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## Decision making process of the Antwerp Oosterweel link: lessons learnt

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### Abstract

The Oosterweel link (completion of the Antwerp ring road, including a river Scheldt crossing) was planned to be the largest infrastructure project ever built in Belgium. It started as a noiseless process for more than fifteen years, the decision seemed to be taken in 2008: the reference design was approved and a DBFM consortium selected. Then the project became controversial. Action groups dominated the debate and could enforce a public referendum. The project was rejected by the Antwerp citizens. Can the rejection of the project be explained by opening the black box of the planning process? A research of the Antwerp University College Artesis reveals that the decision process of the Oosterweel link can be described within the three streams model (problems-policy alternatives-politics), developed by W. Kingdon. In each stream actors intervene with their own logic (e.g. experts use traffic models, politicians make political deals, administrations refer to administrative rules...). The process streams were bundled by a policy maker (the governor of the province), creating for a certain period a 'window of opportunity'. But the research confirms that a project idea has its expiry date. From Kingdon's three project survival criteria the weak point of the Oosterweel project is its small problem definition (traffic congestion on the main road system). Major projects should refer to the mobility issue and not only to a traffic problem. Infrastructure planning should not be limited to the physical object to be built, but be embedded in the urban and regional environment (avoiding e.g. white backgrounds in project evaluations and design). Planning processes that only focus on control (of financial and technical issues) and omit interaction (with stakeholders and the general public) have a great risk to fail. This has huge consequences for project management.

*Keywords:* large infrastructure projects, project management, complexity infrastructure projects, decision making theories, Antwerp ring road

## 1 Introduction

A high level of mobility is one of the key features of contemporary life in Europe. Mobility requires an infrastructure whose nature and especially whose capacity is being adapted to the changing needs of society. One of the basic tasks of government is to ensure adequate and timely availability of such infrastructure. In practice it appears that new infrastructure projects often have difficulties to be implemented. Planning processes for infrastructure projects often have an incident course, resulting in long delays or even cancelling of the project.

The Oosterweel link project, which comprises the completion of the Antwerp ring road (including a river Scheldt crossing) and makes part of the TEN-T network, is an illustrative case in this context. It was planned to be the largest infrastructure project and one of the most challenging road infrastructure projects ever built in Belgium. Planning and design of the project started as a noiseless process, smoothly continuing for more than 15 years. In the period 2005-2008 all key decisions seemed to be taken:

- EIA and spatial implementation plan (legal basis for the building permit) were approved;
- a dedicated project management organisation was established by the Flemish government (BAM, abbreviation for Beheersmaatschappij Antwerpen Mobiel, meaning Management Authority Antwerp Mobile);
- a reference design and the budget were approved by BAM;
- after a public tendering procedure a DBFM consortium was selected by the Flemish government.

But then project became controversial in as well the academic, the political as the professional world. Action groups dominated the debate for more than a year and could according to Belgian law enforce a public referendum, held 18th October 2009. The project was rejected by the Antwerp citizens.

A year of studies on new alternatives, public discussion and a step by step decision process started. A 'final' decision was taken by the Flemish Government to build a tunnel instead of a bridge on September 22nd 2010. Two years later also this decision is becoming controversial. And the subject of political struggle on urban, regional and even the national level.

In this paper we will not focus on the content or on the evaluation of the project alternatives but on the decision: how can a noiseless process turn into a political 'thriller' ? To search for an answer to this question, we rely in this paper on a research by Sandra Van Veldhoven (2009) at Artesis Antwerp University College (1). The subject of the research is the policy making process and agenda setting regarding the completion of the Antwerp Ring Road in the period 1990-2005. The time frame of the research covers the 'quiet' phase: from the first agenda setting of the project till definition to preliminary statutory definition of the project area by

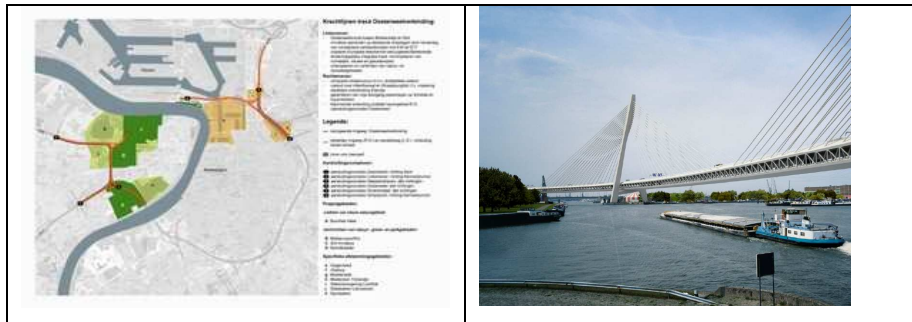
the Flemish Government (Spatial Implementation Plan). In this paper also some reflections on the period after 2005 are made.

## 2 Project description

The 'Oosterweel link project 2005' was based on a planning process resulting in an approved dedicated route by Flemish Government on 16/09/2005 and extends over a length of approx. 10 km and makes a new northern ring road link, completing the southern existing part. It consisted of (see fig.1):

- the rebuilding of an interchange with the ring road on the left bank of the river Scheldt
- a (toll) tunnel under this river
- a new interchange with the port area and the city on the right bank
- a double deck viaduct of some 2.3 km length, over Royers lock and Straatsburg dock, also on the right bank (north of new urban development area 'Eilandje')
- a interchange and the rebuilding of the R1 (northern ring road)

The road infrastructure was also accompanied with nature compensation projects.



**Figure 1.** Project images: spatial location of project elements (left) and computer image of the double deck viaduct (2.3 km length) over Straatsburg dock, called 'Lange Wapper' (after an urban mythological figure)

In its decision of 2 March 2007 the Flemish Government putted a capital of 1.850 billion euro on the estimated cost price of the infrastructure (excl.VAT and excl. the cost for financing). Also was decided to finance this investment by a Public Private Partnership. Investment costs are to be paid back over time by toll collection (toll rates 2012 had to be: €2.44 for passenger cars, €15.85 for lorries between 3.5 and 12 tons and between €15.85 and €1900 for lorries over 12 tons.

The project was seen as cornerstone for the accessibility of the city and port of Antwerp and the viaduct called 'Lange Wapper' was designed as a new landmark for the city.

### 3 The Kingdon model

#### 3.1 Kingdon's theory

Can the rejection of the strategic and ambitious Oosterweel link project be explained by opening the black box of the planning process? The assessment of this process described in this paper, is based on the model developed by John W. Kingdon (2). The conclusions for the Oosterweel link were published for the first time before the (radical) turn of the process, that took place in September 2009 (3).

Kingdon's theory is based on empirical research: interviews with 247 US top decision makers in the public sector on the one hand and in the health and transport sectors on the other hand, during a research period of four years.

Basic question of his research was: how does an issue emerge to the forefront of political attention, or 'how does an idea's time come'? He states that public policy making consists of a set of processes :

1. Setting of the agenda
2. Specification of alternatives
3. Authoritative choice amongst alternatives
4. Implementation of the decision

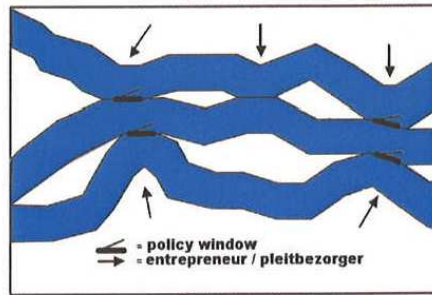
Success in one process does not imply success in others. Kingdon's theory can be seen as a revised 'garbage can theory' (4). How to understand policy process? Kingdon puts forward four principles:

1. Tracing the origin of initiatives is not relevant : ideas can come from anywhere (not necessary from within the official planning process). Tracing origins of ideas involves infinite regress: in fact nobody leads anybody else, instead a combination of factors makes an item prominent or not.
2. Comprehensive rational decision making models do not describe real decision processes well: as actors often do not follow clear set of goals and as they often do not assess the alternatives systematically (contrary to what is assumed in rational planning theories). Instead a somewhat accidental confluence of factors occurs.
3. Rejection of incrementalism : in many processes people proceed step by step but agenda changes appear discontinuous and non-incremental.
4. The garbage can model (Cohen, March and Olsen) is applicable to understand a certain type of organizations, called 'organized anarchies'. In these type of organisations (of which e.g. universities are a good example) different actors define their own preferences, preferences that often are inconsistent. The outcome of decision processes depends on the choice moment. On such moments a coupling of problems and solutions and the interactions of participants determine the outcome.

### 3.2 The Kingdon model as a process assessment tool

Based on his theory Kingdon distinguishes three major and independent process streams :

1. the problem stream: represents information and events that may unchain a series of events related to placing or eliminating an issue from the agenda;
2. the policy stream: refers to the knowledge or advice derived from researchers, consultants and technicians that offer alternatives or solutions that may or may not be considered or used by decision makers;
3. the political stream: the will of the political system and actors to place an issue on the agenda and make an authoritative choice between alternatives.



**Figure 2.** The three stream model, showing policy windows or 'windows of opportunity.

Each of the process streams has its own logic and driving forces, e.g. researches and professionals will use scientific methods, work within paradigms accepted by their peers, etc., whilst politicians will try to enlarge their power by making political agreements, maximise their support by potential voters etc..

But based on his research Kingdon states that this separate streams come together at critical times. If at the same time a problem is recognized, a solution is developed and available in the policy making community and thirdly a political situation (often a political change, e.g. the outcome of elections) makes it the right time for a political decision a policy window is opened. These policy windows, the opportunities for action on given initiatives, present themselves and stay open for only short periods. Often it takes a policy maker – a kind of entrepreneur - to open the window, to understand and also to have the authority to open the window and to keep it open, i.e. to have the three streams tied together, despite the fact that they follow their own logic.

Apart from the three streams model Kingdon present another interesting process assessment tool. Based on his research he puts forward three criteria for survival of policy alternatives:

- Technical feasibility
- Value acceptability

- Anticipation of future constraints

## **4 Assessment of Oosterweel link planning process**

### **4.1 Key findings of the research**

Based on desk research and interviews with key some twenty figures (spread over the three stream defined by Kingdon the (formal) decision making process of the Antwerp Oosterweel link in the period 1995-2005 was reconstructed and mapped.

The key findings were the following:

1. It is possible to describe the planning process of the Oosterweel link within the three streams model (problems-policy alternatives-politics) in each stream actors intervene with their own logic (e.g. experts use traffic models, politicians make political deals, administrations refer to administrative rules...)
2. The three streams were bundled by a policy maker : the former Governor of the Antwerp Province. But he retired April 2008, at that moment nobody took over his role as policy maker in the sense Kingdon describes it, although a Belgian top manager is leading the BAM since 2008.
3. The project idea of the Oosterweel link was not the result of a rational planning process (vision-strategies-actions): the idea of the 'closing' of the inner ring was not incorporated in the historical neither the at that time current spatial or infrastructural planning documents. Instead, these documents included a second outer ring project, without completing the inner ring. In fact the idea came from an action group that resisted the building of the outer ring on the left bank.
4. The problem definition at the starting point was very narrow: solving the traffic congestion on the ring road and connected access highways. Policy alternatives at the regional scale were limited to traffic simulations of inner and outer ring solutions (independent of the environment they cross), starting from trend scenarios (without incorporating modal shift). In other words: there was no connection to the broader mobility approach neither spatial and environmental context.
5. During the rest of the planning process a constant discussion('battle') emerged to broaden the problem definition. At some points this happened, at other points the project was enclosed in a technocratic shielded organisation.
6. In the phase of the agenda setting the main policy alternatives were conceived on the scale of the urban region. As there was/is no political/administrative organisational structure dealing with the policy fields of the urban region an 'unsettled politics' environment, fertile to 'garbage can' style policy processes existed.
7. Though later on the project was embedded in a multimodal set of projects (including tramway expansions, inland waterway upgrading etc.), the so-called Masterplan for Antwerp, chances to incorporate the project in a mobility planning

process at the scale of the urban region were missed (the ongoing regional mobility planning process was even stopped in 1996 with the opening of the policy window for the building of the Oosterweel link.

8. Changing in the political positions and the administrative personnel can explain some crucial decisions during the planning process. The starting position of the city council was very weak because of internal problems (emerging of a strong right wing party to be tackled by established political parties, financial abuse scandal by some main counsellors and top of city administration leading to the resign of them). Partly this can explain why the policy alternatives proposed by the city administration were not really taken seriously.

#### **4.2 Epilogue to the research**

As already mentioned before after the referendum the policy window for the original project was closed again. Politics took the formal lead of the process (a steering group was installed lead by the Flemish Government with the City Council of Antwerp and BAM). Action groups aligned with some 'captains of industry' and launched a new alternative (new tangential routes instead of the inner ring route), which was evaluated positively by different researchers. However the Flemish Government decided to stick to the inner ring route completion, but replacing the bridge project by a tunnel construction. On the other hand tangential connections (consisting of the upgrading of an existing road and a missing link) have been added to the Masterplan (for mobility in the city region).

### **5 Lessons learnt**

Checking Kingdon's criteria for survival of policy alternatives yields the following.

1. Technical feasibility: the Oosterweel link project was conceived as a high standard technical masterpiece. It was rather its strong point than its Achilles' heel. However, the original rejection of the tunnel alternative became controversial as know-how for tunnel building developed.

2. Value acceptability: during the process of agenda setting a closed network (that was enlarged step by step) of specialists was engaged in the project planning process. The original disciplines of civil and traffic engineering were enlarged with financial experts and urban designers. Critics grew in disciplines of urban planning and medicine (public health). After the referendum the critical approach became more dominant.

3. Anticipation of future constraints : the project is seen as strategic and not (officially) doubted for the reason of financial constraints. Though the original set budget had to be augmented several times (the originally approved budget by the Flemish Government of 1,82 billion euro has been adjusted by BAM to 2,5 billion euro and even this budget is criticised by the Financial Court). Public and political acceptance turned out to be the weakest point: position of (local) politicians changed, public opinion took the side of the activists (David versus Goliath syndrome). New style activism (highly professional and relying of the new social media) seems nowadays a stronger factor than assumed by Kingdon.

## 6 Conclusions

The analysis of the Oosterweel link decision process shows that the three streams defined by Kingdon – seen on a time axis – have both tendencies in order to converge as to disconnect. The project promoter, the provincial governor, who retired in April 2008, succeeded during his tenure to maintain the coupling of the three streams. The disappearance of this 'policy maker' can, according to the theory of Kingdon, be considered as one of the factors that have led to the eventful turn in the process. But other factors leading to the 'decoupling' of the process streams have been exposed in this paper as well. This shows that a project has a limited 'expiry date'. There is, in policy circles a strong conviction currently, that planning and administrative procedures should be reduced. "Faster and better" were the leitmotifs of the parliamentary and governmental committees that formulated conclusions in 2010 (not explicitly but probably not accidentally) installed shortly after the failure in the process of the most important project planning process in the Flanders region in Belgium. The assessment of the decision process of the Oosterweel link however shows that not only simplifying of administrative procedures is at stake, but also the quality of the processes of decision making, planning and design. The analysis clearly shows that the narrow approach of the problem definition and the narrow network of experts evolved after a while in a constant questioning of the project by stakeholders and the general public. There is a need for a sufficiently broad definition of a project and open litigation, with an open communication in which various approaches of a project are discussed.

The changed policy on spatial planning, environment and mobility in the period 1995-2005 were decisive for the process turn. Also, social trends such as a growing environmental and health awareness and the demand for citizen participation played a part.

For the professionals - and especially for project leaders and managers of planning and design processes – it seems useful to keep in mind Kingdon's three streams. They provide a basis to cope with processes that are not always evolving according to a rational technical line.

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