BMZ Federal Ministry for Economic Cooperation and Development

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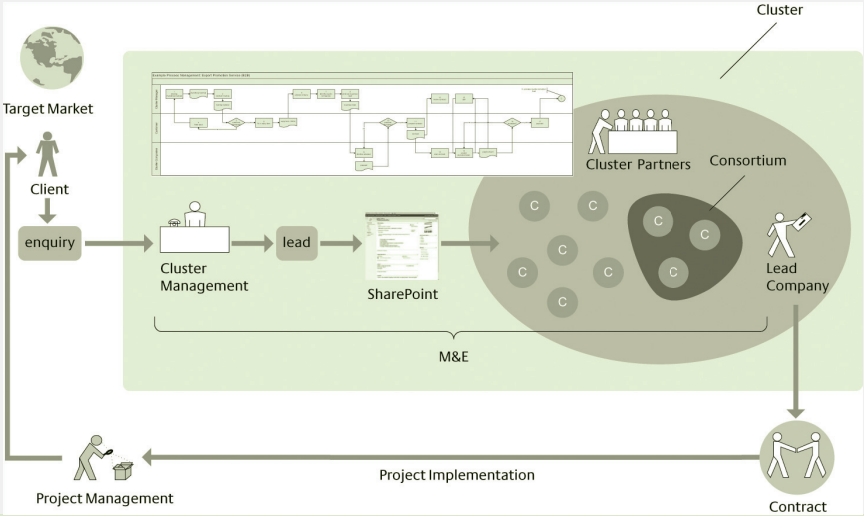
IT Sector Promotion in Developing and Emerging Countries

Toolbox



Published by:
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

The Toolbox for IT Sector Promotion has been prepared by GIZ's Sector Project "Information and Communication Technologies for Development (ICT4D)" on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). It is meant to be used in conjunction with the Manual for IT Sector Promotion. There, you will find explanations and suggestions on how to use the tools collected in this Toolbox. Of course, you can also browse this Toolbox on its own to find the tools relevant for your purpose.

Content

1 IT Strategy Development

1.1 IT Industry Capability Model

Name of the Tool:	IT Industry Capability Model
Source:	GIZ
Usage:	The IT Industry Capability Model (ITICM) is a tool for analysing the international competitiveness of the IT sector in developing and emerging countries. The model consists of 7 capability dimensions which are subdivided into several capability factors. These factors have a direct impact on the international competitiveness and export capability of a national IT industry. This tool should be used for the internal analysis of the IT sector in order to identify its capabilities and to create a thorough analytical basis for the development of a national IT strategy. The results of the ITICM analysis mostly provide aggregated qualitative information. Therefore one needs to complement the analysis of the IT Industry Competitiveness with a quantitative analysis on the company level (see tool "IT Company Survey").
Description:	The tool consists of a short description of the steps that need to be taken in order to conduct the analysis, the questionnaire for the IT Industry Capability Model and a template of the master document for aggregating the results of the analysis.

Steps

The analysis of the IT Industry Competitiveness is conducted in three steps:

1. Collecting and analysing all available reports and publications on the national IT industry
2. Conducting qualitative interviews with relevant stakeholders on all three systemic levels by using the ITICM questionnaire.

   The following stakeholders should be interviewed:

   - Ministry of Economy
   - ICT Ministry
   - Ministry of Education and Science
   - ICT Agency
   - Export and investment promotion agency
   - IT clusters and associations
   - Chambers of commerce
   - Universities and research institutes
   - Selected companies
   - Relevant donor organisation

3. Aggregating and summarising the results of the analysis by using the template for the master document

Questionnaire for the IT Industry Capability Model

Organisation/institution contact details:	
Organisation:	
Contact person:	
Position:	
Phone:	
E-mail:	

How do you evaluate the following export capability dimensions of the IT industry according to the corresponding capability factors?

Capability Dimension 1:	State Institutions
Strategy:	
Institutions:	
Investment:	
Support programmes	
Capability Dimension 2:	**ICT Infrastructure**
Energy supply:	
Telecommunications:	
Internet:	
Capability Dimension 3:	**Demand**
Export market:	
Domestic market:	
Capability Dimension 4:	**Structural characteristics of the industry**
Number of Companies:	
Average size of Companies:	
Structure:	

Wages:	
Organisation level and Associations:	
Cluster:	
Capability Dimension 5:	**Company capabilities**
Management skills:	
Export skills & References:	
Technology skills:	
Quality management, Processes and Standards:	
Capability Dimension 6:	**Academia & support institutions**
Education & Human Resources:	
Continuous education & Training:	
Research & Development:	
Capital & Financing:	
Capability Dimension 7:	**International linkage & branding**
Image & Branding:	
Nearshore factors:	
Intellectual Property (IP):	
Linkage & Networks:	
Diaspora:	

Master Document for aggregating the results of the analysis

Software Export Capability Dimension		Qualitative Evaluation
State Institutions	Strategy	<please insert data>
	Institutions	<please insert data>
	Investment	<please insert data>
	Support programmes	<please insert data>
ICT infrastructure	Energy supply	<please insert data>
	Telecommunications	<please insert data>
	Internet connection	<please insert data>
Demand	Export market	<please insert data>
	Domestic market	<please insert data>
Structural characteristics of the industry	Number of Companies	<please insert data>
	Average size of Companies	<please insert data>
	Structure	<please insert data>
	Wage structure	<please insert data>
	Organisation level and Associations	<please insert data>
	Cluster	<please insert data>
Company capabilities	Management skills	<please insert data>
	Export skills	<please insert data>
	Technology skills	<please insert data>
	Quality management, Processes and Standards	<please insert data>
Academia & support institutions	Education & Human Resources	<please insert data>
	Continuous education & Training	<please insert data>
	Research & Development	<please insert data>
	Capital & Financing	<please insert data>
International linkage & branding	Image & Branding	<please insert data>
	Nearshore factors	<please insert data>
	Intellectual Property (IP)	<please insert data>
	Linkages and Networks	<please insert data>
	Diaspora	<please insert data>

1.2 IT Company Survey

Name of the Tool:	IT Company Survey
Source:	GIZ
Usage:	This tool should be used in order to get a better understanding of the existing structures, capabilities and problems on the enterprise level (micro-level). This is particularly important in view of the paucity of statistical data and information on the IT industry in developing and emerging countries. The IT company survey is intended to complement the qualitative results of the IT Industry Competitiveness Model (ITICM) analysis (see corresponding tool) with quantitative data and to serves as a cross-check for microeconomic aspects (e.g. structural characteristics of the industry) which were examined within the ITICM analysis. Together with the results of the ITICM analysis, the IT company survey constitutes the internal analysis of an IT sector, thus providing the informational basis for IT strategy development. If possible, the IT company survey should be conducted by an IT cluster or network with the support of consultants according to the procedure outlined within this tool.
Description:	The tool is composed of a short description of the steps that need to be taken in order to conduct the IT company survey, the corresponding questionnaire as well as recommendations concerning suitable online survey tools.

Steps

The IT company survey should be conducted by implementing the following steps:

1. Developing the questionnaire: the questionnaire should consist of closed as well as open questions to ensure that all relevant aspects are taken into account. The questions should cover the following topics:
   - General questions concerning the company, such as company size, legal form and annual turnover (by ranges);
   - Questions on product and service portfolio, vertical (sectors) and horizontal (functional areas) specialisation;
   - Questions concerning the technical profile/capabilities of the company such as operating systems, programming languages, development tools, database technologies as well as quality standards (e.g. ISO, CMMI);
   - Domestic market related questions such as target markets and client structure;
   - Export related questions including existing export markets, potential export markets, competitors, challenges and obstacles for exporting;
   - Additional questions concerning the company like average rates and language capabilities.

The questionnaire needs to be designed according to the particular situation of the IT industry in a country as well as to the specific goals and main focus of an IT sector promotion project.

2. Fine-tuning and finalisation of the questionnaire by conducting pre-tests with selected companies.

3. Sending out the questionnaire to local IT companies: it is advisable to conduct the survey online by using tools such as QuestionPro or SurveyMonkey, where firms receive a link to the web-based questionnaire. Online surveys are more efficient and are more user-friendly for enterprises. It is important that the sample is large enough, depending on the total population of the IT companies.[1] Based on project experience one should try to achieve a reply rate of at least 50% in order to draw reliable conclusions. If the reply rate is too low, follow-up actions need to be taken by the IT cluster via telephone and e-mail.

4. Collecting and analysing the data. For this purpose the data from the online survey need to be exported and analysed by using MS Excel or SPSS.

5. Elaboration of a detailed report which presents the results of the survey. In addition to that, the key findings of the survey should be summarised in a Power Point presentation and disseminated to the IT cluster members / participants of the survey (only aggregated data).

1 *In order to achieve results which are statistically significant, the minimum sample size is 100.*

Questionnaire for the IT company survey

1. General Questions concerning the company

1.1 Please provide us with the following general information:

Company Name	
Homepage	
Your Name	
Your Position	
Telephone	
E-mail	

1.2 In which year was your company established?

1.3 How many people are employed in your company?

1.4 What is your annual turnover?

(Answering this question is optional)

	2007	2008	2009 (estimation)
Turnover (in 1.000 €)			

1.5 What kind of products or services is your company offering on the domestic market and on the export market?

(multiple answers permitted)

	Domestic market	Export market
Software products (system infrastructure software, tools, application software (e.g. ERP, CRM, document management, BI applications))	☐	☐
Software services / IT Services (outsourcing/offshoring services, custom application development, IT consulting, IT education & training, deploy & support, system integration)	☐	☐
IT hardware	☐	☐
Telecommunication (Carrier services and other telecom)	☐	☐

1.6 From which sectors are your clients?

Please differentiate by domestic market and export markets.

	Domestic Market	Export Market
Aerospace	☐	☐
Automotive	☐	☐
Chemical Industry	☐	☐
Defence	☐	☐
Education	☐	☐
Electronics	☐	☐
Financial Services and Insurance	☐	☐
Gaming and Entertainment	☐	☐
Healthcare	☐	☐
Manufacturing	☐	☐
Retail	☐	☐
Media and Publishing	☐	☐
Non-profit organisations	☐	☐
Public sector	☐	☐
Real Estate	☐	☐
Telecommunications	☐	☐
Tourism and Hospitality	☐	☐
Logistics and Transportation	☐	☐
Utilities	☐	☐
Others:	☐	☐

1.7. In which horizontal areas is your company active?

(Please differentiate by domestic and export market)

Sectors / Horizontal Markets	Domestic Market	Export Markets
ERP (Enterprise Resource Planning)	☐	☐
CRM (Customer Relationship Management)	☐	☐
BI (Business Intelligence)	☐	☐
DMS (Document Management System)	☐	☐
HRMS (Human Resources Management System)	☐	☐
eCommerce	☐	☐
Accounting	☐	☐
ECM (Enterprise Content Management)	☐	☐

GIS (Geographic Information System)	☐	☐
Billing System	☐	☐
EAI (Enterprise Application Integration)	☐	☐
DW (Data Warehousing)	☐	☐
Security	☐	☐
BPM (Business Process Management)	☐	☐
Web Application	☐	☐
Others:	☐	☐

2. Technical profile of the company

Please provide us with information on your company's technical profile concerning Operating Systems and Platforms, Programming Languages and Development Tools as well as Database Technologies. Please tick the appropriate field.

2.1 Operating Systems and Platforms:

☐	BS2000	☐	MS-DOS	☐	SUN OS, Solaris
☐	Bull	☐	MVS, OS/390	☐	Tandem
☐	Dos/VSE, /Vs, /Vs1, Os/Vs	☐	NEXTSTEP / OPENSTEP	☐	TOS
☐	Realtime Systems	☐	Novell	☐	Unix SCO, Sinix, Aix, Linux...
☐	HPUX	☐	OSF/Motif	☐	VM-CMS, -SP, -XA, -2000
☐	IBM ISPF	☐	OS/2	☐	VMS
☐	IRIX	☐	OS/400	☐	VxWorks
☐	Lynx	☐	OS/9	☐	Windows 3.x, 95/98/2000, NT
☐	Mach	☐	PalmOS	☐	Windows CE
☐	MAC-OS	☐	RTOS (Real Time OS)	☐	/36, /38
☐	Others:	☐		☐	

2.2 Programming Languages and Development Tools:

☐	ABAP4	☐	Gupta, Centura	☐	Powerbuilder
☐	Assembler	☐	HTML, XML	☐	Python
☐	Basic - Visual Basic, VBA etc.	☐	ILE/400	☐	QMF
☐	C	☐	Java, JavaScript	☐	Rexx
☐	C++	☐	JCL	☐	RPG
☐	Clipper	☐	Lisp	☐	SAS

☐	CList	☐	Lotus Notes Script	☐	Script Languages – others
☐	CL/400 - AS/400 Control Language	☐	Macro Languages– others	☐	Shell - C-Shell, K-Shell, Bourne-Shell
☐	Cobol	☐	Natural	☐	Smalltalk
☐	CORBA IDL	☐	.NET	☐	Tcl/Tk
☐	dBase	☐	Objective C	☐	Visual Objects
☐	Delphi	☐	Pascal	☐	VRML
☐	Eiffel	☐	Perl	☐	Xt, Motif
☐	ESQL/C	☐	PHP	☐	yacc/lex
☐	Fortran	☐	PL/SQL	☐	4gl
☐	Foxpro	☐	PL/1	☐	Others:

2.3 Database Technologies:

☐	Access	☐	Ingres	☐	POET
☐	Adabas	☐	Interbase	☐	Progress
☐	BTrieve	☐	ISAM	☐	RDB
☐	DAO	☐	JDBC	☐	SAS
☐	DB2	☐	Lotus Notes	☐	SESAM
☐	DB/400	☐	MS SQL Server	☐	SQL
☐	DL/1	☐	mSQL / mySQL	☐	Sybase
☐	Gupta, Centura	☐	Object Store	☐	UDS/IDMS
☐	IDMS	☐	ODBC	☐	VSAM
☐	IMS	☐	Oracle	☐	xBase - dBase, FoxPro, Clipper...
☐	Informix	☐	Paradox	☐	4th Dimension
☐	Others:	☐		☐	

2.4 Is your company certified according to one of the following quality standards?

(Multiple answers permitted)

ISO	☐
CMM / CMMI	☐
ITMark	☐
SPICE	☐
Others:	☐

3. Export-related Questions

3.1 Does your company work for international clients in the domestic market?

Yes	☐
No	☐

3.2 Does your company conduct export activities?

Yes	☐
No	☐

3.3 Since when is your company exporting?

(Please indicate the year when your company started its export activities.)

3.4 What percentage of your company's total annual turnover was generated by exports?

	2007	2008	2009 (estimation)
% of exports of total annual turnover	_____ %	_____ %	_____ %

3.5 Please indicate which products and/or services accounted for your company's exports (as a percentage of your company's total export turnover):

(Each column must sum up to 100%)

	2007	2008	2009 (est.)
Software products (system infrastructure software, tools, application software (e.g. ERP, CRM, document management, BI applications))	_____ %	_____ %	_____ %
Software Services & IT Services (outsourcing/offshoring services, custom application development, IT consulting, IT education & training, deploy & support, system integration)	_____ %	_____ %	_____ %
IT hardware	_____ %	_____ %	_____ %
Telecommunication (Carrier services and other telecom)	_____ %	_____ %	_____ %
Total Exports	100 %	100 %	100 %

3.6 What is the percentage of your company's export turnover by country/ export market?

(Please indicate as a percentage of your company's total export turnover; each column must sum up to 100%)

Export markets	2007	2008	2009 (est.)
Germany	____%	____%	____%
Austria	____%	____%	____%
Switzerland	____%	____%	____%
United Kingdom	____%	____%	____%
France	____%	____%	____%
BeNeLux (Belgium, The Netherlands, Luxemburg)	____%	____%	____%
Scandinavian countries	____%	____%	____%
Southern Europe (Italy, Spain, Portugal)	____%	____%	____%
Regional (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Kosovo, Montenegro, Romania, Serbia, Slovenia)	____%	____%	____%
Central and Eastern Europe	____%	____%	____%
North America (USA, Canada)	____%	____%	____%
Middle East and Africa	____%	____%	____%
East Asia	____%	____%	____%
Others: please state the country	____%	____%	____%
Total from Exports	____%	____%	____%

3.7 How would you evaluate the potential of the following markets for your company's export activities?

(Please evaluate the export potential of each market even though you might currently not be exporting to that country/market.)

Export markets	No Potential (-3)	Very low Potential (-2)	Low Potential (-1)	Potential (+1)	High Potential (+2)	Very high Potential (+3)
Germany	☐	☐	☐	☐	☐	☐
Austria	☐	☐	☐	☐	☐	☐
Switzerland	☐	☐	☐	☐	☐	☐
United Kingdom	☐	☐	☐	☐	☐	☐
France	☐	☐	☐	☐	☐	☐
BeNeLux (Belgium, The Netherlands, Luxemburg)	☐	☐	☐	☐	☐	☐
Scandinavian countries	☐	☐	☐	☐	☐	☐

Southern Europe (Italy, Spain, Portugal)	☐	☐	☐	☐	☐	☐
Regional (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Kosovo, Montenegro, Romania, Serbia, Slovenia)	☐	☐	☐	☐	☐	☐
Central and Eastern Europe	☐	☐	☐	☐	☐	☐
North America (USA, Canada)	☐	☐	☐	☐	☐	☐
Middle East and Africa	☐	☐	☐	☐	☐	☐
East Asia	☐	☐	☐	☐	☐	☐
Others:	☐	☐	☐	☐	☐	☐

3.8 Please evaluate the importance of the following motives and goals for your export activities.

Export markets	Not Important (-3)	Very low Importance (-2)	Low Importance (-1)	Important (+1)	High Importance (+2)	Very high Importance (+3)
Opening up new markets and market potentials	☐	☐	☐	☐	☐	☐
Risk reduction	☐	☐	☐	☐	☐	☐
Small domestic market	☐	☐	☐	☐	☐	☐
Access to new technologies & know-how	☐	☐	☐	☐	☐	☐
Gathering international experience	☐	☐	☐	☐	☐	☐
Improving the competitiveness of our company	☐	☐	☐	☐	☐	☐
Following clients to international markets	☐	☐	☐	☐	☐	☐
Others: please state other motives and goals for exporting and rate them						
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐

3.9 Which of the following generic strategies is your company applying on its export markets?

(Please select one strategy.)

Cost leadership strategy (We base our strategy on low prices and cost-effectiveness)	☐
Differentiation strategy (We differentiate ourselves from our competitors through technology, high quality, unique image/branding)	☐
Focus strategy (We are specialised on specific technologies and/or niche markets / customer segments)	☐

3.10 How do you conduct your exports (multiple answers possible)?

(Please indicate your export channels)

Direct exports to the client abroad	☐
Subsidiary / Branch office in the target market	☐
Representative office	☐
Joint venture	☐
Distribution Partner / Local Partner (sales agent, sales representative, sole distributor, etc.)	☐
Through the Internet	☐
Others:	☐

3.11 How did you establish your first contact with your export client or foreign distribution partner

(multiple answers possible)?

Trade fair, conference	☐
Personal contacts	☐
Mailing	☐
Business delegation, match-making event	☐
By recommendation of a client	☐
Through a chamber, association or agency	☐
Telephone marketing	☐
Advertisement	☐
Internet (e.g. portal)	☐
Others:	☐

3.12 Where do you see the biggest export obstacles?

(Please rate the different export obstacles.)

Obstacles to IT exports	Not Problematic (+1)	Somehow Problematic (+2)	Little Problematic (+3)	Problematic (+4)	Very Problematic (+5)	Highly Problematic (+6)
Market Information (lack of suitable information on export markets)	☐	☐	☐	☐	☐	☐
Costs of exporting	☐	☐	☐	☐	☐	☐
Finding the right business partner	☐	☐	☐	☐	☐	☐
Lack of interest/awareness among foreign companies	☐	☐	☐	☐	☐	☐
Lack of technical skills	☐	☐	☐	☐	☐	☐
Lack of export marketing skills & know-how	☐	☐	☐	☐	☐	☐
Lack of branding of the IT industry abroad	☐	☐	☐	☐	☐	☐
Culture & Language barriers	☐	☐	☐	☐	☐	☐
Lack of support by government institution (export financing schemes, etc.)	☐	☐	☐	☐	☐	☐
Lack of export-oriented trainings and business development/consulting services	☐	☐	☐	☐	☐	☐
Technical standards and requirements (ISO, CMMI, specific technologies, etc.)	☐	☐	☐	☐	☐	☐
Legal aspects (contract law in other countries, legal requirements, etc.)	☐	☐	☐	☐	☐	☐
Visa requirements	☐	☐	☐	☐	☐	☐
Lack of qualified staff to conduct export activities	☐	☐	☐	☐	☐	☐
Lack of business contacts in target markets	☐	☐	☐	☐	☐	☐
Others: please state other obstacles you find relevant and rate them						
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐

3.13 What measures would you recommend in order to promote exports of software / IT services?

4. Additional questions concerning the company

4.1 What is the average rate per hour your company charges your clients for services (e.g. software development, IT consulting, etc)?

(Answering this question is optional)

Range (in € per hour per person)	Domestic Market	Export Market
Up to 5 €	☐	☐
5 – 9 €	☐	☐
10 – 19 €	☐	☐
20 – 29 €	☐	☐
30 – 39 €	☐	☐
40 – 49 €	☐	☐
50 – 59 €	☐	☐
60 – 69 €	☐	☐
70 – 79 €	☐	☐
80 – 89 €	☐	☐
90 – 99 €	☐	☐
More than 100 €	☐	☐

4.2 Which foreign language skills are available in your company?

☐	English	☐	French
☐	German	☐	Spanish
☐	Others:		

Recommendations concerning online survey tools

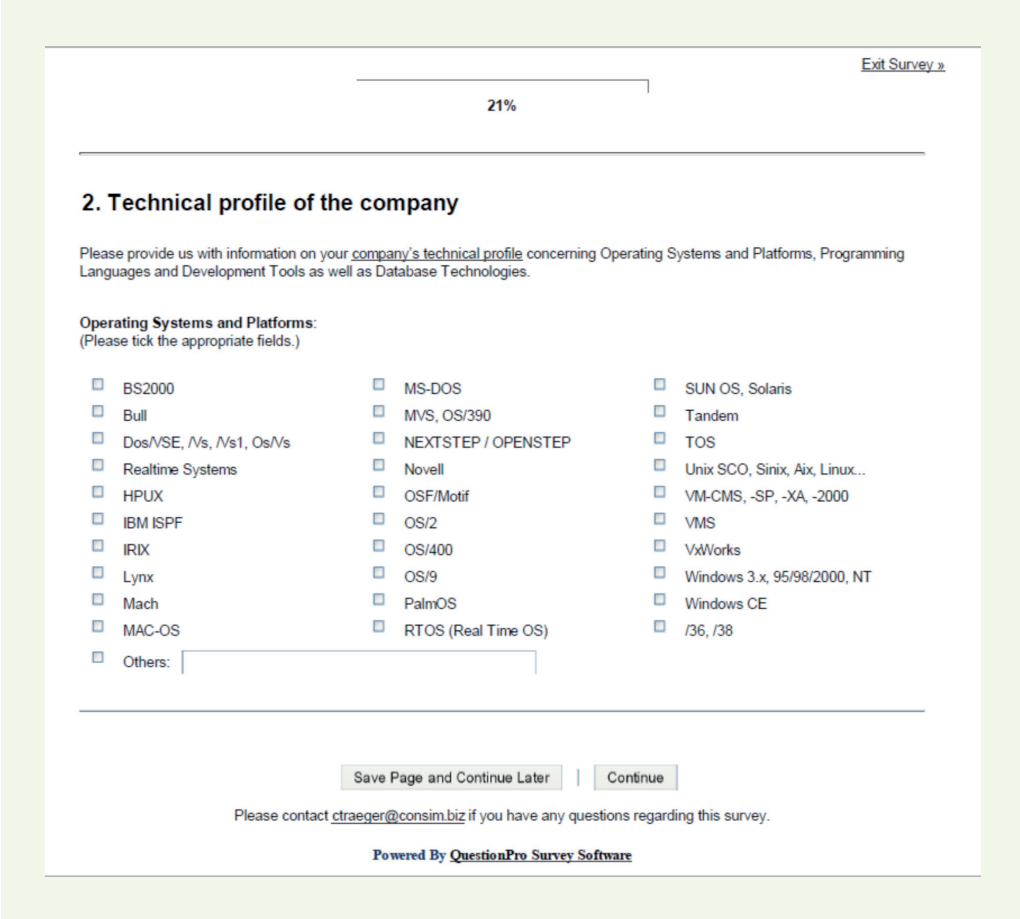
In order to increase efficiency and user-friendliness it is recommendable to conduct the survey online.

Based on practical project experience the following online survey tools can be recommended:

- QuestionPro: http://www.questionpro.com
- SurveyMonkey: http://www.surveymonkey.com

For this purpose, the questionnaire has to be generated in HTML and a link to the web-based questionnaire needs to be sent to the companies via e-mail.

The following screenshot shows what the online survey questionnaire looks like:



Exit Survey »

21%

2. Technical profile of the company

Please provide us with information on your company's technical profile concerning Operating Systems and Platforms, Programming Languages and Development Tools as well as Database Technologies.

Operating Systems and Platforms:
(Please tick the appropriate fields.)

- ☐ BS2000
- ☐ Bull
- ☐ Dos/VSE, /Vs, /Vs1, Os/Vs
- ☐ Realtime Systems
- ☐ HPUX
- ☐ IBM ISPF
- ☐ IRIX
- ☐ Lynx
- ☐ Mach
- ☐ MAC-OS
- ☐ Others:
- ☐ MS-DOS
- ☐ MVS, OS/390
- ☐ NEXTSTEP / OPENSTEP
- ☐ Novell
- ☐ OSF/Motif
- ☐ OS/2
- ☐ OS/400
- ☐ OS/9
- ☐ PalmOS
- ☐ RTOS (Real Time OS)
- ☐ SUN OS, Solaris
- ☐ Tandem
- ☐ TOS
- ☐ Unix SCO, Sinix, Aix, Linux...
- ☐ VM-CMS, -SP, -XA, -2000
- ☐ VMS
- ☐ VxWorks
- ☐ Windows 3.x, 95/98/2000, NT
- ☐ Windows CE
- ☐ /36, /38

Save Page and Continue Later | Continue

Please contact ctraeger@consim.biz if you have any questions regarding this survey.

Powered By QuestionPro Survey Software

1.3 Checklist Differentiation Strategy

Name of the Tool:	Checklist Differentiation Strategy
Source:	GIZ
Usage:	An important element of IT sector strategies is the formulation of the generic strategy based on the two main sources of competitive advantage (cost advantage, differentiation advantage) and the market scope (broad versus narrow market scope). According to Porter, there are three generic strategy options: cost leadership, differentiation and focus.[2] This tool can be used for the formulation of a differentiation strategy providing additional information on the possible sources of differentiation in the IT/software industry.
Description:	The tool consists of a brief explanation of the key elements of a differentiation strategy and a checklist for identifying possible sources of differentiation in the IT/software industry.

1. Key Elements of a Differentiation Strategy

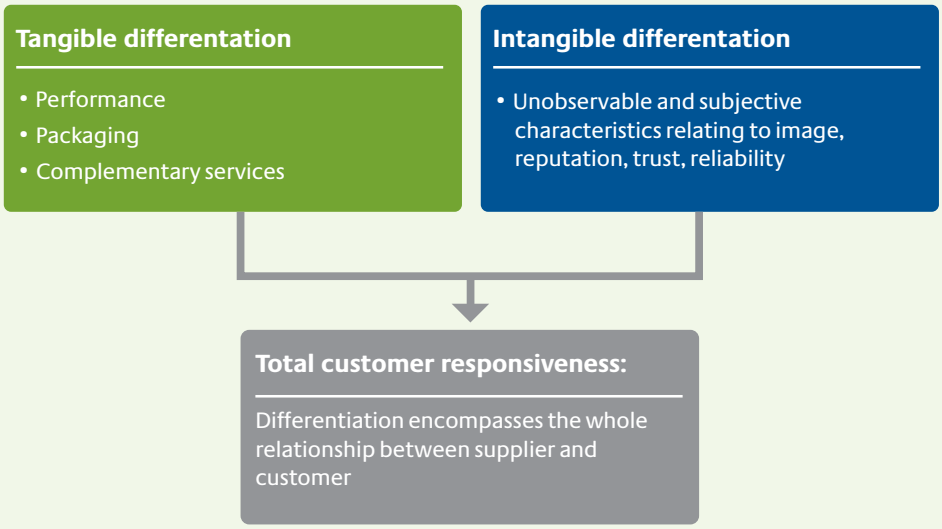
Differentiation

- Differentiation strategy is aimed at the broad market and involves the creation of a product or a service that customers perceive as unique
- Goal of a differentiation strategy: build customer loyalty and create entry barriers to potential competitors
- Due to loyalty created for a brand, demand is less price-elastic, leading to higher profit margins
- Technically complex products and services like software offer much greater scope for differentiation
- Differentiation is about understanding the interactions between an organisation and its customers and how these interactions can be designed to deliver additional customer value
- Due to rising labour costs, the Indian software industry started to introduce elements of a differentiation strategy (process quality, customer service)

+	–
• Important strategy due to increasing competition and commoditisation • Allows for higher profit margins • Sustainable competitive advantages • More difficult to copy	• For small software industries and SMEs often not viable due to substantial investments required by a differentiation strategy on a broad market scope

2 *Porter (1980).*

2. Tangible and Intangible Differentiation



3. Sources of Differentiation

Possible Sources of Differentiation in the IT Industry:

- Service and product features
- Complementary services (e.g. system analysis, testing)
- Technology
- Skills of employees
- Quality of software development
- Procedures and methodologies
- Vertical (industry specific) expertise
- Horizontal (functional) expertise
- Marketing
- Branding
- Location
- Innovation (novel technologies, products, services; bundling).

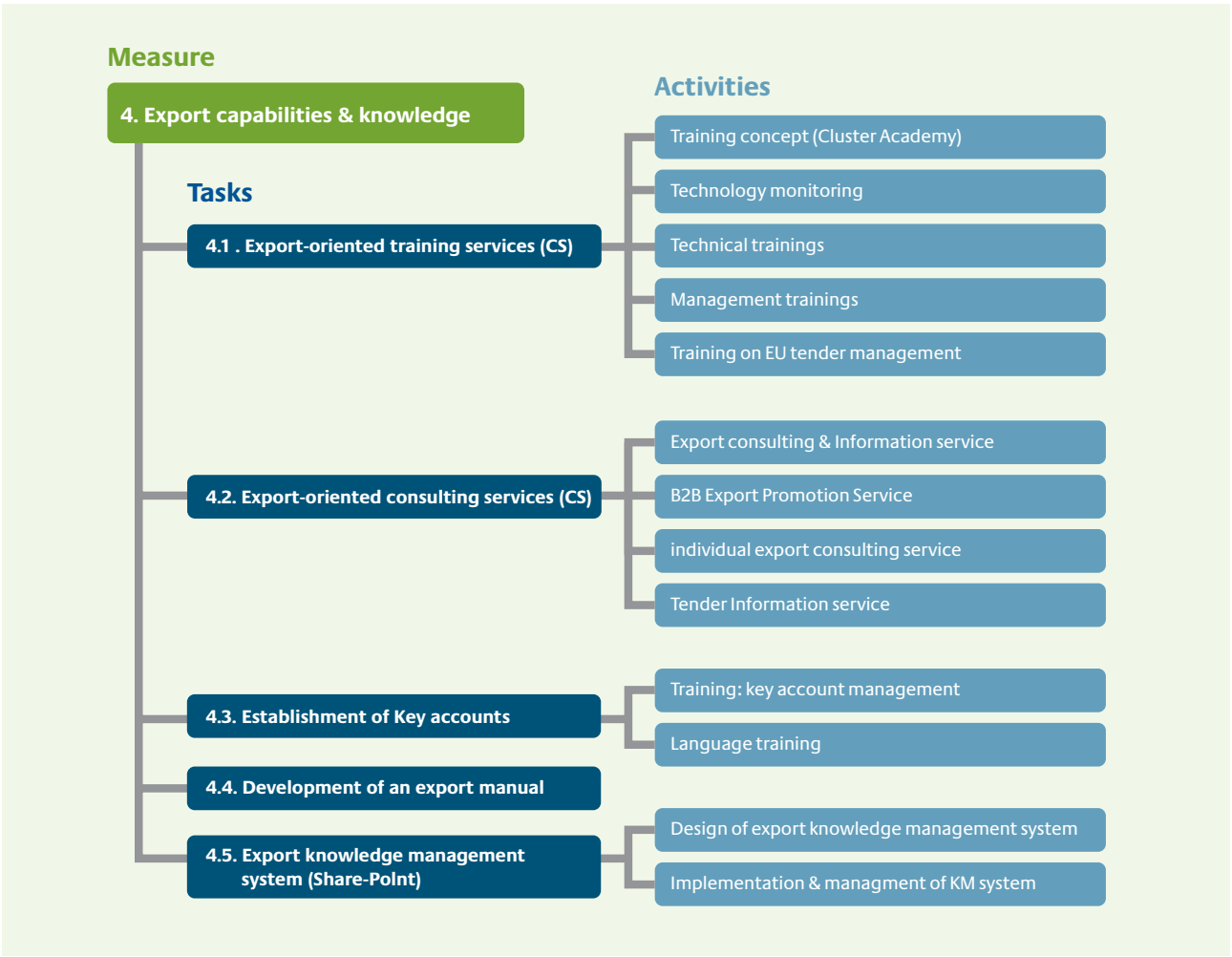
1.4 Operational Plan for IT Strategy Implementation

Name of the Tool:	Operational Plan for IT Strategy Implementation
Source:	GIZ
Usage:	A major challenge concerning strategies in general but IT strategies in particular is strategy implementation. This tool can be used in order to develop an operational plan for collaborative IT strategy implementation. It has been particularly designed to serve as an instrument for managing the strategy implementation process in a multi-stakeholder setting. The tool provides the following key advantages: • Clearly structures roadmap for strategy implementation • Proven management instrument • Comprehensive • Operational • Manageable (task description) • Simple • Adaptable
Description:	The tool includes a short description of the structure of an operational plan with strategic measures, tasks and activities. In addition to that, it provides a template for a task description, which forms the core element of the operational plan

1. Structure of Operational Plan

Within the operational plan, the measures which have been defined in the strategy document are being operationalised into individual tasks. Each task consists of several activities which need to be implemented in order to achieve the results of the corresponding task. The measures, tasks and activities have been arranged in a logical sequence which takes into account the interdependence between them and ensures synergy effects as well as an efficient strategy implementation.

The following example taken from an IT sector development strategy, illustrates the logical structure of the operational plan.



The structure of the operational plan is similar to work breakdown structures used in IT project management where project phases or tasks are being operationalised and broken down in individual work packages (WPs) and activities.

Within the operational plan, indicators should be defined for each task. This facilitates a closer tracking of the results achieved during the implementation of the IT strategy. Thus the operational plan serves as a roadmap for the whole strategy implementation process and comprises the following structural elements:

Task	Responsibilities
Priority	Budget
Expected results	Activities
Result indicators	Deliverables
Timing	Comments

2. Template for Task Description

Template for Task Description					
Task No.:		Title of Task:			
Priority:		1 = highest priority			
Description of the Task:					
Expected results:					
Result indicators:					
Task start:		Task conclusion:			
Responsible Organisation		Responsible Person:			
Partner Organisations:		Persons involved:			
Overall Budget (€):		Financial sources:			
Individual Activities:					
Activity (No. and title):	Deliverables:	Responsible:	Timing:	Budget (€):	
Dependency on other tasks:	Upstream tasks:		Downstream tasks:		
Comments:					
Approval by Steering Committee:		Date:			

2 Promotion of Clusters and Networks

2.1 Sample IT Cluster Statute

Name of the Tool:	IT Cluster Statute – Example: Statute of the Albanian Software Cluster
Source:	GIZ
Usage:	The tool consists of a sample IT cluster statute taken from the Albanian Software Cluster (ASC). It can be used as a template for developing a statute for other IT clusters. However, the exact content of the articles needs to be customised to the particular objectives of the cluster as well as to the legal requirements of the respective country
Description:	The statute is subdivided into different articles defining the objectives of the IT cluster, its organisational structure, the organs as well as the rights and duties of the cluster members

Statute of The Albanian Software Cluster

Version 1.3
Tirana
July 14th 2010

Art. 1. Name and seat of the cluster

1. The name of the cluster is “Albanian Software Cluster”, abbreviated as “ASC”.
2. The seat of the cluster is Tirana, Albania.
3. The cluster is active nationally and internationally.

Art. 2. Objectives of the cluster

The objectives of the Albanian Software Cluster are as follows:

- Promotion of the Albanian software industry through cooperation;
- Increasing international competitiveness of the Albanian software industry;
- Promotion of Albanian software exports;
- Open up new markets and business opportunities for cluster members;
- Joint marketing;
- Joint acquisition and implementation of projects;
- Provision of needs-oriented services to members (cluster services);
- Organisation of trainings (technical and management);
- Promotion of cooperation among cluster members;
- Representing the interests of the members to the government and public institutions (lobbying)
- Improving cooperation between member companies and the universities;
- Promotion of quality and company excellence;

Art. 3. Funds for achieving the cluster's objectives

The funds required to manage and sustain the cluster are raised by:

1. Membership fees, the amount of which is set by the membership meeting.
2. Gifts, donations, support funds, subsidies and other transfers, provided they are not subjected to conditions contrary to the clusters' objectives.
3. A 3% commission on all projects for cluster members which have been directly generated by the cluster management, in accordance with the provisions of the Cluster Promotion Fund Agreement.

Art. 4. Cluster members

The members of the cluster are regular members, associate members and honorary members.

a. Regular members are software companies located in Albania which generate at least 50% of their annual turnover with software development and software services, as well as universities and research institutes active in the area of information technology (IT).

b. Associate members are individuals or legal entities who are of strategic importance to the Albanian software industry and who are willing to contribute to the achievement of the cluster's objectives.

c. Honorary members are individuals or legal entities who have made a significant contribution to the Albanian software industry and the cluster.

The acceptance and exclusion of:

- A regular member is a matter for the membership meeting, based on a written membership application and supporting documentation of compliance with the acceptance conditions in art. 4 para. A. The acceptance of new cluster members requires a simple majority vote by the membership meeting;
- An associate member is a matter for the membership meeting, based on a written membership application and supporting documentation of compliance with the acceptance conditions in art. 4 para. B;
- An honorary member is a matter for the membership meeting based on a recommendation by the cluster board.

Art. 5. Rights and duties of members

1. Each regular member has one vote in the membership meeting.
2. Associate members are entitled to attend membership meetings without seat or vote, but with the right to be heard. Their role is to advise the membership meeting as well as the cluster board.
3. Honorary members are entitled to attend membership meetings without seat or vote, but with the right to be heard.
4. All members are entitled to participate in the clusters' events and to receive the reports of the cluster board in the membership meeting on the activities of the cluster and its financial situation.
5. Each and every member is obligated to work for the realisation of the cluster's objectives and to win recognition for the cluster's authority and popularity.
6. Members are authorized to use the logo of the Albanian Software Cluster for their publications using the form: company name, member of the ASC.
7. Members are obliged not to reject projects and customer enquiries which they are unable to handle, but instead to maintain contact with the customer and make this available to other members of the cluster and to notify cluster management and the cluster board of the customer enquiry.
8. Should a member receive an order through direct acquisition by the cluster, the member is obliged to pay a 3% commission of the full contract value to the cluster promotion fund. Regulations of the Cluster Promotion Fund Agreement do apply (cf. annex).
9. Cluster members are obliged to pay membership fee in the amount, determined by the membership meeting (art. 7). The obligation under para. 9 do not apply to associate members and honorary members.

Art. 6. Ending membership

1. Membership ends:
   - on death (for a legal entity, on loss of legal personality);
   - on voluntary resignation;
   - on cancellation;
   - on exclusion.
2. Voluntary resignation must be notified in writing to the cluster board with three months' notice to the end of a calendar year.
3. The cluster board may cancel a membership if the member is more than three months in arrears with its membership fee despite two reminders; cancellation does not affect liability for membership fees due.
4. The cluster board may exclude a member from the cluster for gross violation of membership duties, dishonest conduct or in the event of systematic non-participation in the activities of the cluster (e.g. working groups). Exclusion may be appealed to an extraordinary membership meeting within two weeks of receipt of the written exclusion resolution; the meeting has the final decision within the cluster. All membership rights and duties are suspended pending the decision of the membership meeting.

Art. 7. Membership fees

1. The amount of the annual membership fee depends on the type of member and membership.
2. The amount of the annual membership fee is decided by the membership meeting; the cluster board has the right to make a prior recommendation which takes into account the cluster's financial situation and future planned projects.

Art. 8. Cluster organs

The organs of the cluster are:

1. The membership meeting (arts. 9-10)
2. The cluster board (arts. 11-12)
3. The cluster manager (arts. 13-14)
4. The auditor (art. 15)
5. The arbitration tribunal (art. 16)
6. Working groups (art. 17).

Art. 9. Membership meeting

1. The ordinary general meeting is held within two months of the beginning of each calendar year.
2. If required by the cluster members, additional meetings can be held on a regular basis.

3. An extraordinary membership meeting must be called:
   a. by resolution of the cluster board;
   b. by resolution of the ordinary general meeting;
   c. on written application of at least 25% of the regular members, or
   d. on request by the auditor, in which case the extraordinary membership meeting must be convened by the cluster board and held within at most three weeks after receipt of the application.
4. The cluster board must invite all members in writing to both regular and extraordinary membership meetings with at least 14 days' notice before the date of the meeting. Notice of a membership meeting must include the agenda.
5. Proposals on topics of the agenda must be submitted to the cluster board in writing at least seven days before the date of the membership meeting.
6. Valid resolutions – except for those on an application to convene an extraordinary membership meeting – can only be adopted on agenda items.
7. The membership meeting is chaired by the president, or in the event of his incapacity by his deputy, or in the event of the deputy's incapacity by the oldest member (age) of the cluster board.
8. Resolutions of the membership meeting are adopted by simple majority of the votes cast.
9. Resolutions on amendments to the articles or the dissolution of the cluster require a majority of three-fourths of the votes cast.
10. The minutes of the membership meetings must be posted within two weeks on the cluster's groupware application and made accessible to all members.

Art. 10. Rights and duties of the membership meeting

Regular members vote on:

a. resolutions to accept new members;
b. resolutions on the articles and any amendments;
c. the appointment and removal of members of the cluster board;
d. resolutions on motions by the cluster board and members;
e. the appointment and removal of the cluster manager and other cluster staff;
f. the appointment and removal of the auditor;
g. resolutions approving the acts of the cluster board;
h. resolutions on the voluntary dissolution of the cluster;
i. resolutions on adopting the minutes of the membership meeting;
j. resolutions on the cluster board's standing orders;
k. resolutions on the annual estimate for income and expenditure and the financial statements;
l. setting the amount of the annual membership fee.

Art. 11. Cluster board

1. The cluster board has at least 5 members
   a. the president;
   b. the vice president;
   c. the treasurer;
   d. other members elected by the membership meeting.
2. The cluster board is elected by the membership meeting by simple majority in a secret vote.
3. The cluster board holds office for two years. In any event, the cluster board holds office until a new cluster board is elected. Former board members may stand again for election.
4. The cluster board has the right in the event of the resignation of an elected board member or if other board positions are vacant for any reason to appoint one or more members eligible for election.
5. Meetings of the cluster board are convened orally or in writing with 14 days' notice by the president or his deputy or in the event of their incapacity by the oldest (age) board member.
6. The cluster board is quorate if all its members have been invited and at least half of them are present.
7. The meetings are chaired by the president or in the event of his incapacity by his deputy and in the event of the deputy's incapacity by the oldest (age) board member present.
8. A board member's office ends:
   - on their death;
   - at the end of their term of office;
   - with suspension
   - with resignation.
9. The membership meeting may at any time suspend the entire cluster board or just individual members.
10. The members of the cluster board can resign at any time in writing. Notice of resignation must be sent to the cluster board, or in the event of the resignation of the entire cluster board to the membership meeting. The resignation of the entire cluster board only takes effect on the election of the new cluster board.

Art. 12. Rights and duties of the cluster board

1. The cluster board is responsible for the strategic management of the Albanian Software Cluster. Its competence covers all the tasks which are not reserved by these articles for another cluster organ, specifically:
   a. drawing up the annual estimate of income and expenditure, the annual report and the financial statements;
   b. preparing and convening ordinary and extraordinary membership meetings;
   c. administering the assets of the cluster;
   d. accepting, excluding and cancelling cluster members, based on the decisions taken by the membership meeting;
   e. hiring and terminating employees of the cluster including the cluster manager, based on the approval of the membership meeting;
2. The following provisions govern internal dealings:
   a. The treasurer is responsible for proper management of the cluster's funds.
   b. Except for responsibilities assigned to them, the treasurer's deputy may only act if the president, his deputy, or the treasurer is incapacitated; this does not affect the validity of deputies' external dealings.
3. The cluster board draws up its own standing orders which must be submitted to the membership meeting for approval.
4. The cluster board may delegate specific tasks to individual members or experts.

Art. 13. Cluster manager

1. The cluster manager must be a neutral person. CEOs, employees, or shareholders of cluster member companies are not eligible for the position of cluster manager.
2. The cluster manager holds office for two years, but his appointment is extendable. In any event, the cluster manager holds office until a new cluster manager has been appointed.
3. The cluster manager should be able to match the following qualification profile:
   - business management & marketing skills;
   - industry & technology know-how;
   - entrepreneurial spirit and experience;
   - communication & leadership skills;
   - knowledge & information management;
   - analytical and strategic abilities;
   - international experience & languages.
4. To the extent of the authority conferred by the membership meeting and the cluster board, the cluster manager manages the current business activities of the cluster and has power of signature within the scope of that authority.

5. The appointment and removal of the cluster manager lies within the competence of the cluster board but its decision must be submitted to the membership meeting for approval.
6. If no cluster manager is appointed or in the event of his incapacity, the tasks of the cluster manager are performed by the cluster board.

Art. 14. Rights and duties of the cluster manager

The cluster manager is responsible for the operational management of the cluster, including the following tasks:

- drafting of business plan and strategy;
- management and coordination of cluster services;
- internal and external communication of the cluster;
- establishment and coordination of working groups;
- coordination and project management;
- official representation of the cluster, based on an approval by the cluster board;
- reporting to the cluster board and membership meeting.

Art. 15. Auditor

1. The regular members in the membership meeting appoint an auditor and a deputy auditor for a two year term of office; re-election is permitted.
2. The auditor reviews the form and substance of the cluster's financial management and reports on it to the membership meeting.

Art. 16. Arbitration tribunal

1. All disputes arising out of membership of the cluster are decided by the arbitration tribunal.
2. Decisions of the arbitration tribunal are by simple majority and are final within the cluster.

Art. 17. Working groups

1. Working groups may be set up to carry out specific activities and projects and for specific technical tasks.
2. Working groups are made up of cluster members who undertake to devote certain resources to a joint working goal. The inputs of cluster members within the working groups are on a voluntary basis and will not be remunerated.
3. Working groups are set up by resolution of the cluster board.
4. Members of working groups should be cluster members. Specific tasks may be delegated to external experts.

Art. 18. Cluster assets in the event of dissolution

In the event of dissolution of the cluster or the disappearance of its joint objectives (art. 2) the cluster's assets are to be dedicated to any non-profit legal successor or otherwise solely for non-profit purposes.

Concluding provisions

1. Symbol of the cluster shall be the emblem. The emblem shall be adopted by the membership meeting.
2. The cluster is present on the internet with its own website. The name of the domain is http://www.albaniansoftwarecluster.com. Design and content of the website are defined by the membership meeting and a corresponding working group.
3. Issues which are not settled in this statute shall be resolved in accordance with the legislation of Albania.

Tirana, dd.mm.yy

Signatures of the founding members

2.2 Job Profile for IT Cluster Manager

Name of the Tool:	Job Profile for IT Cluster Manager
Source:	GIZ
Usage:	This tool is an example of job description to be used to identify suitable candidates for the position of IT cluster manager. It is a template only. The final job profile should be defined in close coordination with the members of the IT cluster.
Description:	The tool provides a detailed description of the responsibilities and tasks of the IT cluster manager and defines the requirements for this position.

Job Profile	
Position:	IT Cluster Manager
Summary:	To the extent of the authority conferred by the membership meeting and the cluster board, the cluster manager is responsible for the operational management of the cluster (see Cluster Statute).
Tasks:	The IT cluster manager is responsible for the following tasks: • Elaboration and implementation of annual action plan / business plan according to the directives of the membership meeting (cluster members); • Manage pre-defined annual budgets; • Office management and administration; • Organisation of cluster meetings and events; • Establishment and coordination of working groups within the cluster; • internal and external communication of the cluster; • Manage the cooperation and coordination with all relevant actors and partners (cluster members, ministries, donor organisation, etc.); • Manage the cooperation with other clusters and initiatives on a national as well as international level; • official representation of the cluster, based on an approval by the cluster board; • Supervise external service providers; • Project management; • Management and coordination of cluster services (e.g. trainings, export promotion, trade fair participation, etc.); • Customer support (cluster members and external clients); • Cluster marketing and business development; • Maintaining and updating the cluster website; • Maintaining a web-based information and knowledge management system; • Information and knowledge management; • Reporting to the cluster board and membership meeting.

Requirements:	• University degree preferably in computer science, business administration or related fields • Professional experience in the IT industry with sound technical knowledge being a major asset • Management / organisational experience • Experience in marketing and business development • Knowledge of relevant local and international actors (companies, universities, donors, etc.) • International experience • Strong analytical and strategic skills • Excellent language skills, preferably in English and German • Sound computer skills (Word, Excel, PowerPoint, Access) • Communication and presentation skills • Ability to moderate and to intermediate • Highly motivated

2.3 Requirement Specification for IT Cluster Website

Name of the Tool:	Requirement Specification for IT Cluster Website
Source:	GIZ
Usage:	A professional cluster website is of great importance to market the IT cluster to potential clients (cluster marketing) as well as to potential members. Furthermore it serves as a platform to provide cluster members with relevant information and to support collaboration. This tool provides a detailed requirement specification for the development of a cluster website. In addition, it defines the corresponding tender procedure for identifying and contracting a suitable vendor. The tool should be customised to the specific requirements of the cluster. Based on the requirement specification, a suitable vendor (web design company) should be identified according to the tender procedure outlined in this document. If possible, the contractor should be chosen from the cluster member companies.
Description:	The tool encompasses the project requirements such as web structure, functional specification and design concept as well as the technical requirements like technology platform, security & access rights, website domain and hosting. In addition, it defines the project management approach and the tender procedure.

Requirement Specification
IT Cluster Website Development

Version 1.0

Project
IT Cluster Website

Rev.-No.	Date	Changes	Author
1.0	dd.mm.yy	Initial Version	n.n.

Content

1. Introduction

1.1 About This Document

The IT Cluster <insert name of the IT cluster> is a professional organisation established by several founding IT company members and universities. Being in its foundation stage, the IT cluster will need a website that will act as the major communication tool of the organisation and a utility for extending the cluster brand. The aim of this document is to specify the initial requirements for the website of the IT cluster, including structure, modules, functionalities, technical requirements, cost formation guidelines, hosting, and support details. Additionally, the document provides information regarding the project timeframe, samples for best practices and criteria for vendor selection.

This document has been approved by the cluster board and the cluster website taskforce and will be sent out to potential vendors that qualify and have interest to participate in the website procurement tender procedure.

1.2 Website Purpose and Target Groups

The main purpose of the website is to promote and support the vision of the IT cluster and to help the cluster members generate more business. The website will act as the major communication platform in matter of marketing, public relation and promotion of the cluster's services and members. As a result, we need a site with a modern, appealing, and user-friendly interface that will focus on the following target groups:

- Clients - National, Regional and International;
- Talent - current and potential employees;
- Potential new cluster members;
- Partnering organizations, government and academic institutions;
- Others – regional partners, competitor clusters, EU, etc.;

Further, the website should support content in multiple languages (presumably English and German) that needs to be completely manageable by a non-technical administrator from the IT cluster.

1.3 Project Scope

The website should feature:

- Modern and user-friendly look and feel;
- Pages and sections with capabilities for full management of the content;
- Module for management of member profiles;
- Module for news and events publishing;
- Home Page with dedicated spaces for Featured Product and Featured Member;
- Module for Banner Management;

- Support of content in multiple languages;
- Module for statistics;
- Jobs Module;

Additional project-related tasks include:

- Code optimization and structure that are “Google-friendly” (SEO).
- Procurement and management of the website hosting
- Initial content entry on the website
- Procurement and presentation of an existing CMS, if this approach is proposed
- User Training of the IT cluster team

Note: Preparations and time invested in the participation in this tender shall not be paid by the cluster or any other institution participating in the organization of this tender procedure. The cluster may decide to cancel this procedure at any time with no obligations to the participants whatsoever.

1.4 Project Timeframe

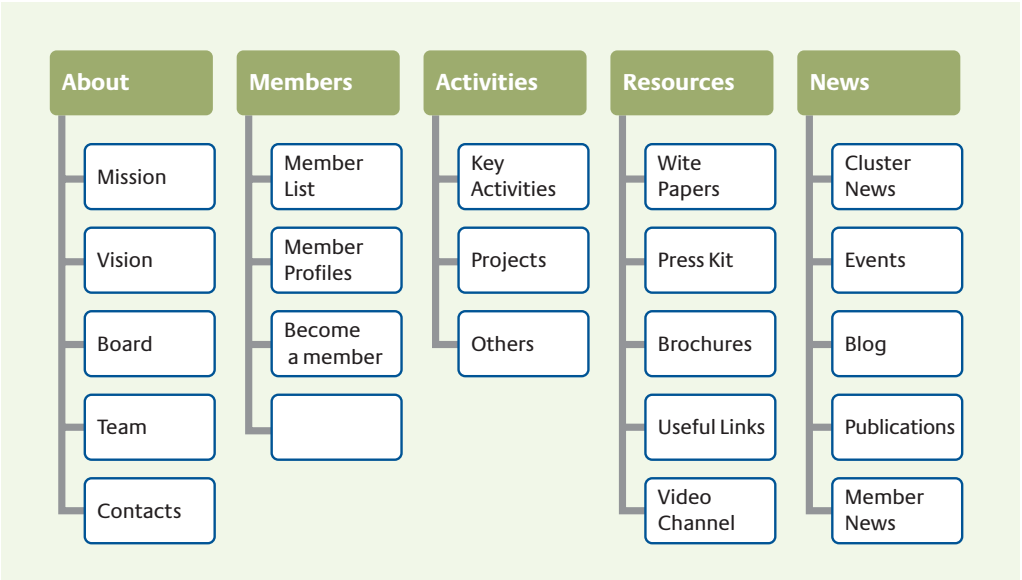
In your proposals, the project should be split into several clearly-defined phases with adequate milestones and deliverables. The go live deadline for the IT cluster website is planned for dd.mm.yy so the selected vendor should commit to that launching date.

Preferably, the project plan should be prepared and presented through short summary of the major tasks and milestones and a supporting Microsoft Project file (alternatively: project plan with MS Excel).

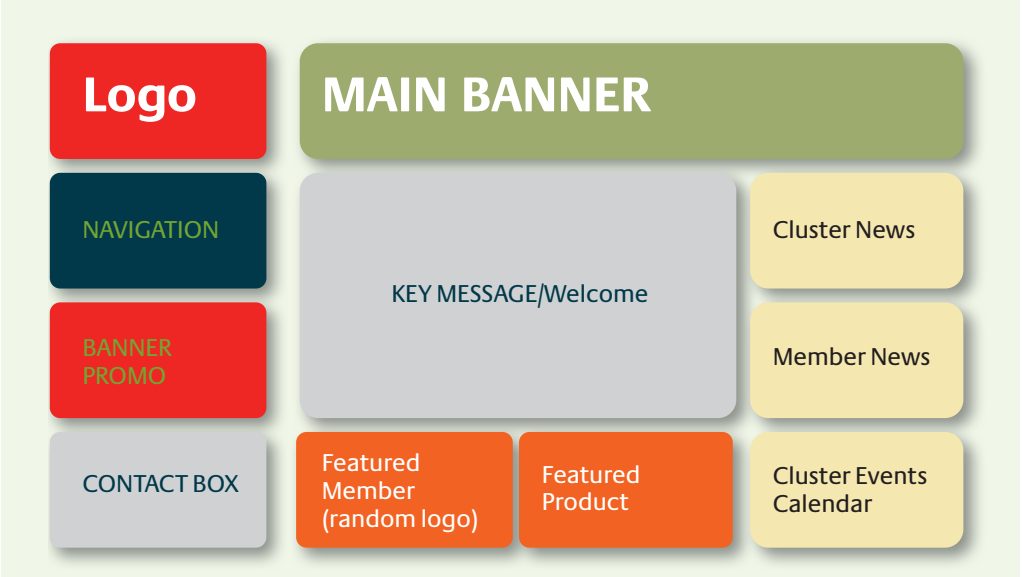
2. Project Requirements

2.1 Initial Web Structure

The graphic below represents the initial site-map of the IT cluster website. Please, use this map as a reference only. We expect that the consequent website administrators will be able to administer and edit the website structure and section titles easily and on all levels.



2.1.1 Home page diagram

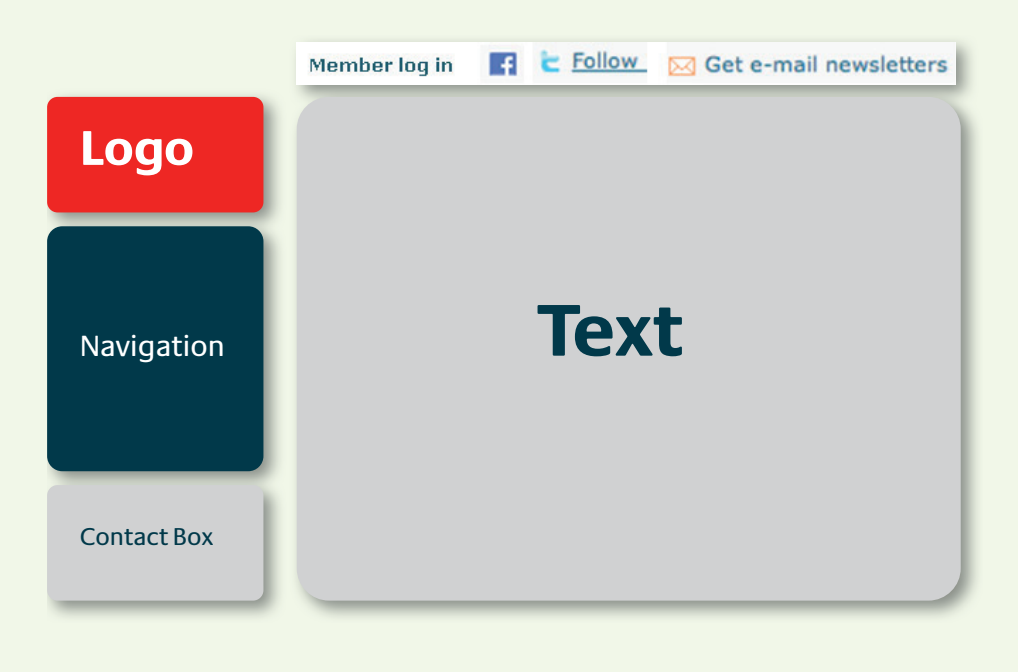


This is a sample wireframe of the home page, representing the required fields and their preferable position and relative proportion to the browser window. The layout should be attractive, logical, and intuitive to use, while providing an easy access to the main sections of the website.

The proposed layout is not cut in stone and alternative best-practice layout proposals are welcome.

Note that the website should be optimized for a 1024 x 768 screen resolution.

2.1.2 General Page Template



This is a sample wireframe of the general template of an internal page. The layout should be logical and intuitive to use, while providing an easy access to the navigation menu and the home page. The text field should facilitate users in reading the included information.

Note that the denoted TEXT field should be managed by a bug-free DHTML editor and will allow a rich text formatting, image, objects and video file insertion and easy manipulation of tables. Additionally, the DHTML editor should support an HTML view.

2.1.3 Administrative Module

This is a sample wireframe of the administrative module of the website. It is important that the layout be logical and intuitive to use by a non-technical personnel. The interface should provide an easy access to all major modules and management functionalities.

Note: Should the winning vendor propose to utilize and implement the project with an existing off-the-shelf CMS, the proposed wireframes for the administrative interface are to be ignored.

2.2 Functional Specification

Before initiating the development process, the selected vendor will be required to prepare and deliver a **functional specification document** that will contain a detailed description of the website layout, modules, and functionalities.

Being the first project deliverable, the functional specification will ensure that both sides share the common understanding of the requirements, goals and functionalities of the website. For this purpose, IT cluster representatives (cluster manager) will be actively involved in the review and finalization of the document. The final version will be reviewed and approved by the IT cluster before moving forward with the project.

2.3 Design Concept and Implementation

The logo design process has been concluded and the vendor will receive the logo from the IT cluster manager. The selected vendor will be required to deliver at least two initial concepts of the website design. We will review the ideas and will provide our feedback on the suggestions.

We expect the final website design to be:

- Modern;
- Appealing;
- Intuitive;
- User friendly;
- Consistent in terms of corporate identity;
- Easy to load;
- With some moderate use of flash elements.

The design of the Administrative Interface is also part of the phase. Upon finalization of the design, the selected vendor will do the HTML cut and implement the user interface.

2.4 Modules and Functionalities

2.4.1 Content Management System

The website content should be fully manageable by an IT cluster representative. For this purpose, the selected vendor should develop and deliver a Content Management System (CMS) or integrate an existing one (e.g. Joomla, Drupal, Kentico CMS, etc.).

The CMS should comply the following:

- Password protected;
- Feature a rich-text content editor (WYSIWYG DHTML editor);
- Allow for managing (add/edit/delete) section and pages of the website;
- Allow for draft version and live content publishing;
- Easy to use by a non-technical personnel.

If the vendor prefers to implement an existing CMS, the company should verify that it has both the resources and the expertise to integrate the module and provide its proper functioning.

2.4.2 Member Profiles Module

Front end

The section will contain information regarding the members of the IT cluster including company profiles, type of membership, how to become member. Each profile will provide details on the following:

- Company name;
- Company size;
- Number of employees;
- Web-address;
- Year of establishment;
- Company mission statement;
- Company certificates;
- Technical Profile
  - Operating Systems and Platforms
  - Programming Languages and Development Tools
  - Database Technologies
- Contact person;
- Telephone;
- Fax;
- Email;
- Client list;
- Services
  - Service
  - Vertical Markets Served
  - Horizontal Markets Served
  - Technology Platform
  - Client List
- Products
  - Product
  - Product Name
  - Product Website
  - Product Description
  - Vertical Markets Served
  - Horizontal Markets Served
  - Technology Platform
  - Client List

The module should also provide the option for members to edit their profiles. For this purpose, the website administrator (IT cluster employee) should be able to set up unique credentials (username and password) for each company. The username and the password will be used by the member to log in the Members section and create (if used for the first time) or edit its profile.

Administration

Website administrators should be able to fully manage this section including all texts, members, and member profiles.

2.4.3 News and Events Module

Front end

This section will display the news and events related to the IT cluster, its activities, and members.

There should be two main categories of news articles:

- IT cluster news;
- Member news.

There should also be a dedicated space on the home page of the website for latest news and events, where the last three to five published items of each category will be displayed.

When the user opens the News and Event section, the system should load the list with articles arranged chronologically (for news) and the soonest – first (for the events). After a certain item is selected, the visitor will see the full version of the text including title, publishing date, body of the article.

Additionally, users should be able to filter the articles to display all news/events, IT cluster news/events, or member news/events.

Administration

Website administrators should be able to completely manage the content of the section. They should be able to add, edit, delete news/events articles (via a rich-text editor), as well as to hide/show items on the front end. All this should be done in an easy and user-friendly manner by a non-technical personnel.

2.4.4 Home page

The home page will contain a welcome text and the main navigation menu. Additionally, there should be spaces dedicated for:

- IT cluster logo;
- Two or three advertisement banners – these will be managed by a Banner management module;
- Featured member – an IT cluster member logo loaded randomly;
- Featured product – a product of an IT cluster member loaded randomly from the database.
- Latest IT cluster news;
- Latest Member news;
- Latest IT cluster Events;
- Contact Us box - with IT cluster contact details.

2.4.5 Banner Management Module

This module is required in order to manage the advertisement banners on the website. The Banner management module should provide several (the exact number to be confirmed) predefined fields where animated (Flash/GIF) or static (JPG, GIF, PNG) banners to be uploaded by administrator. The whole operation is expected to be quick and simple: select the banner location -> browse the banner file -> click "Upload" to upload the banner. Additional features may include – promotion scheduling and automatic e-mail notifications to the Administrator.

2.4.6 Multi Language Support

The website should be designed and developed to support asymmetric multiple language versions of the content. Initially the site will be in English, with German, Spanish, French, etc to be launched if decided so. It is important that the CMS allows publishing of asymmetric language versions of the texts, allowing a full-scale default language version and a brief presentational version for the supporting languages.

2.4.7 Statistics Module

We require integration to Google Analytics and/or equivalent free website statistics module for visitor tracking.

2.4.8 Search

The website should offer functionality for searching the contents by user-defined keywords. The search results should be arranged by relevance.

2.4.9 Linkage to IT Cluster SharePoint

The IT cluster will use MS SharePoint as a tool to support communication, collaboration and coordination among cluster member companies. Therefore the website should provide a special section including a link to the IT cluster SharePoint.

2.4.10 Optional Modules

Please quote all optional modules separately, and with a clearly marked “Optional” in the respective quote-tables.

2.4.10.1 Jobs module

The Job module is an optional one and the selected vendor should estimate it as an additional development.

Front end

At the front end, visitors should be able to see the available member company job openings arranged chronologically. After selecting an item from the list, the system should load the details of the employment offer. The section should offer “Apply for this position” link that could be used by applicants for uploading their CV and sending them to an IT cluster member company.

Administration

IT cluster administrators should be able to edit the content of the section and manage the job postings. The job publishing process should be as intuitive and simple as filling in a form with several fields – position title, reference code (if applicable), summary, and text body. After completing the form, the administrator marks the item as active (visible) and presses the “Submit” button to post the offering.

2.4.10.2 Blog

The Blog should also be estimated and quoted as an optional module. It will be a typical blog-type section that should be used by the IT cluster team to publish articles. Users should be able to read the articles and post comments that should be manageable by the administrator.

2.4.10.3 Social Media Integration

Another optional functionality should be integration with social media like Facebook and Twitter. Users should be allowed to share content from the IT cluster site with their network in the corresponding social media sites.

2.4.10.4 Newsletters

There should be an option to send newsletters to our members and other users that have subscribed on the IT cluster site.

2.4.10.5 Contact Us Form

This form should allow users to send us short messages. The form should contain fields for name, email, subject, body and spam protection feature.

2.5 Search Engine Optimization

The website should be easy to find so a good search engine optimization is crucial. We expect the selected vendor to comply with Google standards and requirements for design, layout, code, tags, and keywords in order to make the website easy for indexing by search engines.

3. Technical Requirements

3.1 Technology Platforms

The vendor will have the freedom to select the platform for the website development depending on their expertise, resources, and preferences. We strongly recommend the technology platform is internationally-renowned and popular one (e.g. Linux/Apache/MySQL/PHP, Windows/IIS/MS SQL/ASP.Net, etc.)

Please, note that all additional (immediate or future) license fees necessary to be paid by the IT cluster, based on the selected technology platform should be clearly stated in your price proposals.

3.2 Quality Assurance

The vendor commits to provide a thorough assurance (QA) of all deliverables for:

- Visual bugs;
- Code bugs;
- Functionalities;
- Performance.

The QA phase should be separately quoted in the vendors' proposals and project plans, making clear the time and cost of the operations.

3.3 Security and Access Rights

Most of the website will be publically accessible but some of the content (Members Profiles Management Module and Website Administration) should be restricted and password protected.

There will be three types of website users:

- Regular Users – they will be able to access all public sections and content of the website;
- Registered Members – they will have the Regular Users access rights plus credentials to log in and edit their company profile;
- Website Administrator – this user will have the right to access the Administration Module, edit the website structure and all contents, and to manage the members' user accounts.

3.4 Website Domain and Hosting

The IT cluster will require the vendor to register the website domain and to assist in purchasing of an adequate hosting plan. The selected hosting provider should offer a sufficient loading speed of the website by both local and international users. The recommended hosting plan price for two years should be included in your price proposals.

3.5 Initial Content Population

The IT cluster will provide all text and images for the website. The selected vendor should commit to perform the initial content population when the development process is complete.

3.6 Coding Standards and Accessibility

It is important that the selected vendor complies with the internationally recognized W3C standards of the website visuals, code and technology. We need the website to offer an easy integration of new modules and functionalities.

3.7 Browser Compatibility Requirements

The website should be compatible with the following browsers:

- Microsoft Internet Explorer 6+;
- Firefox 3+;
- Safari 4+;
- Chrome 4+.

3.8 Training

The selected vendor should provide training to IT cluster employees for using the Administrative Interface of the website.

4. Team and Approach

4.1 Client Team

IT cluster representatives will be appointed to coordinate the project from its end and work with the vendor. The main Points of Contact on behalf of the IT cluster are:

Technical issues and tender evaluation	n.n.
Legal	n.n.
Procurement	n.n.

4.2 Vendor Team

Vendors should provide a detailed description of the team – both roles and positions - that will be assigned to work on the project if selected. Typically, the team should comprise a Project Manager (and main Point of Contact), Designers, HTML Developers, Web Developers, QA Engineers.

Additionally, the vendor should specify a main point of contact regarding the project including Name, Position, and Contact details.

4.3 Use of Third Party and Freelance Professionals

It is acceptable for the vendor to use a third party or freelance professionals (e. g. designers) if needed. Vendors should clearly identify if and what type of specialists they will hire. The IT cluster reserves the right to approve the external contractors before commencing the project.

4.4 Client References

Vendors will be required to provide with their proposals at least three relevant projects completed by them so far. The references should include a client name, website link, and short summary of the project.

5. Project Timeline

The website should be up and running by dd.mm.yy. Vendors should commit to that deadline and are expected to prepare a clear project plan (MS Project file with Gantt chart will be highly appreciated). Companies should bear in mind that the IT cluster team will need between 2 to 3 days for acceptance of the deliverables at each milestone.

6. Project Budget and Price Quotes Requirements

The maximum budget of this project is € <to be defined>. The winning vendor will be contracted based on a consulting contract with the IT cluster.

Vendors should provide a budget with detailed break-down of the project costs. It should be clear how the rate is formed, how much each task costs, and what is the total price. Additionally, vendors should propose an appropriate payment schedule. It is important that all prices should be quoted in EUR and without VAT.

7. Support Requirements and Future Development and Customization

Vendors should commit to provide at least 12 months of warranty period for any bugs or malfunctions of the website due to the code and initial set-up of the system. Additionally, companies will be expected to provide their conditions (rate should be included)

for support after warranty period as well as for any future development and customization of the website.

Providing quotation for support and future development does specifically mean that the IT cluster will hire the vendor for future developments.

8. Code Ownership and Intellectual Property Rights

Once the project is completed, all code ownership and intellectual property rights should be turned over to the IT cluster. The vendor will be allowed to include in the website information about itself for advertising purposes in a form approved by the IT cluster.

Should an external CMS be used (e. g. Joomla, Kentico CMS, Melon CMS, etc.), the vendor is required to verify that the IT cluster has the right to use it indefinitely.

9. Evaluation Procedure and Selection Criteria

The vendor selection is based on the principle of the best value for money by weighing technical quality (technical proposal) against price (financial proposal) on an 80/20 basis. This is being done in a three-step approach:

Step 1: Evaluation of the technical proposal (weighting 80%)

Within the assessment of their technical proposals, vendors can achieve a maximum of 100 points. The evaluator evaluates the technical proposal according to the following criteria

Technical concept / Approach	80
Image	5
References	5
Suggested Timing	5
Support Offer	5
Total	100

Once the evaluator has established each technical proposal's score (number of total points), any vendor falling short of the 70 point threshold is automatically rejected. If no vendor achieves 70 points or more, the tender procedure will be cancelled.

Out of the vendors reaching the 70 point threshold, the best technical offer is awarded 100 points. The others receive points calculated using the following formula:

Technical score = (final score of the technical proposal in question / final score of the best technical proposal) x 100

Step 2: Evaluation of the financial proposal (weighting 20%)

Upon completion of the technical evaluation, the financial proposals of the vendors who were not eliminated during the technical evaluation (i.e. those who have achieved an average score of 70 points or more) are evaluated. The evaluator has to ensure that the financial proposals satisfy all formal requirements (see chapter 6 of the ToR). A financial proposal not meeting these requirements may be rejected.

The evaluator checks that the financial proposals contain no arithmetical errors. Any arithmetical errors are corrected without penalty to the vendor.

The financial proposal comprises the fees and costs specified in chapter 6 of this document. The financial proposal is compared with the maximum budget available for the project. Vendors exceeding the maximum budget allocated for the project are eliminated.

The evaluator then proceeds with the financial comparison of the different financial proposals. The vendor with the lowest financial proposal receives 100 points. The others are awarded points by means of the following formula:

Financial score = (lowest financial proposal / financial proposal of the vendor being considered) x 100

Step 3: Conclusion of the evaluation

The best value for money is established by weighing technical quality against price by multiplying:

- The scores awarded to the technical proposals by 0,80
- The scores awarded to the financial proposals by 0,20

The resulting, weighted technical and financial scores are then added together and the contract is awarded to the vendor achieving the highest overall score.

10. Conflict Of Interest

Vendors that are in a position of a conflict of interest will be disqualified from the tender procedure at the sole discretion of the IT cluster.

11. Examples of Best Practices

The website of the Bulgarian Association of Software Development Companies – www.basscom.org, is the best example of what we need as a website.

Additional cluster websites for your reference:

- Indian Association of Software Companies NASSCOM –http://www.nasscom.in
- Serbian Software Cluster: http://www.ssc.rs
- Kosovo Association of ICT: http://www.stikk-ks.org/
- BITKOM: http://www.bitkom.org/

12. Timeline and Dates

Following are the next milestones of the tender:

Tender documents sent to vendors	dd.mm.yy
Deadline for questions	dd.mm.yy
Deadline for submission of proposals (technical & financial)	dd.mm.yy
Evaluation and final results announcement (award letter)	dd.mm.yy
Kick-off meeting and project start	dd.mm.yy
Beta version / prototype of the website Launch of final version of the website	dd.mm.yy dd.mm.yy

2.4 IT Cluster Promotion Fund

Name of the Tool:	IT Cluster Promotion Fund
Source:	GIZ
Usage:	This tool has been designed with the intention to generate additional income for an IT cluster in order to ensure its effectiveness and financial sustainability. By implementing this tool, the IT cluster is able to collect commissions on business leads and orders which it generates for its member companies. The revenues from this commissions flow into an IT cluster promotion fund which is being used to finance joint activities of the cluster (e.g. marketing campaigns). This form of cluster financing is generally well accepted by member companies, as it gives them additional business opportunities, while the final charge only arises if orders are successfully brokered by the IT cluster. This tool is closely related to the cluster service "B2B export promotion" and to domestic market development activities by the cluster, where business leads for member companies are being generated. It is therefore advisable to implement this tool in parallel with the above mentioned cluster services.
Description:	The tool consists of a sample contract (Cluster Promotion Fund Framework Agreement), which regulates when and how a commission must be paid to the IT cluster and for what purposes the funds can be used. Particularly important in this regard is that the funds may only be used for joint activities which benefit all cluster members.

Sample

Cluster Promotion Fund

Framework Agreement

DRAFT 1.0, dd.mm.yy

1. Preamble

The parties confirm that they are entering and will honour this agreement in good faith for the promotion of the IT cluster through mutual cooperation and joint initiatives. This framework agreement is part of the IT cluster statute.

2. Interpretation and definitions

2.1. In this agreement, unless otherwise required or indicated by the context, the singular shall include the feminine and vice versa, the masculine gender shall include the feminine and vice versa and natural persons shall include legal and juristic persons and vice versa.

2.2. "Agreement" shall mean this agreement and all annexes referred to therein.

2.3. "Cluster" shall mean the group of companies and institutions, cooperating in the IT Cluster and its Export Promotion Group (EPG). Therefore, all companies that sign and abide by this agreement have to be official members of the IT cluster according to its statute.

2.4. "Eligible Contract": An eligible contract is defined as a contract signed by a cluster member with a business lead or client contact which has been directly generated by the IT Cluster in the framework of the B2B export promotion service or by a cluster member company and shared within the group. Contracts which have been won through general promotional activities of the IT cluster such as trade fair participation or match-making events are not considered eligible contracts and are NOT subject to this agreement.

3. Scope of this agreement

3.1. This agreement sets out the rights and responsibilities of the parties in regard to the cluster promotion fund and corresponding activities.

3.2. Neither party shall present itself as the representative or the agent of the other party and neither party shall be entitled to enter into any agreement or incur any liability on behalf of the other party, unless authorised thereto in writing.

4. Purpose of the Cluster Promotion Fund

The cluster promotion fund is established to support the members of the IT cluster by allocating and providing additional financial resources for export promotion as well as cluster promotion.

The fund shall therefore be used for the following activities:

- Export promotion
- Marketing and PR
- Business development
- Training & qualification
- Applied R&D
- Cluster management

Thereby the IT cluster promotion fund is intended to deepen cooperation between the members of the cluster and to contribute to the raising of their international competitiveness.

5. Contributions to the Fund

5.1. Contributions to the Fund are made when an eligible contract is signed. An eligible contract is defined as a contract signed by a cluster member with a business lead or client contact which has been directly generated by the IT cluster or by another cluster member company and shared within the group. Alternatively, contracts which have been won through general promotional activities of the IT cluster such as trade fair participation or match-making events are not considered eligible contracts and are NOT subject to this agreement.

5.2. Confidentiality of eligible contracts – cluster members are not required to disclose any contractual details to any of the other parties to this agreement, except the data needed for the calculation of the contribution payment to the fund, as specified in paragraph 5.4 below.

5.3. When an eligible contract is signed, contributions to the cluster fund are made by the Cluster member as follows:

5.3.1. The total amount of the contribution is 3% of the contract amount, but the total contribution value SHOULD NOT exceed € 10.000.

5.3.2. The contribution payment schedule is as follows: (1) 33% when contract is signed, (2) 33% on the sixth month from contract signing and (3) 34% at the end of the contract, but not later than 18 month from contract signing.

5.3.3. The funds will be transferred to / allocated at a trust account under the IT cluster.

5.3.4. Payment within 2 weeks of due date of contribution payment according to schedule as specified in 5.3 below.

5.4. Notifications of eligible contract - When an eligible contract is signed, the signing contract member is required to inform the IT cluster manager without any delay, by filling out and signing attachment B “Contribution Agreement”, which includes contribution payments and dates.

6. Administration of the Fund

6.1. The cluster promotion fund will be managed and administered by the manager of the IT cluster who shall be elected among and by the cluster member companies according to the rules set out in the statute of the IT cluster.

6.2. A supervisory committee shall be established to oversee the cluster promotion fund and to ensure that the rules for the cluster promotion fund as set out in the agreement are complied with. The supervisory committee shall meet every 6 months.

The supervisory committee should comprise of:

- Chairman of the board/steering body of the IT cluster who shall be elected among and by the cluster member companies according to the rules set out in the statute of the IT cluster
- one elected representative among the cluster member companies

6.3. The cluster manager who is responsible for the management and administration of the cluster promotion fund shall keep proper records of all financial transactions regarding the allocation and distribution of the funds. He shall submit reports on the allocation and disbursement/utilisation of the fund every six months to the supervisory committee.

7. Conditions for using the fund

7.1. The financial means of the cluster promotion fund shall be used for the following purposes and activities of the IT cluster:

- Export promotion
- Marketing and PR
- Business development
- Training & qualification
- Applied R&D
- Cluster management

7.2. The fund shall be used solely for joint activities, which are beneficiary to all parties of the agreement.

7.3. Procedure for authorization of expenses:

- All members of the IT cluster are allowed to submit suggestions for the utilization of the fund.
- In order for a disbursement to get approved, the following rules apply: for disbursement amounts less than € 1000 an electronic simple majority vote via e-mail shall be carried out, for disbursements larger than € 1000, a 2/3 qualified majority approval shall be required.
- Upon approval, the cluster manager has to fill out the fund disbursement authorisation form (see Attachment C), which has to be signed by all the supervisory committee members.

8. Breach of Agreement

Should any of the parties fail to fulfil any material obligation in terms of this agreement and fail to remedy such breach within a period of 30 calendar days from the date of receipt of written notification from the cluster manager, such party shall be excluded from the activities and services provided by the cluster.

9. Commencement and Duration

9.4. This agreement shall come into force upon signature by all the member companies of the IT cluster.

9.5. This agreement shall be in force unless the cluster promotion fund is dissolved by its members. The dissolution of the cluster promotion fund and this agreement is only possible by an unanimous vote of its members. In case the cluster promotion fund is dissolved, the remaining financial means of the fund shall be refunded to the members according to the percentage of their financial contribution to the cluster promotion fund.

10. Joining or Leaving the Cluster

10.1. Each cluster member company is eligible to join the activities and services of the cluster promotion fund by signing this agreement and following its stipulations.

10.2. A cluster member may withdraw from the cluster and the cluster promotion fund with a written notice to the cluster manager. The obligations of the cluster member under current and active eligible contracts remain and are to be paid in full as per Section 5.3.

11. Other conditions

No alteration, variation, addition, changes or agreed cancellation of this agreement shall be of any force or effect unless expressed in writing as an addendum to this agreement and signed by all the parties or their duly authorized signatories.

In witness thereof, the parties have executed this agreement, on the day and year herein written.

Company A
Name

Company B
Name

Company C
Name

Company D
Name

Company E
Name

Company F
Name

Company G
Name

Attachment A

Cluster Manager

Name:

Organization:

Address:

Cluster Promotion Fund Supervisory Committee

Chairman of the board/steering body of the ... Cluster

Name:

Organization:

Address:

Company representative

Name:

Organization:

Address:

Attachment B

Cluster Promotion Fund Contribution Agreement

No. # _____

Date: _____

This is to notify that [Insert Name of Cluster Member Company] has signed a contract, which is an Eligible Contract according to the definitions of the Framework Agreement for the IT Cluster Promotion Fund. Therefore, [Cluster Member Company name] agrees to make a contribution of

_____ [total figure and in words]

in accordance with the following contribution schedule:

Contribution 1 (33 %) _____ Expected due date: _____

Contribution 2 (33 %) _____ Expected due date: _____

Contribution 3 (34 %) _____ Expected due date: _____

The payments will be made upon receipt of pro-invoice from the IT cluster into the following bank account:

[Bank details]

_____ _____

Chairman of the IT Cluster Fund Supervisory Committee

Cluster Member Company Representative Fund Supervisory Committee

Attachment C

Fund Disbursement Authorisation Form

Date: _____

The Cluster Promotion Supervisory Committee authorises the disbursement of the amount of

_____ €

for the purpose of:

_____

_____

_____

Voted in favour by: [mention number of companies in favour and against]

Approved by

_____

Chairman of the IT Cluster
Fund Supervisory Committee

_____

Cluster Member Company Representative
Fund Supervisory Committee Member

2.5 IT Industry Barometer

Name of the Tool:	IT Industry Barometer
Source:	GIZ
Usage:	The industry barometer has been designed as a tool to gather and analyse quantitative and qualitative information on the performance of an IT industry and to identify relevant IT industry trends. The barometer covers topics such as general company information, statistics (e.g. turnover), human resources (e.g. employment, salary structures), forecast, and current subjects (feedback function for companies). The industry barometer is therefore not only a suitable tool for monitoring & evaluation (M&E) but can also be used for statistical purposes. Besides it can be utilised as an "early warning system" for the industry. The IT Industry Barometer has been developed as a cluster service in order to maximise its effectiveness and to ensure sustainability.
Description:	This tool encompasses a detailed service profile and process description, the questionnaire for the IT Industry Barometer, recommendations concerning suitable online survey tools, as well as instructions for data analysis.

1. Service Profile

IT Industry Barometer (ITIB)			
Date:	-	Service Name:	IT Industry Barometer (ITIB)
<Service Logo>		Status:	Service Profile 1.0
		Website:	-
		Service Manager:	n.n.
		Phone:	-
		E-mail:	-
		Skype/ICQ:	-

Service Description:

The main idea of the IT Industry Barometer (ITIB) is to collect and publish quantitative and qualitative information about the IT industry of a country. Thereby this cluster service intends to achieve the following goals:

- Providing a tool for monitoring & evaluation of the performance of an IT industry.
- Providing accurate statistical information on the IT sector in order to allow for informed decision making and better planning. This is particularly important for developing and emerging countries, where reliable statistics on the IT industry are often not available.
- Serving as an "early warning system" for the IT industry

The basic instrument to collect IT industry data from the companies is a special questionnaire. This ITIB questionnaire is subdivided into five parts comprising the following subjects:

- General Information
- Statistics
- Human Resources
- Forecast
- Current Subjects and Remarks, Comments

The questionnaire is designed to allow for easy and swift answering by IT companies. Information on individual companies is kept strictly confidential, while the results of the IT Industry Barometer are only being published in aggregated form.

The survey is conducted electronically by using an online survey tool. For that purpose the questionnaire needs to be transformed into HTML.

After conducting the survey and collecting the data, the next steps include data analysis and preparing the report. The latter should not only contain concrete information about the industry, but also identify relevant market and industry trends. This facilitates the formulation of appropriate support measures for the IT industry.

The ITIB report should then be sent to the participating companies and be disseminated among IT cluster partners, like e.g. government institutions, research institutes, donor organisations, etc. A press release should be prepared and sent to relevant media, so that the results can be made available to a wider public.

It is advisable to establish a special working group ("Research Group") within the cluster to support the implementation of the ITIB. Conducting the survey and elaborating the report should be outsourced to a suitable external provider/consultant.

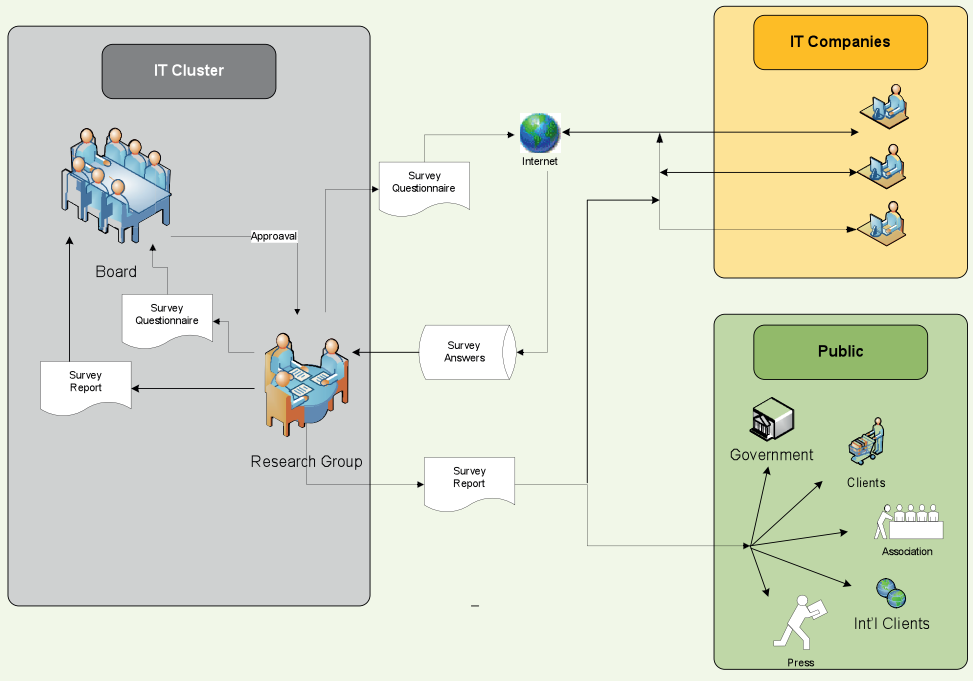
Core features :	The core feature of the ITIB is the provision of accurate and up to date information on the performance of the local IT industry as well as on relevant market trends in the form of a detailed report. This report includes all relevant data and statistics in aggregated form.
Additional features:	**Additional features include:** • Press release on the key results of the ITIB • Identification of specific market and industry trends • Upon request by the IT cluster, additional questions concerning particular issues (e.g. training needs) can be included in the ITIB

Customer benefits:	**IT companies:** The companies participating in the ITIB benefit directly from the results of the survey. It enables each company to compare its individual figures with the industry averages, allowing them for a qualitative and quantitative benchmark. **IT cluster:** Through the ITIB, the cluster receives valuable statistical information on the performance of the IT industry, allowing for better strategic planning. Furthermore the statistical data can be used for lobbying with government institutions. By selling the data to market research companies, the ITIB can also become an additional source of income for the cluster.
Target group:	The main target group of the ITIB are the member companies of an IT cluster. However, the IT Industry Barometer can be extended to the whole IT industry of a country upon request.

Mode of delivery:

The core feature of the ITIB service will be provided by the service manager according to a predefined service process (see process description). For the implementation of the survey and for data analysis, the service manager should be supported by a Research Group (working group) within the cluster. It might be advisable to also include an external consultant into the service delivery particularly for data analysis and for elaborating the ITIB report.

The following chart illustrates the delivery of the service including the dissemination of the survey results (ITIB report):

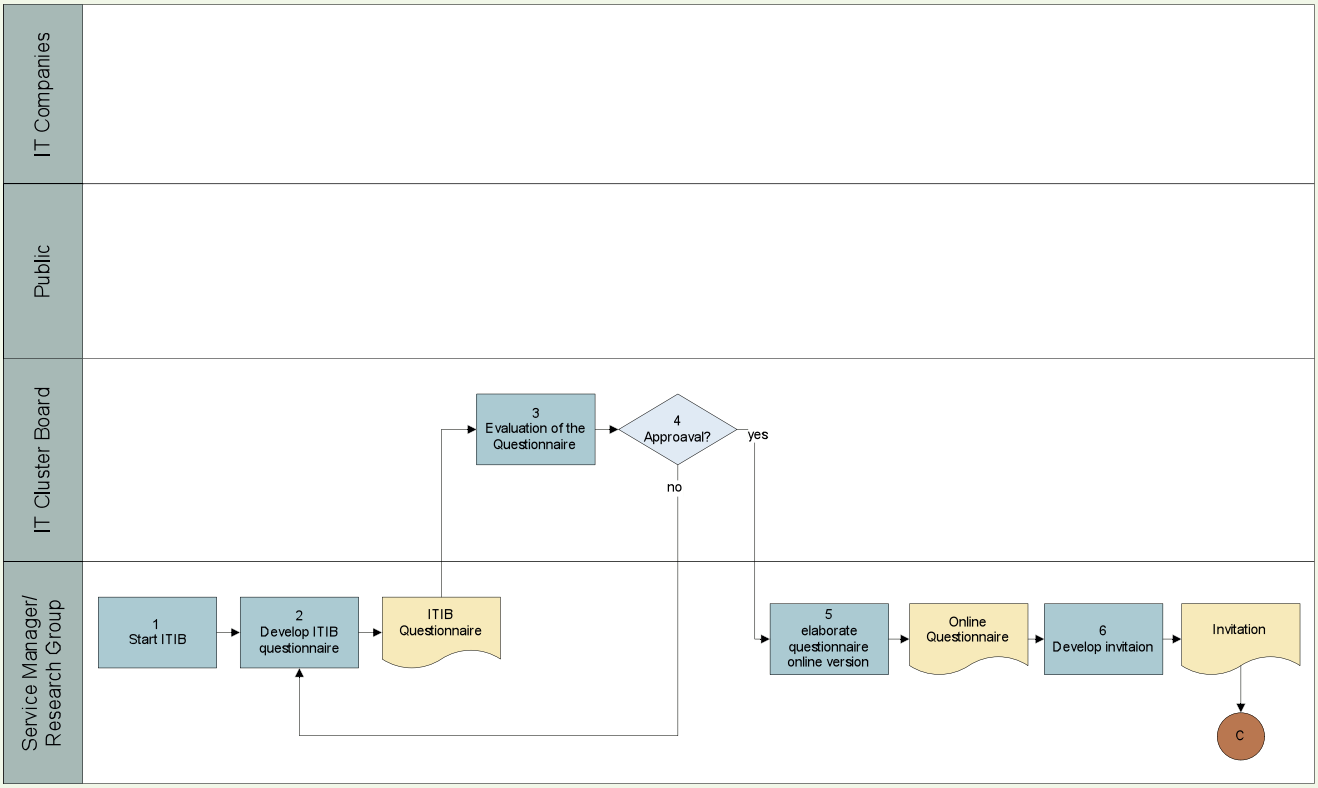


Price & financing	The ITIB service should be financed by the IT cluster (through membership fees). External clients interested in the results of the ITIB like e.g. market research companies or consulting companies should pay an adequate price for receiving the ITIB report. The price should be within the range of € 3.000 – 4.000 depending on the total costs involved in conducting the ITIB. Thereby, the ITIB can become an additional source of income for the cluster.
Technology platform:	Technology platforms required for the ITIB include: Information on the cluster website; Online survey tool; Software for data analysis (Excel, SPSS); E-mail distributor for disseminating the questionnaire (link) as well as the results of the ITIB.
Service support:	Service support will be provided by the responsible IT cluster working group ("Research Group") and if required by an external consultant.
Distribution channels:	The BITIB will be marketed through the following channels: IT cluster website: service section Presentation at IT cluster meetings and workshops; Media (to be informed through press releases).
Additional information:	The questionnaire for the ITIB should be constantly revised and developed further in order to reflect changes within the IT sector accordingly.

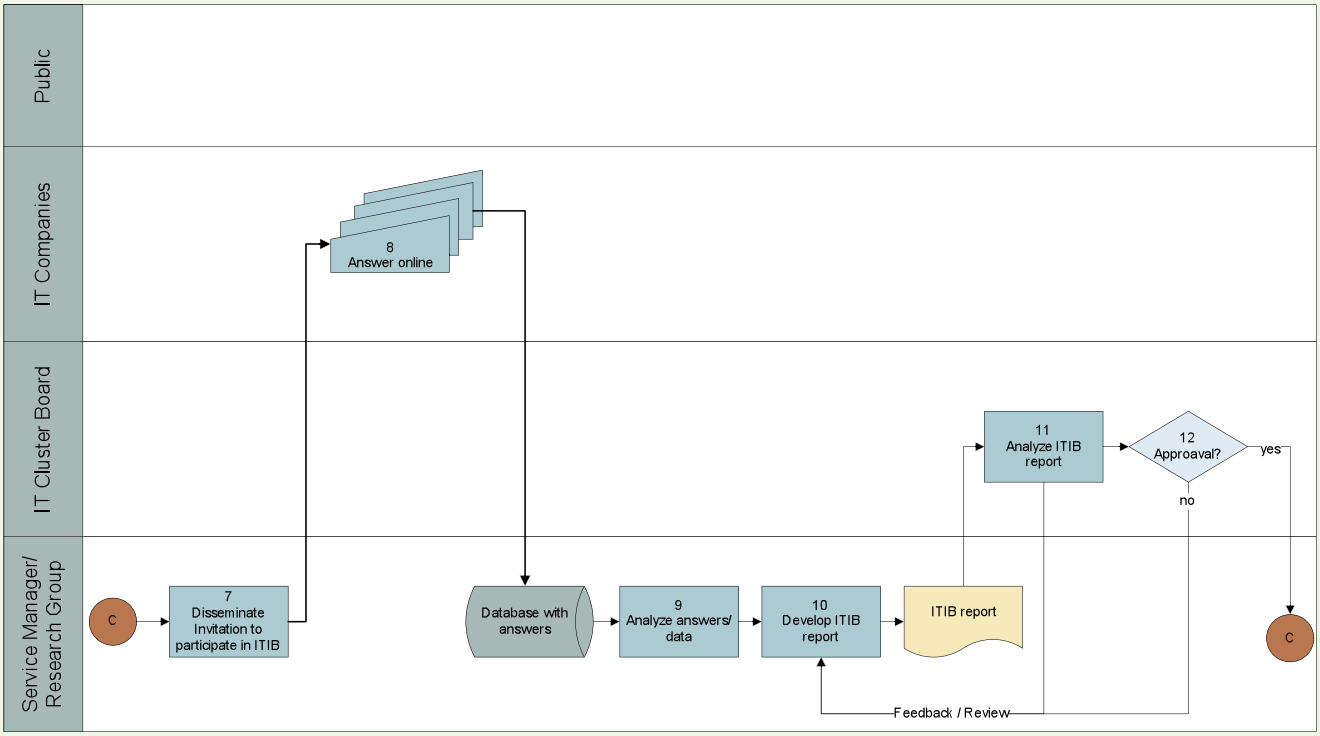
2. Process Description

In the following section the service delivery process is described, including a flow chart and a description table. According to the principle of continuous improvement process, the service delivery process needs to be continuously reviewed, improved and optimised in order to ensure that the service is being managed efficiently and in accordance with clients' needs.

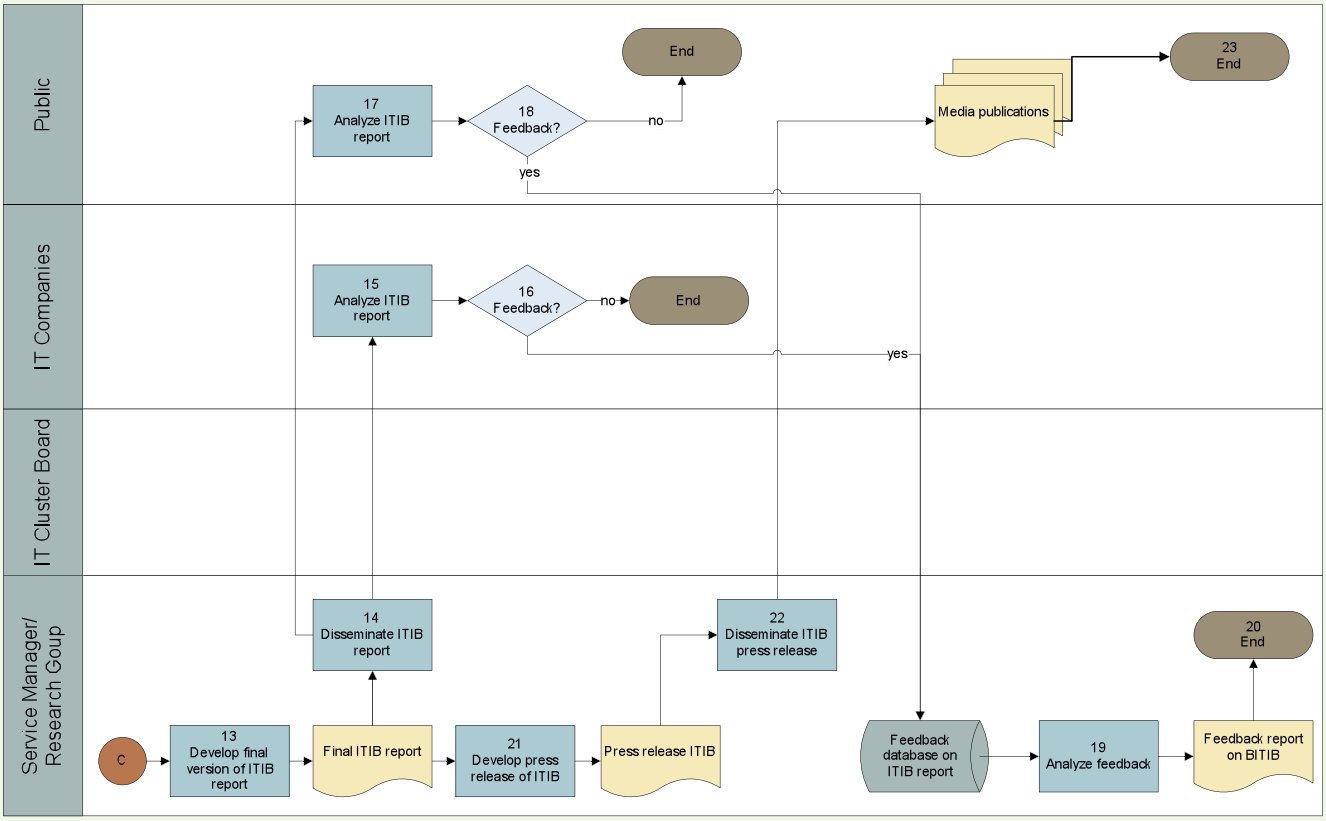
Service Process Description 1



Service Process Description 2



Service Process Description 3



Nr.	Activity	Responsibility	Document
1	The service manager and the research group start the ITIB process	Service Manager/ Research Group	-
2	Develop the ITIB questionnaire and send it to the IT cluster board	Service Manager/ Research Group	Questionnaire
3	The IT cluster board evaluates the questionnaire	IT Cluster Board	Questionnaire
4	If the IT cluster board does not approve the questionnaire, it needs to be revised	IT Cluster Board	Questionnaire
5	If the cluster board approves the questionnaire, the service manager/research group elaborates an online version of the questionnaire	Service Manager/ Research Group	Online Questionnaire
6	Elaborate an invitation for participating in the ITIB	Service Manager/ Research Group	Invitation
7	Disseminate the invitation for participating in the ITIB to IT companies (e-mail with link)	Service Manager/ Research Group	Invitation with link to online questionnaire
8	The IT companies answer the questionnaire online (manual data entry)	IT Companies	Online questionnaire
9	Analysis of the data/answers which were collected in the database of the online survey	Service Manager/ Research Group	Database with answers
10	Develop the ITIB report based on the data analysis	Service Manager/ Research Group	ITIB report
11	Then the IT cluster board needs to analyze the ITIB report	IT Cluster Board	ITIB report
12	If the IT cluster board does not approve the report it needs to be revised	Service Manager/ Research Group	ITIB report
13	If the IT cluster board approves the ITIB report, the service manager elaborates the final version of the ITIB report	Service Manager/ Research Group	ITIB report
14	Disseminate the final ITIB report to the IT companies as well as to the public (partners, clients)	Service Manager/ Research Group	ITIB report
15	IT companies analyse the ITIB report	IT companies	ITIB report
16	If IT companies provide no feedback, the process ends. If they provide feedback, it is collected in a feedback database (electronic folder)	IT companies	-
17	The public (clients and partners) analyse the ITIB report	Public	ITIB report
18	If the public (clients and partners) provide no feedback, the process ends. If they provide feedback, it is collected in a feedback database (electronic folder)	Public	-

Nr.	Activity	Responsibility	Document
19	Based on the database, the service manager/research group analyses the feedback and elaborates a feedback report in order to further develop and improve the ITIB	Service Manager/ Research Group	Feedback report on ITIB
20	Process end	-	-
21	Based on the ITIB report, the service manager/research group elaborates a press release on the ITIB	Service Manager/ Research Group	Press release on ITIB
22	The service manager/research group disseminates the ITIB press release to the media for publication	Service Manager/ Research Group	Press release on ITIB
23	Process end	-	-

3. Questionnaire

In the following section, the questionnaire for the IT Industry Barometer is presented. The questionnaire should be customised according to the situation and the requirements on the ground.

Questionnaire – IT Industry Barometer

General Information

Do you want to provide your company name and contact information?

☐ Yes, I will provide the company name and contact information.
☐ No, I want to answer the questionnaire anonymously.

Company

Name Complete	
Name Short Form	
Address *	
Telephone **	
Fax **	
E-mail	
URL	

**) Please use the official address format.*
***) Format: +xxx y zzzzzz, x = country code (351), y = area code, z = telephone number*

Contact Person

Name	
Surname	
Title	
Direct Phone/Extension	
Direct Email	

Type of Company

Stakeholders

What is the stakeholder structure of the company?

- ☐ > 50% local ownership
- ☐ > 50% foreign ownership
- ☐ Branch of a foreign company

(If the company works only for the parent company or for other companies belonging to the group)

Product / Services

What type of products and/or services your company provides?

- ☐ Software products
- ☐ Software services
- ☐ Hardware products
- ☐ Services for hardware products
- ☐ Others: _____

IT Cluster / Association membership

Your company is a member of

- ☐ Cluster / Association A
- ☐ Cluster / Association B
- ☐ Cluster / Association C
- ☐ Cluster / Association D

Statistics

Sales Turnover

Overall Sales and Profit*

What were the total sales and the net profit of the company for the last three years?

Please consider the calendar year (January 1st to December 31st) and provide projected numbers if final ones for 2010 are not available.

Numbers must be in <currency> thousands.

	2008	2009	2010
Sales Turnover			
Net Profit			

(in 1.000 currency)

**) If you are a development or other cost centre of a multinational corporation please enter your total cost / budget as sales turnover and ignore net profit*

Domestic/Export Sales

From the total sales turnover, what percentage was from exports?

The remainder to 100% will be assumed to be from domestic market.

	2008	2009	2010
Export (%)	_____ %	_____ %	_____ %

Export destination

What is the percentage of the company's export sales by regions?

(Sum of each column/year must be 100%)

World Region	2008	2009	2010**
German speaking countries (Germany, Austria, Switzerland)	_____ %	_____ %	_____ %
Scandinavian countries	_____ %	_____ %	_____ %
UK	_____ %	_____ %	_____ %
Rest of Western Europe	_____ %	_____ %	_____ %
Central and Eastern Europe	_____ %	_____ %	_____ %
North America (USA, Canada)	_____ %	_____ %	_____ %
Rest of the world	_____ %	_____ %	_____ %
Total from Export	100 %	100 %	100 %

Product / Services

Considering total sales, what is the percentage distribution by type of products and services?

Please separate domestic market from export.

Domestic Market
(Sum of each column/year must be 100%)

	2008	2009	2010
Software products	_____ %	_____ %	_____ %
Software services	_____ %	_____ %	_____ %
Hardware products	_____ %	_____ %	_____ %
Services for hardware products	_____ %	_____ %	_____ %
Total Domestic Market	100 %	100 %	100 %

Export
(Sum of each column/year must be 100%)

	2008	2009	2010
Software products	_____ %	_____ %	_____ %
Software services	_____ %	_____ %	_____ %
Hardware products	_____ %	_____ %	_____ %
Services for hardware products	_____ %	_____ %	_____ %
Total Export	100 %	100 %	100 %

Clients

Sector

From which sectors (verticals) are your clients?

Please separate domestic market from export.

	Domestic Market	Export
Aerospace	☐	☐
Automotive	☐	☐
Defence	☐	☐
Education (E-Learning)	☐	☐
Financial Services	☐	☐
Gaming and Entertainment	☐	☐
Healthcare Services	☐	☐
Home Automation	☐	☐
Industry Application and Automation	☐	☐
IT Services and Outsourcing	☐	☐
Manufacturing, Distribution, Retail	☐	☐
Marketing and Communications	☐	☐
Media and Publishing	☐	☐
Non-profit organizations	☐	☐
Public sector (E-Government)	☐	☐
Real Estate	☐	☐
Services (HR, Accounting, Legal)	☐	☐
Technology	☐	☐
Telecommunications (Wireless and Mobile)	☐	☐
Telematics	☐	☐
Tourism and Hospitality	☐	☐
Trade, Transportation and Logistics	☐	☐
Utilities	☐	☐
Others:	☐	☐

Horizontal

In which horizontal markets do you provide products and/or services to your clients?

Please separate domestic market from export.

	Domestic Market	Export
Business Intelligence/Data Warehousing	☐	☐
Business Process Optimization	☐	☐
Corporate Security	☐	☐
Custom Development/Outsourcing	☐	☐
Customer Management (CRM)	☐	☐
Document Management	☐	☐
E-commerce	☐	☐
Embedded Engineering and Development	☐	☐
ERP/Supply Chain	☐	☐
IT Consulting	☐	☐
IT Project Management	☐	☐
Knowledge Management/Operations	☐	☐
Mobile Solutions	☐	☐
Navigation Applications	☐	☐
New Media Production (Multimedia/Web animations)	☐	☐
Product maintenance, Support and Customization	☐	☐
Software Quality Assurance	☐	☐
Tools/COTS	☐	☐
Web design; development	☐	☐
Others:	☐	☐

Human Resources

Employees

What is the number of your staff, classified by the following categories?

Please consider employees as well as free-lancers that frequently work for your company.

Categories	2008	2009	2010
Software Developers JR			
Software Developers			
Software Developers SR			
Quality Assurance Engineers JR			
Quality Assurance Engineers			
Quality Assurance Engineers SR			
Software Architects			
Software Architects SR			
Usability/Interface Specialists			
Usability/Interface Specialists SR			
Graphic Designers			
Graphic Designers SR			
Multimedia Programmers			
Multimedia Programmers SR			
IT consultants			
IT consultants SR			
Integrators			
Integrators SR			
Support Specialists			
Support Specialists SR			
Tech Writers			
System/Database Administrators			
Project Managers			
Project Managers SR			
Technical Management			
Senior Management			
Marketing / Sales			
Administration			
Total			

Employee turnover rate

What was the employee turnover rate in your company in the last three years?

Please use the following definition and formula to calculate it.

2008: _____ 2009: _____ 2010: _____

Definition:

$$\text{Employee Turnover Rate} = \frac{\text{Number of leavers in the year}}{\text{Yearly average number of staff of last year}} \times 100$$

Source: WordNet 1.7.1 Princeton University http://wordnet.princeton.edu/

Open Positions and Time for Replacement

How many open positions did your company have for the period January – December 2010? How much time it takes to hire a professional in the respective categories?

Please give the answers in number of weeks.

Categories	Open Positions	Replacement Time
Software Developers JR		_____ weeks
Software Developers		_____ weeks
Software Developers SR		_____ weeks
Quality Assurance Engineers JR		_____ weeks
Quality Assurance Engineers		_____ weeks
Quality Assurance Engineers SR		_____ weeks
Software Architects		_____ weeks
Software Architects SR		_____ weeks
Usability/Interface Specialists		_____ weeks
Usability/Interface Specialists SR		_____ weeks
Graphic Designers		_____ weeks
Graphic Designers SR		_____ weeks
Multimedia Programmers		_____ weeks
Multimedia Programmers SR		_____ weeks
IT consultants		_____ weeks
IT consultants SR		_____ weeks
Integrators		_____ weeks
Integrators SR		_____ weeks
Support Specialists		_____ weeks
Support Specialists SR		_____ weeks
Tech Writers		_____ weeks
System/Database Administrators		_____ weeks
Project Managers		_____ weeks
Project Managers SR		_____ weeks
Technical Management		_____ weeks
Senior Management		_____ weeks
Marketing / Sales		_____ weeks
Administration		_____ weeks
Total		_____ weeks

Salaries

What are the average monthly GROSS (as per labour contract) salaries in <currency> for the following positions?

Categories	2008	2009	2010
Software Developers JR			
Software Developers			
Software Developers SR			
Quality Assurance Engineers JR			
Quality Assurance Engineers			
Quality Assurance Engineers SR			
Software Architects			
Software Architects SR			
Usability/Interface Specialists			
Usability/Interface Specialists SR			
Graphic Designers			
Graphic Designers SR			
Multimedia Programmers			
Multimedia Programmers SR			
IT consultants			
IT consultants SR			
Integrators			
Integrators SR			
Support Specialists			
Support Specialists SR			
Tech Writers			
System/Database Administrators			
Project Managers			
Project Managers SR			
Technical Management			
Senior Management			
Marketing / Sales			
Administration			

Rates

What is the average billable rate for the following staff categories?

Please provide rates per person per hour in <currency> (VAT excluded).

Categories	Price
Blended Rate*	
Software Architects	
Software Developers	
Quality Assurance Engineers	
Project Managers	
Business Analysts/Consultants	
Training/Documentation/Support Specialists	
Graphic/Usability/Multimedia Specialists	
System Administrators/Integration Specialists	

** Blended Rate is the rate that you would quote your services to a client, should you have to provide one number for that.*

Forecast

Sales*

What are your company sales projections for 2011?

(% change compared to 2010)

Sales turnover coming from:	-25% or more	-10% to -25%	Up to -10%	Same Level (± 0%)	Up to +15%	+15% to +50%	More than +50%
Domestic Market	☐	☐	☐	☐	☐	☐	☐
Export	☐	☐	☐	☐	☐	☐	☐
Total	☐	☐	☐	☐	☐	☐	☐

** If you are a development centre or other cost centre of a multinational corporation, please provide your total cost/budget change projection.*

Employees

Do you expect the total number of employees in your company to:

	Decrease			± 0%	Increase		
	-50%	-25%	-10%		+10%	+25%	+50%
Number of Staff	☐	☐	☐	☐	☐	☐	☐

Do you expect the salary level to:

	Decrease			± 0%	Increase		
	-50%	-25%	-10%		+10%	+25%	+50%
IT Specialists	☐	☐	☐	☐	☐	☐	☐
Others	☐	☐	☐	☐	☐	☐	☐

** Please, include full-time and part-time/free-lance employees in your calculation.*

Impact of external factors

Considering the current situation of your business, how do you evaluate the influence of the following factors on the development of your business?

	Negative	Neutral	Positive
Global Economic situation	☐	☐	☐
National Economic situation	☐	☐	☐
HR Market	☐	☐	☐
Intensified Competition	☐	☐	☐
Government policy	☐	☐	☐

Other

How much more business would you generate next year if you can increase software development capacity at will, i.e. with no limitation from the HR market?

- ☐ 0% - increasing development capacity will not get us more business
- ☐ 10%
- ☐ 20%
- ☐ 30%
- ☐ 50% to 100%
- ☐ more than 100%

Remarks, Suggestions

Use the space below to give your comments and suggestions on the subjects that you evaluate as important for your company. Please also consider activities implemented by support organisations, the IT cluster, associations, the government etc. General comments, remarks, suggestions on the IT sector are also welcome.

>End of the Questionnaire<

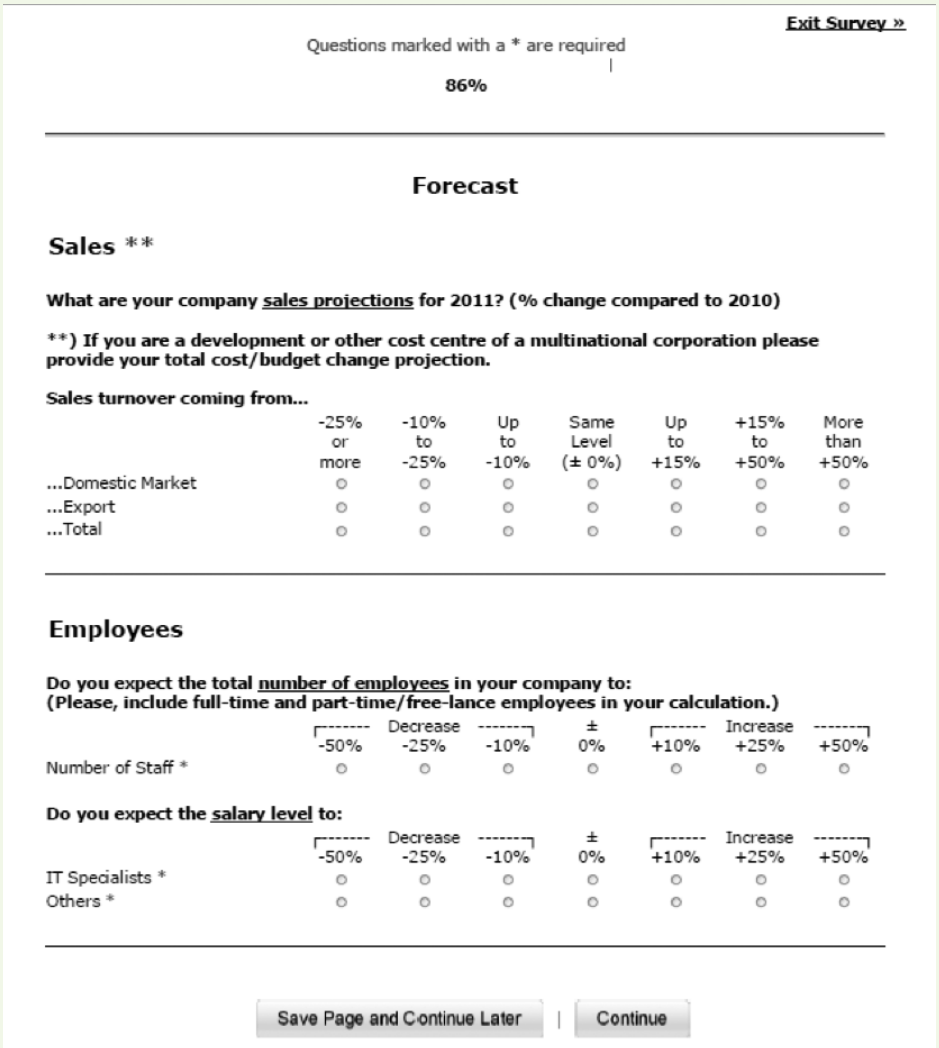
4. Online Survey Tool

The IT Industry Barometer should be conducted in the form of an online survey. There are several tools for online surveys on the internet. Examples for such online survey tools are:

QuestionPro:	http://www.questionpro.com
Surveymonkey	http://www.surveymonkey.com

Using online survey tools makes data collection much more efficient and user-friendly. Furthermore they also include some data analysis functions.

To conduct the survey online, the questionnaire needs to be transformed into HTML with the help of the online tool. The following screenshot illustrates what the online questionnaire looks like:



Exit Survey »

Questions marked with a * are required

86%

Forecast

Sales **

What are your company sales projections for 2011? (% change compared to 2010)

**) If you are a development or other cost centre of a multinational corporation please provide your total cost/budget change projection.

Sales turnover coming from...

	-25% or more	-10% to -25%	Up to -10%	Same Level (± 0%)	Up to +15%	+15% to +50%	More than +50%
...Domestic Market	○	○	○	○	○	○	○
...Export	○	○	○	○	○	○	○
...Total	○	○	○	○	○	○	○

Employees

Do you expect the total number of employees in your company to:
(Please, include full-time and part-time/free-lance employees in your calculation.)

	Decrease -50%	-25%	-10%	± 0%	Increase +10%	+25%	+50%
Number of Staff *	○	○	○	○	○	○	○

Do you expect the salary level to:

	Decrease -50%	-25%	-10%	± 0%	Increase +10%	+25%	+50%
IT Specialists *	○	○	○	○	○	○	○
Others *	○	○	○	○	○	○	○

Save Page and Continue Later | Continue

5. Process Instruction for Data Analysis

The analysis of the quantitative data gathered through the online survey of the IT Industry Barometer can be conducted largely by using descriptive statistics.

The purpose of descriptive statistics is to describe data by using graphics, tables and indicators. Most of the data involved in the IT Industry Barometer can be analysed by applying standard software programs such as Excel.

For a more in-depth analysis of certain aspects of the IT Industry Barometer, such as sales and profits, number of employees, open positions, average monthly gross salaries average rates and the forecast it might be useful to also calculate additional statistical measures.

The following table provides an overview on relevant statistical measures for the IT Industry Barometer, including the respective formula as well as a short explanation of each statistical measure. The measures can be calculated manually or by using software programs such as Excel or SPSS. Excel includes a number of statistical functions and analysis tools. With the item/function "Summary Statistics" a number of important statistical measures can be computed. The statistical measures can also be calculated by using individual functions.

Statistical Measure	Formula	Explanation[3]
Arithmetic mean	$\bar{y} = \frac{1}{n}\sum_{t=1}^{n} y_t$	The arithmetic mean is the average of the data. The mean is only used for numerical data.
Median	-	The median is the value in the middle of a sorted sequence of data. Thus 50% of the cases are less than or greater than the median. The median can be used for numerical or ordinal data.
Mode	-	The mode can be defined as the most frequent value in a sample. Similar to the median, the mode is not affected by extreme values. It can be used for example to identify the "typical" average monthly gross salary in a data set.
Variance	$s^2 = \frac{1}{n-1}\left(\sum_{t=1}^{n}\left(y_t - \bar{y}\right)^2\right)$	The variance is a measure of dispersion around the mean.
Standard deviation	$s = \sqrt{\frac{1}{N-1}\sum_{i=1}^{N}\left(x_i - \bar{x}\right)^2}$	The standard deviation is a measure for the average deviation from the mean.
Coefficient of variation	$g = \frac{s}{y}$	The coefficient of variation is a standardized measure of dispersion. It is used to compare different samples. The coefficient of variation is usually interpreted as a percentage.

[3] *Explanations were taken from Geyer, A. (2008), Data Analysis and Decision Making.*

Minimum, maximum, range	-	In order to get a more accurate picture of the dispersion of the data it is useful to compute the minimum, the maximum and the range, which is the difference between minimum and maximum.
Skewness	$\frac{1}{n}\sum_{t=1}^{n}\frac{\left(y_t-\bar{y}\right)^3}{s^3}$	The skewness is an indicator for a deviation from the normal distribution. It has no units of measurement. A normal distribution is symmetrical and has a skewness of zero. A distribution with negative (positive) skewness is said to be skewed to the left (right). When the skewness is negative there are more negative extremes than positive extremes. If a distribution is skewed, mean, median and mode are not identical.
Kurtosis	$\frac{1}{n}\sum_{t=1}^{n}\frac{\left(y_t-\bar{y}\right)^4}{s^4}$	The kurtosis is an indicator and has no units of measurement. The kurtosis of a normal distribution is 3. Therefore a kurtosis different form 3 indicates a deviation from a normal distribution. The data has a leptokurtic distribution if it is strongly concentrated around the mean and there is a high probability to observe extreme values on either side. This is the case when the kurtosis is greater than 3. The kurtosis of a normal distribution is 0. A kurtosis less than 3 indicates a platokurtic distribution which is not strongly concentrated around the mean.

4 Capacity Building and Training

3.1 Training-of-Trainer (ToT) Networks

Name of the Tool:	Training-of-Trainer (ToT) Networks
Source:	GIZ
Usage:	Training-of-trainer (ToT) networks is an important tool for capacity building for IT education and training institutions. This tool is designed to facilitate the establishment of such ToT networks on a sustainable basis by following the steps and procedures outlined in this tool.
Description:	The tool provides a detailed description of the different steps to be taken in order to establish training-of-trainer (ToT) networks. The corresponding training materials as well as contact details of suitable trainers can be obtained directly from GIZ.

The following steps should be taken in order to establish training-of-trainer (ToT) networks:	
1.	Define core objectives of stakeholders and core learning needs of multiplier organisations.
2.	Tender, select and sub-contract trainers and co-trainers for regional/multi-country training-of-trainer schemes according to the core objectives and learning needs.
3.	Organise collaborative process of building of training material (see next section).
4.	Define criteria for the assessment of trainees for training-of-trainers. In the selection of participants it will be important to ensure: • Participants have an outreach ability and institutional strength, i.e. they are likely to pass on the knowledge gained in the trainings to others in the roll-out of the programme. • Each course contains a mix of business and IT focussed persons (if possible one business and one IT focussed person per training institution).
5.	Design and launch an open call for participants of the regional trainings (as an invitation to the training).
6.	Select suitable participants to the training according to criteria defined.
7.	Conduct training of trainers: Aim of the multi-country/regional trainings is to educate multipliers and qualify them to pass on the knowledge gained. The trainees shall be equipped with didactical know how, curricula, and training material that could be adapted to their specific needs and allows them to act as trainers after the training programme.

8.	Ensure networking and a continued knowledge exchange among trainers, beyond the phase of ToT (animate participants to form the Community of Trainers , devise support online tools such as Web 2.0 social networks and tools, which they can use for networking, as well as for organising the online components of their own national trainings).
9.	Support for national trainings: After the completion of the training-of-trainers, there should be a roll-out on a national level in the participating countries. The participants of the regional training will now be the trainers for the national trainings.
10.	Foster networking on the three levels: national, regional, and international: • During phase 1 the „Content Creation Community“. • During phase 2 a “Regional Community of FOSS business trainers” will be installed, consisting of the multipliers trained in the regional training-of-trainers. A continued knowledge exchange beyond the training phase is a main goal to be achieved. • During Phase 3 “National FOSS Business Communities of Practice” will be fostered through the national trainings. Their networking will also be encouraged through the trainings (joint assignments, team work, twinning) and the web portal.

3.2 Student Placement Service

Name of the Tool:	**Student Placement Service (SPS)**
Source:	GIZ
Usage:	The student placement service (SPS) is designed as a special cluster HR service in order to provide IT companies with suitable students and graduates. At the same time students and graduates get the opportunity to gain practical experiences and find attractive job opportunities in the IT industry. The SPS intends to deepen cooperation between universities and IT firms. By focusing on students studying abroad this service also contributes to reversing the brain drain. This tool consists of the service profile which has been developed for the Bulgarian software cluster BASSCOM. It can be used as a template for designing and implementing a Student Placement Service for other IT clusters. However, it should be adjusted to the particular situation and the requirements on the ground.
Description:	This tool contains a detailed profile of the Student Placement Service including service features, mode of delivery and financing. To enable easy implementation of the service a detailed process description is provided as well as a sample form for job offers.

1. Service Profile

Student Placement Service (SPS)			
Date:	-	**Service name:**	Student Placement Service (SPS)
<Service Logo>		**Status:**	Service Profile 1.0
		Website:	www.basscom.org
		Service Manager:	n.n.
		Phone:	-
		E-mail:	-
		Skype/ICQ:	-

Service description:

The idea for the Student Placement Service was developed by a joint project group of BASSCOM and GIZ. In the framework of the GIZ-project, a survey was conducted on Bulgarian students in Germany. The survey showed that Bulgarian students in Germany provide a highly attractive resource-pool for BASSCOM companies. In the winter-semester 2005/2006, there were 12,794 Bulgarian students studying in Germany with 1,027 studying computer science and 1,479 studying business administration. Based on these figures BASSCOM and GIZ decided to design a special cluster service in order to open up this HR potential to Bulgarian software companies.

The Student Placement Service (SPS) has been designed as a cluster service for BASSCOM member companies. The main objectives of the service are:

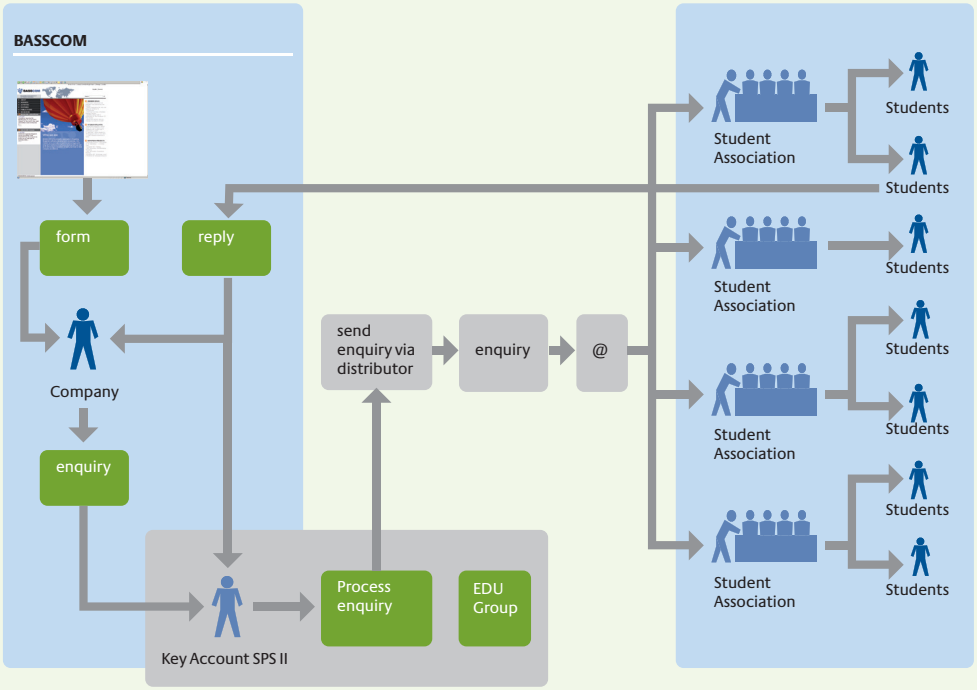
- Provide cluster member companies with additional HR resources in order to reduce the manpower shortage in the Bulgarian software industry ("bridging the gap")
- To attract Bulgarian students studying in Germany to work for BASSCOM companies
- To deepen cooperation between the Bulgarian software industry and universities
- To reverse the "brain drain"

In contrast to other HR services offered by different providers (e.g. Job Tiger, Jobs.bg, Career.bg, ITjobs.bg) on the Bulgarian market, the SPS has been customised to the specific needs of BASSCOM companies by taking into account their requirements in terms of technical capabilities (e.g. programming languages, platforms, etc.) as well as their demand for students/graduates with international experience and foreign language knowledge (German). Furthermore the service concept is applying a proactive approach by directly addressing potential candidates through information & networking events, e-mails and dissemination of marketing material. The idea of the service is to identify suitable candidates at universities at an early stage, promote them by trainings, information sessions and internships, and convince them to work for BASSCOM companies.

Core features :	The core feature of the SPS is the active search and identification of suitable students and graduates, based on the requirements specified by the client (BASSCOM member) in the SPS job specification. The client will receive CVs of potential candidates, including their contact details.
Additional features:	**Additional features include:** • Information & networking events at selected universities in Germany, where companies can present themselves • Database with student associations & key contacts (only accessible for BASSCOM staff and the service manager) • Special information section on the BASSCOM website for Bulgarian students, including current job offers (job exchange)
Customer's benefit:	By using the SPS, BASSCOM members are able to make use of a highly specialised HR-service, giving them access to a pool of highly-qualified and internationally experienced candidates for their companies. The service is particularly attractive for export-oriented companies targeting international markets.

Target group:	BASSCOM member companies.
Mode of delivery:	

The core feature of the service will be provided by the service manager according to a predefined service-process (see process description). As indicated in the chart below, the client will download the form for the job description from the BASSCOM website, fill in the form and sent it to the service manager. The service manager will send the job description via e-mail distributor to a cooperation network including the Bulgarian student associations as well as selected key contacts. These partners will disseminate the job description to their members via e-mail and postings. Potential candidates interested in the job description will send their CVs and contact details to the service manager who will shortlist potential candidates for his client. The client can then get directly in touch with the applicants and select the most suitable candidate.



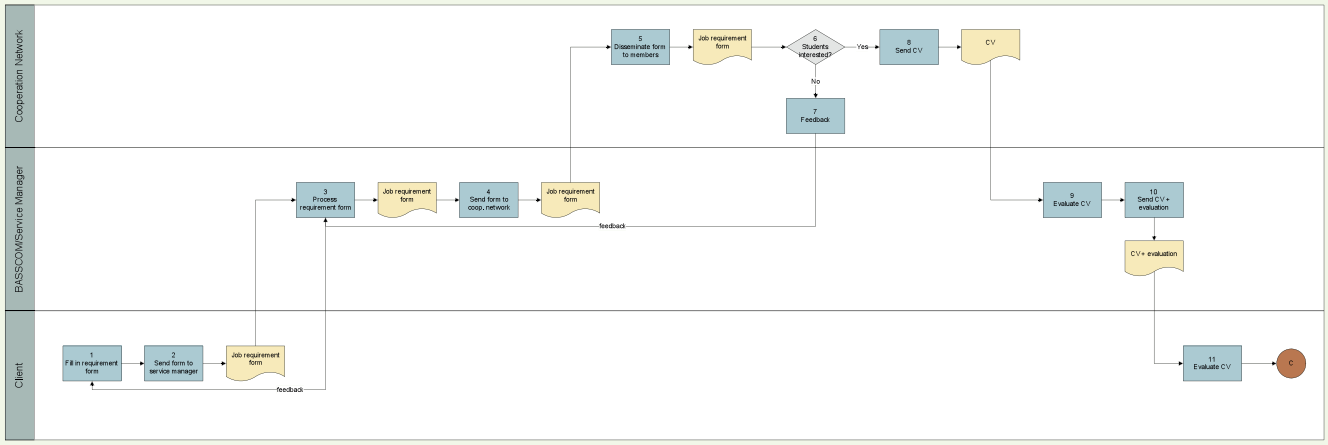
Price & financing	The pricing of the SPS should ensure full sustainability of the service. Therefore the price per client enquiry should be € 30 (core feature) plus a success fee of € 100/candidate. Prices for additional features should be covered by the membership fees as well as by company contributions for special events (e.g. information events at universities)
Technology platform:	**Technology platforms required for the SPS include:** • E-mail distributor for the cooperation network • Special information section (job exchange) within the BASSCOM website, allowing to send enquiries • Downloadable form for job descriptions

Service support:	Service support will be provided by the responsible service manager of the cluster
Distribution channels:	**The SPS will be marketed through the following channels:** • BASSCOM Website: service section • Newsletter of the Education-Group (EDU-Group) of BASSCOM • Service presentation at BASSCOM meetings and workshops
Additional information:	In its initial stage (phase 1) the SPS will be limited to universities in Germany with a considerable number of Bulgarian IT-students (> 20 IT-students). Later on the service will be extended to universities in other relevant countries as well as to Bulgarian universities.

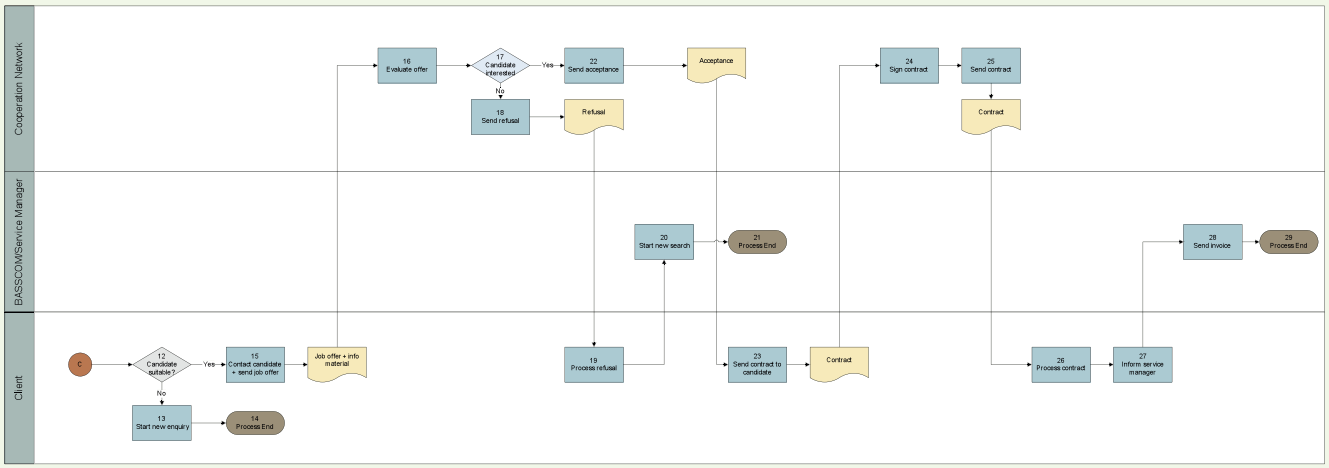
2. Process Description

In the following section, the service delivery process is described, including a flow chart and a description table. According to the principle of continuous improvement process, the service delivery process needs to be continuously reviewed, improved and optimised in order to ensure that the service is being managed efficiently and in accordance with the client's needs.

Service Process Description 1



Service Process Description 2



Nr.	Activity	Responsibility	Document
1	The client has to download the job requirement form from the BASSCOM website and fill it in	Client	Job requirement form
2	The client sends the job requirement form to the service manager at BASSCOM via e-mail or through an online form on the BASSCOM website	Client	Job requirement form
3	The form is being checked and processed by the service manager	Service manager	Job requirement form
4	The service manager sends the final version of the form to the cooperation network in Germany via the e-mail distributor	Service manager	Job requirement form
5	The cooperation network partners (Bulgarian students associations) send the form to their members via e-mail and post it on their websites as well as on their notice boards	Cooperation partners	Job requirement form
6	Upon receiving the form students decide whether they are interested in the job offer or not	Students/potential candidates	-
7	If they are not interested the students should send a negative feedback to the service manager and he will inform the client	Students/potential candidates	-
8	If they are interested they should send their CV as well as supporting documents (if required) to the service manager	Students/potential candidates	CV
9	The service manager evaluates the CV according to the job requirement form and the information given by the client	Service manager	CV, Job requirement form
10	The service manager sends the CV and the result of his evaluation to the client via e-mail	Service manager	CV and evaluation
11	The client conducts his evaluation based on the CV and the input from the service manager	Client	CV and evaluation
12	Based on the result of his evaluation the client has to decide whether he is interested in the student/candidate	Client	-
13	If he is not interested/finds the candidate not suitable a new enquiry has to be started	Client	-

Nr.	Activity	Responsibility	Document
14	In this case the process ends and has to be repeated	Client, service manager	-
15	If the client is interested he should contact the candidate directly and send a job offer	Client	Job offer, information material
16	The student/candidate evaluates the offer	Student	Job offer, information material
17	The student has to decide whether he is interested in the job offer or not	Student	-
18	If the candidate is not interested he sends a refusal to the client	Student	Refusal
19	The client processes the refusal and informs the service manager	Client	-
20	If required by the client the service manager starts a new search	Service manager	-
21	The process ends and a new search has to be conducted (if required by the client)	Service manager	-
22	If the student is interested in the job offer, he sends an acceptance to the client	Student	Acceptance
23	Upon receiving the acceptance, the client sends a contract to the student	Client	Contract
24	After evaluating the contract the candidate signs the contract	Student	Contract
25	The candidate sends the signed contract to the client	Student	Contract
26	The client processes the contract according to his internal HR rules	Client	Contract
27	The client informs the service manager on the positive result of the search and the employment	Client	-
28	The service manager sends an invoice to the client	Service manager	Invoice
29	Process end	-	-

3. Sample Form for Job Offers

Job Offer			
This Job Offer is part of the Student Placement Service of the Bulgarian Software Cluster BASSCOM and its initiative "IT Career in Bulgaria".			
Date:		**Company Name:**	
<Company Logo>		**Contact Person:**	
		Address:	
		Phone:	
		E-mail:	
		Skype/ICQ:	
		Website:	
Company Profile:			
<please describe your company here>			
Position / Job Title :			
Job Description:			
Location:			

Requirements:	
Perspectives:	
Additional Information:	

3.3 IT Cluster Academy

Name of the Tool:	IT Cluster Academy
Source:	GIZ
Usage:	This tool can be used as a blueprint for the establishment of an IT Cluster Academy. The main task of a Cluster Academy is to identify concrete training needs of IT companies and to organise and coordinate corresponding training activities. Thus, the IT Cluster Academy is supposed to become a One-Stop-Shop for IT companies in terms of training and qualification. Based on the principles of subsidiarity and sustainability the Cluster Academy is designed to deliver specialised trainings in close cooperation with external training providers. The IT Cluster Academy should be embedded into the organisational structure of the cluster. It is advisable to design the Cluster Academy and the corresponding training activities as a cluster service in order to increase its effectiveness and sustainability.
Description:	This tool consists of a service profile of the Cluster Academy, a description of three core processes, proposed training program and a template for a training profile.

1. Service Profile

IT Cluster Academy			
Date:	-	Service name:	IT Cluster Academy
<Service Logo>		Status:	Service Profile 1.0
		Website:	-
		Service Manager:	n.n.
		Phone:	-
		E-mail:	-
		Skype/ICQ:	-

Service description:

Problem Analysis & Service Background:

The IT industry is a knowledge and skill-intensive industry thus making skills-development and training a key topic for every IT company. Furthermore, the international competitiveness of a local IT industry depends exclusively on the capabilities and the expertise of its work-force.

Despite the strategic importance of skills-development and training, IT companies in developing and emerging countries face considerable problems and obstacles concerning the qualification of their staff.

This is mainly due to the following problems:

- General deficiencies in the IT education and training system, particularly in terms of aligning technical education with the needs and requirements of the industry
- IT firms often lack the necessary managerial as well as technical skills needed to compete in international markets
- Lack of awareness: Often, IT companies are not even aware of their deficiencies concerning skills and qualification as they do not have access to current information on markets and technologies. This in turn often leads to mismatches with market requirements and outdated skills-profiles
- Most IT companies in developing and emerging countries are SMEs. Therefore, they often lack the necessary scale and resources to invest into training and capacity building of their employees
- Since innovation cycles in the IT industry are shortening, the pressure on IT enterprises is increasing to invest into training and to constantly upgrade their capabilities
- Specialised training services for further qualification of local IT experts are often not available or do not meet the specific needs of the companies.

Objectives of the IT Cluster Academy:

The IT Cluster Academy has been designed to address specifically the above mentioned problems and obstacles concerning skills-development and training.

The main objectives of the Cluster Academy are as follows:

- Identifying the specific trainings needs of IT companies (particularly SMEs)
- Developing a specialised training program which is customised to the specific needs and requirements of local IT companies
- Ensuring the sustainability and affordability of the training program
- Providing specialised technical trainings for IT companies
- Providing specialised management trainings for IT companies
- Serving as a One-Stop-Shop for learning and qualification
- Promoting skills development, organisational learning and company excellence in the IT industry

Core features :	**The core features of the Cluster Academy include :** • Training needs assessment of IT companies • Provision of specialised technical trainings for IT companies • Provision of specialised management trainings for IT companies • Access to a knowledge management system (groupware application) including training material, presentations and additional information

Additional features:	**Additional features include:** • Organisation and implementation of train-the-trainers trainings (ToT) • Organisation and coordination of joint certification projects for IT companies (e.g. according to CMMI or ISO) • Promoting cooperation with universities in training and qualification • Acquisition of public funded projects as well as PPP-projects in order to support training and qualification
Customer benefit:	**The IT Cluster Academy provides the following customer benefits:** • Provision of specialised technical as well as management trainings which are designed to meet the specific needs and requirements of IT companies. • By using the IT Cluster Academy, companies get access to latest technologies as well as international know-how and best practices (e.g. through international trainers) • By bundling the demand of the cluster member companies within the Academy, trainings can be provided at much lower costs. • Participating in the trainings of the Academy promotes collaboration among companies as well as joint learning. • By providing the necessary organisational structures, manpower and processes, a cluster academy can make a valuable contribution for ensuring the sustainability of training measures. • The Cluster Academy applies a clearly defined process model and quality management system ensuring professional, high-quality training services • Upon successful completion of training activities, participants get a certificate which can be used for marketing and PR purposes.
Target group:	**There are three target groups:** 1. IT cluster member companies (primary target group) 2. External IT companies (secondary target group) 3. University staff and students (tertiary target group) For training-of-trainers (ToT) activities, the main target group is providers of IT education and training.

Mode of delivery:

In order to ensure its effectiveness and sustainability, the Cluster Academy should be embedded in the organisational structure of the IT cluster, where the cluster manager or a designated service manager is responsible for the professional management of the IT Cluster Academy and its training services. Thus, the Cluster Academy is a cluster service, specifically designed to meet the concrete trainings needs of the cluster member companies as well as other external clients.

The delivery model of the IT Cluster Academy is based on three core processes:

1. Training Needs Assessment
2. Development of Training Program
3. Training Delivery

Accordingly, the first step is the assessment of the concrete training needs of the companies, which can be conducted in the form of a survey or through a focus group. In the initial stage of the Cluster Academy it might be useful to hire a suitable consultant to conduct the training needs assessment. Based on the results of the needs assessment, the training program is being developed in close cooperation with industry stakeholders (donor organisations, IT training providers, universities, consultants). Due to the short innovation cycles in the IT industry, it is recommendable to develop the training program on an annual basis.

The concept of the IT Cluster Academy is based on the principles of subsidiarity and sustainability in order to avoid duplication of training activities or crowding out effects. Therefore the Academy serves as a One-Stop-Shop organising the training events and conducting quality assurance, while the actual training sessions are mostly being implemented by independent, external training providers (national and international). All external training providers have to undergo a quality check and trainings need to be implemented according to the procedures and standards defined by the Academy. Hence the Cluster Academy becomes a platform for the delivery of specialised, high-quality training services for local IT companies. It is advisable for the IT Cluster Academy to forge strategic alliances with relevant providers of IT education and training.

Wherever required (e.g. very specific technical topics or export-relevant topics), the Cluster Academy makes use of international trainers. However, in this case the Academy promotes local capacity building through training-of-trainers (ToT) modules in close cooperation with donor organisations.

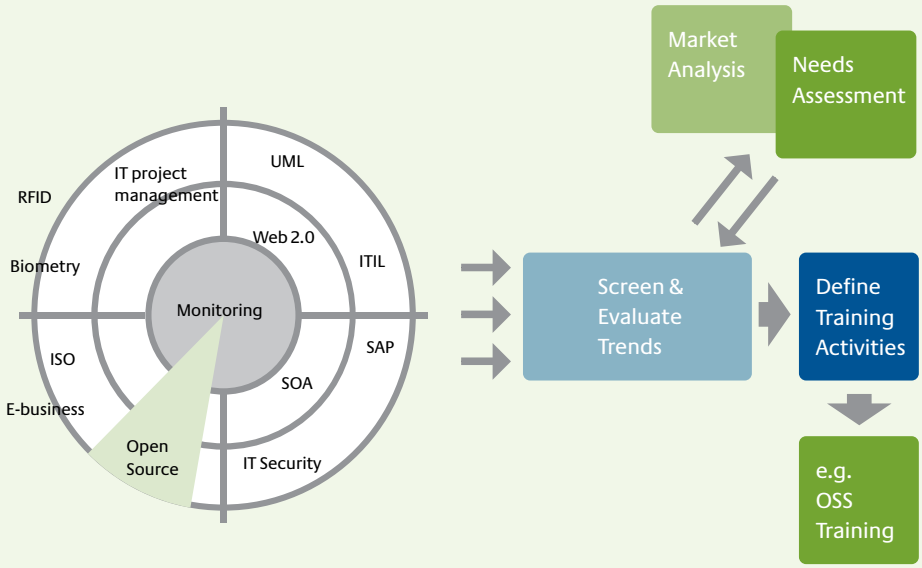
Typically, trainings are being delivered in the form of classroom trainings including presentations, practical exercises, case studies and group discussions. Additionally, trainings can also be delivered online in the form of a Webinar / e-Seminar or as blended learning (mixture between classroom training and e-learning).

Upon the successful completion, the training participants receive a certificate issued by the Cluster Academy and the training provider. In addition to that participants need to evaluate the training in order to provide feedback and to ensure continuous improvement of training services.

In order to identify relevant topics for technical trainings well in advance, it is recommendable to analyse and monitor technological trends on a regular basis.

This can be done in cooperation with universities or research institutes in the framework of a "technology monitoring service" for the IT cluster as illustrated by the following chart:

Identification of Training Topics:



Strategic partnerships:

To assure the provision of high-quality training services, the Cluster Academy should establish strategic partnerships with following organisations:

- Donor organisations
- Relevant government agencies
- IT training providers
- Universities
- Research institutes

These strategic partners are supposed to provide information on relevant technology trends, to support the Cluster Academy in developing training programs and to identify suitable trainers.

In addition to that special arrangements should be made with hotels, schools or universities concerning the provision of training facilities.

Price & financing	To ensure the financial sustainability of the Cluster Academy, a participation fee should be introduced for the trainings. The participation fee for a training / person can be calculated by using the following formula: $\text{Fee} = \frac{\sum \text{total training costs}}{\text{Number of participants}} + 10\%\ \text{profit margin}$ The participation fee is supposed to cover the costs of the training and generate an additional profit margin of 10% in order to cover the overhead costs of the IT cluster and the Academy. Thereby the Academy also contributes to the income generation for the IT cluster. **It is recommendable to differentiate the pricing model for the training according to the target groups:** **1. IT cluster member companies** (primary target group) Cost-covering + 10% **2. External IT companies** (secondary target group) Cost-covering + 20% **3. University staff and students** (Tertiary target group) Free of charge The price differentiation is supposed to increase the attractiveness of joining the cluster. Providing free-of-charge trainings to university staff and students reflects the IT cluster's effort to promote cooperation with the academia and to contribute to skills development. Of course, the final pricing model needs to be defined in view of the financial situation of the cluster, total training costs, local market prices and the price elasticity of the companies. Special arrangements should be made with external training providers in order to lower the prices for trainings (price reduction through demand bundling and framework contracts). At the early stage of the Cluster Academy it might be useful to subsidise trainings, particularly for small-scale companies, in order to increase the attractiveness of trainings and to position the Cluster Academy. However, over the course of time, training fees should be gradually increased to market price levels to ensure sustainability. In order to subsidise expensive and complex training activities, it might be useful to seek support from donor organisations or national training and qualification programs. A useful tool to finance training and capacity building in more complex technical topics is Public Private Partnership (PPP: http://www.gtz.de/en/leistungsangebote/2362.htm).

Technology platform:	**Technology platforms required for the Cluster Academy include:** • Email distributor for disseminating invitations for upcoming trainings • E-learning solution for delivering webinars • Groupware application for providing training calendar (events) and disseminating training material, presentations and additional information. It is advisable to introduce a groupware application like eGroupware, phpGroupWare, FOSWIKI or SharePoint. Such an application can be used to organise and coordinate joint training activities and support knowledge management by providing the technical platform for disseminating and sharing training material, presentations and other useful information.
Service support:	Service support will be provided by the responsible service manager of the IT cluster.
Distribution channels:	**The Cluster Training Academy will be marketed through the following channels:** • IT cluster website: service section • Newsletter of the IT cluster • Service presentation at IT cluster meetings and workshops
Quality management:	**The quality management system of the Cluster Academy is based on the following elements:** • Clearly defined process model • Quality standards and quality check for training providers • Evaluation of trainings to ensure continuous improvement
Key performance indicators:	In order to allow monitoring and evaluating the effectiveness of the IT Cluster Academy, it is advisable to introduce key performance indicators (KPIs). **Depending on the specific goals of the IT cluster and its member companies, these KPIs could include for instance:** • Total number of trainings performed / year in a particular field • % of employees of member companies who have successfully completed a training • Evaluation of trainings by training participants (e.g. at least 80% of training participants evaluated the trainings with “good”)
Additional information:	It is worth mentioning that for the development of suitable training programs for local IT companies, one also needs to take into account the specific technical as well as managerial requirements of potential export markets (“strategic fit”). For that purpose market intelligence generated by other cluster services, such as the “Export Information Service” and the “B2B Export Promotion Service” can be used.

2. Process Description

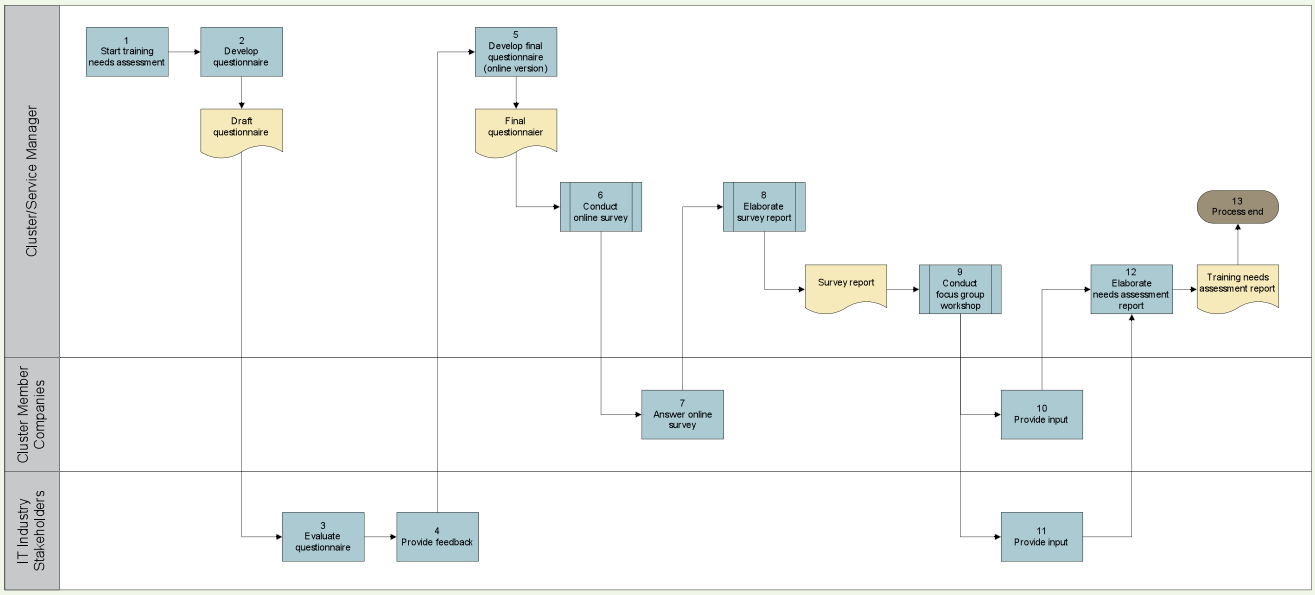
In the following section the three core processes of the Cluster Academy will be described, including flow charts and a description tables. According to the principle of continuous improvement process, these processes need to be continuously reviewed, improved and optimised in order to ensure that the Cluster Academy is being managed efficiently and in accordance with the client's needs.

The three core services of the Cluster Academy are:

1. Training Needs Assessment
2. Development of Training Program
3. Training Delivery

2.1 Process Description: Training Needs Assessment

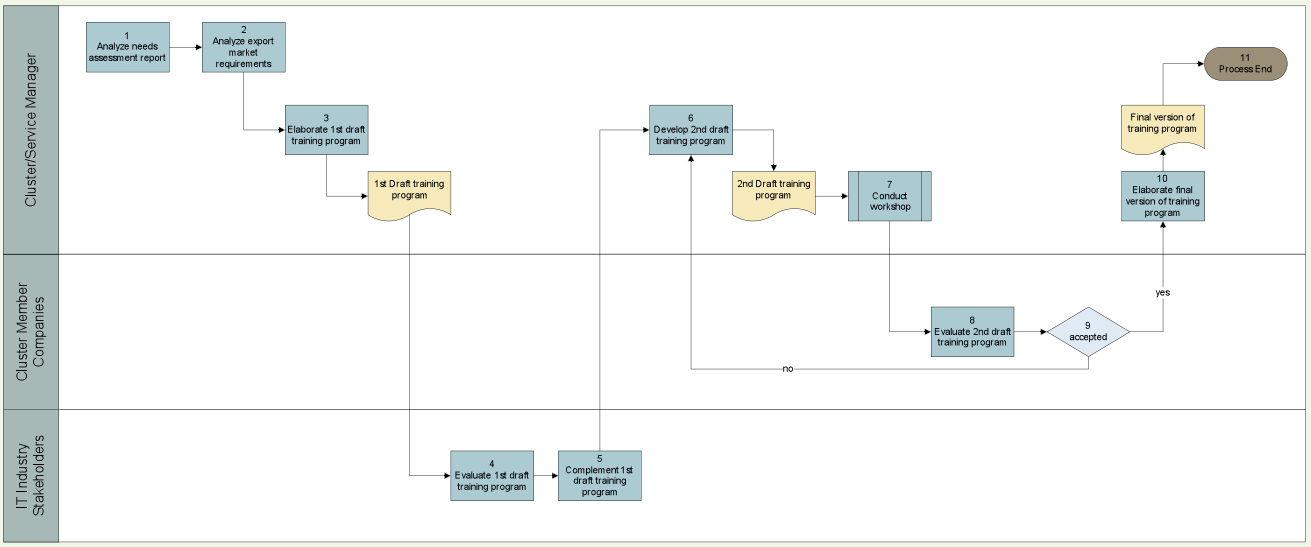
Process Description: Training Needs Assessment



Process Description: Training Needs Assessment			
Nr.	Activity	Responsibility	Document
1	The cluster/service manager starts the training needs assessment	Cluster/service manager	-
2	He develops a draft questionnaire for the trainings needs assessment	Cluster/service manager	Draft questionnaire
3	To ensure that all industry-relevant aspects are included in the questionnaire, IT industry stakeholders need to evaluate the questionnaire	IT industry stakeholders	Draft questionnaire
4	Then they provide feedback on the draft questionnaire	IT industry stakeholders	Draft questionnaire
5	Based on the feedback from the IT industry stakeholders, the cluster/service manager develops the final questionnaire in an online version (HTML)	Cluster/service manager	Final questionnaire (online version)
6	The cluster/service manager conducts the online survey by using an online survey tool	Cluster/service manager	Final questionnaire (online version)
7	The cluster member companies answer the online survey	Cluster member companies	Final questionnaire (online version)
8	Based on the answers of the cluster member companies, the cluster/service manager elaborates the survey report	Cluster/service manager	Survey report
9	The cluster/service manager conducts a focus group with selected cluster member companies as well as with industry stakeholders (donor organisations, IT training providers, universities, consultants) to discuss the results of the survey report for the needs assessment	Cluster/service manager	Survey report
10	The cluster member companies need to provide their input concerning training needs	Cluster member companies	Survey report
11	The IT industry stakeholders need to provide their input concerning training needs	IT industry stakeholders	Survey report
12	Based on the survey report and the inputs from the cluster member companies and the IT industry stakeholders, the cluster/service manager elaborates the training needs assessment report	Cluster/service manager	Training needs assessment report
13	Process end	-	-

2.2 Process Description: Development of Training Program

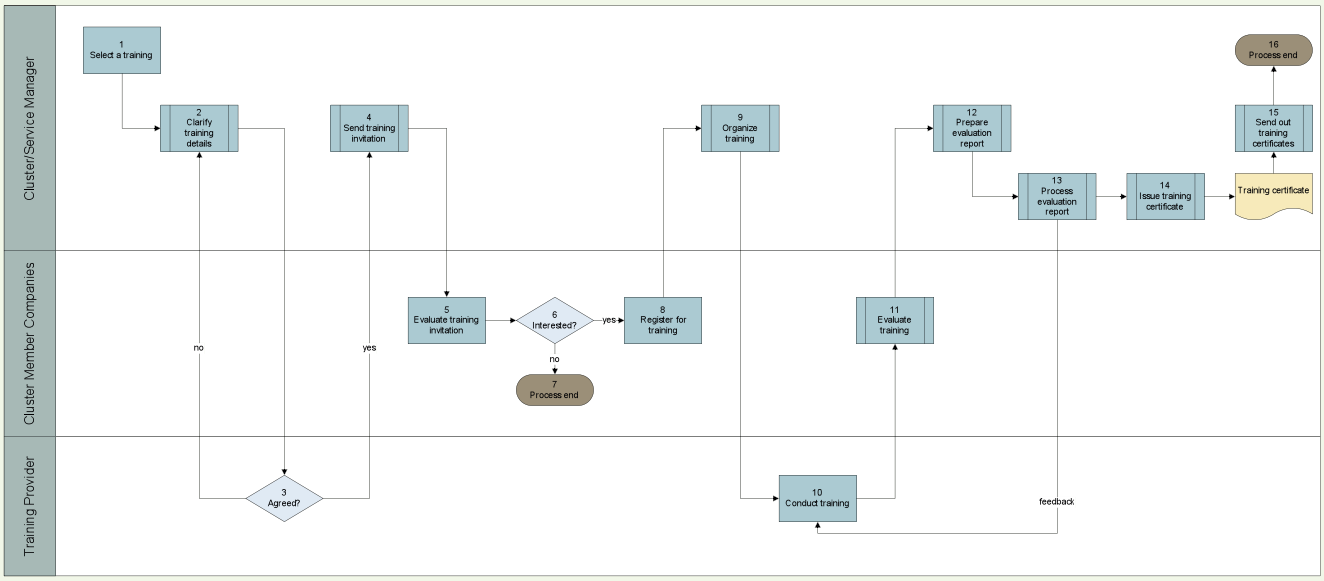
Process Description: Development of Training Program



Process Description: Development of Training Program			
Nr.	Activity	Responsibility	Document
1	The cluster/service manager analyses the training needs assessment report	Cluster/service manager	Training needs assessment report
2	The next step is to analyse the export market requirements to ensure the "strategic fit" of the training program. This information can be obtained from the Export Information Service (see corresponding cluster service / tool)	Cluster/service manager	-
3	Based on the analysis, the cluster/service manager elaborates a first draft of the training program of the Cluster Academy	Cluster/service manager	1st draft of training programme
4	Then the IT industry stakeholders need to evaluate the first draft of the training program	IT industry stakeholders	1st draft of training programme
5	If required, they need to complement the first draft of the training program (revision of first draft)	IT industry stakeholders	1st draft of training programme
6	Based on the feedback and suggestions from the IT industry stakeholders, the cluster/service manager develops a second draft of the training program	Cluster/service manager	2nd draft of training programme
7	Then a workshop needs to be conducted with the cluster member companies to evaluate the second draft of the training program	Cluster/service manager	2nd draft of training programme
8	The cluster member companies need to evaluate the second draft of the training program	Cluster member companies	2nd draft of training programme
9	If the cluster member companies do not accept the training program it needs to be revised by the cluster/service manager	Cluster member companies	2nd draft of training programme
10	If they accept the draft, the cluster/service manager elaborates the final version of the training program	Cluster/service manager	Final version of the training program
11	Process end	-	-

2.3 Process Description: Training Delivery

Process Description: Training Delivery



Process Description: Training Delivery			
Nr.	Activity	Responsibility	Document
1	The cluster/service manager selects a training from the training program	Cluster/service manager	Training program
2	The cluster/service manager needs to clarify the details of the training (timing, location, price, number of participants) with the corresponding training provider	Cluster/service manager	-
3	If the training provider does not agree with the suggestions of the cluster/service manager, the training details need to be renegotiated	Training provider	-
4	If the training provider agrees with the suggested training details, the cluster/service manager sends the invitations for the training event to the cluster member companies (as well as potential external participants)	Cluster/service manager	Training invitation
5	The cluster member companies evaluate the training invitation	Cluster member companies	Training invitation
6	The cluster member companies need to decide whether they are interested in the training or not	Cluster member companies	Training invitation
7	If a company is not interested in the training the process ends (for the respective company)	Cluster member companies	Training invitation
8	If a company is interested in the training it needs to register for the training	Cluster member companies	Training invitation
9	The cluster/service manager organised the training according to a predefined process	Cluster/service manager	-
10	The training provider conducts the training	Training provider	-
11	Upon the completion of the training, the training participants evaluate the training	Cluster member companies	Evaluation form
12	Based on the results of the evaluation, the cluster/service manager prepares the evaluation report	Cluster/service manager	Evaluation report
13	The cluster/service manager processes the evaluation report according to the quality management system and provides feedback to the training provider	Cluster/service manager	Evaluation report

Process Description: Training Delivery			
Nr.	Activity	Responsibility	Document
14	The cluster/service manager issues the training certificate for the participants of the training	Cluster/service manager	Training certificate
15	The cluster/service manager sends out the training certificates to the participants	Cluster/service manager	Training certificate
16	Process end	-	-

3. Proposed Training Program

The following IT Cluster Academy Training Program for technical and management trainings has proven to be particularly useful for IT companies in developing and emerging countries. However, the training program needs to be customised to the specific needs and requirements of the IT companies in a particular country.

Technical Trainings	
Training Topic	Training Content
Software Engineering	• Introduction to software design • (Agile) Software development processes • Introduction to UML • Object-oriented analysis and design • design principles • design patterns • Software Architecture and Component Technology for Enterprise Software • Middleware Services for Enterprise Software • Service-Oriented Architectures
Software Process Improvement & Quality Management	• Processes in Software Engineering • Software Development Process Models (RUP, V-Model, Waterfall, Evo, Agile) • Standards and Certifications: history and overview (ISO 9000, CMM, CMMI, SPICE) • CMMI • SPICE • Agile methods • SCRUM • SCRUM and KANBAN
Capability Maturity Model Integration (CMMI) and ITMark	• Professional training for CMMI and ITMark • Process improvement- initiation ITMark basic • SPI maturity implementation consultancy • SPI maturity certification

Free and Open Source Software (FOSS)	• FOSS Business Globally • Evolution of FOSS Communities and Software Markets • FOSS Licensing Models • Online Advocacy tools • FOSS Communities • Marketing FOSS • FOSS Strategies • FOSS and the e-government market • Open standards • Open source for healthcare • FOSS based open innovation
Server Administration (Linux)	• Introduction to main server operating systems • System Architecture • Linux Installation and Package Management • GNU and Unix Commands • Devices, Linux Filesystems, Filesystem Hierarchy Standard • Shells, Scripting and Data Management • User Interfaces and Desktops • Administrative Tasks • Essential System Services • Networking Fundamentals • Security
Introduction to Enterprise Resource Planning Software (ERP)	• General introduction into Enterprise Resource Planning (ERP) • Training modules on proprietary ERP solutions (e.g. SAP, Oracle) • Training modules on OSS ERP solutions (OpenERP, Openbravo)

Management Trainings	
Training Topic	Training Content
HR management in the IT industry	• Strategic management • Visions and Goals • Individual vs. Corporate Strategies • Tools for Strategic Management • Corporate Performance Management • Individual Behaviour • Psychology and Motivation • Compensation and Benefits • From Individual to Organisational Learning • Integrated HR Management • Personnel Development • Agreements of objectives • Project Management and Team Building • Business Intelligence
IT Project Management (PMI)	• Project Integration Management • Project Scope Management • Project Time Management • Project Cost Management • Project Quality Management • Project Human Resource Management • Project Communications Management • Project Risk Management • Project Procurement Management
Marketing & sales for export	• Strategic marketing • Operational marketing • Market analysis • Generic strategies • Market entry strategies • Marketing-mix • Marketing controlling • Sales techniques • Useful sources & links

Business development & trade fair management	• Trade fair action plan • Preparation • Marketing-mix • Business development process • Telemarketing • Online marketing • Using web 2.0 and social networks • Management at the booth • Follow-up
IT tender management & acquisition of EU projects	• Obtaining information on tenders • Working with relevant information systems (Europe Aid, TED, etc.) • Tender procedures, requirements and documents • Evaluation procedures • How to form a winning consortium • Compiling a PQ / LoI • Elaboration of a Technical Proposal • LogFrames • HR / staffing (presentation, CVs, documentary proof) • Elaboration of a Financial Proposal • Quality management

Depending on the specific needs of the IT companies on the ground other useful topics which should be covered by an IT Cluster Academy include:

- Requirements engineering and management
- Technical documentation
- Software testing
- LAMP technologies (Linux, Apache, MySQL, PHP)
- ITIL (Information Technology Infrastructure Library)
- UML (Unified Modeling Language)
- Business process analysis and optimisation (BPM)
- IT controlling
- Key account management
- IT product management

4. Template for Training Profile

Topic	Training Topic
Objectives:	
Target Group:	
Prerequisites:	
Content:	
Training Methods	
Language	
Duration:	
Date:	
Location:	
Trainer:	
Certification:	
Costs:	
Contact:	

3.4 Training: Software Engineering

Name of the Tool:	Training: Software Engineering
Source:	GIZ
Usage:	This training program has been designed to improve capabilities and skills of employees of IT companies, university staff as well as students. The training should be implemented in the framework of an IT Cluster Training Academy. The duration of the training is three days and the maximum number of participants is 20 people.
Description:	The training covers key topics of software engineering such as agile software development, object-oriented software analysis and design, as well as design principles and patterns. Training material as well as contact details of suitable trainers can be directly obtained from GIZ.

IT Cluster Training Academy

Topic:	Software Engineering – Design Training
Objectives:	At the end of the training, participants will have an understanding of: • Agile software development • Object-oriented software analysis and design • Design principles and design patterns.
Target Group:	Developers, IT consultants, university staff, students of computer science / business informatics
Prerequisites:	Basic knowledge of object-oriented programming
Content:	**Module 1: Developer Training (3 days)** **Day 1: OO Analyse and Design:** • Introduction to software design • (Agile) Software development processes • Introduction to UML • Object-oriented analysis and design **Day 2: Design Principles:** • Responsibility assignment • Class Design principles **Day 3: Design patterns:** • Introduction to software patterns • Factories, Observer • Strategy, State, Proxy • Visitor, Decorator, Command

Training Methods	Combination of presentations, practical examples, case studies and exercises
Language	English
Duration:	3 days
Date:	-
Location:	-
Trainer:	n.n.
Certification:	A certificate will be issued by the Cluster Training Academy upon the successful completion of the training (attendance during the complete training required)
Costs:	Participation fee / person: According to the policy of the Cluster Training Academy, there should be a price differentiation between cluster members and non-members.
Contact:	IT Cluster Training Academy

3.5 Training: Software Process Improvement & Quality Management

Name of the Tool:	Training: Software Process Improvement & Quality Management
Source:	GIZ
Usage:	The tool should be implemented in the framework of an IT Cluster Training Academy in order to provide a specialised training on software process improvement and quality management. This training has been specially designed to address the training needs of small and medium-sized IT firms and to improve their competitiveness in terms of efficiency and quality. The tool can be directly applied as a template for organising and implementing the training within the IT Cluster Training Academy
Description:	The tool summarises the content and structure of this specialised training including training objectives, target group, duration, certification and pricing. Names of suitable trainers can be obtained directly from GIZ

IT Cluster Training Academy

Topic:	Software Process Improvement & Quality Management (Part I)
Objectives:	Participants will be introduced to different software development processes and standards, from certifiable to agile, and to the differences in the software project management and quality management using both approaches. The focus of the training will be on agile methods such as SCRUM.
Target Group:	Managers, Quality Managers, Quality Responsible, Developers, IT-Consultants, University Staff, Students
Prerequisites:	Basic knowledge of Software Engineering

Content:	**Day 1: Introduction** • What does QUALITY mean? • Processes in Software Engineering • Software Development Process Models - Waterfall - V Model - RUP - Spiral Model - Agile **Day 2: Overview on Certifiable Methodologies** • Standards and Certifications: history and overview - ISO 9000 - CMM - CMMI - SPICE • CMMI - Representations, Appraisal • SPICE - Process dimension, Capability dimensions **Day 3: Overview on Agile Methods** • Agile Methods: why were they created? • Lean Development • Extreme Programming (XP) - Pair programming - TTD • CRISTAL CLEAR **Day 4: SCRUM** • SCRUM - Basics and Theory - Framework and Meetings - Scrum and Change - Total cost of Ownership **Day 5: SCRUM and KANBAN** • SCRUM - Teams - Planning - Predictability, Risk Management, Reporting • KANBAN - Roles, Artefact, Rituals
Training Methods	Presentations, practical exercises and quizzes
Language	English

Duration:	5 days
Date:	-
Location:	-
Trainer:	n.n.
Certification:	A certificate will be issued by the Cluster Training Academy upon the successful completion of the training (attendance during the complete training required)
Costs:	Participation fee / person: According to the policy of the Cluster Training Academy, there should be a price differentiation between cluster members and non-members.
Contact:	IT Cluster Training Academy

3.6 Training: Performance & HR Management in the IT Industry

Name of the Tool:	Training: Performance & HR Management in the IT Industry
Source:	GIZ
Usage:	This tool has been specifically designed to address the training needs of SMEs in the IT industry in terms of HR management. The training should be applied in the framework of an IT Cluster Academy in order to maximize outreach and effectiveness. The maximum number of participants is 20.
Description:	The training combines topics of strategic management with key topics of HR management such as motivation, compensation and benefits, organisational learning, employee retention management as well as management by objectives and team building. The training contains a lot of practical examples, case studies and exercises. Names of suitable trainers as well as training material can be obtained directly from GIZ

IT Cluster Training Academy

Topic:	Performance & HR Management in the IT Industry
Objectives:	At the end of the training, participants will have an understanding of: • Building strategies for their companies • Principles of modern personnel management & development • Tools for managing a company
Target Group:	CEOs, Managers, Project Managers, Senior Staff, University Professors
Prerequisites:	None

Content:	**Day 1: Strategic Management (June 29th)** • Visions and Goals • Individual vs. Corporate Strategies • Tools for Strategic Management • Corporate Performance Management **Day 2: Personnel Management (June 30th)** • Individual Behaviour • Psychology and Motivation • Compensation and Benefits • From Individual to Organisational Learning • Integrated HR Management • Employee retention management • Employer branding **Day 3: How to use management techniques in your company (July 1st)** • Personnel Development • Agreements of objectives • Project Management and Team Building • Business Intelligence Specialised sessions on employee retention management and employer branding in the IT industry upon request by training participants.
Training Methods	Combination of presentations, practical examples, case studies and exercises
Language	English
Date:	-
Duration:	3 days
Time:	From 9:30 to 17:00
Breaks:	Coffee breaks: from 11:00 to 11:30 and from 15:30 to 16:00 Lunch break: from 13:00 to 14:00
Location:	-
Trainer:	n.n.
Certification:	A certificate will be issued by the Cluster Training Academy upon the successful completion of the training (attendance during the complete training required)
Costs:	Participation fee / person: According to the policy of the Cluster Training Academy, there should be a price differentiation between cluster members and non-members.
Contact:	IT Cluster Training Academy

3.7 Training: Trade Fair Management & Business Development

Name of the Tool:	Training: Trade Fair Management & Business Development
Source:	GIZ
Usage:	This training is designed in order to prepare IT companies as well as IT cluster staff to organise and implement the participation at international trade fairs. Furthermore this training intends to enable SMEs from the IT sector to successfully conduct business development activities within relevant export markets. In case of public institutions such as export promotion agencies are also involved in trade fair activities, it might be useful to also include them into the training. If possible, the training should be applied in the framework of an IT Cluster Academy. The maximum number of participants is 25 and the training duration is one day.
Description:	The training covers the whole project cycle of a trade fair participation including preparation, implementation and follow-up. Training participants learn about the most important methods and tools for trade fair management and business development. Training materials as well as contact details of suitable trainers can be obtained directly from GIZ.

IT Cluster Training Academy

Topic:	IT tender management & acquisition of EU projects
Objectives:	At the end of the training, participants will be familiar with the most important methodologies and tools for preparing and implementing the participation at an international IT trade fair. In addition to that they will learn how to conduct business development in an international setting.
Target Group:	Managers, marketing and business development staff, IT cluster staff, staff of export promotion agencies
Prerequisites:	None

Content:	• Success factors of trade fair participation • Trade fair action plan • Planning & preparation • Marketing-mix • Building a sustainable branding • Positioning & product-mix • Marketing material for trade fairs • Pricing strategies • Business development process: mailing & telemarketing • Using Web 2.0 technologies and social networks • Management at the booth • Sales approach • Follow-up of trade fair contacts • IT trade fairs: Facts & figures
Training Methods:	Combination of presentations, practical examples, group discussions, exercises
Language:	English
Date:	-
Duration:	1 day
Location:	-
Trainer:	n.n.
Certification:	A certificate will be issued by the Cluster Training Academy upon the successful completion of the training (attendance during the complete training required)
Costs:	Participation fee / person: According to the policy of the Cluster Training Academy. There should be a price differentiation between cluster members and non-members.
Contact:	IT Cluster Training Academy

3.8 Training: IT Tender Management & Acquisition of EU Projects

Name of the Tool:	Training: IT Tender Management & Acquisition of EU Projects
Source:	GIZ
Usage:	This training program is developed to enable SMEs from the IT sector to successfully participate in IT tenders and to open up the market potential of public sector IT projects (national tenders as well as international donor projects like for instance EU projects). The training should be applied in the framework of an IT Cluster Academy. The maximum number of participants is 20 and the training duration is 3 days.
Description:	The training covers tender procedures, requirements and documents. IT companies learn how to form a winning consortium and to elaborate a technical as well as financial proposal. Training materials as well as contact details of suitable trainers can be obtained directly from GIZ.

IT Cluster Training Academy

Topic:	IT tender management & acquisition of EU projects
Objectives:	At the end of the training, participants will have a sound knowledge of tender procedures and requirements, enabling them to participate in EU tenders. This training focuses specifically on tenders for IT services and consulting (EC funded technical assistance service contracts) and not on research grants such as FP7.
Target Group:	Managers, marketing and business development staff
Prerequisites:	None

Content:	**Day 1:** • Obtaining information on tenders • Working with relevant information systems (Europe Aid, TED, etc.) • Tender procedures, requirements and documents • Evaluation procedures **Day 2:** • How to form a winning consortium • Compiling a PQ / LoI • Elaboration of a Technical Proposal • LogFrames **Day 3:** • HR / staffing (presentation, CVs, documentary proof) • Elaboration of a Financial Proposal • Quality management
Training Methods:	Combination of presentations, practical examples, group discussions, exercises
Language:	English
Date:	-
Duration:	3 days
Location:	-
Trainer:	n.n.
Certification:	A certificate will be issued by the Cluster Training Academy upon the successful completion of the training (attendance during the complete training required)
Costs:	Participation fee / person: According to the policy of the Cluster Training Academy. There should be a price differentiation between cluster members and non-members.
Contact:	IT Cluster Training Academy

3.9 Advanced Training on „Free and Open Source Software“ (FOSS) Business Models for IT-SMEs

Name of the Tool:	**Advanced Training on „Free and Open Source Software“ (FOSS) Business Models for IT-SMEs**
Source:	GIZ
Usage:	The tool should be implemented to support IT-SMEs to enlarge their business portfolio with the opportunities Free and Open Source Software (FOSS) is offering. This capacity building component has been specially designed to address the needs of small and medium-sized IT companies and to improve their competitiveness in terms of developing innovative new business models with FOSS Software. Though originally designed for IT companies in Africa, it can be easily adjusted to other developing countries environments.
Description:	The Advanced FOSS Business Model course consists of a two-week intensive face-to-face training course as well as a 4-6 week e-learning, peer-to-peer and networking phase. **It contains 6 modules, spread along three thematic parts:** **Part 1** - African FOSS Business Models: This part introduces basic FOSS concepts and provides practical case studies across the African continent. The modules in this part of the syllabus cover FOSS concepts and principles which are African context specific and are found to be prerequisites for building a sustainable ICT business based on FOSS. **Two modules are covered in this part of the syllabus:** **(i) Module 1: Introduction to Emerging FOSS Business Models** **(ii) Module 2: African Business Models: Case Studies** **Part 2** - Knowledge and Skills for FOSS Entrepreneurs: Businesses, big and small, FOSS-based or companies doing business around proprietary software learn to have a generalised knowledge of business and business principles which will help them gain a competitive advantage. Part 2 of the FOSS Business Models syllabus introduces innovative and cost effective tools and techniques, components of business management skills, community building and networking, and FOSS strategies which are vital for starting and sustaining a viable FOSS business. **Three modules are covered in this part of the syllabus:** **(i) Module 3: Communicating FOSS** **(ii) Module 4: Introduction to General Business Skills** **(iii) Module 5: FOSS Specific Business Knowledge and Skills.** **Part 3** - FOSS Training as a Business: As FOSS is becoming more and more mainstream. Many businesses see FOSS training as a viable business. This part of the syllabus is aimed at fostering understanding of some of the requirements for becoming a FOSS trainer, and identifying the opportunities that exist for FOSS training as a business as well as a global look at Linux training worldwide. **One module is covered in this part of the syllabus:** **(i) Module 6: FOSS Training**

Advanced Training on „Free and Open Source Software“ (FOSS) Business Models for IT-SMEs

Topic:	**„Free and Open Source Software“ (FOSS) Business Models for IT-SMEs**
Objectives:	The open course on „Advanced FOSS Business Models for IT SMEs“ supports the building of knowledge and capacities in small and medium ICT enterprises to make a business with Free and Open Source Software (FOSS). It aims to contribute to the growth of ICT industries through spreading FOSS business models for enterprises in developing countries. The material was designed for African businesses and has been collaboratively developed by FOSS experts from Africa and Europe to use as material for experts and executive staff from IT businesses in Africa, ICT-associations, their member organisations, ICT-training institutions as well as universities and their trainers. Though specially designed for African needs, it can be easily adjusted to other developing countries environments.
Target Group:	Experts and executive staff from IT businesses, ICT associations, their member organisations, ICT training institutions as well as universities and their trainers. Other interested persons with knowledge on or working with FOSS Business Models
Prerequisites:	• Experience in professional Business development • IT business skills
Content:	• **Module1: Introduction to Emerging FOSS Business Models** Module 1.1 General FOSS Concepts Module 1.2 FOSS Business Globally Module 1.3 Evolution of FOSS Communities and Software Markets Module 1.4 FOSS Licensing Models Module 1.5 Leading FOSS resources for keeping current on the FOSS eco-space Module 1.6 Multimedia • **Module 2: African FOSS Business Models Case Studies** Module 2.1 The Open World Ltd Experience Module 2.2 The case of GIS Global Image Ltd Module 2.3 Revitalizing software resources through FOSS Module 2.4 Training Linux Users in South Africa Module 2.5 The Linux Solutions Experience Module 2.6 The Amest Santim Systems PLC Experience Module 2.7 CENFOSS - Using FOSS for Business Module 2.8 Taxonomy of FOSS Business Models

	• **Module 3: Communicating FOSS** Module 3.1 FOSS PR and Advocacy Strategies Module 3.2 Advocating FOSS Module 3.3 Online Advocacy tools Module 3.4 Creating a FOSS market and brand in Africa • **Module 4: Introduction to General Business Skills** Module 4.1 Starting a Business Module 4.2 Defining Target Market Module 4.3 Leadership Module 4.4 Organisational Structuring Module 4.5 FOSS Proposals and Contracts • **Module 5: FOSS Business Knowledge and Skills** Module 5.1 How FOSS business is different from other types of business? Module 5.2 FOSS Communities Module 5.3 Competition, cooperation – coopetition Module 5.4 Marketing FOSS Module 5.5 FOSS Strategies Module 5.6 Innovation in FOSS Business • **Module 6: FOSS Training** Module 6.1 How to be a FOSS Trainer Module 6.2 FOSS Training as a Business Module 6.3 Organising Trainings Module 6.4 Open Educational Resources and Open Content Module 6.5 Communication Skills
Training methods:	Presentations, practical exercises and quizzes, e-learning, peer-to-peer learning
Training material (Availability, creation date, update policy)	Available for download: http://www.ict-innovation.fossfa.net/node/4252 created on 6/7/2010, regular update
Copyright and licensing of material / course	License: Creative Commons Attribution-Share Alike 3.0 Germany Copyright for this version: FOSSFA & GIZ
Language	English/French
Duration:	10 days face-to face plus 20 hours e-learning phase (20 days, 1 hour per day), plus follow-up networking activities

Date:	-
Location:	-
Trainer:	A pool of 90+ trainers from Africa is available
Certification:	Two certificates issued by GIZ can be achieved upon the successful completion of the training: Either attendance certificate or passing certificate upon passing the final test
Costs:	Participant fees
Contact:	**Balthas Seibold:** balthas.seibold@giz.de, **Petra Hagemann:** petra.hagemann@giz.de

3.10 Advanced e-Learning Courses: Open Source & More IT for African Business

Name of the Tool:	**Advanced e-Learning Courses: Open Source & More IT for African Business**
Source:	GIZ
Usage:	Open Source & More IT for African Business is a series of advanced e-learning courses on Information Technology (IT) focussing on the needs of business related IT consultancy in developing countries. The focus lies on "Free and Open Source Software" (FOSS) as a key technology to drive innovation, add local value and create sustainable and affordable ICT solutions. Open Source & More IT for African Business has been developed by it@ab, the Southern African Network on "Information Technology in African Business", but can be also implemented for IT specialists and executive staff from IT businesses from other regions.
Description:	The e-learning courses cover key topics of business related IT consultancy, like E-Business Applications, IT Security, Open Source IT, Web Publishing, E-Learning as well as Zope. The course can be studied as a whole, but it is also possible to study only one or more modules of special interest. **The courses are available at:** https://shop.gc21-eacademy.org/ICT-and-E-Learning-Skills/Open-Source-More-IT-for-African-Business-Self-Study.html

Topic:	**Open Source & More IT for African Business**
Objectives:	Open Source & More IT for African Business" is a series of advanced e-learning courses on Information Technology (IT) focussing on the needs of business related IT consultancy in Africa. The courses introduce relevant and adapted key concepts and applications in the following areas: 1. E-Business Applications & Architecture 2. IT Security 3. Open Source IT (including Ubuntu Linux Installation, Multimedia, Web Server, Groupware, Network Printing, 4. Web Publishing 5. E-Learning 6. Zope & the Collaborative Learning Environment CLE2
Target Group:	The courses are addressing a wide range of potential users. These include both IT specialists and executive staff from IT businesses in Africa and beyond, technology-savvy development practitioners as well as power users of IT.
Prerequisites:	Participants should be familiar with IT and mobile technologies in general and the internet and world wide web in particular and have some basic knowledge of business concepts.

Content:

Part 1: E-Business Applications & Architecture

- **Module 1.1: E-Business Applications Overview**

eBusiness has become a standard term for all business approaches and services that use the Internet or related mobile technologies as their medium. New product offerings demand changes to business organisations and application architectures to exploit the opportunities of the eBusiness environment. This learning module provides an introduction to, and overview of, eBusiness applications.

- **Module 1.2: E-Business Applications**

Information systems can be categorised as analytical information systems, transactional information systems and administrative information systems. Each of these categories address specific users, specific content and require specific software engineering methods to fulfil the needs of usability and performance. This learning module provides a general overview of information systems, and then describes the three categories in detail.

- **Module 1.3: E-Business Technology**

eBusiness applications present a number of technical challenges, including both general software engineering challenges as well as application-specific ones. This lesson introduces some of the most important concepts for the technological aspects of eBusiness applications, including client/server and multi-tier architecture, design patterns, middleware and the role of XML, in particular for web services.

- **Module 1.4: Electronic Markets**

Information technology enables the electronic form of business. The characteristics of transactions depend on the participants in that transaction. This learning module introduces eMarkets and characterises its participants and the principles of a standard transaction. It also introduces taxonomies for the different types of eMarket systems, emphasising the important role of intermediaries. Finally, it introduces a classification of organisational forms appropriate for specific electronic market requirements.

Part 2: IT Security

Today, Information Technology is used all over the world and in all parts of society. Therefore the necessity of security awareness has increased. IT Security is a complex issue which has to be taken into account when performing all kinds of network or server installations. This learning module gives an overview about potential threats and general measures against these. In addition to a general overview, it introduces IT security best practices and contains a hands-on lesson on running a secure mail server.

Part 3: Open Source Information Technology

Ubuntu Linux is an Open Source software distribution that consists of the Linux operating system and several thousand software packages from all areas of computing. This learning module shows how to obtain and install Ubuntu Linux and introduces important application packages for multimedia applications, web serving, groupware and network printing. Other Open Source software systems are discussed in the learning modules “IT Security”, “Zope” and “CLE2”.

Content:	**Part 4: Web Publishing** The Word Wide Web (WWW) only came into existence about two decades ago, yet it is one of the most important information and communications media today. Publishing on the web allows reaching a global audience, and thus provides many opportunities for networking and business. This learning module discusses the advantages of the WWW over other media and its business opportunities, discusses quality aspects in web publishing and presents fundamental technologies for web publishing. The last lesson takes a look at the tasks, processes and workflows in a web publishing project. **Part 5: E-Learning** • **Module 5.1: Marketing Basics** Marketing is fundamental for providers of E-Learning services and solutions. This lesson looks at the basics of marketing for E-Learning products. Topics covered include the analysis of external conditions and internal capabilities, factors that determine success in E-Learning projects and promotional activities to get the target group's attention. • **Module 5.2: Request for a Proposal** In the area of E-Learning, a Request for Proposal (RFP) is usually the first step in a business acquisition process in which you will have direct contact with a specific client. It is therefore, imperative to answer an RFP in a way that maximises your chances of success in acquiring business. This learning module considers the issues arising in answering RFP documents in depth. • **Module 5.3: Technical E-Learning Consulting** Successfully completing an E-Learning project requires a variety of technical skills. This lesson focuses on the technical aspects of E-Learning consulting. It provides a description of the process and management of content generation for E-Learning projects, presents a wide range of authoring tools, learning management systems and learning content management systems and treats the eXelearning authoring tool in depth. It also discusses the concept of telecoaching in depth and ends with a lesson describing the details of planning and calculating customised content development projects. • **Module 5.4: Quality Assurance in E-Learning Projects** This learning module looks at quality assurance in E-Learning projects. It introduces the question of quality and its assurance in a general context and then presents the different standards to take into account when producing E-Learning content or providing E-Learning services. It also deals with the different quality fields of E-Learning and the four types of learners. The final lesson describes the Sharable Content Object Reference Model (SCORM) in some detail.
	Part 6: Zope & Collaborative Learning Environment CLE2: • **Module 6.1: Zope** Zope is a popular and powerful Open Source web application server. This learning module gives a basic introduction to Zope with a focus on its use for content management and E-Learning. The first lesson provides some background on web portals, content management systems, community sites and E-Learning platforms. The next lesson discusses what a web application server is and what its typical features are. The remaining lessons give an introduction to the Zope web application server.

Content:	• **Module 6.2: CLE2** The collaborative learning environment CLE2 is an Open Source E-Learning platform based on the Zope web application server. It supports progress tracking for E-Learning modules and numerous collaboration and group communication features. This learning module introduces CLE2 from a user's and administrator's perspective, including a tutorial and a discussion of the technology stack and customisation facilities of CLE2. The lesson ends with a discussion of business opportunities offered by CLE2.
Training methods:	The courses are organised as online modules for self-study as well as tutored studies and include lessons, tests and selected references. They provide an overview and introduction to important concepts from intermediate to advanced level.
Training material (Availability, creation date, update policy)	**Available at the e-academy at:** https://shop.gc21-eacademy.org/ICT-and-E-Learning-Skills/Open-Source-More-IT-for-African-Business-Self-Study.html **Scorm files can be downloaded at:** http://cle2.it-inwent.org/DesignSpace/osam/ The courses were created in 2008.
Copyright and licensing of material / course	This eLearning course is licensed under a Creative Commons Attribution-Share Alike 3.0 Germany License. You are free to copy, distribute, transmit and adapt the work under the following conditions: 1) Attribution: You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work). 2) Share Alike. If you alter, transform, or build upon this work, you may distribute the resulting work only under the same, similar or a compatible license. To view a copy of this license, visit http://creativecommons.org/licenses/by-sa/3.0/de/deed.en or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA. Please note that this license requires attribution of all sources and authors in future versions.
Language	English /parts in Spanish available
Duration:	Approx. 0,5 days per module
Date:	-
Location:	-
Trainer:	See references at modules or contact GIZ
Certification:	Certificate of e-academy
Costs:	Untutored: free, tutored course: participation fee
Contact:	**Balthas Seibold:** balthas.seibold@giz.de **Petra Hagemann:** petra.hagemann@giz.de

3.11 FOSS Bridge: Joint Business through Free & Open Source Software

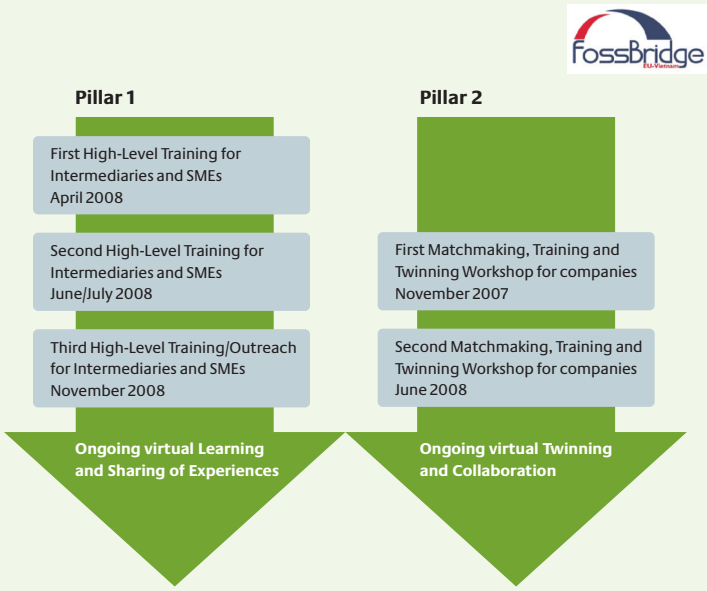
Name of the Tool:	**FOSS Bridge: Joint Business through Free & Open Source Software**
Source:	GIZ
Usage:	The main goal of the tool "FOSS Bridge: Joint Business through Free and Open Source Software" is to strengthen software industries in developing countries by supporting SMEs and intermediaries to build capacity on open source regulations and business models as well as to boost cooperation with Europe through innovative collaboration on FOSS and business development through a twinning phase. This tool is developed as "FOSS Bridge EU- Vietnam" by it@foss. It has been implemented by GIZ, the French Institut National de Recherche en Informatique et en Automatique (INRIA) and the Institute of Information Technology of Vietnam (IOIT). It can be adjusted to contexts of other development countries. For more information see http://www.foss-bridge.org
Description:	**The tool will be performed as:** a) A high-level training package, which leverages lessons learned from European and international open source organisations, academic research on open source ecosystems and EU funded projects on an open source communities. At the end of the trainings, attendees are expected to have acquired up-to-date key notions about open source projects and communities, underlying technical and regulatory aspects, common business models and best practices for developing an open source strategy, on a user or provider side. b) Twinning activities with European IT-companies to develop joint innovative business models

FOSS Bridge: Joint Business through Free & Open Source Software

Topic:	FOSS Bridge: Joint Business through Free & Open Source Software
Objectives:	FOSS-Bridge offers training and information on technological regulations to intermediary and SMEs in the field of FOSS. The focus lies on establishing innovative business models for potential use in developing countries, providing crucial knowledge on regulations and requirements to access the European marketplace. The transfer of know-how is one important basis of the FOSS philosophy and is the key idea behind FOSS-Bridge. **The objectives of the training are:** • Understand fundamentals of software protection and licensing • Become familiar with free/open source culture and debunk commonplace misconceptions • Get acquainted with main free/open source licenses • Understand the role of free/open source software in the business • Understand the links between licensing and business models • Be able to set up an open innovation strategy based on free/open source software • Understanding benefits and drawbacks of open-source project involvement • Knowledge of open-source community organisation principles • Developing skills for alternative thinking of IT system requirements • Understanding the nature and functions of tools for open-source communities • Awareness of what an open-source 'Forge' may provide • Knowledge of major open-source platforms policies and procedures • Understanding possible strategies for launching a project • Awareness of the multiple facets of open project leadership • Understanding concepts and rationales behind open software architectures • Understanding of how collaborative tools contribute to project management • The twinning component boosts cooperation with Europe through innovative collaboration on FOSS and business development
Target Group:	Intermediaries of the IT-sector in the field of software development as well as small and medium-sized enterprises in the field of information and communication technology
Prerequisites:	- Software development experience - IT business skills

Content:

Key Pillars of FOSS Bridge



Block 1: 5 Statements about FLOSS

- Our societies are entering the digital age
- Material and immaterial goods are fundamentally different
- The economy of software is somewhat different of that of tangible goods
- FLOSS makes economic sense for software
- Myths and truth about free / open source Software

Block 2: Intellectual property and licenses

- General regulatory framework of software protection
- International and national regulations
- « Intellectual property » patents, trademarks, copyright
- Reminder on proprietary licenses

Block 3: FLOSS history, background, culture

- FLOSS history, background, culture
- Who's who - opinion leaders

Block 4: Free and open-source licenses

- What's « free software »
- What's « open source software »
- What's « copyleft » and what it's not
- What's neither « free » nor « open source » software

Content:	**Block 5: Details of FLOSS Licenses** • Study FLOSS licenses in details • Consider issues about compatibility between licenses • Discover free documentation licenses **Block 6: FLOSS Communities** • Typical FLOSS communities • The hacker and FLOSS culture • Profile of the community members **Block 7: FLOSS Usage Models** • Getting aware of FLOSS usage • FLOSS / proprietary mix • FLOSS usage models • How to decide on a usage model and select FLOSS **Block 8: Business Models** • What a « business model » is • How companies build a commercial offers **Block 9: FLOSS and Business Models** • FLOSS business models • Link between licenses and business models • How to evolve towards a FLOSS business model **Block 10: FLOSS and Innovation** • How FLOSS may be used in an innovation strategy • Principles of « open innovation » • More business models, using FLOSS • Hints for building the case of a corporate open innovation strategy **Block 11: Barriers to open source adoption** • Motivations for adoption of FLOSS in the enterprise • Barriers to adoption of FLOSS • Ways to deal with them • How they bring business opportunities **Block 12: Introducing open-source best-practices criteria** • Criteria for selecting FLOSS projects • Overview of some assessment/evaluation methodologies

Content:	**Block 13: Interoperable Open-Source-Based Architecture** • What are open and close systems • Interoperability principles • Needs for Technical Standards • Certification Processes • Role of FLOSS in Interoperability **Block 14: Discovering the potential of F/OSS Forges** • Open-Source Forges **Block 15: Coherent and effective use of F/OSS Forges** • Open-Source Forges **Block 16: Why and how to build from the source code** • Why should one take note of software source code? • What is the overall process to retrieve FLOSS source code and produce software package? • What are the specifics of Open Source Build Systems such as Make, ANT, MAVEN, Eclipse and Continuum? **Block 17: Open-source version control with Subversion** • The reality of open-source code management for developers • How can one effectively manage third-party open source code? • What are the available open source tools? • How can subversion help in this task? **Block 18: Lab** • The FossToday news portal will enable users to: - Read Articles posted by FossToday members - Watch third-party site video content - Read FOSS news published by partner sites - Subscribe to a site newsletter - Register as a FossToday members - Send photos by MMS for addition to portal content
Training methods:	Presentations, practical exercises, peer-to-peer learning, twinning workshops
Training material:	The Training Material (more than 250 pages as CD, book and online material PDF and ODT files) in English and Vietnamese was created in 2008. For details, please see: http://www.foss-bridge.org/trainingmaterial.html
Copyright and licensing of material / course:	Creative Commons Attribution-Share Alike 3.0 Germany
Language:	The training material is available in English and Vietnamese.

Duration:	Pillar 1 WS1: 7 days Pillar 1 WS2: 5 days Pillar 1 WS3: 5 days Matchmaking activities
Date:	-
Location:	-
Trainer:	Lead trainers available via GIZ During several modules of the FOSS Bridge EU-Vietnam training-of-trainer program implemented from April to November 2008, a Vietnamese "FOSS Bridge Expert Community" was built. This group together with FOSS Bridge EU-Vietnam organised the „Drive for change" event, a public conference on FOSS in Hanoi in November 2008. Today they build a pool of active FOSS promoters and advocates who can spread key knowledge on how to create a business based on FOSS and/or build up actions aiming at raising FOSS awareness in Vietnam. Contact them for FOSS related trainings or FOSS events at: http://www.fossbridge.org/expertsgroup.html
Certification:	GIZ certificate
Costs:	-
Contact:	**Balthas Seibold:** balthas.seibold@giz.de, **Andrea Rakers:** andrea.rakers@giz.de

3.12 FOSS4SMEs – Free and Open Source Software guide for SMEs

Name of the Tool:	FOSS4SMEs - Free and Open Source Software guide for SMEs
Source:	GIZ
Usage:	Based on open source software, this tool aims to support SMEs - from the initial selection, adoption and creation of suitable Free and Open Source (FOSS) business models.
Description:	1. An introduction to FOSS provides companies and business intermediaries with information on FOSS, best practices, business models as well as an assessment score table, which allows an SME to select suitable FOSS applications. 2. A software catalogue lists FOSS solutions focusing on the needs of SMEs. The applications in the catalogue range from enterprise resource planning (ERP), customer relationship management (CRM), groupware, document workflow management, content management systems (CMS), VoIP, graphics, computer-aided design (CAD), geographic information systems (GIS), productivity applications, as well as those that are useful in different domains such as engineering, manufacturing, eLearning and healthcare.

Topic:	FOSS4SMEs - Free and Open Source Software guide for SMEs
Objectives:	Get to know a set of guidelines and suggestions for the adoption of open source software within SMEs. Founded on open source software, this tool aims to support SMEs - from the initial selection, adoption and creation of suitable FOSS business models.
Target Group:	1. The introduction to FOSS provides companies and business intermediaries with information on FOSS, best practices, business models as well as an assessment score table, which allows an SME to select suitable FOSS applications. 2. The software catalogue lists FOSS solutions focusing on the needs of SMEs. The applications in the catalogue range from enterprise resource planning (ERP), customer relationship management (CRM), groupware, document workflow management, content management systems (CMS), VoIP, graphics, computer-aided design (CAD), geographic information systems (GIS), productivity applications, as well as those that are useful in different domains such as engineering, manufacturing, eLearning and healthcare.
Prerequisites:	-

Content:	**Free/Libre Open Source Software: A guide for SMEs:** • SME Guide Introduction • What's Free/Libre Open Source Software ? • Ten myths about Free/Libre Open Source Software • Basic FLOSS adoption models • Finding and selecting software • Best practices for FLOSS adoption • FLOSS-based business models • Bibliography • Appendix 1: Estimating the number of active FLOSS projects • Appendix 2: QSOS assessment score tables • Appendix 3: USB-based SME toolkits **Software Catalogue (by category):** • Software Catalogue Introduction • Security • Data protection and recovery • Virtualisation and remote access • Desktop, device, network and server management • Identity, access management • Database and DB management • Software Development • ERP • CRM • Groupware • VoIP, conferencing and messaging • Document management • Vertical business applications • Content management systems • E-learning applications • Graphics Video and CAD • Desktop applications • Engineering and manufacturing • Health Care
Training methods:	Presentations, practical exercises and peer-to-peer learning
Training material:	**Available for download:** http://fosstoolkit.iosnasean.net created in 2008
Copyright and licensing of material / course:	GIZ/IOSN
Language	English
Duration:	1 week

Date:	-
Location:	-
Trainer:	http://fosstoolkit.iosnasean.net/index.php?title=Main_Page
Certification:	GIZ certificate
Costs:	-
Contact:	**Balthas Seibold:** balthas.seibold@giz.de **Ursula van Look:** ursula.van.look@giz.de

3.13 it@coops - IT-Training for Cooperatives

Name of the Tool:	**it@coops - IT-Training for Cooperatives : Business IT, Web Development, Administration and Networking, User Productivity and more**
Source:	GIZ
Usage:	This training programme is designed to improve IT capabilities and skills of cooperatives.
Description:	The it@coops Training Modules comprise 100 days of training in Thai, English and Bahasa on topics relevant to cooperative users such as Business IT, Web Development, Administration and Networking, User Productivity and more to improve IT capabilities and skills of cooperatives . The training material was created during the project "it@coops - Information Technology for Southeast Asian Cooperatives", a joint initiative of the Asian Women in Cooperative Development Forum (AWCF) and GIZ, Germany in cooperation with CULT (Thailand), FORMASI Indonesia (Indonesia) and NATCCO (Philippines) with financial support by the German Federal Ministry for Economic Cooperation and Development (BMZ). For more information see: http://www.it-coops.org

Topic:	**it@coops - IT-Training for Cooperatives: Business IT, Web Development, Administration and Networking, User Productivity and more**
Objectives:	The module supports cooperatives and their umbrella associations in the establishment of IT expertise in various fields. The project consists of three components. The first component aims at qualifying members of cooperatives in the field of information technology. The intention is to train a number of instructors from selected cooperatives, who will in turn train further cooperative members. In addition to teaching basics, instructors will receive a solid foundation on the teaching of IT skills and will specialise in a particular area in information technology (e.g. Web design, e-security, e-technology). An additional project component aims at promoting the construction of local IT centres. This will enable cooperative members and many small and very small businesses to gain access to important IT services and the Internet. An important component of the programme is the national and regional networking of all participating actors. The goal is to create networks that will systematise operational procedures, facilitate the exchange of information and knowledge and act together on the market, thus improving competitiveness.
Target Group:	IT managers of cooperatives
Prerequisites:	Basic IT skills

Content:	**1. IT Skills training** **Thai, English** • TS 009 Web Development • SS 003 Business IT (Business Development Centre): Presentation • INTR 001 Introduction to IT (Slide presentation of Introduction to IT@Coops Project Module): Computer for Life • TS 002 Introduction to Internet • SS 005 Train the Trainer • Training Management • Presentation Technique • TS 001 Introduction to Computer (Windows XP) • TS 013 PC Networking **Bahasa, English** **Softskill Module-TOT** • Module V Communication • Module VI TOT Training Development • Module VII TOT Curriculum • Module VII Monitoring and Evaluation • Module IX Identifying Facilitators and Practicing in facilitating • Module X Action Plans **Introduction to PC use** • TSB001-Introduction to Computer • TSB002-Operating System • TSB003-Microsoft Word • TSB004-Microsoft Excel • TSB005-Open Office Overview • TSB006-Microsoft Access #1 • TSB007-Microsoft Access #2 • TSB008-Internet Concept • TSB010-Text Editing • TSB011-Spreadsheet • TSB012-Email Application • TSB009-Microsoft PowerPoint • TSB013-Networking Concept • TSB014-Troubleshooting Hardware • TSS001-Design Concept & Colour Theory • TSS002-Photo Editing • TSS004-Page Layout • TSS003-Drawing Tools • TS005-Simple Animation and Video Editing • TSS006-Web Layout • TSS008-Basic Algorithms

- TSS009-HTML-DHTML concept
- TSS010-Introduction Apache Web server and PHP
- TSS011-Apache Web Server Administration and Implementation
- TSS012-PHP Programming basics and Web Database
- TSS013-Database Administration
- TSS014-Web Portal with PHPNuke
- Project Management

Basic IT

- Introduction To Computer
- Operating System
- Microsoft Word
- Open Office Overview
- Microsoft Access 1
- Microsoft Access 2
- Internet Concept

Advance IT

- Microsoft PowerPoint
- Spreadsheet
- Email Application
- Networking Concept
- Troubleshooting Hardware

Project Management and Graphic Design

- Design Concept and Colour Theory
- Photo Editing
- Drawing Tools
- Page Layout
- Simple Animation, Flash and Video Editing
- Web Layout

Web Programming

- Basic Algorithms
- HTML / DHTML Concept
- Introduction Apache Web Server and PHP
- Apache Web Server Administration and Implementation
- PHP Programming basics and Web Database
- Database Administration
- Web Portal with PHPNuke

English

User Productivity Track (Modules and Presentations)

- Introduction to ICT
- Operating System (Introduction to Windows Operating System)
- Word Processing (Introduction to MS Word)
- Spreadsheet Hands-On (Introduction to MS Excel)
- Creating Slide Show Presentation (Introduction to MS PowerPoint)
- Email Client (Introduction to MS Outlook)
- Open Source Office Application (Introduction to OpenOffice)
- Office Integration (Integrating MS Office)
- Gender Awareness (Basic Gender Sensitivity)
- Training-The-Trainers 1 & 2 (ToT Presentation & Communication Skills)
- PC Orientation

Creative Track (Handouts and Slides)

- Basic HTML
- Mastering HTML
- Dynamic Web
- Photoshop
- Flash Animation
- In Design

Administration and Networking Track

- Training of Trainers 3 (Handouts and Slides)
- Managing Information for Coops Presentation
- Basic Concepts in Maintaining IT Resources (Hardware)
- Basic Concepts in Maintaining IT Resources (Hardware) Presentation Basic Concepts in Maintaining IT Resources (Software)
- Basic Concepts in Maintaining IT Resources (Software) Presentation
- Sharing IT Resources and Info by Connecting Computers
- Sharing IT Resources and Info by Connecting Computers Presentation

Application Development Track

- MS Excel Review
- Creating Simple Cooperative Software Using MS Excel and Visual Basic
- Understanding Software Development/Acquisition Process
- Creating Coop Software Using Apache-MySQL-PHP
- Intro to Mobile & E-Commerce
- Planning for Information System Needs of Cooperatives

2. Promoting the construction of local IT centres

Training methods:	Face-to-face training plus e-learning/mentoring phases
Training material	it@coops website: http://www.it-coops.org/e417/index_eng.html created in 2006
Copyright and licensing of material / course	License: Creative Commons Attribution-Share Alike 3.0 Germany
Language	English, Bahasa, Thai
Duration:	100 days
Date:	-
Location:	-
Trainer:	Can be provided by GIZ, more than 80 trainers in Indonesia, the Philippines and Thailand, see: http://www.it-coops.org/e343/index_eng.html
Certification:	GIZ certificate
Costs:	Participation fee
Contact:	**Balthas Seibold:** balthas.seibold@giz.de **Ursula van Look:** ursula.van.look@giz.de

3.14 Training on Linux System Administration, LPI Certification Level 1

Name of the Tool:	**Training on Linux System Administration, LPI Certification Level 1**
Source:	GIZ
Usage:	This training has been designed for IT experts and institutions desired to become qualified trainers on the subject of Linux system administration. It is geared towards trainers who want to incorporate FOSS Certification training based on the Linux Professionals Institute (LPI) community certification program into their institution's curriculum and/or developing FOSS Certification training as a new revenue stream.
Description:	This open training guide provides a structured set of learning modules with learning objectives, key knowledge areas, introductions and concrete learning steps and handouts on Linux system administration as well as a module on how to be a FOSS trainer. The guide is therefore, particularly suitable for use in Training-of-Trainers settings and the development of advanced courses within ICT-associations, their member organisations, ICT-training institutions as well as universities. It can be used in tutored learning environments (e.g. 2 weeks courses preparing for the certification exam) as well as other settings such as peer-to-peer learning, self-study, blended learning and e-learning. In addition, any learner anywhere in the world will find this guide useful for study and preparation of the LPI certification. She or he will learn how to fulfil the first essential step of becoming a Linux System Administrator charged with installing, supporting, and maintaining Linux-based computer systems. The training guide builds on the Linux Professional Institute (LPI) community certification as a world-wide recognised distribution-neutral and vendor-neutral standard for evaluating the competency of Linux professionals with the possibility to hold low-cost paper-based examinations. It has three levels. The LPIC-1 (101 and 102 exams) level described in this guide cover the fundamental Linux system administration skills. Like the LPI curriculum itself, the course is „distribution neutral"; that is, it does not favour a specific Linux distribution. Learners can therefore, use this manual not only to pass the LPIC-1 exams but also be in a position to operate a range of different Linux distributions.

Training on Linux System Administration, LPI Certification Level 1

Topic:	Training on Linux System Administration, LPI Certification Level 1
Objectives:	**Objectives of the LPI 101 module:** • Install Linux, making appropriate choices for disk partitioning • Boot the system, change run levels, shut-down and reboot • Work effectively at the shell command prompt • Install and manage packages using both RedHat and Debian tools • Manage, find, copy, delete, archive and compress files and directories • Process text streams using pipes, filters and re-direction • Manage processes and modify process execution priorities • Search text files with regular expressions and edit files • Create partitions and file systems, and maintain their integrity • Control file access permissions **Objectives of the LPI 102 module:** • Customise the shell and write simple shell scripts • Query databases and manipulate data using SQL • Install and configure the X server and set up a display manager • Manage user accounts and groups • Schedule jobs at regular intervals using cron • Localise the system for a language other than English • Keep your system clock correct • Manage printers and printing • Understand IP networking and set up a basic network configuration • Maintain host security and enable secure login with ssh **Objectives of the "FOSS Trainer" module:** • Understand some of the requirements for becoming a FOSS trainer • Be able to identify and seize the opportunities that exist for FOSS training as a business • Gain the knowledge and skills required to organise and provide FOSS training • Appreciate the benefits of peer production of Open Educational Resources and Open Content
Target Group:	This guide is geared towards IT-trainers who want to incorporate Linux system administration training based on the Linux Professionals Institute (LPI) community certification program into their institution's curriculum and/or developing FOSS Certification training as a new revenue stream.

Prerequisites:	• Extensive experience (several years) using computers, including a strong knowledge of hardware components and their interaction with basic operating system (OS) components. • A general knowledge of computing and networking basics such as binary and hexadecimal maths, file-system structures, Ethernet and Internet networking operations and hardware, etc. • More than three cumulative months of practical experience using a GNU/Linux, BSD or Unix OS, working at the command-line (in a text terminal or console) either locally or remotely.
	LPIC101 **101 System Architecture** 101.1 Determine and configure hardware settings 101.2 Boot the system 101.3 Change run levels and shutdown or reboot the system **102 Linux installation and package management** 102.1 Design hard disk layout 102.2 Install a boot manager 102.3 Manage shared libraries 102.4 Use Debian package management 102.5 Use RPM and YUM package management **103 GNU and Unix Commands** 103.1 Work on the command line 103.2 Process text streams using filters 103.3 Perform basic file management 103.4 Use streams, pipes and redirects 103.5 Create, monitor and kill processes 103.6 Modify process execution priorities 103.7 Search text files using regular expressions 103.8 Perform basic file editing operations using vi **104 Devices, Linux Filesystems, Filesystem Hierarchy Standard** 104.1 Create partitions and filesystems 104.2 Maintain the integrity of filesystems 104.3 Control mounting and unmounting of file systems 104.4 Manage disk quotas 104.5 Manage file permissions and ownership 104.6 Create and change hard and symbolic links 104.7 Find system files and place files in the right location

Content:	**LPIC102** **105 Shells, scripting and data management** 105.1 Customise and use the shell environment 105.2 Customise or write simple scripts 105.3 SQL data management **106 User Interfaces and Desktops** 106.1 Install and configure X11 106.2 Set up a display manager 106.3 Accessibility **107 Administrative Tasks** 107.1 Manage user and group accounts and related system files 107.2 Automate system administration tasks by scheduling jobs 107.3 Localisation and internationalisation **108 Essential System Services** 108.1 Maintain system time 108.3 Mail Transfer Agent (MTA) basics 108.4 Manage printers and printing **109 Networking Fundamentals** 109.1 Fundamentals of internet protocols 109.2 Basic network configuration 109.3 Basic network troubleshooting 109.4 Configure client side DNS **110 Security** 110.1 Perform security administration tasks 110.2 Set up host security 110.3 Securing data with encryption **FOSS Training** • HOW TO BE A FOSS TRAINER • FOSS TRAININGS AS A BUSINESS • Invited talks: Discussion of FOSS training Experience, FOSS Business, FOSS in Government, FOSS in Education • ORGANISING TRAININGS • Training Material Development • OPEN EDUCATIONAL RESOURCES AND OPEN CONTENT • TRAINING COMMUNICATION SKILLS
Training methods:	Presentations, practical exercises, e-learning and peer-to-peer learning

Training material:	**Available for download:** http://www.ict-innovation.fossfa.net/wiki/public-wiki/foss-certification-training-material/lpi-testing-engines created in 2011
Copyright and licensing of material / course:	License: Creative Commons Attribution-Share Alike 3.0 Germany
Language:	English
Duration:	2 weeks training, 4 weeks e-learning plus peer-to-peer phase
Date:	-
Location:	-
Trainer:	Provided by GIZ and http://www.ict-innovation.fossfa.net/fct
Certification:	Internationally recognised certificate by the Linux Professional Institute
Costs:	Participation fee
Contact:	**Balthas Seibold:** balthas.seibold@giz.de **Petra Hagemann:** petra.hagemann@giz.de

3.15 IT Cluster Management Training

Name of the Tool:	IT Cluster Management Training
Source:	GIZ
Usage:	This tool is intended to serve as a guideline for implementing training on IT cluster management. It should be used to provide participants with the know-how and tools to effectively establish and manage IT clusters. The training should be delivered on a group-basis and should address cluster members, cluster managers as well as staff of relevant institutions (ministries, agencies, universities, etc.). The maximum number of participants is 15 people. The training duration is 4 days.
Description:	The tool offers a complete training concept for IT cluster management including content and structure of the training, training modules as well as training approach. The training consists of 10 modules ranging from theoretical background and IT cluster start-up to cluster services and cluster financing. Optionally, an additional module on cluster policy for public actors can be included. The training contains a lot of practical examples, case studies, exercises as well as post-module assignments. Training materials as well as contact details of suitable trainers can be obtained directly from GIZ.

1. Objectives of the IT Cluster Management Training Course

- Introduce participants to the theoretical background and concept of IT clusters
- Enable them to critically assess cluster initiatives based on their potential benefits and limitations / risks
- Provide participants with the know-how and tools to effectively establish IT clusters
- Provide them with the know-how and tools to effectively manage IT clusters
- Enable participants to provide needs-oriented consulting in IT cluster management
- To learn from each other and to find innovative concepts for IT cluster promotion

2. Training Structure and Content

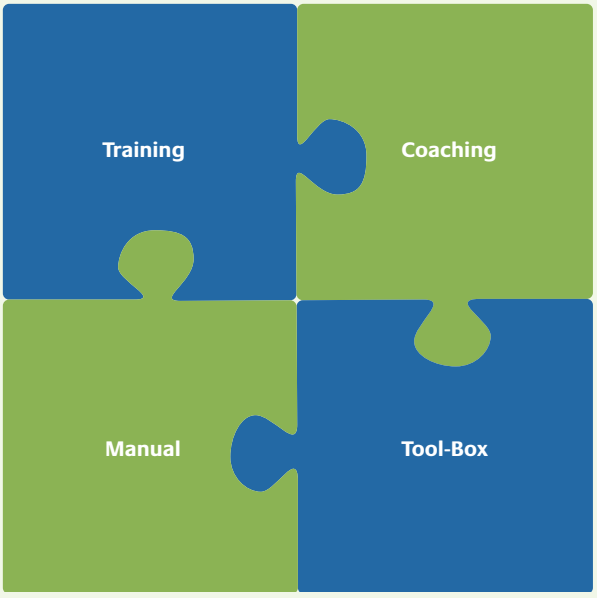
Module	Topics
Day 1	
Introduction	• Objectives of the Training • Agenda • Approach • Introduction of participants
Module 1: Theoretical Background	• Background • Terminology & Concepts • Benefits of Clusters • Limitations & Risks of Clusters • What is Cluster Management • Key Success Factors
Module 2: IT Cluster Start-up	• Overall Approach • Step 1: Kick-off & Analysis • Step 2: Goal Setting • Step 3: Choosing Partners • Step 4: Planning • Key Success Factors
Day 2	
Module 3: IT Cluster Strategy & Business Plan	• What is Strategy? • Why should we develop a Cluster Strategy • Key Issues in Strategy Development • Cluster Strategy: Structure & Concepts • Strategy Development Process • Strategy Implementation • Cluster Business Plan
Module 4: Organisational Structure	• Introduction • Key Issues in Cluster Organisation • Legal Form • Organisational Structure • Systems
Module 5: Cluster Services	• Importance of Cluster Services • Types of Cluster Services • Provision of Cluster Services

Day 3	
Module 6: Project & Process Management	• Importance of IT Cluster Project Management • Aspects & Phases of Cluster PM • Phases of Cluster Project Management • Cluster Process Model • Introducing Process Management • Process & Quality Management
Module 7: Cluster Marketing	• The Cluster Marketing Mix • Trade Fair Management • Cluster Export Marketing • Business Development • Online Marketing • Cluster Branding • IT Cluster Marketing Plan
Module 8: Cluster Financing	• Financing: Planning & Implementation • Sources of Cluster Financing • Financing Errors • Practical Examples
Day 4	
Module 9: Information & Knowledge	• Importance & Challenges • Areas and Forms of Communication • Tools • Importance of Knowledge Management • Knowledge Management System • The Role of Information Technology (IT)
Module 10: HR Management	• The Cluster Manager • Cluster Management Staff • HR Service
Conclusion	• Wrap-up • Open questions • Preparation for Assignment • Next steps • Feedback
Optional Module	
Optional Module: Cluster Policy	• Theoretical Background: IT Clusters & Cluster Policy • Potential Cluster Policy Measures • Practical Examples • Lessons Learnt from Project Implementation • Recommendations

3. Training Approach

Interactive Training Workshop:

- Presentations
- Practical examples
- Group discussions
- Exercises
- Reflection (Logbook)
- Wrap-ups
- Assignment (Business Plan)
- Joint learning
- Questions



At the end of the training, participants will get an assignment:

Post-training Assignment:

In 4 teams: Participants are asked to select an IT cluster and develop a **cluster business plan** for this cluster according to the structure discussed during the training workshop. In addition, they are also supposed to elaborate a presentation of their cluster business plan. The IT cluster business plan serves as a basis for further coaching activities.

4 Export Promotion

4.1 Export Information Service

Name of the Tool:	Export Information Service
Source:	GIZ
Usage:	The Export Information Service (EIS) has been developed to provide IT companies with detailed and up to date information on potential export markets. Thus, this service is an important instrument for market intelligence, supplying IT firms with much needed information for strategic planning as well as for operational export marketing. The EIS also ensures that IT companies learn about latest technology and market trends in international IT markets. In order to increase its effectiveness and sustainability, the EIS has been designed as a cluster service. This service is particularly useful for small and medium-sized IT enterprises which normally neither possess the know-how nor the resources to conduct extensive market research on an individual basis. In addition to that, the EIS can be used to generate market data (external analysis) which are required for the development of IT sector strategies or export promotion strategies. The tool can be used as a blueprint for the development and implementation of an Export Information Service.
Description:	This tool consists of a detailed service profile, a template for elaborating the analysis of potential IT export markets, a compilation of useful sources for market research and a process description for delivering the Export Information Service.

1. Service Profile

Export Information Service			
Date:	-	Service Name:	Export Information Service
<Service Logo>		Status:	Service Profile 1.0
		Website:	-
		Service Manager:	n.n.
		Phone:	-
		E-mail:	-
		Skype/ICQ:	-

Service description:

Particularly for small and medium-sized IT companies it is difficult to obtain accurate and up to date information on potential export markets. Often they neither have the resources nor the capabilities to conduct professional market research on international markets. However, IT firms need this information for planning and implementing their export activities.

The Export Information Service (EIS) has been designed in order to address this issue.
The main objectives of the cluster service are:

- Providing IT companies (cluster members) with detailed, accurate and up to date information on potential export markets
- Serving as a market intelligence tool for IT firms
- Keeping companies informed on latest technology as well as business trends on international markets ("early warning system")
- Providing market information for strategic planning and joint export marketing activities of the IT cluster (cluster marketing)

Core features :	**The core features of the Export Information Service include :** • Provision of a detailed analysis of potential export markets on a regular basis (at least annually) • Provision of useful sources, links and databases for further market research by individual IT companies
Additional features:	**Additional features include:** • Special information events on selected export markets in close cooperation with relevant institutions (e.g. DIHK/AHK, AmCham, trade attaches of embassies) • Databases for individual business partner research (e.g. ISIS)
Customer's benefit:	By using the Export Information Service, IT companies are able to better plan and implement their marketing and business development activities on export markets, based on accurate and reliable market information and data. The EIS provides IT firms with professional market intelligence on a regular basis. By offering the EIS as a cluster service, this service offering is highly cost-effective.
Target group:	IT cluster member companies

Mode of delivery:

The IT market analysis of potential export markets (market survey) is being conducted by an international or local consultant on behalf of the IT cluster. The consultant has to elaborate the market analysis according to a predefined structure including the following main points:

- Macroeconomic Overview
- Overview ICT Market
- Software Market Analysis
- IT Service Market Analysis
- Outsourcing Market Analysis
- Key Success Factors
- Future IT Trends

For a more detailed description of the required content of the export market analysis please refer to the corresponding template (point 2 of this tool). The consultant is responsible for developing the market analysis and presenting the results to cluster member companies in the framework of a workshop. The workshop should also include a Q&A session after the presentation of the results. All member companies of the IT cluster should receive a copy of the market analysis.

Furthermore, the consultant is also obliged to provide useful sources, links and databases for further market research by individual IT companies.

Selection of suitable consultants should be conducted by the IT cluster according to a tender procedure. Special emphasis needs to be placed on the qualification of the consultant in terms of marketing skills, IT industry expertise and regional experience (depending on the particular export markets).

The additional features such as special information events and databases for individual business partner research need to be provided by the IT cluster manager in close cooperation with strategic partners such as donor organisations, foreign chambers of commerce or trade attaches of embassies.

Price & financing	The financing of the Export Information Service should ensure full sustainability of the service. Ideally costs for providing the EIS should be covered by membership fees. If this is not possible, an alternative pricing model needs to be developed to cover the expenses for the export market analysis. In this case the financing of the EIS should be based on a participation fee (total costs / interested companies) for the export market analysis workshop.
Technology platform:	**Technology platforms required for the Export Information Service include:** • E-mail distributor for sending out workshop invitations • Groupware application or intranet for dissemination of the market analysis and for providing useful sources and links
Service support:	Service support will be provided by the responsible service manager of the IT cluster.
Distribution channels:	**The Export Information Service will be marketed through the following channels:** • IT cluster website: service section • Newsletter of the IT cluster • Service presentation at IT cluster meetings and workshops
Additional information:	The Export Information Service stands in close conceptual coherence with the B2B Export Promotion Service (please see corresponding tool) as well as with the overall cluster marketing.

2. Template for IT Market Analysis

The following template shows the required content and structure of the IT market analysis which needs to be elaborated in the framework of the Export Information Service. The selection of a particular export markets depends on the priorities of the IT cluster member companies and the corresponding market potential. In order to better illustrate the structure and content of the analysis, the German IT market was chosen as an example:

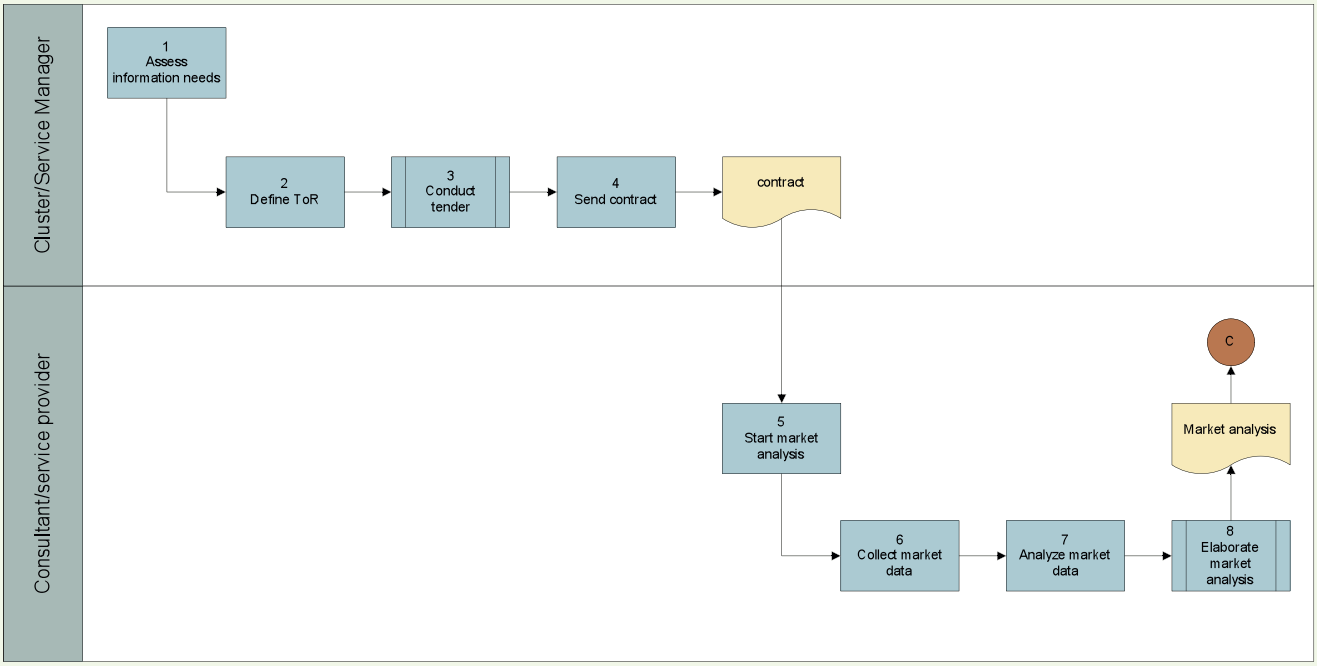
Main Chapter	Content & Key Topics
Overview: ICT Market EU	• EU ICT Market Value (in € billion) • EU ICT Market by Segments (market value in € million): • EU ICT Market by Segments (in %) • EU ICT Market Value Growth by Segments (in %) • Key Market Trends
Macroeconomic Overview Germany	• Key Economic Indicators • GDP Composition by Sector 2010 in % • Economic Trends and Outlook • Ifo Business Climate Index Germany
German ICT Market	• Why to focus on the German ICT market? • German ICT Market Value (in € billion) • German ICT Market by Segments (market value in € million) • German ICT Market by Segments (in %) • Facts & Figures • ICT Clusters & Networks • Key Market Trends • Top 10 ICT Trends • ICT Framework & Policy • BITKOM Index
Software Market Analysis	• Software Market in Germany (in € billion) • Software Market in Germany by Subsegments (in € million) • Software Market Growth Germany (in %) • Key Market Trends • Top 10: Leading Suppliers of Software in Germany
IT Services Market Analysis	• IT Services Market in Germany (in € billion) • IT Services Market in Germany by Segments (in € million) • IT Services Market Growth Germany (in %) • Key Market Trends • Top 10: Leading Suppliers of IT Services in Germany • SMEs: Top 10 German IT Consulting and System Integration Companies

Outsourcing Market Analysis	• Outsourcing Market Growth Germany in comparison to other Subsegments (in %) • Key Market Trends • Top 20 Providers of Outsourcing Services in DACH-Region • Offshoring: Key Market Trends • Selection Criteria for Offshoring / Outsourcing Providers • Potential Target Groups • Demand Indicator: Open Positions & IT Free-lance Market • Top 10 Providers of IT Staffing and Project Management Services • Rates & Pricing structure • Demand Structure: Most Sought-after Skills
Key Success Factors	• Marketing & Positioning • Quality & Processes • Technology & Capabilities
Future IT Trends	• Short-term and Medium-term IT Trends: • Hype Cycle for Emerging Technologies

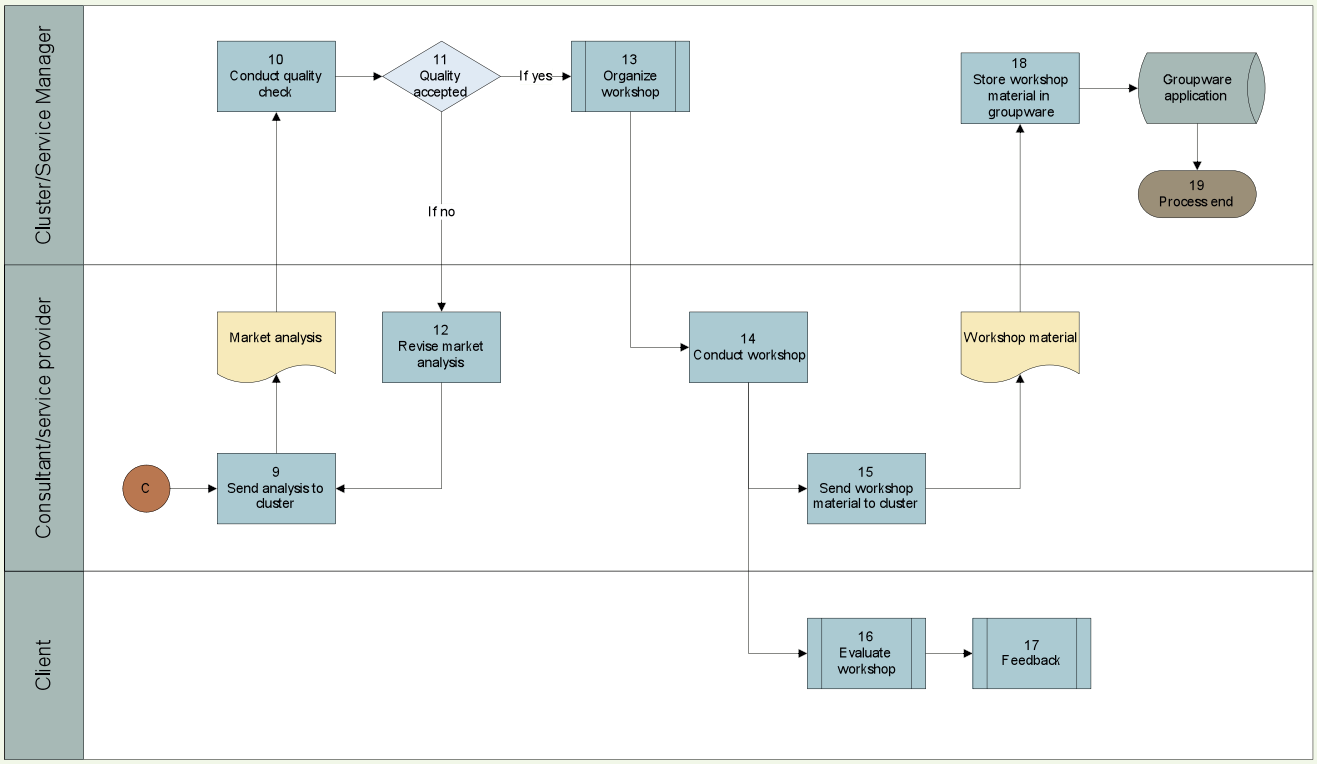
Process Description

In the following section, the service delivery process is described, including a flow chart and a description table. According to the principle of continuous improvement process, the service delivery process needs to be continuously reviewed, improved and optimised in order to ensure that the service is being managed efficiently and in accordance with the client's needs.

Service Process Description (1)



Service Process Description (2)



Nr.	Activity	Responsibility	Document
1	First, the need of the cluster members with regards to export information (potential export markets, technology trends, etc.) needs to be defined in the form of a workshop or focus group	Cluster/Service manager	-
2	Based on the needs assessment the service manager defines the Terms of Reference (ToR) for the consultant/service provider	Cluster/Service manager	-
3	The service manager conducts a tender according to the predefined tender procedure of the cluster and identifies a suitable consultant/service provider (typically the EIS requires several consultants for different potential export markets)	Cluster/Service manager	Tender documents
4	The service manager contracts a suitable consultant for conducting the export market analysis	Cluster/Service manager	Contract
5	Upon receiving the contract, the consultant starts with the analysis of a potential export market (according to the ToR)	Consultant	-
6	The first step of the export market analysis is collecting data from suitable sources	Consultant	-
7	The next step is analysing the data and market information	Consultant	-
8	Then the consultant needs to elaborate the export market analysis, preferably in the form of a detailed PowerPoint presentation. This should be done according to the predefined structure outlined in the template for IT market analysis	Consultant	Template for IT market analysis
9	The consultant sends the export market analysis to the cluster/service manager for quality check	Consultant	Export market analysis
10	The service manager evaluates the quality of the export market analysis based on the results of the needs assessment and the ToR	Service manager	ToR
11	The service manager needs to decide whether the quality of the export market analysis meets the quality criteria of the EIS		
12	If the quality of the market analysis is not accepted, the consultant needs to revise the export market analysis	Consultant	-
13	If the quality of the market analysis is accepted, the service manager organised the workshop for presenting and disseminating the export market analysis according to a predefined process (organising location, sending out invitations, etc.)	Service manager	-

Nr.	Activity	Responsibility	Document
14	The consultant conducts the workshop for the cluster members, presenting the results of the export market analysis, providing additional information and answering questions of participants	Consultant	-
15	The consultant sends the workshop material including the export market analysis to the service manager	Consultant	Workshop material
16	The participants of the workshop evaluate the workshop according to a predefined process (quality management system of the cluster)	Clients/Cluster members	-
17	Based on their evaluation the participants of the workshop provide feedback to the service manager	Clients/Cluster members	-
18	The service manager stores the workshop material including the export market analysis in the groupware application of the cluster, so the cluster members can access and download all relevant information	Service manager	-
19	Process end	-	-

4.2 B2B Export Promotion Service

Name of the Tool:	B2B Export Promotion Service
Source:	GIZ
Usage:	The B2B Export Promotion Service has been designed in order to directly generate business opportunities and export revenues for member companies of IT clusters. It is particularly useful to support the export activities of small and medium-sized IT enterprises, which under normal circumstances would not be able to address international markets due to lack of resources and missing export know-how. Through its commission scheme (see also tool "Cluster Promotion Fund") the service also contributes to the financial sustainability of the cluster. To increase its effectiveness and sustainability, the B2B Export Promotion Service has been developed as a cluster service. The tool can be used as a procedure specification for implementing a B2B Export Promotion Service.
Description:	This tool encompasses a service profile, a detailed process description for the implementation of the B2B Export Promotion Service, recommendations for business development, as well as a template for a business lead.

1. Service Profile

B2B Export Promotion Service			
Date:	-	Service name:	B2B Export Promotion Service
<Service Logo>		Status:	Service Profile 1.0
		Website:	-
		Service Manager:	n.n.
		Phone:	-
		E-mail:	-
		Skype/ICQ:	-

Service description:

The B2B Export Promotion Service has been designed as a cluster service in order to support member companies in exporting and international business development.

The main objectives of the service are:

- Generate business leads and additional income from exports for IT cluster member companies.
- Promote cooperation between cluster member companies and international business partners.
- Marketing and positioning of the IT cluster and its member firms on international target markets through direct B2B export promotion activities.
- Providing market intelligence on demand structures, technical requirements and trends in target markets through the requirement profiles stated in the business leads.
- Supporting potential international clients in identifying suitable cooperation partners and reducing search and transaction costs (One-Stop-Shop for B2B match-making).

Particularly for smaller, internationally inexperienced IT companies this service is very valuable as it enables them to directly acquire new clients on export markets, which under normal circumstances they would not be able to address due to lack of resources and missing export marketing capabilities.

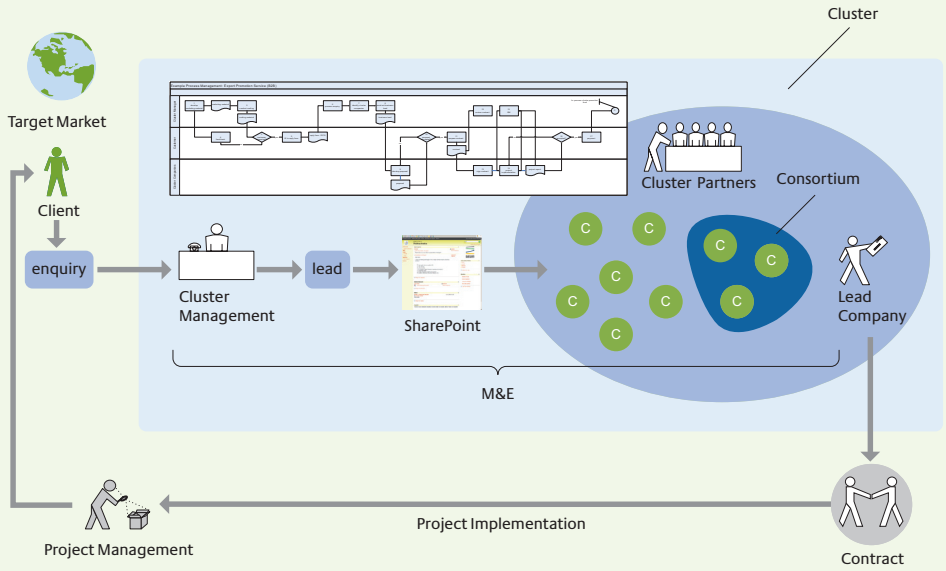
Core features :	**The core features of the B2B Export Promotion Service include :** • Active business development for the member companies and generation of business leads. • Dissemination and processing of business leads. • Support in follow-up of business leads and contract negotiation. • Support in the area of project management and quality management.
Additional features:	**Additional features include:** • Organisation of business delegations and match-making events on the ground or abroad. • Support in establishing and coordinating consortia for large-scale projects including proposal writing and tender management.
Customer's benefit:	By using the B2B Export Promotion service, cluster member companies get direct support in international business development. The leads generated through the service, allow them to establish business relationships with foreign clients and to create additional revenues from exporting. In addition to that, the business leads provide companies with detailed information on demand structures and technical requirements on international markets.

Target group:	IT cluster member companies.

Mode of delivery:

The core features of the service are being provided by the service manager according to predefined service-processes (see process description). As indicated in the chart below, the cluster/service manager generates a business lead from a potential export client according to a predefined business development process. Then the lead is being disseminated to the IT cluster members via e-mail or a groupware application like for instance eGroupWare, FOSWIKI, or SharePoint. Based on the information contained in the business lead the IT firms can make a follow-up on the lead individually or as a consortium. If one of the member companies successfully acquires the lead, it has to pay a commission of 3% of the contract value to the cluster, where the money is used for financing the service as well as additional joint marketing activities (see also tool "Cluster Promotion Fund).

It is recommendable to contract consultants in order to support the business development process and the generation of business leads. Furthermore the IT cluster should establish a "sales network" through strategic cooperation's with IT institutions, multipliers and sales agents in target markets in order to conduct proactive business development and generate additional business leads.



Price & financing	The financing of the B2B Export Promotion Service is based on a commission scheme where the company receiving a contract from a business lead has to pay a commission of 3% of the total contract value to the cluster (see tool "Cluster Promotion Fund"). This mechanism ensures the financial sustainability of the service and represents an additional source of income for the cluster. In addition to that, the commission scheme of the B2B Export Promotion Service ensures that all cluster members benefit from a successful business lead thereby promoting close collaboration, team spirit and mutual trust.

Technology platform:	**Technology platforms required for the B2B Export Promotion Service include:** • Email distributor for disseminating business leads (preliminary solution) • Groupware application for disseminating business leads and coordinating business development and follow-up processes (recommended solution) In order to increase the efficiency and quality of the B2B Export Promotion System it is advisable to introduce a groupware application like eGroupware, phpGroupWare, FOSWIKI or SharePoint. Such applications provide collaborative project and workflow management functionality which also enable the follow-up of large-scale business leads in the form of a consortium.
Service support:	Service support will be provided by the responsible service manager of the IT cluster.
Distribution channels:	**The B2B Export Promotion Service will be marketed through the following channels:** • IT cluster website: service section • Newsletter of the IT cluster • Service presentation at IT cluster meetings and workshops
Additional information:	The Export Information Service stands in close conceptual coherence with the Export Information Service, the Cluster Promotion Fund (please see corresponding tools) as well as with the overall cluster marketing.

2. Process Description

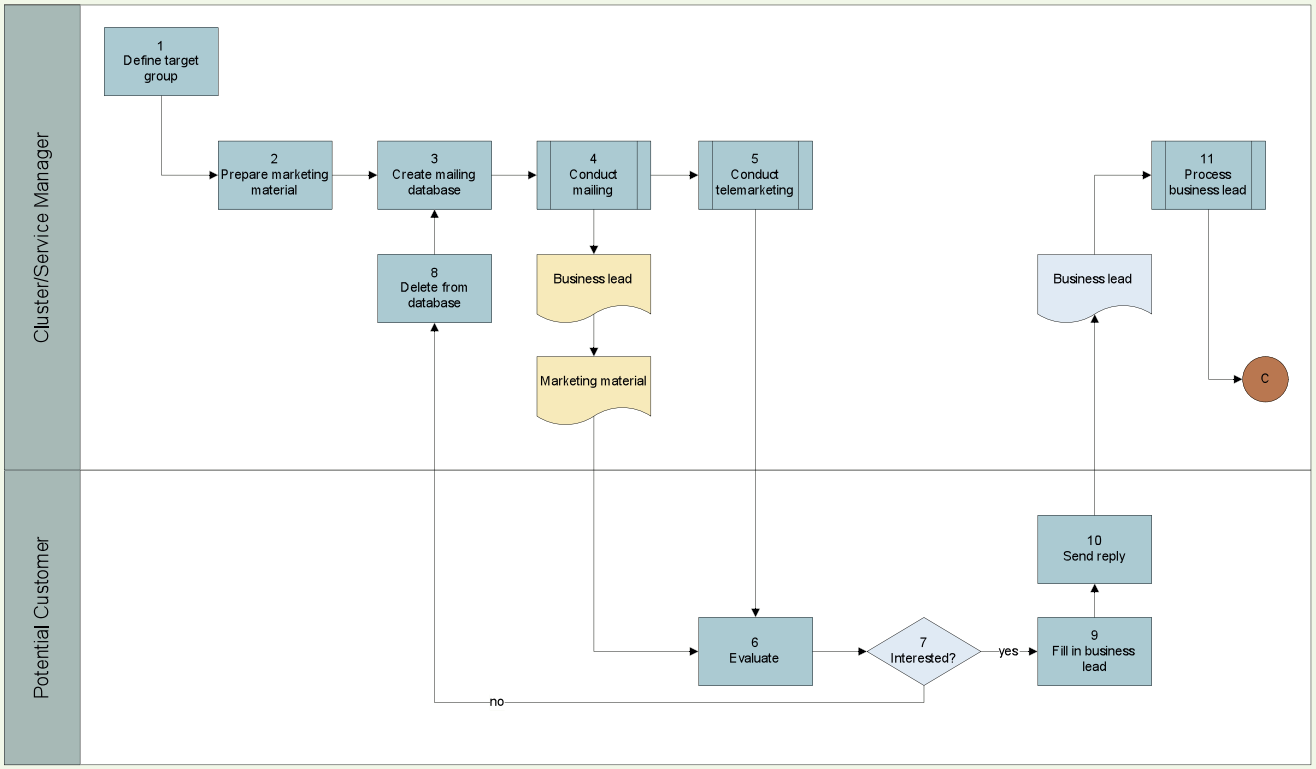
In the following section the service delivery process is described, including a flow chart and a description table. According to the principle of continuous improvement process, the service delivery process needs to be continuously reviewed, improved and optimised in order to ensure that the service is being managed efficiently and in accordance with the client's needs.

In order to allow for a more efficient management of the B2B Export Promotion Service, the service delivery process has been subdivided into two sub-processes:

- **Sub-process business development**
- **Sub-process business lead processing**

2.1 Description Sub-process Business Development

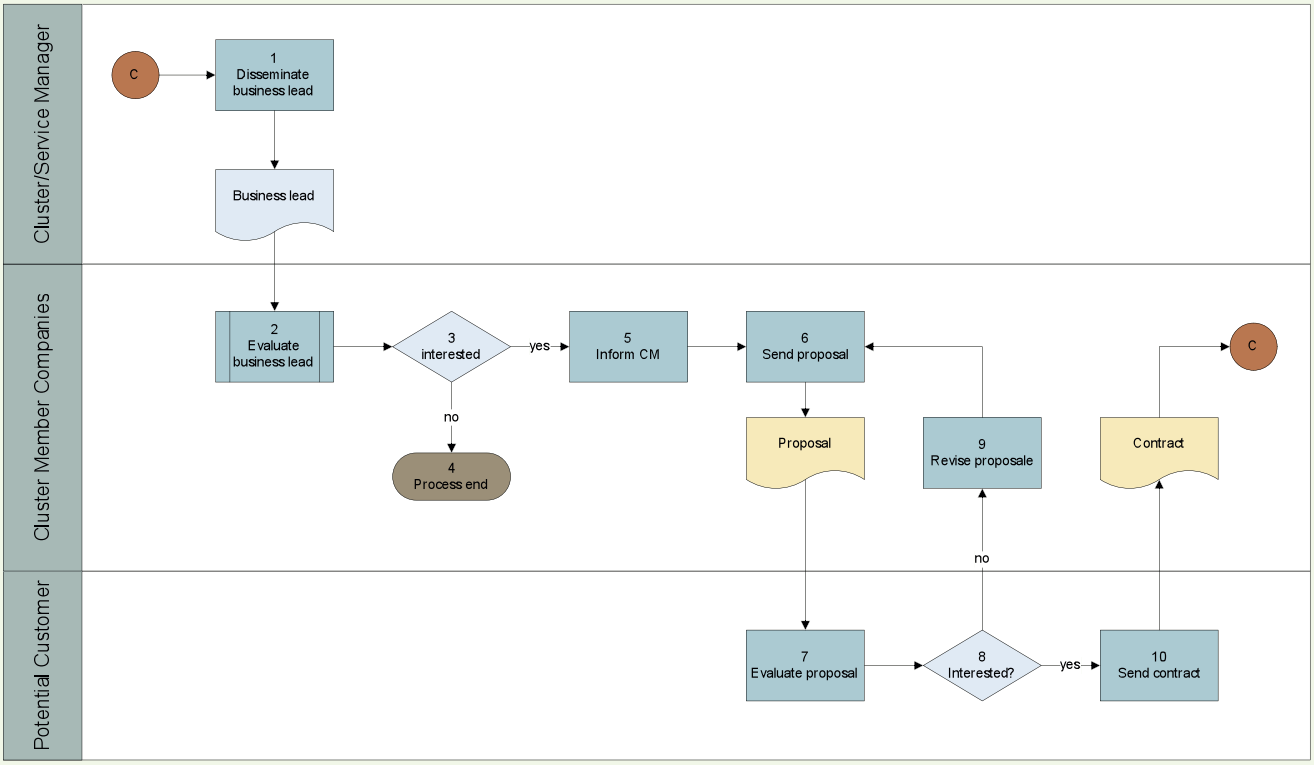
Description Sub-process Business Development



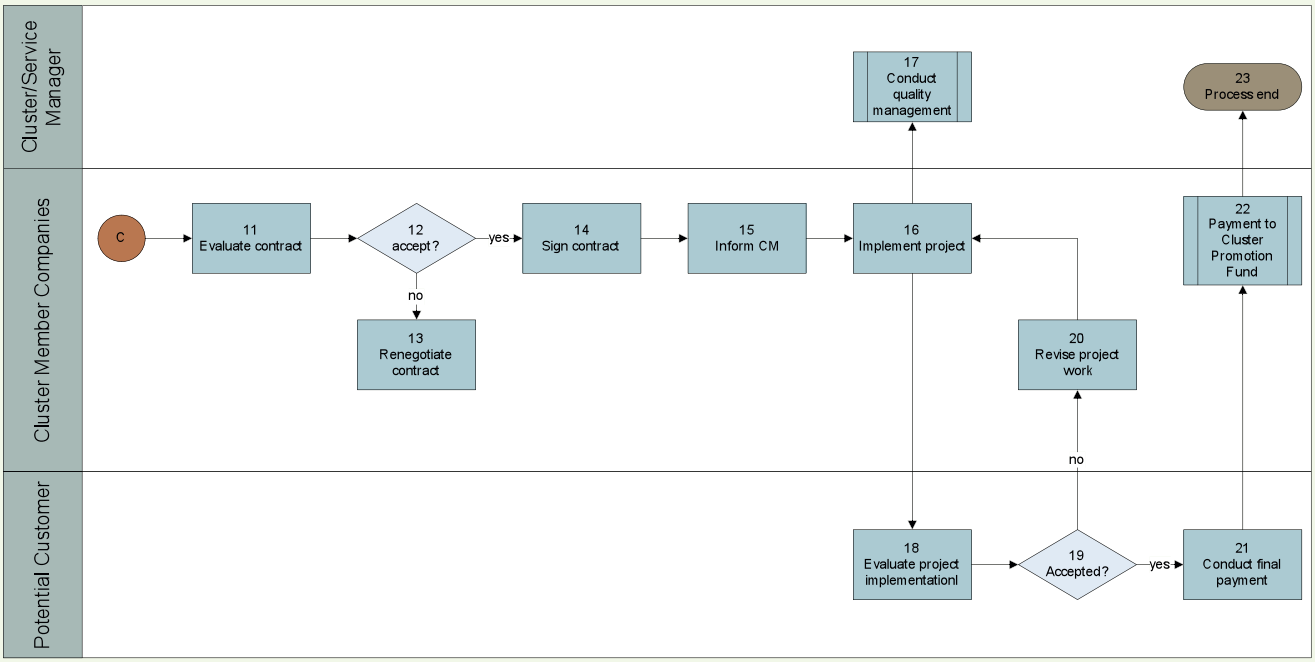
Description: Sub-Process Business Development			
Nr.	**Activity**	**Responsibility**	**Document**
1	The first step for the cluster/service manager is to define the actual target group within a specific export market	Cluster/Service manager	-
2	Depending on the target group he needs to elaborate the corresponding marketing material including company profiles, brochures, cover letter	Cluster/Service manager	Marketing material
3	The cluster/service manager needs to create a mailing database with the data of potential client companies in the export market, including a contact person	Cluster/Service manager	Database
4	Conduct mailing via e-mail including marketing material and business lead (alternatively via post)	Cluster/Service manager	Marketing material, post
5	1 – 2 weeks later the cluster/service manager should conduct telemarketing (follow-up vial telephone)	Cluster/Service manager	Marketing material, post
6	The potential customer evaluates the information received through the mailing and telemarketing	Potential Customer	Marketing material,
7	The potential customer has to decide whether he is interested in a business cooperation or not	Potential Customer	-
8	If the potential customer is not interested, his address needs to be deleted from the mailing database	Potential Customer	Database
9	If the potential client is interested, he needs to fill in the business lead stating his concrete interest and requirement profile	Potential Customer	Business lead
10	Then he should send the business lead back to the cluster/service manager	Cluster/Service manager	Business lead
11	Start of the next sub-process “business lead processing”	Cluster/Service manager	-

2.2 Description Sub-Process Business Lead Processing

Description Sub-Process Business Lead Processing (1)



Description Sub-Process Business Lead Processing (2)



Description: Sub-process Business Lead Processing			
Nr.	**Activity**	**Responsibility**	**Document**
1	The cluster/service manager disseminates the business lead of the potential client to the cluster member companies via e-mail or a groupware application	Cluster/Service manager	Business lead
2	The companies evaluate the lead according to predefined internal procedures (technical requirements, resources, project volume, etc.)	Companies	Business lead
3	Each cluster member company needs to decide whether they are interested in the lead or not	Companies	Business lead
4	If they are not interested in the lead the process ends	Companies	Business lead
5	If a company is interested, it has to inform the cluster manager (CM). At this stage member companies also need to decide whether they want to follow-up the business lead individually or whether they want to establish a consortium (e.g. in case of a large-scale business lead)	Companies	Business lead
6	Based on a thorough analysis of the lead, interested companies send their proposals to the potential client in the export market	Companies	Proposal
7	The potential customer evaluates the proposal	Customer	Proposal
8	Based on the evaluation he needs to decide whether he is interested in the proposal	Customer	Proposal
9	If the potential customer is not interested, the company which sent the proposal, needs to revise it	Companies	Proposal
10	If the potential customer is interested, he needs to send a draft contract to the company	Customer	Contract
11	The cluster member company evaluates the contract	Companies	Contract
12	The company needs to decide whether it accepts the terms and conditions stated in the contract	Companies	Contract
13	If it does not accept the terms and conditions the contract needs to be renegotiated with the potential customer	Companies	Contract
14	If the company accepts the terms and conditions it signs the contract	Companies	Contract
15	Upon signing the contract the company needs to inform the cluster/service manager	Companies	-

Description: Sub-process Business Lead Processing			
Nr.	**Activity**	**Responsibility**	**Document**
16	Then the company starts with implementing the project according to the contract	Companies	-
17	In parallel to project implementation, the cluster/service manager is responsible for the overall quality management according to the quality standards of the cluster and for ensuring regular interaction and communication with the customer (e.g. reporting)	Cluster/Service manager	-
18	If the cluster member company has completed project implementation, the customer needs to evaluate the project results	Customer	Contract
19	He needs to decide whether he accepts the project results	Customer	-
20	If he does not accepts the project results, the company needs to revise the project work	Company	-
21	If he accepts the project results, the customer needs to conduct the final payment according to the contract	Customer	Contract
22	Upon receiving the final payment, the company needs to pay the commission according to the rules stated in the Cluster Promotion Fund	Company	Cluster Promotion Fund
23	Process end	-	-

3. Recommendations for Business Development

Tips for telemarketing	
1.	Find the right contact person:
	• CEO • CIO, CTO, Director R&D • Useful source: company website (“legal information” / “company information”)

2.	Develop telemarketing script:
	• Who you are • What you do (IT cluster manager) • "Door opener" (technology, references, vertical specialisation) • What you could offer / benefits (IT cluster as One-Stop-Shop, customer orientation) • Open question to introduce conversation: e.g. "Do you already have any experiences in working with software companies from Bulgaria / nearshoring?"
3.	State business values / benefits your IT cluster could offer:
	• Integrated software development services / One-Stop-Shop (IT cluster) • Capacity & flexibility • Skills & technology • Cost effectiveness • Innovation • Time to market • Access to new markets (localisation of software products)
4.	State references & case studies
	• State references of IT cluster member companies (if possible) • Provide case studies • Mention success stories
5.	Objection handling
	• Be prepared for possible objections • Prepare sound arguments and data to handle possible objections • Mention success stories and reference persons (if possible)
5.	Goal: generating a business lead
6.	Documentation of results for possible follow-up

Using Web 2.0 and social networks for business development	
Function:	• Identification of customers • Competence-based marketing & business development • Establish multipliers • Build a "customer community" • Exchange of experiences • Learn about customer requirement
Tools	• LinkedIn: http://www.linkedin.com • Xing: http://www.xing.com • Facebook: http://www.facebook.com

4. Template for Business Lead

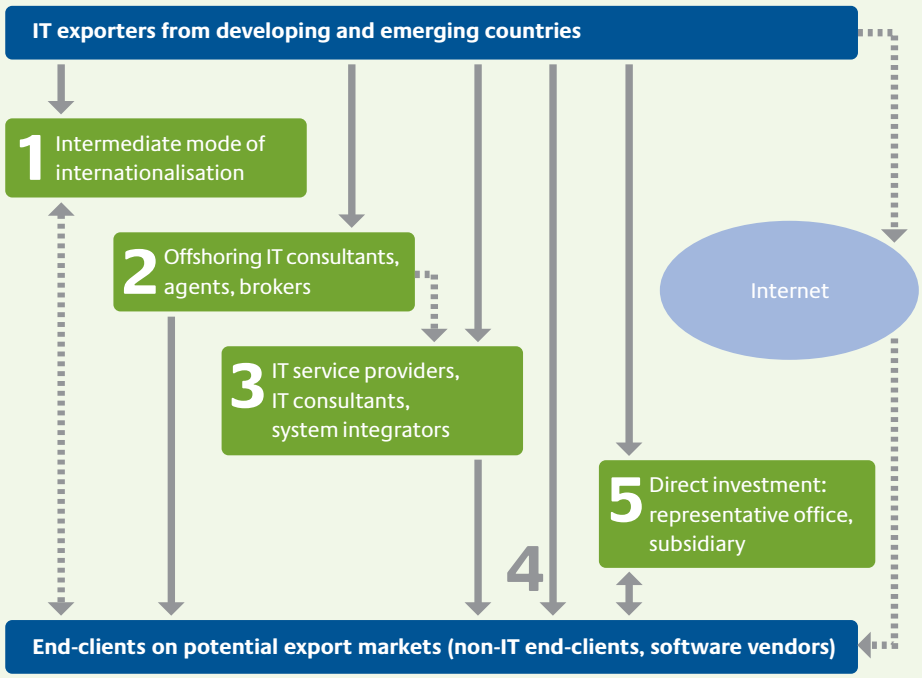
Business Lead	
Date:	
Cooperation Profile:	
Company Name:	
Address:	
Postal code/city:	
Website:	
Contact Person:	
First Name:	
Last Name:	
Position:	
Phone:	
Fax:	
E-Mail:	
Company Details:	
Subsidiaries outside of Germany:	_____
Number of Employees:	☐ <10 ☐ 11 - 49 ☐ 50 - 249 ☐ 250 - 500 ☐ >500
Turnover in 2010 (million Euro):	☐ <5 ☐ 5 - 10 ☐ 11 - 40 ☐ 41 - 100 ☐ >100
Expected turnover in 2011 (million Euro):	☐ <5 ☐ 5 - 10 ☐ 11 - 40 ☐ 41 - 100 ☐ >100
Products/Services:	
Please describe your business activities and core competences:	

Which industries do the majority of your clients belong to:		
Cooperation Details:		
Please describe the form of cooperation you are looking for: (outsourcing, product development, maintenance, etc.)		
Please select the type of cooperation commitment you are aiming at:	Joint venture Outsourcing agreement Manufacturing agreement Technical (R&D)	Licence agreement Exchange of experience Financial resources
Please specify your requirements: (programming languages, technologies, industry expertise, certification, etc.)		
Coordinator:	<IT Cluster Manager>	
Comments:		

4.3 Export Market Entry Options

Name of the Tool:	Export Market Entry Options
Source:	GIZ
Usage:	This tool can be used for two different purposes: 1. As an analytical framework for the formulation of the market entry strategy of a national export promotion strategy 2. As a conceptual basis for supporting SMEs in choosing an appropriate market entry option for exporting (export promotion on the operational level) Choosing the right market entry option depends on the particular structure of the target market and on the specific objectives, capabilities and resources of the IT companies. IT companies do not necessarily have to stick to a single entry mode but can combine several entry options.
Description:	The Tool provides an overview on five different export market entry options for IT companies from developing and transformation countries, ranging from the so-called intermediate mode of internationalisation to establishing a representative office in a particular target market. For each option a short comparison of the particular advantages and disadvantages is being provided

Overview on the different market entry options:



Short description of market entry options:

Option 1: Intermediate mode of internationalisation

- Channelling of a company's services or products through an existing multinational client in the home market
- Examples: in Ireland and India, for many SMEs, doing business with MNCs in the domestic market was the first step in entering international markets
- Also several examples from Macedonia (e.g. Ein-Sof)
- Through referrals by international clients in the domestic market, access to new clients in export markets
- Strategic linkages with MNCs also provide local companies with access to latest technologies
- Increasing FDI creating business opportunities for local IT companies

+	–
• Indirect access to foreign markets without overstretching resources • International reference clients • Reputation • Leverage MNCs' assets, scale and networks	• High transaction costs • Lack of information on markets and end-clients (information asymmetry) • Dependency on MNCs • Discourages development of own export capabilities

Option 2 and 3: Indirect market entry through intermediaries

- IT companies use an intermediary / distributor to enter the market
- The intermediaries could be:
  a.) Specialised offshoring consultants (brokers, agents)
  b.) Service providers and IT consultants
- Trend towards integrating offshoring elements into IT services and the increasing specialisation within the IT service value chain, provide additional opportunities for cooperation between IT service companies and offshoring providers from developing and transformation countries

+	–
• Less investment required • Less risk since intermediaries provide in-depth customer and market know-how • Mitigates lack of branding	• Limited control over export activities and customer contacts • Reduced profit margin • Hampers development of export and market know-how

Option 4: Direct export

- Direct exports from IT companies to end-clients in the export market (non-IT end-clients, software companies)
- Direct sales without involvement of intermediaries
- Focus on SME segment since access to large-scale end-clients rather unlikely
- Several examples of companies from developing and transformation countries conducting direct exports

+	–
• Higher profitability • Learning effect from direct interaction with clients • Full control of export activities	• High degree of technical and managerial skills required • Substantial investments into marketing and sales • High degree of specialisation required • Often local presence expected

Option 5: Direct investment / local presence

- Establishing a local presence in the target market through direct investment
- Forms: joint venture, local partner, setting up a wholly owned subsidiary (representative office, fully integrated unit)
- Results of the external analysis: customer requirements for local presence and onsite delivery capabilities ➧ setting up a representative structure in the target market could be an important step for a sustainable market entry

+	–
• Competitive advantage • Creating additional customer value • Better understanding of the target market • More sustainable and deeper relationship with customers • Better control over marketing activities • Important for branding	• Involves significant capital investment and resource allocation • Slower market penetration

Despite the fact that the internet is shown in the above overview, it should be noted that it does not provide a market entry option as such. This is due to the complexity of software/IT services and to all the different factors that are involved in the decision-making process for offshoring. It plays, however, an important role as information source for potential clients in the export markets and as a marketing tool for IT exporters from developing and transformation countries to present themselves with a professional website.

It is relatively difficult to define a common market entry strategy for the whole IT industry of a country, as the selection of the most appropriate entry option will finally have to be made on the micro-level by the individual companies. As a matter of fact, companies do not necessarily have to stick to a single entry mode but can combine several entry options. The most important factors influencing the final selection of the suitable market entry mode include:

- the company objectives concerning exporting;
- the importance of the market within the company's export plans (e.g. key market);
- the characteristics and nature of the products or services to be exported;
- the resources and capabilities of the company;
- the company's experience in the market;
- the characteristics and structures of the export market (customer groups, level of competition, distribution channels, etc.);
- the transaction costs involved in the different market entry modes;
- legal constraints and requirements;
- the desired speed of market entry.

4.4 Template Export Branding Concept

Name of the Tool:	Template Export Branding Concept
Source:	GIZ
Usage:	Lack of branding represents one of the major obstacles to IT exports from developing and emerging countries. At the same time, branding becomes increasingly important, as the global IT market becomes increasingly competitive. Branding represents an important source of differentiation and plays a central role in creating awareness and recognition among potential export clients. Clusters are a valuable instrument for international branding and positioning because they increase visibility and allow for more efficient and targeted marketing and communication activities. By using this tool, IT clusters from developing and emerging countries can develop a branding concept in order to improve their international branding and marketing.
Description:	This tool consists of a template covering all relevant aspects of a branding concept such as: • Assessment of existing brand equity • Market analysis • Brand strategy & marketing program

IT Cluster Export Branding Concept	
1.	Introduction
	• Background information • Document purpose • Document structure & content
2.	Description of the IT Cluster
	• Vision & Mission of the cluster • Goals of the cluster • Organisational structure • Technology profile and Specialisation • Overview on cluster member companies (average sizes, product and service portfolio, etc.) • Status quo of export activities
3.	The Importance of Branding in Cluster Marketing
	• Definition of Branding • Importance of Branding in cluster marketing • Strategic benefits of Branding for the IT cluster and its member companies
	Definition of Branding:
	"A successful brand is an identifiable product, service, person or place augmented in such a way that the buyer or user perceives relevant, unique added values which match their needs more closely. Furthermore, its success derives from being able to sustain these added values in the face of competition." * * *de Chernatony and McDonald (2005): 25*
	Strategic importance of Branding in cluster marketing:
	For IT clusters, Branding is of paramount importance as it allows small and medium-sized member companies to generate competitive advantages, to position themselves on international markets and to gain visibility, which as individual companies they would never be able to achieve due to lack of resources and economies of scale.

4.	**Assessment of Existing Brand Equity**	
4.1	Core Values and Components of Brand Equity	
	Core Brand Value / Value component	**IT Cluster**
	Product / Core service	**Customer Perception**
	Technical competence and Performance	-
	Quality	-
	Reliability	-
	Scale	-
	Onsite delivery capability	-
	Rapid response capability	-
	Project Management skills and methodologies	-
	Language skills	-
	Pricing	-
	Distribution of the brand	**Customer Perception**
	Ease of identifying appropriate service providers and IT experts	-
	Availability	-
	Speed of delivery / Project implementation	-
	Services supporting the brand	**Customer Perception**
	Technical evaluation	-
	Development of requirement specification	-
	Technical support & maintenance	-
	Training (customer staff)	-
	IT consulting	-
	Cluster	**Customer Perception**
	Size of the IT cluster	-
	Financial stability	-
	Geographical coverage	-
	Image / Reputation	-

4.2	Brand Positioning
	• Definition of positioning dimensions (e.g. price and quality) • Identification of main competitors • Positioning map in comparison to main competitors
4.3	Summary Evaluation of Brand Equity
5.	Market Analysis
5.1	Market Size and Trends
	• Software • IT Services • Outsourcing/offshoring
5.2	Competitor Analysis
	• Competitors • Strategies • Strengths • Weaknesses
5.3	Customer Analysis
	• Identification of relevant customer segments and target groups • Customer requirements • Identification of key success factors
5.4	"Brandscape"
	• Identification of peculiarities concerning branding in the target market • Deduction of key success factors for branding & positioning
6.	Brand Strategy & Marketing Program
6.1	Brand Objective
	• Overall objective • Operational goals
6.2	Brand Mission & Vision
	• Formulation of brand mission (mid-term) • Formulation of brand vision (long-term)
6.3	Brand Name and Slogan
	• Brand name • Logo • Slogan
6.4	Brand Architecture and Core Brand Values
	• Definition of core brand values (e.g. quality, cost effectiveness, vertical expertise) • Brand architecture

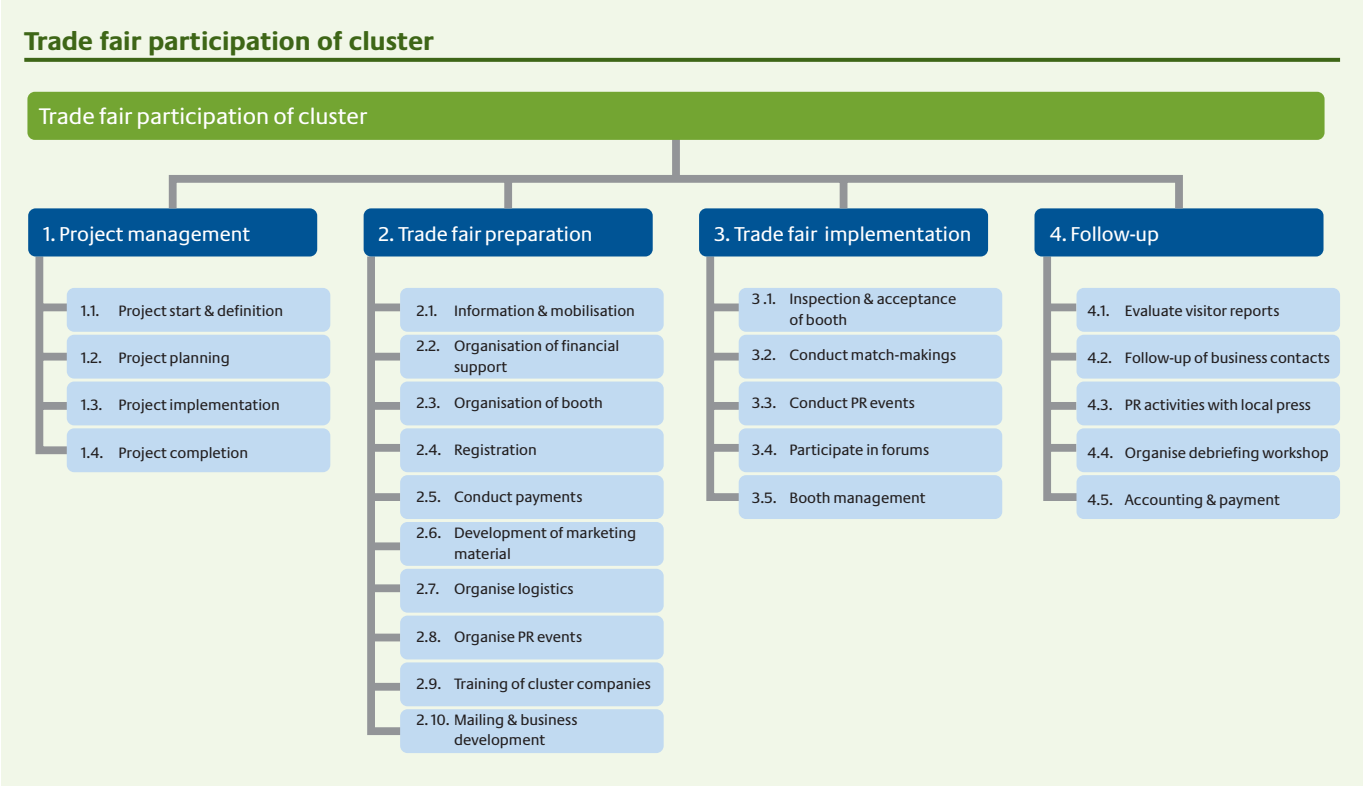
Example: brand architecture of the Serbian Software Cluster (SSC):

6.5	Positioning
6.6	Brand Marketing Program
	• Definition of branding-mix • Corporate identity (CI) & image (slogan, website, etc.) • Communication campaign (PR, advertisement, information events, articles, whitepapers, Web 2.0) • Internal brand measures (e.g. quality management)
7.	Potential Brand Extension
	Example: from software development to IT consulting
8.	Appendix

4.5 Process Model and Checklist for IT Cluster Trade Fair Participation

Name of the Tool:	Process Model and Checklist for IT Cluster Trade Fair Participation
Source:	GIZ
Usage:	Trade fairs are an important instrument for the international marketing of both the IT cluster as a whole and of individual IT companies. Particularly for SMEs, participation in a trade fair as part of a joint IT cluster booth is a cost-effective opportunity to gather international experience and customer contacts in foreign markets. This tool provides a special process model to structure and organise the participation of an IT cluster in an international trade fair. In addition to that it provides a corresponding checklist for all activities which need to be implemented to ensure a successful trade fair participation. This tool should be applied by the organisation responsible for organising the trade fair participation, typically being the IT cluster.
Description:	The tool consists of a chart, showing the different phases and key activities of the trade fair participation project and a corresponding checklist. The checklist describes the most important activities which need to be implemented, including deadlines and responsibilities.

Process model for managing the trade fair participation of an IT cluster



Checklist

No.	Task	Deadline		Responsible	Remarks	Status
		internal	external			
1. Preparation (before trade fair)						
1.	Determine number of participating companies					
2.	Identify additional financial support					
3.	Registration of booth					
4.	Registration of companies in the trade fair catalogue (hard-copy)					
5.	Registration of companies in the trade fair catalogue (online version)					
6.	Approve booth design and construction					
7.	Payment for booth construction					
8.	Electricity connection, electricity – prepayment					
9.	Booking of extra services for the booth (cleaning, etc.)					
10.	Booking of telecommunication Infrastructure					
11.	Booking of presentation equipment (beamer, etc.)					
12.	Booth furniture (desks, chairs, etc.)					
13.	Provide stationery for the booth (paper, pens, etc.)					
14.	Company logos for the booth stands					
15.	IT cluster's logo for information desk					
16.	Poster with company logos					
17.	Name tags for companies					
18.	Reservations for travel and accommodation					
19.	Sector profile (e.g. Bulgarian IT industry))					
20.	Invitation for Evening Event Cocktail					

No.	Task	Deadline		Responsible	Remarks	Status
		internal	external			
21.	Brochure with the profile of the cluster and participating companies					
22.	Registration for Match-Making and other relevant events					
23.	Register Minister or Vice-Minister for relevant events (if possible)					
24.	Organise cooperation meeting with relevant industry associations and other clusters					
25.	Review all panels, forums and conferences and appoint people for attendance					
26.	Conduct mailings (cluster)					
27.	Individual trade fair preparation (marketing material, mailings, arrangement of meetings, etc.)					
28.	Preparation and organisation of evening event					
29.	Organise trade fair hostess or students					
30.	Update company and cluster websites: trade fair participation					
31.	Conduct workshop on trade fair management for cluster companies					
32.	Inform embassy / general consulate on trade fair participation					
33.	Conduct PR activities					
34.	Provide companies with database and key contacts for mailings					
35.	Contact and invite foreign journalists / press					
36.	Contact and invite own journalists / press					
37.	Organise and provide Information material on the country					
38.	Gifts for B2B meetings					

No.	Task	Deadline		Responsible	Remarks	Status
		internal	external			
2. Implementation (during trade fair)						
1.	Inspection and acceptance of booth					
2.	Conduct Match-Making events					
3.	Conduct cooperation meetings with relevant industry associations and other clusters					
4.	Send out hostess or students to disseminate invitations (evening event) and brochures					
5.	Conduct evening event					
6.	Conduct B2B meetings of companies					
7.	Conduct further PR activities (invitation of journalists, provide information and articles)					
8.	Participate in relevant forums, conferences and panels					
3. Follow-up (after trade fair)						
1.	Conduct follow-up based on trade fair meetings and visitor value reports					
2.	Contact and inform own journalists about results					
3.	Contact and inform foreign journalists about trade fair participation					
4.	Inform relevant institutions (e.g. Ministry of Economy) about results					
5.	Derive lessons learned and best practices from trade fair participation					
6.	Support companies in follow-up of trade fair contacts					
7.	Accounting and payment					

5 Domestic Market Development & Local Innovation

5.1 IT Needs Assessment

Name of the Tool:	IT Needs Assessment
Source:	GIZ
Usage:	The tool "IT Needs Assessment" has been developed as an instrument to support domestic market development and local innovation. By applying this tool, IT companies can better understand the specific requirements and needs of local companies from other sectors concerning IT. Thus, this tool provides local IT companies with the information they need in order to incorporate user's right from the start into a participative, user-engaged process for developing innovative IT products and services for the domestic market. Thereby, local IT companies are able to open up the growth potential of the domestic market and at the same time firms from other industries are able to improve their productivity and efficiency by applying IT solutions which have been customised to their specific needs. The tool "IT Needs Assessment" has been designed as a cluster service.
Description:	This tool consists of a service profile, a detailed process description for the implementation of the IT Needs Assessment and a sample questionnaire.

1. Service Profile

IT Needs Assessment			
Date:	-	Service Name:	IT Needs Assessment
<Service Logo>		Status:	Service Profile 1.0
		Website:	-
		Service Manager:	n.n.
		Phone:	-
		E-mail:	-
		Skype/ICQ:	-

Service Description:	
The IT Needs Assessment has been designed as a cluster service in order to achieve the following goals: • Enabling IT cluster member companies to better understand the concrete needs and requirements of local firms from other industries in terms of IT. • Generating business opportunities for member companies on the domestic market and providing them with additional sources of income. • Promoting participative, user-engaged development of innovative IT products and services which meet the specific needs of local industries (e.g. tourism, textile). • Promoting cooperation between the local IT industry and other sectors of the local economy in order to foster innovation and to increase productivity and competitiveness	
Core Features :	**The core features of the IT Needs Assessment Service include:** • Provision of a report with detailed information on concrete IT needs and requirements of local companies from other industries. • Domestic market analysis and market intelligence. • Local business development for IT cluster member companies.
Additional Features:	**Additional features include:** • Support to the development of customer-oriented, innovative IT products and services; support to innovation management. • Support to joint IT product / service development (cluster-based). • Organization of B2B match-making events with companies from other industries. • Business development support and follow-up of match-making events.
Customer's Benefit:	The service provides IT cluster member companies with detailed information on the concrete IT needs of potential customers on the domestic market. Thereby it enables companies to customise their IT solutions according to the specific requirements of local firms and to develop new, innovative IT products and services. This allows local IT companies to open up the domestic market potential and to generate additional revenues. In addition to that, the service "IT Needs Assessment" creates awareness on IT in other industries and supports user-engaged, pro-active marketing and business development for cluster member companies.
Target Group:	IT cluster member companies.

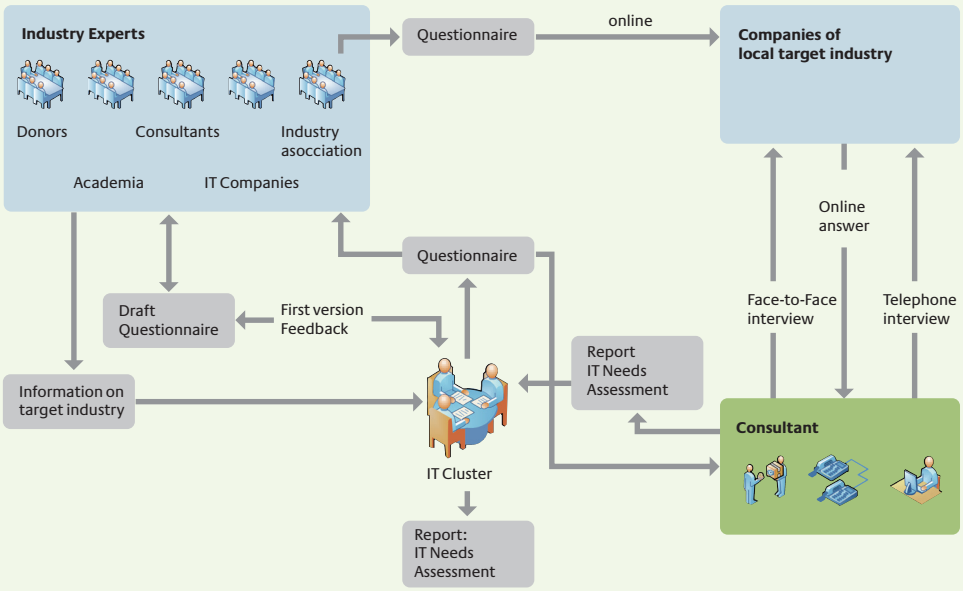
Mode of Delivery:

After the relevant target industry (e.g. tourism) has been selected, the IT Needs Assessment of the companies has to be conducted. For this purpose a suitable questionnaire needs to be designed including general questions on the company (e.g. company size), questions on the existing level of IT usage as well as detailed questions concerning the concrete needs of the company in terms of IT (horizontal and vertical solutions). The questionnaire should be pretested and discussed with industry experts as well as selected IT firms to ensure that it takes into account all industry-specific factors. It is advisable to implement the needs assessment in close cooperation with an association or cluster of the corresponding target industry (e.g. textile industry association). In addition to that, a suitable consultant should be contracted for conducting the interviews as well as the corresponding data analysis.

The final questionnaire is being disseminated by the IT cluster manager/service manager to the association of the target industry as well as to the consultant. The needs assessment can be conducted through an online survey as well as through telephone interviews and face-to-face interviews. Depending on the target industry, it is recommendable to use all three forms of data collection.

After collecting and analysing the survey data, the consultant elaborates a detailed report with the results of the needs assessment. Then, the IT cluster manager/service manager checks the report and presents the results to the IT cluster members.

The following chart illustrates the mode of delivery of the cluster service “IT Needs Assessment”:



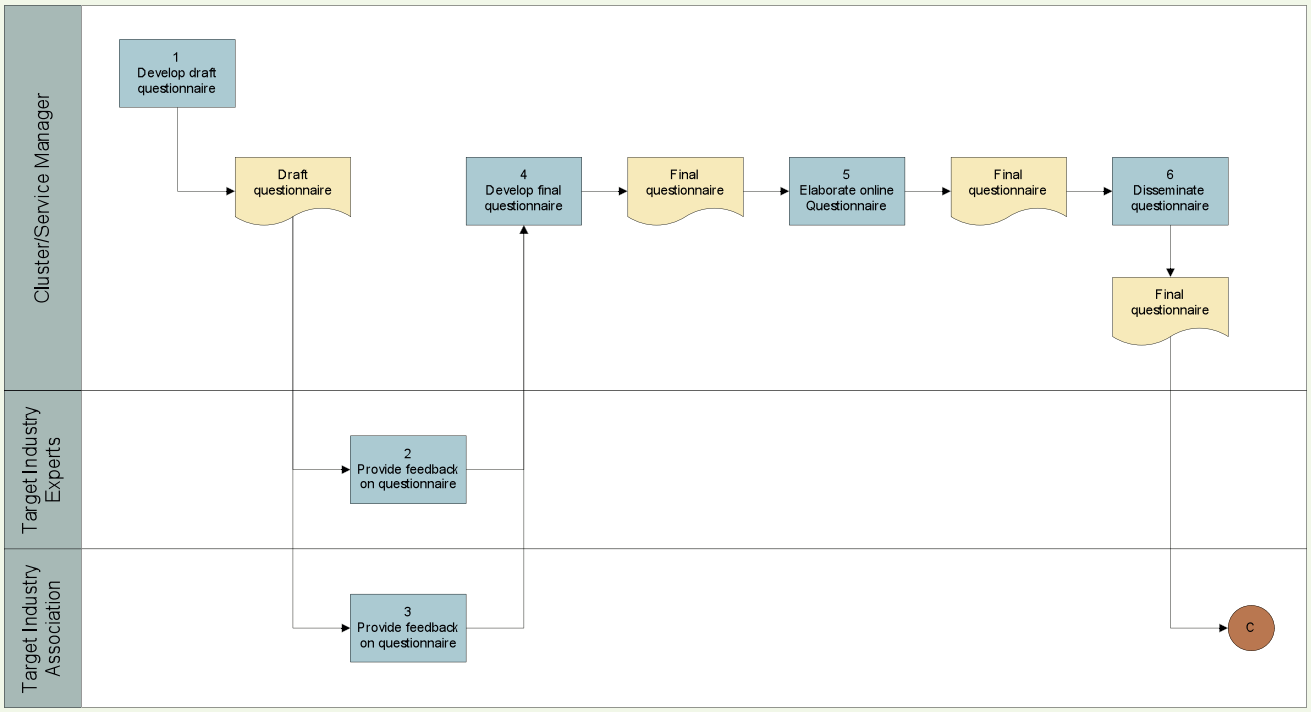
Price & Financing	The financing of the IT Needs Assessment Service should ensure full sustainability of the service. Ideally costs for providing the service should be covered by membership fees. If this is not possible, an alternative pricing model needs to be developed to cover the expenses for the needs assessment. In this case the financing of the service should be based on a fixed price for obtaining the IT needs assessment report.

Technology Platform:	**Technology platforms required for the IT Needs Assessment Service include:** • Online survey tool. • Email for sending out invitations to participate in the survey as well as the link to the online questionnaire. • Groupware application or intranet for disseminating the IT needs assessment report.
Service Support:	Service support will be provided by the responsible service manager of the IT cluster.
Distribution Channels:	**The IT Needs Assessment Service will be marketed through the following channels:** • IT cluster website: service section. • Newsletter of the IT cluster. • Service presentation at IT cluster meetings and workshops.
Additional Information:	It is advisable to extend the scope of the IT Needs Assessment Service by including additional features such as advisory services for new product development / innovation, B2B match-making as well as support to business development.

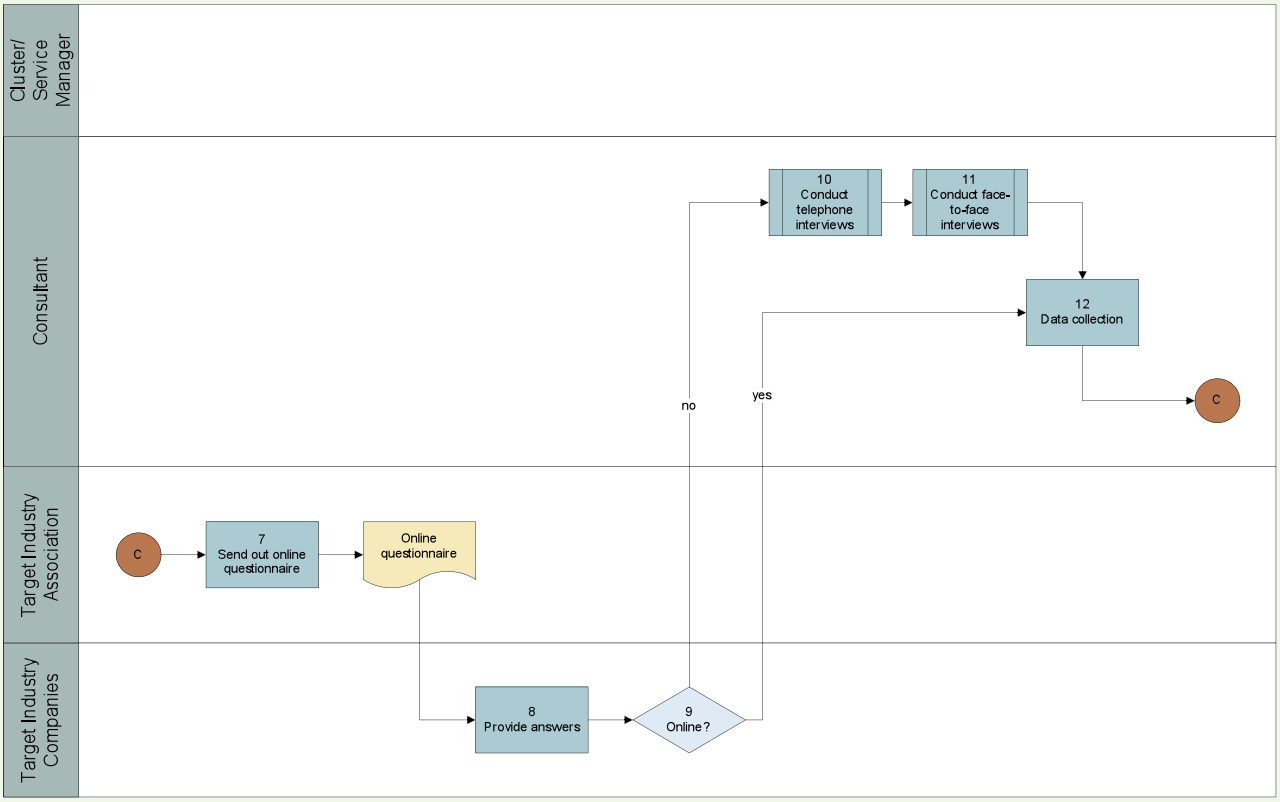
2. Process Description

In the following section, the service delivery process is described, including a flow chart and a description table. According to the principle of continuous improvement process, the service delivery process needs to be continuously reviewed, improved and optimised in order to ensure that the service is being managed efficiently and in accordance with the client's needs.

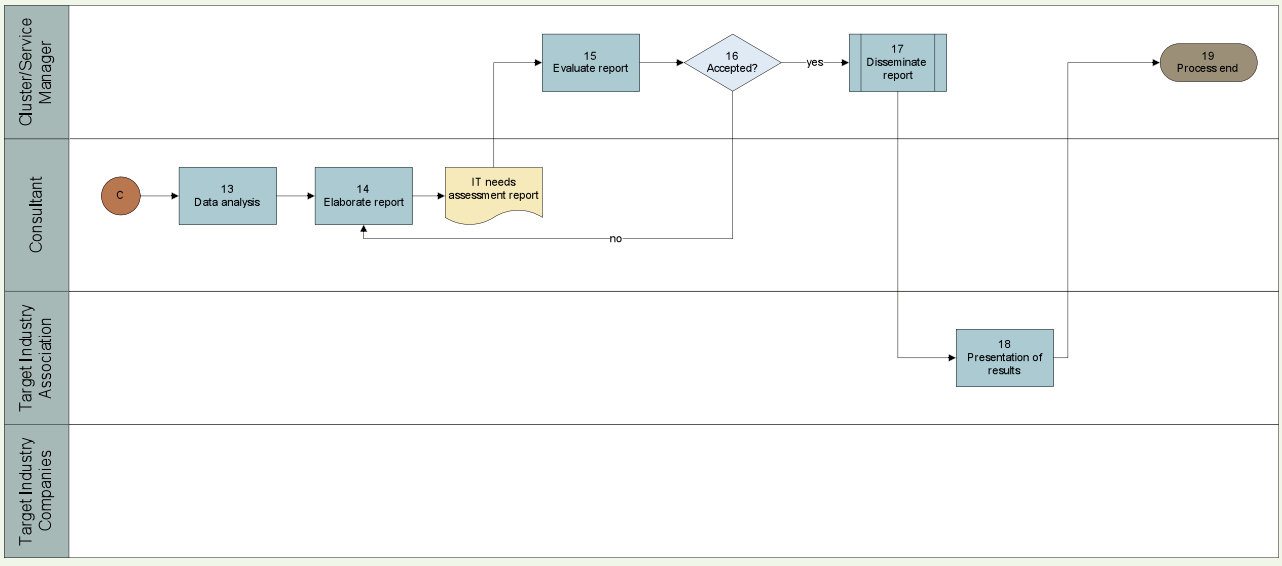
Service Process Description (1)



Service Process Description (2)



Service Process Description (3)



Nr.	Activity	Responsibility	Document
1	The cluster/service manager elaborates a draft questionnaire	Cluster/ Service Manager	Draft Questionnaire
2	Experts from the target industry (e.g. tourism) provide feedback in order to further improve the questionnaire	Target Industry Experts	Draft Questionnaire
3	Target industry association (e.g. tourism industry association) provides feedback in order to further improve the questionnaire	Target Industry Association	Draft Questionnaire
4	Based on the feedback, the cluster/service manager develops the final questionnaire	Cluster/Service Manager	Final Questionnaire
5	By using the online survey tool the cluster/service manager elaborates an online version (HTML) of the questionnaire	Cluster/Service Manager	Online Questionnaire
6	The cluster/service manager disseminates the questionnaire to the consultant and the target industry association	Cluster/Service Manager	Questionnaire
7	The target industry association sends out the questionnaire to its member companies (e-mail with link to online questionnaire)	Target Industry Association	Questionnaire
8	The target industry companies answer the questionnaire	Companies	Questionnaire
9	If the companies answer the questionnaire online, the data will be collected by the consultant via the online survey tool	Companies	Questionnaire
10	If the companies do not answer the questionnaire online, the consultant needs to conduct a telephone interview	Consultant	Questionnaire
11	If required by the target industry companies, the consultant needs to conduct face-to-face interviews	Consultant	Questionnaire
12	The consultant conducts the data collection	Consultant	-
13	The consultant analyses the data by using software solutions such as Excel or SPSS	Consultant	-
14	Based on the results of the data analysis, the consultant elaborates the IT needs assessment report	Consultant	IT Needs Assessment report
15	The cluster/service manager evaluates the IT needs assessment report	Cluster/Service Manager	IT Needs Assessment report
16	If he does not accept the report, the consultant needs to revise it	Cluster/Service Manager	IT Needs Assessment report

Nr.	Activity	Responsibility	Document
17	If the cluster/service manager accepts the report, he disseminates the IT assessment report to the IT cluster member companies	Cluster/Service Manager	IT Needs Assessment report
18	The target industry association organises a workshop to present the results of the IT needs assessment to its member companies	Target Industry Association	IT Needs Assessment report
19	Process end	-	-

3. Sample Questionnaire: IT Needs Assessment of the Albanian Software Industry

Questionnaire – Tourism Companies

1 Company overview

Name of the Company	
Location of the Company (city)	
Year of Foundation	
Number of Employees	
Full-time Employees:	☐ 1-5 ☐ 6-10 ☐ 11-20 ☐ 21-50 ☐ 50+
Part-time Employees / Free Lancers:	☐ 1-5 ☐ 6-10 ☐ 11-20 ☐ 21-50 ☐ 50+
Type of Company	
Accommodation	
Restaurant & Bars	
Travel Agencies	

2. Generic IT usage

Do you have a computer?

No	☐
If yes, for Business usage	☐
If yes, for Guests usage	☐

Do you have Internet access?

No	☐
If yes, for Business usage	☐
If yes, for Guests usage	☐

Do you have an Internet presence / homepage of your Company?

Yes	☐
No	☐
If yes, the updates and changes of the content are done:	
in-house	☐
by an external supplier	☐
What functions are available on your homepage?	
Presentation of Company and offers	☐
Send a message or E-mail	☐
Latest news of your Company	☐
Special offers	☐
Make booking and/or reservations (automatic via homepage)	☐
Perform operational activities of the company via homepage	☐
Others	Please specify:

Do you use any Office Suite (word processing, spreadsheet, presentation, database), or parts of it, in your company?

Yes	☐
No	☐
If yes, what purpose it is used for?	

Do you use specific software solutions to manage the following administrative activities?

Accounting (e.g. Bilanç, Finance 5, etc.)	☐
Finance (e.g. Finance 5, etc.)	☐
Human Resources	☐
Taxes	☐
Others	Please specify:

3. Specific IT usage (per tourism sub-sector)

If you your Company is in the field of:

Accommodation	go to question	4
Restaurant & Bar	go to question	6
Travel Agency	go to question	8

4. Accommodation / Hotel

Do you use software solutions to perform the following functions (offline or online)?

Reservation	☐
Booking	☐
Rooms' usage	☐
Client entry / exit process	☐
Restaurant	☐
Bar	☐
Breakfast	☐
Cleaning	☐
Laundry	☐
Mini-bars	☐
Parking	☐
Pool / Gym / Sauna Area	☐
Payments (Cash, CC, Check, Invoice)	☐
Price List	☐
Reports	☐
Others	Please specify:

Do you use an integrated solution to perform the above marked functions?

Yes	☐
No	☐
If yes, what is the name of the solution / of the provider you use?	

The above mentioned solution has:

an Albanian provider	
Yes	☐
No	☐
Local support in Albania	
Yes	☐
No	☐
Albanian as language	
Yes	☐
No	☐

Is your system / software linked to external systems?

Yes	☐
No	☐
If yes, to which ones, and which functions?	

Is your hotel listed in external reservations and booking systems / sites?

Yes	☐
No	☐
If yes, please list the booking systems / sites:	

5. Final questions

Please inform us whether you use additional software solutions in your company, and for what purpose?

Would you like to use IT / software solutions for additional activities or functions you are currently not using? Please, specify.

Based on your personal experience, please summarise your concrete needs concerning IT and software applications.

Thank you for your support!
>> End <<

6. Restaurants & Bars

Do you use software solutions to perform the following functions (offline or online)?

Reservation	☐
Booking	☐
Table usage	☐
Clients' orders	☐
Supplier management	☐
Warehouse / Stocks	☐
Invoicing	☐
Payments (Cash, CC, Check, Invoice)	☐
Menu	☐
Reports	☐
Others	Please specify:

Do you use an integrated solution to perform the above mentioned functions?

Yes	☐
No	☐
If yes, what is the name of the solution / of the provider:	

The above mentioned solution has:

an Albanian provider	
Yes	☐
No	☐
Local support in Albania	
Yes	☐
No	☐
Albanian as language	
Yes	☐
No	☐

Is your Restaurant / Bar listed in external reservations and booking systems / sites?

Yes	☐
No	☐
If yes, please list the booking systems / sites:	

7. Final questions

Please inform us whether you use additional software solutions in your company, and for what purpose?

Would you like to use IT / software solutions for additional activities or functions you are currently not using? Please, specify.

Based on your personal experience, please summarise your concrete needs concerning IT and software applications.

Thank you for your support!
>> End <<

8. Travel Agencies

What type of services you offer in the travel agency?

Out-bound	☐
In-bound	☐

Do you use software solutions to perform the following functions (offline or online)?

Flight reservations	☐
Railway reservations	☐
Cruise line reservations	☐
Car rental	☐
Hotel reservation	☐
Travel packages	☐
Insurance	☐
Invoicing	☐
Payments (Cash, CC, Check, Invoice)	☐
Reports	☐
Other	Please specify:

Do you use an integrated solution to perform the above mentioned functions?

Yes	☐
No	☐
If yes, what is the name of the solution / of the provider:	
Amadeus	☐
Galileo	☐
Gabriel	☐
Others	Please specify:

Is it possible to book some of the services you offer via your homepage by the client?

Yes	☐
No	☐
If yes, which of the services?	

(In-bound) Do you use the support of a specific software solution to prepare a holiday package for the client (reservation of hotel, transport, restaurant, sightseeing and city tours, additional activities, pricing etc.)?

Yes	☐
No	☐
If yes, which software solution?	

8. Final questions

Please inform us whether you use additional software solutions in your Company, and for what purpose?

Would you like to use IT / software solutions for additional activities or functions you are currently not using? Please, specify.

Based on your personal experience, please summarise your concrete needs concerning IT and software applications.

Thank you for your support!
>> End <<

5.2 Template for IT Project Plan

Name of the Tool:	Template for IT Project Plan
Source:	GIZ
Usage:	This template has been designed as a tool to support the planning of IT projects for potential clients on the domestic as well as international market. In addition to that it can be used to plan the development of innovative IT products and services for customers from other industries. The tool is particularly useful for the planning and managing of joint IT projects which are being implemented by several IT companies in the form of a consortium or cluster-based.
Description:	The tool consists of a template including all necessary topics and steps in order to elaborate a professional IT Project Plan. It covers issues such as project scope, project milestones, deliverables, financials, project schedule and project structure.

Template for IT Project Plan

[Project Acronym and Name]

Project Number:	To be Assigned
Document Version:	1.0x1
Date:	yyyy-mmm-dd

Project Overview:	

Client:	
Created by:	To be Assigned
Version:1.0x1	1.0x1
Date:	yyyy-mmm-dd

Acceptance

[Client Project Authority]	Program Management Office
Signature	Signature
[Name]	[Name]
[Title]	[Title]
Date:	Date:

Version History

Version	Date	Description of Major Changes
1.0x1		First Draft

People Involved in the Preparation of This Document

Function	Name

Reviewed and Accepted

Reviewer	Role	Acceptance Signature

Table of Contents

1 The Project Charter

1.1 The Project Charter Purpose

This document is created to accurately define the requested project. This document is an agreement between the Project Sponsor and the Project Manager on the purpose and intended outcomes of this project. Once completed and approved, this document will serve as the business case, charter, and the guide for the project team to develop a detailed project plan document.

1.2 Background

This section provides a brif description of the events leading up to this project request.

1.3 Project Strategy Purpose Goals and Objectives

1.3.1 Strategy

This section provides the general vision, approach, or direction that will be employed in the project.

1.3.2 Purpose

This section defines **WHY** we are doing this project, what the expected outcomes are, and who wants and/or needs it done.

1.3.3 Goals

This section defines **WHAT** the project is trying to accomplish.

1.3.4 Objectives

This section is defined by the project team and articulates **HOW** they are going to accomplish the goals and by **WHEN**. The objectives should be measurable and achievable.

This project has the implementation of the following objectives:

Objective	Target Date

1.4 Critical Success Factors

This section defines what the project has to deliver to be considered successful.

In order for this project to be considered successful the following must be accomplished:

1.5 Project Scope

This section specifies the project boundaries – what the project will deliver and what it will not deliver.

1.5.1 In-Scope

The project team agrees that following items are included in the project and **WILL** be implemented.

1.5.2 Out-Of-Scope

The following items are **NOT** included in the project and will NOT be implemented.

1.6 Business Alignment

1.6.1 Impact on the Business of NOT DOING the Project

This section defines how business will be impacted if the project is not being implemented.

Risk Weight	Risk to the Business NOT DOING This Project Will:	Response Double Click Box to Check
HIGH = 3	Negatively Impact Dependent Critical Program	Yes ☐ No ☐
	Miss the Corporate Strategic Goal	Yes ☐ No ☐
MEDIUM = 2	Risk of Service Loss or Delay	Yes ☐ No ☐
	Continue Business or Expense Inefficiencies	Yes ☐ No ☐
LOW = 1	Lose Opportunity or Revenue	Yes ☐ No ☐

Enter Statements to Support your Choices in the Above Table.

NOT DOING this Project Will Result in:

1.6.2 Value to the Business of DOING the Project

This section defines how doing the project adds value to the business.

Value Weight	Value to the Business	Response Double Click Box to Check
5	Generates or Protects Revenue	Yes ☐ No ☐
5	Provides Stability / Reliability	Yes ☐ No ☐
4	Recover Failed Systems Rapidly	Yes ☐ No ☐
3	Enhance Security	Yes ☐ No ☐
2	Improves Performance or Service	Yes ☐ No ☐
1	Enhances Functionality	Yes ☐ No ☐

Enter Statements to Support your Choices in the Above Value Table.

DOING this Project Will Result in:

1.7 Dependencies and Risks

1.7.5 Project Dependencies

The Project has the following dependencies on, or by, other projects or outside agencies:

1.7.6 Risk Management

In every project there are certain risks that can be identified as constraints, external factors, or potential events that could have an impact on the project in terms of time, resources or costs.

Project risk management is the responsibility of the project manager. It is an iterative activity performed throughout the life of the project and covers business and technical risks together with the preventative and contingency actions necessary to reduce the probability and impact of the risk event.

The following risks have been identified and an initial risk response has been assigned.

No	Risk	Probability Low Medium High	Impact Low Medium High	Impact Statement	Response Accept Avoid Mitigate Transfer

1.8 Roles and Responsibilities

The following roles and responsibilities are defined for this project:

Role	Name	Responsible for

1.9 Organization Chart

Insert Organization chart here

1.10 Resources

1.10.1 PMO Project Personnel

Name	Phone	E-Mail	Comment

1.10.2 Vendor Personnel

Name	Phone	E-Mail	Comment

1.10.3 Equipment

1.10.4 Facilities

1.11 Project Milestones

Milestone	Forecast Dates

1.12 Milestone Completion Procedures

1.12.1 Deliverables Based

Project milestones have been organized to correspond with key deliverables.

Milestone deliverables are signed off by the sponsor.

1.12.2 System Acceptance

The system acceptance will occur after all the deliverables have been signed off.

1.13 Major Deliverables

No.	Deliverable

1.14 Reference Documents

The following are the Project reference documents:

1.15 Assumptions

No.	Assumption	Relevance

1.16 Constraints

Constraint	Description

1.17 Project Communications

1.17.1 Milestone Project Reviews

The following milestone reviews will be planned and coordinated by the project manager:

Review Name	Participants

1.17.2 Management Reviews

Formal Project management reviews will be an integral part of the project.

On a monthly basis, a management review, using the standard 9-overhead format, will be held for the management team. The PMO manager will chair the presentation.

1.17.3 Regular Project Status Meetings

Weekly status meetings will be held with key project team members.

1.17.4 Project Status Reports

The primary purpose of these reports is to provide a continuous assessment of project status.

On a weekly basis the Project Manager will be responsible for creating and distributing the status report. It will follow the standard project status report format. The report will be sent to the client and will include the management.

1.17.5 Project Time Reporting

Depending on the availability of an Enterprise Project Management Tool one of the following methods will be used to enter project time.

- Project Team members will enter time directly into the Enterprise Project Management Tool.
- At each weekly project status meeting the project manager will provide each team member with upcoming activity sheets at the work breakdown level. These sheets will be filled in by team members and collected at the subsequent status meeting.

1.17.6 Financial Reporting

1.17.7 Closure Reporting

A project completion report and Lessons Learned document will be produced at the conclusion of the project.

1.18 Financials

1.18.1 Estimated Project Duration

Up to 1 month	☐	2 – 3 months	☐	4 – 6 months	☐
7 – 9 months	☐	10 – 12 months	☐	> 12 months	☐

1.18.2 Internal Resources

Resources

1.18.3 Additional Staff

This section provides a list of additional staff that will need to be hired as a result of proceeding with this project. Include only staff who are not currently employees.

Job Title	Reason for Additional Hire

1.18.4 Project Budget

Insert all budget items estimates.

Project Costs	Internal Resources	External Consultants	Software	Hardware
Estimate				

Maintenance Costs	Internal Resources	External Consultants	Software Maintenance	hardware Maintenance
Estimate				

1.18.5 Funding

State whether or not project funding has been already approved.

2 Project Scheduling

2.1 Initial Project Schedule

The initial project schedule, in effect as of the week ending [yyyy-mmm-dd] is attached here as an indicator of the schedule.

Updates to the project schedule will occur frequently and will not be incorporated into this project plan document. They will be provided separately.

[Paste a summary Gantt Chart here]

3 Project Structure

3.1 Architecture and Design

3.2 Software Development

3.3 Data Conversion

3.4 Training

3.5 Documentation

The following documents will be produced:

3.6 Operational Support

3.7 How the Project Team will Work Together

Under the direction of the project manager, the milestones necessary for successful project completion, along with the detailed supporting tasks, have been outlined. Specific individuals responsible for each task have been assigned, along with due dates. The project manager monitors progress toward these task activities and milestones continuously. The schedule is used to gauge overall progress and present status to management and team members. Weekly project team meetings are held and one of the agenda items is to review the schedule.

3.8 Role of Client

3.9 Management Involvement

3.10 Project Change Management Process

A strict change management process is essential to ensure that the specified requirements do not grow without specific adjustments to scope. This will ensure that outlined tasks can be fulfilled within project time and budget constraints. The change management process needs to be defined in close cooperation with the client.

3.11 Project Management Techniques and Tools

Specific project management techniques and tools to be used are as follows:

- Microsoft project management software, incorporating Gantt chart and resource control capability, as well as earned value parameters will be used where appropriate.
- Project management methods and tools according to PMI standards.
- Formal project management reviews and reports will be conducted and distributed periodically to ensure that project progress is on schedule and within acceptable financial limits.

3.12 Project Management Processes

Project management processes applied in this project are compliant with the Project Management Institutes Project management Body of Knowledge. The following processes are defined.

3.12.1 Project Status Reports

A project status report will be provided at weekly intervals. The report will be distributed to the Project Administrator as well as to the project team and management.

3.12.2 Time and Effort Reporting

The project manager will initially provide weekly work packets to the project team. Time will then be entered in Microsoft Project scheduling tool, in order to track actual effort. After MS project Server implementation project time can be entered directly by project team members.

3.12.3 Project Team Meetings

Project team meetings will be held weekly.

3.13 Project Tracking

The project will use several means to track progress. All types of effort must be integrated into the overall schedule.

3.13.1 Labour Tracking

Actual hours worked will be tracked to record labour effort expended against specific tasks. Actual hours worked by a project individual, as recorded on their weekly time sheets, (and later entered directly via MS Project Server) is transferred to the Project Schedule on a weekly basis. This method of recording time provides a weekly accounting of labour expended.

3.13.2 Percent Complete

This method is used to record effort expended on tasks that are completed over extended periods of time with discontinuous activity between the start and stop of the task. It is also used where individuals are multi-tasking across several tasks at the same time.

The actual time worked on specific tasks is provided to the project manager. The Microsoft project management software, using this information and the total estimated work effort for each task, then computes both Percent Duration Complete and, optionally, percent Work Complete. The software then displays these values on the Gantt Chart.

3.13.3 Earned Value

Optionally, the total amount of time estimated to complete all tasks will be recorded in the schedule as a baseline. Each task packet has been assigned a specified work time. As tasks are completed the amount of hours assigned to that packet is earned against the task packet.

3.13.4 Activities and Estimates

The actual activities and estimates for the Project are continually changing due to weekly updates. For this reason, all Project schedule information will be maintained and updated by the project manager and updated on a weekly basis.

3.14 Phase Exit Criteria

3.14.1 Initiation Phase Exit Criteria

Where appropriate, the following criteria will be checked at a phase exit meeting:

- The Request for a Project has been submitted by the client to the appropriate PMO Review team for action.
- A Decision to proceed to develop the Project Charter has been made by the appropriate Management team.
- A Project Manager has been appointed with agreed terms of reference.
- The initial Project Charter has been developed.
- The Initial Project Schedule has been developed.
- The Project Charter has been approved by the appropriate Project Approval Review Board.

3.14.2 Planning Phase Exit Criteria

Where appropriate, the following criteria will be checked at a phase exit meeting:

- The Design Specification is prepared and the client accepts it.
- The proposal project team and management agree on the statement of proposed functionality, including any quality assurance criteria, specified in the Project charter document.
- The Project Plan Document, reflecting all of the content of the Project Charter is developed signed by the Project Manager and approved by Management.
- The Initial Project Schedule has been updated and is now the starting Project Schedule.
- Any Design, Programming, or Implementation Requirement Specifications are complete and have been signed off.

3.14.3 Execution and Control Phase Exit Criteria

Where appropriate, the following checklist will be reviewed at the phase exit meeting:

- The Functional Specification has been approved by the client.
- The Acceptance Test Specification has been accepted and signed by the client.
- The System Components have been developed, documented and tested in readiness for system integration and testing.
- Delivery of system components has been planned.
- The Acceptance Test Package has been reviewed and accepted by the project team and client.
- A fully tested system has been achieved after system integration and test plan has been carried out.
- Any facilities are prepared.
- The system introduction has been planned.
- The Quality Assurance Requirements and quality exit criteria for the Implementation Phase have been met.
- System Components have been delivered and installed.
- The client organization is ready for system introduction.
- The client has formally accepted the system.
- The Quality Assurance Requirements and quality exit criteria for the Installation Phase have been met.
- The IT Operations organization has signed off on the execution.

3.14.4 Closure Phase Exit Criteria

The following checklist will be reviewed at the phase exit review meeting:

- The project material has been archived.
- The Quality Assurance Requirements and quality exit criteria for the Closure Phase have been met.
- The Lessons Learned Document has been prepared.
- The Project Completion Report has been developed and distributed.

3.15 Project Document Approvals

Document Name	Project Phase	To be approved by

3.16 Problem Resolution Process

A multi-stage problem resolution process will be employed.

1. Initially all problems that result in a difference-in-understanding will be addressed by the Project Director and the project manager and resolved.
2. In the event that a resolution is not forthcoming in Step 1., the issue will be addressed by management and appropriate level client management and resolved.
3. In the event a resolution is not forthcoming in Step 2., senior management will resolve the issue.

5.3 IT Product Profile

Name of the Tool:	IT Product Profile
Source:	GIZ
Usage:	This tool can be applied by IT companies in order to present innovative product offerings in a structured manner. It is particularly suitable for the preparation of match-making events with companies from other industries (e.g. tourism) as well as for business development. Potential clients get a structured overview on product features and benefits. Thus, this tool is particularly suitable for domestic market development but it can also be used in export promotion.
Description:	The profile encompasses a section on company contact details, a short company profile and a detailed product profile describing the IT product, its features, customer benefits, hardware and software requirements as well as pricing.

IT Product Profile			
Company Contact Details:			
Date:		Company Name:	
<Please insert logo here>		Address:	
		Postal Code/ City:	
		Website:	
		Contact person:	
		Position:	
		Phone:	
		Fax:	
		E-mail:	
		Skype/ICQ:	

Company Profile:
Company Description: (Please insert a short description of your company in the field below (business activities and core competences))

Technology: (Programming languages, database technologies, etc.)	
Number of Employees:	
Year of Incorporation:	
Certification: (ISO, CMMI, etc.)	
References:	
Product Profile:	
Product Name:	
Product Website:	
Product Description: (Please insert a short description of your product in the field below)	

Features:	
Technology Platform:	
Customer's Benefit:	
Vertical Target Market: (e.g. automotive, financial services, etc.)	
Horizontal Target Market: (e.g. CRM, Knowledge Management, Business Intelligence, etc.)	
References and Clients: (clients using your product)	
Hardware and Software requirements:	
Product Support: (web support, hotline, etc.)	
Product Price/ Licensing:	
Distribution Channels:	
Additional Information:	

Published by
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

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Text
Lucas von Zallinger | Capgemini Consulting

Design and Layout
Barbara Reuter | Oberursel | barbarareuter-grafikweb.de

Printed by
Aksoy Print and Projektmanagement, Eppelheim
Printed on FSC-certified paper

As at
November 2011

GIZ is responsible for the content of this publication.

On behalf of
Federal Ministry for Economic Cooperation
and Development (BMZ);
Division Economic Policy; Financial Sector

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