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CHAPTER 6
BROWNFIELD REDEVELOPMENT: STRATEGIES AND APPROACHES IN EUROPE AND THE UNITED STATES

by
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This chapter highlights trends in European and US-American strategies towards attraction of private investment for brownfield redevelopment, and provides examples of ways in which municipalities may work with, and benefit from, programmes within a regulatory framework offering specific tools and incentives for private investment on brownfield sites.

Introduction

The revitalisation of brownfields is closely tied to the model of "sustainable urban development". Brownfield sites are not necessarily contaminated, but they are areas of land which have previously been used for development or which are located within existing urban centres. Site reclamation, a way of providing developable space and nature zones without consuming more land, is e.g. in Germany defined as the "use-related reintegration of real estate which has lost its previous function, such as closed industrial plants, military installations, transport facilities and small business premises, into the economic and natural system by means of planning, environmental and economic policies" (North Rhine-Westphalia Ministry of the Environment, Regional Planning and Agriculture, 1992).

According to the European CLARINET Working Group on "Brownfields and Redevelopment of Urban Areas", brownfields are sites that:

- have been affected by the former uses of the site and surrounding land;
- are derelict or underused;
- have real or perceived contamination problems;
- are mainly in developed urban areas;
- require intervention to bring them back to beneficial use (CLARINET, 2001).

Hardly any other policy currently matches brownfield revitalisation in the way it combines the three components of sustainability: the *ecological* component through the prevention of additional consumption of space, the *economic* component through the encouragement of investment in inner city sites; the *social* component through the combination of revitalisation projects with job creation and skills upgrading programmes, and through fostering residents' sense of social and historical identification (as exemplified by the industrial park projects of the International Building Exhibition – IBA – Emscher Park in the German state of North-Rhine Westphalia). This sustainable touch makes brownfield redevelopment a hot topic not only in Europe and the United States, but also appears as a major political challenge to reduce land consumption and revitalise urban areas in many OECD countries.

This chapter will highlight the trends in European and US-American strategies towards the attraction of more private investment for brownfield redevelopment, as well as providing examples of ways in which municipalities may work with and benefit from programmes within a regulatory framework, which offers specific tools and incentives for private investment on brownfields.

Trends towards leveraging private finance for brownfield redevelopment in Europe and the United States

Programmatic changes in Europe

As a result of the massive decline in the coal, steel and textile industries at the beginning of the 1980s, comprehensive strategies and programmes of brownfield revitalisation were developed, particularly in the United Kingdom, France (especially in Lorraine and Nord-Pas de Calais), Germany (especially North Rhine-Westphalia) and Belgium. Due to the dominance of coal and steel industries in traditional industrial regions, sites were often very large, with a low land value and high rehabilitation and decontamination costs. Here, government intervention was indispensable as it could not be expected that the private sector and property market itself would solve the problem. Consequently, since the beginning of the 1980s in the United Kingdom, France and Germany, initiatives have been developed which favour specific brownfield programmes. These initiatives were triggered, on the one hand by increasing awareness of the negative economic and ecological effects of the derelict sites, and on the other, by recognition of the positive development potential of such sites. Regional, national and European funding was provided to finance these programmes, and projects have effectively been paid for by the taxpayer.

Today most cities and regions in Europe are facing brownfield problems. Characterised by a dynamic land market, industrial uses dating back to the 19th century are subject to a persisting displacement pressure and have often moved to peripheral areas as part of the urban sprawl process. Together with the existing large-scale railway and port infrastructure facilities, such urban areas are subject to an ongoing pressure for re-use, reinforced by speculative land banking. The interest, use and ownership conflicts resulting from such a situation can lead to a large extent of derelict land in urban areas. The strategies used by cities and regions to bring derelict land back into use mainly focus on using the classical instruments of urban planning. Large-scale projects are developed by architectural competitions, master plans and investor planning. Problems that particularly concern brownfields, including land for building, infrastructure and contaminated soil, are often inadequately considered and can lead to considerable friction and losses or even complete project failure. Less attractive brownfields in peripheral locations, therefore, are often insufficiently developed. Intermediate uses and derelict areas have become a serious problem for urban development in the areas concerned.

Brownfields have been identified as a key obstacle to private investment, even if they also represent an important economic development potential, albeit

one which is difficult to mobilise. Funding has therefore been concentrated on impetus providing initiatives in order to initiate private investment. The different conditions prevalent in different types of areas require different strategies and programmes towards private investment to support redevelopment:

- In Northern France, brownfields were quickly removed to restore an attractive outer appearance to the region and thus attract private investors not just to the abandoned brownfield areas themselves, but also to newly developed "Greenfield" sites in the concerned areas.

- In the Ruhr area of Germany, ecological transformation has been very successful. In the Ruhr, brownfield problems have been remedied by combining ecological necessities with economic objectives e.g. by developing ecological business parks. The aim is to develop environmentally friendly industries and regenerate areas for re-use by new industries. Examples for this approach are the redeveloped areas of the "Zeche Waltrop" or the "Zeche Sachsen" in Hamm – both also located in the German state Northrhine-Westphalia – which were turned into business parks and deliberately integrated into green spaces. In addition to that, high ecological standards and innovative techniques (e.g. energy and water saving, waste reduction, ecological building materials) have been realised on these sites.

- In the United Kingdom, traditional objectives of economic promotion to attract private sector investments – establishment of business and industrial parks, job creation – have been at the centre of policy supported by the central Government. Funding has been focused on the renewal of inner city industrial sites, preferably by industrial re-use with private or public-private initiatives.

There are signs that these changes will be supported more strongly on the political level: The Commission intends to focus on the integration of soil protection objectives in other policies. As a first step, the Commission published a paper in April 2002 "*Towards a Thematic Strategy for Soil Protection*" pointing out that pressure on land and soil is still growing, in particular by soil sealing and land take by urban expansion. Importantly, the European Environmental Agency (EEA) stressed the need for targeting development on brownfield sites while maintaining and enhancing areas of green space. The discussion of sustainable land management considers brownfield sites as an issue of major importance. Also at the European level, it is increasingly recognised and documented that the presence of unused

brownfield land has various negative effects not only on the environment, but also on the economic and social health of a city (see OECD, 1998).

The need for PPP and leveraging private investment

Across Europe, the public sector, often experiencing fiscal constraints, is not able to solve major redevelopment tasks alone. Against the general current background of dramatic budgetary deficits at the federal, state and particularly municipal government levels, public-private partnership approaches and strategies of leveraging private finance to clean up abandoned sites and revitalise inner city areas become more and more important.

A change in the real estate policies of major private landowners in the 1990s contributed to a further increase in brownfields. In Germany, for example, the largest railroad, energy and communication corporations are growing active to sell considerable amounts of land as part of their business operations. A further increase in disused space can be expected in the future. In the light of lower levels of utilisation of office space (workplaces in homes, teleworking, etc.) and of shrinking service sectors (for instance in banks' customer consulting and post offices) one has begun to speak of "service-sector brownfields". Moreover, in the not too distant future, considerable idle commercial capacity is expected to appear outside of cities, above all in eastern Germany (Kahnert and Rudowsky, 1999, p. 153). This trend will lead to an oversupply of abandoned sites, particularly in the new German states (for an overview on current activities, obstacles and approaches of site recycling in German city practice cf. Tomerius and Preuß, 2001). In this configuration, issues of local site management and strategies of public-private partnerships (PPP), particularly in terms of leveraging private finance, become make-or-break determinants of site recycling and brownfield redevelopment.

A growing number of developers see brownfield redevelopment as a business of "modern" urban development offering economic chances in business niches. Matching the need of the public sector for private financial support some developers have changed from the still widespread understanding of brownfields as a complicated, risky business to a more open attitude seeing redevelopment as a business opportunity, particularly in attractive inner city areas. In the meantime an increasing number of developers understand remediation costs and contamination risks as being just one part of the professional risk and cost management to be handled in PPPs, often representing only a small percentage of the overall project costs.

Several European and national funding programmes are available for the rehabilitation of brownfield sites. But currently a severe budget crisis in many cities has lead to a growing need of leveraging private money for brownfield redevelopment. In economically poor European regions municipalities struggle hard or are not able any more to bring in their financial co-funding necessary to get access to national or European funding programmes. Also because of weakened administrative capacities the need for cooperation with private expertise and the need to leverage private money for brownfield projects is significantly growing.

Programmatic focus to attract private investment in the United States

According to a survey by the United States Conference of Mayors (USCM) there are more than 21 000 brownfield sites alone in the 232 cities taking part in the survey (United States Conference of Mayors, 2000, p. 9). The total number of known brownfield sites in the United States is estimated at 400 000. Thus site availability for redevelopment is high. According to the Urban Land Institute (ULI) in Washington DC, some cities assume that their supply of abandoned land could satisfy development demand for about 150 years.

Most large polluted sites are owned by private businesses. They are often left abandoned because of the risk of liability and the subsequent costs of remediation (risk assessment, clean up costs). Often the cities cannot solve these problems alone. The states or the federal government must help to tackle them with redevelopment funding programmes.

Ironically, where brownfield sites have been redeveloped, this has often been done without public money. However, this only concerns those sites that are profitable to redevelop. There are many others, which under current policies will never be reclaimed because they are too polluted and/or situated unfavourably. In between are the sites where public money can help and incentives do matter. Therefore the US approach and particularly the latest brownfield legislation passed in 2001 very much focuses on leveraging private finance. This has been one of the main aims of these policies, particularly through the use of specific economic tools such as tax and financial incentives for private investors on brownfield sites (for more information, see Section 4).

Project categories for public and private sector leverage

The redevelopment of urban brownfields can involve many different private organisations, including transport companies, investors, developers,

landowners, etc. These parties will obviously have very different interests in relation to the redevelopment of the site, and the way they participate in the process will also vary. Private companies look at a project in terms of profitability and market potential. If the private sector is to be brought into a project, it is therefore important that the costs are reduced or that there are ways in which the return can be improved. In discussing the different forms of leveraging private investment into brownfield projects, it is useful to sort projects, not only according to former use, but also according to:

- The economic profitability of the project, including costs for site preparation (with remediation costs).

- Location, real and potential land value and demands for its further use.

Both are closely connected to the legal and planning situation as well as the technical infrastructure (e.g. water supply, sewage, and traffic connection). Using these criteria in the context of property value and reclamation cost the sites can be classified into three types (Ferber, 1997). The following categorisation proved to be helpful in focusing on efforts to leverage private investment for brownfields [also EU networks like CLARINET or the new "Concerted Action on Brownfield Economic Regeneration Network (CABERNET) work with these categories]. City practice is challenged to sort out projects where PPP approaches are in need and thus focus on site potentials likely to be developed with public and private finance approaches.

a) "Self-Developing Sites"

These are sites with their own dynamic for development. The redevelopment causes a clear increase in site value. There is no demand for special public intervention. The regular planning and administration system provides a satisfactory framework for the development.

b) "Potential Development Sites"

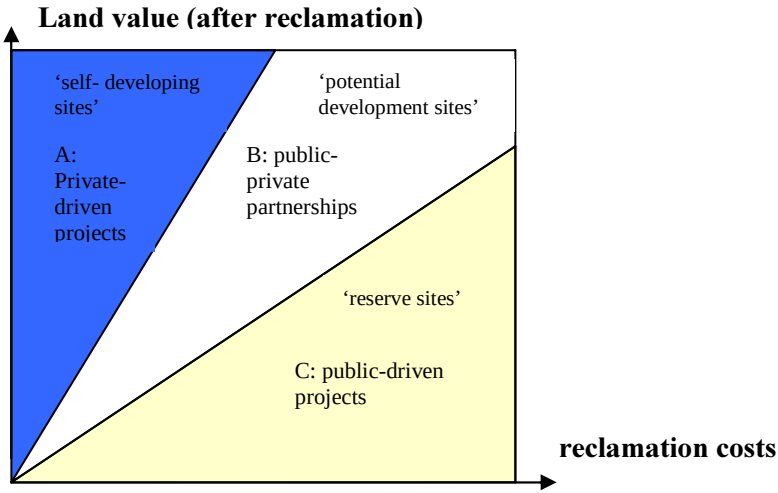
These are sites of local or regional importance with development potential but also significant risks due to the final balance of the investment (i.e. regarding the aim to realise a profitable project in the end) and the need for advice and assistance in planning and funding. These typical brownfield projects are situated in the border zone of profit and loss. In such cases strategies of public-private partnership are most effective. Risk-division, co-ordinated planning and the

financing of projects by public/private companies are innovative instruments for public intervention.

c) "Reserved Sites"

These are sites without development potential for the next few years and are the most problematic sites e.g. traditional industrial regions. A high density of brownfield sites in a certain area and low site values together with high preparation costs do not permit a dynamic of self-development. These sites will not be regenerated without public intervention.

Figure 6.1. **Categories of brownfield sites by extent of public participation**



A-Type: private-driven projects

The redevelopment of brownfield sites in type "A" projects is largely private-sector led. A very significant proportion of projects take place with very little direct involvement from public bodies and government agencies, except in their roles as "regulators", issuing and enforcing necessary approvals and legal permissions (such as town and country planning).

European systems of "town and country planning" could promote this type of brownfield redevelopment largely by inhibiting or preventing development projects on greenfield sites, and by making brownfield land available for development. The public authorities should show confidence in a project, for example by creating a climate that includes other partners like housing

associations to invest in targeted neighbourhoods. Nevertheless private developers should be able to initiate, prepare and to realise such projects in an integrative urban, economic and technical approach, i.e. combining and harmonising planning and remediation requirements according to the intended reuse in a balanced cost- and time-effective proceeding.

A good example is the redevelopment of the 14-hectare OKAL site, a former wood processing plant in Titisee-Neustadt in the German region of Baden-Württemberg. Despite the attractive location, the site had been derelict for 12 years, mainly because of contamination of groundwater and soils. Due to the failure of former development projects the local authorities started a fairly intensive dialogue between the private developer, planning and environmental authorities and future users of the site. In this iterative process, the project benefits were proved to all the partners. So even without direct public funding, sufficient project benefit came from granting of permission for housing and commercial uses on the site. Formal agreements have been fixed in a public-private contract. The private developer:

- acquired the site
- prepared the demolition, remediation and redevelopment plans
- co-ordinated planning permission procedures in close cooperation with the local authorities
- provided funding with private capital
- was responsible for the marketing.

As a result, 60% of the area has been developed for housing and 40% for commercial space. This brownfield site has now been revitalised as an attractive area of a small sized town by using private competence and investments. The public sector played simply a facilitating role.

B-Type: public-private partnerships

Successful private investment in this type of project depends on a very narrow analysis of risks in the redevelopment process. Close cooperation between the landowner, the developer and the local authority is a precondition. When the public sector co-operates with the private sector on a redevelopment project, all stakeholders involved can bring their own interests, creativity and knowledge to create a realistic and financially sound development which can count on the support of both public and private parties. These public-private

partnerships are becoming increasingly common, and the various stages of the development process are often regulated through agreements, contracts and covenants. In many locations, brownfield redevelopment is eligible for direct public sector financial support, necessary to achieve social and economic policy objectives. This support can appear in a number of different forms, such as:

- Grant aid, either for particular elements of the costs of development or as "gap funding" (i.e. to bridge the "economical gap" with funding money in order to make the project profitable).

- Support for loans, including payment of interest and guarantees.

- Other guarantees, e.g. income stream guarantees, support for right for first refusal of the site.

- Partnership projects with risk and profit sharing.

For example in the United Kingdom, direct funding is generally provided by national government through arm's length public sector regeneration agencies – including English Partnerships and the network of Regional Development Agencies in England; the Welsh Development Agency; and Scottish Enterprise. In some cases, the funding is provided through the channel of local authorities, either directly from national government or via the national or regional regeneration agencies. In addition to these national sources of funding, other projects receive support through Objectives 1 and 2 of the European Structural Funds (principally the European Regional Development Fund) and through Community Initiatives (such as URBAN II). Private investment often sees these supports as decisive steps forward to project realisation because financial risks are lowered and profitability gaps are bridged.

Recently, legal problems have been identified with many of the national funding programmes, as the European Commission has identified them as "governmental subsidies" and contrary to EU competition policy. This places strict limits on the geographical availability of financial support for private sector development, and also on the amount of support for any individual project. Other indirect financial tools have been used in the past, such as tax breaks in designated "Enterprise Zones", again an important incentive approach to attract private investment.

One of the European laboratories for PPP models is the London Docklands area, which has seen very extensive brownfield redevelopment (see Figure 6.2). Since the early 1980s, several models have been tested. Today a large partnership approach between local authorities, the national government and the private land

owners in the wider Thames Gateway area is in practice. One central goal is the redevelopment of brownfields for housing (Thames Gateway Partnership, 2002).

Another prominent example is the Maastricht Ceramics site (Zandvoort, 1998). The Ceramics site is situated at the edge of downtown Maastricht. Since the middle of the last century this site of some 23 hectares had been the centre of the ceramics industry. Until 1990 it was used by the company NV Koninklijke Sphinx. However, the last remaining divisions of this company relocated to other sites in the city in 1990.The area forms an important link between the districts of Wyck and Randwyck. Since the advent of the ceramics industry, this site had been isolated from the rest of the city by high perimeter walls. For this and other reasons the site formed a physical barrier separating the outlying areas behind it and the old centre. The development of the site will restore the relationship between these two areas. This is one of the reasons why the municipality of Maastricht has, for some time, been interested in the Ceramics site. Plans to buy it up and develop it came to nothing because of the high price of the land, which the municipality could not afford on its own.

Figure 6.2. **A public-private partnership opportunity: Brownfield Redevelopment in the Thames Gateway, UK**

On 10 June 1987 Sphinx gave the municipality the opportunity to purchase the entire site. This time purchase could go ahead with the help of the ABP pension fund. Right from the outset ABP indicated that it wished to be involved in the project, based on the shared objective of a high-quality development of the site. ABP therefore concluded contracts, in the consultation with the municipality, with three property developers.

The building plans included the following:

- 1 600 homes,
- 70 000 m² (gross floor area) of offices and other establishments;
- 20 000 m² of hotel accommodation,
- 20 000 m² for cultural and other non-commercial purposes,
- 5 000 m² for catering and retail use,
- 4 400 parking spaces (the majority underground/covered).

In addition to that a number of supra-local facilities are being built, such as a bridge over the river Maas for pedestrians and cyclists, a market hall and various traffic access schemes. Work started on the plans in late 1991. After more than ten years the project is now completed.

The Netherlands Ministry of Housing, Spatial Planning and the Environment designated the project as a model for public-private partnerships (PPP), with the aim of fostering the development of public-private partnerships for urban regeneration projects.

The formula chosen for the development and realisation of the project was one of public-private partnership between ABP and the municipality of Maastrich. The main features of this partnership are as follows:

- acquisition of the necessary land and premises;
- agreements relating to the legal aspects of the project;
- establishment of the financial framework for the exploitation of the site;
- laying the necessary building site infrastructure;

- execution of the construction work;
- agreements on the apportionment of risks and responsibilities.

The agreement on cooperation was amended in 1994 by means of a protocol, which dealt with matters such as the planning, scheduling, development and realisation of the various project modules and quality. The amendment was designed to ensure that the buildings were realised within the desired quality specification, and resulted in a substantial acceleration in the rate of progress. The development of the land is regulated by a land-use plan, adopted at the end of 1989 and approved by the province of Limburg in June 1990. The land-use plan incorporates a certain flexibility in order to allow for economic and social developments, which may occur at any time during the process. The entire project cost NLG 900 million (ca. 408.5 million euro). The land was acquired by ABP, which will be responsible for financing the exploitation of the building site. The municipality of Maastricht has initially contributed NLG 19 million (ca. 8.6 million euro) towards the realisation of the project. A further NLG 50 million (ca. 22.7 million euro) will be forthcoming for the construction of the library/ municipal buildings. The financial risks associated with the Ceramics project are being shared by two parties. The precise basis on which the risks are apportioned was specified in the 1994 protocol to the original agreement. The Ceramics project is acting as a national demonstration project in relation to:

- partnership with private enterprise;
- its innovative approach to a large construction project;
- the high quality of the homes, offices and infrastructure;
- the fast-track planning process, based on a long-term vision and long term agreement;
- the intermixing of different functions.

Opting for a simplified procedure and short ways of decision-making between all stakeholders included in the project produced good results. The factors that appeared to be decisive in ensuring rapid decision-making were that parties were properly mandated and that good contacts were maintained between the parties involved.

Figure 6.3. **Successful public-private partnership for redevelopment of the Maastricht Ceramics Site, Netherlands**

A striking example of a successful cooperative approach in financing a brownfield project is the “Duisburg Inner Harbour” project in Germany, State of Northrhine-Westphalia. Covering an area of 900.000 square feet and extending to one mile length, the formerly grain and timber trading harbour started its revitalisation on the basis of a masterplan having qualified in an internationally announced planning competition in 1991. The development and marketing concept was closely linked to the International Building Exhibition in the Ruhr area in 1993. Close cooperation was established between the city and the newly founded Inner Harbour Development Company (IDE). The mixed-use concept required considerable public pre-investments for a restoration of an old city wall, a harbour bridge, a marina, three museums (for civic and cultural history, for modern art and for children), for a “grachten-canal and housing concept” and for a “garden of remembrance”. These public fundings qualified the area and thus worked as strategic incentives for private follow-up investments, e.g. in the form of the revitalisation of old warehouses and an old factory now offering space for offices and service enterprises. In the course of these encouraging developments, new buildings were also erected and are today home for tourist corporations, further offices and a police service unit. The attractive

mixed-use concept includes high quality housing along the water (canals/“grachten”) and a new Jewish community centre.

Apart from qualifying the area through an innovative mixed-use approach for private follow-up investments, the city opted for a specific finance strategy: the city of Duisburg transferred the property to the IDE development corporation. Thus exploitation benefits could be strategically used by IDE for further step-by-step project developments. Public money from the city was effectively combined with different funding sources from European, federal and state governmental programmes (apart from classical structural funding programmes also historic preservation and job qualification funding programmes). As the site was located in a designated redevelopment area according to the “German Urban Development Support Act” tax relief in the form of a 10-years/10% depreciation of the investment could be offered for the investor. And as redevelopment integrated the preservation of historical buildings, further tax incentives could be made available. Different funding projects were defined within one project in order to be able to use different funding sources for one perfect in most flexible ways.

Though public pre-investment added up to ca. 60 million euro, the turn towards a mainly private follow-up investment was achieved in 1997. In 2003, where about 80 % of the whole project is realised, the whole amount of private investment is estimated at 250 million euro. According to the Urban Development Agency of the city of Duisburg, one calculates with private investment of altogether ca. 350 million euro when the inner harbour-project is finalised.

C-Type: public-driven projects

For many projects in traditional industrial regions, private sector for brownfield redevelopment is not available. The strategic approach in these cases is focused on a long term and regional perspective. A successful model initiative can be seen in the regional brownfield management approach in Lorraine, France, which provided funding for development in the context of the national “contact de plan”. Altogether, 3 350 hectares of derelict industrial land had to be treated between 1987 and 1998. As it was clear from the beginning that it would not be possible to immediately find new uses, the strategy developed in 1986 concentrated on the rapid improvement of the ecological situation through large-scale landscape treatment. Preparation of the land for new uses, which involves much higher costs, is a medium and long-term task. Therefore, all efforts were focused on overcoming the negative image of the

region's development sites caused by brownfields. The programme priorities were based on:

- the first, and simple priority of rapid identification of derelict land;
- the establishment of a regional development agency;
- a clear and comprehensive methodology – "requalification sommaire";
- adequate and regular funding from national, regional and local budgets;
- a partnership of all parties involved (mainly all public authorities and private landowners);
- support for the preparation and development of derelict land for the implementation of leading projects with regard to the development of the region.

"Ordinary redevelopment" ("requalification sommaire") is clearly preferred if any after-use project can be found. This derelict land strategy contains:

- demolition as well as clearing work in the area;
- construction of terraces and planting, enclosing or the planting of screening trees;
- construction of recreational paths;
- where necessary, treatment of contamination using all legal instruments to make the polluter pay.

Subsequently, the properties are managed on a regional level and, in individual cases, left to the free property market. The executive body of this part of the programme is the regional development agency, the "Etablissement Public Foncier de la Metropôle Lorraine"(EPML). EPML has been entrusted with the implementation of this strategy.

The strategy chosen was exemplary as it succeeded in linking the interests of the private property owners, the community and other actors in the framework of a co-ordinated regional master strategy. The regional stakeholders

are co-operating in a common network with research activities (e.g. land evaluation methods and models; technical soil encapsulation; interim use concepts) and international services for EU accession states.

Leveraging private finance for brownfield redevelopment in the United States: instruments at federal, state and local level

Given that the public sector in the United States also faces severe budget restrictions, the question of how to attract more private investment ranks high – if not in first place – in the discussion on brownfield redevelopment. Considerable efforts have been made to leverage private finance into approaches to revitalise abandoned sites in US cities. This applies at all levels of government. Thus a number of federal, state and local government programmes have been launched with the aim of improving prevailing conditions for PPP and private investments in brownfields. As a rule public funding money may not be given to private investors directly. Therefore regularly the municipalities are the "matchmakers", the connecting links, to make public funding from federal or state programmes available for PPP and private investment projects. The following chapters will highlight US Federal and State programs and their targeted instruments, which may be used by municipalities to attract private investment to brownfield sites (for more information on US brownfield approaches, see Tomerius, 2001).

Figure 6.4. **Publicly-driven brownfield redevelopment focused on improving image in Lorraine, France**

Federal level: EPA brownfield programmes – tools and incentives for leverage of private investment

The Environmental Protection Agency (EPA) as the responsible federal environmental authority, has addressed the problem of contaminated sites on two levels. First, there are the most dangerous, highly contaminated sites, which are governed by the so-called Superfund Law. Second, EPA has established several programmes to deal with the much greater number of less-contaminated sites, called "brownfields".

The legal basis of the EPA Superfund Programme is the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), nicknamed the "Superfund Law". Sites that meet certain criteria of high contamination are listed and fall under CERCLA. Following the "polluter pays principle", CERCLA taxed the petroleum and chemical industries in order to create financial resources to defray cleanup costs from contributions by the main ground polluters. This was dubbed the "Superfund". More recently, new federal legislation passed in 2001 has amended CERCLA establishing two new acts, the "Brownfields Revitalisation and Environmental Restoration Act of 2001" combining three titles dealing with funding and liability for assessing and cleaning up contaminated sites. Title I expanded EPA's current Brownfield Programmes, title II exempted from Superfund liability for contiguous property owners, prospective purchasers and innocent landowners and title III authorised funding for state response programmes limiting Superfund enforcement authority at sites cleaned up under a state response programme. The second Act is the "Small Business Liability Protection Act". Exemptions from strict Superfund liability have been established for smaller contributors of hazardous substances and household, small business and non-profit generators of municipal solid waste.

EPA brownfield programmes and further federal department initiatives

The "Brownfields Revitalisation and Environmental Restoration Act of 2001" authorises up to US$200 million per year for assessment and cleanup. Grants of US$200 000 can be made to eligible entities (especially municipalities, counties, also non-profit-organisations and tribes) to inventory, characterise, assess and conduct planning at brownfield sites. Grants of the same amount may be given to eligible entities or non-profit organisations for clean up costs. In a subtitle "State Response Programmes" the new law also authorises US$50 million per year for grants to assist States and Native Peoples in the development of programmes. In addition to these grants, there are four other key elements in the EPA's Brownfields Programme.

First, there are EPA's 362 pilot projects. These are pilots in different regions having access to assessment grants. Each region is organised by a Regional Brownfield Co-ordinator who coordinates information and proceeding of EPA programmes in the relevant region. Having qualified as an EPA pilot a municipality clearly increases its chances of initiating brownfield projects through the grants mentioned. These grants help to attract private investment because assessment costs are funded by public money (for more information about EPA's pilot projects and grants, see Powers *et al.*, 2000; detailed current information on http://www.epa.gov/swerosps/bf/pilot.htm).

Second are the "Revolving Loan Funds" (RLF). Through these funds, cities loan federal money to projects. Repayments are ploughed back into the fund and used to support further brownfield projects. According to EPA there are 104 pilots participating in RLF. According to the EPA Brownfield Office, the EPA provided US$165 million in RLF within eight years up to autumn 2000. Leverage from follow-up investments is estimated at US$2.3 billion. EPA sees a major effect in the follow-up investments from the private sector stimulated by low-interest loans for brownfield projects from RLF. In addition, about 7 000 jobs have been created in the course of realised projects on brownfields. In the meantime an RLF loan amounts to US$1 million according to new brownfield legislation.

Third, the Job Training Programme is focusing on restoration and renovation of buildings, etc, often in brownfield sites. Some 37 pilots in disadvantaged communities have taken advantage of its US$200 000 grants. The participating communities can recruit workers for their projects out of the training pool.

Fourth, there is the "Showcase Communities" Programme. In autumn 2000 there were already 16 showcases. In the meantime the number increased to 28 (for more information on the showcase communities, see http://www.epa.gov/swerosps/bf/slocat.htm). A showcase community gets US$200 000 and has the advantage of close cooperation with EPA. Apart from that, an EPA member is sent to the city to support its projects. Another US$200 000 is granted to employ this person. Being a showcase community increases the chances of getting first hand information on EPA funding programmes. According to show case communities practitioners, benefits are the experience and expertise of the EPA official, again as a "matchmaker" between municipality and other funding opportunities. Furthermore, being a well-known "EPA Showcase" in the brownfield-community is seen as an important image-factor attracting private investment in brownfield sites.

A considerable number of grants, loans and loan guarantees from other Federal Departments, such as the Department of Housing and Urban Development (HUD) with its "Community Development Blockground Programme" and its "Brownfield Economic Redevelopment Initiative", Department of Transport (DOT) and the Economic Development Administration (EDA) may be addressed by municipalities, thus offering finance opportunities and supports for private involvement on brownfield sites [for more information on federal sources, see Northeast-Midwest Institute (Charlie Bartsch): http://www.nemw.org/brownfields_financing.pdf].

Tax incentives

Tax incentives also play an important role in EPA's and also other department's brownfield strategies. Several tax incentives and tools of tax-exempt financing are given on the federal level to induce investment in brownfield sites:

- Targeted brownfield tax expensing incentive (expensing of cleanup costs),
- Historic rehabilitation tax credits,
- Low-income housing tax credits,
- Industrial development bonds exempting certain public work facilities from taxes,
- Tax-advantaged zones offering incentives for empowerment zones and enterprise communities (HUD programmes).

Tax incentives are given on federal, state and local level according to the relevant legislation. They are often combined as credits and, especially on the state and local level, also as abatements throughout the different levels and thus may add up to respectable economic incentives for private investors.

State Level – incentives for private finance in voluntary cleanup programmes

As a reaction to very strict federal remediation standard and liability regulation, several states have established voluntary cleanup programmes addressing the brownfield issue with an approach that is more cooperative than mandatory. Standards of state voluntary cleanup programmes can be more flexible for brownfield sites, which do not fall under strict federal "Superfund" rules. Apart from parallels and even some positive sort of competition,

concerning financial incentives and liability protections for example, there are also significant differences in quality between the states.

Liability protection for investors and developers is one of the main instruments in various state programs to make brownfield redevelopment more attractive. Protection is offered if requirements for site investigation and cleanup standards are met. Liability issues are closely connected with the insurance market, a relationship that is just about to take effect in German brownfield management. Opinions vary about how effectively private insurance for liability protection is already working in the brownfields business. But some commentators argue that insurance for brownfield redevelopment has grown in importance in the United States during the last 5-8 years. Some insurance companies seem to have identified a new market since developers and investors are implementing projects on brownfields. According to various brownfield practitioners estimates of the risk of excessive costs for insurance have reduced because technology and methods of investigation have improved in recent years.

Particularly at state level, tax incentives and targeted financial assistance play a major role in offering convincing economic arguments for private investors to grow active in brownfield deals [cf. also Northeast-Midwest Institute (Charlie Bartsch): http://www.nemw.org/brownfields_financing.pdf]. Examples are business tax abatements (Michigan), remediation tax credits (Colorado), environmental opportunity tax abatements/rebate and offset for clean up costs (New Jersey), assessment, remediation and cleanup cost tax credits (Ohio, Illinois).

Three examples of state-sponsored brownfield development projects are highlighted below.

New Jersey

According to the New Jersey Department of the Environment the state has about 8 million inhabitants, and the population is expected to grow by another million within the next few years. New Jersey profits substantially from the fact that the cities of New York and Philadelphia are just across the river from the "Garden State". Many businesses are relocating to New Jersey because taxes on sales and real estate tend to be lower than in the New York and Philadelphia metropolitan areas. Some 60% of New Jersey's surface is already developed. Most of the Garden State is now zoned for residential purposes, jeopardising policies to protect farmland. In this context, full utilisation of the state's brownfield areas is a priority.

In the mid-1990s the New Jersey Department of Environmental Protection (NJDEP) established a *Voluntary Cleanup Programme* (VCP). Key elements of the VCP are a *Memorandum of Agreement* (MOA), in which the duties of public administration and investors are fixed on a contract basis and a *No-Further-Action-Letter* (NFA), in which NJDEP guarantees to take no further actions as long as the requirements agreed on are kept. MOA and NFA are flanked by important instruments of liability protection and financial incentives for investors and developers (Motiuk and Monaghan, 1997, p. 518).

Liability concerns were major impediments to bringing brownfields into productive reuse in New Jersey just as in other states. New Jersey State law therefore offers exemptions from strict liability for investors and developers who are not responsible for the pollution of the site. Liability protection is also offered to banks and other lenders as long as they did not actively participate in the former management of these sites. Thus the state guarantees to take no further legal actions if its site investigation requirements and cleanup standards are met. To date, none of those agreements have been challenged in court as violations of federal or state law.

In particular, during the mid-1990s a number of financial support measures were embodied in state law. These programmes mainly support site investigations and remediation measures and already ranged, in 1997, between US$1 million and US$2 million per year and entity (Motiuk and Monaghan, 1997, p. 521). New Jersey cities are allowed to offer real estate tax credits to investors. During a period of 15 years investors may get credits of 15% of the regular real estate tax for projects developed on brownfields. The cities' loss of tax revenue is more than compensated. They may lose 15% real estate taxes for 15 years, but there would not have been any significant tax income generated for the city at all if redevelopment had not taken place. This incentive is seen as a prime example of a "win-win situation" for the city and the investor.

Maryland's "Smart Growth Programme"

Maryland, a rather small state with 5 million people, located within the heavily developed Washington, Baltimore, Philadelphia, New York, Boston corridor, was one of the first states to deal with land use and brownfield redevelopment issues. Apart from burgeoning per capita property size, severe urban sprawl caused major traffic snarls. The state realised that this trend would cost taxpayers millions of dollars in construction of new infrastructure. The old adage of municipal and county planners that the increased tax revenue generated by population growth would completely pay for the new infrastructure (fire and police protection, schools, water, sewers, roads and other

utilities) turned out to be wrong. On the contrary, it was demonstrated in several cases that the infrastructural costs would exceed new tax income. Consequently, the state had compelling reasons to start with the "Smart Growth" approach in 1997 (see state government brochures: Maryland Office of Planning, Smart Growth Fact Sheets). The Maryland Department of the Environment developed an "Environmental Restoration and Redevelopment Programme" and a "Voluntary Cleanup and Revitalisation Programme" (Wilson, 1997, pp. 3-7; Maryland Department of the Environment, 1998; Maryland Department of Business & Economic Development, 1999). Ecological arguments alone would most likely not have convinced the authorities to revamp planning and developing procedures.

Avoiding a top-down approach, the Smart Growth programme is based on incentives for public and private investments. There are no strictly binding instruments. The only tool employed is tying access to money for necessary infrastructure and transportation funds to the programme aim, that is to fight further costly sprawl and concentrate further development on giving incentives for redevelopment of formerly used sites.

An important role is played by the *Priority Funding Areas* (PFA). These are districts that meet specific density criteria in order to qualify for priority funding. PFAs are designed to focus state development and financial resources on certain areas and thereby protect other areas from being used. The municipalities have the right to designate PFAs. In some cases their specifications are debatable, leaving loopholes for growth in certain sensitive areas. But state law dictates that state funds can only be allocated to areas designated as PFAs.

PFA requirements by state law are supplemented by executive orders of the governor, which is the law of Maryland as long as it is in place. It stipulates that every public programme and decision is to be reviewed for compliance with the PFA goal of protecting rural space. As a consequence of these rules several bypasses around towns already on the state transportation agenda are now excluded from state funding because they are beyond PFA borders. NJDEP sees this as a major shift from the traditional state policy to fund roads throughout the state.

The integrated approach to land use and transportation issues plays a crucial role in the Smart Growth approach. This is because the state transportation agency provides the largest share of the funds to the municipalities and their private partners. To tap this resource, projects now have to meet PFA-related Smart Growth criteria. "Smart" investors accepting the PFA approach are able to qualify for targeted public funding and thus may

benefit from lower investment costs for brownfield projects. This strongly encourages the leverage of private investment for brownfield development.

The Voluntary Site Remediation Program in Illinois

The State of Illinois has an advanced Voluntary Site Remediation Program (SRP) based on a 1995 state legislation that focuses on potential investors' need for certainty about potential remediation and liability risks (for details of legislation provisions, program mechanisms and incentives (Engel, 1997, p. 385). Cooperation between investors and city departments of environment and planning are usually linked to SRP. The main tool to give developers protection and long-term certainty for intended brownfield projects is the "No Further Remediation Letter" (NFRL) from the Illinois Environmental Protection Agency (IEPA). This letter serves as an agreement clarifying cleanup guidelines and standards. An important SRP advantage is flexibility in cleanup standards; the requirements are related to the intended use, meaning lower remediation costs for less sensitive uses. This approach prevents establishing overly strict cleanup requirements and definitely heightens the motivation and the chances of implementing brownfield projects. In practice, state and city authorities cooperate well in order to fulfil cleanup standards and procedures as soon as possible.

If guidelines and standards agreed on in the "No Further Remediation Letter" are complied with, NFRL offers protection against liability. State law precludes the state from seeking remedial activities or response costs from anyone other than the person who is responsible for the contamination of the site. In addition, joint liability for all parties who contributed to contamination is repealed and substituted by a "Proportionate-Share-Liability". This obviously significantly reduces the liability risks for a private investor. Furthermore financial institutions that acquire ownership, management etc. of a facility through foreclosure or security interests are not considered "owners" or "operators" according to strict Superfund and investor-deterring liability law (cf. details of Illinois Liability Protection Program and Laws in Engel, 1997).

Liability protection based on state law and NFRL also covers the discovery of unexpected contamination on the site. In this case the state, city and property owner are compelled to come up with a joint solution.

Local Level – Leveraging private finance in US cities and counties

PPP strategies to attract private investment

As redevelopment is primarily a matter of finance, cities are eager to get the largest possible amount of funds and grants from the federal government and the states. Some cities are pretty inventive, especially in tapping the "Community Development Block Grant Program" (CDBP). This program is run by the U.S. Department of Housing and Urban Development (HUD). Low-interest HUD loans must be repaid by municipalities. Therefore, it is of utmost importance that profitable projects are implemented in suitable forms of public-private partnership so that loans can be paid back from increasing real estate tax revenues. A variety of additional state and municipal tax incentives are major instruments in stimulating redevelopment and private investment on abandoned sites. Examples are tax abatements, tax incremental finance (TIF, see the Chicago example below) and the targeted designation of special service areas and taxing districts offering chances of offsetting brownfield redevelopment costs for private investors.

Several cities have established regular meetings or forums for public and private brownfield stakeholders (e.g. Dallas and Chicago). Innovative cities have also become involved in remodelling old buildings and preparing them for reuse. They have deliberately kept legal hurdles low to foster competition for creative solutions and indoor uses. Very early in the game, buildings are opened for public inspection, giving potential purchasers and users the possibility to consider potential projects. This combination of construction and marketing has proved to be very successful. On the other hand, there are cities where the process of redeveloping brownfields is rather painful and fraught with uncertainties, often involving restrictive and complicated state law.

Problems in handling the brownfield issue often exist particularly in smaller towns and in areas that lack the necessary resources to tackle them properly. However, there are federal and state rural development programmes such as "community facility loans and grants" or "rural development grants". In some areas there is a tendency to "develop speculatively": cities remediate sites in advance to be ready for potential investors when the time comes. Some smaller cities are particularly active in employing this strategy.

The Internet is another avenue used to attract investors to developable sites. Several brownfield websites contain all the information a developer needs to decide to swing into action. The biggest redevelopment successes were reached because the projects matched and were integrated in a medium-range

city vision. Brownfield projects vary greatly and different sources of funds, grants etc. are used as the situation dictates. Strong public involvement is seen as one of the essentials for successful redevelopment projects.

From the perspective of improving public-private collaboration in order to drive economic regeneration in US cities the following issues are of particular strategic importance.

Improving public-private partnerships

Cities play a decisive role in matchmaking between public and private players. Linking development and state authorities is of major importance. Many cities have become quite successful at this by embedding brownfield redevelopment in a comprehensive plan for the city's future. They have become more proactive and more selective in deciding which use will be most compatible with long-term municipal perspectives. This point is also relevant for project acceptance and profitability. Redevelopment for short-term profits (like the third duplex cinema in the neighbourhood) may yield new abandoned, or at least under-utilised, sites in the future.

Clarifying the business perspective

A strong, still unharnessed, factor that could drive investment in brownfields is the explanation of the economic benefits of revitalising abandoned sites, especially from the city's perspective. It must be made more apparent that redeveloping inner-city areas will pay off by increasing the tax base, raising and stimulating quality of life and consequently attracting more business and human resources in the long run. Some amazing examples show that brownfield redevelopment can enliven run-down industrial areas, give them nostalgic charm and attract a number of companies and people. This gives municipalities the incentive to seek partnerships with the private sector for such investment.

Targeted financial incentives

Tax incentives are a major tool in lowering redevelopment costs and increasing the chances of brownfield reuse as opposed to new greenfield development. There is further need for targeted financial incentives. As mentioned above some states have developed innovative approaches to lure investors with tax reductions, abatements and transfers. Some of the best incentives can be found at the municipal level. Flexibility in legislation that allows cities to offer tax incentives has proved to be a driving factor in making brownfield investments economically enticing. Numerous examples prove that

tax incentives are definitely able to create “win-win situations” for the city and the investor.

Economic incentives in US city practice – brownfield redevelopment in Chicago, Illinois

According to the Chicago Department of Environment and the Chicago Planning Department, brownfield redevelopment is an important political issue for the mayor. His goal is to keep companies and jobs in town. Brownfield redevelopment is understood to be a means to increase the city’s tax base. There is also a socio-political aspect: run-down sites are adversely affecting the neighbourhoods because they often become the scenes of gang-violence, drug abuse etc. (see City of Chicago, 1995 and 1998). Brownfields are mainly located in urban areas, whereas most Superfund sites are situated in rural areas. The city of Chicago is the focal point of the State Voluntary Cleanup Programme.

From the strategic point of view, tax incentives play a major role in attracting investors to brownfield sites in Chicago. But competing incentives for greenfield projects are a problem. The tax increment and finances (TIF) approach (see the following points) was supportive in many projects. However, HUD loans have to be repaid. This reduces the city’s scope for offering tax abatements.

There is still uncertainty on the liability question although the state programme offers protection for lenders and owners who have not contributed to the pollution of the site. As a rule EPA only gets involved when the agency invests federal money in the site. Contacting EPA is then required and possible solutions are discussed with EPA project managers.

The City Environmental Department handles EPA and state funding. It has the task of bringing the different resources together, allocating them to specific projects and getting in touch with potential private investors. The department usually starts the project within the *Voluntary State Remediation Programme* (SRP). The main goal is to get a “No Further Remediation Letter” (NFRL) from the Illinois Environmental Protection Agency (IEPA) as early as possible. This reassuring letter provides definitive cleanup guidelines and standards. This is seen as a major factor of investment security to leverage private investment for urban brownfield sites. SRP is seen as a very practical programme because it relates the cleanup standards to the intended use. SRP supports the new owner of a site in many ways. NFRL also offers protection against liability as long as the guidelines and followed standards are met. This also applies if something unexpected is found on the site. As long as the purchaser did not know about or

is not responsible for the contamination, the authorities will not sue because of NFRL. The case is settled amicably between the state, the city and the owner.

State and city officials co-operate smoothly to clarify cleanup requirements as soon as possible. This gives potential investors a high degree of certainty. On this basis, consultants can be retained to work out site specifications according to the guidelines established by the agencies. By now, experience in remediation technologies and procedures has reached sufficient sophistication that potential risks do not prevent private investment in brownfields as long as funding and liability issues are appropriately handled.

Tax and Finance Incentives (TIF)

The City Department of Planning is taking a strategic approach and treating brownfields as part of a larger industrial redevelopment programme. After tremendous shifts in industrial sectors and structures the question for the city was where it should focus its industrial development. Planners designated 22 industrial corridors, including a number of brownfield sites. The next step was to develop strategic plans, focusing on the question of what was needed to attract new business and keep established industries in Chicago. In each corridor, business groups were formed. The City is closely cooperating with these business groups to build an area plan. Chicago uses various incentives, especially tax and financial tools, to improve the industrial climate. Special districts were designated where specific fiscal and financial incentives can be employed. In most of the corridors tax and finance districts were established.

The tax system works as follows. Property taxes from the districts can be frozen. When the property value rises above a given baseline, the tax amount may be split. The amount of tax collected from property values exceeding the baseline is used only on district programmes – as a means of reallocation of investment within the city. This model is called “tax increment and finances” (TIF) (City of Chicago, 1999). State law enables the cities to use TIF. The money that goes to the district this way can be spent on two broad categories of expense: infrastructure (roads, sewers etc.) and grants to investors or developers. Thus TIF can be tied to brownfield issues and the revenue can be used to cover cleanup costs. Developers can be reimbursed for financial efforts for assessment or clean up. As TIF money only flows when property values rise above the baseline, the City has to be resourceful to obtain money up front for its contribution to a development. A major source is HUD loans from the Community Development Block Grant Programme. The City thus borrows from HUD and then uses TIF to repay these loans. The HUD loans are used by the City to develop industry. As a result, revenue increments come from industry, enabling the city to repay the HUD loans. In addition to TIF, several tax

abatements are offered. Thus investors can also qualify for tax deductions on assessment costs for brownfield clean up. Chicago also reserves areas for industrial development in attractive locations near the city, preventing landowners from using the property for other purposes, for example for residential use. The City cannot rezone these areas as easily as other neighbourhoods.

Conclusions

Brownfield redevelopment is a topic of increasing importance for sustainable urban development in Europe and other OECD countries. Particularly in traditional industrial regions, the potential for redevelopment on derelict sites is growing in line with the internationally common structural change from industrial to service and information. In the minds of many planners and developers, consumption of greenfield land on city outskirts still bears advantages compared to a rather complicated procedure of redeveloping brownfields, often facing remediation uncertainties and liability risks. But at the forefront of modern urban development there are more and more examples of projects that are deliberately designed on derelict land in, often attractive, inner city areas. A strategic change in urban development to primarily revitalising derelict sites and a clearer political understanding of brownfield benefits for cities and regions are essential for the chances and effectiveness of development agencies active in brownfield redevelopment.

Taking up the challenge of brownfields needs both public and private actors committed to brownfields as a chance of revitalising inner city areas. Public-private partnerships in different European cities and regions give striking examples that brownfield redevelopment is able to compete with greenfield development. From a mid- and long-term perspective, the focus on developing the potential of derelict land within cities is beneficial, for example public transport and sewage often already exist in these areas, saving cities and citizens a lot of money. Furthermore the return on investment for city and region governments from revitalising brownfield sites is to be calculated. The benefits may be clear but still need to be conveyed more strongly into the minds of politicians, who are important drivers of brownfield projects. Apart from smart approaches in procedural management, PPP approaches are particularly needed in the key field that makes redevelopment happen: the field of financing. Against the background of serious budget problems in public sector strategies and instruments, leveraging private finance into brownfield redevelopment becomes crucial.

However, successful examples prove that smart planning and strategic public pre-investments in the area, improving the quality of the location through attractive and ecologically innovative mixed-use projects, may have initial detonations (see the “Inner Harbour Project” in Duisburg above): they qualify the area for private investments being done in an attractive, sound neighbourhood and sometimes in “hip” surroundings.

It has to be stated that the most appropriate policy for brownfield redevelopment depends on the type of project concerned. When it comes to PPP projects, providing stable framework conditions and showing win-win situations for the city and the private investor are crucial. This means stepping out of the classic planning routine including organising an effective and transparent redevelopment process by integrating remediation, liability and other legal aspects into urban planning and development. The targeted use of negotiations and mediation between the relevant public and private stakeholders are important instruments to streamline the process on the costly timeline of redevelopment and to give certainties for private project finance. Leveraging private finance in PPP projects requires strategies for acquiring additional public funding from available governmental programmes. As private firms regularly are not funded with public money directly, the establishment of good cooperation with local authorities as partners is crucial. Planning and development authorities/agencies must be able to state a time- and cost-effective redevelopment proceeding if private investors are to be convinced that brownfield projects will be profitable in the end. Effective tools promoting private finance also include brownfield registers with basic information about the development potential, legal and technical restrictions and the planning goals in the area.

Planning and environmental departments must develop co-operative procedures to offer certainty and project feasibility for private investors and private finance. The growing use of consensual instruments such as remediation and urban development contracts between investors, developers and local authorities. These contracts may offer flexible ways of streamlining the complex redevelopment procedures, agreeing on reuse-related remediation standards, and sharing risks and costs between the public and the private sector. In addition, marketing strategies highlighting the cost advantages of brownfields and the architectural charm of reusable buildings could lead private landowners including banks and insurance companies more into the role of developers urging the public sector to support brownfield projects. PPP working groups, at an early stage identifying common interests, interest clashes and potential – legal, technical, economical and political – project risks along the redevelopment process in business plans, have proved to be successful approaches to procedural management. Again, these “technical” improvements

are crucial to attract private investment on brownfield sites. The funding opportunities may be as good as one can imagine – most investors won't decide to go for a brownfield project if they could realise two "normal" projects on the greenfield in the same period of time!

As there are striking similarities, such as growing land consumption and the need to revitalise derelict land in inner city areas, across OECD member countries, it is worthwhile looking over national borders in order to identify smart approaches and "good practice" of public-private collaboration in using financial resources most effectively. Of course prevailing conditions in laws on planning, remediating and financing vary – sometimes quite a lot – in different countries. Furthermore, there are ideas and approaches of good redevelopment practice in PPP, which may be transferred or at least varied in other countries notwithstanding political, legal and cultural differences.

As for Europe, the common political and legal framework of the European Union could offer more Europe-wide chances to foster brownfield redevelopment in the near future. EU market competition policies and complicated legal questions on allowed or not-allowed subsidies should not raise further restrictions for PPP projects on brownfields. Moreover a deliberate change in European funding policies towards priority, targeted funding for brownfield redevelopment, thus offering greater opportunities for private activities on derelict land, could substantially help to step forward towards an economically, ecologically and socially sound physical environment.

As far as brownfield policies and particularly funding programmes in the United States are concerned the approaches of giving incentives for private finance seem to be of particular interest as a model for a modernised future framework on urban development in Europe and other countries. Particularly derived from the US regulatory framework this chapter highlighted several finance tools and economic incentives for a stronger leverage of private investments for brownfields. The key question – "May these approaches be transferred to other OECD countries?" – cannot be answered in this chapter. This requires investigation into the comparability e.g. of the legal tax framework, regulatory share of legal competences between Federal, State and local authorities etc. Germany is currently starting to explore US approaches in bilateral research cooperation on brownfields. But one thing seems to be sure: targeted economic tools in order to attract private investment on brownfield sites – as supporters "to make the brownfield deal" – seem to be the major strategic attempt to be made in the future. This applies particularly in times of serious public budget crisis. The necessary adaptation of the legal and programmatic funding framework to that goal of making the brownfield deal pay for public and private developers and investors should include:

- Cancelling of advantageous governmental subsidies for greenfield development and targeted financial assistance for brownfield redevelopment projects (e.g. bonus-malus-models like fees for greenfield consumption to feed into a brownfield fund)
- Establishing a greater variety of tax incentives for private investments for brownfield developers and investors (e.g. tax credits, abatements and offset of assessment, clean up and remediation costs etc., as mentioned above)
- More flexibility and competition for municipal incentives for private collaboration (deletion of legal hurdles, e.g. in giving tax incentives at the municipal level).

More room to move and a bigger playground for the municipalities and their agencies to play with economic incentive tools to attract private investments for brownfields are still needed. A targeted set of instruments will play a more harmonious melody to be enjoyed by more private investors.

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APPENDIX
CONFERENCE PROGRAMME

Leveraging Private Finance for City and Region Economic Development
International seminar, 10.45-17.15, Wednesday 10 July 2002

hosted by
London Development Agency
OECD Local Economic and Employment Development (LEED) Programme
(Forum on Cities and Regions)
Greater London Enterprise
City of London Corporation

Venue
London Development Agency,
Devon House, 58-60 St Katherine's Way London E1

10.45-11.00	Registration *Chair: Greg Clark, Director of Strategy, Communications & Intelligence at the London Development Agency and Chairman of the OECD Forum on Cities and Regions*
11.00-11.15	Opening addresses: - Martin Baker, City of London Corporation - Sergio Arzeni, Head of the OECD LEED Programme
	Session 1: The international context and possibilities for London
11.15-11.30	Private finance for local development: an international perspective - Jonathan Potter, OECD LEED Programme
11.30-11.50	Constraints and possibilities in London - David Walburn, Chief Executive, Greater London Enterprise - Joe Docherty, Assistant Director, Barclays Bank, UK
11.50-12.00	General discussion
	Session 2: Private finance for community building
12.00-12.40	International case studies: - Sandy Braunstein, Federal Reserve Board, Washington DC, USA - Kirsten Moy, Aspen Institute, USA
12.40-13.00	General discussion
13.00-14.00	*Lunch*
	Session 3: Private finance for SME development
14.00-14.40	International case studies: - Ellen Lederman, Shorebank Advisory Services, London - Luigi Vimercati, North Milan Development Agency

14.40-15.00	General discussion
	Session 4: Private finance for brownfields development
15.00-15.40	International case studies: - Colum Halforty, Scottish Enterprise Glasgow, UK - Randy Daniels, New York Secretary of State, created the Metropolitan Revitalization Fund, USA
15.40-16.00	General discussion
16.00-16.20	*Coffee break*
	Session 5: Closing debate and remarks
16.20-17.00	Discussion led by panel from the London Private Investment Commission: - What appear to be the main success factors for public-private partnership in the case studies examined? - What conditions are required so that they can be transferred to other cities and regions? - What do OECD cities and regions need to do now?
17.00-17.15	Concluding remarks by - Sergio Arzeni, Head of the OECD LEED Programme - Greg Clark, Director of Strategy, Communications & Intelligence at the London Development Agency and Chairman of the OECD Forum on Cities and Regions

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