

5. A guide for practitioners

How to bridge skills gaps step-by-step

The following practitioners' guide, an aid to narrowing or closing skills gaps, is based on BCG project experience and informed by the case studies described in Chapter 4. The objective of the guide is to provide a step-by-step approach for practitioners, especially in emerging and developing countries, who face the challenge of skills gaps and are in charge of HR development – whether in an actual HR department or in any administrative or operational department. The guide will help the reader to implement the good practices for workforce development and to conduct the cost-benefit appraisal (Chapter 2.1 and Chapter 3).

The guide proposes a six-step approach: to identify the skills gaps (Step 1), prioritize them (Step 2), and analyze their root causes (Step 3); then to develop measures for closing the gaps (Step 4), assess the measures' costs and benefits (Step 5), and implement the most promising measures (Step 6). While this approach is aimed specifically at closing skills gaps in the company's own workforce, it can be adapted and applied to supplier and client development, and to a lesser extent even to closing skills gaps in the broader community.¹

Step 1: Identify gaps in hard and soft skills through a systematic self-assessment

To begin identifying the hard and soft skills that are lacking, companies should undertake a structured self-assessment. Generic templates are available for this purpose, which can be applied across industries. To validate the data and to get a more comprehensive picture, you should ideally conduct the assessment several times, independently by different functions – for instance, by top management, HR, and operations. Such a multi-perspective assessment helps to identify common pain points, and can initiate a useful dialogue within the organization. Each assessment is inevitably somewhat subjective, so there is no clear threshold between critical and non-critical skills gaps. In the interviews conducted for the company case studies (Chapter 4), for example, expatriate managers tended to rate the identified skills gaps as significantly wider and more serious than their local counterparts did, because they compared the local skills levels with those in their home country rather than within the local context. Accordingly, the main objective of the self-assessment is to foster a discussion within the company, and to establish a common view of the gaps most

urgently in need of bridging. If the assessment highlights concerns about various specific inefficiencies, the corresponding skills gaps should be further investigated and addressed. Additionally, some objective factors – such as vacancies that cannot be filled with adequately qualified candidates; or the need for numerous interviews to find a suitable candidate; or a high share of outside hiring for leadership positions – point to serious skills-gap problem within the company and to the need for concerted intervention.

Identify gaps in hard skills

A generic template for the assessment of skills gaps can help you to identify deficits in hard skills (Figure 54). The template covers the different skill levels for overhead functions like finance, IT, and general business functions (e.g. HR or marketing and sales) – managers, specialists, and administrators; and for operational functions like R&D and production – supervisors, qualified workers, trained workers and unskilled workers. If your company operates at various locations, the assessment could be undertaken for each site individually, in order to identify specific needs and measures at each site.

For each function and skill level, the gap in the quantity and quality of skills should be assessed on a scale from 1 to 10, with higher values indicating a larger gap. A gap in the quantity of skills means that you face difficulties in finding enough employees. A quality gap arises if the candidates available in the market and the employees within the organization do not have the right skills to perform well in the specific position, even though they might have the required formal qualification. The various skill levels differ in their competency requirements, required education levels, and required experience. Figure 55 provides some concrete examples for the various skill levels. Depending on the industry, the functions and skill levels correspond to different job profiles; for instance, qualified workers can correspond to wood-mechanics for the wooden toy manufacturer Hape Holding AG and to nurses in the case of the Brazilian hospital provider Hospital Sírio Libanês (HSL).²

Identify gaps in soft skills

Since soft skills – such as leadership, communication, or problem-solving skills – are as important as hard skills, they should be also addressed in a comprehensive skills-gap assessment.

[All notes at the end of this chapter \(Page 121\)](#)

Figure 54: Template for assessment of gaps in hard skills

Please assess magnitude of gap on scale from 1 (small) to 10 (large)

		Function	Skill level	Assess gap in quantity of skills	Assess gap in quality of skills	Specify gaps
Overhead functions	Finance		Management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Specialists	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Administrators	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
	IT		Management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Specialists	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Administrators	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
	General business functions ¹		Management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Specialists	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Administrators	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
Operational functions	Research & Development (R&D)		Senior R&D staff	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			R&D Specialists	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
	Production, Service, Logistics		Supervision	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Qualified Workers	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Trained Workers	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	
			Unskilled Workers	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	

higher values indicate a larger gap

1. Human Resources, Marketing and Sales, Communications etc.

Figure 55: Requirements regarding competencies, level of education, and level of experience for different skill levels

	Function	Skill level	Competencies	Level of education	Experience
Overhead functions	Finance, IT, General Business Functions	Management	Manage team, unit or department with responsibility for performance and personnel	high (master's degree)	several years
		Specialists	Perform primarily non-standard tasks	medium (university degree)	some years
		Administrators	Perform simple and standardized administrative tasks and assist specialists (e.g. checking and paying invoices)	low (vocational training)	not required
Operational functions	Research & Development (R&D)	Senior R&D staff	Develop new products, define and monitor quality standards	high (diploma, PhD)	several years
		R&D Specialists	Realize new product ideas and/or ensure quality	medium to high (university degree)	some years
	Production, Service, Logistics	Supervision	Supervise group of qualified workers or entire production process (e.g. team leaders, foremen or line chiefs)	medium to high (university degree)	several years
		Qualified Workers	Perform different and specialist operative tasks	low (vocational training)	a few years
		Trained Workers	Perform simpler operative tasks	no formal education	some months
		Unskilled Workers	Perform simple auxiliary tasks requiring no prior training (e.g. cleaning, transporting production material)	only basic education	not required

Figure 56: Template for assessment of gaps in soft skills

Please assess magnitude of gap on scale from 1 (small) to 10 (large)

Soft skill type	Indicators	Assess skills gap	Specify gaps
Leadership / Teamwork	<ul style="list-style-type: none"> Working with others Managing information Following directions 	1 2 3 4 5 6 7 8 9 10	
Communication	<ul style="list-style-type: none"> Convincing others Appropriate communication style Coherent and effective expression 	1 2 3 4 5 6 7 8 9 10	
Project management	<ul style="list-style-type: none"> Logical structuring of tasks Completion of tasks on time Decision-making 	1 2 3 4 5 6 7 8 9 10	
Problem-solving	<ul style="list-style-type: none"> Identifying root causes Focus on workable solutions Flexibility to react to change 	1 2 3 4 5 6 7 8 9 10	
Creativity	<ul style="list-style-type: none"> Development of new ideas Integration of different approaches Thinking outside the box 	1 2 3 4 5 6 7 8 9 10	
Value delivery	<ul style="list-style-type: none"> Balancing client/company interests Commitment to quality standards Efficient resource-management 	1 2 3 4 5 6 7 8 9 10	

higher values indicate a larger gap

In order to evaluate soft skills in a systematic way, you can use the template for the assessment of gaps in soft skills provided in Figure 56. Analogously to the assessment of hard skills, the same scale from 1-10 is used (1 for a very minor skills gap; 10 for a very wide skills gap). You can conduct this assessment either for the whole workforce, in order to gain an overview and to discover where the main pain-points are, or for specific job groups and departments, to help identify the most appropriate training measures in each case.

Step 2: Prioritize the skills gaps

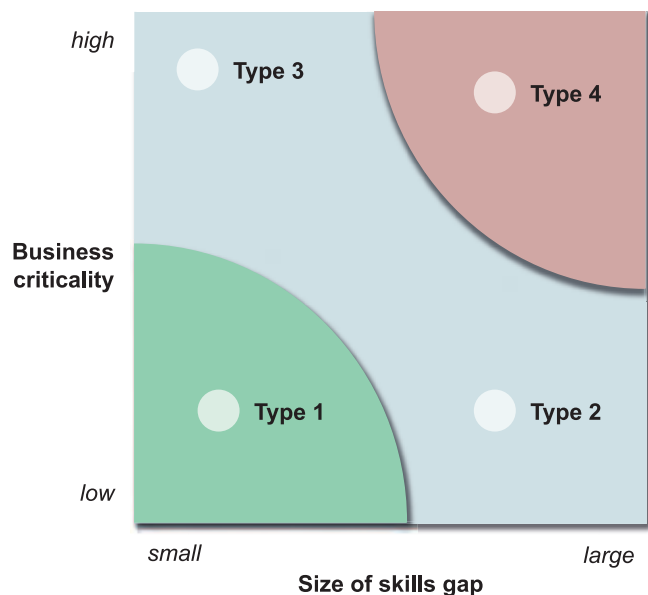
Once the hard and soft skills gaps have been identified and quantified, the next step is to prioritize the skills gaps to ensure that the most pressing ones are addressed first. Do not try to bridge every skills gap simultaneously. This could overstretch available financial and HR resources, and the measures could lose effectiveness owing to a lack of attention and scrutiny. Two possible dimensions to use in prioritizing skills gaps are the size of the gap, and the criticality of the skill for business success. In the worst case, the inability to close the gap can have a serious adverse effect on the company's financial performance – particularly if key positions remain vacant. The skills-gap prioritization matrix provides a very simple way to rate

skills along these two dimensions (Figure 57). While skills can obviously be located anywhere in the matrix area, there are four different basic types that can be distinguished:

- **Type 1:** skills for which there is no wide quality or quantity gap, and which are not critical for business success. These skills can be de-prioritized and addressed opportunistically.
- **Type 2:** skills for which there is a wide gap, but that gap has no severe business impact, at least in the short-run. A typical example is that of production workers in many developing countries: owing to a lack of thorough training, their productivity is lower than in industrialized countries, but there is a sufficiently large number of workers available to offset the productivity deficit, so that there is no immediate danger that the company will be forced out of the market.
- **Type 3:** skills for which the quantitative or qualitative gap is not particularly wide, but where the gap nevertheless represents a high risk to business. These gaps could be for specialist positions, which remain vacant because no adequate applicants can be found; or they could be quality gaps, where a senior office-holder lacks a crucial skill. Given their business criticality, such gaps should be addressed quickly, with well-defined and targeted measures.
- **Type 4:** skills with a wide gap, where the gap seriously endangers business success. For example, a large number of qualified production workers might lack the right skills after a new generation of machines is introduced. Such gaps should be addressed as a matter of priority.

The outcome of the skills-gap prioritization exercise is a graded list of skills gaps in your company or unit, indicating clearly which of them should be addressed first. Before deciding on specific measures, it is worth taking a step back to analyze the root causes of the most serious gaps on the list.

Figure 57: Skills-gap prioritization matrix



Step 3: Analyze the root causes of the skills gaps

Many of the skills gaps that afflict companies are caused by the shortage of trained workers on the local market. However, there are often internal reasons as well that cause or aggravate a skills gap. A thorough understanding of these factors is crucial for identifying the right counter-measures.

The HR value chain, as presented in Chapter 2.1 (see page 15), provides a structure for systematically analyzing the root causes of the skills gaps. Taking the sample questions in Figure 58 as a starting point, you can go through the different steps of the HR value chain, from planning to the overarching leadership model, in order to identify the causes for each of your company's skills gaps. A practical example: suppose that your company is facing a quantitative gap for qualified production workers that is serious enough to justify urgent intervention. Before starting to develop measures to close the gap, you should carefully analyze the causes of this shortage of production workers. The reasons could be many and varied, and rooted in any or all of the links in the HR-value chain. One reason might be that you have an inadequate planning system and your HR department is simply

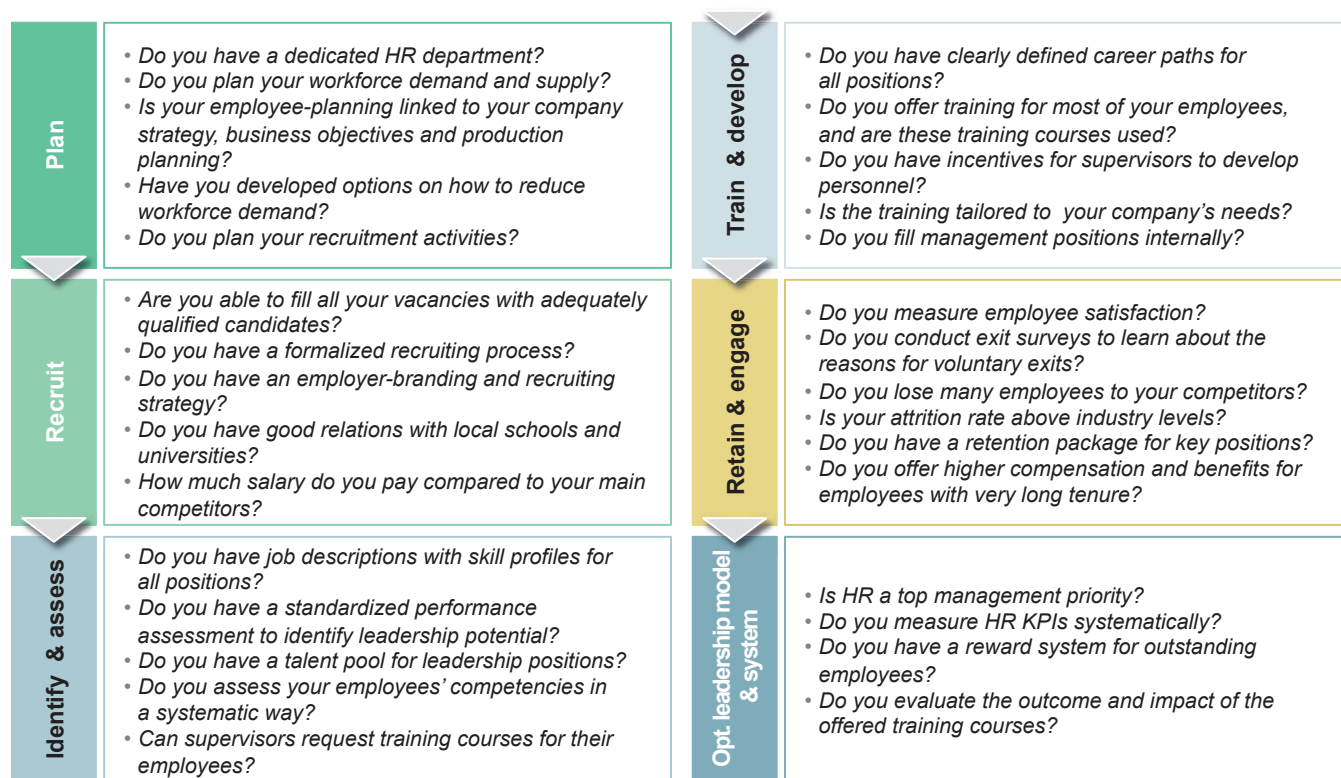
unaware of the need, or is given very little notice of the problem (Plan). Or perhaps you advertise the positions, but receive very few applications in response – maybe because your company lacks a good employer reputation or offers an uncompetitive salary (Recruit). Another possible reason for the gap is that you are unaware of the latent skills in your production workforce, and hence do not know which employees to select for training and upskilling (Identify & assess). Or perhaps the training measures that you do offer are inadequate for turning unskilled workers into qualified production workers (Train & develop). Or the gap might persist because you keep losing qualified personnel to your competitors (Retain & engage). Finally, the problem could be attributable to the leadership model in your company – an under-appreciation of high-performing employees, for example, which thwarts the company's efforts to attract and retain qualified production workers (Optimize leadership model & systems).

Step 4: Identify potential measures to close the skills gaps

The root-cause analysis will indicate which areas you should concentrate on. To identify potential measures to close the skills gaps, you could refer to the good-practice framework for workforce development, as described in Chapter 2 (see page 15). The framework provides a plethora of ideas for closing the respective skills gaps for each link of the HR value chain.

The numerous good practices listed in Chapter 2 will vary in their relevance, according to the type of enterprise, the skill levels involved, and the phase of a company's lifecycle. Figure 59 shows which of those good practices could be most relevant for your company: it evaluates the individual good practices for four main stages of a company's life, and assesses how applicable they are for different companies and skills.³ A higher relative importance in any one specific situation is indicated through darker colors. Some general patterns become clear at once. Only a few of the good practices are equally relevant for all types of company and across all stages – notably, collaborating with external partners in training, tailoring training to the specific needs of the company and target group, and making HR a management priority. The good practices listed are generally more relevant for companies in a steady-state or expansion phase than in pre-production and ramp-up (with the notable exception of initiatives that prevent a delay in production-start). Moreover, most good practices are more relevant for medium-sized to large corporates than to small-sized companies, since size is an important factor. Apart from a few good practices in the planning stage, most good practices are equally relevant for service companies and manufacturing companies. Regarding the skill level – qualified workers vs. professionals vs. management/supervisory level – the relevance of good practices varies more.

Figure 58: Sample questions for root-cause analysis along the HR value chain



Consider again the practical example of a quantitative gap for qualified production workers:

- If you found through your root-cause analysis that you have an inadequate planning system, the right starting point might be good practice 1.1 “Align production and capacity planning” in the good-practice framework for workforce development on page 17 in Chapter 2.⁴
- If the key challenge is that you receive too few applications, any of the following good practices should provide ideas for developing suitable measures: 2.1 “Develop a positive employer brand”, 2.4 “Leverage employee and alumni networks”, and 2.5 “Tap into non-traditional workforce pools”.
- If the cause of the skills gap is that your investment in internal workforce development is not effective, because you have insufficient information on the skills and potential of your employees, you should consider applying one or both of the following good practices: 3.1 “Gain a clear understanding of available competences” and 3.2 “Systematically identify development potential”.
- If your analysis suggests that the training programs you offer are under-used, good practice 4.2 “Provide incentives for undergoing and approving training courses” could be applicable.
- If the lack of qualified production workers is due to the loss of many employees to competitors, you could begin to develop targeted measures by adopting any of the following good practices: 5.2 “Set up a fair and transparent compensation

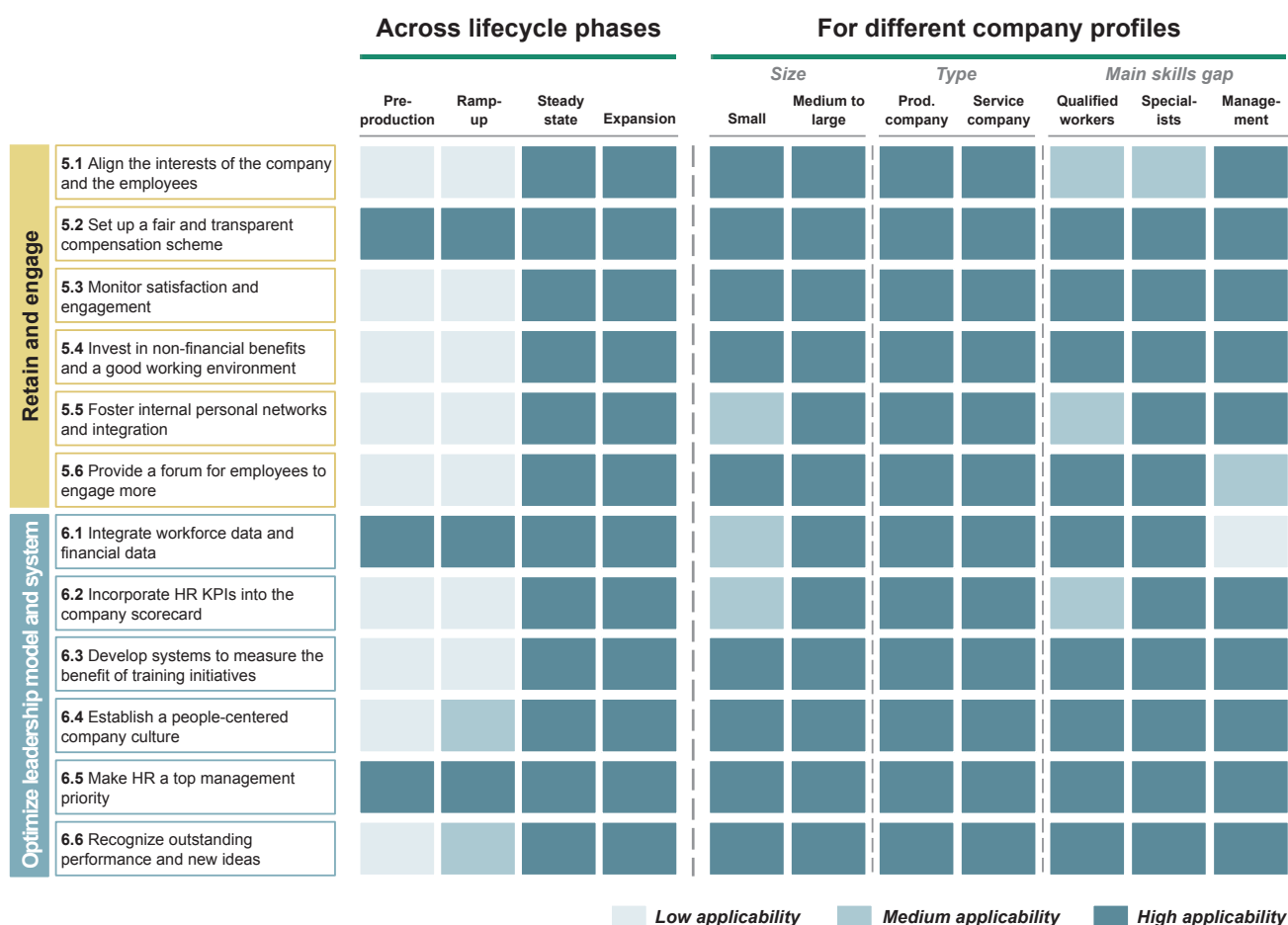
scheme”, 5.3 “Monitor satisfaction and engagement”, and 5.4 “Invest in non-financial benefits and a good working environment”.

- Finally, if you lose many production workers because they feel that their work is not appreciated, a potential solution is that of good practice 6.6 “Recognize outstanding performance and new ideas”.

Since most of the good practices are not universally suitable for all company types, you need to carefully assess the relevance of each initiative for your individual situation, i.e. the lifecycle stage of your company, its size and type, and the skills gaps it is experiencing. This assessment needs to be made against the backdrop of the root-cause analysis, to make sure that you identify the most relevant measures for addressing the causes of the problem in each case. Note that the good practices are generally transferable to different types of skills gap, though you might need to adapt them to your company's specific skills gaps. And before committing to implement a measure, it is worth conducting a cost-benefit appraisal to assess whether its benefits outweigh the costs.

Figure 59: Applicability of good practices for workforce development

		Across lifecycle phases				For different company profiles						
						Size		Type		Main skills gap		
		Pre-production	Ramp-up	Steady state	Expansion	Small	Medium to large	Prod. company	Service company	Qualified workers	Specialists	Management
Plan	1.1 Align production and capacity planning											
	1.2 Conduct strategic workforce planning											
	1.3 Establish succession planning for key positions											
	1.4 Reduce critical-workforce demand through automation											
	1.5 Offset short-term demand fluctuation to retain workforce											
	1.6 Outsource non-critical jobs in order to relieve specialists											
Recruit	2.1 Develop a positive employer-brand											
	2.2 Shift the hiring criterion from "ready-to-use" to "potential"											
	2.3 Identify and affiliate potential employees as soon as possible											
	2.4 Leverage employee and alumni networks											
	2.5 Tap into non-traditional workforce pools											
	2.6 Use new technologies to enhance recruiting experience											
Identify and assess	3.1 Gain a clear understanding of available competencies											
	3.2 Systematically identify development potential											
	3.3 Identify and manage a top talent pool											
	3.4 Define company-wide performance standards											
	3.5 Collect structured and transparent feedback											
	3.6 Provide probational leadership experiences to talented staff											
Train and develop	4.1 Develop clearly defined career paths with aligned training plans											
	4.2 Provide incentives for undergoing and approving training											
	4.3 Collaborate with external partners											
	4.4 Tailor training to the needs of the company and the target group											
	4.5 Foster internal knowledge transfer											
	4.6 Develop fast-track programs for high-potential employees											



Step 5: Conduct a cost-benefit appraisal of planned initiatives

After a potential solution has been found for your company's specific skills gap, it is worth conducting an ex-ante cost-benefit appraisal. Such an analysis can check whether the (intended) benefits outweigh the (expected) costs, and can help to secure top-management buy-in, to obtain external funding, and to identify possible weaknesses in the initiative. Depending on the availability and quality of data, the analysis might take the form of a capital budgeting study (whether an Net Present Value calculation or a Payback Period calculation), a break-even simulation or a cost comparison. It should be rounded out by a qualitative assessment of benefits and by devising chains of logical effects to clarify the initiative's costs and benefits.⁵ As discussed in Chapter 3, you should start the appraisal of costs and benefits with the objectives (i.e. the intended benefits) and identify the best levers for attaining them. The optimal level of detail for a cost-benefit appraisal depends on the capital investment, the running costs, and the complexity of the planned measure. For instance, the introduction of a quarterly award for the best-performing employees will warrant a less sophisticated comparison of costs and benefits than would the establishment

of a vocational training center with a three-year vocational training program for dozens of students. Nevertheless, any proposed measure deserves at least a basic comparison of costs and benefits, to define the objectives and create transparency about the expected costs. In addition, in the course of appraising the business benefits and costs of the initiative, you should also consider the potential social impact, as that will round out the picture of the initiative's total costs and benefits.

From the results of the cost-benefit appraisal, you should be able to determine which levers to press in order to reduce the costs or increase the benefits – especially if the results suggest a negative overall effect on the company. For instance, various levers for improving the net benefit of a training initiative are at your disposal (Figure 60). On the costs side, for example, you can try either to reduce the total cost of an initiative or to reduce your company's share of the total cost. This latter aim could be achieved via cost-sharing agreements with other companies (such arrangements can also exploit economies of scale, and thereby bring down the cost per training participant). On the benefits side, the training curriculum should be tailored to your company's specific needs, for example, and incentives should be offered to participants to continue working for your company.

Figure 60: Levers for improving the net benefit of a training initiative

Levers to reduce costs		Levers to increase benefits	
<ul style="list-style-type: none"> Use standard elements (such as building designs and curricula) instead of re-inventing everything 	Reduce total costs of the measure	<ul style="list-style-type: none"> Increase the number of students/ training participants 	Increase total benefits of measure
<ul style="list-style-type: none"> Find partners to finance measures either on a grant or interest-free loan basis Liaise with industry partners or education partners to share costs 	Reduce costs borne by the company	<ul style="list-style-type: none"> Agree on retention-periods with training participants Actively advertise your investment in training measures as a recruiting and marketing measure 	Increase total benefits for company
<ul style="list-style-type: none"> Exploit economies of scale: increase number of students/training participants (but not above demand) 	Reduce costs per participant	<ul style="list-style-type: none"> Tailor the training curriculum to the needs of the company 	
<ul style="list-style-type: none"> Agree on cost-sharing if the training participant does not join or leave the company (within a certain timeframe) 	Reduce costs per participant working with company	<ul style="list-style-type: none"> Actively recruit from supported schools and universities 	

A cost-benefit appraisal not only provides an indication of whether the benefits exceed the costs, but also helps to identify potential improvements to the initiative. If a well-structured business case can be presented, that will help in achieving buy-in from senior management, and also in securing financing both from internal and from external sources.

Step 6: Implement the selected initiatives

After you have decided on a specific skills-development initiative, and the (internal) support and financing have been secured, you can begin working on the detailed implementation planning. Again, as with the cost-benefit appraisal, the ideal level of planning depends on the initiative's complexity and riskiness. Also, evaluation of the initiative is crucial: the KPIs should be introduced early (see Chapter 3) to enable the monitoring and assessment of the initiative as it proceeds and after it has been implemented. Several key success factors have been identified from the experiences of the case-study clients, and from an analysis of DEG's portfolio of skills-development initiatives implemented with its clients. They are grouped into the three phases of the skills-development project: set-up, implementation, and sustainable operation (Figure 61). Once again, the factors vary in relevance, according to the type of skills-development initiative involved.

In the set-up phase of the initiative, it is essential to get the backing of top management and to establish ownership and

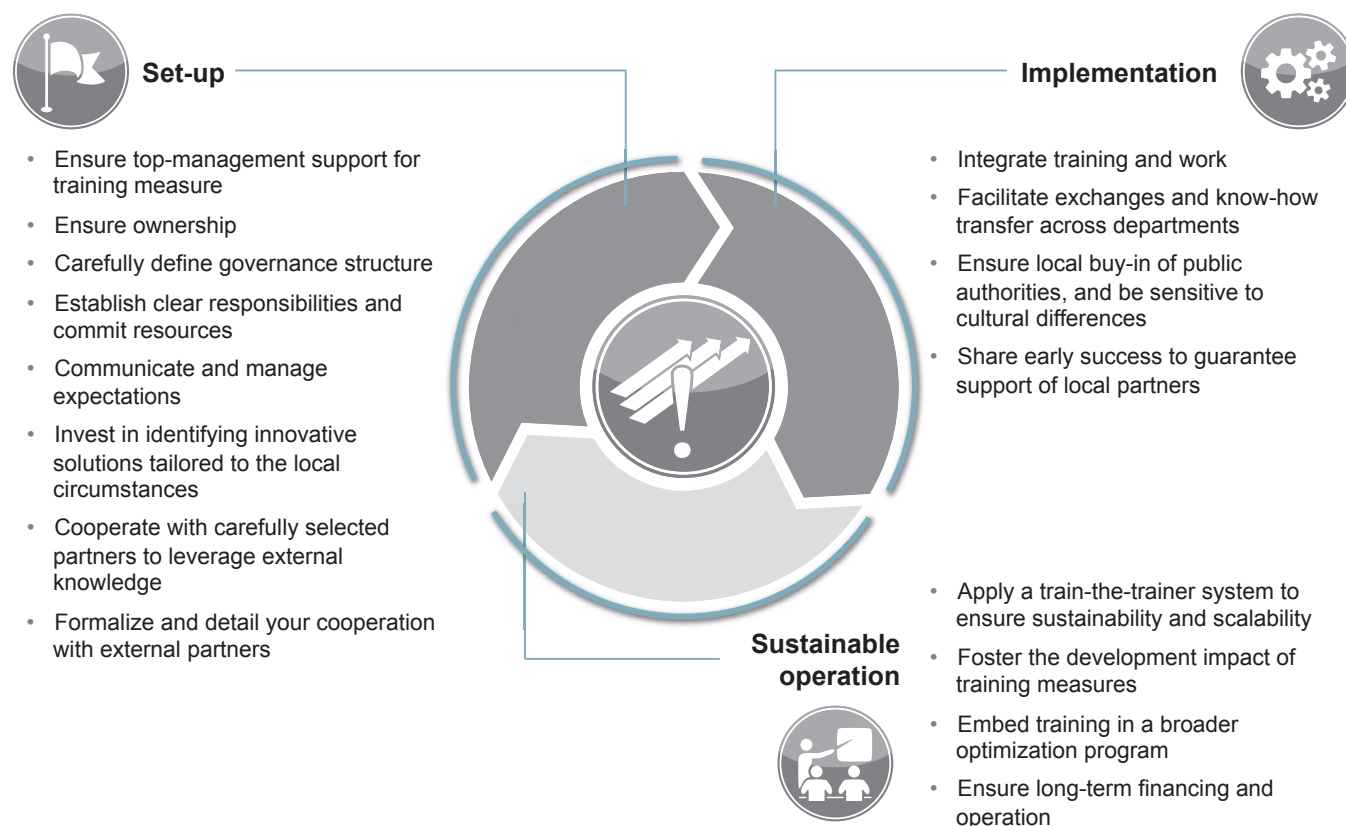
clear responsibilities, both within the company and with external partners. Experience shows that the project's success relies heavily on the careful selection of external partners and on formalizing your degree of cooperation with them.⁶ It is also crucial to manage the expectations of all partners involved, and to carefully define the governance structure and internal reporting obligations – and the external reporting obligations, to the local community, government or other key stakeholders.

In the implementation phase, make sure to publicize early successes to partners and within the organization. This will help in maintaining their support. It is equally important to ensure the buy-in of local authorities – for example, by engaging the relevant education authorities early on to discuss the certification of the training program. To maximize the benefits of skills development within the company, ensure an effective exchange and know-how transfer between external trainers and internal experts as well as across departments.

For the sustainable operation of the initiative, the company has to secure long-term financing, either from internal or from external sources – for instance, by sharing the running costs with partners or training beneficiaries, or by committing funds for several years. The sustainability of the initiative can also be enhanced by embedding the training in a broader optimization program. The Bangladeshi garment manufacturer JMS Holdings Ltd., for instance, incorporated training as an integral part of its radical transformation process, which involved a new production layout and an upgrade to new machinery.⁷

Given the huge variation in skills gaps and company characteristics, there can be no one-size-fits-all solution. But the six-

Figure 61: Key success factors for measures to close skills gaps



step approach described above will provide guidance to companies for identifying and addressing the specific skills gaps in their workforce. Note that, although the approach has been presented here in the context of workforce development, the basic steps are equally applicable for skills development along the value chain. In Step 1, for instance, companies could conduct the skills-gap assessment jointly with their suppliers or clients. For Step 3, the root causes of the skills gaps should be analyzed in a similar way to that suggested for the company's own workforce. Chapter 2 (page 25) provides a good-practice framework for skills development along the value chain that can serve as a basis for Step 4, developing qualification measures. As with initiatives for the company's own workforce, a cost-benefit appraisal should be conducted as Step 5, before taking the implementation decision. Finally, the key success factors of Step 6 are just as applicable for skills development along the value chain as they are for workforce development.

Although the template for skills assessment does not really apply to closing skills gaps in the broader community, it does offer useful guidelines: make an assessment of the needs (in secondary or tertiary education, for instance); prioritize them; identify initiatives likely to address them (making use of the good-practice framework for closing skills gaps in the broader community, in Chapter 2, page 27); and conduct a cost-benefit appraisal of those initiatives. (Since social impact is much

harder to quantify than business impact, more emphasis would be put on the qualitative assessment here.) Finally, apply to the favored community-development initiative the same key success factors for set-up, implementation and operation as you would for a workforce-development initiative or any other development initiative along the value chain.

Notes

- ¹ For instance, if a company is dissatisfied with the quality and timeliness of its local supplies, or if it receives complaints from its clients and can trace the causes back in the supply chain, it should consider establishing a supplier-development program. The good-practice framework for skills development along the value chain in Chapter 2.1 provides some guidance on establishing such a program.
- ² See Chapter 4 for detailed case studies on Hape (page 60) and HSL (page 76).
- ³ The downturn phase of a company is not included, since closing skills gaps is not relevant in this phase.
- ⁴ The numbers refer to the good-practice framework for workforce development in Chapter 2.
- ⁵ See page 36 for more details on the different approaches to conduct a cost-benefit appraisal.
- ⁶ See Textbox 1 on page 20 for a structured assessment of potential external collaboration partners (stakeholder mapping).
- ⁷ See the case study on JMS Holdings Ltd. on page 87 for the details.