

# WiBe-TEAM Presentation

## Economic Efficiency Assessment for ICT and eGovernment projects in public administration



## The German WiBe framework - standard for German Federal Administration

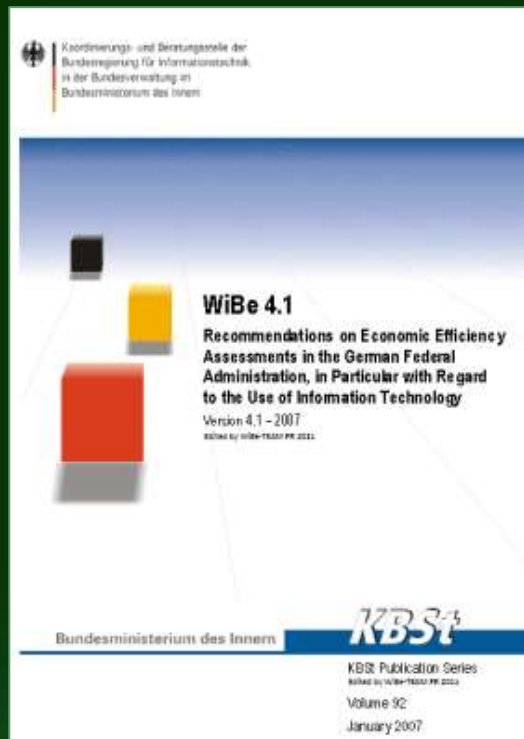
Bratislava, December 13<sup>th</sup>, 2012, 09:00



**Dr. Peter Röhlig**  
**WiBe-TEAM PR | Germany**

**Wirtschaftlichkeitsberechnungen | WiBe®**  
Economic Efficiency Assessment  
[www.wibe.de](http://www.wibe.de) | [www.wibe.eu](http://www.wibe.eu)

# What does "WiBe" have to do with ...



**eFOCUS** | KONFERENCIE & SEMINÁRE

Späť na úvod | Ďalšie podujatia

Zdieľať

## Biznis raňajky eFOCUS: Licencovaný softvér, alebo open source?

**13.12.2012** | PREBERIA REGISTRAČIA

13.12.2012, Holiday Inn, Bratislava

I. Ako posudzovať, merať a vyhodnocovať ekonomickú efektívnosť nasadzovania a migrácii softvérových platforiem

Hlavný rečník: Peter Röthig, PhD, WiBe – TEAM Germany – Austria.

P. Röthig je tvorca úspešnej metódy WiBe (Wirtschaftlichkeitsberechnung = economic efficiency assessment)

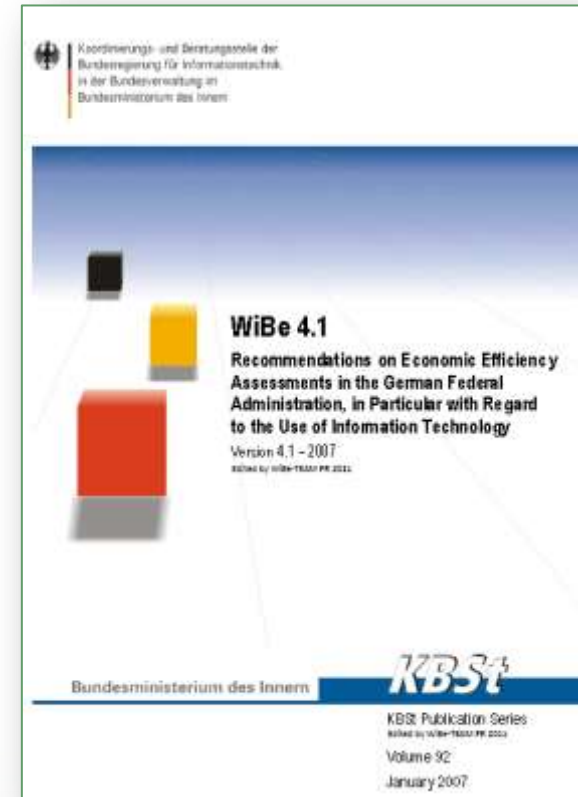
## WiBe Framework ►

*'Economic Efficiency Assessment' (transl.)*

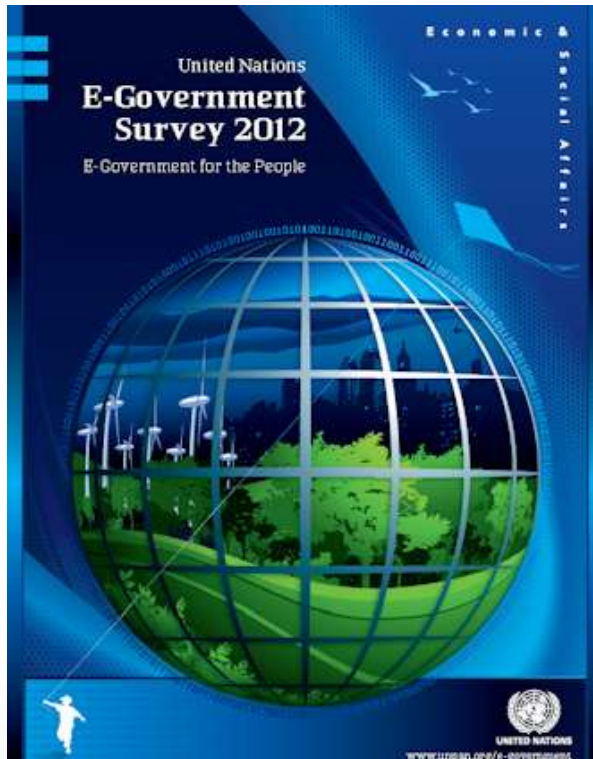
- comprehensive, well proven concept
- to rationally discuss and decide upon
- all kinds of (ICT) projects like
- "Open Source – To Do Or Not To Do"
- and: WiBe is open source ...

# Table of Contents

- ICT projects in public administration – topics like
  - eGovernment
  - Open Source Migration
  - Cloud Computing
- WiBe for economic efficiency assessment
  - assumptions, concept, procedure
  - criteria for measuring impact
  - results and decision rules
  - examples
  - stakeholder view
  - implementation, similar European concepts
- WiBe framework – summary



# ICT and eGovernment projects – FOCUS on eGovernment ...



## World e-government rankings

Progress in online service delivery continues in most countries around the world. The United Nations E-Government Survey 2012 finds that many have put in place e-government initiatives

**A key driver for this approach is the need to achieve efficiency in government at the same time that services are being expanded (p.10)**

# ICT and eGovernment projects – FOCUS on eGovernment ...

**eGovernment projects –**  
what are the essential benefits ?

**... economic efficiency  
promised !**

**it does not simply  
come by itself ...**



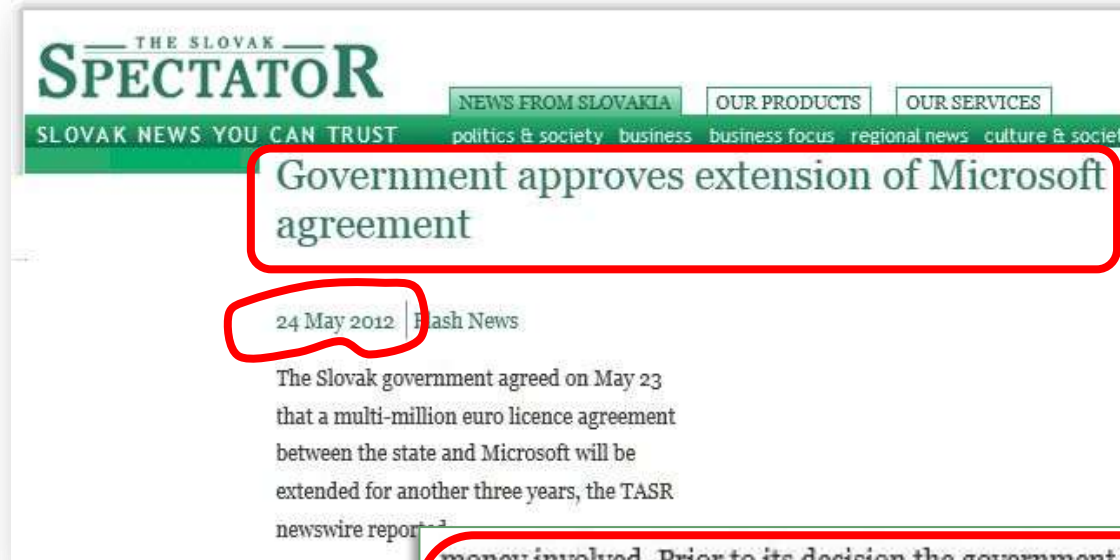
# ICT and eGovernment projects – FOCUS on eGovernment ...

- **funding of eGovernment** is sometimes not a key question – if projects are labelled "strategic" and are funded elsewhere ...
- but: eGovernment is more than a strategic issue
- eGovernment projects need **evaluation** and an accurate **assessment of cost and benefits**

**a comprehensive  
efficiency assessment is needed**



# ICT and eGovernment projects – FOCUS on Open Source Migration ...

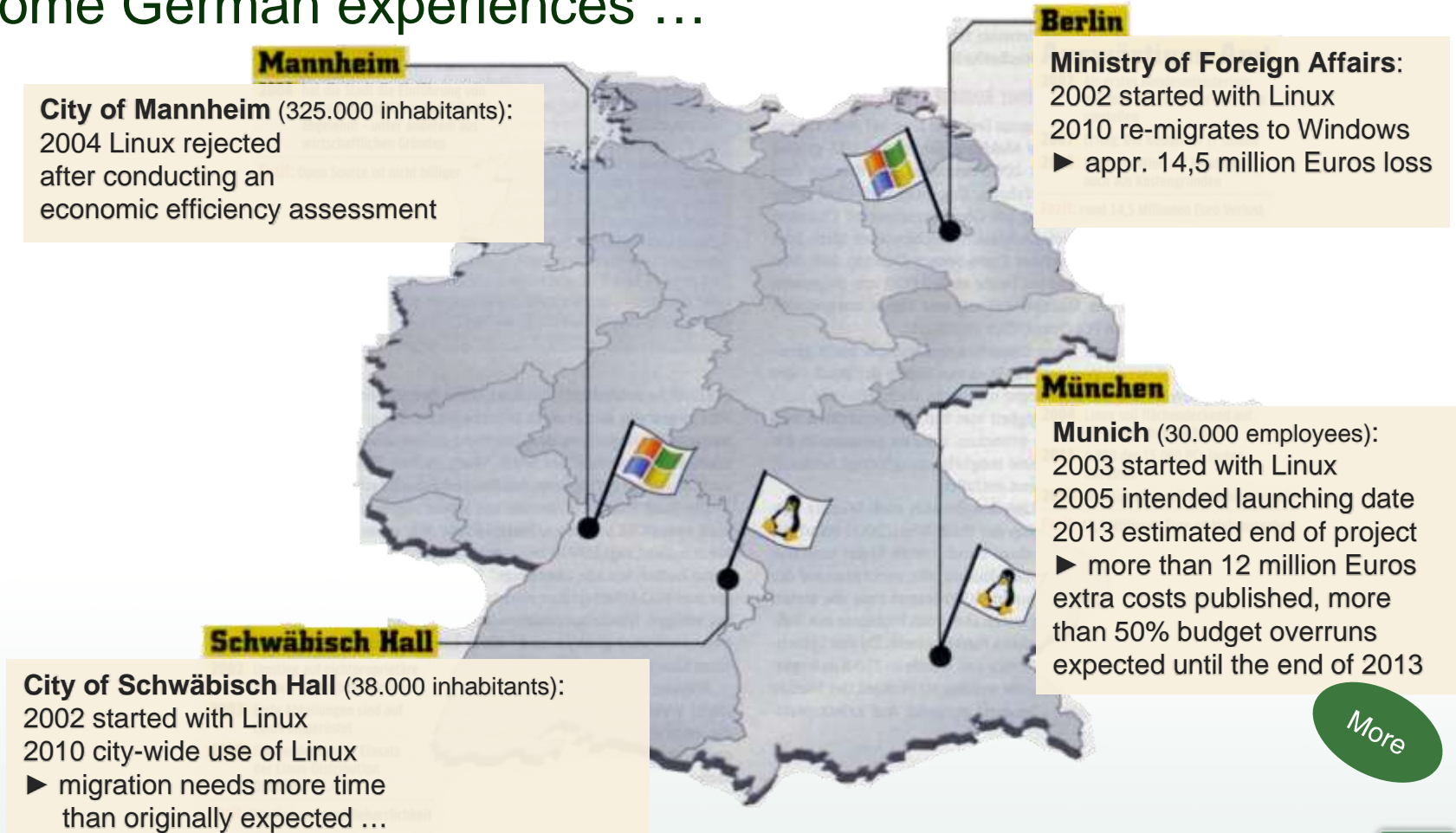


money involved. Prior to its decision the government had prepared a detailed analysis of how many licences are needed and how the licenses are being used in state offices, TASR wrote.

The Fair-Play Alliance criticised extension of the licence agreement, saying that the state does not know how Microsoft products have been used to date. Its statement, as reported by TASR, pointed out that the contract will be extended "without the state having a clear picture of the individual needs of state offices." The NGO further claimed that signing the agreement was not preceded by a standard tender process and that a different kind of agreement would be much cheaper.

# ICT and eGovernment projects – FOCUS on Open Source Migration ...

## ► some German experiences ...



More



# Open Source Migration – FOCUS on Stadt München 11/2012

23 November 2012, 11:13

« previous | next »

## Linux brings over €10 million savings for Munich

Over €10 million (approximately £8 million or \$12.8 million) has been saved by the city of Munich, thanks to its development and use of the city's own Linux platform. The calculation of savings follows a question by the city council's independent [Free Voters](#) (Freie Wähler) group, which led to Munich's municipal LiMux project presenting a comparative budget calculation at the meeting of the city council's IT committee on Wednesday. The calculation compares the current overall cost of the LiMux migration with that of two technologically equivalent Windows scenarios: Windows with Microsoft Office and Windows with OpenOffice. Reportedly, savings amount to over €10 million.

<http://www.h-online.com/open/news/item/Linux-brings-over-EUR10-million-savings-for-Munich-1755802.html>



# Open Source Migration – FOCUS on Stadt München 11/2012

Der Kostenvergleich ist aus der nachstehenden Tabelle ersichtlich:

## Betriebssystem-abhängige Kosten

Nr.	Kategorien	Stück	Windows mit MS Office	LiMux
1	SW-Lizenzen			
2	MS-Office	15.000		0 €
3	Office-Update 2011/2012	15.000		0 €
	Summe Office		4.200.000 €	0 €
4	Betriebssystem	11.000		0 €
5	Betriebssystem-Update 2011/2012	7.500		0 €
	Summe Betriebssystem		2.846.240 €	0 €
	Summe Lizenzen		6.846.240 €	0 €
6	Hardware	1.000	4.693.333 €	0 €
7	Wartungsverträge	nicht abgeschlossen	0 €	0 €
8	Anwendungsmigration (ohne KOI)		54.620 €	273.132 €
	Summe		11.594.200 €	273.132 €

## Betriebssystem-unabhängige Kosten

	Kategorien	Windows	LiMux
9	Schulungskosten	1.691.690 €	1.691.690 €
10	Ext. Migrationsunterstützung	4.406.964 €	4.406.964 €
11	Vereinheitlichung Formularwesen	4.023.067 €	4.023.067 €
12	Umstellung Excel zu KOI	500.884 €	500.884 €
13	Optimierung Prozesse (z.B. Anforderung und Test)	2.077.638 €	2.077.638 €
14	Projektdurchführung (PL-Kosten, Investitionskosten)	119.624 €	119.624 €
15	Projektdurchführung (befristete Stellen it@M)	2.867.879 €	2.867.879 €
16	Schulungsorganisation (befristete Stellen P 6.2)	749.760 €	749.760 €
	Summe	16.437.506 €	16.437.506 €
17	Personal (unbefristete Stellen it@M)	6.112.174 €	6.112.174 €

## Gesamtsumme

34.143.880 € 22.822.812 €

## some remarks from a WiBe point of view

- **cost comparison** (Kostenvergleich): **not an appropriate method** (standard: NPV Net Present Value),
- MS licensing **prices**: questionable
- **hardware** expenditures (4,7 Mio): included only in MS scenario, but no convincing justification,
- internal **personnel** costs (IT department and user): not included or assumed equal
- "operating system-independent costs": are they really independent?

# ICT and eGovernment projects – FOCUS on eGovernment ...

**Open Source Migration –**  
what are the essential benefits ?

**... economic efficiency  
promised !**

**it does not simply  
come by itself ...**



# ICT and eGovernment projects – FOCUS on Open Source Migration ...

## pros and cons of migration to **Open Source**

- ▶ economic efficiency for example (!) depends on
  - desktop: number and complexity of user specific **applications**, of **macros** and **templates** (word processing and spread sheets),
  - server: necessary **databases**, scope of highly available database / application / web servers, (non) use of **AD** Active Directory servers and MS exchange servers, **virtualization** concepts ...
  
- ▶ **CONCLUSION**: 'replacing migration' to Open Source should always be assessed on a case-by-case basis



# ICT and eGovernment projects – FOCUS on Open Source Migration ...

- Open Source Migration is not a quick and easy remedy how to reduce costs and just be happy
- Open Source projects need **evaluation** and **assessment of cost and benefits**, especially when it comes to 'hidden, indirect costs' ...

**a comprehensive  
efficiency assessment is needed**



# ICT and eGovernment projects – FOCUS on Cloud Computing ...

## Public Cloud (External)



## Hybrid Cloud (Mixed)



## Private Cloud (Internal)



**Reduced financial commitments:** Investments (hardware, software, administration, replacement investments later on) are less or may even become unnecessary

Increased server capacity utilization,  
**higher scalability**, externalizing peak demands

Lower expenditures for servicing and maintenance personnel

potentially better service through highly professional provider

'Pay-per-use', **fixed costs turn variable**, more flexibility

Savings in safety measures ('disaster relief')

No personnel costs for updates

Start-up costs are lower

**estimated main  
economic benefits**

# ICT and eGovernment projects – FOCUS on eGovernment ...

**Cloud Computing –**  
what are the essential benefits ?

**... economic efficiency  
promised !**

**it does not simply  
come by itself ...**



# ICT and eGovernment projects – FOCUS on Cloud Computing ...

- Cloud Computing projects need **evaluation** and **assessment of cost and benefits**, especially when it comes to 'hidden costs of switching' ...
- But: Cloud Computing is more than an mere economic issue – besides costs and benefits lie questions like **data security, safety** and **trust** ...

**a comprehensive  
efficiency assessment is needed**

# ICT and eGovernment projects – Answer questions like:



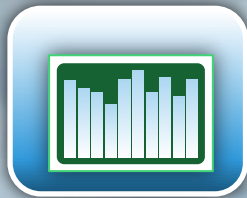
## **ICT project**

*Is it economically  
advantageous for us?*



## **Our Solution**

*Is it the most  
advantageous?*



## **Our Qualitative Standards**

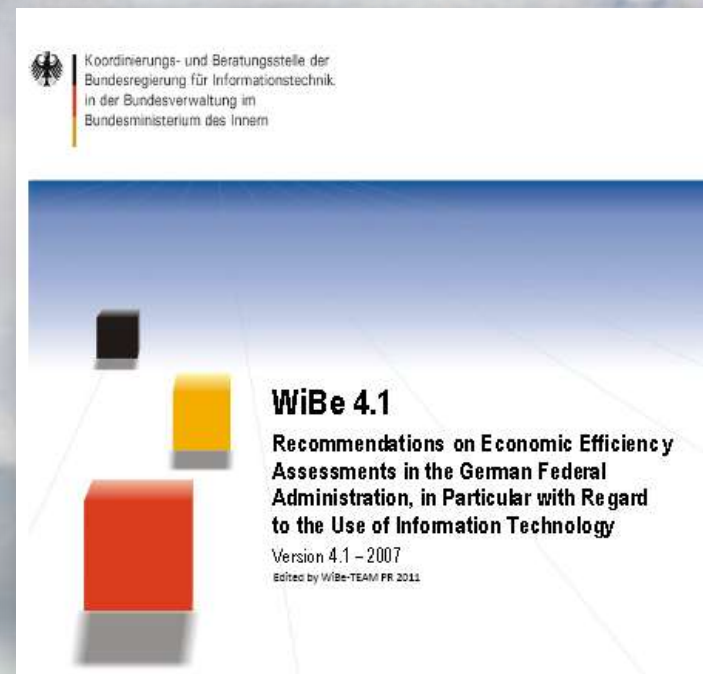
*Are they met?*



## **Our Decision**

*Will it be based  
mainly on our data?*

German  
WiBe 4.1 Framework  
Economic Efficiency  
Assessments with regard to the  
use of Information Technology



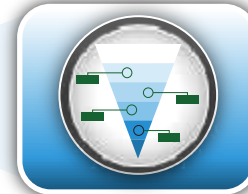
# ICT and eGovernment projects – WiBe Purpose



Assess the efficiency of particular ICT projects in a comprehensive way.



Consider both monetary and qualitative impacts during development and operation.



Base your assessment on data from your own organization.



Document all data easily in an understandable, traceable and transparent format.



Apply a standardized, generally accepted framework.





# ICT and eGovernment projects – WiBe: Background and history

**Wi**rtschaftlichkeits-  
**Be**trachtung

eGovMoNet Study 2010, funded by the European Commission:

"WiBe is one of the first frameworks for assessment of economic efficiency of federal administration and eGovernment"

- focusing on IT/ICT **projects**
- 1<sup>st</sup> version **1992**, revised 1997, 2001, 2004, 2007  
approved by German **Federal Court of Audit (BRH)**
- today WiBe 4.1 = **in fact legal standard** in public administration  
for assessing investments with substantial financial meaning

# WiBe Assumptions, Concept, Procedure

## Integrating monetary and non-monetary impacts

### Costs and benefits which can be assessed in monetary terms

#### Concerning the **New ICT Measure**:

- Development costs
- Operating costs

#### Concerning the **Existing Solution**:

- Development benefits (rather rare)
- Operating benefits (savings from replacing the existing solution)

Usually over a 5-year period ...

Monetary figures are separated into

- Budget-relevant portion
- Non-budget relevant portion

### Additional qualitative facts and impacts

#### **Urgency**

To replace an existing solution

**Qualitative/strategic importance**  
of the intended ICT measure

#### **External Effects**

on customers (citizens, companies, other administrative organizations)

Impact is assessed by

- Catalogue of qualitative criteria (predefined, weighted, obligatory)
- Each criterion may score from 0 to 10

### ► **Net present value method**

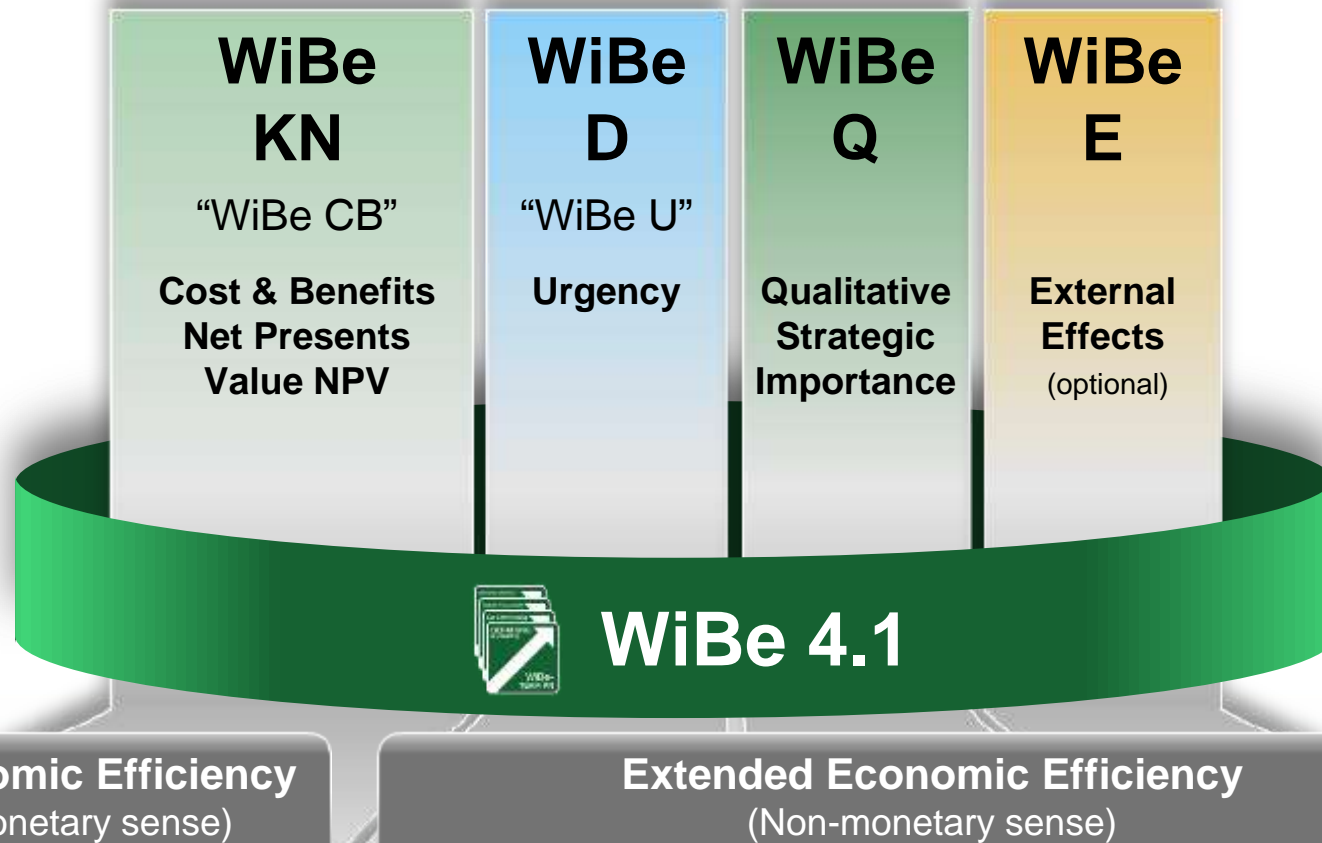
(considering different points in time of payments and disbursements, result is given in Euro)

### ► **Benefit analysis/decision matrix**

(transforming qualitative impacts into indexes, indexes are between 0 and 100)

# WiBe Assumptions, Concept, Procedure

WiBe framework considers 4 impact dimensions...

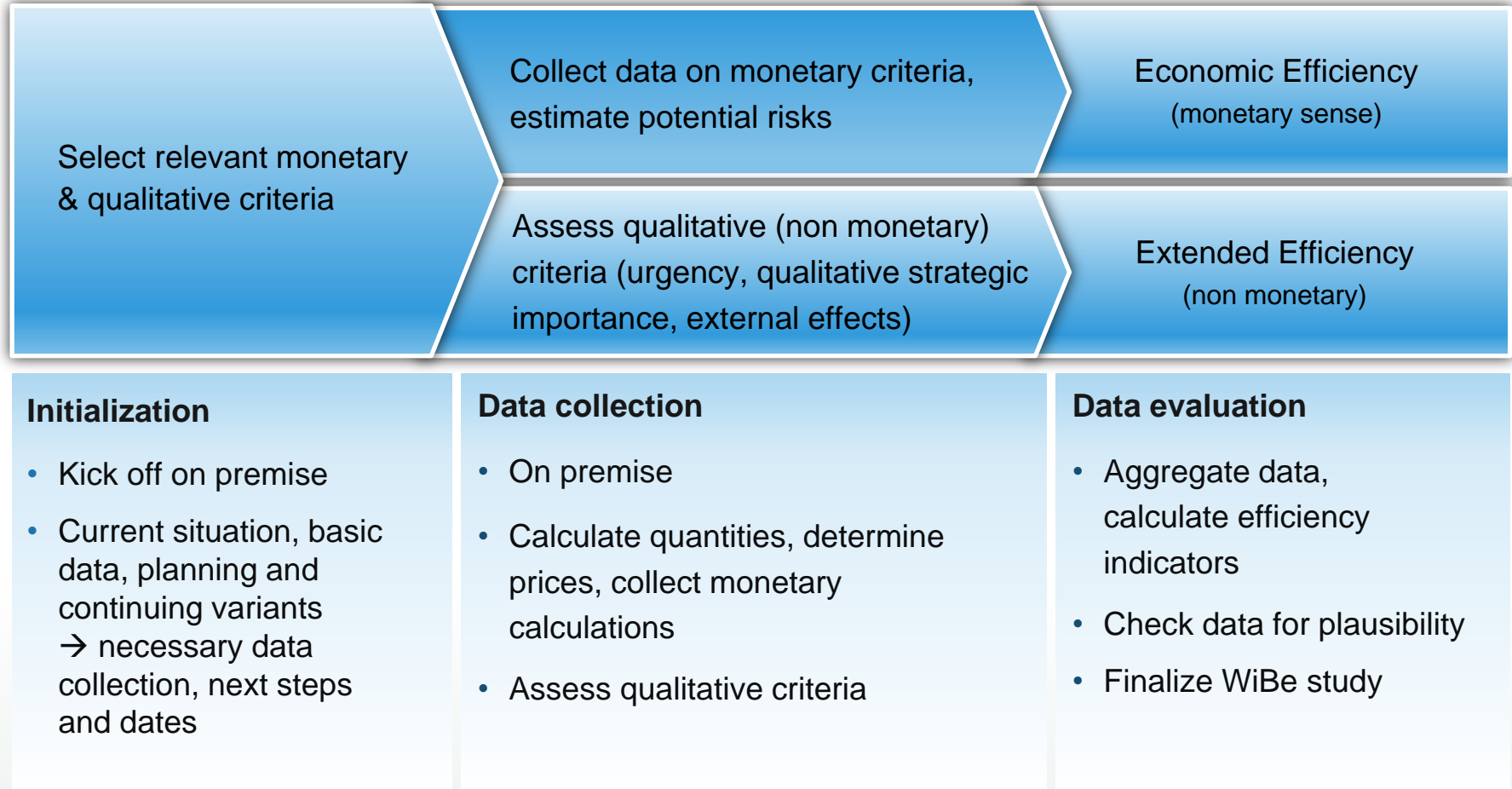


# WiBe Assumptions, Concept, Procedure

Step 1

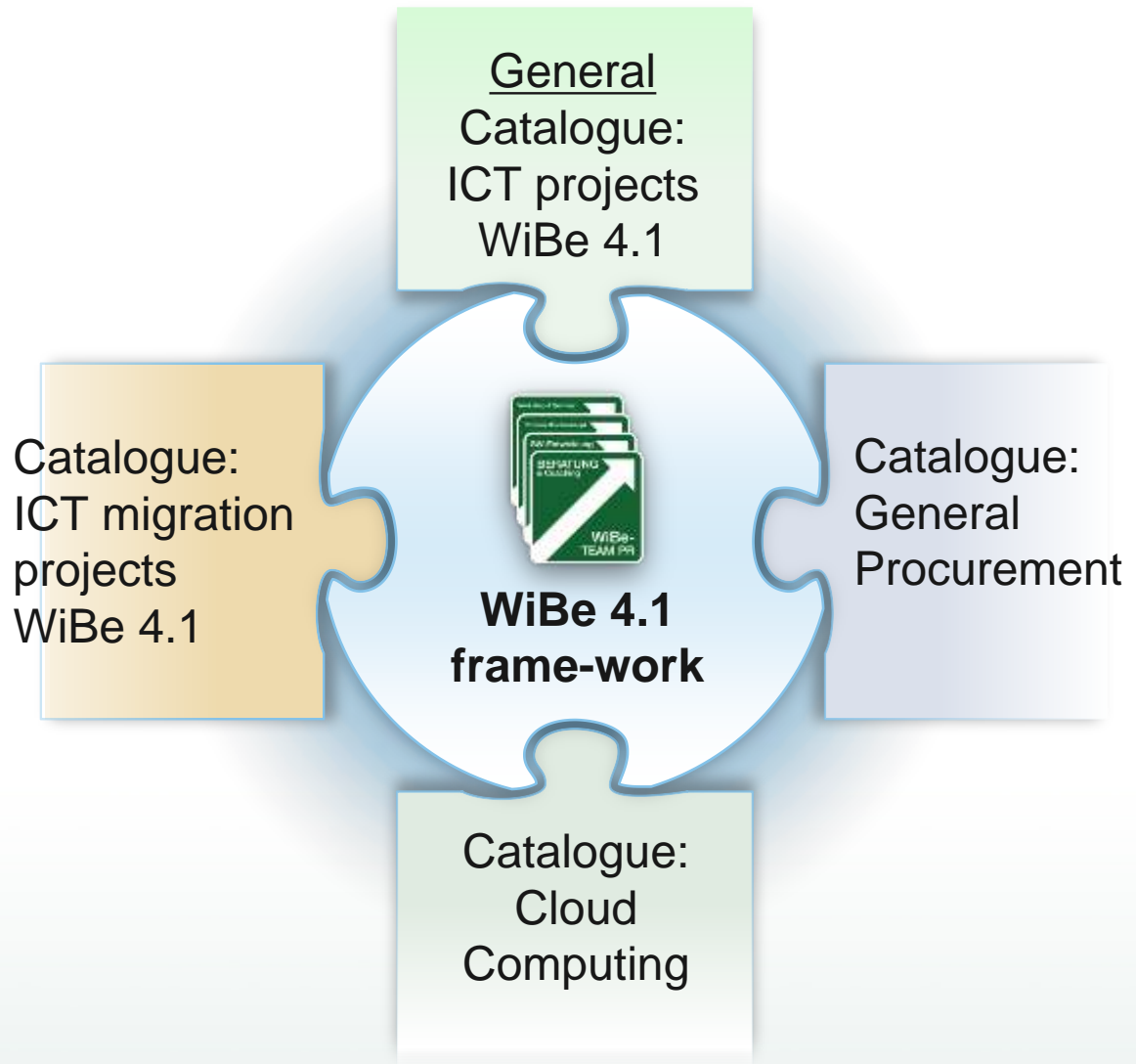
Step 2

Step 3



# WiBe Criteria for Measuring Impact

- All relevant criteria are summarized in **predefined catalogues**
- Different types of projects use different catalogues
- WiBe framework itself remains unchanged:





# WiBe Catalogue of Criteria: Migration

## Monetary criteria

### 1. Development costs for new OSS and optional benefits from existing system

#### 1.1 [Development costs of the new IT measure](#)

##### 1.1.1 [Planning and development costs](#)

1.1.1.1 [Personnel costs \(own personnel\)](#)

1.1.1.2 [Costs of external advisors](#)

1.1.1.3 [Costs of the development environment](#)

1.1.1.4 [Other costs of physical resources / auxiliary resources](#)

1.1.1.5 [Travel costs \(own personnel\)](#)

##### 1.1.2 [System costs](#)

##### 1.1.2.1 [Hardware costs](#)

1.1.2.1.1 [Host server, network operation](#)

1.1.2.1.2 [Workstation computers](#)

# WiBe Catalogue of Criteria: Migration

## Monetary criteria (cont.)

### 1.1.2.2 Software costs

1.1.2.2.1 Costs of the development and/or acquisition of software

1.1.2.2.2 Costs of the modification of software and/or interfaces

1.1.2.2.3 Costs of the evaluation, certification and quality assurance of software

### 1.1.3 Costs of system implementation

1.1.3.1 System and integration testing

1.1.3.2 Costs of system installation

1.1.3.3 Import of existing data

1.1.3.4 Initial training for users and IT specialists

1.1.3.5 Familiarization costs of users and IT specialists

1.1.3.6 Other costs of adaptation/change

### 1.2 Development benefits due to replacement of the old process

1.2.1 (avoidance of maintenance/upgrading costs of the old system)

1.2.2 Once-off revenue (from the disposal of the old system)

# WiBe Catalogue of Criteria: Migration

## Monetary criteria (cont.)

### 2. Operating costs and operating benefits

Costs ▶ New ICT measure (OSS migration)

Benefits ▶ Discontinuation of old measure

#### 2.1 Operating costs / savings of **operating costs**

2.1.1 (Pro-rata) host, server and network costs

2.1.2 (Pro-rata) costs of workstation computers

2.1.3 Energy and space costs

#### 2.2 Operating personnel costs / savings of **personnel costs**

2.2.1 Personnel costs related to system use

2.2.2 System management and administration

2.2.3 Ongoing training / qualification

#### 2.3 Operating costs / savings for **maintenance / system service**

2.3.1 Hardware maintenance/service

2.3.2 Software maintenance/update

2.3.3 Replacement/supplementing costs

#### 2.4 Other operating costs and savings ...

# WiBe Catalogue of Criteria: Migration

## Urgency criteria

### 3.1 Urgency to replace the old system

- Support continuity for the old system
- Stability of the old system (bugs, downtime, service problems)
- Flexibility of the old system (limits of upgrading, interoperability, interface problems, ergonomics)

### 3.2 Compliance with administrative regulations and laws

- Compliance with laws (► knock-out criterion)
- Fulfillment of data protection/security requirements
- Correct procedures and work processes
- Compliance with other requirements and recommendations (e.g., German Federal Court of Audit - BRH)

# WiBe Catalogue of Criteria: Migration

## Strategic criteria

### 4.1 Priority of the ICT measure

- Relevance within the ICT framework concept
- Integration into the ICT landscape of the federal administration in general
- Pilot project nature – use of existing technologies
- Platform-/manufacturer independence

### 4.2 Increase in quality of dedicated tasks

- Improved job performance – acceleration of work procedures and processes – standardization of administrative work – image improvement

### 4.3 Control of information of the administrative/political level

- Provision of information for decision-makers and controllers
- Support for decision-making/leadership tasks

### 4.4 Staff-related effects

- Attractiveness of working conditions
- Ensuring/expanding qualifications



# WiBe Catalogue of Criteria: Migration

## Additional guidelines



**Migrationsleitfaden**  
**Leitfaden für die Migration von Software**  
Version 4.0



März 2012

## Príručka pre migráciu softvér (?)

4th edition March 2012, 200 pages ...

- Definitions, migration objectives, migration planning, migration steps
- Strategic, legal, organizational and qualitative aspects
- Change management and security issues
- Migration fields in detail (infrastructure, desktop)

# WiBe Catalogue of Criteria: Migration

## Additional guidelines



**Wirtschaftliche Aspekte von  
Software-Migrationen**  
Begleitdokument zum Migrationsleitfaden 4.0  
Version 4.0



März 2012

## Ekonomické aspekty migrácie softvér

4th edition March 2012, 40 pages ...

- Methodical principles
- Premises and assumptions
- Questionnaire "as is" and "to be"
- Economic efficiency assessment with the WiBe framework (process, monetary and qualitative criteria)

# WiBe Qualitative Criteria - How to Assess

- Urgency
- Qualitative/strategic importance

Applicable to all ICT projects

Qualitative strategic importance WiBe Q		
No.	Criterion	Weight
4.1.1	Relevance within the IT framework concept	5
4.1.2	Integration into the group-wide IT landscape	5
4.1.3	Follow-up effects for communication partners	5
4.1.4	Pilot project nature of the IT investment project	10
4.1.5	Use of existing technologies by other organizations	5
4.1.6	Platform / manufacturer independence	10
4.2.1	Improved job performance	15
4.2.2	Acceleration of work procedures and processes	10

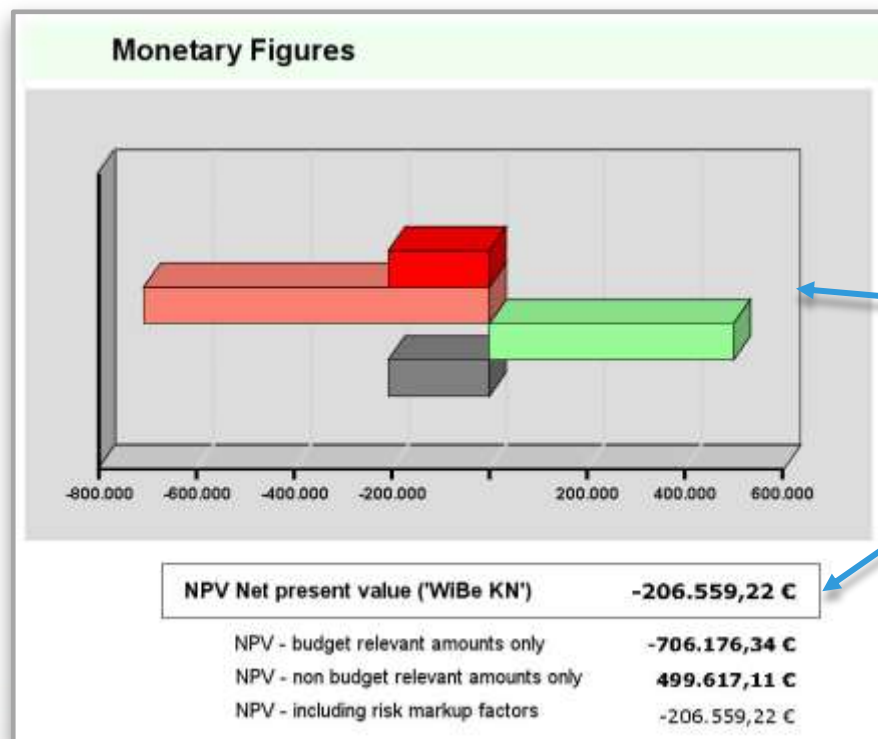
Predefined and weighted criteria

Each with a scoring scale from 0 to 10

Pilot project nature of the IT measure					
0	2	4	6	8	10
Irrelevant	First-time use of a standard solution.	First-time use of an in-house development, further development stages are planned.	Pilot project within a public agency, no standard solution, follow-up investment.	Pilot project with further, agency-spanning fields of application.	Pilot project with proposed, agency-spanning use (one for all principle).

# WiBe Overall Results and Decision Rules

## Economic Efficiency (monetary sense)



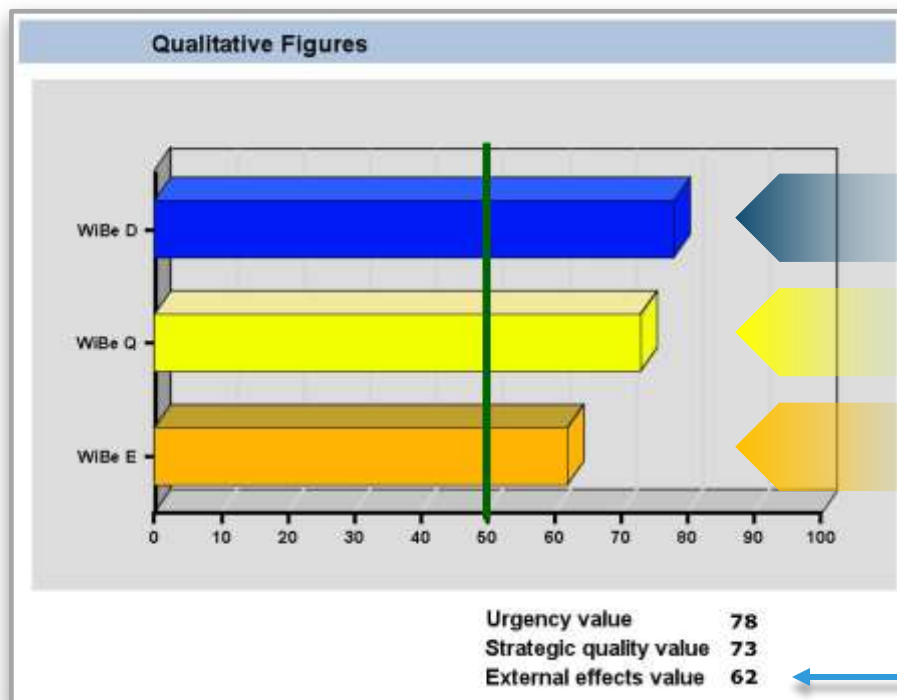
**WiBe  
KN**  
"WiBe CB"  
Cost & Benefits  
Net Presents  
Value NPV

**NPV (WiBe KN) > 0 €**

**NPV (WiBe KN) < 0 €**

# WiBe Overall Results and Decision Rules

## Extended Economic Efficiency



Urgency

Qualitative & strategic importance

(Optional:) External effects

An index "jumping over the 50% hurdle" is a general condition to outweigh a negative NPV

► ICT project may then be marked as "efficient in the extended sense"



# WiBe Framework

## Some General Properties

- Supports strategic decisions on project proposals
- Also covers implemented services ("ex post")
- Aims at better services, improving efficiency
- Is independent of size of (e-Government) applications
- Cost of using ► depends on project complexity, best practice ► 1 to 5 % of project expenditures
- Results of the method are easily understood
- Acceptance of the method is generally very high



# WiBe example 1 – Server Migration

German company, more than 40,000 IT users

Strategic question 2010/2011:

**"Infrastructure: relicensing or migration to Open Source?"**

## **Continuing Variant:**

Microsoft Windows Server 2003 ► Windows Server 2008 R2

## **Planning Variant:** Replacing Migration

Microsoft Windows Server 2003 ► Linux RH Red Hat

# WiBe example 1 – Server Migration



Enterprise Case Study SERVER MIGRATION:  
**Microsoft Windows Server 2008 R2**  
**vs. Red Hat Linux Enterprise**  
Economic Efficiency assessed  
with the WiBe® Framework

## Server Migration: Economic Efficiency Assessment

Red Hat® Enterprise Linux  
(RHEL AP) vs. Microsoft®  
Windows Server 2008 R2

### Enterprise Case Study

For many companies with a heterogeneous infrastructure, the decision to initiate migration for their data centre is an important theme. This study introduces a concept implemented worldwide to reliably assess up front the economic efficiency of future-planned IT investments.

The company providing the basis for this case study is internationally active and has recently been faced with the decision of whether or not to replace their existing, but soon expiring, Microsoft®<sup>1</sup> Windows Server 2003. Alternatives to the existing system are available in a migration to the Red Hat®<sup>1</sup> Linux Enterprise Server or in a continuity solution provided through migration to the Microsoft Windows Server 2008 R2.

1. The **Company**
2. The **Current Situation**
3. The **Results Overview**
4. Monetary **Costs** and **Benefits**
5. **Strategic Importance**

Attachment 1: **Details** of the  
Economic Efficiency Calculation

Attachment 2: Chosen

**Products and Solutions**

Attachment 3: The **WiBe Framework**

# WiBe example 1 – Server Migration

## Details: Catalogue of criteria, entering data

The screenshot displays the WiBe (Wirtschaftlichkeitsbetrachtung) software interface. The left pane shows a hierarchical tree of criteria under '1 Development costs and development benefits'. The right pane shows the data entry table for 'Costs of the development and/or acquisition of software'.

**WiBe Wirtschaftlichkeitsbetrachtung**

Projekte Versionen Daten Ergebnisse Controlling Kataloge Sicherheit Enterprise Abmelden

Home Übersicht | Neu Öffnen Drucken | Rückgängig Wiederherstellen | Support Hilfe

Alle Kriterien Ausgewählte Kriterien Offene Kriterien Kriterienauswahl...

**1 Development costs and development benefits**

- 1.1 Development costs of the new IT measure
  - 1.1.1 Planning and development costs
    - 1.1.1.1 Personnel costs (own personnel)
    - 1.1.1.2 Costs of external advisors
    - 1.1.1.3 Costs of the development environment
    - 1.1.1.4 Other costs of physical resources / auxiliary resources
    - 1.1.1.5 Travel costs (own personnel)
  - 1.1.2 System costs
    - 1.1.2.1 Hardware costs
      - 1.1.2.1.1 Host server, network operation
      - 1.1.2.1.2 Workstation computers
    - 1.1.2.2 Software costs
      - 1.1.2.2.1 Costs of the development and/or acquisition of software
      - 1.1.2.2.2 Costs of the modification of software and/or interfaces
      - 1.1.2.2.3 Costs of the evaluation, certification and quality assurance of software
    - 1.1.3 Costs of system implementation
      - 1.1.3.1 System and integration testing
      - 1.1.3.2 Costs of system installation

**Costs of the development and/or acquisition of software**

	Budget relevant	Risk %	Code		Not budget relevant	Risk %	Code
2010	-2.543.190	0		2010	0	0	
2011	-559.250	0		2011	0	0	
2012	-559.250	0		2012	0	0	
2013	-559.250	0		2013	0	0	
2014	-559.250	0		2014	0	0	

**Save** Notiz... Rechenblatt/Periodische Eingaben...

Bitte vor Wechsel zu anderem Kriterium "Speichern" Ihrer Eingaben nicht vergessen!

Die Zahlung der obenstehenden Beträge erfolgt im Fälligkeitsmodus: Standard (Jahresende) ▼

# WiBe example 1 – Server Migration

## Details: monetary calculations documented

### 1.1.2.2.1 Costs of the development and/or acquisition of software

Note: The licensing for Microsoft has been based on the current **Select L conditions** from May 2010; the information regarding Red Hat Linux has been taken from the current **Red Hat Subscription Options**, standard and premium.

11221		2010	2011	2012	2013	2014
fin	1	399800	399800	399800	399800	399800
fin	2	159450	159450	159450	159450	159450
fin	3	1891416				
fin	4	92524				

covers system **development and operation**, usually over a time span of **5 years or more**

are required for 200 Databases / Applications / Web Servers; the product RHEL AP, Red Hat Enterprise, Linux Advanced Platform has been selected:

- 100 'standard subscription' licences at \$1,499.00 each
  - 100 'premium subscription' licences at \$ 2.499.00 each
- In total, these costs amount to \$ 399,800.00 in the years 2010 to 2014.

**case specific data**

Systems Management under the Red Hat System requires:

- 4 RHN Satellite Servers at \$ 13,500.00 each = 54,000.00
- 4 RH GFS Global File Systems (with RH Cluster Suite) \$ 2,200.00 each = 8,800.00
- 100 RHN Red Hat Management Modules at \$ 96.00 each = 9,600.00
- 100 RHN Red Hat Provisioning Modules at \$ 96.00 each = 9,600.00
- 10 RH Proxy Servers at \$ 2,500.00 = 25,000.00
- 25 RHEL "standard subscriptions" at \$ 799.00 = 19,975.00
- 25 RHEL "premium subscriptions" at \$ 1.299.00 = 32,475.00

In total, these costs amount to \$ 159,450.00 per year for the period from 2010 to 2014.

- 3 A migration of the Windows Server 2003 to the Microsoft Windows Server Standard 2008 R2 is technically and financially mandatory to assure the further utilisation of the remaining Windows server. This affects a total of 1,100 servers (300 Terminal Servers, 250 Microsoft Active Directory Servers, 300 File & Print Servers, 200 Exchange Servers as well as 50 Systems Management Servers). Of these, the

# WiBe example 1 – Server Migration

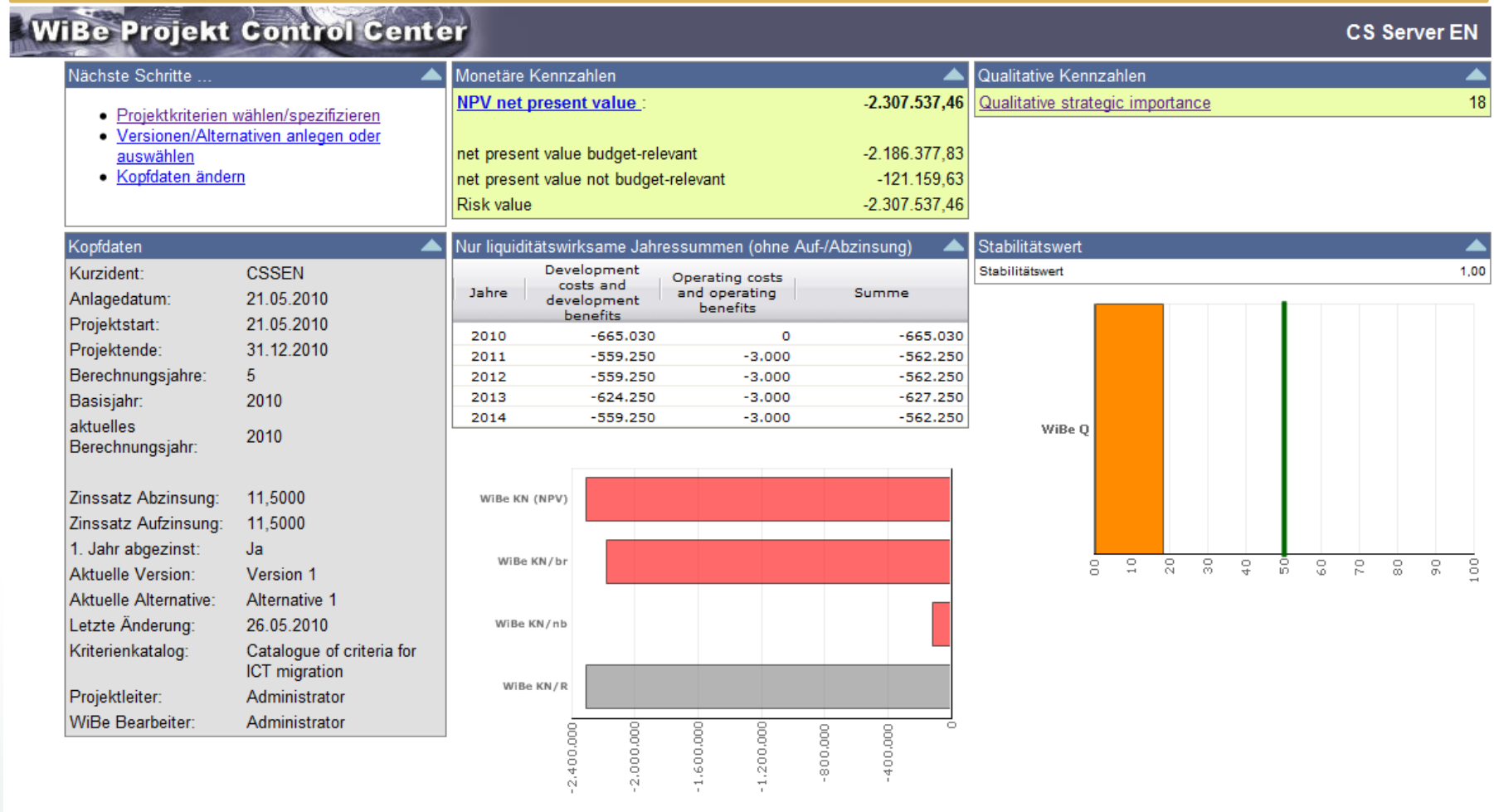
## Qualitative results (extract)

Qualitative and strategic criteria		Scenario		
1 = <b>Replacing Variation</b> : Server Migration LINUX Red Hat RHEL 2 = <b>Continuing Variation</b> : Microsoft Windows Server 2008 R2		1 RHEL	2 MS WS 2	
		Weight		
1	Priority of the IT migration proposal			
1.1	Relevance within the IT framework concept	5	7	4
1.2	Integration into the IT landscape of the corporation	5	4	8
1.3	Follow-up effects for communication partners	5	2	2
1.4	Pilot project nature of the IT investment project	10	2	0
1.5	Use of existing technologies by other organizations	5	5	9
1.6	Platform / manufacturer independence	10	0	0
2	Increase in quality of dedicated tasks			
2.1	Improved job performance	15	2	2
2.2	Acceleration of work procedures and processes	10	2	2
2.3	Standardised and uniform work	10	2	4
2.4	Increased comprehensibility and reproducibility	10	0	0
2.5	Image improvement	5	0	0
3	Staff related effects			
3.1	Attractiveness of working conditions	5	0	0
3.2	Ensuring/expanding qualifications	5	0	0
		100	18	20



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compilation of monetary and non-monetary results





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## 3. The Results Overview

The results of the monetary calculation are concisely represented in the **Net Present Value WiBe KN**. These are supplemented through the qualitative evaluation **WiBe Q**:

Replacing Server Migration LINUX	
Monetary Cost Effectiveness (Net Present Values WiBe KN)	
Net Present Value (WiBe KN)	- \$ 2,307,537
Of this, liquidity relevant	- \$ 2,186,378
Of this, <u>not</u> liquidity relevant	- \$ 121,159
Qualitative Strategic Index	
WiBe Q	18

### Interpretation of Results: Net Present Value WiBe KN<sup>7</sup>

The Migration Project “Linux Server” indicates, in direct comparison to the Microsoft variation, a **negative Net Present Value** in the amount of - \$ 2,307,537. Thus, **replacing server migration, according to WiBe 4.1 assessment, is an uneconomic alternative** for the company.

# WiBe example 2 – Workplace 20xx

International industrial group, more than 40,000 IT users,  
question 2009: "**Future Workplace: what scenario fits best?**"

## Continuing Variant:

(1a) Optimize as is (**Windows** OS) and move to **MS Office** 2010

## Planning Variants:

(1b) Optimize as is (**Windows** OS) and migrate to **OpenOffice**

(2) Migrate to Full Open Source (**Linux** OS with **Open Office**)

(3) Optimize as is (**Windows** OS) and implement **Cloud Computing**

# WiBe example 2 – Workplace 20xx

## Aggregated Results

1a = As Is Optimized MS Office  
 1b = As Is Optimized OpenOffice  
 2 = Full Open Source  
 3 = Cloud Computing

	1a Windows & MSO	1b Windows & OO	2 Linux & OO	3 Windows & Cloud C
<b>NET PRESENT VALUE</b>				
<b>Total NPV ('WiBe KN')</b>	<b>- 16.605.000</b>	<b>- 17.428.721</b>	<b>- 32.859.795</b>	<b>- 4.421.115</b>
- budget relevant	- 12.102.864	- 10.161.069	- 10.276.788	- 1.107.650
- not budget relevant	- 4.502.136	- 7.267.652	- 22.583.007	- 3.313.465
<b>Quality Value</b>				
<b>WiBe Q</b>	<b>50</b>	<b>26</b>	<b>37</b>	<b>49</b>

# WiBe ... As Seen From

## Administration and politics ...

- Founded, methodical calculation and documentation of pending costs and anticipated benefits of an ICT project proposal (financial and non-financial data)
- Justification of expenditures for ICT projects
- Excellent tool for negotiating with ICT provider
- No built in obligation for future benefits management
- Early anticipation of measurement results (“weak proposals”) leads to advance cancelling and shifting budgets towards “strong proposals”

# WiBe ... Experience From Using

- WiBe 4.1 framework has considerably supported ICT and e-Government projects in Germany since 2004 and induced policy changes in this field
- Business process improvements and software changes have been another impact of the method (even before 2004)
- Maintenance of the WiBe framework is officially organized within the Ministry of Interior

# WiBe ... Experience From Using



**Prepared for the eGovernment Unit**

DG Information Society and Media

European Commission



**"In Germany the WiBe methodology is in full operation and being applied widely."** *(p. 25)*

in use with all administrations at federal, state and municipal level in Germany



# WiBe Summary \*)

\*) *definitely last but one slide for now ...*

- Tried and tested day-to-day practice
- Considers monetary and qualitative impacts
- Considers development and operation
- Distinguishes between budget relevant Euros / amounts and non budget relevant Euros / amounts
- Uses internal data ('collected here')
- De facto standard in German public administration (federal, state and municipal level)
- Evaluated by the EU as comprehensive framework for efficiency assessment in e-Governance projects

**Ďakujem Vám veľmi pekne!**