

## **Using Innovation indicators in influencing politics and society: the case of the Knowledge Investment Agenda Photo 2009**

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*The paper looks at the role of science, technology and innovation indicators in agenda setting using the ACF and framing literature. The theory is applied in a case study based on the process that led to the Dutch Innovation Platform's Knowledge Investment Agenda Photo 2009. The case study confirms the hypothesis about the minor role of indicators in agenda setting.*

### *Introduction*

High quality indicators are necessary in order to substantially inform and influence politics on a complicated subject like innovation. Still, a lot of reports have been published that are thoroughly supported by numbers with no influence at all on day-to-day politics. It seems that more is necessary to bring innovation and investing in science and technology to the political agenda. It is interesting to make an analysis which factors are decisive in influencing politics and bring a subject on the agenda. This paper will make an attempt. For this purpose some elements from different strands related to agenda setting will be described in order to explain the process from information out of indicators for science, technology and innovation (STI) to policy-making. This study will include a brief case study where the KIA-process of the Dutch Innovation Platform is taken as subject (see box 1).

### *Literature and model*

Stone (1989) distinguishes three strands of agenda-setting literature that explain agenda setting (or focal power (Birkland, 1997) or frame resonance (Benford and Snow, 2000)).

### *ACF*

“One strand focuses on the identity and characteristics of political actors.”(Stone, 1989) Birkland (1997) paraphrases the three strands of Stone in his own work. For the first strand Birkland suggests to add Sabatier's Advocacy Coalition Framework. This advocacy coalition framework (Sabatier, 1998) explains decisions by drawing up a policy subsystem. In the subsystem different advocacy coalitions that “(a) share a set of normative and causal beliefs and (b) engage in a non-trivial degree of co-ordinated activity over time” try to influence decision making by translating their beliefs (deep core, policy core or secondary) into policy.

In the ACF indicators are not mentioned specifically. Sabatier (1998) uses the concept of technical information as a premise for policy making. Weible (2006) mentions information as one of the available resources. He continues (2006: pp. 95-96) “Many technical controversies are primarily disputes over political goals and only secondarily concerned with the veracity of scientific issues which are related to these goals. (...) One implication from this observation is (...) to focus on (...) developing a good understanding of the political context of the problem.” To sum up, in ACF indicators on science, technology and innovation are important, but their role is relative to the political context. A constant stream of information could lead to policy oriented learning, but these learning effects can be inhibited by current beliefs. Ideas not in line with current beliefs are easily rejected.

### *The power of those affected*

Stone (1989): “A second strand focuses on the nature of the difficulties or harms themselves”. In short, the group affected steps up for its rights because it is about to experience difficulties. For example workers in a factory that organise a strike because of a salary-cut or loss of jobs. In the context of STI-indicators there is a complication. STI does not directly intervene with day to day experiences of a general population (cf. Joe the Plumber). On a macro-level a connection between investment in STI and welfare is broadly accepted. This connection has a delay and is much harder to explain to the common citizen. Science is not perceived as an important predecessor for wellbeing that needs additional public investment, but a vague and distant concept. This makes it hard to mobilize the power of those affected.

### *Framing*

“A third strand focuses on the deliberate use of language and of symbols in particular as a way of getting an issue onto the public agenda” (Stone, 1989). The idea is to mobilize a larger group by using a frame that affects them, to mobilize the civilians or voters. This concept is called ‘framing’ (Birkland, 1999).

The concept of framing has its origin in different parts of science: economics and sociology. Scheufele and Tewksbury (2007: pp. 11) refer e.g. to “the experimental work of Kahneman and Tversky”. This work makes clear that people’s choices are not rational and that people should not be approached rationally. People tend “to evaluate acts in terms of a minimal account, which includes only the direct consequences of an act” (Tversky and Kahneman, 1981: pp. 456). This makes decisions easier, but is obviously not in favour of decisions concerning STI, which rely on long term and indirect effects.

In sociology the framing discussion starts with Goffman (Scheufele and Tewksbury, 2007; Snow et al. 1986). Goffman uses the term “to denote schemata of interpretation that enable individuals to locate, perceive, identify, and label occurrences within their life space and the world at large” (Snow et al, 1986: pp. 464). Snow et al. (1983) elaborate on the way that social movement organizations (SMO) use frame alignment. Frame alignment refers to ‘linkage of individual and SMO interpretive orientations’. The goal is here frame resonance: people taking over the frame in the way of thinking. Framing resonance is influenced by three factors: frame consistency, empirical credibility and the credibility of the frame articulators (Benford and Snow, 2000). The second one could apply to the indicators as described in the introduction. Problematic is here that “empirical credibility is in the eye of the beholder” (Benford and Snow, 2000: pp. 620). Indicators are useful in bringing together coalitions to spread the message but they do not reach the society. To involve the masses language and symbols are more important than numbers.

### *Hypotheses*

Bringing the results from the literature study together gives us some insights that can be used in the case study. In the ACF indicators represent the truth for the coalition (parallel to ‘other truths’) and the goal is to make the numbers universal truth (policy oriented learning). To come to policy oriented learning by other coalitions the credibility of the original coalition and its members is also a factor. Framing gives comparable views. Important factors for frame resonance are the used frame (language and symbols), the consistency, empirical credibility (again mainly effect on secondary beliefs because of the subjectivity and bounded rationality) and its articulators. This leads to the hypothesis that indicators are most effective when a adequate frame is chosen, which is consistent, empirical credible and supported by a broad group of articulators. An adequate frame means a translation of the ideas that both represents the vision of the coalition and connects to direct effects concerning ordinary life.

#### *Box 1: Knowledge Investment Agenda and Indicator Photo*

One of the most prominent strategies of the Netherlands’ Innovation Platform<sup>1</sup> is the Knowledge Investment Agenda (KIA)<sup>2</sup>. In 2006 the Platform designed an agenda for the Netherlands to become a truly knowledge-based economy in ten years. The strategy involved additional public investments in education, science and innovation up to € 6 billion annually in 2016, but also specific policy measures and attached private investments (Innovatieplatform, 2006). It was supported by all relevant Dutch stakeholders, including representatives from the unions, employers, universities, secondary schools, vocational schools and primary schools. The year after, the KIA has been influential in the formation of a new government coalition. But in order to keep pressure and an enduring lobby for innovation, there is an annual monitoring instrument developed called the KIA-photo. Using 29 indicators progress is measured on the three ‘pillars’ education, science and innovation & entrepreneurship. The

<sup>1</sup> The Netherlands’ Innovation Platform can be considered as a high level lobbying group and think tank for innovation and a knowledge society. The group consists of CEOs of key multinationals, top scientists and three ministers and they meet 5 times per annum. Its key asset is a direct contact with the prime minister (he is in fact the chairman of the Platform) and high level access to all relevant stakeholders.

<sup>2</sup> In Dutch: Kennisinvesteringsagenda

first KIA-photo was published in 2008 (Innovatieplatform, 2008). But for this case-study the 2009 photo will be subject. The process for the KIA-photo 2009 is an interesting case for using innovation indicators in influencing politics and society.

### *Results*

For making the 2009-photo the complete coalition that signed the original KIA was asked to join the process. The idea was that a broad coalition (a larger group of articulators) would improve the impact of the photo. The strength of the original Agenda was the never-seen-before broad coalition supporting the knowledge driven-economy. The first photo only involved them passively. Around the three 'pillars' tables were formed with representatives from the different organisations. The tables with representatives decided together which indicators would be included, which data would be used and ultimately the colour of the indicator<sup>3</sup> indicating the results related to the 2016-targets.

During the 2009-process (which actually started in September 2008) some problems occurred that are common in measuring broad and fuzzy concepts like innovation. The indicators could not give full insight in the desired effect. The indicators had a time lapse: in some situations results are measured from even before the year that the KIA originated. Indicators are based on a specific innovation paradigm (e.g. focus and mass in fundamental scientific research, share of researchers in labour population). Other problems were more specific for the Netherlands: it appeared nearly impossible to give full insight on the government's expenditure on innovation.

Special compared to other Dutch or international benchmarks (e.g. NOWT, 2008; UNU-MERIT, 2008; OECD, 2008) was that the KIA-photo used the numbers in order to spread the message of the Innovation Platform: more needs to be done in order to become a truly knowledge-driven-society in 2016. The goal was influencing society. This mission oriented approach forced to come to normative conclusions. For the indicator the outcome was not the most important, the most important was the colour given. The normative conclusions made it possible to come to a frame that translated the complicated subject to a simple choice: step up, close the gap to the innovation leaders and secure our welfare or stay the same and lose the competition. Furthermore, the coalition helped to increase the credibility of the frame.

### *Analysis and discussion*

The 2009-photo and its effects seems to confirm the hypothesis. The mass media in fact took up some of the one-liners ("The Netherlands needs to step ahead in order to rejoin the innovation leaders") and the coalition certainly helped bringing the message to the policy brokers and politicians. The frame was adequate, but might have been more effective when the message would have been included to direct effects affective ordinary citizens. Consistency is secured through the KIA-framework that has been taken over other coalitions and policy brokers (e.g. MPs) as the reference point for a knowledge driven economy. The broad group of supporters helped to make the agenda and its frame credible. Another element is that although not all indicators were empirically supported and robust there was no discussion on the numbers at all, all conclusions were taken for granted. A conclusion could be that the quality of the indicators are not most important in order to send a message and reach the policy agenda.

It will take more time and more investigation to calculate the complete impact (e.g. some of the ideas were included in the government's 2009-crisis-measures, but their real value is still unclear). Still, the case gives an interesting insight in using indicators for influencing policy and agenda setting and future editions of the KIA-photo can be valuable as well.

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<sup>3</sup> Using traffic lights: green meant that for the specific indicator the Netherlands was on its way for the 2016 goals; orange was an indication that attention was required in order to reach the KIA-goal and red meant that radical change was necessary.

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