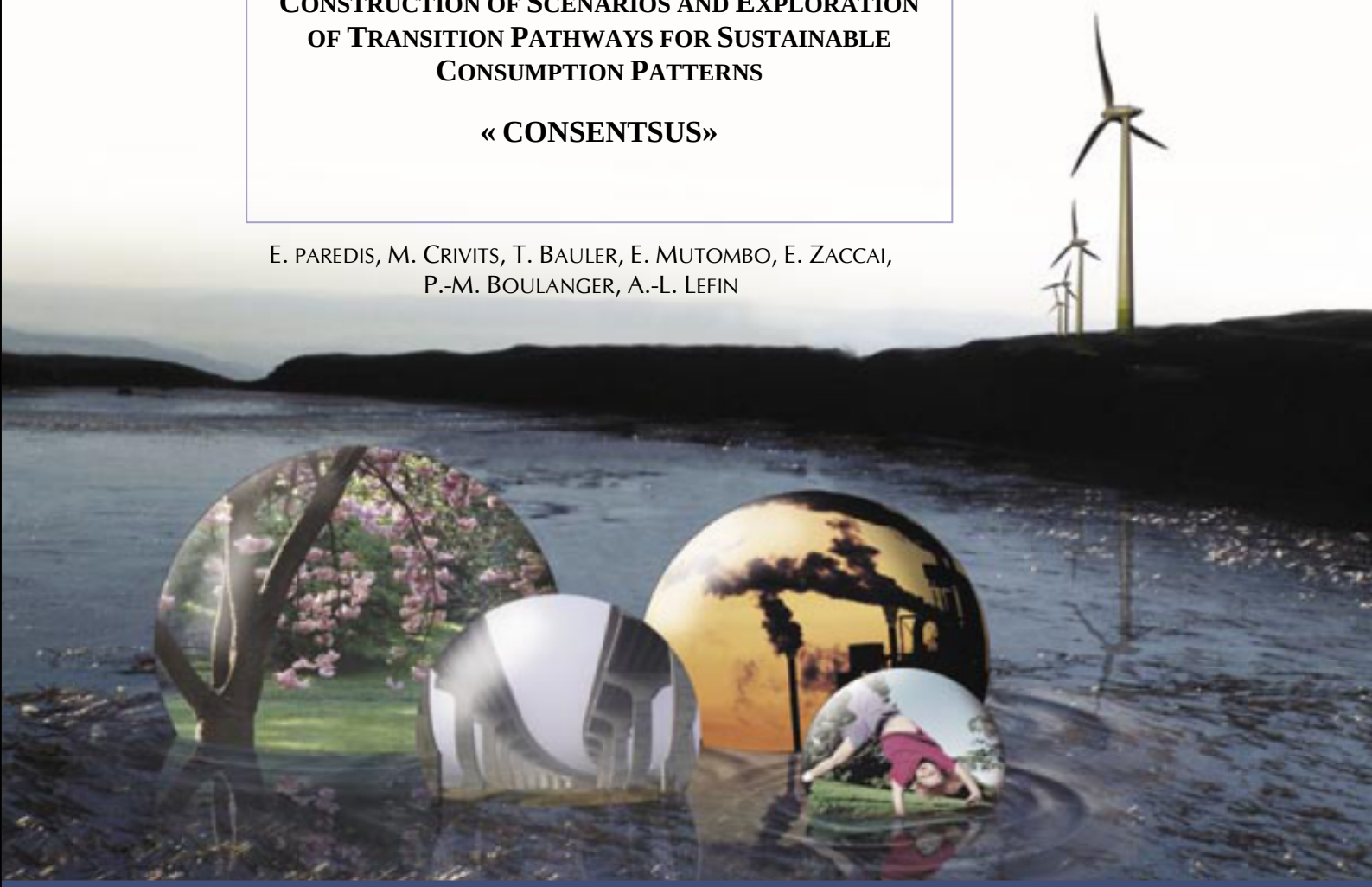
SSD

SCIENCE FOR A SUSTAINABLE DEVELOPMENT

CONSTRUCTION OF SCENARIOS AND EXPLORATION OF TRANSITION PATHWAYS FOR SUSTAINABLE CONSUMPTION PATTERNS

« CONSENTSUS»

E. PAREDIS, M. CRIVITS, T. BAULER, E. MUTOMBO, E. ZACCAI,
P.-M. BOULANGER, A.-L. LEFIN



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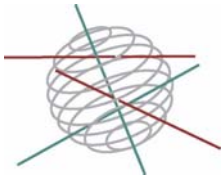

SCIENCE FOR A SUSTAINABLE DEVELOPMENT
(SSD)

Transversal Actions

FINAL REPORT PHASE I
SUMMARY

CONSTRUCTION OF SCENARIOS AND EXPLORATION OF TRANSITION PATHWAYS FOR SUSTAINABLE CONSUMPTION PATTERNS

« CONSENTSUS»

Promotors
Erik Paredis
Universiteit Gent

Edwin Zaccaï
Université Libre de Bruxelles

Paul-Marie Boulanger
Institut pour un Développement Durable

Authors

ERIK PAREDIS, MAARTEN CRIVITS – CDO, UGENT
TOM BAULER, EMILIE MUTOMBO, EDWIN ZACCAI – IGEAT, ULB
PAUL-MARIE BOULANGER, ANNE-LAURENCE LEFIN – IDD

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BELGIAN SCIENCE POLICY

Rue de la Science 8
Wetenschapsstraat 8
B-1000 Brussels
Belgium
Tel: +32 (0)2 238 34 11 – Fax: +32 (0)2 230 59 12
http://www.belspo.be

Contact person: Marc Van Heuckelom
+32 (0)2 238 35 55

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CONSTRUCTION OF SCENARIOS AND EXPLORATION OF TRANSITION PATHWAYS FOR SUSTAINABLE CONSUMPTION PATTERNS (CONSENTSUS)

SUMMARY OF THE FINAL REPORT PHASE I
APRIL 2009

ERIK PAREDIS, MAARTEN CRIVITS – CDO, UGENT
TOM BAULER, EMILIE MUTOMBO, EDWIN ZACCAI – IGEAT, ULB
PAUL-MARIE BOULANGER, ANNE-LAURENCE LEFIN – IDD

The resolution of the societal and environmental problems which policy and science communities are facing during this first decades of the 21st century seems not only more complex today because problems are globally interlinked, but because uncertainties and the apparent urgency of the stakes generate policy situations where traditional decision-supporting tools reach many of their limits. Policy-makers, civil society organizations and scientists alike are thus looking for new and refined sets of tools which guide policy actors to encounter sustainable development objectives. Scenarios and scenario planning are thought to be such tools (Alcamo et al. 2005). More specifically in our understanding, they are used in participative approaches to generate future visions of the system at hand and foster interactive processes, *in fine* helping to manage systemic transitions towards more sustainable lifestyles. One important driver towards more sustainability are consumption patterns. While the concept of "consumption pattern" is omnipresent in sustainable development literature since its appearance in Agenda 21, it is generally left rather undefined and is less addressed than the production issue. The Consentsus project ('*CONstruction of ScENarios and exploration of Transition pathways for SUStainable consumption patterns*') is settled within this context. The research questions leading this first phase aim at exploring the specificity of addressing consumption through scenarios, in the wider context of scenarios for transition management (TM) and system innovation. In other words, *is the scenario approach a relevant tool to be used in TM-like planning process when focusing on the specific issue of consumption?* Based on a literature review on scenarios and on sustainable consumption, a scenario exercise has been implemented in order to gain insights on the tool's mechanics itself and to identify a series of pathways towards sustainable consumption patterns. Concretely and on a case-study approach, Consentsus explored a specific domain within consumption issues, namely food consumption.

WORKFLOW

The construction of the sustainable food scenarios has been structured along three preponderant sustainable consumption discourses/strategies (eco-efficiency, decommodification and sufficiency). Four participative meetings were organized to present the project, brainstorm on the strategies (two workshops) and collect reactions on the final product. The brainstormed ideas about three 2050 potential 'eco-efficient', 'decommodified' and 'sufficient' worlds were then worked out through desk work by the research team, synthesizing three descriptive images, as well as three final narratives (Annexes A and B). Beyond the construction of three scenarios, in order to explore the potential of integration among these three 'strategies', a statistical analysis (i.e. *Q* methodology) was used to highlight elements of consensus and contention among the three discourses on sustainable consumption (see Annex 6, Lefin, Boulanger, 2009[1]).

[1] Annexes are cited here the same way they are referenced in the final report (Paredis, et al, 2009) and are available on the Belgian Science Policy website (www.belspo/FEDRA).

ADDRESSING SCENARIOS: A THEORETICAL FRAMEWORK

The field of scenarios is particularly fuzzy and diverse in terms of content, methodology and uses (see Annex 3, Goeminne, Mutombo, 2007). Based on a review of the scenario-oriented literature, the following theoretical framework synthesizes the main characteristics of scenario exercises and highlights their 'mechanics' and uses (see Annex 4, Mutombo, Bauler, 2008). Beyond the chosen methods, tools and processes, scenario exercises rely on a few central building blocks (BB), which define the generic characteristics and 'modes of thinking' of a given scenario exercise. Five distinct characteristics are identified: ***Future-oriented thinking***, ***Collecting and integrating information***, ***System thinking***, ***Story-like approach***, ***Dialogue interface.*** On the other hand, the many different uses which could be raised by scenarios are bundled in two more general categories: (1) scenarios contribute to ***strategizing*** and planning activities (instrumental type of information use), and (2) they facilitate processes of challenging mental models and ***learning*** (Brown, 2003) (conceptual type of use - Weiss, 2005). This theoretical framework is further reflected upon, leading to the following conclusions with regard to the potential of scenario exercises in a SD-policy context.

- If *learning* effects through scenario exercise seems to be widely acknowledged, though difficult to assess, the practice does not necessarily confirm a very pure *strategic* reading. Scenario outcomes seem **not** to **feed decision** or planning process **in a direct way**. This has to be related among others to the general difficulties in instrumental information use (Weiss et al, 2005, p.13) and to the problematic junction between future-oriented and decision processes.
- The **non-clarity of the objectives** of scenario exercises is frequent and an important cause of project failure (Burt and Van der Hijden, 2003, pp.1016-1020). Lot of scenario exercises are not given **precise**, nor **shared** objectives and even less, **action-oriented objectives**.
- The **participation of the targeted users** should be taken into account when defining the objective and design of the scenario construction process, particularly when aiming at informing a decision process; and this, in order to raise the level of relevance and ownership of the exercise by the users.
- Scenarios have potential as **dialogue interfaces** (within and beyond the scientific communities), and can be seen as **knowledge networking tools**.
- If we present scenarios as learning tools it must be clear however that learning is a **condition of change** (towards SD), and **not a guarantee** (Quist, 2007, p.43/45).
- **Scenario evaluation** in terms of effects and uses is a new topic of research (Pulver and VanDeveer, 2007) and is difficult due to the fuzziness of scenario practice and the vagueness of objectives. This implies that evaluation should be an **effective phase** of scenario exercises. Generally, scenario exercises should be **part of a wider project**, from future-oriented thinking to actual decision taking and implementation, to monitoring and evaluation.
- Scenario exercises should be seen as interesting policy tools as they answer two antagonistic needs of public decision for **simplification** and ***complexification*** (Bauler, 2007, p.70). Indeed, they are necessarily simplified images of reality, but do highlight complexity in terms of uncertainties and ambivalence (i.e. multiplicity of the possible futures and of the rationalities).
- Eventually, scenarios contribute to take some distance with a modernist perspective denying uncertainties and ambivalence of objectives. So doing they also answer another need of a renewed SD governance, which would require a transition towards a **non-modernist perspective** in order to address the challenges of the current unsustainable development (Beck, 2006).

ADDRESSING SUSTAINABLE CONSUMPTION: THREE STRATEGIES

The issue of sustainable consumption patterns remains a very complex problem where the abstract concepts of 'need', 'wellbeing' and 'future generations' are theoretically connected yet insufficiently understood. Part of the complexity of sustainable consumption is directly linked to the definition of

'consumption' and the choice between a narrow and a broad understanding: purchase of goods and services vs. broader economic, social and cultural context considering consumption as a way to fulfil needs, and further to foster physical, psychical and relational well being (see Annex 1, Boulanger, 2007). Part of the challenge of Consentsus has been to translate theoretical accounts on sustainable consumption into a practical structure for scenario design. Concretely, the scenario construction methodology has been structured along three sustainable consumption discourses or 'strategies', which can be highlighted with 'Decomposition Analysis' (see Annex 2 and 11, Boulanger, 2008). Starting from the basic assumption that sustainability can be measured by an indicator of productivity of valuable resources (or of material efficiency) in the well-being production process, sustainable development is translated in the formula: **S = WB /EF**, which is then disaggregated in three ratios: **S = (WB/Se) * (Se/C) * (C/EF)**[2]. This latter formula highlights three discourses on sustainable consumption, three 'pure' strategies to enhance sustainability:

- **EE: Eco-efficiency (C/EF)** aiming at decreasing directly the intensity in materials of the production, use and disposal of commodities (Industrial Ecology, the Cradle-to-Cradle movement …).
- **DC: De-commmodification (Se/C)** aiming at a decoupling of the functions provided by commodities from market-based demand, limiting as a consequence the influence of markets and increasing the influence of other 'function providing' systems or organizations through which needs and aspirations can be satisfied too.
- **S: Sufficiency (WB/Se)** aiming at disconnecting well-being from the services of commodities, i.e. in simplified terms, delinking the product functions from the wellbeing they generate (Voluntary Simplicity, degrowth …).

These three rather theoretical strategies for sustainable consumption have structured the Consentsus scenario exercise. Each of them has further been explored through the construction of a scenario illustrating what the world could potentially look like in 2050 if we were to follow the principles of each of these discourses.

THREE SCENARIOS AND THEIR POTENTIAL OF INTEGRATION: THREE CONSUMER PERSPECTIVES

The three scenarios (see Annex A and B) are driven by specific driving forces stemming from the three strategies: technology, market and services; localization, active citizenship and co-production; need-oriented and reflexive society. They illustrate how the three sustainability discourses imply truly different approaches on how to organize practices related to food consumption. Each scenario reveals a different 'consumer perspective'. None of them represents a catastrophic, non-sustainable future to be avoided, and on the opposite, none of the scenarios presents a sustainable world as such.

- In the eco-efficiency scenario, consumers are defined as **decision makers** whose aggregate individual purchase choices determine the future of food production given that the right incentives are given and that proper information is diffused (through brands, labels, etc.). The consumer sovereignty, market, technology and economical progress stand central in this perspective.
- In the decommodification scenario, the consumer can be seen as a **citizen-entrepreneur** or a **co-producer**. This type of consumer has significant influence on the way the food supply is organized as (s)he is taking actively part in the management of the food system through local governance systems. Responsibility and active engagement are important drivers of action.
- In the sufficiency scenario, the consumer can be labelled as a **self-reflexive consumer**. The sufficiency scenario features a highly self conscious consumer who has come to question the underpinnings of consumption practices as such and debates on how the 'good life' can be defined.

[2] Where: **S** stands for Sustainability; **WB** = the level of well-being; $\mathbf{EF_{it}}$ = the environmental load or ecological footprint; **C** = Commodities and **Se =** service as used by Nørgärd (2006 - like in the context of energy and not as used in the national accounting context). The notion of service can also be defined as the interface between the satisfier and the need or as the "satisfying virtue" of the satisfier (Max-Neef, 1992).

(S)he has acknowledged the existence of inevitable personal and contextual underlying complexity and tries to take along uncertainty, unpredictability, uncontrollability and cultural relativity in decision processes.

The integration of the 3 scenarios is a major question, as a fully sustainable consumption world would need to combine elements of the different scenarios. This question has been addressed in Consentsus by applying a Q-methodology process which highlights elements of consensus or disagreement among the 3 strategies (see Annex 6, Lefin, Boulanger, 2009). While very informative, the most important outcome of this analysis is the confirmation of the 'discursive' stability of the 3 strategies, i.e. that the performed scenario exercise is not pure fantasizing, but definitely has an anchor in reality.

CONSENTSUS CONCLUSIONS

THE RELATIVITY OF CONSUMPTION

Looking at the issue of consumption entails to notice that the very concept changes over the three different perspectives which we had derived from the decomposition analysis. Consumption appears to be an equivocal concept when it is considered through alternative discourses of sustainable development. The referent of the understanding and underpinnings of 'consumption' is particularly different in each scenario. The word 'consumption' implies and reinforces a different meaning in a different 'discourse' (Foucault, 1969), hence potentially leading to very different possible realities. Systematically attaching specific meanings to words creates divergence in social reality as different starting points lead to alternative social arrangements. Indeed, each of the strategies for sustainable consumption implies a fundamental change in human organization and/or behaviour. Paradoxically, the question rises whether the term consumption as such is the best concept to use when we aim to link the practices of obtaining, preparing and eating food with the objectives of sustainability.

THE SPECIFICITY OF CONSUMPTION

Based on the mechanics of the constructed scenarios, insights are drawn with regard to the specificity of the consumption perspective and finally in terms of outcomes of the whole scenario exercise.

The issue of 'sustainable consumption' is a specific topic of research when it comes to study it through system oriented tools and approaches as is illustrated through this scenario exercise and as can potentially be extrapolated to the implementation of a transition management process on consumption patterns. Addressing sustainable consumption through ***Future-oriented thinking*** clearly implies a normative setting. Still, the Consentsus scenario exercise is a hybrid of normative and explorative modes of future-thinking (Börjeson, 2006). Indeed, the chosen "*specific targets*" remain undefined and the exercise aims rather at *exploring* possible EE, DC and S worlds than at tracing potential pathways towards them. Further, the specificity of consumption highlighted from the Consentsus exercise, observed when studying consumption through ***collecting and integrating information*** or ***systemic thinking,*** revolves, among others, around the difficulty to draw clear boundaries around a 'food consumption system'. Combined to the multiplicity of perspectives on consumption, understanding and exploring the final act of consuming opens a wide field of investigation and interactions. The Consentsus project has attempted to address this complexity through various ways: the three strategies themselves and the Q methodology are used to structure and integrate the information on sustainable consumption; the various frameworks used to take into account the food system as a whole also witness the lack of stabilized multi-disciplinary, multi-sector, multi actors frameworks to handle the consumption issue. The ***Story-like approach*** proved useful to highlight and correct some problems in the developed EE, DC or S worlds such as a certain amount of lack of coherence or blind spots in the 'mechanics of the worlds'. However, some of the incoherencies or imprecision could not be solved in

the context of this exercise, amongst other, due to the complexity of the considered 'non-closed' system.

Combined to the analysis of the three consumer perspectives (see supra), the main ***learning*** outcomes of the scenario exercise are linked to the three strategies, their logic,driving forces and concrete illustrations through the scenarios. For the participants and potential users, this presentation of sustainable consumption is a novelty potentially contributing to influence underlying assumptions, norms and beliefs around sustainable food consumption. Indeed, among the three strategies, eco-efficiency is rather well known. 'Discovering' the two other sustainable consumption strategies is opening up the panorama towards other perspectives on consumption and changing the definition of the issues related to consumption. The exercise also contributed to create a common ground of understanding with regard to sustainable consumption which could constitute a starting point for forthcoming debates around options in that regard. In parallel, the *Q*-methodology has confirmed the existence of the three perspectives on sustainable consumption among the federal sustainability actors from variable stakeholder backgrounds, therefore validating the Consentsus methodology in terms of its anchor in reality.

Our approach to scenario building does not yield what could be called direct outcomes within ***strategy*** development, still the exercise generates '*policy-relevant learning'* and '*action-oriented use'*. Concretely, the original scenario approach developed in Consentsus, based on the three strategies, appears as a communication and 'challenging' tool when it comes to the various perspectives on sustainable consumption. It could be further used as starting point to organize discussions and debate with stakeholders around sustainable consumption in other fields than food consumption, notably because the strategies' ratios work with general macro-economic identities. Indeed, if some elements stemming from the decommodification and sufficiency strategies are starting to reach political arenas, it is mainly the 'eco-efficiency' strategy that is explicitly present and given the necessary credibility in political arenas so far. Such an exercise could be a way to diffuse this tri-folded approach to sustainable consumption as a more comprehensive picture of the challenges of sustainable consumption and starting point for further debate and policy action.

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Through the three scenarios and the construction process, we can see that scenario exercises provide a framework towards simplification and 'complexification' (Bauler, 2007, p.70). They provide a general overview of the consumption challenges, and moreover, they highlight the complexity of the issue in terms of multiplicity of perspectives and rationalities. Particularly in SD policy-making, it is important to be aware of the ambivalence of objectives and values implied in the now widely used expression of 'sustainable consumption'. The Consentsus scenario exercise illustrates, not so much, the use of scenarios to reveal uncertainties, but rather re-emphasizes the normative dimension of sustainability issues. Such 'problems' require scientific as well as factual answers, but moreover necessitate to highlight the diverse rationalities at stake in sustainable consumption through presenting and questioning those perspectives and the underlying values and assumptions. This type of approach contributes to question the quest of scientific a-contextual truth when the question is, in the strict sense, political and in the wider sense, societal.

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