





Torino City Story

CASEreport 106: May 2016

Anne Power

LA FABRIQUE

Contents

Figures				
Boxes				
Abo	out LSE Housing and Communities	4		
	eword and acknowledgements			
	Introduction			
	History in brief			
3. Т	The first industrial revolution and the birth of Fiat	9		
	World War Two			
Pos	st-war recovery			
	Industrial and social strife			
Dei	industrialisation challenges			
6. F	Recovery and turnaround			
7. L	Urban Master Plan			
Inci	ubators and the Politecnico	21		
Cor	nsultation and Strategic Planning	23		
	nter Olympics			
	"A gradual process of small steps"			
Spe	ecial Peripheral Neighbourhoods Project	27		
9. F	Progress over the recovery period			
10.	Financial crisis of 2007-8 Italy's economic and political doldrums			
The	e burden of debt			
11.	New directions			
a.	The Politecnico			
b.	Bank Foundations	35		
с.	Social Innovation			
d.	New Industrial Sectors			
e.	Environmental Focus	40		
f.	Tourism and events	42		
12.	Concluding thoughts	44		
References and Bibliography45				

Figures

Figure 1: Map of Italy	.5
Figure 2: Map of Piemonte, the Italian region where Torino is situated	.6
Figure 3: Monument to Vittorio Emanuele II, first King of Italy	
Figure 4: The Fiat 500 in Torino, 1957	.9
Figure 5: Fiat's Lingotto factory, 19231	.1
Figure 6: Nutella shop front1	.3
Figure 7: Population growth to 1970s and manufacturing jobs1	
Figure 8: Strike at Fiat's Mirafiori factory, 19621	.4
Figure 9: Decline in manufacturing jobs and population chart1	.5
Figure 10: Overcrowded flats with extra space on balconies1	.6
Figure 11: City-wide consultations with local stakeholders around the new Strategic Plan for Torino1	.8
Figure 12: Central spine (Spina Centrale) and underground railway (passante ferroviario)1	.9
Figure 13: Social housing in via Arquata, built in 1926 by the IACP (Istituto Autonomo Case Popolari), no	w
ATC (Agenzia Territoriale per la casa)	20
Figure 14: Social housing in Porta Palazzo, built in 1949, now due for demolition2	
Figure 15: View of city with Alps in the background2	24
Figure 16: Social caretaking flat – explaining the programme to visitors2	25
Figure 17: Salone del Gusto (Slow Food)2	26
Figure 18: Sharing Social Hotel building2	26
Figure 19: Casa del Quartiere – San Salvario	28
Figure 20: Cascina Rocca Franca	28
Figure 21: Chart showing rise in jobs and population stabilisation2	29
Figure 22: Rise in immigrant population since 2008,	31
Figure 23: Farmers' market in Porta Palazzo	32
Figure 24: Sharing and Caritas SISTER Project in Centre of City	3
Figure 25: Cittadella Politecnica on the Spina Centrale	35
Figure 26: Salone del Gusto & Terra Madre Opening Ceremony, 2012	37
Figure 27: Paris's electric car-share scheme – Autolib' – designed by Pininfarina, Torino	8
Figure 28: Young technician in a laboratory, Torino	39
Figure 29: Chart showing recent decline in manufacture4	10
Figure 30: Community Heating Programme: newly built CHP plant in the northern quadrant of the city4	1
Figure 31: Torino bike docking station in Porta Nuova4	2
Figure 32: Timeline of important events in Torino since late 1970s4	13

Boxes

Box 1: Historical timeline of Torino	8
Box 2: Fiat timeline	11
Box 3: The I3P incubator	21

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 Torino 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 Torino 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 Andrea Bocco, Massimo Bricocoli, Giovanni Magnano, Gianfranco Presutti. 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. Introduction

Torino is a beautiful, historic city, set against the back-drop of the Alps at the confluence of two major rivers, the Po and the Dora. It was founded by Julius Caesar's army in 29 BC as a Roman army garrison to advance his invasion of Gaul and eventually Britain.

Figure 1: Map of Italy



Source: Lonely Planet http://www.lonelyplanet.com/maps/europe/italy/



Figure 2: Map of Piemonte, the Italian region where Torino is situated

Source: ITP

The city is often underrated because of its heavy industrial legacy. For the whole of the twentieth century it was dominated by the giant car industry, Fiat, with its vast steel works, extreme growth, giant factories, high immigration and squalid housing. Yet today it is Italy's fourth most visited city after Roma, Venezia (Venice) and Firenze (Florence). Tourism is one of its boom industries.

2. History in brief

Torino was the historic capital of Piemonte, one of Italy's richest regions, and its strategic location as a gateway between Northern Europe, the Alps, the rest of Italy and further West made it both powerful and vulnerable. During the Middle Ages and Renaissance, the House of Savoy took over the government of Piemonte, eventually making Torino the capital of Savoy, a kingdom spanning the Alpine divide. Its trade, banking and early industries all made Torino a rich city in a rich region. It was also a springboard for civil society, for political and economic alliances, and for the early building of railways. By the midnineteenth century, it was a base for the Italian reunification movement, making it the first capital of a united Italy in 1861. This had huge repercussions and changed its dominant language from the Piedmontese dialect to Dantes "noble language"; Italian.

Figure 3: Monument to Vittorio Emanuele II, first King of Italy



Yet three years after reunification, the capital moved to Firenze (Florence) and Torino had to make up for the loss of status, functions, jobs and investment. The population fell while unemployment soared, and in crisis mode the city leaders, private and public sectors, collaborated in a push for Torino to rebuild its reputation and economy on a strong industrial and entrepreneurial base. Its ancient university, engineering tradition, productive industries, banking and civic traditions all helped rebuild the shattered economy. Torino bred initiative and innovation.

Box 1: Historical timeline of Torino

~29 B.C.	Roman military colony of 'Augusta Taurinium' is founded
500s A.D.	Ostrogoths rule
~600s	Lombard rule
~7-800s	Part of Charlemagne's Frankish empire
~962-1100s	Part of Holy Roman Empire
~1200s	Creation of autonomous city-state
1280	Captured by the House of Savoy; beginning of a new era
1404	University of Torino founded
1563	Becomes capital of Savoy
1536-59	Occupied by the French
1720	Reverts to capital of Savoy Kingdom of Sardinia
1798-1814	Re-occupied by the French
1830-40s	Savoy monarchy initiates economic modernisation programme
1848	Savoy ruler grants constitution to Piemonte: first elected parliament in Torino
1859	Technical School for Engineers founded
1861-1865	Capital of new Italian nation
1884	Hosts Universal Exhibition to promote local industry
1899	Fiat founded
1906	Politecnico of Torino engineering university founded
1908	<i>Officine Olivetti</i> founded
1914-1918	WWI fuels industrial production
1920	General strike involving 150,000 workers
1925-43	Fascist dictatorship under Mussolini
1950-70s	'Economic miracle'
1970s	Strikes, terrorist movement, economic decline
1980s	Fiat reorganisation; decline in welfare provision
1990s	City Master Plan and Strategy
1994	First elected local Mayor
2000s	Investment in metro and Central Spine, as well as Winter Olympics
2006	Torino Winter Olympics
2010	Crisis of city debt
2011	150 th Anniversary of unification of Italy

3. The first industrial revolution and the birth of Fiat

The municipal government, with support from the city polytechnic and its engineers, developed hydroelectric power from the nearby Alps. The local engineering skills and legacy of wealth fostered the ambition to develop an auto-industry. Local investors and entrepreneurs pooled their resources to found the *Fabbrica Italiana Automobili Torino* (FIAT) in 1899. The path-breaking factory, inspired by Henry Ford's Detroit model, led to the city's population growing by nearly 50 per cent in the following 15 years, while the exploding working population of the Fiat factories multiplied five-fold, and was packed into crowded slums. Most early immigrants came from the countryside and mountain valleys surrounding Torino. After the Second World War, immigrants were mainly from Southern Italy and Sicily; Italy's poorest region.

Figure 4: The Fiat 500 in Torino, 1957



Source: FIAT

World War One created a massive demand for machine components and vehicles which further fuelled Torino's growth. When Mussolini took over Italy's government in 1922, Torino again experienced explosive expansion due to demand for industrial goods under Mussolini's modernising drive. Torino's population grew by a further 40 per cent between 1922 and 1939. Fiat employed a third of the Torino workforce, as the owners, the Agnelli family, collaborated with Mussolini's fascist government to secure lucrative contracts.

The power of Fiat largely hinged on Giovanni Agnelli, its director-owner, who became one of Italy's most powerful entrepreneurs, business men and political dealers. Agnelli's strong links with Ford through frequent visits to Detroit, with Mussolini through a shared interest in industrial growth, and with the Catholic Church, produced an unusual collaboration in welfare provision. Fiat became the all-encompassing provider of housing and other aspects of welfare for its hard-pressed workforce. Agnelli's powerful political alliances were to project Fiat into becoming a world leader in car production and related industries, making Torino vital to Italy's interests. Agnelli also founded the highly successful Torino-based newspaper, *La Stampa*. In this period of growth, workers' unions emerged with considerable clout and recognition. Fiat by then has built model factories, such as Lingotto, one of the biggest in Europe, and whole worker neighbourhoods, such as Mirafiori.

4. World War Two

World War Two however had a devastating impact on Torino, as one third of its buildings were destroyed by heavy bombing. The city was a critical target as its factories provided engines and components for military vehicles and planes, thus posing a serious threat to the Allies. Post-war Italy was shattered, its people hungry and its infrastructure in ruins. Torino was not spared. Italian governments were too weak to respond and the Fiat of the Agnelli played an unusually powerful role in helping to keep the workforce in work and looked after, distributing emergency food supplies and providing cheap new housing on the periphery of the city. The Agnelli family became "la Mamma" of Torino and because of Fiat's national prominence the Agnelli played a powerful role in Italy too.

Figure 5: Fiat's Lingotto factory, 1923



Source: Fiat

Post-war recovery

Fiat captured the largest share of the post-war Marshall funds and more than doubled its workforce between 1951 and 1971 up to 115,000 workers, producing 95 per cent of Italy's cars as the post-war economy boomed. Italy, as a founding member of the European Common Market, was a strong partner and Torino benefitted hugely from its strategic location, historic connections and industrial prowess.

Box 2: Fiat timeline

1899	Founded by Giovanni Agnelli
1900	First factory opens, employing 100 workers
1908	2,500 employees. Opens a factory in the USA
1915-18	Expands capacity more than seven-fold due to wartime demand for vehicles. Diversifies and
	sets up new companies
1920	Labour unrest, factory occupations
1923	Lingotto factory, Europe's largest, opens in Torino (see Fig. 5)
1920s	Introduces employee health insurance, founds the local newspaper La Stampa, a school,
	holiday camps, numerous workers associations, and a bank promoting instalment plans for car
	purchases
1930	Opens a factory in Spain

-	
1930s	Great Depression bolsters Fiat's position as other industries sink
1933-43	CEO Giovanni Agnelli is made a senator by Mussolini
1939	55,000 employees. Mirafiori factory opens in Torino. Beginning of mass production
1940s	During WWII and its aftermath, Fiat delivers aid to its employees in the form of clothing, shoes
	and fuel, and distributes 100,000 meals daily
1948	Damaged facilities rebuilt and new equipment purchased using Marshall Plan aid
1950	70,000 employees
1950s	Confrontations between Fiat and unions; Fiat leadership imposes discipline and modernisation.
	Opens factories in South Africa, Turkey, Yugoslavia, Argentina and Mexico
1960	85,000 employees
1966	Gianni Agnelli (grandson of founder Giovanni) becomes president of Fiat
1960s	Builds new factories in southern Italy and USSR. Embarks on new international joint ventures
	(e.g. lveco)
1968-9	158,000 employees. Labour movement reaches apex. By 1969, 15 million hours had been lost
	through strikes
1973	Oil crisis begins Fiat's slow decline, prompting diversification and sale of shares (later bought
	back)
1980	Fiat launches major restructuring programme, lays off 23,000 workers
1990s	Company in crisis. Embarks on several joint ventures with international firms. Foreign
	competition floods the national market; Fiat targets emerging markets
1994	Opens further plants in southern Italy; shifts most production to there
2002	Enters alliance with General Motors. Sheds 8,000 workers (more than 1/5 of its shrunken
	Italian workforce)
2005	General Motors alliance dissolved
2006	Signs lucrative new deals with Indian, Russian and Chinese companies
2010	Launch of the new business plan (Fabbrica Italia). Marchionne promises investments in Italy of
	20 billion euros;
	> New contract entailing less break time and involving significant problems with major
	unions
2014	Fiat merges with Chrysler, creating the new Fiat Chrysler Automobile (FCA)
	> Majority of workers (3,000, out of 5,400) on employment subsidy ¹
	> The plants are being retooled
	> Factory workers only working on average 4 days a week

Other industries also flourished, although to a lesser extent. Olivetti, the founder of the modern typewriter in 1908, became a driver of modern communication enterprise. The main Officine Olivetti plant in Ivrea, 30km north of Torino, established itself as the epicentre of enlightened capitalism. Camillo Olivetti, the founder, a Politecnico graduate, provided factory workers with local accommodation, higher than average wages, free nurseries, as well as cultural entertainment during break times. His son and successor as CEO of the company Adriano Olivetti pioneered the Italian community movement ('Movimento Comunita'), founded in Torino in 1948. Adriano Olivetti also inspired, backed and funded many of the most progressive community development projects in Southern Italy, when it was still very much disconnected from the wealthier Northern part of the country, and plagued with extreme poverty, unemployment and corruption.

¹ Employment Subsidy in Italy is called Cassa Integrazione Guadagni (CIG). It is funded by the INPS (Istituto Nazionale per la Previdenza Sociale), in the case of the *ordinary* CIG (up to 12 months), and by the Government, in the case of the *extraordinary* CIG (up to 4 years). It was introduced in 1947 to support enterprises retaining their workforce through times of economic crisis. A crisis can be either an individual crisis due to a temporary economic downturn, in which case an enterprise may be eligible for the ordinary CIG; or a wider sector crisis affecting a key enterprise, which entitles it to apply for extraordinary CIG while going through restructuring/retooling. CIG is applied to both total and partial layoff.

Food and confectionary had been traditional main-stays in Piemonte, and Ferrero, the internationally famous brand of gold-wrapped chocolates, is still based in Piemonte near Torino. Nutella, also produced by Ferrero, was first created in Torino in a small shop front in the central neighbourhood of San Salvario. It became instantly popular as a poor man's alternative to chocolate, cleverly diluted with health-giving hazelnuts. Ferrero is still one of Piemonte's success stories. Fine textiles also play a significant economic role today.

Energy, a constant challenge for an industrial city without coal, became a powerful means of industrial progress as natural gas was discovered in the Po valley nearby, although industry was still heavily dependent on imported oil, as well as hydro-power generated by several hydroelectric plants located in the steep valleys surrounding Torino.



Figure 6: Nutella shop front

Source: Online (<u>www.claraqiqipadovani.com/mondo-nutella/50-anni)</u>

Most important for Torino's future was the rapid multiplication of small off-shoot production and service companies that plugged gaps in supply chains and specialist skills for major companies, such as Fiat and Olivetti. Engineering, industrial design, advanced industrial research and high-tech manufacturing gained in importance across many diverse industrial sectors, as the Politecnico rose to the challenge of specialist, higher skill demands by providing practically oriented engineering and design courses.





Sources: Manufacturing jobs : ISTAT; IRES Piemonte - Population: Province of Torino.

Industrial and social strife

Torino's rich industrial endowment was increasingly strained over the late 1960s and 70s by important international shifts that undermined its growing pre-eminence:

- The European Common Market gave Torino a bigger range but also stronger competition, particularly from German and French auto producers.
- Labour costs rose steeply as the Italian economy and standards of living rose, making the Torinobased production of Fiat less competitive.
- The social and welfare costs of a huge workforce grew, outpacing either Fiat's or the city's ability to respond. Unrest and extreme politics grew.
- The oil crisis of the early 1970s caused a huge hike in energy prices worldwide, hitting car manufacturers particularly hard as demand for petrol-based cars fell, also pushing up production costs.



Figure 8: Strike at Fiat's Mirafiori factory, 1962

Source: Torino City Report, 2008

Deindustrialisation challenges

By 1970 Torino's population peaked and began a steady decline, arrested by the new millennium, but still not showing strong signs of recovery. As Figure 9 shows, the overall population for the metropolitan area of Torino stayed relatively stable, due to the fact that most city out-movers went to live in the suburbs, where housing was cheaper. Jobs also tailed off, particularly in manufacturing, and Fiat displayed dramatic job losses, cutting 30,000 jobs by 1980. Over the 1990s another 50,000 jobs were lost, and today Fiat employs around 20,000 people, down from 140,000 in 1970. Industrial strife got worse as jobs went and violent clashes became more common. The loss of economic firepower in the once dominant

car industry affected the level of social support, cut demand for worker housing units, reduced the ability of local government to cope and reduced Torino's leverage on national government. All in all, the city government, dominated by quarrelling left-wing parties, became less and less responsive to new needs, and more and more stuck in hopeless rescue plans partly supported by national government. Finally Torino City Council was suspended by national government in 1992 in an extreme move to avert total local collapse and chaos. In 1994, under a radical overhaul of local government, Torino chose its first directly elected mayor by popular vote. Although things looked grim for the city, its manufacturing base had declined rather than collapsed.



Figure 9: Decline in manufacturing jobs and population chart

Source: Population: Province of Torino and City of Torino. - Manufacturing Jobs: Province of Torino, ISTAT, Censimento industria e servizi 2011, Registro Statistico delle Imprese Attive (Asia) ISTAT, Indagine Continua delle Forze di Lavoro; Osservatorio Regionale sul Mercato del Lavoro della Regione Piemonte (ORML); IRES Piemonte.

In many ways, Torino was well placed to make a comeback:

- Its skill base and engineering prowess are undisputed, making the city a magnet for new investors and entrepreneurs.
- In spite of Fiat's dominance it has retained a diverse industrial economy with many internationally recognised brands and manufacturing still plays an unusually large part in the economy.
- The city lies at the heart of a long-prospering region, rich in resources, industry and agriculture, giving it a strong base for further development.
- Its international links and its "gateway" position to the Alps foster wider economic outreach.
- Its long civic tradition and strategic status make it powerful beyond its relatively short industrial boom, fitting it for new more diverse functions, as in its past.

- Its banking sector, historically strong, became a major actor in Torino over its long history of trade, its industrial growth and the explosive expansion of Fiat. Multiple international connections allowed it to remain strong as Torino's manufacturing base shrunk.
- The city's social problems and reliance on private, as well as public support, created an environment of social innovation that has survived to this day.

All these threads reinforced the potential for arresting Torino's decline and paving the way for recovery. However, while Torino enjoys many assets and advantages, recovery has been constrained by counterbalancing factors:

- Extremely large obsolete factories and industrial wastelands 20,000 hectares along the centre spine of the city, either side of the main railway;
- Declining, poor, under-occupied factory housing in monolithic blocks outside the main city;
- Big inflows of immigrants, often illegal, from Eastern Europe, Asia, Africa, and Latin America, and severe crowding in old, half-empty city blocks, accelerating in the 1980s and 1990s, particularly for young people;
- Instability in national government and Italy's overall weak economic performance.



Figure 10: Overcrowded flats with extra space on balconies

5. Recovery and turnaround

A surprising candidate for the new mayoral role emerged in 1994: a professor from Torino's Politecnico, Valentino Castellani, who was free from traditional political allegiance, well connected with civil society, business and intellectuals, a leader with a non-partisan, progressive and participatory view of city change, determined to build alliances, look outwards towards Europe, innovate and develop a new citizen-based plan for the city. Castellani, the first directly elected mayor, forged stronger links with the municipal authorities surrounding Torino (around 50 councils), the provincial and regional governments and the rival cities of Milano and Genova, on which Torino's recovery partly depended. New formal structures reaching all these layers of government transformation have been slow to emerge, but interdependence and collaboration became part of a new economy.

Some regional economic bodies, such as Finpiemonte, acted as a powerful funnel for European programmes, new training and attracting major funds to Torino's large former Fiat sites in Mirafiori and the surrounding neighbourhoods.

Only through innovating in all fields – industrial, commercial, financial and infrastructural -could the city hope to regain its economic momentum. More research, more experimentation, a strategic approach to infrastructure, more locally generated enterprise and radical urban renewal were vital. None of this would work without city-wide support. Here the professor-mayor entered his own.

European links became more and more important under the leadership of Castellani, and the European Union funded urban networks and exchanges that allowed cities like Torino to pick up bright ideas, help each other solve economic, social and environmental problems and design post-industrial cities. European cities showed off their recovery efforts in exchange visits and Torino became part of a much bigger phenomenon of industrial crisis and recovery. The decline and withdrawal of major heavy industries from Europe's established industrial cities was a continent-wide process and was accompanied by harsh population and job losses. As a strategically located, international city, Torino learnt from the experience of other European cities but also promoted itself far more widely across Europe. Its link with America, through the Fiat, also remained strong and in the late 1990s General Motors decided to base new research into train technologies in Torino.

The city forged a ground-breaking, consensually developed set of ideas that pushed Torino towards an embedded turn around. Its plans were carefully designed, openly debated, broad-ranging and radical.



Figure 11: City-wide consultations with local stakeholders around the new Strategic Plan for Torino

Source: Marco Muzzarelli (http://www.marcomuzzarelli.it/?cat=63)

6. Urban Master Plan

All Italian cities are supposed to determine long-term land use through a broad plan, agreed locally. Torino's last Master Plan was agreed in 1959. Castellani's vision of a post-industrial reconfigured, denser city, supported by better public transport, would replace the outmoded industrial zoning that left large industrial sites right across the city to fester, carving up the city and wasting vast tracts of useable space around the deep central railway lines that ran through the centre and cut the city in two. The Central Spine through Torino has thousands of hectares of derelict land and buildings crying out for reuse. A factor working in favour of the Plan was the new power to raise local property taxes to fund investment. The main aim of the new plan was three-fold:

- 'Bury' the railway lines under a new surface-level road, thereby opening up large areas of currently unusable land;
- Reclaim all industrial sites on either side and turn them into mixed-use neighbourhoods, making space for enterprises and attractions that would reintegrate and reinvigorate the city;
- Create a new ultra-modern metro system for the dense, over-built city to link neighbourhoods to the centre, cut traffic and pollution and free up space.



Figure 12: Central spine (Spina Centrale) and underground railway (passante ferroviario)

Source: Officina Città Torino

This new approach has delivered many significant spin-offs:

- The Politecnico developed a new central campus on one of the sites, offering many challenging, highly specialised courses for a large international student body;
- Many central and more peripheral neighbourhoods were drawn into the renewal process;
- The metro line was built and connected neighbourhoods;
- The over-laid road on the Central Spine gained popularity, created a wide bridge of land over the deep lines and unified many previously isolated neighbourhoods. It also allowed many new enterprises to grow.

The Master Plan further encouraged the restoration of many parts of the historic and potentially beautiful city centre. This overlapped with the ambition for neighbourhood renewal, since poorer residents were concentrated either in peripheral publicly owned "factory housing" areas, or in often grossly over-crowded apartments in the centre.

Figure 13: Social housing in via Arquata, built in 1926 by the IACP (*Istituto Autonomo Case Popolari*), now ATC (*Agenzia Territoriale per la casa*)



Source: Museo Torino online www.museotorino.it

Figure 14: Social housing in Porta Palazzo, built in 1949, now due for demolition



Source: Museo Torino online www.museotorino.it

Incubators and the Politecnico

A wide collaboration between the Politecnico University, renowned for its engineering strengths, the provincial government and local businesses, founded in 1999 the I3P incubator to encourage start-ups, support small, young entrepreneurs and attract finance while providing cheap, supported premises as a launch-pad. Other incubator initiatives, such as TreataBit, fostered and extended this approach. The incubators have provided a launch-pad for some break-through ideas and continue to generate large numbers of new companies – 122 new companies in 10 years to 2009. These companies are often linked to advanced manufacturing and technology. They have won awards for their success rates.

The development of an Information and Communication Technology (ICT) cluster and dedicated district adjacent to the Politecnico, supported by the Torino Wireless Foundation, led to the creation of Italy's first ICT district, leading to the creation of a successful incubator and many new small enterprises, as well as the spread of ICT among existing small and medium-sized enterprises (SMEs). There is a highly regarded research institute linked to the Politecnico, The *Istituto Mario Boella*, funded largely by bank foundations, that helps make this technology cluster one of the most successful in Italy. The OECO rated it an "unqualified success" in 2009.

Box 3: The I3P incubator

I3P incubator

- Professors from the Politecnico decided to set up an incubator, after visiting other countries (France, Belgium, Finland, UK, US) and noticing that business incubators attached to universities were a common feature
- They proposed the idea to the public sector (Chambers of Commerce, Region, Torino City Council)
- In 1999, I3P became Italy's first university-linked incubator
- It was founded as a non-profit joint-stock Consortium Company (S.c.p.a), with its 6 joint shareholders as:

- Politecnico of Torino
 - o Province of Torino
 - o Municipality of Torino
 - Chamber of Commerce of Torino
 - Finpiemonte (Regional Financial Agency of Piemonte)
 - o Torino Wireless Foundation (for promoting ICT activity)
- Each shareholder contributes €200,000 (totalling €1.2m)
- I3P focuses on hi-tech business ventures in the major engineering sectors

How it works

- I3P provides start-ups with cheap offices in high-tech premises, and offers the consultancy services of business development advisors (for the commercial side) and Politecnico professors (for the technical side). It also help connect entrepreneurs to start-up capital
- To finance its activities, I3P receives funding from various bodies with which its founding shareholders have strong relationships; for example, the CRT bank foundation part-funded the conversion of old warehouses into I3P's new offices, and the EU and Italian Ministries are the main funders of the operating costs

Helping finance entrepreneurialism

- Local banks have agreed to grant low-interest loans of up to €100,000 without a guarantee
- I3P has strong relationships with *Piemontech* and *Innogest*, two funds run by the Torino Wireless Foundation. *Piemontech* is a seed fund, giving grants of up to €200,000; *Innogest* is a growth fund, giving grants of up to €5m. These relationships ensure I3P's companies have preferential consideration by these funds
- The Torino Wireless Foundation has also founded an association of 11 venture capitalists (only five of them Italian) called 'Venture Capital Hub', to provide funding for budding enterprises. This will provide up to €1bn

Promoting entrepreneurialism

- To promote its services and encourage entrepreneurialism, I3P has founded the 'Start Cup' competition for the year's best business idea in the Piemonte region, with a 1st prize of €20,000. This idea spawned many imitations across the Italian regions, and I3P has now launched the 'National Innovation Award' competition for the winners of all the regional competitions, with a 1st prize of €60,000
- I3P is a founding partner of a national association of university incubators in Italy, PNI Cube, which shares best practice among 25 university incubators and promotes their work

I3P's ingredients for success

• Strong links to the university and local authorities. "Without the Politecnico and the strong collaboration with local bodies such as the Province and the Chambers of Commerce – we could never have happened", says a project manager at the incubator. These links were critical for finding financial support and giving the project visibility

<u>Results</u>

- As of October 2007, I3P has hosted 88 start-ups, only 4 of which have failed to develop into businesses a notably high success rate
- For the 65 operating start-ups for which data is available, the overall value is around €20 million
- I3P won a 'Best Science-Based Incubator' award in 2004

Consultation and Strategic Planning

Castellani, at the start of his second term, launched a city-wide, citizen-based consultation on his plans and ideas for the city. The aim was to build a consensus around the big new ideas the city must embrace in a "Strategic Plan" for long-term development:

- Public and private action would together create scope for many autonomous actions and new enterprises.
- A long-term (10 year) road map for new developments should include plans for land reclamation of derelict industrial sites and reuse of major legacy buildings, such as disused railway sheds along the buried tracks.
- City centre and neighbourhood renewal would bring a strong environmental focus to decayed areas, to make the city more sustainable and more attractive to residents and visitors.
- New financial resources through non-traditional routes would involve bank foundations, private investors, and the European Union.
- Reorientation of productive enterprises to the auto-industry and to new and international markets would require skills training and a focus on innovation.
- "Internationalisation" on all fronts would make Torino a "gateway city".
- New, more collaborative ways of working would lead to a metropolitan governance system, to incorporate and represent wider Torino.
- The city would become a new learning centre, through education, international interchange and specialised training, based on traditional skills.
- Tourism, based on the city's historic role and heritage, would generate new business.

Winter Olympics

The ground was laid for Torino to turn around and rebuild its fortunes. A year after the plan was announced the city won its bid to host the winter Olympic Games in 2006. The games provided a launch-pad for several strands of action that advanced the strategy:

- Upgrading the city and providing new facilities;
- Attracting international attention, investment and visitors;
- Deploying engineering and productive skills to new unifying projects;
- Involving all levels of government in a major new international event;
- Creating new markets and enterprises;
- Transforming the image and reputation of the city.

Bank foundations were involved in most strands of the recovery effort, including the Winter Olympics. In Italy, modern bank foundations were first established in 1990, and 88 have been set up since then. They originate in the bank's profits and derive directly from the banks, but they are autonomous and responsible for pursuing charitable and not-for-profit aims within their territorial remit. For this reason, they receive generous funds from the Government, but they are also major shareholders in the banks that they are sponsored by, which means they can invest their assets and make returns on their investments.

Tourism has become one of Torino's major successes. Visitor numbers have risen to two million a year from virtually nothing, far outstripping expectations and making Torino a favourite destination after Roma, Venezia (Venice) and Firenze (Florence).

Figure 15: View of city with Alps in the background



Source: Visit Italy (online), https://www.visitsitaly.com/images/piemonte-im/turin-im/turin-moleantonelliana.jpg

There were four significant factors in Torino's turnaround:

- The leadership role of the elected mayor with his new fundraising powers, and his participative, consultative approach;
- The fundamental assets and historic role of Torino as a European gateway city;
- Its traditional productive, entrepreneurial and engineering skills;
- Small scale, wide-impact social innovations.

Torino has a unique history of social innovation, deriving in part from the "social saints" of the 19th Century, who were appalled by the poverty and misery that the industrial revolution heaped upon so many of its citizens. They set up refuges for homeless people, food centres for the hungry, care homes for the sick and maimed. They went out into the streets in search of destitute people who needed help; they cared for the sick and dying, orphan children and abandoned women. Their works and their model institutions spread across Italy and in some cases the world. Don Bosco, one of the most renowned "social saints, founded emergency aid centres in Torino. Today hundreds of projects inspired by Don Bosco flourish internationally. The *Missionari della Consolata*, named after the Virgin of Consolations, Patron Saint of Torino, are now a large Catholic society. The two most important legacies of the "social saints" were the foundations of Catholic social teaching, promulgated loudly by Pope Francis, whose parents were native Piedmontese; and the impressive bottom-up, community-based and sometimes community-led social service innovations that have helped Torino to thrive in a period of deep austerity and triple-dip recession.

7. "A gradual process of small steps"

A core aim of Castellani in consulting widely on the city's strategy was to unleash, encourage and support the many small and medium-sized enterprises in the city. Tourism, for example, supports hundreds of small hotels and guest houses, restaurants, cafes, gift and local produce shops, city guides etc. The city developed structures to promote international links in industry, exports, European networks and funding, and research visits. The international links Torino has fostered not only encouraged multiple strands of learning but also spread Torino's most innovative ideas far afield.

Civic networks developed based on historic patterns and fostered by the reforming mayor. These have led to social innovation involving citizens directly in community-based services that are the envy of other struggling cities, such as social caretaking. As old blocks of subsidised, rented housing in central areas decayed and residents aged, the social housing companies developed a special tenure for students and other young people willing to offer at least 10 hours a week to help residents with shopping, visits to doctors, and social links. For a low rent of around €200 a month, a youth support service has developed with minimal extra costs and with many health and other benefits to the elderly population of some central blocks.



Figure 16: Social caretaking flat – explaining the programme to visitors

The city has also supported the "Slow Food" movement, founded in Piemonte in 1984 at the lowest ebb of industrial decline, and now internationally famed with several hundred bases outside Italy, but basing its main host major events in Torino. It thrives on small-scale food production, quality produce, hand-prepared ingredients and "authentic, traditional" meals. An environmentally sensitive and socially benign approach to 21st Century life in the fast lane has caught on in Torino, a major production city still famous for fast cars.

Figure 17: Salone del Gusto (Slow Food)



Source: Mole24 (online), www.mole24.it

There are many other examples of this step-by-step approach, not least in the renovated "factory housing" blocks we visited in the shrunken former Fiat areas, and often funded by bank foundations. They house homeless emergency cases, referred by the city housing department, alongside students from overseas, business visitors, tourists and other short term lets. Careful management, shared special spaces, high quality apartments and a strong emphasis on sharing, including with the surrounding neighbourhoods, makes for an unusual blend of personal and social service. The sharing hotel pays its way.



Figure 18: Sharing Social Hotel building

Source: Google Street View, available online

Special Peripheral Neighbourhoods Project

One of Torino's most ambitious "multiple small steps" was its neighbourhood recovery programme. The city secured national and European funding to carry out physical and social renewal in the large peripheral areas of the city, developed to house the inflow of the poor Southern Italian migrants that flooded into Fiat's now defunct factories. An aging, underemployed, demoralised population was living in decaying, depopulating blocks, far from the city centre, yet no longer the hub of industrial activity.

A condition of the European funding was that residents must be fully involved and that social enterprises with a non-profit, social purpose must be part of the approach. The *Progetto Speciale Periferie* (Special Peripheral Neighbourhoods Project), set up in 1998, not only upgraded the buildings and environments of decayed neighbourhoods, mainly but not exclusively on the periphery of the city; it also promoted citizen engagement and social initiatives to a new level.

One of the most ambitious projects was the conversion of an old farm house, Cascina Rocca Franca, into a multi-function social enterprise centre, hosting children's and elderly activities, artistic events and musical festivals, and providing social support advice. The centre is run by a local community foundation, involving up to 50 local associations as well as the City Council. Residents played a decisive role in the development of the centre, which houses a self-funding café/restaurant, children's area, public rooms for hire, offices, and meeting points.

This approach, premised upon community development coupled with physical upgrading, has been applied to some of the most crowded and run-down centre city neighbourhoods. One is Porta Palazzo, a large market area around a majestic central square, where largely African, often undocumented migrants, sell cheap goods as unregistered, illegal traders. The city largely turns an "official blind-eye" to the legal status of sellers and allows the market to flourish. The neighbourhood project, while funds lasted, attempted to legalise the status of migrants, giving them some protection. It supported small advice centres and even a Moroccan bread-making cooperative which proved immensely popular in the Slow Food movement.

The exceptional and inspiring model of civic associations is also behind the development of a *Casa del Quartiere*, a neighbourhood centre in the San Salvario area, adjacent to one of Torino's main railway stations. The centre houses community groups, generates positive relations between traditional residents, immigrants, students and other incomers; while meeting at least some of its costs from local enterprise development, such as community cafes, dance classes, social events and venue hire.

Figure 19: Casa del Quartiere – San Salvario



Source: Case del Quartiere (online) www.casadelquartiere.it

Figure 20: Cascina Rocca Franca



Source: Cascina Rocca Franca, online www.cascinaroccafranca.it

8. Progress over the recovery period

From the mid-1990s to the new financial crisis of 2008, Torino managed to stabilise its population losses to almost nothing, having lost over a quarter of a million (270,000) inhabitants since 1971. Between 1980 and 1990 alone, it lost 100,000 jobs and continued to lose jobs to the late 1990s. Since then, the number of jobs rose by 90,000 to 2008 and unemployment declined, while the population stabilised.

Economic activity became far more diverse and service industries expanded rapidly. Manufacturing lost considerable ground but still retained a strong hold on the economy with 30 per cent of all employment still in industry, and many more in related services. On softer measures, such as better governance, environmental care, social programmes, regeneration and renewal, Torino performed well too. The sheer volume of tourism is ample illustration of how far the city has come.

Meanwhile transport-related manufacture, design and engineering retained their prominence, with Fiat still playing a significant if diminished role. Food-related enterprises also grew again, partly through the success of the Slow Food movement and partly through popular confectionary, fine cheeses and regional specialities. Tourism and the hospitality industry greatly benefitted from the combined benefits of Slow Food and gourmet producers. Technology clusters expanded their prominence in new fields, adapted from old skills. The small and medium-sized enterprise (SME) sector multiplied and up-skilled thanks to the focus on Research and Development (R&D) and new technology. Torino has continued to outperform other Italian regions on most economic measures, in spite of its industrial losses. This solid, well-established progress strengthened Torino's position as Italy entered the whirlwind of the banking crisis, the Eurozone crisis, and a major debt crisis.



Figure 21: Chart showing rise in jobs and population stabilisation

Sources: Population: City of Torino -Jobs: Province of Torino

9. Financial crisis of 2007-8 Italy's economic and political doldrums

Torino had gone through severe economic and political crises in the 1970s and 1980s and managed a recovery. These crises included:

- The decline of Fiat as the employment and social welfare mainstay of the city;
- The virtual collapse of local government prior to the introduction of directly elected mayors in 1994;
- Sharply rising social need, coupled with Trade Union protests and conflicts as a result of the loss of major jobs and cut-backs in spending;
- Serious population decline in the 1970s and 1980s and a remaining legacy of decaying industrial sites.

The transformation of the city in the 1990s and 2000s into an attractive, enterprising, outwards looking, well-governed, socially and environmentally orientated city was firmly embedded when the new crisis struck in 2007. This time, the global upheavals in financial markets, the Eurozone's crisis of confidence and banking turmoil, and the Italian government's paralysis under the brinkmanship of Silvio Berlusconi, the Prime Minister, all created a peculiarly toxic environment for Torino and its surrounding region, Piemonte. In 2008-9 Piemonte lost more jobs, more companies and more inward investment than any other Italian region and Torino was badly affected. Torino was in many ways ill-equipped to weather the financial storm:

- It had received large investment loans from the European Investment Bank for its major infrastructure spending on the new metro line, the Winter Olympics and the reclamation of former industrial land along the central spine of the city and the "burying" of the railway lines that cut through the city centre. These were now a huge liability and hard to repay in the climate of collapsing reserves.
- The lucrative local property tax that provided significant local government finance, was removed in 2008 by a national government desperate to capture votes by easing the tax and financial burdens on middle-income households. This meant that Torino City Council had to radically reduce its services.
- Cutbacks in national and European funding programmes reduced Torino's chances of organising special intervention and recovery projects and programmes in the wake of the new financial shock.
- The whole province of Torino still had a significant manufacturing base, offering nearly 300,000 jobs in 2013. But it fell by 100,000 over 20 years, having been hard hit by the Europe-wide process of de-industrialisation. Southern Europe was particularly harshly affected by the economic crisis and the Italian economy overall continued its long period of no-growth or negative growth. Young workers in particular lost out and youth unemployment in Torino hit 25% by 2010.

Meanwhile, there were other factors compounding these problems:

- Torino continued to experience high levels of immigration from North Africa, Latin America, Romania, Albania and sub-Saharan Africa, in spite of high unemployment and serious recession, posing several challenges to social cohesion in a period of deep austerity.
- Immigrants now form 15 per cent of the population, up from 9 per cent in 2008. Some central areas, such as the Barriera di Milano, have become conspicuously deprived as immigrant groups have crowded into old buildings, as they used to in San Salvario.
- Private rents were too high for households with low wages, short hours or no work at all, and evictions rose extremely fast with an 80 per cent rise in 2009 alone causing intense pressure on emergency funds and emergency housing.
- Levels of youth unemployment went through the roof, from a high of 25 per cent in 2010 to an astronomical 43 per cent in 2013.



Figure 22: Rise in immigrant population since 2008,

Source: Osservatorio Condizione Abitativa Città di Torino – III to X Rapporto (Anni 2006-2013)

Figure 23: Farmers' market in Porta Palazzo



The burden of debt

By far the biggest immediate problem was, and still is, Torino's level of debt, the highest in Italy, previously justified by the transformational impact of the high cost of major investments, but now a crippling burden on the city's budget. Torino's future plans are threatened by its ongoing debt burden and the limitation it places on future borrowing.

One crucial consequence of the recession has been a drop in the registration of new patents both in the city and the region, a rapid growth in company bail-outs and a general slowdown in the pace of economic transformation that was previously underway. One measure of the scale of problem is that the volume of requests for salary support increased thirteen-fold.

Torino and Piemonte have been harder hit by the long recession of 2008-2013 than other Italian regions because they previously had lower unemployment, higher wages and greater reliance on industry. There was further to fall in a fast growing and prosperous region and the recession had a disproportionate impact on producer industries which dominate the economy. Only three regions in the whole EU were worse affected, two in Ireland and one in Poland.

Torino City Council responded in two ways. On the one hand, it was forced to cut back on support and advice services, including employment centres. It also closed its neighbourhood unit and handed over responsibility for neighbourhood projects to local associations. On the other hand, it quickly put in place emergency funds to support training for people facing job losses or income reductions. A special rent subsidy fund was created in partnership with the *Compagnia di San Paolo*, a leading bank foundation in the city, to help people meet rent they could no longer afford. In addition the council, in partnership with churches, non-profit organisations and co-operatives, has developed five emergency housing initiatives to help families and single people suddenly faced with homelessness or domestic crises. The Catholic Church has played a proactive role in responding to the crisis, with the archbishop ordering all

churches and religious orders in the archdiocese to make available all spare buildings and rooms for emergency housing, feeding and other forms of support. Several impressive social innovations have resulted from this.



Figure 24: Sharing and Caritas SISTER Project in Centre of City

Source: Caritas (online), www1.caritas.torino.it/;Lindipendenza Nouva (online), www.lindipendenzanuova.com

Many less people receive help than need it – only about a third of applicants for emergency rent payments get them. But these programmes pick up on the most extreme cases and are impressively proactive, given that they receive limited public funds and often rely on strong civic partnerships.

10. New directions

One interesting issue, highlighted by the recession, is the growing interdependence of Torino and Piemonte. Many smaller companies had moved out of the city into the region, while others have moved in to take up the new opportunities within the reclaimed city buildings. Many programmes launched by the region brought particular benefits to Torino with its intense concentration of needs and assets. At the same time, the strong recovery of Torino, up to 2008, and its continuing magnetic pull as a tourist centre, serve to benefit the whole region. This mutually reinforcing relationship has helped Torino and Piemonte weather the recession, without falling back to where they were in the 1980s or to where less resilient Italian regions are today.

Torino and Piemonte, in the face of such extreme problems, embarked on new plans to build economic recovery and resilience in the city and region. There are five critical strands to the new round of recovery plans, which will be covered briefly in turn:

- The expanding role of the Politecnico with its research, training and private/public partnership functions;
- The continuing role of the bank foundations in supporting social projects and developing human capital in the fast changing industrial sector;
- The expansion of support for social innovation in the face of growing hardship;
- The growth of new industrial sectors and the further support for small and medium-sized enterprises (SMEs) in the transformation of auto-industries into many other fields including environmental industries, Information and Communications Technology (ICT), design and aerospace;
- Environmental activity, energy saving and renewable energy.

Torino has been relatively successful in defending and sustaining its radical transformation in the five areas of the recovery plan.

a. The Politecnico

The Politecnico has played a particularly positive role in the recession. Its city centre base, the Cittadella Politecnica, created when the Politecnico needed a new building using a reclaimed site close to the original building along the central spine in 2008, allowed the Politecnico to greatly expand its links with industry, offering more specialist courses in engineering, design and new technologies. General Motors continued to base its research and training there, even after its contract with Fiat ended, providing 500 extra jobs.

- Torino's now well established incubator, I3P, jointly sponsored by the Politecnico, Torino City Council, Torino Province (metropolitan area) and the Chamber of Commerce, has supported 122 start-up and 49 spin-off companies.
- Motorola, based in Torino, also has links to the Politecnico, its research and training. A big benefit to the city is the level of innovation it generates. So for example, Motorola invented the first camera phone in Torino, and created 500 technical jobs in the city.

- The *Istituto Mario Boella* with its high-profile research in high technology fields has further strengthened its links with the Politecnico and the *Compagnia di San Paolo*, generating new applied courses in engineering, design, technology and other subjects.
- A new design centre was set up in the converted Lingotto factory at Mirafiorito promote research and training in advanced industrial design, training 2,000 students at a time.
- General Motors was attracted by the specialist skills in engine and transport design.

The Politecnico has doubled the number of students since 2004 to 25,000, nearly 65 per cent of whom specialise in engineering.



Figure 25: Cittadella Politecnica on the Spina Centrale

Source: Museo Torino (online), www.museotorino.it

b. Bank Foundations

Bank foundations in Italy play an unusual social and regeneration role as major funders of non-profit activity that contributes to the social well-being of citizens. For example, they help fund emergency housing and innovative training and community development programmes to set residents in difficulty on a firmer path. They encourage cooperative forms of organisation and sharing arrangements in housing.

The *Compagnia di San Paolo* invests heavily in the development of human capital and the Politecnico is a strong a major beneficiary, with its many applied courses, linked to local enterprise. It also supports research organisations, such as the *Istituto Mario Boella*, linked to the Politecnico, which fosters research enterprise in high-tech industrial development. The *Compagnia di San Paolo* also funds activities linked to the environment, heritage, transport and logistics. Overall it aims to foster industrial transformation and economic development.

The Bank foundations, in other words, play as strong a role in economic as in social fields, compensating for the scarcity of public funds by spending up to three times what the public sector spends on such initiatives.

c. Social Innovation

Torino has long experimented with social innovation. The 2008 crisis gave new impetus to this tradition. One interesting example is a co-operative organisation which, with backing from the city council, took over an empty, derelict block in a working-class area previously dominated by Fiat. The block was renovated to high energy efficiency standards and now comprises 122 small apartments to house people in need for up to 18 months, 58 hotel rooms, and communal areas such as a library, social space, children's area and a restaurant.

The facilities are open to the neighbourhood to build links, and host an afterschool club, social club and educational events. Staff are recruited locally and trained on the job. The core idea is to bring together students (mainly from overseas), people in difficulty and visitors in a "sharing environment" that encourages "natural trust" and informal contact. Since 2011, it has helped almost 120,000 people – 40,000 users a year. There are now five "social hotels" in Torino.

The Slow Food movement, set up in 1986 by a group of friends from a small Piedmontese town, has grown to be a global trademark with over 100,000 members in 150 countries, with headquarters in Bra, Province of Cuneo, not far from Torino. In 2004, Carlo Petrini, its charismatic founder, launched Terra Madre in order to bring indigenous, small-scale producers from all of the world together, in Torino and surrounding districts, to share learnings and experiences. This initiative pioneered a world-wide effort to protect the environment, bio-diversity, sustainable agricultural practices, and low-cost, low-impact, organic cultivation methods. 5,000 producers from 130 countries from all over the world came to Torino to attend the opening ceremony of Terra Madre in 2012, hosted by Piemonte's small-scale producers. The pay-off of these Terra Madre initiatives for Torino is not only large events and thousands of visitors (200,000 attend its biennial *Salone del Gusto* festival), but also that they generate and preserve multiple small enterprises producing Italy's special dishes at low cost in popular cafes all over the city. Every social and neighbourhood centre has a café with restaurant, providing simple home-cooked food at low cost and earning revenue for the centres, while bringing people together.

Figure 26: Salone del Gusto & Terra Madre Opening Ceremony, 2012



Source: Salone del Gusto (online), www.salonedelgusto.com

d. New Industrial Sectors

Torino, early in its recovery efforts, attempted to diversify and internationalise its productive manufacturing sector. One effect of Fiat's role declining from the 1970s was to raise the profile of Torino's highly skilled and enterprising SME sector, making room for new and more diverse enterprises. These early efforts bore fruit in developing sectors such as information technology, design, engineering, alternative transport such as trains and aerospace, food and tourism. In all these fields, these new and expanding industrial and commercial fields helped to make Torino the "recovery" model it became in the 2000s. Industrial design has put Torino on the international map, with nearly 800 companies specialising in design. One company, Pininfarina, has hit the headlights, designing Paris's highly successful electric carshare scheme, *Autolib*, which should next year expand its reach to London with a similar scheme. Torino now hosts the World Industrial Design Association.





Source: Automobile Proper (online), www.automobile-propre.com

The city gained economic strength and prowess only to be hit extra hard by the financial crisis and long recession. However, the region quickly responded with two plans: the Special Employment Plan to foster new growth in jobs, particularly for young people; and the Long-term Competitiveness Plan to help Torino, its metropolitan area and the whole region recover. The core goals are to:

- Expand training and reskilling;
- Encourage research and development;
- Back start-ups and new enterprises;
- Invest in equipment, provide loans etc.;
- Reinstate still derelict sites and buildings to equip for new business.

In all this, the focus is on young people and young companies.

Figure 28: Young technician in a laboratory, Torino



Source: Make Tank (online), www.maketank.it

The city is greatly helped by a long-run business association, founded in 1906, the *Unione Industriale di Torino* (Industrial Union of Torino) with 2,000 member companies and 200,000 employees.85 per cent of its members are small and 13 per cent medium size. The *Unione Industriale di Torino* fosters new linkages across mechanical, electrical, information technology, engineering and design, to transform small and medium-sized enterprises (SMEs) into advanced manufacturing that is internationally oriented and successful in promoting Torino's research. This strong SME sector provides Piemonte with "a regional industrial system with a critical mass" that then attracts funding for training and development, marketing and adaptation. However, the share of jobs in manufacturing continues to decline, although far more slowly than before the financial crisis.

Figure 29: Chart showing recent decline in manufacture



Sources: ISTAT, Censimento industria e servizi 2011, Registro Statistico delle Imprese Attive (Asia); ISTAT, Indagine Continua delle Forze di Lavoro; Osservatorio Regionale sul Mercato del Lavoro della Regione Piemonte (ORML)

e. Environmental Focus

The Italian government provides generous subsidies for renewable energy and retrofitting buildings, covering both energy saving and renewable energy. For every $\leq 100,000$ invested in energy saving or renewable energy, a household or enterprise will recover $\leq 65,000$ over 10 years, and a few years later will recover the full investment. The retrofit activity, working within a densely built up city, is highly labour intensive and therefore good for both job creation, new enterprises and new skills. An information drop-in centre, prominently located in a main shopping street, promotes energy saving to citizens. A specialist enterprise, *Piemonte Fotovoltaico*, promotes the take-up of solar PV in the region. Italy is powering ahead of other EU countries in this field. The city has promoted the role of retrofit energy-saving and micro-generation using government subsidies.

Torino has extended its ambitious Community Heating Programme with a Combined Heat and Power (CHP) system that is highly energy efficient. It covers more than half of the city centre, being the largest system in Italy, in one of the largest European cities. Public buildings and blocks of flats are being joined into it. It is also converting the system from gas (including methane produced from waste) to direct waste incineration. This has some environmental draw backs but the system itself is highly efficient resulting in high energy saving, with arguably less environmental impact than gas, which in turn is better than coal.

Figure 30: Community Heating Programme: newly built CHP plant in the northern quadrant of the city



Source: Gruppos Feracasa (online), www.grupposferacasa.com.

The city is also systematically upgrading environments and encouraging more sustainable enterprises. The rate of recycling rubbish has shot up from almost nothing to nearly 50 per cent and new enterprises are growing in this field. Its "green innovation" industrial park, Enviropark, while just breaking even and designing an innovative hydrogen-powered scooter, has not yet taken off. Work on hydrogen-powered transport continues but is not yet commercially viable.

Piemonte impressively invests 50 per cent of its investment budget in renewable and green innovation. National policy is driving this focus, and there is some optimism that it will pay off in new industries and enterprise, particularly related to energy and transport. There is a new and popular city bike scheme.

Figure 31: Torino bike docking station in Porta Nuova



Source: Milliped, available at WikiCommons (online), https://commons.wikimedia.org/wiki/File:Bike_sharing_Torino_Porta_Nova.jpg

f. Tourism and events

Tourism may be the city's most significant and surprising success. It has continued to grow throughout the recession, helped by the fact that 2011 was the 150th anniversary of the founding of Italy and big celebrations were held in the city, using the converted giant railway repair sheds along the Central Spine as the exhibition centre and attracting many international visitors who previously simply did not know that Torino was the founding capital of united Italy. Torino was also the city where the Italian military police (*Arma dei Carabinieri*) was founded, and as such it hosted the 200th anniversary celebrations in 2014. Moreover, Torino held an exhibition of the Shroud, a revered relic which has been in Torino for centuries. It hosted the World Fencing and Chess Championships in 2007. There is also the famous annual Winter Festival of Lights, running from November to January. By constantly placing itself in the limelight, it keeps up its image and popularity as a tourist destination. There is now a new opportunity with the Milan Expo to happen in 2015 around the theme of food. Torino and the Slow Food movement are already in there.

Figure 32: Timeline of important events in Torino since late 1970s



Concept and design: J. Plöger

11. Concluding thoughts

Torino has, during nearly half a century, weathered severe economic storms, going from one of Italy's most successful producer cities, to a declining, depopulating, under-used core, to a strongly revitalised, restored, post-industrial model of recovery. Since 2008, Torino has struggled to retain and protect its gains. In spite of terrible set-backs and loss of resources, it has held up reasonably well. Its population grew very slightly to climb above 900,000; its smaller industries, although hard hit, have generally survived; tourism has continued to grow; its energy saving and renewables programme also continues to expand; and its student numbers are still rising, thanks to the Politecnico's special focus on engineering and industrial design, alongside a multi-stranded, region-wide focus on the development and internationalisation of small and medium-sized enterprises (SMEs). Its social innovations are exemplary and the active role of civic society, including the church, is deeply impressive.

There are still some very big challenges, the most important of which may be youth unemployment and the debt burden. Unless some kind of local tax-raising powers are reinstated and credit for small and medium-sized enterprises (SMEs) made more easily available, the city council will not be able to plug the gaps. There are also some high-profile and conflict-prone plans, such as the proposed high-speed rail link between Torino and Lyons. There are huge environmental and financial issues at stake, as the route traverses highly valued Southern-sloping alpine valleys. Thanks to the recession, the plan progresses slowly and some hope it will not go ahead.

The European Union plays a crucial role in framing economic progress, but there are high hopes that Italy's new and popular Prime Minister, Matteo Renzi, will deliver on his early promise of wide-ranging reforms to kick start Italy's economic recovery and break the political dead-lock of the last few years. He has so far played a surprisingly strong and somewhat unifying role.

Torino, with its outward-facing, export-oriented economy, depends on the Eurozone crisis ending, and the constraints imposed by Italy's economic problems to ease. It needs inward investors and outside buyers; and it needs the transport revolution in favour of efficient trains, electric cars and possibly hydrogen-powered scooters, to continue. Above all, it needs more jobs and opportunities for young people, more start-up businesses, more neighbourhood investment and enterprise development, and more social innovation, at which it is so skilled.

Torino has become one of the most often used examples of a city turn-around, in spite of its problems. It seems likely to go on that way, thanks not only to vision drive, entrepreneurship, history, industrial prowess, but also to its active, engaged citizens and an openness to new ideas that stem from its location at the frontier of Europe.

Bibliography

Agence pour la Diffusion de l'Information Technologique (ADIT). 2005. Le Management Stratégique des Régions en Europe: Une étude comparative. Tome II: Les pratiques régionales,

http://www.adit.fr/images/pdf/Strat_region_II.pdf.

Associazione Nazionale Fra Industrie Automobilistiche (ANFIA). 2006. http://www.anfia.it/.

Barbieri, C.A., Rapporto tra Piano Strategico e Piano Urbanistico, Quattro Città Italiane a Confronto,

http://www.torino-internazionale.org/Page/t07/view html?idp=1655.

Borrelli, N. & Santangelo, M. 2004. *Turin: Where territorial governance and politics of scale become keystones for the city development strategy*, paper presented at 'City Futures: An international conference on globalism and urban change', Chicago, 8-10 July 2004.

Bagnasco, A. 1986. Torino: Un profilo sociologico, Torino: Einaudi.

Bagnasco, A. 1990. La Città dopo Ford: Il caso di Torino, Torino: Einaudi

Bodo, G. 2002. "Una rivoluzione non annunciata: la FIAT nell'ultimo', L'Industria, "23(1), pp. 33-55.

Buoni Esempi. 2003. L'Esperienza in Evidenza: Il 'Settore Periferie' del Comune di Torino. Intervista con l'Arch. Giovanni Magnano, dirigente del Settore Periferie,

http://www.buoniesempi.it/scheda.aspx?protocollo=535.

Camera di Commercio, Industria, Artigianato e Agricoltura di Torino (CCIAA). 2004. Osservatorio sulla Componentistica Autoveicolare Italiana 2004, Torino: CCIAA.

Censis. 1999. L'Immagine Internazionale di Torino: Come promuovere una città solida rendendola accattivante, Roma: Censis.

Città di Torino. 2006. Deliberazione del Consiglio Comunale 10 Luglio 2006. Testo coordinato ai sensi dell'art. 44 comma 2 del Regolamento del Consiglio Comunale, no 161 2006 05033/002, Torino: Città di Torino, Servizio Centrale Consiglio Comunale.

Clark, G. 2003. Torino. Vista da Londra, http://www.torino-internazionale.org/Page/t07/view_html?idp=1902.

City Mayors. 2005. Mayor Chiamparino Interview: Turin promotes its environment to attract modern industries, <u>http://www.citymayors.com/interviews/turin interview.html</u>.

City Mayors. 2003. Sergio Chiamparino: Mayor of Turin http://www.citymayors.com/mayors/turin_mayor.html.

Conti, S. and Enrietti, A. 1995. "The Italian automobile industry and the case of Fiat: One country, one company, one market?", in R. Hudson and E. Schamp (eds) *Towards a new map of automobile manufacturing in Europe: New production concepts and spatial restructuring*, Berlin: Springer.

Crouch, C., Le Galès, P., Trigilia, C. and Voelzkow, H. (eds). 2001. *Local production systems in Europe*, Oxford: Oxford University Press.

Crouch, C., Le Galès, P., Trigilia, C. and Voelzkow, H. (eds). 2004. *Changing governance of local economies: Responses of European local production systems*, Oxford: Oxford University Press.

Dente, B., Bobbio, L. and Spada, A. 2005. "Government or Governance of Urban Innovation? A tale of two cities", in *DisP*, 41(162), pp 41-52, Zürich: Netzwerk Stadt und Landschaft NSL

www.nsl.ethz.ch/index.php/content/download/1182/7163/file/.

Dente, B. and Melloni, E. 2006. Uno strumento di Governance Locale: Il piano strategico a Torino,

http://www.torino-internazionale.org/Page/t07/view_html?idp=2586.

Galasco, A. (<u>antonella.galasco@iecs.fiatgroup.com</u>). 2007. *RE: Indagine su Torino/Fiat – ricerco ciffre per gli impiegati Fiat a Torino,* 9 July, email to: Astrid Winkler (<u>a.h.winkler@lse.ac.uk</u>).

The Economist. 2005. A Survey of Italy, London: The Economist.

The Economist. 2007. Why Fiat is cool again, 12 July 2007, London: The Economist, p 74.

European Commission. 1992. Urbanisation and the Functions of Cities in the European Communities, Brussels: European Commission.

European Commission. 1997. Towards an Urban Agenda in the European Union, Brussels: European Commission,

http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/pdf/urban/urban_197_en.pdf.

European Commission. 2005. Annual Innovation Policy Trends and Appraisal Report: Italy 2004-2005,

http://trendchart.cordis.lu/reports/documents/Country Report Italy 2005.pdf.

Ginsborg, P. 1990. A History of Contemporary Italy, Society and Politics 1943-1988, London: Penguin.

Hall, P. and Soskice, D. 2001a. "Introduction", in P. Hall and D. Soskice (eds), Varieties of capitalism: The institutional foundations of comparative advantage, Oxford: Oxford University Press, Oxford.

Il Sole 24 Ore Nord-Ovest. 2004. In Mare Aperto e Senza una Bussola: Servono strategie condivise per approdare a lucide politiche industriali, 3 December 2004, p 5.

Initiative Sports Futures (ISF). 2007. World's most watched TV sports events: 2006 Rank and Trends report,

http://initiative.com/static/prDec2006.html.

Invest in Turin and Piedmont (ITP). 2006. Key Sectors: Automotive,

http://www.itp-agency.org/interna.asp?sezione=1&nome pagina=automotive.

ITP. 2007. Regional news,

http://www.itp-agency.org/itp_news_paragrafi.asp?id_itpnews_capitoli=117&id_itpnews=28.

Istituto Regionale Economico Sociale, Regione Piemonte (IRES). 2006m *Piemonte Economico e Sociale 2005: I dati e i commenti sulla regione,* Torino: IRES, <u>http://213.254.4.222/cataloghi/pdfires/665.pdf</u>.

IRES. 2007. Piemonte Economico e Sociale 2006: I dati e i commenti sulla regione,

http://www.regiotrend.piemonte.it/.

Istituto per la Ricerca Sociale, Milano (IRS). 2002. Lo Sviluppo del Settore Periferie, Torino: Settore Periferie, Comune di Torino.

ISTAT. 2006. http://www.istat.it/.

ISTAT. 2007. http://www.istat.it/.

Jouve, B. and Lefèvre, C. (eds), 2002. Local Power, Territory and Institutions in European Metropolitan Regions, London: Frank Cass.

Kresl, P. K. 2007. *Planning Cities for the Future: The successes and failures of urban economic strategies in Europe,* Cheltenham: Edward Elgar Publishing.

La Repubblica. 2007. La doppia sfida del Piemonte si gioca sull'ICT e l'aerospazio,

www.itp-agency.org/press_release_dettaglio.asp?id=513.

L'Eau Vive & Comitato Rota. 2005. L'Immagine del Cambiamento: Sesto rapporto annuale su Torino, Milano: Edizioni Angelo Guerini e Associati.

Le Galès, P. & Voelzkow, H. 2001. "Introduction: the governance of local economies", in C. Crouch, P. Le Galès, C. Trigilia and H. Voelzkow (eds) *Local production systems in Europe*, Oxford: Oxford University Press.

Le Galès, P. 2006. European Cities: Social conflicts and governance, Oxford: Oxford University Press.

Maggi, M. & Piperno, S. 1999. Turin: The vain search for gargantua, Working paper no 124, Torino: IRES Piemonte.

Magnano, G. (giovanni.magnano@comune.torino.it). 2007. RE: I 'progetti speciali' di Torino, 9 March, email to: Astrid Winkler (a.h.winkler@lse.ac.uk).

Mangen, S. 2004. Social Exclusion and Inner City Europe: Regulating urban regeneration, Basingstoke: Palgrave Macmillan.

Nappini, F. 2005. The Decentralisation Process in Italy: A brief analysis, European Citizen Action Service,

http://www.ecas.org/file_uploads/977.pdf.

NUTEK. 2007. *Globalisation and Regional Economies: Case studies in the automotive sector*, <u>http://www.nutek.se/content/1/c4/51/13/Case%20studies%20in%20the%20automotive%20sector.pdf</u>.

Officina Città Torino (OCT). 2005. Central Backbone, Torino: OCT.

Officina Città Torino (OCT). 2006. The Plan for the Outskirts, Torino: OCT.

Organisation for Economic Cooperation and Development (OECD). 2004. OECD Local Entrepreneurship Reviews: West Midlands, United Kingdom, Paris: OECD.

Osservatorio Regionale sul Mercato del Lavoro (ORML). 2007. Il Mercato del Lavoro in Piemonte nel 2006: Le linee di tendenza sulla base dei dati disponibili,

http://extranet.regione.piemonte.it/fp-lavoro/centrorisorse/studi_statisti/dwd/rapp_annuali/2006.rtf.

Pinson, G. 2002. "Political Government and Goverance: Strategic Planning and the reshaping of political capacity in Turin", *International Journal of Urban and Regional Research*, 26(3), pp 477-93, Oxford: Blackwell.

Putnam, R. D. 1993. Making Democracy Work, Princeton: Princeton University Press.

Regione Piemonte. 2005. *Quindici anni di fondi strutturali, interventi del FESR in Piemonte 1989-2004,* <u>http://www.regione.piemonte.it/industria/fondi_str15/index.htm</u>

Regione Piemonte. 2006. http://www.regione.piemonte.it/stat/.

Rosso, E. 2004. "Torino: Policies and actions at a metropolitan level". Paper given at the conference 'La Gouvernance Metropolitaine: Recherche de coherence dans la compléxité', Montréal, 7-8 October 2004,

http://ejc.inrs-ucs.uquebec.ca/Torino.pdf.

Sarti, F. (<u>sarti@i3p.it</u>) 2007. *RE: Interview write-up,* 29 June 2007, email to: Astrid Winkler (<u>a.h.winkler@lse.ac.uk</u>). Scenari Immobiliari. 2007. *Il Mercato Immobiliari di Torino,* http://repository.demaniore.com/galleries/mercati_immobiliari/07_01-Ag_Demanio-St_TORINO-Gen07.pdf.

Science Alliance. 2004. I3P Turin Incubator Wins Best Science Incubator Award,

http://cordis.europa.eu/wire/index.cfm?fuseaction=article.Detail&DCtmpl=BI&RCN=2839.

Steer Davies Gleave. 2005. What Light Rail can do for Cities: A review of the evidence, Leeds: Passenger Transport Executive Group.

Sturgeon, T. & Florida, R. 2000. *Globalization and Jobs in the Automotive Industry*. *MIT IPC Globalization Working Paper* 01-003, Alfred P, Sloan Foundation,

http://ipc-lis.mit.edu/globalization/globalization%2001-003.pdf.

Swedberg, R. 2003. Principles of economic sociology, Princeton: Princeton University Press.

Symcox and Cardoza. 2006. A History of Turin, Torino: Einaudi.

Torino Internazionale. 1998. Verso il Piano: Informazioni di base e primi indirizzi strategici, Torino: Torino Internazionale.

Torino Internazionale. 2000. Il Piano Strategico della Città, Torino: Torino Internazionale.

Torino Internazionale. 2005. Scenari per il Sistema Locale: Valutazioni sul Piano Strategico di Torino e sulle prospettive di sviluppo nell'area metropolitana, Torino: Torino Internazionale.

Torino Internazionale. 2006. Second Strategic Plan for Torino's Metropolitan Area: A brochure, Torino: Torino Internazionale.

Torino Internazionale. 2007. Verso il Bilancio di Missione: Una rilettura degli anni 2000-2006,

http://images.torino-internazionale.org//f/Pubblicazioni/VE/VERSO_IL_BILANCIO_web.pdf.

Turok, I. 2004. "The Distinctive City. The Resurgence of Former Industrial Cities: How Important is Distinctiveness?", presentation to the 'Resurgent City' conference at the LSE,

http://www.lse.ac.uk/collections/resurgentCity/Papers/presentations/ivanturok.pdf.

Vandelli. 1997. Sindaci e Miti: Sisifo, Tantalo, e Damocle nell'amministrazione locale, Bologna: Il Mulino.

Whitford, J. & Enrietti, A. 2005. "Surviving the Fall of a King: The regional institutional implications of crisis at Fiat Auto", in *International Journal of Urban and Regional Research*, 29(4), pp. 771-795.