



Saint-Étienne City Story



CASEreport 105: May 2016

Bert Provan

LA FABRIQUE

L____ C T É

Contents

List of Figures	3
About LSE Housing and Communities	4
Foreword and acknowledgements	4
1. Background	5
Early History	5
2. Post-war Developments	9
Industrial development	9
Housing shortages and mass housing estates	
3. First Industrial Crash	11
Overview of crisis	12
4. A new turn for Saint-Étienne	
5. Development of Intercommunality	15
${\bf 6.\ Major\ physical\ and\ social\ investment\ programmes\ -\ brown field\ sites\ and\ poor\ neighbourhoods\}$	16
EPORA	16
Grands Projets de Ville	16
ANRU and the Rehabilitation of the poorest neighbourhoods	17
Troubling resistance to change	
EPASE	
7. Progress in major long-run investment programmes	24
8. City of Design – Saint-Étienne's emblematic cluster	28
Design focus	28
9. Clusters of Clusters	31
10. Marketing the city's assets	33
11. Environmental Action	35
12. Riding the Financial Tides	37
New Mayor Vincent	37
Research and higher education institutions	37
Developments and continuity following the financial crash of 2008	38
Persistent high unemployment	
13. Wider economic change	40
Growth of health and education and personal services	
14. Small and Medium Enterprises - Saint-Étienne's economic life blood	43
15. Concluding thoughts	47
Rihlingranhy	49

List of Figures

Figure 1: Saint-Etienne City and Metro population decline 1968-2011	5
Figure 2: Key dates in Saint-Étienne's history	6
Figure 3: Rise and fall of Saint-Étienne's population 1809-2012	7
Figure 4: Better transport links, green spaces, and services at Quartiers Sud-Est	18
Figure 5: Local Market at Montreynaud	19
Figure 6: New staircase and garden, Crêt de Roc	21
Figure 7: Pedestrianised city centre area	23
Figure 8: Restored manufacture buildings and City of Design	25
Figure 9: Overview map of Saint-Étienne showing the major recovery and reinvestment programmes	
supported by centrally and locally funded agencies	27
Figure 10: Level of debt in Saint-Étienne	38
Figure 11: Unemployment in Saint-Étienne and the Rhone-Alpes Region 2003-14	39
Figure 12: Changes to industrial and related jobs 2006-10	41
Figure 13: Changes in retail and various services jobs 2006-10	42
Figure 14: GVA contribution of new SME businesses by type	45
List of boxes	
Box 1: Recovery timeline	13
Box 2: The EPORA 'land recycling agency', founded in 1998	
Box 3: The EPASE regeneration agency, founded in 2007	22
Box 4: Cultural activities in Saint-Étienne	23
Box 5: EPASE plans and progress to 2020 - Chateaucreux	24
Box 6: EPASE Manufacture Plaine Achille City of Design project	
Box 7: EPASE Pont de l'Ane Monthieu project	26
Box 8: Central Jacquard Area	26
Box 9: City of Design	29
Box 10: Saint-Étienne's Competitivity Clusters	
Box 11: Saint-Étienne's key current "selling points"	33
List of tables	
Table 1: Progress on ANRU schemes up to 2013-14	
Table 2: ZUS areas still differ significantly from City averages	
Table 3: Main employment sectors in Saint-Étienne Métro 2012	
Table 4: Largest industrial and related firms at 31/12/12	
Table 5: SME Sector by size and number of employees 2012	
Table 6: SME creation in Saint-Étienne 2007-2012	
Table 7: Average number of employees by business type 2012	
Table 8: Failure rates after five years, by type of business Failure rate %	45

About LSE Housing and Communities

LSE Housing and Communities is a research unit within the Centre for Analysis of Social Exclusion (CASE) at the London School of Economics led by Professor Anne Power. CASE is a multi-disciplinary research centre which focuses on the exploration of different dimensions of social disadvantage, particularly from longitudinal and neighbourhood perspectives, examining the impact of public policy. We aim to understand the social dynamics of disadvantaged neighbourhoods; promote models of housing and neighbourhood management; develop ways to support community and resident self-help action, especially in social housing areas; and shape government policy.

Foreword and acknowledgements

La Fabrique de la Cité, a French foundation sponsored by Vinci, funded LSE Housing and Communities to produce seven updated city reports on Saint-Étienne and six other European cities, following our initial reports in 2007. The financial crisis, Eurozone troubles and six-year recession have changed the fortunes of these hard-hit, former industrial cities yet again. These seven stories are up-to-the-minute, grounded evidence of the capacity of cities to recreate themselves as the Phoenix. Each city story is unusual in focussing on a single city and looking in depth at how it survives and thrives, or struggles.

The reports draw on the earlier work of Jörg Plöger and Astrid Winkler who wrote the original city reports published in 2007, and we owe a deep debt of gratitude to them for their outstanding research, their meticulous evidence and their direct accounts of visits to the sites. We revisited all the cities several times since 2008, and this report is based on visits to Saint-Étienne and interviews with city stakeholders. It also draws on previous research, city reports and wider evidence. We want to thank all those we met and interviewed, the projects we spent time in, all the residents, officials and programme leaders who shared their insights. In particular we thank Lionel Martinez, Ludovic Noel and Agnès Perez. Without their input, the reports would not reflect the dynamic reality of changing cities.

The majority of images in this report have been taken by the authors. Where other images have been used, copyright permission is being sourced. We fully accept responsibility for errors and omissions and welcome feedback on any of the evidence that needs expanding, updating or correcting.

1. Background

Saint-Étienne is a city of 170,049 residents¹ and is part of the wider Saint-Étienne Métropolitan area, which in 2011 had 386,940 residents. The population of both the city and the city region has been slowly declining during the past 40 years, and continues to decline, as the table below indicates:

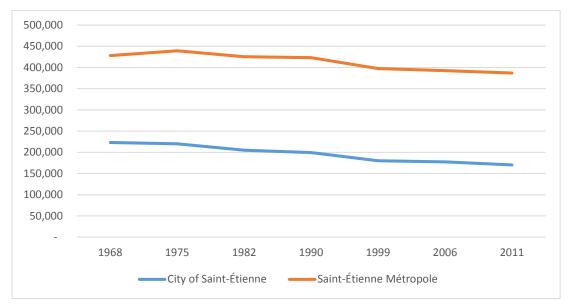


Figure 1: Saint-Étienne City and Metro population decline 1968-2011

Source: INSEE.

The city covers 80km² with a density of 2,126 people per km², one third the density of Lille, while the Metropole covers 607 km² with a density of 638 people per km², also around one third the density of Lille Metropole. The city is within the Loire Départment in the Rhône-Alpes region, and forms part of the wider "Eurométropole" grouping of four cities including Lyon, established as regional capital in 2009. They have a total population of 2 million. The proximity of Lyon (about an hour by train or by the Autoroute) means that Saint-Étienne's economy is closely linked to this much larger and economically more powerful neighbour.

Early History

It has been claimed² that Saint-Étienne "invented everything – the railway, the tramway, bicycles, mail order (Manufrance), supermarkets, the sewing machine, the café machine, with design at the heart of all these, linking beauty and utility".

¹ INSEE, 2011.

² Gravelaine, F. (2012) Saint-Étienne: Un Territoire se réinvente. Editions Carré, Paris (p13).

Figure 2: Key dates in Saint-Étienne's history

Key Dates in Saint-Étienne's History					
1300s	Became a center for metal-work				
1746	Royal Arms Factory founded				
1816	School of Mines (École des Mines) founded to train mining engineers				
1823	France's first rail line built between St- Étienne and Andrézieux for coal transport				
1830	First sewing machine invented in St- Étienne				
1855	Becomes capital of the Loire département				
1857	School of Fine Art (<i>Ecole des Beaux Arts</i>) founded				
1881	St Étienne's first tram opened				
1885	Manufrance (Manufacture Française d'Armes & de Cycles) founded				
1898	Casino supermarket business founded				
1946	All coal mines nationalised				
1961	National College of Engineers (École Nationale des Ingénieurs) founded				
1969	First local university (<i>Université Jean Monnet</i>) founded				
1983	Last mines close				
1985	Manufrance closes				

Source: Winkler, 2007.

Coal mining in the city dates from the 14th century, initially for the knife industry, but it later developed into the wider production of armaments, including firearms which were being produced *en masse* by local craftsmen as early as the 1570s³. The Imperial Arms Factory was founded in 1764, and during the French revolution the city was briefly renamed *Armeville* (City of Arms). There was also a major trade in lace ribbons produced by skilled artisans; in 1850 half the workers in the city were employed in ribbon making, with a higher economic turnover than the coal and metal industries combined⁴.

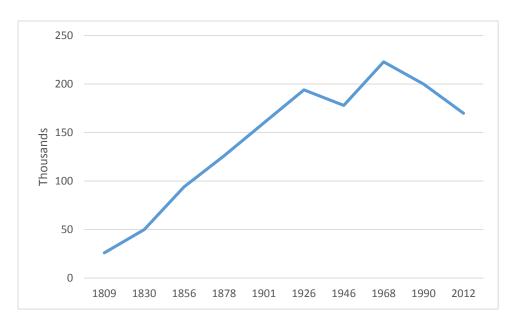
By the early 18th century, rural-urban migration was swelling Saint-Étienne's population rapidly. Four in five of the town's inhabitants were now working in industrial occupations, and the majority were illiterate. Housing conditions were squalid, with densely packed, poorly-built housing, unpaved streets and a single spring water fountain providing the town's drinking-water. The population in 1820 stood at 19,100 residents; by 1856, the industrial revolution had increased the population to 94,000, and by 1911 it had reached 150,000. The increase continued, despite a dip after the First World War, rising to its peak of 220,000 at the end of the 1960s, before starting a slow decline which has continued since.

³ Merley, 1990.

²

⁴ Verney-Carron, N. (1999) *Le Ruban et L'Acier: Les élites économiques de la région stéphanoise au XIXème siècle (1815-1914)*, Saint-Étienne: Université de Saint-Étienne.

Figure 3: Rise and fall of Saint-Étienne's population 1809-2012



Source: Power et al 2010, INSEE

Two strongly opposing groups emerged in the nineteenth century: the first was an existing set of influential artisans and company owners from the traditional, locally based ribbon and lace industries. Based in local workshops, these crafts had been a key element of Saint-Étienne's productive base for centuries, and over time they had built up control of local government and the chambers of commerce. Challenging them were the mine and steel owners, who were new arrivals in the area, often Protestants by faith in contrast to the traditional Catholic local groups. They were well funded by Parisian capital and driven by the all-powerful, highly centralised state's need to develop a large scale armaments industry. This tension between local and national interests was a key characteristic of Saint-Étienne's industrial development during the 19th century. The divisions carried over into the 20th century, eventually leading to strong national intervention by professionally trained state technocrats from the 1950s onwards.

The focus on design and craftsmanship, in combination with the development of large scale industrial production, attracted many inventive artisans and entrepreneurs to Saint-Étienne from other areas of France, as well as England and Germany from the 1850s. They developed new products based on the established steel and metalwork industries, including bicycles and sewing machines. Powerful new firms like Manufrance, founded in 1885, became household names as Saint-Étienne grew in wealth and recognition.

Ribbon-making was eclipsed by the mass production industries, although textiles continued as one of the city's top four employment sectors (alongside metalwork, arms and cars) until its eventual demise in the 1980s. The city also became a major centre for the development of optics and reading glasses, derived from the manufacture of highly specialist lenses for accurate targeting in armaments. This eventually became an important area of advanced development in the 2000s.

Meanwhile, the multitude of local workshops producing arms had been consolidated by the state into a single dedicated factory, the Imperial Arms Factory (*Manufacture Impériale d'Armes*), under Emperor Napoleon III in 1868.

Regional inward migration, coupled with continuing industrial growth, sustained the city's population growth and status. The 1911 census ranked it as France's tenth city. Heavy industries continued to flourish during the early 1900s, profiting from the huge demand for arms for the First and later the Second World War. This led to Saint-Étienne suffering from heavy bombing during the Second World War.

2. Post-war Developments

Industrial development

Following the Second World War, the French state's interventionist and directive strategy of modernisation and large-scale industrial development clashed with the local political perspective, which favoured smaller local industries. In 1954, the Loire Prefect, appointed by and acting on behalf of the central government in Paris, created the *Research and Action Group for the Social and Economic Expansion of the Saint-Étienne Region.* In response, five months later, local politicians created the *Association for the Economic Development of the Loire Department*, with the aim of taking control of economic development, thus circumventing national plans. They opposed the proposals to site a new Ford car factory in the city, driven by two concerns - a fear of losing economic control to external investors and managerial elites; and fear that their survival would be threatened if new, local industries, offering higher salaries, would take away their employees⁵. It was a rear-guard and counterproductive move. By the late 1960s, Saint-Étienne was showing signs of a slow-down and early decline.

In response, the national government made Saint-Étienne a 'metropolitan growth centre' (métropole d'équilibre), with preferential grants, tax breaks and low-interest loans to attract inward investment by alternative industries, creating 9,000 jobs between 1968 and 1975. The national government boosted the city's potential with new infrastructure projects to increase Saint-Étienne's external connectivity, including a new motorway linking it to Lyon. To stimulate development, the city also gained its first local university in 1969, the University Jean Monnet de Saint-Étienne, linked to the famous French Europeanist leader, bringing further prestige. Saint-Étienne already had three prestigious post-graduate research institutions (Grandes Écoles): the École Nationale Supérieure des Mines (a top French graduate school specialising in mining); the École Nationale des Ingénieurs de Saint-Étienne (specialising in engineering); and the École Supérieure de Commerce. This nationally driven investment process led to local politicians losing control of the economic development of the city over the thirty "glorious" post-war years of growth up to the 1970s. In turn, this undermined local political capacity to respond to the first economic crisis which emerged in the 1970s. When central government slowed its investments, the city hit serious economic woes.

Housing shortages and mass housing estates

Meanwhile, housing had become a pressing priority post-war; partly due to the bomb damage, partly because of increasing numbers of immigrant workers drawn in by the expanding industries. For them, no adequate housing was available and they became densely crowded in inner city slums. Mayor Alexandre de Fraissinette (1947 - 1964) initiated the construction of several new peripheral estates including the Quartier Sud Est, which had over 4,200 homes, until the demolition in 2000 of the notorious "Great Wall of China" ("Muraille de Chine"); this infamous block had 50 flats in a single 270m long, 19-storey block. A further 2,000 social homes and 2,000 private homes were built in the Montreynaud estate on a hillside six miles from the city centre. As the population of the city began to decline and the new, large estates proved less popular than expected, more immigrant minorities, mainly from North Africa, gained access and the estates' reputations declined further.

⁵ Ibid.

3. First Industrial Crash

The first major economic crisis started in the 1970s, when around 25,000 industrial jobs were lost. In spite of the historical tradition of a multitude of small businesses and skilled, craft-based production, the increasing dominance of large-scale industrial enterprises left the city much more vulnerable to the major economic crisis of the 1970s. Smaller firms, acting as sub-contractors to the larger industrial enterprises, were in turn affected, although in the end they proved more resilient and continue to form the backbone of private enterprise in Saint-Étienne today.

The local political response to the emerging crisis quickly evolved, with a large scale redundancy plan to get rid of a thousand workers at the large Manufrance factory announced in 1976. In 1977, municipal elections returned a left-wing council to power, led by the Communist Mayor, Joseph Sanguedolce. This was reinforced by a swing to the left of national government in 1978. Saint-Étienne's council put pressure on Manufrance and on the state to rescue the company and a 22 million franc loan was agreed to boost the local economy, on the condition that the city found 50 million francs in matched funding from other sources. The Communist-led council had little choice but to borrow from a Swiss bank at high interest rates, as the plan was not considered a 'safe bet'. The subsequent bankruptcy of Manufrance led to the city council (and indirectly Manufrance) being bailed out by the newly elected socialist government in 1981, at a cost of 257 million Francs. There was no coherent business plan for Manufrance or forward strategy for Saint-Étienne. Instead, there was the vain hope that consumer demand would return. In 1985, the central government decided to stop the flow of financial support to the company and Manufrance finally closed.

Meanwhile, the loss of jobs accelerated. 25,000 of Saint-Étienne's industrial jobs went with the closure of the coal mines in the 1950s and 1960s, with a further 25,000 jobs lost in the 1970s and 1980s. 9,000 more went between 1990 and 1994⁶. In all, half of the city's industrial jobs disappeared. As conditions and opportunities in the city declined, many middle-class households and newer industries leaked out into the surrounding suburbs, particularly to the Plaine Forez area. There was virtually no integrated planning between the peripheral communes and the core city, leaving much of the wider area infrastructure without any coherent decision-making structure.

During the two terms in office (1983-1994), the centre-right Mayor Dubanchet failed to deliver any agreed intercommunal or economic partnership strategy to take the city forward, unlike many other French metropolitan areas facing similar difficulties at the time. In 1982, France undertook a major programme of decentralisation through national legislation that aimed to give local communities more financial control. In practice, it led to local authorities competing with each other in a 'race to the bottom', using tax reductions to encourage businesses into relocating to their area.

During the 1990s, the Regional Chamber of Commerce recorded 130 municipal lease-management contracts for a total of 870 million francs. Saint-Étienne officials admitted to regularly offering land and facilities to private investors at 20% below cost⁷, in order to persuade them that the city offered more favourable opportunities than the competing surrounding communes. In all, under the local Communist regime, some 600 real estate ventures were entered into with a public investment of over 1 billion francs. By 2000, Saint-Étienne had managed to negotiate an inter-communal plan,

_

⁶ Ibid.

⁷ Information from Winkler, A (2010) *Saint-Étienne*. CASE report 40. LSE: London.

involving all of Saint-Étienne's surrounding communes, to end the self-defeating rivalry for development and investment.

Overview of crisis

The period between the 1970s and mid 1990s saw three types of national state intervention, made up of three stages. These can be categorised as: a) "modernizing dirigisme"; b) "stretcher-bearing"; and c) "State expertise". The whole period served to marginalize local economic actors and, in fact, explicitly set out to undermine their rear-guard fight to preserve old production systems in the face of radical, sweeping, world-wide changes.

The 1990s produced a more coordinated approach to "urban renewal", leading to a revaluing of urban spaces, and the declared goal of attracting more middle class and economically active residents as a key element of economic renewal. The move to a more creative, more fluid and information-based economy coincided with the election of a conservative, but radically reforming, local Mayor, Michel Thiollière, who was also an influential national senator.

-

⁸ Dauncey, H. (1993)

4. A new turn for Saint-Étienne

Michel Thiollière was elected as Mayor in 1994 and continued until 2008; bringing about a long period of change. He was a strong supporter of a broader based approach to city image and building quality of life. Although Thiollière sought to build a new image, as a native "Stephanois" (citizen of Saint-Étienne), he grounded his ideas in the city. The first steps in image change had been taken in 1991 when Thiollière, elected Deputy Mayor responsible for Urbanism, appointed an internationally renowned urban planner, Ricardo Boffil, to prepare a plan for the city, which was presented and approved in 1992. In 1994, the city received a further boost by being selected as one of ten French cities to host the 1998 World Cup. More upwardly mobile residents began to move into the city and support for city rebuilding grew. Meanwhile, the continued clear decline in population added weight to the argument that improving the city's image was a key element of economic recovery.

The period of Thiollière's mayoralty saw the development of 'flagship' physical development projects. The city commissioned the Zenith, a 7200-capacity events stadium, designed by Norman Foster, the renowned international architect, which was eventually opened in 2008. The city also built a tramway linking the train station to the city centre. As a mark of new-found pride, the Cité Gruner, a massive structure of coloured glass cubes, was built to house the offices of the Agglomération (the combined councils of the city region) and other public bodies.

The Mayor also launched the City of Design, a platform to promote the city as a base of art and design. At first, the idea was strongly opposed by many local political and residential groups, but it was seen by the Mayor and his wider supporters as one of the symbolic shifts in the focus of the city's economy and enterprise.

Box 1 sets out the process of transformation from the acute crisis of the early 1980s to 2007, when recovery appeared firmly underway.

Box 1: Recovery timeline

1983	Centre-right mayor Dubanchet takes over from Communist administration.
1992	Urban Master Plan to regenerate the city centre (coordinated by architect Ricardo Boffil)
1994	Centre-right Thiollière becomes mayor
1995	Community of Communes created; first intermunicipal body
1997	Programme to redesign 100 public spaces with the help of local art & architecture students
1998	Public land-recycling agency EPORA founded
1998	First Design Biennale
1998	City plays host to several World Cup matches
2000	Community of Communes extended to become Agglomeration Community, containing 43 communes and with more powers; harmonisation of business tax
2000	Contrat de Ville (City Contract) signed, for a six year period
2001	Major City Project (GPV) agreement for housing renewal programme in four areas
2001	Mayor Thiollière re-elected with strong mandate; also elected senator of the Republic and president of the Agglomeration Community

2003	City creates an urban renewal directorate to ensure harmonisation with the housing renewal programme
2004	Start of a series of major renewal projects that will see €1 billion invested over five years
2005	National Agency for Urban Renovation (ANRU) agreement, expanding the GPV housing projects into area-based regeneration projects in four areas. Total budget: ~ €300 million
2006	Second tram line opens
2007	EPASE city regeneration agency created
2007	Urban and Social Cohesion Contract (CUCS) signed, for a six year period

Saint-Étienne launched these ventures in the context of a long history of debt. In 1990, the city had a debt of 12,514 Francs per resident which was double the national average⁹. The debt stemmed mainly from the previous policies of high levels of local public investment in failing traditional industries. However, during Mayor Thiollière's period of office, increasingly burdensome debt problems weighed heavily on the city, until Mayor Vincent took over in 2008 under a change of administration.

⁹ Thomas, E (1996) *Restructuration des services municipaux Stéphanois et rupture dans le mode de planification urbaine.* Revue de Géographie de Lyon Vol 71 3/96.

5. Development of Intercommunality

A major restructuring of intercommunal relations got underway in the 1990s under the Loi Chevenement, a new law which encouraged inter-muncipal cooperation, and mirrored other French cities at the time. More formal ties between local cities and communes helped address sub-regional issues that jointly covered transport, waste and economic development. This newly formalised "intercommunality" played an important part in the development of Saint-Étienne from the 1990s under Thiollière and afterwards.

Overtime, wider and more co-operative structures were put in place, starting with the original 1995 'Communaute de Communes' with 22 members representing the Communes, then becoming a 'Communaute d'agglomoration' in 2000 with 34 members, and growing to its current 45 members in 2013. It finally became part of the wider 'Eurometropole' agreement, linking the four metropolitan areas of Greater Lyon, Porte d'Isere, Saint-Étienne and Vienne in 2009. These administrative and political bodies generated increasingly cooperative strategic planning, helping to overcome the previous political tensions and battles between the city and the suburbs of Saint-Étienne itself, and between the city and its neighbouring communes, suburbs and adjacent cities.

Up to 2010, Saint-Étienne Metropole was dominated by territorial priorities and budgetary considerations, rather than wider strategic priorities, and investment went to local areas rather than towards wider intercommunal long-term projects. In spite of these limitations, Saint-Étienne Metropole agreed a landmark strategic plan (SCOT Sud-Loire) for the period of 2003-2009. The active engagement of Mayor Thollière and several other local mayors in a joint economic and environmental programme led to steadily increasing cooperation and changing attitudes.

6. Major physical and social investment programmes - brownfield sites and poor neighbourhoods

In the late 1990s, Saint-Étienne attracted new state funding to tackle its large legacy of polluted and disused industrial sites.

EPORA

In order to pave the way for the new 'clusters' a state-supported agency (EPORA) was created in 1998 to manage the redevelopment of brownfield sites across the region, directly affecting a population of over 2.5 million people. To this day, EPORA prioritises ex-industrial sites, city centres, and formerly damaged natural and agricultural sites - accompanied by the development of housing, including social housing. The work is planned through a board with a majority of local elected councillors, as well as nominated central, regional and departmental representatives, industry and professional organisations, farmers and artisans. Since its creation, EPORA has acquired land worth €27bn and undertaken around €10bn of development work. The 2007-2008 financial crash did not stop this process. The following box explains the role of the agency.

Box 2: The EPORA 'land recycling agency', founded in 1998

The Établissment Public Foncier de l'Ouest de Rhône-Alpes (EPORA) is an agency founded by the French state to 'recycle' industrial and urban sites in the western Rhône-Alpes region, which includes Saint-Étienne. Of its total funding, 60% comes from the State, EU, local municipalities and a local tax.

It buys brownfield sites, carries out demolition and decontamination and/or rehabilitation, then sells the land back either to the local authority at 40% of cost, or to the private sector at cost (but with a discretionary discount of up to 40% of cost).

Between 1999 and 2006, EPORA spent €65 million (over 40% from the state and the European Union) on projects in the metropolitan area of Saint-Étienne.

Projects where sites have been prepared by EPORA include:

- Optics/Vision cluster site (on the site of old Imperial Arms Factory)
- Design Village site (also on the Imperial Arms Factory site)
- Casino headquarters
- Zénith concert arena

According to local officials, EPORA has now 'recycled' the majority of Saint-Étienne's large-scale brownfield sites.

Between 1999 and 2006, the regional EPORA land redevelopment agency spent €65 million (over 40% from the state and European Union) on brownfield site development in the metropolitan area of Saint-Étienne, involving decontamination and resale to developers or the city at reduced prices.

Grands Projets de Ville

The first 'City Contract', known as Grands Projets de Ville, was agreed in 2010. The aim was to reintegrate peripheral neighbourhoods with the city as a whole, in order to address the problems of the decaying central and inner areas, to introduce new commercial and creative activities, and engage other services in supporting socially disadvantaged residents. The priorities of the Grands Projets de Ville are:

- The "reconquest" or restoration of degraded housing areas through a mix of demolition, rehabilitation and new build to ensure neighbourhoods match their residents' needs. Two peripheral social housing areas, the Quartier Sud-Est and Montreynaud, and two historic inner city private housing areas, the neighbourhood of Cret de Roc and the mixed inner city area of Beaubrun-Tarentaize-Severine, became the four funded Grand Projets. The budget for 2000-2006 was €150m at current prices, with contributions from national, city, metropolitan and departmental budgets: the national bank, Caisse des Depots, and regional social housing agencies supporting the Grand Projets.
- Improving the social and economic position of residents ("insertion" in French) through training, better access to healthy open spaces, new jobs and enterprises in poorer neighbourhoods.
- Improving the quality of life in poorer neighbourhoods through new social and cultural centres and better public services.

A new National Urban Renovation Agency (ANRU) turned the Grand Projets de Ville into ambitious, areabased programmes. The programme was extended to 2012, and increased the overall budget to €331m (now €349m), of which €96m was directly from ANRU. A further extension continued the work until 2015. In all, over a quarter of the city's residents (27%) are in neighbourhoods which benefit from the programmes nationally, with a total value of €46 billion.

ANRU and the Rehabilitation of the poorest neighbourhoods

30,000 residents in the four Grand Projets de Ville have benefitted from the following actions: the upgrading of 4,700 rehabilitated homes; 800 new homes; 14,000 demolished; and local environmental improvements. Business investment has generated jobs which have helped over 12,000 households.

One of the targeted areas is Cret de Roc, an inner city area of mainly 19th century and early 20th century properties, built on a steep hill, and originally home to armaments and textile workers making lace trimmings (passmenterie). Within the past 50 years, it fell into serious disrepair with many new arrivals and the growth of transient populations, sometimes living in squalid sheds built in old courtyards. The building works aimed to preserve the facades and character of the area whilst improving the quality and environmental standards, and included remodelling the buildings to create more varied flats. Public spaces were upgraded, gardens added and a new central external stairway was built up the slope of the dense neighbourhood. Schools and other public buildings were upgraded. Disused industrial sites were infilled and 32 new commercial shop-front units were opened to encourage new businesses into the area.

The following table shows the scale of intervention in the four areas.

Table 1: Progress on ANRU schemes up to 2013-14

	Residents affected	Homes treated	Investment (€m)	Demolished	New-build homes	Rehabilitated/ improved homes
Cre de Roc	6100	4400	57	244	240	250
Sud Est	7100	-	105	789	219	2000
Montraynaud	9700	3500	110	478	200	1874
Tarentaise,	6600	550	65	142	140	611
Beaubrun,						
Couriot						
Totals	29,500	8450	337	1409	799	4735

Source: Ville de Saint-Étienne, 2014.

The Quartiers Sud-Est, a large social housing area, now has better links to the city, the neighbourhood around it and green spaces. School buildings have been improved and many facilities have been added, leading to a wider mix of housing, jobs and services, including a highly controversial new swimming pool, a nautical centre, theatre, sports halls and a local town hall. Several experimental eco-buildings and 40 adapted homes for the elderly have been constructed. A large new private hospital complex at Bellevue was built on the site of the demolished and hated block of flats, "Muraille de Chine". A large high school now focusses on technology-linked studies, aiding students in accessing higher skilled jobs.

Figure 4: Better transport links, green spaces, and services at Quartiers Sud-Est



At Montreynaud, economic development programmes have added a commercial and public services centre, two business centres, a start-up centre, and other business units. A pillar of the investment has been recruiting and training local people to work on new-build and rehabilitation programmes. There is now a thriving marketplace in front of the new business and service units, a new centre for the many Muslim tenants of North African origin, and upgraded parkland and open spaces within and around the estate, including the large 25 hectare Montreynaud Park. In all, 16,000 m² of low rent business space has been added. All the local schools have received improvements, pavements and roads have been made more pedestrian-friendly and parking and public transport has been improved.

Figure 5: Local Market at Montreynaud



The Tarantaise and Beaubrun areas, adjacent to the city centre, have several historic monuments, including the 12th century gothic Grand Eglise. They also have disused mines with preserved industrial buildings. Couriot, on the edge of Tarantaize, is a 30 hectare ex-mining site adjacent to the neighbourhood. The Couriot mine, with its pit buildings and slag heap, closed in 1973 and became a mining museum in 1991. Through the programme, it became a fully operational park-museum complex, clearing the large site of decades of dumped waste. A travelling community who lost their site were rehoused in adapted housing. The site now symbolises Saint-Étienne's industrial past. The focus on local jobs and better services has created many new assets: underground parking, new public spaces and a new employment building where local employment, economic development, job search and 'return to work' agencies are co-located, along with youth services.

Troubling resistance to change

The wider outcomes in these poorer areas are not yet clear. Three areas – Montreynaud, Tarentaise-Beaubrun-Severine and the Quartiers Sud-Est are national "Urban Priority Zones" (ZUS) so it is possible to compare progress in these areas with the city and region.

Employment levels and other key outcomes are much worse in the Urban Priority Zones than in the city or region. The table below indicates that, in the poorest neighbourhoods, the level of economic activity is still 20% lower than average, people are about twice as likely to be receiving unemployment benefits, educational attainment is lower, many more pupils have special educational needs, and the proportion of *"étrangers"* (foreigners - a French measure of ethnic minority concentrations) is far higher than the city as a whole.

Table 2: ZUS areas still differ significantly from City averages

Comparison of ZUS to City indicators	% Economically active	% Receiving unemployment benefit	% BAC or above qualification	% Special educational needs pupils	% Non French residents ("étrangers")
Saint-Étienne	77	17	83	1.9	8
Montreynaud	63	30	72	6.1	27
Montchovet (Sud-Est)	53	34	67	6	46
Tarentaise-Beaubrun- Severine	64	24	73	3.6	27
Source of data	Revenue Fiscaux Dec 2009	Revenue Fiscaux Dec 2009	INSEE Pole Emploi Dec 2012	DEPP 2011	INSEE 2006

Despite considerable investment in physical infrastructure and other local improvements, much remains to be done in order to bring wider prosperity to these poorest areas. The persistent problems of these areas are set in the context of consistently higher unemployment in Saint-Étienne than in the region as a whole, made worse by the sharp rise across Europe in 2009. Unemployment has remained high ever since.

Large pockets of poverty seem particularly resistant to change in cities that were dominated traditionally by heavy industry. Many of the residents of these three neighbourhoods are the ex-industrial workers of large, now closed, factories, with no obvious link to the new economy of design and innovation. This problem is made worse by the low educational levels and generally low aspirations of the population of poorer areas.

Many new opportunities are opening up to develop sub-contracting services to the new design, metal-based and medical industries, often reflecting the earlier industrial supply chain. However, SMEs require more flexible and adaptable products, delivered as and when, with bespoke specifications; very different from the routinized, predictable, factory-jobs of old. This new business model demands a transformation of attitudes and approaches to meet a new type of demand. Even the small businesses themselves struggle to embed new design and quality ideas.

Figure 6: New staircase and garden, Crêt de Roc



EPASE

A parallel development to the creation of EPORA and the Grands Projects de Ville was the establishment of EPASE. In January 2007, the Saint-Étienne Public Development Corporation (EPASE) was set up as a partnership between the state, city, metropolitan, Loire and Rhone-Alpes regional governments. Its core aim is to redevelop the main business areas, stimulate economic development, and increase the attractiveness of Saint-Étienne within the wider Lyon sub-region. The following box sets out the role of EPASE.

Box 3: The EPASE regeneration agency, founded in 2007

As a dedicated regeneration agency, the EPASE will both plan and deliver the regeneration of five key sites in Saint-Étienne [date? Time span?]. It will have full control over all stages of the process, although it will consult with actors at all political levels (municipality, agglomeration community, department, region, ministries) throughout.

The EPASE will coordinate private sector tenders for the planning and implementation of each project. It will have:

- Increased planning powers; construction permits will be transferred from municipalities to the EPASE. This will help accelerate the regeneration process, and will confer stability to a process that may otherwise be interrupted by political changes at municipal level.
- A budget of €120m for its first five years of operation (2007-2013). This level of resources means it
 will bring in top regeneration experts from outside the city, whose experience will add value, as well
 as professionalising the relationships with investors and depoliticising the regeneration process. The
 extra resources will also improve the quality of the projects.
- A timeframe of 15 years, meaning it will develop long-term strategies. It will also afford the time to wait until the right investor comes along, rather than jumping at the first offer (the traditional response of a city accustomed to being in 'crisis mode').

EPASE has taken a hands-on role in organising physical works. With a budget of €225m over 2007-2014, its main goals were to:

- Improve the commercial and residential attractiveness of the city centre and adjacent historic neighbourhoods;
- Develop the old Chateaucreux Station area into a business quarter with 250,000 m2 of office space. This idea had early success in convincing the locally based Casino supermarket chain to base its headquarters there, attracting 900 new jobs;
- Create a city centre creativity hub involving the City of Design, the Faculty of Science, and the Museum of Modern Art;
- Reshape the main entrance to the city (Pont de l'Ane Monthieu) into an attractive commercial zone;
- Expand major cultural centres in the metropolitan area.

EPASE has a 15 year remit with control over key planning decisions, allowing longer term planning and delivery decisions.

The city government itself has worked hard to improve the appearance of the central city zone. Streets and squares are now pedestrianised incorporating small environmental improvements, cycleways and space for new small businesses - all to attract residents and visitors alike.

Figure 7: Pedestrianised city centre area



Box 4 shows some of the cultural activities that have grown and added to the attractions of the city.

Box 4: Cultural activities in Saint-Étienne

- The FIL and Zenith (major music and arts arenas)
- The Comedie (one of the premier national centres of dramatic art) and 35 other theatre companies
- The Museum of Modern Art (a new museum of international standing on the edge of the city which houses the second largest French collection of modern art)
- The Museum of Mines (which covers the history of coal mining since 1860)
- The Museum of Art and Industry (which is dedicated to arms, ribbons and bicycles, reflecting the past industrial dynamism and history of the city)
- The Le Corbusier centre at Firminy, one of the internationally renowned post-war architect's most successful schemes near Saint-Étienne

7. Progress in major long-run investment programmes

Saint-Étienne's investment programmes helped the city change direction and image over the 2000s to 2008. The powerful state-driven but collaborative agencies made rapid progress in some areas, as the following evidence suggests. One of the most conspicuous developments is the Chateaucreux area around Saint-Étienne's revamped railway station and terminal (now connected to the TGV network). The second tramway line, opened in 2006 at a cost of €75m, connected the Chateaucreux station area to the city centre. Alongside Casino, the French supermarket chain, businesses attracted to the Chateaucreux area include the national Employment Cheque Service, Urssaf (CNCESU). In addition, a high energy-performance building of 16,000m2 has been built for the major French office development and management company, "Art de Construire".

The following box illustrates progress at Chateaucreux.

Box 5: EPASE plans and progress to 2020 - Chateaucreux

The project covers 60 hectares, and became a Special Development Zone (ZAC) in 2007. The plans include:

- 200,000m2 of office, of which 80,000m2 are in place
- 9,000 jobs, of which 5000 are in place
- 560 hotel rooms, including one four star hotel
- 1,000 new homes, of which 150 are under construction
- 40,000m2 of public spaces, of which 20,000m2 have been completed
- 2,200 parking spaces

The second high-impact development is around a giant armament factory site, known as the Plaine d'Achille. The City of Design is now based there, and in 2010 became one of UNESCO's ten "Creative Cities" sites. The "Le Mixeur" Design project brings together new creative industries, including architects, web developers, designers and photographers, in one 700m2 space over two floors with different sized offices, a flexible meeting space, "plug and play" spaces for visitors, informal meeting spaces, and coaching sessions, with opportunities to be linked into other clusters and networks. Rents start low in the first year then rise slowly. Businesses are given a "pre-creation" period of six months, followed by up to three years to get their businesses off the ground. The City of Design acts as an incubator for the new industries and enterprises that may help Saint-Étienne round this economic corner.

Box 6: EPASE Manufacture Plaine Achille City of Design project

Key figures for Manufacture Plaine Achille:

- The project covers 107 hectares and the site became a special development zone (ZAC) in 2009
- It is home to the UNESCO recognised, world-class "City of Design"
- It was awarded first prize in the 2011 "Eco-neighbourhoods" national competition, in the category of "Urban Renewal"
- It attracted 5,000m² of creative business enterprises to the site in 2012 including Radio France Bleu, Telecom Saint-Étienne and the Optic Vision centre
- University Jean Monet and other higher education and research institutes [what about them?]
- A 54 unit municipal crèche since 2012
- Creation of a new central urban park (Francois Mitterand Park)

Under development for 2020:

- 230,000m² further new and rehabilitated units, for business, housing, schools, commerce, and services
- 1,000 new homes including 300 for students
- 3,000 new work spaces for students and researchers/teachers
- 20 hectares of public space

Source: EPASE.

Figure 8: Restored manufacture buildings and City of Design



A third major development is the Port de l'Ane Montheiu, located at the main entrance to the city. The aim is to present the image of an attractive, sustainable, ecologically resilient city at this gateway, and escape the "classic" uncoordinated, ugly, car-dominated jumble of 20th century peripheral commercial development. The locally head-quartered Casino group is an active partner in the redevelopment of this site. There is an unusual mix of businesses including several active small enterprises, keen to be regrouped into better buildings with better transport links to the city centre and other nearby cities.

Box 7: EPASE Pont de l'Ane Monthieu project

Pont de l'Ane Monthieu

This Special Development Zone declared in 2010, covers 111 hectares, aiming to create a more attractive entry point to the city from Lyon offering:

- 50,000 m² of additional commercial space
- 18,000 m² of public leisure space
- 20,000 m² space dedicated to SME businesses
- 540 homes
- 200 park and ride spaces
- 1 cycle route into the city

Source: EPASE.

An important focus for EPASE is the city centre. While the development of the centre city areas is supported financially by EPASE, it is managed by the city government. The key EPASE project in the central area is the Jacquard project.

Box 8: Central Jacquard Area

Central Jacquard Area

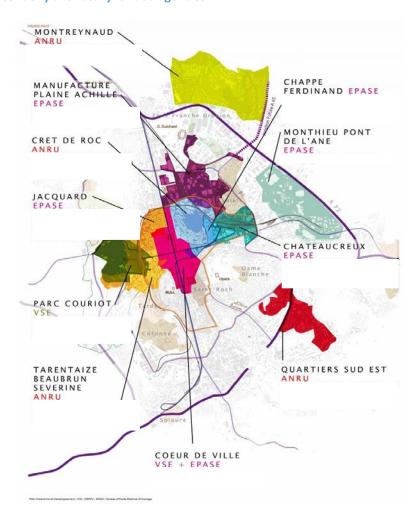
This 30 hectare site became a Special Development Area in 2009

- La Place Jacquard was inaugurated in 2011
- A regional class gymnasium was opened in 2014
- 190 new homes will be completed 2014/2016
- A new 6,500 m² garden will be completed in 2015
- 300 rehabilitated homes will be provided in 2018

Source: EPASE.

The following plan of the city shows the location of investment and upgrading projects.

Figure 9: Overview map of Saint-Étienne showing the major recovery and reinvestment programmes supported by centrally and locally funded agencies



Source? Date? leaders and the ability of new economic shoots to grow and transform the city's economy and environment.

The two go hand in hand.

8. City of Design – Saint-Étienne's emblematic cluster

Design focus

The idea of building "Competitivity Clusters" (pôles de compétitivité) in Saint-Étienne received support in a practical way through the 2005 Loi de Finances, providing national support for geographically colocated and complementary enterprises. It involves higher education, schools, and public and private research groups, focusing on working together to develop economically viable research and development projects based on innovation. The core goal is to stimulate groupings of complementary enterprises that feed off each other in close proximity. Saint-Étienne has developed a successful focus on desgin, alongside optics and other clusters.

The City of Design is one of the flagship clusters of Saint-Étienne that was conceived in the late 1990s as Saint-Étienne struggled to change direction.

Its "central objective [is] to democratize design, to make it accessible to all the sectors of the public through a wide vision of the work of a designer and the multiple applications of design. [It draws on] the creativity of its region, and on the commitment of the public and industrial sectors. The city has reinvented itself by leading its important fabric of small and medium sized enterprises towards innovation and the improvement, through design, of the quality of the living environment of its citizens. Research developed by the Cité du design on the subject of new lifestyles has positioned the city as the French design laboratory, and a city of innovation, sustainability and solidarity" ¹⁰.

Bibliography

ADEL et al. 2013. Les evolutions economiques dans la Loire en 2012. ADEL, Saint-Étienne.

BASECO Rhone Alpes. 2012. Presentation sociao-economique. CCI Saint-Étienne, Saint-Étienne.

Beal, V., Dormois, R., et Pinson, G. 2010. *Relancer Saint-Étienne. Conditions institutionnelles et capacité d'action collective dans une ville en déclin* Métropoles [En ligne], 8 | 2010.

CCI Saint-Étienne. 2010. Étude sur les poles et filières.

CCI Saint-Étienne. 2012,2013,2014. Note de Conjuncture.

Cité de Design. 2012. Brochure Saint-Étienne: "City of Design".

Dauncey, H. 1993. "The economics and politics of high technology: Between the état dirigiste and the état modeste".

Modern & Contemporary France, 1(1), pp. 51-54.

EPURES. 2012. Profil socio-economique de la populataion active occupe du Sud Loire. Economie No 16/2012.

EPURES. 2013. Lyon / Saint-Étienne : un autre regard sur l'innovation. EPURES, Saint-Étienne.

EPURES / CCI Saint-Étienne. 2013. Analyse de la pérennité des entreprises créées en 2007.

Gravelaine, F. 2012. Saint-Étienne: Un Territoire se réinvente. Editions Carré, Paris, p. 13.

INSEE. 2014. Tableau de l'economie française. INSEE, Paris.

INSEE Rhone Alpes. 2013. Pôle urbain de Saint-Étienne Analyses No 209 Novembre 2013. INSEE, Lyon.

¹⁰ Brochure Saint-Étienne, "City of Design".

¹⁰ⁱ INSEE, 2011.

This achievement has not only attracted thousands of visitors to the city, it has helped revitalise the historic Imperial Arms Factory, Manufrance and Saint-Étienne's design schools, as well as supporting many innovative SMEs and many other spin-offs. The following box gives a basic outline.

Box 9: City of Design

City of Design

2005: Founded following the first Saint-Étienne International Design Biennial in 1998 and supported by: City of Saint-Étienne, Métropole, Rhone-Alpes Region and Ministry of Culture

Principal Missions:

- Raising public awareness of design
- Developing innovation through design
- Design research
- Organising major events such as the International Biennial of Design of Saint-Étienne, as well as annual exhibitions in Saint-Étienne and abroad.

On the 100 hectare Manufacture site, a mix of new and rehabilitated buildings including:

- Main City of Design administration building
- Saint-Étienne Graduate school of Art and Design (ESADSE, 350 students)
- Platine building which hosts an auditorium, two exhibition halls (1200m² and 800m²), a mediatheque, a boutique and a designer's bureau
- The *Observation Tower*, 32 metres high, offering a unique 360° panoramic view of the city and the surrounding hills.

2009: Design Creative City Living Lab status (part of European Network of Living Lab (ENoLL)

2010: UNESCO "City of Design" status, November (one of 10 worldwide)

2010-14: Human Cities: The urbanism dimension

It was the project lead in this international network of 64 projects, looking at how urban design can provide a better and more sustainable urban environment in local neighbourhoods.

INSEE Rhone Alpes. 2014a. Les salaires Élevés Analyses No 229 Avril 2014. INSEE, Lyon.

INSEE/EPURES/CCI. 2012. Les PME de Rhône-Alpes innovent pour se développer Analyse No 180. INSEE, Lyon.

Merley, J., (dir.), Histoire de Saint-Étienne, Privat, Toulouse 1990.

Saint-Étienne Métropole. 2013. Rapport d'activité 2012.

Thomas, E. 1996. Restructuration des services municipaux stéphanois et rupture dans le mode de planification urbaine. Revue de géographie de Lyon, 71(3).

Verney-Carron, N. 1999. *Le Ruban et L'Acier: Les élites économiques de la région stéphanoise au XIXème siècle (1815-1914).*Saint-Étienne, Université de Saint-Étienne.

Ville de Saint-Étienne. 2010. Plan Local d'Urbanisme.

Ville de Saint-Étienne. 2013. Rapport sur la Dette (City Council Report, April 2013).

Winkler, A. 2010. Saint-Étienne. CASE report, 40. LSE, London

2013: Biennial – over 50 events, 140,000 attendees, exhibitions, conferences around Saint-Étienne, on the theme "Empathy – the experience of the other"

The City of Design plays the role of catalyst; "a motor and not the car". The work is painstaking, long term and dependent on many partners in the city and sub region. It works with over 500 heads of companies to explain how design can help their business in practical ways. Design has both a practical and an aesthetic function. The goal is to show businesses that the original product production process and product marketing all need to build-in good design in order to succeed. This work involves numerous subcontractors, many of whom are small scale, harder to access and with less capacity to take on design. Grant-funding helps provide firms with a designer for a short period; designers are usually retained by the firm once their value is proved.

The Human Cities Project on Urban Design, which is working with 64 international projects to deliver sustainable design-led improvements in the use of urban spaces, is led by the City of Design. The City of Design meets twice a year with key local leaders from the city, industry, universities, chambers of commerce, the Metropole and other partners to review progress and plan future work. Many cities are now looking at better use of design and Saint-Étienne is providing guidance. Their view is that design must be rooted in the make-up and history of each city, rejecting the idea of imposed standards.

9. Clusters of Clusters

The French national programme for the development of new economic clusters, launched in 2005, has grown to form one of the most successful elements of Saint-Étienne's economy and continues to grow today.

The city focused its early attention on six main areas of growth:

- Optics, continuing a long tradition in the city;
- Design, now one of the most important areas of growth in the city;
- ICT including *Numelink Cluster*, recognised as an EU Cluster of Excellence;
- Medical technology, healthcare textiles and clinical research;
- Food sector;
- Ecological and green industries.

The new cluster approach is built on established industrial traditions. For example, Saint-Étienne is a world leader in 3D imaging. The following box sets out some of these specialist clusters.

Box 10: Saint-Étienne's Competitivity Clusters

The **ViaMéca** cluster concentrates on designing small and medium mechanical products for niche markets in sectors such as the aerospace, automotive and biomedical industries. The cluster supports 12,000 jobs throughout all its sites including 2,500 researchers on site, with 31 SMEs, and links to 43 public sector research bodies including the Saint-Étienné Ecoles Supérieures (graduate schools) of Mines, and of Engineers. Its partners provide 20% of France's mechanics industry jobs.

Sporaltec, develops high-tech sports equipment, particularly in the health field and in outdoor sports, including new, ultra-light material for clothing, shoes, communications equipment, and prevention of sports injuries, for example the development of avalanche airbags. The Rhone-Alps region is the largest producer of sports goods in France, with 111,000 employees (half of all French jobs in this sector), and a total annual value of €4bn, of which 70% is for exports. It has coaching and testing facilities including a new health-related testing programme in 2014.

Techtera, specialises in advanced high performance textiles - including firefighter clothing, which can display temperature or toxic fumes; protective textiles against insects or rodents; selective-shade sheeting to control the ripening of crops; Dickson - Toile OrchestraCarpets with LEDs for marking routes. By the end of 2012 there were 119 members, four fifths of whom are private businesses, supporting 237 R&D projects. It has a R&D budget of €193m and 155 SMEs are involved. It plays a key role in the "Composites Rhone-Alps" groupings, which develops advanced materials for manufacture.

Saint-Étienne is also part of three wider regional clusters.

Optique Rhône-Alpes is a regional centre for teaching, pure research, applied research and industrial production in the areas of optics and photonics. It involves 161 members who undertake 25% of all French optic/phonics activity, 410 industrial units, 41 research labs, 27 teaching groups, and 21 groups supporting start-ups and the development of innovation. There is an Optics cluster base in Saint-Étienne close to the City of Design.

Lyon Urban Trucks and Buses aims to develop industrial vehicles of the future, making the Lyon region a world leader in urban commercial and passenger transport. It involves 3,500 researchers working on 81 projects and costing €329m (of which €119m came from public funds). The cluster draws on links to Renault Trucks and Iveco France, a major international producer of commercial trucks and parts. Its core aims are to expand sharing vehicles, improve air quality, develop green vehicles, reduce congestion, create more accessible transport and reduce road accidents.

Minalogic is a digital cluster for micro- and nano-electronics, software and smart miniaturized systems for healthcare, digital imaging, transport, and energy conservation. It has 236 members, including 193 SMEs, and works with 13 research centres. It has accredited and financed 280 projects with funding of €754 million, plus R&D funding of €1.96 billion.

These six clusters create the strong impression that Saint-Étienne, with its conversion into a modern, high-tech, advanced industrial economy, is thriving.

10. Marketing the city's assets

Through the growth in clusters, the city began to promote itself as the "visionary workshop" (Atelier Visionnaire) combining the workshop tradition of the city with a future focus. This gave a strong sense of momentum to the city as the following box shows.

Box 11: Saint-Étienne's key current "selling points"

- 1st French city to be a UNESCO Creative City of Design
- Busiest regional express train, indicating the strength of sub-regional links with Lyon
- 20,000 businesses, and 6th most profitable metropolitan area for business
- 6th ranking business creation rate in France
- 1st ranking mechanical engineering centre
- 140 patents registered, ahead of Rennes, Nantes, Bordeaux and Montpellier
- 200 laboratories within research clusters and graduate schools, and within the Lyon-Saint-Étienne area 550 labs and 10,500 researchers, making it the second most important research and higher education area in France
- 2,500 "greenways" in the city
- 2nd most attractive French region (Rhone-Alps) for foreign investors
- 2nd major French city where "it feels good to live"
- Three ski resorts in region

The idea of a "Visionary Workshop" was galvanised by eight local partners - the Metropole, Region, Department, Chamber of Commerce, Chamber of Skills and Artisans, Employers' Federation, Industry Directors' Federation and Tourism Office. Together they promote the city's appeal (attractivité). This helps build solidarity and cooperation to win business in a highly competitive market.

Action areas include:

- innovation and enterprise;
- higher education institutions;
- design;
- anchoring business;
- urban transformation;
- better infrastructure and transport;
- sustainable development;
- promotion;
- tourism;
- cultural and sporting offers

This common approach helped Saint-Étienne overcome its reputation as a dirty factory town, smaller than its actual size, and dominated by Lyon. It put it on the map economically, and as a good place to live and work. The shared vision was built on the city's traditional, working class values of mutual aid, community and progress.

Saint-Étienne's heavy industrial age had overshadowed its spectacular natural surroundings and its protected national park, Mont Pilate. Lyon is a key partner in the transformation - wanting a successful neighbour, not a failed city. By incorporating Saint-Étienne into its city sub-region, its expanded population has made it a major European city and raised its standing in several league tables. The traditional suspicion and lack of cooperation between the two cities gradually broke down. Now they jointly present at international events, based on the "Eurometropole" four cities grouping. Hosting a growing number of international events and conferences requires high quality hotel accommodation, which has greatly expanded in the last five years, as well as hire bikes for conference visitors, outings to a nearby lake for sailing and box seats for football games.

Retaining and supporting existing firms in Saint-Étienne is a high priority. Existing firms can gain attractive new offices, business support and improved infrastructure. Around 90% of the new offices provided by EPASE are taken by existing Saint-Étienne firms. The city has a dedicated expert team who are tasked with supporting existing employers to grow and flourish in the city. This is more successful than trying to find entirely new clients to move to the city - especially since they play such a vital role in the economy.

11. Environmental Action

Saint-Étienne, in many ways, offers an unexpected model of sustainability. It was never rich enough to carry out the extravagant, energy intensive building projects of the 1960s and 1970s, with the exception of its two large outer estates, Quartier Sud-Est and Mont Reynaud. It delayed the closure of its large-scale old factories so long that they remained virtually intact. The city's basic infrastructure, layout and housing stock has been largely preserved. Almost all the upgrading, including the tramways, the fast train to Lyon, the Grands Projets de Ville and the new public spaces, has been grafted on to the existing city, amending and ameliorating it rather than destroying it.

The reclamation of industrial sites - the mining areas, the great historic factories and bare land - have allowed an impressive recycling of existing assets into remodelled and newly created spaces and activities. The inspiration, which came from Barcelona's successes, for converting traffic-congested squares and streets into beautified, planted and traffic-calmed public spaces, has caught on, almost like an epidemic. Meanwhile, the hilly city has adopted a pro-bike and pro-walking policy which will at least dent the desire to drive short distances. There is now talk of a whole system of "greenways" connecting the city. It is, in effect, a recycled city.

The most impressive progress in sustainability is in the two inner city renewal areas where most housing is being preserved and restored, most residents are staying put and the environment, in small ways over large neighbourhoods, is being protected and enhanced. The steep slopes, dense streets and informal patterns of these old neighbourhoods are potentially more attractive and better protected. The biggest challenge in the future may not be their extreme poverty but the increased value and the potential for gentrification - "Bobos keep out" was one powerful statement painted on a bare wall in Tarantaize to illustrate this feeling.

While the city became a live model of recycling and reuse, saving millions of tons of embodied carbon through its restoration of the city fabric, it also took some proactive decisions.

Saint-Étienne produces 220,000 tons of waste, including 133,000 tons of household waste. The city's new recycling facility now reprocesses 88,000 tons; still a long way to go, but over half of household waste is now recycled.

The city has instigated an action programme with industry, local communities and families to help them consume less energy, waste less and recycle more, reducing their carbon footprint. An "Energy Positive Contest" involves families in a challenge to cut their yearly energy consumption by eight per cent. Over 100 families reach this goal each year. An attractive interactive website to promote these ideas includes measures to help householders calculate their emissions and keep track of progress.

The main priority areas for development include:

- developing a series of green corridors through the metropolitan area;
- developing wind farms and other renewable energy resources;
- focusing on making the city and metropolitan administration green and energy efficient in all its service delivery and buildings;
- informing and educating the citizens to make them eco-aware in all their actions

These efforts are a small beginning on a long road to face down a huge threat. Saint-Étienne has far to go in order to take down its heavy emissions from the built environment and transport. Together, these amount to 84 per cent of all the city's emissions. One useful tool in its hands is the SCOT plan it agreed with the surrounding communes to stop sprawl building, redensify the city and rely more on public transport.

This densification and focus on public transport may stop the extremely damaging proposal to build a second high-speed dual carriageway to Lyon. It may also prevent speculative, subsidised building outside the city, while protecting the land and enhancing the environment.

City leaders are aware that protected natural surroundings enhance a city's attraction. They also offer some scope for exploring renewable energy such as wind, bio-mass and geo-thermal. With a national park on its door step, the Loire valley nearby, and the Alps not far away, Saint-Étienne has major environmental assets to protect. This makes its city buildings and infrastructure all the more valuable. The more they are protected and enhanced, the less encroachment there will be on the countryside. This makes the continued investment for ongoing renewal all the more crucial, as the most cost effective and proven energy saving measure.

12. Riding the Financial Tides

The investment programmes that began just before the crash of 2008 have now had time to develop and now deliver many of the benefits and investment opportunities that were planned, including the redevelopment of brownfield sites, the development of competitivity clusters and the transformation of the city's identity based on a "visionary workshop" approach, using design as the level. The increasingly collaborative framework of intercommunal and sub-regional cooperation has led to pooling resources and strengths. The French government's high level of funding support, its determination to incentivise Saint-Étienne into the 21st century, the changing status and attitude of Lyons and the new politics of the city all played a part. As a result, the early impact of the crisis brought out more resilience than expected. The public investment has kept businesses growing, at least for now. There are however two wider questions: how will Saint-Étienne compete within the wider economy and labour markets of Europe? And at the other end of the scale, what will create more economic momentum in poorer neighbourhoods?

New Mayor Vincent

The new mayor Maurice Vincent, a Socialist elected in March 2008, replaced the centre right alliance led by Mayor Thiollière. Like Thiollière, he was also a Senator. The new mayor made the 'toxic' debt of the city (i.e. loans with crippling interest rates and repayment conditions) a major plank of his political programme. These "toxic" debts had become far more serious with the international banking crisis. In contrast with Thiollière, a "buildings and infrastructure" mayor, Mayor Vincent was more concerned with "softer", more collaborative and intercommunal building, and opportunities in the knowledge and creative economies.

Research and higher education institutions

Once elected, Mayor Vincent decided to create a stronger skill base in support of the new economy. One of his priorities was to link higher education into the innovation economy that Saint-Étienne was building. To this day, there are six main higher education institutions to work with:

- The Jean-Monnet University, founded in 1969, with 26,000 students and 1,500 researchers;
- The Graduate schools of Engineering (ENISE), Architecture (ENSASE), Art and Design and Commerce;
- Telecom Saint-Étienne, a higher education institution training 500 engineers in ICT skills including optical, image, electronic and telecoms networks, with its own incubator.

One goal was to link them all physically through the tram and cycle routes, from the North Campus to the Campus Metare in the South West. A research network linked to higher education institutions between Lyon and Saint-Étienne is now emerging, which brings together 11 universities, the 'Grandes Ecoles' of Lyons and Saint Étienne, and the national research agency (CRONS) into a single federation. As in other former industrial cities, too few graduates remain in the city. Instead of remaining in Saint-Étienne, they have previously moved to Lyon, Paris and other major cities. But the hope is that the new clusters will generate sufficient new businesses to hold onto bright, young graduates.

Developments and continuity following the financial crash of 2008

A few months after Mayor Vincent's election, the international financial crisis overtook the new administration. Three key themes dominated: improving the attraction of the city and its centre; developing flagship projects; and improving the quality of life in all neighbourhoods across the city.

Debt in Saint-Étienne reached €404million in 2000, or €2201 per resident, mainly used to pay for new projects like the Zenith stadium and tramway, with a theoretical payback period of 24.4 years. Vincent decided that the unfavourable terms of the debt required radical action, so he cut agreed programmes (such as plans for a third tram line) and renegotiated directly with many of the lenders to restructure large parts of the debt, using legal challenges where necessary. The following figure shows the reducing level of debt. By 2012, cash payments of €136m were in balance and high risk loans had fallen from 70% of the total to 27%. Five of the most penal loans had ended.

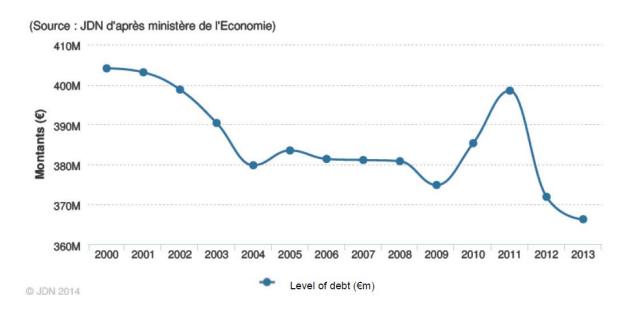


Figure 10: Level of debt in Saint-Étienne

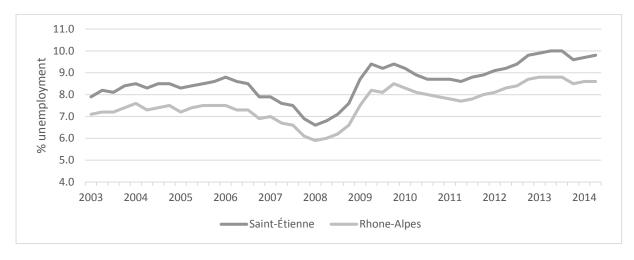
Source: JDN d'après ministeère de l'Economie, 2014.

Overall, Mayor Vincent took the "poisoned chalice" of city debt, coupled with the Eurozone troubles and international banking crisis, and managed to reverse the city's paralysing indebtedness.

Persistent high unemployment

These brave attempts at reform must be seen in the context of the above average level of unemployment; following the 2008 crash, unemployment rose steeply from an already high base.

Figure 11: Unemployment in Saint-Étienne and the Rhone-Alpes Region 2003-14



Source: INSEE.

Youth unemployment was startlingly high, three times the average, at 30% for 15-24 year oldsⁱ. In order to grasp the potential for city recovery and a new economic stability, we need to explore the city's wider economic prospects.

13. Wider economic change

The main growth areas in the French economy between 2008 and 2012 of relevance to Saint-Étienne are health-related jobs and ICT; both priorities for the city. Meanwhile, decline has continued in clothing manufacture and metal working, both still significant industries in Saint-Étienne. According to the National Urban Federation, Saint-Étienne is placed in the "low skilled workforce" category, which is hardest hit by the crisis.

In Saint-Étienne, higher skilled employees and managers make up only 14 per cent of the Saint-Étienne Metropole workforce, compared to 20 per cent in Lyon and 29 per cent in Paris. This rate is slightly lower than in comparable post-industrial cities like Bethune, Metz or Valenciennes which average 15 per cent. Saint-Étienne in 2009 had 17 per cent industrial employment, higher than the comparable cities (14 per cent). As there are less high skilled jobs in industry, this helps explain the lower growth in high skilled work.

The dominance and proximity of Lyon creates a strong pull for higher skilled workers who can easily commute from the cheaper but attractive Stephanoise housing. This flow of commuters to Lyon grew between 1990 and 2009. Two workers commute daily to Lyon from Saint-Étienne for every one worker who commutes to Saint-Étienne. A quarter of those commuting to Lyon are public service and manual workers.

The Chambers of Commerce for the city region have produced evidence on the wider employment changes during the crisis, highlighting the continuing decline of industrial jobs. Publicly funded jobs in education, health and social services form the biggest category of employment, followed by financial, business and IT services. Industry comes a long way down next. The Rhone-Alps Region as a whole has less industry and more services.

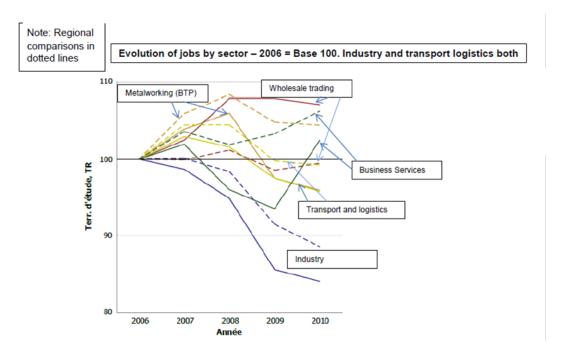
Table 3: Main employment sectors in Saint-Étienne Métro 2012

Employment sector	%	Regional
Education, health and social services	30.7%	29.0%
Financial, ICT, housing and business	25.2%	30.9%
Industry	18.0%	14.2%
Commerce, auto repair	13.2%	13.1%
Construction	7.0%	6.0%
Transport and logistics	4.6%	5.8%
Agriculture	0.8%	0.3%
Other	0.6%	0.6%
Total	100%	

Source: INSEE Recensement de la population, 2012.

The next figure shows the direction of change in the principle employment fields: Metalworking, Wholesale Trading, and Business Services, all of which are doing reasonably well and growing; Transport and Logistics, and Industry, both of which are declining, most steeply industry.

Figure 12: Changes to industrial and related jobs 2006-10



Source: INSEE, 2011.

Since 2007 the starkest employment trends have been in the decline of industry and the rise in business services. The largest firms in these sectors, by number of employees at the end of 2012, are detailed in the next figure; Casino, the supermarket company, is the largest.

Table 4: Largest industrial and related firms at 31/12/12

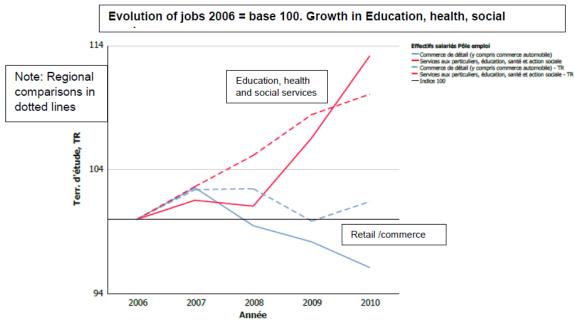
Firm	Employees	Activities
		Head office functions servicing Casino
Casino Distribution	over 1,000	stores
Easydis	over 1,000	Goods storage and distribution
Norbert Dentressangle distibution	over 1,000	Interurban freight distribution
Prosegeur Security Humaine	over 1,000	Security guard services
Restauration collective Casino	500-999	Business catering
SNF SAS	500-999	Plastics manufacture
Eurovia Drome Ardeche Loire Auve	500-999	Road construction and repair
Casino Services	500-999	Administrative head office functions
Caisse D'Épargne et de Prévoyance	500-999	Banking and insurance services
Transports publics de		
l'agglomération	500-999	Public transport

Two large industrial firms - Michelin Tyres and Nexter Systems, a munitions manufacturer, both based in Saint-Étienne - shrank and therefore dropped off the list of large companies based in the city in 2011.

Growth of health and education and personal services

The next figure shows the rapid growth of education, health and personal social services jobs, and the significant relative decline in the retail sector in Saint-Étienne compared to the wider region.

Figure 13: Changes in retail and various services jobs 2006-10



Commerce de détail y compris charcuterie, boulangerie et pâtisserie. Chamo Pôle emploi : Etablissements du secteur privé emplovant au moins un salarié. Données provisoires pour

Compte tenu de la taille des territoires observés, certaines variations sont à apprécier avec réserve

Source: INSEE, 2011.

While education, health and social services jobs have grown greatly, reflecting the national picture, the decline in retail and commerce reflects the problems smaller shops face against the domination of supermarkets like Casino, among the largest employers in Saint-Étienne, although many of these jobs are based in central distribution, head office administration and management. In 2013, the service sector became the largest local employer with 46% of jobs, a total of 88,170. Meanwhile, retail and commerce continued a slow decline in 2014.

Overall, the Saint-Étienne economy has been slowly transforming itself into a more modern, more knowledge-based economy, but this has yet to translate into strong enough growth to make up for declining sectors.

14. Small and Medium Enterprises - Saint-Étienne's economic life blood

Since the demise of major industrial companies in the 1990s, SMEs have played a dominant role in the local economy. Firms with fewer than 100 employees employ 64 per cent of the city's workforce. The average for similar cities is 54 per cent. Only nine per cent of Stephanois work in firms of over 1,000 employees, compared with 14 per cent for similar French cities. 63 per cent of registered small businesses are sole traders, similar to the surrounding Loire region. In contrast, over half of SME workers – 53 per cent of employees in 2011 – work in the two per cent of firms that employ between 50 and 90 workers.

Many SMEs are specialising in innovative technologies, being developed by the competitivity clusters and research labs, as well as design industries and new, advanced textiles. In the region as a whole, including Saint-Étienne, there is more SME activity in audio-visual, textiles and clothing, electronics, metalworking, and market research than in France as a whole. Innovative SMEs succeed in graphic art, design and multimedia as development drivers, confirming Saint-Étienne's "Visionary Workshop" status, strongly linked to the City of Design.

Table 5: SME Sector by size and number of employees 2012

	Size of firms and number of employees				
	Sole trader	1-9	10-19	20-49	50-90
Share of firms in that size	63%	29%	4%	3%	1%
Number of firms in that size	18,489	8510	1174	880	587
Share of employees per size	Sole trader	18%	12%	17%	15%

Source: EPURES/CCI. Note: nearly 18,500 are employed as sole traders, i.e. self-employed. 38% of employees (119,156) are in companies of over 100 i.e. 45,279 employees.

The scale of the SME sector gives it the potential to re-energise the local economy following the crisis and the long recession that continues to affect cities like Saint-Étienne. Thousands of jobs have been created, even if many last only a limited time. EPURES and the Saint-Étienne/Montbrison Chamber of Commerce and Industry (CCI) produced a joint report in 2013 showing that, following the 2008 crash, the change in rules on self-employment in 2009 made it easier to create self-employed businesses. There has been a 66% increase in self-employment in the Rhone-Alps Region. Most of these small enterprises emerged because of the new, looser rules. The report sets out the success rate and the characteristics of new SMEs going bankrupt. It also explores the steps that can be taken to support a higher success rate, based

on 1,193 new businesses created in Saint-Étienne Metropole in 2007 - nearly ¾ of all new businesses in the whole Loire Department in that year. The distribution of the types of business created are set out below, showing a strong growth in business services and retail, but with significant growth also in metal work and industry-related enterprises.

Table 6: SME creation in Saint-Étienne 2007-2012

Type of business created	%
Business services	33%
Retail/commerce	25%
Metalworking	12%
Social services	11%
Wholesale	9%
Industrial	7%
Transport and logistics	3%

Source: EPURES/CCI.

Table 7: Average number of employees by business type 2012

Average number of employees by type of	
business	No
Industrial	4.0
Wholesale	3.4
Retail/commerce	2.5
Metalworking	1.9
Transport and logistics	1.8
Social services	1.7
Business services	0.7

Source: EPURES/CCI 2013

A quarter of the entrepreneurs founding these firms are below the age of thirty, and only 16 per cent were over fifty. Businesses founded by younger people prove more likely to fail. After two years, 73% were still going; after five years this had dropped to half - similar to the national rate. More than half fail within five years and those which survive are facing slow growth. The failure rates for the different types of business are set out below. Shops and transport are most likely to fail, whereas industrial production or business services are most likely to succeed. Industrial businesses also have, on average, more employees.

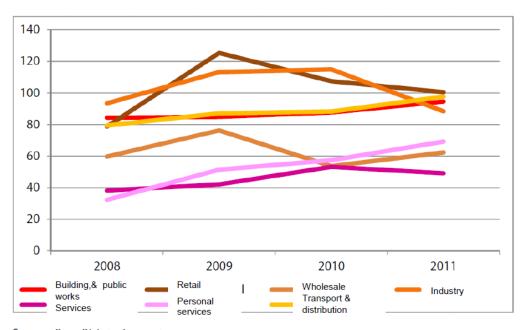
Table 8: Failure rates after five years, by type of business Failure rate %

Failure rate of types of business	%
Industrial	35%
Business services	40%
Social services	49%
Metalworking	49%
Wholesale	50%
Transport and logistics	61%
Retail/commerce	62%

Source: EPURES/CCI 2013

The sectors contributing most "value added" to the local economy are industrial, retail, transport and metalwork sectors. Business services and personal services contribute least.

Figure 14: GVA contribution of new SME businesses by type



Source: Base Risk, traitement: epures

Source: EPURES/CCI 2013

Businesses that have survived five years or more have falling profitability, almost certainly reflecting their failure to grow, intense competition and the wider economic situation of extremely slow growth in France.

The city faces a recurring problem with SMEs: once they are established and prospering, it becomes harder to keep them locally based. Once the start-up period is over and the business is viable, many entrepreneurs move to bigger French cities, rather than remaining to grow their firm in Saint-Étienne; although there are exceptions, like Casino, which is now a leading French company. Initiatives such as the rehabilitation of the Manufacture complex help to give the city more business and creative appeal.

The city has supported the creation of over 30 fair-sized and sustainable businesses, but many more are needed to generate a large enough pool of talent and opportunity. SMEs provide new opportunities for residents in different types of business, using new rules to generate self-employment. New SMEs fit into an economy that has long supported the survival of multiple small businesses that have traditionally served the city, even though in the great industrial war they were over-shadowed by the giants of Manufrance and the Imperial Arms Factory. They are now truly the life blood of Saint-Étienne's economy.

15. Concluding thoughts

Saint-Étienne displays a number of paradoxes and contradictions. The city has a history of skilled industrial manufacture, but the presence of these industries has scarred the city. Their decline has led to severe economic and social problems, and a poor image and reputation nationally as an ugly post-industrial city. On the other hand, the city's industrial heritage and legacy is helping the city to rebuild its image and function around the productive and economically powerful idea of a "visionary workshop".

The internationally recognised City of Design, based in Saint-Étienne, generates a high number of SME start-ups and is the leading edge innovation among several major "Competitivity Clusters". Several city-based and regional universities, and Ecoles Superieures, feed into this process. The industrial legacy has therefore been turned into a source of strength. Of course, the industrial damage itself still lies heavily on the city, with high unemployment, low skills, and many unfinished clean-up tasks.

The city also lies in the shadow of Lyon. Historically, there has been little cooperation and some mutual suspicion. Saint-Étienne has been regarded as a poor, small and insignificant neighbour to its far bigger regional powerhouse. Now, both cities recognise that by working together, they can build a complementary regional economy and, by uniting, they can become a larger force on Europe's competitive playing fields.

There is increasing recognition of the importance of sub-regional bodies such as Saint-Étienne Metropole, and the four cities making up Eurometropole, which includes Lyon. Saint-Étienne draws on its history as a "working class, humanist, mutualist and community focussed" city, which is increasingly recognised as contributing positively to regional development.

The city is within walking distance of some exceptional areas of natural beauty and leisure opportunities, giving it the potential to change its image and market itself as a great place to live and work. For many years, there has been a significant drift of more affluent residents moving out to suburban and rural communities where they can live in cheap but high quality housing in areas of natural beauty. This trend undermines the wider aims of attracting more working families to live in the city centre, providing a balance to the low income and increasingly aging population. However, the strong combined planning controls of the Metropole are gradually slowing, if not yet reversing, this process. The marketing of nature therefore needs to be more clearly linked to urban densification and repopulation.

Small and medium enterprises, in the design and high tech fields, are helping to re-establish the city and recreate its image as a 'city of design'. However, retaining these new businesses in the city as they grow can be difficult. The same applies to students. Saint-Étienne could, if new growth continues, achieve a critical mass of 'feeder' or supply firms that offer skilled jobs to young people and build the city's reputation as a major centre in its own right. For this to happen, its new image must be strengthened in order to attract and retain its key workers and business investment.

Meanwhile, the loss of manufacturing jobs in older industries continues. Industrial production, which is an essential element of the economic fabric of major producer cities like Saint-Étienne, needs to move into the development of new 'Third Wave', green, advanced manufacturing industries. New advanced metal products, high-tech textiles, and advanced 3D design offer great potential. There is now a new focus on innovative industrial development. Meanwhile, the emphasis on small and creative businesses is turning Saint-Étienne into a new knowledge-based economy.

The role of state intervention cannot be underestimated. The arrival of the state-funded investment programmes raised many local suspicions, with the exception of the neighbourhood renewal funds through ANRU (National Agency for Urban Renovation). But the external funding has been instrumental in stimulating a new image and the development of new economic opportunities locally. This was for a time threatened by the city's high levels of toxic debt resulting from the major building and infrastructure investment to reverse the impacts of earlier industrial collapse. In this context, state support made a major contribution to keeping the city's economy afloat during the long crises that have affected the city. But the leverage of state support has provided an opportunity to rebuild the economy and make the city a magnet for residents and enterprises alike.

Bibliography

ADEL et al. 2013. Les evolutions economiques dans la Loire en 2012. ADEL, Saint-Étienne.

BASECO Rhone Alpes. 2012. Presentation sociao-economique. CCI Saint-Étienne, Saint-Étienne.

Beal, V., Dormois, R., et Pinson, G. 2010. *Relancer Saint-Étienne. Conditions institutionnelles et capacité d'action collective dans une ville en déclin* Métropoles [En ligne], 8 | 2010.

CCI Saint-Étienne. 2010. Étude sur les poles et filières.

CCI Saint-Étienne. 2012.. Note de Conjuncture. CCI Lyon Metropole : Saint-Étienne.

CCI Saint-Étienne. 2013.. Note de Conjuncture. CCI Lyon Metropole : Saint-Étienne.

CCI Saint-Étienne. 2014. *Note de Conjuncture*. CCI Lyon Metropole : Saint-Étienne.

Cité de Design. 2012. Brochure Saint-Étienne: "City of Design". Saint-Étienne Turisme: Saint-Étienne.

Dauncey, H. 1993. "The economics and politics of high technology: Between the état dirigiste and the état modeste".

Modern & Contemporary France, 1(1), pp. 51-54.

EPURES. 2012. Profil socio-economique de la populataion active occupe du Sud Loire. Economie No 16/2012.

EPURES. 2013. Lyon / Saint-Étienne : un autre regard sur l'innovation. EPURES, Saint-Étienne.

EPURES / CCI Saint-Étienne. 2013. Analyse de la pérennité des entreprises créées en 2007. EPURES, Saint-Étienne.

Gravelaine, F. 2012. Saint-Étienne: Un Territoire se réinvente. Editions Carré, Paris, p. 13.

INSEE. 2014. Tableau de l'economie francaise. INSEE, Paris.

INSEE Rhone Alpes. 2013. Pôle urbain de Saint-Étienne. Analyses No 209 Novembre 2013. INSEE, Lyon.

INSEE Rhone Alpes. 2014a. Les salaires Élevés. Analyses No 229 Avril 2014. INSEE, Lyon.

INSEE/EPURES/CCI. 2012. Les PME de Rhône-Alpes innovent pour se développer. Analyse No 180. INSEE, Lyon.

Merley, J. (dir.). 1990. Histoire de Saint-Étienne. Privat : Toulouse.

Saint-Étienne Métropole. 2013. Rapport d'activité 2012. CCI Lyon Metropole : Saint-Étienne.

Thomas, E. 1996. 'Restructuration des services municipaux stéphanois et rupture dans le mode de planification urbaine'.

Revue de géographie de Lyon, 71(3). Recomposition du système d'acteurs en région stéphanoise. pp. 217-221.

Verney-Carron, N. 1999. Le Ruban et L'Acier: Les élites économiques de la région stéphanoise au XIXème siècle (1815-1914).

Université de Saint-Étienne : Saint-Étienne.

Ville de Saint-Étienne. 2010. Plan Local d'Urbanisme. http://www.plu.saint-etienne.fr/. Accessed 3 July 2016.

Ville de Saint-Étienne. 2013. Rapport sur la Dette. City Council Report : Saint-Étienne.

Winkler, A. 2010. Saint-Étienne. CASE report, 40. LSE: London.

49