



WiBe-TEAM PR

Justifying ICT projects – Economic efficiency assessments with the WiBe® framework

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Investments in Information and Communications Technology (ICT) aim at improving the overall efficiency of the agency and enterprise – a logical demand in times of scarce financial means. Arriving at a consensus is not always simple, and thus not surprising that assessment of economic efficiency leads to frequent discussions between ICT managers and the management board.

*Planning and approving ICT projects requires founded, methodical calculation and documentation of pending costs and anticipated benefits – not just an examination of a project's feasibility. Some economic effects (benefits in particular) can only be measured with difficulty monetarily, if at all. Economic efficiency assessments must carefully consider the aspects beyond the monetary effects in order to facilitate a sound decision. This is where the **WiBe Framework** comes in.*



What's economic efficiency, how can it be determined?

The principle of economic efficiency is based on achieving the most favourable relationship between the set purpose and the means used to attain it, i.e.: the benefits anticipated from an ICT project should stand in highest ratio possible to the anticipated costs for attaining them.

The scientific tool for reaching this equation is the **WiBe® Framework**, taken from *Wirtschaftlichkeits-Betrachtung*, the German term for economic efficiency assessment. This is applied to individual projects and procurement measures and thereby distinguishes itself from periodic cost and activity accounting.

► WiBe® framework

The **WiBe® Framework** is already internationally acknowledged for its reliable economic efficiency assessments. Some of the planning questions it answers include:

- Which **costs and benefits** will occur from this project within a specified time?
- Which **budget-relevant outcomes** are expected from the project?
- Which further **qualitative effects** of importance can be derived?
- Why is it **advisable** to accomplish this ICT project at this time?

The **WiBe® Framework** extrapolates the traditional project considerations and provides solid statements as to the economic efficiency of the measures planned.

Because economic efficiency assessment deals with assumptions about the future, the approach taken must be methodical and transparent – and its procedure organized about a common framework.

- **Monetary evaluations** constitute the core of each assessment, thus the method of **net present value** is recommended as the most suitable procedure. All future disbursements and deposits of an ICT measure are discounted to the base year of the calculation, i.e., the year in which the ICT measure is to commence. The sum of all net values within the calculation period represents the cumulative net value. If the sum is favorable, the project is economically efficient.
- Non monetary, **qualitative evaluations** supplement **WiBe** core calculations by describing additional effects of the ICT measure which cannot be measured in money. A **benefits analysis**, weighing all qualitative criteria with respect to their relative importance, is given a score on a scale from 0 to 10 to reflect the **value of benefits**. The higher the score, the better the qualitative prognosis for pending ICT measures.



Justifying (ICT-) projects - Economic efficiency assessments with the WiBe® framework

What determines an ICT project's extended economic efficiency?

The *extended* economic efficiency is determined by measuring the impact of various criteria on a project, such as:

- **Cost and benefit parameters** as quantified in **monetary terms**,
- The **time urgency for replacing** an existing system,
- Strategic **quality improvement** through implementation of a new ICT system,
- The **external impact** an ICT project will have on other institutions.

The WiBe® Framework is the brainchild of economic expert Peter Roethig, PhD, initially developed for the fulfillment of a directive from the German Ministry of the Interior. Undergoing consistent further development and refinement, WiBe®, one of the first frameworks worldwide to be applied for the economic efficiency assessment of ICT projects, is widely used in administrative government.

Today, the **WiBe 4.1** framework is the version of choice, applied widely at federal, state and municipal levels in Germany. It is now also a viable projection option for a growing number of countries within and beyond Europe.

Which factors are necessary when projecting by the WiBe®?

To ensure the highest feasibility and integrity, all potential factors must be carefully projected and then comprehensively and methodically calculated. These are:

Profitability: economy of cost vs. benefit

All parameters defining cost and benefit which are capable of being quantified in monetary terms are of central importance.

Investment & development costs

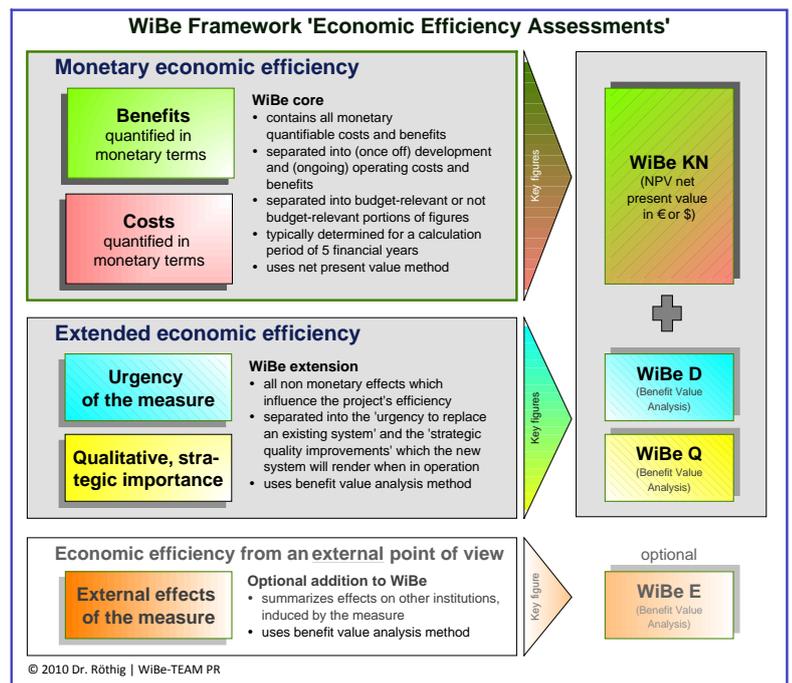
These are the one-time, initial expenditures made primarily for hardware and software, installation & systems implementation.

Operating costs & benefits

These are ongoing costs reflecting consumable materials, personnel expenditures, maintenance and/or system updating, etc. The analysis assesses the efficiency of each cost criterion within the new system, indicating the savings attainable through

discontinuation of the old process. The end balance shows additional vs. fewer or lower operating costs and is reflected in the subsequent cost-benefit calculation.

The calculated or estimated figures are discounted from the base year of calculation and form the **net present value** of the ICT project ('*WiBe KN*'). If the result is favourable, the project is economically efficient.



Aside from monetary impacts there are further evaluations which serve to determine the *extended* economic efficiency of the ICT project. These concern the qualitative aspects which are detailed in a **benefit analysis**.

Urgency surrounding the ICT measure

The urgency called for in replacing a system currently in use is an important factor in the assessment. What about reliable, continuous maintenance? Are there restrictions for further expansion, personnel bottlenecks or interface problems? Will existing legal restraints remain valid, or will system replacement facilitate a new solution?

Qualitative, strategic importance

The qualitative-strategic relevance of the new solution is a central criterion. For example, how will the solution fit into the sector's overall development? How significant will the quality increase be upon completion of the specialized tasks? These and numerous further questions are asked and evaluated.



External effects of the ICT measure

The ICT solution can affect (intentionally or non-intentionally) external parties and institutions substantially. These 'external effects' have to be considered if they are more than just incidental. For example, how is user friendliness from the customer side? Does the customer gain any direct economic benefit?

How do the WiBe® key data figures simplify assessment?

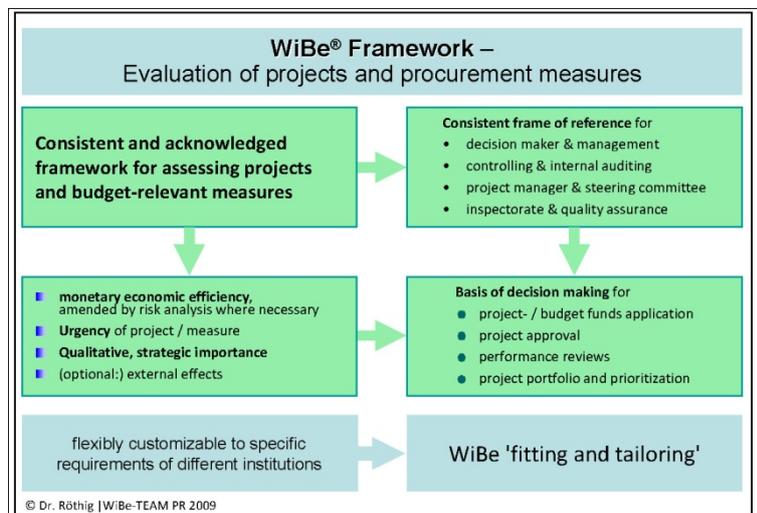
WiBe® generated key data figures deliver a set of rules decisive for the effective launching of individual ICT projects. For example, when **positive net present value** shows the ICT project to be economically efficient even before consideration of urgency, strategic importance or external effects; commencement with the project is recommended.

Likewise, a **negative net present value** marks the ICT project as planned to be inefficient in a monetary sense. However, projects can be qualified as efficient in an *extended* sense when key data figures regarding urgency, quality index and an optional external effects analysis surpass predefined thresholds.

(WiBe® software offers a variety of report templates for the presentation of economic efficiency assessments and results (see sample).

WiBe® Framework: flexible ...

The WiBe® concept and the accompanying WiBe® software are adaptable to the requirements of both individual institutions and their varying projects. Easily navigating through the WiBe® framework, the user manages the assessment with ease, certain that all aspects relevant to the evaluation have been factored systematically.



WiBe® software is browser based and can be implemented as an intranet solution or by Software as a Service (SaaS).

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