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HAVE EU STRUCTURAL MEASURES  
SUCCESSFULLY SUPPORTED THE REGENERATION  
OF INDUSTRIAL AND MILITARY BROWNFIELD  
SITES?





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# HAVE EU STRUCTURAL MEASURES SUCCESSFULLY SUPPORTED THE REGENERATION OF INDUSTRIAL AND MILITARY BROWNFIELD SITES?

(pursuant to Article 287(4), second subparagraph, TFEU)

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# GLOSSARY

**Beneficiary:** Public or private legal person receiving ERDF or CF support in order to regenerate a brownfield site (sometimes also referred to as the 'promoter' or in this report also as 'developer'). The beneficiary will often sell or rent plots of land or buildings to investors after the regeneration of the site.

**Brownfield site:** A site which has been affected by its former use (for the purposes of this report, industrial or military) or that of surrounding land, is derelict or underused and requires intervention to bring it back to beneficial use. It may or may not be contaminated.

**Cohesion Fund (CF):** Financial instrument designed to strengthen economic and social cohesion by financing environment and transport projects in Member States with a per capita GNP of less than 90 % of the EU average.

**Concerted Action on Brownfield and Economic Regeneration Network (Cabernet):** European expert network addressing the issues that are raised by brownfield regeneration. The network's aim is to enhance the rehabilitation of brownfield sites within the context of sustainable development, by sharing experiences from across Europe, providing new tools and management strategies and a framework for coordinated research activities. Cabernet was originally supported by the EU under the fifth research framework programme.

**Contaminated site:** A site where there is a confirmed presence, caused by human activities, of dangerous substances at a level deemed to pose a significant risk to human health or the environment. This risk is evaluated taking into account current and approved future use of the land. The most frequent categories of contaminated sites are industrial and military brownfield sites, landfills and agricultural land.

**EEA:** European Environmental Agency. The EEA members are the 27 EU Member States plus Iceland, Liechtenstein, Norway, Switzerland and Turkey.

**European Regional Development Fund (ERDF):** Financial instrument designed to promote economic and social cohesion between the regions of the EU. ERDF interventions are mainly implemented through operational programmes involving a large number of projects.

**Funding gap method:** Method that aims at ensuring that projects which generate revenue receive only the public resources necessary, thereby avoiding unjustified over-financing. The grant cannot exceed the difference between the discounted costs and the discounted net revenues of the project.

**Greenfield:** Undeveloped land in a city or rural area either used for agriculture, landscape design or left to nature.

**Major project:** A project requesting ERDF or CF co-financing whose total cost exceeds 50 million euros. Such projects typically comprise multiple works, activities or services intended to accomplish an indivisible task of a precise economic or technical nature, with clearly identified goals.

**Managing authority:** A national, regional or local public authority or a public or private body designated by the Member State to manage an Operational Programme.

**Network for Industrially Contaminated Land in Europe (Nicole):** Forum on contaminated land management in Europe. The forum's aim is to promote cooperation between industry, academia and service providers on the development and application of sustainable technologies for managing land contaminated by industrial and commercial activities. Nicole was originally supported by the EU under the fourth research framework programme.

**Operational programme (OP):** A Commission-approved programme of investments by a Member State receiving Structural Funds, which takes the form of a coherent set of priorities comprising multiannual measures.

**Programming period:** The multiannual framework within which Structural Funds and Cohesion Fund expenditure is planned and implemented.

**Public-private partnership (PPP):** Public and private sector jointly owned entity set up to carry out regeneration works.

**Regeneration/remediation/redevelopment:** As understood in this report, the regeneration of industrial and military sites may include two types of actions, depending on the state of the site:

- (a) remediation: action to stabilise land and to remove, control, contain or reduce pollutants from soil, surface water, groundwater, vegetation and buildings so that a degraded site no longer poses any significant risk to human beings or the environment, account being taken of its current and approved future use;
- (b) redevelopment: action on an uncontaminated site, or as a second phase on a remediated site, to prepare land and buildings for their final intended use. Redevelopment may include the demolition of old buildings, landscaping, partitioning of land and installation of basic infrastructure such as utilities and roads, and sometimes building works.

**Structural Measures:** In this report, interventions from the European Regional Development Fund and the Cohesion Fund.



# EXECUTIVE SUMMARY

## I.

In recent decades, more and more derelict industrial and military sites (so-called brownfield sites) have become available. Their number in Europe is estimated to range from a few hundred in small Member States to a few hundred thousand in larger Member States with a rich industrial past. Many brownfield sites are contaminated. The regeneration and the reuse of brownfield sites is promoted by EU Structural Measures in order to protect human health and the environment and mitigate urban sprawl.

## II.

In its audit, the Court assessed whether project objectives were met, whether the targeting of EU support was based on robust criteria and whether the results were achieved at the lowest cost to the EU budget. The Court audited the performance of 27 regeneration projects directly and reviewed the Member States' brownfield site regeneration tools, which are the framework for specific co-financed interventions.

## III.

The Court concluded that:

- (a) The results of remediation works are not always appropriately certified and there are wide differences between national soil contamination screening values. While most projects achieved their objectives in terms of physical outputs, in many cases the intended future occupation of the redeveloped land and buildings has not materialised; job creation has been lower than expected. Two main factors contribute to explaining the modest results achieved: the economic downturn and the lack of a sound market analysis justifying the development of the sites — or the fact that this analysis was disregarded. All projects had some key characteristics contributing to their longer-term sustainability, but only two thirds were part of an integrated development plan.
- (b) In all Member States a brownfield policy is mainly implemented through local planning instruments, which promote the application of some key best practices, namely the regeneration of brownfields over greenfield developments, while the interim use of brownfield sites is rarely promoted. However, the lack of complete and appropriate brownfield site registers also covering contaminated sites complicates the setting of priorities. Structural Funds regulations do not require an integrated development plan and the reuse of brownfield sites over greenfields is not adequately supported.
- (c) Results could have been achieved at a reduced cost to national and EU budgets, as for nine projects the grant was not justified by an assessment of revenue and, when revenue was assessed, shortcomings were observed in half of the cases. National and EU funds have also borne part of the cost of environmental remediation, as the polluter pays principle has not been fully applied and certain state aid rules have been disregarded. Provisions in the Structural Funds regulations and specific clauses in the grant decisions for regeneration projects do not allow sufficient possibility for public support to be clawed back if projects generate more revenue than expected.

# EXECUTIVE SUMMARY

## IV.

The Court recommends that:

- (a) Member States ask promoters to carry out a market analysis and consider the relevant options for the possible future use of brownfield sites. They should require brownfield regeneration projects to be part of an integrated development plan and remediation results to be certified by a competent authority or accredited body.
- (b) Member States consider setting up brownfield site regeneration strategies with clear targets; avoid the use of greenfield unless strictly necessary and otherwise require the application of compensation measures; consider measures to address problematic sites that are privately owned where the owner fails to take the necessary action; and consider making more frequent interim greenfield use of regenerated sites and creating registers of brownfield and contaminated sites with sufficient standardised information for prioritising interventions.
- (c) Member States thoroughly assess the funding gap for each project. They should require the application of the polluter pays principle to be made a condition for granting EU funding. They should apply the provisions of the state aid schemes agreed with the Commission. They should include a reimbursement clause in all grant decisions for regeneration projects to allow the possibility for them to reassess the financial performance of projects in the light of developments over a longer period (say 15 years), and to allow, where projects have generated more revenues than expected, part or all of a grant to be clawed back. The Commission should follow up the application of such reimbursement clauses.
- (d) The Commission propose, in cooperation with Member States and on the basis of scientific evidence and best practices, EU standards for the definition of contaminated sites and the significance of the environmental and health risks they pose, as well as a methodology for the definition of site-specific remediation standards taking account of final site use. It should promote the application of an integrated development approach by requiring co-financed brownfield regeneration projects to be included in an integrated development plan.
- (e) The Commission and the Member States support the application of best practices in the regeneration of brownfield sites and give preference for brownfield regeneration over greenfield use.



Photo 1 — Renovation and conversion of an iconic city centre tower at a derelict power station being converted into arts and cultural centre (Łódź, Poland)

# INTRODUCTION

## BROWNFIELD SITES IN THE EU

1. In recent decades, more and more derelict industrial and military sites (so-called brownfield sites) have become available. Their number in Europe is estimated to range from a few hundred in small Member States with a light industrial heritage to a few hundred thousand in larger Member States with a rich industrial past<sup>1</sup>. These sites are often located in regions and urban areas in economic and social decline. The regeneration of industrial and military brownfield sites has significant environmental, economic and social repercussions.



Photo 2 — Pipe injecting cleaning fluids into polluted ground at a steel works (Dunaujvaros Hungary)

2. Many brownfield sites are contaminated, and cleaning up this legacy will require a concerted effort for decades to come. The European Environmental Agency (EEA) estimates the number of contaminated sites at 250 000 and that of sites potentially contaminated, where investigation is necessary to establish whether remediation is required, at 3 million. In about 70 % of cases, contamination was caused by military or industrial use<sup>2</sup>.

<sup>1</sup> Cabernet (2006), Sustainable Brownfield Regeneration (based on data gathered by Member States from the late 1990s to the early 2000s).

<sup>2</sup> EEA (2007), Progress in management of contaminated sites (CSI 015). Other sources of contamination are waste landfill and agricultural activities.

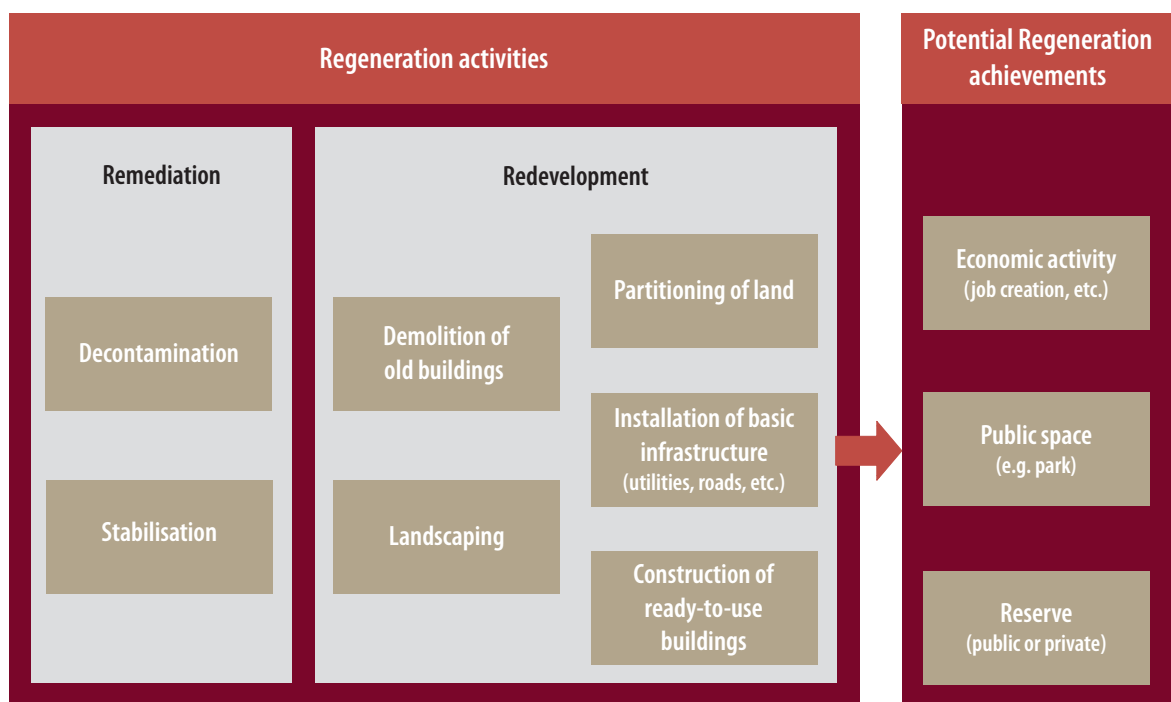
3. The regeneration of brownfield sites leads to different possible achievements: economic activities, public spaces or land reserves. In case of economic activities, the redevelopment includes the construction of buildings or aims at making plots ready for sale to investors. This can be done by a private or public promoter. Only economic activities are expected to create jobs (see **Figure 1**).

### EU INTERVENTIONS FOR REGENERATION OF INDUSTRIAL AND MILITARY BROWNFIELD SITES

4. Regeneration is tackled as a dimension of environmental policy and spatial development in the Member States.

FIGURE 1

### INDUSTRIAL AND MILITARY SITE REGENERATION ACTIVITIES AND POTENTIAL ACHIEVEMENTS



Source: European Court of Auditors.

5. EU environmental directives are particularly relevant where contamination is a problem on a site. Such directives focus on contamination prevention<sup>3</sup> and the management and control of surface water and groundwater<sup>4</sup>.
6. An integrated development approach and the reuse of brownfield sites in preference to greenfield are promoted by the Cohesion Policy<sup>5</sup>.



Photo 3 — Preparation of new structures at former power plant  
(Łódź, Poland)

<sup>3</sup> Directive 2008/1/EC of the European Parliament and the Council of 15 January 2008 (OJ L 24 of 29.1.2008, p. 8) repealing Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (OJ L 257, 10.10.1996, p. 26), Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions, (OJ L 334, 17.12.2010, p. 17) and Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (ELD Directive) (OJ L 143, 30.4.2004, p. 56).

<sup>4</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1) and Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration (OJ L 372, 27.12.2006, p. 19).

<sup>5</sup> Council Decision 2006/702/EC of 6 October 2006 on Community strategic guidelines on cohesion (OJ L 291, 21.10.2006, p. 11); COM(2004) 60 final — Towards a thematic strategy on the urban environment; COM(1999) 344 final — Structural Funds and their coordination with the Cohesion Fund Guidelines for programmes in the period 2000 to 2006; Commission Guidelines for URBAN II Community Initiative adopted on 28 April 2000.

## EU STRUCTURAL MEASURES CO-FINANCING BROWNFIELD SITE REGENERATION

7. The European Regional Development Fund (ERDF) and the Cohesion Fund (CF) may co-fund the regeneration of brownfield sites in the eligible regions of Member States. Both funds are referred to hereafter as Structural Measures. The support may attain 85 % of the eligible expenditure for a specific project<sup>6</sup>.
8. The total funding allocated to the regeneration of brownfield sites for the two periods covered by the audit, with the main Member States concerned, is shown in **Table 1**. A complete overview by Member State is provided in **Annex I**.
9. Co-financed projects concerned different regeneration activities:
- the remediation of unstable and contaminated land (see **Photos 2** and **9**);
  - the redevelopment of sites<sup>7</sup> (see **Photo 7**);
  - or the full regeneration of contaminated brownfield sites combining both remediation and redevelopment measures (see **Photos 1, 3, 4, 5, 6, 8** and **10**).

<sup>6</sup> Since 2007, Member States could choose to invest part of their EU Structural Measures envelopes in JESSICA revolving funds to help recycle financial resources and accelerate investment in Europe's urban areas. At the time of the audit, such funds were at the early stages of being established and very few were devoted to brownfield sites regeneration.

<sup>7</sup> Residential developments were not eligible for ERDF and CF financial support in the programming periods concerned by the audit.

TABLE 1

### FUNDING ALLOCATED FOR THE REGENERATION OF BROWNFIELD SITES AND MAIN MEMBER STATES CONCERNED

	2000–06	2007–13
<b>Funding allocated</b>	2,3 billion euro	3,4 billion euro
<b>Main beneficiaries</b>	Germany, United Kingdom, France	Hungary, Czech Republic, Germany, Romania, Italy, Poland

Source: European Court of Auditors, on the basis of data collected by the Commission.

**10.** Co-financed projects are part of operational programmes implemented under shared management, the Commission bearing the ultimate responsibility for implementation of the EU budget<sup>8</sup>. In particular:

- (a) the Commission negotiates and approves programmes proposed by Member States, and allocates resources;
- (b) the Member States/regions manage the programmes, implement them by selecting projects, control and assess them;
- (c) the Commission is involved in programme monitoring, commits and pays out approved expenditure and verifies the control systems.

**11.** During the 2000–06 programming period, there was a specific approval procedure by the Commission for Cohesion Fund projects and ERDF major projects (projects whose total cost exceeded 50 million euro). For the 2007–13 programming period, only projects costing in excess of 50 million euro have to be approved by the Commission<sup>9</sup>.

**12.** Two Commission directorates-general play a significant role in the area of regeneration of industrial and military sites:

- DG Regional and Urban Policy is responsible for the EU budget in the area of regional policy, under which the regeneration of industrial and military sites is co-financed;
- DG Environment is responsible for EU environmental policy. It is required to monitor the implementation and achievement of specific targets of the relevant directives and is consulted by DG Regional and Urban Policy on the quality of operational programmes proposals and major projects<sup>10</sup>.

<sup>8</sup> Article 17(1) of the TEU and Article 317 of the TFEU.

<sup>9</sup> From 1 January 2007 to 25 June 2010 the amount was 25 million euro in the case of environment projects.

<sup>10</sup> During the 2000–06 programming period DG Environment was also consulted by DG Regional and Urban Policy in the case of Cohesion Fund project applications.



## AUDIT SCOPE AND OBJECTIVES

**13.** The main objective of the audit was to assess whether EU Structural Measures have successfully supported the regeneration of industrial and military brownfield sites.

**14.** The Court assessed whether:

- EU co-financed regeneration projects achieved their objectives;
- the targeting of EU support for industrial and military site regeneration was based on robust criteria;
- the results were achieved at the lowest cost to the EU budget.

**15.** The audit was carried out from March to December 2011 at the Commission and in the five Member States which accounted for most of the expenditure in relation to projects financed during the 2000–06 and 2007–13 programming periods: Germany, the United Kingdom, Hungary, Poland and the Czech Republic.

**16.** A sample of 27 projects funded by the ERDF or the CF was examined, worth a total of 231 million euro in EU co-financing (see **Annex II**):

- four of these 27 projects entailed remediation actions only, six redevelopment actions only and 17 both remediation and redevelopment;
- 23 of the 27 projects had job creation as an objective;
- for the 2000–06 period, only projects that had been completed were included in the sample (22 projects), while for the 2007–13 period projects in progress were included (five projects)<sup>11</sup>;
- 22 ERDF projects in the sample were approved by the managing authorities at Member State level, while the other five (four ERDF major projects and one CF project) were also approved by the Commission.

<sup>11</sup> The implementation of a project takes in general several years. This is why completed projects had to be selected from the 2000–06 programming period for which Germany and the United Kingdom were the main beneficiaries and were selected for the audit.



**Photo 4 — Roads and utility installations being constructed on the site of a former coal mine slag heaps (Jaworzno, Poland)**

- 17.** Project files were reviewed at the Commission, at the managing authority of the operational programme concerned and at beneficiary level. The audit team interviewed representatives of the Commission, regional and local authorities in charge of spatial development and public or private companies responsible for the design and implementation of selected remediation and redevelopment projects.

# OBSERVATIONS

## DID THE EU CO-FINANCED REGENERATION PROJECTS ACHIEVE THEIR OBJECTIVES?

- 18.** Regeneration achievements can be measured by output indicators, which reflect the implementation of physical aspects, and result indicators, which should reflect the extent to which the needs to be addressed by the project have been met<sup>12</sup>.
- 19.** A range of best practices are generally accepted<sup>13</sup> as having a positive effect on the sustainability of a regenerated site and its achievements in the long term, including:
- the certification of decontamination works by a competent authority or accredited body;
  - respect for the spatial planning rules in the region concerned;
  - the existence of an integrated development plan targeting particular business sectors and small and medium-sized enterprises (SMEs) more suitable to the socioeconomic background of the area, taking into account particular fields of knowledge, skills available and links with local research or academic institutions; these plans should also establish residential, transport and leisure developments to enhance the attractiveness of the area and the creation of employment for the local community;
  - adequate servicing of the site (road access, public transport, electricity and water, sanitation, broadband connection, etc).
- 20.** Those regeneration activities which the promoter has committed itself to deliver can be said to be endogenous because, in principle, these factors remain within its direct sphere of influence. However, there are many other factors, such as general economic conditions<sup>14</sup>, that have an important influence on the achievement of results. These exogenous factors do not necessarily lie within the direct sphere of influence of the promoter.

<sup>12</sup> Examples of indicators include contaminant concentration levels after remediation, hectares of regenerated land, floor space constructed by the promoter, floor space constructed by investors after project completion, occupancy of developed plots and buildings, and number of jobs accommodated by the firms hosted on the site. *Source:* DG Regional and Urban Policy Methodological working papers on Monitoring and Evaluation Indicators: 'Working Paper No 3' for the 2000–06 programming period and 'Working Document No 2' for the 2007–13 programming period. RESCUE-Administrative Tools and Incentives for Sustainable Brownfield Regeneration, EU fifth research framework programme, Action 4, July 2005.

<sup>13</sup> As advocated by recognised leaders in the field, notably the World Bank, Cabernet and Nicole.

<sup>14</sup> These can also include other factors relating to the region in which a site is located, such as labour market conditions.

- 21.** For the projects in the sample, the Court examined whether:
- (a) the decontamination works had been certified by a competent authority when such works were necessary;
  - (b) the projects had achieved their objectives particularly for job creation, where it was an objective;
  - (c) the projects demonstrated best practices which contributed to the sustainability of their results.



**Photo 5 — Municipal park on the site of a former battery factory where decontamination works were carried out and park facilities built (Marcali, Hungary)**

## RESULTS OF REMEDIATION ARE NOT ALWAYS APPROPRIATELY CERTIFIED

- 22.** The certification of results achieved in terms of decontamination and land stabilisation is regarded as a key factor to ensure the absence of risks for the environment and health, in particular for potential investors, as well as a best practice contributing to the sustainability of the regenerated site.
- 23.** Among the 21 projects audited which entailed some remediation, at the time of the audit, works were completed in 17 cases:
- for nine of these completed projects works were supervised or certified by the environmental or mining authority of the region concerned; while
  - for the other eight projects there was no supervision or certification by such an authority.
- 24.** The identification of contaminated sites, remediation target-setting and monitoring are managed at Member State level. There are wide differences between national soil contamination screening values<sup>15</sup>, in particular in terms of the level and number of contaminants followed up. No EU-level standards exist to define whether a site poses significant risks to human health and to soil or water. The Member States visited have their own methodologies for establishing remediation values to be achieved, and there is no such standard methodology at EU level. There are also no procedures at EU level regarding controls of the correct implementation of remediation works.
- 25.** The Commission proposal for a Directive establishing a framework for the protection of soil<sup>16</sup> provides for Member States to identify the contaminated sites in their territory, put in place a method for determining whether a site is contaminated and ensure that contaminated sites are remediated<sup>17</sup>. This proposal is still under discussion in the Council. Several experts consider that harmonisation may bring beneficial effects.

<sup>15</sup> Soil screening values are generic quality standards adopted in many countries to regulate the management of contaminated land. They are usually in the form of concentration thresholds (mg/kg of soil-dry weight) of contaminants in soil above which certain actions are recommended or enforced. See 'Derivation methods of soil screening values in Europe. A review and evaluation of national procedures towards harmonisation.' JRC (Joint Research Centre) Scientific and Technical Reports), EUR 22805 EN-2007.

<sup>16</sup> COM(2006) 232 final of 22 September 2006 — Proposal for a Directive of the European Parliament and of the Council establishing a framework for the protection of soil and amending Directive 2004/35/EC.

<sup>17</sup> In addition, the current working version of the proposal, as modified by the Council Working Party on the Environment (Document 6124/1/10 REV 1 of 4 March 2010), provides for the Commission to adopt delegated acts on common technical elements for soil contamination risk assessment.

**MOST PROJECTS ACHIEVED THEIR OBJECTIVES IN TERMS OF PHYSICAL OUTPUTS, BUT IN MANY CASES THE INTENDED FUTURE OCCUPATION OF THE REDEVELOPED LAND AND BUILDINGS HAS YET TO MATERIALISE**

- 26.** Twenty-two of the 27 projects reviewed for the audit had been completed. Of these 22 finished projects:
- 18 fully achieved their targets in terms of demolition, land clean-up, landscaping, basic infrastructure installation and construction of buildings by the promoter;
  - four projects achieved between 90 % and 100 % of the expected outputs.
- 27.** For the 13 projects audited where the promoter aimed at making plots ready for sale to potential investors (see paragraph 3), by mid-2011, the average rate at which industrial and office buildings had been constructed on those plots was only 25 %<sup>18</sup>. The occupancy rate of these buildings was 89 %.
- 28.** Ready-to-use buildings had been erected by promoters in five projects. For these buildings, the average rate of occupancy was 76 %.
- 29.** In the case of developments which target lettings to any potential user, the occupancy rate was lower than in that of bespoke developments targeting a specific final user, such as an industrial project or technological park planned before the start of the regeneration project. The former developments are more dependent on the general economy and the availability of public funding (see **Box 1** and **Photo 6**).

<sup>18</sup> An additional 10 % of the plots for sale had been sold by the promoter but construction of buildings had yet to begin.



Photo 6 — Ready-to-use offices constructed on the site of a former chemicals works (Widnes, United Kingdom)

#### BOX 1

### **EXAMPLE OF A DEVELOPMENT WHICH TARGETED LETTINGS TO ANY POTENTIAL USERS**

Work at the former industrial harbour (Barrow-in-Furness, UK) concerned the regeneration of 23 ha for the development of a business park oriented towards SMEs. Work was halted in 2010 because national funds were not available to complete the development in the absence of a private or public industrial or commercial final user commitment. At the time of the audit visit no buildings had yet been erected on the site.

**30.** In the projects reviewed for this audit, several factors contributed to explaining the relatively low rates of construction on surfaces developed at regenerated brownfield sites, one being the economic downturn since 2008. These factors included:

- the approval of some regeneration projects without a sound market analysis justifying the new industrial and office developments (see **Box 2**);
- where a market analysis had been carried out, insufficient attention was paid to its conclusions, in particular concerning the risk of competition between several sites in the same area or the unsuitability of developments to match local socioeconomic characteristics (see **Box 3**).

#### BOX 2

### EXAMPLES OF REGENERATION SITES WHERE EXPECTED MARKET ACTIVITY HAS NOT MATERIALISED

At the former oil refinery (Braunsbedra, Germany), started in 2002, the surface bought by investors was 50 % of the total developed and for the former metal works (Halle, Germany), started in 2003, it was 11 %. In both cases, when the initial grant decision was made, the promoter had been required to demonstrate that it had already received enquiries from investors covering a significant portion of the regenerated surface. However, although the managing authority relied on the assertions of the promoter regarding such enquiries, it had not set up precise criteria to verify this pre-condition.

#### BOX 3

### EXAMPLES OF PROJECTS FOR WHICH NOT ENOUGH ATTENTION WAS PAID TO THE RESULTS OF MARKET ANALYSIS

The former metal works (Barnsley, UK) project involved the construction of a multi-storey office tower with 10 750 m<sup>2</sup> of floor space. The project was approved although the market analysis warned of the lack of market for the type of building proposed. Construction was completed by the end of 2008, but it proved difficult to let the office space. In August 2010, the promoter sold the office building to the local authority. By March 2011 only two floors out of six were occupied.

At the former steel works (Dortmund, Germany) the work involved the development of a technological park and other amenities. The project documents submitted to the managing authority and the Commission for initial assessment highlighted problems such as the distance to a university, competition with other business locations in the city and the strong focus on information and micro-systems technologies, both of which were facing growth slowdown. Plots were progressively developed and made ready for construction from 2005 to 2008. However, the purchase and construction of office buildings progressed more slowly than envisaged. By mid-2011, only 22 % of the available area had been sold.



### **ECONOMIC ACTIVITIES HAVE CREATED FEWER JOBS THAN ANTICIPATED**

- 31.** Twenty-three of the 27 projects assessed in the audit aimed at job creation, and reporting data was available for 10 projects. At the time of the audit, the rate of job creation was lower than expected because:
- achieving the full job creation target was a more long-term goal;
  - there were delays in the construction of buildings (see paragraphs 20 and 27); and
  - the economic activity developed on the site was less job intensive than expected.

### **ALL PROJECTS HAD SOME KEY CHARACTERISTICS HAVING A POSITIVE EFFECT ON THEIR SUSTAINABILITY**

- 32.** All the brownfield site regeneration projects examined by the Court had some of the key characteristics which are considered to be best practices for assuring the sustainability of sites and outcomes in the long term:
- all sites were developed in accordance with the land use in the spatial planning documents and are adequately served by transport, sanitation and information and communication technology infrastructure;
  - some are strategically located and are served by tri-modal transport networks (road, rail and waterways);
  - new buildings conform to environmental standards.
- 33.** Eighteen of the 27 projects were part of an integrated development plan for the locality or the economic area. The Court noted that, even in cases where an integrated approach was in place, the projects reviewed had only a modest effect in terms of jobs and training opportunities for the local communities. This was due to the fact that many projects selected for the audit were oriented towards high technology activities and aimed to have a city-wide or regional rather than a local impact. In some Member States, the regional authorities were aware of the low expected impact on local communities and had put in place plans for them to take advantage of regeneration, for instance by including some public spaces as parks, cultural areas and sports facilities and helping locals to obtain less specialised jobs and develop hospitality activities.

34. **Box 4** presents examples where the conditions for sustainability were particularly well implemented.

<sup>19</sup> As advocated by recognised leaders in the field, notably the World Bank, Cabernet and Nicole.

### **WAS THE TARGETING OF EU SUPPORT FOR INDUSTRIAL AND MILITARY SITE REGENERATION BASED ON ROBUST CRITERIA?**

35. Successful regeneration of industrial and military sites relies upon the implementation of a strategy based on planning principles and a good knowledge of the environmental, economic and social problems and threats which have to be tackled so that actions can be prioritised. The main planning principles are<sup>19</sup>:
- a preference for brownfield over greenfield;
  - interim greenfield use of regenerated sites pending final use in order to avoid redeveloping brownfield sites for inappropriate activities.

#### **BOX 4**

### **EXAMPLES WHERE CONDITIONS FOR SUSTAINABILITY WERE PARTICULARLY WELL IMPLEMENTED**

The former steel works I (Duisburg, Germany) has been remediated and serviced with basic infrastructure for use as a tri-modal logistics centre. By mid-2011, the developed area was almost fully occupied by several container loading and storage firms. The site development was consistent with a priority business cluster (the logistics sector) and was on the banks of a navigable river. The port also has cooperation and research projects with universities and research institutes in the field of logistics.

At the former steel and metal works (Pilsen, Czech Republic) an industrial hall has been constructed with ERDF support. The site is devoted to a specific cluster (metal manufacturing) for which the host city offers important advantages and is complemented by other investments, especially the expansion of the road network and railway connections. Companies on the site cooperate closely with a network of research centres, technical colleges, secondary schools, and a children's science centre.

**36.** The Court examined whether:

- Member States have national, regional or local strategies for the regeneration of brownfield sites based on good planning practices and registers of brownfield sites which include a description of the problems and threats posed by those sites;
- the EU funds encourage the implementation of those best practices.

**ALL MEMBER STATES HAVE A BROWNFIELD SITE REGENERATION POLICY BASED ON A NUMBER OF RECOGNISED PRINCIPLES ...**

**37.** In all the Member States visited, brownfield policy is mainly implemented through local planning instruments which promote the application of certain key principles and best practices.

**38.** The regeneration of brownfield in preference to the development of greenfield sites is promoted by inhibiting or preventing development projects on greenfield sites and by making brownfield land available for development. Several tools are in place for this purpose:

- New areas for development can be designated by changes in the land use plan only when previously developed land areas cannot be used and there is a demonstrable need for such new areas.
- Local authorities are empowered to proceed to compulsory purchase of brownfields.
- A planning or construction permit is required for any specific development. These permits set conditions for site investigations and, where appropriate, the remediation of brownfield sites.

**39.** The interim greenfield use of regenerated sites has rarely occurred in the Member States visited for the audit. However:

- the principle was considered by the United Kingdom government in its recommendations of March 2008<sup>20</sup>; the interim greenfield use of brownfield sites is to be promoted where they are not suitable for other developments, as a tool for tackling the visual and economic blight associated with those sites;
- in Germany, in the view of the BBSR<sup>21</sup>, brownfield should be regenerated more for recreational/nature use, at least on an interim basis, and less for economic activities; periodic surveys carried out by the BBSR indicate that, although significant brownfield surface is being regenerated, the stock of sites is increasing as the number and area of sites falling into disuse is greater than the number and area being regenerated<sup>22</sup>.

**40.** In all the Member States visited, regenerating brownfields has often been hampered by several obstacles:

- A lack of financial resources for the public bodies responsible for the remediation or regeneration of brownfield sites;
- A lack of regional strategies based upon sufficient information, such as registers of existing brownfield sites, and a system encouraging the use of national and EU funds for sites of highest priority;
- Difficulties in determining land ownership and responsibility for remediation;
- Where brownfield sites are privately owned, public and private actors may not share the same interest as regards the regeneration of the site.

**41.** Among the five Member States visited, only in the United Kingdom (England) are quantified targets defined for the surface of brownfield sites to be regenerated. Since 2000, the planning rules set targets for the reuse of brownfield sites in general (17 % of current brownfield land by 2010) and for housing construction in particular (60 % of all new houses had to be built on brownfield sites by 2008), although no targets are set as regards the reuse of brownfield sites for industrial/business developments. These targets have largely been achieved<sup>23</sup>.

<sup>20</sup> 'Securing the Future Supply of Brownfield Land: Government Response to English Partnerships' Recommendations on the National Brownfield Strategy'; Communities and Local Government, London, 4 March 2008.

<sup>21</sup> Federal Institute for Research on Building, Urban Affairs and Spatial Development.

<sup>22</sup> In Germany, the split among types of intended new uses of brownfields (2006) is: nature 19 %, housing 19 %, industry/commerce 62 %. According to the BBSR researchers, a more realistic split might be: nature 70 %, housing 20 %, industry/commerce 10 %. Dr Fabian Dosch, BBSR-Bonn. Session 14 REFINA Stuttgart 26.4.2007.

<sup>23</sup> From 2002 to 2009, brownfield surface area declined in England by 20,4 %, from 40 714 ha to 33 390 ha. 77 % of houses were built on brownfields in 2009. Source: Trends in previously developed land and housing stock by Government Office Region (2002, 2009). Homes and Communities Agency.

- 42.** In Germany, spatial planning and environmental rules do not set targets for brownfield site regeneration as such. Nevertheless, the Federal Sustainability Strategy adopted in 2002 includes among its goals the reduction of additional greenfield land consumption from 129 ha per day in the 1993–96 period to 30 ha per day in 2020. Recent statistics<sup>24</sup> show a sharp decline in land consumption in Germany since 2006. The average in the 2007–10 period was 87 ha per day.

<sup>24</sup> Nachhaltige Entwicklung in Deutschland Indikatorenbericht 2012, Statistisches Bundesamt, Wiesbaden, 2012.

**... BUT THE LACK OF COMPLETE AND APPROPRIATE BROWNFIELD SITE REGISTERS ALSO COVERING CONTAMINATED SITES COMPLICATES THE SETTING OF PRIORITIES**

- 43.** In the Member States visited, a number of actions have been taken to compile brownfield site registers at local, regional or national level. These registers provide some knowledge about the situation of brownfield sites, but they are incomplete, cannot be interconnected or do not include appropriate information for prioritising public intervention for one site rather than another (see **Box 5**).

**BOX 5**

**EXAMPLES OF ACTION TAKEN IN THE MEMBER STATES VISITED TO COMPILE BROWNFIELD SITE REGISTERS**

In the Czech Republic, a national brownfield sites database was established following a study carried out in 2005–07 which identified 2 355 brownfield sites covering an area of 10 326 ha<sup>25</sup>. However, it only contains data on sites for which the owner agrees that information can be made public, and it excludes sites in Prague. Another database lists brownfield sites in all regions, but only those under majority municipal ownership (375 sites).

In Poland, there is no nationwide register of brownfield sites. Some information is available at regional or local level, but it is not comparable because of the absence of a uniform methodology for collecting and presenting data. Starting in 2005, a pilot inventory of brownfield sites was made in three regions. However, preparation of the national brownfield sites inventory was stopped at this early stage.

<sup>25</sup> According to experts, a more realistic figure of total brownfield area in the Czech Republic is between 27 000 and 38 000 ha.

- 44.** Information on contaminated and potentially contaminated sites is collected in all five Member States visited. However, the registers never include all the relevant sites, and only in the Czech Republic and Hungary is the information necessary for setting priorities available (see **Box 6**).

<sup>26</sup> To be eligible, projects had to be located in a town of more than 5 000 inhabitants, cover a brownfield area greater than 40 ha and satisfy at least three out of eight socioeconomic criteria.

#### **MORE CAN BE DONE TO PROMOTE REGENERATION BEST PRACTICES**

- 45.** Although the Structural Funds regulations do not specify any rules aimed at promoting particular aspects of brownfield regeneration best practices, the Court noted that some initiatives are taken by Member States:
- Two Member States give preference to brownfield sites compared to greenfield sites projects in the selection process for the award of grants;
  - In the Operational Programme for Poland an integrated spatial development plan is required as a prerequisite for EU funding;
  - In Hungary the extent to which projects seek to address social and economic deprivation was a specific selection criterion<sup>26</sup>.

#### **BOX 6**

#### **EXAMPLES OF MEMBER STATE REGISTERS OF CONTAMINATED OR POTENTIALLY CONTAMINATED SITES**

In England and Wales, the Environment Agency maintains a register of special high-risk sites only (33 sites in mid-2011). It had not been updated since 31 March 2007. Registers of other contaminated sites are kept by the local authorities.

In the Czech Republic, the SEKM<sup>27</sup> national database of contaminated and potentially contaminated sites includes previous industrial, military and mining sites, landfills, etc. Each site is allocated a priority: the most urgent category corresponds to sites which need immediate remediation (130 sites). A new database of contaminated sites is currently being developed with the aim of unifying data from various sources and updating the existing database at the national level.

In Hungary, a remediation plan of contaminated sites has been in place since 1996. The main objective is to identify contaminated sites and carry out remediation so as to avoid pollution spreading to the water table. Application of this plan is supported by a register of contaminated sites that are a potential risk to water quality. Each site is prioritised on the basis of multiple environmental and health risk criteria.

<sup>27</sup> Systém Evidence Kontaminovaných Míst (System of Records of Contaminated Sites).

## HAVE RESULTS BEEN ACHIEVED AT THE LOWEST COST TO THE EU BUDGET?

- 46.** Brownfield site regeneration has the potential to offer profitable opportunities and can therefore be carried out by private investors. Where projects are only marginally profitable, it will be necessary to share the risks and costs between the public and private sectors, and full public investment may be required in the presence of such severe handicaps as significant contamination, poor location or a sluggish real estate market. When considering how much public co-financing regeneration projects should receive, it is very important to limit public funding to what is necessary to implement the project: the public contribution should not exceed the funding gap between the cost of the investment and the revenue it is expected to generate<sup>28</sup>.
- 47.** In order to assess whether the 27 regeneration projects examined could have been carried out at a lower cost, in particular for the EU budget, the Court examined whether:
- the public grant, including the EU contribution, had been set at an appropriate level, by using the funding gap method, and whether this funding gap had been satisfactorily assessed;
  - the site value included among the project costs in the assessment of the funding gap reflected the polluter pays principle, which states that polluters should bear the remediation costs at sites they have damaged;
  - the applicable state aid rules aimed at preventing distortion of competition were respected;
  - the grant decision included a reimbursement mechanism that would apply if the project generated more revenues than was expected at the grant approval date.

<sup>28</sup> Costs and revenue are discounted to take account of the time elapsing between the various cash flows.

### THE NEED FOR PUBLIC SUPPORT, INCLUDING EU FUNDS, WAS NOT ALWAYS ASSESSED AND ...

- 48.** Out of the 27 projects examined for the audit:
- For 15 projects, the beneficiary carried out an assessment of the funding gap at the request of the Commission or the managing authority.
  - For 12 projects, the funding gap was not assessed. For three projects, it is reasonable that no such assessment was done because no revenues were expected to be generated either because they only addressed decontamination or because they aim to create parks and land reserves. In these cases, the funding gap can be said to be 100 %. However, for the remaining nine projects, no funding gap assessment was carried out even though the projects will generate revenues from the sale or rental of redeveloped plots and buildings (see **Box 7**). Had a funding gap analysis been carried out for these nine cases, the grant, including EU funds, would have been lower.

### ... WHEN CARRIED OUT, FUNDING GAP ASSESSMENTS PRESENT SHORTCOMINGS

- 49.** Where the funding gap was assessed, the following shortcomings were detected:
- In three cases where the specific co-financed project concerned one part of a larger brownfield site, despite the fact that Structural Measures had co-financed basic infrastructure for the entire site (either under a different project in the same programming period (2000–06) or in the previous period (1994–99)), the revenues generated for the developer from the site as a whole were not taken into consideration in the funding gap assessment (see **Box 8**); and
  - In five cases in which the cost of land was included in the declared costs<sup>29</sup>, either there was no independent valuation certificate establishing the market value of the land, or it was not possible to establish which of the two, the purchase price or the market value, was lower (see **Box 9**).

<sup>29</sup> To be eligible for inclusion in the costs for calculating EU co-financing, the cost of land can only be charged up to an amount of 10 % of total project costs, on condition that there is a direct link between the land purchase and the objectives of the co-financed project and that a certificate is obtained from an independent qualified valuer or duly authorised official body confirming that the cost does not exceed the market value. See Commission Regulation (EC) No 448/2004 of 10 March 2004 amending Regulation (EC) No 1685/2000 laying down detailed rules for the implementation of Council Regulation (EC) No 1260/1999 as regards the eligibility of expenditure of operations co-financed by the Structural Funds and withdrawing Regulation (EC) No 1145/2003 (OJ L 72, 11.3.2004, p. 66).



## BOX 7

### EXAMPLES OF PROJECTS FULLY FINANCED WITH PUBLIC FUNDS AND LIKELY TO GENERATE REVENUE, BUT FOR WHICH THE FUNDING GAP WAS NOT ASSESSED

At the public reserve land (Halton, UK), the local authority intended to build a warehouse to be operated at market conditions which could generate revenue. The development cost (land acquisition and landscaping) was fully financed from public funds, of which 29 % was covered by ERDF co-financing. However, no funding gap analysis was carried out taking future revenue into account.

The development of the former planned nuclear power station (Arneburg, Germany) (see *Photo 7*) is likely to produce revenues for the private landowner because the site has the advantage of featuring tri-modal transport infrastructure, thus making it attractive for certain industries. However, a funding gap assessment was not carried out for this project.

## BOX 8

### EXAMPLE WHERE THE FUNDING GAP ANALYSIS CONCERNED ONLY PART OF THE SITE

The former coal mine/cokery (Sheffield, UK) is being developed in phases. ERDF support was provided in the 2000–06 period for a second phase of the site development to construct several industrial and office buildings. The funding gap assessment justifying this ERDF grant was limited only to the costs and revenues from this second phase. It did not take into account the revenues generated elsewhere on the same site as a whole.

## BOX 9

### EXAMPLES WHERE THE COST OF LAND CHARGED TO THE PROJECT WAS NOT SUPPORTED BY AN INDEPENDENT VALUATION CERTIFICATE

At the former open cast mine (Rotherham, UK), where the development took the form of a public–private partnership, the private partner's only contribution was the land. The land value of 6,7 million GBP was included among the eligible costs for the ERDF grant. This exceeded by 3,4 million GBP the market value established by a chartered surveyor.

At the former steel works (Dortmund, DE), the price paid by the promoter to purchase the land was included in the cost of the project. However, at the time the ERDF co-financing was granted, this price was not compared with the market value established by an independent valuer or other authorised official body. Only later, in 2006, the local authority, one of the development partners, prepared a report confirming that the purchase price corresponded to the market value. However, in this valuation, the market value applied per square metre was higher than the official reference prices for plots in the same area, and was applied to a surface of 82 ha, even though only around 40 ha of the site was to be made available for building (the remainder was to be used for green spaces).

**AUTHORITIES ARE AWARE OF THE POLLUTER PAYS PRINCIPLE,  
BUT IN NO CASES DID THE POLLUTER BEAR THE FULL COST OF  
DECONTAMINATION**

- 50.** The EU Treaty<sup>30</sup> states that the environmental policy of the EU is founded on the principle that the polluter should pay for any environmental damage it causes. In all Member States visited, the polluter pays principle has been included among the underlying principles of environmental law since the 1990s. It provides that polluters, as well as landowners and their tenants, which were obliged to prevent damage to the soil on their property, are liable for the damage caused. Therefore, public grants should only co-finance the cost of land remediation when all legal means to enforce the polluter pays principle have been pursued, so that public money is only used as a last resort.
- 51.** Much of the polluted land whose remediation EU and other public funds are called upon to help finance is the result of the legacy of Europe's past heavy industrial and military activities. In many of the most serious circumstances, applying the polluter pays principle in practice is a difficult challenge. It is often not possible to require the entity that was responsible for causing the pollution in the first place to pay for remediation since, in many cases, either the historic polluter no longer exists or it was a state-run enterprise or the site was sold to a private owner with specific conditions<sup>31</sup>.
- 52.** In the sample of ERDF-supported projects reviewed for the audit, 21 projects entailed some remediation works. In none of these projects had the entity responsible for the original pollution paid in full remediation costs:
- 13 concerned sites which had been polluted by private firms but where the polluter pays principle had been only partly applied;
  - six concerned sites where the pollution had been caused by state-run enterprises and the new owner accepted remediating the land with support from public funds; and
  - in the other two sites, the state took on full responsibility for remediating the sites where pollution had been caused by state-run enterprises.

<sup>30</sup> Article 191(2) TFEU.

<sup>31</sup> Such conditions usually include derogations regarding the liability for remediating polluted land.

- 53.** It is often the case that when polluted land is sold to a developer, a discount in the purchase price is offered to compensate for the works necessary to bring the land to a usable quality. However, even though such discounts might have been provided, developers sometimes seek further public subsidies to pay for the remediation works they actually carry out. In such circumstances, there is a risk that, where developers receive both purchase price discounts and subsidies for remediation works, double financing by public funds can occur. Public authorities need to be vigilant regarding this risk.
- 54.** Against this background, agreements between the seller and developers are very complex and, regarding remediation issues, may include discounts, subsidies and detailed agreements concerning the allocation of liability for environmental clean-up. Fully evaluating such agreements from a sound financial management perspective is itself a significant challenge, including establishing the extent to which EU funds may have subsidised remediation works for which a developer had already been compensated. Particular factors contribute to this difficulty, such as:
- lack of robust land valuations leading to uncertainty about market valuations and the real value of discounts provided in land acquisition agreements;
  - lack of detail of assessments of the nature of the pollution problems on a site leading to underestimation of remediation costs (see **Box 10**); and
  - lack of transparency in land transaction agreements regarding the extent of liability of the parties for remediation.

#### BOX 10

#### **EXAMPLES WHERE REMEDIATION COSTS WERE UNDERESTIMATED AND EU AND OTHER PUBLIC FUNDS PROVIDED THE NECESSARY ADDITIONAL FINANCE**

At the former steel works (Dortmund, Germany) a public agency bought contaminated land from the polluting entity, a private company. The costs of remediation were estimated at the time at 58 million euro, and the seller agreed to provide a discount in the price for half of this amount (29 million euro) in exchange for its liability for clean-up being extinguished. The eventual cost of remediation was 74,8 million euro (16,8 million euro more than the amount on which the price discount was calculated). This cost escalation was absorbed by the public agency with a 25 % subvention from ERDF. In this case, the polluting entity covered only 29 million euro out of the total remediation costs of 74,8 million euro.

At the former metal works (Barnsley, UK), the initial estimate for decontamination was understated, and as a result the managing authority approved an increase in total cost of 15 % and a corresponding increase in the ERDF grant.

- 55.** As a result of such complex contexts, there are cases amongst the projects audited where there is no clear basis for establishing the cost of the land and of old buildings. As a result, an overstatement of the need for public funds cannot be excluded. Given that such activities are eligible for ERDF co-financing, at subvention rates of up to 85 %, this is as much a problem for EU funds as it is for national funds.

#### STATE AID RULES NOT PROPERLY APPLIED

- 56.** Specific state aid rules had been agreed by the Commission and the Member States which concern 16 projects. These rules were not fully applied in eight cases (see **Box 11**).

#### THERE IS LIMITED SCOPE FOR PUBLIC SUPPORT TO BE CLAWED BACK WHEN REGENERATION PROJECTS GENERATE MORE REVENUE THAN EXPECTED

- 57.** Revenue from sales or rentals of assets can result from regeneration projects. The public contribution should then be determined before grant approval on the basis of estimates of revenues and costs over a 20-year period<sup>32</sup> (see paragraph 46). Once a regeneration project has been implemented, the revenues and costs that actually result can be different from the initial estimates. If the calculation of the public contribution were to be revised retrospectively, taking into account actual revenues and costs, then it could be concluded that the project should have received a lower grant amount. A reimbursement of part or all of the grant could be the result of this. Whilst the Structural Funds regulations do not require to reassess the funding gap on the basis of actual figures, some Member States took the initiative to insert a reimbursement clause in the grant decisions. This was the case for eight of the 15 projects for which the funding gap was assessed (see paragraph 48). In Germany, the reassessment takes account of revenue generated within 15 years after project completion.
- 58.** Where it was not possible to estimate the revenue in advance or no revenue was expected from the projects, there is a provision in the Structural Funds regulations which enables managing authorities to request a reimbursement of revenues generated up to the closure of the operational programme, for the 2000–06 period, or within a period of five years of project completion, for the 2007–13 period<sup>33</sup>. However, given that regeneration projects often mature over the long term, the five-year period currently taken into account for assessing such revenues is too short.

<sup>32</sup> Guide to Cost Benefit Analysis of Investment Projects. European Commission, DG Regional and Urban Policy, July 2008.

<sup>33</sup> See eligibility rule No 2 of Commission Regulation (EC) 448/2004 of 10 March 2004 (OJ L 72, 11.3.2004, p. 66) and Article 55 (3) of Council Regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999 (OJ L 210, 31.7.2006, p. 25).

## BOX 11

**EXAMPLES WHERE STATE AID RULES WERE NOT RESPECTED**

UK state aid rules<sup>34</sup> specify that, where the owner of the land is also the project promoter, the promoters' profit has to be excluded from the calculation of public financial support<sup>35</sup>. However, at the former chemicals works (Widnes, UK) and the former coal mine/cokery (Sheffield, UK) this rule was not respected and an allowance for the promoter's profit was included in the calculation. This was considered acceptable at the time by the Regional Development Agency, but the profit percentage was not assessed by a chartered surveyor valuation, as required in the applicable state aid scheme.

At the former open cast mine (Rotherham, UK), the site was regenerated by a public–private partnership. The land contributed by the private partner was evaluated at 30 % of total project cost, and the regeneration works to be paid by the public partner was estimated at 70 %. However, when the plots were sold, 70 % of incomes were allocated for the private partner and 30 % for the public partner. In this way, an advantage was conferred on the private owner, which was not compliant with the applicable state aid scheme.

At former planned nuclear station (Arneburg, Germany) (see **Photo 7**), the promoter (a municipality) paid for the regeneration of land owned by a private group, with the aim of attracting industrial investors to the site. The landowner had acquired the land in 1993 and had carried out some demolition work. After the approval of the regeneration project, the landowner sold plots for a much higher price than it had originally paid. According to the provisions of the applicable state aid scheme<sup>36</sup>, the contract between the promoter and the owner should have provided for land sale benefits to be passed on to the municipality.



**Photo 7 — A cellulose works on the site of a former planned nuclear power station (Arneburg, Germany)**

<sup>34</sup> N 747/A/99 — 'Partnership support for regeneration (1): Support for speculative developments' (SG (2001) D/ 286569).

<sup>35</sup> In some cases the profit is assessed at 15 % of buildings sale value plus 10 % of the value of plot sales.

<sup>36</sup> State aid scheme N 644 A/B/2002, approved by the EC on 9 July 2003, which reflects the rules provided for in Rahmenplan 31 (notably Part II, point 7).



Photo 8 — Old buildings being demolished and renovated at a derelict power station that is being converted into an arts and cultural centre (Łódź, Poland)

# CONCLUSIONS AND RECOMMENDATIONS

## OVERALL CONCLUSION

- 59.** The legacy of pollution on industrial and military sites remains a significant challenge for many Member States. Cleaning up this historic pollution and regenerating the sites will likely still need to be paid for out of public funds. For many Member States Structural Measures have been a crucial source of financing for this.
- 60.** Projects receiving support from the EU usually deliver the infrastructure as planned. However, progress on many of the sites is slower and fewer jobs are created than expected.
- 61.** Whilst the polluter pays principle is well understood, because of practical difficulties it is frequently public authorities with support from EU Structural Measures who end up paying for a significant amount of remediation works; in none of the cases reviewed for this audit did the polluter pay fully for remediation works.
- 62.** Funding gap assessments, when they are done, are frequently not robust enough and reimbursement clauses are not always included in the grant decisions.
- 63.** Whilst some good practices and principles are present in regeneration activities in the Member States, a lack of detailed information about the extent of the problems on the ground means that prioritising actions on the sites most in need of attention could be improved.



Photo 9 — Barrel of plastic moulded balls used for extracting underground pollutants from contaminated site (Dunaujvaros, Hungary)

## **ACHIEVEMENT OF INDUSTRIAL AND MILITARY SITE REGENERATION OBJECTIVES**

- 64.** Most projects achieved their objectives in terms of physical outputs. However, the results of remediation works are not always appropriately certified and there are wide differences between national soil contamination screening values. The Commission proposed a Directive on establishing a framework for the protection of soil (see paragraphs 22 to 25).
- 65.** At the time of the audit, most projects had obtained modest results in terms of economic activity and employment. The economic downturn has had an impact on the results achieved and not enough use was made of market analyses to justify the co-financed development. The better results were observed at sites which were regenerated in the context of a clear and bespoke integrated development plan meeting most of the generally accepted regeneration best practices (see paragraphs 26 to 34).



### RECOMMENDATION 1

Member States should:

- (a) require brownfield regeneration projects to be part of an integrated development plan for the city or area concerned;
- (b) ask promoters to carry out a market analysis and consider the relevant options for the possible future of brownfield sites which should be based on the integrated development plan;
- (c) ensure that site remediation results are certified by a competent authority or accredited body.

The Commission should:

- (a) propose, in cooperation with Member States and on the basis of scientific evidence and best practices:
  - (i) EU standards for the definition of contaminated sites and the significance of the environmental and health risks they pose;
  - (ii) an EU methodology for the definition of site-specific remediation standards taking account of final site use;
- (b) promote the application of an integrated development approach through the Operational Programme, by requiring co-financed brownfield regeneration projects to be included in an integrated development plan.

### CRITERIA FOR THE ALLOCATION OF EU SUPPORT TO THE REGENERATION OF INDUSTRIAL AND MILITARY SITES

- 66. Regeneration is implemented in the Member States in line with most generally accepted best practices, but this is hampered by significant obstacles, such as the lack of financial resources (see paragraphs 37 to 42).
- 67. National registers provide some knowledge about the situation of brownfield sites, but they are incomplete in all Member States visited, and in only two do they include appropriate information for prioritising public intervention with regard to contaminated sites (see paragraphs 43 to 44).

- 68.** Although the Structural Funds regulations do not specify any rules aimed at promoting particular aspects of brownfield regeneration best practices, some Member States are supporting an integrated development approach and the principle of reusing brownfield sites rather than greenfields (see paragraph 45).

#### RECOMMENDATION 2

Member States should:

- (a) consider setting up brownfield site regeneration strategies with clear targets;
- (b) promote the regeneration of brownfield sites, avoiding the use of greenfield unless strictly necessary and otherwise requiring the application of compensation measures;
- (c) consider measures to address problematic sites that are privately owned where the owner fails to take the necessary action;
- (d) consider making more frequent the interim greenfield use of regenerated brownfield sites;
- (e) require regional or local authorities to maintain registers of brownfield and contaminated sites; these should be standardised at least at Member State level in order to allow for their consolidation into a national register to facilitate the implementation of a brownfield regeneration and remediation policy;
- (f) compile lists of brownfield sites where contamination is suspected and classify them according to the corresponding health and environmental risks. Sites should be prioritised for remediation to facilitate the preparation of remediation plans contributing to health protection and to the achievement of EU environmental objectives, such as the good water ecological status required by the European Water Framework Directive.

The Commission and the Member States should:

- (a) support the application of best practices in the development of business parks and give preference for brownfield regeneration over greenfield use.

## **COST OF THE RESULTS ACHIEVED**

- 69.** The results could have been achieved with less EU funding for various reasons.
- 70.** In revenue-generating projects the public grant was not always justified by a funding gap assessment, and where the gap was assessed, shortcomings were observed (see paragraphs 48 to 49).
- 71.** Where the funding gap was assessed the grant decision did not always include a reimbursement clause that would apply if the project generated more revenue than was expected and the Structural Funds regulations do not require for doing so. Where it was not possible to estimate the revenue in advance or no revenue was expected from the projects, Structural Funds regulations enable managing authorities to request a reimbursement of revenues generated. However, given that regeneration projects often mature over the long term, the five-year period currently taken into account for assessing such revenues is too short (see paragraphs 57 to 58).
- 72.** Although the polluter pays principle is enshrined in Member States' legal frameworks, it has not been fully applied and national and EU funds have borne part of the cost of environmental remediation. Agreements between polluters, landowners and developers are often not sufficiently transparent, and it is not always possible to ascertain the extent to which polluters have actually borne the costs of remediation works (see paragraphs 50 to 55).
- 73.** Specific state aid rules were not fully applied by the authorities of the Member States (see paragraph 56).

### RECOMMENDATION 3

Member States should:

- (a) thoroughly assess the funding gap for each project;
- (b) require the extent to which the polluter pays principle can be applied to be explicitly considered for all regeneration projects and application of that principle to be made a condition for granting EU funding;
- (c) apply all the provisions of the state aid schemes agreed with the Commission;
- (d) make detailed checks to ensure that subsidies for remediation are not provided in respect of sites for which a promoter has already received purchase price discounts. For this, the public authority should have a reliable market valuation of the land, a realistic assessment of the likely costs of remediation works, and full transparency of terms of the land acquisition and any price discounts included therein;
- (e) include a reimbursement clause in all grant decisions for regeneration projects to allow the possibility for them to reassess the financial performance of projects in the light of developments over a longer period (say 15 years), and to allow where projects have generated more revenues than expected, part or all of a grant to be clawed back. The Commission should follow up the application of such reimbursement clauses.

The Commission should:

- (a) consider the opportunity to define common principles for the application of the polluter pays principle in case of contamination originating before the introduction of the principle in the law;
- (b) remind the Member States' managing authorities of their obligation to determine the funding gap for all projects which may generate revenue, and apply all applicable state aid rules.

This report was adopted by Chamber II, headed by Mr Harald NOACK, Member of the Court of Auditors, in Luxembourg at its meeting of 12 December 2012.

*For the Court of Auditors*



Vítor Manuel da SILVA CALDEIRA  
*President*



Photo 10 — Ground prepared for construction of road infrastructure on the site of former coal mine slag heaps (Jaworzno, Poland)

## ANNEX I

**STRUCTURAL MEASURES FUNDING OF INDUSTRIAL AND MILITARY SITE REGENERATION  
(2000–06<sup>1</sup> AND 2007–13 PERIODS)**

2000–06 Structural Measures regeneration of industrial and military sites				2007–13 Structural Measures regeneration of industrial and military sites			
Member State	Rank	Amount allocated (euro)	%	Member State	Rank	Amount allocated (euro)	%
Germany	1	645 490 864	28,7	Hungary	1	475 191 832	14,0
United Kingdom	2	574 288 905	25,5	Czech Republic	2	372 290 509	11,0
France	3	195 305 373	8,7	Germany	3	335 518 228	9,9
Netherlands	4	160 821 924	7,2	Romania	4	316 430 710	9,3
Portugal	5	156 012 908	6,9	Italy	5	298 355 961	8,8
Italy	6	143 383 095	6,4	Poland	6	278 413 953	8,2
Belgium	7	65 421 025	2,9	Portugal	7	191 960 262	5,7
Greece	8	55 655 389	2,5	United Kingdom	8	178 957 047	5,3
Spain	9	54 873 962	2,4	Spain	9	177 403 701	5,2
Czech Republic	10	46 073 161	2,0	Estonia	10	138 045 325	4,1
Poland	11	43 940 360	2,0	Slovenia	11	130 400 000	3,8
Hungary	12	28 773 946	1,3	Bulgaria	12	108 322 014	3,2
Finland	13	18 104 950	0,8	France	13	90 193 437	2,7
EU interregional	14	17 035 874	0,8	Belgium	14	62 048 204	1,8
EU cross-border	15	13 996 478	0,6	Latvia	15	49 000 000	1,4
Latvia	16	11 414 454	0,5	Malta	16	48 280 000	1,4
Luxembourg	17	10 019 687	0,4	EU cross-border	17	47 801 926	1,4
Slovenia	18	2 924 609	0,1	Netherlands	18	28 799 000	0,8
Malta	19	2 539 367	0,1	Greece	19	26 295 000	0,8
Estonia	20	1 712 389	0,1	Cyprus	20	16 150 000	0,5
Austria	21	674 726	0,0	Lithuania	21	14 501 892	0,4
				Luxembourg	22	3 786 550	0,1
				Finland	23	2 071 886	0,1
<b>TOTAL EU</b>		<b>2 248 463 446</b>	<b>100,0</b>	<b>TOTAL EU</b>		<b>3 390 217 437</b>	<b>100,0</b>

<sup>1</sup> For the 2000–06 period, the figures for the EU-10 Member States are from 2004 on.

Source: DG Regional and Urban Policy data 31 December 12.2010.

## SAMPLE OF 27 PROJECTS AUDITED

			EU co-financed project completed?	ERDF co-financing (million euro)	Job creation targeted?	Regeneration works co-financed by ERDF						Planned regeneration outputs/planned future land use			
						Decontamination/stabilisation	Landscaping	Demolition/renovation of old buildings	Roads, utilities and other infrastructure	Partitioning of land for resale or letting	Construction of ready-to-use buildings	Land and buildings for industrial or commercial use	Land and buildings for public use	Public park facilities	Reserve (public or private)
Remediation works only	Former uranium treatment plant**	Mydlovary (CZ)	Y	18,50		√		√							√
	Former coal mine/chemical waste	Berhida-Peremartoni (HU)		16,83		√									√
	Steel works	Dunaujvaros (HU)	Y	2,93	Y	√									√
	Former explosives factory	Berhida-Peremartoni (HU)		0,06	Y	√						√			
Redevelopment works only	Former steel and metal works [Skoda]	Pilsen (CZ)	Y	1,36	Y			√				√			
	Information technology factory	Brno (CZ)	Y	0,43	Y			√				√			
	Former oil refinery	Braunsbedra (DE)	Y	6,32	Y			√	√	√		√			
	Former planned nuclear station	Arneburg (DE)	Y	26,58	Y			√	√			√			
	Former coal mine shaft	Jaworzno (PL)	Y	3,32	Y		√		√	√		√			
	Public reserve land	Halton (UK)	Y	2,53	Y		√		√			√			

			EU co-financed project completed?	ERDF co-financing (million euro)	Job creation targeted?	Regeneration works co-financed by ERDF						Planned regeneration outputs/planned future land use			
						Decontamination/stabilisation	Landscaping	Demolition/renovation of old buildings	Roads, utilities and other infrastructure	Partitioning of land for resale or letting	Construction of ready-to-use buildings	Land and buildings for industrial or commercial use	Land and buildings for public use	Public park facilities	Reserve (public or private)
Mixed remediation and redevelopment work	Former metal works	Halle (DE)	Y	3,79	Y	√			√			√			
	Former coal mine/cokery III*	Essen (DE)	Y	2,21	Y	√		√	√	√		√			
	Coal mine slag heaps	Jaworzno (PL)		7,07	Y	√	√		√			√			
	Former industrial harbour I	Barrow-in-Furness (UK)	Y	5,89	Y	√	√		√	√		√			
	Former industrial harbour II	Barrow-in-Furness (UK)	Y	5,79	Y	√	√		√	√		√			
	Former steel works I	Duisburg (DE)	Y	15,21	Y	√	√	√	√			√			
	Former zinc works II	Duisburg (DE)	Y	20,90	Y	√	√	√	√			√			
	Former steel works*	Dortmund (DE)	Y	30,32	Y	√	√	√	√	√		√			
	Former coal mine/cokery I*	Essen (DE)	Y	12,79	Y	√	√	√	√		√		√	√	
	Former coal mine/cokery II	Essen (DE)		3,02		√	√		√					√	
	Former barracks and battery factory	Marcali (HU)	Y	3,02		√	√	√	√		√			√	
	Former power plant*	Łódź (PL)		20,61	Y	√	√	√	√		√	√			
	Former open cast mine I	Rotherham (UK)	Y	4,51	Y	√	√	√	√	√		√			
	Former open cast mine II	Rotherham (UK)	Y	5,22	Y	√	√	√	√	√					
	Former coal mine/cokery	Sheffield (UK)	Y	10,33	Y	√	√	√	√	√	√	√			
	Former metal works	Barnsley (UK)	Y	8,81	Y	√	√	√	√	√	√	√			
Former chemicals works	Widnes (UK)	Y	2,53	Y	√	√		√	√	√	√				

Notes: Cohesion Fund (\*\*) projects or ERDF 'major projects' (\*) for which prior approval from the European Commission was required.

Source: OPs final implementation report for projects from the 2000–06 programming period; grant decisions for projects from the 2007–13 programming period. National currencies converted into euro at European Central Bank average exchange rate for the corresponding programming period.



# REPLY OF THE COMMISSION

## EXECUTIVE SUMMARY

### I.

The regeneration of military and industrial sites or brownfields constitutes an important part of increasing the attractiveness of a region and contributes to job creation.

### III. (a)

Certification is considered to be a good practice. However, the lack of certification and the differences between national soil contamination screening values do not automatically imply that the decontamination and regeneration work was not carried out properly.

Project developments always take place in a context of economic uncertainties. Some projects faced delays due to financing constraints in the context of the economic downturn together with deficit reduction at national level. Both have impacted the public policies priorities. Furthermore, job creation is a long-term objective of these projects.

The notion of 'integrated urban development plan' is embedded in the Community strategic guidelines and in Article 44 of Regulation (EC) No 1828/2006. The JESSICA financial engineering instrument can only be deployed in areas where such a plan has been set up. In addition, according to Article 8 of Regulation (EC) No 1080/2006 the ERDF may support integrated and sustainable strategies to tackle the high concentration of economic, environmental and social problems affecting urban areas, including amongst others, rehabilitation of physical environment and brownfield redevelopment.

### III. (b)

In 2006, the Commission presented a proposal for a Soil Framework Directive (COM(2006) 232) which would provide for a definition of 'contaminated site' and require the establishment of an inventory of such sites on the national territory of Member States. Brownfield sites are often contaminated and would, therefore, be identified as well. The European Parliament adopted the proposal in first reading in November 2007. The Council has yet to agree on a common position.

The Commission has also taken initiatives outside the legal framework to promote good practices for example to favour the rehabilitation of derelict brownfield sites in lieu of the use of greenfield sites and the coordination of land use.

### III. (c)

The Commission recognises that there were some weaknesses in setting grant rates in the past in part also due to the regulatory framework. For 2000–06 projects generating substantial net revenues, maximum co-financing rates were established in accordance with Article 29 of Regulation (EC) 1260/1999. The funding gap assessment was enshrined in the 2007–13 Regulation.

In the 2007–13 period, revenues that can be determined in advance are taken into account for a period between 10 and 30 years depending on the sector. For the sector of environment the cost benefit analysis (CBA) guide recommends the reference time horizon of 30 years, applied for discounting costs and revenues of the project.

The Commission considers that the inclusion of a reimbursement clause in the grant letter issued by the managing authority is a case of good practice which can usefully be included by Member States in their national rules.

Applying the polluter pays principle in practice is a difficult challenge. It is often not possible to require the person or legal entity that was in the first place responsible for causing the pollution to pay for remediation since, in many cases, such person or legal entity no longer exists, or it can demonstrate it complied with the applicable rules at the time of the pollution.

## REPLY OF THE COMMISSION

### IV. (a)

The Commission agrees with this recommendation to Member States, and already requested an integrated development approach not only in the Community Strategic Framework (CSF) but also in the Commission Regulation.

### IV. (b)

The Commission services have recently published a staff working document (SWD(2012) 101 final/2) containing 'Guidelines on best practice to limit, mitigate or compensate soil sealing'. The document describes approaches which have been implemented in the Member States, including preventing the conversion of green areas and the subsequent sealing of (part of) their surface, and the reuse of already built-up areas, e.g. brownfield sites.

### IV. (c)

With a view to the polluter pays principle and the state aid, the Structural Funds regulatory framework for 2007–13 already includes the Court's observations.

Regarding the reimbursement clause in the grant letter issued by the managing authority, the Commission considers it a case of good practice which can usefully be included by Member States in their national rules. However, under the principle of shared management, since the Managing Authorities issue the grant decisions, they should also monitor the application of the reimbursement clause as they monitor the implementation of projects.

### IV. (d)

The Commission agrees to the Court's recommendation but points out that it presented a proposal for a Soil Framework Directive (COM(2006) 232) in 2006 that would introduce a legal basis to propose EU standards for the definition of contaminated sites, the risk they pose and remediation methodologies. The Commission emphasises that the adoption of specific EU legislation on soil rests upon the co-legislators.

Brownfields are quite often located in urban areas. The Commission is already promoting integrated sustainable urban development through the current mainstream programmes and via the JESSICA financial instrument vehicle, which requires the establishment of an integrated urban development plan.

In addition, the Commission strongly advocates that Member States incorporate the regeneration of brownfield sites as a key part of their integrated urban development approach as 'regeneration of brownfield sites' is included in one of the four urban-specific investment priorities.

This approach will be significantly strengthened in the 2014–20 period.

### IV. (e)

The Commission has taken initiatives outside the legal framework to promote good practices for example to favour the rehabilitation of derelict brownfield sites in lieu of the use of greenfield sites and the coordination of land use.

Furthermore, the Commission notes that its proposal for a Soil Framework Directive (COM(2006) 232) would require the identification of contaminated sites in national territories.

# REPLY OF THE COMMISSION

## INTRODUCTION

### 5.

The Commission notes that operators carrying out hazardous activities are strictly liable to remedy soil pollution that has taken place after 30 April 2007, the date when the Environmental Liability Directive 2004/35/EC took effect. In this context, the Commission wishes to recall that it presented a proposal for a Soil Framework Directive (COM(2006) 232) in 2006 which would require the identification of all contaminated sites, including those contaminated before April 2007. Such proposal is still being discussed in the Council. The European Parliament has adopted its first reading in November 2007.

### 6.

The promotion of the integrated development approach and the reuse of brownfield sites are broad concepts<sup>1</sup>.

The integrated development approach is promoted as the various dimensions of urban life — environmental, economic, social and cultural are interwoven. Success in urban development can only be achieved through an integrated approach. Measures concerning physical urban renewal should, therefore, be combined with measures promoting education, economic development, social inclusion and environmental protection.

<sup>1</sup> See Article 8 of Regulation (EC) No 1080/2006 and Communication 'Cohesion policy and cities: the urban contribution to growth and jobs in the regions', COM(2006) 385 final.

## AUDIT SCOPE AND OBJECTIVES

### 17.

Except for major projects, project files are not kept by the Commission, but by Member States managing authorities.

## OBSERVATIONS

### 23. Second indent

Certification is considered to be a good practice. However, the lack of certification does not automatically imply that the decontamination and regeneration work was not carried out properly.

Please see also the Commission's reply to paragraph 5 and the reference to its 2006 proposal for a Soil Framework Directive (COM(2006) 232).

### 24.

There are no harmonised screening values for soil contaminants and standards to define whether a site poses significant risks to the environment and human health and currently no EU harmonised definition of 'contaminated site'. In 2006, the Commission presented a proposal for a Soil Framework Directive (COM(2006) 232) which would provide for a definition of 'contaminated site' and require the establishment of an inventory of such sites on the national territory. The adoption of this directive would provide the necessary legal basis for the subsequent adoption — should the need arise and following an exchange of information with Member States — of EU common technical elements for soil contamination risk assessment, not having any bearing on the risk acceptability.

Please see also the Commission's reply to paragraph 5.

## REPLY OF THE COMMISSION

### 26.

The Commission welcomes that 20 out of 22 completed audited projects fully or to a large extent (> 90 %) achieved their output targets.

### 27.

Brownfield regeneration projects need a long period to achieve the expected results.

#### Box 1

The example of the former industrial harbour (Barrow-in-Furness, UK) shows the difficulty of carrying out projects in the context of an economic crisis.

#### Box 2

Concerning the example of the former oil refinery (Braunschweig, Germany), the research of marketing possibilities for the rehabilitated areas was a funding condition. However, the managing authority cannot anticipate events at the time of the funding approval that may occur years later. Whatever criteria are set, the only possible check is on the plausibility of the marketing research.

#### Box 3

The example of the former metal works (Barnsley, UK, designated as a 'Renaissance town' under the Regional Development plan) shows the difficulty of carrying out projects in the context of economic crisis. Raising the attractiveness of an area is part of the objectives pursued by the ERDF, which cannot always be measured in quantitative terms.

With regard to the former steel works (Dortmund, Germany), the implementation of the project is partially contingent upon external factors which cannot be influenced by either the Member State or the Commission. The fact that only 22 % of the available area had been sold by mid-2011 can be attributed to the economic crisis.

### 31.

Brownfield regeneration projects need a long period to achieve their results and impacts. Job creation is a long-term objective, in particular when the projects aim at improving the environment for economic activity.

### 32.

The Commission welcomes the Court's finding.

### 38.

The Commission services have recently published a staff working document (SWD(2012) 101 final/2) containing '*Guidelines on best practice to limit, mitigate or compensate soil sealing*'. The document describes approaches which have been implemented in the Member States, including preventing the conversion of green areas and the subsequent sealing of (part of) their surface, and the reuse of already built-up areas, e.g. brownfield sites.

### 39.

The Commission notes that in at least two out of the five audited Member States, provisions were in place to promote the interim greenfield use of regenerated brownfield sites.

### 40.

The Commission notes that constraints of national and/or regional budgets, the existence of registers for brownfield sites and the uncertainties concerning land ownership always influence the execution of projects.

#### 40. Second indent

The Commission notes that the proposed Soil Framework Directive (COM(2006) 232) would require Member States to identify contaminated sites across their territories and make such an inventory public (see also the Commission's reply to paragraph 24). Brownfield sites are often contaminated and would therefore be identified as well.

### 43.

The Commission refers to its reply to paragraph 24 and 40: it notes that the proposed Soil Framework Directive would require Member States to identify contaminated sites across their territories and make such an inventory public.

## REPLY OF THE COMMISSION

### Box 5

In the case of Poland, although there are initiatives at local level, a national register would certainly allow for better prioritisation.

However, the 'National Spatial Development Concept 2030' adopted by the Polish Government in March 2012 will ensure the coordination of planning and the integrated approach of the revitalised areas.

### 44.

The Commission refers to its reply to paragraph 43.

### Box 6

The Commission refers to its reply to paragraph 40, second indent.

### 45.

Selection criteria for the ERDF co-financed projects are decided by the Monitoring Committees of the programmes. The Commission encourages that the selection criteria include concepts such as value added, value for money and environmental sustainability and recommends applying best practices.

The Commission takes various initiatives beyond legal instruments to promote good practices in this respect. For example its Communication 'Cohesion policy and cities: the urban contribution to growth and jobs in the regions' (COM(2006) 385 final) promotes the rehabilitation of derelict brownfield sites in lieu of the use of greenfield sites and the coordination of land use and Cohesion policies to manage urban sprawl. Its services also organised and published online an expert report on the results of the 2010 Regions for Economic Change Conference workshop on 'Reusing Brownfield Sites and Buildings', which provides good practice.

45. First indent This prioritisation of projects and decision on rate of EU-funding at project level falls into the competency of the programme authorities.

### 48. Second indent

The Commission recognises that there were some weaknesses in setting grant rates in the past in part also due to the regulatory framework. For 2000–06 projects generating substantial net revenues, maximum co-financing rates were established in accordance with Article 29 of Regulation (EC) 1260/1999. The funding gap assessment was enshrined in the 2007–13 Regulation.

### Box 7

With regard to the public reserve land (Halton, UK), the funding gap methodology which is applied since 2007 did not apply the same way in the 2000–06 period. The ERDF co-financing is below the maximum intervention rate as foreseen in Article 29 of Regulation (EC) No 1260/1999, and therefore took indeed into account the potential revenue to be generated, in compliance with the applicable regulations.

As regards the former planned nuclear power station (Arneburg, Germany), the funding gap methodology which is applied since 2007 did not apply the same way in the 2000–06 period (see Article 29 (4) of Regulation (EC) No 1260/1999).

### 49.

The Commission recognises that there were some weaknesses in setting grant rates in the past in part also due to the regulatory framework. For projects generating substantial net revenues, maximum co-financing rates were established in accordance with Article 29(4) of Regulation (EC) No 1260/1999 which applies to the following three cases. The funding gap methodology was enshrined in the 2007–13 Regulation.

### 49. First indent

The Commission notes that for eight out of the 15 audited projects where the beneficiary carried out a funding gap assessment, the Court had no findings regarding possible revenues that were generated elsewhere in other developments carried out by the same developer.

## REPLY OF THE COMMISSION

### 49. Second indent

Market value of land requires indeed an independent valuation. The Commission notes that for 22 of the 27 audited projects, the Court had no findings regarding this valuation.

#### Box 8

With regard to the former coal mine/cokery (Sheffield, UK), please refer to the reply in Box 7.

#### Box 9

Concerning the former open cast mine (Rotherham, UK), the eligibility of land purchased should have been assessed in terms of the state aid scheme in accordance with Rule No 5 (Regulation (EC) No 1685/2000). With reference to the state aid scheme, the land should have been valued at zero or in certain circumstances, at the lower of actual purchase price or market value.

With regard to the former steel works (Dortmund, Germany), the Commission will follow up this issue.

### 50.

The polluter pays principle, as enshrined in Article 191(2) of the Treaty on the Functioning of the European Union (TFEU), is a guiding principle of environmental policy. It is directed at EU level and individuals cannot directly rely on this Article of the TFEU in order to exclude the application of national legislation in an area covered by environmental policy for which there is no EU legislation adopted on the basis of the same Article<sup>2</sup>. In other words, this Article is binding at Member State level insofar as it has been implemented through secondary acts at EU level, for instance through directives (e.g. Environmental Liability Directive 2004/35/EC, Water Framework Directive 2000/60/EC, Waste Framework Directive 2008/98/EC, Mining Waste Directive 2006/21/EC, etc.).

According to the Community Guidelines on state aid for environmental protection<sup>3</sup>, if there is no such secondary act at EU level, the implementation of the polluter pays principle is relevant insofar as it is defined in the applicable national law.

<sup>2</sup> Judgment of the Court of Justice of the European Union of 9 March 2010 in the case C-378/08, paragraph 46.

<sup>3</sup> OJ C 82, 14.2.2008, pp. 1–33.

### 51.

In addition to the comments on paragraph 50, the Commission proposal for a Soil Framework Directive would provide for the setting up of an appropriate economic mechanism to fund the investigation and the remediation of 'orphan sites' (i.e. contaminated sites for which, subject to the polluter pays principle, the natural or legal person responsible for the contamination cannot be identified or cannot be held liable under EU or national legislation or may not be made to bear the costs of the investigation and the remediation).

### 53.

The Commission agrees that programme authorities need to be vigilant with a view to mitigating the described risk.

### 54.

As shown by the Court in paragraphs 53–55, the projects audited have faced many complexities, in particular concerning agreements between sellers and developers of polluted land.

#### Box 10

Concerning the former steel works (Dortmund, Germany), the Commission will follow up this issue.

### 55.

The Commission always recommends an assessment of the value of the land (and of the buildings) by an independent qualified appraiser or duly authorised official body (Rule 5 of Regulation (EC) No 1685/2000).

#### Box 11

Concerning the former chemicals works (Widnes, UK) and the former coal mine/cokery (Sheffield, UK), the Commission will follow up this issue.

With regard to the former open cast mine (Rotherham, UK), the managing authority has informed the Commission that it has taken steps to inform the Homes and Community Agency (HCA, new owning responsible body) of this case.

## REPLY OF THE COMMISSION

### CONCLUSIONS AND RECOMMENDATIONS

#### 57.

The Commission considers that the inclusion of a reimbursement clause in the grant letter issued by the managing authority is a case of good practice which can usefully be included by Member States in their national rules.

For the 2000–06 programming period Article 29(4) of Regulation (EC) No 1260/1999 limited the EU contribution to revenue-generating projects depending on the priority objective and the sector of the investment. For the 2007–13 period, Article 55(4) of Regulation (EC) No 1083/2006 provides common guidelines on dealing with the revenues that have not been accounted for at the time of the submission of the project. Additional guidelines on the standardised approach to funding gap calculation and revenue-generating projects were provided in 2008 in the Cost Benefit Analysis (CBA) guide, which applies to all Member States but can be adapted to the specific national conditions. Therefore, some Member States have issued their own CBA guidelines, hence some differences between Member States can be observed. Clear and complete guidance notes for revenue-generating projects were published at the beginning of the 2007–13 programming period (COCOF 07/0074/09 and 08/0012/02).

#### 58.

The Commission considers that for projects for which revenues cannot be expected or calculated at the time of their approval, the managing authority should have the possibility to verify if revenues have been generated after project completion. The period referred to in the Regulation is adequate since it presents a balance between the need to review possible revenues when they eventually occur and the reasonable expectation of the managing authority and the beneficiaries to close projects once they are completed.

#### 59.

The regeneration of military and industrial sites or brownfields is a first step towards increasing the attractiveness of a region. It constitutes a prerequisite for the development of job-creating activities.

#### 60.

Some projects faced delays due to financing constraints in the context of the economic crisis and the job creation is a long-term objective of these projects.

#### 61.

Applying the polluter pays principle in practice is a difficult challenge. It is often not possible to require the person or legal entity that was in the first place responsible for causing the pollution to pay for remediation since, in many cases, such person or legal entity no longer exists, or it can demonstrate it complied with the applicable rules at the time of the pollution.

#### 62.

The Commission considers that the inclusion of a reimbursement clause in the grant letter issued by the managing authority is a case of good practice which can usefully be included by Member States in their national rules.

## REPLY OF THE COMMISSION

### 64.

Certification is considered to be a good practice. However, the lack of certification and the differences between national soil contamination screening values do not automatically imply that the decontamination and regeneration work was not carried out properly. The Commission proposal for a Soil Framework Directive (COM(2006) 232) would provide for a definition of 'contaminated site' and require the establishment of an inventory of such sites on the national territory of Member States.

### 65.

Project developments always take place in a context of economic uncertainties and economic downturn together with deficit reduction at national level impacts upon public policies priorities.

The notion of 'integrated urban development plan' is embedded in the Community Strategic Guidelines and in Article 44 of Regulation (EC) No 1828/2006. The JESSICA financial engineering instrument can only be deployed in area where such a plan has been set up. In addition, according to Article 8 of Regulation (EC) No 1080/2006 the ERDF may support integrated and sustainable strategies to tackle the high concentration of economic, environmental and social problems affecting urban areas, including amongst others, rehabilitation of physical environment and brownfield redevelopment.

### Recommendation 1 to Member States

The Commission agrees with this recommendation to Member States, and already requested an integrated development approach not only in the Community Strategic Framework but also in the Commission Regulation.

### Recommendation 1 (a) to the Commission

The Commission agrees to the Court's recommendation but points out that it presented a proposal for a Soil Framework Directive (COM(2006) 232) in 2006 that would introduce a legal basis to propose EU standards for the definition of contaminated sites, the risk they pose and remediation methodologies.

Such directive would harmonise the definition of 'contaminated site' across the EU and introduce, among others, the obligation for Member States to remediate contaminated sites. The directive would also allow the Commission to adopt — should the need arise and following an exchange of information with Member States — EU common technical elements for soil contamination risk assessment.

The Commission emphasises that the adoption of specific EU legislation on soil rests upon the co-legislators.

### Recommendation 1 (b) to the Commission

Brownfields are quite often located in urban areas. The Commission is already promoting integrated sustainable urban development through the current mainstream programmes. This approach will be significantly strengthened in the 2014–20 period with the requirement that at least 5 % of the Member States' ERDF allocation is spent on integrated actions for sustainable urban development. Integrated urban development is also promoted via the JESSICA financial instrument vehicle, which requires the establishment of an integrated urban development plan.

In addition, the Commission strongly advocates that Member States incorporate the regeneration of brownfield sites as a key part of their integrated urban development approach as 'regeneration of brownfield sites' is included in one of the four urban-specific investment priorities.

### Common reply to paragraph 66 and paragraph 67

External factors that lie beyond the responsibility of programme authorities, such as constraints of national and/or regional budgets and uncertainties concerning land ownership, always influence the execution of regeneration projects.

The proposed Soil Framework Directive (COM(2006) 232) would require Member States to identify contaminated sites across their territories and make such an inventory public. Brownfield sites are often contaminated and would therefore be identified as well.

### 68.

Selection criteria for the ERDF co-financed projects are decided by the Monitoring Committees of the programmes. The Commission encourages that the selection criteria include concepts such as value added, value for money and environmental sustainability and recommends applying best practices.

The Commission has also taken initiatives outside the legal framework to promote good practices for example to favour the rehabilitation of derelict brownfield sites in lieu of the use of greenfield sites and the coordination of land use.



## REPLY OF THE COMMISSION

### **Recommendation 2 (b) to Member States**

The Commission recalls that its services have recently published a staff working document (SWD(2012) 101 final/2) containing 'Guidelines on best practice to limit, mitigate or compensate soil sealing'. The document describes approaches which have been implemented in the Member States, including preventing the conversion of green areas and the subsequent sealing of (part of) their surface, and the reuse of already built up areas, e.g. brownfield sites.

### **Recommendation 2 to the Commission and Member States**

The Commission has taken initiatives outside the legal framework to promote good practices for example to favour the rehabilitation of derelict brownfield sites in lieu of the use of greenfield sites and the coordination of land use.

#### **70.**

The Commission recognises that there were some weaknesses in setting grant rates in the past in part also due to the regulatory framework. For 2000–06 projects generating substantial net revenues, maximum co-financing rates were established in accordance with Article 29(4) of Regulation (EC) No 1260/1999. The funding gap methodology was enshrined in the 2007–13 Regulation.

#### **71.**

The Commission considers that the inclusion of a reimbursement clause in the grant letter issued by the managing authority is a case of good practice which can usefully be included by Member States in their national rules. However, under the principle of shared management, since the Managing Authorities issue the grant decisions, they should also monitor the application of the reimbursement clause as they monitor the implementation of the projects.

The Commission considers that for projects for which revenues cannot be expected or calculated at the time of their approval, the managing authority should have the possibility to verify if revenues have been generated after project completion. The period referred to in the Regulation is adequate since it presents a balance between the need to review possible revenues when they eventually occur and the reasonable expectation of the managing authority and beneficiaries to close projects once they are completed.

#### **72.**

The Commission notes that programme authorities need to be vigilant with a view to mitigating the described risk related to complex agreements between polluters, land-owners and developers.

The Commission always recommends an assessment of the value of the land (and of the buildings) by an independent qualified appraiser or duly authorised official body (Rule 5 of Regulation (EC) No 1685/2000).

#### **73.**

The Commission agrees that state aid rules should always be complied with by national authorities as they form part of the Structural Funds regulatory obligations.

### **Recommendation 3 (e) to Member States**

The Commission considers that the inclusion of a reimbursement clause in the grant letter issued by the managing authority is a case of good practice which can usefully be included by Member States in their national rules. However, under the principle of shared management, since the Managing Authorities issue the grant decisions, they should also monitor the application of the reimbursement clause as they monitor the implementation of projects.

### **Recommendation 3 (a) to the Commission**

Concerning the definition of common principles for the application of the polluter-pays principle, the Commission considers that such principles are already in place.

### **Recommendation 3 (b) to the Commission**

The Commission has already implemented the Court's recommendation. Compliance with state aid rules has always been a regulatory requirement. In the 2007–13 programming period, the Commission regulatory framework requires that the funding gap methodology has to be taken into account. In agreement with the Member States, the Commission has provided clear and complete guidance notes for revenue-generating projects at the beginning of the programming period (COCOF 07/0074/09 and 08/0012/02).



European Court of Auditors

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THERE ARE MORE AND MORE DERELICT INDUSTRIAL AND MILITARY SITES (SO-CALLED BROWNFIELD SITES) ACROSS EUROPE IN NEED OF REGENERATION, MANY OF WHICH ARE CONTAMINATED. EU STRUCTURAL MEASURES HAVE PROMOTED BROWNFIELD REGENERATION IN ORDER TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT AND MITIGATE URBAN SPRAWL.

THE COURT ASSESSED WHETHER EU-FUNDED REGENERATION PROJECTS MET THEIR OBJECTIVES, WHETHER THE TARGETING OF EU SUPPORT WAS BASED ON ROBUST CRITERIA AND WHETHER RESULTS WERE ACHIEVED AT THE LOWEST COST TO THE EU BUDGET.



EUROPEAN COURT OF AUDITORS



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