

District Future – Urban Lab

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Abstract

In this paper we present and discuss the conceptualisation of the start-up project *District Future – Urban Lab* which aims at the model transformation of an already existing urban district of the City of Karlsruhe (Southwest Germany) into a sustainable one.

Opening at first the prospect on the broader global scale we show that against the background of the worldwide proceeding level of urbanisation and the extensive negative effects of the on-going urban lifestyle great interest exists in our cities and city districts as important actors and spaces to be addressed on the path to more sustainable societies. This is also true for Europe with its high degree of urbanisation and the traditionally strong economic and socio-cultural importance of its cities. In our perception common endeavours towards a sustainable urban development so far too much focus on the *Three Pillar Model* with its particular dimensions and adhere to the growth idea.

Thereafter, three fundamental factors of our holistic approach for a future-proof process towards a sustainable urban development are mentioned: degrowth (sufficiency) as a strategy; the *Integrative Concept of Sustainable Development* as a guiding concept and instrument for analysis and assessment; and the City of Karlsruhe as the object of our studies and future theatre for implementing our project.

Closer attention is then turned on this city: why it would need such an intervention, who the partners in our endeavour are, and how we can win the people for participating in the struggle for sustainable urban development.

This leads, in a next step, to illustrating which specific proposals for sub-projects can fill the framework of our approach and how they interrelate with a set of the so-called *basic functions of subsistence* and several cross cutting issues. Some of these sub-projects are named for exemplification and a preliminary timeline is depicted. Eventually, (assumed) strengths and weaknesses are put up for discussion.

Keywords Degrowth – Sufficiency – Sustainable urban development – Sustainable Development – Urban Sustainability – Integrative Concept of Sustainable Development – District Development – Karlsruhe – Germany

1 Introduction

As sustainable development has become a key concept for future development ever since the *United Nations Conference on Environment and Development* in Rio de Janeiro, Brazil in 1992 it diffused into all socially significant sectors. Therefore, it is hardly surprising that great interest exists in our cities and city districts as important actors and spaces to be addressed on the path to more sustainable societies – for two very reasons.

First, it is the ongoing urban lifestyle, in particular the patterns of division of labour and urban functions, industrial production, conventional agriculture, land-use, transport, consumption and leisure activities, and hence the urban standard of living, which make cities essentially responsible for enduring challenges humankind currently is facing. These challenges primarily are global climate change, depletable resources, social inequality and fragmentation as well as the financial crisis. This is especially relevant for the following aspect.

Second, it is no secret that the 21st century is the century of the city. What Gleeson names the “urban age” (Gleeson 2012: 931), the United Nations (UN) voices in numbers. The UN estimates that at the end of 2008 for the first time the majority of the world’s population lived in cities (cf. UN 2008: 3). Likewise according to the UN, in 2010 the urban population in North America as well as Northern and Western Europe already accounts for approximately 80% and counting (United Nations 2011), a trend which – generally speaking – mainly finds expression in already compact urban agglomerations developing towards widespread metropolitan areas opposed to the shrinkage of small and medium sized cities. While the percentage share of urban population of countries and regions of the developing world to date distinctly lies below the share of the developed world (ibid.) these countries expect an urbanisation boom in future decades (United Nations 2008: 8 ff). This development comes along with the drastic increase of the number of the world’s megacities (cf. Hartmann & Polt 2012: 22).

Common endeavours have been made on the regional, national and international scale to transfer the concept of sustainable development to the cities and deal with the necessity for a sustainable urban development. With the *Agenda 21* a first global development and ecopolitical programme was initiated which, among others, clearly put forward the issue of cities and called for the development of strategies on the regional and local scale. Two years later the *European Conference of Cities and Towns Towards Sustainability* in Aalborg, and with it the *Aalborg Charter* broke down the global programme to scales below and pushed forward the implementation of the Agenda 21 in Europe¹ (cf. Zhu 2011: 67 ff). Further conferences such as the *United Nations Conference on Human Settlements Habitat II* (Istanbul, 1996) and *URBAN 21 - Global Conference on the Urban Future* (Berlin, 2000) ensued. With programmatic advices and obligation the *Leipzig Charter on Sustainable Urban Cities* (2007) is a clear commitment to the sustainable development of city regions, cities and city districts at the European level. All in all, the documents mentioned are of appealing character only. As recently as the amendment of the spatial planning law in 2007, sustainability has been established by law in Germany (cf. Hopfner & Zakrzewski 2012: 48).

In consequence of the improvements on the political and legal scale, a considerable number of German municipalities committed to the aim of a sustainable development. Additionally, an improvement towards ecological sensibility and sustainability awareness has taken place in society. All factors result in 180 ecological housing and city district developments, which have been built in Germany within the last 30 years. Thereby, over the years the integration of mobility concepts, the usage of environmentally friendly construction materials, green near-natural spaces, environmentally compliant supply and disposal, a space saving way of building new settlements as well as alternative financing concepts increasingly gained importance for

¹ Until today approximately 2300 European cities and communes signed the document (BMLFUW 2009).

these developments and thus, take account of a social, ecological and economic sustainability (cf. Wolpensinger & Rid 2010: 122 ff).

Regarding the aforementioned developments the following critical aspects are apparent:

First, to date the promotion of sustainable urban districts is particularly restricted to new development areas. Reconstructions respectively the integration of existent urban structures into newly built districts did not gain notable attention.

Second, although the *Three Pillar Model* based on the ecological, economic and social dimension of sustainability is often criticised (cf. Hauff 2012: 5; Grunwald & Kopfmüller 2012: 54-65; Kopfmüller 2006: 25f) in terms of the disregard of generative and global distributional justice and the split up and impossibility of an equal consideration of the three dimensions this understanding of sustainability underlies all endeavours of a sustainable urban development so far. Consequently, initialised developments frequently lack a global and long term orientation and holistic strategy and concentrate on thematic focal points (cf. Hopfner & Zakrzewski 2012: 47 f).

Third and even more significantly, all political interpretations on the different scales in common is their adherence to economic growth. On the one hand, the growth idea is often regarded to be essential for the increase of prosperity and on the other hand to generate the financial basis needed for sustainable development (cf. Drilling & Schnur 2012: 12). The subscribers of the Leipzig Charter on Sustainable Urban Cities for instance state:

“Integrated urban development strategies, cooperative urban development management and good governance can contribute towards a purposeful use of the potential of European cities particularly with regard to competitiveness and growth” (European Union Council Presidency 2007: 5).

The current circumstances of sustainable urban development described above call for a new approach in this important realm of action. For this reason we initiated the project *District Future – Urban Lab*. In the long term our ambitious project aims at transforming an already existing urban district of the City of Karlsruhe (Southwest Germany) into a sustainable one. Based on the *Integrative Concept of Sustainable Development* (see ch. 2.2) we perceive sustainable development as a durable, holistic and future-proof process which centrally includes degrowth as (a) a medium term option parallel to conventional ways of development, with (b) the long term expectation to become the key concept of humanity's progress.

Such a transformation of a whole city district towards sustainability can neither be produced nor decreed. What can be achieved is a shaping of the process by pointing to possibilities, developing new ideas to select and implement innovations, making available a space for creativity and new approaches and accompanying the process in a scientific and transdisciplinary way. Against the background of the worldwide raising level of urbanisation we intent to develop new model action strategies of sustainable urban development.

This paper presents our project's status quo illustrating the conceptualisation based on the three components *degrowth*, the *Integrative Concept of Sustainable Development* and the spatial context of the *City of Karlsruhe*, and naming crucial points on the path to a sufficiently sustainable city district of model character. Closer attention is then turned on this city: Why is there the need for a development project we intend? Who are the partners of our endeavour? Which hindrances prevent people from participating in the local and global debate for sustainability and how are they to overcome? How can new forms of governance give room for changes, and are today's forms of democracy and participation in cities and urban districts adequate and prepared to foster the transition towards degrowth? Subsequently, the paper shows how specific sub-project proposals can fill the framework of our approach and illustrates

how they interrelate with modified *basic functions of subsistence* and several cross cutting issues. Finally, strengths and weaknesses of our concept are discussed.

2 Project Framework

Three factors shape the framework of our project. The first is the *Integrative Concept of Sustainable Development* as theoretical foundation, the second is the context of the City of Karlsruhe with its socio-cultural, spatial, institutional and environmental aspects and the third is the awareness of the necessity of Degrowth and the urgency to shape it.

2.1 Degrowth

Major changes to the world's economic and ecological systems seem inevitable in the near future. If we want to participate in shaping them instead of just suffering from their consequences we need to be prepared. Among the possible action strategies that point to achieving sustainability – namely *efficiency*, *consistency*, and *sufficiency* – sufficiency is the only one that helps to overcome rebound effects and induces a substantial change, a paradigm change. Only degrowth, as a variety of the sufficiency, opens truly new ways in perception, discussion and implementation, and acknowledges the need for a fundamental change of attitude (Grunwald & Kopfmüller 2012: 91-94; Parodi 2011a, 2011b).

While we expect degrowth to become the mainstream concept to deal with our societal and ecological surrounding even to improve life quality in the long run, we have, in the short and medium term, to deal with different attitudes in our city and society that form a massive hurdle at present. Our society is culturally deeply rooted to growth, fundamentally expressed in today's economic system and thinking, with its spreading and growing importance at all areas of (everyday) life. We have to cope with a fundamental shift in our belief systems, worldviews, attitudes and acting. Accordingly we have to tackle the crucial meaning and importance of time and money, if we want to obtain fundamental changes and move towards a new *Culture of Sustainability* (Parodi 2011b, 2011c; Kulturpolitische Gesellschaft 2001).

In our culture and in city life and development the focus on technology-based solutions is a strong element, but technological options mostly follow the sustainable strategies of *efficiency* and/or *consistency* – not *degrowth* (Parodi 2011c). Certainly humans distinguish themselves by the creation of technical means nowadays, and certainly mankind could hardly survive without technical remedies. But all technological solutions have – sometimes enormous – side effects and often their use seems rather to be an excuse for not wanting or daring to search for a true solution.

2.2 Integrative Concept of Sustainable Development

The *Integrative Concept of Sustainable Development* (the Concept) – developed majorly by ITAS (cf. Kopfmüller 2006: 26-32) – offers a *positive* definition of what sustainability is. It uses a set of principles (called *rules*²) plus related adequate indicators that allow to analyse a projects' coherence with firm sustainability criteria.

² The term *rules* is originally used for better compatibility with the international debate on sustainability. Here we prefer the term principles for their more guiding than binding character.

Three constitutive elements form the Concept's basis:

- an *intergenerative and intragenerative justice*,
- a *global perspective*, and
- an *anthropocentric approach*.

These elements resort, on one hand, to *Brundtland Report*, *Agenda 21* and *Rio Declaration*, but cut, on the other hand, across the often cited 'classical' dimensions of the three pillars (economic, ecologic, social) of sustainable development. Based on Brown-Weiss' idea of a "Planetary Trust" and Rawls' "Theory of Justice" the Concept offers a translation of these three constitutive elements into three general objectives, namely:

- *Securing human existence*,
- *Maintaining society's productive potential*, and
- *Preserving society's options for development and action*.

Each of the general objectives is broken down into five principles, or rules, each (see fig. 1). Further ten instrumental rules complete the picture (cf. *ibid.*: 29). Adequate indicators help, case by case, to measure the degree of fulfilment of the correspondent requirements.

Goals	1. Securing human existence	2. Maintaining society's productive potential	3. Preserving society's options for development and action
Rules	(1) Protection of human health (2) Ensuring the satisfaction of basic needs (nutrition, housing, medical care, etc.) (3) Autonomous subsistence based on income from work (4) Just distribution of chances for using natural resources (5) Reduction of extreme income or wealth inequalities	(1) Sustainable use of renewable resources (2) Sustainable use of non-renewable resources (3) Sustainable use of the environment as a sink for waste and emissions (4) Avoiding technical risks with potentially catastrophic impacts (5) Sustainable development of manmade, human and knowledge capital	(1) Equal access of all people to information, education and occupation (2) Participation in societal decision-making processes (3) Conservation of cultural heritage and cultural diversity (4) Conservation of the cultural function of nature (5) Conservation of 'social resources' (e. g. tolerance, solidarity or adequate conflict solution mechanisms)

Fig. 1: Goals and rules of the *Integrative Concept of Sustainable Development*

The Concept defines the minimum requirements that need to be met if mankind is to be allowed a moral claim to a dignified life. Beyond this minimum base for human existence many more legitimate aims are conceivable which are nevertheless not constitutive for sustainability (Kopfmüller 2006: 30).

Indicators for monitoring and evaluation

If we check the 'prescriptions' of this top-down *normative* projection against the findings in the urban *context* we are able to create a set of indicators that will allow us to monitor and evaluate

the overarching umbrella project *District Future* as a whole as well as each single sub-project herein.

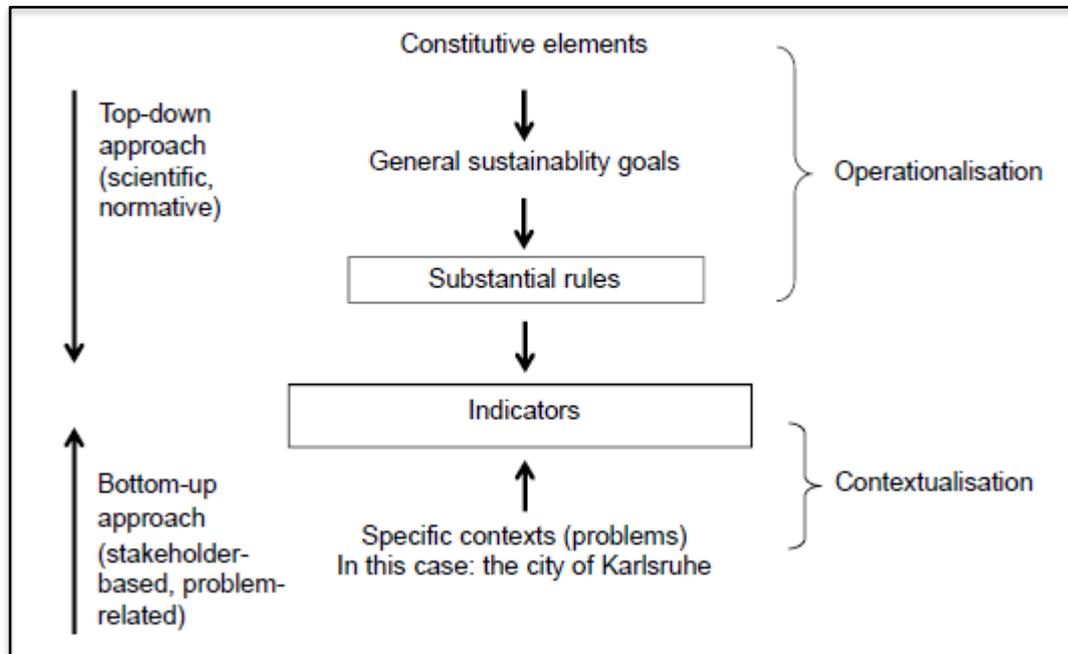


Fig. 2: Integrative Concept of Sustainable Development: Operationalisation and Contextualisation

Despite its apparent rigidity this matrix of principles can be used very flexibly as it has been proven in the recent past (Kopfmüller 2006: 99-325). The principles serve as guide rails. They can be adapted and amended as long as their substance is not altered. The normative top-down approach pays nevertheless high attention to participatory processes of all involved stakeholders and persons.³

In line with the Concept we demand a holistic design of urban sustainable development that goes beyond green technology of saving or producing energy. The Concept encompasses cultural aspects (education to sustainability, aesthetics of sustainability [Parodi 2011: 15], slow life, *joie de vivre*), social aspects (equal access to resources and opportunities), financial aspects (local currency, debt control, new employment and remuneration schemes) – including all this within a relatively small universe of a city's district. *District Future* as a model project will allow testing synergy effects among single sub-projects and examining advantages and disadvantages of their interaction in a real context. *District Future* will also need to take into account the restrictions of an already established urban settlement including historical area, which are more binding than those on a greenfield or brownfield site.

³ In the context of our project the Concept accompanies, for the first time, the conceptualisation phase of a project, while so far it was exclusively used as a means of ex-post analysis.

2.3 Karlsruhe – partner and place for implementation

In line with the Concept we demand a holistic design of urban sustainable development that goes beyond “green technology” of saving or producing energy or other sector-oriented efforts. The Concept even encompasses cultural aspects (education for sustainable development, aesthetics of sustainability [Parodi 2011: 15], slow life, *joie de vivre*), social aspects (equal access to resources and opportunities), financial aspects (local currency, debt control, new employment and remuneration schemes) – including all this within a relatively small universe of a city's district. *District Future* as a model project will allow testing synergy effects among single sub-projects and examining advantages and disadvantages of their interaction in a real context. *District Future* will also need to take into account the restrictions of an already established urban settlement including historical area, which are more binding than those on a greenfield or brownfield site.

2.3.1 Area of activity

The organisational and spatial fan (see fig. 3) unfolded by the City of Karlsruhe is the backdrop against which we have to check our strategy and each sub-project. It constitutes the basis from where we have to prove the validity of our ideas in a bottom-up procedure. We also have to answer the key question *where* to implement our project, i. e. which area of the city to choose.



Fig. 3 Karlsruhe's city centre with fan-shaped layout and castle (courtesy: Stadt Karlsruhe/ Fränkle)

Proposing *District Future* means becoming active on an urban level – that means on a regional (or national) and individual level. While on the one hand it is clear that a "privatisation of

sustainability" (Grunwald 2010) leads to a reduced leverage in the struggle for a radical system change, we need the involvement of the high-level political decision making in order to achieve at least a partial system change. On the other hand, results from our large-scale scientific and at the same time absolutely practice-oriented 'experiment'⁴ can nevertheless help to submit recommendations for policy changes at higher political levels. The implementation itself can help to make people acquainted with a new style and a new content of life. It requires their active participation and their vivid interest. Groups of dedicated individuals can achieve a great deal. Many individuals' commitment, i. e. a grassroots-based collective action can force political decision makers on higher levels to change their agenda – and subsequently the relevant legislation.

2.3.2 Need for action

Knowing the City of Karlsruhe with its approx. 300.000 inhabitants one might ask why it is worth devising a strategy for sustainable development rather here than in other cities more in need.

Out of approximately 15 main sustainability deficits that can be identified for Germany (Coenen & Grunwald 2003: 87) we would like to highlight some four as *strategic* deficits, namely:

- deficits in education (Germany lacks natural resources and highly depends on the resource of brains),
- lack of equal opportunities (gender related, migration related, parents' educational and professional background),
- climate change,
- public debt.

While sustainability deficits can be found in Karlsruhe for all 15 deficit categories⁵ we would like to concentrate on the aforementioned four sectors:

1. Education: lack of awareness and knowledge about (non)sustainability and its intrinsic logic;
2. Equal opportunities: lack of open-outcome procedures; missing inclusion of the expertise of migrant citizens; missing inclusion of citizens far from the classical main-stream forms of culture; over-proportioned individual traffic compared with public transport; lack of family-friendly jobs including an inflexible childcare system; pressure caused by gentrification;
3. Climate change: low CO₂-reduction standards and high per capita CO₂-emission; loss of energy due to unsatisfactory building insulation; lack of energy autarchy through insufficient use of regenerative resources;
4. Public deficit: deficit in absolute figures (approximately 150 million in 2010, cf. SISKKA 2012); expensive technical infrastructure.

Today Karlsruhe is relatively well off in terms of holding its resident population, social welfare, cultural life, public transport, and economic activities. Yet, it faces similar challenges as other cities stemming from an ageing population and has to cope with an ever intensifying climatic change in the upper Rhine valley towards almost tropic conditions (rebequa 2007: 30; Stadt Karlsruhe 2011: 141ff; Baumüller 2012). Our society's culture and therefore also our city's culture both need more attention for the *immaterial* aspects of human existence.

⁴ Using the expression 'experiment' in our context means, too, being always aware that interventions sometimes are irreversible and we therefore need to be mindful of possible negative consequences for the people involved.

⁵ Own unpublished survey among 20 colleagues of ITAS, 2012.

2.3.3 Partners of the action

Carrying an academic idea outside science's ivory tower and exposing it to a wide range of environmental effects poses a challenge: How can we contribute to changing the system without "selling our soul", i. e. without leaving the path of sufficiency in our efforts for sustainability? How much do we have to adapt, on one side, our project and sub-projects so that they can find followers and supporters among the population and the politicians – without too much diluting, on the other side, the dose of a new thinking and risking to lose our sustainability profile?

In our perception most of the elected municipal officers and members of the public administration are *individually* backing the idea of *District Future*, but at the same time the administration as *entire organism* can be enticed less easily to cooperate. While on this side the rigidity of a system may pose some obstacle, on the other side the institutional memory of both city parliament and public administration can be helpful in contributing its long-term experience in city management.

Balancing between feasibility considerations and the assumed will of the population raises the question of adequate forms of participation. New forms of participation may be needed less urgently than rather the consistent use of existing forms, a continuous transparent feedback, and the ability to convince people of their commitment's common societal and also personal advantages. Of course, it includes new and technologically or organisationally advanced ways of communication.

Addressing citizens' willingness to engage in volunteer work explores a potential which is expressed in countless civil-society activities in the town. It will be a main source of inspiration and should influence the substance and shape of decision making. KIT and the City of Karlsruhe thus can open up a common experimental space for technical and societal innovations and mutual learning.

Some elements of our strategy for involving people as important stakeholders are:

- a public contest for choosing the area of *District Future*,
- a branch office for a permanent personal presence inside the chosen area,
- participatory planning and creative workshops,
- internet-based exchange platform (e-participation),
- alternating between events for the public and selected groups of specifically affected people,
- highlighting the area by special landmarks,
- sessions of local oral history.

2.3.4 The *District Future* contest

In order to decide on the location of our project we plan to conduct in collaboration with the City of Karlsruhe a contest among the urban districts of Karlsruhe. This should allow the population in this early stage of implementation to express their ambitions and their willingness to participate and engage for sustainable urban development. Announcing the contest, its advancement and its outcome on all available channels will be a focussed means of early and constant communication with the city's public and help to convey our concept of sustainability and its connection with *District Future*.

Currently we are working on a set of criteria for choosing the *District Future* that refer to a range of social, spatial, political, technical, functional and other factors. The criteria in their entirety should be defined in a way that eases later translation of results and successes from our pilot project area to other parts of the city. As well we have to have an eye on those city districts that do not 'win the title' of *District Future*, whether this could entail negative consequences or how we can gradually link and integrate them into our project.

2.3.5 How to convince people?

The struggle for sustainability in general, and for degrowth in particular needs courage – of decision makers and each individual. In order to realise our project we need to convince (rather than persuade) our co-citizens and the relevant stakeholders of the advantages of turning a district into *District Future*.

We have to face various obstacles that hinder people to think and act sustainably:

- A relatively wealthy city may envision less need for changes.
- Explaining the reasons why degrowth is a better and perhaps the only reasonable alternative may be a long and bumpy road after decades of preaching that only growth grants wealth and well-being. Non-growth or negative growth would be more easily acceptable, if the emphasis on the material values was reduced (Matthey, Astrid 2010, *Less is More: The Influence of Aspirations and Priming on Well-Being*. Cited in Pennekamp 2011: 37).

We have to bear in mind that the influence of external factors and actors (e. g. media) will accompany us during the implementation of our conception on the relatively small *District Future* 'island'.

- Personal hindrances to live in a sustainable way are mainly the lack of awareness and knowledge, higher costs (perceived or real), and difficulty to overcome inner temptations.⁶
- Further obstacles are of fairly tricky psychological and sociological nature (Abdallah & Thompson 2008, *Psychological Barriers to De-Growth: Values Mediate the Relationship Between Well-being and Income*. Cited in Pennekamp 2011: 37):
 - the fear of loss, fear of poverty,
 - the absence of remunerative effects,
 - social norms' and values' influence on the process of individual self-discovery,
 - the gap between individual acting and mass behaviour,
 - the so-called *affective fore-casting*, a phenomenon of our psychological immune system that causes an overestimation of future possible negative effects.
- Finally it is the discounting practice which makes it too easy for mankind living today to downsize potential future negative impacts.

If something needs to be done to attract the population and the decision makers – what can we offer that goes beyond mere apocalyptic scenarios? These would tend to repel possible fellow-campaigners. Which *positive* proposals can we make that can contrast today's discomfort about "imperfect" sustainability?

We propose (cf. Parodi 2012):

- **justice** – versus the dominant (economic) injustice,
- **perdurability** – versus the fast-paced vicissitude,

⁶ Unpublished survey by our team member C. Waitz 2012: 10 sample interviews among Karlsruhe citizens.

- **humanity** – versus the exuberant individualism,
- **"being-in-the-world"** – versus the alienated human life,
- **ecology** and **social matters** – versus the primacy of economy,
- the value of **nature** – complementary to civilisation,
- the **dematerialisation** of economy – versus the quest for tangibles,
- **liberty in limits** – versus arbitrariness,
- a **holistic ambition** – versus widespread fragmentation,
- the **widening of our horizon** – versus short-sightedness.

3 Collection and systematisation of ideas for sub-projects

In a brainstorming process we gathered a big number of sub-project ideas for the formation of a sustainable, *future-proof* city quarter. In order to structure the ideas and ensure a better navigation we resorted to an existing but amended scheme of the so-called *basic functions of subsistence* ("*Daseinsgrundfunktionen*"; cf. Maier et al. 1977: 21). We interweaved these nine thematic topics with seven cross cutting issues forming thus a project matrix. This matrix allows to control whether or not we meet all necessities of urban life and fulfil our holistic aspiration.

Topics	Living; Building		○	○○○		①	○	
	Community	②			○			
	Mobility	○	○		○		○	
	Work; Economy; Finance			③	regional life		○○	○
	Communication	○	○○					○
	Provision of Goods; Waste management		○	○	④			
	Leisure time; Recreation							
	Education		○			⑤		
	Art; Culture							
		Environment & Resources	Health; (Security)	Consumption	Related to local / regional life	Satisfaction with life - <i>Joie de vivre</i>	Social justice	Governance
		Cross-sectoral issues						

fig. 4 Matrix of topics and issues allowing the localisation of single sub-projects (①-numbers refer to text below)

A few examples may help to better grasp the spirit of our approach (see also fig. 4):

- ① Inter-generational living: offers people of different age or from different professional or cultural background to live together in one building and help each other out with their respective abilities. Students for instance help in caring for the elderly while receiving a reduction in their lease payments or making savings on their own long-term care insurance; elderly people take care of children against help with the shopping or simply gain a new purpose in life.
- ② Traffic transfer centres: are dedicated structures built in strategic locations that facilitate the transfer between different transportation systems allowing people to switch more easily from bike to train, tram to car, car to shared-car, bus to walking.
- ③ Activity Centres & Retail Policy: this instrument for urban planners helps steering the retail trade sector, the positioning of retail markets in the city centre or sub-centres or the urban periphery, and satisfying daily consumer needs; it follows criteria of daily need, of range, size, and weight of goods, and of number and size of shops and malls.
- ④ Perma City: provides countless possibilities for recycling and re-using goods, including traditional second-hand shops and flea markets as well as other forms of exchanging and trading used items that still need to be introduced in Karlsruhe.
- ⑤ School of Sustainability: addresses, as an educational project, all parts of society and accompanies them in their private decision making processes and on their way towards a new awareness and perception of sustainability.

Then in a next step we have to countercheck each sub-project idea against the *Integrative Concept of Sustainable Development* standards and whether it contributes to a sustainable development of both the city and its population.

4 Timeline

We plan to have completed the final draft of our conception for *District Future* by the end of 2012, envisaging a conjointly conducted workshop among members of the municipal authorities, the KIT and other actors that could result in a standing working group.

In 2013, the location for *District Future* will be selected in collaboration with our project partners. Until then an increasing number of publicity measures will be undertaken. After this we shall enter into intensified talks with all stakeholders on how to implement already proposed sub-projects or newly emerging ideas which could also result from the specific context of the chosen city quarter. Smaller sub-projects which need less preparation, are less disputed, and are likely (in case of failure) not to bring about long-lasting negative side effects can start immediately after the selection of the *District Future*. More complex sub-projects will follow after careful preparation.

In the following five to fifteen years *District Future* will develop from an *Urban Lab* – which allows studying sustainability projects and their synergy effects and reciprocal interactions against a real background – to a solidly sustainable city quarter that enables other neighbourhoods to adopt successfully tested means. In parallel with this the city administration will get the chance to shape the city as a whole under guidance of a holistic set of sustainability principles and the citizens will have the opportunity to contribute actively to form their environment in the spirit of sustainability.

5 Discussion

To conclude, we put strengths and weaknesses up for discussion.

On one side our project faces some challenges:

- If, according to the *Aalborg Charter*, "... the city or town is ... the smallest scale at which problems can be meaningfully resolved in an integrated, holistic and sustainable fashion" (Aalborg Charter 1994: 3), then what can we *meaningfully* achieve in a city quarter? *District Future* is meant to be experimental space and pilot project, and we plan to extend its mechanisms to other parts of the city and finally to encompass the city as a whole as growing success allows it.
- As mentioned in ch. 2.3.3 and 2.3.5 there are obstacles to reach local decision makers and population. In order to realise our project we will have to introduce a set of rules on top of anyway existing regulations and laws. We have to find the right package of content and the right language to convince the population of the advantages offered by our project to the entire city and each of them individually if we do not want to overstrain people's patience and to appear as spoilsports.
- As the location of *District Future* is not yet defined, the whole project to outsiders remains somewhat abstract. This, and the complexity of our holistic ambition poses a great challenge to convince stakeholders of its feasibility and benefits.

On the other side we can rely on a series of auspicious ingredients:

- Our endeavour is accompanied by the scientifically sound *Integrative Concept of Sustainable Development* which defines what sustainability means and what acting in favour of sustainability is and serves as useful tool in the design phase as well as for monitoring progress and evaluating future.
- Our holistic approach encompasses much more than just green or economic aspects, which often play an exclusive role in the discussion on sustainability.
- The *District Future* concept evolves in a manageable area and enables us to test advantages of single sub-projects not only against the actual environment but also against simultaneously proceeding sustainability projects.
- Our strong wish for participation and collaboration with all relevant stakeholders may, at a first glance, slow down the pace of our project, but it will eventually entail a much higher degree of commitment, satisfaction and identification among the population and reduce the risk of lengthy quarrelling with opposing action groups.
- Karlsruhe, as a representative case for a European city, offers a solid base for starting such an enterprise, because it is well-off enough to take care of an supposedly 'luxurious' theme and project and the members of public administration are open-minded and display a basically positive attitude towards our ideas.
- We formulate a *positive vision*, and draw a desirable picture of a liveable future by presenting the concept of sustainability as the only modern alternative draft to the established Western lifestyle.

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