

# Short versus Long Term and Other Dichotomies: A Challenge for Transition Management

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## Abstract

This paper offers an empirical account of how transition management is applied in practice in the Dutch transport sector. More specifically it discusses the Dutch programme Transumo (which is an abbreviation for TRANSition to SUsustainable MObility). Besides a general account of Transumo, a more context-specific analysis is given of one of the 22 Transumo-projects. The project under study is known as the 'A15-project' and aims to find solutions for environmental and traffic related problems emerging in the region surrounding the Rotterdam harbour (specifically from 2012 onwards). The participants of the A15-project chose to take a two-track approach. On the one hand they held on to what they call a 'modern classical approach' (short/mid-term policies, quantitative scenarios, traffic modelling and focus on technological and economic aspects). On the other hand they made space for an 'innovative transition approach' (long-term visions, qualitative scenarios, participatory discussion and focus on sustainability). The paper answers the following question: how did actors in this particular case (the programme Transumo overall and the A15-project more specifically) deal with 'short-term' and 'long-term' perspectives in their context of knowledge transfer and power relations, and what challenges and lessons can we distil from this for the ongoing development of transition management? The authors studied Transumo and the A15-project through research methods such as document analysis, participatory observation, semi-structured interviews with participants and action research (i.e. active involvement in projects, workshops and brainstorming sessions).

**Keywords:** transition management, power, knowledge, long-term versus short-term, sustainable transport

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## I. Introduction

In Western-Europe we currently live in a society that is said to be ever growing more and more complex. Although we have left behind many problems facing us in earlier centuries, such as extreme poverty, world wars, and very poor healthcare, we are increasingly confronted with the downsides of welfare. Especially the environment appears to be receiving a heavy blow. The linkages between economic growth and environmental degradation have been evident since the Club of Rome presented its book *Limits to Growth*. When the Brundtland Commission published its report *Our Common Future* in 1987, the time appeared to be ripe for a change to a more sustainable way of living. However, well over twenty years later we still struggle with dilemmas concerning the comforts of our lifestyle, versus the needs of the planet. Even though in recent years the climate change debate has led to greater awareness among people about their own

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influence on global environmental change processes, people have also grown more aware of the limitations of their own actions. Societal change can not be steered by single actors, and involves complex processes that take at least one or two generations. These change processes, transitions, are on the global level the focus of this paper. However, as complexity forces us to break down this focus into smaller pieces, we will narrow our research to the application of so-called transition management in the field of sustainable mobility in the Netherlands.

As said before, societal problems can not be resolved by the actions of one steering actor, such as the government. Differences between vested interests and other actor's interests often lead to fierce debates, which makes the decision-making process more complex. New forms of decision-making are therefore coming into existence. Besides new forms of cooperation with citizens (such as interactive decision-making processes), there is also a tendency for cooperation among governmental actors, business actors, knowledge institutions, and societal organisations. Transition management, a new mode of governance to tackle persistent problems surrounding societal change, has in recent years become more and more well-known as a tool to resolve problems and work on influencing long term change. In the Netherlands climate change debates have sparked discussions all around the country about air traffic, passenger traffic on the road, and freight transport. An area where many of these problems come together is of course the region around the Port of Rotterdam. Many initiatives have been developed to give sustainability a meaning in this region. One of these initiatives is the project 'From Maasvlakte to Hinterland', which is the object under research of this study. This project, often referred to as 'the A15-project', is part of a Dutch organisation, Transumo, that has the new forms of cooperation as mentioned above as one of its main points of departure. With a goal of achieving 'the transition to sustainable mobility', and the appliance of the new forms of cooperation as mentioned above, Transumo could be a promising tool for achieving societal change.

However, in order for the ideas and expertise of Transumo and the A15-project to come into effect, it is necessary to tackle a complex context of power relations, knowledge distribution and diffusion, and tensions between the short term and the long term. From this complex context, in combination with our focus on the A15-project and the transition to sustainable mobility, we come to the following main question: How do actors in this particular case (the programme Transumo overall and the A15-project more specifically) deal with 'short-term' and 'long-term' perspectives in terms of knowledge and power and what challenges and lessons can we distil from this for the ongoing development of transition management? We answer this question by first explaining our theoretical framework, which consists of transition management, ideas on power, ideas on knowledge distribution, and the linkages between these three. In this section we also present our methodology. Second, we describe in broad outline the context and content of the A15-project. Third, we present our empirical findings, resulting from a comparison of documents, interviews and observations in and around meetings. We connect these findings to the tensions between short term and long term. Finally, we combine this information with our theoretical framework, and answer the main question in our conclusion.

## II. Transition Management, Knowledge & Power

This section will present the theoretical framework of this paper, by first discussing literature and core ideas of transition management, secondly comment on the relations between power and knowledge, and the linkage of this to transition management, and third, provide information on the methodological lay-out of this paper.

### *a. Transition Management*

Transition management is presented as new mode of governance that aims to resolve persistent problems in societal systems, including a policy model to influence long term societal change (Rotmans et al., 2001; Rotmans, 2005, 2003; Loorbach 2007; Loorbach & Rotmans, 2006; Kemp and Loorbach, 2005). The basic premise is that sustainable development requires transitions: non-linear processes of social change in which a societal system is structurally transformed (Rotmans, 2003). 'Transition studies' apply theories and methods from various disciplines to study the history, dynamics and governance of 'transitions' and 'system innovations' (Rotmans et al., 2001; Rotmans, 2005, 2003, Kemp and Rotmans, 2002, Geels, 2005, Grin, 2005, Loorbach, 2007). Drawing on complex system theory, the primary object of transition studies concerns societal systems (e.g. sectors or regions), which are viewed as 'complex adaptive systems'. In order to describe processes of change in these complex societal systems, different levels in time and (functional) aggregation are distinguished, resulting in the 'multi-phase', 'multi-level' and 'multi-pattern' frameworks applied in transition analysis (Rotmans, 2005). This complex system perspective, and the multi-level and multi-phase frameworks in transition studies, carries direct implications for transition management.

The systemic perspective requires a certain holistic view that acknowledges the interaction between human and non-human aspects. The influence on societal systems is not only social, cultural, institutional and political, but also economic, ecological and technological. Social actors within these systems are reflexive and as such shape and influence the dynamics of the system they inhabit. But as societal systems are complex (e.g. interactions at the micro-level may have unintended effects at the macro-level) and open (i.e. adaptive to the systems' surroundings), these systems have a functional dynamic of their own which no actor or group of actors can control. In the multi-level framework, a distinction is made between *regimes*, *niches* and *landscapes*. The landscape refers to the surroundings of a particular societal system under study, where one sees trends with a relatively slow progress and / or developments with a high autonomous character. The regime is defined as the most 'dominant' configuration of actors, structures and practices; the regime dominates the functioning of the societal system and defends the status quo. Niches on the other hand are defined as configurations in which non-conformism and innovation can develop. These niches are also part of the societal system, but able to deviate from the dominant structures, practices and actors within that system. As the regime dominates the societal system, a necessary condition for a transition to occur is that this regime is either transformed or replaced by a new regime, and that niches challenge the regime and / or form such a new regime (Rotmans, 2003).

In that sense, transition management is about enabling 'niches' and transforming 'regimes' in interaction with a changing landscape.

Moreover, a transition occurs when a societal system moves from one dynamic state of equilibrium to another through a sequence of alternating phases of relatively fast and slow dynamics, which form a non-linear pattern (Rotmans, 2003). In each of the distinguished phases – predevelopment, take-off, acceleration and stabilization - (Rotmans, 2003) the challenges and possibilities for transition management are different. The complexity of societal systems prescribes that the way in which actors can influence interaction processes, differs for every level of aggregation and for every phase in time. As such, transition management requires understanding of the 'internal dynamics' of a societal system, awareness of its multi-level interactions and insight in its non-linear phase alternation through time. Transition management is not directly focused on a solution, but rather explorative and design-oriented. The essence of transition management is that it focuses on the content of societal issues as well as the process, by organizing an interactive and selective, participatory stakeholder-process aimed at learning and experimenting.

Transition management therefore starts off from the premise that full control and management of societal problems is not possible, but that we can 'manage' these problems in terms of adjusting, adapting and influencing the societal system by organizing a joint searching and learning process, focused on long-term sustainable solutions (Rotmans, 2005; Loorbach, 2007). Based on governance literature, social theory and historical analysis, other premises are that the influence on long-term processes "relies on coincidence, informal networks, intellectual capacities and creativity, rather than on government-based planning, scientifically informed and institutionalised policies" and that "long-term goal setting is not the domain of policy, but rather that of opinion leaders, individuals with strategic capabilities and powerful actors from business, policy, science or society and culture" (Loorbach, 2007: 105). As such, the ambition of transition management is to bring such opinion leaders together, and enable them to integrate "long-term governance activities into the realm of policy-making" (Loorbach, 2007: 104). The transition management literature offers management principles how to help organize this.

First, a distinction is made between the strategic, the tactical and the operational levels of management. Second, basic *elements* of transition management, basic management *principles* and *instruments* are distinguished (Loorbach, 2007: 81 and 114). Beside a transition arena, transition pathways, a transition agenda and transition experiments, these instruments also include complex system analysis and sustainability visions as participative process tools. (Loorbach, 2007: 114). Third, these levels, instruments and principles are captured in a "cyclical process model as a basis for operational management of multi-level governance", including the following set of activities: i) problem structuring, establishment of the transition arena and envisioning; ii) developing coalitions and transition agendas (transition images and related transition paths); iii) establishing and carrying out transition experiments and mobilizing the resulting transition networks; iv) monitoring, evaluating and learning lessons from the transition

experiments and, based on these, adjust vision, agenda and coalitions” (Loorbach 2002 and Rotmans 2003, in: Loorbach, 2007: 115). There is no fixed sequence in these transition management activities, they are carried out “partially and completely in sequence, in parallel and in random sequence” (Loorbach, 2007: 115). While the problem structuring and envisioning occurs at the strategic level (long-term focus on societal system level), coalitions and transition agendas are developed at the tactical level (mid-term focus on subsystem / regime level), and at the operational level (short-term focus on mini-system / niche-level) actors are mobilized and transition experiments are implemented. Monitoring, evaluating, learning and adapting concern an ongoing activity at all the levels of transition management. (Loorbach, 2007: 116-125)

The transition management approach has gained much attention from policy-makers, managers and other practitioners in the last few years. It has been applied in various policy contexts, and to various programs and projects (Loorbach, 2007). In 2001 the concepts of ‘transition’ and ‘transition management’ were introduced in the 4th Dutch National Environmental Policy Plan. ‘Transition management’ was presented as “a strategy to deal with environmental degradation by stimulating sustainable development as a specific aim of policy making”. Several Dutch ministries mentioned the strategy, under which the ministry of Economic Affairs, the ministry of Housing, Land-use Planning and Environmental Management and the ministry of Transport & Water. One example of a sector in which the term ‘transition management’ spread is the Dutch transport sector. In 2004 the Dutch these ministries presented its latest Mobility policy plan, in which a ‘transition to sustainable mobility’ is mentioned and ‘transition management’ as an innovation strategy for the long term, which the cabinet chooses in order to “achieve sustainable mobility (...) with a long-term time horizon and – related to that – innovation programs (...) for the short-term”. Subsequently, transition management was applied in various ‘sustainable transport’ programs and projects, such as Transumo and the A15-project.

### ***b. Knowledge & Power***

Knowledge management is an important part of the activities of knowledge intensive organisations such as Transumo, and therefore also of the A15-project. What knowledge management actually is, however, is not very easy to define, mainly due to the difficulties surrounding the defining of knowledge itself. Weggeman uses a formula to conceptualise it:  $k=i.esa$ , or: knowledge is information times experiences, skills and attitudes (1997: 33-34). Very relevant for the A15-project is the inclusion of experiences and skills; forms of tacit knowledge, which often is of vital importance in innovative knowledge developing projects. In this paper we will adopt an adaptation of the view of the second generation knowledge management (Huysman 2006); which states that knowledge management is about implicit knowledge, and that processes of imitation and cooperation are central herein (ibid.). However, since this view does not recognise the role of power and influence in knowledge management (ibid.), we will work with a view on knowledge management that does focus on implicit knowledge, but with awareness on the role of power in these processes. Surely, one can not look at processes of imitation and cooperation in knowledge management, while disregarding the effect of power relations

herein. Hence, the used definition of knowledge management in this paper is as follows: *Knowledge management is the creation, exchange, transfer, and use (meaning: the entire knowledge cycle) of knowledge, where knowledge is both tangible as well as tacit, and processes of cooperation and relations of power form an important context.*

Although we may use this definition of knowledge as researchers, social actors have their one interpretation of what knowledge is. Many authors have addressed the relation between *power and knowledge* (Bacon and Foucault in: Garcia, 2001 and Flyvbjerg, 1998). One aspect thereof is the idea that ‘those in power’ decide what is to be considered ‘knowledge’. In the transport sector for example, a large part of that which is considered ‘knowledge’ focuses on technological and economic considerations of existing infrastructures and organisational structures. Policy recommendations are often given at the end of such studies and are often based on conclusions regarding cost efficiency. Even though many of these accounts are based on quantitative data and ‘hard’ figures, authors still seem to disagree on various fronts in their conclusions and recommendations: when there is a debate about what to do or not to do in the transport sector, opinions on both sides of the debate can be ‘backed up’ by some technological or economic report (see for example Brink & Van Wee, 2001, Ierland et al., 2000 and Rienstra et al., 1999). A sociological researcher, Flyvbjerg, has elaborately illustrated how this ‘phenomenon’ works within public management processes in his book on ‘Power and Rationality’ (1998). On the basis of an in depth case study of transport planning policies, the author demonstrates how ‘rational’ arguments are used to rationalize decisions that have already been taken beforehand, and rarely the other way around. As such, the author claims that public planning and decision-making is mostly based on interests and relations of power, while ‘rational’ arguments such as economic or technological considerations are only used afterwards to ‘legitimise’ the decisions. Therefore, technological and economic cost-benefit analyses carry an aura of ‘rationality’ and ‘objectivity’ that may be overestimated.

However, as pointed out in second generation knowledge management literature social networks can be a key player in overcoming power differences, and therefore enhancing the sharing of knowledge. Here lies also the link with transition management. In arena processes, where new actors are brought to the table and new forms of cooperation come into existence, knowledge plays an important role. First of all, the distribution of knowledge over the actors is crucial for the process. If there are asymmetries in available knowledge it is much harder to develop innovative ideas in an equal way. Second, the focus on tacit knowledge is important in arena processes. The only way of exchanging implicit knowledge is in contacts with other actors. Arena processes can be of vital importance in creating a setting in which implicit knowledge can be exchanged. The second transition management concept which has a strong relation to knowledge management is the difference between regime actors and niche actors. This mainly relates to the first point on arena’s: there are differences in power, due to the distribution of knowledge among the actors. The reasoning also works the other way around: there are also differences in knowledge, due to the differences in power. Regime and niche actors have different ways of accessing knowledge, and different possibilities of acquiring knowledge. The third idea of transition management that is visible in (second generation)

knowledge management concerns the above mentioned focus in recent ideas on knowledge management on implicit knowledge and social networks. As mentioned earlier, transition management makes the claim that long term processes rely on, among others, informal networks and creativity and intellectual capabilities, instead of 'hard knowledge' only (Loorbach 2007). Both second generation knowledge management and transition management therefore point to the importance of informal networks and implicit knowledge.

In knowledge management issues of short term versus long term also play a role, at least in people's perceptions. Whereas tangible knowledge is often viewed as knowledge developed for short term changes (where one thinks of reports, brochures, etcetera), tacit knowledge is conceived of as more vague, 'and therefore more long term'. Because it is harder to trust long term ideas to paper the link with implicit knowledge, also being often not made explicit, is easily made. Because projects like the A15 project have the obligation to produce deliverables, to show the world what has been done with the state finances, the choice will often be made to focus on the tangible, short term, measures and concrete ideas, in order to avoid condemning from the financiers. Here the power relations between financiers and finance-users are evident. Hence, there is an undeniable linkage between transition processes, knowledge management, and power relations.

### *c. Phronesis*

The purpose of this paper is not to go in to the many theoretical discussions on the relation between power and knowledge, nor to empirically test any hypothesis. The purpose is rather to look closely at a particular case in which transition management is applied and therein focus on the way actors deal with 'short-term and long-term perspective' in terms of knowledge transfer and power relations. In order to do this we hold on to the research philosophy of *phronesis*. The *phronesis* concept has been elaborated on by various authors such as Flyvbjerg (2004, 2001) and Loeber (2004). 'Phronesis' is a concept variously translated as practical wisdom, practical judgement, common sense or prudence. Phronesis is contrasted with pure scientific knowledge (*episteme*) and technical knowledge (*techne*) by involving values and "the art of judgement" (Flyvbjerg, 2004: 284). On the basis of the *phronesis* concept, Flyvbjerg and other authors call upon social scientists to make practical judgments on the basis of their observations. In an attempt to 'making social science matter' (2001) Flyvbjerg criticises the tendency of social scientists to 'imitate' the natural sciences by trying to develop 'laws' and 'theories'. He proposes *phronesis* as a way out of this 'positivistic trap'. Flyvbjerg stresses that social scientists shouldn't be afraid of making 'normative judgments' about their object of study, as long as such judgments are based on the right research questions.

As stated in the introduction, our research question is the following: how do actors in this particular case (the programme Transumo overall and the A15-project more specifically) deal with 'short-term' and 'long-term' perspectives in terms of knowledge and power and what challenges and lessons can we distil from this for the ongoing development of transition management? The research method that was used is a mix between participant

observation and action research (Greenwood & Levin, 1998). Both authors have been actively involved in the Transumo programme and various Transumo projects. One author has been specifically participating in the A15-project during the last two and a half years, the other author for the last half year. Both were involved in the preparation and organisation of two ‘innovation-sessions’ in the A15-project, which will be described in the following section. Data-collection took place through participant observation in both internal and external project meetings, interviews and document reviews.

### **III. Programme Transumo & the A15-project**

This section will first explain the main characteristics of the programme Transumo; second, it will describe the basic characteristics of the A15-project; and third, it will highlight the innovation trajectory of the A15-project, as the main focus of this paper.

#### ***a. Transumo***

At the end of 2003 the Dutch government decided to grant subsidies out of natural gas revenues to 37 cooperation alliances and consortia, dedicated to work on fundamental research to create new products, processes or societal concepts, to strengthen the Dutch knowledge economy in its innovative and societal needs<sup>2</sup>. The ‘Dutch disease’, the theory that states that increases in the revenues from natural sources decrease competitiveness in the manufacturing sector, and therefore causes regression in the sector, can be seen as one of the reasons of the government to spend these revenues on investments in the Dutch knowledge infrastructure. This way, a sector is strengthened instead of weakened by the natural gas revenues. The alliances and consortia resulting from these subsidies covered various topics, from health care and biotechnological innovations to construction, and from ICT to mobility. As mentioned above is this last field, mobility, the prime focus of this paper.

The Dutch mobility sector has been challenged in multiple ways in the last decades. Congestion is continuously increasing, environmental standards have become stricter and stricter in the face of problems such as air pollution and noise looming behind the horizon, and climate change might potentially hit the Netherlands hard if worst comes to worst. All this is accompanied with an ever-increasing use of ageing infrastructure. In face of these (potential) problems the sector realised that something needs to be done to solve issues that are already a problem, and anticipate on future problems. In short; in the experiences and perceptions of the involved partners within Transumo the mobility sector was in need of a transition to a more sustainable form of mobility.

Transumo has as its mission to work on this transition, and has worked on accomplishing this from March 24. 2004, the day Transumo was granted its subsidies by a governmental decree, onwards, with an ultimate goal of in the long run getting to an internationally trendsetting knowledge network in the field of mobility. On its website, Transumo describes its mission as follows: “to accelerate/encourage the transition to sustainable

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<sup>2</sup> <https://www.senter.nl/bsik/algemeen>

mobility. This will be achieved by initiating, and establishing for the long term, a transition process that leads to the replacement of the current, supply driven, mono-disciplinary technology and knowledge infrastructure, with a demand driven, multidisciplinary and trans-disciplinary, participative knowledge infrastructure”<sup>3</sup>. The Transumo-organisation is part the abovementioned broader national programme to improve the ‘knowledge infrastructure’ by encouraging and subsidising research programmes that specifically aim for applied, multidisciplinary science at the interface between knowledge and practice. On its website, Transumo describes this as “the transition to the new knowledge infrastructure” which is supposed to lead to “advances that help to strengthen the competitiveness of the Dutch transport sector (‘Profit’) and to preserve and improve spatial and ecological (‘Planet’), and social (‘People’) aspects of mobility”.

Practically, the organisation is build up as a consortium, meaning that all participants provide for their share of the financial foundation for the organisation and its projects. This investment is, however, not only financially, but also in terms of manpower. Its structure is ‘tripartite’, meaning that governmental actors, business actors, and knowledge institutions (e.g. universities, but also research- and advisory agencies and research institutes such as the Dutch institute TNO, which works on making science applicable) work together in the well over twenty projects that Transumo harbours<sup>4</sup>. This ‘triple helix’ structure is increasingly used for the development of innovative ideas and products (Etzkowitz 2003: 293). At the level of the programme as a whole the Transumo organisation includes a ‘council of participants’, a board, a management team and organisational and facilitative staff. The projects are categorised in seven transport themes, each project having one ‘theme-leader’, one ‘project-leader’ and dozens of participants. In these projects approximately 150 organisations participate in project consortia. The largest share of this group consists of business actors (on average per project approximately 50%), followed by knowledge organisations (approx. 35%) and governmental actors (approx. 15%)<sup>5</sup>. When applying for the project portfolio of Transumo the projects were required to satisfy multiple sustainability and transition criteria. They had to make visible that their project was a real contribution to the ongoing research in the field of sustainable mobility, and that their project fitted within the transition management framework that Transumo had set itself. This lead to, among others, the ‘transitionising’ of the project plans before handing them in. However, although this transitionising was completed on paper, in practice projects often continued business as usual. Recently, the Transumo organisation has picked up on this, and has started ‘transitionising sessions’ with individual projects, in order to help them use transition management concepts.

The Transumo projects cover issues within many subfields of the mobility sector, such as both freight traffic as individual traffic, both technological adjustments and organisational changes, and both macro or meso foci as micro foci. The three pillars of sustainability, people, profit and planet, are visible throughout the project portfolio, but

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<sup>3</sup> <http://www.transumo.nl/Nl/Organisatie/Missie.aspx>

<sup>4</sup> All information on Transumo can be found at <http://www.transumo.nl>

<sup>5</sup> *Monitoringsrapport 1*, Erasmus University Rotterdam (Bressers et al.) (2008)

not within each project. Until today the main focus has been on profit and people, but the planet part is currently getting more and more attention. Because of its work on transition Transumo is working on the interface between short term action and long term goals. The example above of saying transition, but not practicing it, shows this tension between short and long term. Projects have to deal with multiple partners, who all have different interests, on different terms. Sometimes these might enforce one another, but sometimes these also might frustrate each other. Transition requires far-reaching innovations, but because of the differences between short term and long term projects often only reach enough consensus to be able to work together, and not far-reaching enough to create knowledge and innovation for a transition process. A problem such as Transumo has to integrate these diverging views, into a central image of the future it desires. That this is difficult can be distilled from the often-heard remark at Transumo that they ‘do not have a vision on the desired future development of the mobility sector’. Of course they do have ideas on it, but the diverging interests and opinions have thus far stopped them from creating a future image that is supported by everyone, without being very abstract or vague. The process of creating knowledge and innovative products and processes therefore happens within a complex setting of divergent interests and power relations.

### ***b. The A15-project***

The project under study falls under the Transumo thematic cluster of transport related ‘governance processes’. The project is officially named ‘From Maasvlakte to Hinterland: Sustainable Freight Transport as Challenge’ but is also known as ‘the A15-project’. ‘Maasvlakte’ is the name of a port and industrial zone built in the region of the Port of Rotterdam. It was created because there was more space needed in the Europoort (‘Euro gate’) - the complex of ports and industrial areas that was created in 1957 between the city of Rotterdam and the North Sea. In the mean time there is a Maasvlakte number 2 (referred to as MVII) to be built in the North Sea. The A15-road is the main road that connects the Port with the (European) ‘hinterland’. Because of the second Maasvlakte and its accommodation of increasing global transport flows, it is expected that the traffic over the A15 road will highly increase. Between 2008 and 2012 the Dutch government will invest in an enlargement of the A15. Despite of that it is expected that the capacity of the A15 after 2012 will reach its limits (reference). The A15-Transumo project aims to find solutions for the emerging problems around the accessibility of the Rotterdam harbour from 2012 onwards, these problems being the increasing congestion on the main road (the A15) and the negative environmental effects on the surrounding region resulting from the ever increasing freight transport. On its website, the project describes its goals as “realising sustainable solution directions on behalf of the transport of goods and people. The driving force behind this project is the gravity of the problems around the expected traffic increase on the A15 and the subsequent traffic related and societal problems”<sup>6</sup>.

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<http://www.traverse.nl.sharepointsite.com/Traverse/Platforms/Transumo/Projecten/Maasvlakte/welkom.asp>  
[x](#)

The project is based on a consortium of more than 30 organisations of which seven organisations are part of the 'inner core' (hereafter referred to as the 'insiders'). The entire consortium includes a university and other research institutes, (semi-) governmental organizations, an environmental NGO, various companies around the A15-region including the Port company of Rotterdam, and a business association representing a large group of companies. The project is categorized in a 'steering group', a management team and the so called group of 'knowledge workers'. The steering group consists of the 'VIPs' (e.g. directors, full professors etc) of the seven most important partners. The management team consists of middle-management of the seven partners, including the two project leaders. The group of 'knowledge workers' consists of researchers that work for university, consultancy, the harbour company and two semi-governmental organisations. The 'knowledge workers' who do the actual data-collection and analysis through document reviews, statistics, traffic modelling, interviewing, etc. mostly work on 1) collecting, analysing and applying quantitative data (with regards to traffic and environmental effects in the A15-region) in traffic models and scenarios and 2) identifying possible solutions to deal with the problems and making recommendations on that basis. The 'knowledge workers' are also the ones producing the 'deliverables' in which project results and visualizations thereof are formalized on paper. These three groups (steering group, management team and knowledge workers) meet independently from each other on a regular basis (once every few months) to discuss goal-setting, planning, task-division and the conclusions presented in the 'deliverables'. Besides those meetings there are also 'open' meetings to which 'semi-outsiders' are invited. These 'semi-outsiders' include all the stakeholders formally involved in the project as well as actors with an evident stake or interest in the theme of the project (researchers, consultants, company representatives, government officials, environmental activists etc). These open meetings provide a forum in which the 'insiders' present their vision, project results and 'deliverables' and the 'outsiders' are asked to react, comment, discuss and give input with regard to a specific theme.

The project had its official 'kick-off' in October 2006 and the 'first round' was started in January 2007. After the environmental and traffic related problems had been studied and presented in several 'deliverables', the focus turned to identifying possible solutions. One of the inside parties put together a 'long-list' of possible solutions on the basis of input from 1) interviews with stakeholders, 2) a meeting with all the companies that are involved in the project, 3) brainstorming in the 'open meetings' and 4) the expertise of the 'knowledge workers'. This 'long-list' was first shortened to a 'short-list'. The possible solutions on this 'short-list' were 'scored' in terms of their possible contribution to tackle the problems around the A15-project, including criteria such as accessibility, sustainability, feasibility, 'transition potential' etc. Finally a 'hot-list' was made with those solutions that seemed most viable. This 'hot-list' was the basis for the first '*oplossingspakket*', literally translated as 'package of solutions', which included five (categories of) solutions: 1) west-side cross-river connection, 2) innovative passenger transport to alleviate the congestion on the A15 by decreasing passenger cars (through measures such as public transport, transferium, pricing policies etc), 3) separate lanes for freight transport, combined with mobility and chain management, 4) night distribution

(spreading out the traffic during 24 hours to avoid peak hours) and 5) 'innovative' modal shift, combined with container transferia.

While this first 'package of solutions' was in the process of being formulated in a 'deliverable', both 'insiders' and 'outsiders' expressed their criticism in terms of the list of solutions not being new, innovative or radical enough. As such the persons responsible for the deliverable decided themselves to give this first 'package of solutions' the title of 'Modern Classical'. The environmental and traffic related effects of this 'Modern Classical' package were also calculated and visualized through computer models. All this was included in a shiny and colourful brochure that described the ambitions and progress of project, which was made and spread in September 2007. Around that time the 'second round' of the project was started. This second round aimed to give more attention to environmental aspects and innovation. There had been several discussions and disagreements in the management team about the extent to which the innovative participatory methods from 'transition management' would be appropriate to apply in this second round of the project. Finally it was decided to have two parallel trajectories during the second round. One was referred to as the 'main trajectory' or the 'traditional trajectory', the other was called the 'transition trajectory' or 'innovation impulse'.

### *c. The 'Innovation Impulse'*

The starting point for the 'innovation impulse' was that it was deemed necessary to realise (higher) ambitions of the project, that were not yet realised in the first phase. More innovative measures were seen to be possible and necessary (D16 concept, p.3). The project participants from the project were thought of as too strongly connected to daily practices, and therefore strongly embedded in the current way of thinking and working. This supposedly would limit their potential to come with new and creative ideas (ibid.). The alternative trajectory, parallel to the main trajectory, was then initiated, to give an innovation impulse to the project, by using the expertise and creativity of 'outsiders'. This innovation impulse trajectory was inspired by concepts of transition management, although practical reasons stopped it from fully growing to a transition arena. This innovation impulse had to be prepared, acted out and translated into a deliverable within three months (September 2007 to December 2007), in which there were two sessions with the group of 'innovative outsiders', who were all selected and interviewed in September and October. The process of the two sessions was guided by a professional process manager from advisory organisation and five facilitators from the Erasmus University Rotterdam and the Delft University of Technology. The innovation-trajectory was not financed out of the budget of the A15-project, but entirely out of additional money received from the Transumo organisation.

Originally based on a long list with up to forty names and organisations, over twenty people were approached to participate in the innovations sessions. All approached people agreed upon participation in at least one of the two planned sessions, and most did meet this promise. Participants came from a wide variety of organisations, such as small business, large business firms, universities, governmental departments, journalism, environmental organisations, overarching multi-actor organisations, consultancy,

etcetera. Prior to the sessions most participants were informed about the project and the innovation impulse in an interview conversation, in which also information was acquired regarding the views of the participants on the Rotterdam harbour area, and the potential solutions they had in mind.

The two innovation sessions took place in October and November 2007. The first session was meant to get to know one another, and evaluate and contribute to the bundle of measures of the first phase of the main trajectory. The second session focused on going deeper into the content and develop new and innovative solutions and ideas. To stimulate this creative process several measures were taken to assure the participants this was not just yet another boring business meeting. Both sessions took place in an atelier in Rotterdam, and the rooms were decorated with several mobility symbols, such as traffic signs, and quoted from the interviews were pasted to the wall in order to stimulate discussion. Several exercises were also carried out in order to break through fixed beliefs and positions. In the first session, for example, participants were asked to pick up a photograph to introduce themselves with. In the second session people were asked to write on post-its what their beckoning future perspective was, and what would be the turning point that would lead to that perspective. After writing it down they were asked to place the post-its on the timeline on the wall, hence choosing whether their perspectives were to take place in 2027, or maybe 2057, or any other year between 2007 and 2057. All this resulted in the presentation of three future perspectives, at the end of the second session. First of all, on the local level, a plan was presented for the A15 as an innovative test ground, in which both technical and organisational innovations could be tested. Second, on the national/regional level, the idea of slot management and the involvement of a mobility director was introduced. Third, on the international level, a group brought forth the viewpoint of the Rotterdam harbour as the engine of a bio based economy. The plans are not mutually exclusive, and some form a necessary condition for another plan to come into existence.

Both parallel trajectories (the ‘traditional trajectory’ and the ‘innovation impulse’) produced independent ‘deliverables’ that were presented and discussed (in the management team and the steering group) in December 2007 and January 2008. It is currently unclear whether and how the two trajectories will continue exactly (e.g. whether the processes will be integrated or kept separate). The aim of this paper is not to give an evaluation or comparative analysis of the two parallel trajectories. Rather, we focus on using our observations during the ‘second round’ to distil the way in which people in the project make sense of the ‘long-term perspective’. We do this in the next section.

#### **IV. Short Term versus Long Term and Other Dichotomies**

In this section we analyze the role of power, knowledge and the ‘long-term perspective’ in the A15-project on the basis of 1) observations in and around project meetings in both trajectories, 2) the two deliverables that came out of both trajectories in the second round and 3) interviews.

### *a. Observations in and around Meetings*

One of the general observations in the A15-project relates to the excessive use of transition terminology. The project documents (proposals, plans and reports) were filled with the terms 'sustainability', 'transition management', 'system innovation' and 'transition to sustainable mobility'. During meetings however, these words are used much less, and sometimes not at all. As mentioned before, Transumo provides a 'format' in which project documents have to be delivered. Participants have to specify how their project will contribute or has contributed to the transition to sustainable mobility, which system innovations are involved and how transition management is applied. As sustainability is characterised in terms of a 'balance' between ecological, social and economic aspects (people, planet, profit), participants are required to specify how their project contributes to all these aspect. Despite this 'balance' between the three components of sustainability, economic considerations were an obvious priority in the A15-project, as it primarily aimed at decreasing congestion problems (which is mostly an economic consideration in the context of freight transport). In meetings, the competitive position of the Dutch transport sector and the economic value of logistics were treated as a 'given' by most project participants.

In order to still comply with the 'people-planet-profit-balance', participants emphasised the 'side-effects' of economic optimisation that are indirectly beneficial for planet and people. 'Increasing efficiency' and 'combining freight loads' primarily leads to cost reduction and speeding up traffic flows (good for profit). It does however also lead to 'less transport' (in terms of less kilometres), and therefore also 'less noise' (i.e. good for people) and 'less emissions' (i.e. good for planet). In this way the goal of accessibility and economic optimisation was framed in terms of sustainability. Both insiders and outsiders participants mentioned this point in project meetings, frequently emphasising that tackling congestion profit was the primary focus of the project and that the long-term sustainability aspect was missing.

Even when a fundamental discussion about long-term system innovation and sustainability emerged in the meetings during the 'first round', or when participants called for more innovativeness or more attention for the ecological aspects, other participants responded in terms of pragmatic considerations such as the limited budget, scope and time frame of the project, or strategic considerations such as the demands of the 'steering group'. Therein the position of the project-leader was especially difficult. The project-leader has to deal with a large consortium of stakeholders, the steering group, the management team, a group of company representatives and the group of 'knowledge-workers'. On top of all that, the project-leader also had to deal with the 'theme-leader' and the evaluations by the Transumo organisation, which also includes a management team, board, council and so on. Moreover, during the meetings there were significant disagreements about the extent to which the project should focus on a long-term or short-term perspective.

These disagreements were related to certain tensions between project participants with differing backgrounds: between researchers and company representatives, environmental

organisations and company representatives, consultants and researchers, different research institutes, different individuals representing different departments within one organisation, and so on. An illustrative incident occurred at a meeting of the 'business representatives'. While the semi-governmental environmental organisation participating in the project had also been invited to the meeting, the representative of that organisation was not present. At the reception following the meeting, a business representative loudly and publicly commented on the absence, concluding that it was good because: "at least this way we keep it pleasant". At an open meeting in which dozens of 'outsiders' were invited to discuss sustainable freight transport and the accessibility of the Rotterdam harbour, one representative of an environmental organisation commented that the A15-project was nothing but a 'toy' of the Rotterdam harbour company. A governmental representative commented that 'yet again' it showed that Transumo-projects were nothing but 'a hobby for professors'. While Transumo-projects explicitly aim to bring research and practice closer together in an effort to reach societal goals, in the reality of this project it seemed that the gaps between researchers, consultants, businesses and environmental organisations were enlarged as conflict emerged and stereotypes were confirmed. One of the most striking stereotypes relates to the short- and the long-term. Stakeholders have the tendency to separate each other in 'those that think short-term' and 'those that think long-term'. We will come back to this particular tendency later on as it was explicitly confirmed during the interviews

Another striking feature during the meetings of the 'traditional trajectory' was the relatively technological approach, especially in comparison to the broad project goals. The focus on technical measures, and the use of rather technological calculation methods, was sometimes at odds with the goal of creating solutions in the harbour region for sustainable development. During most of the meetings of the 'knowledge workers' the discussions predominantly revolved around who was going to use what data through the use of what computer model. Fundamental discussions about goals or strategies in the project are mostly kept in the management team and the steering group, and hardly discussed with the 'knowledge workers' (if they are mentioned at all, they are 'stated' by the project leader). There is a strong division between the production of knowledge and deliverables on the one hand, and the political and strategic discussions on the other hand. It is therefore not surprising that the first 'package of solutions' with the name 'Modern Classical' had a rather technological focus, and did not mention much about the organisational, political and cultural challenges inherent to those possible 'solutions'. This point was brought up as explicit criticism by many outsiders, both in the open meetings of the 'traditional trajectory', as well as in the two sessions of the 'innovation impulse'. Not only was the first 'package of solutions' not considered innovative enough, it was also found to lack strategies on *how* to implement these solutions.

The most striking observation in and around the project meetings concerns the way in which 'insiders' referred to the two parallel trajectories during the second round (regular trajectory versus the 'innovation impulse'). As described in the previous section these interviews and sessions were prepared, organised and reported by five 'facilitators' (and one senior process-manager who was hired to lead the discussion during the sessions). It so happens that these five facilitators were the 'youngest' people involved in the A15-

project, as it involved the two assistants of the project-leaders, two PhD-students (the authors of this paper) and one Master-student. In both open project meeting as well as in several external presentations about the A15-project, the project leaders consistently referred to the 'transition trajectory' as a 'fun initiative done by the young people' for which the seniors in the project 'had made space', and in which they did not get too much involved because they wanted to leave it 'up to the young people'. Regardless of the good intentions behind this interpretation, it does suggest that many of the participants in the A15-project associate 'innovation', 'transition management' and 'long-term visions on sustainability' with 'young' and 'inexperienced' people that can still afford to occupy themselves with those matters, while 'optimisation', 'project management' and 'short-term solutions for accessibility problems' is associated with serious grown-up matters for senior experts. We come back to these and other associations and the end of this section.

### ***b. What Participants Write... (the 'deliverables')***

Whereas the original bundle of measures and solutions for the A15-region (the 'Modern-Classical trajectory') presented relatively short-term measures, such as the distribution of goods at night and the discerning of separate driving lanes on the road, both the more recent deliverables focus more on the long-term. As quoted from the deliverable from the 'regular trajectory' of the project: "*An important point of departure is that the Modern-Classical trajectory did not give any attention to the design of the area under study in the long-term*". This increasing focus on the long-term, also in the general project trajectory, coincides with an increasing focus on sustainability. Whereas the project started with a focus on accessibility, within the basic conditions of sustainability, the deliverable from the general trajectory now also proposes: "*(...) that sustainability is a strategic chance for the future development of the harbour*".

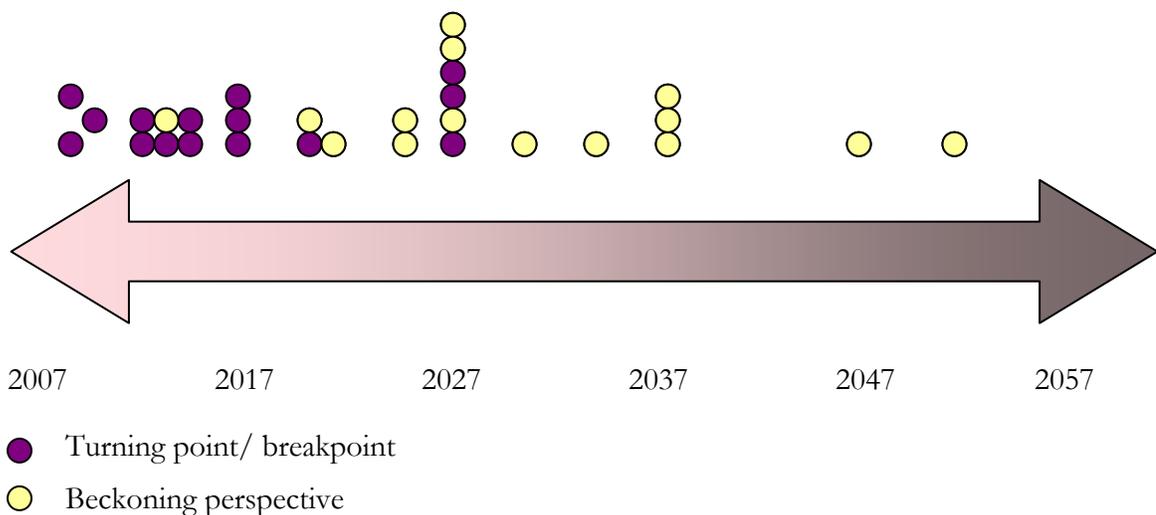
Hence the focus within the project, whether it is the general trajectory or the innovation impulse trajectory, is focusing increasingly on sustainability and long-term measures. Both connect different kinds of solutions and measures to the shared ideals of accessibility and sustainability. D15, the deliverable of the general trajectory, connects long-term goals to a more accentuated version of the goals from the Modern-Classical trajectory, plus five new themes, in which several measures are presented. D16, the deliverable of the innovation impulse, presents three ideal images as new goals for the project: first, the A15 as experimental garden for small-scale innovations; second, slot management as innovative form of organisations; and third, the Rotterdam harbour as engine of the bio based economy. D16 classifies these ideal images as presenting the contrasts between long-term and short-term effects, the beckoning long-term perspective being represented by the image of the bio based economy, while the A15 as a test ground consists of measures that can be carried out 'tomorrow'. This contrast is also represented by a quote of one of the participants, which is mentioned in D16: "*we have to think long-term, and act short-term*".

The deliverables therefore seem to present long-term and short-term as a dichotomy between concrete actions (short-term) and long-term goals or ideals (ideal images or strategic chances). However, as is also mentioned in the deliverable of the innovation

impulse, “*the contrast between the short and the long term is a false distinction. Long-term perspectives which are not connected to taking actions in the present are castles in the air*”. Hence, the deliverables appear to be hovering between describing the dichotomy between short-term and long-term, and yet also pointing to the interaction between them.

Other dichotomies also show in the deliverables. As D16 mentions; “*in practice there is significant tension between transition management on the one hand and project management on the other*”. Based on other sources one can connect this to the often-made assumption that transition management is solely a long-term focus perspective, while project management is about the short-term. Although D16 does not agree with this, “*(...) because in realising transition or system innovation it is about beckoning long-term future images on the one hand, and possibilities to take steps in the right direction ‘today’ on the other hand*”, project participants might not share this view.

In general, the two deliverables lead us to the conclusion that short-term and long-term foci are problematic in the project. Next to the above mentioned tendency to dichotomise there also appear to be problems surrounding the definition of ‘long-term’. Whereas one person may view long-term to be 2020, someone else would conclude this is short-term. D16 also shows us that even the innovators had trouble thinking beyond 2037, considering hardly anyone mentioned a future image beyond this year [see figure 1]. Concluding, the two deliverables show us the tendency to dichotomise in the project, and the problems around long-term thinking. However, it appears to be less the case in the deliverables then revealed in de data acquired from interviews and participation. This might be because written sources usually have multiple authors, who restrict each other in their individual perceptions, and hence moderate each other’s views.



**Figure 1: Timeline exercise, second innovation impulse meeting**

***b. What Participants Say... (in interviews)***

We interviewed ‘insiders’ (from steering group, management team and knowledge workers) and ‘outsiders’ (some of which participated in the innovation sessions, others participated in the open meeting of the ‘regular trajectory’, and some participated in all meetings). In the interviews, these participants were asked to comment on the following topics in relation to the A15 project: 1) goal-setting, 2) relation between the short and the long term, 3) embedment in Transumo, 4) application of transition (management) concepts 5) relation between the different trajectories, 6) transfer of knowledge and 7) relations of power.

In the interviews it became apparent how different the participants think about all these issues. When asked to define what ‘long term’ or ‘short term’ is, participants gave strikingly different answers. Interpretations of the short term varied from ‘today’, ‘tomorrow’, ‘the next four years’, ‘until the end of this project’, ‘2010’, ‘2015’ or even ‘2020’, while interpretations of the long term varied from 2010, 2015, 2020 to 2030 and 2050. Some saw 2020 as clearly long-term while others not at all, as is illustrated in the comment that “the possibilities for new visions lay beyond 2020 and no transition can be achieved before that because too much is already fixed until 2020”. In the interviews participants also commented on the interpretations of others, such as “the long term vision of the ministry is about 2020, but that is actually too short-term because real change can only happen after that”. The one thing that all participants agreed on however, is that the ‘tension between the short and the long term’ is one of the major challenges in the project. It was emphasised that this tension was a topic of discussion in all the different groups and that questions on whether to focus on the short or long term ‘keep coming back’.

The most striking observation in the interviews is that participants separate other participants and stakeholders into ‘those that think short-term’ and ‘those that think long term’. Especially business companies are mentioned by all participants as the ones that think short term or only care about today and tomorrow. While most participants emphasise that this short-term thinking is ‘a problem’ - as they believe it impedes innovation and change – they do not ‘blame’ companies for it, as this short-term thinking is believed to be ‘inherent’ to business. References are made to the short-term demands of shareholders (in the case of large companies), the highly competitive market and the small profit margins in the transport sector (in the case of smaller companies). Business “cannot afford to think long-term”. As many of the stakeholders in the A15-project are companies, there is a supposed problem according to the participants: the A15-project is a Transumo-project, deals with sustainability and is therefore supposed to focus on the long-term. This is even an explicit and formal goal of the project. Yet, many of the stakeholders seem rather regardless of the long-term and more interested in short-term solutions. All participants describe and emphasise this dilemma. As mentioned before, it was one of the main reasons to set up the parallel trajectories: “when you live in discussions over the second ‘Maasvlakte’ and the accessibility of the harbour, it is hard to take distance from that and look at the long-term in a more innovative way. That is why we needed people from outside with other foci (spatial, economic, environment, climate, etc)”.

Another observation is that none of the participants had a clear answer to the interview question on what could be considered the ‘mid-term’ in the project. Some referred to the formal goal of the project and the set dates surrounding the MVII (in 2020 it will be ready and in 2033 it will be fully operational) and suggested that 2020 could be seen as some form of midterm. Participants did also describe certain dates as some sort of ‘turning point’. Besides 2020, the year 2012 is often mentioned as the year in which the enlargement of the A15 is (planned to be) ready. As mentioned before, the initial focus and starting point of the project is that the harbour company and the ministry have a plan until 2012 and that the A15-project deals with what has to be done afterwards. One participant emphasised that after 2012 things will be solved for a while, but then it will get worse again and that is what the A15 project should focus on (instead of ‘current’ problems). There is also a formal task-division as there are various other projects around the A15 that deal with short-term solutions, while this A15-Transumo-project has been explicitly assigned to deal with the long-term. However, the same participant stressed that it is inherently difficult to think long-term in this specific project because the problems on the A15 are currently already very urgent. Short-term solutions are deemed necessary and urgent by the majority of the companies in the region. Because of that it is difficult to make room for thinking about long-term solutions.

When asked how the relation between short-term and long-term was dealt with or managed, participants gave various answers. Some emphasised that the project has two groups that come from different worlds - one that thinks short term and another that thinks long term – and that these two different worlds will simply “never find each other”. Others emphasised that there is a lack in the project of someone who can build bridges between these two ways of thinking. One participant stated that by simply putting these two different groups together and making sure that each ‘gets a bit of what he wants’, they will meet in the middle and make concessions. Two participants emphasised the lack and need for ‘back casting’ as a replacement for the current focus on extrapolation. We will come back to this and other suggestions and recommendations by participants in the conclusions when we discuss the challenges for transition management. First, we discuss the conclusion of our analysis of the deliverables, meetings and interviews.

#### ***d. Associations with Long and Short-term***

Even though all participants seem to agree that considerable tensions and dilemmas in the project lie between a short-term focus versus a long-term focus, they have very different ideas on what the words ‘short-term’ or ‘long-term’ entail in terms of actual dates on the calendar. This suggests that the perceived tension ‘between the short- and long-term’ might be about something else than the actual temporal aspect. Indeed, another observation is that participants explained the tension between short-term and long-term by explicitly referring to tensions between other dichotomies. For instance, all mentioned the tension between the ‘accessibility target’ and the ‘sustainability target’. Even though most emphasise that these targets are not mutually exclusive and can enforce each other, they still emphasise that certain stakeholders want the project to be focused on

accessibility while others want to focus it on sustainability. Subsequently, 'those who mostly want sustainability' are characterised as 'those who think long-term', and 'those who want mostly accessibility' are characterised as 'those who think short-term'. In many interviews it was emphasised that either the majority of the stakeholders or the most dominant stakeholders find accessibility a more important focus of the project. One participant, however, pointed out that while accessibility is actually really the goal of the project, sustainability is accepted by everyone as a necessary condition, and that 'conditions are actually more important than goals' because 'goals are flexible while conditions are hard'. Other participants, mostly those who were only involved in the 'innovation-impulse', describe the A15-project as an accessibility project that is focused on short-term technological solutions but 'disguised' as a sustainability project. So far, none of this is surprising. First, it is a human tendency to think in dichotomies and categories. Second, the concept of sustainability has an inherent long-term dimension so the association between one and the other is evident. Third, the tension between sustainability and economic targets such as accessibility is also common, as well as suspicions that sustainability discourse might be a disguise for other interests. Yet the list of categories that are associated with the long-term versus the short-term is much larger. Although many associations make sense, not all associations are self-evident or necessarily logical. For instance, many participants associate the short-term with technological solutions and the long term with organisational and cultural strategies. This is not self-evident. As a matter of fact, one could argue that solutions in the technological or infrastructural sphere require 'more time' to be realised than organisational and cultural measures.

Another interesting connotation with the 'long-term' is the idea among participants that a long-term focus is the same thing as a slow process in the project. Stakeholders and outsiders – mostly companies – complain mostly about the project 'taking too long'. Insiders tend to conclude that this means those critics are too impatient to think long-term. There is however an obvious difference between a long-term *content* focus (e.g. how could the harbour develop during the next 30 years?) and a slow *process* within the project (e.g. what are we doing in the project in the coming weeks?). A long-term content focus can perfectly well be combined with a quicker process. One of the reasons that the long-term is associated with a delay in the progress of the project has to do with the focus of the project on quantitative research outcomes and traffic models, in which the effect of the 'measures' are 'calculated'. By many this is considered to be the core output of the project, the 'concrete', 'objective' and 'scientific' results. Other outcomes such as visions and strategies (formulated through a participative process by the stakeholders) are considered creative and 'fun' but vague and normative.

The parallel trajectories and the respective 'deliverables' seem to enforce this interpretation, and also confirm the idea that the long-term focus leads to vague outcomes that cannot be translated into concrete project results (i.e. calculating it in scenario models) while a short-term focus safeguards a successful project output. Ironically, the deliverable that is quantifiable 'still has to be calculated', whereas the deliverable that is not quantifiable is basically ready to be used. However, participants seem uncertain how to use it. Some emphasised that the visions and strategies thought out in the innovation

session should be presented and spread out with enthusiasm and passion, and translated into concrete projects. When asked what was going to happen with the outcome of the innovation session, however, the inside participants commented that this ‘still had to be decided’. If during this ‘decision-making period’ the outside participants were to complain that it is taking too long, the conclusion will most probably be that stakeholders have ‘no patience for the long-term’. There are some significant differences between participants in this regard. While certain insiders tend to associate the calculation in traffic models with ‘action’ and ‘actually doing something’ (in the sense of getting things done and producing output), outsiders – especially companies – associate this with ‘yet another’ theoretical exercise instead of a plan for action. In this line, there are many other associations with the ‘short-term’ and the ‘long-term’. Based on the observations in documents, meetings and interviews, the following list of associations has been distilled:

<b>Associations with ‘Short Term’</b>	<b>Associations with ‘Long Term’</b>
Present	Future
Accessibility	Sustainability
Economic interests	Societal interests
Technological focus	Organisational focus
Transport Planning	Spatial Planning
Optimisation	Innovation
Business actors / consultants	‘The rest’ (government, NGO, scientists)
Content	Process
Applied knowledge	Fundamental knowledge
Concrete	Abstract
Operational	Strategic
Vested interests / regimes	Suppressed interests / niches
Consistency	Flexibility
Conforming to fixed paradigms	Challenging and changing paradigms
Action, ‘doing something’	Reflection, ‘thinking about it’
Fast process / quick project outcomes	Slow process / no project outcomes
Local (low level of aggregation)	National & Global (high level of aggregation)
Pragmatic	Idealistic
Incremental	Radical
Tolerant	Judgemental
Bottom-up	Top-down
Quantitative / traffic models	Qualitative / images
Objective	Subjective
Serious ‘Work’	Creative ‘Fun’
Insiders expertise and experience	Outsiders naivety
Solutions / measures	Ideas / visions
Is / ‘how things are’	Ought / ‘how things should be’
Project management	Transition management

There is a tendency in the A15-project to place participants in one column or the other. If you are in favour of concrete project results you are also be in favour of a short-term

focus, and therefore for a focus on accessibility. The distinction between the two columns seems to be mostly confirmed and enforced rather than broken down. Especially as participants emphasise the differences between those that 'fit' in one column and those that fit in the other, rather than pointing out the similarities between them in the common endeavour to search for a ways to deal with these dilemmas.

## V. Conclusion: Challenges for Transition Management

The first set of conclusions in this paper is that many of the participants in the A15-project see the long-term perspective and a short-term perspective as mutually exclusive, that they associate the difference between short- and long-term with various other dichotomies, that these dichotomies are confirmed and enforced by the majority of the participants and that many discussions about 'short-term' versus 'long-term' seem to be about something else than the actual temporal aspect. This 'thinking in dichotomies' and the confirmation and enforcement thereof as observed in the A15-project can be considered problematic if the challenge is to find middle ways between these dichotomies and to link them to one another. The most striking observation therein is that a 'long-term perspective' - *in terms of what happens between now and the future* - could theoretically be a tool to bridge many of these dichotomies. This, however, is impossible as long as the long-term perspective is only associated with one side of the dichotomies (the 'future' and everything that is intangible or far away).

As one participant concluded in an interview, the problem in the project so far is not so much that the long-term is lacking, but that the dimension of 'time' in itself is lacking. Both in the innovation meetings and in the interviews, other participants also commented that the 'package of solutions' is too much an *enumeration* of possible measures (which is in a way inherent to the chosen process of going from a 'long-list' to a 'short-list' to a 'hot-list'). These solutions are presented as a static 'package' but not placed 'in time'. Ironically, the same participants who produce the 'package of solutions' have a rigorously planned process on how to produce that output (a planning in which they agree who should have what ready when). This output has become the goal of the project, but the output *in itself* - the 'package of solutions' - is not placed in time (in terms of which solutions could be implemented when and by whom, how this relates to the timing of other solutions, and how all this relates to the actual content goal). As mentioned before, two participants emphasised that the project is in need of back casting exercises to bring in the temporal dimension ('we need to look forward 40 years, and then look back via back casting to see what you want to achieve and what you should do for that now').

This conclusion by some participants fits with the overall conclusion by the majority of the participants, namely that the project should focus more on the process and organisation: *how* to implement the measures. This conclusion was made in both trajectories, and is as close as it gets to a turning point in the project. It seems, however, that not all participants realise the link between 'bringing in the process and organisational aspect' on the one hand and 'bringing in the long-term temporal dimension' on the other hand. Moreover, there is a risk in the current turning point in which participants conclude that 'it is about the process and the organisation' and that the

discussion should be about 'how' *instead* of 'what'. This risk is that the 'what', the content, is not discussed anymore, and that the tension between accessibility and sustainability is circumvented. The challenge is to break through the dichotomies between process and content, accessibility and sustainability. A long-term perspective does not necessarily 'favour' one side of these dichotomies, but can be seen as a perspective that inherently relates them to one another by answering the question what to do when and how.

The transition management literature positions itself explicitly as an approach that does exactly that: 1) link sustainability to other targets such as accessibility through a participative process in which economic, ecological and societal stocks and flows are explicitly compared and discussed (Rotmans, 2001), 2) integrating process and content (Loorbach, 2007) and 3) bringing in the long-term temporal perspective that relates the 'now' to the 'future', links current actions to future ambitions through transition scenarios, back casting techniques and 'transition paths' (Sondeijker et al., 2006, Loorbach, 2007). The most striking conclusion in this paper is, however, that participants do not see transition management in this way. Instead, the majority of the participants associate transition management only with *one side* of the dichotomies (the right column): thinking about the *future* solely, a *process* tool that denies the content, something that is *only* about the ideal of sustainability and not about other economic or societal targets. As such the most important challenge for transition management is to explicitly position itself as an approach that *breaks through* dichotomies, and offers concrete techniques to do so. While the parallel trajectories (regular trajectory versus innovation impulse) served to see how strong these dichotomies are in association with the long-term versus the short-term, it is questionable to what extent this 'two-track approach' sufficed to break through these dichotomies in the A15-project. Doing so is as such both a challenge for the A15-project as for the ongoing development of transition management.

As the A15-project had not been set up according to the transition management model - and thus had to be 'transitionised' at a later stage - it became inherently confusing which transition management principles were appropriate. Because transition management was associated with only 'one side' of all the dilemmas that the project was dealing with, the complete 'transitionising' of the project was excluded as an option. Instead, the participants choose to take a two-track approach: hold on to what they call a 'modern classical project approach', while making space for an 'innovative transition trajectory' on the side. While transitionising is mentioned by Loorbach (2007) – as discussed in the previous section- these options are much less elaborated upon than the full-fledged transition management governance model. Moreover, in the TM-literature, the 'two-track approach' refers to the level of (government) policy. The term serves to underline that a transition management process does not necessarily intend to replace mainstream (government) policy; they can 'coexist'. With time and patience, the transition movement may spread out and have a transformational influence on the (mainstream) government policy. But to what extent can this two-track approach work at the level of a project? Fragmenting a project into a 'regular trajectory' on one side and an innovative trajectory on the other side can in many ways starkly contradict the aim of transition management

to confront and synthesise innovative long-term thinking with pragmatic short-term concerns. But if the two-track approach is not the way to 'transitionise' a project like the A15-project, than what is?

Projects and policies that need 'transitionising' are by definition at odds with transition theory and transition management principles. An interesting quote by Loorbach (2007) in this respect is the following:

A danger lies in a haphazard and thin application of transition management so that it is hardly an improvement compared to regular (innovation oriented) policies. The 'label' transition management is increasingly used for projects and processes that are not fundamentally different from regular projects and processes, often stimulated by funding agencies that ask for 'transition' projects (without using strict or scientific criteria). In reality, these are often more optimization or innovation projects or trajectories than transition processes. The 'freedom of application', i.e. the possibility to interpret and use the transition management approach freely is inherent in the approach, which certainly in the beginning lacked preciseness. Even our own approach and model are still ambiguous in some sense and our thinking is continuously in development. It is, however, necessary to be reflective and analytically strict in evaluating and learning from the diversity of practices (Loorbach, 2007: 287).

It would be easy to conclude that we are dealing with a 'thin application' of transition management, that this A15-project was 'hardly an improvement compared to regular projects', that the 'label' transition management was merely used for funding purposes, and that it was 'optimization' or a 'regular innovation' project rather than a 'transition project'. While such conclusion may be 'true' in a way, and interesting for research purposes, it would be more interesting and constructive (both for research and for practice) to understand why such a 'watered down' application of transition management occurs, and how it can be dealt with. The most relevant research question that we distil for transition management is as such the following: what to do if the majority of the participants in a context like the A15-project are not willing or able (for whatever reasons) to apply the full-fledged transition management approach, but still want to use some of the insight of transition management? More specifically, if there is no room to set up a proper 'transition arena' and make intensive use of techniques and concepts such as 'transition scenarios' and 'transition paths', (how) can the transition management still be used to a) insert the temporal dimension, b) relate the long-term to the short-term, and 3) break through other dichotomies by reframing them as challenges and dilemmas?

As mentioned in the previous section, one of the dichotomies associated with the short-term versus the long-term concerns the distinction between 'is' and 'ought'. This relates to one of the most fundamental debates in social science, between those that 'describe' and 'explain' and those that 'prescribe' and 'predict', between those that call for an understanding of how things 'are' and those that emphasize the understanding of how things 'should be'. Critical social theory has predominantly occupied itself with the latter, openly defining its purpose as social research for social improvement. In the past decade various social scientists have challenged that Enlightenment paradigm as inspired by authors such as Kant and Habermas and called for a re-appreciation of the insights offered by Machiavelli, Nietzsche and Foucault. Bruclesby and Cummings (1996) have explicitly proposed a shift from Habermas to Foucault as 'an alternative underpinning of

critical social theory`, emphasizing the advantage of understanding how things `are` instead of focusing on how they `should be`. This tendency can also be seen in governmental and consultancy discourse, in which it is emphasized that the important thing is to `act` on the basis of pragmatic understanding of the way things go, rather than taking a paternalistic approach to decide how things should go. This is related to the preoccupation with `what companies find important`, and the tendency to accommodate them instead of `telling them` what they should do differently. Transition management however aims to go beyond this dichotomy between `is` and `ought`. It is not about knowing with absolute certainty how things are exactly at a specific point in time, nor about deciding how things should be in the future. It is about a process of figuring out together what we *can do* with regards to our common future. The challenge for both transition management and the sustainability concept, as well as the long-term perspective, is to be recognized as such a process in between the `is` and the `ought`, rather than one in which the `ought` prevails.

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