



Resilient Cities: Surviving in a New World

A ULI Urban Investment Network Report

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**Urban Land
Institute**

Urban Investment Network

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ULI is a non-partisan research and educational institute directed by its members and supported by dues. It neither lobbies nor acts as an advocate for any single profession or industry. The Institute operates on a USD 55 million budget with a global staff of 140 headquartered in Washington, D.C. At the heart of the ULI experience is an open exchange of ideas, networking opportunities, and the ability to work with the leaders of the land use industry.

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ULI's activities in Europe are diverse, frequent, and high quality. The annual Property Development, Investment, and Finance conference held each January in Paris attracts over 500 leaders from Europe and North America.

Cover image:

Salford Quays Millenium Bridge in Manchester, UK

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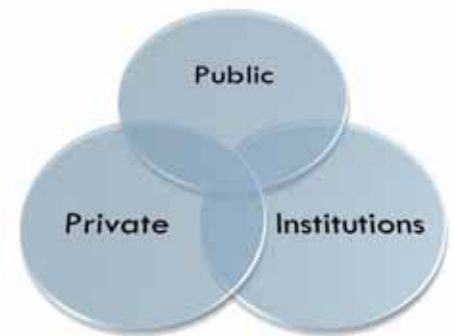
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ULI Urban Investment Network

What is the ULI Urban Investment Network?

The ULI Urban Investment Network exists to promote and facilitate world class investment in European urban development. The initiative has been developed by the Urban Land Institute in collaboration with a group of leading cities, European institutions and private sector organisations.

This independent Network is facilitating a continuous dialogue between those public and private sector leaders seeking to improve their ability to collaborate. Its premise is that public - private relationships with a high level of collaborative working provide more opportunities to bridge investment gaps and overcome city development challenges.



Why is the ULI Urban Investment Network needed?

Effective collaboration is essential if Europe is to meet the 21st century challenges of being globally competitive in a knowledge-led economy, reducing carbon emissions and making the most effective use of land for urban development. The 'investment gap' is broader than capital, as opportunities also exist to improve knowledge and skills, institutional frameworks and techniques for collaborative working.

Who is engaged with the ULI Urban Investment Network?

- Corporate and institutional investors, developers and advisors
- Specialised urban, property and infrastructure fund-managers or financiers
- City and metropolitan leaders and development executives
- European financial institutions and National development bodies

Next Steps

The ULI Urban Investment Network is continually growing with Partners who meet regularly to develop trusted relationships and deliver a high level of knowledge exchange. Following a series of successful workshops, the first annual ULI Urban Investment Network Summit in 2009, and the first ULI Urban Investment Network Partner Forum in 2010, the Network has increased not only in its number of Partners, but also in its body of research. A series of thematic reports, topical workshops, roundtables, leadership forums, and the second annual Summit will take place in 2011.

www.uli.org/uin

LessEn

LessEn is a new ULI initiative to encourage better energy efficiency and retrofitting in non-domestic buildings. Based around a web portal (www.less-en.org) LessEn has been developed by ULI to use our platform as a leading network, impartial think-tank and empowered community to enable individuals and organisations to achieve substantial energy reductions. LessEn is free and publically available to all – we're collaborating with great people, sharing ideas, expertise and creating tools that bring the issues to life and point to the solutions.

Key features of LessEn include:

- A knowledge bank of relevant energy efficiency policies and evaluated case studies
- Smartphone App – showing the efficiency of buildings across the UK based on Display Energy Certificates. We will be developing Apps for the USA, Europe, Asia and Australia
- Partnership with the Clinton Climate Initiative to provide a source of products and suppliers
- Blog posts and social media campaigns that engage facilities managers, building owners, operators and occupiers in reducing energy use
- Partnership with the 10:10 campaign that engages a global community through social media and events to reduce energy use by 10%

We see LessEn as the tool for driving change within the property industry as LessEn is being developed in collaboration with leading industry and energy professionals such as the Carbon Trust, Clinton Climate Initiative and UK Green Buildings Council.

For more information on ULI's LessEn initiative, please contact Robert de Jong, Project Manager LessEn, ULI Europe, Robert.deJong@ULI.org

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Resilient cities have identity, adaptability, and continuity, and are attractive to people and investors over time. Cities are not guaranteed to survive. They need to work at it.



Introduction

This report is a product of the ULI Urban Investment Network Partner Forum, “Resilient Cities: Surviving in a Brave New World,” which was convened on 23 September 2010 in Istanbul. Hosted by the Istanbul Metropolitan Municipality, the Partner Forum was an invitation-only event for 50 of Europe’s public and private investment leaders.

The purpose of the event was to provide an open forum for public and private leaders to share perspectives and best practices, explore relevant case studies, and develop solutions for building resilience in European cities. In addition to a series of topical presentations on the key themes, including “Urban Investment in Challenging Times,” “The Private Sector Perspective on Investment in Cities,” “Istanbul’s Demographic Change,” and “The Role of City Infrastructure in Resilient Cities,” there were a series of roundtable discussions during which participants debated and refined a set of Principles of Resilient Cities.



*ULI Urban Investment Network Partner Forum Attendees,
23 September 2010*

What Are Resilient Cities?

Resilient cities are ones that are prepared. In an unexpected situation, a resilient city will respond quickly, make adjustments if needed, and continue to operate despite distressing conditions. Long-term resilience requires more than the ability to rebound from shocks to the system, it also requires the ability to adapt to subtle changes throughout time, and develop the city in ways which are flexible in the long term.

Indeed, discussion at the Partner Forum demonstrated that two rather distinctive but complementary agendas exist that cities might follow to be both resilient to shocks and also to be attractive for investment on the basis of their long-term sustainability. These two dimensions are continuity and adaptability.

Continuity In the face of severe and sudden shocks to a city such as an earthquake, hurricane, terrorist attack, flooding, or large scale public health challenges (e.g. SARs in Hong Kong), cities need to have firstly made prior arrangements for business and community continuity, asset protection, and rapid recovery. Second, in the longer term, cities need to be able to use such shocks to continue evolving and to use these events as catalysts and opportunities to do things differently or better.

Adaptability Whether in the face of sudden and severe shocks, or in the face of broader trends in the economy, demographics, environment, energy use, and resource management, cities need to be able to adapt to the modern world in ways which ensure that infrastructure and land use are flexible to changing demand, and consistent with global and societal imperatives. This means that cities become less susceptible to shocks and less exposed to economic, environment, and social problems.

Long term resilience for cities requires that they be both able to achieve continuity and adaptability.

A multifaceted approach is clearly needed to build a resilient city, and with over half of the global population now living in urban areas, building resilient cities is more important than ever.

“With the markets in their current depressed state, now is an excellent time to invest in building environmentally sustainable cities.”

**Dion Panambalana, Partner,
Real Estate, Hogan Lovells**

Purpose and Structure of the Report

The purpose of this report is to illustrate examples of resilient cities from which other European cities can learn. The report will begin with a broad discussion of the issues related to city resilience that were raised at the Partner Forum in Istanbul, including:

- Investment priorities for cities in a cash starved world
- Building city resilience through public-private collaboration
- Physical infrastructure for successful cities
- Investing in environmental resilience
- Orchestrating key stakeholders in collaboration
- Future-proofing cities

Drawing from the lessons learned at the Partner Forum, the second half of this report highlights case studies of resilient cities in Europe. As we examine these case studies, it will become clear that these cities display varying degrees of either continuity, adaptability or both. For example, Manchester demonstrates strong continuity through the city's ability to overcome the 1996 IRA bombing, but also a degree of adaptability via the diversification of the city's economy.

Consequently, for the purposes of this report, we have divided our case studies into two sections: continuity and adaptability.

	Continuity	Adaptability
Manchester	Overcame 1996 IRA Bomb	Has embraced diversified economy
Turin	Overcome massive job losses	Has restored urban attractiveness
Istanbul	Is preparing for an earthquake	Has embraced flexible building
Amsterdam	Has excellent flood defences	Has embraced human diversity
Edinburgh	Historic preservation	Has embraced new transport solutions
Malmö	Has integrated with Denmark through Øresund Bridge Tunnel	Has diversified energy systems

Based on this comprehensive examination of city resilience both generally and in specific cities, the report concludes by listing the Principles of Continuity and the Principles of Adaptability – as agreed by Forum participants - forming a coherent set of Principles for Resilient Cities.

Discussions on Resilient Cities

This section of the report focuses on distilling the key conclusions and messages which emerged from the Partner Forum presentations, interviews, InfoBursts and roundtable discussions to create a comprehensive look at the issues inherent in building city resilience.

“Commonality of urban problems requires a common approach – it’s very important that people talk to one another”

**Rosemary Feenan, International Director
Global Research, Jones Lang LaSalle**

Urban Investment in Challenging Times

The current economic climate provides a challenge for European cities. The Global Financial Crisis effectively altered the investment landscape, ensuring that only the most adaptable and resilient cities continue to attract investment.

A focus on resilience is certainly a priority for international lending institutions, such as the European Investment Bank (EIB). Brian Field, Urban Planning and Development Adviser for the EIB, was adamant that the EIB only invests in projects at a municipal level which are deemed to be resilient and sustainable. Prospective city development projects must demonstrate their resilience within the EIB’s three pillars of investment: i) projects must be eligible and consistent with EU priorities; ii) projects must display technical quality and economic soundness; and iii) projects must display financial viability and adequate security.

In addition to these formal criteria for investment, Field noted that “resilient cities invest in their assets and exploit them to their maximum advantage,” and that “resilient cities seem to have partnerships that make more sense and are increasingly integrated in their approach to development.”¹

Throughout the crisis, the European Investment Bank (EIB) has continued to invest in cities. In 2009, the EIB invested a total of €75 billion, with over €10 billion of that investment being in Urban Sector projects. The EIB has an implicit Action Plan for Cities (2007-2013), which provides funding through four means:

- i) traditional lending;
- ii) financial engineering (e.g. JESSICA and JEREMIE);
- iii) structured finance (taking more risk by extending the scope of the Bank’s Structured Finance Facility (SFF) to include urban investments); and
- iv) technical assistance to develop bankable projects.

Zef Hemel, Deputy Director of Spatial Planning for the City of Amsterdam, gave an insight into what makes a city resilient, asserting that “resilient cities are ideal for investors with a long term vision.” He concluded that resilient cities are generally those which have a strong City Government and ‘high market trust’ with investors and other businesses. It is these cities which are subsequently most attractive to investors as individual projects tend to fit the criteria that they most desire. The key aspects of such projects are as follows:

- i. Projects must consider the **human scale**. As Hemel noted, “City planning must meet the needs of its people.” This can manifest itself in many ways, but includes making sure that planning creates vibrant districts in which people want to live, and ensuring that as a city you “diversify your landscape” to make it attractive.

¹ Field, B. Urban Investment in Challenging Times: Towards Resilient Cities (2010), Urban Investment Network Partner Forum, Istanbul, September 2010

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- ii. **Piecemeal planning** is a feasible and sometimes desirable means of development. For example, the development taking place on the manmade islands of IJburg initially had a long term plan, which failed, but now is undertaken bit by bit.
 - iii. Projects must still have a **long-term vision** as “people want to understand the story.”
 - iv. Successful projects have a **high level of democratic and passionate participation** and the local population's views are taken into consideration.
 - v. Cities must consider their own **safety first**. In Amsterdam, the city is protected from the threat posed by the water, for example, through the construction of Dike number 14.

In addition to the key aspects of a resilient and investable development project, Hemel indicated that one of the most important characteristics of a resilient city is its diversity, as diverse cities have a population which is adept at overcoming challenges.

The Private Sector Perspective

The Partner Forum offered an insight into the Private Sector perspective on investing in resilient cities through interviews with two leading investors: Straun Robertson, Global Co-Head of Real Estate Investment for Morgan Stanley, and Hakan Kodal, President and CEO of KREA Real Estate.

Robertson explained, “We are seeing with our clients, less of a focus on investing in a country and more of a focus on investing in specific cities.” This trend is reinforced by real estate investors' desire to invest in only the most resilient and adaptable cities. Robertson stated that there are three key aspects that can help to make investment in a resilient city attractive to investors:

- i. The labour force must be diverse, robust, deep and highly educated;
- ii. Urban planning must include scope for the private sector to make a return in a reasonable time scale, with opportunities for top-down accelerated planning;
- iii. Costs, risks, and returns should be shared between the public and private sectors.²

From a purely financial point of view, Robertson offered Sydney, Shanghai, Paris and London as examples of the most resilient cities. For example, Robertson noted, London's value dropped by 45% during the crisis, but has already bounced back by 15%, whilst Paris is rebounding due to the diversity of its workforce.

Indeed, a city's demographic diversity, along with its historical willingness to cooperate with private sector partners, are two key factors that affect its attractiveness to investors. Additionally, a local government's ability to deliver projects can have a significant impact on investors' confidence in that city. For example, over-delivery was highlighted as being as much of a problem as a lack of delivery as it can distort the market place and make investment unattractive, such as the situation in Shanghai.

Hakan Kodal continued to extol the virtues of constructive government involvement in attracting private investment to resilient and adaptable cities. He suggested that “the private sector needs to work closely with the public sector to make a city more resilient,” and that “the government must support long-term development projects which go beyond electoral cycles.” Long-term and short-term conflicts between the public and private sector must be managed effectively, and cooperation is important not just in terms of profit, but also for continuity in development. This is especially pertinent in growing cities, which may not have ready-made financial tools available to entice private investment.³

“Governments that think, plan and act beyond the next election are needed.”

Straun Robertson, Global Co Head Real Estate Investment Banking, Morgan Stanley

² Robertson, S, Interview, Urban Investment Network Partner Forum, Istanbul, September 2010

³ Kodal, H, Interview, Urban Investment Network Partner Forum, Istanbul, September 2010

Does Age Matter?

Rosemary Feenan, International Director of Global Research for Jones Lang LaSalle, discussed the relationship between building age and energy efficiency in her presentation at the Forum.

Figures presented by Feenan illustrate the burgeoning problem which is posed by inefficient buildings in world cities. Research by Jones Lang LaSalle indicates that there are over 4.5 million m² of pre-1960 buildings in Central London, punctuated by poor construction methods and inefficiency with regards to energy usage. By contrast, there are only 5 million m² of new 'Starchitecture' buildings in Central London (built between 2000 and 2009), which are typically high rise, have excellent facilities in glass and sustainable design, are technology-rich, are built with sustainable materials, and benefit from natural ventilation. Feenan pointed out that there cannot be a skewed focus towards new builds when such a large portion of a city's building stock is energy inefficient, contributing greatly towards London City generating on average 0.32 tonnes of CO₂ per annum/m² of commercial floor space. Although Jones Lang LaSalle's research points out that pre 1960s buildings do not actually perform that badly in terms of kWh of electricity used per m² relative to newer builds (220 kWh for 2000 – 2010 builds, 300 kWh for pre 1960 builds), the sheer volume of these buildings in Central London ensures that retrofitting has become a necessity, not just in London, but in other world cities too.

Feenan continued to highlight the importance of building resilience in cities, citing several examples of some of the worst offending cities and the positive impact that could be made through retrofitting. For example, 64% of energy in New York is consumed by 20% of its commercial buildings. If just 20% of these buildings reduced energy usage by 40%, New York would save 25% of its energy use overall. By 2025, this retrofitting process would save emissions equivalent to taking 25,000 cars off the road.⁴

Feenan further used the example of the U.S. to illustrate that retrofitting is beginning to be taken seriously as a necessity. For example, the Washington, D.C.-based U.S. Green Building Council (USGBC) is a non-profit organisation "committed to facilitating the development and retrofit of neighborhoods that integrate the combined principles of smart locations, neighborhood design, and green infrastructure and building." It is currently running 240 pilot retrofitting projects in order to discover the impact that can be made.⁵



Graph taken from Feenan, R. "Does Age Matter?"
Urban Investment Network Partner Forum, Istanbul,
September 2010

² Feenan, R. Does Age Matter?, Urban Investment Network Partner Forum, Istanbul, September 2010

⁵ U.S. Green Building Council (2010): About USGBC, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=124>, 26 October 2010

Istanbul: Becoming a Global City

Avi Alkas, Chairman of Jones Lang LaSalle Turkey, demonstrated how Istanbul is an example of both an adaptable city and a resilient city.

Istanbul has a population of 13 million and is one of Europe's four mega cities, as well as Turkey's commercial and cultural capital. Since the 1980s, Istanbul has undergone rapid urbanisation due to the attractive economic prospects of the city and the job opportunities available to migrants. The increase in the size of the population in Istanbul has had the effect of distorting the demographic profile of the city, ensuring that 77% of Istanbul's inhabitants are under the age of 45.

The young demographic profile of the city is one of the key factors which illustrate the city's adaptability. In addition to the young age of the population, 33% of Istanbul's population are high school graduates, compared with the national average of 28%, whilst literacy rates are also higher than the national average. This young, deep, well educated workforce has enabled Istanbul to adapt successfully throughout its transformation to a more knowledge based economy.

Istanbul's demographic advantages have attracted over 16 Research and Development centres operated by multi-national firms. It has also seen the city turn into a Regional Finance Centre, housing the headquarters of multi-national firms such as HSBC, JP Morgan Chase and Deutschebank. Finally, the city accounts for 76% of Turkey's foreign investment and this means that 70% of the value in the Istanbul Stock Exchange is accounted for by global investors

The diverse and educated nature of Istanbul's population illustrates how the city has turned the possible problem of overcrowding into a positive by using its demographic advantages to adapt to a knowledge based economy. This has resulted in Istanbul being ranked as the number one investment destination by global investors amongst European cities with development prospects.

In addition to illustrating Istanbul's adaptability through its ability to attract overseas investment, Alkas also touched on the city's resilience to natural disasters, which is of equal, if not greater, importance.

Turkey's position on the North Anatolian fault line makes Istanbul inherently susceptible to the threat of a major earthquake. When combined with the city's overcrowding, faulty land-use planning and construction, inadequate infrastructure and services, and environmental degradation, the threat of the damage which could be caused is compounded. Subsequently, Istanbul has demonstrated its resilience through the commissioning of an Earthquake Masterplan known as the ISMEP (Istanbul Seismic Risk Mitigation and Emergency Preparedness Project). The project's main goals are to improve emergency preparedness, reduce the risk to existing public facilities and enforce building codes.⁶ We cover the main points that Alkas made, in conjunction with further secondary research, in our Istanbul case study on Page 14.



Istanbul's highly dense apartment housing illustrates the city's massive population

⁶ Alkas, A, Istanbul Becoming Global (2010), Urban Investment Network Partner Forum, Istanbul, September 2010

Building Resilient City Infrastructure

The global economy is currently suffering from a major infrastructure deficit as the cost of decades of underinvestment is beginning to surface. This is a serious problem according to Ad Buisman, Leader of Ernst & Young's EMEA Construction Group, who said, "Quality and availability of infrastructure directly affect where businesses locate and expand their operations." It is only resilient cities, Buisman indicated, that will have success in attracting private investment.

It is largely believed that the most effective means of combating the infrastructure deficit is to create resilient and robust Public-Private Partnerships (PPPs). However, given that an estimated \$53 trillion is needed to bridge the infrastructure investment gap over the next 25 years, creating PPPs will not be an easy task. This task is made even more difficult given the current liquidity of the funding environment, with a 25-40% reduction in both the number and value of PPP projects on average from the end of 2008 to 2010.

Despite these challenges, Buisman suggested that governments around the world should increasingly turn to PPPs for designing, building, financing and operating public infrastructure. Given government's need to reduce deficits, there is little choice but to involve the private sector heavily in infrastructure investment. These PPPs, however, must share risk adequately between the public and private sectors in order that both parties are equally happy with the relationship. More recently, we have seen the emergence of Private Equity Funds with the sole purpose of funding infrastructure projects.

Other solutions to bridging the infrastructure funding gap, suggested by Buisman, included tendering for packages of projects (the securitisation of projects), balanced allocation of risk between public and private investors, improving liquidity for infrastructure (e.g. Infrastructure REITs), increased Government debt to take advantage of lower interest rates, infrastructure-backed mortgage securities, increased taxes, and the creation of a European Infrastructure Bank.⁷

Jordi Sacristán Adrià, International Economic Promotion Manager for Barcelona City Council, gave further evidence on the importance of resilient infrastructure in cities by highlighting the situation in Barcelona.

Barcelona has a strong track record with regards to infrastructure investment. Indeed, only 12% of the funding for the hosting of the 1992 Olympic Games was spent on sporting infrastructure, with the remainder spent on reclaiming the waterfront and opening the sea, changing the city's brand positioning and installing some of the best transport infrastructure in Southern Europe, including its High Speed Train, Barcelona's Port and the new Airport Terminal.

The resilience of Barcelona's infrastructure was directly tested in 2007 when the city suffered a blackout that affected over 300,000 people. While this event could have potentially damaged the city's international reputation, the city responded positively and developed a system of internal protocols to prevent future problems. The resulting project, named the '3 S', or Security Services Supply project, developed integrated systems to sensor devices, procedures and networks for the security of the city's services. The implementation of the project across all infrastructures ensured that the city is prepared for any future crises and has a definitive plan of action to guard against natural or manmade disasters.⁸

We will now examine case studies of resilient cities in Europe and explore the ways in which these cities have illustrated both adaptability and continuity throughout time.

"Economic development and resilience of cities rely on good public transportation."

**Jerome Pourbaix, Senior Manager
Transport Economics, UITP**

"Resilient cities are cities where there is always a market."

**Stephen Barter, Chief Executive Officer,
Qatari Diar UK**



Photo taken from Sacristan, Adrià, J., Barcelona: A Resilient City (2010), Urban Investment Network Partner Forum, Istanbul, September 2010

⁷ Buisman, A, City Infrastructure – Funding Challenge and Investment Opportunity (2010), Urban Investment Network Partner Forum, Istanbul, September 2010

⁸ Sacristan Adrià, J, Barcelona: A Resilient City (2010), Urban Investment Network Partner Forum, Istanbul, September 2010

Case Studies of Resilient Cities

Case Study 1: Turin: Economic Re-invention

Overview

Historically, Turin's economy has been reliant on the automotive industry, and in particular Fiat. However, the Global Oil crisis of 1973 forced the city to reevaluate its economic position and to create a long-term city strategy, demonstrating the city's resilience.

Economic Crisis

Fiat's decision, post-World War II, to concentrate its production in its Turin factories led to the city rapidly emerging as Europe's most specialised region. By 1971, Fiat employed over 145,000 people in Turin, as well as contracting smaller firms to provide it with services and supplies.⁹

The global oil crisis of 1973, coupled with Fiat's lack of investment in research and development during the preceding 20 years, made Turin especially vulnerable to global competition and the integration of international markets. As a result, Fiat cut 100,000 jobs in its Turin plants during the 1980s. Between 1986 and 1996, Fiat's Turin workforce shrank from 92,000 to 47,000.¹⁰

Turin: A Resilient City

In response to the economic crisis, a 1993 national reform programme introduced directly elected mayors, giving them increased executive powers and resources and marking the beginning of Turin's transformation. Recalibration of the local tax system and a new degree of accountability and transparency meant that the Mayor's office now had the power to affect positive change.

Turin's first directly elected mayor was Valentino Castellani, appointed in 1993. Castellani recognised that Turin needed to compete in an international arena, which would require a transformation in the city's outlook and strategy. Castellani began to forge both internal and external relationships, identifying that the city administration did not have either the expertise or the resources to address this challenge alone.¹¹

How Did They Do It?

In 1995, the city developed an Urban Masterplan to drive forward physical renewal through land use and infrastructure planning. It allowed municipalities to designate their land uses for a ten year period, and it is within this framework that private developers and other agencies must operate, making physical transformation projects possible. Through the new Urban Masterplan, the municipality set out a vision for the physical re-configuration of a once fragmented industrial city.¹²

Alongside the Urban Masterplan, Turin created a Strategic Plan from 1998 to 2000, establishing an integrated economic development document with a 10-year map for the city's development. The Strategic Plan set out specific aims and a detailed time-frame with 84 actions to be implemented by 2011. A revised Plan was published in 2006.¹³



© AP/Press Association – Fiat factory in Turin

⁹ CASE (2007): Turin City Report, <http://sticerd.lse.ac.uk/dps/case/cr/CASereport41.pdf>, 17 September 2010

¹⁰ CASE (2007): Turin City Report, <http://sticerd.lse.ac.uk/dps/case/cr/CASereport41.pdf>, 17 September 2010

¹¹ CASE (2007): Turin City Report, <http://sticerd.lse.ac.uk/dps/case/cr/CASereport41.pdf>, 17 September 2010

¹² CASE (2007): Turin City Report, <http://sticerd.lse.ac.uk/dps/case/cr/CASereport41.pdf>, 17 September 2010

¹³ Turin Internazionale (2010): The First Strategic Plan, http://www.turin-internazionale.org/EN/Page/101/view_html?idp=15763, 17 September 2010



© AP/Press Association – Turin has seen a marked increase in tourists as a result of the Winter Olympic Games in 2006

Lessons Learned

The city illustrated its resilience by developing its own unique strategy for recovery, based on the city's strengths, and focused heavily on local cooperation. The establishment of the role of local government as a coordinator of resources and expertise has been invaluable in the city's recovery.

The Province of Turin is still heavily reliant on industry, with Fiat still employing 30,000 people and continuing to play a major role in the local economy. Observers worry that continued reliance on industry leaves Turin in a delicate economic position; however, the signs that the city is beginning to diversify its economy are good. Spurred by the 2006 Winter Olympics, visitor numbers are steadily increasing and reached 1.15 million in 2004, in anticipation of the Games. In addition, the Turin Wireless Foundation and the ISMB research institute have run a successful programme promoting the use of Information and Communication Technology (ICT) among the region's small and medium enterprises (SMEs), helping 78 specially-selected businesses become more innovative as part of the city's attempt to move towards a more knowledge based economy, as outlined in the 2006 Strategic Plan.¹⁴

¹⁴ Turin Internazionale (2010): The Second Strategic Plan, http://www.turin-internazionale.org/EN/Page/t01/view_html?idp=15783, 17 September 2010

Case Study 2:

Manchester: Using Crisis as Opportunity

Overview

Manchester successfully recovered from the tragedy of the 1996 IRA bombing and used the event as a catalyst for city redevelopment and a transition into the international spotlight.

The Manchester Bombing

On 15 June 1996, the Irish Republican Army (IRA) detonated a 3,300lb bomb in Manchester City Centre, injuring 220 people and causing catastrophic damage. Destroying over 49,000 square metres of prime retail space and 57,000 square metres of office space, the event displaced a combined total of 700 businesses.¹⁵ The event put the city into a phase of severe economic turmoil, which could potentially have lasted for decades.

Manchester: A Resilient City

Within weeks of the blast, the National Government and the City Council established Manchester Millennium Ltd, a public and private sector funded task force, to oversee the city's recovery strategy.¹⁶

Manchester Millennium Ltd was tasked with making the City Centre safe and operational in the shortest time possible, as well as developing a strategy for the permanent redevelopment and regeneration of the City Centre. The event was used as a springboard and an opportunity to radically re-plan and rebuild Manchester City Centre. It was decided that the city's long term future lay in strengthening its role as a regional centre in a European and global context. In order to achieve this, the city focused on offering a high quality of life and providing an urban environment that is attractive for living, working, and shopping and leisure activities.

How Did They Do It?

Manchester Millennium Ltd had 6 core objectives in its rebuilding process:

- i) Restoration and Enhancement of the Retail Core;
- ii) Stimulation and Diversification of the City's Economic Base;
- iii) Development of an Integrated Transport Strategy;
- iv) Creation of a Quality City Core Fit for the 21st Century;
- v) Creation of a Living City; and
- vi) The Creation of a Distinctive Millennium Quarter.¹⁷

The EDAA Masterplan was announced as the winner of the International Design Competition in November 1996: a competition set up in order to provide ideas for the future development of Manchester City Centre. The Masterplan provided a flexible framework within which all future public and private development would take place. It built on the City's strengths and aimed to exploit the opportunities presented, with a major focus on the highest quality of urban design.¹⁸

"If you don't manage the change then the change manages you."

**Hakan Kodal, President and CEO,
KREA Real Estate**

¹⁵ The Independent (1999): From the IRA blast that tore the heart out of Manchester, a new and revitalised city is born, <http://www.independent.co.uk/news/uk/home-news/from-the-ira-blast-that-tore-the-heart-out-of-manchester-a-new-and-revitalised-city-is-born-743971.html>, 20 September 2010

¹⁶ Rudi.Net (2010): Manchester city centre regeneration (EDAA), <http://www.rudi.net/pages/17636>, 20 September 2010

¹⁷ Rudi.Net (2010): Manchester city centre regeneration (EDAA), <http://www.rudi.net/pages/17636>, 20 September 2010

¹⁸ Rudi.Net (2010): Manchester city centre regeneration (EDAA), <http://www.rudi.net/pages/17636>, 20 September 2010



*Left: Millennium Bridge in Manchester
Right: The Urbis Building, an example of Manchester's
modern architecture*

Rebuilding the city centre was made possible by a dedicated four-year funding package and the close support of key public and private funding partners. The rebuild was financed using £84 million of Government, EU and millennium commission grants, alongside in excess of £550 million of private sector funding.¹⁹

Manchester City Centre's reconstruction came to an end in 2002 with the completion of the public realm. The Masterplan for the city's new public spaces involves a cruciform structure of routes running east-west and north-south across the city centre. Within this structure, a series of activity zones (for example Exchange Square for shopping and the garden area around City Park) reflects the uses of the spaces, and the adjacent streets and buildings. This strategy led to the design of three public open spaces – two of them new and one of them refurbished.²⁰

Lessons Learned

Although Manchester was in a respectable economic position prior to 1996, recovering from the tragedy of the IRA bombings endowed the city with a new sense of invigoration to reinvent itself. Strong leadership and the cooperation of both public and private sector galvanised the city into redeveloping itself into an internationally renowned model of best practice

¹⁹ BBC News (2006): From bomb site to style capital, <http://news.bbc.co.uk/1/hi/5036258.stm>, 20 September 2010

²⁰ Rudi.Net (2010): Manchester city centre regeneration (EDAW), <http://www.rudi.net/pages/17636>, 20 September 2010

Case Study 3: Istanbul: Mitigating Disaster through Forward Planning

Overview

Turkey's position on the North Anatolian fault line makes earthquakes a real threat in Istanbul, but the city has taken steps to prepare for such a natural disaster.²¹

The Earthquake Threat

The terrible aftermath of the 1999 Izmit earthquake forced municipal authorities to think seriously about the potential impact of such a natural disaster in Istanbul. With a death toll exceeding 17,000, the city was decimated as few of the buildings were earthquake-proofed. The earthquake measured 6.7 on the Richter Scale and was so powerful that buildings were also destroyed in Istanbul, 50 miles from the epicentre, as well as causing parts of the motorway between Ankara and Istanbul to buckle.²² Experts such as Tom Parsons, a geophysicist with the USGS Earthquake Hazards Program in Menlo Park, California, state that there is a 30–60% chance of a magnitude 7 or greater quake close to Istanbul in the next 25 years.²³

Istanbul: A Resilient City

Turkey's 50 year history of unbalanced national development patterns have resulted in massive migration from its underdeveloped central and eastern areas to the mega-region around Istanbul. Subsequently, Istanbul and its metropolitan area now have a population of more than 20 million and the surrounding Marmara mega-region has 45 million of Turkey's total population of 70 million.²⁴

Istanbul's overcrowding, faulty land-use planning and construction, inadequate infrastructure and services, and environmental degradation mean that the impact of an earthquake in the city would be devastating. The imminent threat of an earthquake, and a realisation of the impact such a natural disaster would have, led the Istanbul Metropolitan Municipality to commission work on developing an Earthquake Masterplan in 1999.²⁵

How Did They Do It?

The Istanbul Metropolitan Municipality asked four leading universities – Bogazici, Istanbul, Middle East and Yildiz Technical Universities – to prepare an Earthquake MasterPlan for Istanbul. Initial steps were taken in the year 2000, with Istanbul's Earthquake Masterplan published in 2003. Understanding that no natural disaster can be prevented, the city has developed well-formulated planning and technical counter-measures which will serve to significantly mitigate damage should an earthquake occur.

The Istanbul Earthquake MasterPlan is comprised of three fundamental actions:

- i) A Contingency Plan that must be prepared for the entire urban area that ensures coordination among different sectors, outlining the instruments for managing risks;
- ii) A local action plan that contains sub-project activities or implementation packages in high-risk areas so that comprehensive urban transformation actions can be initiated; and
- iii) Research and activity programmes that will facilitate sustaining or the completion of the first two sets of actions.²⁶



Damage from an earthquake in Elazig, Turkey in 2010

²¹ Nature News (2010): Clock ticking for an Istanbul earthquake, <http://www.nature.com/news/2010/100312/full/news.2010.121.html>, 30 September 2010

²² BBC News (1999): Turkey hit by huge earthquake, http://news.bbc.co.uk/onthisday/hi/dates/stories/august/17/newsid_2534000/2534245.stm, 30 September 2010

²³ Nature News (2010): Clock ticking for an Istanbul earthquake, <http://www.nature.com/news/2010/100312/full/news.2010.121.html>, 30 September 2010

²⁴ Yetim, M (2010): Personal communication, Istanbul Konut Inc

²⁵ Istanbul Municipality (2010): Istanbul Earthquake Masterplan, <http://www.ibb.gov.tr/en-US/SubSites/IstanbulEarthquake/Pages/IstanbulEarthquakeMasterPlan.aspx>, 30 September 2010

²⁶ Metropolitan Municipality of Istanbul (2003): Earthquake Masterplan for Istanbul, <http://www.ibb.gov.tr/tr-TR/Sub-Sites/IstanbulVeDeprem/Calismalarimiz/Documents/IBB.I.DMP.ENG.pdf>, 30 September 2010



Istanbul's Bosphorus Bridge

"We should not forget the human factor."

Zef Hemel, Deputy Director of Spatial Development, City of Amsterdam

Lessons Learned

As Istanbul is amongst the top 20 most populated cities in the world, by 2050 it is expected to become the world's 9th largest economy. However, there has been a realisation that these achievements are meaningless if the city is not safe and protected against natural disasters.²⁷

In the 10 years since the Izmit quake, Istanbul is now better prepared and has a better-informed population than many other cities in the world. For example, the new terminal at Istanbul's Sabiha Gökçen International airport is designed to withstand earthquakes of up to 8 on the Richter Scale and is said by its developers to be the world's largest seismically-isolated building, whilst the local population has been educated through specially designed earthquake-awareness days, including the use of earthquake-simulator machines and emergency drills for school children. The city's capacity to prepare and protect itself against an earthquake is the biggest demonstration of its resilience.²⁸

²⁷ Alkas, A, Istanbul Becoming Global (2010), Urban Investment Network Partner Forum, Istanbul, September 2010

²⁸ Nature News (2010): Clock ticking for an Istanbul earthquake, <http://www.nature.com/news/2010/100312/full/news.2010.121.html>, 30 September 2010

Case Study 4: **Edinburgh: Balancing Conservation and Development**

Overview

Since being awarded World Heritage Site status in 1995 by the United Nations Educational Scientific and Cultural Organisation (UNESCO), Edinburgh has demonstrated its adaptability by overcoming inherent planning obstacles during the city's modernisation.²⁹

World Heritage Site Status: The Challenge Of Development

In accordance with its World Heritage Site status, the city must adhere to a set of strict planning regulations, including the instruction that 'Each nominated property should have an appropriate management plan . . . which should specify how the outstanding universal value of a property should be preserved, preferably through participatory means.'³⁰

In addition, an influx of tourists as a result of its World Heritage Site designation has endowed Edinburgh with a unique set of problems which it has had to work hard to overcome. The city is one of the most popular tourist destinations in the UK it and relies heavily on the £1 billion generated by the tourist economy.³¹

Edinburgh: An Adaptable City

In 1999, Edinburgh World Heritage was created as a result of a merger of the Old Town Renewal Trust and the New Town Conservation Committee. The organisation is a charitable company limited by guarantee, funded by the City of Edinburgh Council and Historic Scotland, with the role of protecting, conserving and promoting the World Heritage Site. Edinburgh World Heritage states that its aspiration is "to protect the irreplaceable legacy of Edinburgh's heritage whilst carefully managing the changes required for modern living." The organisation achieves this with the cooperation of several other key organisations: City of Edinburgh Council, Historic Scotland, Edinburgh City Centre Management Company, and Scottish Enterprise Edinburgh and Lothian.³²

How Did They Do It?

Edinburgh World Heritage produced its first Management Plan in 2005 after months of extensive public consultation. Scheduled to be reviewed every five years, the Plan adopts a positive approach which does not treat development and conservation as mutually exclusive objectives. The main aims laid out in the Plan are to:

- i) Conserve the Site by promoting sustainable management as part of a dynamic, living and working city;
- ii) Facilitate the co-ordination of all the actions of all the parties involved in the protection, enhancement and fostering of the appreciation of the Site;
- iii) Improve access and interpretation, thereby encouraging all people to enjoy and understand the Site; and
- iv) Improve public awareness of, and interest and involvement in, the heritage of Edinburgh by achieving a broad-based ownership of the Management Plan.³³

²⁹ The Guardian (2008): Edinburgh's Heritage Status Secured, <http://www.guardian.co.uk/uk/2008/nov/16/scotland-heritage>, 17 September 2010

³⁰ Edinburgh World Heritage (2005): The Old and New Towns of Edinburgh World Heritage Site Management Plan, <http://www.ewht.org.uk/uploads/downloads/Old%20and%20New%20Towns%20of%20Edinburgh%20World%20Heritage%20Site%20Management%20Plan.pdf>, 17 September 2010

³¹ Edinburgh World Heritage (2005): The Old and New Towns of Edinburgh World Heritage Site Management Plan, <http://www.ewht.org.uk/uploads/downloads/Old%20and%20New%20Towns%20of%20Edinburgh%20World%20Heritage%20Site%20Management%20Plan.pdf>, 17 September 2010

³² Edinburgh World Heritage (2010): What We Do, <http://www.ewht.org.uk/what-we-do>, 17 September 2010

³³ Edinburgh World Heritage (2005): The Old and New Towns of Edinburgh World Heritage Site Management Plan, <http://www.ewht.org.uk/uploads/downloads/Old%20and%20New%20Towns%20of%20Edinburgh%20World%20Heritage%20Site%20Management%20Plan.pdf>, 17 September 2010



A view of Edinburgh's historical buildings

In addition, an Action Plan was also produced which is designed to ensure that the objectives laid out in the Management Plan are achieved. It sets out short, medium and long-term proposals, reviewed annually.³⁴

Lessons Learned

Edinburgh has had a difficult task over the past 15 years: balancing conservation with development. The city now attracts in excess of 7 million tourists each year, many of whom visit the city due to its unique historical character. Despite these massive demands, the city has managed to successfully accommodate visitors and enhance the local economy, whilst conserving the very features that make the city so attractive.³⁵ Edinburgh's pragmatic approach to planning has ensured its success. Edinburgh World Heritage has already produced a Second Management Plan, which is currently under public consultation and will form the basis of decision making until 2015, with the accompanying Action Plan to be reviewed annually. The new Plan takes into account the current economic downturn and the need to accommodate the climate change agenda which now have a direct impact on the management of the World Heritage Site and therefore on current policies.³⁶

³⁴ Edinburgh World Heritage (2005): The Old and New Towns of Edinburgh World Heritage Site Management Plan, <http://www.ewht.org.uk/uploads/downloads/Old%20and%20New%20Towns%20of%20Edinburgh%20World%20Heritage%20Site%20Management%20Plan.pdf>, 17 September 2010

³⁵ Edinburgh Inspiring Capital (2010): Economic Data, http://www.edinburghinspiringcapital.com/invest/economic_data.aspx, 17 September 2010

³⁶ Edinburgh World Heritage (2010): Management Plan for the Old and New Towns of Edinburgh World Heritage Site Management Plan and SEA Report, http://www.edinburgh.gov.uk/downloads/file/1706/management_plan_and_sea_report, 17 September 2010

Case Study 5:

Amsterdam: Creating a Smart City

Overview

In response to the challenge of climate change, Amsterdam has demonstrated its adaptability through its Smart City Programme, aiming to provide a blueprint of low carbon living for the rest of the World to follow.

Commitment to Reducing Carbon Emissions

Dutch grid operator Liander has committed to spending €100 million annually until 2016 to upgrade its entire energy network to a smart grid. It is anticipated that by 2011, almost all of Amsterdam will be on a smart grid. By 2012, it is expected that the municipality, energy companies, and other private companies will invest more than €1.1 billion in Amsterdam's smart city programmes.³⁷

There are, however, significant costs attached to the consumer. It is estimated that it will cost \$438 per household over 15 years to install smart grid technology alone – a significant cost given the current economic climate.³⁸ If initial objections can be overcome, local planners expect smart city technology to bolster the economy through public and private investment, as well as cut emissions by 40% by 2025.³⁹

Amsterdam: An Adaptable City

In June 2009, grid operator Liander and regional development agency Amsterdamse Innovatie Motor (AIM) joined forces with Accenture to create the Amsterdam Smart City project. The project aims to create collaborative pilot projects that demonstrate how energy can be saved both now and in the future. By encouraging a long-term behavioural shift in practices undertaken by businesses and residents in Amsterdam, along with complementary new technologies, the city hopes to move towards a more sustainable, lower carbon approach to living. The long term aim is to lower Carbon Dioxide emissions and establish a best practice model which can be adopted at National and European Scales.⁴⁰

How Did They Do It?

As part of its Smart City project, Amsterdam established the Climate Street project on 5 June 2009. The project takes a holistic approach to the issue of lowering carbon emissions on one of Amsterdam's busiest streets and the home of over 140 businesses. The project's approach has three main foci:

- i. **Logistics.** Waste is collected using electric vehicles from a single provider and deliveries to businesses are collected at one central location and delivered to business owners using electric vehicles.
- ii. **Public Spaces.** An integrated street lighting system uses energy saving lamps that can also be dimmed at quiet times during the night, there are solar-lit tram stops and billboards, and there are solar powered "BigBelly" waste bins which have built in compactors, allowing them to be emptied five times less frequently.
- iii. **Entrepreneurs.** Smart meters have been fitted in hundreds of homes and businesses, energy saving tips are offered, and smart plugs automatically dim or switch off unused appliances and lights.⁴¹



Amsterdam has long been a leader in low carbon living

³⁷ Bloomberg Business Week (2009), Amsterdam: A Smart City Goes Live, http://www.businessweek.com/globalbiz/content/jun2009/gb2009068_275981.htm, 17 September 2010

³⁸ Bloomberg Business Week (2009), Amsterdam: A Smart City Goes Live, http://www.businessweek.com/globalbiz/content/jun2009/gb2009068_275981_page_2.htm, 17 September 2010

³⁹ Bloomberg Business Week (2009), Amsterdam: A Smart City Goes Live, http://www.businessweek.com/globalbiz/content/jun2009/gb2009068_275981_page_2.htm, 17 September 2010

⁴⁰ Utility Week (2010): Amsterdam Smart City leads the way on green urban living, <http://www.utilityweek.co.uk/features/europe/amsterdam-smart-city-leads-the.php>, 17 September 2010

⁴¹ Amsterdam Smart City (2010): Climate Street, http://amsterdamsmartcity.com/#/en/klimaalstraat_252, 17 September 2010



*An aerial representation of Amsterdam's grid.
Photo taken from Hemel, Zef. Resilience = Diversity (2010),
Urban Investment Network Partner Forum, Istanbul, September 2010*

Lessons Learned

Amsterdam is currently the leader and pioneer in the field of carbon emissions reduction. With its partners in the Amsterdam Smart City project, the city can be viewed by other world cities as a blueprint for success. Although the Smart City is a relatively new concept, local policymakers are already in the process of finding ways to maximise the new smart grid technology. It is expected that by the end of 2010, Amsterdam's planners will have created a "virtual power plant" that will allow households to sell excess energy generated from domestic solar panels, wind turbines, and biomass plants back to the city for a profit.⁴²

Other cities are learning from Amsterdam's early successes. Stockholm and Lyon are favourites to become the next batch of smart cities, and elements of Amsterdam's technologies can already be seen in Yangzhou in China; Boulder, Colorado, in the U.S.; and Masdar City on the outskirts of Abu Dhabi.⁴³

⁴² Bloomberg Business Week (2009), Amsterdam: A Smart City Goes Live, http://www.businessweek.com/globalbiz/content/jun2009/gb2009068_275981_page_2.htm, 17 September 2010

⁴³ Utility Week (2010): Amsterdam Smart City leads the way on green urban living, <http://www.utilityweek.co.uk/features/europe/amsterdam-smart-city-leads-the.php>, 17 September 2010

Case Study 6:

Malmö: Transforming the Urban Economy

Overview

While Malmö is the commercial centre of Southern Sweden and has established itself as an international city, the city is currently transitioning to a knowledge based economy. During this quest for new markets and additional space for growth, the city has shown itself to be adaptable through the development of new districts and infrastructures.

An Economy in Transition

Malmö's strengths lie in the sectors of logistics, retail and wholesale trade, construction, and property. In addition, there are emerging specialisms in biotechnology and medical technology, environmental technology, IT, and digital media fields, supported through co-operation between colleges, science parks, and companies.⁴⁴

Malmö is currently undergoing a period of transition, from an industrial city to a knowledge city. Traditional industries are rapidly being replaced by investments in new technology and training programmes, including the addition of Malmö University, which opened in 1998, accommodating in excess of 15,000 students.⁴⁵

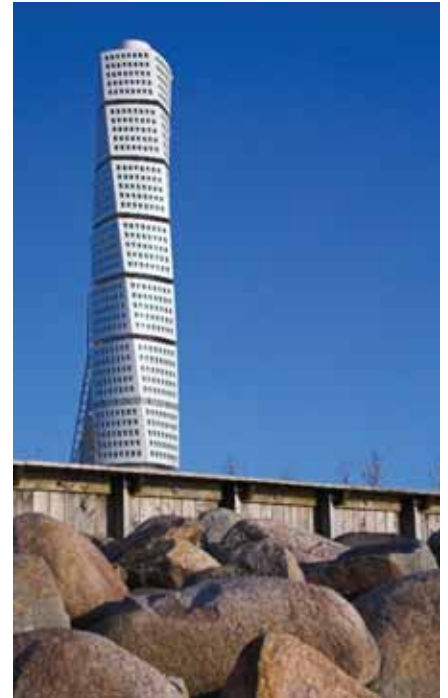
Malmö: An Adaptable City

The transformation of Malmö's economy has certainly tested the city's adaptability to its limits. The city has responded to the demands of becoming an international knowledge city, subsequently attracting a diverse and highly skilled population.

Malmö has 286,500 residents from approximately 170 different nationalities, many of whom live in the new development at Western Harbour (Vastra Hamnen). The development is a new knowledge hub, focusing on high value added industries. In addition to diversifying the economy in this new district, the new Øresund bridge-tunnel furthermore opens up new markets to the city, which is key in the long-term diversification process.⁴⁶

How Did They Do It?

Western Harbour or 'Vastra Hamnen' is a pioneering project situated near the heart of the city of Malmö. The former shipyard and heavy industry site, located near the waterfront, is being transformed into a new district which will be fully complete in 2025. A future home for businesses, schools, homes, service facilities and a redeveloped university, the district will house a total of 30,000 people. In addition to its economic benefits, the new district also demonstrates the city's adaptability as a showpiece for carbon neutral living, efficient energy use and the use of 100% renewable energy.⁴⁷



Turning Torso in the city of Malmö

⁴⁴ Malmö City Website (2010): About Malmö, <http://www.malmo.se/English/Business---Trade--Industry/About-Malmo.html>, 30 September 2010

⁴⁵ Malmö City Website (2010): Malmö, a city in transition, <http://www.malmo.se/english>, 30 September 2010

⁴⁶ Malmö City Website (2010): Malmö, a city in transition, <http://www.malmo.se/english>, 30 September 2010

⁴⁷ BD Online (2006), Malmö model is a template for successful regeneration, <http://www.bdonline.co.uk/story.asp?sectioncode=431&storycode=3060872>, August 2008



The Øresund bridge connecting Malmö with Copenhagen

The adaptability of Malmö is further illustrated by the city's construction of the Øresund bridge-tunnel. Opened on July 1st 2000 and spanning a distance of almost 16km, the bridge-tunnel represents the longest combined road and rail bridge in Europe. The construction cost of the structure and its supporting elements totalled approximately £1.83 billion at the time of opening. By the end of 2006, Øresundsbro Konsortiet had borrowed approximately £1.85 billion to finance the construction costs of the bridge and its early operating costs. The project has had a significant impact on the social, economic and political development of both Malmö and Copenhagen by effectively creating a new growth corridor between the two cities. A cost-benefit analysis concluded that for every £1 spent on the bridge over £70 are realised in positive outputs.⁴⁸

Lessons Learned

From its predominantly industrial past, Malmö's economy has undergone a dramatic transformation. The city has successfully developed a long-term plan for economic diversification which sees the city moving towards reliance on knowledge industries. The city has further demonstrated its adaptability by looking inwards and focusing on its strengths, such as the diversity of its workforce. By opening the Øresund bridge-tunnel, which connects the city to Copenhagen, the city has been linked to additional markets, a more diverse workforce, and new knowledge-based industries.

⁴⁸ Øresundsbro Konsortiet, Facts worth knowing, 2007

Conclusions

The Partner Forum had a ‘bi-focal’ agenda which engaged the public and private sector in a vibrant discussion about the future of cities and their leadership. The debate focussed on the twin track of ‘continuity’ and ‘adaptability’, recognising that there are crossovers and differences between the two. While ‘continuity’ relates to a city’s ability to avoid and manage major shocks, ‘adaptability’ constitutes a city’s ability to respond to major trends while spreading and managing their risks. As discussions at the ULI Urban Investment Network Partner Forum and the preceding case studies illustrate, resilience should be a priority for all cities for the following reasons:

“We have to remind ourselves that places function because of people. Citizens should be considered an asset.”

**Charlie Hughes, Chairman,
Smart Futures**

- **International institutions and private sector organisations are attracted to resilient cities, especially ones with diverse populations, good governance, strong infrastructure, and clear planning strategies.**
- **Resilient cities can utilize major interventions to create new value that will pay back over time.**
- **Cities that are resilient adapt to global imperatives and are ready for a more flexible future in uncertain times.**



Principles for Resilient Cities

The following are a set of principles which help to define a resilient city. These principles were debated and refined by participants of the Partner Forum, and reflect lessons learned both during the Forum and from the case studies.

	Continuity	Adaptability
i.	Build good governance and strong city leadership that can think ahead, and work to tackle city weaknesses consistently across electoral cycles. Smart governance must be bold in leading innovation in a difficult climate, but must be rewarded for the risks taken.	Diversity is key to long term adaptability. Encourage and promote economic, social, physical and cultural diversity. This is also compatible with specialisation.
ii.	Develop plans to mitigate the effects of unanticipated (and anticipated) events. A city cannot be resilient if it cannot protect itself.	Cities need an evolving story. Include evolution and adaptability in the story of the city as part of a coherent city plan, vision, story, and culture.
iii.	Use crises, and the threat of crises, as opportunities and catalysts to do things differently. Crisis provide a rationale for tackling rigidities.	Cities must both dream big, and also be realistic. They need a compelling proposition and to work with their own constraints.
iv.	Assess risks regularly and develop an appropriate risk management process between different tiers of Government and between public and private sector.	Cities must balance investment in innovation with investment in existing assets.
v.	Develop an asset management system and strategy for the city, optimizing the use of assets and their maintenance.	Infrastructure is key to adaptability; cities must strive for integrated and flexible infrastructure systems with continuous investment.
vi.	Develop collaboration between the public and private sector that is based on creating and sustaining value for both parties and protecting that value.	Use intelligence effectively. Learn from the mistakes and successes of other cities.
vii.	Focus on education of citizens to encourage engagement and long term behavioural change in how the city functions	The public sector should act as a steward of the city.
viii.	Invest in energy-saving systems and better resource management.	Citizen engagement makes cities more flexible to change and can be best achieved with multiple channels and approaches.
ix.	Consider more than the big picture – find ways to increase the resilience of individual buildings and sites.	Make use of new technologies to monitor and manage city performance and make the city smarter.
x.	Encourage business and institutional leadership to challenge city government to make the city more resilient and to hold city government to account.	Foster future city and civic leaders from amongst public, private and community sectors and build a shared sense of purpose and values.

Overall, the debate about resilient cities led to a clear conclusion that our cities require leadership to be able to re-engineer their fabric between cycles of development and land use. This often requires major interventions that create new value, and pay back over time. Cities also need leadership to adapt to global imperatives and be ready for a more flexible future in uncertain times.

Resilient cities are ones that attract long term investors who can continue to build value over the long term as the city adjusts and succeeds in changing environments.

Partner Forum Attendees

23 September 2010 | **Istanbul, Turkey**

Name	Title	Organisation
Nigel Atkins	Associate Director	Institute of Urban and Regional Planning, University of Sorbonne
Stephen Barter	Chief Executive Officer	Qatari Diar UK
Ad Buisman	Global Assurance and Advisory Leader	Ernst & Young
Greg Clark	Senior Fellow	ULI Europe EMEA/India
Timothy Cyr	Directeur General Adjoint	Groupe France Terre
Gareth Evans	Researcher	ULI Europe
Rosemary Feenan	International Director Global Research	Jones Lang LaSalle
Brian Field	Urban Planning and Development Adviser	European Investment Bank (EIB)
Gerard Groener	Chief Executive Officer	Corio N.V.
Manfred Guenterberg	Chief Executive Officer	Wolfsburg AG
Branimir Gvozdenovic	Minister, Ministry for Spatial Planning and the Environment	Montenegro
Zef Hemel	Deputy Director of Spatial Development	City of Amsterdam
Miguel Hernandez	Partner	Proactiva Asset Management
Dean Hodcroft	Partner/Principal	UK & NEMIA Head of Real Estate, Ernst & Young
Charlie Hughes	Chairman	Smart Futures
Necmi Karaman	Istanbul Transportation Company	City of Istanbul
Dörthe Kellermeyer	Head of International Organisations	ECE Projektmanagement GmbH & co KG
William Kistler	Former President	ULI Europe EMEA
Hakan Kodal	President and CEO	KREA Real Estate
Lorraine Landels	Director of Strategic Relationships	Buro Happold Ltd
Sabine Lebesque	Architecture Historian	City of Amsterdam Development Corporation (OGA)
Hugh Lumby	Solicitor – Partner	Ashurst
Brian Moran	Managing Director	Urbancapital Limited
Debra Mountford	Senior Policy Analyst and Manager	OECD LEED Programme
Sarah Nemecek	Manager, Urban Investment Network	ULI Europe
Jeremy Newsum	ULI Chairman and Executive Trustee	Grosvenor Estate, Grosvenor
Alexandra Notay	Vice President Strategic Programmes	ULI
Alexander Otto	Chief Executive Officer	ECE Projektmanagement GmbH & co KG
Dion Panambalana	Partner, Real Estate	Hogan Lovells International LLP
Gert-Joost Peek	Research Director	ING Real Estate Development
Patrick Phillips	Chief Executive Officer	ULI
Jerome Pourbaix	Senior Manager, Transport Economics	UITP
Robert Ravelli	Associate Director	Contemporary Transport
Struan Robertson	Global Co-Head Real Estate Investment Banking	Morgan Stanley
Lars Rempelberg	Chief Executive Officer	FAKTON B.V.
Jordi Sacristan Adria	International Economic Promotion Manager	Barcelona City Council
Michael Spies	Senior Managing Director	Tishman Speyer
Haluk Sur	Board Member	Emlak REIT
Gavin Thompson	Chief Executive Officer	Buro Happold
Kadir Topbaş	Mayor	Istanbul Metropolitan Municipality
Gerbrand van Bork	Senior Economist and Project Manager	ECORYS
Bob van der Zande	Director	City of Amsterdam
Max von Below	Director	Institutional Clients, Prime Development Proje Gelistirme Ltd. Sti.
Philipp von Wilmowsky	Manager Partner	Prime Development Proje Gelistirme Ltd. Sti.
Hakan Yener	District Council Coordinator	ULI Turkey
Musa Yetimoglu	Chief Executive Officer	Istanbul Konut

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Former President, ULI EMEA, William P. Kistler

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About the ULI Urban Investment Network

The ULI Urban Investment Network is an independent European network designed to promote and facilitate world class investment in urban development. The initiative has been developed by the Urban Land Institute in collaboration with a group of leading cities, European Institutions and private sector organisations.

The Network is working to facilitate a continuous dialogue between public and private sector leaders who are seeking to improve their ability to collaborate. Its premise is that public - private relationships with a high level of collaborative working provide more opportunities to bridge investment gaps and overcome city development challenges. For more information on joining the Network, please contact Sarah Nemecek sarah.nemecek@uli.org

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