Foundations for a common approach

WP 2 – Systematic Reflection and Theory Building

Deliverable 2.1 – Protocol/ Handbook on Common Approach

ACKNOWLEDGEMENT

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List of Abbreviations

SD   Sustainable Development

WP 2   Work Package 2 of InContext

WP 3   Work Package 3 of InContext

WP 4   Work Package 4 of InContext

I Executive Summary

The common approach developed here is meant to form an orienting framework, which allows the partners to make reference to and to make use of. Its focus is rather theoretical in contrast to the practical and empirical foci of the partners' works. Recalling the core thesis, research questions and objectives of the InContext project, the common approach looks into concepts and ideas how sustainable behaviour of individuals and groups gets fostered at a local level. Therefore it does include concrete, differentiated models on how we think sustainable behaviour comes about, including variables such as needs, strategies, values and capabilities.

In a first step we clarify our understanding of sustainable development using the Brundtland definition as a starting point. Human needs, capabilities and quality of life are seen as central pillars of a concept of sustainable development. We take them as a starting point when developing an individual behavioural model. By this we gain a direct link between the aim of sustainability and our understanding of behaviour.

A central assumption of InContext is that two strands of contexts can be distinguished shaping individual sustainable behaviour: the inner and the outer context. Here we discuss central aspects within each of the contexts, like e.g. needs, values, social norms and the economic and natural sphere. This discussion focuses on relevance for guiding behaviour on the one hand and for the sustainability relevance of behaviour on the other. The concept of capabilities is then used to bridge the inner and outer context.

A specific theory of individual behaviour, including inner and outer context in explaining behaviour, is at the basis of the common approach. It does differentiate key variables of the inner individual context and their relations.

The second model of the InContext common approach looks at possibilities to influence this individual behaviour towards sustainability through transition processes. Here we look at how interventions within the community arenas lead to change processes at individual and group level. These change processes might contribute to strengthening individual and collective sustainable behaviour.

A third step, the interplay between small groups (niches) and larger societal structures (landscapes), shall get developed in the future together with the ongoing conceptual framing of WP 3 and is only sketched in this document.

2 Introduction

2.1 Aim and function of the common approach

During the Kick-Off meeting, the participants used the metaphor that the common approach is like the soil the other parts of the project can grow upon. We would like to differentiate and downsize the aim and function of the common approach as it is developed here. It has been written by two authors from only one InContext partner, who also integrated parts of other InContext work. Nevertheless, it constitutes rather "foundations for a common approach" than a common approach in itself as the divergences of standpoints within the consortium have remained larger than expected during the first project months. In general it appears useful to differentiate the theoretical and analytical focus of WP2 from the empirical focus of WP3 and particularly from the action research within the community arenas of WP4. The common approach can form an orienting framework, which allows the partners to make reference to and use of. Therefore it does include concrete, differentiated models on how we think sustainable behaviour comes about, including variables such as needs, strategies, values and capabilities. This includes a transition model of the community arena processes and their effects on behaviour. We are aware that the current theory presented in the common approach includes models and variables that will hardly get applied practically or tested empirically. It is the aim of the common approach to maintain complexity at a medium level, meaning that further steps are required to make the models presented here applicable empirically. Differences between the models presented here and the practical necessities and possibilities necessarily remain. We hope that these differences create a fruitful tension between a theory-oriented common approach presented here and the guidelines for the action research in community arenas (deliverable 4.1) as well as the guidelines for case study analysis (deliverable 3.1), both letting understanding of complexity as well as explanation and theoretical models/concepts emerge from action research work.

In this way, the common approach also gives an overview of what are the basic assumptions, terms and concepts InContext is built upon[1]. The different concepts and methods developed for the use in the empirical WPs shall be reflected against the common approach throughout the project and taken up again in the final deliverable of this work package, the theoretical framework. The common approach incorporates large parts from the preceding and internal cornerstone paper and the paper titled "two ways to sustainable behaviour". To update both, the common approach includes the feedback which has been

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[1]   This overview does not necessarily reflect a consensus among all partners, but rather a basis for discussion.

given in Rotterdam and it relies on the work of the research question task force, and the methodological guidelines prepared by Drift (D 4.1). The guidelines for the case studies (D 3.1) and their further development will be included in the theoretical framework at the end of this work package.

2.2 Relation to the aim of the InContext project

The common approach aims at supporting the realisation of the InContext project objectives. It therefore aims at casting some light at the ideas and assumptions that are behind the central thesis of the overall project. It may as well contribute to guiding the research directed at answering the central and sub-research questions. Therefore we start with recalling the objectives, and continue with the core thesis and central research question of the InContext project. The research question task force describes the relation between these elements as follows: "In our understanding, 'objectives' are broadly defined goals which we would like to advance within the course of the project. The core thesis lays out our conceptual framework of how to pursue these goals. The central research question then sets down the specific aim of the project, the central theme that we set out to explore" (Ecologic 21.04.2011: Project Objectives, Core Thesis and Research Question).

Objectives

Facilitate pathways towards alternative and more sustainable[1] behaviors of individuals.

Foster collective activities towards more sustainable communities.

[1] The transition process is an open process, thus it aims at exploring alternative behaviors and reflecting to what extent they are sustainable, but as such, it does not commit to achieving a pre-defined level of sustainable behaviors.

Table 1: Objectives of InContext

Core thesis

Transition processes, which in addition to common practice utilize ways to reflect on and experiment with the *inner context*[2] of individuals at

(1) an individual level guide participants to:

a) become aware of their own and other people's needs, and how these are translated into strategies;

b) explore alternative strategies to fulfill their needs (while reflecting to what extent these strategies are sustainable);

c) create motivation for selecting alternative and more sustainable strategies, increasing their well-being.

(2) a collective level guide participants to:

a) develop a shared understanding of sustainability issues in communities, and drivers and barriers to change them.

b) develop visions of sustainable communities, including inner-collective and outer-collective contexts, and the interplay of both;[3]

c) construct pathways for achieving these visions.

Eventually, the transition process forms a group including frontrunners who facilitate the adoption and diffusion of niches of alternative and more sustainable innovative behaviors, which can contribute to long-term regime changes at the community level. Thereby, we assume that directive or moralistic attempts to advance the issue of sustainability might create resistance and impair the actors' ability to get connected to their needs.

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[2] The inner context of individuals constitutes of behavioural determinants internal to an individual that cannot be observed from the outside, such as: knowledge and beliefs, personal interests, emotions, values and priorities, as well as human needs.

[3] The inner context of collectives constitutes of behavioural determinants internal to individuals in a society which cannot be directly observed, such as moral codes, social roles, cultural rules of conduct, etc. The outer context of collectives constitutes of determinants external to individuals in a society which can be directly observed, such as natural, infrastructural, institutional or economic settings.

Table 2: Core thesis of InContext

"The objectives focus on two levels: the individual and the collective level. We agreed it is important to address both levels equally in the objectives and in the core thesis, since they are both integrative constitutes of the transition process and both are mentioned in the proposal with regard to the desired outcomes of our project." (ibid.). "The core thesis unfolds our hypothesis regarding the mechanisms of the transition process ('how it will work'), at both the individual level (building on the needs-strategies approach); and the collective level (building on the transition management approach)." (ibid.).

"The research question consists of two sections – what we would like to achieve and our core hypothesis regarding how to achieve it. The former is covered in the objectives and does not require further explanations (facilitate pathways towards… foster collective activities towards…). The latter lays out the main method we would like to explore within the transition process. After some long discussions, we agreed that this method should include experimentation with both the outer context and the inner context, and at the same time take their interplay into account, since all of these elements should be addressed within the transition process." (ibid.)

Central Research Question

How can transition processes that

(1) develop visions for and experiment with the outer context (= individually & collectively)

(2) utilise ways to reflect on human needs and experiment with the inner context (= individually & collectively), and

(3) take the interplay of both into account

be conducted in a way that they

(a) facilitate pathways towards alternative and more sustainable behaviour, and

(b) foster collectives activities towards more sustainable communities.

Table 3: Central Research Question of InContext

2.3 Structure of the common approach

With this common approach we wish to make explicit and discuss the body of thought that lies behind the core thesis. We thereby also wish to help orienting the research to be undertaken at those aspects of the central research question, which we assume to be of high relevance to achieve the InContext objectives. Here the common approach proposes an explanation how different variables are linked.

A term at the very heart of objectives, thesis and research question is the one of alternative and more sustainable behaviour of individuals. Collective action towards sustainable communities builds on it, but does not resume to individual behaviour carried out collectively. In our understanding the core thesis and research question include two different assumptions regarding sustainable behaviour. On the one hand, there is the implicit assumption that sustainable behaviour is constituted by meeting individual needs, which herewith raises well-being. This assumption is also normative in so far that it defines parts of the goal *sustainable* behaviour. On the other hand, thesis and research questions include assumptions on variables influencing *behaviour* in an alternative and more sustainable direction.

In the following, we **first** take a closer look at the normative goals of sustainability/ sustainable development and sustainable behaviour (section 3).

In a **second** step (section 4), we discuss ways to describe determinants of behaviour. Core aspects of the inner and outer context looked at include variables whose consideration allows explaining why people behave sustainably or not (section 4.1). As stated in the objectives etc., the behaviour is looked at: (I) on the individual level, (II) on the level of individuals in small groups (collective level, e.g. the community arena).

(I) A specific theory of individual behaviour, including inner and outer context in explaining behaviour, is at the basis of the common approach. It is focussed at behaviour relevant to sustainable development (section 4.2).

(II) The second model of the InContext common approach looks at possibilities to foster individual behaviour towards sustainability through transition processes. Here we look at how interventions within the community arenas lead to change processes at individual and group level. These change processes might contribute to strengthening individual and collective sustainable behaviour (section 4.3).

(III) The interplay between small groups (niches) and larger societal structures (landscapes), shall get developed in the future together with the ongoing conceptual framing of WP 3 and is only sketched in this document (section 4.4).

The perspective on sustainable behaviour developed in section 3 differs from the one developed in section 4: The behavioural model considers sustainability in an indirect way represented in the individual values, knowledge, or attitudes or as external influencing factors mediated by norms, markets, social control etc.

3 Sustainable development

3.1 Understanding Sustainable Development: needs, capabilities and the good life

> *"Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*
>
> *· the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and*
>
> *· the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs." (UN GA 1987)*

The explicit objective of InContext is to (a) facilitate pathways towards alternative and more sustainable behaviour, and (b) foster collective activities towards more sustainable communities. If we want to judge whether InContext is successfully meeting these goals, we have to define what 'sustainable' means within the project. The most common definition of sustainable development is the one from the Brundtland Commission stated above. Central terms in the Brundtland definition of SD are 'needs' and 'limitations' (UN GA 1987). In connection to the fulfilment of needs, the idea of a decent quality of life has been seen as a central goal of sustainable development as understood by the UN (cp. Di Gulio 2001, Di Gulio et al. 2010). At the same time, many contemporaneous scholars interpret the Brundtland definition as a claim of intra- and intergenerational justice (Kopfmüller et al. 2001, Ott & Döhring 2008, Renn et al. 2007).

These concepts of needs and quality of life with considerations of justice can be linked through the capability approach. Capability as the freedom to live a life one values or has reason to value has become prominent in the discussion on human development, i.e. in the discussion on global intragenerational justice. Understanding such freedom as the basic quality of life, the capability approach offers a structure to better understand what individuals need in order to have this freedom. This includes resources, i.a. environmental assets, but also social institutions, individual skills etc. to convert these resources into capabilities

(Leßmann 2011). Herewith the capability approach is a means to structurally define the idea of a good life in a culturally and historically independent way (cp. Di Gulio et al. 2010) and to use this structure to specify a good life non-paternalistically in concrete situations. Justice can then be measured by capabilities and neither by subjective metrics, such as pleasure or preference, nor by objective metrics, such as income or access to other resources.

Two issues of the capability approach are important in our context: (1) It explicitly includes goals for actions that aim at the others' well-being, and not only one's own, and therefore has a wide concept of human agency and (2) it links needs, opportunities, and well-being.

* Ad (1): Sustainable behaviour can be motivated by a wish to increase one's own standard of living, (including the standard of living of beloved people due to one's own sympathy towards them – Sen (1987) calls this standard of living extended by sympathy: well-being). This is especially the case when the outer context has been arranged carefully (examples in individual mobility would be good cycle lanes, high taxes on petrol or kerosene, subsidies of public transport). Sustainable behaviour can also be motivated by the wish to care for sometimes even very distant people and this might particularly apply for frontrunners in sustainable transition processes (the Brundtland Commission focused on the needs of unborn and the world's poor, i.e. individuals the furthest away from a current European perspective). Sen (1987), in a more abstract way, distinguishes between self-regarding goals toward one's own well-being and other-regarding goals towards the well-being of others and calls the latter agency. This wish to care for unknown people can come from different motivations. One major expression of this wish is the commitment to principles of justice. It is important to acknowledge the intrinsic motivation for SD – and the capability approach gives a place for that. This also means that one can acknowledge that a win-win situation increasing both, the own standard of living and the needs fulfilment of unborn or the world's poor, is only rarely possible[2].

* Ad (2): Needs, if understood in an abstract and categorical way (see section 4.1.3), can be seen as a fundamental structure of the multidimensional set of capabilities, and herewith deliver a direct terminological link to the Brundtland definition of SD (Rauschmayer et al. 2011). To realise capabilities, one requires personal abilities, such as skills, knowledge, motivations; if successful, this realisation (involving the fulfilment of needs) is gratifying and induces well-being and increases quality of life. At the same time, the capability approach directly considers goods and resources as

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[2]   Not acknowledging the importance of the inner motivation to care for other people's well-being, but focusing only on how to create such win-win-situations might lead to a crowding out of this initial intrinsic motivation (cp. Frey 1992).

well as social, institutional, or environmental structures (elements of the outer context) that are relevant for meeting needs and herewith increasing quality of life.[3]

Meeting needs today and in the future in order to realize a decent quality of life, i.e. realizing well-being and agency goals alike, requires a material and social basis. If today people want to include the needs of future or distant people in their decision considerations, then they will have to consider the impacts of their behaviour on the material and social basis of other people's life. In the scientific and political discourse on sustainable development there is disagreement on how to concretize what forms of capital should be kept or built up to which extent for enabling the fulfilment of needs and realizing quality of life. A basic differentiation is the one between one-dimensional and multidimensional concepts of sustainability (Kopfmüller et al. 2001: 48). While one-dimensional concepts put special emphasis on the natural environment, multidimensional ones stress the role of social, economic, cultural and/or political-institutional in addition to the natural dimensions for the fulfilment of human needs. In our project, we clearly have a multidimensional understanding of SD including the social basis for needs fulfilment in sustainability considerations.

In the following section, we will put key terms of sustainable development in relation to the individual behaviour, i.e. clarify what behaviour can be called sustainable and how this can be evaluated.

3.2 Individual sustainable behaviour and its evaluation

InContext aims at strengthening individual sustainable behaviour. But what is the interrelation of individual behaviour and the concept of sustainable development sketched above? To put it in simple terms, individual behaviour does have an impact on sustainability aspects such as the ecological or social basis needed by poor or future individuals to meet their needs. By requiring natural, social, and man-made capital in order to meet needs and realize a good life, current individual behaviour is interrelated with the behaviour of other individuals today and impacts on the possibilities even of very distant people to meet their needs. These impacts usually cannot be directly experienced, but have to be mediated at least through information transporting knowledge and allowing for sympathy through identification. We assume that humans care for the well-being of others; but we also acknowledge that caring for close persons usually is easier than for very distant ones, such as people of future generations to be born in a different culture. It has been shown that there are methods that contribute to a durable change in human behaviour, e.g. by learning new skills or by

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[3]   See more on the use of the concept of capabilities in section 4.1.6.

changing the social environment (e.g. Pick and Sirkin 2010). Though it is far from clear which methods induce a *sustainable* change in the sense of sustainable development.

Pick and Sirkin (2010), for example, analyse poverty-alleviating empowerment mechanisms that are employed in groups, and find a feedback loop between new skills, changed behaviour, different personality and self-efficacy. Such intrinsic empowerment enables the individual to differently perceive and make use of the outer context and herewith enhance their capability set. While this feedback loop might contribute to make such changes more durable, it does not tell much about the sustainability in the sense of the Brundtland definition of SD. This means that – in order to discriminate between alternative unsustainable behaviour and alternative sustainable behaviour - one needs one or several sustainability criteria on the process and/or outcome of such processes (cp. Rauschmayer et al. 2009 on process or outcome evaluation).

With regard to *outcome evaluation*, i.e. the evaluation of a changed behaviour in order to judge on its sustainability, we can distinguish between different concepts: The ideal sustainability criterion following the Brundtland definition would be the impact of behaviour on the needs fulfilment of present people and on the ability to meet needs of future generations. As it is impossible to gain this knowledge, current criteria focus on the impact of behaviour on those capital stocks or partial systems which are basic conditions for future basic capabilities[4]. There is no overall accepted set of criteria for sustainability assessments (cp. Singh 2009, Rotmans 2006) and their use depends on the specific situation to be assessed.

Common sets of criteria relate to the three dimensions of ecological, economic and social sustainability, i.e. to the outer collective perspective. Such multidimensional concepts are critically debated (e.g. Ott 2009), and they require additional thresholds and contextualisations on weights, on criteria definitions, on specifications of measurement of these criteria etc. in order to inhibit an arbitrary use of the concept of sustainability. Other concepts focus on the change in natural capital when judging on sustainability; mainly, the concept of critical natural capital and the possibility of its substitution by man-made capital are burning issues here (cp. Ott 2008, Neumayer 2010). Other abstractions are (a) the assessment of the real behaviour by using self-assessments of behaviour or even behavioural intentions and (b) the use of standardized indicators for standard changes in behaviour, such as reduction in energy use, increase in organically produced food, use of public instead of private motorized transport etc.

With regard to *process evaluation*: An alternative approach, e.g. taken by the Agenda 21, is to trust the intrinsic motivation of humans to care for their fellow people, even when unknown

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[4]   Current discussions on sustainability rather focus on inter- than on intragenerational justice.

and distant to them, and to assess the procedural settings in how far they allow for the expression of individual motivation, the (joint or individual) elaboration of behavioural changes, and their implementation. The importance of procedural aspects of sustainable development reflects the importance of intrinsic motivation, mentioned above, which translates into the belief that commanded behavioural changes cannot be durable and can therefore not meet the substantial aim of sustainable development.

For our project, both, outcome- and process-oriented criteria seem to be important. The conduct of the pilot projects gives much importance to process-oriented criteria, such as participation, legitimacy, social dynamics etc. It will be a major tasks of the synthesising WP 5 to elaborate appropriate outcome-oriented criteria. Even though the concrete elaboration of the criteria and their respective importance depends on the local specificities, a formal evaluation of both aspects seems to be necessary, independently of the criteria selected. Another pragmatic combination of both groups of criteria would be to let the participants decide on "their" set of criteria – this cannot replace, though, an outside evaluation with some discriminatory power.

The methodological guidelines 4.1 and 3.1 have only foreseen participatory evaluation that establishes its own list of criteria. The methodological guidelines for WP 4 propose outcome monitoring on the inner individual context, the group inner and outer context as well as on the wider collective outer context (Wittmayer et al. 2011: 57p.). Asking questions that only refer to individual aims without giving the frame of SD risks to result in a benchmarking with no clear link to the normative aim of SD. Here, the further process of operationalization (ibid. 56) should link the indicators to substantial factors recognized as contributing to SD and complement a participatory evaluation to an evaluation from the outside (cp. Blackstock et al., forthcoming).

One could, e.g., use the set of European Common Indicators towards a local sustainability profile, as developed by the ECI research project (Tarzia 2003). Based on "6 Sustainability concerns" (ibid. 12), namely equality and social inclusion, local governance/empowerment/democracy, local/global relationship, local economy, environmental protection, and cultural heritage/quality of the built environment, the project built a set of indicators:

- Citizen satisfaction with the local community
- Local contribution to global climatic change
- Local mobility and passenger transportation
- Availability of local public open areas and services
- Quality of local ambient air
- Children's journeys' to and from school

- Sustainable management of the local authority and local business
- Noise pollution
- Sustainable land use
- Products promoting sustainability

Even though one can certainly critically discuss the relationship of each of these criteria (and of their operationalization) with the goal of SD, it nevertheless appears to be a well-thought starting point, focalized at the local level. Another option which is perhaps easier to implement is to link the behavioural intentions of the participants to very few standard indicators such as the (expected) CO_2 reduction, as suggested by SERI in their response to the Cornerstones paper. SERI also suggests to measure the change of social capital (here SERI can provide means to measure it). A relative change (reduction/increase) will show whether the new behaviour is more or less sustainable.

The next section deals with models of individual behaviour at an individual level and its interaction within a group setting – and it only marginally, but repeatedly takes up the normative question of sustainability.

4 Two models for InContext

By now we have clarified some normative assumptions to be able to differentiate sustainable from unsustainable behaviour. In the following we look at aspects which are influencing individuals in their decisions on which behaviour to carry out, in particular with regard to the question of sustainability of their behaviour.

We will first identify core aspects of individual behaviour (section 4.1), then elaborate their interplay in two steps: an individual-centred model (section 4.2), the interaction of individuals and groups (section 4.3). In a third step we will sketch the interaction of the community arena with its outer context (section 4.4).

4.1 Core aspects looked at in the inner and outer context

This subsection recalls the different inner and outer context aspects assumed to influence individual behaviour (the following subsections are adapted from the cornerstones paper). Within the InContext-description of work (DOW), some basic assumptions of inner and outer context variables and how they interplay in leading (sustainable) behaviour are made. "InContext distinguishes two strands of contexts determining the opportunities (drivers) and constraints (barriers) shaping individual behaviours related to sustainable development" (DOW part B: 2): the inner and outer context. As a background, this section starts with the

model of the four perspectives, as developed by Wilber (1995), will then explain the individual inner context of behaviour, its outer context, and closes with a draft of how the capability approach might link the different contexts. In the course of the explanation the original definition of the inner and outer context from the DOW (Table 4) will change slightly. Nevertheless is serves as a good starting point for the explanation.

> • the **outer context** to individual behaviour: politics, policies, infrastructure, social institutions, culture, habits, lifestyles (societal or structural factors).
>
> • the **inner context** to individual behaviour: knowledge, personal interests, values, priorities and basic needs as the motivational factors for any behaviour (individual or agent-based factors).

Table 4: Outer and inner context to individual behaviour (DOW part B, p. 2)

4.1.1   The idea of the four perspectives

The perspectival categorization used within this description of the common approach is based on ideas of E.F. Schumacher (1977), which have been further developed by Ken Wilber (1995) as part of his Integral Theory. Integral Theory can be understood as a meta-framework of (holistic) understanding. It differentiates four basic perspectives on any phenomenon which are made up by the combination of individual and collective as well as on inner and outer[5] aspects of this phenomenon (Wilber 2001a: 187). If we take the phenomenon `human behaviour´ as an example, the individual-inner perspective is looking at individual experience (Upper Left quadrant - UL), the individual-outer looking at the bodily expression of behaviour (UR), the collective-inner at the culture (LL) and the collective-outer perspective at the systems (LR) behaviour is embedded in (compare Table 5). In general, the four perspectives can be seen as a pragmatic way to structure the multiple different aspects of phenomena such as humans, society and the environment (Brown 2005: 9). In Wilber's understanding, truth claims developed in each of these perspectives follow different rules of validity (Wilber 2004: 144). Therefore they are mutually irreducible: the phenomenon ´human behaviour´, as shown in Table 5 e.g. has a bodily expression (like putting food in one´s mouth, driving a car), the person behaving experiences it in an individual way, how it is done

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[5]   In Wilber´s writings the terms ´subjective´ and ´objective´ and ´inner´ and ´outer´ are used as mutually exchangeable, since the outer side of a phenomenon (like the physis of a human being) can be described in objective terms, while the inner side (e.g. the thinking and feeling of a person) remains subjective. We use ´inner´ and ´outer´ as they are intuitively understandable.

is influenced by culture and the surrounding social or economic systems; none of these expressions of 'human behaviour' can be reduced to any other. Observations in one perspective are interdependent with those in other perspectives: Individual (bodily) behaviour, e.g., induces a specific experience and contributes to maintaining and changing culture and economic or social systems. Setting any of these observations as the independent variable may be analytically helpful in a specific setting, but a holistic understanding of any phenomenon requires the combination of all four perspectives on it. In our work, the categorisation of perspectives helps to detect blind spots as well as core achievements of a contribution, e.g. when looking at the links between local SD initiatives and individuals. Perspectival structuring in turn may form a starting point for discussion and integration of aspects.

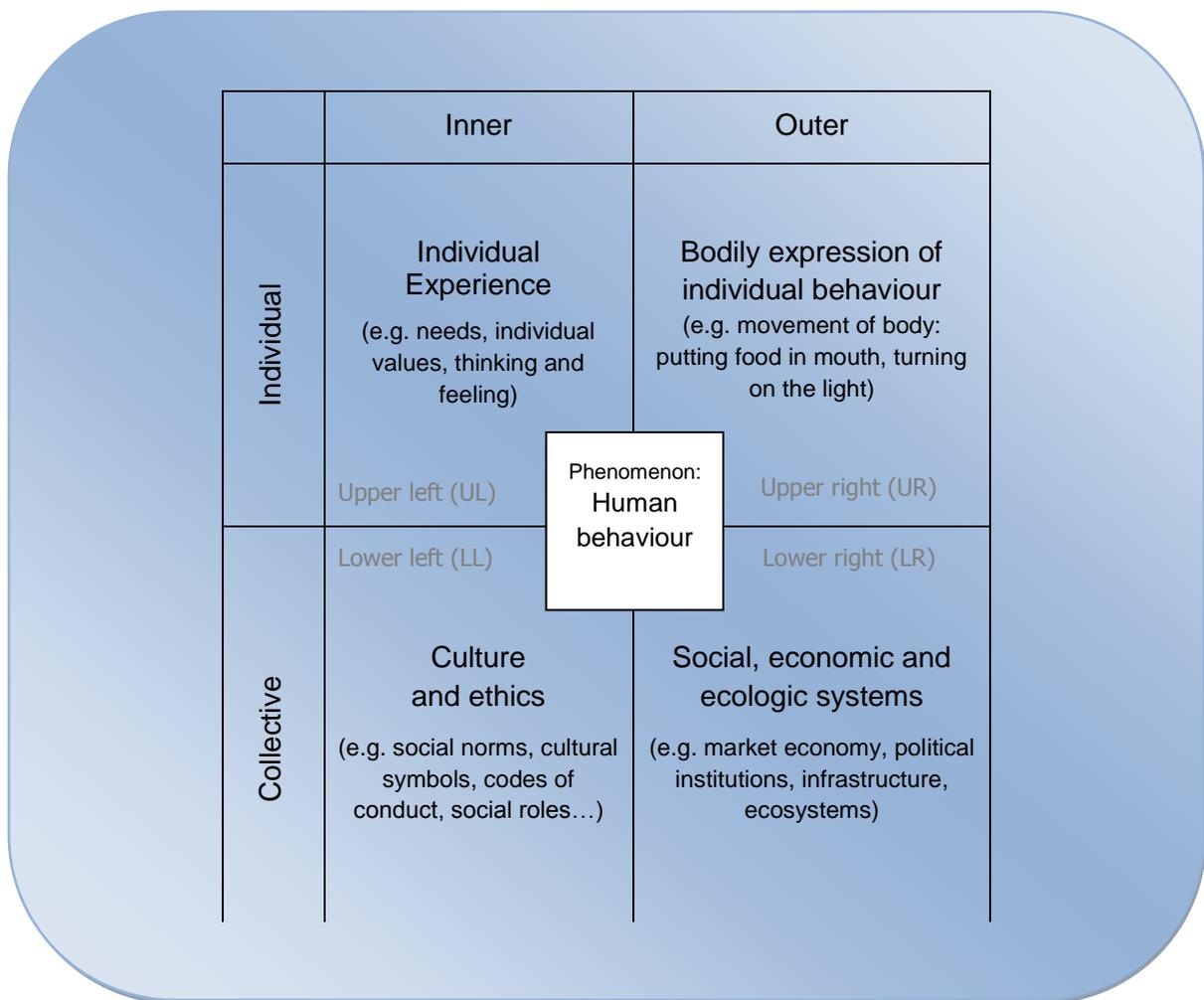|	Inner	Outer
Individual	Individual Experience (e.g. needs, individual values, thinking and feeling) Upper left (UL)	Bodily expression of individual behaviour (e.g. movement of body: putting food in mouth, turning on the light) Upper right (UR)
Collective	Lower left (LL) Culture and ethics (e.g. social norms, cultural symbols, codes of conduct, social roles…)	Lower right (LR) Social, economic and ecologic systems (e.g. market economy, political institutions, infrastructure, ecosystems)

Phenomenon: Human behaviour

Table 5: Four perspectives structure (cp. Schumacher 1977, Wilber 1995, strongly modified)

4.1.2 Using four perspectives within the common approach

In the following we differentiate the four perspectives to structure our analysis (compare Table 5):

(1) individual behaviour in its empirically observable dimension (for reasons of understanding we will call this in short: behaviour), which is the outer individual perspective, and deals with actions such as turning on the light, driving a car, eating[6] (UR),

(2) individual experience, which is the inner individual perspective and deals with needs, feelings and values (UL, section 4.1.3),

(3) cultural and ethical aspects, which is the inner collective perspective and deals with social institutions, culture, habits, and lifestyles (LL, section 4.1.5).

(4) social and systemic aspects, which are the outer collective perspective and refers to systemic variables such as politics, policies, infrastructure, and organisations (LR, section **Error! Reference source not found.**).

This differentiation, in line with Table 5, further differentiates the terms used in the InContext DOW:

- What has been called the *inner context* of individual behaviour now refers to the individual inner perspective (UL) and shall be called individual inner context.

- What has been called the *outer context* and referred to the cultural as well as the systemic perspectives from now on shall be called collective outer context and refer to the systemic perspectives only.

- The cultural perspective is part of the newly established collective inner perspective called inner collective context**.**

Changing the stated categorization from the DOW above, culture now is part of the inner context. In this way we include individual and collective as well as inner and outer aspects. Of course, there are far more elements than we can reasonably describe in this document. As their importance depends on the specific contexts, we remain rather generic here. In the final subsection 4.1.6 we sketch how the concept of capabilities can be used to link the three contexts with individual behaviour in its bodily expression, bringing together views from four complementary perspectives on the phenomenon of human behaviour.

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[6]   At the very basis these consist of physical, biological or chemical aspects of body, body parts, brain, organs etc. involved in behaviour. Due to the magnitude of possible different behaviours, we will not try to go into detail here.

4.1.3 The individual inner context – the experience perspective

In the following we take up the variables introduced in the DOW, part B, Table 1: needs, values and priorities, thinking and feeling.

Needs

In the following, we define needs as the most fundamental dimensions of human flourishing. With these we mean needs on an abstract level such as the ones used by Manfred Max-Neef (1991) in the tradition of humanistic psychology: subsistence, protection, affection, understanding, participation, idleness, creation, identity, freedom, and transcendence (cp. Alkire 2002 for a comparison of different lists of dimensions of human development). Needs in this sense are abstract and not tangible, and their (non-)realisation can be experienced individually.

Needs are such reasons for action that require no further explanation or justification (Grisez et al. 1987: 103), and a heightened awareness of needs being met is accompanied by pleasant emotions (and a decrease in unpleasant emotions) (Rauschmayer et al. 2011: 5, Costanza et al. 2007). Needs are understood as basic motivational factors shared by humans (DOW part B, p.4). To fulfil needs can be understood as the most basic reason for behaving in a certain way: humans act to meet needs. The relation between the action and the needs is not necessarily conscious or overt, but it necessarily is mediated by world-views and other beliefs. A need may be met by different behavioural strategies – and the relation between strategies and needs may not be straightforward (Max-Neef et al. 1991). Dependent on a number of factors from the individual inner context (such as values, preferences, personal history) as well as from the collective outer context (such as goods and services available, social and legal norms etc.) individuals decide to pick one strategy and not another.

Values and priorities

Values can be understood as the importance that people give to a specific need or strategy (or set thereof) (Rauschmayer et al. 2011). People attach value, e.g., to a specific market good as well as to the idea of family or to freedom in general. But there are very different definitions of 'value', some of which focus more on the social and cultural construction of values, others on the role of values for decision-making, still others on the individual adoption and/or construction of values. Values are interdependent with the world view of a person. Sustainable development itself may be understood as a specific value, as it attaches high importance to the needs fulfilment of contemporary deprived people and to the enhancing the capability set of future generations (Rauschmayer et al. 2011). Priorities are relations, in the sense that I give priority (or attach higher value) to one option than to another.

Thinking and feeling

These terms from the project description (DOW, part B) are the ones least considered in the writings on the InContext project so far. The narrative assumes them to be the aspects of the individual inner context which are more easily influenced than "deeper layers" such as needs or values. Generally, thinking, interpreted as (rational) cognition, seems to be a phenomenon very different from feeling, which traditionally is often considered to be irrational (see Elster 1999). In many behavioural models, thinking (cognition) plays a central role for the decision on how to behave. At least in models of rational behaviour, cognition appears as the central processing unit, taking external information into account, as well as personal goals, interest, preferences etc. deciding on what to do. Empirically, automatized behaviour such as habits, i.e. behaviour without having activated deeper cognitive processes, constitutes the major part of behaviour and is not easily changeable. Generally, the evaluation of factual or potential behaviour is accompanied by emotions and emotions hinder or foster certain behaviour. Therefore, the role of feelings as part of the inner context needs to be looked at in more detail, also in connection to the aspects of human flourishing, well-being and happiness.

Referring what we outlined here back to section 3: Looking at the inner context, sustainable behaviour, considered in the terms of the individual inner perspective, means to give (relative) priority to the possibility of future or currently poor people to meet their needs. Consciously behaving sustainably requires cognitive capturing of one's behaviours and the impacts thereof on the possibilities of these poor or future people, which is a challenging, even over-challenging task. To consistently give this priority to sustainable behaviour requires emotional links to such behaviour, e.g. by an identification with these people, which is challenging due to the cultural, temporal and/or spatial distance between oneself and the people to be considered. It is tempting to design the collective outer context in a way that behaviour can be sustainable without this huge emotional and cognitive work, i.e. to design the social and economic systems in a way that sustainable behaviour can be experienced in gains in standard of living. It is open whether such a design is feasible and sufficient. If one wants to do justice to the normative claim of SD, then tackling the emotional difficulty of its main motivation remains a main challenge of SD.

4.1.4 The collective inner context – the cultural perspective[7]

Socio-cultural sphere

In parallel to the *individual* inner perspective, we also use the *collective* inner perspective: this is constituted by those behavioural determinants which are internalized by individuals,

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[7] This subsection is far less developed than necessary, due to its late inclusion into the research question.

which relate to their social life, and which cannot be directly observed, such as moral codes, social roles, cultural rules of conduct, etc. (Ecologic 2011). Here we address them jointly under the term socio-cultural sphere. This sphere includes a large number of aspects, such as social institutions and social norms but also cultural aspects, practices, and lifestyles (DOW, part B, p. 2), which are all interrelated.

Social institutions have been defined by Jonathan Turner (Turner 1997: 6) as "a complex of positions, roles, norms and values lodged in particular types of social structures and organising relatively stable patterns of human activity with respect to fundamental problems in producing life-sustaining resources, in reproducing individuals, and in sustaining viable societal structures within a given environment." This definition overlaps with our splitting of collective inner and outer context, as the collective inner context refers to those elements that cannot be observed directly from the outside.

Social norms as a (intangible) subgroup of social institutions are standardized ideas on how to behave in contact with others, based on mutual expectations. This may also lead to routinized behaviour or *practices*, shared among (certain groups of) the population. Following these norms may be rewarded by social acceptance, allowing an individual to become part of a group. Breaking social norms may be sanctioned by exclusion from the group. This also leads to strongly negative feelings (of guilt, shame etc.) within the individual (Elster 2008).

By *cultural aspects* we understand e.g. shared symbols, language, rituals, traditions, understandings and meanings. They are the basis for understanding one another within a certain group and they are very relevant for the values that people hold.

Lifestyles are shared ways of living, chosen by a large number of individuals. They are composed of a number of habitual and non-habitual behaviours, as well as of certain values connected to these behaviours and certain artefacts needed to undertake them. Living a certain lifestyle also is connected to a certain style of consumption and therewith carries with it a certain usage of (natural) resources. As Jackson is pointing out, the artefacts used carry symbolic meaning (Jackson 2005: 380p.). Lifestyles may be interpreted as connected to the personal identity of individuals as well as to the formation of groups of individuals. Lifestyles have an observable, objective expression e.g. regarding consumption, but the meaning of lifestyles depends on the intersubjective expression and communication of values and identities between individuals. That is why we include them to the collective inner perspective.

In sum, sustainable behaviour in terms of the collective inner context means to adopt a way of living that corresponds to one or the other social norm of 'sustainable lifestyles' (no single norm has been established so far, and dynamics, plurality, and ignorance are major reasons

why this necessarily remains so, cp. Leach et al. 2010) The selection, implementation, and spreading of such lifestyles can be facilitated or impeded by social institutions.

4.1.5 The collective outer context – the systemic perspective

The collective outer context is constituted by elements determining individual behaviour which are external to individuals, relate to a collective level and can be observed directly, such as economic, social, political-institutional, and natural settings (Ecologic 2011). There are numerous different and very detailed analyses of the collective outer context of individual behaviour, as this is the main area of research of social sciences. Here, we will only very briefly discuss some of the issues that are relevant to sustainable behaviour The specificity of InContext's empirical research requires analysing the specific outer context in each case study or pilot project.

Economic sphere

The economic sphere looks at the organisation of scarce resources in order to meet needs. It is, of course, interrelated with the other spheres. In market economies, the needs orientation is replaced by an orientation along preferences organised in markets. Market and non-market relations, aiming at the supply of goods and services to individuals, are obvious parts of the economic sphere and an important factor for shaping human behaviour. In the economic sphere, consumption and production behaviour is of interest, and herewith all structural variables influencing it, such as prices and their relations, property rights, production techniques, income availabilities, economic development.

Some keywords of debates linking the economic sphere and sustainable development are: economic growth versus ecological sustainability, prosperity without growth, supply follows demand or vice versa, degrowth and steady state economics (e.g. Daly 1992, Jackson 2009, Ott & Döhring 2008). In the economic sphere dealing with sustainability, individual behaviour becomes translated into concepts of the sustainable consumer, sustainable lifestyles as well as citizen consumers (e.g. Spaargaren, Oosterveer 2010) – on the production side, one finds concepts like corporate social responsibility, triple bottom line and the like. Typically there are a number of assumptions when modelling the link between markets and the behaviour of individuals in markets. Sustainable consumption in form of finding synergic and resource-efficient satisfiers to a number of human needs (Max Neef 1991, Guillèn-Royo 2010) may be seen as one answer to the idea of the double dividend, i.e. that a decrease of resource use may be coupled with increase in well-being.

Social sphere

When talking of the social sphere in the perspective of an collective outer context of individual behaviour, one does rather refer to social structures than to norms. This means i.e.

one does refer to those elements of social institutions that are recognizable from the outside (see the explanation of social institutions above). Examples for such are the organisations around unemployment (allocations, administration, incentives etc.) rather than the social norm that 'it is good to accept any paid work'.

One main aim of social sustainability is to secure social cohesion, e.g. by a greater equality in income or education capabilities, more possibilities for meaningful paid work, increased recognition of reproduction work, etc. The link of these aims with regard to intra- and intergenerational justice as intended by the Brundtland Commission is far from evident, at least for wealthy countries: it is not clear how making wealthy societies more just contributes to the possibility of future generations or of the world's poor to meet their needs. We suggest four main argumentation lines for establishing this link: (1) An extension of the term 'world's poor' to the poor in the respective society; (2) The idea that the grand challenge of sustainable development can be better confronted by a more just, or more resilient society; (3) As future generations also depend on social systems, it is a necessary task to improve these social systems in order to create better conditions for future people to meet their needs; (4) People who feel safe due to a good safety net of societal structures are more willing to consider the needs of distant people in their behavioural decisions.

Political-institutional sphere

Political institutions legitimize the operation of political organisations as well as politics in general are carried out through legal norms and other institutions. Political institutions are a main possibility to steer social transformation in the direction of sustainable development (Kopfmüller et al. 2001). One visible part of such political institutions (apart from organisations, of course) is formed of political sustainability instruments (as part of policies and politics) that guide human behaviour with regard to sustainability. They reach from "hard" to "soft" instruments, namely prohibition and sanctioning (coercion) on the one side, over economic incentives to awareness building measures (such as campaigns) (Vatn 2005: 60 ff.; Fritz, Wein, Ewers 2007). In the economic sphere, the influence of political instruments on individual behaviour may be understood in terms such as (transaction-) cost, influencing the rational cost-benefit calculation of behaviour options (compare New Institutional Economics; e.g. North 1990). As deduced from the last example, the political-institutional sphere is looked at in two ways in sustainability discourses: (1) As with regard to the social sphere, its stability is seen by many as a distinct aim of sustainable development; here, the same concerns and arguments apply as for the social sphere. (2) It is seen as instrumental to other aims of Sustainable Developments, such as re-enforcing social cohesion, increasing resource efficiency, propagating sufficiency etc.

Technical-infrastructural sphere

This aspect may be understood in terms of the direct technical infrastructure available to individuals and collectives when deciding on what to do (and therewith how to behave). Here the technical development has led to a very strong increase in the options which individuals can chose from, and also multiplied the possible effects of human action to other humans and the environment. The available technology and infrastructure is one key factor deciding which basic options may be chosen and at which costs (financial, time, physical effort etc.). At the same time the organisation of the technological and infrastructural sphere at larger scales, in connection with modes of production and consumption, is a key factor in achieving sustainable development. Raising efficiency has been considered one core strategy towards a more sustainable way of living (e.g. von Weizsäcker et al. 2010), even though the existence of rebound effects etc. has attracted more criticisms to this strategy.

Natural sphere

As mentioned above, humans make use of and depend upon nature, e.g. in form of a variety of ecosystem services that only to some extent are distributed trough markets. Many services, like e.g. regulating or cultural services, such as flood retention or recreation in parks, are public goods, and therefore accessed directly and without monetary exchanges. But these services are other aspects of the outer context influencing human behaviour (see TEEB 2010). These aspects influence the usage of nature by humans, but come from economic or technological spheres. They become especially important when trying to connect individual behaviour to the concept of sustainability, as human behaviour may be seen directly interrelated to the environment, trough various feedback loops (Scholz forthcoming). These may reach from excessive local usage of forests, leading to degradation of soils and in turn lower harvest of trees, to global phenomena such as climate change, affecting human life in a large variety of aspects. As done by Vatn, the term environment therewith does not only stand for the biosphere, ´the involved species and the relevant ecosystems, but also the interlinked bio-geochemical processes that keep this system functioning´ (Vatn 2005: 231).

Contrary to the other four spheres mentioned so far, the link of using natural resources, degrading the environment etc. and sustainable development as inter- and increasingly intragenerational justice is – on a general level – easy to make. Due to the fundamental constitution of humans, it is clear that human existence, but also the other 4 spheres depend on the existence of functioning ecosystems. Often, it is impossible or very costly to restore or replace the ecosystem functions once they have been damaged.

4.1.6 Capabilities as a possibility to link the different contexts

Here, we first introduce the concept of capabilities, as introduced by Amartya Sen and Martha Nussbaum, before we link their terminology to our concept. Sen and Nussbaum developed different versions of what is called the capability approach (cp. Sen 1985, Nussbaum 2000). A person's well-being can be defined "in terms of the beings and doings (the *functionings*) a person achieves and her *capability* to choose among different combinations of such functionings" (Lessmann 2011: 43), that the person has reason to value. An example of personal mobility could illustrate this concept: Cycling to work could be a functioning that someone values, but being obliged to cycle or not being able to cycle are both reductions of her capability – for the person it is not only important to cycle, but also to be free to cycle or not. Sen and Nussbaum agree that the evaluative space is multidimensional – while Sen does not define these dimensions (he argues that this needs to be done in context-specific democratic deliberations), Nussbaum has – in a preliminary consensual process - defined a list of ten fundamental capabilities which she thinks to be essential for any good human life[8]. Nevertheless, Nussbaum's basic capabilities can be compared, e.g., to the list of needs that Max-Neef uses (Alkire 2002).

The concept of capabilities describes the space which is available for a person to consciously meet his or her needs. Capabilities are co-determined by the outer context and depend on the specific personal ability to be aware and to make use of these outer context aspects. This ability is composed of a variety of personal conversion factors, such as skills, knowledge, psychological barriers, motivations, or, more generally, personality.

Within the InContext framework, the achieved *doings* (a part of the *functionings*) correspond therefore to our term *behaviour*, specific groupings of *functionings* represent lifestyles, and the set of available *strategies* corresponds to the *capability-set*. For us, all *functionings* can be understood as ways to realize the different *needs* as defined by Max-Neef. The *capability-set* is dependent on the goods and services coming from the collective outer context (e.g. consumption goods or ecosystem services) and on the individual ability to convert these resources into capabilities. These *conversion factors* are determined by personal heterogeneity (physical, mental, or psychological as elements of the *individual inner context*), but also on culture or other social norms (the *collective inner context*) or on laws, climate, techniques or other elements of the *collective outer context*. What the capability approach adds, though, is its basic focus on the freedom each individual should have in choosing her functionings, but also in choosing her commitments. With respect to sustainable

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[8]   According to Nussbaum (1993), the ten central capabilities refer to: life, bodily health, bodily integrity, senses, imagination and thought, emotions, practical reason, affiliation, other species, play and control over one's environment

development, this gives explicit room for commitments for sustainable development, but also argues for as little restrictions as possible in the different constituents of the capability-set, e.g. the economic sphere.

In this sense and in the language of the capability approach, participatory processes, such as the community arena intended in WP 4, can be understood (a) as participatory fora to determine lists of concrete doings and beings (functionings) that should be achieved, as (b) fora to discuss, elaborate, and mutually strengthen individual and joint commitments, or (c) as policy tools enhancing the individual capability-set, through the means of developing the individual inner context, the collective inner context (of the participants' group), and, finally, the collective outer context.

Finally, it has to be acknowledged that the capability approach – as most of the psychological approaches to understand actions – restrict their analysis to consciously chosen actions. Practice theory, when looking at behaviour, does not put the individual with her consciousness in the focus of analysis, but rather looks at the interaction of behaviour, material, and culture at a collective level (Shove 2010). Practice theory can therefore be considered a concept that bridges similar individual outer contexts and collective inner and outer contexts in order to understand individual behaviour. It does not explicitly consider individual experience, but moves the attention from, e.g., conscious individualized consumption of goods and services to social practices as central aspects when trying to understand consumption patterns: people don´t think about what to consume, but they think about socialized practices they want to carry out (like e.g. playing tennis, preparing lunch, going to university). These practices involve, quasi as a side effect, the consumption of goods and services (e.g. Røpke 2009, Spaargaren & Oosterveer 2010). It is clear that, when taking the lens of the practice theory, changing behaviour involves the inner collective context to a larger extent than when taking the capability lens, which interprets behaviour as an expression of individual and rational decisions. Combining these tow lenses has not been done to our knowledge – we rather observe a fundamental opposition between a rather structural and the individualistic approach. In the remainder of this paper, we further analyse the use of an individualistic approach, and – with the capability approach – chose a multidimensional approach that it open to a combination with psychological theories.

4.2 Contexts of individual behaviour: A detailed feed-back model on central aspects and their interplay

To gain an integrative theoretical framing of inner and outer contexts influencing sustainable behaviour, we made first attempts to combine multidimensional psychological models of behaviour, particularly the Needs-Opportunities-Abilities model (Vlek 2000, Gatersleben and Vlek 1998) and work from poverty reduction (Pick and Sirkin 2010). Pick and Sirkin

elaborated a combination of the concept of capabilities (Nussbaum 1990, 2000; Sen 1985) and the theory of planned behaviour from psychology[9] (e.g. Ajzen 1991). Complementarily, the Needs-Opportunities-Abilities model is expanding the theory of planned behaviour to a multi-dimensional theory of behaviour and allows including the concept of central human needs (Max-Neef 1991). This model only looks at intentional behaviour. As most behaviour is non-intentional, i.e. unconscious or routinized, we have to complement it with additional theories which model non-intentional behaviours, if we truly want to understand and foster change of human behaviour. This would be beyond the scope of this paper, though. A first attempt to show how the different variables constructed relate to each other can be seen in Figure 1.

Figure 1: Aspects influencing individual behaviour – a feed-back model
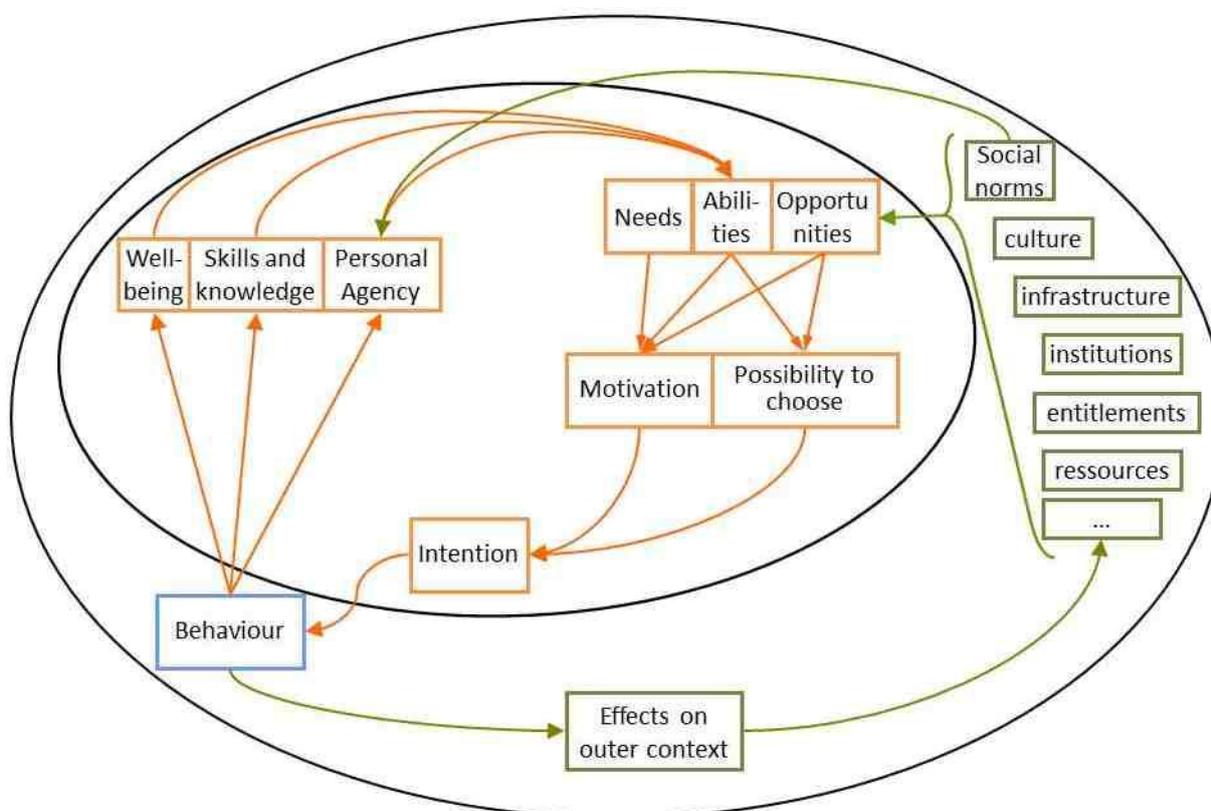
Caption: individual inner context: orange, individual outer perspective: blue, collective inner and outer context: green

Source: own development, based on Gatersleben & Vlek 1998 and Pick & Sirkin 2010.

We start our explanation of the figure with the aspect we want to explain and influence within InContext: the behavioural strategies. From here we follow the assumed influences between

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[9]   We have not had a closer look into the variety of multi-dimensional theories stated by Ecologic in their response to the cornerstone paper, like Giddens' structuration theory, Stern's Attitude-Behaviour-Context Model, Triandis' Theory of Interpersonal Behaviour, the Motivation-Opportunity-Abilities model proposed by Ölander and Thøgersen, as well as Bagozzi et al.'s Model of Consumer Action.

the different variables backwards along the arrows. Within the Needs-Opportunities-Abilities approach, the individual behavioural strategies are thought to be dependent on the intention of a person to behave in a certain way (Gatersleben and Vlek 1998). This implies that we focus our analysis on behaviour that is chosen consciously. Behavioural routines and habits are therewith not in the centre of attention of the model[10]. Behavioural intentions depend on the a) perceived possibility to choose a strategy as well as on the b) motivation of the individual (ibid.).

a. Possibilities to choose (here used synonymously with capabilities) depend on the given opportunities to behave, which depend on outer context resources and conversion factors (natural, social, economic, etc.) available to the individual. Capabilities also depend on the personal abilities to use these resources; these abilities are determined by personal agency, well-being, and personal skills and knowledge.

   o Personal agency is understood as "the ability to define one's goals in an autonomous fashion" (Sen, 1985, as stated in Pick and Sirkin 2010: 68). Agency also includes the freedom to orientate one's life according to one's values, i.e. to improve one's own well-being or to improve the life of others (Leßmann 2011). These values again are influenced by cultural and social aspects, as depicted by the arrow coming from the outer context to personal agency. Individual well-being as well has impacts on the abilities of a person to behave.

   o Well-being includes the objective standard of living of a person, such as health, income etc., and subjective, psychological elements like happiness or feeling content. It relates to her own standard of living as well to the standard of those persons dear to her.

   o Skills and knowledge are understood in a general way including e.g. education or work experience. With regard to the InContext goal of fostering sustainable behaviour, those skills and knowledge which are particularly useful to contribute to sustainable development are of central interest here (cp. Ott 2002).

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[10] Routines and habits of course are very important elements of behaviour, but going back the arrows is not possible for them due to the unconscious selection of such behaviour. One might of course assume that in the beginning unconscious behaviour was consciously intended before turning into routines. Consumer awareness programmes – and the work in InContext as well – will address the challenge of bringing unconscious behaviour back to consciousness again.

b. Besides the possibility to choose a strategy, motivation is an important factor deciding on behavioural intentions. In our assumption, motivation to behave is fuelled by individual needs and the perceived abilities to behave. Here lies a core assumption of our behavioural model: people carry out behavioural strategies to meet needs. Gatersleben and Vlek discuss a number of different concepts of needs, including the one of Max-Neef (Gatersleben and Vlek 1998). Due to the differing use of 'needs' in current-day language, we reiterate that by needs we understand the most fundamental dimensions of human flourishing.

In our circular model we assume two types of feedback processes: First, experiences with behavioural strategies repercussion on individual skills (experience, learning), well-being (by needs getting met), and on personal agency (e.g. due to experiencing own abilities to change something). This "individual inner" feedback loop from behaviour to agency and well-being is in line with the idea of intrinsic empowerment developed by Pick and Sirkin already sketched in section 3.2. Second, behavioural strategies impact the collective context aspects, e.g. by maintaining or questioning social or political institutions and policies or by changing the impacts of consumption on natural resources. This second feedback loop leaves room for the idea of co-evolution and joint development of individual and collective context aspects and behavioural strategies. Impacts of individual behaviour changes on elements of the collective context will generally remain rather low, but at the collective level transition arena processes (deliverable 4.1/ Wittmayer et al. 2011) may facilitate such feedback. In terms of outcome evaluation, though, the impacts of behaviour on the collective context play another important role in InContext: these impacts determine whether we judge a specific behaviour to be sustainable or not.

This model puts a very strong focus on the individual level. Interventions as well as the group processes within the arena have not yet been considered. Its strength lies in making explicit a number of assumptions on the interrelations between outer and inner context aspects and individual behaviour. It also provides us with terms and differentiations when we want to discuss the working of the arena in detail.

4.3 Building sustainable behaviour – individual and group level change processes within the community arena

As stated in the introduction, the second part of the InContext common approach looks at possibilities to influence individual behaviour towards sustainability through transition processes. Here we look at how interventions within arenas, such as the community arenas described in the WP 4 methodological guidelines (Wittmayer et al. 2011), lead to change processes at individual and group levels. These change processes are aiming at

strengthening innovative individual and collective and, if possible, more sustainable behaviour.

In what follows, we will refer strongly to the methodological guidelines of WP 4, before illustrating the intended process in form of a linear process (Figure 2). Finally, we reflect how the processes intended in WP 4 might lead to a more sustainable behaviour.

4.3.1 Change processes in the community arenas

As expressed in Figure 1, we assume (perhaps falsely) that current behaviour is an individual expression of motivation and possibilities to choose, i.e. influenced by the inner individual, inner collective and outer collective context. Changing behaviour therefore presupposes changing elements in these contexts – and that the individual has at least to learn about this change. A distinction can be made between single and double loop learning (Argyris & Schön 1978; 1996). In first order (or single loop or instrumental) learning, fundamental assumptions, values and identities do not change (Argyris & Schön 1978; 1996). This is the simplest mode of learning and has to do with the acquisition of new cognitive knowledge, i.e. the element of the individual inner context we called 'thinking and feeling', and result in changes in strategies or assumptions underlying strategies in ways that leave the values unchanged. In contrast to first order learning, second order (or double-loop) learning implies changes in the underlying values and assumptions. […] The most important conditions for second order learning work are a) surprises, b) outside views, and c) safe spaces (Grin & Van de Graaf 1996; Grin & Loeber 2007). While first order learning takes place within the cognitive space of earlier acquired basic convictions, second order learning takes actors beyond these convictions, as it is obviously often crucial in sustainability transitions. We assume that second order learning is facilitated by inducing self-reflection on one's own needs as the motivational force behind actions, and we assume second order learning to have a more profound effect on behavioural change.

Learning at its core "involves a lasting change in the interpretive frames (belief systems, cognitive frameworks, etc.) of an actor. These frames comprise interlocking empirical and normative values and beliefs, which guide action, including its communicative and expressive dimensions (Grin & Loeber 2007; Grin et al. 2010). Furthermore social learning is based on the capacity to question the assumptions that underlie one's actions, values, and claims to knowledge (Brookfield 1987; Flood 1990; Pahl-Wostl 2002; Garmendia & Stagl 2010)." (Drift methodological guidelines: 20) "We assume the concept of social learning as bridging the level of the individual […] and the level of the collective. Social learning is a key aspect within the transition approach […] as second order learning is never a purely individual experience, but always happens in a social setting." (Wittmayer et al. 2011: 19-20). In the process of

social learning, phases of individual self-reflection may form important phases to realise and condense new insights.

"Both transition management and backcasting aim to 'open communicative spaces' (see the work of Reason & Bradbury 2010) allowing people to learn and reflect. As such they can develop their capacities to change their 'collective outer' as well as their 'collective inner ` and ´individual inner' context. In such a 'communicative space' where people feel safe, there is room for building relationships, and subsequently people are invited to engage in second order (or double loop) learning. Furthermore, both approaches focus on empowerment and try to stimulate action through engagement, collective and critical self-reflection and back- and forecasting." (Wittmayer et al. 2011: *27*).

In our view the social learning process within the community arena is catalysed on the one hand by communicative processes within the group, like e.g. developing a shared vision for the town. On the other hand, it is based on methods allowing for self-reflection and experiencing the inner context. When creating a shared developmental vision, individuals may learn and reflect on their and other individuals' needs and values. In connection to this, individuals may become conscious of current strategies to meet these needs or understand them differently. This may then lead to discovering spaces for alternative strategies, increasing the perceived capability set as well as the personal agency/ perceived locus of control/ feeling of self efficacy. Here the community building effect of the transition arena plays an important role, too: speaking the same language, being in the same process, and sharing the same vision, people may feel that together they may succeed more likely then alone (for further, more comprehensive explanations please see Wittmayer et al. 2011: p. 21 ff.). Following Pick and Sirkin, we understand these effects as leading to an increasing intrinsic empowerment to change behavioural strategies in a way that allows for an increased satisfaction of needs and for an increase in agency (see Pick and Sirkin 2010: 75 ff; 109 f).

"The focus of the social learning process relates to the distinction of needs and strategies. The aim of the community arena is to identify needs; to distinguish these from behavioural strategies; and perhaps even to raise the feeling of efficacy, i.e. to help see that there is room to affect the [collective] outer context (changes in perceived locus of control). As such, the elements of [individual] inner context that are useful to distinguish are needs, strategies and capabilities. The latter relate to the outer context and the freedom to choose which needs are to be fulfilled and how." (Wittmayer et al. 2011: 22, [changes in square brackets by the authors of this deliverable])

"Change is expected as people (having become aware of their needs, distinguishing them from their strategies) learn about (previously unknown) strategies that fulfil more of their important needs simultaneously. Hence, these new strategies are expected to become more

attractive than 'old' strategies. Change towards more sustainable strategies is expected as people become aware and learn more about the needs of others and as they are invited to think about the future of their neighbourhood or town." (ibid.). "Changes in people's awareness of their needs (and those of others, and future needs) and the awareness of the relation of their needs to their strategies are expected to influence their choice of strategies both directly and through their reflection on their capabilities (i.e. we expect a "break" in their routines in which people experience the freedom to consciously choose their strategies, as opposed to behaving by habit or routine). The perception of capabilities is influenced also through the practical experimenting in the context of the arena." (ibid.). In the following, we sketch a model that illustrates the elements and relations discussed so far, before discussing in how far a change in behaviour, allowing for an increased meeting of needs goes together with a more sustainable character of this new behaviour.

4.3.2 Simplified linear model on the effects within the community arena

This sub-section develops a model that represents the idea that the community arena (see Wittmayer et al. 2011) works at both the individual and the collective (group) level.[11] As shown in Figure 2, the arena can be understood as a series of different interventions which lead to change processes at the individual level and at the level of the group. Interventions in this case are defined in a wider sense, including the envisioning and back-casting process as well as the methods applied to work with the individual inner context of the participants.

In our understanding, the community arenas within InContext are aiming (1) on an individual level at creating inner context awareness leading to an intrinsic empowerment and growing capabilities to meet individual needs[12]; (2) On the community level, community arenas aim at creating a shared change vision for the collective inner and outer context and respective transition agenda (Wittmayer et al. 2011: 29). In this process, we expect participants to develop a shared understanding of challenges and solutions, a changed narrative as well as a common language. In fact, the used methods will likely be working at an individual and group level and at inner and outer contexts stimulating change processes at both levels simultaneously (see e. g. Wittmayer et al. 2011: 35 with regard to the envisioning process).

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[11]   We gained this model by adapting an idea from the German BINK project on fostering sustainable consumption in educational organisations (cp. Barth 2010; BINK 2011). BINK wants to foster sustainable consumption of students and teachers by creating the necessary individual competences to consume in a sustainable way and by creating a culture of sustainable consumption in the schools and universities (Fischer 2011).

[12]   There are clear links to Figure 1 which we cannot explicate here, though. A combined model would also be too complex.

Particularly the output and outcome of change processes can be differentiated into individual and group levels.

As stated above, change of behaviour comes through second-order learning, reflection and interaction around other world views and new visions and visionary images (Wittmayer et al. 2011: 27). From our point of view, second order learning is another expression for a change of variables of the individual inner context[13]. Recalling Pick and Sirkin, changes of inner context variables are particularly interesting if they lead to an intrinsic empowerment as an enhanced capability-set allowing to fulfil one's own needs (Pick and Sirkin 2010: 108-113). In accordance to this, the community arenas focus on empowerment and stimulating action through engagement, collective reflection and back- and forecasting (Wittmayer et al. 2011: 23). In this way, it is important that second order learning as changing of frames or values, goes hand in hand with raising personal agency and behavioural alternatives to chose (cp. Figure 1).

The newly developed vision and derived transition agenda are thought to be expressing also the new behavioural alternatives as well as steps on the way how to achieve them. They are manifestations of the social learning process as well as part of the process of learning itself. With regard to the arena meetings, at which a shared vision is developed, this reads as follows:
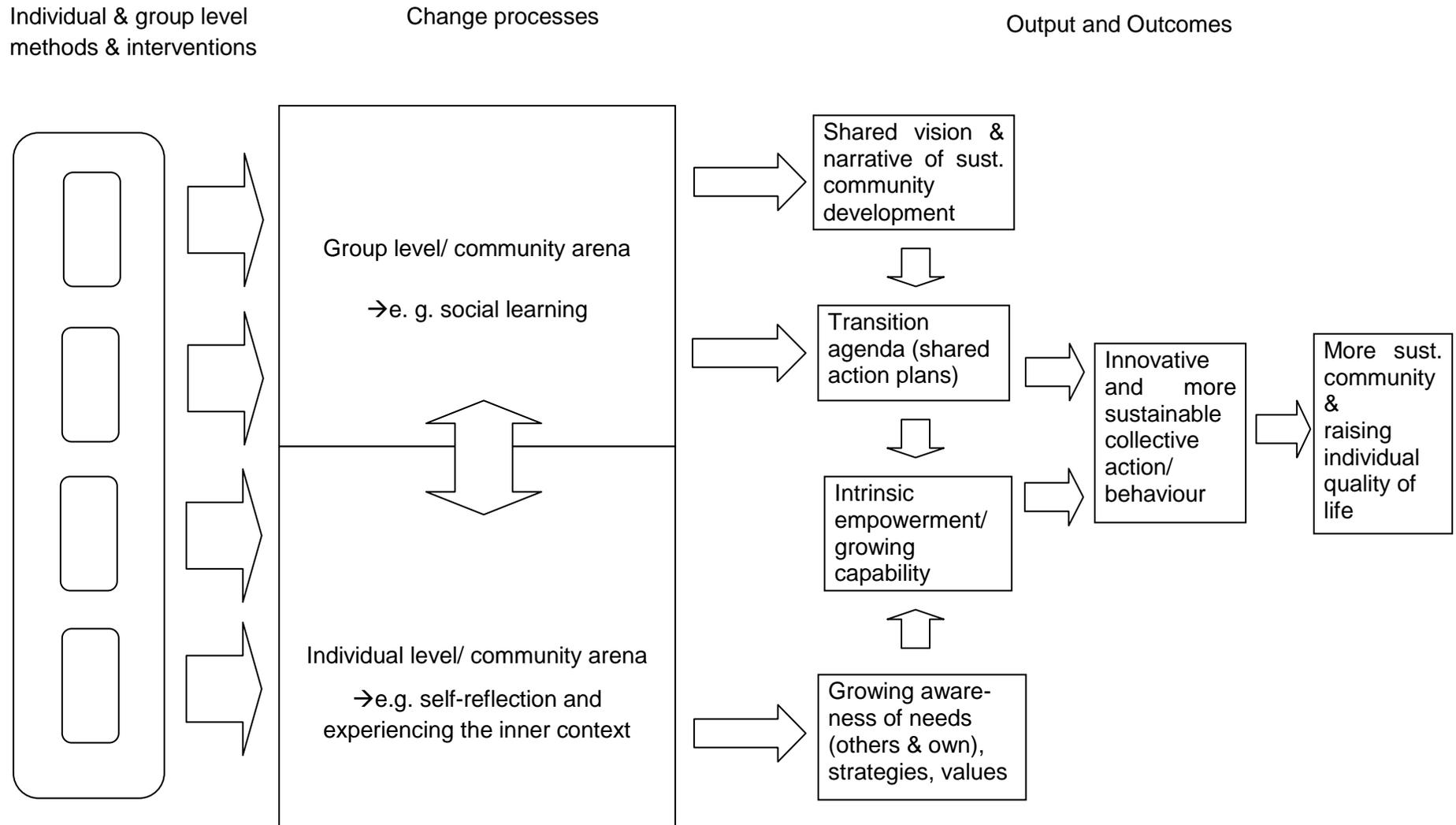
> *"During the meeting there will be several moments for (critical) self-reflection. Facilitated by appropriate methods, individuals can reflect on their own needs, become aware of their strategies and their capability to influence their local environment and what this means for the vision. This way the inner context can be analyzed as well, resulting in both a shared and individual vision […]. But it's not only about this result: the process of envisioning is just as important as the vision itself."* (Wittmayer et al. 2011: 35)

Recalling the objectives of InContext, i.e. to strengthen individual sustainable behaviour and collective action towards sustainable communities, once more the central question is (taken up again in the following subsection): what strengthens the sustainability character of this new behaviour/ collective action? Here we assume two aspects to be of importance: (1) the development of individual awareness on sustainability issues in combination to intrinsic empowerment as enhancing capability sets for individual behaviour. (2) the development of a shared sustainability awareness and culture expressed in vision, agenda and language of the group is supporting individual sustainable behaviour as well.

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[13]   That´s why inner context changes are assumed to depend on learning, reflection and interaction around other world views and new visions and visionary images just as second order learning (Wittmayer et al. 2011: 27).

The model represented in figure 2 is of a rather linear character and builds on a number of working assumptions on what happens within the community arena processes. Translating these assumptions into explicit hypotheses may form a basis for an empirical analysis of effects of the community arena on behaviour, sustainability and quality of life.

Figure 2: Linear model of individual and collective change processes within the community arena

Individual & group level
methods & interventions

Change processes

Output and Outcomes

Group level/ community arena

→e. g. social learning

Individual level/ community arena

→e.g. self-reflection and
experiencing the inner context

Shared vision &
narrative of sust.
community
development

Transition
agenda (shared
action plans)

Intrinsic
empowerment/
growing
capability

Growing aware-
ness of needs
(others & own),
strategies, values

Innovative
and more
sustainable
collective
action/
behaviour

More sust.
community
&
raising
individual
quality of
life

Source: Own representation inspired by BINK

4.3.3 Is Self-reflection and learning leading to sustainable behaviour?

A thesis stated at the kick-off meeting supposes that "individuals being more aware of their needs may more likely behave in a sustainable way". This links the processes of social learning (when we implicitly think of social processes to become aware of own needs) and self-reflection to the goal of strengthening ***sustainable*** behaviour. This thesis appears somewhat plausible: Self-reflection and social learning processes may include learning about the needs of others today and, due to the future-orientation of the transition process, of others in the future, too. Participants may become more aware of the effects of their actual and potential behavioural strategies on their own possibilities and on the possibilities others have to meet their needs, and may feel increasingly responsible for those effects. This may also get strengthened by the social control effect of a group. A second argumentation supporting the thesis above would rely on the idea of sustainable behaviour as a satisfier synergically meeting needs of participants as well as of future people, as described within the cornerstone paper (2010: 16 f.) relying on Max-Neef (1991, Guillèn-Royo 2010). This presupposes an existing motivation of the participants to care for the needs of distant people as well as the existence of such win-win situations to be reached by synergic satisfiers.

Nevertheless, to the authors of this deliverable, the kick-off thesis appears to be a "strong" assumption, as the integration of one's own impacts on others' needs into behavioural considerations is a huge cognitive and moral challenge (cp. section 4.1.3). This integration implies becoming aware of own needs, about strategies for fulfilling these, about the consequences of these strategies and possible alternatives. First, the transition arena processes might not be appropriate instruments to tackle these challenges due to their limits in time and intensity, which may also limit the intensity of reflection on needs and strategies and underlying values and mind-sets. Second, it is not self-evident that participants will consider "classic" sustainability aspects, such as environmental, social or economic sustainability, in a comprehensive or up-to-date way. Third, even if the rather unguided (in order not to give the impression of having a specific moral aim) social-learning and self-reflection process will lead people to consider other people's well-being, it is not clear that participants will select timely or spatially distant people's needs. In our opinion, the transition arena is likely to strengthen individual possibilities to recognize and become aware of needs while raising awareness for their immediate and wider surroundings, and finally to meet the needs (and therewith to rise well-being and agency) of the participating individuals. The effects on the sustainability of behaviours are less clear to us. We expect an effect on what is called social sustainability (cp. section **Error! Reference source not found.**), but, as mentioned, are uncertain with regard of the relation between 'social sustainability' and intra- or intergenerational justice.

Therefore we suppose it to be useful for the action researcher to include interventions which directly relate to and name normative issues related to sustainable development as such within the transition arena process[14]. This might e.g. be done by presenting the idea of sustainability, up-to-date knowledge on effects of current behaviour on social or environmental systems, or by highlighting timely or spatially distant people's needs. Integrating this norm- and knowledge-related input has to be done carefully in order not to lose the intrinsic motivation of the participants. We would therefore argue for a process character of the transition arena that keeps the balance between openness and guidance, between autonomy and direction.

4.4 Community arena, alternative behaviour and structural changes

In the following we briefly look into the interplay between the community arena, innovative behavioural strategies and changes of larger structures. Thereby we draw on existing statements from the InContext team. "In line with transition thinking, behaviour (i.e. our 'strategies') […] 'emerges' from the interaction between the inner and the outer context. In transition speak we would say 'in a complex adaptive system, the regime emerges from the interaction between the landscape and the societal needs.' The 'regime' is the dominant way in which a societal need is met." (Wittmayer et al. 2011: 20)

Collective inner and outer context variables as specified in section **Error! Reference source not found.** are economic, social, cultural, political-institutional, technical-infrastructural, and natural spheres. These spheres make up the current local system and regime. Societal, economic, technical, and ecological structures are fundamentally influencing behaviour of individuals, allowing as well as inhibiting specific types of behaviour, though they may allow for a wider range of behaviours. At the same time individual behaviour, at least in an aggregated way, sustains and changes these structures. In accordance with structuration theory (Giddens 1984 and others), practice theory (Warde 2006, Schatzki 2002, Ropke 2009), and transition management (Grin et al. 2010, Loorbach 2007), we conceive structure and individual behaviour as co-evolving.

Within the transition process these collective inner and outer context structures are supposed to be influenced, partly directly by the newly created collective actor (the community arena), partly by the innovative practices/ behavioural strategies which are created here and disseminated by participants in their everyday life. The process through which this takes place is the arena group that defines and stimulates/implements the actions facilitating

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[14] By this, we mean a more explicit introduction than to talk about environmental friendliness and other "green" issues that are usually related to sustainable development, but rather directly refer to issues of intra- and intergenerational justice which are the core of SD.

diffusion. In addition, the content is generated through applying backcasting & transition management techniques that lead to envisioning, articulating, and discussing the needed changes to realise the common goal. Here, the establishment of collective actors is a possible means to give individual behaviour a lever to change external structures.

However, the aim of the arena process is to identify and change barriers and drivers in the different contexts for collective activities towards more sustainable communities (cp. objectives and core thesis of InContext in part 2.2). As stated in the DOW, part B, a large variety of aspects might get considered as belonging to the different contexts. Herewith the need arises to structure them and to reach a justified and adequate focus on particular context aspects in the specific case. Ecologic stated in their response to the cornerstones paper: "One way of choosing the most significant aspects could - as already suggested in the cornerstone paper - be to rank the aspects. We would suggest ranking them according to their impact and changeability[15]. Impact refers to how significant the aspect is in determining behaviour; changeability refers to the ability to change this aspect in a transition process. For example, ecosystems might be an important determinant of sustainable behaviour (i.e. having a large impact), but [their] changeability is rather low, so [they] might not receive high priority in relation to other aspects. It is important to note that these criteria are best applied in a specific context and in relation to a specific target group, thus they serve as guidelines for choosing the most significant aspects when designing or evaluating the transition process".

In conclusion, the community arena process may lead to a rise in intrinsic empowerment of individuals when choosing strategies to meet their needs in a more sustainable way. Innovative behavioural strategies may in turn lead to changes of larger structures, disseminating sustainable behaviour to larger scales and making sustainable behaviour at local scale easier as well.

5 Conclusion and outlook

The Common Approach aims at supporting the realisation of the InContext project objectives: "Facilitate pathways towards alternative and more sustainable behaviors of individuals. Foster collective activities towards more sustainable communities." As written in section 3, sustainable behaviour of individuals and sustainable communities have to be defined – not necessarily by only one definition, if one wants to assess whether InContext is able to meet its objectives.

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[15]   Gupta et al. discuss the criteria of changeability under the term "adaption capacity" (Gupta et al. 2010), deriving further criteria as well as evaluation methods on adaption capacity to climate change challenges.

In order to be able to better understand the core thesis (Table 1), the document distinguished in section 4.1 between different variables of the inner and outer contexts. In order to give some foundations for analyzing the research questions, section **Error! Reference source not found.** offered a feed-back model focussing on the inner individual context, but linking it to the other contexts; section 4.3 displayed a linear model that can be used to better understand the functioning of community arenas, and section 4.4 gave some ideas on how community arenas could influence the wider political landscape.

Throughout the document, gaps were mentioned – some of these due to differing working schedules (such as the integration of the guidelines for WP 3 in the present document), some due to lack of knowledge on the specificities of the case studies and pilot projects, and others due to lack of time to go deeper in specific issues. We hope that some of these gaps will be closed throughout the project.

Of particular importance are in our opinion:

- The complementarity and integration of participatory and outside evaluation of the pilot projects,

- The better integration of collective phenomena into the theoretical background of the project, e.g. via practise theory,

- The relation of the theoretical approach to each empirical case study and pilot project by using similar concepts, methodologies, and by referring the methods used back to the theoretical background.

This document is the main basis for the theoretical framework to be developed until the end of the project. Until then, we will have learned about the usefulness or futility of the ideas, models, and concepts presented here, in the light of the practical research undertaken in WP 3, 4, and 5.

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