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Resurgent Cities: Local Strategies and Institutional Networks to Counteract Shrinkage in Avilés (Spain)

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ABSTRACT *Avilés is a medium-sized city in Asturias, the Spanish region hardest hit by industrial crisis since the 1970s. The crisis of the state-owned iron and steel works and subsequent restructuring caused significant job losses, demographic decline and social tension. Since the 1990s, the Spanish Government, with regional and local governments and other local stakeholders, has been involved in new forms of urban governance focused on finding alternatives to shrinkage and a new model of urban development. This model recognizes several strategic aims: to (i) restructure and privatize the state-owned iron and steel works and attract new multinationals, (ii) promote a new economy based on innovation and culture using flagship urban projects, and (iii) improve the urban environment with rehabilitation of the historic centre, environmental restoration of the estuary and recuperation of wasteland for a new business park. This paper focuses on the influence of local actors, resources and networks on impulse regeneration strategies, analysing statistical information and data obtained from interviews with agents involved in urban development, combined with a selection of the major initiatives implemented. In brief, it discusses the transition to the resurgence of Avilés, including some of the uncertainties and future challenges identified, which are highlighted in the conclusion.*

1. Introduction

The generic label “shrinking cities”, can be applied to those cities in Spain specialized in mining or industrial sectors, which rely heavily on natural resources and unskilled labour, generally located on the Atlantic Arc. The economic and occupational impact of the decline in traditional industries with its social and environmental effects, led to a downward spiral which few have recovered from, and others are still affected by the economic downturn and lack of expectations.

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Avilés in Asturias can be considered within this context. This medium-sized coastal city (84,242 inhabitants, 124,100 within its urban area) is the third most important in the region after Gijón and Oviedo. Since the mid-twentieth century, the crisis in its iron and steel cluster dominated by ENSIDESA, a large public company, has led to restructuring, generating severe job losses, demographic reversal and significant social tensions. The traditional dependence on external decisions, scarce business initiatives and the exhaustion of a growth model which had been used for decades hampered future prospects, provoking a notable pessimism in local society, an intangible but significant component of the shrinkage concept.

A new city project was only defined within the last 10 years, based on the effect of certain central and regional government policies or those of the European Commission and above all, on a series of innovative initiatives backed by local public and private agents. These stakeholders have implemented new forms of governance aimed at strengthening several strategic areas for local development. These include renewing its industrial base by resizing and privatizing the iron and steel industry, support for small innovative business projects, and extending the port, a key element of the city's development throughout its history. On the other hand, developing a more diverse local economy, with tourism and culture as complementary strategic sectors, is represented by several flagship projects intended to reposition the city internationally. Lastly, the urban environment and quality of life will be enhanced, with significant initiatives including the environmental and scenic restoration of the estuary, the rehabilitation of the historic centre and improved neighbourhood facilities.

The aim of this paper is to define the transition of Avilés from decline to what can be classified as resurgence, underlining the influence of local institutions and the building of cooperation networks, although noting the conflict of different goals and interests which emerged during the drawing up of the Master Plan for the city.

First, the paper provides a brief theoretical context restating the main arguments for the research, within the general concept of the shrinking city. Then, a descriptive approach is used for the primary change indicators, emphasizing the influence of local and external agents and the densification of socio-economic networks in the construction of a new institutional framework. This is then used to analyse the main initiatives undertaken and leads to a series of conclusions, which include some unresolved weaknesses and challenges.

The research was based upon a broad statistical database from a wide range of sources, using planning documents, recently published studies and news clips from the local and regional press. However, the primary source of information, which allowed an interpretation of the processes under analysis, was the fieldwork undertaken in Avilés and the semi-structured interviews with 17 local stakeholders from different social sectors and local institutions.

2. Keys to Shrinkage and Resilience in Old Industrial Cities

The evolution of a city is marked by phases in which the population, its activities and functions, external relationships and dynamism, undergo significant alterations which affect its citizens' lives. Many cities involved in this process have faced a past or present crisis that has jeopardized their development and, in some cases, their very survival. Sometimes this crisis is due to situational catastrophes with natural or human causes, with destructive results (Chernick, 2005; Vale & Campanella, 2005). However, processes linked to techno-

logical, economic or political transformations, such as a change in the energy base, new productive organization, market liberalization or the disappearance of political systems are much more common and lead to long-term decline.

During the last 30 years, the Fordist production system crisis, the information and communication technology revolution and a string of socio-occupational and political organizational changes linked to globalization have threatened the future of certain European regions whose dynamism was based on a virtually extinct model. These mainly included areas specializing only in extractive activities dependent on mineral resources or energy, raw materials or labour-intensive industries which could no longer compete with the lower costs in developing countries. These old industrialized regions often suffered traumatic processes. The result of the restructuring and revitalization policies approved by the European Commission or the individual governments varied, causing a relative reversal compared with other cities with a wider socio-economic base, a greater presence of qualified workers or expansive activities (Ballance & Sinclair, 1983; Fothergill *et al.*, 1988; Birch *et al.*, 2010).

More recently, the disappearance of centrally planned economies, with industries and companies in crisis unable to manage the rapid transition towards a market economy, the massive loss of employment and its acute effect on certain industrial, port and mining regions or cities, revived the subject of regional and urban decline, now centred primarily on the continent's opposing flank. The concept of the "shrinking city" was devised to refer to this type of process (Langner & Endlicher, 2008; Fol & Cunningham-Sabot, 2010), which has become increasingly significant in Europe's urban areas over the last 10 years (Turok & Mykhnenko, 2007).

To explain the negative evolution still evident in some cities, over and above the structural processes put in place, special attention is usually paid to endogenous blocks in the form of inherited economic, socio-occupational or institutional structures which limit adaptability, one of the manifestations of the "path dependence" principle proposed by evolutionary economic geography (Martin & Sunley, 2006; Simmie & Carpenter, 2008). This concept illustrates the cumulative nature of decisions, which are often sub-optimal, the resulting inertia and their influence on local development paths that are based on these decisions, with slow transformation.

However, in cities which have suffered a sharp decline in recent decades, there is increasing evidence that some are able to reverse this trend and re-establish positive growth rates (Power *et al.*, 2010). These can therefore be classified as "resurgent cities" (Turok & Mykhnenko, 2008), and become the focal point of present-day urban development research. Three compatible theoretical approaches can be used to explain why some cities display different development paths, although they faced similar difficulties in the recent past.

In the first approach, relational geography, related to new institutionalism, understands the territory as a social construct woven by a number of agent networks with diverse features, which in certain institutional contexts may form partnerships to negotiate shared development strategies (Sunley, 2008). The second approach centres its attention on how some cities are able to construct "innovative [economic or social] milieus", in their search for new responses to current challenges (Ache, 2000; Camagni & Maillat, 2006). The third approach adopts the currently emergent metaphor of "urban resilience". This is defined as "the ability of local economies to transform themselves in the face of technological shocks that undermine their economic base, in essence asking them to reinvent

their economies” (Polèse, 2010, p. 8), or as “a notion seeking to capture the differential and uneven ability of places to react, respond and cope with uncertain, volatile and rapid change” (Pike *et al.*, 2010, p. 59). This new concept provides key explanations related to the approaches mentioned earlier (Lang, 2011).

These three approaches all consider that the recent and unequal evolution of declining cities cannot merely be explained by the impact of structural processes, access to economic centres or inherited sector-based specialization. Local factors have to be considered to explain the apparent basis for the most successful revitalization processes.

The first of these is the decision and efforts of different urban agents, from the public sector, business environment or civil society, to promote globalization response strategies from within their own city, regardless of size or location. This implies the effective use of its specific resources, built up over time, with human, cultural, social and intellectual capital taking precedence over material assets. In this context, the leadership capacity of local governments is considered strategic, in terms of promoting and managing initiatives, and acting as the catalyst for agents with conflicting interests in a city project.

Another fundamental factor is whether companies established locally are able to form relatively stable formal and informal cooperation networks. These help transmit information and knowledge, particularly implied knowledge, sharing projects and generating various types of external effects (Storper & Venables, 2004). Also relevant here are the institutional framework and the existence of cooperative and multi-level social networks between public and private agents in spatial proximity, which share common codes and languages; networks able to create much more effective regional governance and manage a more participative planning that generates collective learning (Zanon, 2010). This is based on power exerted and negotiated through shared responsibility, eliminating rigid government models in favour of collective interests, and on establishing values, regulations and organizations that promote initiative, partnerships and agreement. An adequate institutional framework therefore becomes a catalyst for development, heightening contact between local agents and promoting trustworthy relationships, essential to governing in ways which accumulate resources and lend collective decisions the highest degree of legitimacy (Kooiman, 2003), thus “helping to accumulate a social, intellectual and political capital capable of becoming a resource” (Healey, 1997, p. 311).

Lastly, in an increasingly interdependent world, with multiple network flows connecting places with very different methods and features, creating a solid connection between cities and the outside world also proves to be important (Bathelt *et al.*, 2004). The construction of “resilient” or “resurgent cities” could in fact be based on strategies that heighten the city’s international profile, improve coordination with state and regional institutions or engage in city networks to collaborate on common projects or exchange experiences of good and bad practice to increase the dialogue in defence of certain interests.

The Avilés case study proves particularly useful in a critical comparison of these ideas, illustrating the importance of reflexivity in defining local development strategy and suggesting plausible lines of action.

3. Industrial Decline in Avilés at the Onset of the Shrinkage Phenomenon

In the 1950s, the Spanish Government decided to build an integrated iron and steel plant in the city, as part of the public company ENSIDESA. At that point, Avilés had a population of just over 21,000 inhabitants. In the 5 years prior to the opening, the population rose to

34,251 inhabitants. This increase in the working population took place in a city where the demographic dynamics up to that point had been determined by strictly natural factors. Transformed into one of the country's largest epicentres of mass immigration until the early 1970s, when the migratory flow was finally stemmed, the population of Avilés had grown to 85,299 inhabitants by 1975. This explosive population growth had an enormous demographic impact, and also implied a social and cultural shock.

The impact on Avilés of this accelerated industrialization process—and its subsequent de-industrialization—was profound, leaving a territorial legacy in its wake which, to some extent, is still visible today. First, following this massive influx of workers, a series of neighbourhoods and settlements sprang up around the city. Built quickly, some right outside the factory doors, many were affected by housing deficient in water supplies, services or facilities, which weighed on them for years. A strictly determined social and functional segregation of the urban area was superimposed on these peripheral neighbourhoods, built according to the company's hierarchical structure. They also had their own hospitals, schools, and workers' shops, and remained excluded from urban planning and the life of the city centre, occupied mainly by the autochthonous community.

At its peak, the nucleus of the ENSIDESA iron and steel complex in Avilés and the surrounding region employed some 14,000 people or 27,000 including the workers at the merged UNINSA plant in Gijón. In 1975, the area's iron and steel industry employed 42.2% of the active population in the region, producing 30% of the steel, 43% of the aluminium and 82% of the zinc in Spain (De La Madrid, 1999).

However, the crisis in the 1970s, together with the restructuring policy of the Spanish Government in the following decade, led Avilés to de-industrialization. Just like many other European old industrialized regions and cities, Avilés was crippled by problems of the competitiveness of the industrial sectors on which its development had been founded. These sectors faced a new production context, marked by new, more flexible ways of organizing productive activity and a change in the companies' competitive strategies including technological innovation, segmentation or delocalization.

With some delay compared to initiatives elsewhere in Europe, the Spanish authorities restructured the iron and steel industry in two phases: 1984–1990 and 1991–1997. The country's two primary hubs, Avilés and Bilbao, were the focal points of this process. The second has become a paradigmatic example of industrial restructuring and revitalization strategies in Spain (González, 2006) and, naturally, the most relevant reference for the current urban development strategy for Avilés, analysed in this paper.

Restructuring resulted in the rationalization, resizing and privatization of ENSIDESA, merged in 2002 with the multinational ARCELOR-MITTAL. Other major companies from the iron and steel cluster and other industrial sectors established in the Avilés estuary area were also restructured. The 1990s saw a very important influx of multinational capital. The contribution of large multinational companies to the current Avilés recovery process is discussed later.

The de-industrialization process mentioned above was undoubtedly one of the reasons for the urban decline of Avilés. However, many other interconnected effects in the economic, social and territorial domains contributed to the urban decline:

- Declining competitiveness, disinvestment, adjustments and company closures were immediately followed by job destruction and increased unemployment. During the 1990s, Avilés lost some 6714 jobs in industry. Thus the number of employed individuals

dropped by 53% between 1990 and 2000 (Avilés City Council, 2006). In 1997, the number of unemployed workers from this sector rose to 12,000 (with unemployment rate around 18%), 16% of all unemployed workers in Asturias (De La Madrid, 1999)

- A trend towards depopulation and the progressive aging of the population, especially in working-class neighbourhoods, such as Llaranes. Just between 1990 and 1994, this neighbourhood lost 10.7% of its population, despite the early retirement and retirement policies which manage to retain part of the resident population. Discouragement and discontent were rampant among the local population, fuelling social problems such as alcoholism, drug abuse and prostitution.
- The fragmentation of the Avilés estuary industrial-port complex also became evident, given the obsolescence of the productive infrastructure and the proliferation of industrial wasteland and ruins, which exacerbated the already innately complicated environmental and scenic situation of the city. As a result the city suffered a significant reduction in functional capacities (Benito & López, 2008).

4. Avilés: From Decline to Selective Recovery

Following two decades of slight depopulation, with a 4% drop between 1981 and 2001 of around 3400 inhabitants, the city has once again recorded modest increases in recent years. This is mirrored by a migratory influx which more than compensates decreasing natural growth, translating into a 1.3% increase between 2001 and 2009. While this dynamism is lower than that of Oviedo (11.4%) and Gijón (4.2%)—more diversified from a functional point of view—it represents a turning point in recent history and indicates more substantial transformations which have surfaced over the past decade (Table 1).

First, following the major reversal in activity and job volume due to the iron and steel cluster restructuring, company and employment numbers also showed positive net growth between the beginning of the decade and the onset of the economic crisis in 2007 (Table 2). While its dynamism once again proved weaker than the region's two major cities, between 2000 and 2006 Avilés evidenced a 9.2% increase in employment. However, the losses sustained over the next three years (−15.4%) cancelled out this increase with worse figures than for Gijón (−7.6%) or Oviedo (+5.8%), the largest cities in this area, both close to Avilés but functionally more diverse.

The number of unemployed people registered at the National Employment Institute shows the same trend. In Avilés, at the end of 2001, the unemployed total was 4787.

Table 1. Population growth in Avilés and the major cities, 1981–2009

Cities	1981	1991	2001	2009	Growth 1981–2001 (%)	Growth 2001–2009 (%)
Avilés	86,584	84,582	83,185	84,242	−3.93	1.27
Gijón	255,969	260,267	266,419	277,554	4.08	4.18
Oviedo	190,123	204,276	201,154	224,005	5.80	11.36
Asturias (region)	1,127,007	1,098,725	1,062,998	1,085,289	−5.68	2.10
Spain	37,683,363	38,872,268	40,847,371	46,745,807	8.40	14.44

Source: INE, Population Census and Register.

Table 2. Company and employment evolution in Avilés and the major cities, 2000–2009

Cities	Total jobs			Growth jobs (%)	
	2000	2006	2009	2000–2006	2006–2009
Avilés	24,872	27,163	22,987	9.21	–15.37
Gijón	69,986	84,842	78,374	21.23	–7.62
Oviedo	104,908	122,051	129,130	16.34	5.80
Asturias (region)	339,057	392,310	380,896	15.71	–2.91
Spain	15.235.601	18.770.260	17.413.913	23.20	–7.23

Source: The Social Security Fund.

It then dropped to 4539 in 2008 (the 10 year lowest level) and increased to 6987 in 2010. However, this increase in just two years (49.3%) proved, in this case, to be lower than in Gijón (58.1%) and, in particular, than in Oviedo (62.0%), where the heightened importance of construction and certain consumer services exacerbated the effects. This illustrates certain weaknesses still inherent in the production base in Avilés, in terms of the relative weight of inherited structures and their influence on a slow-moving local transformation.

From a positive point of view, the old Fordist industrial city has diversified its economy, without relinquishing its now revamped manufacturing past. In fact, the manufacturing sector still generates almost 25% of local employment (far ahead of its relative weight in Gijón and Oviedo), reinforcing its position over the last 10 years, thanks to its resilience in the current crisis (Table 3). The pre-eminence of the service sector (63.17% of workers) continues to be based on the predominance of trade and consumer services (10,402 jobs). Yet the port's dynamism and the increasing demand for services from companies heighten the presence of what Halbert (2005) calls “intermediation activities”, which manage the circulation of the material (merchandise, people) and non-material (capital, information, knowledge) flows that articulate the system (3841 jobs), despite competition from the two large urban centres nearby.

Despite all this, Avilés is still wrestling with some comparative inherited disadvantages that limit its capacity to become a city with a knowledge-based economy (Musterd *et al.*, 2007; Van Winden *et al.*, 2007). Considering the sectors which are now generally grouped

Table 3. Employment structure in Avilés by sectors, 2000–2009

Sectors	Number of jobs		% total	
	2000	2009	2000	2009
Agriculture	401	235	1.61	1.02
Industry	4539	5582	18.25	24.28
Construction	4335	2672	17.43	11.62
Services	15,597	14,522	62.71	63.17
Total	24,872	22,987	100.00	100.00

Source: The Social Security Fund.

under this denomination,¹ these barely employ one of every eight workers in Avilés (12.3% of employed workers), much lower than in Gijón (18.4%) and Oviedo (36.1%), which have a much higher knowledge-intensive business sector presence. The size of the cultural sector is limited (383 jobs, 1.7% of employed workers), despite its commitment to the future, influenced by the attention now paid to the construction of “creative cities” (Scott, 2006). According to the most recent census, the same occurs with its human capital stock. While 21.0% of employed workers in Avilés have a university degree, this increases to 24% in Gijón and as high as 33.5% in Oviedo, the regional capital. Identical differences are found in the analysis of the presence of professional groups which Florida (2002) classifies as the “creative class”, comprising 30.8% of the total in Avilés, as opposed to 34.6% in Gijón and 43.6% in Oviedo.

However, the presence of an industrial base, which, at least in area, has been subject to an intense innovation process, also produces positive results. For example, between 2000 and 2006, companies from Avilés managed to secure loans for innovation projects from the Ministry of Industry totalling 15.9 million euros.² This equates to an average of 569.7 euros per company located in the city in 2006, far higher than Gijón (300.8) and especially than a service-based city like Oviedo (46.9). Likewise, 10.7 patents were generated per thousand companies in Avilés over this same period, compared to 10.3 in Gijón. The same rate in Oviedo, 15.9, is directly linked to its status as the capital and main regional university hub (Méndez & Sánchez-Moral, 2010).

One final revitalization process indicator could be average house prices over the last 10-year period. In 2010, Avilés land prices were cheaper at 653 euros per m² compared with 694 euros in Oviedo and 740 euros in Gijón, although the percentage price increase for Avilés recorded since 2000 (50.5%) is far higher than in the other two cities (7.9% and 39.6%, respectively). Since 2007, Avilés has also resisted falling prices better (−11.8%) than Oviedo (−14.1%) or Gijón (−20.3%), which seems to confirm its improved rating as a place to live.

As well as the economic and demographic aspects, Avilés has also worked on other dimensions of its revitalization process. There has been an evident attempt to improve the urban environment, especially the cleaning up of the estuary, the enlargement of the harbour and the creation of a sea-front promenade, and to safeguard the cultural heritage with the rehabilitation of the historic city centre. The intense public action in areas including services, housing and social cohesion should also be mentioned here. These dimensions, key to understanding the Avilés revitalization process, are developed in the following sections.

Taking this evidence into account, a brief interpretation of the keys to the revitalization process is relevant here, identifying the stakeholders who enable it, their ability to construct internal networks and link the city into global networks and especially the strategic plans implemented to put it into practice.

5. The Construction of a New Institutional Milieu: Stakeholder Networks and Revitalization Initiatives

For more than 10 years, Avilés has been involved in a process of economic revitalization and urban regeneration to reverse the downward spiral that fuelled shrinkage. While any process of this type is influenced by multiple factors, what is highlighted here is the attention is paid to the prominent stakeholders, with heterogeneous characteristics and interests.

Nevertheless they have become involved in local development, mobilizing or generating resources in the city and gradually establishing collaborative networks for specific purposes. These networks do not eliminate conflict, but aim to resolve it through enhanced dialogue.

As a result, there has been an upswing in innovative economic and social initiatives, which include “the will to invest in company creation and development, get involved in local or regional governance initiatives and invent new manners of engagement to aid overall socio-economic development” (Fontan *et al.*, 2005, p. 17). The increased number of agents involved (Figure 1) and the appearance of pro-city development coalitions are the first features to highlight.

External agents continue to play an important role in city development, both with regard to the different sector-based, regional and transversal policies which affect it plus the strategic decisions made by public companies dependent on the central government and large transnational companies present in Avilés.

The city has benefited from sizeable European funds, roughly 400 million euros, from FEDER and its participation in various initiatives and programmes (Urban, Equal, Interreg, IFOP). These funds were allocated to projects to improve the port and other basic infrastructure, the construction of a new fish market, and include urban rehabilitation and waste management. More recent funding from the ESF is intended for care programmes for families at risk of social exclusion.

As far as central government is concerned, the diverse industrial policies applied since the restructuring plan of 1981 have had a direct effect on city-wide strategic sectors. At the same time, public companies such as the *Port Authority*, *SEPI-Infainvest* and *RENFE* are particularly important in urban transformation, acting through the Port extension, the promotion of the new *Principality of Asturias Business Park* (PEPA), and current

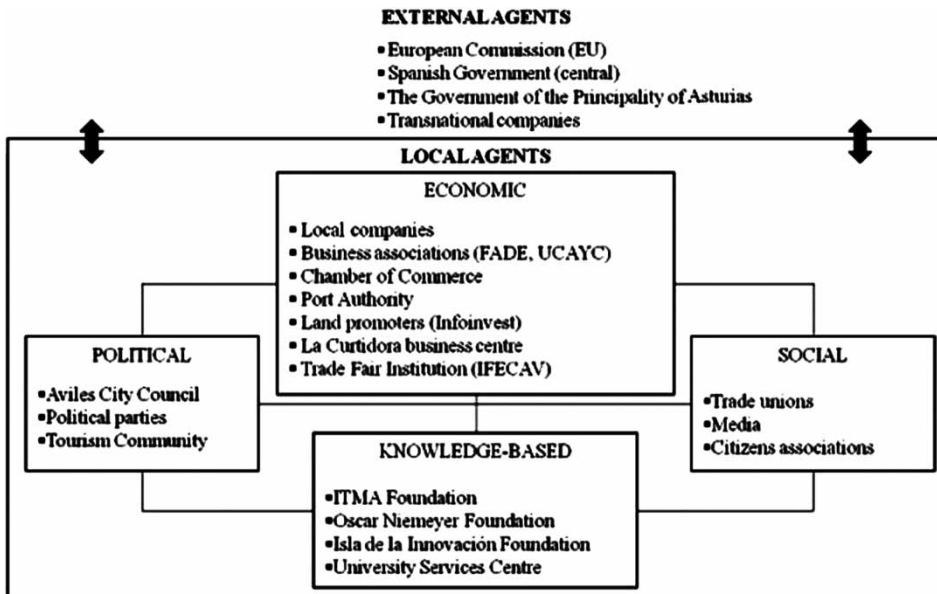


Figure 1. Public and private agents involved in the regeneration of Avilés.

projects to modify railway access, respectively. The Government of the Principality of Asturias is part of the networks formed to finance emblematic projects in recent years, such as the *Niemeyer Cultural Centre* or the *Island of Innovation*. It has also implemented other initiatives which have benefited the city, such as the technological centre network or the creation of consortia to manage, e.g. solid waste.

Finally, much of the recent industrial history of Avilés is closely linked to five large transnational companies (Arcelor-Mittal, Asturiana de Zinc-Xstrata, Saint-Gobain, Alcoa-Inespal and Du Pont). Their decision to maintain and modernize their factories without delocalizing, at least in the meantime, remains essential to the city's future, generating direct employment and with a widespread effect on the supply chain. They also anchor people to the city, which justifies the promotion of certain urban facilities and services.

However, the most important change during this time has been the reinforcement of a group of political, economic, social and knowledge and culture-linked agents, whose decisions respond first and foremost, to key local issues. Some of them, such as local government, chamber of commerce or trade unions, were well established, but their functions were only extended to encompass development projects during the last decade. They now coincide with more recently created stakeholders engaged in an effort to combat decline such as business associations, business innovation centres, tourism associations, technological centres and Foundations.

In this context, although there is no official body in Avilés coordinating local government and social agents, a succession of local agreements has been signed in recent years to this end, within the framework of similar regional initiatives, e.g. "Avilés Avanza" Local Pact, part of the Agreement for Competitiveness, Employment and Wellbeing in Asturias, 2008–2011.

Headed by the City Council, the above agents have launched a series of strategies to achieve specific objectives: economic promotion and employment, creating a competitive city; promotion of innovation and culture, fostering an intelligent city; improving the quality of life and environment, to achieve a more inhabitable city; reinforcing local systems, to implement a "city with a project". Each strategy has led to the implementation of numerous city revitalization initiatives. Table 4 gives a summary of the investment provided or planned for major urban planning projects (total 656.4 million euros), showing the funding source with the majority corresponding to public funds.

The first group includes operations aimed at bolstering the city's competitiveness, badly damaged by the period of decline and which compares unfavourably with Oviedo or Gijón. Along with an overall improvement in internal and external access and communication, extending the city's port has become one of the most important recent urban projects.

To exploit the port's full potential (estimates show the port as representing roughly 5% of the regional GDP) future plans focus on broadening the docking line on the right bank, opening up areas for new service zones, public land concessions and roads. This would shift the main activity of the port to the right bank, creating new potential opportunities in the sector closest to the city centre (a new fish market, sports area, sea-front promenade), instead of a port primarily focused on handling industrial materials.

Other initiatives since the 1990s, within the same strategic aim, have attempted to alleviate the effects of the sustained industrial decline (Las Arobas Industrial Park, La Curtidora Business Centre, Steel Technological Centre). Among these, the PEPA promotion in 1998 now seems emblematic. This business park has a surface area of more than 2 million

Table 4. Major urban planning initiatives in Avilés and sources of financing

Initiative	Investment	Financing
Estuary clean up (from 2003)	136 million € ^a	Ministry of the Environment and Rural and Marine Affairs, Port Authority, The Government of the Principality of Asturias, Avilés City Council
Port expansion (Phase I and II) (from 2008)	65.3 million € ^a	European Commission (Cohesion Funds and FEDER), Ministry of Development-Port Authority
Improved road infrastructure (PGOU forecasts, from 2007)	96.9 million € ^b	Ministry of Development, The Government of the Principality of Asturias, City Council, private developers
Improved railway infrastructure (PGOU forecasts, from 2007)	27 million € ^b	Ministry of Development
Development of Principality of Asturias Business Park (PEPA) (from 1998)	127.2 million € ^a	European Commission (FEDER Funds), SEPI-Infainvest
Steel Technology Centre (from 2002)	100 million €	The Government of the Principality of Asturias
Renewal of “La Curtidora” Business Centre (from 2010)	500.000€	The Government of the Principality of Asturias
Construction and endowment of the Oscar Niemeyer Cultural Centre (from 2007)	43.3 million €	The Government of the Principality of Asturias
Infrastructure refurbishment, re-urbanization and pedestrianization of historic city centre (from 1992)	10.9 million €	European Commission (FEDER Funds), Ministry of Development, Avilés City Council, urban planning agreements
Building refurbishment programmes in the historic city centre (from 1990)	13.9 million €	Ministry of Development, Ministry of Public Administrations, The Government of the Principality of Asturias, Avilés Region Community, Avilés City Council
Urban renewal and environmental recovery initiatives in ENSIDESA workers’ neighbourhoods and settlements (from 1998)	35.4 million €	Ministry of Development, Ministry of Housing, The Government of the Principality of Asturias, Avilés City Council, neighbour contributions

Source: Author’s data.

^aInvestment figures include planned and already realized investment.

^bUrban Development Master Plan (PGOU) forecasts may prove far lower than the final investment. For example, the railway alternative proposed by the Ministry of Development exceeds 380 million euros.

square metres, recovered from the ENSIDESA ironworks site in an extremely complex operation. This began by decontaminating the land, followed by simultaneously demolishing and maintaining certain facilities active, before initiating its re-urbanization.

The business park, which has already generated more than 3000 jobs with an investment of over 104 million euros, has received a sizeable contribution from FEDER Funds. This operation has contributed to the city’s economic diversification and the increase in the number of small and medium-sized manufacturing firms, even though the profile of the activities implemented is controversial, mainly because of the land marketing strategies.

Currently, 70% of land is being developed, with 20% in the “Coking Batteries” sector, while 10% remains undeveloped. Access to the port area from the motorway and service roads has been improved, in an area of particular interest because of the plans to create a logistics area with the extension to the port.

Within the second broad group of strategies, aimed at promoting innovation and culture, some important defects emerged during the interviews with stakeholders. These included poor connections between technological centres, companies and the regional university, as well as the entrepreneurial capacity of the population of Avilés, perceived as negligible, partly as the result of decades spent underneath the “umbrella” of state-owned companies. These opinions, however, contrast with the data given above, which demonstrate emboldened business dynamism in the city and clearly do not coincide with the local government’s recent and unmistakable attempt to rectify this situation.

Among the measures underway, the emblematic Oscar Niemeyer International Cultural Centre³ far outshines the rest. Recently inaugurated, it sits on the Island of Innovation (its development is discussed in the following section). The current city-marketing strategy makes full use of this successful project, aiming to place the city on the “map” of internationally recognized cities, e.g. by inviting famous celebrities to promote local culture, music, theatre, tourism and cuisine. Here, a marked improvement in the city’s cultural infrastructure can already be observed in the new arts centre, a city museum and a music school, as well as in the tourist infrastructure, with an increase in the number of hotels (6–10) and restaurants (47–75) between 2006 and 2009.

Meanwhile, initiatives geared to improving the quality of life and urban sustainability are linked basically with improved facilities. This has been achieved through a “neighbourhood policy” to remedy shortcomings and turn Avilés into a city with a wider provision of public services. Among these initiatives, the intense municipal involvement in social cohesion and housing, dating from the 1980s, is particularly noteworthy, with several programmes achieving international recognition (e.g. 4th United Nations International Award for Best Practices to Improve the Living Environment, 2006).

On the other hand, it is important to highlight two urban projects. First, the decisive Avilés estuary-cleaning-up works, which began in 2003 and has required an investment of more than 14 million euros and the removal of 170,000 cubic metres of polluted sludge. Secondly, the rehabilitation policy of the historic centre, representing one of the outstanding interventions by the Avilés City Council since the 1990s. This is now guaranteed to continue as a result of the Special “Plan for the Improvement of the Historical City Centre” approved in 2010. Other actions include building refurbishment programmes, renovation of public infrastructure and services or restoration of the urban landscape. The aim of all these actions is to recuperate the city centre as a venue for commercial activities, tourism and residents. Emphasis is also placed on its involvement in regional consortia to manage urban waste, the water supply and transport in a unitary and more efficient manner.

This brief review concludes with those policies aimed at strengthening the local system and creating a “city with a project”, reinforcing the synergies between the elements mentioned separately above. The best example would be the recent approval of the main city planning document, the Avilés Urban Development Master Plan (PGOU), analysed in the final section below.

Apart from the Master Plan, resulting from a public participation process, other collaborative networks have also been built up between stakeholders to support the projects with the greatest impact on economic revitalization, urban regeneration and renewal of

the image of Avilés. The information obtained from the interviews and documents clarifies their geometry and offers some reflections on the different existing levels of public–private cooperation (Figure 2).

The projects which aim to develop a creative economy (Niemeyer Cultural Centre, Island of Innovation), diversify the economic base, and promote innovation and new business (Steel Technological Centre, PEPA, La Curtidora Business Centre, Community Tourism of Avilés) are by far the most numerous. But there are also those which engage a greater number of stakeholders, especially in the private sector, mainly interested in boosting the city's economic growth.

In contrast, the projects to improve the quality of life in the run-down city centre and the estuary, which was heavily polluted from the previous industrial activities, only involved public actors at different levels, highlighting the support provided by the European Commission.

Finally, projects with social objectives were promoted exclusively by local government, without articulating any network. Here, it should be noted that the Avilés City Council undoubtedly played a leading role in these networks, setting many of them up and participating in them all, as well as fostering cooperation among the other, often tenuously linked, stakeholders with different interests. Avilés has also joined several international city networks (International Association of Education Cities, Conference of Atlantic Arc Cities, Cool Cities, Spain Convention Bureau) geared to interchanging experiences. The construction of all this institutional architecture is of paramount importance to the primary initiatives undertaken to stimulate the city's resurgence.

6. City Model Consensus and Debates: The New Master Plan (2007)

The new Plan reflects a city project which proves that the reindustrialization thesis, as the unique development path, defended by public authorities, on all levels from local to national well into the 1990s, seems definitively outdated. Nevertheless, this approach informed the 2000 Avilés Strategic Plan, drawn up between 1992 and 1993 by the Avilés City Council, and which represents an initial reference document. This Plan revolved around the modernization and diversification of the city's industrial base, in addition to improving shopping, culture and tourism, quality of life and citizen participation.

The reclassification of 2.5 million m² of the former ENSIDESA site, retaining its industrial use to a large extent, is a good example of that approach, along with other urban projects like the Las Arobias Industrial Park (1986), established as a result of the Spanish Government declaring Avilés a "Priority Industrial Development Area", or like the La Curtidora Business Centre (1993), rehabilitated with funds from the Government of the Principality of Asturias and the European initiative to restructure iron and steel areas (RESIDER). In any case, it is symptomatic that the Strategic Plan was never executed and the constitution of Avilés 2000, the company responsible for land management, was delayed until 1998 due to constant, politically-charged dissent (De La Madrid, 1999).

The lack of a shared vision concerning the future of Avilés affected the urban planning directive, which has remained in effect since 1986. This could be considered as a symptom of the search for its own urban development model as an alternative to the industrial iron and steel model which defined the nucleus and the region's recent past. The difficulties in updating the urban plan were exacerbated by the alternating political administrations in the local government at the time.

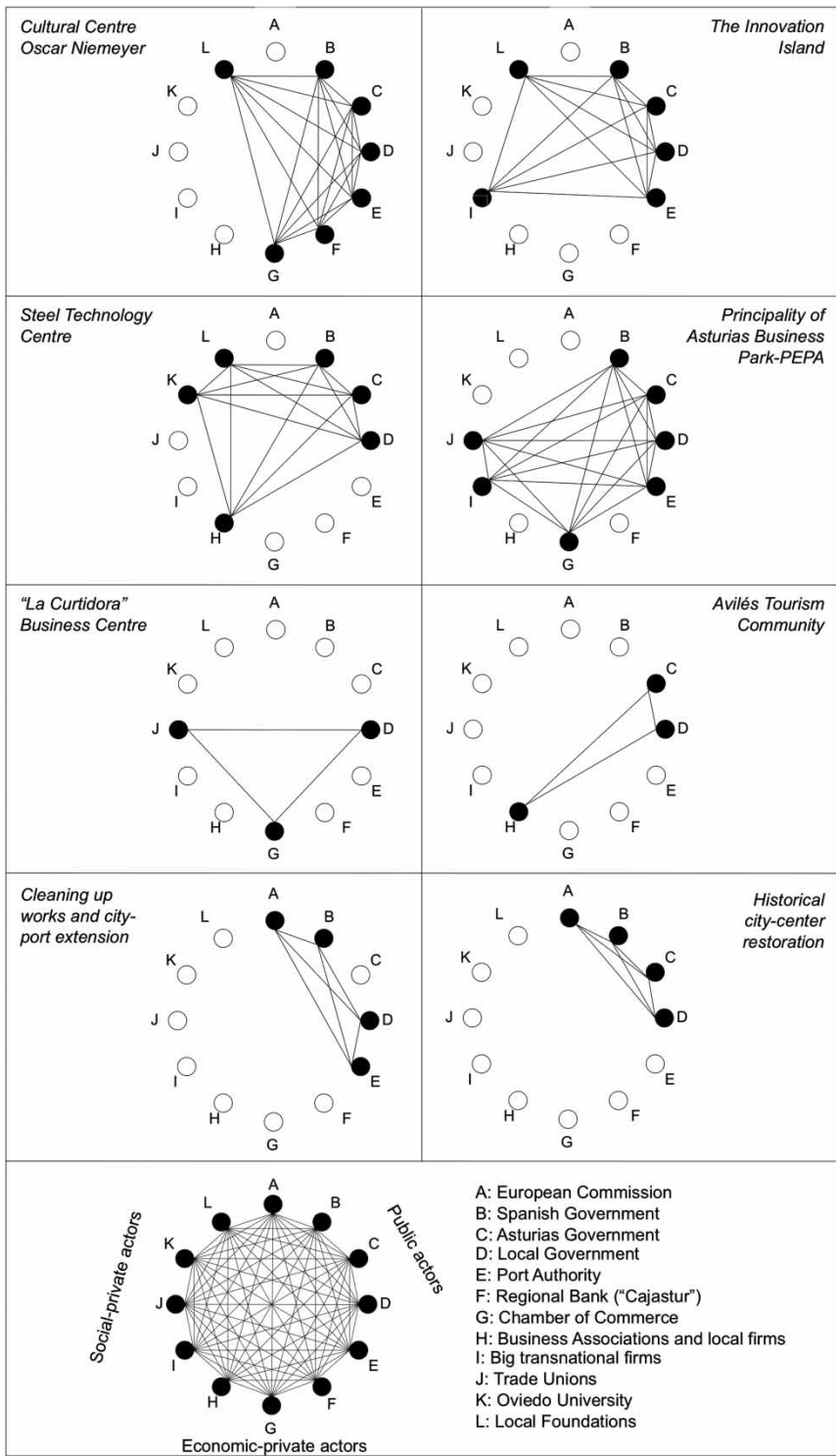


Figure 2. Local actors' networks behind main regeneration projects.

The new PGOU, finally approved in August 2007, following a lengthy public information process with over 700 objections, demonstrates the fresh discourse concerning the city. As pointed out by the authors of the Plan, the city had undergone “economic restructuring without urban restructuring” (Leira & Calvo, 2003). Thus, while the reindustrialization staunchly defended during the previous period is necessary, it no longer suffices to achieve the goal of turning Avilés into an attractive, modern and competitive city.

The new socio-economic development foundations include, or at least reinforce within the “Avilés model”, aspects such as trade, tourism, innovation and culture (Benito & López, 2008). In fact, the new PGOU is committed to configuring a dual centrality supported mainly by service activities: (a) regional centrality in the conurbation of almost 140,000 inhabitants and (b) metropolitan centrality shared with Oviedo and Gijón, in what would be a modern, multi-nuclear networked metropolis (Rodríguez *et al.*, 2009).

Yet to achieve these goals, what the PGOU considers a series of limitations must be overcome, beginning with the fact that Avilés has a reduced urban area compared to Oviedo and Gijón. These limitations allude to the economic obsolescence of old iron and steel facilities, most of which have been demolished. Today, this is coupled with a territorial obsolescence caused by the absence of an adequate territorial framework for the new economy and a shortage of novel urban projects. Factors of the observed environmental deterioration caused by the industrialization model include lack of planning for the infrastructure implemented during the expansion process, the pollution of soil, water (partially corrected) and air, landscape deterioration and the low-quality housing and inadequate waste water system.

Finally, other limitations have been identified, such as growth tensions, particularly in the region, planning shortcomings and a competence framework which lacks a more comprehensive sector- based territorial vision.

Conversely, the presence of certain key factors is also acknowledged and may be understood as city-specific territorial assets or resources, besides the institutional context and the relationship patterns between public and private agents (the main goal of our analysis as already described). Among them the PGOU identifies the Avilés estuary. The new plan is committed to bypassing the old area, allowing for urban growth to the east, so valuing the strip of water and favouring the requalification of the city waterfront and land reclaimed from industry. The estuary will then become the true axis of a new centrality, rising above its status as a barrier within the city separating residential and industrial areas, and now unifying them with new activities and facilities including a walkway, leisure areas and the Niemeyer Centre. Obviously, the city of Bilbao is a primary reference for the Avilés urban renewal process. However, many examples of other cities, such as the “water cities”—Amsterdam, Bruges, Stockholm or Nantes—also contributed to the Island of Innovation Master Plan, prepared by Metrópoli Foundation.

Secondly, the port, traditionally considered the city’s economic driving force, can make an active contribution to the process of urban transformation and revitalization, through its planned expansion which will allow new functions and specific activities in the area closest to the city. Thirdly, the main asset will be the significant strategic reserve of land reclaimed from the iron and steel industry restructuring. This is a clearly distinguishing factor of the potential of Avilés as compared with other cities. The unique central location of this land within the city and region favours the idea of complementing the land allocated to industrial activities with the implementation of advanced tertiary functions, facilities and residential use. Other highly positive factors include the attractive historic city



Figure 3. Forward planning area: new centrality.

Source: La Isla de la Innovación, reproduced with permission. Available at <http://www.isladelainnovacion.es>

centre, a potentially significant resource for city tourism and commerce, and the proximity of the regional airport, with its potential to improve the city's national rating.

Briefly, the new urban project with the greatest impact on the city is the “New Centrality”, complex enough to require a Special Plan for its development.⁴ It is divided into three distinct areas (Figure 3): (a) railway station (62,200 m²), (b) land from the former ENSI-DESA site, between *PEPA* and the estuary, where the Island of Innovation is to be developed (200,370 m²) and (c) the Divina Pastora district (309,478 m²). The development will require the engagement of the different public authorities already mentioned.

The scheduled work would include the removal of barriers separating the estuary from the city, particularly the railway tracks, which would be partially replaced by a tramway, the creation of a new transport centre near the *PEPA* and the construction of new residential areas in the run-down Divina Pastora district, clearly visible from the main accesses to the city. Another focus of attention will be improved access to the right bank, with special emphasis placed on the organization of the immediate surroundings of the Niemeyer Centre, the central hub around which the planning of the entire area revolves, as well as developing a sizeable tertiary service area for companies and inhabitants.

The Special Plan to Improve the Historic Quarter of Avilés is also an addition to the new city plan. This Plan was approved in 2010 and continues the various protection and rehabilitation initiatives undertaken in recent past. Currently, the aim is to strengthen the synergies between the historic centre and the Island of Innovation project, while laying the groundwork for a future proposal to declare the historic centre a World Heritage site.

7. Conclusions: Achievements and Challenges

In his book on the history of Avilés, J. C. De La Madrid offers a coherent diagnosis of the decline experienced in the final two decades of the twentieth century:

To say that present-day Avilés is in poor health seems to be a sufficiently proven fact. That the way out of this current situation is uncertain, for better or for worse, is also true. If anything defines this city it is the uncertainty of its situation at a time when an economic and social model, to which the grand iron and steel works had accustomed the region, crumbles for good (...) Avilés's society is a passive spectator to this process, and has yet to understand its true significance or lay the initial groundwork to improve its fate. Novel initiatives are few and far between, and those that are presented never reach the consensus they need to prosper. (De La Madrid, 1999, pp. 483–484)

More than 10 years later, our analysis has demonstrated a trend shift in certain relevant indicators. In the first part of this paper a reversal of the demographic dynamic was shown, the result of a positive migratory balance which has re-spurred growth after two decades of shrinkage. Similar conclusions are obtained from the economic and socio-environmental outlook. Over the past 10 years there has been job recovery, following the harsh adjustments implemented by industrial restructuring, and also a clear diversification of the city's economy. Meanwhile, increased public or private interventions, geared to the development and the dissipation of the apathy mentioned above, paved the way for a new city project, crystallized in the approval of the new Master Plan (2007), although with some difficulties. The recent progress of Avilés therefore seems to fit the concept of the *resilient city*, given its proven capacity to face up to "outside shocks" and adjust positively to the new context.

This research also confirmed the relevant contribution of various local and regional actors, who were able to generate a new institutional framework, agree on a future project for the city and undertake local development initiatives. They also considered how to improve the city's national and international projection, promoting a new external image. In these processes, the Avilés City Council has acquired an unmistakable prominence as a development catalyst (against the secular influence of external leaderships), and is now leading numerous innovative initiatives. The interviews conducted allowed the geometry of the cooperation networks involved in these major urban regeneration projects to be defined, along with an understanding of their conflicts of interest.

However, despite the development process that has already produced tangible results in various domains, reversing shrinkage is a lengthy process. In this respect, certain weaknesses and challenges are still visible and are a source of uncertainty for the immediate future.

The first of these is the limited and unequal involvement of private stakeholders in the city's revitalization process. Effectively, the data indicate an increasing involvement in the management of several of the major urban projects mentioned, in, e.g. foundations or institutional networks. However, there is much less involvement in the case of financial support, with public contributions representing the major funding. Given the present climate of economic crisis and that Asturias has been considered within the new Convergence Objective as a "phasing out" region, the need to develop public/private partnerships could be key to sustaining the current process. Here there are clear efforts by the Government of the Principality of Asturias to convince large companies to sponsor the Oscar Niemeyer Foundation and cultural projects that will support the new Niemeyer Centre.

With regard to economic diversification and the new urban image, the continued presence of the coking batteries which Arcelor Mittal leased from the SEPI until 2017 (with a

possible extension to 2020), is still a subject of dispute. Although these were originally scheduled to be removed in 1997, an increase in the price of coke and the shortage of this type of plant in Europe have made the annual production of over one million tonnes profitable. The fact that over half this amount is exported has been considered strategically valuable for the region. However, counter-arguments stress its environmental impact from pollution and heavy vehicle traffic and its visual impact, incompatible with its proximity to the new urban icons such as the Niemeyer Cultural Centre or the future Island of Innovation.

The on-going controversy between those who envisage a post-industrial city based on tourism, culture and services, and other groups and institutions which value industry as not only part of the city's past, but as an essential base for the future, is also present in the proposed port projects. The first group considers a port used for bulk cargo traffic, with immense industrial facilities on the water's edge, some of them in poor condition, as a serious impediment to urban renewal operations and cite those undertaken in cities which have turned these areas into office, residential, cultural or leisure spaces, attracting major real-estate investments. For the second group, shifting the heavy vehicle traffic to the right bank of the estuary could increase compatible use and maintain industrial, logistic and fishing uses and continue to provide necessary jobs, paving the way for a renewal, but not a radical, unrealistic urban metamorphosis.

Another challenge is to improve Avilés' participation in knowledge society. The efforts made here to support technological innovation, improve the level of training and, most importantly, to place culture in the centre of the current development strategy, are unquestionable. Yet the inheritance from the recent past refuses to disappear. While a sizeable portion of the large transnationals' R&D is conducted outside the region, the small companies are not yet generating sufficient demand for technological centres and innovation, and their connection with the university, barely present in the city, is still weak. Lastly, the traditional characteristics of local business do not generate enough qualified jobs for the majority of the most highly qualified young people, who often emigrate to other cities with better occupational opportunities.

The inter-city relationship is, precisely, another important aspect. The nearby cities of Oviedo and Gijón, greater in both size and dynamism, could be considered a factor which strengthens the position of Avilés, as part of a multi-nuclear urban cluster with a progressive functional specialization. However, the other cities also exert marked competition, given their heightened capacity to attract a large proportion of the quality services, facilities or business headquarters, qualified professional groups and a wider selection of hotels. In addition, *El Musel*, Gijón's deeper-draught and recently expanded port, has more container traffic than the port of Avilés. All of these offers represent more advantages than Avilés in the context of the European Union's new port network planning.

Lastly, our fieldwork has illustrated the need to change the "local" approach to a more "regional" vision, especially in aspects such as managing communal services and the planning of infrastructure and industrial sites. This reinforces the importance of multi-level governance networks in promoting urban development.

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Notes

1. This includes OECD high-intensity technology industries, knowledge intensive business services, and other knowledge-based services like education and health and cultural industries.
2. These loans are based on attracting state funding from the public entity *Centre for Industrial Technological Development* to reinforce competitiveness through technological innovation tools.
3. The International Cultural Centre is a project designed by architect Oscar Niemeyer for the Government of the Principality of Asturias to acknowledge the Prince of Asturias Award for the Arts in 1989.
4. In January 2010, the *Island of Innovation Foundation* held an international competition to draw up the *Special New Aviles Centrality Plan*, with 18 proposals presented. The selected plan comes from a partnership between three engineering and architecture firms, with teams including several Master Plan editors, and is backed by architect Norman Foster's studio. Since the operation's financial details have still not been finalized, the Island of Innovation project is not been included in Table 4.

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