JESSICA

JOINT EUROPEAN SUPPORT FOR SUSTAINABLE INVESTMENT IN CITY AREAS

JESSICA Initiative for North Rhine-Westphalia

EVALUATION STUDY

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1 The implementation process for JESSICA in North Rhine-Westphalia

1.1 Initial situation in Germany

With the European Commission’s JESSICA initiative (Joint European Support for Sustainable Investment in City Areas), recipients of ERDF funding in the 2007-2013 programming period can contribute Structural Fund resources to ‘revolving’ urban development funds, in which private investors participate, in order to be able to have recourse to sources of financing which are available in the long term even when total resources are declining. In the context of JESSICA, investments in urban development are to be supported by means of ‘urban development funds’ with the aid of (reduced-cost) loans, equity, guarantees etc. It is also intended not least to encourage the more effective use of ERDF funding for urban development.

The European Investment Bank (EIB), together with the European Commission (DG Regio), supports the development and implementation of the JESSICA initiative in the EU Member States. It provides financial resources and know-how for the implementation of urban development funds (e.g. by commissioning feasibility studies) and can also take on the management of a possible holding fund for the urban development fund. In addition, it can also contribute to the co-financing of the ERDF funding contributed to the fund.

However, because such approaches to support and financing require returns, the question arises as to the areas of application and their quantitative importance. In Germany, and in most other European states, there has not really been any experience with using these instruments to support urban development. There is often uncertainty over the added value provided by such instruments and their practical application.

For this reason, in 2008 the Federal Ministry of Transport, Building and Urban Development began to support, at regional level, pilot schemes relating to urban development funds under the ExWoSt (Experimental Housing and Urban Development) initiative in order to obtain sound information on the feasibility and added value of the JESSICA approach. By identifying workable JESSICA fund models, important impetus can be given to other Länder not yet involved in JESSICA with a view to them trialling urban development funds.

Under the ExWoSt research initiative at federal level, the Ministry of Economics and the Ministry of Urban Development, in cooperation with NRW.BANK and NRW.UBAN, intend to work out the specific terms and conditions applicable in North Rhine-Westphalia for the use of lending instruments for urban development projects under the JESSICA initiative. Legal, regional-policy, financial and project-specific criteria are to be devised and defined for the practical implementation of
urban development funds. That development process is the focus of the present study.

In support of the project, the EIB prepared and commissioned this feasibility study with the aid of European Commission funds.

1.2 The need for structural support in North Rhine-Westphalia

1.2.1 Market failures, bottlenecks and structural problems

Around 80% of Europe’s population lives in cities. Cities therefore play a pre-eminent role as a motor for regional economic growth and competitiveness. However, cities are facing considerable challenges not only with respect to technological developments and as a result of socioeconomic and demographic change. Complex problems are increasingly arising in cities, as a result of which the disparities have widened in recent years between cities and regions, but also between city-centre districts.

Against this background, the cohesion objective of European structural policy is intended in particular to address centre-centre disparities and problems in order to promote Objective 2, regional economic growth and competitiveness. To that end, it is necessary, from the perspective of the European Commission, to adopt an integrated approach consisting of economic, social and physical components to be implemented on an interdisciplinary basis by pooling resources from different sectoral policies. As part of the Lisbon Strategy, strategic guidelines were developed for the 2007-2013 programming period. Together with the substantive basis laid down in Article 8 of Regulation (EC) No 1080/2006 of the European Parliament and of the Council, the Commission Communication entitled ‘Cohesion Policy and cities: the urban contribution to growth and jobs in the regions’, the Leipzig Charter, the Territorial Agenda of the EU, and their ‘follow-ups’, the Member States were given specific material assistance with implementation. With the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund, the financial instruments were provided to offer structural support in that sector.
The Federal Government, together with the Länder, has devised the national strategic reference framework (NSRF) which is required by Article 27 of Regulation No 1083/2006. The national reference framework must be drawn up for each EU Member State and is intended to ensure that assistance from the Structural Funds and Community priorities are consistent with the national reform programme and Germany’s efforts to achieve the Lisbon objectives. At the same time, the NSRF is the reference framework for the Operational Programmes of the Länder. The reference framework lays down two top objectives:

- speeding up the convergence process in order to reduce the development gap with the Objective 1 regions in Germany,
- strengthening regional competitiveness and employment.

Germany is pursuing four strategic objectives, namely promoting innovation, extending the knowledge society and strengthening the competitiveness of industry, increasing the attractiveness of the regions for investors and residents through sustainable regional development, gearing the labour market to new challenges, and further development of the regions based on opportunity and equalisation. In the national reference framework, ‘environment’, ‘equal opportunities’ and ‘sustainable development’ are also established as horizontal objectives. For the German Objective 2 regions (western German Länder with the exception of the administrative district of Lüneburg), six thematic priorities have
also been formulated with a view to the operation of the Structural Funds for 2007-2013:

![Diagram of Strategic and Thematic Objectives]

**Figure 2**: Strategic objectives of the NRW ERDF Operational Programme

In the North Rhine-Westphalia Operational Programme it is planned to use funding from the Regional Competitiveness and Employment (ERDF) Programme 2007–2013 with a view to developing competitiveness by promoting innovation and specific strengths across the region as a whole, and also with a view to encouraging convergence in structurally disadvantaged regions by strengthening competitiveness. The aim is to support the competitiveness and adaptability of the economy in North Rhine-Westphalia and to create jobs (see NRW OP, p. 1). At the same time, it is intended to achieve or at least improve progress towards the criteria laid down under the Lisbon Strategy which have not yet been satisfied by NRW:
## Baselineindikatoren für Nordrhein-Westfalen (EFRE)

<table>
<thead>
<tr>
<th>Indikator</th>
<th>EU-15</th>
<th>EU-25</th>
<th>Deutschland</th>
<th>NRW*</th>
<th>Zielwert</th>
<th>Ziel NRW**</th>
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</thead>
<tbody>
<tr>
<td>BIP (KKS) je Einwohner 2003 (laufende Marktpreise)</td>
<td>23,720</td>
<td>21,471</td>
<td>23,570</td>
<td>23,361</td>
<td>Ermöglichung</td>
<td></td>
</tr>
<tr>
<td>Anteil der privaten Bruttoanlageninvestitionen am BIP in % 2004 (NRW: 2003)</td>
<td>17,1</td>
<td>17,1</td>
<td>15</td>
<td>16</td>
<td>Ermöglichung</td>
<td></td>
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<tr>
<td>Anteil der FuE-Ausgaben am BIP 2003 in %</td>
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<td>1,9</td>
<td>2,5</td>
<td>1,8</td>
<td>Ermöglichung</td>
<td></td>
</tr>
<tr>
<td>Anteil des Wirtschaftssektors an den gesamten FuE-Ausgaben in % 2003</td>
<td>54,6</td>
<td>54,3</td>
<td>66,3</td>
<td>60,7</td>
<td>3</td>
<td>Ermöglichung</td>
</tr>
<tr>
<td>Patente je 100.000 Einwohner 2003</td>
<td>8</td>
<td>7</td>
<td>15</td>
<td></td>
<td>Ermöglichung</td>
<td></td>
</tr>
<tr>
<td>Arbeitslosenquote insgesamt in % 2005</td>
<td>7,9</td>
<td>8,8</td>
<td>9,5</td>
<td>13,2</td>
<td>Verminderung</td>
<td></td>
</tr>
<tr>
<td>Arbeitslosenquote Frauen in % 2005</td>
<td>9</td>
<td>9,9</td>
<td>10,3</td>
<td>12,7</td>
<td>Verminderung</td>
<td></td>
</tr>
<tr>
<td>Langzeitarbeitslosenquote in % 2005</td>
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<td>3,9</td>
<td>5</td>
<td></td>
<td>Verminderung</td>
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<tr>
<td>Beschäftigungsquote allgemein in % 2005</td>
<td>65,2</td>
<td>58,8</td>
<td>66,4</td>
<td>63,3</td>
<td>70</td>
<td>Ermöglichung</td>
</tr>
<tr>
<td>Beschäftigungsquote Frauen in % 2005</td>
<td>59,6</td>
<td>57,4</td>
<td>66,3</td>
<td>66,4</td>
<td>60</td>
<td>Ermöglichung</td>
</tr>
<tr>
<td>Absolventen in naturwiss. u. techn. Fächern pro 1.000 Einw. im Alter v. 20-29 Jahren (NRW: 2003)</td>
<td>13,6</td>
<td>12,7</td>
<td>6</td>
<td>6,1</td>
<td>Ermöglichung</td>
<td></td>
</tr>
<tr>
<td>Anteil erneuerbarer Energien am Bruttostromverbrauch in % 2004</td>
<td>14,7</td>
<td>13,7</td>
<td>9,7</td>
<td></td>
<td>Ermöglichung</td>
<td></td>
</tr>
<tr>
<td>Energieintensität der Wirtschaft 2004 (Index)</td>
<td>187,8</td>
<td>204,9</td>
<td>188,6</td>
<td></td>
<td>Ermöglichung</td>
<td></td>
</tr>
<tr>
<td>Güterverkehrs volumen im Verhältnis zum BIP 2004 (Index)</td>
<td>105,3</td>
<td>104,7</td>
<td>107,5</td>
<td></td>
<td>Ermöglichung</td>
<td></td>
</tr>
</tbody>
</table>

Key:
(column headings)
- Indicator: EU 15 EU 25 Germany NRW Lisbon target NRW objective
(column 1)
- GDP (PPS) per inhabitant in 2003 (current market prices)
- Proportion of private gross capital investments in GDP as a % in 2004 (NRW: 2003)
- Proportion of R&D spending in GDP in 2003 as a %
- Proportion of economic sector in total R&D spending as a % in 2003
- Patents per 100 000 inhabitants in 2003
- Total unemployment rate as a % in 2005
- Unemployment rate for women as a % in 2005
- Long-term employment rate as a % in 2005
- Science and technology graduates per 1 000 inhabitants in the population group age 20-29 in 2004 (NRW: 2003)
- Proportion of renewable energies in gross power consumption as a % in 2004
- Energy intensity in the economy in 2004 (Index)
- Volume of goods traffic in relation to GDP in 2004 (index)

**Figure 3:** Baseline indicators for the Land of NRW

The available funding totalling EUR 1.26 billion (EUR 180 million per year) is thus mainly concentrated on the first two strategic objectives and the connected first three priorities of the NSRF at federal level.

The justification for this concentration from the point of view of the regional economy stems from the fact that there is not only below-average economic growth and per-capita income and above-average unemployment in NRW, but also a ‘market failure’ in the following areas (see NRW OP, p.38/39):

- **Innovation weakness:** The innovation capacity of the regional economy is of central importance to future competitiveness. The indicators taken into account indicate considerable structural problems: R&D spending and employees in that sector are well below average (in particular compared...
with western Germany). One effect is a comparatively low number of patents filed. The economic structure is, by and large, geared to science and technology only to a relatively low extent. Developments in leading-edge technology, general educational standards and the good technological infrastructure lay the foundations for a further stimulation of innovation activity.

- **Deficiency in business start-ups:** The below-average number of business start-ups which has been observed for many years has similar effects as regards future growth potential and structural change. It must be assumed that the proportion of new, high-growth businesses is relatively low. The potential for modernising the economy and for dynamic employment growth is therefore less than average.

- **Investment weakness:** The comparatively low capital gearing and investment activity would appear to raise problems. This is partly the result of the old industrial structures in parts of the region: in mature and saturated industries, lower investments are being made. At the same time, the below-average investment activity is also delaying adaptation to structural change.

- **Regional differences:** The Land of NRW is in some cases characterised by considerable differences in terms of economic development. In the Ruhrgebiet in particular, structural change has not yet been completed and the specific obstacles to the development of the region have meant than its development is still lagging well behind the rest of NRW. In the past, the Land has made substantial investments in modernising an effective infrastructure and rehabilitating old industrial locations in order to eliminate the bottlenecks referred to in the regional analysis. Nevertheless, there are still significant structural obstacles which must continue to be addressed in the ERDF programme. The Ruhrgebiet still has below-average income and productivity levels and below-average investment, with high structural unemployment. In business research and development (R&D) and business start-ups, the Ruhrgebiet lags well behind the regional trend. This statement also holds, in nuanced form, for the Bergisch tri-city area as regards certain central indicators.

- **City-centre differences:** In the cities in the Ruhrgebiet in particular, but also in other NRW cities, there are marked development deficits in structurally particularly disadvantaged urban areas throughout the region, as a result of the cumulation of economic, social and urban-planning problems which must continue to be subject of structural-policy action since they are barriers to development for the cities as a whole.
Against this background, three main areas of action emerge in which the Land of North Rhine-Westphalia faces particular challenges in the Structural Fund programming period 2007-2013 and on which the NRW ERDF OP focuses (see NRW OP, p. 43):

- There is a need for action to encourage productive investments to maintain and increase the number of businesses. Because of the bottlenecks with regard to growth and employment, the Land must offer a target-group-specific package of strategies (including promotion of start-ups, technology-oriented businesses) which also takes account of regional problem factors.

- With regard to the promotion of a knowledge-based society, there is a need to support innovation on a broader basis and to utilise existing potential: the package of strategies to be developed ranges from the promotion of business innovations to technology transfer and ideas in growth-relevant areas of the services sector.

- A third area of action concerns other, primarily infrastructure-related potential factors, which represent a barrier to growth above all in structurally weak regions. This area of action also includes the specific and cumulatively mutually reinforcing problems in individual urban areas.

In summary, it can be stated that in terms of central economic variables and potential factors, North Rhine-Westphalia remains well behind the average for western Germany. The analysis of the initial socioeconomic situation shows that Structural Fund support in North Rhine-Westphalia is concentrated principally on improving competitiveness and innovation capacity together with sustainable urban and regional development.

1.2.2 Structural support in the Operational Programme to strengthen regional competitiveness and employment in the period 2007-2013

The top objective of the ERDF Operational Programme in North Rhine-Westphalia is thus to promote the competitiveness of NRW’s economy and to create jobs. The main aim is to use at least 50% of the funding in regions which, according to clear indicators, are to be regarded as structurally weak (convergence objective). At present, those areas are primarily the Ruhrgebiet regions and the Bergisches Land, as well as neighbouring districts throughout the Land, on the basis of clear structural indicators (see the following focus). Two main objectives are pursued:

- **Main objective 1:** Developing competitiveness by promoting innovation processes and specific strengths of the Land as a whole: In principle,
economic growth in North Rhine-Westphalia does not yet satisfy the objectives linked to the EU’s Lisbon Process. As is shown in the regional analysis, deficits are apparent in particular in the factors which determine the future competitiveness of our economy, such as innovation activity and the proportion of knowledge-based economic activities. NRW falls far short of the Lisbon objectives with regard to both R&D spending in the private and public sectors and R&D employees. The Regional Government will therefore use the future Structural Fund resources to support the innovation capacity of the economy and the regions of the Land as a whole.

- **Main objective 2: Convergence to increase competitiveness in structurally very disadvantaged areas:** The regional differences within NRW described in the regional analysis make it clear that, alongside the obligation to meet the Lisbon objectives, the convergence of regional development must remain a central objective of structural policy and the Land’s future Structural Funds programme.

Under the main objectives, the Operational Programme can be divided into three strategic objectives which are each underpinned by groups of measures:

![Diagram of strategic objectives]

Key:
- **Top objective**: Improving the competitiveness and adaptability of the economy in North Rhine-Westphalia and creating jobs
- **Main objectives**: Developing competitiveness by promoting innovation processes and specific strengths of the Land as a whole
Convergence to increase competitiveness in structurally very disadvantaged areas
Strategic objectives
Strengthening the entrepreneurial base
Promoting Innovation and developing a knowledge-based economy
Promoting sustainable urban and regional development
Areas of action
Financial assistance for SMEs and business start-ups
Support for innovation, clusters and networks
Integrated development of problem urban areas
Advice for SMEs and business start-ups
Corporate technology and research infrastructures
Elimination of bottlenecks to development in heavily industrial regions
Innovative services
Interregional and intra regional cooperation
Horizontal objectives
Sustainable and environmentally-sound development
Gender equality and non-discrimination

Figure 4: Objectives and areas of action of the NRW ERDF Operational Programme

20% of the funding is planned to be invested in the first focus or in the strategic objective ‘strengthening the entrepreneurial base’. 50% of the funding is to go to the second strategic objective ‘innovation and knowledge-based economy’ and 30% in the priority/strategic objective ‘sustainable urban and regional development’. ¹ This is intended to compensate for the disadvantages suffered by structurally weak, heavily industrial regions as a result of economic structural change. The aim is in particular to develop the Ruhrgebiet into one of the leading metropolitan regions in Europe. To that end, it is necessary to make the region more attractive to investors and to workers, as is required in the Strategic Guidelines. The framework conditions must be improved so that local businesses are better able to cope with adapting to structural change and the challenges of globalisation. By compensating for the disadvantages in this way, the aim is also to place businesses and the region as a whole in a position to be able to survive in interregional and international competition to introduce innovations. By strengthening the competitiveness of the disadvantaged regions, the development prospects and potential of the Land as a whole are improved. Furthermore, it is the aim in disadvantaged urban areas in which economic, social, urban-planning and environmental problems are concentrated to contribute to addressing the challenges. The aim of cohesion policy, promoting social cohesion, is also to be pursued on a micro level so as not to jeopardise the competitiveness of cities in North Rhine-Westphalia as a whole.

Furthermore, the programme is based on two horizontal objectives, namely sustainable and environmentally-sound development and gender quality. Both horizontal objectives are underpinned by a dual approach: first, there is active

¹ The structurally weak regions are to participate in the programme at a level of at least 50%. However, the third focus, which is available only to those regions, provides for only 30% of the total funding. The structurally weak regions are expected to apply for the missing 20% in the other priority axes in regionwide competition for the best operations (see NRW OP, p.164).
support within the three programme priorities through financial assistance for measures and projects contributing to the main objectives, the strategic objectives and the specific objectives of the programmes, and the horizontal objectives. Secondly, horizontal consideration is given through procedural approaches which guarantee that the horizontal objectives are integrated at all stages of the programme cycle. This includes, for example, the inclusion of thematic representatives in programme formulation and in the bodies for programme implementation and programme support, and the incorporation in thematic evaluations of specific indicators for programme support and questions relevant to the horizontal objectives. In principle, at the project selection stage, in order to pursue the horizontal objectives in the programme, a ‘priority rule’ will apply to operations with a strong link to those horizontal objectives. This means that in the case of equivalent projects, priority will be given to operations which contribute best to the implementation of environmentally-sound development and the creation of equal gender opportunities.

Lastly, the analysis of NRW’s regional economy has made it clear that the urban dimension and demographic growth are especially important. The analysis has shown that the challenges faced by NRW consist in population decline and the continuing ageing of society. The population of North Rhine-Westphalia will fall from its current level of 17.9 million to 16.2 million by 2050. The autonomous cities, in particular those of the Ruhrgebiet, will be especially affected by population decline. These trends will be further reinforced by migratory movements. The exodus from the cities (both longer distances and as part of suburbanisation) and also internal migration processes in shrinking cities result in greater segregation according to income, lifestyle and nationality in different urban areas. The aim of urban development policy, in accordance with the national urban development policies and EU structural support – is to prevent areas with persistent economic, ethno-social, cultural and other disadvantages becoming established in those cities, thus jeopardising the social peace. In view of the continuing population ageing and lower birth rates, integration and good education for young people from all social groups represent an economic necessity for the existence of the cities. In addition, the adaptation to an ageing society will also raise a new challenge in terms of new economic structures and services. Against this background, regard for demographic trends and the urban dimension will be incorporated into the system of objectives (see the figure above) in the North Rhine-Westphalia Operational Programme as basic principles to be observed by all supported projects (see NRW OP, p.72).

1.2.3 Sustainable urban and regional development in the OP (ERDF) for North Rhine-Westphalia

In Priority 3 of the NRW ERDF OP, support for achieving the top objective is concentrated on sustainable urban and regional development. It is implemented in
both priority axes 3.1 and 3.2, which each pursue different secondary objectives with different geographical connections.

The reason for this support (see NRW OP, p. 135 et seq.) is that there are still obstacles to development above all in the Ruhrgebiet (contaminated and brownfield land, deficient environmental and natural quality, infrastructure deficiencies, negative image, see Section B of the OP) which make it more difficult to utilise the region’s potential (cluster potential, development land close to the city centre, industrial heritage) and make targeted support necessary even in the forthcoming programming period. In addition, there are similar problems in other heavily industrial parts of the region, such as the Bergisch tri-city area, which also require support. So that NRW can in future develop into one of Europe’s leading economic regions, such existing obstacles to development must be eliminated. The measures in Priority 3 thus meet the need, resulting from the desired innovation surge, for excellent spaces and attractive, urbane locations for a knowledge-based economy. Priority 3 makes it possible to provide support for city-centre problem areas based on integrated action plans or individual model operations to support local economies and the elimination of existing obstacles to development. With a view to achieving the horizontal objective of equal opportunities, the measure is intended to contribute to making the cities an attractive place for women and men to live and work. This means, for example, support in developing innovative service and consultancy structures, the formulation of equal opportunity profiles for the local economy or the consideration of gender knowledge of project planners and project implementers. For Priority 3 there are the following specific objectives, measures and indicators to measure fulfilment of the objectives:

<table>
<thead>
<tr>
<th>Priority 3: Sustainable urban and regional development</th>
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</thead>
<tbody>
<tr>
<td>Integrated development of problem urban areas</td>
</tr>
<tr>
<td>Specific objectives</td>
</tr>
<tr>
<td>• Making the regions more attractive to investors and to workers</td>
</tr>
<tr>
<td>• Improving infrastructural and location-related framework condition</td>
</tr>
<tr>
<td>• Integrated development of urban areas with particular need for regeneration, involving wide-ranging partnerships</td>
</tr>
<tr>
<td>• Increasing integration and social cohesion at micro level</td>
</tr>
<tr>
<td>Target group</td>
</tr>
<tr>
<td>• Inhabitants, business people, (potential) start-ups, associations, foundations, initiatives, churches, educational institutions, religious groups, property owners and housing companies etc, in structurally very disadvantaged regions</td>
</tr>
<tr>
<td>• Economic and social partners outside the supported urban areas, e.g. municipal business development agencies, chambers, welfare associations, businesses</td>
</tr>
<tr>
<td>• Public authorities and bodies, associations, public corporations and municipal enterprises</td>
</tr>
<tr>
<td>• Private-law institutions which perform public duties in environmental protection</td>
</tr>
</tbody>
</table>
1.2.3.1 Planned measures for the integrated development of problem urban areas (Focus 3.1)

In order to address the specific problem of disadvantaged urban areas, area-specific integrated action plans are necessary, to be developed and implemented at local level using a wide range of support methods.

In region-wide calls, the cities are encouraged to apply for support with integrated action plans for their disadvantaged urban areas. For urban areas already included in the ‘Socially Integrative City’ programme or URBAN II, cities can apply for funding with status reports on progress made with the existing integrated action plans. The decision on including urban areas in the programme is taken by an inter-ministerial working group.

Urban areas are generally selected by the municipalities on the basis of a city-wide comparison of social-statistical problem indicators. The region-wide uniform basis is a list of statistical context indicators on the basis of which the development of urban areas can be described using a municipal and regional comparison. Key indicators (= regional scenario for Focus 3.1) include:

- unemployment rate
- proportion of social welfare recipients
- proportion of children and young people
- proportion of residents with a migration background
- deficiencies in urban planning and the environmental situation or
- below-average housing quality.

The aim of the integrated approach is:

- to improve social, economic and environmental living conditions in urban problem areas
- to strengthen the local economy of districts and to promote social cohesion and integration in disadvantaged districts
- to improve working, environmental and living conditions, and
to reduce the widening of disparities, which are reflected at micro level, and the risks of social exclusion.

The urban measures must be part of comprehensive urban action plans adopted by the City Council, consisting of (= integrated development approach):

✓ an analysis of the current situation
✓ a tailored action strategy with appropriate development objectives, integrated into the development strategies for the city as a whole
✓ specific priorities for action and measures
✓ a financing plan (including possible private-sector investment)
✓ appropriate implementation structures and procedures (neighbourhood management, resident participation, interdisciplinary cooperation) and
✓ description of proposed monitoring and quality control systems.

The integrated action plans are based on empowerment principles and involve various partners (residents, initiatives, associations, public bodies and institutions, businesses, etc.). The aim of the measure is to establish self-supporting network structures and, selectively, to promote self-supporting and sustainable individual investment projects. The focus is on utilising and encouraging endogenous potential in the district. The aim should also be to support the integrated development approach in such urban areas, in particular by involving private-sector businesses or initiatives. It is necessary to involve economic and social partners outside the urban area with a view to exploiting synergies, such as the integration of business development agencies, chambers, welfare associations and external businesses in the promotion of local economies, so as to create an effective link between endogenous and exogenous potential. In terms of content, support for the integrated development of disadvantaged urban areas is to be based on a broad ‘toolbox’. In the ERDF programme, support is to be given in particular to activities in the following areas:

✓ Social and ethnic integration:
  o Education and schooling in the urban area
  o Neighbourhood initiatives
  o Integration through sport
✓ Neighbourhood management/image improvement
  o Support for resident-led projects and private-sector investments
  o District office
Promotion of local economies is particularly important from the point of view of North Rhine-Westphalia: the promotion of the local economy is geared to achieving labour-market, employment, structural and social-policy objectives; it combines the areas of action ‘local business development’, ‘employment promotion and qualifications/training’ and ‘social economy’ (in the sense of an economy promoting the general good and social integration) in a geographical approach. Nevertheless, the aim is to utilise development, employment and growth potential in the economies of the urban areas by fostering specific strengths and potential and by integrating them in the economic cycles of the city as a whole and the region. This approach thus supplements conventional business development and employment promotion where structural-policy measures are geographically targeted only indirectly, via the location of the businesses. With approaches geared to the local economy, taking into account the potential and needs of local residents and companies, economic growth will be supported using small-scale instruments. Projects in this area of action can be included in the programme both in the context of integrated action plans and in the form of individual model operations. For example, in structurally weak areas the following projects are conceivable:

- creation of local infrastructures to support the economy
• promotion of entrepreneurship and employment pacts

• measures to stabilise companies through advice, training and promotion of locations

• encouragement of business start-ups and training measures

• establishment and support for sector- or target-group-related networks and projects (e.g. ethnic economy, neighbourhood, retail, cultural industry, catering trade, crafts etc.)

• support for entrepreneurial initiative (e.g. setting up and professionalising business associations, trade associations, including migrant businesses)

• alternative financial engineering instruments (above all microfinancing for micro-enterprises), which are primarily local and are tailored to the specific financing problems of small and micro-enterprises

• projects to enhance cooperation between schools and industry and measures to facilitate and reinforce the transition from school to working life for young people (training fairs, visits to companies, partnership projects etc.)

• support for innovative forms of cooperation adapted to the situation on the local housing market or in the local retail trade (e.g. support for setting up property and business communities, owners’ forums)

• projects in response to the obstacles and potential stemming from the specific demographic situation (e.g. utilisation of employment potential in personal services, creation of demography-sensitive infrastructures, e.g. to simplify access to work for women, new forms of integrated provision of social and educational infrastructure).

Urban development funding in NRW is targeted at comprehensive measures in cities/municipalities in one area over a quantifiable period which cannot be financed by means of revenue or other income. Such funding is intended

- to eliminate urban planning problems (= traditional urban renewal/rehabilitation)

- coupled with a concentration of social, economic and environmental problems (= Socially Integrative City)

- coupled with obvious dysfunctions as a result of demographic or economic change (= urban redevelopment)
- to support potential and/or opportunities for private-sector investment in the city (= attractive city centres and district centres = future locations/new urban districts)

- to pursue a policy of architectural conservation in urban planning (= preservation of architecturally and culturally historic centres = from 2008 also in western Germany).

If the measures satisfy the criteria laid down in the OP, they may be financed with ERDF funding. In the 2009 NRW urban development funding programme, ERDF funding accounted for EUR 61 million of the total resources of EUR 261 million.

*The basis for funding* is an integrated action plan adopted by the City Council with a measure programme, timetable, budget and financing plan, containing

- a package of measures broken down according to areas of action

- for a multi-annual period

- with financing contributions from other public institutions and private investors

- and a description of revenue and income.

A comprehensive measure, as a sum of individual measures, covers

- in the conventional sense: preparatory measures/investigations, regulatory measures, construction work and other measures which are necessary for construction work to be carried out

- in the current understanding of urban development funding: construction work (planning and execution), participation, management and public relations work.

The supported measure will be regularly monitored using indicators, with output and outcome indicators being applied on the one hand. The following criteria may be used in particular as output indicators:

- number of business start-up consultations (proportion of women; people with a migration background),

- number of supported projects for the local economy according to type, institution and target group,

- number of supported projects for social integration according to type, target group and institution,
As regards the outcome indicators, the following parameters present themselves in the relevant package of measures:

- number of jobs and training places created (proportion of women; people with a migration background),
- number of jobs and training places safeguarded (proportion of women; people with a migration background),
- number of businesses actually started (proportion of women; by people with a migration background),
- total investment volume; public-sector share; private-sector share,
- area sealed as part of the project,
- environmental improvements made in the supported projects (green spaces created, reduced emissions and immissions).

1.2.3.2 Planned measures to eliminate bottlenecks to development, particularly in heavily industrial regions (Priority 3.2)

In order to improve location-related factors as a precondition for a knowledge-based economy, the Land has already made considerable investments in modernising infrastructure and in rehabilitating old industrial locations. In this way, the bottleneck in relation to industrial land in the Ruhrgebiet has been gradually improved, at some considerable expense, above all by redeveloping brownfield sites.

There are nevertheless still substantial bottlenecks to development in structurally particularly disadvantaged cities, districts and regions. For example, in some parts of the Ruhrgebiet economic growth continues to be hampered severely by contaminated land, a shortage of open spaces, a low environmental quality and a related negative image, which proves to be a negative factor in particular in relation to the transregional and international acquisition of businesses.
However, the provision of an effective infrastructure and the reuse of industrial land is an important precondition for creating competitive framework conditions for industry. Furthermore, the provision of attractive open spaces with corresponding environmental quality provides a basis for tourism, the cultural industry and the leisure industry, and generally constitutes a precondition for boosting the region’s image as a high-quality location in which to work and live.

Support is limited to locations where there are clear deficits and needs which are hampering economic growth. Against the background of the current sufficient availability of industrial land, regionally coordinated plans and a proven demand for land which has been registered for development, rehabilitation or modernisation are requirements for support under this measure.

However, it will be possible effectively to eliminate the obstacles to development in structurally highly disadvantaged areas of NRW only if all forces are also marshalled in the field of the environment/ecological sustainability and risk prevention. Investments to improve the environmental situation are therefore an essential part of a location policy with a view to growth and employment. The preparation and recycling of brownfield land also represents a particular challenge, in addition to development for commercial purposes, making a contribution to structured urban development and to improving the environmental situation. Against this background, the following three areas are to be supported:

1. **Promotion of infrastructure and land development**

A key parallel strategic objective in promoting infrastructure is to provide support to individual municipalities for projects which are substantially co-promoted in the region in question and which provide a demonstrable and clear economic impetus to the region as a whole. As a strategic basis and condition for support, this requires in each individual case:

- a regional development strategy

- containing a clear, project-specific definition of the region

- describing the specific strengths, weaknesses, opportunities and threats for the region

- showing an irrefutable regional need, and

- including the relevant objectives whose fulfilment must be examined as a basis for the concomitant quality assurance, and
• outlining projects to be realised to implement that strategy, preferably inter-
municipal or inter-regional projects.

Support will therefore be given to the following:

✓ development of integrated sites and urban districts on city-centre brownfield land in order to bring about its long-term reintegration into the city’s fabric

✓ rehabilitation of disturbed land on brownfield industrial, commercial and transport sites and restoration of industrial and other brownfield land for commercial, urban development or leisure purposes, including using innovative contaminated site investigation and remediation methods

✓ modernisation and improvement of the quality standard (e.g. improvement of access situation, control systems, adaptation of infrastructure) of existing industrial land

✓ business-related infrastructure measures, such as transport infrastructure measures for the internal and external development of industrial land (tri-modal development), expert reports, designs and regional coordination

✓ measures to eliminate and prevent pollutants entering rivers and lakes.

In the course of project selection, priority is given to regionally promoted projects and/or PPP projects and inter-municipal projects and it must be shown that the project applied for supports the objective mentioned in the development strategy.

2. Emscher Valley
In creating the New Emscher Valley, the Emscher is to be developed into a continuous aquatic habitat and a biotope combination with high importance for the region. With its meadows and a number of other related structures, the Emscher will be given a new, attractive and distinctive appearance. The design of the ecologically improved New Emscher will extend to the neighbouring urban areas and open spaces. This will also form the basis for a stabilisation of urban development on the Emscher. The improvement of the quality of open spaces and the reduction of water pollution, with provision of relevant facilities and a basic framework for tourism, the cultural and leisure industries, therefore seeks to boost the regional image as a place in which to work and live, and to safeguard jobs in the medium-sized construction industry and in the services sector. Support will therefore be given to the following areas on the basis of the Emscher Landschaftspark/emscher:zukunft master plans (integrating the Emscher Lippe Environmental Programme):

• Restoration of land with a view to improving the quality of open spaces
• Restoration of industrial and other brownfield sites for leisure purposes, including necessary risk assessment, securing and rehabilitation of contaminated land

• Ecological optimisation of the Emscher, its inlets and the Lippe inlets for all water management measures which cannot be financed by means of fees

• Extension of cycle path and footpath system

• Preservation and presentation of historic tracks, and landscape interpretation and design using the creative arts

• Measure-specific land acquisition.

3. Use of industrial heritage (in particular in the Ruhrgebiet)
The Ruhrgebiet in particular, with its industrial heritage, provides a distinctive setting which, with its potential for tourist and cultural applications, offers competitive advantages over other German and European regions and creates a positive image for the region as a location.

Funding is therefore to be given to projects with a view to reclaiming and using old industrial sites for commercial and cultural purposes, taking advantage of the industrial heritage.

In its industrial culture, the Ruhrgebiet has at its disposal an industrial tourism network which is unique in the world and a unique selling proposition. Some locations are also venues for the RuhrTriennale cultural festival. By showcasing architectural heritage, the RuhrTriennale festival is thus making an important contribution to preserving the industrial heritage of the Ruhrgebiet. However, investment in the rehabilitation, preservation and optimisation of buildings and installations is needed, as well as tourist development and marketing for the Ruhrgebiet, for example as European Capital of Culture 2010 or as part of a general cultural umbrella marketing strategy for the Ruhrgebiet.

The Foundation for the Preservation of Industrial Monuments and Historical Culture holds the unique position in Europe of owning important evidence of NRW industrial history. Because of their building architecture and preserved historical machinery, most of its sites are symbolic and hold marketing opportunities for commercial areas in old industrial locations. By preserving places such as the Jahrhunderthalle in Bochum, the Duisburg-Nord Landscape Park or the Zollverein World Heritage Site, finding them a new cultural use and marketing them, impetus is provided for growth in the towns and cities, the cultural industry in the region and European tourism. In view of the structural and economic importance of using industrial heritage, it is necessary to preserve and care for such sites and to develop the sites and the surrounding area.
4. Integration of supporting labour-policy measures
The experience from the 2000-2006 programming period shows (see NRW OP, p. 184) that in particular projects to improve leisure facilities and environmental quality can be implemented by means of labour-policy measures, offering unemployed people, in the context of appropriate projects, the opportunity to be reintegrated into the labour market (for example by creating ‘work opportunities’). To this end, it is necessary to devise integrated action and project strategies which also include the use of a broad range of (national) financial engineering instruments and require close cooperation with those responsible for the ESF programme.

The supported measure will be subject to regular monitoring on the basis of output and outcome indicators. The following criteria may be used in particular as output indicators:

- size of redeveloped, decontaminated and reclaimed land (proportion developed for the first time; for commercial use; for leisure),
- length of developed cycle paths and footpaths,
- number of industrial buildings reused/rehabilitated/made accessible,
- number of new cultural and leisure facilities,
- land sealed as part of the project,
- water courses restored as part of the measure.

The following figures will be used as outcome indicators in the package of measures:

- number of new businesses set up on the supported site (proportion of trans-regional businesses established),
- number of jobs created on the new commercial land (proportion for women; in technology-/knowledge-intensive sectors / proportion for women),
- number of jobs created in supported cultural and leisure projects (proportion for women),
- total investment created; proportion public-sector; proportion private-sector,
- number of visitors to supported projects,
area of noise pollution areas created by the projects.

1.2.4 Expected effects of the OPs and opening the OP for the JESSICA initiative

The objectives of the Operational Programme are quantified at two levels: First of all, an assessment is made of the central macroeconomic effects. This assessment focuses on employment effects. In a second stage, the specific objectives defined are quantified using outcome indicators.

On that basis, there are between 80 000 and 110 000 jobs which are directly created by the programme and depend on the support measures chosen, which are supported to different degrees or for which the infrastructure conditions are created. It is estimated that the proportion of directly created gross jobs would probably be around one quarter. The number of safeguarded jobs is assumed to be between 90 000 and 120 000. Even though it was not possible to achieve the target value in the 2000-2006 programming period, the objective of achieving a proportion of at least 40% of women in newly created jobs has also been retained for 2007-2013.

It is also expected that for Priority 3 of the NRW ERDF OP (‘sustainable urban and regional development’) the following specific objectives can be achieved:

- Support for 100 projects in culture, tourism and leisure, and
- Restoration, rehabilitation, development and modernisation of around 800 hectares of brownfield land for various uses (commercial, leisure, relaxation) and, lastly,
- Around EUR 100 million in private investment under the integrated urban development programme.

In order to achieve these objectives, the NRW ERDF OP has envisaged not only traditional grant-based funding for projects (with the ERDF contributing at a level of 50% of total eligible expenditure).

In section K.2 of the NRW ERDF OP, the programme was opened for implementation of the JESSICA initiative. It was proposed to use that initiative explicitly for Priority 3 of the OP (sustainable urban and regional development), which is explained in detail in Section 1.2.3.

Against this background, the first work to devise an NRW urban development fund to implement the initiative was begun in October 2008, alongside the federal research project on Experimental Housing and Urban Development (see Section 1.1.).
1.3 Implementation of the JESSICA initiative in North Rhine-Westphalia

1.3.1 Roles and responsibilities of the actors

The aim of the NRW model scheme is to identify the possible application of lending instruments in urban development. From the perspective of the project participants, those instruments include, in addition to loans, guarantees. At first, only loans with and without exemptions from liability will be taken into account in the closer analysis of the fund structure. Forms of financing such as equity and/or mezzanine capital have also been recognised by the project participants, but cannot be implemented at the present time because of the requirements of regional budgetary law. At the same time, suitable projects must be identified and evaluated. In a further step, relevant (revolving) fund structures which are consistent with EU requirements and provisions can be developed.

On the basis of criteria which are still to be defined, the aim is to select test projects which are as ideal as possible and which can be financed using an urban development fund. An attempt will be made to formulate the evaluation criteria as far as possible, so that they can also be used to evaluate fund projects to be financed in future. Involving municipal representatives, the prospects of implementing integrated urban development projects using banking instruments will be assessed.

On the basis of property and financial model calculations, the opportunities and threats of an urban development fund are to be highlighted and evaluated in order to develop the decision-making basis at regional and municipal level.

These responsibilities are to be clarified by an interdisciplinary project team consisting of staff from NRW.URBAN and NRW.BANK. This team takes on operational work, holds discussions in the field and compiles the necessary information. Specific know-how is contributed to the specialist discussion by individual project partners. The know-how is supplemented, with regard to the answers to detailed questions, with the aid of discussions with experts and additional project experts which can be engaged in the process on a case-by-case basis.

Together with representatives of the Ministry of Construction and Transport and the Ministry of Economic Affairs and Energy, the representatives from NRW.URBAN and NRW.BANK also form the steering body for the further establishment of the NRW urban development fund. The Steering Group also requested and was granted additional assistance from the EIB in the form of a team of experts. The EIB’s experts will (i) be available to the Working Group in the concept development phase as advisory partners, and (ii) compile the results of
the individual analyses during concept development, and the findings on the feasibility of the model fund, in an evaluation study (interim report in mid-January 2009; final report after the completion of concept development or all modules, at the latest at the end of the first quarter of 2010). The author of the present report has been commissioned to perform these tasks.

1.3.2 Description of phases and procedural steps

It was planned for the model schemes to begin in June 2008 and to be completed after a total duration of one year in June 2009. The Steering Group is to meet twice every six months, i.e. four times in total, with an additional two workshops (one dealing with banking aspects, the other urban development aspects) for exchanges between experts within that period. Alongside this, there is an ongoing exchange of information in the ExWoSt research projects, with the focus on four accompanying project workshops.

Even though the operational launch of the Steering Group’s activity was delayed until September, it was very quickly able, together with the additional representatives from the Federal Institute for Research on Building, Urban Affairs and Spatial Development and the EIB and its expert (Prof. Nadler), to agree on an extensive work programme at the first meeting. That work programme had the structure shown in Figure 6/7. As work progressed, the work plan was implemented and adapted. However, it emphasises the expenditure associated with setting up urban development funds. At the end of the study, the procedural steps which are still to be taken at present will be examined as part of the outlook in order to document the development process within the Working Group.
<table>
<thead>
<tr>
<th>EIB item</th>
<th>Description</th>
<th>Responsible</th>
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</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Proposal for a consultative process with a view to satisfying the objectives of this study in cooperation with the participants in the ExWoSt model scheme, the EIB and other relevant partners in NRW.</td>
<td>LEG, NRW.BANK</td>
</tr>
<tr>
<td>1.2</td>
<td>Preparation and implementation of a schedule</td>
<td>LEG</td>
</tr>
<tr>
<td>1.3</td>
<td>Leading role in implementation (and if necessary adaptation) of this process in NRW up to the delivery and presentation of final report.</td>
<td>Land supported by LEG and NRW.BANK</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Evaluation of the market for urban development and regeneration projects in NRW</td>
<td>LEG</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Description of existing public support programmes or other financial engineering instruments (including existing investment vehicles, structures or funds) which are available to implement and fund urban development schemes or to boost investments in municipal and urban development</td>
<td>LEG, NRW.BANK</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Position on the ability and capacity of authorities and state bodies to provide equity, loans, guarantees or other non-grant-based financial engineering instruments for urban development and regeneration</td>
<td>Land</td>
</tr>
<tr>
<td>2.2</td>
<td>Identification and assessment of problems and clear discrepancies between supply and demand in terms of innovative and revolving financial engineering instruments and products for municipal and urban investment which could be addressed by JESSICA. Can JESSICA respond to a market deficit which exists in NRW and offer appropriate solutions?</td>
<td>LEG, Land, NRW.BANK</td>
</tr>
<tr>
<td>2.3</td>
<td>Review and analysis of the NRW Operational Programme which defines from an ERDF perspective the framework for the key possible operations and investments under JESSICA. In addition to the relevant priorities, objectives and methods within the OP, the analysis should also examine the extent to which one of the basic requirements for the application of JESSICA – the existence of integrated urban development strategies – can be met on the basis of the criteria formulated in the OP.</td>
<td>Land</td>
</tr>
<tr>
<td>2.4</td>
<td>Review of the possible use of resources from the European Social Fund (ESF) in the selected pilot projects</td>
<td>Land (administrative authority), EIB experts</td>
</tr>
<tr>
<td>2.5</td>
<td>Analysis of strengths, weaknesses, opportunities and threats (SWOT analysis) for the implementation of the JESSICA model fund in NRW</td>
<td>EIB experts, LEG, NRW Bank</td>
</tr>
<tr>
<td>3.1</td>
<td>General description and evaluation of existing planning bases and the relevant institutional framework in NRW, and existing procedures, instruments and experiences in relation to strategies and concepts for integrated sustainable urban development</td>
<td>Land</td>
</tr>
<tr>
<td>3.2</td>
<td>Overview and evaluation of existing plans or strategies for integrated urban development which can serve as the basis for JESSICA-financed projects</td>
<td>Land, LEG, NRW.BANK</td>
</tr>
<tr>
<td>3.3</td>
<td>Identification and delimitation of possible project types for a revolving (JESSICA) urban development fund in NRW</td>
<td>LEG, NRW.BANK</td>
</tr>
<tr>
<td>3.4</td>
<td>Identification and evaluation of specific projects in NRW which can be financed and implemented (within integrated urban development strategies) through JESSICA (potential project portfolio). For two to three projects which could be implemented in the initial phase of the fund, a cash flow analysis will be conducted, on the basis of which the implications for the project, the fund and the ERDF resources used will be discussed. The evaluation of possible JESSICA projects will include the following aspects:</td>
<td>LEG, NRW.BANK, Land</td>
</tr>
<tr>
<td>3.4.1</td>
<td>Background and justification for the project and public-interest aspects</td>
<td>LEG, Land</td>
</tr>
<tr>
<td>3.4.2</td>
<td>Eligibility of the project (or relevant sub-projects or costs) for funding under ERDF rules</td>
<td>Land</td>
</tr>
<tr>
<td>3.4.3</td>
<td>Financial analysis of the expected economic outcome</td>
<td>NRW.BANK</td>
</tr>
<tr>
<td>3.4.4</td>
<td>Scheduling of the national project implementation</td>
<td>LEG</td>
</tr>
<tr>
<td>3.4.5</td>
<td>Availability of other financial and/or technical resources from the public and private sectors</td>
<td>Land, NRW.BANK</td>
</tr>
<tr>
<td>3.4.6</td>
<td>Possible financial engineering instruments or mechanisms which a JESSICA fund could use to implement the project</td>
<td>NRW.BANK</td>
</tr>
<tr>
<td>3.4.7</td>
<td>Other key information which is relevant to JESSICA</td>
<td>all</td>
</tr>
<tr>
<td>3.5</td>
<td>Where project ideas are considered to be relevant to JESSICA, but require restructuring in order to be financed by Structural Fund resources, specific proposals are to be made for the effective restructuring of those projects and for the necessary technical assistance.</td>
<td>LEG, NRW.BANK</td>
</tr>
<tr>
<td>3.6</td>
<td>Other investment programmes or mechanisms in NRW which could supplement JESSICA</td>
<td>NRW.BANK, LEG, Land</td>
</tr>
</tbody>
</table>

Figure 6: Schedule and timetable for the NRW JESSICA initiative, Part 1
4.1 Partners and resources: identification and evaluation of key actors and market participants from the public and private sectors, and existing investment vehicles or structures which can be involved in the implementation of a JESSICA model fund and the identified pilot projects in NRW

| EIB experts | NRW.BANK | LEG | Land |

4.1 Recommendations for the integration of resources provided by the different participants within the JESSICA model fund. Also a position on the necessary requirements and framework conditions for participation by those partners in the fund.

| EIB experts | NRW.BANK | LEG | Land |

4.2 JESSICA strategy and fund model: demonstration of the most beneficial strategy for implementing JESSICA in NRW, including formulation and evaluation of different fund models (e.g. holding fund model, region-wide urban development fund, thematic fund etc.), bearing in mind possible partners, operational efficiency, profitability and a general definition of the relevant responsibilities and areas of activity. Recommendations should also take account of the objectives of the OP and the urban development priorities in NRW. The structures proposed to implement JESSICA should also be evaluated with regard to the legal obstacles identified under Objective 5. Model-specific implications for feasibility and benefit in NRW should also be shown.

| LEG NRW.BANK |

4.2 Recommendation of a specific fund structure for an urban development fund to be implemented with an explanation and evaluation of the following aspects:
- fund strategy and aim, areas of operations, areas of activity, investment strategy (e.g. geographical, thematic etc.)
- fund architecture
- financial engineering instruments used and basic operating principles (e.g. profit and loss sharing)
- corporate form
- Control, management and administration of the fund

| LEG NRW.BANK |

4.3 Examination of the possibility of combining lost subsidies and fund-based financing in the selected urban development projects (based on project identification under point 3.4) and the conditions governing the management of such project financing

| NRW.BANK (Land (administrative authority)) |

4.4 Evaluation of possible leverage in relation to (private or non-private) cofinancing and the necessary framework conditions to be created. Description of the interests and willingness of the private sector to participate in implementing urban development and regeneration projects under the model fund (whether at fund or project level), including a reasoned estimate of mobilizable resources.

| LEG NRW.BANK all |

4.5 Identification of all relevant authorities at federal, regional and municipal level which may be involved in implementing JESSICA in NRW. Description of their roles (areas of competence, responsibilities and powers)

| LEG NRW.BANK |

4.6 Examination and analysis of national legal bases which could impair the implementation of JESSICA, issues connected with participation by public actors in PPPs or future funds are of considerable interest in this connection.

| LEG NRW.BANK |

5.1 Identification and evaluation of specific legal issues which are considered to be relevant in connection with the implementation of the pilot projects to be executed and the proposed JESSICA model for NRW (e.g. EU law, banking law, company law etc.) Illustration of the main issues requiring further clarification from the competent authorities or external experts.

| all |

5.2 Recommendations for the further implementation of JESSICA in NRW. These include specific actions, a description of an action plan (process for establishing the fund) and an explanation of the necessary agreements to allow a JESSICA fund to be introduced and managed and to enshrine JESSICA in the existing administrative procedures and rules. Specific scheduling of the action plan with a view to introducing the fund in the third quarter of 2009 is also expected.

| LEG NRW.BANK |

5.3 Evaluation of possible transactions and financing activities for the fund which can be implemented immediately after it has been introduced (with reference to the project portfolio devised under point 3). This analysis should demonstrate the effectiveness of the proposed implementation strategy for NRW and serve as the basis for estimating the expected fund management fees.

| NRW.BANK |

5.4 Identification of the need for further technical assistance or consultancy services (e.g. studies) necessary for the implementation of the proposed JESSICA model in NRW

| all |

5.5 Drafting of a funding agreement which must be concluded between the managing authority and the fund administrator for the implementation of JESSICA

| Land (administrative authority) LEG NRW.BANK EIB experts |

5.5 Drafting of a business plan for an NRW urban development fund (consistent with the fund model proposed under point 4) which should be drawn up together with the Working Group. The key components of that business plan are to be explained and argued.

| LEG NRW.BANK |

5.5 Development of a communication and marketing strategy for an urban development fund in NRW aimed at potential investors and possible project initiators and promoting the implementation of the fund

| LEG NRW.BANK with Land |

Figure 7: Schedule and timetable for the NRW JESSICA initiative, Part 2
1.3.3 Timetable (and steps already completed) for achieving the interim results

At the first meeting of the Working Group in September, after the members of the Group had been introduced, the work programme set out in section 1.3 was presented and work responsibilities were allocated to individual members and advisers in the Steering Group. The work programme was adopted at that meeting.

Furthermore, at the first meeting, it was decided in the further analysis of the fund structure to leave open the question whether the fund was to be provided with only ERDF resources and equity as appropriate, or also with funding from private investors. Rather, 3 to 6 projects were to be selected which represented a cross-section of project types. In order to select the projects, NRW.URBAN would present a project portfolio with project descriptions which were as standardised as possible. From those projects, a decision would be taken to select projects at the second Working Group meeting.

At the second Working Group meeting in October 2008, NRW.URBAN presented a range of projects for discussion, which are presented in Section 2. At the following meeting, the necessary information was collected for all the projects, the projects were presented, and the specific selection was discussed and completed by early 2009. A detailed presentation was then given of the project selection at the first project workshop under the ExWoSt research programme at Potsdam in February 2009, before work was started on structuring the fund in March 2009. At the same time, the concept and the project types were presented to both the municipalities in NRW and the banks (as possible fund partners) in workshops.

In a further central step, unresolved legal questions were also compiled and sent to the EIB’s legal experts, before a in-depth discussion on the subject of fund refinancing and the definition of project financing through the urban development fund. At present, the Working Group, with NRW.BANK taking the lead, is in the process of conducting a final evaluation of the overall feasibility of this fund structure. It is planned to conclude this creative process in autumn 2010 in order not only to establish, but also to commence operational management of the North Rhine-Westphalia urban development fund in late 2010/early 2011.
2 Identification of sustainable urban development projects

The first important stage of the work of the NRW Steering Group is selecting suitable real urban development projects which can act as ‘start-up projects’ for an NRW urban development fund. First of all, specific selection criteria must be devised.

2.1 Definition of selection criteria

2.1.1 Urban development policy requirements for project applications under the North Rhine-Westphalia OP

In Priority 3, i.e. promotion of sustainable urban and regional development, support is given, first of all, in Field 3.1. to integrated action plans for cities (and regions). As has already been mentioned, urban areas are generally selected by the municipalities on the basis of a city-wide comparison of social-statistical problem indicators. Key indicators (= regional scenario for Focus 3.1) include:

- unemployment rate
- the proportion of social welfare recipients
- the proportion of children and young people
- the proportion of residents with a migration background
- deficiencies in urban planning and the environmental situation or
- below-average housing quality.

The urban measures must be part of comprehensive urban action plans adopted by the City Council: an integrated urban development plan in the list or for which there are specific plans can also give rise to eligibility for funding. In any case, it consists of (= integrated development approach):

- an analysis of the current situation
- a tailored action strategy with appropriate development objectives which is integrated into the development strategies for the city as a whole
- specific priorities for action and measures
- a financing plan (including possible private-sector investment)
appropriate implementation structures and procedures (neighbourhood management, resident participation, interdisciplinary cooperation) and

description of proposed monitoring and quality control.

In project selection, priority is given to regionally promoted projects and/or public-private partnerships and inter-municipal projects.

In addition, in Priority 3.2. (investment) support can be given to individual measures to eliminate bottlenecks to development, particularly in heavily industrial regions. These may be in the field of promotion of infrastructure, land development, use of industrial heritage and/or the development of the Emscher Valley. Whilst the Emscher Landschaftspark/emscher:zukunft master plans, integrating the Emscher Lippe Environmental Programme, form the basis in the latter fields, for the promotion of infrastructure and land it is explicitly required as a strategic basis and condition for support that there is

- a regional development strategy
- containing a clear, project-specific definition of the region
- describing the specific strengths, weaknesses, opportunities and threats for the region
- showing an irrefutable regional need, and
- including the relevant objectives whose fulfilment must be examined as a basis for the concomitant quality assurance, and
- outlining projects to be realised to implement that strategy, preferably inter-municipal or inter-regional projects.

In principle, a grant towards project costs is envisaged in the NRW ERDF OP, although the opening clause also permits innovative project financing to be awarded under the JESSICA initiative. Applicants for funding may be cities or project consortiums consisting of various local and regional actors (residents, associations, public institutions, businesses etc.). Alternative financial engineering instruments (such as microfinancing) and consultancy services for local businesses and institutions are made directly available in connection with promotion of the local economy.

2.1.2 Supplementary requirements in the Working Group

The NRW Steering Group has directly adopted these possible selection criteria together with the ERDF criteria on eligible project expenditure. In addition, the
findings of the studies conducted by the Federal Institute for Research on Building, Urban Affairs and Spatial Development in the field of circular flow land use management (see BBR: Potenziale für eine Flächenkreislaufwirtschaft (Expertise), Bonn/Berlin 2004, p. 35-38) were adopted and implemented. In the ABC model, a distinction was drawn between three ‘project types’ on the basis of a cost/earnings ratio:

- Project type A: ‘Self-runner’: project developments can be financed on a self-supporting basis.
- Project type B: ‘Development land’: projects are set in motion only through public start-up financing and/or risk sharing between private investors/developers and the public sector, e.g. in the form of public-private partnerships.
- Project type C: ‘Reserve land’: high-momentum reuse cannot be expected in the short or medium term. Low land values, high preparation costs and, in many
cases, a high geographical concentration of brownfield land are the main factors which produce a deficit in this type.

The so-called ‘B projects’ are particularly suitable for a JESSICA fund because of its revolving character. In order to develop ‘C projects’ (unprofitable projects) it is also necessary to have profitable ‘A projects’, otherwise the revolving character cannot be guaranteed. If a JESSICA fund is to be explored, the relevant funding guidelines must be observed for the initial disbursement of ERDF funding. Under those guidelines, the project must be an integrated project with relevant social indicators or a project in the Ruhrgebiet or the Bergisch tri-city area. In evaluating the different project types, the expected returns and the project/occupancy phase to be financed must be taken into consideration alongside risks and significance.

In this regard, in the Experimental Housing and Urban Development (ExWoSt) federal research project, the researcher commissioned (Prof. Nadler) sent all the model schemes a list of criteria in preparation for the project selection phase. According to that list, the following information was to be collected for at least two relevant start-up projects:

1. General project planning criteria:
   - Public interest in the project: Why is the public sector participating economically? Why has the private sector not participated so far?
   - Expected effects of the project (in terms of the economy and urban planning),
   - Revolving use of funding (How is funding recycled from the project to a possible fund?),
   - Raising of private capital, risk sharing in public-private partnerships,
   - Inclusion in integrated urban development: plans combine the various sectoral interests.

2. Project content criteria:
   - Reclamation of brownfield land, property development with subsequent sale/subsequent rental,
   - Development of local community and employment, support for business start-ups, strengthening of economic growth: measures to improve socially disadvantaged and declining districts and urban centres through the creation of new office space and commercial space, trading estates and technology centres for SMEs (job creation),
   - Ecological upgrading and improvement of infrastructure networks: support for sustainable supply systems (new energies/energy efficiency, water
supply and waste water disposal, transport management plans, environmentally friendly public transport),

- Upgrading of public services:
  investment in healthcare and social infrastructure (hospitals, rehabilitation centres, nurseries),

- Support for knowledge-based economy (schools, universities, training institutions),

- Development of natural and cultural heritage:
  investment in concert halls, art museums, galleries, theatres and leisure centres (sports centres, swimming baths, cinemas, monuments, including commercial use).

3. Project management criteria:
   1. Right to build exists or will be created in the foreseeable future,
   2. Business plan/cost estimate/revenue estimate exists,
   3. Section of property life cycle,
   4. Total funding within the scope of the resources earmarked for the model operation.

4. Information on projects:

   a) Location and market analysis:
     - General: attractiveness of the city as a whole
     - Location/property structure: centrality, standard land value (compared with other districts/cities)
     - Transport: infrastructure links, public transport
     - Environment: catchment area, image of neighbouring districts, type of use of neighbouring land
     - Socio-demographic structure: purchasing power, age, social structure (proportion of unemployed, foreign nationals, etc.)

   b) Utilisation plan:
     - Function, quality, facilities
     - Construction period

   c) Legal form/organisational structure:
     - Own project company? What legal form?
     - Project management
     - Liability

   d) Quantitative data:
     1. Payments out:
Evaluation Study – JESSICA initiative for North Rhine-Westphalia

- Total investment, property purchase price
- Ongoing management costs (proportion passed on)

2. Payments in:
- Total space available, including developed, leasable space
- Prices: rental trend (vacant space), sales (proportion of sold properties), rent guarantees?

3. Financing/capital structure:
- Proportions of public/private capital
- Capital structure: third-party capital (interest rate?), mezzanine, equity capital, (grants?)
- Risk sharing (first loss? guaranteed minimum return?)

4. Analysis of economic benefit:
- Do annual financial statements (balance sheet, P&L, cash flow statement) exist? For what period?
- Returns
- Losses
- Taxation

These criteria were also adopted directly by the Working Group and combined into two general selection criteria which can be shown graphically in a selection matrix:

- financial: risk/profitability
- urban development: public importance

<table>
<thead>
<tr>
<th>Category</th>
<th>Land development</th>
<th>Structural engineering</th>
<th>Individual measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financing of development from acquisition to marketing</td>
<td>Financing of interim acquisition</td>
<td>Financing of building projects with special importance</td>
</tr>
<tr>
<td>Risk 1-10</td>
<td>List of criteria</td>
<td>List of criteria</td>
<td>List of criteria</td>
</tr>
<tr>
<td>‘Importance’ 1-10</td>
<td>List of criteria</td>
<td>List of criteria</td>
<td>List of criteria</td>
</tr>
<tr>
<td>Examples of projects</td>
<td>- Phoenix - Datteln, New Park - Gelsenkirchen, Graf Bismarck - Euskirchen Süd</td>
<td>- Insolvencies - Municipal land fund</td>
<td>-Social infrastructure - Kultur Ruhr office - Other buildings</td>
</tr>
</tbody>
</table>

Figure 9: Comprehensive systematisation criteria for NRW.URBAN

In addition to these two selection criteria, NRW.URBAN adopted the basic systematisation of projects for the properties to be developed within the project and classified all projects in the following categories:

Type A: land development (from acquisition to marketing)
Type B: interim acquisition (B1 = land; B2 = building)
Type C: structural engineering work (C1 = rehabilitation/new construction; C2 = impetus-providing measure)

The Working Group has therefore adopted the systematisation scheme already set out in the study on Europe by the Federal Institute for Research on Building, Urban Affairs and Spatial Development (see Nadler, et al. 2009). Type A corresponds to conventional land development and type C to conventional property and project development. Thus far projects which relate to the occupancy phase of existing buildings have not been included. To a certain extent this applies only to type B projects, where there is no influence on use, but only an interim acquisition. Furthermore, no projects without a property or building component have been taken into consideration so far.

2.2 Selection of a project portfolio for the first implementation phase of the urban development fund

2.2.1 Project proposals for NRW.URBAN

In an internal preliminary selection discussion by NRW.URBAN, 13 potential projects were selected and project sheets were produced for twelve of them and sent to the members of the Working Group. Projects not compatible with JESSICA were also included, with a view to the second stage (disbursement of recycled funding). In principle, the assessment of ERDF eligibility or OP conformity is conducted by the project know-how leader in the Working Group, i.e. by NRW.URBAN. In this respect it should be borne in mind that the majority of projects are currently in the planning process. Consequently, only a broad assessment can be made of the profitability and the specific eligibility of the projects. However, they are real, practical projects which were analysed and described at a certain stage of the project. They may, but do not necessarily have to be start-up projects in the actual implementation phase of the NRW urban development fund. When applications for funding are addressed to the fund management in future, the fund management must examine the economic and OP requirements in each specific case. For the present feasibility study, it was and is the intention of the Working Group to identify potentially eligible project types which are as specific and generally applicable as possible. To that end, NRW.URBAN has attempted to collect the necessary project information for all projects using a standard model. The following 13 projects were presented to the Working Group:
<table>
<thead>
<tr>
<th>Project</th>
<th>Stage</th>
<th>Project type</th>
<th>Brief description</th>
<th>Building type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bochum, Kultur Ruhr office</td>
<td>Planning</td>
<td>C1 Rehabilitation, new construction</td>
<td>Establishment of Kultur Ruhr GmbH</td>
<td>New office construction at historically renovated outer wall</td>
</tr>
<tr>
<td>2 Lüdinghausen DKV/Bürgerhalle</td>
<td>Planning</td>
<td>B2 Financing of interim acquisition, C2 Impetus-providing individual measure</td>
<td>Industrial brownfield land: Reuse as conference/function hall, music college</td>
<td>Reuse as function hall</td>
</tr>
<tr>
<td>3 GRF Heiligenhaus Kiekert, administrative building</td>
<td>Planning</td>
<td>C2 Impetus-providing individual measure</td>
<td>Industrial brownfield land, production building demolished</td>
<td>Modernisation of existing administration building (1950s)</td>
</tr>
<tr>
<td>4 Duisburg municipal property fund</td>
<td>Planning</td>
<td>B1: Financing of interim acquisition, land development</td>
<td>Restoration of brownfield land, market failures because of too high risks and costs</td>
<td>Brownfield land as contributions in kind, still no suitable land available</td>
</tr>
<tr>
<td>5 Gelsenkirchen Ückendorf-West, Bochumer Str.</td>
<td>Planning</td>
<td>B2 Financing of interim acquisition of building</td>
<td>170 residential buildings, 75% rehabilitation requirement, vacancy 20%</td>
<td>Purchase of buildings by compulsory auction, subsequent rehabilitation and sale or rental</td>
</tr>
<tr>
<td>6 Herne, Pumpen Müller</td>
<td>Planning</td>
<td>B1 Financing of interim acquisition of land</td>
<td>Mixed: old industrial site, offices, residential</td>
<td>900 sqm Ml, 37.000 sqm commercial, 9 000 sqm green space</td>
</tr>
<tr>
<td>7 Euskirchen Süd</td>
<td>Planning</td>
<td>A land development, 5 private owners</td>
<td>Railway brownfield site, park &amp; ride car park</td>
<td>Residential 25-40%, remainder commerce and industry</td>
</tr>
<tr>
<td>8 GRF Heiligenhaus Kiekert, land development</td>
<td>Planning and execution</td>
<td>A land development, structural engineering work by investors (property fund)</td>
<td>Industrial brownfield land, Retail establishment</td>
<td>Retail establishment, safeguarding of jobs</td>
</tr>
<tr>
<td>9 Stadtquartier Graf Bismarck, Gelsenkirchen</td>
<td>Execution</td>
<td>A land development (property fund)</td>
<td>Development stage, preparation</td>
<td>District on the water: 50% commercial, 50% residential with solar, photovoltaic power</td>
</tr>
<tr>
<td>10 Geldern, station area</td>
<td>Planning</td>
<td>A land development</td>
<td>Reuse of old station</td>
<td>32% residential, 12% mixed and offices, 9% retail and residential, 17% commercial</td>
</tr>
<tr>
<td>11 Cologne KHD</td>
<td>Execution</td>
<td>A land development</td>
<td>Industrial brownfield land: Reuse of foundry for mixed use (integrated project)</td>
<td>33% commercial use; 33% services; 33% residential</td>
</tr>
<tr>
<td>12 Herne Zentrum Nord</td>
<td>Planning</td>
<td>A land development</td>
<td>City-centre district urban redevelopment project</td>
<td>Urban mixed use: residential, services, craft, open space</td>
</tr>
<tr>
<td>13 Essen Weststadt</td>
<td>Completed (ex post)</td>
<td>A land development</td>
<td>Industrial brownfield land, Reuse</td>
<td>Residential, offices, ‘Colosseum’ musical theatre</td>
</tr>
</tbody>
</table>

Table 1: NRW.URBAN project proposals for the NRW urban development fund
In addition to the possible example projects listed in the figure, there are numerous other potential projects (ERDF funded, integrational approach), for example in the ‘Konzept Ruhr’ programme (current project status: 379 schemes and projects), some of which could also be potential fund projects on account of the revolving income. In the course of the discussion in the Working Group it became clear that the property developments were heavily favoured. The Ministry of Construction and Transport then emphasised the equally great importance of structural engineering work and individual measures in the public interest. The EIB experts pointed out the possibility of examining projects in all phases of the property life cycle as well as ex-post and ex-ante. These ideas resulted in the 13 specific project proposals being made by NRW.URBAN at the second and third Working Group meetings.

The result of the discussions within the Working Group was that at the second Working Group meeting projects 2, 4, 7, 8, 10 and 12 were not pursued any further. The reason for the selection made was that project 4, for example, is not an individual project, but is itself a fund, namely the Duisburg municipal property fund. This will possibly operate in a similar way and with similar instruments to the NRW urban development fund, but cannot initially be part of that fund. Other projects such as the brownfield site restoration projects in Lüdinghausen (project 2), in Euskirchen (project 7), in Heiligenhaus (project 8: overall land development) and Geldern (project 10) do not appear to be suitable start-up projects for the NRW urban development fund in view of the requirement that sufficient funds are recycled from the projects. Because, moreover, the remaining projects include land development projects and in particular brownfield site recycling schemes, the added value would appear to be limited in view of the fund structure to be examined.

At the third Working Group meeting, the only ex-post project (project 13: Essen Weststadt) was also eliminated for the purposes of further analysis. Because it is an old NRW.URBAN project, access to figures and data could raise problems for NRW.URBAN. A decision was therefore also taken not to pursue this project.

In a next step, the members of the Steering Group therefore agreed to select five projects which are to be analysed in the further course of the model scheme from legal, administrative, urban-development and banking points of view. Those projects are project 1 (Bochum, Kultur Ruhr office), project 3 (GRF Heiligenhaus Kiekert, administration building), project 5 (Gelsenkirchen – Bochumer Straße), project 6 (Herne – Pumpen Müller) and project 11 (Cologne – KHD). These projects will be presented later from a qualitative and a quantitative point of view, having regard to their financial situation.
NRW.URBAN also compiled for each project a brief description, a project financing plan or business plan, and a classification with regard to risk and public importance (selection criteria). This information will be presented below.

### 2.2.2 Projects selected by the Steering Group

#### 2.2.2.1 Project development with property held as an investment: Kultur Ruhr office, Bochum

In this project, it is planned to establish the administrative headquarters of Kultur Ruhr GmbH immediately next to the Jahrhunderthalle, so as to be able to organise and hold the high-profile events as part of the RuhrTriennale immediately in the vicinity. The establishment of the office for Kultur Ruhr GmbH is highly commensurate with the profile of the location and revitalises the area around the Jahrhunderthalle on a sustainable basis.

![Space plan for the Kultur Ruhr office in Bochum](image)

**Figure 10:** Space plan for the Kultur Ruhr office in Bochum

The new building will house the necessary office space for Kultur Ruhr GmbH, including conference rooms, archives etc. The building structure will run along the eastern side of the (historic) turbine hall and is designed as a single-span structure. The linking area, which is open over three floors and lit from above by means of strip lighting, is located directly on the historically renovated outer wall of
the turbine hall. The old facade is therefore accessible and forms a high-contrast part of the new building. The offices open onto the Westpark. A suitable grid guarantees variable, modern workspaces. The required space of 1 100m² is provided in the three-storey structure. The administration of Kultur Ruhr GmbH is thus located immediately next to the festival theatre, the Jahrhunderthalle. Existing openings in the facade of the turbine hall also allow direct foot access and sightlines.

This project is a conventional structural engineering project development (in the NRW.URBAN scheme: type C1: new construction/rehabilitation). In the view of NRW.URBAN, the project is eligible for funding under the ERDF rules. The ‘Kultur Ruhr office’ project comes under the ‘Urban Redevelopment West’ regional scenario. The municipality has already drawn up an integrated action plan. Furthermore, it corresponds in the Operational Programme to the priority axis ‘sustainable urban and regional development’ in Pillar 3.2 ‘elimination of bottlenecks to development’. It is to be classified under the package of measures ‘use of industrial heritage (in particular in the Ruhrgebiet)’. The project therefore has medium importance in urban development policy in the view of NRW.URBAN, which cannot be verified at this juncture. A detailed financial and risk assessment of the project will be carried out in Section 2.3:

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+----------------+----------------+----------------+----------------+----------------+
<table>
<thead>
<tr>
<th></th>
<th>hoch</th>
<th>hoch</th>
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</tr>
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<td>Projekt ist sehr sicher, Garantie/Bürgschaft od Tilgung wird komplett zurückgegeben</td>
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<tr>
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<tr>
<td>hoch Bedeutung</td>
<td>struktur-stadtentwicklungspolitisch sehr wichtig bis unverzichtbar</td>
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</tr>
<tr>
<td>geringe Bedeutung</td>
<td>nice to have</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

Key:
- Risiko: risk
- Bedeutung: importance
- hoch: high
- gering: low
- hohes Risiko = Rückgabe/Tilgung ist unsicher, Projekt kann floppe: high risk = return/redemption is uncertain, project may flop
geringes Risiko = Projekt ist sehr sicher, Garantie/Bürgschaft oder Tilgung wird komplett zurückgegeben: low risk = project is very certain, guarantee or redemption will be fully returned
hohe Bedeutung =struktur-/stadtentwicklungspolitisch sehr wichtig bis unverzichtbar: high importance = very important to essential for structural/urban development policy
geringe Bedeutung = nice to have: low importance = nice to have

Figure 11: Matrix classification for the Kultur Ruhr office in Bochum

2.2.2.2 Administration building development, Kiekert, Heiligenhaus

The former industrial property (small-scale iron industry typical of the region) in Heiligenhaus was acquired for the NRW property fund. The standing production building has now been demolished. Urban land use plans are currently being drawn up.

In the context of the overall land development on the site, support is being provided under the Urban Redevelopment West programme. At present, funding amounting to around EUR 4.7 million has been applied for. The project has an extremely high importance for the town of Heiligenhaus. A brownfield site (around 5 ha) in the immediate vicinity of the town centre is to be reintegrated into the urban fabric. In addition, the project provides the opportunity to raise the underdeveloped central area of the town to a competitive level by locating retail units there.

The standing production building has now been demolished. The former administration building has been preserved as a unique, typical example of a 1950s office building. The building is not architecturally protected. Urban land use plans are currently being drawn up.

Figure 12: Space plan for Kiekert, Heiligenhaus

Copyright: Prof. Dr. Michael Nadler 12.07.2010
The scheme is a profitable structural engineering project development, without the need to apply for funding, in which NRW.URBAN acts as trustee for the property fund. To that end, the property is to be purchased at the standard land value. The existing building will be acquired for free and then modernised and rehabilitated in order to be sold subsequently to a private investor. The investor will then let out the office space in the building.

![Image of the Kiekert building, Heiligenhaus](image)

Figure 13: View of the Kiekert building, Heiligenhaus

The administration building, together with the retail complex to the south, is intended to provide a boost for the development of the area as a whole. In revitalising an industrial brownfield site, this structural engineering project can offer an important impetus for land development, which is important in terms of structural policy. The project was therefore classified by NRW.URBAN in Category C2 (‘impetus-providing individual measure’) with regard to project development. The project was also given high importance in terms of urban development policy in a similar risk assessment to the ‘Kultur Ruhr office’ in Bochum:
Figure 14: Matrix classification for Kiekert, Heiligenhaus

This project corresponds in the Operational Programme to the priority axis ‘sustainable urban and regional development’ in Pillar 3.1 ‘integrated development of problem urban areas’. The municipality (Heiligenhaus) has already provided proof of meaningful social indicators in accordance with the conditions set out in Section 2.1.1. (‘regional scenario’). In addition, the integrated action plan does not exist in that form, but forms part of a comprehensive land development strategy at the Heiligenhaus location, which is intended to keep the most important local employers.

Funding is to be concentrated primarily on assuming the leasing risk. It must be examined whether both impetus-providing elements (retail units and the administration building) can be given together to one investor, but combining retail
with the business above has so far met with a negative response. The market for office space in Heiligenhaus must be viewed somewhat critically.

2.2.2.3 Purchase of buildings at compulsory action on Bochumer Straße, Gelsenkirchen

The Ückendorf-West regeneration area in Gelsenkirchen essentially extends along Bochumer Straße from the Junkerweg intersection to the Virchowstraße intersection. The area suffers from a wide range of social and planning problems. The building fabric is largely in a desolate state. Many of the buildings have a medium to high rehabilitation requirement. This accounts for 50% of the buildings, whilst 26.5% of the buildings do not require any rehabilitation.

For the project evaluation, a more detailed database concerning the present use of residential and retail units or commercial space would be desirable.

In the area in question there are 180 buildings, 170 of which are used predominantly as residential or commercial buildings. Around 36% of the owners live outside Gelsenkirchen and around 18% of the owners have a migration
background. Vacant housing accounts for around 20% and vacant shops represent approximately 35%. It is very difficult to let shops. The vacancy rates for shops show that there is no longer a demand for them.

The area’s strengths are local supply, the favourable transport location and proximity to the city centre. Special mention must also be made of the social infrastructure. The Heilig-Kreuz-Kirche holds a special position. This church from the turn of the century (1929, architect J. Franke), which is architecturally protected, is a city landmark and is one of the most important architectural structures in Gelsenkirchen. A subsequent use must be found for the sacred building, since the church community is ceasing to use it.

In the project individual buildings (above all buildings sold in compulsory auctions) are to be purchased, modernised and subsequently placed on the market again. Traditional mixed-use buildings (e.g. commercial/doctor/offices, with residential above) are to be created. The buildings’ owners are often very old or do not live close to the buildings. The first private investors have already begun to modernise individual properties. A tram link and the construction of a new justice centre (centralisation of administrative courts, building work may begin in 2010) are envisaged in the district. They could give a boost to the district and thus raise land values in the urban area.

The impetus-providing measures are intended to encourage other initiatives in the project area in order to bring about sustainable development. From the perspective of NRW.URBAN, the interim acquisition and modernisation of the building (type B1) therefore has high importance in terms of urban development policy. However, the overall project is characterised by high project risks caused by the required high capital contribution, the low quality of the building stock and the still undecided development policy of the district as a whole:
This project corresponds in the Operational Programme to the priority axis ‘sustainable urban and regional development’ in Pillar 3.1 ‘integrated development of problem urban areas’. The municipality (Gelsenkirchen) has already provided proof of meaningful social indicators in accordance with the conditions set out in Section 2.1.1. (‘regional scenario’). Whilst there is not yet an integrated action plan in accordance with the conditions set out in Section 2.1.1., an urban development framework plan has already been drawn up. It is currently being developed into a strategic master plan. Furthermore, it should be stated that classification in Priority 3.2. also appears possible, since the measure relates to a city-centre problem location in the Ruhrgebiet.
2.2.2.4 Brownfield site development at Pumpen Müller, Herne

The Pumpen Müller project is part of the Herne Centre-North urban redevelopment zone. The area covers around 46 762m². The urban fabric is influenced by the industrial buildings and offices of the former mechanical engineering company ‘Pumpen Müller’. Some of them are still used commercially or for retail or service functions. In addition, there are properties which are used for residential purposes along Eschstraße.

From the point of view of planning law, this is an unplanned interior area. On account of the abovementioned heterogeneity of the existing building uses, it is not possible to make any classification according to the areas under the Baunutzungsverordnung (Building Regulations) here, with the result that this land must be classified as mixed-activity and the planning assessment of the lawfulness of schemes is to be made under Paragraph 34(1) of the Baugesetzbuch (Building Code). In order to implement the project, around EUR 4.3 million is needed for preparation and remediation of the contaminated land. The cost of creating public green and open spaces is around EUR 2 million. According to the urban redevelopment plans, the following uses will be created: 900m² mixed use, 13 000m² trades and crafts, 24 000m² trade services, 9.000m² open/green.

Figure 17: Space plan for Pumpen Müller, Herne
The aim of this project is land provision through full acquisition, interim leasing and placing on the market. Recycled funding is expected from ongoing rental income and the proceeds from sale, and investments are not to be made in the building stock. Because this project type therefore concerns interim land acquisition (type B1), no construction work is carried out, and no construction costs are therefore shown. Only Part ‘D’ will be analysed below.

After the land has been purchased, a development period of five to seven years can be expected. There is an urban development plan (‘From old industrial location to modern mixed area’) produced by the Office for Municipal and Regional Planning for the City of Herne. Because there is no structural engineering project development, the project risk must be regarded as low. However, NRW.URBAN considers the importance in terms of urban development policy to be very high. The intentions of the current owners to sell the site in separate sections are regarded as problematic by NRW.URBAN. Those plans can be countered by the interim acquisition proposed here.

Because of the plans of the current owners to sell the properties, NRW.URBAN expects this project to correspond in the ERDF Operational Programme to the priority axis ‘sustainable urban and regional development’, and more precisely Pillar 3.2 ‘elimination of bottlenecks to development particularly in heavily industrial regions’. The measure will probably be classified in Field 1 ‘promotion of infrastructure and land development’. However, the necessary strategic bases (see Section 2.1.1) do not yet exist; there is nevertheless already a detailed framework plan for the overall development.
2.2.2.5 Klöckner-Humboldt-Deutz (KHD) land development, Cologne

The foundry site of Klöckner Humboldt Deutz AG in Cologne was acquired in 1995 and leased back. Until 2005 it continued to be used for industrial production. Since use was discontinued in 2005, the former foundry site has been brownfield land. The site is owned by NRW.UBRAN as the trustee for the Land of NRW for the NRW property fund.
The building law situation must be assessed pursuant to Paragraph 34 of the Baugesetzbuch (insertion rule). After the former industrial use had been discontinued, the possibility of using the existing industrial site expired in accordance with the building regulations and planning law. New permission for use, new buildings or changes in use are to be assessed according to the insertion rule. The drafting of a development plan is being discussed.

The future land use has been decided by the bodies and the Council of the City of Cologne as the basis for development following an extensive discussion and coordination process in the relevant detailed plan entitled ‘Foundry site plan’ under the City of Cologne’s ERIE development scheme for the right bank of the Rhine as the urban development master plan.
On around one third of the site a downgraded industrial use or commercial use is to be continued in modernised existing buildings. A further third is envisaged for service-oriented mixed use. Residential use is proposed on a site of approximately 2 700m². In the area of the Auenweg and the planned Charlier green space, a green space integrated into the district will be created together with a green space following a section of the Rhine under the Regionale 2010 programme.

The project is therefore land development (type A), extending from acquisition through execution to marketing. Implementation has already started. In the current project phase, NRW.URBAN, the City of Cologne and, as owners of neighbouring properties, Deutz AG and Rhein Estate GmbH are involved in project development.

After a development plan has been produced, it is planned to sell the individual plots to investors. The relevant actors are not yet known. It is not envisaged at present to use funding assistance. For the demolition work, it is intended to provide own-resources financing from the NRW property fund. The structural-policy objective and importance stem from several aspects which have both economic and urban-development effects:

- After the heavy industrial use was discontinued, the land, including the standing building, became a brownfield site. Because of the structure and location of the site, it is not possible to continue industrial activity, with the result that a brownfield site would remain there. The aim is to make organised use of this site.
At the integrated location at the interface between the districts of Cologne-Deutz and Cologne-Mülheim, it is planned to safeguard and develop commercial jobs. At the same time, alongside circulation areas, areas will be provided as green spaces to offer connections to the city-centre and as improvement measures. With the creation of a proportion of around 80% useable space for commercial use, this creates considerable potential for the structural enhancement of the city as a whole and new future-oriented jobs.

Environmental sustainability on the site will be ensured by the provision of substantial green spaces, but in particular through the inclusion of new flood protection plans, including the relevant retention areas. At the same time, in addition to areas for buildings and circulation, some areas will be provided as green spaces for green links to the city centre and public areas.

The preservation of cultural heritage, in this case the preservation of historic urban industrial architecture, is an important aim of the project. In addition to the architecturally protected Jahrhunderthalle, for which a continued use is to be found, one third of the site in the non-protected area is also envisaged for further commercial use of old industrial buildings. Thus, at one of the oldest industrial locations in the Cologne urban area, further use is to be made of historic industrial architecture.

![Figure 22: Preservation of the architecturally protected Möhring-Halle](image-url)

It does not yet have to be clarified whether the KHD site is part of the regional scenario, and in any case the redevelopment would have to be coordinated with the Cologne-Mülheim action plan. The management assumes that Paragraph 34 of the Baugesetzbuch is applicable, but a new development plan would create more problems than it resolves. It is also conceivable to classify this project in Priority 3.1. ‘integrated development of problem urban areas’, since at least an integrated action plan exists for the site as a whole in accordance with the
conditions laid down in Section 2.1.1. The social indicators for the regional scenario listed in the same section have not yet been verified.

Irrespective of classification in the priority axis ‘sustainable urban and regional development’, NRW.URBAN considers this project to have medium importance from an urban development policy point of view, with low project risks:

This project should be classified in the low project risk bracket if it is borne in mind that according to NRW.URBAN the risk from the contaminated site is to be regarded as relatively low on account of the industrial history research already conducted and the cost estimate that has been carried out. Furthermore, there is a considerable planning risk only with regard to the change in the statutory bases for the flood protection line. In addition, the assumptions regarding demand are subject to only a small planning risk. Only with regard to residential use is it not ensured whether the structural change in the surrounding area may result in the desired demand. Nevertheless, NRW.URBAN considers there to be definite demand for properties in the integrated urban location immediately next to the...
mixed-use areas of the Cologne-Deutz and Cologne-Mühlheim districts. Lastly, the upfront costs for the NRW property fund are indicated by NRW.URBAN only for information purposes in the business plan for this project. As ‘sunk costs’ they are not relevant to the project calculation and are not covered below. In principle, it is still necessary in this project to agree the extent to which funds recycled from the project will be used primarily to repay financing through the urban development fund or to cover the upfront costs for the NRW property fund (and possible other funding from the Land). However, the Working Group has not yet taken a final decision. Rather, there should be coordination between the urban development fund to be established and the NRW property fund already operating on the market.

2.3 Resulting cash flow structure and risks of the model project portfolio

The income and expenditure forecasts given in the following section for the individual selected projects are based on the analyses and criteria laid down by NRW.URBAN.

2.3.1 Project development of the Kultur Ruhr office, Bochum, with retention as an investment

The estimated budget (KG 300+400) for constructing this new office building is around EUR 2 950 000 gross. In addition, there are ancillary building costs of EUR 305 000 and property purchase costs of EUR 95 000, giving total expenditure to be financed of EUR 3 350 000. According to NRW.URBAN, office space of 1 100 sqm (main usable area) can be created. The gross floor area is around 1 600 sqm, which results in relatively high construction costs of around EUR 2 100 EUR/sqm. The construction time is estimated at two years.

NRW.URBAN balanced this project expenditure for new building work against the available income potential in form of the leasing budget already fixed by Ruhr GmbH. Accordingly, rents amounting to EUR 10.90 per sqm/month can be achieved, producing, for 1 100 sqm, annual rental revenue of EUR 143 800. Increases in rents are not to be taken into account initially. The ancillary cash costs for management and maintenance are estimated at EUR 11 600, and non-cash depreciations at EUR 32.550. They are relevant only for the tax assessment. Depending on financing in particular by the fund, there may be additional capital costs. It is assumed that the property will be leased to Kultur Ruhr GmbH. Accordingly, an exit from the project is possible, giving a total duration of 15 years for this project.

The development risk is considered by NRW.URBAN to be in the middle of the matrix, which cannot be verified at this juncture. However, it must clearly be seen
as dependent on the chosen form of financing. Depending on the redemption rate chosen in the project, the ‘residual value risk’ for lenders is to be seen as higher in the absence of an equity capital contribution to the project. This will be examined in greater detail in Section 3.1.

2.3.2 Administration building development at Kiekert, Heiligenhaus

Expenditure of EUR 250 000 can be assumed (1 350m² x 190.00 EUR/m²) for the acquisition of the property at the present standard land value. According to NRW.URBAN, there is a cost estimate in accordance with DIN 276 for the building costs for the construction phase, which will last approximately two years. Whilst the gross floor area is not available, the useable and rental space was fixed at 1 518 sqm. Assuming normal use of the building as an administration building, the gross floor area of the building should be around 2 000 sqm. NRW.URBAN estimates total building costs of EUR 1 300 000, corresponding to 600 EUR/sqm. Those building costs are spread over the two-year construction period at EUR 500 000 and EUR 800 000. Based on NRW.URBAN’s project experience, the estimated budget for the modification is sufficient. The standing production building has now been demolished. The former administration building was preserved as a unique, typical example of a 1950s office building. The building is not architecturally protected. Urban land use plans are currently being drawn up. It is necessary in particular to replace the building’s insulation and to renovate the roof. This cannot be verified from the perspective of the expert and the building costs are therefore included together with the necessary project management costs of EUR 30 000 (for each of the two years of the construction period).

Against the background of the critical market for office space in Heiligenhaus, NRW.URBAN made a separate estimate of the possible rental income:

<table>
<thead>
<tr>
<th>Grundmieten</th>
<th>€/m² x Mon.</th>
<th>€ p.a.</th>
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<td>EG</td>
<td>7.50</td>
<td>406 m²</td>
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<td>1. OG</td>
<td>7.50</td>
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<td>7.50</td>
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<td>0 Stück</td>
</tr>
<tr>
<td>SUMME EINNAHMEN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key:
Grundmieten: basic rents
EG: ground floor
1. OG: first floor
2. OG: second floor
Keller Nutzfläche: usable space in basement
Keller Lagerfläche: storage space in basement
Summe Mietfläche: total rentable space
Oberirdische Stellplätze: car parking spaces above ground
TG-Stellplätze: underground car parking spaces
SUMME EINNAHMEN: TOTAL REVENUE
Table 2: Income forecast for Kiekert, Heiligenhaus

This stands at EUR 130,668 per year, initially taking no account of rent increases. NRW.URBAN also estimates that a sales multiplier of 13 is realistic, giving sale proceeds for the finished building of around EUR 1,700,000 (EUR 1,698,684 to be precise). It should be borne in mind, however, that this estimate does not take into consideration the necessary ancillary costs for an investor in the occupancy phase. At least the estimated management and maintenance costs, which, in cash terms, are put at around EUR 24,000 per year, should be deducted from the rental income. In this case, using the same multiplier, there are possible sale proceeds of only around EUR 1,386 million. This also highlights the main project risk. A critical view must be taken of, first of all, the office rent prices and, secondly, the multiplier at this ‘secondary location’ in the light of the limited interest shown by investors. They determine the long-term profits or losses of the project. The abovementioned adjustment means that only the property and building costs are covered.

NRW.URBAN itself points out that demand for office space at the location in question cannot be assessed definitively without further market analysis. Moreover, it cannot be assessed definitively whether a 1950s office building (albeit modernised) is marketable at present.

2.3.3 Purchase of properties by compulsory auction in Bochumer Straße, Gelsenkirchen

NRW.URBAN has extrapolated a period of six years based on experience and rough costs based on experience for the purchase of the residential properties with subsequent rehabilitation and possible change of use (= portfolio development). The following assumptions are made:

Ten units bought by compulsory auction will be sold at a purchase price of EUR 90,000 per unit. In the business plan it was assumed that three properties will be acquired in the first year, five properties in the second year and another two properties in the third year. This produces expenditure totalling EUR 270,000, EUR 450,000 and EUR 180,000.

For each unit, floor space of 180 sqm and necessary modernisation costs of 800 EUR/sqm, i.e. EUR 144,000 per unit, are assumed. Rehabilitation therefore entails total structural engineering costs of EUR 1.44 million. These are spread over four years in accordance with the gradual purchase of the units: costs are therefore EUR 216,000 (1.5 units) in the first year, EUR 576,000 (4.0 units) in the second year, EUR 432,000 (3.0 units) in the third year, and another EUR 216,000
(1.5 units) in the fourth year. In addition, NRW.URBAN expects necessary flat-rate project management costs of 10% of the modernisation costs in each case.

The realisable basic rent after modernisation in accordance with the rent index for the City of Gelsenkirchen was put at 6.00 EUR/sqm, producing rental income of 6x180x12 = EUR 12 960 per property from the year after acquisition. The residential properties will then be sold, after modernisation, to private investors at a sales factor of 12.5, giving income per property of EUR 162 000. The selling price per sqm is thus EUR 900. Only one property will be sold in the second year, three properties in the third year, four properties in the fourth year, and two properties in the fifth year. (In the table of projects produced by NRW.URBAN, there was an error in the fifth and sixth years as a result of a duplicate entry.)

It should be stated at this juncture that the project is not profitable because the proceeds from the sales do not even cover the modernisation costs and the purchase price. In fact, there is a loss of EUR 162 000 – 144 000 – 90 000 = EUR -72 000 for each property. In addition to the abovementioned project management costs for NRW.URBAN, account must also be taken of marketing costs of around 3% of the sale proceeds for commission payments; these would further diminish the profit. Nevertheless, the property market reports indicate that the selling prices for the owner-occupied flats, which were estimated at a low value, are not unrealistic.

The main project risks would appear to be the marketing and leasing risks. The relatively low modernisation costs, which may quickly double in the old buildings in particular, where the building is in poor condition, also increase the overall project risk enormously. In addition, it is not certain that the assumed favourable purchase prices can actually be realised in compulsory auctions.

2.3.4 Brownfield site development, Pumpen Müller, Herne

It is planned that the chosen site of 43 592 sqm can be acquired from the previous owners at a price of 38.30 EUR/sqm. This produces acquisition expenditure of EUR 1 669 574, although NRW.URBAN has not yet explicitly included any ancillary acquisition costs.

The property is to be retained for four years. Rental income of 1.70 EUR/sqm can be realised, producing, in the case of building area of 24 000 sqm and a leased space of 14 400 sqm, running income of 14 400 x 1.70 x 12 = EUR 293 760. In view of the portfolio return of more than 17.5%(!), this purchase price appears to be very low, but is adopted here from the estimates made by NRW.URBAN. Even taking into account the management costs of 6.0 EUR/sqm per year (= 6 x 24 000 = EUR 144 000), there is therefore still net income of EUR 149 760. This is
equivalent to a net portfolio return of almost 9%, which must be regarded as very high.

NRW.URBAN assumes that after four years the property can be resold at the cost price (EUR 1 669 574). With a planning-law revaluation after four years, the income situation will be improved by the capital appreciation. This could rise to EUR 2.15 million, as is shown by the following overview:

**Nach städtebaul. Neuordnung werden entstehen:**

<table>
<thead>
<tr>
<th>mögliche Erlöse:</th>
<th>900 m² x</th>
<th>72 € =</th>
<th>64,800 €</th>
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<td>5 € =</td>
<td>45,000 €</td>
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<td><strong>Erlöse</strong></td>
<td></td>
<td></td>
<td><strong>2,144,800 €</strong></td>
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</tbody>
</table>

Table 3: Income forecast for Pumpen Müller, Herne

Overall, this project is profitable even without a possibility of an increase in land values and property prices. It should be borne in mind, however, that the urban reorganisation project requires a further EUR 4.3 million for preparation and restoration of contaminated land. These uneconomical costs are not, however, intended to be part of this project as far as fund financing is concerned. It is planned that the property will be prepared only after bridging financing has been completed. The relevant costs are not therefore part of the project financing. The municipality would submit applications for funding to cover the uneconomical costs, such as preparation.

**2.3.5 Klöckner-Humboldt-Deutz (KHD) land development, Cologne**

NRW.URBAN calculated the duration of this land development project up to the marketing of the individual plots to be seven years. This relatively short period appears realistic, since there is now an integrated action plan. The City of Cologne has adopted the development plan for the right bank of the Rhine over the whole area of Cologne-Kalk, Deutz and Mülheim. Part of that plan is the partial submeasure for the Deutz AG foundry site and the neighbouring areas of Euroforum Nord and Süd.

The expenditure in the business plan for the project relates to the implementation of the urban development plan (NRW.URBAN land plus proportionate neighbouring areas and circulation areas). The actual acquisition of the property will be covered by the NRW property fund and is not part of possible fund financing. The relevant expenditure for site preparation and waste disposal was determined on the basis of an existing report, research into industrial history and an existing demolition plan.
For the area to be developed, a rough cost estimate was ascertained on the basis of the urban development plan, which needs to be verified. Flat-rate cost estimates were also taken into account in ascertaining expenditure for project management and marketing in the business plan. Marketing is carried out following a proposal by Business Development Agency of the City of Cologne in accordance with the property fund’s guidelines. Because the estimates of the individual expenditure categories were not explained in detail by NRW.URBAN, this study can adopt the expenditure payment timeline only in unmodified and therefore unverified form. This is as follows:

<table>
<thead>
<tr>
<th>AUSGABEN brutto</th>
<th>2008</th>
<th>Jahr 1</th>
<th>Jahr 2</th>
<th>Jahr 3</th>
<th>Jahr 4</th>
<th>Jahr 5</th>
<th>Jahr 6</th>
<th>Jahr 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Grundstücksankauf</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>2. Erschließung</td>
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<td>1.000</td>
<td>1.500</td>
<td>1.500</td>
<td>1.500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Öffentliche Grünflächen</td>
<td></td>
<td></td>
<td></td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Abbruch / Recycling</td>
<td>25</td>
<td>1.000</td>
<td>1.000</td>
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<td></td>
<td></td>
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<tr>
<td>5. Altlasten</td>
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<td>800</td>
<td>800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Hochbaumaßnahmen</td>
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<td>0</td>
<td>0</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Vermarktung / Marketing</td>
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<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Projektmanagement</td>
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<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summe Ausgaben brutto</td>
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<td>3.355</td>
<td>1.580</td>
<td>1.555</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

Key:
Abbruch: demolition  
Entsorgung: waste disposal  
Erschließung: development  
Vermarktungszeitraum: marketing period  
AUSGABEN brutto: gross expenditure  
Jahr: year  
Grundstücksankauf: property purchase  
Erschließung: development  
Öffentliche Grünflächen: public green spaces  
Abbruch/Recycling: demolition/recycling  
Altlasten: contaminated sites  
Hochbaumaßnahmen: structural engineering work  
Vermarktung: marketing  
Projektmanagement: project management  
Summe Ausgaben brutto: Total gross expenditure

Table 4: Expenditure plan for Klöckner-Humboldt-Deutz, Cologne

After the initial development measures have been carried out, properties are to be sold off in succession. The speed of sale is heavily dependent on the economic situation at the time. A period of six years is calculated and the Income forecast is relatively certain because of the attractiveness of the area as a whole in an urban development context.
<table>
<thead>
<tr>
<th>Fläche</th>
<th>Größe ca. m²</th>
<th>Eigentümer (überwiegend)</th>
<th>Kaufpreiserwartung, erschließungsbeitragsfrei pro qm</th>
<th>Kaufpreiserwartung, erschließungsbeitragsfrei pro Parzelle</th>
<th>Erschließungsbeitrags erwartung pro qm</th>
<th>Erschließungsbeitrags erwarten pro Parzelle</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.138 KHD</td>
<td>0,00 €</td>
<td>74,00 €</td>
<td>454.212,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10.360 GRF</td>
<td>150,00 €</td>
<td>2.213.350,00 €</td>
<td>796.640,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>14.755 GRF</td>
<td>150,00 €</td>
<td>236.200,00 €</td>
<td>111.592,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1.508 GRF</td>
<td>200,00 €</td>
<td>286.400,00 €</td>
<td>91.908,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1.292 GRF</td>
<td>200,00 €</td>
<td>258.400,00 €</td>
<td>95.608,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1.984 GRF</td>
<td>200,00 €</td>
<td>396.800,00 €</td>
<td>146.816,00 €</td>
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<td></td>
</tr>
<tr>
<td>7</td>
<td>2.688 GRF</td>
<td>350,00 €</td>
<td>940.800,00 €</td>
<td>198.912,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2.296 GRF</td>
<td>250,00 €</td>
<td>574.000,00 €</td>
<td>169.904,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1.893 KHD</td>
<td>200,00 €</td>
<td>466.000,00 €</td>
<td>137.936,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1.893 KHD</td>
<td>0,00 €</td>
<td>74,00 €</td>
<td>140.082,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>2.695 GRF</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1.650 GRF</td>
<td>5</td>
<td>8250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>2.695 KHD</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>2.695 KHD</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summe ohne Parzelle 14: total without plot 14
Gesamtfläche einschließlich Grünflächen & Verkehrsflächen: total space including green spaces and circulation areas

<table>
<thead>
<tr>
<th>Teilfläche</th>
<th>Größe ca. m²</th>
<th>Eigentümer (überwiegend)</th>
<th>Kaufpreiserwartung, erschließungsbeitragsfrei pro qm</th>
<th>Kaufpreiserwartung, erschließungsbeitragsfrei pro Parzelle</th>
<th>Erschließungsbeitrags erwartung pro qm</th>
<th>Erschließungsbeitrags erwarten pro Parzelle</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6.138 KHD</td>
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<td>2.213.350,00 €</td>
<td>796.640,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>14.755 GRF</td>
<td>150,00 €</td>
<td>236.200,00 €</td>
<td>111.592,00 €</td>
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<td></td>
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<tr>
<td>4</td>
<td>1.508 GRF</td>
<td>200,00 €</td>
<td>286.400,00 €</td>
<td>91.908,00 €</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>1.292 GRF</td>
<td>200,00 €</td>
<td>258.400,00 €</td>
<td>95.608,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1.984 GRF</td>
<td>200,00 €</td>
<td>396.800,00 €</td>
<td>146.816,00 €</td>
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<tr>
<td>7</td>
<td>2.688 GRF</td>
<td>350,00 €</td>
<td>940.800,00 €</td>
<td>198.912,00 €</td>
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<tr>
<td>8</td>
<td>2.296 GRF</td>
<td>250,00 €</td>
<td>574.000,00 €</td>
<td>169.904,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1.893 KHD</td>
<td>200,00 €</td>
<td>466.000,00 €</td>
<td>137.936,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1.893 KHD</td>
<td>0,00 €</td>
<td>74,00 €</td>
<td>140.082,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>2.695 GRF</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1.650 GRF</td>
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<td>8250</td>
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<td></td>
</tr>
<tr>
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<td>0,00 €</td>
<td>0,00 €</td>
<td>0,00 €</td>
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<td>14</td>
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<td>0,00 €</td>
<td>0,00 €</td>
<td>0,00 €</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summe ohne Parzelle 14: total without plot 14
Gesamtfläche einschließlich Grünflächen & Verkehrsflächen: total space including green spaces and circulation areas

Table 5: Space plan for Klöckner-Humboldt-Deutz, Cologne

All in all, NRW.URBAN thus expects proceeds from the sale of the plots to be EUR 7.26 million and development charges from buyers to be EUR 3.74 million. These are spread over the six years of marketing as follows:

<table>
<thead>
<tr>
<th>Abbruch</th>
<th>Entsorgung</th>
<th>Erschließung</th>
<th>Vermarkungszeitraum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jahr 1</td>
<td>Jahr 2</td>
<td>Jahr 3</td>
<td>Jahr 4</td>
</tr>
<tr>
<td>A) Erträge Grundstücksverkäufe</td>
<td>210</td>
<td>1.500</td>
<td>1.250</td>
</tr>
<tr>
<td>B) Fördermittel</td>
<td>200</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>C) Eigenmittel</td>
<td>50</td>
<td>200</td>
<td>850</td>
</tr>
<tr>
<td>D) Beiträge Dritter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E) Mieteinnahmen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summe Einnahmen</td>
<td>0</td>
<td>460</td>
<td>2.400</td>
</tr>
</tbody>
</table>

Key:
Abbruch: demolition
Entsorgung: waste disposal
Erschließung: development
Vermarkungszeitraum: marketing period

EINNAHMEN: INCOME
Erträge Grundstücksverkäufe: proceeds from property sales
Fördermittel: support funding
Eigenmittel: own resources
Beiträge Dritter: contributions from third parties
Mieteinnahmen: rental income
Summe Einnahmen: Total income
Table 6: Income plan for Klöckner-Humboldt-Deutz, Cologne

Whilst the total amount of the sale proceeds and development charges is predictable, the timeline for the revenue and the amount of income from Land/municipality support funding cannot be verified in the absence of detailed information.

2.4 Financing and capital-market-neutral returns on investment

2.4.1 Internal project returns

2.4.1.1 Internal rate of return for project assessment

In order to be able, first of all, to assess the projects irrespective of their financing – specifically their financing from a fund – the projects are all to be evaluated on a comparable basis using the extrapolated cash flow structures. The evaluation of the projects will initially be carried out independently of one another. In a second stage, the project cash flows will be brought together into a portfolio cash flow, which will then also be evaluated.

Because the projects run over several years, only dynamic capital budgeting, and in this case specifically relative advantage criteria, are available, since volumes and durations are very different from one project to the next.

In order to evaluate the projects and the portfolios irrespective of specific project financing, the criterion of the internal rate of return (IRR) has been adopted. This also has the benefit that the project’s performance can be compared directly with the necessary capital contribution and an indicator is given for the economic use of the (scarce) capital.

The effective rate of return or internal rate of return of a project describes the single rate of return $i_0$, where the sum of the compound values of the income and the sum of the compound values of the expenditure are equal. The (desired) internal rate of return is achieved where the product of the following formula is zero:

$$C_n = \sum_{t=0}^{n} (E_t - A_t) \cdot (1 + i_0)^{n-t}$$

$$\sum_{t=0}^{n} E_t \cdot (1 + i_0)^{n-t} = \sum_{t=0}^{n} A_t \cdot (1 + i_0)^{n-t}$$

The internal rate of return thus describes the return on the capital committed to each project and on the average capital committed to the project. However, it should be borne in mind that for any investment projects this formulation of the internal rate of return applies as an indicator for return only in so far as the
calculated internal rate of rate is identical to the actual capitalisation rate (= lending rate) and also to the effective return on temporary reinvestments (=credit rate). This will be examined in due course.

For the five project types under the NRW urban development fund defined in the Working Group, the project returns are as indicated in the following sections. The information on payment flows collected in Section 2.3 has been used. Additional assumptions which are necessary to make the calculation are explained separately below.

### 2.4.1.2 Project development with property held as an investment: Kultur Ruhr office, Bochum

The income and expenditure estimates in Section 2.3.1 can be used for this project. In addition to the expenditure for structural engineering work, the occupancy costs must also be taken into account, albeit only the cash costs, since this is a financial analysis:

<table>
<thead>
<tr>
<th>Jahr</th>
<th>Investitionsausgaben</th>
<th>Laufende Ausgaben</th>
<th>Verkaufseinnahmen</th>
<th>Laufende Einnahmen</th>
<th>Cash Flow</th>
<th>Interne Projektverzinsung</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-25000</td>
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<td>120950</td>
<td>149670</td>
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<td>129800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12000</td>
<td></td>
<td>110000</td>
<td>129800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>11000</td>
<td></td>
<td>110000</td>
<td>129800</td>
<td></td>
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</tr>
<tr>
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<tr>
<td>6</td>
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<td>129800</td>
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</tr>
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<td>5000</td>
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<td>110000</td>
<td>129800</td>
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</tr>
<tr>
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<td>4000</td>
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</tr>
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<td></td>
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<tr>
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</tr>
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<td></td>
<td>110000</td>
<td>129800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key:
- Jahr: year
- Investitionsausgaben: investment expenditure
- Laufende Ausgaben: running expenditure
- Verkaufseinnahmen: sales revenue
- Laufende Einnahmen: running income
- Cash Flow: cash flow
- Interne Projektverzinsung: Internal rate of return on project

**Table 7: Internal project evaluation for Kultur Ruhr office, Bochum (proceeds from sale based on net rental income)**

If these payment flows are supplemented by a realistic assumption for the sale proceeds, there is an internal rate of return for the project of 0.06% p.a. This is therefore an ‘ideal’ type-B project since there is revenue and recycled funding, but these are far from sufficient for a commercial project development.

The main risk for this project is the ‘residual value risk’. If, for example, the sales multiplier falls to ten times the net revenue, there will be a negative return from the project, even disregarding the cost of capital. The same would hold if, for example, there were a vacancy rate of 10%. The multiplier of 12.5 which has been applied is subject to the conditions proposed by NRW.URBAN in the Heiligenhaus project, for example. The current property market report for the City of Bochum (2009, p. 47) shows that the property return (= required rate of return for investors) for commercial and office buildings is 8.00%, from the inverse value of which it is possible to derive a factor of 12.5.
Lastly, it should be pointed out at this juncture that commercial project financing on market conditions will result in a loss for the project.

2.4.1.3 Administration building development, Kiekert, Heiligenhaus

In addition to the capital expenditure for the purchase of the property and for the two-year construction phase, the project management costs and the cash occupancy costs and rental income are included in the project evaluation. In the third year, it is assumed that there will not yet be full utilisation, with the result that rent and ancillary costs were reduced to 50%. In the fourth year (after full utilisation), the sale is made, amounting to 13 times the annual revenue (as required by NRW.URBAN). At the same time, the running rental income in the fourth year should also be included in the evaluation.

Whilst this sales factor of 13 is also understandable for the location, based on property market reports, for the purposes of a conservative financial assumption, as with the project in Bochum, the sale proceeds are to be determined on the basis of the net income (after deducting cash occupancy costs). In this case there is a negative project return of -1.53%.

<table>
<thead>
<tr>
<th>Verwaltungsgebäude Kiekert</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Verkaufseinnahmen</td>
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<tr>
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<tr>
<td>Interne Projektverzinsung</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.53%</td>
</tr>
</tbody>
</table>

Key:
- Investitionsausgaben: investment expenditure
- Laufende Ausgaben: running expenditure
- Verkaufseinnahmen: sales revenue
- Laufende Einnahmen: running income
- Cash Flow: cash flow
- Interne Projektverzinsung: Internal rate of return on project

Table 8: Internal project evaluation for administration building, Kiekert Heiligenhaus (proceeds from sale based on net rental income)

2.4.1.4 Purchase of properties by compulsory auction, Bochumer Straße, Gelsenkirchen

The envisaged project duration is actually six years, but the incorrect entry of income in the project sheet in year 5 has already been pointed out in Section 2.3.3. The intended meaning was six periods spread over five years, which will be corrected in the remainder of the project evaluation. Furthermore, a correction was also made to the effect that the modernisation costs for the flats were incurred only after the purchase of the residential units, not at the same time. Lastly, the rental revenue from the existing flats was also correctly entered before the sell-off. These were previously shown as too low. However, the ancillary costs for the flats have
Evaluation Study  –  JESSICA initiative for North Rhine-Westphalia

not been covered thus far, since NRW.URBAN did not provide any information. The following payment timeline arises, directly covering in the running expenditure, in addition to the modernisation costs, also the project management costs and the marketing costs:

<table>
<thead>
<tr>
<th>Zwangsversteigerungsobjekte, Bochumer Strasse</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investitionsausgaben</td>
<td>-270000</td>
<td>-450000</td>
<td>-180000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laufende Ausgaben</td>
<td>-237600</td>
<td>-638460</td>
<td>-489780</td>
<td>-257040</td>
<td>-9720</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verkaufseinnahmen</td>
<td>162000</td>
<td>486000</td>
<td>648000</td>
<td>324000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laufende Einnahmen</td>
<td>38880</td>
<td>90720</td>
<td>77760</td>
<td>25920</td>
<td>25920</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Flow</td>
<td>-270000</td>
<td>-648720</td>
<td>-565740</td>
<td>73980</td>
<td>416880</td>
<td>340200</td>
<td>0</td>
</tr>
</tbody>
</table>

Rain interne Projektverzinsung: Internal rate of return on project

Even shortening the project duration to five years (and six periods), the result already mentioned in Section 2.3.3 is evident from the project evaluation: despite realistic selling prices, there is a highly negative project return, even disregarding the cost of capital, with the result that commercial implementation is not possible through this project and simple nominal capital maintenance is not realistic. Only a meaningful combination of this project with other profitable projects at portfolio level could be possible. Alternatively, grant support could also be required outside the scope of the fund. This will be examined further in Section 2.4.2.

2.4.1.5 Brownfield site development, Pumpen Müller, Herne

Whilst the return from the preceding project for the purchase of residential units is expected to be negative, according to the statements made in Section 2.3.4 the project for the interim acquisition of the Pumpen Müller site in Herne is expected to be positive. Estimating the acquisition price, which is to be estimated initially also as the proceeds of sale after four years, in addition to the abovementioned rental income and occupancy costs, there is already a project return of 8.97% p. a.

<table>
<thead>
<tr>
<th>Pumpen Müller</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investitionsausgaben</td>
<td>-1669574</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laufende Ausgaben</td>
<td></td>
<td>-144000</td>
<td>-144000</td>
<td>-144000</td>
<td>-144000</td>
</tr>
<tr>
<td>Verkaufseinnahmen</td>
<td></td>
<td></td>
<td>1669574</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laufende Einnahmen</td>
<td></td>
<td>293760</td>
<td>293760</td>
<td>293760</td>
<td>293760</td>
</tr>
<tr>
<td>Cash Flow</td>
<td>-1669574</td>
<td>149760</td>
<td>149760</td>
<td>149760</td>
<td>1819334</td>
</tr>
</tbody>
</table>

Rain interne Projektverzinsung: Internal rate of return on project

Key:
- Investitionsausgaben: investment expenditure
- Laufende Ausgaben: running expenditure
- Verkaufseinnahmen: sales revenue
- Laufende Einnahmen: running income
- Cash Flow: cash flow

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Such a project must be regarded as a commercial interim acquisition project even in the basic situation. It could presumably also be easily implemented by private investors and does not require any funding. On the other hand, it is a perfect project for offsetting high-loss projects, as in Gelsenkirchen with the interim acquisition of residential buildings.

Here too, the NRW urban development fund benefits unreservedly from this higher return potential only in the event of equity capital participation. In the case of loan financing, however, this goes ‘only’ to the project promoters, and in that case a higher lending rate (or a performance bonus as in debt/mezzanine financing) could be offered in future by the fund management.

2.4.1.6 Klöckner-Humboldt-Deutz (KHD) land development, Cologne

As has already been explained in Section 2.3.5, the payment flows for this project could be adopted only directly from the criteria laid down by NRW.URBAN, but cannot be verified because there is no detailed information. Since the upfront costs are disregarded, the project therefore commences only at the end of the first year, with corresponding income and expenditure:

<table>
<thead>
<tr>
<th>Klöckner Humbold Deutz Fläche</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investitionsausgaben</td>
<td>-75000</td>
<td>-280000</td>
<td>-330000</td>
<td>-330000</td>
<td>-150000</td>
<td>-150000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laufende Ausgaben</td>
<td>-50000</td>
<td>-55000</td>
<td>-55000</td>
<td>-55000</td>
<td>-80000</td>
<td>-55000</td>
<td>-55000</td>
<td></td>
</tr>
<tr>
<td>Verkaufseinnahmen</td>
<td></td>
<td>210000</td>
<td>150000</td>
<td>125000</td>
<td>125000</td>
<td>125000</td>
<td>180000</td>
<td></td>
</tr>
<tr>
<td>Laufende Einnahmen</td>
<td></td>
<td>250000</td>
<td>900000</td>
<td>155000</td>
<td>155000</td>
<td>155000</td>
<td>155000</td>
<td>160000</td>
</tr>
<tr>
<td>Cash Flow</td>
<td></td>
<td>-125000</td>
<td>-239500</td>
<td>-955000</td>
<td>-555000</td>
<td>1220000</td>
<td>1245000</td>
<td>3345000</td>
</tr>
</tbody>
</table>

*Table 11: Internal project evaluation for Klöckner-Humboldt-Deutz, Cologne*

Key:
- Investitionsausgaben: investment expenditure
- Laufende Ausgaben: running expenditure
- Verkaufseinnahmen: sales revenue
- Laufende Einnahmen: running income
- Cash Flow: cash flow
- Interne Projektverzinsung: Internal rate of return on project

The analysis shows that this project is a profitable project which can in principle also be implemented on a private, commercial basis. However, two points should be borne in mind: first of all, the high return from the project is a result of the relatively high running income from support funding from the Land and the municipality. Without that income, the project’s return would have a highly negative value of -10.28%:
Table 12: Internal project evaluation for Klöckner-Humboldt-Deutz, Cologne (without support funding)

If account is also taken of the high upfront costs of EUR 1.487 million incurred by the property fund, compared with rental income of only EUR 204,000, the project return would worsen even further to −13.54% p.a.:

Table 13: Internal project evaluation for Klöckner-Humboldt-Deutz, Cologne (without support funding, with upfront costs)

In the light of the evaluation of this project, the Steering Group must decide how it wishes to proceed as regards fund financing with the support and upfront costs. Depending on the approach taken the result of the evaluation is completely different. Below we will proceed on the basis of the basic evaluation (disregarding upfront costs and taking into account income from support funding) in accordance with the criteria laid down by NRW.URBAN.

2.4.2 Internal rate of return for the portfolio of five test projects

If the payment flows of all five ideal test projects are combined and it is assumed that the NRW urban development fund will begin at the end of 2010 with all five projects at the same time, this gives the following cash flow for the project portfolio:
It can be seen, first of all, that the income and expenditure from all five projects taken together yield a positive portfolio return of 2.57% p. a. This figure is absolutely ideal for an urban development fund.

On the one hand, the figure is too low for a commercial, private investment fund. On the other hand, the figure is high enough that it permits revolving recycling of capital even at a level of real capital maintenance (return on capital equal to the inflation rate in Germany). All in all, the above project portfolio offers a perfect basis for evaluating and structuring the fund architecture in Section 3 below.

### 2.4.3 Interim conclusion on the project types included in the NRW urban development fund

It should be pointed out at this juncture, first of all, that the above evaluation does not say anything about final capital maintenance in the fund assets. However, this is dependent on the amount of costs incurred by the fund for its own management, the refinancing costs and the project financing chosen for the projects (in particular the relevant terms). This will be examined in detail in the following sections.

However, the above project portfolio at least provides a perfect basis for the further organisational questions. The project types presented are therefore to be used as a ‘project type portfolio’ for developing the future fund architecture.

None the less, it will be for the future fund management, on an ongoing basis, to identify other projects – presumably similar in structure – with the help of external advisers. However, at the present time, these cannot yet be known or even quantified.

In the further course of the study, the five project types presented will be retained as a model portfolio which could be financed in future by the NRW urban development fund. The fund portfolio therefore contains both (slightly) profitable as well as non-profitable projects promoted and implemented by both municipalities and the private sector.
The portfolio includes both short-term projects and long-term projects with relatively lengthy durations. According to the project type, both land development and structural engineering work, and interim acquisitions and impetus-providing individual measures will be included in the further analysis. The following list gives an overview:

<table>
<thead>
<tr>
<th>Project type</th>
<th>Promoter</th>
<th>Duration</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>municipality/private-sector</td>
<td>long (15 years)</td>
<td>structural engineering work</td>
</tr>
<tr>
<td>2</td>
<td>municipality</td>
<td>short (4-5 years)</td>
<td>impetus-providing individual measure</td>
</tr>
<tr>
<td>3</td>
<td>municipality/private-sector</td>
<td>short (4-5 years)</td>
<td>interim acquisition of building</td>
</tr>
<tr>
<td>4</td>
<td>municipality/private-sector</td>
<td>short (4-5 years)</td>
<td>interim acquisition of land</td>
</tr>
<tr>
<td>5</td>
<td>municipality/private-sector</td>
<td>medium (7 years)</td>
<td>land development</td>
</tr>
</tbody>
</table>

Table 15: Summary of project types included
3 Derivation of a financial model for the NRW urban development fund

The starting point for further analysis is the project portfolio with its payment flows and returns, as set out in detail in Section 2. As a first step, it is possible to extrapolate the necessary maximum capital requirement for the urban development fund. Subsequently, account must be taken of the proposed project financing which the fund is to guarantee to the individual operations in order then, as a final step, to consider the refinancing of the fund together with the costs of the fund as a whole in the fund architecture.

3.1 Capital requirement analysis at fund level

The analysis of the portfolio of ‘model projects’ (see also Table 14) produces the following overall cash flow (with a total duration of 15 years):

![Figure 24: Trend for portfolio cash flow](image)

It is clear that the cash flow has a typical investment character. In the first four years, the project expenditure predominates. From the fifth year to the potential end of the fund (and all projects) there are only flowbacks in the form of income surpluses. This assessment is not affected if the fund duration is shortened, as already proposed in Section 2.4.2. The maximum expenditure surplus occurs in the third year; cumulatively, the following trend emerges for the entire duration:
The capital requirement therefore peaks at EUR 10.27 million. However, three effects can be observed: first of all, the capital and management costs for the fund are not covered thus far. They will increase the capital requirement. Secondly, full financing of the projects by the fund has been assumed thus far. This could mean a lower capital requirement depending on the financial engineering instruments used for the individual projects in the fund. Thirdly, it is possible to shift the timing of individual projects so that not all the projects commence at the same time.

Whilst the latter aspect is to be disregarded initially, it is now important, in the second step, to include the project financing proposed by the Working Group in the analysis.

3.2 Permissible project financing under European law in the JESSICA initiative

In principle, according to the legal requirements laid down by the European Commission, urban development funds may grant loans, guarantees and/or equity participations.

As is stated in Nadler et al. (2009), the grant of (long-term) loans is a possibility above all for the occupancy phase in the case of existing properties. Here the urban development fund acts as a conventional ‘development lender’ for projects and must demand regular flowbacks in the form of interest and redemption.
payments (‘model I’). Provision of funding for existing properties and buildings is suitable in principle, for example energy-efficiency improvements to existing buildings, since there is running income from which the revolving capital repayments can be made.

The fund can also operate as a guarantor for urban development projects (‘model II’). Both development and occupancy guarantees are possible. For example, an urban development fund could assume, wholly or in part, the default risk in land or project developments in order to secure banking partners for project financing. Furthermore, guarantees facilitate the deferral of interest and redemption payments. It would also appear possible for an urban development fund to assume individual project risks, such as the contamination risk in brownfield site developments. It is likewise conceivable for a fund also to grant guarantees to projects in the occupancy phase, for example granting rent default guarantees in the case of uses with a high public interest. In principle, however, the possibility of income generation for the fund is limited in both cases to the guarantee fee charged.

Lastly, a fund can also provide individual urban development projects with venture capital by means of equity participations. The fundamental distinction with the two preceding financial engineering instruments is that equity is generally a critical constraining factor in project financing. Consequently, if ‘only’ loans are granted from the fund, private equity must, as a rule, be secured at project level. If ‘only’ guarantees are granted by the fund, even full (private) project financing is necessary, as the fund does not invest any capital in the project, but only assumes a proportion of the risks through the guarantee. Equity participation by an urban development fund therefore has enormous importance for the implementation of projects. It is essentially possible for an urban development fund to participate in the financing of development measures as a ‘provider of finance to land and/or project developers’ (‘model III’) or as a ‘sustainable property investor’ in existing properties (‘model IV’). The crucial factor is that the fund operates only as a financing partner, but not itself as a developer in the project. Furthermore, it also makes sense in this specific case to spread the equity financing from the fund over various projects in order to reduce the risks at portfolio level.

Because of the high risk associated with any equity participation, a separate fund company must be set up in both cases, which is more time-consuming and entails higher set-up and management costs. The main advantage of equity participations is that the public actors gain far-reaching influence. For this reason, public actors are often willing to participate in asymmetrical profit- and loss-sharing from the operation of the fund. For the sake of having influence and on account of the positive effects of the projects on urban development, they do not seek competitive returns, so that it is possible to satisfy the demands of private investors for higher returns. In this way, the high private-sector capital costs at
fund level can be reduced and new (private) capital sources can be secured for the urban development fund. At the same time, in contrast with lost subsidies, participation in the project return is guaranteed, with the result that in the best-case scenario not only is the full amount of the equity recycled, but a return is also generated. In addition, an inherent factor of both business models is that the provision of venture capital by the fund generally means that other (private) sources of capital (e.g. lending from commercial banks) are actually obtained (leverage) and there are hardly any ‘crowding out effects’ on private-sector products.

<table>
<thead>
<tr>
<th></th>
<th>Grants</th>
<th>Loans</th>
<th>Guarantees</th>
<th>Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project influence?</td>
<td>0</td>
<td>+/0</td>
<td>0</td>
<td>++</td>
</tr>
<tr>
<td>Sharing in loss risks?</td>
<td>0</td>
<td>+ (no redemption)</td>
<td>+ (use)</td>
<td>++</td>
</tr>
<tr>
<td>Profit sharing?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>++</td>
</tr>
<tr>
<td>Capital leverage?</td>
<td>++</td>
<td>+</td>
<td>+/0</td>
<td>++</td>
</tr>
<tr>
<td>Need for regular project income?</td>
<td>0</td>
<td>++</td>
<td>++ (like loan)</td>
<td>--</td>
</tr>
<tr>
<td>Revolving flowbacks?</td>
<td>--</td>
<td>++ (periodic)</td>
<td>+/0 (only fee)</td>
<td>++ (on exit)</td>
</tr>
<tr>
<td>Capital costs (private-sector)?</td>
<td>--</td>
<td>+ (project loan)</td>
<td>+/0</td>
<td>++</td>
</tr>
<tr>
<td>Management/start-up costs?</td>
<td>0</td>
<td>+/0 (bank share)</td>
<td>+/0</td>
<td>++</td>
</tr>
<tr>
<td>Crowding-out effects?</td>
<td>+/0</td>
<td>+/0</td>
<td>+/0</td>
<td>0/-</td>
</tr>
</tbody>
</table>

++ = high positive effect, -- = high negative effect, 0 = no effect/irrelevant

Figure 26: Advantages and disadvantages of forms of project financing

3.3 Working Group proposals for project financing

First of all, the project financing for the five project types put forward by NRW.URBAN will be presented, without carrying out any further evaluation. Against the background of the regional budgetary regulations and experience thus far, NRW.BANK has also carried out its own investigations into possible financial engineering instruments, the findings of which directly impacted on the discussions held in the Working Group.

3.3.1 Structural engineering work (project type 1)

NRW.URBAN and NRW.BANK both favour financing of the project by means of loans. Such loan financing should include an interest rate subsidy compared with the market interest rate. Furthermore, the fund should cover the full financing of all project expenditure. Lastly, the fund should provide both the bridging financing for the development phase and the final financing for the occupancy phase for the property. The proposal envisages the following:

- During the construction phase, financing is provided by means of bridging financing at an interest rate of 2.50%, without redemption. In the first year EUR 1.00 million is raised, and in the second year the remaining resources amounting to EUR 2.25 million.

- From year 3, the total loan amount of EUR 3 350 000 is raised, split into two loans (loan 1: EUR 2 500 000 at 2.75% interest, and loan 2: EUR 850 000
at 3.50% interest) with a redemption of 1%. After a loan term of 13 years, i.e. in project year 15, an outstanding debt totalling around EUR 2 820 000 can be calculated. According to NRW.URBAN, the capital costs for both loans are EUR 98 500 per year during the occupancy phase for the building, which, together with the abovementioned costs for management, maintenance and depreciations, produces EUR 142 500.

This highlights the relatively complicated structure of the fund financing for the project. Rather than two loan tranches, for example, a single loan could be granted for the total sum at 2.50-3.00%, resulting in almost identical capital costs. Problems also appear to be raised by the very low redemption rate which means that the loans are repaid only after more than 35 years. Conversely, this entails a high level of outstanding debt at the end of the project period, when the property is to be sold.

3.3.2 Impetus-providing individual measure (project type 2)

NRW.URBAN envisages two main financial engineering instruments which could be provided by the NRW urban development fund to support the project in question: First of all, full loan-based financing of the development phase (project preparation and project implementation) for the rehabilitation of the administration building. For this bridging financing over two years, funding is to be provided for the purchase of the property and the construction costs (split into two instalments of EUR 500 000 and EUR 800 000) and the project management costs (EUR 30 000 in each case). Alternatively, a guarantee could be provided in addition to private construction financing. The difference between the two variants is less the necessary commitment of capital for the fund than the return on the bridging financing. The potential income from rental and sale does not appear to be sufficient for payment of interest at market rates.

Furthermore, there would also be the possibility that the urban development fund encourages the onward sale to a private investor. In this regard, the grant of a rent guarantee in the occupancy phase could significantly reduce the investor’s risk and thus the resale risk. However, the problem arises that a high capital stock is committed for a long time in the building occupancy phase and cannot be used for other purposes by the fund management. This form of support has therefore been proposed as little as the grant of equity to the project in question. It should also be borne in mind that a simple rent guarantee in any case has only a very limited flowback potential for the fund with a view to covering its own costs.

NRW.BANK has also favoured reduced-rate loans to the promoters of an individual measure.
3.3.3 Interim building acquisition (project type 3)

NRW.UBERN rightly points out that in the case of a high-risk purchase in a compulsory auction and the subsequent high modernisation costs, loan-based financing is not possible because regular flowbacks are insufficient to repay interest and loans. Because guarantees cannot offer any assistance here, only equity or quasi-equity financial engineering instruments (equity mezzanine) are possible.

In principle, a very critical view must be taken of the fact that the expected flowbacks not only result in no return on equity for the fund. The purchase of the property also means high individual capital stock losses. Not even nominal capital maintenance can therefore be achieved in the fund. It is uncertain whether this project type is actually suitable to be financed by the fund. Only a very quick capital depletion of the fund’s capital results from the project. However, it is very clear that whilst the project is not really viable at an individual level, at portfolio level higher-return projects could offer sufficient compensation. Nevertheless, this holds only if equity financing is also used, with the corresponding sale proceeds, in the case of more profitable projects.

In principle, loan-based financing would also appear to be possible in this project. Because of the limited rental income, however, only interest payment is possible. The repayment of the loan can be made only when the properties are sold in large volume. Because of the loss situation, however, not all debts could be repaid. Due account must be taken of this in planning the repayment of the loan. NRW.BANK would also consider an indemnity bond to be possible. Nevertheless, in this case the entire risk would no longer be assumed by the commercial lenders, but unilaterally by the fund. This form of project financing would tend to produce disadvantages for the fund as far as incentives are concerned.

3.3.4 Interim land acquisition (project type 4)

For this profitable project, in view of the high regular rental income, loan-based financing of the purchase for a period of four years would appear conceivable and indeed feasible. It is favoured in this form by both NRW.UBERN and NRW.BANK. The regular project income is even so high that a regular repayment of 1-5% of the total amount of the loan each year would be perfectly possible, and thus a relatively short redemption period.

Equity participation is not envisaged. However, it would ideally be possible in this project together with financing from private-sector loans. This form of project financing appears to be beneficial in particular with regard to the possibilities of compensating for ‘loss projects’, as was mentioned in Section 3.3.3. Nevertheless, a similar effect could also be achieved in future by the fund management in the
case of loan financing by agreeing higher and/or profit-related lending rates (under a debt-mezzanine loan), as is also proposed by NRW.BANK.

### 3.3.5 Land development (project type 5)

JESSICA resources are required for land development, and NRW.UBRAN favours fund financing by means of either loans or mezzanine capital. For the latter financial engineering instrument, ‘debt-mezzanine’ is probably the best option. Both options are also considered to be possible by NRW.BANK.

Equity financing and thus sharing in the profits of a project is not envisaged, since presumably there could be a conflict of interests with the previous (in some cases private-sector) project promoters. This holds in particular where those project partners do not participate in the fund, incurred considerable upfront costs for the project and are not now sharing, or are sharing only partly, in the flowbacks.

### 3.3.6 Summary assessment

The present individual analysis of possible project financing of the various types suggests a clear conclusion: the members of the Working Group favour loan-based financing with and without liability exemptions through the urban development fund. Other forms of financing cannot (at present) be used under the laws, regulatory and administrative provisions applicable in North Rhine-Westphalia. This is consistent with the experiences of NRW.BANK and the conditions laid down in the Landeshauschaltordnung (Regional Budgetary Code).

One advantage of these forms of project financing is probably that external project experts and principal banks (at least with regard to the application) can easily be integrated in the overall banking assessment of the projects. The Working Group has planned both for the future fund model. Low-return project types could also be limited by restricting the total amount lent (in relation to the total size of the project) and by the fund management requiring suitable securities for the NRW urban development fund. This proves to be a further advantage of the financial engineering instruments selected to implement the fund.

### 3.4 Permissible refinancing solutions under European law in the JESSICA initiative

Alongside the project financing granted through the fund, the refinancing of the fund must also be included directly in the fund model to be derived. Only taking account of the (fund’s) capital and management costs is it possible to assess the sustainability of the fund’s business activity in the form of the grant of project financing.
First of all, it must be stated that an urban development fund, like any investment fund, should be characterised by a purpose-specific accumulation and provision of capital for investments in projects. Depending on the actors to which the fund investments are provided, the following fund types can be distinguished:

- **Urban development fund without private participation**: In this case, the fund’s activity is refinanced fully by public financial resources. In addition to ERDF resources, the required national cofinancing (at least 50%) also comes from public bodies. Depending on whether that contribution is made by the Federal Government, the Land or the municipality, three subtypes can be distinguished. Jakubowski (2007) rightly points out that such a fund type is far removed from the JESSICA philosophy and the entire fund management should therefore rest with a (regional) development agency.

- **Urban development fund with private cofinancing at the level of the urban development projects**: in contrast with the first type, there is now no cofinancing by the public bodies in the urban development fund. The fund’s capital is initially formed solely by the ERDF resources used (up to 50% of the investment costs to be financed). The remaining cofinancing of at least 50% at the level of the individual urban development projects is provided by private partners such as investors, developers or commercial banks. The private partners may provide both loans and equity at project level and the overall fund management can still remain in the public sector, i.e. with a (regional) development agency. Here too, rapid implementation at the same time as mobilisation of further (private) capital is possible, so that the fund is much more in keeping with the JESSICA philosophy. Public-private financing (PPF) could thus be implemented.

- **Urban development fund with private-sector fund contributions to cofinancing**: This fund type, which would be closest to the idea of a public-private partnership (PPP) includes private-sector risk capital and third-party capital not only at project level but also at fund level. In this model type, the ERDF resources would be supplemented by private-sector cofinancing in the form of private contributions and/or loans. The ERDF resources could have a ‘first loss’ function, i.e. serve as a buffer for raising private capital. The private partners are given a contractual assurance that losses in the course of business activity will be covered first and foremost by ERDF resources in the fund. Furthermore, alongside a pari-passu profit sharing arrangement, an asymmetrical distribution could also be integrated into the fund type for the additional generation of private capital. However, it still does not appear possible for the fund itself to act as a developer. The relevant requirements laid down by the European Commission preclude this scenario, since urban development funds are intended to be purely financial instruments. Specifically with this fund type, the fund management plays an
important role in coordinating and managing the interests of the public and private-sector fund members. In contrast with the proposal made, it does not make sense here to establish the fund management with a development agency; instead, consideration should be given to the possibility of a new special purpose vehicle or capital investment company, with independent, professional fund management selected by public tender. The more neutral the fund management, and the less it can be influenced by the fund members, the more it can be ensured that urban development projects to be supported are selected and funding is granted to them (in size and in structure, see following criterion) in accordance with the relevant interests.

The NRW Working Group NRW made it clear that no private capital participation is envisaged at fund level, at least when the fund is launched. This does not mean that private capital cannot be contributed to the various types at project level, although this is not regarded as cofinancing. This will be provided solely by the future fund manager, NRW.BANK.

The fund capital is thus refinanced without private participation. Full cofinancing is supplied by NRW.BANK which provides funding on normal capital market terms:

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Key:
Ministerium für Wirtschaft, Mittelstand und Energie des Landes Nordrhein-Westfalen: Ministry of Economic Affairs and Energy of the Land of North Rhine-Westphalia
Ministerium für Bauen und Verkehr des Landes Nordrhein-Westfalen: Ministry of Construction and Transport of the Land of North Rhine-Westphalia
EFRE Verwaltungsbehörde: ERDF managing authority
Nationale Kofinanzierung: national cofinancing
Fondsverwalter: fund manager
Revolvierender Stadtentwicklungs-Fonds: revolving urban development fund
Darlehen: loans
Zinszahlungen, Tilgungsleistungen, Ausfälle: interest payments, redemption payments, losses
Projektgesellschaft: project company
Nach 1828/2006 Art. 43, 3: Errichtung des Finanzinstruments als gesonderter Finanzierungsblock innerhalb einer Finanzinstitution

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The extent to which resources from public sources are used in the fund can be explained if the total financing volume from the European Structural Funds for the Land of NRW is considered.

### 3.5 Usable volumes from Structural Fund resources

#### 3.5.1 NRW ERDF Operational Programme

In total, EUR 1.26 billion is available in the NRW OP, to be provided from the ERDF, in accordance with the financial plan, at a level of around EUR 180 million each year over the programming period:

![Table]

<table>
<thead>
<tr>
<th>Jahr</th>
<th>Gebiet</th>
<th>EFRE</th>
<th>Kohäsionsfonds</th>
<th>insgesamt</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>in Regionen ohne Übergangsunterstützung</td>
<td>172.836.789</td>
<td>0</td>
<td>172.836.789</td>
</tr>
<tr>
<td></td>
<td>in Regionen mit Übergangsunterstützung</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>172.836.789</td>
<td>0</td>
<td>172.836.789</td>
</tr>
<tr>
<td>2008</td>
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<td>176.089.525</td>
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<td>176.089.525</td>
</tr>
<tr>
<td></td>
<td>in Regionen mit Übergangsunterstützung</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>176.089.525</td>
<td>0</td>
<td>176.089.525</td>
</tr>
<tr>
<td>2009</td>
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<td>179.611.318</td>
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<td>179.611.318</td>
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<tr>
<td></td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>179.611.318</td>
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<td>179.611.318</td>
</tr>
<tr>
<td>2010</td>
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<td>183.203.542</td>
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<td>183.203.542</td>
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<tr>
<td></td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>183.203.542</td>
<td>0</td>
<td>183.203.542</td>
</tr>
<tr>
<td>2011</td>
<td>in Regionen ohne Übergangsunterstützung</td>
<td>188.887.813</td>
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<td>188.887.813</td>
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<tr>
<td></td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
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<td>gesamt</td>
<td>188.887.813</td>
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<td>188.887.813</td>
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<tr>
<td>2012</td>
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<td>190.604.955</td>
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<td></td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>190.604.955</td>
<td>0</td>
<td>190.604.955</td>
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<tr>
<td>2013</td>
<td>in Regionen ohne Übergangsunterstützung</td>
<td>194.417.065</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>194.417.065</td>
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<td>194.417.065</td>
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<tr>
<td>2007-2013 gesamt</td>
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<tr>
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<td>in Regionen mit Übergangsunterstützung</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>gesamt</td>
<td>1.263.430.816</td>
<td>0</td>
<td>1.263.430.816</td>
</tr>
</tbody>
</table>

Key:
- Jahr: year
- Gebiet: area
- EFRE: ERDF
As has already been explained in detail in Section 1.2.2, a total of 30% of the funding is earmarked for Priority 3 (sustainable urban and regional development), and the structurally weak regions can apply for a further 20% in the other priorities in region-wide competition for the best schemes. Taking national cofinancing into account, we have the following financial plan at priority level (see NRW OP, p. 160):

<table>
<thead>
<tr>
<th>Priority</th>
<th>Gemeinschaftsbeteiligung (b)</th>
<th>Nationaler Beitrag (a+b)</th>
<th>Indikative Aufschlüsselung der nationalen Mittel (c)</th>
<th>Finanzmittel gesamt (d)</th>
<th>Kofinanzierungssatz (f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Stärkung der unternehmerischen Basis (EFRE/Gesamtkosten)</td>
<td>254.186.163</td>
<td>254.186.163</td>
<td>154.186.163</td>
<td>100.000.000.000</td>
<td>508.372.328</td>
</tr>
<tr>
<td>2 - Innovation und wissensbasierte Wirtschaft (EFRE/Gesamtkosten)</td>
<td>635.465.406</td>
<td>635.465.406</td>
<td>465.465.406</td>
<td>150.000.000.000</td>
<td>1.270.930.016</td>
</tr>
<tr>
<td>3 - Nachhaltige Stadt- und Regionalentwicklung (EFRE/Gesamtkosten)</td>
<td>381.279.245</td>
<td>381.279.245</td>
<td>381.279.245</td>
<td>20.000.000.000</td>
<td>762.598.490</td>
</tr>
<tr>
<td>Technische Hilfe (EFRE/Gesamtkosten)</td>
<td>12.500.000</td>
<td>12.500.000</td>
<td>12.500.000</td>
<td>0</td>
<td>25.000.000</td>
</tr>
<tr>
<td>Gesamt</td>
<td>1.283.430.816</td>
<td>1.283.430.816</td>
<td>1.013.430.816</td>
<td>270.000.000.000</td>
<td>2586.881.632</td>
</tr>
</tbody>
</table>

Key:
- Priorität: priority
- Gemeinschaftsbeteiligung: Community share
- Nationaler Beitrag: national contribution
- Indikative Aufschlüsselung der nationalen Mittel: indicative classification of national resources
- national-öffentlich: national-public
- national-privat: national-private
- Finanzmittel gesamt: total financing
- Kofinanzierungssatz: cofinancing rate

Under Article 53 of Regulation (EC) No 1083/2006, a contribution rate of 50% of the total eligible expenditure for the Operational Programme as a whole is
permissible. This is also the basis for the contribution rates at priority level, with a possible different result at project or measure level. In Priorities 1 and 2 in particular, but to some extent also in Priority 3, it can be expected that operations will be financed entirely by private contributions. The total eligible expenditure (including private funding) is therefore the basis for determining the EU share. The share of private contributions in the total national cofinancing resources is estimated at around 21%. The share of public funding is therefore roughly 79%.

The European Regional Development Fund resources are paid by the European Commission in accordance with the Structural Funds Regulation through the Federal Office of Economics (certifying authority at federal level) to the Ministry of Economic Affairs and Energy of the Land of North Rhine-Westphalia. Income and expenditure headings are created in the budget of the Land of North Rhine-Westphalia (individual plan of Ministry of Economic Affairs and Energy). It passes on the funding immediately to NRW.BANK as the certifying authority, where special accounts are set up, from which payments are made either directly to the final beneficiary or to an intermediate body. The following chart shows the financial flows for the ERDF in North Rhine-Westphalia (see NRW OP, p. 194):

![Figure 28: Cash flows in the NRW ERDF Operational Programme](image-url)
A distinction is drawn in the procedures for the individual support measures between four basic types (audit trail):

1. Ministerial administrative procedure,
2. Decentralised administrative procedure,
3. Bank procedure,
4. Decentralised non-state procedure.

They differ in terms of responsibility for funding decisions, processes for receiving and examining applications for payments, and disbursement procedures. The bodies participating in the implementation of the ERDF programme are provided with a funding manual on the basis of the audit trail which contains the rules governing the execution of the programme.

3.5.2 European Agricultural Fund for Rural Development (EAFRD) and European Social Fund (ESF)

The EAFRD is pursuing the following general priorities in the forthcoming programming period:

- competitiveness for agriculture, food and forestry,
- land management and environment,
- quality of life and diversification of the rural economy.

There is an overlap in the project support in the abovementioned Priority 3 (sustainable urban and regional development: 3.2 measures to eliminate bottlenecks to development: infrastructure measures): Under the EAFRD infrastructure measures will be supported in connection with safeguarding and developing rural community institutions with a view to improving living conditions for the rural population and preserving viable rural areas. A clear difference with the ERDF programme is the geographical scope. The ERDF programme does not support any infrastructure measures in rural areas in Priority 3, but is limited to heavily industrial regions.

In the North Rhine-Westphalia ESF programme 2007–2013, the following programme focuses are envisaged:

- Focus A: enhancing employability,
- Focus B: youth and vocational training,
- Focus C: promotion of labour-market-policy target groups.
It is evident at this general level that the ERDF programme and the ESF programme pursue similar objectives. In order to avoid overlaps and to exploit synergies, the following distinctions vis-à-vis the ESF have been agreed:

For Priority 3 (sustainable urban and regional development: 3.1: integrated development of problem urban areas), the NRW ESF supports these activities as part of the integrated development of problem urban areas through supplementary labour-policy instruments. With regard to demography-related aspects, the ESF concentrates on company-specific measures in relation to ageing workforces, whilst the ERDF programme implements further-reaching operations.

3.5.3 Summary assessment and consequences of the organisational structure of the NRW urban development fund

In the Working Group meetings in NRW, not only were the project types further clarified, but also the sources of refinancing for the future NRW urban development fund. As has been stated above, a fund model was defined with full refinancing by public capital. In view of the proposed uses of the resources in the different Structural Funds, it will be assumed hereinafter that initially only resources from the European Regional Development Fund (ERDF) will be used for the NRW urban development fund.

The members of the Working Group agreed on a order of EUR 25 million. In accordance with the structure of the OP, cofinancing of EUR 25 million is also required and will be provided in this urban development fund by the future fund manager, NRW.BANK. It can therefore be stated that the NRW urban development fund will have an endowment of EUR 50 million. Furthermore, NRW.BANK plays a dual role in the NRW urban development fund as manager and investor:

Key:

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Ministerium für Wirtschaft, Mittelstand und Energie des Landes Nordrhein-Westfalen: Ministry of Economic Affairs and Energy of the Land of North Rhine-Westphalia
EFRE Verwaltungsbehörde 25 Mio Euro: ERDF managing authority, EUR 25 million
Fondsverwalter: fund manager
Revolvierender Stadtentwicklungs fonds: revolving urban development fund
Darlen: loans
Zinszahlungen, Tilgungsleistungs, Ausfälle: interest payments, redemption payments, losses
Projektgesellschaft: project company

Figure 29: Organisational model for the NRW urban development fund (part 1)

In order to rule out conflicts of interest in advance, the decision was taken from the outset, as regards the organisational model, to engage additional external experts for the project assessment. This function could be performed, for example, by NRW.URBAN, although a procurement decision is still to be taken by the political decision-makers:

Figure 30: Organisational model for the NRW urban development fund (part 2)

In order to ensure that future lending in the NRW urban development fund using the private-law banking procedure is legally certain and efficient, the members of the Working Group also agreed to apply the principal banker concept to private-sector applications and, in addition to the banking examination by NRW.BANK and the report by external project experts, like NRW.URBAN, to implement a funding committee with participants from the relevant ministries:
The project application, the result of the examinations by the bank and the project experts, and the decision recommended by the funding committee are then the basis for the lending decision taken by the independent management of the NRW urban development fund. This efficient procedure produces administrative effort at three points (within NRW.BANK, but also the external project experts and, in the case of private borrowers, the principal banks), which will be covered in the further course of this evaluation of the feasibility of the fund model.

3.6 Conflation of funding instruments and refinancing for a cash flow-based business plan for the NRW urban development fund

Through the financial engineering instruments of the urban development fund (see Sections 3.2. and 3.3.) and its refinancing options (see Section 3.4.) a number of fund architecture structures are possible to cover the extrapolated capital requirement (see Section 3.1.).

However, in order to make the necessary actions more transparent, precedence must to given to a realistic scenario for the future fund management in the form of ‘assumptions’ for further fund accounting. Only then can a quantitative assessment be made of the feasibility of the fund and capital maintenance for the urban development fund. It should be noted that this is not a target but an iterative
solution. As a result, the fund architecture gradually moves towards meeting the needs in the model operation.

### 3.6.1 Fund accounting assumptions

Initially, the main assumptions regarding fund accounting will be clarified, the substance of which must be agreed with the future fund management in the course of the Working Group meetings. Specifically, the following assumptions will form the basis for the further analysis:

- **Duration of fund activity:** 15 years (start 2011-end 2025)
- **Fund type:** initially purely loan-based fund
- **Management fee** (NRW.Bank): 1.0% p.a. on total loans extended
- **Other cost factors:** Costs of experts (NRW.URBAN): 0.25% of total loans extended (= sum available for project financing); principal bank costs (in the case for commercial applicants): 0.15% of total loans extended (= sum available for project financing);
- **Total fund amount:** EUR 50 million
- **ERDF share:** EUR 25 million (50%), interest-free, and Cofinancing: EUR 25 million (50%), from NRW.Bank,
- **Cofinancing:** provided as repayable loan (redemption on maturity; interest: 3.00% p.a.; 25 years; first 5 years interest-free)
- **Bridging financing costs:** for a possible short-term peak requirement 5% p.a. (if necessary)
- **Reinvestment interest income (free residual resources):** 2.0% p.a.

*Figure 32: Fund accounting assumptions for the NRW urban development fund (part 1)*

Thus, it is assumed that the fund will become active in late 2009/early 2010. In view of the long project lengths, it is also presumed that the fund will be commercially active for 15 years (until the end of 2025). If the beginning of fund activity is delayed by a year (to the end of 2011) because of organisational preparations and political decision-making, this does not affect the assessment of the fund on the assumption that the projects continue to exist. The fund’s activity would then (merely) cease at the end of 2026.

As has already been explained in detail, the NRW urban development fund is initially to be a purely loan-based fund which is managed by NRW.BANK and whose projects are appraised by an project expert, such as NRW.URBAN. This does not rule out the possibility of adding other financial engineering instruments in the course of the life of the fund. This is not planned at the present time, however.

As regards the fund management, whilst this study was being prepared there were a number of different interpretations of the legal provisions governing...
remuneration for management services. The first (very stringent) interpretation by European Commission representatives was chosen as the basis for the fund accounting. When a practical approach to the European rules for the calculation of management fees could be confirmed in a legal opinion at the end of 2009, similar scenarios were developed in this study for the establishment of the NRW urban development fund.

Under Article 43 of Regulation (EC) No 1828/2006, where there is no competitive tender, a maximum of 3% of the capital contributed from the Operational Programme may be earmarked for the financial engineering instrument (in this case the urban development fund) as management costs. Tax payments are not taken into consideration because of the planned public promotion of the fund. In this business model, the two relevant cost bearers in the fund model have agreed on the following remuneration:

According to the proposal, there is an annual payment to the fund manager amounting on average to 1.0% of the outstanding lending volume. The calculation is made at fund level using the average outstanding lending volume. This is a mean value from 0.8% for municipal and 1.5% for private/commercial loan applications. A possible project expert is also expected to raise analysis expenditure of EUR 500 000 (in the event of full capital extension). According to the calculations made by NRW.BANK, this corresponds to an average margin of 0.25%, which will also be used hereinafter. Lastly, by using the principal bank system, remuneration is also to be paid to those fund partners in the case of private/commercial borrowers. For the sake of simplification, a margin of 0.15% will be applied hereinafter, with the result that if all the fund resources of EUR 50 million are extended, the interaction of the three elements of the management fees (distributed over three actor groups) produces total management costs of 1.40%. This is well under the maximum permissible charge of 3.0%. However, this point will be discussed further in connection with possible optimisation approaches.

In addition to the management fee, it is also envisaged to remunerate NRW.BANK for its capital contribution to the fund. It has already been shown in detail that around EUR 25 million of the total fund volume will be provided by the bank as cofinancing or the ERDF resources. The bank itself takes on the necessary refinancing costs in the first five years of activity and does not charge the fund for this. NRW.BANK thus almost grants the fund an annual ‘funding dividend’ in the first five years, which represents substantial ‘start-up financing’ for the fund actor (by waiving interest). Thereafter, normal interest is envisaged to be charged on the capital contribution (assumed here at 3.00%) with repayment on maturity (end of 2025). The refinancing costs are assumed on the basis of the average capital market interest rates for the last year, presuming the best rating class, which must be taken to be the case with NRW.BANK. The current interest rate level is at a
much lower level, but this influencing factor will be discussed in relation to further optimisation measures.

If, in the course of the fund’s activity, a short-term peak requirement above the EUR 50 million initial investment is necessary, there will be interim financing of the peak requirement at a higher market rate of, currently, around 5.0%. This also holds as an assumption if, because of a restriction to partial financing, the residual financing for the individual projects must be found on the market. In principle, the fund management will endeavour, in its liquidity management, to avoid short-term peak financing and, at the same time, to reinvest free residual resources as effectively as possible. If free residual funding is available at fund level, it is assumed to be reinvested at 2.0%. These assumptions represent a conservative starting point which may still vary in the light of the further ‘potential for optimisation’ of the fund. This can be seen, for example, from the fact that the free funding could be reinvested by the fund management into new projects which are not yet determined at present. In this case, higher interest revenue will be generated from the reinvestment even if there is a low lending rate for the fund. With regard to future project financing by the NRW urban development fund, the following assumptions are to be made:

**Project financing under the fund:**
- Annuity loans or fixed-term loan with redemption at maturity (fixed repayment of capital)
- Redemption periods in accordance with project durations: limited to 12 years
- Deferred redemption at the beginning (development and construction phase) possible
- Interest rate: 2.75% p.a.
- Default risk costs: up to 5% of total lending
- Scope of project financing:
  - All five identified project types
  - Full and partial financing of projects
  - Number of cycles (until funding is raised):
    - long-term (type 1: 15 years) 1x
    - short-term (type 2/3/4: 4 years) 2-3x
    - remainder (type 5: 7 years) 2x

*Figure 33: Fund accounting assumptions for the NRW urban development fund (part 2)*

The Working Group has agreed that the model calculations will assume complete loan-based financing of the projects through the fund. From the perspective of the future fund management, loans with predictable flowbacks in the form of redemption by annuities, instalments and/or at maturity are appropriate. They will be therefore be assumed here. In this connection, the fund’s activity must seek to offer the individual projects as favourable repayment terms as possible for the loans taken out, but at the same time cover all the costs in connection with the
fund’s commercial activity. Aside from the lending rate, a crucial influencing factor is the maturity and the form of redemption of the loans.

The lending rate is contingent on the refinancing structure chosen for the fund and must also be defined in the light of the effects within the model projects. If we consider the current interest rates for municipal loans, like those awarded, for example, by the KfW (in some cases below 2.0%), a lending rate of 2.75% seems realistic at present. It will be used in the further course of the assessment of the fund’s feasibility. In the implementation phase, depending on the relevant project risks and refinancing costs, the fund management will have to decide whether higher or even lower lending rates can possibly be granted.

With regard to lending terms, with the exception of the first projects (here the redemption period is limited to 10 years), the project periods already presented in detail will also be assumed for financing. Because of the relatively short project durations in types 2 to 5, these can be realised several times during the life of the fund. For example, it is assumed that short-term projects can be financed up to three times in succession within the life of the fund of 15 years (see Figure 33). Whilst in project types 2 and 3 only redemption at maturity seems possible, in all other types a standard redemption by annuities with different rates between 1% and 25% is assumed (depending of the running times of the projects).

For project evaluation recourse should be had to criterion of benefit used in capital expenditure accounting, including the financing side. Unlike the traditional approach to project financing, capital assets will not therefore be used below, but final property assets on the basis of full financial plans. In the recursive structure of the final property asset, they permit the realistic integration of the imperfect capital market with a multiple debit and credit rate, so that the uniform calculated interest rates which are conventional for capital assets in financing deficits and in reinvesting surpluses can be avoided.

\[
\begin{align*}
V_0 &= E_0 - A_0 \\
V_t &= V_{t-1} + E_t + ZE_t - A_t - ZA_t \quad \text{für} \quad t = 1, \ldots, n \\
mit \quad ZA_t &= s \cdot S_{t-1} \\
ZE_t &= h \cdot H_{t-1} \\
S_t &= S_{t-1} + K_t - T_t
\end{align*}
\]

In order to determine the property assets \( V_t \) (\( t = 0, 1, \ldots, n = 17 \) years), the fund revenue \((E_t)\) is set off each year progressively in a financial plan against the current expenditure \((A_t)\) for management, tax and project funding costs, and interest earned \((ZE_t)\) and interest paid \((ZA_t)\). For each year it must be examined whether the fund has a revenue surplus and thus the option to reinvest free (fund)
resources \( (H_i) \) at the investment or lending rate \( (h) \), which produces corresponding interest earnings in the subsequent years. If, on the other hand, there is a shortfall in expenditure, this produces a borrowing requirement \( (K_i) \). In the above financial mathematical formula, all raising of equity and third-party capital, with its resulting interest expenditure \( (Z_{At}) \) and repayments \( (T_i) \) and thus capital repayments based on the relevant individual financing cost rates \( (s) \), is now explicitly included in the fund accounting. Through the interest expenditure, which is produced by multiplying the financing cost rates by the relevant current total debt \( (S_i) \) after taking account of repayments and borrowing, these go directly into the result for the end value of the asset.

Through the interaction of the fund expenditure (management, refinancing and default risk) and the fund income from lending and reinvestment of free residual resources it is possible to establish the viability of the fund in terms of project financing (see Figure 34). The default risk is covered without any explicit requirement. Instead, the fund bears the risk of unpaid debts up the end of the projects. A relevant risk cost rate can then be derived implicitly from this.

![Figure 34: Derivation of fund structure](image)

### 3.6.2 Evaluation of fund financing at project level

In project type 1, it is possible to see the problems experienced with long-term projects which have already been mentioned in the relevant section on projects. The income permits only a very low redemption rate of 1%, with the result that at the assumed end of the redemption period there is still a considerable outstanding
debt which cannot be repaid in full even by means of the assumed proceeds from sale:

![Trend for total debt in project type 1](image)

**Figure 35:** Trend for total debt in project type 1

The project therefore produces default costs for the fund. Commercial project financing would not be granted under these assumptions, but this could be offset by other project types at fund level, with the result that even such very difficult project types can still be financed by the NRW urban development fund. The type is therefore to be retained in the fund despite this development. Because of its long duration it can be implemented only once.

In project type 2 (impetus-providing individual measure), because of the short duration and the irregular income, fund financing will be repaid at final maturity. The trend for total debt shows that it rises at first during the construction process and can be repaid almost entirely from income, from the proceeds of sale in particular, at the end of the project (see Fig. 36).

If higher sales proceeds can be realised (e.g. at a level of 13 times the gross income, see Section 2.3.2), in this scenario full loan servicing or a profit situation would be ensured within the project for the promoter.
Project type 3 produces a similar assessment. Here too, the irregular payment timeline requires a gradually increasing level of total debt in the first few years of the financing period. And in this case too, the sale proceeds from the interim acquisition are not sufficient in the last two years to repay all debts. This applies even in the case of repayment at final maturity. However, if the urban area in which the property is purchased were improved by further regeneration measures following the interim acquisition, a rise in the sales factor from 12.5 to 15.0 would reduce the loss by more than a half. If, at the same time, rents in the area increase even slightly because of the improvements, repayment of the loan is possible even in this difficult project.

In project type 4, the interim acquisition of land, the repayment can be made without any problem on account of the better project return. Comparing project
cash flows with principal repayments to the fund (interest + capital) reveals that these are continually 16 to 25% higher. Commercial project financing would therefore also be possible. This is proven by the trend for the debt service coverage ratio = cash flow/loan servicing in period t):

![Graph](image1)

**Figure 38:** Trend for debt service coverage ratio in project type 4

Nevertheless, the fund needs just these kinds of project to offset the various default risks from the first three project types. Similarly, the last project type 5, land development, not only therefore has to ensure the repayment of the borrowing, but must have a coverage ratio continually above 1.00. The trend for both figures in that project type confirms the assumption:

![Graph](image2)

**Figure 39:** Trend for debt service coverage ratio in project type 5
The above analysis at the individual project level thus shows that as a result of the different profitability situations in project types 4, 5 and – with reservations – 2, the loans can be expected to be repaid to the fund. In the case of project types 1 and above all 3 this cannot be expected, resulting in particular in higher risk default costs for the fund. Together with the management and refinancing costs and the interest income from free residual resources, these are to be included in the analysis at fund level.

### 3.6.3 Evaluation of business activity at fund level

The business plan for the NRW urban development fund reveals the following overall picture, including all five project types, which can be repeated on the basis of the fund accounting assumptions 2 to 5 times within a project cycle:

---

*Figure 40: Trend for total debt in project type 5*

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Copyright: Prof. Dr. Michael Nadler 12.07.2010
On the basis of the lending operation cycles assumed, there is always new fund expenditure which results in new lending. If, at the same time, we also look at the refinancing of the fund and possible free residual resources, the picture is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>2011 Jan</th>
<th>2012</th>
<th>2013</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Fondseinnahmen (aus Krediten)</td>
<td>-2284574</td>
<td>-2179328</td>
<td>-5913644</td>
<td>-616553</td>
<td></td>
</tr>
<tr>
<td>+ Zinsertrag</td>
<td>954309</td>
<td>929168</td>
<td>828211</td>
<td>923585</td>
<td>1009087</td>
</tr>
<tr>
<td>- Fondsausgaben</td>
<td>-31984</td>
<td>-63374</td>
<td>-147908</td>
<td>-127381</td>
<td>-71680</td>
</tr>
<tr>
<td>- Zinsaufwand</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-750000</td>
<td>-750000</td>
</tr>
<tr>
<td>Cash Flow Fonds</td>
<td>-2284574</td>
<td>-1257004</td>
<td>-5047849</td>
<td>-63751</td>
<td></td>
</tr>
<tr>
<td>Verfügbarer Restmittel</td>
<td>47715426</td>
<td>46458422</td>
<td>41410573</td>
<td>41474324</td>
<td>50454341</td>
</tr>
<tr>
<td>Kapitalaufnahme EFRE</td>
<td>25000000</td>
<td>25000000</td>
<td>25000000</td>
<td>25000000</td>
<td>25000000</td>
</tr>
<tr>
<td>Kapitalaufnahme Kofinanzierung</td>
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<td>25000000</td>
<td>25000000</td>
<td>25000000</td>
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<tr>
<td>Schuldenstand</td>
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<td>25000000</td>
<td>25000000</td>
<td>25000000</td>
</tr>
<tr>
<td>Kapitalrückzahlung</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kapitalaufnahme Zwischenfinanzierung</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Schuldenstand</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kapitalrückzahlung</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Key:
- + Fund revenue (loan/equity)
- + Interest income
- - Fund expenditure
- - Interest expenditure
- Fund cash flow
- Available residual resources
- ERDF borrowing
- Debt level
- Cofinancing borrowing
- Debt level
- Capital repayment
- Bridging financing borrowing
- Debt level
- Capital repayment

The analysis of these figures reveals various interim findings: An effort has been made to ensure that the resources provided from the fund are fully extended. However, the trend for the fund capital committed in loans (lending) shows that at the peak thus far only up to EUR 11.5 million have been granted. On the basis of the assumed cycle, 11 projects have been financed thus far:
Because, however, EUR 50 million has been extended, there is high interest income from free residual resources (see Figure 42). Nevertheless, this is, it is assumed, less lucrative than equivalent lending from the fund (2.00% to 2.75%). With a view to further optimisation, this must be analysed in greater detail in the light of the threats and opportunities of the business plan.

Figure 43: Trend for fund capital committed as loans in the NRW urban development fund

Figure 44: Cumulative trend for fund cash flow over the entire period of activity
If we look at the results of the budget at the end of fund’s life in 2025 (see Figure 44), it is clear that not only can the full initial financing of EUR 50 million be recouped through the fund’s activity (100% nominal capital maintenance). In fact, under the assumptions made, a small surplus of EUR 4.58 million will be generated, with 109% capital maintenance. There is thus limited nominal capital growth of 9% or 0.59% each year, which is nevertheless below the average inflation rate of 1.5 to 2.0%. Consequently, under the assumptions made, nominal but not real capital maintenance can be expected. However, the interest income and the existing credit flowbacks were sufficient to offset fully the various management fees and risk default costs for the fund. In that scenario, the fund in any case ‘absorbs’ EUR 5.09 million in loan defaults (total outstanding debt for the projects). A risk cost quota of 0.7% p. a. has therefore been implicitly covered so far in the fund accounting across the entire loan portfolio.

Under the assumptions made, the added value compared with granting a ‘lost’ subsidy inter alia from ERDF resources is to be regarded as high. After the end of the life of the fund, EUR 29.58 million is available to the Land of NRW. It could be used for new urban development projects in North Rhine-Westphalia (within or outside the scope of the fund). If subsidies are granted purely from ERDF resources, no funds would be recycled to the Land of NRW. The NRW.BANK cofinancing is paid back in full whilst its management and refinancing costs are covered.

It should also be pointed out that this result must be regarded as very positive, compared with model operations running in parallel to urban development funds in other Länder. Unlike other Länder, very difficult, non-commercial (‘B’) projects are funded in this project portfolio and, at the same time, all costs (including default costs) incurred by all the participating fund actors are covered. It has not been possible thus far to achieve both aspects in this form in other model operations in Germany. Nevertheless, there is still also further potential for optimisation in this fund model. This will be examined more closely below.

3.6.4 Optimisation of business activity by the future fund management

It should be pointed out at this juncture that there are still opportunities for further optimisation in the implementation of the urban development fund. The future fund management will play a crucial role here. The fund management can support the project actors in structuring their own finances in order to make the individual projects easier to finance and more profitable.

The fund management can, for example, combine the projects more effectively at their start and end points. Furthermore, by consistent monitoring of all lending projects the fund management can ensure that default costs do not occur or occur.
only to a more limited extent. The absence of the deficits previously covered (EUR 5.09 million) would lead to a considerable increase in fund flowbacks which would also produce real capital maintenance (taking account of inflation rates) at fund level.

Increasing lending rates and/or shortening the redemption periods for the individual projects does also improve the maintenance of fund capital. However, as was mentioned above, it is to the detriment of the implementation of public interests at the level of the individual projects. Ultimately, it merely makes project financing through the fund more expensive. Precisely this shift towards commercial project financing, as offered on the capital market, should actually be prevented by the facility offered by an urban development fund. For that reason, this option will not be pursued further.

The same also applies to a further reduction in fund financing only for individual parts of the entire investment requirement, since in that case too the remaining financing must come from commercial sources and increased financing costs therefore restrict or even jeopardise the realisation of the public project aims. This ultimately makes no difference in the evaluation at fund level, since the resources must be invested in other projects of the same type by the fund management. At individual project level, however, it generally makes project financing more expensive (compared with the low lending rate which has been assumed thus far), makes the project less profitable and increases default risks.

The grant of guarantees by the fund, alongside lending by commercial banking partners, would also ultimately increase the financing costs at project level, since the guarantee fees and the normal market lending rates will not be below the previously assumed project financing rate of 2.75%.

It would appear more beneficial, at this point, for the fund management to reinvest the resources recycled to the fund in new projects in order to generate higher interest income and to implement other public project aims. If it is assumed that all existing free residual resources are invested by the fund management directly in new projects, there is even a much higher nominal surplus from the activity of the NRW urban development fund. This is shown in the following figure:
In this alternative scenario, at the end of the life of the fund there is not only the full repayment of the capital invested, but also a surplus of around EUR 10.88 million. This corresponds to a nominal capital appreciation over the entire life of the fund of 21.76% or annual capital growth of 1.32%. Whilst this does not yet ensure any real, inflation-adjusted capital maintenance (average inflation rate 1.5 to 2.0%), it does highlight the opportunities for the fund management to support as many reasonable projects as possible. Even though these cannot yet be identified explicitly, the optimisation possibilities for the fund management should be mentioned at this point. The funding of more short-term projects and of smaller projects (rather than individual large-scale projects) would appear expedient on account of the quicker flowbacks, but also the lower ‘bulk risk’ at fund level. The future fund management should be granted suitable latitude in assessing the presented project types.

At the same time, the future fund management must also be permitted to reject projects with too low flowbacks or too high inherent risks or not to concentrate the fund on those projects. One example is project type 3 (interim building acquisition), where there is some uncertainty over future project income. If the fund management rejected this project type, this would in turn result in an increase in the fund capital:
In this scenario, there is a surplus in the NRW urban development fund of EUR 6.54 million, so that a total of 113.09% against the initial capital is recouped.

A similar effect ultimately also occurs if management fees are reduced, for example, by 0.4% to a total of 1.0%. This in turn generates an increase in the fund surplus to EUR 5.12 million. Even though the relevant project actors must reach an agreement by negotiation, such a reduction would not appear reasonable at the present time. The organisational and procedural arrangements for the NRW urban development fund with the three ‘management elements’ involved (fund managers, project experts and principal bank) are relatively expensive. The possible total savings could therefore be limited in particular in the case of successful business with many project applications.

At the present time, because of the current level of the lending rate on the capital market, a reduction in the refinancing costs for cofinancing would appear to be realistic. With pegging to interest rates for the 3-month EURIBOR plus a premium in the best rating class, a reduction in the refinancing costs for the fund by one percentage point (to 2.0%) appears to be possible at least at the moment, with a current EURIBOR rate of 0.65%. This would also produce positive effects for the fund management:
In this case too there is an increased surplus in the fund’s activity of EUR 7.32 million or a total capital flowback of 114.6%. However, the extent to which potential for optimisation can be seen here ultimately depends on the future trend of rates on the capital market. It must be presumed that in the long term the current low interest level will not be maintained. The fund management would therefore have to peg interest rates for the necessary refinancing on the capital market at an early stage.

In summary, considerable potential opportunities were thus inferred for the business activity of the NRW urban development fund in a total of four fund accounting scenarios (including the basic situation). In all the scenarios there is nominal capital maintenance, as a result of which the financial feasibility criterion is met at project and fund level under the assumptions made. However, in contrast to those opportunities, there are also considerable potential threats and risks. This is less a question of strategic policy and organisation than of practical implementation by the fund management.

In the basic scenario 11 projects have been implemented thus far and, including management costs, around EUR 14.4 million used in relevant urban development projects by the end of 2015. In view of the total fund volume of around EUR 50.0 million, two risks for business activity can therefore immediately be identified: first, at the present time, the interest income from the free residual resources makes a substantial contribution to the nominal capital maintenance. As
a result, cutting the reinvestment lending rates, for example from 2.0% to 1.5%, would cause a significant reduction in the profitability of the fund, as the following alternative scenario 4 shows:

![Cumulative trend for fund cash flow over the entire period of activity (alternative scenario 4: reinvestment interest rates fall to 1.5%)](image)

Figure 48: Cumulative trend for fund cash flow over the entire period of activity (alternative scenario 4: reinvestment interest rates fall to 1.5%)

It can be seen that now a surplus of only EUR 0.746 million and annual capital growth of 0.1% is generated.

Secondly, the above scenario indicates a further risk factor: thus far, up to the end of 2015 only EUR 14.4 million of EUR 50.0 million has been used in urban development projects. This could result in repayment demands to the European Structural Funds. It is thus clear that more projects would have to be realised. This is accompanied by a much greater effort finding and examining projects, also producing higher management costs in the business plan for the fund. If it is assumed that the fund management 'optimises' the mix of project types and thus implements project type 1 twice, type 2 three times, type 1 once and types 4 and 5 five times each, by the end of 2015 it will be possible to disburse a sufficient level of funding:
In this scenario it is clear that by the end of 2015 more than EUR 51.5 million has been disbursed by the fund (in project financing and management costs). In that case, a total of 38 projects will have been realised. This is not a small number if it borne in mind that many projects may also not receive final fund financing. The different actors in the fund management therefore have significant responsibilities in project identification, project evaluation and credit assessment, and in monitoring the loans granted. The profitability criterion would nevertheless be met in this alternative scenario 5, as is shown by the following figure:
It is evident that in this realistic scenario a nominal capital maintenance of 100.4% will be achieved, with a surplus from the fund’s activity of only EUR 0.215 million or 0.03% growth p.a. In that scenario, even an increased default risk was covered for the urban development fund because of the greater number of difficult project types. The default costs in this scenario are the equivalent of 1.2% p. a., so profitability is reduced. The more projects financed and managed by the urban development fund, the greater the importance attached to risk management by the Bank.

If, however, the future fund management is not able to finance more than the projects assumed in the basic situation, then after the end of the programming period (end of 2015) there is a risk of repayment of the resources used in the fund but not yet disbursed by the fund management. In the light of all the project financing up to the end of 2015, risk, interest and management costs, in this case EUR 10.5 million would have to be repaid to the European Structural Funds. This would mean reduced interest income compared with the basic scenario, so that at the end of the planned life of the fund the total surplus is reduced to EUR 2.51 million (or 105.03%). It would then possibly make sense, from the perspective of the future fund management, to close the fund early in 2016. However, that decision must ultimately be taken by the fund management together with the relevant ministries in 2016.
In summary, the following scenarios can thus describe the opportunities and threats in the business activity of the NRW urban development fund:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Structure</th>
<th>Fund surplus</th>
<th>Nominal capital growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>basic scenario</td>
<td>loan 1.4% management costs; refinancing costs 3.0%</td>
<td>EUR 4.6 million</td>
<td>0.6% p.a.</td>
</tr>
<tr>
<td>alternative scenario 1</td>
<td>loan, reinvestment in new project lending at 2.75%</td>
<td>EUR 10.9 million</td>
<td>1.3% p.a.</td>
</tr>
<tr>
<td>alternative scenario 2</td>
<td>loan 1.4% management costs; no project type 3</td>
<td>EUR 6.5 million</td>
<td>0.8% p.a.</td>
</tr>
<tr>
<td>alternative scenario 3</td>
<td>loan 1.4% management costs; refinancing costs 2.0%</td>
<td>EUR 7.3 million</td>
<td>0.9% p.a.</td>
</tr>
<tr>
<td>alternative scenario 4</td>
<td>loan 1.4% management costs; reinvestment interest 1.5%</td>
<td>EUR 0.7 million</td>
<td>0.1% p.a.</td>
</tr>
<tr>
<td>alternative scenario 5</td>
<td>loan 1.4% management costs; several parallel projects</td>
<td>EUR 0.2 million</td>
<td>0.03% p.a.</td>
</tr>
<tr>
<td>alternative scenario 6</td>
<td>loan 1.4% management costs; repayment of non-disbursed ERDF funding</td>
<td>EUR 2.5 million</td>
<td>0.3% p.a.</td>
</tr>
</tbody>
</table>

Figure 51: Comparison of nominal capital maintenance in six opportunity-threat scenarios for the NRW urban development fund

The financial results are picked up in the summary report on the opportunities and threats for the NRW urban development fund.
4 Summary report on the fund proposal in the light of the legal framework

4.1 Planned fund organisation and process structure for the business activity of the urban development fund

In order to explain the fund management, its remuneration, but also the fund refinancing, the preceding section has already presented in detail the planned distribution of responsibilities and process structure for the NRW urban development fund:

After the policy decision on the setting-up of the NRW urban development fund has been taken, the Working Group plans that in a first stage of operational fund management (in the implementation phase) a service contract will be concluded between the future fund manager, NRW.BANK, and the Ministry of Construction and Transport of the Land of NRW. At the same time, a funding agreement should be concluded with the two fund partners, so that resources can be contributed to the fund as soon as possible thereafter from ERDF funding (by payment to NRW.BANK) and from cofinancing by the bank. The basic conditions for the operational activity of the fund would thus be satisfied and lending operations could be started:
As has already been explained, the future fund management will grant the loans in a private-law procedure, comprising the following procedural steps based on existing experience with micro-loans and small-scale and corporate financing:

Figure 53: Process and responsibilities in the NRW urban development fund
1. **Application to NRW.BANK** Discussion in connection with formulation

2. **Banking examination of the application by NRW.BANK**

3. **Expert opinion**

4. **Funding committee sifts the applications and the findings of NRW.BANK and of the expert (NRW.URBAN), discussion the operation and makes a recommendation for a decision**

5. **The application, the examination findings and the recommendation for a decision by the funding committee form the basis for the lending decision by the independent fund management**

6. **In the case of a positive vote: conclusion of agreement**

*Figure 54: Process from application to conclusion of agreement*

In order to ensure that the project applications progress to the grant of loans, the relevant agreements must also be concluded with the other fund actors, in particular the planned project experts and the principal banks. If necessary, calls for tenders must be implemented in accordance with procurement law.

Furthermore, work is already being done on a guidance leaflet or information sheet for project applications. These must in particular clearly lay down the conditions for the grant of loans. They should also explain to potential project promoters the lending terms:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible applicant</td>
<td>• Municipalities and municipal associations</td>
</tr>
<tr>
<td></td>
<td>• Natural and legal persons</td>
</tr>
<tr>
<td>Object of funding</td>
<td>• Land development</td>
</tr>
<tr>
<td></td>
<td>• Structural engineering works</td>
</tr>
<tr>
<td></td>
<td>• Interim acquisition</td>
</tr>
<tr>
<td>Binding eligibility conditions</td>
<td>• Expert report positive</td>
</tr>
<tr>
<td></td>
<td>• Regional scenario</td>
</tr>
<tr>
<td></td>
<td>• Compatibility with urban development concept</td>
</tr>
<tr>
<td>Lending terms</td>
<td>• Loan variants possibly</td>
</tr>
<tr>
<td></td>
<td>• Duration with redemption-free years</td>
</tr>
<tr>
<td></td>
<td>• Interest rate freely configurable</td>
</tr>
</tbody>
</table>

*Figure 55: Conditions for the extension of loans from the NRW urban development fund (definition in accordance with the eligibility guidelines)*

The Working Group has drawn up the following implementation plan for these steps. It provides that the NRW urban development fund will commence business activity, i.e. lending, in late 2010/early 2011:
In order to respect this very strict timetable, it is necessary before the fund is launched to resolve all the legal questions which arise, which will be briefly examined below.

4.2 Legal examination of chosen fund structure for the NRW urban development fund

The Working Group for the NRW urban development fund worked hard on legal questions which could possibly arise from the setting-up of the fund. To that end, first of all, the existing legal framework in the form of the EU Structural Fund regulations (Regulations (EC) No 1080/2006-1083/2006 and the relevant amending regulations) was examined. Following the parallel analysis of the publications of the Coordination Committee of the Funds (COCOF) in a JESSICA context, the following 17 unresolved questions were identified by the Working Group:

| Question 1 | a) What legal nature does the fund generally have under Article 44 of Regulation (EC) No 1083/2006?  
|            | b) What legal advantages and disadvantages or legal consequences (rules on State aid?) are connected with the possible structures (legal personality of the fund, private-sector involvement in the fund, instruments used etc.)?  
| For example: In an invitation to tender for the fund under Article 44(a) of Regulation (EC) 1083/2006, can higher management costs be accepted under Article 43(4) of
<table>
<thead>
<tr>
<th>Question</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 2</strong></td>
<td>Is there any experience of integrating private funding in a fund solution? How will it attract interest?</td>
</tr>
<tr>
<td><strong>Question 3</strong></td>
<td>a) Are there fundamental requirements with regard to the documents to be retained by the fund (duty to keep supporting documents, reporting documents etc. for the managing authorities)? b) At what level and in what depth must the funds report (e.g. regarding the financed projects)?</td>
</tr>
<tr>
<td><strong>Question 4</strong></td>
<td>Funding under the urban development fund: What is the current status of funding of residential areas under the ERDF fund? Are further changes to Regulation No 1080/2006, in addition to those under Regulation (EC) No 397/2009, to be expected?</td>
</tr>
<tr>
<td><strong>Question 5</strong></td>
<td>a) When can resources be paid out of the fund? b) Does the principle of cost-reimbursement have to be applied, or can a payment of fund resources be made to the project promoter even before the investment is made?</td>
</tr>
<tr>
<td><strong>Question 6</strong></td>
<td>a) When is funding from the fund regarded as disbursed and when can the funding from the fund be settled vis-à-vis the Commission as disbursed? According to the COCOF notes and under Article 78(6) of Regulation (EC) 1083/2006, the resources must be contributed to the fund and disbursed from the fund again! b) In the case of guarantees, there is traditionally no outflow of funds except in the case of utilisation. From what point are guarantees regarded as having been disbursed, upon the legally valid conclusion of the agreement or only upon actual utilisation by the guarantee holder?</td>
</tr>
<tr>
<td><strong>Question 7</strong></td>
<td>a) What rules are there governing interest on fund resources which are uncalled? b) Are there requirements relating to payment of interest and use of interest earnings?</td>
</tr>
<tr>
<td><strong>Question 8</strong></td>
<td>a) What types of cost can be reimbursed in principle from the fund assets (including its interest earnings)? b) What is the situation with remuneration for other actors (expenditure for refinancing, sales partners, consultancy, implementation, expert opinions, and design)?</td>
</tr>
<tr>
<td><strong>Question 9</strong></td>
<td>a) Is there a definition or definitive description of what is meant by management costs under Article 43 of Regulation (EC) 1828/2006? b) Are there provisions which lay down more precise rules on the allocation of management costs? It is assumed that remuneration from fund resources for the management of an urban development fund is, as a rule, permitted on a yearly average of up to 3% of the capital contributed by Operational Programme in</td>
</tr>
</tbody>
</table>
question to the fund. The returns generated can also be used to cover the costs of the fund management and/or third parties (Article 43 of Regulation (EC) 1828/2006), provided they are not management costs.

c) It is correct that the maximum limit for management costs under Article 43(4) of Regulation (EC) No 1828/2006 does not apply to the other costs (e.g. refinancing expenditure, see Question 6 above) which are necessary in connection with the implementation of a project?

d) Is it lawful to pass on normal banking costs which are not attributable to the fund management to borrowers as charges?

Question 10
What requirements does EU law lay down in relation to guarantees and exemptions from liability? Are there rules governing how guarantees are entered in the fund assets as contingent liabilities?

Question 11
a) Do all EU specific ancillary provisions and eligibility provisions also have to be applied at project level for the 2007-2013 programming period (decommitment, publicity, information duties, auditing, retention of documents and files, revenue, major projects etc.)?

Assumption: No, only at fund level, as the fund and not the business is the final beneficiary.

b) It can be inferred from the COCOF notes that at the level of the borrower or guarantee holder, the question of revenue – Article 55 of Regulation (EC) 1083/2006 – is not applicable. Is this correct? What other rules are project promoters not required to comply with at fund level?

c) With regard to major projects, the COCOF notes state that the contribution of resources into the fund cannot be considered to be a major project within the meaning of Article 39 of Regulation (EC) No 1083/2006. This provision nevertheless seems to apply in connection with the financing of projects from the fund. Is that correct?

Question 12
a) In NRW consideration is being given in the case of project promoters to financing the interim acquisition of land from resources from the fund. In the light of Article 7(1)(b) of Regulation (EC) No 1080/2006 (purchase of land may not exceed the amount of 10% of eligible costs) is this compatible with EU law? Or is that provision applicable only at fund level, but not at the level of the projects co-financed by the fund?

b) Under Article 56(2) of Regulation 1083/2009, contributions in kind are eligible for funding in principle. Against this background, how are contributions in kind (land) to the fund and the recognition of contributions in kind in the case of the borrower or the guarantee holder to be assessed?

Question 13
a) It can be inferred from the COCOF notes that the duty to keep supporting documents applies to the fund and the project promoter. Could this be clarified for both levels (fund and project promoter)?
| Question 14 | a) Under what conditions must the fund itself or the project promoter, as recipient of resources from the fund, comply with procurement law?  
b) Is a legal situation conceivable where procurement law is not applicable to the project promoter? |
| Question 15 | a) What rules on State aid must be observed at the fund level?  
b) Are the rules on State aid also applicable to project promoters as recipients of the resources from the fund?  
c) Project promoters which form a target group for an urban development fund are often municipal project promoters, which are mainly non-SMEs. Do they operate economically for the purposes of the law on State aid?  
d) If so, what options for funding are available under the rules on State aid, aside from de minimis support and small aid arrangements (in particular for non-SMEs)? For example, in an urban development measure a municipality engages a trustee which, using fund resources, acquires, rehabilitates and resells properties/buildings. Does the activity of the trustee (land acquisition/rehabilitation/sales) have relevance for the purposes of the rules on State aid? |
| Question 16 | Is it necessary to comply with rules on State aid – and, if so, which – in the provision of guarantees from the fund to project promoters (in particular for non-SMEs)? |
| Question 17 | To what precise earmarking are flowbacks from the fund subject? For example, is the only limited eligibility of residential construction to be borne in mind in the reinvestment of the flowbacks? Can the funding be freely granted after the end of the programming period? |

**Figure 57: Legal issues identified within the Working Group**

The issues identified by the Working Group were forwarded to the DLA Piper legal practice, which had been commissioned by the EIB to produce a legal study on the urban development fund in Germany. The legal practice was able to answer all the legal questions identified as far as possible, as is shown by the following attribution of the questions raised to the content and sections of the legal study:
| Question 1 | Annex, Answer 9 |
| Question 2 | Annex, Answer 1 |
| Question 3 | Annex, Answer 32 |
| Question 4 | Main text, Explanatory Note F.I.1 |
| Question 5 | Annex, Answer 17 |
| Question 6 | a) Annex, Answer 17  
b) Annex, Answer 5 |
| Question 7 | Annex, Answer 40 |
| Question 8 | Annex, Answer 31 |
| Question 9 | Annex, Answer 24, 25; Main text, Explanatory Note E.V.5 |
| Question 10 | Annex, Answer 53 |
| Question 11 | a) Annex, Answer 42  
b) Annex, Answer 26  
c) Annex, Answer 36 |
| Question 12 | UNRESOLVED |
| Question 13 | a) Annex, Answer 33  
b) Annex, Answer 8 |
| Question 14 | Annex, Answer 52 |
| Question 15 | Annex, Answer 55-57 |
| Question 16 | Annex, Answer 58 |
| Question 17 | UNRESOLVED |

**Figure 58:** Results of the legal examination by the DLA Piper legal practice
There are, as things stand at present, essentially two areas where it has not yet been possible to provide definitive legal clarification. First of all, the question arises to what extent the recycled funding is subject to further restriction on its use (Question 17 from the Working Group). The existing legal framework nevertheless lays down a clear requirement: The revolving fund flowbacks should be re-used ‘only’ for integrated urban development. According to COCOF Note 08/0002/03-EN (section A.3, Level 3: Recycling of Contributions to Enterprises, PPPs and Projects), residential construction projects can also be financed as part of integrated urban development after the funding has been recycled and resources have thus been used once in the urban development fund.

The second issue which is currently still unresolved (Question 12 from the Working Group) relates to whether property purchases may in principle be financed by the fund (above the 10% limit). This is undoubtedly very important for the NRW urban development fund, since an entire project type was identified by the Working Group in this area (‘interim land acquisition’ (project type 4)). In addition, this issue is also relevant in connection with structural engineering work and land development. At the present stage of the study, however, there is not yet any definitive resolution or even a rule on this subject. It must therefore be hoped that this latter important issue can be clarified by the time of the planned launch of the fund at the end of 2010. Alternatively, efforts can be made to structure project financing with property sales in such a way that land acquisitions are financed by complementary sources of capital (outside the fund). In particular, the necessary complementary equity financing would be relevant in this regard.

4.3 Analysis of added value of the NRW urban development fund compared with traditional grant funding

The question of the extent to which the JESSICA initiative can add value compared with traditional grant funding has been answered so far only theoretically/qualitatively and not empirically/quantitatively. A structured survey will therefore be made below of the general arguments which can be made regarding the evaluation of the JESSICA initiative, before the first JESSICA fund is actually implemented. The evaluation criteria are divided into two areas.

First of all, there will be an examination of the arguments for and against the generation of added value from the JESSICA initiative in general and purely economic terms. This will be done in isolation from arguments concerning an advantage or a disadvantage in connection with the JESSICA initiative arising only on account of legal provisions. These arguments which are based solely on the structure of the ERDF rules are added in the second step.
4.3.1 Economic added value in terms of a SWOT analysis

First of all, a strengths-weaknesses-opportunities-threats analysis will be used to show the economic added value of the NRW urban development fund.

4.3.1.1 Potential strengths and opportunities

The quantitative economic added value of setting-up an NRW urban development fund compared with using ERDF resources purely for grant-funding for projects has already been discussed in detail in Section 3.

Under the assumptions made, around EUR 29.58 million is available to the Land of NRW at the planned end of the fund’s activity (end of 2025) in the basic scenario. Not only would the ERDF resources used therefore be recouped (EUR 2.50 million), but an additional EUR 4.58 million in supplementary surpluses. A pro-active, independent fund management is possibly also able to generate even higher surpluses in the business activity if it implements the measures highlighted in Section 3.6.4 in the first three scenarios.

Since the focus of European support funding will in future be shifted to the new EU Member States, the long-term establishment of an NRW urban development fund therefore offers the opportunity to compensate for declining budget appropriations in the forthcoming programming period. By adopting a revolving approach, the resources are still available for new urban development projects after the loans have been repaid. The planned cofinancing by NRW.BANK also offers an opportunity for the actors in urban development in NRW to implement an innovative financial engineering instrument despite the strained budgetary situation and planned debt brakes.

In addition to these quantitative strengths with regard to the setting-up of an NRW urban development fund, qualitative economic added value can also be seen. For example, it must be assumed that project discipline will generally be greater. The institutionalisation of project control, which is essential for an urban development fund particularly in the case of private borrowers and applicants, ensures that a feasibility study is first carried out for each potential project which includes a location and market study, a risk analysis and a profitability analysis, with the result there is an ex-ante review of the project’s sustainability. This detailed project planning opens up the possibility of a periodic target-performance comparison with the project’s progress, which can identify and if necessary eliminate the causes of discrepancies. Through systematic fund management the efficiency of projects is increased. Greater project efficiency could in principle also be sought by the fund management in the case of purely municipal applicants even though on the basis of the EU rules and the extended liability situation only lower-level monitoring of the use of funding is absolutely necessary.
Such fund controlling can ideally be implemented with the assistance of private-sector know-how. That know-how is provided to the public sector through cooperation between the financial fund management and the urban development advisory body, in particular in project development, construction and finance, sales and marketing. However, in an urban development fund not only can know-how be transferred from the private sector, but expertise can also be pooled by urban and regional planners, project developers, investors and banks.

Such potential opportunities are to be highly regarded, as is clearly shown by the interdisciplinary work within the Working Group for the NRW urban development fund. In an ideal scenario, this is how know-how is built up in the long term in the case of public decision-makers, allowing different funding approaches and sources of finance to be combined, the risk of the overall concept to be addressed and innovative financing approaches to be integrated. The fund can thus be used alongside traditional grant-based urban development support. Such public know-how, pooled as a JESSICA platform, would also allow other objectives which are worthy of support, such as the setting-up of loan fund for SMEs or microloans, as intended in the JEREMIE and JASMINE initiatives, to be achieved. There is already considerable experience in this regard in NRW, as NRW.BANK has already established a microloan fund for example.

4.3.1.2 Potential weaknesses and threats

In contrast with these economic strengths and opportunities for an urban development fund, there are undoubtedly also weaknesses: for example, in the discussion on urban development funds (not only in NRW) the argument is often raised that the temporary investment of surplus funding results in (high) interest income for the urban development fund. This is indeed correct, although it must be borne in mind that the capital contributed to the fund is not normally provided without charge, but attracts interest. Because the debit interest for the capital provided is normally higher than the credit interest for the temporary investment, there is, on balance, additional interest expenditure for the fund if it cannot invest all the funding in integrated urban development projects straight away.

Furthermore, in assessing added value, the one-off high expenditure of institutionalising an urban development fund for the first time must be offset. This is time-consuming, complicated and cost-intensive, and it is also dependent on the organisational form taken by the urban development fund. The quickest option is certainly a loan fund set up as a special fund within an existing financial institution. Forming a separate company is a much more expensive and lengthy process, on the other hand. The route chosen within the Working Group, starting the NRW urban development fund as a loan fund within NRW.BANK, is therefore only logical.
However, this appears to be a potential risk or threat to the establishment of an urban development fund: first of all, the need for the fund management to disburse the ERDF resources to specific supported projects by the end of the programming period (2013) calls for all actors to implement the fund quickly. Secondly, time-consuming organisational preparations for the setting-up of the NRW urban development fund are absolutely necessary because of the highly innovative character of the fund. In order to ensure effective funding, an advisory body or other body must be created to carry out and assist with the examination of project applications. Furthermore, the structure of the fund management must be clarified, and the commissioning of external project experts initiated, by means of calls for tenders if necessary. In addition, the urban development fund must produce a business plan and a funding agreement must be concluded with the administrative authority responsible for ERDF resources.

Setting up a fund becomes more expensive and more complicated specifically in the JESSICA context. This is because all the political decision-makers, administrative authorities, and also the participating financial institutions do not yet have any experience with this financial engineering instrument or with public-private partnerships with high investment risks. Not only is the know-how deficit considerable, but also the reluctance to implement these innovative instruments promptly.

However, the assumption of (financing) risks must be regarded as a central feature of urban development funds as only then are non-commercial ('B') projects given a real prospect of being financed. In the Working Group meetings, the possible fund manager and cofinancing partner in the future urban development fund, NRW.BANK, highlighted this risk potential and demanded a guarantee from the Land for its cofinancing resources. The guarantee (to cover the default risks) has not yet been granted by the Land and could cause delays to the setting-up process. In view of the investment risks which undoubtedly exist on the property market at present, the guarantee is understandable in the case private-sector borrowers, as the alternative, doing without commercial borrowers, holds a further potential risk for the fund’s business activity.

Thus, the Working Group is currently planning, in the event of inadequate cover, initially starting only with loans to municipalities and municipal project companies in order to cover the reduction in the investment risks in the relevant project types at least directly through municipal guarantees for the fund management. The analyses in Section 3 have shown, however, that for an initial full disbursement of the funding by the end of 2015 up to 38 projects must actually be financed for the same project types. In view of the necessary selection and examination process, it therefore appears likely that two to three times the number of project applications are required for final financing.
Not only will the future fund management therefore need considerable time, but there is also a danger that acceptable municipal projects will not be able to be identified quickly enough and in sufficient volume. In view of the municipal debt situation, not only in NRW, it is difficult for many cities at present to provide any additional equity. The future project experts will therefore play a very important role in the success of the NRW urban development fund. Businesses with considerable experience in urban development, such as NRW.URBAN, should be engaged at a very early stage, if possible in parallel to the setting up of the fund. Only then can it be ensured that an early start can be made on marketing and identifying and selecting projects.

With the first successful business operations and project financing in this field, it will be possible quickly to reduce the reluctance which has been mentioned, but also to develop demand among the actors for fund financing as a complementary financing product to subsidies, and corresponding know-how in relation to that instrument.

4.3.2 Additional added value from the activity of the fund purely stemming from the ERDF

Whilst in the preceding section evaluation criteria were used which can generally result in value being added by urban development funds in comparison with traditional grant-funding, the analysis below will incorporate the arguments stemming from statutory provisions in the form of the ERDF rules which also play an important role in the evaluation of the JESSICA initiative.

An important advantage is that the range of eligible projects is broadened substantially, in several respects. First of all, unlike with grant-funding, it is not only unproblematic, but absolutely necessary, because of the revolving character of the JESSICA financial engineering instruments, that projects generate (limited) flowbacks and (may) therefore have a positive internal rate of return. JESSICA is aimed specifically at promoting such B projects, whilst C projects should continue to be financed by grants.

A further advantage arises in connection with the resources once they have been recycled in the fund, since the use of these sums once they have flowed back is no longer subject to the ERDF regulation and it must ‘only’ be for the purposes of sustainable urban development (Article 78(7) of Regulation (EC) No 1083/2006), with the result that the resources can also be used to support previously non-eligible projects (e.g. housing) and/or previously unsupported regional scenarios. After a fresh flowback and exit, the resources are even freely available to the Land (see COCOF 08/0002/03-EN, A.3) Level 3: Recycling of Contributions to Enterprises, PPPs and Projects).
This argument is particularly important in the light of the fact that the shift in the geographical focus of EU funding to the ten new Member States will in the long term mean increasingly few resources for the old Member States. Irrespective of how much new funding is granted to the Land in question in the new programming period from 2013, work can continue to be done using the resources recouped from the 2007-2013 programming period.

However, in addition to these clear advantages in relation to the ERDF rules, there are also significant disadvantages. The reason is that the start of the JESSICA initiative was very late in the current programming period. As has already been stated, the ERDF resources would have to be repaid to the Commission if the urban development fund was not able to invest them in suitable projects in good time.

On the one hand, the fund management is given operational scope. With a business plan it is given a broad capital base to use freely in urban development projects within a period up to 2015 (‘frontloaded’) as an initial investment. On the other hand, depending on the actual operational start of the fund, this also places significant pressure on the fund management to identify and finance suitable projects quickly, especially since there are inherently lead times in the individual project types (e.g. construction phases lasting several years). If the number of projects is insufficient, it may therefore be necessary to repay the European funding.

Despite the disadvantages and potential risks which exist for urban development funds (not only in North Rhine-Westphalia), it must be stated in summary that value is added by introducing urban development funds compared with staying fully with traditional grant-funding, according to present knowledge. Nevertheless, there will continue to be many integrated urban development projects which, because of insufficient income, are unable to service loans with debt servicing. Such projects must continue to be supported by means of grants. An urban development fund with its revolving financial engineering instruments is always ‘only’ a complementary instrument for supporting integrated urban development projects.

At the same time, as mentioned at the beginning, it should be pointed out that an empirical study of the added value must still be carried out and the statements made here can therefore be considered to be only applicable for the time being. In 2010, the European Investment Bank initiated a multiannual research programme (EIBURS), in which the author of the present study will examine the empirical added value of urban development funds in Europe on various levels.

### 4.4 Future action steps and potential for the urban development fund in North Rhine-Westphalia
The Working Group has announced a possible start for the NRW urban development fund for the end of 2010. Depending on when precisely the political decision-makers take the policy decision to set up the fund, the following work steps and timelines up to operational activity appear likely:

<table>
<thead>
<tr>
<th>Work steps</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Decision by the political decision-makers to set up an UDF and to transfer ERDF resources</td>
<td>1-8</td>
</tr>
<tr>
<td>2 Negotiation and drafting of a letter of intent</td>
<td>3-10</td>
</tr>
<tr>
<td>3 Clarification of remaining legal issues (public tender, experts, interim acquisition models etc.)</td>
<td>11-18</td>
</tr>
<tr>
<td>4 [Signature of technical assistance agreement with EIB]</td>
<td></td>
</tr>
<tr>
<td>5 Identification of eligible start-up projects for the UDF by the external experts</td>
<td>1-8</td>
</tr>
<tr>
<td>6 Adoption of content of the Funding Agreement between the Ministries and the fund management, esp.: UDF investment strategy Content of UDF business plan Governance model (bodies, selection criteria for projects etc.) UDF exit strategy and conditions</td>
<td>3-18</td>
</tr>
<tr>
<td>7 Meeting with EU Commission on State aid, eligible expenditure</td>
<td>9-10</td>
</tr>
<tr>
<td>8 Consent from regional and municipal authorities</td>
<td>11-12</td>
</tr>
<tr>
<td>9 Final agreement of UDF structures and Funding Agreement</td>
<td>13-14</td>
</tr>
<tr>
<td>10 Signing of Funding Agreement</td>
<td>15-16</td>
</tr>
<tr>
<td>11 Injection of ERDF resources</td>
<td>17-18</td>
</tr>
<tr>
<td>12 Conclusion of external consultancy/service agreement (experts, principal banks etc.)</td>
<td></td>
</tr>
<tr>
<td>13 Analysis of business plans/feasibility studies for projects</td>
<td></td>
</tr>
<tr>
<td>14 Presentation of start-up projects to UDF bodies</td>
<td></td>
</tr>
<tr>
<td>15 Allocation of financing (equity, loans, guarantees)</td>
<td></td>
</tr>
<tr>
<td>16 Monitoring of project progress begins</td>
<td></td>
</tr>
<tr>
<td>17 Marketing and promotion of UDF activities to financiers, public-sector property developers</td>
<td></td>
</tr>
</tbody>
</table>

Figure 59: Extrapolated action steps including the temporal allocation for the NRW urban development fund

From an external perspective, the main problem must be the quickest possible implementation of the actual project financing by the fund and thus the disbursement of the resources. If the policy decision is taken after the Landtag election has taken place and the government has been formed in NRW in June 2010, it seems realistic that 8 to 9 months will be needed before the first resources are disbursed by the fund. The first project financing would therefore be granted ideally in the first quarter of 2001. In view of the deferred payment of interest and/or redemption which is often necessary at project level (in particular in the case of interim acquisition, structural engineering work and/or land developments), the first complete project return could presumably be realised in 2012/2013 and thus in good time for the end of the current programming period. The experience gained would provide lessons for the next programming period and should then be incorporated into the new plans.

In order to comply with this ‘tight’ timetable, alongside which there are also other model operations at federal level, it seems absolutely necessary for the fund
management actually to commence operational activity and thus the project and credit assessments eight months after the policy decision has been taken.

Two basic conditions must be satisfied: the external project experts to be engaged must be able, as quickly as possible (in Figure 56 three months after the policy decision), to begin identifying and pre-selecting possible start-up projects in accordance with this study. Only then can a sufficient number of examined project applications presumably be presented to the fund management within six months.

At the same time, from an external perspective, work must be begun as soon as possible (but at the latest at the beginning of operational fund activity) on an extensive campaign marketing the financing prospects offered by this new instrument to potential municipalities, private investors and developers, as well as possible complementary financing partners.

In order to assess future potential demand, against the background of the tight scheduling members of the Working Group have already carried out an initial ‘market demand test’.

Thus, the possible project volumes were explored by the ministries and NRW.URBAN at a municipal workshop and at a banking workshop the volume of complementary private and public capital sources was investigated by NRW.BANK. The results of both workshops show that potential project promoters are very interested in such forms of financing both on the supply and on the demand side:

- For example, there was a very positive response from cities and municipalities to the presentation of the NRW urban development fund at the first municipal workshop on 13.01.09. In order to avoid excessive bureaucracy, an information sheet is to be devised for municipalities on applying for resources from the fund. Whilst this is now already being developed, the discussions at the municipal workshop show that there is still much higher potential in NRW with regard to suitable fund projects. Mention should be made, for example, of the wide range of projects under the ‘Konzept Ruhr’ initiative. From the perspective of the municipalities, the project types identified thus far and included in this study cover the range of possible projects in NRW. However, a call to the municipalities to make project applications will be launched only if the political decision to introduce the NRW urban development fund is announced.

- In addition, on 24.04.2009 NRW.BANK also held a workshop on the subject of the NRW urban development fund with the (regional) banking industry. The aim was to evaluate the options for financing the model operation, together with the banking partners in the fund, and to gather feedback on
the planned fund structure from the point of view of the banking industry. This showed that the banks considered various ‘parachutes’ to be desirable for the projects. The fewer risks the banks themselves had to assume, the more readily they would accept a project. The level of the projects’ transaction costs is essentially independent of the level of the absolute volume of the measures. The previous orientation of the ERDF rules did not permit any investment in housing construction or housing modernisation projects. However, these form an integral part of most urban development projects. Cooperation with the local housing industry and other donors (KfW programmes or support for social housing) would be a reasonable step towards implementing projects with a high proportion of investment in residential space. From the point of view of the banks, the proposed principal bank procedure would also have the advantages that, after being examined by the principal bank, the projects have been examined before enquiries are made to the fund and that there is a prospect of implementation by a principal bank.

However, private-sector property investors and project developers have not yet been approached in relation to the NRW urban development fund. This should be set in motion as quickly as possible by the fund management and by the external project experts, using targeted marketing and more specifically a suitable communications policy.

4.5 Summary and outlook

In 2008/2009 the Land of North Rhine-Westphalia had, at an early stage, announced a strong interest in setting up an NRW urban development fund. Even though all the necessary actors were brought in early and a comprehensive work schedule and timetable were drawn up and implemented, the results of the present study show how difficult it actually is to implement this unique financial engineering instrument for the first time.

From an external perspective, it must be stated that the Land of North Rhine-Westphalia has taken the necessary steps at all working levels. The correct actors were integrated into the Working Group at an early stage. Project types and possible project financing through the fund was identified. There was an in-depth examination of the legal framework conditions. Necessary discussions and preliminary talks were held regarding fund refinancing and possible fund partners in the municipal and private sectors. Because the first important operational structures have now been set in motion (e.g. for the examination of project applications), the initial requirements for this new financing instruments have been met as far as possible.
It is to be hoped that in North Rhine-Westphalia, following the policy decision, the first urban development fund in Germany under the EU’s JESSICA initiative will still be set up in 2010. At the present time, the opportunities for setting up the fund are the best in comparison with all the other Federal German model operations (within and outside the scope of the ExWoSt research programme).
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Poland (South, West)
Portugal
Spain
Sweden
United Kingdom (London, Wales, North West Region)