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## **Growth in transition**

Selected contributions of the Wuppertal Institute at the 4th International Conference on Degrowth for Ecological Sustainability and Social Equity

By Vera Freyling, Philipp Schepelmann, Johannes Buhl, Adelheid Biesecker, Uta v. Winterfeld, Benjamin Best





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#### **Foreword**

In early September 2014, about 4.000 scientists, activists and artists at the 4th International Conference on Degrowth sent out two messages.

- 1. Industrialized societies will change, either by disaster or by design. Accelerated resource exploitation and climate change can force societies into a transition. Or they swiftly develop new forms of economic, political and social organization which respect the planetary boundaries.
- 2. "Degrowth" has become a new social movement which translates scientific insights into cultural change, political change and social practice. Hence, the conference itself was an experiment on the potentials and limits of share economy, commoning and sufficiency.

A team of young scholars and activists from different German research institutes and non-governmental organisations prepared the conference. The team of the Wuppertal Institute was partly involved in the preparation of the conference. Scientists from all research groups took part in the conference, presenting and discussing project results.

This publication is a collection of contributions of the Wuppertal Institute to the conference and covers pivotal issues of the degrowth-debate: indicator development (Freyling & Schepelmann), working time reduction (Buhl), feminist theory (Biesecker & Winterfeld), and urban transition (Best). You can watch the discussion on "politics of sufficiency vs. counterculture" between Prof. Dr. Uwe Schneidewind and Prof. Dr. Harald Welzer at the conference on "YouTube".

Prof. Dr. Uwe Schneidewind



Source: The Extraenvironmentalist, Degrowth 2014 – Politics of Sufficiency vs. Counterculture. Live broadcast from 05 Sept. 2014, http://youtu.be/X667V6hViDw

# Indicator evolution: from resource efficiency towards degrowth

Vera Freyling · Philipp Schepelmann

The future of human development relies more than ever on our ability to manage natural resources, while securing quality of life. Meeting both challenges depends on information and choice of indicators. Most existing concepts emphasize the necessity to maximize the socio-economic value of resource use, while minimizing pressures and impacts on the environment. The normative question 'what is the actual value of socio-economic production?' has received a lot of attention in science and policy-making. The established resource efficiency indicator puts consumption of natural resources (RMC) in relation to the monetary value of all final goods and services (GDP). We argue that an evolving concept of resource efficiency based on measures of human needs will politically and culturally guide us towards sustainable and equitable transition economy.

Every day, current generations are exposed to texts, videos and numbers equivalent to the information of 174 newspapers (Hilbert 2012). In fact, 90 per cent of all data in human history has been generated over only the past two years (Dragland 2013). More information requires structure by indicators describing the world we live in. The magnitude of information flows and the ever increasing number of scientists, consultants, data miners and data managers should have been able to explain the world, stop wars, provide well-being to everyone and prevent financial and sustainability crises. This does not seem to happen. The scientific struggle for excellence and precision of information generation seems to be independent from problem-solving. If information is power, how can it enable transition towards sustainable and equitable economy?

The foundation of such change is the choice of indicators of progress and a need to replace quantitative with qualitative measurements (quality of life vs. economic growth). However, quality can be measured only in quantities. We are able to assess quantities of something that we find valuable. For example, the broad concept of a "good life" entails by physical necessity, among others, access to "good food". "Good food" means: amount of calories taken, ratio of fresh vegetables and fruit, red meat consumption, percentage of processed saturated/nonsaturated fats, presence of preservatives, balance between carbohydrates, proteins and fats, etc. All mentioned aspects are quantities. Society always constructs an idea of what quality is using quantitative measures. The quantities tell us, for instance, to what extent we consume

"good food". For that reason, indicators (grams, per cent, euro) carry not only statistically scientific information, but also collective ethical and cultural perceptions and judgements.

Growth-oriented economies have a significant advantage of having robust, established indicators (e.g. GDP) that indicate linear and straightforward progress. While trying to establish a different economic system from the drawing board does not seem possible, we argue that evolutionary impulses to the currently existing system of indicators will help to trigger transition towards sustainable and equitable economy. The concept of resource efficiency is one of the steps towards degrowth indicators.

# From resource efficiency to degrowth indicators

There are different views on where the resource efficiency concept belongs in the context of degrowth discourse.

Generally, resource efficiency means creating "more with less, delivering greater value with less input, using resources in a sustainable way and minimising their impact on the environment" (European Commission 2011: 3). While being a comprehensive vision in theory, the indicator of resource efficiency shows that the value as a qualitative parameter is easier to estimate with simple quantitative measures. In a growth-driven policy-making, the resource efficiency indicator is represented as a ratio of GDP (Gross Domestic Product) to RMC (Raw Material Consumption). GDP stands for generated value, while RMC stands for pressures exerted on the environment. The main critique of this indicator is that economies that show higher resource productivity measures usually largely benefit from growth rather than from being more sustainable and environmentally efficient (Steinberger and Krausmann 2010).

A different view describes resource efficiency as a concept with similar vision as degrowth. The latter is about "ensuring high quality of life, while reducing the ecological impact of the global economy to a sustainable level" (Research & Degrowth 2010: 524). Both degrowth and resource efficiency aim at an absolute reduction

of environmental pressures/impacts. The way produced value is defined (quality of life) determines how much both concepts can be socially and economically contribute towards a sustainable and equitable economy.

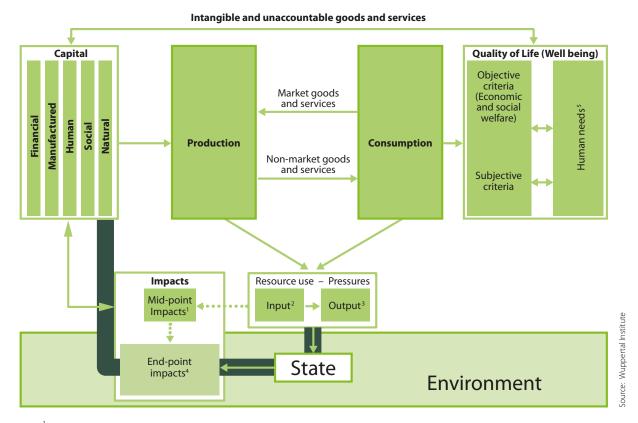
In evidence-based policy-making, any frame used for resource efficiency should be able to provide the basis for quantifying it in a complex socio-economic system, since it is unlikely that someone will come up with a perfect indicator which integrates consistently all the aspects demanded by different stakeholders (objective vs. subjective, macro- vs. meso- vs. micro-level, etc.).

The framework developed in the DESIRE project reshapes the (growth-oriented) understanding of resource efficiency described above by combining it with Manfred Max-Neef's human scale development theory and Amartya Sen's capabilities approach (Max-Neef et al. 1991). By going beyond monetary measures (beyond GDP), we shift the scope of resource efficiency towards the satisfaction of human needs. According to the model, the input of different forms of capital feeds into the industrial metabolism, which produces goods and services with and without a market value. These goods and services (monetary and non-monetary) then contribute to the satisfaction of human needs by consumption. Thus, this new concept addresses the question whether society can maintain and enhance quality of life while decreasing environmental pressures.

#### Pathway of change: empowering citizens

On the one hand, there is always an established system that defines the boundaries for indicator development (see our description of a system in the figure). On the other hand, our own choice of indicators to describe a system plays a significant role in decision-making. As choice of indicators is a social construct, the only way to transform our knowledge and socio-economic system is to engage the public towards indicator development.

The question stays open not what the best new replacement of monetary indicators is, but which replacement we will chose to guide us



- <sup>1</sup> Global Warming Potential, Acidifying etc.
  - Energy use, Material use, Land use, Water appropriation
  - <sup>3</sup> Waste, C emissions, Other emission
  - $^4\,$  Impacts on ecosystems and BD, Impacts on human health, Impacts on NNRR, Impacts on amenity and economy
  - <sup>5</sup> Being, Having, Doing and Interacting for Subsistence, Protection, Affection, Understanding, Participation, Idleness, Creation, Identity, Freedom.

in decision-making. In the end, it is not replacing monetary values. It is about embedding and relating monetary values to non-monetary values. Approaches like the Human Development Index or the OECD's Better Life Index could become a good basis for discussing the elements of progress and the Good Life.

These evidence-based quantifications are always linked to normative discourses. They require active engagement of citizens to define what is good or bad, desirable or not. Citizens should not only delegate decision-making responsibilities towards scientists, consultants and politicians, but get involved in the creation of knowledge (e.g. through crowdsourcing) and decision-making activities (direct democracy).

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# **Working Less and Time Use Rebound Effects**

Johannes Buhl

Worktime reduction is considered to be essential when it comes to theories and models of de-growing economies. So far, productivity gains are re-invested in favor of economic growth. Consequently, rising opportunity costs of time lead to time rebound effects, since saving time becomes more precious as (economic) life speeds up. This comes with resource intensive consumption. But gains in productivity may just as well come with reduced working time in order to relieve production and consumption from the exhaustion of natural resources while fostering social equity and individual welfare - a triple dividend in times of social acceleration?

The comprehension of rebound effects evolved over time. Most commonly, the understanding of rebound effects stemming from a more efficient use of a certain technology prevails throughout literature. As soon as monetary savings occur due to efficiency gains, substitution and income effects compensate potential savings. More comprehensively, Sorrell (2010) refers to rebound effects as "the unintended consequences of actions by households to reduce their energy consumption and/or greenhouse gas (GHG) emissions". From an economic point of view, it basically does not matter if, for instance, more efficient light bulbs are plugged in, a candle is lit up or the lights just stay switched off. It is no matter of efficiency, consistency or sufficiency, but of savings. Every action that responds to savings in resources is prone to rebound effects.

With respect to time, Greening et al. (2000: 391) introduced the idea of a transformational rebound effect: "...many technological advances, in addition to fuel efficiency improvement, have resulted in changes in the allocation of time. This is reflected in a change in labour force participation rates and occupational structure". Jalas (2006: 52) picked up on this and wondered how "such a transition leads to free slots of time to be allocated between market work and non-market activities." That transformational notion of rebound effects responds to potential changes in consumer preferences and social institutions like the organization of labor.

So far, gains in productivity are re-invested in favor of economic growth. Still, despite rapid technological and time saving innovation, labor productivity speeds up for the sake of rapid innovation cycles which manifest in work and spend cycles by consumers. Free time is constrained by 10 Johannes Buhl

institutional arrangements. This brings a scheduling society (Southerton 2003) that manages time in such a way that options may become obligations when "greedy institutions" (Coser 1974) ask for commitment in private and professional life. Consumers face a cornucopia of choices to make, and with options emerging at an increasing pace, opportunity costs of consumer decisions rise. Consequently, the pursuit to diminish opportunity costs by squeezing actions per time accelerates lifestyles in an event-oriented society (Rosa 2013, Schulze 2013). Hours per day, days per week and weeks per year constitute a universal and absolute budget constraint. In contrast to money, time can be neither retained nor accumulated. Time is democratic. Robinson and Godbey (2010) ascribe a zero sum game to time budgeting – activities inevitably substitute activities. Thus, observing time use fully covers social practices of everyday life and truly supports a more comprehensive understanding of rebound effects.

More generally, Linder (1970) stated that in modern, western societies, disposable time decreases as productivity and wealth increases. Time savings become precious as (economic) life speeds up. In the end, time scarcity becomes ubiquitous while paradoxically, technological change is evermore supposed to save time and to increase one's individual discretionary time. In rational terms, diminishing marginal returns of time use suggest a love of variety and a diversification of activities in order to maximize utility. Accordingly, relatively time intensive, but inexpensive activities are prone to time rebound effects - private mobility for instance. Here, direct rebound effects may come with a transfer from coach to train, from train to plane. In the long run, Parkinson's law (1957) suggests that the work expands to fill the time available for it and travel distances stretch. Time intensity of activities is substituted by resource intensity of consumption.

In contrast, advocates of time intensive consumption suggest in the face of time budget constraints, the concentration on few activities that promise increasing marginal returns or even flow experiences (in sports, arts and so forth) enhance quality of life (e.g. Scherhorn 2002). Besides, spending discretionary time on indi-

vidually meaningful work provides a significant gain in life satisfaction despite potential financial losses. Eventually, time intensive activities in leisure, social life as well as voluntary work and caring activities besides employment become relevant (Gershuny 2000).

Consequently, recent research draws a rather ambiguous picture of working time reductions in the shadow of time use rebound effects. Druckman et al. (2012) made clear "that a simple transfer of time from paid work to the household may be employed in more or less carbon intensive ways". All et al. (2011) show that "leisure activities are to increasing extent based on material consumption". Still, a detailed understanding of time use rebound effects is missing. Jalas' (2002) model of time use rebound effects presumes that every consumption activity requires physical input and time - a temporal constraint. Despite the fact that Jalas (2002) did not actually manage to apply his model empirically due to lack of data, he offers a promising and well-illustrated model of time use rebound effects in which rebound effects exclusively rely on the substitution of activities disregarding income effects. Here, the second approach steps in. Nässén and Larsson (2010) as well as Knight et al. (2013) argue that consumers decide upon temporal as well as monetary budget constraints. They take both time and income effects of a reduction of working hours into account. The rebound effect is then a composition or net effect of time gains and income loss due to a reduction of working hours. Their preliminary estimates yield only a slight compensation of the income effect due to time effects.

My findings from semi-standardized interviews with employees who reduced their working time offer more ambiguous effects. Following Jalas' (2002) model of time rebound effects, time intensive activities do not fully replace resource intensive consumption. Insights into the relationship between time use, income and expenditures with representative data for Germany rather corroborates the findings. A marginal analysis shows compensations of abated propensities to consume due to triggered propensities to time in leisure. However, a comprehensive understanding of time use rebound effects needs to take a second and triple divi-

dend of time rebound effects into account - an increase in life satisfaction and intensified social engagement. An additional analysis of the relations between time use, life satisfaction and social engagement suggests potential gains in life satisfaction and more strikingly, a significant increase in voluntary work after a reduction of working hours. The findings indicate a pathway toward a more "amateur economy" (Nørgård 2013) that benefits from reduced working hours. Time use rebound effects just show that even amateurs are unlikely to live idle.

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# Three Arguments about "good" and "bad" links between work and post-growth

Adelheid Biesecker · Uta v. Winterfeld

The reorganization of working societies and sustainable ways of living are closely linked. But the concepts of work which are at stake are rather diverse: Many plea for an extended understanding and the societal reorganization of work. Especially feminist approaches demand for a general sustainable transformation and a fundamental change within the economic paradigm.

"Vorsorgendes Wirtschaften" does not see from a market-perspective but from the - often forgotten - perspective of life-world. From this perspective, it comes into sight that work is a multifaceted activity within and outside the market.

#### First Argument: About the "bad" link of work and the capitalist production system, about externalization and jobless growth

In the capitalist society, work is only seen as paid work, as work for and within the market. This work is embedded into a production system which transforms resources into waste with growing speed. It is unsustainable work.

This work is considered as gainful employment and as productive. It has a value which is represented by wage. But this is only half of the story. Work predominantly happens outside the market – caring work to sustain human life, voluntary work for the society, work for one's own (alone or with others), political engagement. This work is seen as not productive, in the best case as reproductive. The same happens with nature.

What we call "externalization as principle" (v. Winterfeld et al. 2007) is the "shadow" of paid work, invisible and unvalued. But markets, also job markets, could not exist without this shadow. They need all these valueless social (care work) and ecological (nature) "resources". One recent development is outsourcing – also outsourcing from paid to unpaid work. This recent development leads to to "jobless growth".

This "externalization as principle" entails a hierarchy: The market stands above the nonmarket sphere. Furthermore, because the unpaid care work is mostly done by women, it also entails hierarchal gender relations.

The consequence of this "externalization as principle" is the multiple crisis. It is, in its very core, a crisis of the "reproductive". Modern economies produce their wealth and growth by systemically destroying the basic living productivities for this growth. Systemically, these economies with their concept of paid work are not sustainable.

# Second Argument: About the "good" link between care (we prefer "Vorsorge", but you cannot translate it), and sustainability.

A post-growth-economy, in our opinion, must be a sustainable one. This means overcoming the "externalization as principle". For the concept of work, it means to integrate the "productive" and the "reproductive" work as well as the capabilities of nature to regenerate. The principle of care, then, dominates today's hegemonic principle of gaining profits.

What does care mean? "On the most general level, we suggest that caring should be viewed as a species activity that includes everything we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life-sustaining web" (Tronto 2013 p. 19, quoting Fisher/Tronto 1990 p.40).

Caring indicates a working process which happens in relationships to others and to nature. "Vorsorge" means the caring concern not only for the present but also for the future which is understood as "future present" (Adam 2013 p. 123), as the present of next generations. Vorsorge encompasses responsibility because future generations are not co-present. This also signifies responsibility for the consequences of our actions.

From this it follows for the concept of work in a sustainable post-growth society (now understood as "the whole work") that the long-term consequences for nature have to be taken into account, and that products and processes must be designed for further natural and social regeneration. Such an understanding of work would also resolve the contradiction between "work" and "nature" – workers could no longer be played off against nature.

In this concept of work, everybody can participate in all fields of work. No field is better than another. The experiences of every woman and man in all spheres of work are necessary for the further development of a sustainable society and its economy. This also means that sustainable work is based on the equity between the genders.

# Third Argument: About post-growth and emancipation and some doubts about the "good" links between them.

Referring to the "externalization as principle" and the hierarchical gender relations within this structure, concepts on the subject of postgrowth show some potential blind spots: They do not discuss this structure and its destructive character against the "reproductive" and the "regenerative". In their analytical framework, these concepts are largely "gender-blind". Nearly all of them are also blind with reference to power relations. In these concepts, a lot of proposals are made for new working activities in a postgrowth-society - activities for the provisioning of the different individuals. However, nothing has been said about how and by whom this work has to be done. Again by women? If the existing gender relations are not discussed and criticized, the degrowth-debate runs the risk of stabilizing the existing hierarchal gender relations.

Furthermore, the debate has to be aware of contradictions between the criticized growth and emancipation. Anonymous market relations and possibilities to gain an autonomous income have the character of empowerment and emancipation especially for women. Growth therefore may offer an alternative and a liberation from traditional and patriarchal domination structures. Yet simultaneous marketization means integration into the capitalist working relations with their hierarchical relation between work and capital. Therefore, the gender question about work and post-growth is also a question of hidden or obvious domination within a post-growth society.

#### **Conclusion**

Referring to the social-ecological transformation of work, we want to present the third action principle of our theoretical approach within the network "Vorsorgendes Wirtschaften". It is the principle of "Orientierung am für das gute Leben Notwendigen" (orientation towards the necessities for a good life). This is more a paradigmatic orientation than an orientation on potential actors and measures. Nevertheless, we think it could also work for a socio-ecological transformation into a sustainable society. Such a society will not be a post-growth society, because there are probably shrinking and growing areas. Orientation towards the necessities for a good life means for example: food and work for nutrition first – and no speculation with goods necessary to satisfy basic needs. It also calls for a basic income level for sustainable existence as a political and social task.

The transformation of work towards what we call "the whole work" is a political task too. Work as part of a good life cannot mainly be regulated with and within a labour market. Three first steps are necessary: the radical reduction of time for paid work, the redistribution of care-work between the genders and the revalorization of unpaid as well as of paid care-work. For the first step, trade-unions may be potential actors, together with the state. So far, however, they have no understanding of the new life world perspective which is associated with the orientation to what is necessary for a good life. The second and the third step, therefore, are again political and social tasks.

Finally, social-ecological transformation of work needs another consciousness of working time and sustainability: "In the context of working time and the challenge of work time reduction, sustainability takes on a particular meaning. It encompasses not just the quantity but also the quality of working time, not just the commodity but also the lived complexity. It involves combining into a coherent whole the incompatible time systems that currently stress and stretch our lives beyond endurance. A precondition to sustainable work would be that we render explicit what is currently known implicitly and that time was understood in its complexity as timescape. Different practices would need to be appreciated in terms of their temporal logics, which are not necessary compatible with the logic of other time systems. Working time understood in its economic, social and environmental complexity would therefore be the starting point from which we could begin to take account of the temporal needs at all these levels and address current inequalities embedded therein. As such it would be an essential first step on the long path to sustainable work" (Adam 2013 S. 38–39).

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# Transition-by-design and urban post growth strategies

Benjamin Best

Cities are caught in a dilemma: growth results in enormous problems such as monocultural industrial and residential areas, which lack urban qualities such as density and diversity, and urban sprawl leads to increasing conflicts with agriculture. Shrinking cities, on the other hand, have a marginal degree of monetary and cultural scope and find themselves in an economic downward spiral. In this situation, degrowth might offer an alternative. Degrowth is a managed downscaling of production and consumption in order to stay within the carrying capacity of the ecosystems and to enable citizen to live a 'good life'. I present the result of a workshop on degrowth cities, in which two contrasting visions of a change by Design (Best Case) and a change by Disaster (Worst Case) was developed by the participants.

A transition towards degrowth will encompass radical changes within existing social systems. Social systems consist of social and technical elements (Latour 2005), and deliberately changing existing socio-technical systems will be harder than creating new ones - due to path dependencies – unless the old system collapses.

Cities are complex socio-technical systems and include all kinds of regimes such as the energy regime, food, mobility, housing etc. When researching urban transformations, one quickly comes across the concept of the "city as a growth machine" (Molotch 1976). Cities all over the world are still described as growth machines (Zovanyi 2013). This sociological approach states that pro-growth coalitions of politicians and business elites back a consensual objective of continued land development. The growth ethics pervades every aspect of the political system and the agenda for economic development. This pro-growth coalition consists of politicians, businesspeople, and the cities themselves with its development potentials, architecture, and promising spaces, which have the telltale name "Filetstücke" (fillet steaks) in the jargon of German speaking city planners.

Any intervention which strives for degrowth (Wächter 2013) or post-growth (Paech 2012) will have to deal with this potent pro-growth coalition. Recently, much and more alternative projects emerge within cities, for example the urban gardening-movement (Müller 2011; Münderlein 2012), community-owned projects for renewal and renovation of city quarters (Rink 2012) and community-owned renewable energy projects. 18 Benjamin Best

However, most of these projects stay in niches and do not trigger system innovations.

Thus, a tricky task of urban transition management (Loorbach 2007) is to change incumbent systems which seem to work just fine. Nevertheless the fact is that they have huge externalized costs in other world regions and in the future and have increasingly become brittle. Often only elites profit from growth, and growth in cities results in problems such as monocultural industrial and residential areas, lacking urban qualities such as density and diversity and not increasing quality of life. Even a "green development" such as renovation of quarters is likely to result in negative and not always unintended side effects of rising rents and gentrification. It is only a question of time when and how a city will have to cope with declining resources and climate change and if it is able to proactively change its course of action.

"Transition by design" would imply a completely different picture of a future city than "transition by disaster". Following up the discussions at the Fourth International Conference on Degrowth for Ecological Sustainability and Social Equity in Leipzig, I hosted a workshop for scientists and practitioners at the n.a.t.u.r.-Festival in Bochum. In this workshop in September 2014, a group of six participants developed two contrasting visions of the city in 2034.

The table represents two idealized versions of the city of tomorrow. The workshop has shown that there are corresponding visions for many societal sub-systems within both the "Design"/ Best Case and the "Disaster"/Worst Case. While the Worst Case can be characterized as a rough extrapolation of current structures, the Best Case includes many new elements and normative visions.

I would like to conclude with some suggestions for a transition management for degrowth cities which would be the Best Case scenario.

Urban planning organizations and politics would need to develop strategies for revitalisa-

	Best Case 2034: "Design"	Worst Case 2034: "Disaster"
Mobility	Car-free, by foot and with bicycle, electric public transport, "highways" for bicycles, low share of electromobility	No fundamental change of the "car-oriented city", underdeveloped public transport
Demography	Strong social cohesion between generations, multigenerational houses and businesses	Worsening of age discrimination and deep- ening of the gap between generations
Food	Ecological, regional und seasonal food, 50 % from urban farming an urban agri- culture	No fundamental change of industrialisation of agriculture and global sourcing, but huge increases in share of income spend on food
Prosperity	New concepts of prosperity: less is more, "time prosperity", "space prosperity"	Prosperity is measured by GDP, but global shift of wealth from Europe to China.
Innovations	Cities introduced Real-world laboratories for experimentations, which were used to practice new forms of economic and political organization	Social isolation persists and suppresses adaption- mechanisms to the economic crisis and ecologic crisis
City	Compact, diverse, green	Deprived, vacant, grey

tion, redensification and refurbishment of cities and to open spaces for "real participation" (Winterfeld 2012). Nowadays, local municipalities, utilities, spatial planning organisations, and infrastructure providers rather support economic growth than a transition towards degrowh and resilience (Wächter 2013). However, these organizations are also potential agents of change. The benefits of urban agriculture, renewable energies on roofs and facades, roads for cycling, walking and recreation, utilisation of vacant buildings by bottom-up initiatives and transport systems based on cargo-bikes are not only of an ecological nature. These alternative strategies of organising urban infrastructures could help to reduce individual consumption and working hours, build up resilience within the city, and empower citizens as well.

To facilitate a transition by design, a share of the taxes on conventional commerce and construction could be used to fund urban transition management (Loorbach 2007). In some cities, it might be possible to incorporate the experience of transition town-activists (Hopkins 2011). Transitioners could also help to facilitate local participation, mediate conflicts and cultivate controversies.

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