

# Local Governments steering towards sustainability



**EUROPEAN ecoBUDGET  
PILOT PROJECT**

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## INTRODUCTION

The financial budget is a widely accepted framework for financial decision-making and management. Local authorities all over the world have embraced this concept and are familiar with its purpose and benefits. The ecoBUDGET concept have replicated some processes from the financial system and transferred these elements to the area of environmental management, as local authorities are increasingly in need of comprehensive methods to design and present local environmental work. The ecoBUDGET concept uses natural, physical resources as it's base, thus does not intend to evaluate or allocate a monetary value to environmental issues. It is based on environmental indicators, and aspires to keep the environmental spending within limits of an environmental master budget. Through debate and ratification of the master budget in the Council, political decision-makers and senior urban managers are systematically and periodically involved in the ecoBUDGET cycle, allowing political legitimisation and resource management. ecoBUDGET focuses on all environmental media, all environmental effects and concerns the entire community and geographical area.

The Aalborg Charter further voiced this need where over 2000 local European authorities, in the Aalborg commitments, called for systems and mechanisms to manage environmental budgeting as one prerequisite for sustainable development.

The LIFE funded European ecoBUDGET pilot project (2001-2004) was designed with this background thus intended to test the applicability and transferability of a new environmental management system designed for local authorities.

The objectives of the European ecoBUDGET pilot project have been:

- *to demonstrate the applicability and suitability of ecoBUDGET for cities of different sizes in different European countries.*
- *to enter the next logical step after a successful German pilot in order to make the environmental management system ecoBUDGET available to other European countries.*
- *to adjust the ecoBUDGET approach to other national conditions.*
- *to further develop links to other environmental management instruments and processes to sustainable development.*
- *to implement the postulates of European charters and policies for a sustainable development at all levels of EC.*

## PARTNERSHIP PRESENTATION



The **Municipality of Växjö, Sweden**, has been the project's lead partner. With more than 76,000 inhabitants, Växjö is the regional capital of Småland, a region in the middle of Southern Sweden. The first ecoBUDGET was ratified in March 2003. The budget balance and second cycle were ratified in April 2004.



The **Municipality of Amarooussion, Greece**, ratified their first budget in October 2003 and the budget balance and the second master budget in October 2004. Amarooussion is situated just to the north of Athens, and has about 100,000 inhabitants.



With a population of nearly 370,000, the **City of Bologna** is the capital of the Emilia-Romagna region in northern Italy. The city council ratified the first ecoBUDGET in February 2003. The balance and second budget were approved in March 2004.



The **City of Ferrara**, with 131,000 inhabitants, is located in the Emilia-Romagna region of Italy. Ferrara is one of Europe's leading cities for sustainable development, winning the Sustainable City Award 2003. The first budget was ratified in February 2003, the balance and second budget was ratified in April 2004.



The **Municipality of Kalithea** is situated on the northeast of the island of Rhodes in Greece. The Kalithea city council ratified the master budget for 2003 in February 2003. The budget balance for 2003 and master budget for 2004 were approved in February 2004.



**Lewes District Council**, in East Sussex in the south of England, comprises rural villages and four towns with a total of approximately 89,000 inhabitants. Lewes District Council ratified the first master budget in September 2002. The budget balance for 2003 and master budget for 2004 was ratified in April 2004.



The **City of Dresden** with approximately 478,000 inhabitants, is the capital of the German Federal State of Saxony. Dresden took part in the first German pilot project on ecoBUDGET, and thus serves as an important experience provider.



The **City of Heidelberg**, Germany, has around 148,000 inhabitants. As one of Europe's leading sustainability cities (winner of the Sustainable City Award 2003), Heidelberg also took part in the German pilot-project on ecoBUDGET, and therefore has a similar role as Dresden.



The **Environmental Protection Regional Agency of the Region Emilia-Romagna (ARPA)** in Italy has extensive experience in the technical fields of environmental protection, collection of data and the creation of indicator systems, thus being a scientific advisor, in particular to the Italian partners.



**ICLEI – Local Governments for Sustainability** is an international membership organisation of local governments implementing sustainable development. Together with Växjö, ICLEI has co-ordinated the European ecoBUDGET pilot project. The ecoBUDGET® method was originally developed by ICLEI's European Secretariat.

# PROJECT ACHIEVEMENTS

## DEVELOPING AN EUROPEAN ENVIRONMENTAL MANGEMENT SYSTEM

The original ecoBUDGET system was developed by ICLEI Europe and tested in a German pilot project 1995-2000. The goal of the European ecoBUDGET pilot project was, thus to develop and adjust the original concept to a European context. The main tasks for this adjustment have been to harmonise terminology and to adjust system requirements. The major adjustments to the original ecoBUDGET concept have been to delineate the steps suggested and requirements for the implementation of the system. The European ecoBUDGET pilot project concluded that special national adjustments are unnecessary, since ecoBUDGET is inherently flexible, thus suitable for any circumstances regarding culture, political system, values, language and history.

## A SUSTAINABLE RESOURCE MANAGEMENT SYSTEM

ecoBUDGET is an environmental management system based on resource management and political and community involvement. The method imitates the cyclical approach of local financial budgeting and has been developed for, and tested by, local authorities, thereby becoming the first global (European) environmental management system with particular emphasis on the special needs and requirements of politically steered organisations.

While there are numerous similarities between the principles and functions of environmental and financial budgeting, there is also a more practical similarity between financial and environmental budgeting: that of their cyclical methodology - the decisive characteristic of all management systems. In free-economy and local authority financing, it is taken for granted not only that data is collected and reports are written on the status quo, but also that measures are planned, their implementation monitored and statements of results produced, before the cycle recommences. Local environmental budgeting is an environmental management system that also follows these general management principles.

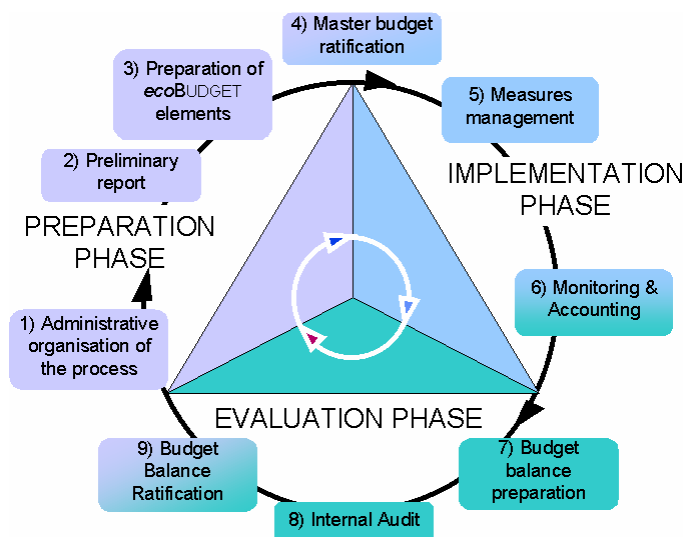


Figure of the improved ecoBUDGET environmental budget cycle as defined by the European ecoBUDGET pilot project.

Depending on their respective purposes, management systems may display great differences in the way their respective activities are programmed. However these systems involve subsequent steps that they all share in common. In ecoBUDGET, the steps are determined in what is known as the **environmental budget cycle**. The search for priorities and targets is an integral part of budget preparation. The planning of measures

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and the allocation of tasks on the one hand, and the monitoring of task fulfilment and the achievement of targets on the other, are parts of the implementation phase. The outcome is examined and the results reported by means of the environmental budget balance.

The three sides of the triangle represent the three phases of the environmental budget cycle: *Preparation*, *Implementation* and *Evaluation*. Only the combination of the individual steps in these three phases forms a system that is capable of adjusting resource usage to the requirements of sustainable development over time. The method as described here is an idealised presentation of the ecoBUDGET cycle as, in reality, the different steps flow into each other or in some cases spread out over the entire ecoBUDGET cycle. A prerequisite for the successful implementation of environmental budgeting is a deep understanding of the mutual dependencies that exist between the three parts. However, the figure illustrates the concept of continuous improvements towards sustainability through an annual cycle.

***The Preparation Phase, consists of four steps:***

1) The *administrative organisation of the process* is a vital step, especially for the first ecoBUDGET cycle. Vital structures in the local administration have to be set up or reviewed, such as a cross-departmental team, which will have the overall responsibility of managing and executing ecoBUDGET. Also developed here are the reporting structure and framework, as well as frameworks for managerial directives and internal audits.

2) *Preliminary report*: In financial budgeting, the preliminary report accompanies the budget and explains the budget framework, in particular the factors governing changes in income and expenditure, as well as planned investments and their financial effects over the forthcoming years. Environmental budgeting adopts the function of the preliminary report and slightly extends its use. The transparency provided by the preliminary report of the environmental situation, of emerging legal or political frameworks, and of the development of individual environmental areas, allows trends to be deduced that specialists can compare with their own planning schedules, thereby enabling them to produce realistic values for the budget estimates. The preliminary report also aims at identifying existing local environmental activities and initiatives, which can sanction or be strengthened by ecoBUDGET.

3) Preparation of the ecoBUDGET pillars, namely the *Environmental Master Budget*, the *Statement of Environmental Assets* and the *Environment-Benefit Analysis*.

The Master Budget graphically resembles a financial budget and contains:

- i) The natural resources prioritised by the local authority for protection or effective management. Physical units using (environmental) indicators represent these resources.
- ii) The long-term targets for these resources, which have been formulated on the basis of political decisions and/or scientific criteria, and are orientated towards the principles of sustainable development.
- iii) The individual indicators represent the spending framework (i.e. limits) for the utilisation of designated resources within the forthcoming environmental budget year. These are known as “component budgets” with short-term targets and are prepared as an aid to achieving the long-term targets on the basis of the previous year’s values, expected future events, and planned measures. Of particular importance here is the



fact that both target values and the time by which they are to be accomplished are defined (time-related environmental targets).

The statement of environmental assets provides information about the quantifiable local dimension of environmental resources, i.e. the “environmental capital”, within a local authority's area. It contains a set of indicators, which complement those of the Master Budget. On the one hand, it should set out positive ecological achievements, e.g. investments in the productivity and the usability of natural resources. On the other hand, long-term trends should be indicated, which do not allow for direct conclusions regarding the state of the environment.

The environment-benefit analysis contains parallels to economic and social reporting. It serves to measure the efficiency with which the local authority utilises natural resources to satisfy human needs (e.g. work, living space, and mobility). Two questions are important when considering the effects of human activities on the environment. Firstly, how is the environment damaged? Secondly, how efficiently is an environmental consumption satisfying human needs?

4) *Master budget ratification*, concludes the preparation phase. The success of ecoBUDGET depends to a great extent on how seriously it is recognised as a tool for political management. Council discussion, debate, and opinion forming in preparation for a political decision are therefore central aspects of the procedure. Existing problems and contradictions should be outlined in the textual explanations (explanatory report).

Political ratification of ecoBUDGET makes the environmental budget binding for the local authority, and in this way the budget becomes an integral and therefore compulsory aspect of administrative decision-making. Targets and budgets should therefore be taken into account in all decisions and planning processes.

### ***The Implementation Phase***

The political ratification of the Master Budget initiates the *implementation phase*, here described by two steps that are more or less ongoing throughout the ecoBUDGET cycle:

5) *Measure management* refers to the responsibilities and schedules relating to individual measures that must be agreed on within the local administration. The instruction to begin this step is ratified by the ecoBUDGET Co-ordination Team, which also reaches agreements with participants from outside the local administration. Self-imposed targets and voluntary commitments must be given a concrete form through the announcement of planned measures that are to be implemented in the subsequent environmental budget year.

6) *Monitoring and Accounting*. Implementation status and environmental progress are continuously recorded in the accounts. Accounting, supported by the monitoring and reporting mechanisms of the individual indicators, allows the local administration to recognise early on, whether the environmental budget values are being adhered to. The budget monitoring and accounting mechanisms also ensure that deviations are documented at an early stage.

### ***The Evaluation Phase***

At the end of the environmental budget year, the ecoBUDGET Co-ordination Team concludes the accounting and draws up the annual balance in the Evaluation phase, which comprises three steps:



7) *Budget balance preparation* includes the following components:

- i) the annual balance (compiling annual accounts from individual accounts) provides information on whether or not the previous year's budget was adhered to;
- ii) the statement of environmental assets, and the environment-benefit analysis, presents the local authority's degree of sustainability.

8) The *Internal audit* evaluates the local process and its outcomes. By comparing the annual balance and long-term target values, it becomes clear how close the local authority is towards achieving its set goals. A distance-to-target index indicates the ground already covered on the way to the long-term target. This evaluation also targets the process itself and can thus identify areas that are in need of improvement or change. The evaluation of how the authority has achieved its targets also forms the basis for improvement in priority-setting and measuring implementation.

9) The *Budget balance ratification* is similar to the master budget ratification; this process validates and confirms the work carried out during the past year. It will also form the basis for future changes both in the actual process and the identified resources, targets and indicators. The budget balance contains the elements "statement of environmental assets" and "environment-benefit analysis", which will comprehensively present the ecoBUDGET work in environmental, social and financial terms. As this is the final step of the ecoBUDGET year, the results of the budget balance will inform the preparation of the following cycle. With the environmental budget balance, the administration is not only accountable to the council, but also, through the council members as elected representatives, to the public. It therefore serves both internal political debates and public discussion.

The partners of the European ecoBUDGET pilot project have all implemented one complete ecoBUDGET cycle, which can be represented by the compiled budget balance on the next page.

RESOURCE	Indicators	Reference year value	Value 2002	Value 2003	Short-term target (2003)	Long-term target	Short-term target evaluation	Comments
CLIMATE STABILITY	Carbon dioxide emissions from the geographical area (kg CO <sub>2</sub> /inh/year)	4632 (1993)	3802 (2001)	<b>3800 (2002)</b>	3335	2316 (2010)		National data is one year late.
	<i>Distance to Long-term target</i>	0 %	36 %	<b>36 %</b>	56 %	100 %		
AIR QUALITY	Concentration of PM10 (µg/m <sup>3</sup> )	64 (2000)	53	<b>45</b>	45	40 (2005)		The concentration of PM10 was affected by extraordinary meteorological events
	<i>Distance to Long-term target</i>	0 %	46 %	<b>79 %</b>	79 %	100 %		
LAND	Green spaces (m <sup>3</sup> /inh)	0,83 (2001)	0,83	<b>0,83</b>	1	5 (2005)		Kalitheia: Spatial planning study
	<i>Distance to Long-term target</i>	0 %	0 %	<b>0 %</b>	4 %	100 %		
RAW MATERIAL	Total recycled waste (ton)	2174	2174	<b>2500</b>	2283	3000		
	<i>Distance to Long-term target</i>	0 %	0 %	<b>39 %</b>	13 %	100 %		
WATER	Demand of ground water for drinking use (m <sup>3</sup> / year)	135,4 (2001)	138	<b>140,12</b>	138	132 (2010)		The delivering of potable water for the industrial use (oil and chemical sector) does not allow a sustainable management of the resource
	<i>Distance to Long-term target</i>	0 %	-76 %	<b>-139 %</b>	-76 %	100 %		
BIODIVERSITY	Wildlife Areas in School (% by number of schools)	5 (2000/1)	5	<b>18</b>	10	25 (2010)		The indicator definition has changed to reflect the sustainability of the wildlife areas. The target has been exceeded.
	<i>Distance to Long-term target</i>	0 %	0 %	<b>65 %</b>	25 %	100 %		

Table: Example of ecoBUDGET budget balance (with an indicator example from each project participant)

As can be seen from the aggregated budget balance above, the local authority will at the end of the environmental budget year have a comprehensive presentation of the environmental work within the authority.

The single greatest benefit of ecoBUDGET is thus the visibility it will give to environmental work and the ability to evaluate this work on the local level. Achievements and improvement needs are clearly identified, thus allowing the authority to allocate financial, staff and time resources, and initiatives appropriately. Hence, ecoBUDGET also allows for sound financial management, since financial resources for environmental purposes can be managed more easily. Effective initiatives can be streamlined and less effective programmes may be strengthened or changed. Thus, creating the highest environmental benefit through the most effective use of financial, staff and time resources. This is



particularly beneficial when the *eco*BUDGET is closely linked with the financial budget, through common or integrated columns for costs and revenues.

It would be inappropriate to claim huge environmental benefits from the first annual cycle of *eco*BUDGET. However, as the budget balance suggests, there are several examples of trends that are heading in the right direction. The budget balance also highlights trends that are going in the wrong direction. Councils are focusing efforts to stop and reverse these trends. We can therefore conclude that *eco*BUDGET, in a longer perspective (two-three cycles), will present even larger environmental benefits. In this context it is also important to note the feature of long-term target, which aims at guiding the authority towards a longer than the usual election period perspective. By having a longer perspective to measure against, the authority can more easily judge whether or not present measures are adequate, thus being capable of engaging in corrective or improving measures.

### **INTEGRATING OTHER MANAGEMENT INSTRUMENTS AND PROCESSES!**

Effective environmental management needs to integrate existing instruments. This can be achieved through linking *eco*BUDGET to local planning and decision-making processes, such as Strategic Environmental Assessment. Public participation in targets and achievements can be enhanced through linking *eco*BUDGET with the Local Agenda 21 process. *eco*BUDGET will then be able to include initiatives and programmes which are executed outside of the authorities' direct control, thus extending the scope of *eco*BUDGET. By including the public and other stakeholders, *eco*BUDGET secures community scrutiny of targets and achievements, in a way that forms a quality control.

The integration between *eco*BUDGET and the instruments mentioned above have been successfully tested in the European *eco*BUDGET pilot project, forming part of *eco*BUDGET's flexibility and applicability to different situations. Furthermore, the project has identified mutual benefits to integrating *eco*BUDGET with other environmental management systems, such as EMAS. In this context, *eco*BUDGET adds a political perspective and a larger scope to an otherwise rather introspective management system.



## TRANSFERABILITY IN A EUROPEAN CONTEXT

### APPLICABLE ACROSS EUROPE!

The project has successfully implemented an ecoBUDGET cycle in 6 different authorities from 4 different countries. That suggests that the system is readily transferable to other European and global circumstances. However, more importantly, international sustainability oriented strategies will boost implementation of environmental management systems in public authorities. As an example, the Aalborg Commitments, adopted by participants of the European Sustainable Cities and Towns Campaign in Aalborg, Denmark in June 2004, literally call for an effective management system on the local level. ecoBUDGET, as a political framework system for local environmental management is an effective means of carrying out the Aalborg Commitments process, targeted at the entire geographical area of a municipality, also including stakeholder involvement.

Signatories of the Aalborg commitments agree to apply a number of objectives, such as, increased participatory democracy, responsibility to preserve, and to ensure equitable access to natural common goods, protecting and promoting the health and wellbeing of citizens and prudent and efficient use of resources and encouraging sustainable consumption and production. This basically establishes a need for an effective management system at the local level. A role that ecoBUDGET have proved to fill, without enforcing standards and objectives upon the authority.

The European Commission considers *“in the long-term, active and integrated management of environmental issues for the whole urban area is the only way to achieve a high quality and healthy urban environment. Explicit environmental targets, actions and monitoring programmes that link environment policies to economic and social policies are required. Urban municipalities therefore need to put in place an environmental management plan. To ensure its implementation and monitor its progress, they need to adopt an appropriate environmental management system.”* To this end, the Commission currently is developing a Thematic Strategy “Towards the Urban Environment” to come up in June 2005.

ecoBUDGET corresponds to this strategy through its inclusion of community involvement, political commitment, local relevance, local target setting, resource management, monitoring and controlling, structure and transparency. The ecoBUDGET concept and current ecoBUDGET authorities are already answering the call of the Urban Thematic Strategy, even though it is not yet being enforced.

### For more information, please contact:

Mr. Anders Franzén  
Head of Planning Dept.  
Växjö municipality, Sweden  
[anders.franzen@kommun.vaxjo.se](mailto:anders.franzen@kommun.vaxjo.se)  
Tel: 0046-470-415 91

Ms. Torun Israelsson  
Project Manager  
Växjö municipality, Sweden  
[torun.israelsson@kommun.vaxjo.se](mailto:torun.israelsson@kommun.vaxjo.se)  
Tel: 0046-470-415 71