mueller (2003, pp. 221–223) for a fuller description of the *flypaper effect* and some political economy explanations.

[4] The Nobel laureate Paul Krugman was probably one of the first modern neoclassical contributors to acknowledge this mistake. The interested reader can find a lucid account in Krugman (1995; Ch. 3).

trigger the long-term real convergence of regions. In the absence of perfect mobility, policy-makers have resorted to capital grants in low GDP regions to replicate the same result, hopefully at a faster speed. This prescription was followed for decades, combining substantial funding to investment on infrastructures and collective facilities together with significant subsidisation of private capital investment. The idea was to increase the capital to labour ratio in low GDP *per capita* regions, as this was believed to be the major growth driver.[5] Strong exogenously propelled investment was expected to impact upon the indigenous economic fabric, triggering domestic long-term growth (and hence, development). Again, a good example of this political approach is found in Europe. Since 1986, the *European Regional Development Fund* (ERDF)'s mission is:[6] "The (ERDF) is intended to help redress the principal regional imbalances in the Community through participating in the development and structural adjustment of regions whose development is lagging behind and in the conversion of declining industrial regions".[7]

Yet, territories matter for development progress, even if we restrict this notion to real *per capita* GDP convergence of less developed (in this sense, lower productivity) regions. This message proceeds from the very cornerstone of endogenous regional development theory. Initial conditions differ not only in terms of capital to labour ratios but also in terms of many other resources (physical as well as intangible assets) that neoclassical economics neglects—culture, traditions, self-esteem, sense of belonging, trust, creativity, institutional capacity, cooperation practices among economic agents, urbanisation patterns, and so on. This territorial diversity interacts with goods and services production and business transactions activity, and the direction of impacts is unclear in abstract terms. Moreover, this diversity is likely to interfere with interregional input trade flows, thus disturbing in an unpredictable way the adjustment mechanism inherent to the neoclassical proposition. Thus, there are good grounds to doubt about the effective power of the neoclassical result, at least within reasonable time horizons.

3.2 A paradigm shift in regional development policy

So, for decades, regional development policies round the world have pursued redistributive goals more or less explicitly and have encouraged the increase of capital intensities in low-income territories. Either through transfers to lower government levels or direct subsidies to social and private institutions, taxpayers' money has been channelled to regions lagging behind in prosperity levels without much concern as to the outcome of the financial transfers

[5] For less familiar students, a capital subsidy makes capital cheaper relative to other inputs, which encourages firms to hire more capital and less other factors for a given output unit. According to a neoclassical aggregate production function, an increase in the capital intensity ratio leads the economy to produce more per unit of labour—or inhabitant, for given activity and employment rates.

[6] The ERDF is the major financial instrument of EU regional policy. This policy was conveniently relabelled as cohesion policy in the 2000s for political marketing reasons.

[7] Article 130c of the EEC Treaty as amended by the SEA (1986).

on the ultimate capacity of recipient territories to engender sustainable jobs and business dynamics. EU cohesion policy and its national applications have long insisted on subsidising the provision of infrastructure and collective facilities in lagging behind regions. This approach has certainly had positive transitory real impacts, *via* aggregate demand shocks, reinforced considerably and durably the equitable access of citizens to collective services regardless of their residence but the long term impact on output and employment remained clearly below the expectations. At the same time, economic theory on growth and development evolved and credited increasingly the endogenous forces for the effectiveness of long term economic performances—see Stimson *et al.* (2009) for a comprehensive analysis of this evolution (in Ch. 1) and a new analytical framework to understand regional endogenous development (summarised in the so-called "regional competitiveness performance cube" in Ch. 2 and developed in the following chapters). The social environment in which business relations evolve is now seen as a major explanation for the responses of local economies to both domestic and external shocks. Social features such as trust, entrepreneurship, leadership, cooperation, institutional capacity are key drivers to deliver life quality, i.e., regional development, to citizens.

A number of developed countries have initiated in recent years a different policy approach to regional development issues. The economic potential of this shift led the *Organisation for Economic Co-operation and Development* (OECD) to acknowledge it as a move towards a *new paradigm for regional development policies*. The shift consists basically on moving away from:

- performance-independent subsidies based on actual interregional asymmetries *towards* performance-oriented investment grants, grants that induce behaviours headed to territorial competitiveness enhancements;
- separate, independent sectoral approaches *towards* integrated, multisectoral solutions (which calls for horizontal governance solutions);
- top-down policy design and implementation *towards* shared vertical governance solutions.

OECD (2009, p. 29) describes the new paradigm in the following way. "In response to poor outcomes, regional policy has evolved and is evolving from a top-down, subsidy based group of interventions designed to reduce regional disparities, into a much broader 'family' of policies designed to improve regional competitiveness and characterised by: 1) a strategic concept or development strategy that covers a wide range of direct and indirect factors that affect the performance of local firms; 2) a focus on endogenous assets, and less on exogenous investments and transfers; 3) an emphasis on opportunity rather than on disadvantage; 4) a collective/negotiated governance approach involving national, regional and local government plus other stakeholders, with the central government taking a less dominant role. The rationale of the new regional approach is based on the principle that opportunities for growth exist in the entire territory, across all types of regions (...). The aim is to maximise national output by assisting and encouraging each individual region to reach their growth potential endogenously, and thus it departs from the old view which regards regional polices as a zero sum game (...). Evidence of this so-called 'paradigm shift' in regional policy can be seen in recent reforms of regional policy in a number of OECD countries".

Thus, the new paradigm to which pioneering countries are moving over the last ten years is about unleashing the development potential that is present in every place and about expanding that capacity. It requires an integrated economic development policy perspective, multisectoral approaches, horizontal policy co-ordination and adequate subsidiarity to bring all relevant territorial stakeholders onboard during policy design and policy implementation. The differences *vis-à-vis* the old policy model are crystal clear.

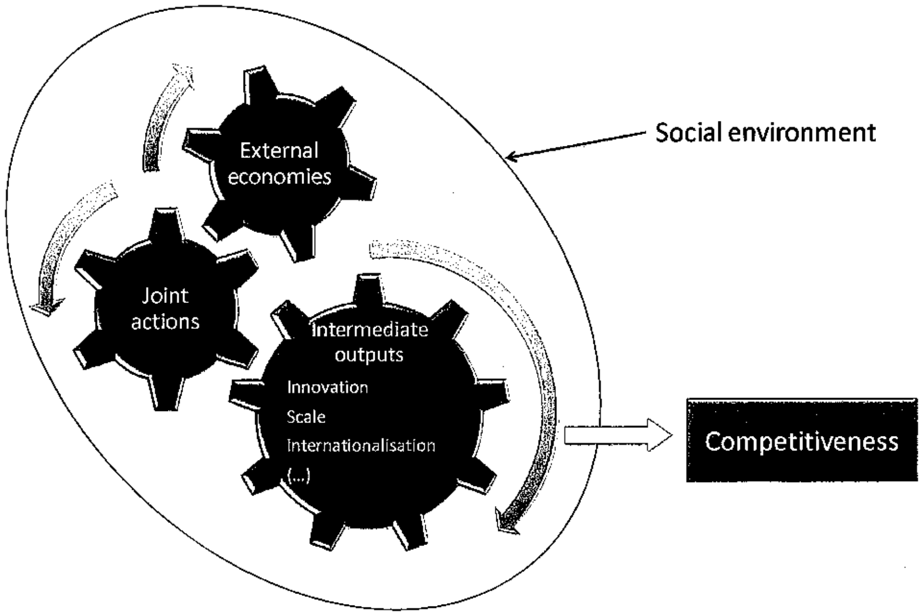
4 Collective efficiency

We have now covered the ground necessary to introduce the collective efficiency concept. As you will see, its appropriation by policy can indeed lead to the new paradigm we have just explained.

Collective efficiency makes use of two important structural factors that impact upon growth and development improvement. These factors are *external economies* and *joint actions* of economic agents. Properly combined, they produce "collective efficiency",[8] which is a source of individual and group competitiveness as we will discuss shortly. Figure 1 illustrates the argument. The social environment, defined as the set of social relations between economic agents, is the playing field where collective efficiency emerges to trigger positive effects on variables such as innovation, scale, and internationalisation. Improvements on these variables ultimately lead to competitiveness enhancements. We are therefore reasoning in the context of endogenous development factors. As we will realise later on, external economies and joint actions are part of the institutional vector of explanatory variables in the regional development production function discussed in the introductory chapter.

[8] The "collective efficiency" concept was coined by Hubert Schmitz (1999). The following discussion benefits from his paper.

Figure 1—The transmission mechanism of collective efficiency



4.1.1 An illustration

Let us sketch a hypothetical situation to realise the potential of collective efficiency. A skilled shirt maker, endowed with enough financial capital and good contacts with prospective customers, is choosing where to locate her first plant. After carefully considering different alternatives, Josephine Costa selects a land plot in the Ave Valley (North of Portugal), close to other firms in the textile industry, some as small as hers, others larger. There are already other shirt makers in the vicinity. This means she has figured out the risks of competition for suppliers and customers; being closer to competitors, her profit margin per output unit may be smaller than in an isolated location. Yet, this proximity with direct competitors as well as with firms specialised in other stages of the textile value chain, offers Costa some advantages. Firstly, there are hundreds of specialised textile workers in the Ave Valley and so the training costs here are considerably lower than in an isolated location. Secondly, tens of other end-product makers share the same few specialised producers of intermediate inputs, such as button makers, located in the Ave Valley as well. The proximity to suppliers facilitates face-to-face contacts, an important feature at least in the early stages of product development. As long as increasing returns to scale exist in the production of these inputs, supply sharing is an efficient device for a small buyer as Costa to reach the cost benefit of scale economies which normally are only available to large shirt producers. Thirdly, Costa is aware of the value of information for her business, particularly the information regarding technological developments. In an industrial district, information circulates easily, there are even many informal channels (coffee shops, coiffeur saloons and other places where workers and entrepreneurs socialise) that prove effective to know what is around. Appraised together, these advantages reduce the risk of business failure and facilitate the access to a larger pool of suppliers and customers when compared to isolated locations.

4.1.2 Agglomeration economies

In the illustration above, we have laid down the three classic positive externalities associated with firm agglomeration (also known as *agglomeration economies*): labour market pooling, scale economies in the production of intermediate inputs and information economies. You can read more about them in an urban economics textbook.[9] Actually, their acknowledgment in the economics literature goes back to Alfred Marshall, one of the parents of neoclassical economics. In his much acclaimed 1890 *The Principles of Economics* textbook, Marshal coins the concept of *external economies* to express the benefits an individual firm reaps from "the general development of the industry".[10] We can express this idea formally. Let Costa be firm *i* in industry *j* (textile). Suppose there are *H* textile firms in the Ave Valley. Costa's production cost, c_{ij}, is a function of her own output, y_{ij}, and the aggregate output produced by all other firms in industry *j*, $\sum_h y_{hj}$ for $h=1,\dots H$ and $h\neq i$. In other words, Costa's cost function is

$$c_{ij}=c\left(y_{ij},\sum_{\substack{h=1\\h\neq i}}^{H}y_{hj}\right) \quad , \tag{1}$$

where we have omitted input prices for simplicity. The marginal cost of own output is positive, as usual,[11] but the marginal cost with respect to the others' output is negative, $\delta c_{ij}/\delta\sum y_{hj}<0$. This latter derivative reflects the presence of agglomeration economies, i.e., the benefits to Costa's firm from locating in the Ave Valley industrial district.[12] By a symmetry argument, note

[9] O'Sullivan (2009, Chs 3 and 4) is an excellent source to deepen this matter.

[10] Quotation from the eighth edition, Marshall (1920): Book IV, Ch. IX, par. 25. Interestingly, he introduced the notion of external economies to explain why firms of a particular industry may be interested to cluster. Attention to clusters or industrial districts, to use Marshall's own expression, was also an innovative idea at that time. Though intellectually appealing, both the external economies concept and even more the industrial districts idea remained rarely used by mainstream economists for decades. Porter (1990) and subsequent works rediscovered the industrial district idea, refined it to allow for the simultaneous presence of closely related activity sectors and popularised it under the term "cluster". In what follows, we will use the expressions "cluster" and "industrial district" indistinctly because their difference is inconsequential for our purposes. Krugman (1995) played a significant role to revive the external economy argument and provides a justification for its long general dismissal in the economics profession. Clusters and external economies (agglomeration economies) are now widely employed in economic models and discussions.

[11] This is standard microeconomics. Intuitively, suppose Costa is fully employing her hired resources (there are no slacks in the production line). If Costa wants to increase her production by one shirt and input prices remain unchanged, she has to hire some additional quantity of inputs, which implies spending more money (higher production cost).

[12] Students familiar with urban economics will recognise these agglomeration economies as the *localisation* ones. If the cluster combines firms from other industries, it is appropriate to account also for a second variety of agglomeration externalities: the so-called *urbanisation economies*. They are

that the other firms in the cluster also benefit with Costa's arrival in the territory. The larger the number of newcomers, the larger the cluster, and so, for each incumbent firm, the larger are the benefits from labour market pooling, scale economies in intermediate goods production and information diffusion. Hence, the smaller becomes each incumbent firm's cost for any individual output level.

4.1.3 Joint actions

Please note that these external effects arise from location sharing without explicit interaction between players. Costa neither asked permission to settle in nor did she entered into any agreement to benefit from cluster spillovers or to grant external benefits to any particular incumbent. Agglomeration economies are a persuasive factor to explain firm clustering, yet they are not sufficient to explain why some clusters grow and eventually go international while others stagnate or even shrink after a while. There is abundant empirical evidence on successful and faded industrial districts—see, for instance, Chs 25 to 49 in Becattini *et al.* (2009) and the references therein. Schmitz (1999) discusses this issue extensively and offers an insightful rationale. He claims that *joint actions* undertaken by members of the district, on top of agglomeration economies, are what makes the difference in terms of competitiveness success. These are *deliberate* actions *consciously and explicitly agreed* among cluster members to achieve efficiency gains for them. They can be an agreement between four small shirt makers to divide a single large order, a research centre set up by a pool of shirt and fabric makers to develop new textile products or the co-ordinated presence of the industrial district in an international business exhibition. Table 1 summarises the forms joint actions may take. The keyword here is *cooperation*. Joint actions are the outcome of cooperation between cluster members. Co-operation may involve competitors only (horizontal cooperation) or the junction of deliberate and coordinated actions by input producers and users or output producers and buyers (vertical cooperation). You should bear in mind that cooperation does not preclude competition between members. Based on facts accounted for in the empirical literature, we may conclude that competitive clusters are those that succeed to combine cooperation with rivalry.

Table 1—Forms of joint actions in clusters

	Bilateral	Multilateral
Horizontal	e.g. Sharing equipment	e.g. Sectoral Association
Vertical	e.g. Producer and user improving components	e.g. Alliance across value added chain

Source: Schmitz (1999).

captured by the negative partial derivative of the cost function with respect to total complementary output, or $\delta c_{ij} / \delta \sum_{h \neq i} \sum_{j} y_{hj} < 0$.

4.1.4 Collective efficiency and competitive advantage

External economies (of agglomeration) are a necessary and sufficient condition to clustering but are not enough to justify the subsequent achievement of clustered firms, notably their growth and winning path in globalised export markets. This is so because external economies are involuntary. The positive impact on one firm's profit from the localisation decision of another "is not a deliberate action but an unintended or incidental by-product of some otherwise legitimate activity"—Schmitz (1999). Joint actions, by contrast, are the outcome of consciously coordinated behaviours to attain collective benefits. These actions pursue some form of public good provision to the club (cluster) members—e.g. common branding, machine hours sharing, trained workers, business mission to foreign markets...[13] Empirical evidence from many cases in both developed and developing countries supports the conviction that the chances for growth and competitiveness of enterprise clusters are brighter the more deliberate and pro-active joint actions are pursued. Therefore, following Schmitz, we define *collective efficiency* "as the competitive advantage derived from agglomeration economies and joint actions".

This statement echoes back in the economist toolkit to remember the three sources of territorial competitiveness advantage (or efficiency) trade theory tells us: first, productivity differences at the firm level under linear technologies (*ricardian* theory); second, relative factor abundance differences under constant returns to scale (Heckscher-Ohlin-Samuelson theory); third, increasing returns to scale (also known as scale economies *internal* to the firm) under product differentiation (Krugman theory). Collective efficiency can thus be presented as a fourth source of comparative advantage for clustered firms (or industrial districts/territories): joint actions under external economies in an industrial district. In all four cases, there is a distinctive feature triggering a lower output price and, therefore, a competitive advantage.

4.2 Generalisations of the collective efficiency concept

We now give a step further to enter more explicitly the regional development arena. Schmitz has developed his concept of collective efficiency considering one category only of economic agents: firms. However, other types of players behave in real-world clusters and coordinated actions across agent types can trigger benefits for all as well. For example, local governments can be useful partners to help firms to grow and compete if public money follows private action. This can be the case of a partnership between the enterprises association and a municipality to build and run an exhibitions facility. The municipality may pay for the land use and the firms for the building and operation costs. This facility may help to diffuse internationally the competences of the territory, to incubate new firms and to house a

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[13] These goods feature non-rivalry in consumption (that is why they can be labelled *public*) although access may be restrained and self-opting out may apply.

technological development centre. Another interesting kind of players is a research centre or a higher education unit. Appropriate, tailor made contracts with some or all clustered firms can be an effective way to transfer knowledge into mercantile goods and leverage a sustained inflow of innovation to clustered firms. We think it is appropriate to speak of collective efficiency as well when multi-institutional cooperation is in place.

A second generalisation of this concept comes to mind when we think of the increasing number of transactions carried out before computer screens. For many activities, information and communication technologies provide efficient proxies for face-to-face contacts. Going back to our earlier textile example, frequent electronic interactions, combined with just a few face contacts from time to time, are a cheap and yet higher quality device to discuss ideas and experiment new product solutions between shirt, button and fabric makers. Orders can be placed by e-mail, training can be offered remotely, labour search can be performed through databases. This means that basically the same kind of benefits allowed by agglomeration can be offered by effective *network cooperation*. Network cooperation does not need physical proximity of players but requires explicit, deliberate joint actions among partners. Contrary to agglomerations, in this case external effects (which we may label as *network externalities*) do not exist without joint actions, they result from the latter. Appropriate competitiveness-oriented joint actions can indeed generate a price advantage for networkers, thus qualifying them as another form of collective efficiency.

To conclude this note on the theoretical background, we come back to Figure 1. Occurrence of joint actions requires social interaction. The effectiveness of joint actions as a business efficiency device depends a lot on the quality of the *social environment*. Trust, sharing traditions, entrepreneurship spirit, firm density, strength of community institutions are important ingredients to *manufacture* effective collective efficiency. These elements are not uniformly distributed and clusters are very unlike in terms of their composition. Although the Ave Valley is an industrial district example, cooperation among residents— including firms, municipalities, universities, public and private professional training centres, etc.—is not as strong as in other cases, which may explain the difficulties the textile industry has undergone there over the last 15 years and the relative success in other European districts where social capital has been better equipped for joint actions for a longer time.[14]

[14] See Baleiras (2011) for a metaphoric yet realistic comparison between the Ave Valley and Treviso (north of Italy) textile districts. Forty years ago both territories comprised very similar firm structures (family-run small clustered businesses). Individualistic tradition in the former case and strong cooperation links in the latter account significantly for the different collective performances until nowadays. Cooperation in the Portuguese case has improved substantially in recent years but History still makes the difference.

5 Government intervention

As with other forms of externalities, economies of agglomeration are likely to lead to market failure, i.e., to resource allocations that do not maximise social welfare. Economic agents who cause the benefit to others and are not compensated for it may soon reduce their effort to a (social) suboptimal amount. This raises the temptation, so often in political speeches about the economy, of calling for government intervention. However, care is required before making such call. First, note that joint actions may be an excellent device civil society has to internalise those external effects and put the economy in a Pareto-track towards efficiency. Examples such as an exhibition of cluster competences, a partnership with an university to run a technological centre, a booking central covering tens of nature tourism lodging units can effectively promote positive sum games without public intervention. Second, when we realise the development potential of a cluster or network, we immediately conclude that the most useful pubic action is not necessarily subsidisation or any form of tax relief. The role of collective efficiency as an effective development leverage is stronger the more cohesive and self-governed the partnership of agents is. In many cases, particularly when the initial conditions are weak, the wisest public action is the stimulation of social capital, i.e., help economic agents to know each other, identify common objectives, draw a feasible strategy to extract value from their resources and organise themselves with a good governance model.

5.1 The cooperation deficit in the Portuguese society and economy

Regional development policy in Portugal chose this course of action during the 2005/2009 legislative term. On top of the deep bottlenecks identified in Subsection 2, the economy presented an additional structural deficit: the *cooperation deficit*. For historical and sociological reasons, Portuguese individuals are quite generous in terms of personal relations but, when it comes to professional deliberations and economic decisions, then individualism plays a prominent role. This is so among private firms, among ministries, among neighbouring municipalities, and, by a continuity argument, among firms, universities, training agencies, central and local administration.[15] As a small economy in an globalised world, Portuguese institutions will always be small when compared to the their counterparts in Germany, UK, Italy, nor to mention USA or China. Yet, small does not necessarily mean inefficient, even in products or services where scale matters. The secret lies in the smart use of all available resources for development. The cooperation resource, or collective efficiency if you now prefer a more scientific terminology, is precisely among the most precious ones available to small agents committed to win in the global economy. Through judiciously undertaken joint actions, the efficiency outcomes typical of larger and more mature agents become also reachable to them. In fact, many activities parallel to physical production are nowadays very

[15] Adam Smith was probably having the Portuguese people in mind when he wrote in 1776 that "people of the same trade seldom meet together"... Smith (1904, Book I, Ch. 10, par. 82).

important sources of competitive advantage, such as branding, R&D, market intelligence. These activities frame the core business and command deep pockets because of the substantial fixed costs that are typically involved. Very often, these costs are a barrier to entry of SMEs in the global market, particularly those based in small economies. Smart use of collective efficiency can help small-sized agents a lot to share those fixed costs and overcome the market barriers associated to their individual size. This idea lied at the heart of the policy tools whose design is discussed below.

5.2 Competitive vulnerabilities and collective efficiency

So, collective efficiency can help a lot to make the difference in the delivery of welfare gains from trade. The government identified four domains of competitive vulnerability where effective collective action is expected to make a significant contribution: knowledge market, productive internationalisation, urban regeneration and low density territories. Let us elaborate a little on each of these vulnerability domains.

Firstly, the link between knowledge production and knowledge trading use is a prosperity source clearly underexplored in Portugal. For a long time, universities or research centres, on the one hand, and the business community, on the other, have ignored each other's common interest to cooperate in joint Research and Technology Development (R&TD) projects. Traditional public support to research, anchored on subsidies to individuals (such as doctoral scholarships) or single institutions (public laboratories and firms), seemed to ignore this deficiency. New national priorities for structural funds in the 2007/2015 financial period led to the creation of specific instruments to help creating this market, putting together for the first time individual research centres and small firms: the *innovation cheque* and the *R&TD cheque*. Yet, much more could be done to fully utilise the substantial increase in the number of fulltime researchers over the last 20 years and the accumulated experience of individual firms in business areas where key resources are relatively abundant in Portugal (renewable energies, maritime activities, health, wine, furniture and information & communication technologies, to mention a few well-known examples of business success). Bringing together the players in such sectors to innovate, export and qualify jobs was, therefore, a challenge for collective efficiency.

Secondly, as evidenced in Section 2 above, the last decade brought very modest GDP growth as a result of competitive losses from structural handicaps. Many observers have blamed the business community for delaying too much the necessary adjustments to a changing trade environment and the authorities for complacency with that behaviour, if not for their active promotion of sluggish transformation. From a long term economic perspective, it is sad to acknowledge that resources have moved too much away from tradable activities into domestic uses defended from international competition. The funding difficulties the Portuguese economy went through during the euro zone financial turmoil of 2010 and 2011 are a clear indication of the excessive private and public indebtedness. The competitiveness weaknesses we have pointed out throughout this chapter obviously aggravate the economic rebalancing. Therefore, a resolute bet on the internationalisation of economic activities undertaken on Portuguese land is a must. This means more competition at home and abroad for domestic firms, market enlargement for inland activities (visitation) and exports, joint ventures abroad. Collective efficiency can also play a decisive role to help Portuguese agents to win the internationalisation challenge.

Thirdly, urban economists have long stressed the economic importance of urban areas. In developed countries, between 65 and 80% of total population lives in urban territories[16] and cities probably account for an even larger share of jobs and output.[17] We can think of cities as large multi-institutional, multi-industrial districts. Indeed, urban territories concentrate a considerable number of workers and consumers, as well as firms, civic organisations, public agencies, infrastructure and collective facilities affiliated with many different activity sectors. Not surprisingly, cities are great places to create and innovate due to the intense social interactions available. Trading and shopping opportunities also abound because transport costs for both buyers and suppliers are smaller than in rural areas. Higher density rates typical of urban areas facilitate infrastructure provision due to smaller fixed costs *per capita*. However, cities also house considerable problems. Pollution, crime, congestion, poverty are, for sure, more serious there than elsewhere. Cities matter for their economic development as well as for the prosperity of rural areas which they influence. The links between the two may be friendly or unfriendly for their mutual development as core-periphery models predict.[18]

A comprehensive policy approach to regional development cannot dispense a look at urban tools. A first consideration goes to individual urban agglomerations. As in many European countries, Portuguese cities need systemic and integrated regeneration operations, particularly at historic centres and *brownfields*. These operations involve public space interventions but also the renewal of private property, including land use changes. The isolated investment of a private landlord on a degraded neighbourhood will be much less profitable for him than if his action is undertaken simultaneously with tens or hundreds of investment actions by other owners and the local authorities. Isolated, individual actions naturally will also tend to be suboptimal from a social viewpoint because of the considerable externalities involved. Hence, partnership agreements among relevant private and public agents and along the collective efficiency rationale can prove very useful to internalise those spillovers and promote cost-efficient urban regenerations, rendering cities much better places

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[16] See urban development indicators in World Bank (2011).

[17] As a matter of example, a single metropolitan area in OECD countries may house up to 50% of national GDP. The metropolitan areas of "Budapest, Seoul, Copenhagen, Dublin, Helsinki, Randstad-Holland and Brussels concentrate nearly half of their national GDP whilst Oslo, Auckland, Prague, London, Stockholm, Tokyo, and Paris account for around one third."—OECD (2006).

[18] We are thinking of the growth pole school in the fifties of the 20th century—of which François Perroux's works collected in Perroux (1964) were probably the most influential—and the current geographical economics models in the line of Fujita *et al.* (1999).

to live and work in. A second consideration involves networks of cities and their *hinterlands*. It makes sense to put collective efficiency at work in the case of a few urban agglomerations that share a comparative advantage in a particular sector. Take the case of aeronautic industry. One city may offer a good higher education programme on the field, another may house a couple of plane components manufacturing plants, a third one a pilots school. Conditioned on serious strategic planning and commitment of relevant players, it may make sense to develop a collective strategy to compete at a higher level combining judiciously rivalry with cooperation within the partnership of key players from the set of cities.

Last but not the least, a few words to introduce the economic fragility of low density territories. As shown in Section 18.2, these spaces in Portugal are plunged for decades in a vicious circle of relative impoverishment. Yet, they own endogenous assets upon which it makes sense to build a collective dynamics of mercantile valuation to break that circle and inflow virtuous elements. We will discuss at length this possibility in Chapter 18.

5.3 The Collective Efficiency Strategies family of policy instruments

In all four cases described above, there are competitiveness vulnerabilities, available social capital and extensive non-internalised external effects. Therefore, one major concern of regional development policy in the 2005/2009 period has been to push economic agents for win-win strategies of collective efficiency: victory of the individual player and victory of the partnership of players. The government placed itself as a cooperation facilitator and launched calls for the emergence of voluntary development actors consortia.

This policy initiative has a label: *Collective Efficiency Strategies* (CES). After the throughout theoretical digression in the previous section and the empirical motivation of the preceding paragraphs, we think the name is quite informative about the purpose of this regional development policy instrument. An EEC is a coherent and strategically justified set of material and immaterial investments that

- are integrated in an action programme;
- head for innovation, qualification or modernisation of a constellation of firms with national, regional or local implantation;
- trigger, in a structured manner, the appearance of economies of agglomeration and deliberate joint actions, including network externalities, among firms on the one side, and firms and other players relevant to develop their activity sectors and the territories where they locate, on the other.

The methodology combines *top-down* political orientations with *bottom-up* partnership inputs. The authorities set up the rules of the game after a careful planning exercise, including hearing the voice of potential field players. Then, it was up to development actors to decide with whom to cooperate, what for, which strategy to follow, which actions to undertake, which own resources to use, and how to self-govern the partnership. This instrument is combined with the *National Strategic Reference Framework* (NSRF), which programmes the application of EU cohesion policy in each Member State during the period 2007/2015. There are a number of positive discrimination rules to incentive NSRF beneficiaries to cooperate among themselves and engage into collective efficiency strategies. Generally speaking, such rules grant the projects included in the action programmes some form of preferential access to the competitive calls for financial incentive in NSRF, rural development and fisheries operational programmes. The preferential arrangements preserve the competitive nature of structural grant approvals and aims at compensating beneficiaries for the harder task of getting into collective action instead of drafting and submitting individual, ad-hoc project applications without exploring complementarities with other players. A full description of these rules is set in articles 9 and 10 of the CES framing regulation—NSRF (2008). The appeal to collective efficiency bids contributes to the reinforcement of selectivity in the allocation of structural funds in Portugal, one of the national political priorities decided for the current programming period.

Actually, CES form a family of four closely related policy instruments:

a) Growth and Competitiveness Poles (Portuguese acronym; PCT);
b) Other Clusters (*idem*: OC);
c) Urban Regeneration and Development Actions (*idem*: ARDU);
d) Programmes for the Economic Enhancement of Endogenous Resources (*idem*: PROVERE).

Each family member addresses a particular need for collective efficiency. Together, the whole family hopes to make a significant contribution to overcome the four domains of competitiveness vulnerability presented in Subsection 5.2. PCT and OC are mainly concerned with knowledge market and productive internationalisation, ARDU with urban regeneration and productive internationalisation and PROVERE with low density territories and internationalisation, especially in terms of visitation, whenever applicable.

The CES family members form a coherent arch of policy responses to urban and rural economies, to primary, secondary and tertiary sectors. They were conceived within the new paradigm of regional development policies the OECD has pointed out and which we have discussed in Subsection 3.2. You are urged to proceed to Chapter 17 if you want to learn (in Portuguese) more about each family member and their critical success factors. The NSRF gateway (www.qren.pt) also provides useful and detailed information about these innovative tools.

6 The policy instrument family at work

Following the NSRF implementation, the government concluded the legislative and operational work necessary to launch the four types of CES. They share the intellectual inspiration and the existing operational structures of regional development and competitiveness policies in Portugal. All of them encompass a collective action programme drafted by the actors and network members, later discussed with relevant authorities. Firms are the only category of economic agents that must enter an eligible partnership, as the CES aim at being drivers of competitiveness and job creation. A screening device embodying competitive pressure was set up to stimulate top quality actions. Ex-ante and ongoing assessments are present to assist players to stick to their collective efficiency goals throughout the planning and implementation phases. Inasmuch as allowed by European cohesion policy rules, a flexible use of the NSRF (plus rural development and fisheries) instruments was devised, such as combining different mono-fund, mono-region operational programmes to intervene in a collective action programme comprising investment and other structural initiatives eligible to several funds and involving multi-regional interventions. With the concentration and selectivity concerns referred to in Subsection 5.3 above and laid down in the regulation, a few positive discrimination rules in the access to EU structural funding are in place to induce economic agents to cooperate and internalise externalities rather than to apply to taxpayers' money on an individualistic, isolated way that leave the economy in a suboptimal path. Section 18.2 shows all these features in detail in the case of the PROVERE type of collective efficiency strategies.

ARDU type of CES began to being approved in 2008 within the framework of the POLIS XXI urban policy tools: *Urban Renewal Partnerships* and *Urban Networks for Competitiveness and Innovation*. In July 2009 it was finally possible to conclude the launching of the other CES members. Following the technical ex-ante assessment of the collective action programmes put forward by players under the bids opened up in the 2008 Autumn, the government recognised officially the applications in Tables 2 and 3 as *Collective Efficiency Strategies*. These partnerships have five years to complete physically and financially their projects. They are subject to an interim assessment whose conclusions may justify the termination of public support. Partnerships are open to new accessions as long as the incoming projects and partners contribute to reinforce the strategic goals of the action programme.

Table 2—Action Programmes officially acknowledged as PCT and OC

Growth and Competitiveness Poles (PCT)	
Health Competitiveness Pole http://www.healthportugal.com/ | info@healthportugal.com	Health Cluster Portugal - Associação do Pólo de Competitividade da Saúde
Fashion Competitiveness Pole http://www.polodamoda.pt/ | apcm@polodamoda.pt	Associação Pólo de Competitividade da Moda
Agro-industrial Competitiveness and Technology Pole: food, health and sustainability http://www.portugalfoods.org/ | geral@portugalfoods.org	Associação Integralar - Intervenção de Excelência no sector agro-alimentar
Energy Competitiveness and Technology Pole http://www.energyin.com.pt/ | geral@energyin.com.pt	Associação PCTE - Pólo de Competitividade e Tecnologia da Energia
Forest-based Industry Competitiveness and Technology Pole http://www.aiff.org.pt/ | aiff.direccao@gmail.com	Associação Para a Competitividade da Indústria da Fileira Florestal
Engineering & Tooling Competitiveness and Technology Pole http://www.toolingportugal.com/ | info@toolingportugal.com	Associação-POOL-NET- Portuguese Tooling Network
Petrochemical, Industrial Chemistry and Refining Industries Competitiveness and Technology Pole http://www.aipqr.pt/ | geral@aipqr.pt	Associação das Indústrias da Petroquímica, Química e Refinação
Portugal Mobi 2015–Mobility Industries Competitiveness and Technolog http://www.ceiia.com/ | ceiia@ceiia.com	CEIIA - "Centro para a Excelência e a Inovação na Indústria Automóvel"
PRODUTECH–Production Technologies Pole http://www.produtech.org/ | geral@produtech.org	PRODUTECH - Associação para as Tecnologias de Produção Sustentável
TICE.PT–Information, Communication and Electronic Technologies Pole http://www.tice.pt/ | geral@tice.pt	Associação TICE.PT - Associação para o Pólo de Tecnologias de Informação, Comunicação e Electrónica
Tourism 2015 Competitiveness and Technology Pole http://www.turismo2015.pt |geral@turismo2015.pt	Estrutura de projecto "Turismo 2015"
Other "Clusters" (OC)	
Sustainable Habitat Cluster http://www.centrohabitat.net/ | centrohabitat@centrohabitat.net	Associação Plataforma para a Construção Sustentável
Centre's Agro-industrial Cluster http://www.inovcluster.com/ | geral@inovcluster.pt	InovCluster – Associação do Cluster Agro-Industrial do Centro
Natural Stone Cluster http://www.valorpedra.pt/ | geral@valorpedra.pt	Associação Valor Pedra
Portugal's Furniture Enterprises Cluster	Associação para o Pólo de Excelência e Inovação das Empresas do Mobiliário de Portugal
North Region Creative Industries Cluster http://www.addict.pt/ | info@addict.pt	ADDICT – Agência para o Desenvolvimento das Indústrias Criativas
Ribatejo's Agro-industrial Cluster http://www.agrocluster.com/ | mailto:geral@agrocluster.com	Animaforum – Associação para o Desenvolvimento da Agro-Indústria
Wine Cluster of the Demarcated Douro Region http://www.advid.pt/ | advid@advid.pt	ADVID-Associação para o Desenvolvimento da Viticultura Duriense
Sea Knowledge and Economy Cluster http://www.oceano21.org/ | geral@oceano21.org	Oceano XXI – Associação para o Conhecimento e a Economia do Mar

Table 3— Action Programmes officially acknowledged as PROVERE CES

		No.	Invest. (10^6 €)	No.	
North	**8**	**79**	**80,2**	**1303**	
Terra Fria Transmontana		6	11,5	45	Assoc. de Munic. da Terra Fria do Nordeste Transmontano
Aquanatur: Complexo Termal do Alto Tâmega		4	2,7	17	Assoc. de Desenvolv. da Região do Alto Tâmega
Inovarural		21	12,0	108	Resíduos do Nordeste, EIM
Rota do Românico do Vale do Sousa		6	10,6	142	Comunidade Urbana do Vale do Sousa
Minho In		10	14,3	636	Comunidade Intermunicipal do Minho-Lima
Montemuro, Arada e Gralheira		10	7,1	111	Assoc. de Desenvolv. Rural Integrado das Serras do Montemuro, Arada e Gralheira
Alto Douro Vinhateiro		15	11,9	140	Estrutura de Missão para a Região Demarcada do Douro
Paisagens Milenares do Douro Verde		7	10,0	104	Dolmen — Cooperativa de Formação, Educação e Desenvolv. do Baixo Tâmega
Centre	**8**	**197**	**541,2**	**690**	
Turismo e Património do Vale do Côa		18	63,1	83	Associação de Municípios do Vale do Côa
Rede de Aldeias de Xisto		13	89,5	190	ADXTUR — Agência para o Desenvolvimento Turístico das Aldeias do Xisto
Aldeias Históricas: Valorização da Rede do Património Judaico		7	28,2	168	Câmara Municipal de Belmonte
Estâncias Termais da Região Centro		44	133,1	38	Associação das Termas de Portugal
Villa Sicó		23	55,0	43	Terras de Sicó — Associação de Desenvolvimento
Mercados do Tejo		19	32,3	54	NERSANT — Associação Empresarial da Região de Santarém
Beira Baixa: Terra de Excelência		3	3,4	51	Comunidade Intermunicipal da Beira Interior Sul
Buy Nature: Turismo Sustentável em Áreas Classificadas		70	136,6	63	Instituto da Conservação da Natureza e da Biodiversidade, I.P.
Alentejo	**7**	**63**	**107,8**	**541**	
Alentejo Litoral e Costa Vicentina: Reinventar e Descobrir, da Natureza à Cultura		19	31,0	102	Associação de Municípios do Litoral Alentejano
Montado de Sobro e Cortiça		4	8,4	21	Câmara Municipal de Coruche
Ambinov: Soluções, Inovadoras em Ambiente, Resíduos e Energias Renováveis		9	46,1	13	Câmara Municipal de Chamusca
Zona dos Mármores		5	7,0	41	Câmara Municipal de Borba
InMotion: Alentejo, Turismo e Sustentabilidade		8	6,1	184	Instituto da Conservação da Natureza e da Biodiversidade, I.P.
Valorização dos Recursos Silvestres do Mediterrâneo: uma Estratégia para as Áreas de Baixa Densidade do Sul de Portugal		10	3,1	132	Câmara Municipal de Almodôvar
A Cultura Avieira a Património Nacional		8	6,2	48	Instituto Politécnico de Santarém
Algarve	**2**	**48**	**37,3**	**321**	
Âncoras do Guadiana		30	31,8	66	ODIANA — Associação para o Desenvolvimento do Baixo Guadiana
Algarve Sustentável		18	5,5	255	Almargem — Assoc. de Defesa do Património Cultural e Ambiental do Algarve
Total	**25**	**387**	**766,5**	**2.855**	

Note: totals may not match the sum of terms due to rounding.

7 Concluding remarks

This chapter has exposed students to CES, an innovative family of policy instruments devoted to competitiveness, business boosting and job creation within the modern view of economic development policy. As such, many specific endogenous elements are worked out via a dynamic network of top-down and bottom-up inputs. Cooperation is the cornerstone of each of the four types of CES. The collective efficiency concept underlies the doctrinal background of this public policy.

A number of specific experiments are already on the ground and the first interim independent assessments are expected to become available in early 2012. The author's political responsibilities until October 2009 for the design and launching of CES allows him to recognise their breakthrough contribution for a nationwide endogenous regional development approach. Yet, he is very much aware of the difficulties and threats that still pave the way. Actual politics, still populated with so many players (from ministers to mayors to business associations) addicted on redistributive and top-down orientations, presented always a resistance wall to policy instruments, such as CES, that based their rationale on cooperative and strategy-founded initiatives. It is certainly easier and faster to keep doing investment projects the old way, based on infrastructure, individual initiative, non-competitive grants and wealth distribution goals. The current economic crisis eases the arguments in favour of spending EU structural funds no matter where and no matter what the opportunity cost is. In this environment, it is not hard to issue sound bytes claiming that collective efficiency projects are cumbersome and boring.[19] However, both economic theory and the actual experience of many countries, as Portugal in recent years, bring to our mind that a sustainable development path should not dispense a view of the future where wealth fostering everywhere is a precondition to improve resource distribution. Particularly in the case of small open economies, deliberate cooperation or *collective efficiency* among agents seems a very promising route to approach that view. CES tools were devised to help firms, research centres, municipalities, public administration units, regional development agencies, local action groups, etc. to embark on horizontal and vertical cooperation arrangements to generate value out of knowledge and other endogenous territorial assets, thus serving the long term cause of economic development.

As with many other innovative instruments that challenge the *status quo*, independent and competent technical evaluation is indispensable to guide future political decisions, to improve

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[19] Some people say in the media that Portugal needs to spend NSRF money urgently, acting as if financial disbursement were the sole criterion to assess the quality of structural funds use. It seems in their arguing that burning 1 million euros digging a hole to simply covering it up subsequently is better than not spending the money. They ignore the opportunity cost of such spending. To begin with, on average 50% of Portuguese taxpayers' money is included in any structural fund intervention. Moreover, money spent on holes gets buried forever and is money that will not be used to improve the economy's capacity to grow (supply side).

what has been achieved so far, and we hope this job will be done in Portugal with the CES tools. This is important because a tool that demands so much from the policy addressees needs time to produce results; a critical mass of policy persistence, topped with affection from both political and officials in charge, are two necessary conditions for new, complex instruments to mature and deliver their results. This is very much important because CES effectiveness relies on trust, trust between partners to undertake structural changes but also trust of partners in the time consistency of government options. The tragedy of many countries has a lot to do with the temptation of new government members, even from the same political family, to *reinvent the wheel* and replace short-lived instruments with new ones bearing their fingerprint. Adapting what John Lennon once wrote, "all we are saying (to responsible policy-makers) is give CES a chance".[20]

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[20] Now that you went through the case, why not taking a break with Lennon's "Give peace a chance?" Enjoy the video performance at http://video.google.com/videoplay?docid=3690595027794156173#.

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Exercises

A) Individual assignments

1. Please identify the major differences between the "new" and the "previous" regional development policy paradigms.
2. Explain the neoclassical argument to subsidise capital in lagging-behind regions.
3. Essay—This exercise urges students to research actual policy tool examples of the two approaches to regional development policy discussed in the case—Section 3. Under the instructor's choice and guidance, students can be asked to identify, describe and assess such examples in their country or within a relatively wide subnational region.

B) Collective assignments

4. Simulation game—A group of students is required to simulate a TV debate on the usefulness of policy instruments based on the collective efficiency concept. Each one will be expected to perform the role of a character with her own ideas on the subject. Examples of possible characters include:
   - Orthodox economist poorly exposed to endogenous economic development theory;
   - Politician formatted in the redistributive version of regional development policy;
   - Politician enlightened about the endogenous regional development policy;
   - Spatial economist, geographer, civil engineer, regional planner or other regional scientist with sensitivity to the role of endogenous resources in economic development processes;
   - Journalist that will introduce the subject and chair the discussion.

   With the instructor's help, the group must decide from the outset the *leitmotiv* of the debate and the arguing lines at large of each character.

5. Field work—Groups of 2 to 3 students are sent to the field to investigate actual collective efficiency strategies close to the school territory. The instructor should prepare the working plan beforehand with students. The idea is to unearth what is going on in terms of policy implementation and, hopefully, to propose amendments to either the actors or the government so as to improve the policy effectiveness. The field work includes interviews to partnership managing officials, two or three partners (firm, research unit, municipality, etc.), a representative of the regional or central authority in charge of the policy and visits to actual ongoing projects managed by the partnership. At the end, the instructor may organise a seminar where the student groups will present and compare their findings and improvement proposals. In countries where collective efficiency strategies are not implemented, this assignment can be directed towards close substitutes—actual implementations of regional development policy instruments based on bottom-up collective initiatives aiming to extract economic value out of endogenous opportunities.
6. A newspaper style story—the idea here is to ask a few students to write individual (or collective) research pieces about collective efficiency strategies or related policy instruments. Guidelines may include: CES concept, economic, social and political environment and interviews to relevant local players and policy-makers, including mayors' and the Parliament' view. For example, the Portuguese Parliament issued a recommendation[21] to the Government urging them to use all available means to boost the implementation of PROVERE, one of the CES typologies. It would be interesting to interview the members of Parliament and a representative of the member of

[21] Resolution No. 140/2010, of 20 December—Assembleia da República (2010).

Government in charge of regional development to evaluate what has been the follow-up.