

Classification

1. Summary	2
2. Introduction	2
2.1 Evaluation of planning aspects from the participating project partners	3
2.2 Planning in the Federal Republic of Germany	3
3. Planning as an element in the restructuring process	4
4. The position of the theme “planning”	4
4.1 The contamination problem	4
4.2 Revitalisation of old sites versus new development in greenfield areas	5
4.3 Conversion as an opportunity for new regional and urban development	5
5. Future development	6
6. A comparison of the current policies	7
7. Planning instruments	7
7.1 Federal spatial development program (BROP):	7
7.2 State development plans, state development programs, state spatial development programs:	8
7.3 Regional plans, regional development plans, regional spatial development programs, regional development programs	8
7.4 Land development plans	9
7.5 Development plan	9
7.6 Building plan	9
7.7 Planning services according to HOAI	10
8. The planning process	10
8.1 Derelict sites without inherited burdens	11
8.2 Derelict sites with suspected or known inherited burdens	11
9. Planning as an element in connection with implementation	16
9.1 Open urban development expert appraisal procedure	16
9.2 Idea competition/workshop	17
10. Affecting the outcomes of the different case studies	17
10.1 Fürstenhausen coking plant	17
10.2 Camphausen coal mine	17
10.3 Reden coal mine	18
10.4 Zuid-Holland Province	18
10.5 Gouda	18
10.6 Leidschendam	19
10.7 Utrecht	19
10.8 Newcastle	19
11. Recommendations	20
12. Conclusions	20
13. Sources	20

1. Summary

Spatial planning and regional planning have the objective of avoiding imminent collisions of basic existential functions, especially in densely populated regions, through socially and environmentally compatible and sustainable area and regional planning. The intensifying conflict between use of areas for residential development, industry and commerce, infrastructure, agriculture and forestry, leisure activities, etc., on one hand, and the preservation of productivity of nature and environment for future generations on the other, leads to the expectation that spatial planning for precautionary and sustainable development of sites, cities and regions, will gain importance in the future.

This special importance of spatial planning for the future is recognized in the Agenda 21 (Rio 1992), where high importance is attributed to promotion of sustainable residential development as well as to an integrated approach for planning and use of ground resources.

The partners participating in the project also rank the aspect of planning as important to decisive for their respective restructuring projects. Different starting situations with similar goals lead to different planning approaches – in the city development projects of Newcastle, for example, grave structural problems are only addressed on a small spatial scale (city or city district), while the Dutch projects address structural problems in larger spatial contexts.

In Newcastle, specific local solutions to problems are realised while taking municipal interests into account. It is the objective to categorically stop the exodus of the urban population, amongst others, by building approximately 20.000 new residential units, partly on previously unused open areas at the city outskirts (2.500 housing units) as well as on inner-city residential areas that were demolished on a large scale. Characteristic of the approach of Newcastle is the motto: sweeping change rather than drabs and drabs!

In the Netherlands, other planning approaches are pursued to reach similar goals. On the level of the province Zuid-Holland, due to changed demands, significant changes are strived for in the quality of housing and living for the residential population. But here, the desired changes should result rather naturally, accelerated by model-driven catalysts at various sites. Due to limited area resources and restrictive area-use policy at the national level, a change within existing developed areas is primarily sought. Another characteristic of the Dutch approach to planning is the realisation that the solution to spatial problems requires collaboration across administrative borders.

A characteristic of the planning approaches of the Saarland for the development of industrial and commercial sites is not to make detailed requirements and irreversible planning objectives. Instead, guidelines should be developed and directions for development given, perspective should be provided and integrated into a statewide concept. Since restructuring processes are designed for decades, it should be possible within this long period to adapt them to new or changed requirements or ideas.

2. Introduction

Agenda 21, which addresses all essential policy areas of an environmentally compatible, sustainable development, devotes two chapters to

- “The promotion of a sustainable housing development” as well as to an
- “Integrated approach for the planning and utilization of land resources” (1)

Due to increasing use of land for residential areas and economic activity, limited ground resources experience increasing pressure on their area and their quality that leads to competitive situations and use conflicts, and to a less-than-optimal use of the areas and ground resources (2).

In the thesis of Agenda 21, however, the availability of land is called “an indispensable element of a sustainable environmentally protective way of life”. “Ground resources constitute the foundation of life of humans, they

serve as cultivatable land, deliver energy and water, and are the basis for all human activity” (3).

In Agenda 21, therefore, an “environmentally compatible spatial planning and area utilization” (4) is demanded as well as the realisation of a policy “aimed at environmentally compatible urban development, area utilization, housing and settling policy and an improved management of the growth of the cities”.

2.1 Evaluation of planning aspects from the participating project partners

The quality of planning of a project is the basis for its realisation. Planning that is coordinated with all participants and concerned parties has a good chance for realisation of the ideas. Planning aspects are basically given a high ranking by all partners participating in the projects. Planning aspects play a decisive role – according to the weight given in the questionnaires – in Newcastle (Great Park project) and Gouda (Town Perimeter Plan). In Newcastle, excellent public relations with intensive participation of the public is also mentioned. Leidschendam remarks that a too-great willingness to communicate can also have negative consequences. Information released to the public has led to speculation which endangered the realisation of the plans.

Several Dutch partners point out another negative side-effect of an excessively long and elaborate consultation process in the course of the planning. Plans must once again be amended and reworked by the time all consultation phases are over and the realisation needs to be approached.

Also negatively mentioned are difficulties that can arise for the planning due to administrative borders alone. “Cross-border” problem areas or topics can be difficult to handle by different administrations with different planning approaches. It is also criticized that the will to productively exchange ideas and reach consensus is not always found amongst planners.

2.2 Planning in the Federal Republic of Germany

In the Federal Republic of Germany, communities have planning authority. The constitution guarantees to the communities the right to regulate their own affairs under their own authority.

In spite of the sovereignty to establish general plans for the development of local real estate guaranteed by the constitution, the communities still must respect the federal building code’s procedural and content limits when establishing such a plan. Accordingly, the municipal land development plan as a central urban development plan, stands between the supralocal plans of area and regional planning, as well as the special plans of all kinds, and the plans of neighbouring municipalities, and a municipality’s own plans that affect areas (5).

The land development plan (FNP) is part of the spatial plan which is performed in various ways on all levels of the federal, state, and community units.

It is the duty of the general plan for the development of local real estate – this term combines the land development plan as a preliminary development plan and the development plan as a binding plan for the development of real estate – to prepare and guide the building use and other utilization of lots in a community, according to the guidelines of the building law (BauGB).

The FNP for the entire community must show, according to § 5 BauGB

- the way land is used that results from the intended urban development
- according to foreseeable needs
- in an outline

The federal building code (BauBG), the building utilization ordinance (BauNVO) and the plan drafting ordinance (PlanzV) formulate the most important framework conditions for the development of the FNP. The plan is binding for the communities and the participating planning authorities. For the public, it has no direct legal

obligation. This is only determined by the binding general plan for the development of local real estate.

3. Planning as an element in the restructuring process

Open-eyed, coordinated and demand-oriented planning is an essential precondition for a measure to restructure urban areas or revitalise sites that is economically successful and that does justice to the requirements for environmental protection.

For planning the course of area revitalisation measures, knowledge of legal framework conditions is of importance (6). The legal framework is given by the building code and environmental laws. Moreover, the German civil code (BGB) has to be observed as contractual law for the sale of property and in the granting of building contracts.

Furthermore of importance: the legal situation concerning support, financing and facilitation of investments, as well as police and “Ordnungsrecht” (laws giving basic regulations regarding an ideal type free-market system. No conceptual equivalent exists outside West Germany). In the new German states, legal ownership regulations as laid down in the unification treaty are to be taken into account as well as the environmental framework law and the obstacle-removal law.

Impulses for plans for area revitalisation measures are (7):

- economic objectives
- ecological demands such as renaturalization or recultivation
- removal of urban development errors

The legal basis regarding necessary requirements for protection and restoration of ground and cleanup of contaminated sites are regulated nationwide in a standardized way in the BBodSchG. Due to the nationally standardized material criteria, especially in the field of contaminated site cleanup, the risk of contamination can be calculated and the required financial means can be estimated. The decrease in financing cost that can be expected from this can increase the readiness to restore old sites.

While until now inner-city conflicts were in the centre of problem awareness, in the future one will have to turn more to the periphery. Here one needs replacement sites for industrial storage needs, distribution and retail; here freight and logistic companies are looking for cheap sites. Already, the utilization of outer areas is increasingly determined by distribution centres, freight centres for railway and postal services, as well as distribution sites.

4. The position of the theme “planning”

Essential obstacles to reactivating derelict sites are:

- contamination (suspicion, restoration measures, liability measures)
- structural/construction deficits (hindrances due to old building substances, nonhomogeneous building ground, established intermediate utilization (parking space), biotope areas)
- area availability and area demand (land speculation, keeping area in reserve for expansion, alternative: greenfield area)

4.1 The contamination problem

In past years the view of the old site problem has changed due to

- global long-term approach of ideal of sustainable development
- increasing scarcity of public funds

While in the past the contamination-oriented view of impacts on the environment placed the prevention of danger to human health and protection of water and land resources in the foreground, today it is increasingly the exhaustibility and limited (land and soil) resources that are the centre of attention (8).

For the owner of a building the examination of an application for a planning and building permit can lead to considerable time problems, if, for example, remaining deposits on a building site have not yet been examined and the responsible authorities were not yet able to decide on the need for restoration. As long as this decision has not been made, the building authority cannot decide on a utilization that is in agreement with the building law. In all of that, the principle that a use cannot impair a restoration has to be considered. From that it can be concluded that site examinations should be conducted rather early and with regard to the proposed use. It is even possible and useful to already consider future uses in the context of contamination-related measures for the prevention of danger and for the benefit of the public.

4.2 Revitalisation of old sites versus new development in greenfield areas

Investors still prefer to establish businesses in greenfield areas. Efficient instruments and incentives to prevent this are obviously hardly being used. At the same time, there are enough legal and planning instruments already available in Germany to reverse this practice. A further need for legal regulation is therefore currently not perceived (9).

In the last decades grave invasions into natural resources took place due to industrial development within the 20th century, and area-consuming use of landscape for housing areas, trafficways and businesses. Spatial planning and state planning have the task of slowing the up-to-now almost uncontrolled destructive exploitation of natural areas and to initiate a long-term-oriented site use.

The decline of old industry offers a chance for future-oriented structural change, that is, for the development of sites for social and technological institutions as well as for commercial and industrial uses, and it opens new perspectives for urban development.

Triggered by the economic structural change, a new situation has developed in the European industrial regions: in the inner cities abandoned industrial and commercial sites can be found. Derelict sites in inner-city areas make up 12% of the entire area of communities in Germany (10). At the same time, sections in the outskirts of urbanized areas are developed for service sectors and thereby open areas are destroyed and the landscape blighted by urban sprawl.

In Germany alone 120 ha. daily are developed for this form of area utilization. At the same time there is a potential of 128.000 ha. derelict sites (11). Of those, it is estimated that approximately 70.000 ha. can be used again (12).

The planning law offers the possibility for communities to take into account the complex interwoven effects from utilization, processing of lots, profitability of measures and legal aspects. Research has shown, however, “that the steering potential of planning instruments such as those of the B-plan have remained nearly unrealized, or relatedly, that they have in municipal practice in connection with contamination been used only in a very reserved way, due to lack of knowledge and experience, among other reasons” (13).

4.3 Conversion as an opportunity for new regional and urban development

Due to deep political changes in Europe, a large-scale abandonment of former military sites is taking place. In Germany alone, this concerns a total of 386.000 ha. (14).

The closure of these sites often has negative socioeconomic impacts that are especially apparent in the loss of jobs and spending power, as well as lower tax revenues.

In eastern Germany the problems mostly concern questions of ownership and uncertainty regarding the jurisdiction of the authorities in the sale or leasing of former Soviet military sites. Local economic problems hardly arise since the Soviet military existed in total isolation from local economies.

It is the duty of planning to integrate abandoned military sites meaningfully into regional and urban development. Military sites have existed decades partially outside the planning authority of the communities. Their reintegration, therefore, often requires, apart from an extensive planning effort, also considerable technical and financial means.

Essential tasks are:

- removal of contamination and weaponry
- utilization and follow-up use
- determination of value and sales price
- financing and acquisition of investors

5. Future development

Land areas are finite and cannot be multiplied. Every new utilization, therefore, has to be conscientiously weighed. Moreover, in the future, increased demands will be placed on decreasing open areas (leisure time, recreation, protection of nature). These facts indicate that a change of attitude can be expected regarding the use of valuable open space which so far was handled in a rather thoughtless way.

The revitalization of inner-city industrial and commercial derelict sites offers the chance to newly develop city districts, in which housing and working are combined in a confined area. These mixed areas are possible today since the framework conditions for work in the cities have changed or are about to change (15):

- In industry there is increasing acceptance of complex and small organization forms.
- The new communication media make possible forms of cooperation for which spatial distance is no obstacle.
- Businesses establishments are mostly in the service sector. The establishment of commercial uses does not automatically lead to emissions.
- The neighbourhood of workplaces can lead to a productive togetherness in the framework of integrated concepts. Infrastructure and service facilities that are available to employees during the day can be used by the residents in the evening and on weekends. To that end, a mixed city is always a synergic city.

Instead of an abstract development of standard profiles, concrete analyses of regional demands are leading to a result because: In many cities today an oversupply of office area already exists. Since experience shows that the biggest part of newly establishing companies come from within the region, the demand of the regions has to be analysed.

The settling structure of industrial cities was mostly adapted to the requirements of industry. The access to raw materials, energy and infrastructure received priority. Residential use was secondary. By reactivating these derelict, dominant industry sites, the chance opens up to establish new utilization forms in a mixed way: mixed development sites with use for housing and commerce as well as green and open areas that also separate

incompatible uses.

6. A comparison of the current policies

In Germany, space-related planning is performed at all administrative levels. In this, the plans have to be coordinated from bottom to top. That is, the building plan for a single building must be oriented on the community development plan, and this development plan in turn must be in agreement with the fixtures in the land development plan. The land development plan must correspond to the objectives of the state plans and the state plans are oriented on the federal spatial planning program.

In the Netherlands, spatial planning is divided into three administrative levels: the kingdom, the provinces and the communities.

On the level of the kingdom, administration of spatial planning is situated in the Ministry for Housing, Spatial Planning and Environment (VROM). Here, the federal office for spatial planning (Rijksplanologische Dienst) is the central special agency concerned with preparing and controlling national spatial policy. The spatial development policy of the kingdom is laid down in landmark decisions (Planologische Kernbeslissing – PKB).

In the provinces, offices for spatial development exist which plan independently for their province area, including the national planning in this. They support the communities in the realisation of national planning and with the transfer of municipal interests into the national plans. Landmark decisions on the provincial level are reflected in the regional plans, whose creation is not obligatory.

The municipalities are responsible for the general plans for the development of local real estate, which must be coordinated with the superior spatial planning and is regulated in the national law for spatial planning (Wet op den Ruimtelijke Ordening – WRO). The municipal plan for the development of local real estate knows two types of plans: the nonbinding development plan (Structuurplan) and the binding development plan (Bestemmingsplan). The nonbinding Structuurplan refers back to the regional plan and shows the future spatial and infrastructural development of the municipality. The binding Bestemmingsplan defines plan areas and can establish rules for the utilization of areas and constructions. It concretizes the Structuurplan but also shows elements of the Bestemmingsplan and is directly binding for the citizen.

The high population density and high population pressure due to planning restrictions, the existing urban sprawl and the resulting growing into each other of neighbouring communities, complicate the spatial planning in highly urbanised areas of the western Netherlands. An example of this is the municipality Gouda with its development of the Town Perimeter Plans. Here the attempt is made to conduct municipal planning on the level of regional planning, despite the certainty that this planning does not have a legal status but because it can be helpful for orderly spatial development.

The “2-for-1” model in Newcastle is an interesting possibility to push forward the revitalisation of inner-city derelict areas independent from a special plan. In the framework of an agreement with a development consortium, the city can ensure that for each new building on open space, two new buildings on inner-city derelict areas must be built. Thus a mechanism has been established for a period of 20 years for the recycling of derelict areas and the restructuring of the city.

7. Planning instruments

Spatial planning in the Federal Republic of Germany is organized as follows:

7.1 Federal spatial development program (BROP):

- Plans on a scale of 1 : 4.000.000
- Objective: equal living conditions in all parts of the Federal Republic

- The program is to influence spatially important plans and measures to that end
- The program is an interdisciplinary orientation framework for planning of the entire space
- Binding for measures of the government; apart from that, no immediate binding effect
- Federal states are supposed to work toward the realisation of the goals in the framework of state planning
- Communities not involved in the establishment of plans

7.2 State development plans, state development programs, state spatial development programs:

- Plans on a scale of 1: 500.000 or 1: 200.000
- The plans or programs contain a text passage (objectives, explanations) as well as maps
- Plans are valid for one state each
- Plans define the goals of spatial development and the state plan for the entire state, on the base of the spatial development law and the respective state planning law
- Plans or programs can be established as an integrated plan or program as well as separated by subjects. In the Saarland there exist
 - state environmental development plan
 - state housing development plan
 - state spatial development plan
- The goals of the general plans for development of local real estate have to be adapted to the state plans

7.3 Regional plans, regional development plans, regional spatial development programs, regional development programs

- Plans on a scale of 1 : 50.000 or 1 : 25.000
- The regional plans and programs are valid for part of the state
- Supporting organisations of these plans are either regional planning communities, regional planning associations, administrative districts or the state planning agency
- The regional plans and programs define, based on state plans, the regional objectives for spatial development and for all spatially relevant plans and measures in the following areas:
 - residential areas
 - commerce and industry
 - agriculture and forestry
 - protection of nature and conservation of the landscape
 - leisure and recreation
 - traffic
 - telecommunications
 - schools and social infrastructure
 - waste disposal
 - wastewater disposal
 - water supply
 - technical environmental protection
- depending on the state, partial plans concerning space and subjects are established
- general plans for development of local real estate have to be adapted to objectives of the regional plans

7.4 Land development plans

- Plan on a scale of 1 : 20.000, 1 : 10.000 or 1 : 5.000
- The land development plans are each valid for an area of a city or community
- Presented in the form of land use that results from the intended urban development and is geared to foreseeable needs of the municipality
- In the new federal states, partial land development plans can be established
- The land development plan is oriented to the goals that are laid down in the state development plans and regional plans
- The land development plan is a preparation for the general plan for the development of local real estate and thus creates the content and legal framework for the development plan
- The land development plan has no immediate legal effect on citizens but is binding for communities and participating planning organizations

7.5 Development plan

- Plans on a scale of 1 : 2.000 or 1 : 1.000
- Development plans are valid for a partial area of a city or community that must be precisely defined
- The development plan contains legally binding decisions for the urban development, depending on the type and extent of the building or other use
- The development plan is a binding plan for the development of local real estate
- The development plan lays down in a binding way where, what and how much can be built on single lots
- The development plan is laid out for a quick realisation of the building measure and is the legal basis for measures that are needed for this realisation, such as:
 - prohibiting of alterations
 - lot shifting
 - condemnation
 - building and planting requirements
- The development plan is derived from the contents of the land development plan and further developed according to the dutiful discretion of the municipality
- The development plan constitutes direct duties and obligations for the citizens

7.6 Building plan

- Plans on a scale of 1: 100, 1 : 50 or 1: 10
- The building plan refers to a single construction
- The building plan contains the representation of the intended building measure, especially
 - the location on the lot
 - the outline
 - sectional views
 - facades
- the building plan is established by the builder with the help of an architect of his choice
- The building plan has to consider urban development stipulations and binding requirements of the development plan

- The building plan observes the respective state building regulations and other building regulations

7.7 Planning services according to HOAI

The remuneration for single service phases of the planning or of the entire project are not freely negotiated but are regulated by law. The architect or engineer therefore offers his services not in a price competition, but in a quality competition.

The remuneration scale for architects and engineers (HOAI) establishes the amount of remuneration depending on the extent of the service, the billable building costs and the difficulty of the building task. The difficulty of the building task is taken into account in staggered remuneration zones.

For the planner, the planning and realisation of engineered constructions and traffic facilities is separated into the following basic services that must be rendered (16):

- Determination of basic conditions: determination of preconditions for solving the task with planning
- Preliminary planning (project and planning preparation): developing of essential parts for the solution of a planning task
- Draft planning (system and integration planning): developing of the final solution for the planning task
- Permit planning: development and handing in of copies for the required public/legal procedure
- Implementation planning: development and presentation of the planning solution that is ready for implementation
- Preparation for a contract grant: establishing the figures and creating tender specifications
- Participation in granting: accepting and evaluating bids, and participating in granting of the contract
- Supervision of site management: supervision of local site management, final inspection and handing over of the object
- Object attendance and documentation: supervision of removal of defects and documentation of the total result.

The service profiles of land development plans/development plans are categorized as follows (17):

- Clarification of tasks and determination of the extent of services
- Determination of planning preconditions
- Preliminary draft
- Draft
- Draft of the plan that can get approval or draft of the plan for notification or approval

8. The planning process

The reasons for the existence of derelict sites are of various nature. They are based on, amongst others:

- The decline of entire industries (coal and steel, ship building industry, textile industry, etc.)
- In single cases, on the movement of companies
- Political developments (abandoning of military sites)
- Loss of functions (infrastructure facilities such as harbours, train stations)

Due to the different causes, different utilizations and different reasons that have led to dereliction of an area, not all sites have the same problems.

Essentially, two types of derelict sites must be distinguished.

- Derelict sites without inherited burdens; that is, without chemical contamination of the ground and without building relics (foundations, (parts of) buildings, (parts of) old facilities, etc.) that must be removed in the course of a new utilization.
- Derelict sites with suspected or known inherited burdens.

Former militarily used areas, which must be brought to a new utilization in the framework of a conversion process, are a special subcategory of this two-step classification in that such areas generally still require the establishment of building rights. Militarily used areas were not under the planning authority of the communities.

8.1 Derelict sites without inherited burdens

Derelict sites are not necessarily burdened and even if they are, they are generally not completely covered by chemical ground contamination or problematic old buildings and facilities.

8.2 Derelict sites with suspected or known inherited burdens

The suspicion of inherited burdens, that is, possible damaging ground contamination, are often a hindrance in the new planning of an area. If the area was commercially or industrially used for decades, often going back into a time when environmental impacts of economic activity were ranked far below other aspects, this suspected ground contamination cannot be offhandedly disclaimed.

“From fear of liability claims against public authorities, communities have great reluctance to re-plan sites that are suspected to be contaminated, and tend in the case of designating a utilization, to establish disproportionate restoration measures that – not least to avoid liability claims – are thought to be necessary to enable the use” (18).

The BauBG, however, in connection with the BBodSchG, offers possibilities to cope with the planning of derelict sites with suspected or established contamination.

If a municipality decides to establish a development plan, or to change an existing plan, for preparing or ensuring area recycling measures, then it must analyse clues that the soil in the planning area is contaminated. Found ground contamination must be considered within the scope of weighing appropriate measures. Test values and measured values for the impact path soil → human, according to § 8 Sec. 1, No. 1, 2 BBodSchG, in connection with Appendix 2 BBodSchV, are to be used as a measuring stick for evaluating whether the ground contamination causes the intended use to conflict with public or private interests. If harmful ground contamination is diagnosed, then the municipality can leave the solution of the conflict between the intended use and protection of the public to a subsequent procedure if it is ensured that within the scope of such a procedure a justified and appropriate solution to the conflict can be reached. In setting the restoration target values, a use-related setting has to be achieved, taking into account §4, Sec. 4 BBodSchG. The restoration objectives should generally be geared toward the actual implemented or intended use that is admissible within the legal framework, but not toward a theoretically admissible use (19).

Before beginning planning, the objectives of the project must be clarified. The following questions must be answered:

- Does a concrete use intention exist, for example, with the aim to create a reserve of building land or a potential for renaturalization?
- Is it primarily a measure to unseal the ground?

- Should the project serve as a compensation or replacement measure?
- Is the preservation and/or securing of the building substance intended or should the area be processed for total new construction?
- Is a complete repurposing of the area intended?
- Should the project be realised in steps, for example, according to the demand situation of the real estate market?
- Is the development of the project based on the existence of favourable financing possibilities?
- Does the pressure to revitalized and/or restore exist due to acute environmental impact or potential endangering of the environment?

The answers to these questions have a decisive influence on the formation of project sponsorship (investor, project developer, municipality), the possibilities for approval and the economic viability.

A planning project for area recycling can be separated into the following phases (20):

- Project ideas/project conception
- Project preparation/marketing
- Realisation

8.2.1 Project idea/project conception

The project idea or conception can be tied to different intentions, depending on the sponsor of the idea. Thus, for investors the aspect of economic usability is the main aspect, while public authorities often are charged with the project only for reasons of realising legal duties (removal of contamination, compensation measure). The property owners are mostly interested in increased attractiveness for an unused site or for one that is not used or usable to its full potential.

8.2.2 Project preparation/marketing analysis

In the phase of project preparation or marketing analysis, the basic feasibility of a project is determined. In the scope of an inventory and potential analysis, the planners or third parties conduct the following tasks:

- Determination of framework conditions that are relevant for the development with regard to the real property, the surroundings and the required efforts such as:
 - ownership structure
 - user structure and utilization relationships
 - legal aspects of planning
 - assessment of value
 - locational relationships and influence of surroundings
 - judicial, technical and planning efforts
 - costs
- Conducting of physical site research. The following facts are covered:

- development
- traffic networks and facilities
- supply and disposal facilities
- green spaces/emission protection
- natural conditions
- burdens that must be removed
- burdens that limit utilization
- In the scope of an evaluation of potential, the effort as well as the result that can be expected are assessed and compared

Effort components are:

- survey costs (especially with former military sites)
- demolition, dismantling and disposal costs
- preservation and restoration of buildings, constructions, supply and disposal networks
- prevention of danger with regard to contamination, danger potential, securing and restoration efforts, foundations
- effort for guarding, traffic security
- ecological demands

Result components are:

- urban development potential
- renewal and extension of functions
- economic and social impacts on the surroundings
- proceeds for sale and/or utilization (rent/lease)
- If the result is positive, then the project approach is defined and a marketing strategy worked out.

8.2.3 Realisation

The realisation phase can be separated into the following steps:

- Planning
- Preparation for execution of a project
- Execution
- Termination of project/beginning of utilization

8.2.3.1 Planning

In the framework of planning a measure for the revitalization of an area, the suspicion of contamination must be examined first. Suspected contaminated sites, according to the federal soil protection law, are old deposits and old sites for which the suspicion of harmful ground changes exists, or where other dangers to individuals or the general public exist.

In order to confirm or dismiss the existence of harmful ground changes or contamination, a risk evaluation is conducted. Essential steps in that are:

8.2.3.1.1 Historic investigation

In this step all available data, facts and realisations about the former and current use are site-specifically processed and analysed.

Essential sources of a site-specific investigation are:

- written documents
- maps
- aerial pictures
- interviews

8.2.3.1.2 Orienting investigation or research

This is the entirety of site-related investigations for the evaluation of danger.

8.2.3.1.3 Investigation or research of details

This concerns the entirety of investigations related to the site and to possible impact paths in order to finally establish the facts. The detail investigation builds on the results of the orienting investigation. The findings from this investigation are a precondition for the responsible authorities to diagnose the type and extent of a harmful change in ground or contamination.

Detail investigations mainly realise:

- Amount and geographical distribution of the contamination
- Mobility and capability for mobilization of the contaminants
- Distribution of the contaminants in the ground or water and/or air
- The affected impact paths
- The exposition of protected resources

Detail investigations are necessary throughout the course of a project to secure concrete building projects.

8.2.3.1.4 Technical and legal evaluation

In the framework of this step the question is answered, to what extent the suspicion of existence of a harmful ground change or contamination is confirmed. Required and suited measures for the prevention of danger are determined. Bases for the evaluation are especially:

- Testing and measure values
- Nature and concentration of contaminants
- The determined and forecasted possibility for the spread of contaminants into the environment
- Absorption dangers for humans, animals and plants
- The potential utilization of lots

8.2.3.1.5 Restoration planning

The council of experts for environmental questions (SRU) has defined the restoration of contaminated sites in their special report “Inherited Burdens” as follows (21): “Restoration of contaminated sites is the execution of measures to ensure that after the restoration, contamination does not pose any danger to life and health and also no danger for living and nonliving nature in connection with the existing or planned use, and also no danger comes from the site in connection with the existing or planned use.” Thus, usability without danger (22) is

strived for as a restoration goal. The process technologies or parameters that have to be used are not defined.

This gives guidance for the involved experts, project sponsors, restoration companies and approving authorities to plan the effort

- according to the specific needs of the individual protected resource
- with regard to later use (demand)
- at acceptable cost

It is the objective to find ecologically and economically optimized solutions that enable a use of contaminated sites that is free of danger. A restoration that goes too far and the resulting cost burden diminish the marketability of the area.

A restoration plan with the goal of a total decontamination must be refused. This claim for reestablishing the original natural conditions also contradicts ecological aspects, since new environmental impacts arise due to subgrade excavation, transport, disposal and/or incineration, or, in the most favourable of cases, these impacts are shifted from one place to another.

A restoration concept should include the following principles:

- Securing uncontaminated sites from invasion of contaminants
- Narrowing and limitation of areas with ground contamination
- Restoration and cleanup of contamination depending on the planned area utilization

8.2.3.1.6 Foundation research

Aside from chemical contamination, underground foundations on old sites represent a large planning obstacle. In revitalizing derelict industrial sites, foundation research is therefore sensible. Information (location, measurements, depth) about the foundations and perhaps underground constructions (canals, tanks, bunkers, etc.) of existing and former buildings are gathered for a site in the form of a cadastre. Thereby an evaluation is possible of the foundation regarding the obstacles to construction that can be expected and the effort required to remove these obstacles can be estimated before development of the area (23).

8.2.3.2 Preparation for execution

In the transition phase between completion of plan documents and their execution, the following steps are required from the planners

- Public relations
- Moderating to smooth out conflicting goal
- Permit management

Especially the public relations is of special importance. Old sites are connected with the previous use even years after the cessation of the former commercial or industrial activities at the site. This can counteract the marketing of the revitalised area, especially if the area is a reminder of general structural problems or awakens associations to negative circumstances.

For this matter, for example, the old site in Saarbrücken, the old site “Burbacher Hütte” (Burbach steelworks) was renamed “Saarterrassen” (Saar Terraces). For generations the old name was associated with heavy work, dirt and noise. In the last years of the operation of the Burbach Steelworks, this name was additionally synony-

mous with the structural crisis of the state of Saarland and the city of Saarbrücken, for the economic and social downfall of a city district of Saarbrücken (Burbach), and for contaminated site problems. For investors, this negative image of the site did not contribute to a decision to invest.

It has been shown that the recovery of permits can be facilitated and considerably sped up by personal engagement. It makes sense to talk to the authorities already in the run-up to the permit application and clear away possible problems beforehand.

If the permit application only contains things that were previously discussed and coordinated, then the approval time can be minimized..

8.2.3.3 Execution

The planners are also included in the execution.

In Germany, the recognized planning and procedural principles of the HOAI services are applied for this project phase. Essential tasks for the planner are:

- Control and target/performance comparison
- Analysis of the status and progress of a project
- Management of changes and conflicts
- Establishment of decision principles and decision aids
- Presentation and documentation

For the processing of the area of the former Burbach Steelworks (24), the state capital Saarbrücken has signed a contract with the municipal KommunalSysteme GmbH (KS).

8.2.3.4 Termination of project/beginning of utilization

The transition phase is fluid. Depending on the size of the area and planning progress or development execution, the following activities can take place simultaneously:

- Observance/surveillance/examination of leftover areas that are not yet planned for
- Restoration of leftover areas for which development targets are defined
- Successive development according to needs
- Successive partial demolition/new construction oriented according to need while taking into consideration aspects of monument protection and image building
- New development on restored or comparatively small contaminated areas that is coordinated with leftover contamination
- Utilization of areas that are already restored to value

9. Planning as an element in connection with implementation

There are different models for the planning phase:

9.1 Open urban development expert appraisal procedure

The goal of an “open urban development expert appraisal procedure” is to develop a planning model for the future function of an area within the urban aggregate. Different special offices for city planning, green planning, traffic planning, etc., develop this integrated concept in the name of the city. Typical for an open urban develop-

ment expert appraisal procedure are (25):

- Free development of ideas by experts participating in the project
- High flexibility due to parallel conducted work steps
- Exchange of knowledge, evaluations and results as part of joint project work; continuous adaptation to new developments in the planning process
- Transparent and comprehensive preparation of the necessary political and administrative decision-makers

9.2 Idea competition/workshop

The approach that was chosen by Saarbrücken has not proven useful in the first step for the development of the derelict Burbach steelworks area. A workshop for students was organized. Eight German universities developed altogether 22 suggestions for reactivating the approximately 60 ha. site. Essential contributions for the conceptualizing of a new utilization were not provided by these suggestions since essential facts like the existing ground contamination and bordering (leftover) utilizations, etc., were not taken into account, and therefore the results must be rated unrealistic (26).

The objective was reached then in Saarbrücken with a subsequent, open urban development framework plan, which was then examined and supplemented with a feasibility study regarding economic realisations by the city Corporation for Innovation and Promotion of Business, Ltd. (Gesellschaft für Innovation und Unternehmensförderung mbH – GIU), which was responsible for development and marketing.

10. Affecting the outcomes of the different case studies

10.1 Fürstenhausen coking plant

The Fürstenhausen coking plant site should be developed long-term and integrated into a total “European Landscape Park – Rosseltal” concept. Since changes in the ground surface elevation of up to 14 metres are expected from settling due to ongoing coal mining at this site, commercial follow-up use will only be considered after the settling subsides.

In the short-term, landmark parts of the facility should be secured for economic restoration of value to the site and open space structures should be created with a green-space “temporary nature” concept. Consciously accepted are the possibly unlevel appearance of some of the facilities due to massive mining subsidence that must be expected. The “orderly slanted position” should even increase the appeal of the old facility.

Long-term, that is, after 2015, a commercial utilization is foreseen. It is currently only defined by a main development axis for the area as well as by the potential for the traffic connection.

10.2 Camphausen coal mine

The Camphausen coal mine with its mining tower characterizes the valley situation of the “Fischbachtal” (Fish Creek Valley). For production reasons and due to the spatial effect, the mining towers must be preserved. Parts of the area are suited – partly also with an inclusion of the existing buildings – for reutilization by commerce.

The coal mine shall be restructured and a new sustainable utilization achieved in the short- and medium-term without negating the historical identity of the site, due to its special site qualities, such as

- favourable traffic conditions

- high quality as nearby recreation area
- integration into the town district Fischbach
- can be utilized relatively independent from the immediate environment, valuable building substance.

10.3 Reden coal mine

The core of the model for the former Reden coal mine is that the site's unique qualities be restored in value and preserved. Since the utilization cannot be finally determined yet – it is the goal to establish uses that can appreciate these site characteristics – the urban development concept is divided into three time zones with different measures and part objectives:

- immediate and short-term: interesting old industrial objects should partially be made accessible, establishment of simple food facilities, use of existing spaces as offices and for services
- medium term: expansion and attractive arrangement of a visitor's mine, further establishment of food facilities, centres for startup handicraft and technology businesses
- long-term: development of the site with emphasis on leisure time and recreation in connection with meetings and conferences as well as establishment of development departments of the private industry with an emphasis on technology and ecology

10.4 Zuid-Holland Province

The project area here is the entire province with the incorporated cities. The goal is to conceptualize and plan local projects with a catalytic character on a provincial level and strive for realisation in cooperation with public and private partners.

The basis of all considerations for the development of project ideas for the restructuring of the province is a detailed investigation of the current situation in the project area. The thus obtained reliable database is partly responsible for the high acceptance of the restructuring efforts enjoyed by the communal partners of the province.

The Zuid-Holland province considers their position in the realisation of the project as only a supporting one. That is, it helps with the search for suitable sites, creates project ideas and tries to bring together the partners needed to realise them.

In the Netherlands it has been attempted for years on the national level to reduce the traffic volume via target-oriented spacial planning. Central concern is the avoidance of traffic, especially a reduction of motorized individual traffic (27).

To that end, amongst others, the principles of a site policy for workplaces and central facilities were developed and concretized and published for all three administrative levels – government/kingdom, provinces and communities.

In some projects, therefore, the local planning intentions collide with these national principles since the expansion of infrastructure at a local level is often considered one decisive factor for the success of the planned restructuring and development measures.

10.5 Gouda

Not least due to varying interests of the participating parties, the existence of different planning levels (local,

regional, national) and a deficit of readiness to compromise, integrative planning is given outstanding importance as a means to move the restructuring process forward. The planning problem, that is, the creation of plans and concepts that are not coordinated, is generally seen as a long-known Dutch spatial planning problem and in the end is held partially responsible for local urban structural and spatial deficits.

The objective is the development of a holistic spatial plan (Town Perimeter Plan) on a regional level with clear objectives and a determined hierarchy of development projects. To that end, all available spatial plans in the greater Gouda area were collected and a development model was conceptualized which was discussed with all authorities, parties, organizations and society groups, and which led to a draft master plan. The most important projects to be implemented have been selected within this development model, under the following themes: water, nature and landscape, living and working, infrastructure and recreation.

10.6 Leidschendam

The planning of local restructuring measures often requires an adaptation of existing spatial development plans. This must coincide, however, with the requirements of the regional plans that are valid on the provincial level.

10.7 Utrecht

The current urban outskirts land use allocation is no longer thought to be appropriate for future plans. In Utrecht, there is a high demand for offices, houses and high-profile business locations that needs to be met.

A revised spatial vision will be developed to accommodate the new sites available in the city and to meet the social and economic demands of the 21st century.

10.8 Newcastle

In Newcastle (West End) lessons were drawn from the past. After years of individual efforts failing to solve the economic and social problems of the city at its base, an urban development and restructuring plan (“Going for Growth”) has been established with the ambitious goal of building 20.000 flats and 30.000 new workplaces in 20 years. These flats shall primarily be located within the city.

The main elements of the planning and development of the renewal programme are, firstly, analysis of the area, identifying problems, opportunities, strengths and weaknesses in the West End. The planning stage was undertaken in partnership with 3 respected and experienced companies that looked at all aspects of the regeneration process before committing to designs.

The consultation process lasted for 3 months and included over 100 meetings with community and stakeholder groups. The feedback and review stage will take into account all comments from the consultation exercise to feed back into the new plans. The final plan will then be adopted by the Council, allowing construction and restructuring to begin.

It must be considered as a weak element that the Council does not legally have to consult or listen to any comments from stakeholders or residents, and their thoughts or suggestions could be ignored as the Council follows its own agenda. People are not used to the non-statutory process, so they do not know how to react or behave regarding the consultation process.

In the framework of the project “Newcastle Great Park” 2.500 high-quality flats and a business centre with approximately 13.000 jobs should be created on an open area in the north of the city. An agreement “2 for 1” calls for the construction of two houses in the city area of Newcastle, predominantly on derelict sites, for every house that is built in the area of Newcastle Great Park on hitherto unused ground, so that revitalisation and development of the inner city is pushed forward. The project “Newcastle Great Park” is a contribution to the realisation of the project “Going for Growth”.

11. Recommendations

A broad-based public relation is of decisive importance in the (pre-)planning phase. Active conflict management can contribute decisively to the success of the project.

Project sponsors from the private business sector should be supported. The creation of project corporations promises greater opportunity for success due to greater flexibility in the planning as well as in the realisation phase. Project development and realisation, however, should not be executed independently from consideration for larger areas and longer timespans, but should be integrated into a holistic urban development concept. For planning of area recycling projects oriented on demand, contests for urban development plans which are bound into integrated planning concepts offer themselves.

Still, high pressure on open areas exists. But since these open areas more and more have to take on new functions (leisure time, recreation) without losing old functions (agriculture and forestry), and the area cannot be multiplied, area recycling needs to be optimized, for example, through market economy instruments and a reform of public support. New utilization of areas should be limited to areas that already are connected to the trafficways or should be used for rounding off at city borders.

Area recycling must be defined early on at the land development plan level as a planning goal, in order to direct area designation of municipalities in a target-oriented way to avoid new designations, to designate small areas, and to utilize old areas more intensely. Additionally, the creation of statewide room for trading area designation rights is conceivable. An ecological fiscal equalization, such as lower trade taxes, could provide compensation for municipalities that incur financial disadvantages due to environmentally friendly area designation policies.

12. Conclusions

In all partner regions participating in the project, there is a similar need for restructuring, which results from a generally changed or increased living standard, respectively, and also from a change of the economy away from industrial production toward services and environmentally compatible industry and commerce.

Due to similarly scarce area reserves and growing demands on these scarce resources, planning that looks beyond a single site to a wider space increases in importance. An isolated planning for small spaces runs the danger – when looked upon from a large area scale – of giving away synergy effects because of too little cooperation. Synergies are important to progress, however, when resources become ever scarcer.

For the implementation of restructuring processes, a farsighted approach to planning is important to give the participating or concerned parties orientation, perspectives, and security for their own actions. Because: private engagement or even investments must make sense for the investor, and must pay off at one point. Without private engagement, planning is not or is only exemplarily realised, and restructuring gets stuck at starting gate.

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