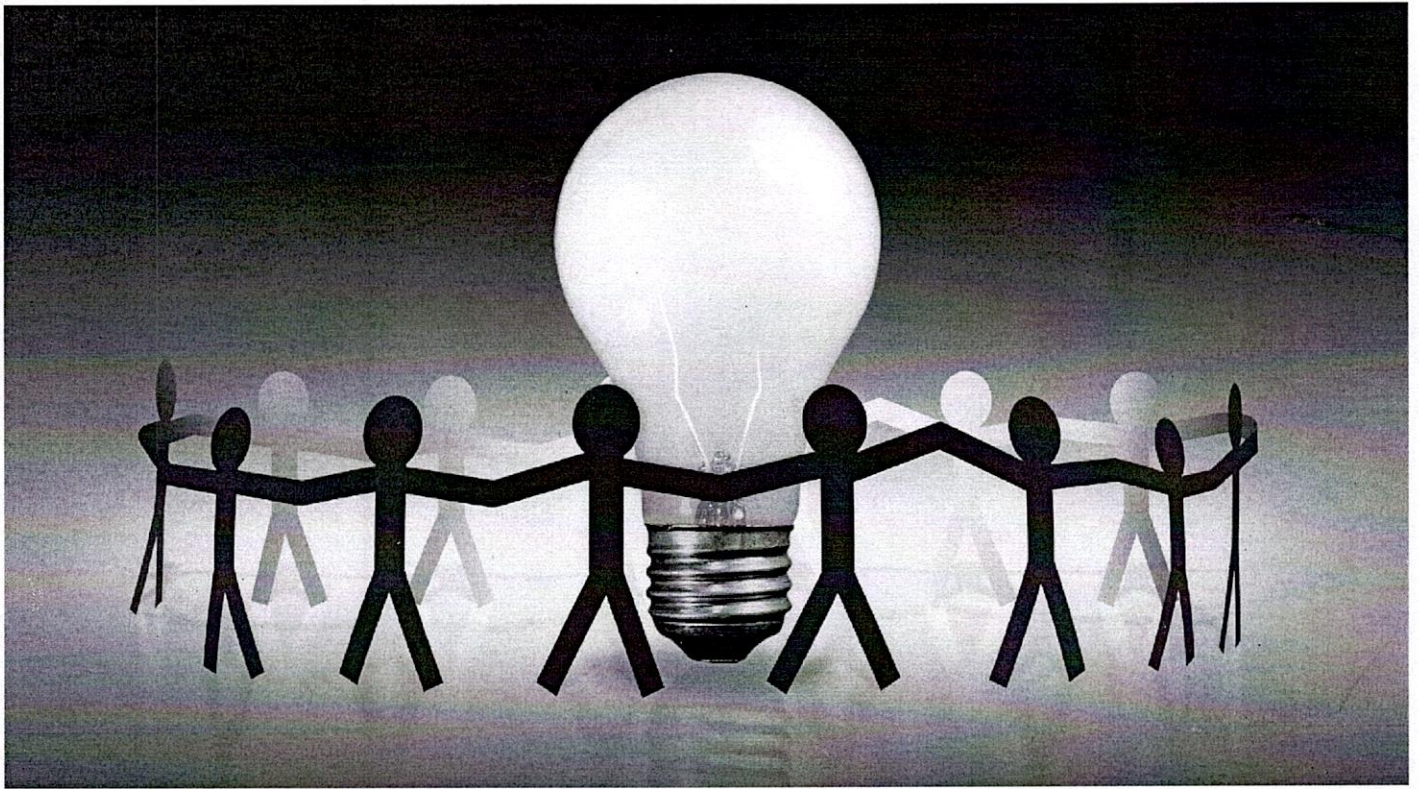


GTZ Knowledge Management



Knowledge management
for project managers and other decision-makers

Learning from experience

gtz

Imprint

Editor

Deutsche Gesellschaft für
Technische Zusammenarbeit (GTZ) GmbH
Postfach 5180
65726 Eschborn / Germany
T +49 61 96 79-15 66
F +49 61 96 79-80 15 66
E wissen@gtz.de
I www.gtz.de

Responsible and author

Dr. Jan Schwaab, Chief Knowledge Officer

Design

ansicht kommunikationsagentur
www.ansicht.com

Photos

© GTZ

Printed by

rhein-main Geschäftsdrucke

This manual is also available in English and Spanish.

Eschborn 2007, 2nd edition 2009

Contents

A. Introduction	2
The benefits of sharing experience and knowledge	2
The goal of this manual	3
What is knowledge?	3
Overview of success factors and implementation steps	4
B. The steps to good knowledge management	6
1. Determine goals and needs for action	6
1.1 Develop a vision of the target situation	8
1.2 Analyse the initial situation and determine needs for action	8
2. Secure support and resources for implementation	11
2.1 Ensure support by management	11
2.2 Create acceptance in the team and among key individuals	13
3. Establish simple and appropriate tools and methods	15
3.1 Identify necessary knowledge and tools	15
3.2 Organise information management and communication	17
3.3 Create space for sharing, reflection and innovation	21
4. Establish responsibilities for knowledge sharing	22
4.1 Establish tasks and persons in charge of knowledge management	22
4.2 Strengthen individual competence in knowledge sharing and learning	23
Annex Handout on communicating knowledge appropriately for the target group	26

Acknowledgment

We would like to thank the GTZ staff who attended the introduction to GTZ knowledge management. Their questions, suggestions and comments formed the basis for this manual. We are particularly grateful to the GTZ information and knowledge managers, on whose experience this manual is based.

We also would like to thank our interns for making the photos for this publication.

A. Introduction

All organisations and companies must constantly adapt to changing conditions. After all, the world itself is changing. Decision-makers and staff carry out the necessary modifications in their areas of responsibility using many different measures.

German technical cooperation (TC) has been assisting its partner countries for over 30 years with measures which are particularly important for the development of a sector or country. The goal is to achieve lasting consolidation of local structures and their ability to adapt (capacity development).

The ability to adapt is particularly marked in organisations able to learn practically from their experience and utilise quality knowledge to shape their future. This applies not only to profit-oriented companies, but also to government institutions seeking to reduce poverty effectively. Network initiatives, such as those formed to promote youth employment, also rely on communicating useful experience and future-oriented knowledge to their members.

Knowledge management is the “art” of organising this sharing of experience and knowledge efficiently. What knowledge is shared, collected and used within an organisation depends on how the “rules of the game” are formulated.

The benefits of sharing experience and knowledge

Knowledge management is not an end in itself. It helps an organisation, (project) team or network to perform its functions better. The more important sectoral and management expertise, new ideas and intellectual activity are in an organisation, the more important it is that the organisation really learns from its experience. In this process, both good and bad experiences are important.

Figure 1: Selected examples of the benefits of knowledge management

General benefits	... and specifically for project teams
Cost savings	<ul style="list-style-type: none"> • Learn from mistakes – our own and those of other projects • Train staff quickly and easily • Use proven, existing IT solutions, avoid the need to develop anything new • Avoid duplicating work
Time savings	<ul style="list-style-type: none"> • Know how and where to find contacts, documents etc • Share experience and communicate in the team without any conflicts • Avoid duplicating work and wasting time • Benefit from ideas from other projects
Quality improvement	<ul style="list-style-type: none"> • Improve results thanks to a good project concept • Provide competent advice to partners • Achieve good local coordination with other donors • Learn from experience together with the partner • Pull in the same direction, in the team and with others locally

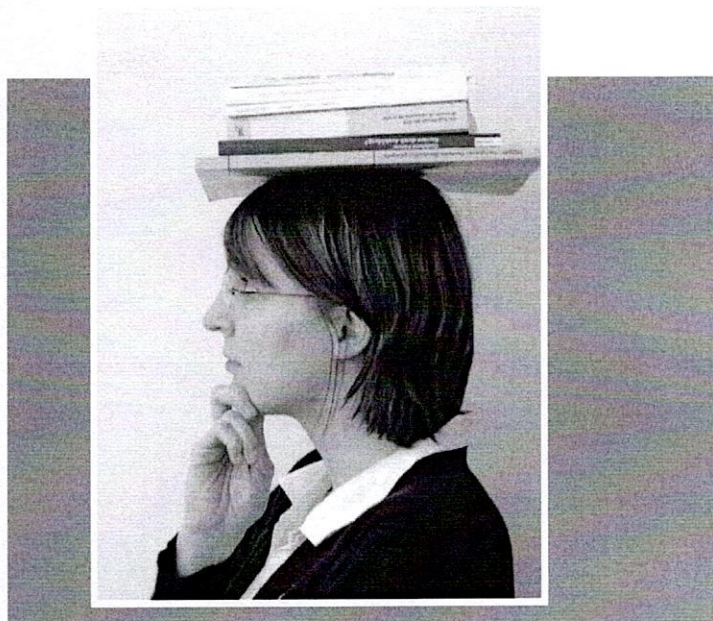
The goal of this manual

This manual summarises the most important steps and decisions that need to be taken for good knowledge management. It is aimed at TC projects and their partner institutions at local, regional and central level, and at network organisers.

The manual is no substitute for a coherent knowledge management strategy. This must always be defined and implemented on a case by case basis. The manual suggests a sequence of steps, a methodology and tools offering an overview of the relevant questions. However, these suggestions need not be implemented in exactly this way in every case. The manual should be used as an introduction and supplement to a systematic process of change supported by suitable experts.

The manual is based on the experience of GTZ and its partners. It draws on the training event for new GTZ staff. The content has been modified for training of experts and management staff in partner institutions. The manual is in a process of ongoing development by regional expert networks.

The principles formulated in this manual can be applied to project teams, organisational units, networks and complete organisations. For simplicity, the following chapters talk in terms of "teams".



What is knowledge?

Knowledge is more than just information. Knowledge is a fluid blend of skills, technical knowledge, values, learning and experience (see Box 1). This is how we distinguish what is important from what is unimportant, and that makes us able to decide and act. Knowledge is accordingly closely related to ability, which is reflected in "knowing how" to do something.

The creation and use of knowledge are primarily mental activities. The knowledge of an organisation is accordingly contained not only in its documents and storage devices, but first and foremost in the heads of its employees, its corporate culture, standards and procedures. The focus of knowledge management is accordingly on the staff of an organisation as the carriers, communicators and users of knowledge. All the processes and tools of knowledge management must be directed at them.

Knowledge exists in both documented form ("explicit knowledge") and – predominantly – undocumented and often unconscious form ("implicit knowledge"). Knowledge management accordingly involves both documentation and systematisation of knowledge on the one hand and oral exchanges on the other. Knowledge is also the only commodity which is multiplied by sharing.

Box 1: Data, information, knowledge
LH4051430

What does the box contain? A flight number? A booking code? An inventory number? A piece of program code? These nine alphanumeric characters can mean a lot of things. To begin with, they are just data. **Data management** is concerned with entering this string in an electronic device, storing it, displaying it and calling it up.

We talk about information when the data are associated with an interpretation. Then the string really becomes (for example) a flight number. The decisive factor here is the context. In other words, what the information is used for in communication.

Information management is concerned with how the interpretations of data are entered, stored, structured, displayed and communicated. This is generally the main purpose of databases.

Knowledge goes a step further: if we add experience and evaluation to information, we can distinguish between important and unimportant information. Then, the flight referenced above becomes e.g. the award-winning flight with the best in-flight service in the past year. This evaluation (often subjective) is what makes the difference. **Knowledge management** accordingly has to organise the procedures and structures which help collect experience, make evaluations and identify and use important information.

Data, information and knowledge management build on each other. Effective knowledge management always requires efficient data and information management.

Overview of success factors and implementation steps

The focus of knowledge management is on people. We all need knowledge in order to perform our own tasks well and contribute innovations. Knowledge management creates the framework for us to learn from each other, share experience, gain access to the informa-

tion which is important to us, and utilise knowledge properly in our practical work. Whether a team can learn from experience depends on four success factors:

Figure 2: Success factors for sharing knowledge and learning

Success factors	Typical questions	Tasks of knowledge management
Goal, strategy, processes	What is important? Who has what role? How do I set my priorities?	Establish clear processes and structures for goal-oriented processing and use of knowledge
Methods, procedures	Where do I find what? How do I find my way through the flood of information?	Provide suitable methods and tools for processing and securing knowledge
Competences	How do I proceed? Can I do this? What do I still need to learn?	Communicate relevant abilities and skills for handling knowledge successfully
Cooperation, communication	Who has already done this? Who can help me further? Is there an example?	Organise the right cooperation and communication for utilising knowledge

Every team management must ensure that these four success factors are present. This is why knowledge management is always an executive function. Success cannot generally be achieved immediately, but has to be approached step by step.

The necessary changes must be well planned and carefully implemented. The following sections of the manual explain the four steps, and provide relevant examples and suggestions.

Checklist: "The steps to good knowledge management"

These success factors are the basic requirements for sharing knowledge in all (project) teams, organisational units, organisations and networks.

Step 1: Determine the goal and needs for action
(to identify the objective)

- Develop a vision of the target situation
- Analyse the initial situation and determine needs for action

Step 2: Secure support and resources for implementation
(to be able to work effectively)

- Ensure support by management
- Create acceptance in the team and among key individuals
- Strengthen individual competence in sharing and learning
- Create incentives for active participation

Step 3: Establish simple and appropriate methods and procedures
(to learn efficiently and effectively from experience)

- Identify necessary knowledge and tools
- Organise information management and communication
- Create space for sharing, reflection and innovation

Step 4: Establish responsibilities for knowledge sharing
(to ensure the effectiveness of learning from experience)

- Establish tasks and persons in charge of knowledge management
- Appoint someone responsible for each task
- Set a timetable



B. The steps to good knowledge management

1. Determine goals and needs for action

1.1 Develop a vision of the target situation

First, the team has to be clear about the goal of sharing knowledge, in other words which benefit from figure 1 (costs, time or quality) is central. The team management should use the above checklist to identify the goal. This ensures that both internal needs for sharing between team members and needs for cooperation with third parties are identified.

No team should work without reference to the goals of the organisation as a whole. In exceptional instances, this may also involve a number of organisations. TC projects must take into account both the goals of the partner organisation(s) and those of German development cooperation.

Team expectations of good knowledge management can generally be identified easily in a moderated team meeting (see Box 2). By contrast, third party needs are often difficult to ascertain. The handout in the Annex can help here. It shows how the reciprocal need for sharing information can be clarified for various target groups.

Overall, the checklist for identifying goals provides an overview of the requirements to be met by the knowledge management of the team involved. Figure 3 uses a fictitious example to show the possible goals and requirements in the team.

Checklist for determining goals

- What superordinate goals have you already been given, e.g. by the partner organisation or the project?
- Who needs what information from your team in order to do his/her job?
- What expectations does the team itself have of functioning knowledge management?
- What requirements in terms of processing and sharing knowledge within the team do these expectations imply?



Box 2: Identifying expectations of good knowledge management

Recommended approach:

- Moderated team meeting, c. 30-60 minutes
- The moderator asks participants to write their two most important expectations of good knowledge management on cards.
- All the cards are stuck on the pinboard, duplicate answers are not removed, but instead pinned together.
- The cards are assigned to the clusters "Organisation", "Cooperation", "Tools" and "Competences".
- If there are too many expectations, the number is reduced in a second step by awarding score points or by a reflective discussion.
- The result – important goals for sharing knowledge within the team.

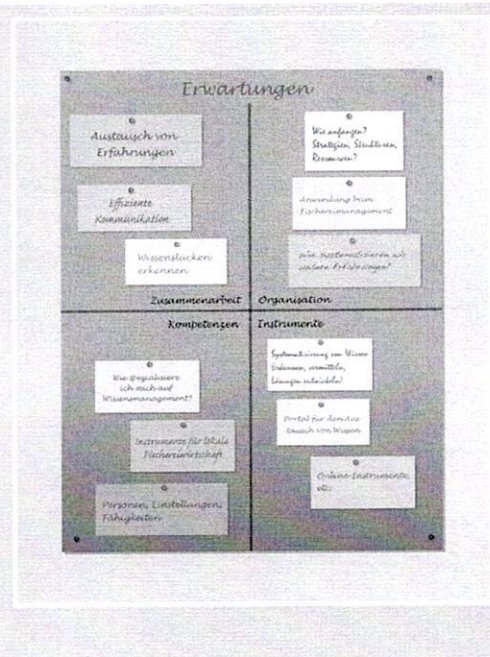


Figure 3: Fictitious examples of goals and requirements

	Example	What requirements in terms of processing and sharing knowledge within the team do these expectations imply?
What superordinate goals have already been assigned to our team?	General mandate of the partner organisation: ...	Disseminate good practices in agriculture
	Project objective: ...	Improve availability of agricultural information
	Annual goal for the team:	Identify good practices for soil management
Who needs what information from our team in order to do his/her job?	Group for PR	Identify the two best agricultural initiatives in the region
	Forestry specialist team	Analyse the effects of migration from rural areas on forest use
	Cooperation partner: institute of agriculture	Identify success factors in cocoa cultivation
What expectations do we ourselves have of functioning knowledge management in the team?	Learning from good and bad experience	
	Shared use of documents	
	Good research opportunities	

The goals and requirements identified in this way reflect the target situation for the services of the team's internal knowledge management (= vision). They provide orientation for all improvement measures. The target situation should also show clearly what areas of knowledge are particularly important for the team or its partner. These are the knowledge assets on which knowledge management should concentrate first.

1.2 Analyse the initial situation and determine needs for action

The target situation (= vision) derived in section 1.1 must now be held up against reality. This is the only way of establishing whether anything (and, if so, how much) needs to be done to achieve effective knowledge management within the team.

There are many methods for analysing the actual state of knowledge sharing, requiring varying levels of necessary input.

There is currently no generally applicable and ideal approach. Figure 4 shows proven methods of analysis which GTZ uses regularly in projects and organisational units. These methods are used both to describe the situation (satisfaction, strengths, weaknesses, procedures, tools) and to identify needs for action (challenges, suggestions for improvement).

Figure 4: Selected methods for analysing the actual situation

Method	Benefits, advantages	Input, disadvantages
Stakeholder survey	<ul style="list-style-type: none"> • Quick results • Early involvement of stakeholders • Broad range of opinions 	<ul style="list-style-type: none"> • Bottom-up approach without orientation towards business goals • Processing input due to quality differences?
Process analysis	<ul style="list-style-type: none"> • Results with high effectiveness and contributions to goal • Support for quality management • Knowledge management deficits tackled at their roots 	<ul style="list-style-type: none"> • Methods requiring high level of inputs • Requires clear processes • Needs willingness to change processes
Strengths-weaknesses analysis	<ul style="list-style-type: none"> • Quick overview of important needs for action • Future prospects and risks identified • Assistance in further development of strategies • Easy to carry out 	<ul style="list-style-type: none"> • Requires clear goals and priorities • Requires involvement of stakeholders and management • Input for processing (follow-up) • Good input planning needed
Benchmarking	<ul style="list-style-type: none"> • Quick results through direct comparison with others • Contact with other teams on a comparative basis • Many new ideas • Easy to carry out 	<ul style="list-style-type: none"> • Others are not necessarily doing a better job • Measurements are purely relative • Requires clear goals and priorities • Calls for willingness to reconsider actions

The methods can be used individually or together. In any case, the goal of the analysis must be well defined in order to obtain results which can be used elsewhere. The identified results are often citations of “problems”, “challenges”, “weaknesses” or “deficits”. It is important

here to reformulate them as “needs for action” in order to make them accessible for further processing (see the example in figure 5). Generally, all methods quickly identify a large number of points needing action.

Figure 5: Examples of reformulation as points needing action.

From negative formulations...	... via challenges...	... to points needing action
Many partner experts shred their files to avoid passing them to their successors	Achieve change in behaviour for greater sharing of knowledge	Establish rules for handover and training of successor
Why isn't our project on the Internet?	Communicate project results better on the Internet.	Establish own website and present project results
We have too little time to file all the documents and send them to GTZ Head Office as well	Establish better priorities in knowledge maintenance and forwarding	Reach clear agreements on who files or forwards what, when, how and for whom

Needs for action must then be evaluated in terms of their importance for achieving the goals identified in 1.1 (urgency) and the inputs required for implementation (cost-benefit analysis). The following criteria are suitable for this evaluation.

Criteria for evaluating needs for action

Urgency

- Is the measure (a) essential, (b) important for deadlines, (c) desirable or (d) "nice to have" for the team?
- Is the measure (a) essential, (b) important for deadlines, (c) desirable or (d) "nice to have"? for important goals of partner organisation(s) or other teams?

Benefits

- How long will it take for the benefits to cover the costs of the measure (amortisation)?
- What is your estimate of the (net) benefits of the measure one year after amortisation?
- Who benefits most from the measure? And how much?

Costs

- What is your estimate for (a) time required and (b) financial inputs for implementing the measure?
- Does the measure result in (a) follow-on costs and/or (b) further needs for action?

Full quantification of the costs and benefits is generally impossible, but is also unnecessary. What is important here is to arrive at a selection of arguments which can be used to formulate priorities for further implementation. Box 3 shows typical points needing action which are important for Technical Cooperation projects.

Box 3: Typical points needing action for knowledge management in projects

For optimising organisation and processes

- Regularly monitor activities carried out and their results.
- Conduct at least one project progress review or an external evaluation
- Establish clear agreements with partners, GTZ and others on what knowledge is to be shared
- ...

For improving cooperation and communication

- Establish electronic team platform, e.g. shared drive, blog or similar
- Join and participate in the relevant specialist networks
- Agree meetings and coordination rituals with project partners
- Moderate meetings and document agreements
- ...

For strengthening individual competences

- Train international and local experts
- Promote learning by doing by early assignment of responsibility
- ...

For improving information quality and management

- Establish standardised system for documenting and filing experience
- Ensure biannual updating of data records in project database
- Forward important studies to the electronic library
- Assign long-term responsibility for maintaining project databases
- ...

Starting small has proved valuable in practice – initial measures should be designed so that successes can be celebrated early. This enhances motivation for participants and eliminates doubt about the sense of changes.



2. Secure support and resources for implementation

2.1 Ensure support by management

Changes take time and must be well managed. This is particularly true of knowledge management measures, as in most cases they are concerned with changing the daily working behaviour of team members or the entire organisation.

Even the introduction of common document filing requires disciplined compliance with filing and use rules by all team members. However, it is not possible to modify the working behaviour of many individuals overnight without friction.

Often there is resistance. New procedures must be practised, and teething troubles in new systems must be resolved. Sometimes the team leader needs great patience to implement measures successfully.

Management accordingly plays a key role. This applies both to team management and also to support from management colleagues at the same and higher levels. Their support should be regularly reviewed and requested. If it is lacking, the change process will fail.

Checklist for support by management

Opinion

- Is the team management itself convinced of the value of the measures, and does it communicate this to the team, partners and third parties?
- Do top managers publicly state their desire for successful implementation of the knowledge measures?
- Do managers pay more than lip service to the importance they accord to these measures?
- Do the team and other managers ultimately regard the measures as a tedious waste of time?

Resources

- Are the measures and their risks taken fully into account in the budget, timetabling and project planning?
- Is it clear who is responsible for implementing the various measures, and has enough time been allowed for this?
- Is it certain that after the measure is completed there will be established long-term support, e.g. for a project website?
- Or is additional work likely for carrying out the measures, so that extra funding must be obtained?



Even “small” changes, such as “introducing a project website”, depend on an established procedure for creating and updating content. This can rarely be done as a side-line. In addition there is the question what will happen with the web page after the end of the project. Who will continue to maintain it? Will it be shut down? Will it be moved to another website? All these questions require ongoing attention and response by team management before the website is set up.

If it is a question of anchoring knowledge management as a whole in the organisation, the measures should be firmly embedded in the organisation’s long-term strategy and planning. This is the only way that the change process will receive the necessary attention from management and employees.

For management, it is important to perceive the success of the measures after a certain time has elapsed. The “criteria for evaluating needs for action” listed in section 1.2 (in terms of urgency, benefits and costs) are a suitable basis for monitoring. The procedure for implementation, the actual costs incurred and the benefits achieved should be regularly monitored and reported for each measure. The following table shows what input has proved valuable for knowledge management monitoring, based on GTZ experience.

Figure 6: Guidance values for monitoring knowledge measures

Measure	Costs	Intensity of monitoring		
		Implementation	Benefit	Impact
Micro measures: optimising of internal systems or procedures within the team	< 5 expert days	Yes / No check	Satisfaction check	-
Small measures: • Introduction of team-specific innovations • Assistance in overarching changes	5-30 expert days	Deadlines, acceptance of results	Satisfaction check	Simplified evaluation after expiry of one year
Standard measures: sub-measure in knowledge management, e.g. as a component of project outputs	30-100 expert days	Activity monitoring, milestones	Rudimentary monitoring, if appropriate brief evaluation	Monitoring of key results
Major measures: generally as an independent project or change process with a separate team	100 and more expert days	Detailed project and operations planning	Standard monitoring and evaluation	Standard results-based monitoring

2.2 Create acceptance in the team and among key individuals

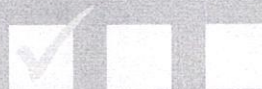
All change stands and falls on how the purpose of the desired innovations is communicated to the target groups involved. Knowledge measures will only achieve the necessary acceptance if the individuals affected recognise the benefits.

This is often difficult if the contributions made by the team do not primarily benefit the team, but contribute – for example – to learning by the organisation as a whole, or only show their results after the end of the project. The readiness to share knowledge also poses a major challenge in many cases (see section 3.3.). Generally speaking, communication should focus on the following questions.



Checklist for acceptance of measures within the team

- "What does this do for me?" Make credible claims for individuals and illustrate these with concrete examples.
- "What does this involve for me?" - Explain the individual's role and honestly explain the workload to be expected.
- "What does this have to do with me?" Use clear words without abstract, academic formulations, avoid esoteric terms.
- "Why is nobody asking me?" Open a feedback channel for suggestions and criticism, e.g. with "straight talking sessions".
- "So was it worth it or not?" - Tell the team about milestones achieved and celebrate successes together.



This is important because knowledge management is not possible without the support of the employees. Once convinced, they are your strongest allies!

The same applies to other key individuals and managers in a position to promote or obstruct knowledge measures. Their involvement can significantly enhance success.

Arguments must always be modified for the target individuals or groups. Otherwise, the desired consensus will not be achieved. The better communication is, the greater the subsequent collaboration and acceptance by team members, management and other key individuals.

It is important that communication conveys the desired messages tailored for their recipients. The media used must also be selected according to the purpose, importance and recipients of communications.

Essentially, it is a matter of finding a way to make communication of the desired change measures simple and straightforward. To ensure that this works, the following approach should always be followed.

Figure 7: Effective communication

Step	Content	Example
1. Clearly define the subject and goal of communication	What is it about? What is it supposed to achieve?	Each team member should document his or her mistakes and bad experiences in reforming inland fisheries and provide this information to the World Bank.
2. Determine recipients	Which individuals or groups in the team? Which key individuals in management and third party organisations?	Task for team management: convince all team members that they need to do this honestly and conscientiously, even if it means extra work for them.
3. Formulate messages	What arguments are needed to achieve acceptance and collaboration among the individual recipients?	Make the point of the campaign clear: if the World Bank does not receive the information, the new manual on inland fisheries will be produced without the project's collaboration. However, the manual will be very important for the partner country of our project in future.
4. Select suitable media	Which media convey the messages best to the individual groups of recipients?	The subject is best addressed within the team in a short discussion with all the team members. This is also the best way to convince them.
5. Determine the procedure for the campaign	In what order should recipients be addressed, and how should this be managed?	First, announce the measure at a team meeting, then follow up with individual meetings with the individuals who have the experience, and consider what experience is most suitable for forwarding.

3. Establish simple and appropriate tools and methods

3.1 Identify necessary knowledge and tools

The range of relevant knowledge is immense. An individual is very quickly overwhelmed. Today, it is more than ever a matter of being able to select the right knowledge. In addition, new information is constantly generated all over the world – and conversely, existing knowledge very quickly becomes obsolete. Accordingly everyone needs to be constantly learning new things.

Processing knowledge generally follows a very simple model. This is applicable to all situations in teams, networks and organisations. It is the basis for knowledge management in many organisations, and is used to classify the wide range of knowledge tools. It also effortlessly creates transparency concerning the wide range of tools and their purposes.

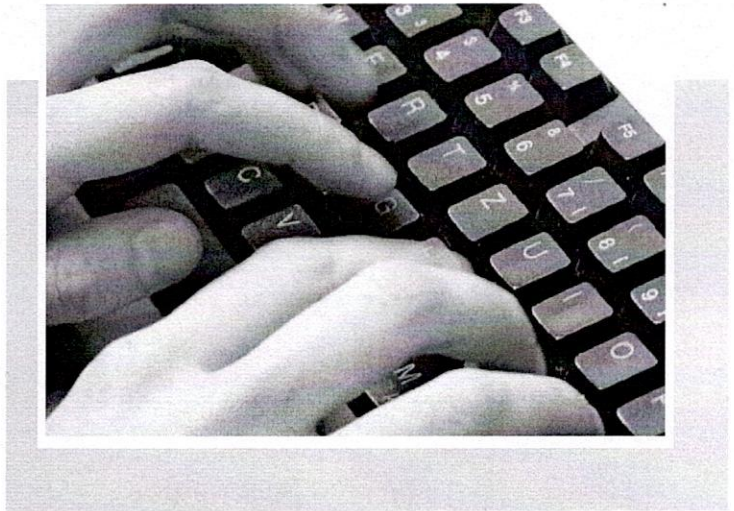
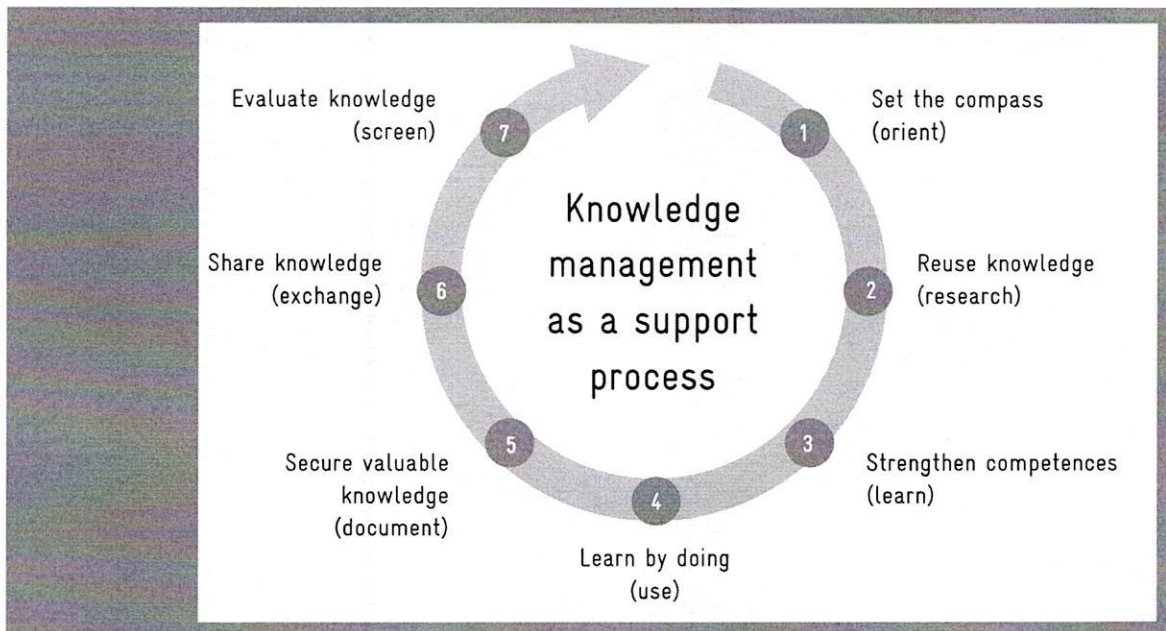


Figure 8: Model for processing and utilising knowledge



The relevant tools and needs can be identified in a single step through general analysis of expectations or by taking inventory (see section 1.2). In practice, participants mostly provide answers which are useful for both analyses.

Each team must work through the individual steps and identify the relevant tools, content and methods itself. The following key questions help in this.

Checklist for the knowledge process in the team

For goal definition (step 1)

- What (knowledge) goals have already been set for our team? (see section 1.2)
- Who needs (a) what knowledge, (b) when, (c) from whom, (d) in what form and (e) what for? (see Annex)

→ Result: list of the most important content needs

For research (step 2), and analogously for steps 3-6

- What tools is the team already working with successfully?
- What research options are also available in GTZ and the partner institutions?
- Are these sufficient? Or are important needs still not covered?

→ Result: list of the most important research tools (and possibly identified needs for action)

For quality assurance (step 7)

- What requirements are made concerning the quality of knowledge in documents, websites, individual competence, communication etc?
- What principles and approaches has the team used to secure quality so far?
- What quality assurance procedures for knowledge at GTZ and the partner institutions already include (or should include) the team?
- Are these sufficient? Or are important quality requirements not being met?

→ Result: list of the most important orientations (and possibly identified needs for action)

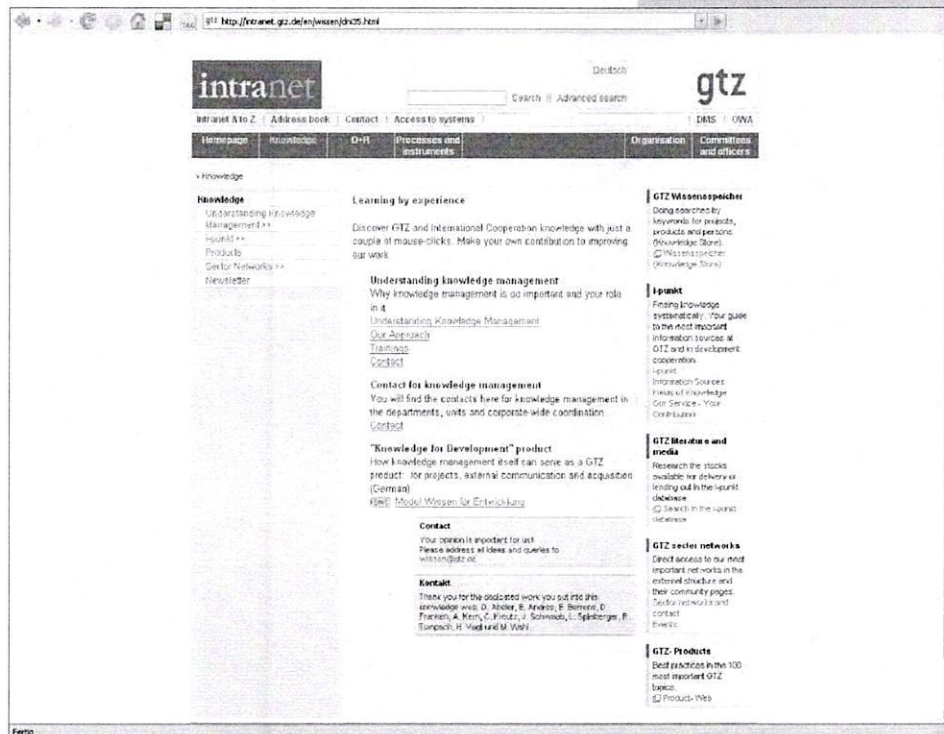
All the tools and suggestions identified in this way should be summarised in manageable form and be available to the team as a toolbox.

In organisations this is normally one of the tasks of the knowledge manager.



GTZ provides all the company-wide tools on the intranet with the help of the “knowledge web”. The tools are arranged here as an overview along the course of the knowledge process set out above, and are directly accessible together with a description of the tools.

Figure 9: GTZ overview of tools on the knowledge web



Other organisations, networks or teams operate similarly or provide manuals, flyers or the like to inform their staff about the available tools.

3.2 Organise information management and communication

The most troublesome part of knowledge management is sorting, documenting, filing, searching for and locating information. In contrast to a live discussion, this is often the least popular form of sharing knowledge.

Information management today is largely dominated by IT systems, which are available at the individual workplace or in the organisation as a whole. The various database systems, workplace applications and special processing programs must be organised so that they can perform the tasks of information management as required.

For knowledge management in the team, the problem is to keep information management as simple as possible and restrict it to the minimum required. The requirements

for information management are determined by the goals identified in 3.1. Generally, information management has to provide the following services.

Figure 10: requirements for information management

Tasks	Tools	Need for decision in the team
Research	<ul style="list-style-type: none"> • Search engines on the Internet and the available databases • Professional research services (internal or external) 	<ul style="list-style-type: none"> • Is access to other databases or research services necessary for the team's tasks? • How accessible and searchable are the team's own holdings of information?
Documentation	<ul style="list-style-type: none"> • Numerous methods for selecting and capturing as text experience, technical, regional, management, institutional and methodological knowledge • Reporting by teams, projects and others to the clients 	<ul style="list-style-type: none"> • What binding documentation methods must be followed for clients and organisations involved? • What other knowledge merits documentation in the team's view (and is requested)? • Who in the team carries out quality assurance for content and formats, and by what criteria?
Filing	<ul style="list-style-type: none"> • Project or team filing with binding structures • Individual filing and drives (hard disk) • IT systems for shared hard drives, document management, working groups etc 	<ul style="list-style-type: none"> • Where must team members file what information in order to make it available in an appropriate form for individuals, the team, the organisation and/or the network? • Who in the team carries out quality assurance for content and formats, and by what criteria?
Communication	<ul style="list-style-type: none"> • Communication software (e.g. Email) • Existing rules for communication in the team, organisation, network etc 	<ul style="list-style-type: none"> • How and when do team members have to share information, and what about? • See also the communication comments in section 2.2

Individual decision needs must be worked through in the team and be reviewed at set intervals in the light of needs for action.

Make sure that no changes are made simply because of a specific technology, but instead always formulate requirements for technology on the basis of user needs.

Technology is not an end in itself. Experience shows that many decision makers and IT specialists are quick to come up with a database application when a lot of information has to be managed. Before IT solutions are chosen, the actual need must always be critically reviewed.

Checklist for any IT needs

Should an IT solution be developed?

Yes, if and only if ...

- there is a clear user group which has stated its request for an IT solution in this form;
- there is no other usable, similar or expandable system elsewhere;
- it is certain that someone will take care of data maintenance, updating and quality of information and technology on a permanent basis, and if resources, time and competences are available for this;
- use of the systems is firmly integrated in the working processes of the teams or third-party users.

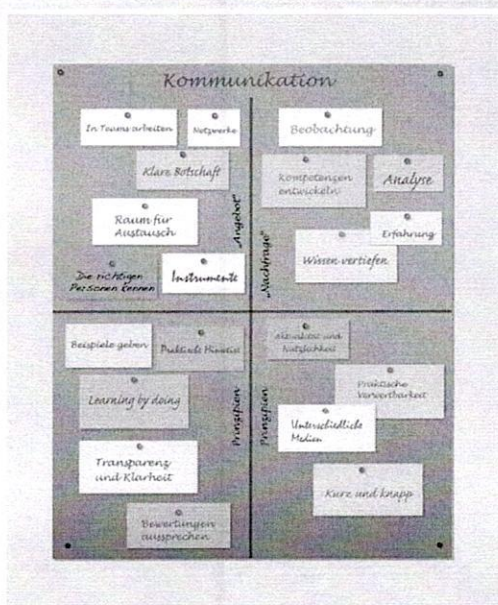
No, if...

- need is primarily driven by interest in archiving a lot of information;
- the main motor is the desire of the team or client to enhance their reputation;
- it is not clear when, with what process and by whom the information will be entered, maintained, updated, used and deleted.



Communication within the team is essential for effective cooperation in a spirit of trust and confidence and for avoiding misunderstandings and duplication of effort. Many organi-

sations try to optimise this using communication rules. Box 4 shows how teams should refine their principles for effective sharing and learning.



Box 4: Refining principles of communication for the team

Examples of approaches:

- Moderated team meeting, c. 30 minutes for c. 10-20 members
- The moderator(s) give team members two questions to discuss in pairs – "If I look at my biography ...
 - (a) How have I acquired knowledge which really stuck?
 - (b) How have I successfully passed on the knowledge to others?
- Each pair presents its most important answers to the group, and organises the cards as shown alongside in a matrix of "supply" and "demand", "tools" and "principles". Responses covering multiple categories are posted separately (at the bottom in the figure).

Forwarding important documents and insights is not always easy in practice. This is particularly the case where individuals have the impression that they are giving away “their” knowledge. Often, concerns about making them-

selves dispensable are involved. It may be necessary to change the team culture to eliminate these concerns. Figure 11 summarises measures which have proved useful here and could be used in various contexts.

Figure 11: measures to promote knowledge sharing

Measures	Application	Impact	Risk
Communication: Present advantages of sharing knowledge	Present convincing arguments and give examples (cf. Box 5)	Growing awareness of the individual benefits of sharing	Loses effect if management fails to live up to it
Management conduct Demonstrate esteem for individuals	Be a deliberate role model for openness, ability to accept criticism and sharing knowledge	Concerns about being dispensable are reduced	Loses effect if management fails to live up to it
Incentives: Deliberately reward sharing knowledge	Visibly reward good behaviour (e.g. bonus, promotion, praise)	Recognition within team increases; imitation of best practices is encouraged	Loses effect if rewards are not consistently given
Sanctions: Visibly condemn hoarding knowledge and stealing ideas	Punish undesired behaviour (e.g. social pressure, set learning goals)	Recognition within team falls; this encourages change in behaviour	Ineffective if misbehaviour does not result in punishment
Rules: Introduce rules to protect intellectual property	Formulate clear and understandable rules	Individual confidence in visibility of one’s own ideas grows	Loses effect if violations are without consequences

Box 5: Helpful arguments for sharing knowledge

How does the individual benefit?

- Anyone providing valuable information to the team is demonstrating their confidence in the team and indicating openness and readiness to talk. The important thing is that somebody takes the first step.
- This is generally rewarded by the team, as others then share their knowledge. Mostly, people who share information get a lot of very useful information in return.
- Instead of making people dispensable, it makes them interesting partners in discussion and cooperation.

How does the team benefit?

- A team grows together more if people trust each other. This makes the team stronger, both in high-stress periods and in competent performance of team tasks.
- The increased capability of the team enhances its reputation. This in turn has a positive effect on the reputation and status of the individual team members.
- The working climate improves, and an atmosphere of trust emerges which also quickly results in innovations.

What do the individual and the team have to do?

- Trust only persists if the individual’s intellectual copyright is protected. Neither management nor other team members must be allowed to claim credit for other people’s ideas. This destroys trust!
- Anybody who does good work and shows their trust must be rewarded for this. Esteem, praise and promotion initiate positive feedback loops.

3.3 Create space for sharing, reflection and innovation

Often, measures to improve learning from experience get stuck in the technical depths of information management. Information management is admittedly a necessary prerequisite for good knowledge management, but by no means sufficient. Oral sharing, reflection on what has been thought and set out in writing, and critical discussion of findings are essential for completing the

transition from information to knowledge. For each team it is therefore vital to take the time for this sharing. This forms the basis not only for the maximum effectiveness in learning from each other, but also for most innovations. Some of the important formats for organising this are listed below.

Figure 12: Formats for sharing knowledge

Tool	Format	Purpose	Participants
<ul style="list-style-type: none"> • Quiet zones • Coffee corners • Breaks 	<ul style="list-style-type: none"> • Spontaneous, accidental or ritualised brief meetings between team members • Generally 15-30 minutes • No agenda 	<ul style="list-style-type: none"> • Sharing official and personal information • Improving the working climate 	<ul style="list-style-type: none"> • Individual team members
<ul style="list-style-type: none"> • Feedback sessions 	<ul style="list-style-type: none"> • Mostly bilateral meetings between individual team members and team management • Generally 2 hours at most • No set agenda 	<ul style="list-style-type: none"> • Confidential discussion and agreement • Critical reflection • Order clarification 	<ul style="list-style-type: none"> • Individual team members
<ul style="list-style-type: none"> • Team meetings jour fixe 	<ul style="list-style-type: none"> • Meeting for all team members • Generally 2 hours at most • Required attendance • Minutes • Ritualised, prepared agenda 	<ul style="list-style-type: none"> • Reciprocal information • Open discussion • Agreements • Information for all order clarifications 	<ul style="list-style-type: none"> • Team
<ul style="list-style-type: none"> • Task forces • Working groups 	<ul style="list-style-type: none"> • Selected individuals with special job • Generally 2 hours at most • Required attendance • Minutes • Ritualised, prepared agenda 	<ul style="list-style-type: none"> • Reciprocal information • Open discussion • Agreements • Common increase in cognition • Development of ideas and concepts 	<ul style="list-style-type: none"> • Specially assigned team members
<ul style="list-style-type: none"> • Virtual networks • Communities of practice, blogs, Email list 	<ul style="list-style-type: none"> • Individuals on spontaneous, voluntary basis • No set agenda • Possibly moderation by a coordinator • Minutes taken on case by case basis 	<ul style="list-style-type: none"> • Open discussion • Agreements • Critical reflection • Common increase in cognition 	<ul style="list-style-type: none"> • Individuals from team and third parties interested in technical aspect and/or content
<ul style="list-style-type: none"> • Formal networks • Conferences 	<ul style="list-style-type: none"> • Extremely different but firmly agreed formats 	<ul style="list-style-type: none"> • Formalised sharing and cooperation 	<ul style="list-style-type: none"> • Invited members

4. Establish responsibilities for knowledge sharing

4.1 Establish tasks and persons in charge of knowledge management

It is an individual task for all team members to develop their own knowledge continuously, use it effectively and share it with others. However, structures and procedures in knowledge sharing must be continuously adapted to the changing organisation. This is fundamentally a task for management or team management. With larger

teams or networks it has proved useful to assign responsibility for knowledge management or information management to an individual. The following points should be considered when planning this assignment.

Checklist for assigning knowledge managers

- Does the person responsible for knowledge management have enough time and authority for the task? (see Box 6)
- Is direct access to team management or the necessary decision makers ensured? Will the knowledge manager be able to obtain the necessary response?
- Is it certain that change measures can be planned and implemented with the whole team?
- Is the knowledge manager completely familiar with the methods and procedures of the organisation's approach to knowledge management?

The content of an information or knowledge manager's function can vary widely. Box 6 shows some tasks as examples.

- With **smaller teams** is the work generally focuses on organising the electronic filing structures, ensuring the flow of information within the team, maintaining an Internet page for the team and possibly assuming other publication responsibilities.
- With **networks** the work additionally involves advisory tasks for network members, mailing newsletters, planning major events and maintaining membership lists.

- In **larger units** in an organisation, the above tasks are supplemented by strategic knowledge management tasks – advising on further development of team cooperation and knowledge sharing, monitoring and controlling knowledge quality and implementing change projects in information and knowledge management (e.g. in line with the measures listed in section 1.4).

Information and knowledge management can take from 20% (in small teams) to 50% (in networks) and up to 100% (in larger organisational units) of working time.

Box 6: Job description for knowledge and information managers in project teams (ToR)

Purpose of the job:

The knowledge and information manager supports the members of the project team in performing their tasks in

- researching
- documenting
- storing
- forwarding
- and quality assurance

of the knowledge required, ensuring that suitable tools and methods are available and used. Specifically, this means:

Individual activities:

- Structuring and maintaining physical and electronic files for documents, archives, databases and ensuring that individual team members perform their updating tasks;
- Supporting the team's web presence (e.g. on the Internet or intranet), newsletter, assisting in producing publications (compliance with corporate design etc);
- Possibly providing and maintaining additional tools for knowledge sharing within the team (e.g. debriefings, chat forums);

- Ensuring that knowledge sharing in the team is correctly integrated into the working procedures of the client and partner structures (e.g. on the intranet, meeting formats, cultivation of contacts) and that these are appropriately informed of team activities (status and progress reports etc);
- Promoting team participation in specialist networks, cooperation with universities etc;
- Providing ongoing advice to the team management and members on performing their knowledge sharing tasks;
- Possibly results-oriented monitoring of team measures.

Scope of work:

C. 20 expert days a year in ongoing and direct consultation with the team management.

Interfaces:

Good coordination with those responsible for quality management, IT and HR development.

Where there is a possibility of reaching annual agreements on goals, knowledge managers should include their task in their annual list of priorities. This must be agreed and followed up in suitable form with management.

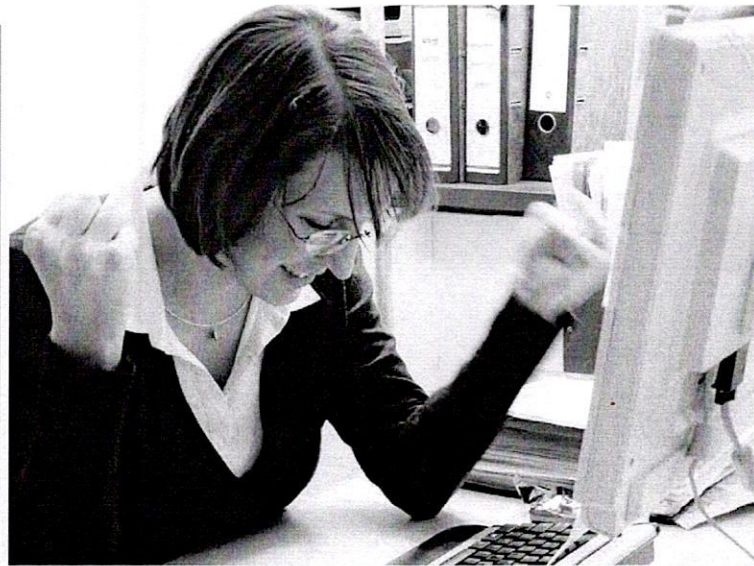
Ultimately, knowledge management tasks can only partly be delegated to knowledge managers. The main purpose of this function is to support the management process for knowledge sharing. It must not evolve into a way of "outsourcing" the issue, i.e. hiving it off from the management process. Good knowledge sharing requires constant attention by management and staff. Knowledge managers can only advise and support.

4.2 Strengthen individual competence in knowledge sharing and learning

Knowledge sharing and learning are mandatory tasks for all team members. The competences of team members in performing these tasks generally vary widely. Readiness to pass on information (vs. "knowledge is power") or accept it from others (vs. "not invented here") differs greatly depending on the team, culture and context. To strengthen these competences, team management should establish the following conditions.

Checklist for developing competences for knowledge sharing

- Trust**
Is the team a team? Do team members trust each other?
Or are team building measures needed?
- Models**
Does team management provide an example of handling knowledge in an open and trust-creating fashion? Is it a model? Are there other models?
- Expectations**
Are all team members equally aware of the expectations made of them with regard to knowledge sharing?
- Qualification**
Are all team members aware of the tools available for this and their use? Is training needed? Is advanced training available or possible?
- Advice**
Are there individuals who have the confidence of the team and are able to advise or coach team members in performing their knowledge sharing tasks?
- Tasks**
Are the "rules of the game" in the team designed to reward knowledge sharing? Or are there disincentives?



Creating these conditions is not simple. However, they provide a foundation for a capable team which not only practises knowledge sharing, but does a better job at performing its tasks generally.

Trust has to evolve, it cannot be mandated. Section 3.2 above deals with suitable measures for promoting communication and knowledge sharing within the team.

Expectations of team members must be formulated clearly. Typical agreements include the following examples:

- Frequency of and required participation in team meetings. This is mostly understood for formal meetings. Informal meetings are generally also important for knowledge sharing, but follow rules which are mostly left unarticulated.
- Rules for filing: What goes where? Who has to file what, and how often? Into what shared hard drives, files or archives must documents be placed? Who ensures quality? What quality standard must each individual comply with?
- Team communication: Who reports to whom? Who is responsible for obtaining information? Is it mandatory to notify others if information could be important to them?

- Email rules and “netiquette”: how does the team use electronic media? What belongs on the web site, what doesn’t? Spam and joke mails are frowned on! Etc.
- Data protection rules and copyright: stealing ideas and credit is punished! Conversely, sharing knowledge and good work are visibly rewarded!

Training measures on the use of knowledge tools should be conducted to make it clear how strongly team management supports them, otherwise they are rarely accepted. Often, information and knowledge managers carry out training on site. They then also provide further advice. Training should supply the answers to the following questions:

- What tools are available for researching, processing and storing knowledge, and how are they used?
- With what expectations and rules for use should individual team members comply?
- How does the team ultimately benefit from information and knowledge sharing, and how far does this depend on collaboration by all?

Information and knowledge management will ultimately only deliver the desired benefits if all team members collaborate. Frequently, this involves initially overcoming inhibitions, rejection and fears. Good knowledge sharing must evolve and be maintained. The good news is that it is worth the effort! Good team performance is always the result of good team cooperation.

Annex:

Handout on communicating knowledge appropriately for the target group

The most important targets for your knowledge

Key question: who at GTZ needs what knowledge from me to be able to do their job better?

Target	Name	What do they want to know from you?	By when? How often? In what form?
Managers of other projects with the same theme	Mary Average	<ul style="list-style-type: none"> Names and particulars of good experts and appraisers 	<ul style="list-style-type: none"> On each visit to Head Office, business cards or similar.
		<ul style="list-style-type: none"> My experience with the Capacity Development approach 	<ul style="list-style-type: none"> As a learning history by December 2008
		<ul style="list-style-type: none"> Selected technical and market information 	<ul style="list-style-type: none"> Important studies (ongoing), annual market estimates for the country (January)

The most important sources for your knowledge

Key question: what do I need, from whom, by when and in what form for my job?

Source	Name	What do you need from this person?	By when? How often? In what form?

Example:

Country Director	John Average	<ul style="list-style-type: none"> Briefing on experience in the country 	<ul style="list-style-type: none"> On arrival
		<ul style="list-style-type: none"> Information on policy planning for the country 	<ul style="list-style-type: none"> Annually, policy information round
		<ul style="list-style-type: none"> High speed access to SAP applications 	<ul style="list-style-type: none"> Through contacts in the Office, weekly

The most important tools for your knowledge management

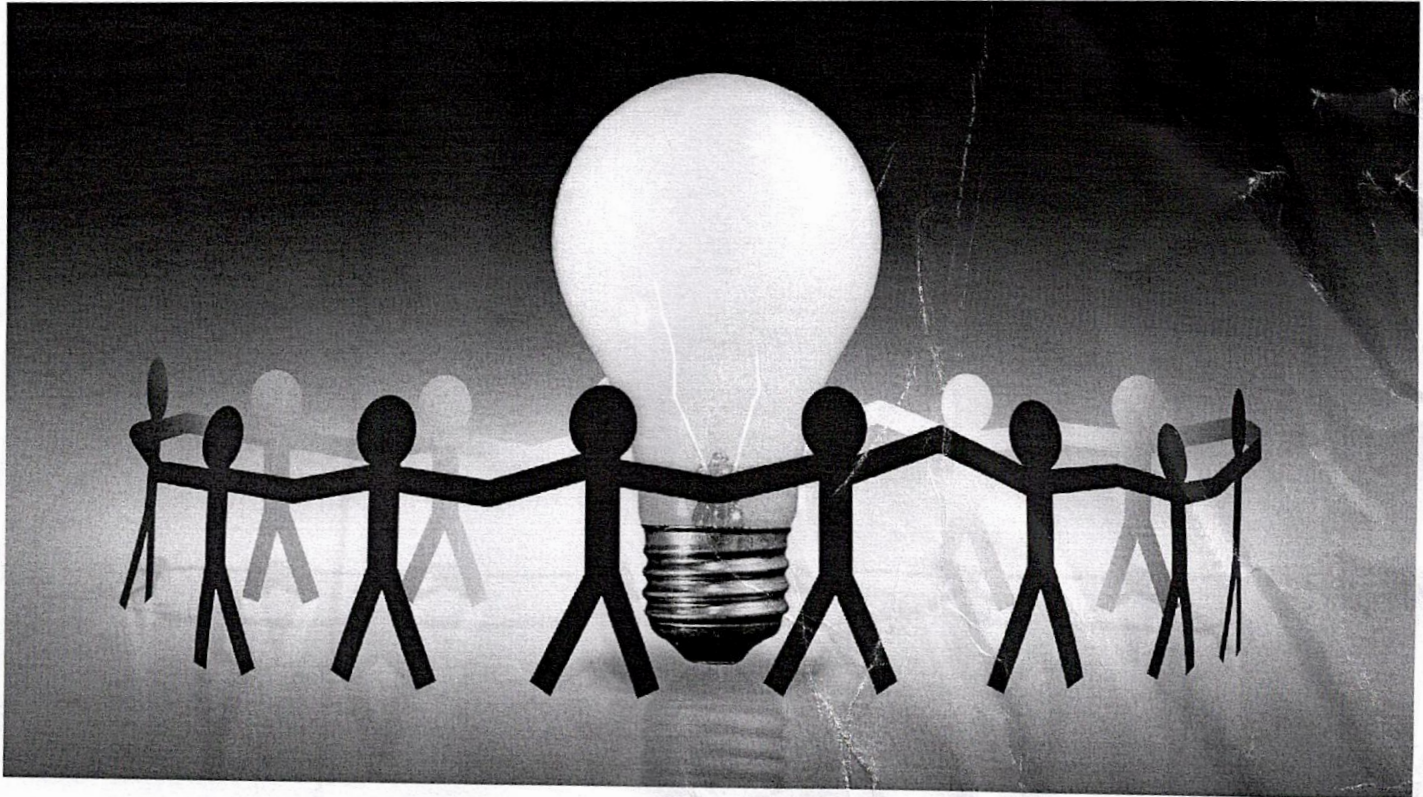
Key question: how can I most simply ensure knowledge sharing with the stakeholders (targets, sources) listed above?

Stakeholder	Communication medium	By when? What? In what form? (Inputs for the to-do list)

Example:

Important communication media in GTZ knowledge management

	Informal knowledge sharing	Written knowledge sharing
Within the project	<ul style="list-style-type: none"> <input type="checkbox"/> Conference calls <input type="checkbox"/> Team meeting (jour fixe) <input type="checkbox"/> Feedback sessions <input type="checkbox"/> Coffee break <input type="checkbox"/> Colloquium, lecture <input type="checkbox"/> Workshop <input type="checkbox"/> ... 	<ul style="list-style-type: none"> <input type="checkbox"/> Email <input type="checkbox"/> Minutes, memos <input type="checkbox"/> Status report, progress report <input type="checkbox"/> Online forums <input type="checkbox"/> Studies and reports <input type="checkbox"/> ...
Within GTZ worldwide	<ul style="list-style-type: none"> <input type="checkbox"/> Conference calls <input type="checkbox"/> Sector network meetings <input type="checkbox"/> Colloquium, lecture <input type="checkbox"/> Workshop <input type="checkbox"/> Briefings, feedback <input type="checkbox"/> ... 	<ul style="list-style-type: none"> <input type="checkbox"/> Email <input type="checkbox"/> Minutes, memos <input type="checkbox"/> Status report, progress report <input type="checkbox"/> Studies and reports <input type="checkbox"/> Articles on products <input type="checkbox"/> Database maintenance <input type="checkbox"/> i-punkt articles <input type="checkbox"/> Debriefing <input type="checkbox"/> ...



Deutsche Gesellschaft für
Technische Zusammenarbeit (GTZ) GmbH

Postfach 5180
65726 Eschborn | GERMANY
T +49 61 96 79-15 66
F +49 61 96 79-80 15 66
E wissen@gtz.de
I <http://www.gtz.de>



Notes