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## Paper I-7

# THE INTERACTIVE BUSINESS CASE APPROACH FOR MULTIPLE LAND USE: MORE EFFICIENCY, LESS COSTS!

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## ABSTRACT

This paper describes Interactive Business Case Approach (IBCA) in a participatory planning setting concerning multifunctional land use, as an instrument for climate adaptation strategies. Multifunctional land use is an solution to optimize the use of scarce spatial resources, especially in densely populated areas such as the Netherlands. Multifunctional land use is also a strategy to deal with the effects of climate change and social economic trends. The goal of IBCA is to provide an approach to handle the complexity of multi functional land use. Due to different stakeholders, each with their own perspective, interest and different gains on the short and longer term. IBCA brings the short and longer-term interests together by creating business ideas, business cases and business plans together with stakeholders. The approach focuses on the opportunities by which the concept of multifunctional land use can give added value to the area. Stakeholders become shareholders, and mutual gains become small cooperation's or companies. The IBCA is applied to different scale projects in The Netherlands. One project focused on the whole province of Noord-Brabant, especially the sandy rural regions. The other project focused on a large-scale construction project of Rijkswaterstaat, which comprises the extension of a ship lock, and broadens a busy waterway. It showed that IBCA poses challenges to both content (planning and design) and process (governance). New combinations of agriculture, ecology and leisure also require new coalitions of stakeholders, supported by new financial, legal or policy instruments. The advantages and disadvantages of the application of IBCA on different scales is compared in a SWOT analysis which is then compared with the Mutual Gains Approach.

## INTRODUCTION

Multifunctional land use is a solution to optimize the use of scarce spatial resources, especially in densely populated areas such as the Netherlands. Multifunctional land use is also a strategy to deal with the effects of climate change and socio economic trends.

This paper describes an Interactive Business Case Approach (IBCA) in a participatory planning setting concerning multifunctional land use. The IBCA can be used as an instrument for climate change adaptation strategies. The goal of IBCA is to handle multi functional land use, and its complexity that's due to the variety of different stakeholders, each with their own

perspective, interests and gains on the short and longer term.

The IBCA brings short and longer term interests together by creating business ideas, business cases and business plans together with stakeholders and connecting them to longer term policy goals. The approach focuses on opportunities where the concept of multifunctional land use can produce added value to the area. Stakeholders can become shareholders, and mutual gains become the profits of small cooperation's or companies.

The IBCA is applied to projects in The Netherlands. One project focused on a large-scale construction project of Rijkswaterstaat, the Dutch Directorate General for Public Works and Water Management, which comprises the extension of a ship lock, and broadens a busy waterway. The other project focused on the whole province of Noord-Brabant, especially the sandy rural regions.

The comparison of these two cases shows that IBCA poses challenges to both content (planning and design) and process (governance). New combinations of agriculture, ecology and leisure also require new coalitions of stakeholders, supported by new financial, legal and policy instruments. The advantages and disadvantages of the application of IBCA as compared to traditional methods are considered in a SWOT analysis.

## THEORETICAL FRAMEWORK

### **Introduction: infrastructure as water barrier**

*'...In the future, the Netherlands will have to use infrastructure more often to prevent flooding. A possibility is to build new highways on dykes. Might the current sea level rise 15 to 25 centimetres, the situation will force us to build important infrastructure like hospitals and power plants on 'terpen', small man build hills. At the same time building roads on dykes will create extra barriers, making it possible to store surplus water in large areas. Imperative is to create new infrastructure in a smarter way, a point the government has missed while building the high-speed railway from Amsterdam to the south. It would have been far better to have this railway on a dyke with a height of five meters. Spatial development and infrastructure will have to regard water problems to a much larger extend...' (Cobouw, 2006).*

This newspaper clipping gives examples of combinations of functions. The past years we have found and studied many similar examples, and have initiated some, many concerning multi functional land use. In the process, we discovered certain patterns, for instance the fact that many combinations are sustainable, although not all. In addition, it stands out how combinations easily cross borders between societal sectors, and between market, government and civil society. Especially we have been looking for the very essence of combinations: what is really the relationship between two or more functions when they enhance one another? Our answer to this question explains what the combination of functions is. The core is the theory of asset, parallel and series coupling. To this answer also belong ideas about the sustainability of combinations, how this works out in multiple land use, the participation of shareholders, the business cases they create, and the cooperation they can establish. They are the subject of this section.

### **The theory of asset, parallel and series coupling**

Who is not attached to his daily newspaper, and therefore: what product is better to place advertisements in? Advertising and news enhance one another, because the news attracts readers, and advertisements bring in money for the publisher. The enhancement is so obvious that many overlook the fact that news and adds share paper and the costs thereof. In addition, the combination of education and research within universities is so obvious that people tend to overlook this fact. Scientific education depends on people doing research, and research

flourishes in an environment wherein people teach on the highest level. This enhancement explains why education and research happen in the same buildings by the same people. It stands out how few comparable examples there are, but how fast many new have appeared during the last two decades.

The combination of news and advertisement builds on the economic principle of ‘doing at the same time, what can best be done at the same time’. In newspapers, this has been standing practice for hundreds of years. Beyond newspapers this practice has always been limited, although nowadays this principle is applied in amongst others ‘living and care centres’, ‘broad schools’ and ‘care farms’. A living and care centre consists of houses wherein people receive personal and medical care at home, instead of having to move to a special care centre. Similarly, in a broad school, for instance a library and a Kindergarten share the building with a primary school. Like the newspaper, functions enhance one another: the services of library, Kindergarten and school improve one another. This is the same for the services in a living and care centre, and a care farm. In a care farm, clients get therapy in which working with animals and plants is of importance. Meanwhile, the farmer gets extra help for a small fee or no fee at all.

Even longer then in newspapers, within universities a comparable economic principle is applied in housing both education and research. They enhance one another like advertisements and news, but there is a difference. Education profits from research *after* this research has taken place, and the other way around. The crucial point here is to ‘act in the right sequence’, and this point nowadays is being applied more often than before. Think of a childcare centre, taking children to a sports club after school, or a neighbourhood with a sewerage system that produces gas for heating.

Another word for ‘doing at the same time, what can best be done at the same time’ is parallel coupling. In the newspaper, news and advertising are coupled parallel, as in the living and care centre. Another word for ‘acting in the right sequence’ is series coupling. At universities, research and education are coupled in series. Another example is the coupling in series of first removing waste through a sewerage system, and secondly producing gas for heating. In both cases functions enhance one another as a multiplier. This multiplier means economic benefit: without it living, care, waste removal and energy would be more expensive.

This benefit has one more source: asset coupling. The newspaper buys paper for both news and advertisements, and the university pays for real estate for both research and education. Costs are being shared for two functions. Instead of houses and a special care centre there is just this one living and care centre. This sharing of assets saves money, like in case of a broad school it saves money to not build and maintain a library, a Kindergarten, and a school separately, but to combine these. In other words, these assets are being coupled. One design and one building with one budget for maintenance results in a coupling of assets with economical benefits.

The combination of functions takes place while sharing assets wherein these functions enhance on another parallel, or sequential (Table 1). An example of parallel coupling is the combination of nature in wetlands and water sanitation. With the right vegetation, these wetlands both generate more quality of nature, and pure water. A series coupling takes place when at a later stage this vegetation serves as biomass for producing gas for heating. Another example are schools that couple health and education. They do so in a parallel way when pupils study words during rhythmical gymnastics. Schools do so in series when pupils first do their home work together, and then do sports together. In both cases, both health and education benefit. In all examples, benefits are created while sharing assets, keeping costs down, and creating extra quality.

Combining reduces costs through asset coupling and at the same time generates income through parallel coupling or series coupling. Asset coupling is of no use when it does not facilitate parallel or series coupling. The other way around parallel and series coupling demand the coupling of assets (Heijden, 2010).

Table 1. The concept of asset, parallel and series coupling

	Parallel coupling	Series coupling
Asset coupling	For instance studying words during rhythmical gymnastics in the same gymnasium, or creating nature and purifying water in the same wetland	For instance making homework together and then doing sports together in the same sports club, or using vegetation for water purification, and growing vegetation for energy production in the same wetland

### People, Planet, Profit

Spatial development has had a long tradition of building, and less of actually using a building, or area. Of course, a builder looks at the demands of the user, but what happens with a building after its development has always had a lack of attention. The fact that users will initiate a host of economic activities, receive services, and adapt the building, has always had less attention than the development of the next building, or area. Now that spatial development has reached a point, where it meets a satisfied market a reversal gets interesting. That starts with using what is already there, and with improving that, sometimes by building.

This reversal gets interesting when there is a market for it, which does not only give companies a better position, but also has sound social and sustainable outcomes. The idea is that the sustainable usage of an area will result in smart combinations of what is available. Figure 1 shows the added value of using what is already there above traditional spatial development:

- 1 costs decrease when no new building takes place, and because of sharing space with one or more users who all pay for that. For instance, Rijkswaterstaat and a Water board share the costs for the talus of a road that through rainfall runoff does purify water, instead of only fixating and slowly spreading the contamination;
- 2 by way of doing more on, the square meter not only costs decrease, but also income can increase. For instance, a noise barrier along a highway can house a company that pays rent;
- 3 reducing square meters not only saves green spaces, but can also reduce transport, and the emissions that go with that. Think of a store with regional products directly at the highway, where local farmers bring their products, and that motorists take with them;
- 4 by being active at the same place people get to know one another. This reduces the social costs of people who alienate in places where there are no possibilities to get into action together with others. If they do get into action, because intensified usage of an area gives them all opportunity to do so, than social capital will grow.

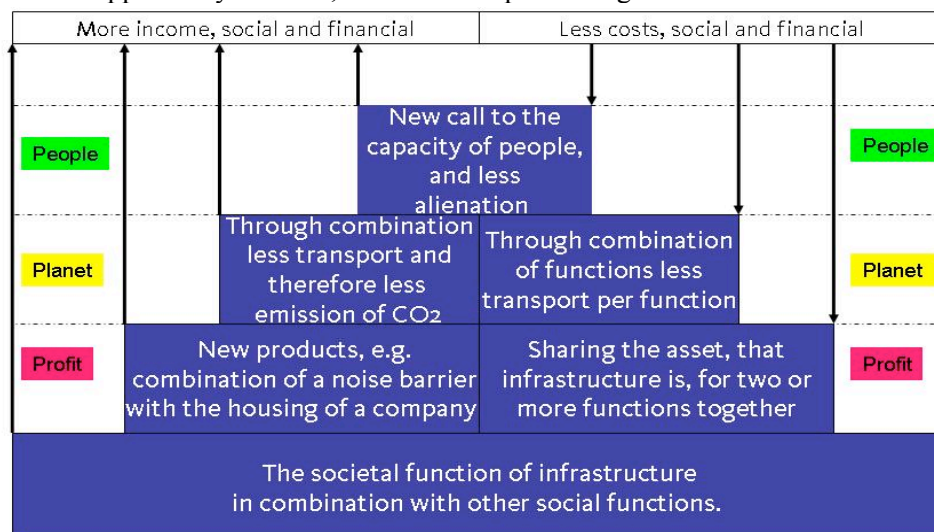


Figure 1. The concept of sustainable spatial development and infrastructure

Cautious use of square meters with a high quality results in less pressure on the environment, and will bring people together. What will grow is a sustainable usage of buildings and areas, an alternative for spatial development through building only. The actual operation of an area is an activity with great economical potential, much more than just building. It offers many chances to be prudent with open space and achieve high quality.

## **Interaction and participation**

### *Urgency of interaction*

According to Dutch water management authorities, water management in the Netherlands needs to become more public- and stakeholder-oriented when projects are developed. This is motivated by recent changes in Dutch water legislation and responsibilities of local and regional authorities, and the current economic crisis. These developments do not only create challenges, but also a *window of opportunity* for an interactive business case approach:

- due to the financial crisis and scarce financial resources, the willingness to cooperate in the Netherlands has increased. The need for effective and efficient use of the available (scarce) resources also requires creativity;
- the benefits of changes in the public organization of water management and in addition changing working approaches are twofold. Firstly, government increasingly acknowledges responsibilities of citizens and NGO's. Secondly, public organizations are confronted with more complex, unstructured social problems, which require multi sector cooperation.

### *Decision making process*

The decision making process used by stakeholders according to theory is a (partly) unstructured problem. Based on the classification by Hisschemöller (1993) the following important characteristics of the decision-making process and related theoretical perspectives are listed:

- involvement of stakeholders in the decision making process at different levels, based on the interdependency between stakeholders;
- communication between stakeholders concerning information, and knowledge concerning different aspects of the project;
- different perceptions with stakeholders of risks concerning water management.

In contemporary European and American policymaking, an increase can be observed of interactive processes and stakeholder involvement. These processes have different names, like interactive governance, co-production, and participatory processes. The core theme in those definitions is that governments develop policies in consultation and co-operation with stakeholders. Edelenbos (2000)<sup>Error! Bookmark not defined.</sup> defines stakeholder involvement as 'the early involvement of individual citizens and organized stakeholders in public policy-making in order to explore policy problems and develop solutions in an open and fair process of debate, which has influence on political decision-making.' Stakeholder involvement as a process differs from traditional public consultation procedures in that stakeholders are involved early enough to influence policies when they are formulated. This is opposed to the classical European approaches to public decision-making where decision-making power remains firmly with elected representatives. In this research we will use the definition of stakeholders by Susskind (1999): '*...people, organisations or groups affected by an issue or conflict, with the power to make the decision or block the decision, or with relevant expertise...*'. There are two main arguments to use this definition. Firstly, it is the only definition that also recognizes the role of expertise within the concept of stakeholders. It recognizes the role of scientists, researchers and people with local knowledge, from practice or personal experience, as stakeholders concerning an issue or conflict. Secondly, the definition discerns stakeholders from the general public, the

latter being, for example an entire population of a nation. We interpret this as stakeholders having an ‘active’ role, and thus determining that ‘a stakeholder’ is not the general public.

### *Involvement of stakeholders*

There are several arguments for stakeholder involvement. The main arguments can be grouped into three themes: obstructive power, enrichment and fairness (Edelenbos, 2000). For the IBCA the main argument is enrichment with a focus on the positive side of stakeholder involvement. Governments do not possess all resources required for design, planning and implementation of sophisticated policies such as environmental policies. From that point of view, it is wise to invite relevant stakeholders in order to obtain and apply their knowledge and information (Fischer, 2000).

A process of stakeholder involvement requires an independent chair or process manager. The first step for the process manager is to select the stakeholders, which will differ with the aim of the process (Edelenbos, 2000). A crucial criterion for the IBCA is variety. This triggers the enrichment of the process and serves as a safety valve against overlooking stakeholders. A good way of composing a stakeholder panel is to ask other stakeholders whom they regard as vital for the process. In this way, through this so-called snowball-method, other stakeholders can be invited to the process, which otherwise might have been overlooked initially.

An important part of the process is the mobilization of stakeholders. It is the duty of the process manager to let stakeholders realize what is in it for them. Why should they join the process? It is therefore vital to collect information about goals, ambitions and problem definitions (from the various perspectives) of the stakeholders. Furthermore, awareness and urgency should be emphasised. This can be done by pointing out the ‘window of opportunity’, the need to act now, and common goals for the area, as drivers behind the spatial development (Slob et al., 2008).

### *Co producing and co deciding*

The involvement of stakeholders can be arranged at different levels:

- *information*: providing information to the stakeholders;
- *consultation*: consulting stakeholders about what should be done;
- *advising*: letting stakeholders advise on the policy and taking their recommendations into account;
- *co producing*: stakeholders are regarded as equal to official policy makers, but final decision-making remains in the political domain;
- *co deciding*: decision-making power is handed over to stakeholders.

Every situation is unique and therefore the level of involvement should be chosen such that it fits the specific situation. The IBCA focuses on the co-producing and co-deciding levels, as stakeholders can become shareholders during the process.

With these different levels of stakeholder involvement come different approaches in actually involving them. In Table 2 an overview is given of possible tools, processes and instruments that can be used for *co producing* and *co deciding* (Gerrits and Edelenbos, 2004).

Table 2. Instruments for a co producing and co deciding process (Gerrits and Edelenbos, 2004)

Influence	Co producing	Co deciding
Role of the stakeholder	Co-decision makers within the set of preconditions. Policy-partners on the basis of equivalence	Taking initiatives, making decisions
Role of the expert	Experts treat policy-makers and stakeholders as equal clients; advice and knowledge provision to both actors. Experts treat stakeholders as equal knowledge providers; they need approval of the stakeholders	Experts support stakeholders with knowledge; experts treat stakeholders as their clients, need no approval of the policy-makers
Role of the policy maker	Policy-makers take the input of stakeholders into account, and honour it if it fits into the set of preconditions. Policy-makers interact with stakeholders on the basis of equivalence	Joint role of policy makers and actors: offer support (money, time of civil servants, etc.) and leaves the production of solutions and decisions to the participants
Possible tools, processes to be used (Propper, 1999)	Creative group sessions, project group were stakeholders also take part in producing solution, internet discussions. Organizing workshops, create a common ground for discussion, for example by joint-fact finding	Joint groups that decide about implementation of solutions

## IBCA APPLIED TO DIFFERENT SCALE PROJECTS

### Case 1: Added Value Scan applied to a construction project

#### *The goals of the project*

The water innovation programme of Rijkswaterstaat (WINN) introduced the so-called ‘Added Value Scan’ (AVS), which in fact is another name for the IBCA used in this specific case study. The AVS is a process design that enables the development of promising business ideas that add ‘value’ to a specific water infrastructure project. The AVS challenges stakeholders to become shareholders by combining projects and ambitions, and sharing budgets.

The Added Value Scan was developed with three challenges in mind for Rijkswaterstaat: the shift towards area development and sustainability, and the cutbacks in budgets for water management. The idea behind the AVS was that through function combinations these challenges could be met. The AVS starts from the perspective of project management, and focuses on broadening the scope within the set boundaries, and feasibility of ideas through turning them into business cases.

WINN and Rijkswaterstaat’s Regional Directorate Utrecht applied the AVS to the Princess Beatrix Ship lock project. This ship lock in the Lek canal needs to be enlarged in order to effectively serve the growing traffic of ships through the Lek canal, which is a crucial link between the ports of Rotterdam and Amsterdam.

#### *The approach in practice*

The AVS is actually a process design that consists of three interactive meetings between the stakeholders in the area. In between meetings, the AVS-facilitators are working together with the parties to develop the business cases. The first meeting is aimed at generating business ideas of possible combinations that provide added value for the area. These business ideas involve combinations with regard to nature, agriculture, recreation, art, energy and catering. Between the 1<sup>st</sup> and 2<sup>nd</sup> meeting, the business *ideas* are developed into business *cases* by making costs and benefits explicit in a cost-benefit analysis. In the second session, the business cases are evaluated and refined. The developed business cases in this example were:



- the Green Blue Casco;
- the Bicycle Connections;
- the Soil and Groundwork Combination;
- museum and tea pavilion 'De Kazemat';
- the Sustainable Energy Combination.

The second session is also about formulating a strategy of following steps. The third and final meeting is all about getting the necessary commitment from the respective of decision-makers. When this commitment is given, the business cases can be developed into business *plans*, including budgets and contracts.

#### *Conclusions for applying the added value scan*

As a first conclusion in this example case, the AVS indeed addresses these three challenges: 1) shift towards area development, 2) shift towards sustainability and 3) cutbacks in budgets for water management. The business cases encompass various function combinations within the area. All the business cases involved multiple parties and interlinked different individual projects and plans. Secondly, the business cases aimed at increasing sustainability, both for the area as well as for the ship lock. Thirdly, some business cases indeed generate more revenues, or reduce costs, for example by sharing budgets.

Another conclusion is that the Added Value Scan facilitated stakeholders in finding smart combinations that might lower costs, increase benefits, speed up the procedures and increase the joy of co-operation in the Beatrix ship lock project. Though not all information could be found during the project, these combinations are worth developing into more detail, and the stakeholders do agree with this. And a third conclusion is that the AVS is valuable as it creates an atmosphere in which stakeholders are willing to work together in finding benefits. There was much appreciation of the stakeholders for this open approach. In the process they will become shareholders.

However, the feasibility aspects of the business cases remain challenging. In order to assess whether the business cases could be beneficial or not, we performed simple cost-benefit analyses. We estimated cost and benefits compared to a reference scenario where our project would not be executed. Some effects are easy to monetize, other effects can be monetized with some effort with reference books, and some effects can only be monetized with expensive research. In the case of the Princess Beatrix ship lock project there was no budget available for such research.

In spite of the limited cost-benefit analyses, many of the stakeholders were enthusiastic about the business cases. Apparently information is sufficient to an extent that gives them the idea that the business case is promising. The AVS in this respect should be further refined in finding the right balance between on the one hand detailed costs-benefits data that require time and effort, and on the other hand creating commitment by showing that it is feasible with less detail.

The final question is whether the AVS has been successful in turning stakeholders into shareholders. As the business plans are not fully developed yet, it is too early to say. However, it is very clear that a major step in this direction has been made (Ottow et al., 2011).

#### **Case 2: Multifunctional land use in the Province of Brabant**

The Brabant countryside – although retaining a rural character – is a densely populated and regulated area in the south of the Netherlands. Urban and rural land use functions are closely connected. Demands for available space are many and often conflicting, and land prices are high. Adaptive measures to cope with climate change impacts (e.g. rainstorms, floods, droughts, heat waves) can be space consuming, adding even more pressure. One of the solutions may be multifunctional land use, increasing land use efficiency and generating added value to the

economy (businesses), and to society as a whole in the form of non-market goods (public goods).

The project that we focus on as a second case study is the project multifunctional land use as adaptation strategy. The Dutch Knowledge for Climate research programme funded this project. This project is aimed at exploring the possibilities of multifunctional land use as an instrument for adaptation strategies in sandy rural regions, especially in the province of Noord-Brabant. The ambition of the project was to bring these innovative but sometimes abstract concepts to the level of business plans in a participatory planning setting. The project was based on an integrated social and natural science research approach. The reason for this was that implementation of the concept poses challenges to both technical content (planning and design) and process content (governance). Combining for example agriculture, preservation of biodiversity and recreation has to work in a technical sense but also requires cooperation between stakeholders.

The aim of the project was to deliver the following results:

- an inventory - or catalogue - of available multifunctional land use options and evaluation of their applicability in Noord-Brabant;
- a 'suitability map' for the province of Noord-Brabant for a selection of multifunctional land use types;
- identification of focus areas for pilots with stakeholders and business plans for one or two selected pilot areas. The business plans also marked the end of the research activities and the beginning of regional planning (follow up activity).

The project took the following steps to reach the above mentioned results:

*Step 1:* Getting the spatial claims and challenges concerning the effect of climate change on the map for the coming 25 years. Based on plans from national, regional and local government the project tried to put together a map that could distinguish the 'hotspots' where spatial claims for nature, building and infrastructure would overlap with locations where effects of climate change are expected to have an impact. The latter was based on the results from the project climate change effect atlas (website: (<http://klimaateffectatlas.wur.nl/bin/cmsclient.html>)).

*Step 2:* Making an inventory of multifunctional land uses that could contribute to adaptation to the effects of climate change, based on actual experiences from practice in both the Netherlands and abroad.

*Step 3:* Organise a workshop with a variety of stakeholders (individual persons and institutions) that had an interest in both land use (agriculture, nature, building, water management, etc.) and economic development in the province of Noord-Brabant. The goal of this meeting was both to let the stakeholders come up with new ideas for multifunctional land use, and to create a situation where new coalitions of potential case owners could be formed. The outcomes of this step were five potential cases. Two cases were selected based on the criteria that were set at the start of the project: selection criteria for the multifunctional land use types were (1) their effectiveness in climate change and/or future proofing the landscape and (2) their innovative character, which was defined in this project as 'new for the province of Noord-Brabant'. The final selection criterion (3) was the enthusiasm of local and regional stakeholders for exploring and adopting the idea. The two cases were:

1. *Sponge:* combining the functions nature and water retention by using a nature reserve as a possible 'sponge' area to extract water from for the surrounding agricultural areas.
2. *Entrepreneur of energy, water and nature:* combining the functions nature, biomass production and water retention.

*Step 4:* Working session aimed at getting a better 'picture' of the two cases. In this session, the cases are elaborated by the case owners, with a focus on a possible location and further elaboration of the concept. This was also a GO or NO-GO moment for the next step.

Step 5: Working session in which the building blocks of step 3 and 4 were used to create a business case, and steps towards a business plan were discussed.

## COMPARISON OF THE INTERACTIVE BUSINESS CASE APPROACHES

### SWOT analysis

Applying the Interactive Business Case Approach can have several internal and external consequences. With a SWOT analysis the Strengths, Weaknesses, Opportunities and Strengths have been identified relating to the two cases discussed in the previous section. In this analysis, the new Interactive Business Case Approach is compared to the more traditional evaluation methods for area development. The SWOT analysis is summarised in Table 3.

Table 3. SWOT of the IBCA compared to traditional evaluation methods for area development

Internal	External
<i>Strengths</i>	<i>Opportunities</i>
<ul style="list-style-type: none"> <li>• IBCA may give better comprehension of pros and cons of a proposed project, because benefits and costs are described transparently both in physical and often monetary terms.</li> <li>• Better assessment of the profitability of a proposed project, because stakeholders are turned into active and constructive shareholders, and they have both necessary knowledge for, and self interest in assessing the project correctly.</li> <li>• By applying the economic method of Cost-Benefit Analysis (CBA), all project effects are assessed optimally, including future effects through the discount rate.</li> <li>• In the interactive and iterative process of the IBCA, the project proposal can more easily be optimized to maximize net present value, because all the experts and feedback from the CBA is available at the meetings.</li> <li>• The IBCA uses modern brainstorming and cooperation techniques that stimulate the development of innovative concepts, potentially resulting in profitable new solutions and projects.</li> <li>• As the IBCA clarifies costs and benefits to all participating stake- or shareholders in an open and constructive atmosphere, compromises and compensation agreements become possible (financial or otherwise). This increases chances of actually realizing profitable projects, which would otherwise remain idle.</li> <li>• Following the previous item: the IBCA enables individual stakeholders to harvest (financial) benefits that would otherwise remain unused. Actually, a well-designed cooperation contract makes a project profitable for <i>all</i> shareholders.</li> </ul>	<ul style="list-style-type: none"> <li>• Extended use of the IBCA enables more constructive and profitable projects with multiple stakeholders, including the public where public authorities are participating. In this way, public goods such as environmental and social sustainability and climate change adaptation may benefit.</li> <li>• As stakeholders are gathered in a constructive, participative atmosphere instead of just informed of plans of the authorities have elaborated ‘behind their desk’, they will feel owner of the plans and resistance and even costly lawsuits may be prevented.</li> </ul>
<i>Weaknesses</i>	<i>Threats</i>
<ul style="list-style-type: none"> <li>• Monetizing project effects may be difficult.</li> <li>• Not everyone is familiar with the CBA and BC calculations, which may result in misuse and misunderstandings. For example, the reference scenario to which the project effects are compared and calculated is not always sufficiently clear.</li> </ul>	<ul style="list-style-type: none"> <li>• (Perceived) high transaction costs may prevent potential shareholders from participating: they may for example expect the IBCA to take too much time or effort.</li> </ul>

*Main features of the IBCA*

Following from the SWOT analysis the common characteristics can be outlined of the two cases described in the previous section. These characteristics are listed in Table 4 and can be identified as the core of the Interactive Business Case Approach.

Table 4. Characteristics of the Interactive Business Case Approach

Characteristic	Principle
<i>Interactive</i>	
Stakeholder involvement through co producing and co deciding	From stakeholder to shareholder
Starting perspective (multi sectoral or sectoral) can be different depending on the process initiator	Not the starting point is important, but the freedom to enrich the process with multi-sectoral stakeholders
<i>Business Case</i>	
Focus on economic viability of projects	Development from business ideas, to business cases, to business plans
The degree to which a project is elaborated depends on the project and the availability of information and resources	Minimum result is (one or more) business cases Maximum result is (one or more) business plans
<i>Approach</i>	
Focus on a positive attitude	Combine the profits of stakeholders with the possibility for policymakers to reach their policy goals
A technology push approach	Multi functional land use can add value to a specific area
No top down obligations for participation	Volunteering stakeholders in the process, who become owners in the end
Different from Mutual Gains Approach	Focus on business instead of conflict resolution

## CONCLUSION

In this paper, the authors described an Interactive Business Case Approach (IBCA) in a participatory planning setting concerning multifunctional land use. Multifunctional land use is considered in this paper as a solution to optimize the use of scarce spatial resources and a strategy to deal with the effects of climate change and socio economic trends.

We applied the concept of IBCA to two projects in The Netherlands. One project focused on a large-scale construction project of Rijkswaterstaat, the Dutch Directorate General for Public Works and Water Management, which comprises the extension of a ship lock, and broadens a busy waterway. The other project focused on the whole province of Noord-Brabant, especially the sandy rural regions.

With the application of IBCA the authors wanted to show that IBCA is an approach to handle multi functional land use, and its complexity that's due to the variety of different stakeholders, each with their own perspective, interests and gains on the short and longer term. The IBCA does this by bringing short and longer-term interests together by creating business ideas, business cases and business plans together with stakeholders and connecting them to longer-term policy goals.

Finally, we compared the advantages and disadvantages of the application of IBCA as compared to traditional methods in a SWOT analysis. This analysis showed that the added value of the IBCA approach is that the perspective of entrepreneurship is added to a project. This is especially interesting from a societal perspective at a time when financial means are decreasing.

Furthermore, the added value of the IBCA is use of modern brainstorming and collaboration techniques that stimulate development of innovative concepts, potentially resulting in profitable new solutions and projects, that would otherwise not be considered and evaluated at all. The group sense of a common quest for profitable solutions as one would find

in a commercial enterprise, adds to positive creativity.

Finally, an added value of the IBCA is the possibility of forming alliances between stakeholders and entrepreneurs. This too is an innovative feature of the approach.

Our conclusion is that the IBCA is an interesting and promising mix of modern governance methods, including economic, participative, and spatial planning techniques. Though the process of the IBCA requires some efforts in the form of time for meetings and organizing, the results in the form of reduced costs and extra benefits to participants and society as a whole, are probably worth it.

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