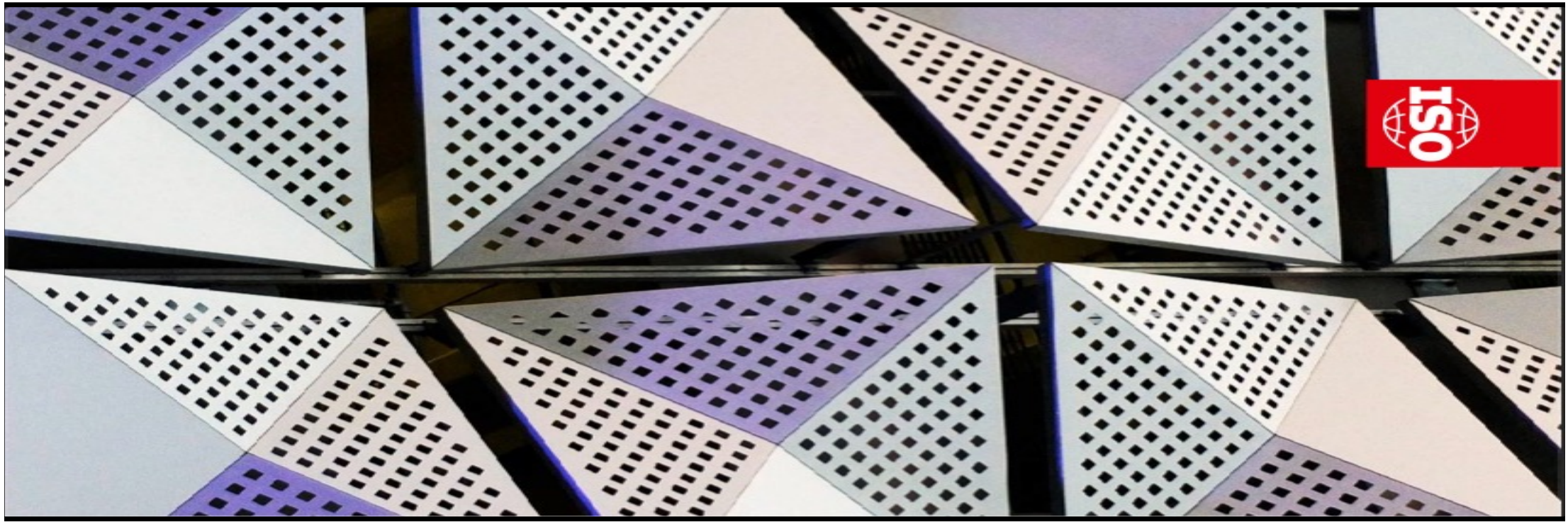

ISO/TR 56004

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TECHNICAL REPORT

ISO/TR 56004

First edition
2019-02

Innovation Management Assessment — Guidance

Évaluation du management de l'innovation — Lignes directrices

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 279, *Innovation Management*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Innovation is the key driver for organizations to create value from new products, services, processes, or business models. Therefore, innovation needs to be managed in a systematic manner. Many organizations have already established their innovation management (IM). This might build on key success factors such as the innovation strategy and objectives, the operations for innovation including the processes and organizational structures, and the innovation-enabling factors, the innovation support, including among others the innovation culture, tools and methods, competencies, human and financial resources. Managing innovation in a systematic manner creates value and secures the organization's future. As a consequence, organizations seek guidance on continuously developing their innovation management capabilities and performance. A pre-requisite is transparency of the organization's current performance of its IM. To achieve necessary transparency here, regular and effective assessments of the IM are essential. In this context, this document is designed to answer the following over-riding question: How can an Innovation Management Assessment (IMA) contribute to the future development of an organization and its IM?

This document provides guidance on why it is beneficial to implement an IMA, what you can expect from a good IMA, how to carry it out, and act upon the results of the IMA. More specifically, the document provides the fundamentals for considering an IMA and provides the foundation for carrying out such a process. It is intended to help the user to understand the:

— value and benefits of carrying out an IMA (reasons behind carrying out an IMA);

— different approaches for an IMA;

— IMA process, its steps and impact;

— improvement potential for the IM, the IMA and, as a result, for the assessed organization.

Before continuing further, the reader is encouraged to consult Annex A of this document, which outlines the key principles behind a good IMA.

Details of an Innovation Management System (IMS) can be found in ISO 56002[1)] with particular reference to Clauses 9 and 10 which cover performance evaluation and improvement. For details on specific innovation and innovation management tools or techniques, consult ISO 56003 and following documents in the series. The common innovation management terminology can be found in ISO 56000[2)], "*Fundamentals and Vocabulary*".

1) Under preparation. Stage at the time of publication: ISO/DIS 56002

2) Under preparation. Stage at the time of publication: ISO/CD 56000

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Innovation Management Assessment — Guidance

1 Scope

This document will help the user understand why it is beneficial to carry out an Innovation Management Assessment (IMA), what to assess, how to carry out the IMA, and thus maximize the resulting benefits, which are universally applicable to:

— organizations seeking sustained success in their innovation activities;

— organizations performing IMAs;

— users and other interested parties (e.g. customers, suppliers, partners, funding organizations, universities and public authorities) seeking confidence in an organization's ability to manage innovation effectively;

— interested parties seeking to improve communication through a common understanding of Innovation Management (IM), via an assessment;

— providers of training, assessment, or advice in IM;

— developers of related standards;

— academics interested in research related to IMA.

Further, this document is intended to be applicable to:

— all types of organizations, regardless of sector, age, size, or country;

— all approaches to IM regardless of their level of sophistication, and complexity;

— all modalities of managing innovation whether centralized or decentralized;

— all ways to innovate, e.g. internal, collaborative, open, user-, market- or technology-driven innovation;

— all types of innovation such as product, service, process, business model, organizational innovation from incremental to radical.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

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3.1
innovation
new or changed entity, realizing or redistributing value

Note 1 to entry: Novelty and value are relative to, and determined by the perception of, the organization and interested parties.

Note 2 to entry: An innovation can be a product, service, process, model, method etc.

Note 3 to entry: Innovation is an outcome. The word "innovation" sometimes refers to activities or processes resulting in, or aiming for, innovation. When "innovation" is used in this sense, it should always be used with some form of qualifier, e.g. "innovation activities".

Note 4 to entry: For the purpose of statistical measurement, refer to the Oslo Manual (OECD/Eurostat 2018):'New or changed entity' corresponds to 'a new or improved product or process, or combination thereof, that differs significantly from the unit's previous products or processes'. 'Realizing or redistributing value' corresponds to 'and that has been made available to potential users or brought into use by the unit'.

[SOURCE: ISO 9000:2015, 3.6.15, modified by using the term "entity" instead of "object" and by adding notes]

3.2
innovation management
management with regard to *innovation* (3.1)

Note 1 to entry: Innovation management can include establishing an innovation vision, innovation policy and innovation objectives, and innovation strategies, innovation processes, structures, roles and responsibilities and innovation support, to achieve those objectives through innovation planning, innovation operations, performance evaluation, improvement and other activities.

3.3
innovation process
process with regard to *innovation* (3.1)

Note 1 to entry: Innovation processes are generally planned and carried out under controlled conditions to realize value.

Note 2 to entry: Innovation processes are designed to manage uncertainty with innovation as the intended result. Not all innovation processes are resulting in innovation.

Note 3 to entry: An innovation process consists of several innovation activities or process elements e.g. identification of insights and opportunities, ideation, prototyping , development, deployment

Note 4 to entry: Innovation processes can be implemented within an organization or across organizations in the case of e.g. collaborative innovation, innovation clusters, value networks or ecosystems.

4 Reasons for carrying out an Innovation Management Assessment

Before initiating an IMA, it is preferable that the organization gains a thorough understanding of the reasons for carrying out an IMA, and about its current IM performance. There may be the need for clarity on the IM and how it is performing, or there may be the need for change in the organization to perform better. In the first case, the IMA's objective is to provide insights into the current performance - both strengths, weaknesses and gaps to the desired value creation through better IM. This will be the basis for defining and implementing actions for improvement. In the second case, the IMA may yield a transformation roadmap including organizational changes to reach the level of a high-performing innovator. The following reasons may trigger an organization to initiate an IMA.

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Table 1 — Possible reasons for an organization to carry out an IMA

Gain a better understanding of IM	Determine the performance of the current IM
— Learn what the key success factors for effective IM are, and how to leverage them — Better understand how the key success factors of IM are integrated within, and leveraged by the organization	— Discover the aspects of IM that lead to performance gaps, e.g. between value creation targets and actual results — Evaluate the organization's position based on value creation from innovation — Identify misalignment in the organization (activities, structures, processes, responsibilities, culture, HR, finance etc.) that impede IM results — Compare the organization's performance with external points of reference: such as known innovation leaders/growth champions, competitors, or other external stakeholders and identify best practices in IM
Meeting internal/external requirements	**Improving the performance and increasing the value of the organization**
— Meeting strategic goals/objectives — Comply with requirements for funding for innovation projects or qualification of the organization in the context of due diligence	— Structured input into a roadmap and the resources needed for enhancing the IM performance — Fostering an innovation, learning and dynamic culture to support the evolution of the organization

Note that the motivations in Table 1 are not exhaustive, nor are they intended to outline all possible benefits of performing an IMA. The reasons for initiating an IMA will guide its scope, strategic intent, required resources and – most important – the resulting level of change.

5 Choosing the Innovation Management Assessment approach

5.1 General

When choosing the most suitable IMA approach, the organization is expected to have a clear understanding of the:

— different IMA approaches;

— scope of the IMA;

— type and quality of the IMA output(s);

— formats of the IMA output.

These considerations may serve as selection criteria for the most suitable IMA approach.

5.2 Understanding different approaches to Innovation Management Assessment

Different IMA approaches include check-list assessments or benchmarking assessments. Check-lists provide a list of issues to be considered when assessing the IM and its deployment. Benchmarking assessments build on defined internal or external peer group's IM scores and provide transparency of the organization's IM performance and competitiveness.

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Table 2 — Potential approaches for an Innovation Management Assessment

IMA Features	Options to Implement the IMA Features		
IMA Objective	☐ Compliance with Defined Targets	☐ Value Creation from Enhanced IM	☐ IM Capability Improvement
Extent of IMA (Breadth)	☐ Single Organization Unit	☐ Some Units Within Overall Organization	☐ Entire Multi-Unit Organization
Assessed Objects (Focus)	☐ Single Element Focus		☐ All Elements
Expertise Involvement	☐ Internal		☐ External Experts
Data Collection	☐ Desk Research	☐ Interviews	☐ On-line Survey
Tools for Data Collection	☐ Manual		☐ Automated
Data Types	☐ Qualitative		☐ Quantitative
Methods of Data Analysis	☐ Manual	☐ Tool Supported	☐ Fully Automated
Reference Types	☐ Before & After	☐ Actual vs. Target	☐ Best Practice (Benchmark)
Comparison Types	☐ Previous IMA(s)	☐ Correlation Analysis	☐ Benchmarking
Data Interpretation	☐ Normative		☐ Non-Normative
IMA Output	☐ Strengths & Weaknesses	☐ Identified Gaps	☐ Recommendations for Improvements
Format IMA Output	☐ Summary	☐ Tool Supported	☐ Comprehensive Report
IMA Recommendations	☐ For IM Enhancements	☐ For IMA Enhancements	☐ For Assessed Organization's Enhancements

Independent of whether the IMA is performed based on a check-list or on a benchmarking approach, the IMA can be designed along several dimensions as shown in Table 2.

— The "IMA Objective" will be defined as a first step when planning an IMA. The scope and, as a result, the questions asked will differ whether the IMA aims at compliance with defined targets, the value created from an enhanced IM, or at the organization's IM capability for improvement.

— The "Extent of IMA (Breadth)" covers the entire unit, defined either by a common profit and loss statement or by an annual performance statement. Within this unit, all success factors of the IM will be addressed in the IMA to reflect their interdependency;

— The selection of the "Assessed Objects (Focus)" ensures that the IMA results reflect the interdependencies of the organization's innovation strategy, culture/leadership, innovation process, for example. Only then underlying root/causes for IM improvement are identified.

— Deciding on the "Expertise Involvement" the organization takes a sober decision on the quality, availability and independence of internal resources. The recommendations from an external third party might have more credibility and impact on the implementation of the necessary improvements.

— The "Data Collection" will be determined by the defined scope of the IMA and by the availability of data that has been defined for the IMA.

— Selecting the "Tools for Data Collection" especially for small and medium-sized enterprises (SMEs) has become easier as there are proven online tools available that provide a comprehensive questionnaire reflecting the interdependencies of the innovation strategy, innovation organization and culture, as well as the innovation processes for example, and presenting the organization's IM performance within a mouse click in a well-structured report.

— "Data Types" - qualitative or quantitative – are usually used in combination to measure the effectiveness and efficiency of an organization's IM.

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— "Methods of Data Analysis" will be fully automated when using an online IMA tool that offers this service. However, effective interpretation of the IMA results will take into account the organization's level of ambition, competitive/external pressure to change, available resources and capabilities to drive the change.

— The selection of the "Reference Type" and "Comparison Types" depends on the organization's access to reference data. When an organization performs an IMA the first time, internal data are not available. Here the defined targets or the external benchmarks might serve as a reference.

— The "Data Interpretation" ideally provides actions for further improvement of the IM. However, the "Data Interpretation" might also describe possibilities or predict what might happen as a result of certain actions.

— On the "IMA Output Format" the organization defines which types of actionable output they require for which level of hierarchy in the organization to achieve the necessary transparency and impact from the IMA.

— The "IMA Recommendations" reflect the full scope defined for the IMA. The recommendations may also affect the entire assessed organization or even their value networks.

5.2.1 Performance criteria for Innovation Management

For each of the IM's success factors such as the innovation strategy, innovation organization and culture, innovation processes, innovation-enabling factors and innovation results, performance criteria may include quantitative and qualitative measures. Quantitative measures allow for numerical analysis, while qualitative measures will complement this with additional richness and depth.

The criteria are selected to provide insights into the IM's impact on the organization's value-creation from innovation. This can be defined for example by value via:

— growth in:

  — revenue from innovation;

  — profit from innovation;

  — market share from innovation;

  — number of employees;

  — geographic reach from innovation;

  — number of beneficiaries (e.g. of social businesses or of public sector organizations) that are reached by the innovation offered;

  — value-created for the beneficiaries reached, social development and/ or environmental sustainability;

— its ability to set the pace for innovation by:

  — optimizing the innovation lifecycle;

  — speed of innovation;

— its efficiency based on:

  — resources allocated to achieve the defined value;

  — defined timeframes that were met or even accelerated;

  — defined quality levels reached or even exceeded.

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5.2.2 Options for implementing the Innovation Management Assessment

The IMA may be a very simple high-level scan, based on only a few questions gaining a first idea on the IM's performance, or very detailed investigation, based on a greater range of qualitative and/or quantitative questions. Both a simple and more detailed IMA can be carried out as part of a stepwise IMA approach, where required. For large organizations with many separate organizational units, or geographically spread units there may be several different IM approaches in place. In such cases, there can be a benefit for running several parallel assessments to fully assess the overarching (or individual) IM performance. Efficiency and effectiveness of the IMA increases if proven automated tools are used.

The IMA can be performed internally by a dedicated team, with the help of external experts or completely driven by resources from an external party. The team can use a combination of interviews, surveys and desk research which will ideally produce both quantitative and qualitative results (Figure 1).

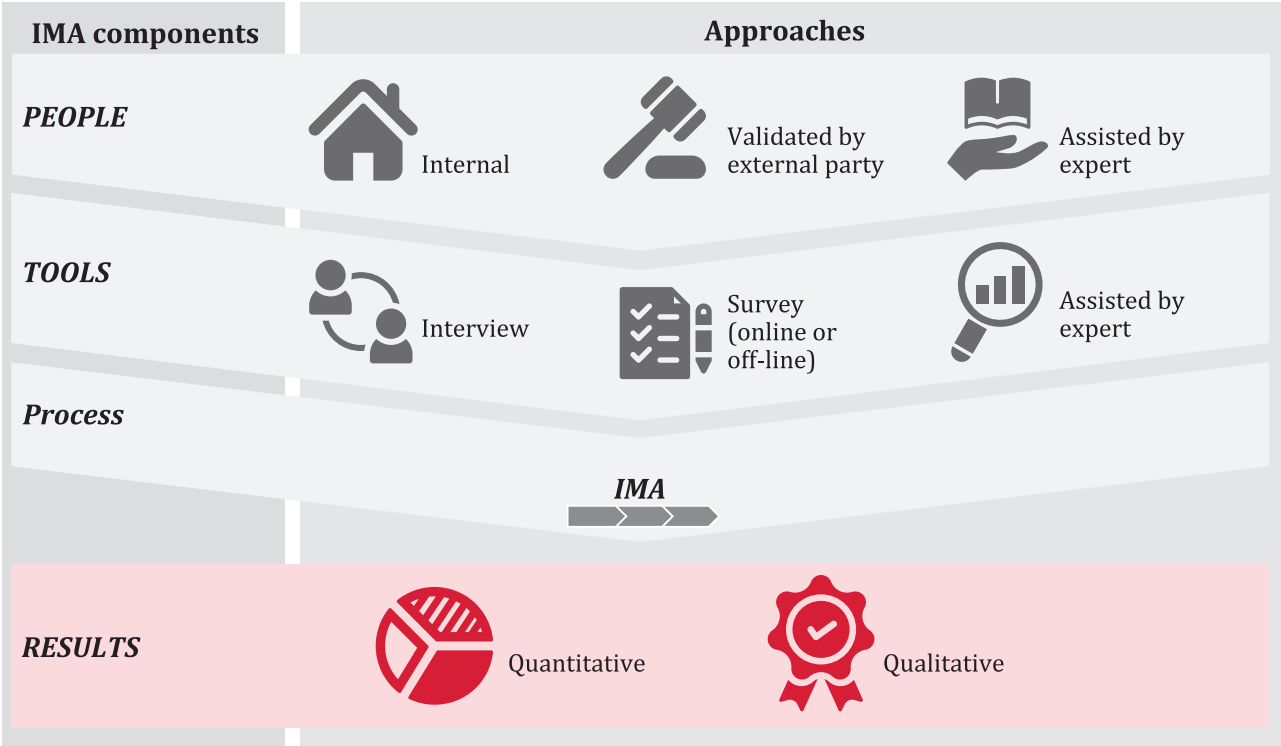

Figure 1 — Key components of, and approaches to, Innovation Management Assessment

Response formats might be of different types such as 5-7-point Likert (psychometric) scales, colour abacus or other forms of normalized scales. The respondents can include managers, employees, external clients, and/or partners.

5.3 Type and quality of Innovation Management Assessment output(s)

The quality of the IMA outputs depends on the quality of the data that is collected and documented as well as on the reports that present the IMA results.

For all types of IMA approaches, it is important to match the effort required from the respondents to the desired level of detail. Aspects to be ensured are:

— the validity of the underlying assumptions used to build the dataset/database;

— the consistency of responses, through detailed guidance or sufficiently simple and unambiguous questions;

— the validity of the results, through a sufficient number of responses in relation to the size of the organization.

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Good support for analysis and action planning is based on a well-defined dataset that allows for filtering, benchmarking and/or correlation analysis in order to:

— analyse data to report strengths, weaknesses and/or capability gaps in the IM;

— compare and contrast assessment data with earlier assessments or with the benchmark;

— compare and contrast assessment data with relevant data from other sources.

When comparing with external databases, the quality of the database can be evaluated by its accuracy, size, age, confidentiality, and integrity of the data.

The output of the IMA is expected to be a well-structured report highlighting the strengths and weaknesses of the IM. These insights form the basis for a set of recommendations for improving the IM and further IMAs. The quality of the report is defined by its relevance to the original objectives of the IMA, its completeness, statistical validity, clarity of structure and language, and the possibility to use it as the basis for future action planning.

5.4 Formats of Innovation Management Assessment output(s)

The IMA results can be presented in many different formats, such as radar (spider) diagrams, histograms, score boards. Examples are provided in Annex B.

Choosing how to communicate the type of output data representation depends on the organization's current culture, on the organization's future innovation requirements, and is expected to be easily understood at all levels of the organization.

If the assessment provides quantitative responses, the organization can set up a scoreboard or radar diagram and monitor the degree of improvement of their IM performance over time.

6 The Innovation Management Assessment process

The IMA process is designed to evaluate IM in the organization with the objective to grow value from opportunities and ideas that are successfully turned into innovations. IM includes innovation strategy, innovation organization and culture, innovation processes, and innovation-enabling factors such as resources, or knowledge. Such aspects of IM are interrelated and jointly managed to maximize value. Hence, the IMA is expected to provide guidance to an organization in how it's IM is performing in terms of value creation, as well as in how to improve it.

The IMA can be carried out on all aspects of IM and the effectiveness of their interactions, and on how the IM leads to enhanced value. The implementation of an IMA is also expected to yield improvements in the assessment process itself.

There are several success factors that make up a good IMA. It may be helpful to visualize how they interconnect. See Figure 2.

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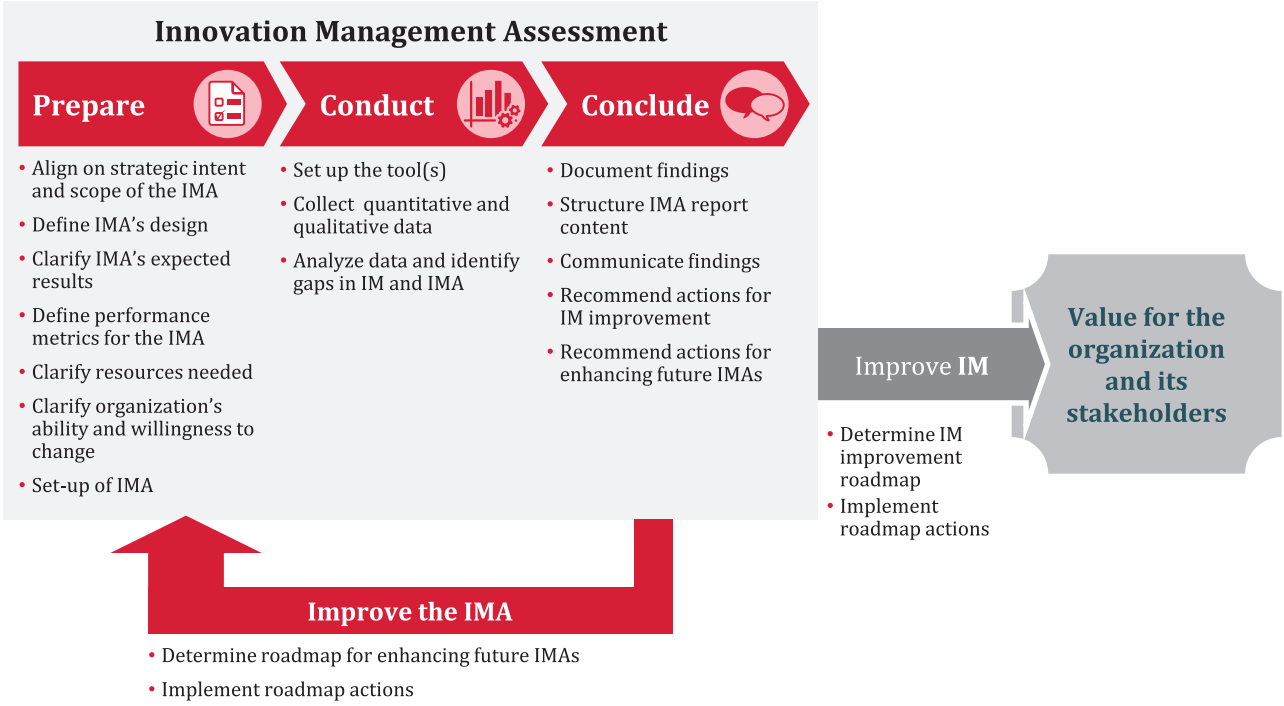

Figure 2 — Innovation Management Assessment

An impact-focused preparation is the pre-requisite for a successful IMA. During the preparation for the IMA, the organization is expected to reach a common understanding of the expected outcome and value creation of the IMA. Hence, the management will want to define the strategic intent for the IMA (why an IMA is initiated), the organization's readiness and ability to change, as well as the scope and the appropriate level of detail that the IMA is expected to operate at (what to assess). With the launch of an IMA the organization also commits itself to taking action for further improving their IM's effectiveness and efficiency.

Once an agreement has been achieved on these issues, the most suitable approach, tools, processes and the team (in terms of size and expertise) can be defined for the execution of the IMA. A clear understanding is required of how the selected IMA approach will ensure that the defined objectives will be achieved.

During the execution of the IMA, the focus is best placed on the specific actions that have a high impact on the organization's IM performance. The application of the assessment approach, the tools and processes, the resources invested are set in relation to the defined objectives.

The IMA produces the best results when it identifies concrete actions to maximize impact, and these actions are clearly communicated. The IMA is repeated at an appropriate time interval and linked to continuous improvement activities that will ensure that the IM and the IMA further develop in line with evolving strategic and/or external priorities affecting the organization.

An IMA is expected to create value at each phase of the process. During the preparation phase the value results from an agreed understanding of the needs and benefits of the IMA as well as of the suitable approach. The execution of the IMA delivers value to the organization by creating a common understanding of the identified gaps (transparency). During the final phase, the potential for additional value is identified. In this way, recommended actions necessary to eliminate the gaps and capture additional value can be defined.

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7 Prepare the Innovation Management Assessment

When thinking about starting an IMA, the organization will consider how it integrates into other organizational activities, and the organization's future intentions and readiness for the IMA. The organization will aim at achieving clarity of the:

— IMA's strategic intent and scope;

— IMA's design suitable for the organization;

— IMA's expected results;

— performance metrics for the IMA;

— resources needed (internal and/or external);

— organization's ability and willingness to change; and

— set-up and implementation of the IMA.

Each step is covered in more detail in the following subclauses.

7.1 The Innovation Management Assessment's strategic intent and scope

For optimized results, the IMA will be aligned with the organization's ambition, strategy and goals, whilst recognizing that in many cases the organization will expect the IMA to provide input in the form of recommendations and suggestions which could alter the organization's level of ambition and goals, and which senior management will have to approve.

It is strongly recommended to gain a full picture of the IM performance. Therefore, the scope of the IMA aims at a holistic assessment, covering all aspects of IM. This will provide the necessary insights and the underlying root causes for performance gaps leading to missed opportunities for value creation or wasted investments in innovation. The IMA could cover objects including:

— innovation strategy;

— innovation organization and culture;

— the innovation (lifecycle) process;

— innovation-enabling factors (such as resources, knowledge, IT, project and portfolio management);

— innovation results.

The IMA approach may be designed to match a specific organizational structure, such as a group with many units and/or geographical locations calling for multiple assessments to be completed and compared (benchmarked) rather than a single overall assessment. This will reveal the gaps in the IM.

The following questions might help to define the scope:

— What are the key success factors of the IM and their interlinkages that will be considered in the IMA?

— Which parts of the organization, its suppliers, partners or collaborators will be involved, the entire organization or just certain subunit(s)? Which people have to be available for surveys, interviews or other interactions?

— What level of detail will be necessary to meet the strategic intent of the IMA?

— What IMA deliverables and results are expected, e.g. report types, workshop results, benchmarks based on comparisons with other organizations?

— What level of commitment can the organization sustain, e.g. senior management buy-in, budget, training?

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This list is not exhaustive.

7.2 Innovation Management Assessment's design suitable for the organization

As shown in Table 2, there are many different features and options to choose from for the design of the IMA. The organization has to consider the expected results, required effort, available expertise and time in performing the IMA, as well as their access to proven IMA tools when designing the next IMA.

7.3 Expected results of the Innovation Management Assessment

An IMA is intended to lead to clear financial benefits or other forms of value creation as a result of a sober gap analysis, an agreed and implemented actionable roadmap improving the IM performance.

The immediate IMA's results might reveal an urgent need for improvement of the IM effectiveness and efficiency. The organization has to be prepared and willing to take these results as a trigger for taking the necessary actions. Hence in the preparation for the IMA, a clear consensus is expected on:

— Who will receive the results of the IMA: management, staff or wider range of stakeholders?

— What will be done with the IMA results? What are each group's expectations?

— What does the organization wish to communicate about the IMA?

— What actions will be taken once the organization has received the results of the IMA to ensure change readiness?

— What happens next? How will any changes identified be reviewed, implemented and resourced?

By examining all results of the IMA, and bringing clarity to all involved parties, the organization is prepared to start implementing the recommendations that came out of the IMA. The IMA might also contribute to:

— identify new opportunities such as new markets, alliances, collaborative partnerships, improved services or sources of investment and funding;

— recommendations on the business efficiency;

— enrich the pipeline of ideas, and innovation portfolio;

— develop and deploy an IMA database;

— raise the staff's awareness regarding the organization's strategic view on innovation.

7.4 Performance metrics for the Innovation Management Assessment

Prior to the IMA's implementation, the performance metrics for the IMA will be defined in order to be able to determine the IMA's success. These metrics may include the IMA's:

— effectiveness such as identified gaps in the IM or identified additional value-creation potential of the IM;

— efficiency measured, e.g. by the speed in which the IMA is implemented and the resources allocated to the IMA's implementation.

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7.5 The resources required (internal and external)

The organization will to take into account the resources required to perform an IMA, considering the previous strategic intent and defined expected results. For best results, the following aspects are taken into account for defining the necessary resources, in relation to the foreseen approach for the IMA.

— required human resources internally and externally;

  — quantity (man days);

  — quality (skills and experience in performing the IMA, knowledge about the organization, its culture, and the IM);

— the budget for planned expenses;

— infrastructure and necessary methods, tools and systems;

— the parts of the organization, its suppliers or partners that can provide support to the IMA;

— availability of the resources at the time, and for the duration, of the IMA.

The resources necessary to carry out the actions resulting from the IMA will also depend on the organization's ability and willingness to change. Therefore, it is necessary to gain a thorough understanding of the ability, willingness, and the potential resistance to change.

7.6 Organization's ability and willingness to change

When preparing for an IMA, the organization will assess the ability as well as their willingness to change, as issues from an IMA are often identified that indicate the need for the organization to improve some or all IM's key success factors. This might even result in the need to behave differently and to initiate change. Therefore, the organization needs to be aware of, and prepared for such significant changes prior to launching their IMA. The following questions can help to clarify the readiness to change:

— What is the level of commitment that the organization can sustain, for example, senior management buy-in, budget, and training to drive the required change?

— What level of leadership commitment can be expected during the entire change process resulting from an IMA?

— What is the level of resistance that is likely to be met considering the organization's current culture, enthusiasm, and readiness to change?

— To what degree does the organization have a shared vision that can increase commitment and engagement for the change?

This preparation of an IMA will set the basis for selecting the most suitable approach for the IMA.

7.7 Prepare for the set-up of the Innovation Management Assessment

In preparation for the IMA set-up, the following critical success factors will be clarified so that the person or team in charge of the successful IMA implementation has:

— **The commitment from the leadership**: This commitment is for the execution of the IMA as well as for the implementation of the necessary improvements. Leadership will declare their commitment regarding the degree of change that will be supported.

— **A common understanding of the trigger and objective for the IMA**: All parties involved in the IMA have a common understanding of why the organization initiates the assessment and what the strategic intent of the assessment is.

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— **The mandate for and scope of the IMA**: The team in charge of the execution of the IMA are expected to have a clear mandate, and a clear understanding of the IMA's scope. For clarity among all stakeholders, there might be also a clear definition of what will not be within the scope.

— **Clarity on the specific IMA approach**: The decision regarding the specific IMA approach will be based on the organization's competitive pressure to improve their IM, the organization's strategic intent, the level of detail expected, the team's experience in the preferred approach, their capabilities and time in driving this approach, and the accessibility of the preferred approach. The team might develop their own approach or select one that has proven its effectiveness already. Even where the organization chooses to develop and carry out its own assessment, it may help to have an independent and knowledgeable advisor or guide involved, to help focus objectives and maximize the added value from the IMA. It is expected that this decision will be documented and detailed in the terms of reference for the IMA, providing the necessary level of detail and transparency for the preparation and implementation of the IMA.

— **Clarity on the timeline, milestones and budget**: Depending on the organization's competitive pressure, its strategic intent and available budgets, the timelines and the milestones for the data collection, the data analysis and the development of the action plan for the improvement of the IM will be determined. A commonly agreed execution plan will facilitate the implementation of the IMA.

— **A communication approach to prepare and engage the organization**: It is anticipated that the IMA will be communicated to key stakeholders, explaining the strategic intent for the IMA, the expected benefits, its scope and selected approach, the team involved in the preparation and execution of the IMA (including the introduction of external experts as involved), the expected support from the managers, employees and other stakeholders. It is useful to clearly define who will be responsible for the communication, how frequently will there be a communication (for example for the launch, at the end of the data collection, at the end of the data analysis, after the agreement of the actions for improving the IM), and at what times the communication will take place. Advocating the IMA on all levels of the organization is a vital precondition for a successful implementation. A commonly agreed communication plan will help to implement the communication activities on time and by the defined team members.

— **Appropriate risk management**: It would be helpful to define and document potential risks in executing the IMA successfully as well as appropriate risk mitigation strategies. These will be in line with the organization's overall approach to levels of risk and risk mitigation approaches. A commonly agreed risk management plan including escalation mechanisms will provide the necessary transparency of the IMA's success.

— **Strong commitment in the organization for the improvements necessary**: The managers and staff members in charge of the deployment and development of the IM are expected to provide a formal commitment to support the IMA and also later on the necessary actions for the further improvement of the IM's performance.

— **Preparation of the data collection**: Based on the selected approach, the necessary data will be defined. The organization will decide which data will be used for comparison i.e. internal (previous or self-defined), or external (same industry sector, national, international, global, same size of organization, same age of the organizations to compare with). Depending on the reference data selected, a score can then be defined. This will ensure all data is measurable either from a quantitative or qualitative point of view. If desired, a questionnaire will be developed. Proven IMA tools have their specific questionnaires that might need adaptation. Identified respondents will be informed how, and when they are expected to complete the questionnaire, or be available for an interview. For complementary data from desk research, the sources will be identified. In a data collection plan these activities including responsibilities will be defined.

— **The necessary supporting materials**: During the preparation phase, all the necessary supporting materials (i.e. tables, questionnaires, files, databases) for data collection are defined and prepared. To ensure smooth operation of the IMA, the possibility to link each data source to a general table/database where the data is described either in a quantitative or qualitative way is important.

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— **The plan for the dissemination of the results:** Prior to the execution of the IMA, a strategy to disseminate the results (including the recommended and agreed actions) to the management and staff will be developed. The level of detail in the communication will be defined for each of the various stakeholder groups.

8 Conduct the Innovation Management Assessment

The IMA can be used as an opportunity to identify areas of improvement and for increased value creation. It can be performed periodically allowing the organization to keep learning and developing over time, and to help anticipate future challenges. As part of the first assessment, alongside the timeline for future improvement activities, it is recommended that dates for future assessments will be set at the start of the process and, if necessary, any changes to the scope of the next IMA can be defined. A successful IMA is likely to be performed in the following sequence:

— set-up of the tool(s);

— quantitative and qualitative data collection;

— data analysis;

— identification and development of recommendations for IM and IMA improvement.

8.1 Set-up of the tool(s)

Based on the selected tool(s) for the IMA the organization can ensure that the team engaged in the IMA conduct has full command of, control over and access to the tool(s) for the duration of the IMA.

8.2 Data collection (quantitative and qualitative)

The team in charge is expected to collect the data as specified during the preparation for the IMA scope, from the relevant functions and organizations in the defined format (online, off line, in questionnaires, via interview or desk research) ensuring good quality data. The data collection and storage are usually performed to allow for appropriate data analysis and invariably covers all key success factors of the IM. Further, data is usually collected as related to the innovation strategy and how it is operationalized. For example, the innovation vision, strategy and objectives are expected to yield the selection criteria for the next innovation projects in terms of expected contribution to the organization's growth, competitiveness and value creation. Most usefully, data will be collected regarding the innovation organization and culture, for example regarding the organizational structures, the capabilities, the ability to learn from previous innovation successes and failure, and how the IM ensures continuous innovation in the defined areas. For the innovation process and its operation, data is collected regarding the time-to-market (how fast innovations have been launched) and the time-to-value (such as how fast the organization created value, from growth in revenue, profit or social value). For the innovation-enablers, data collected regarding the effective and efficient use and development of (IT) tools and methods, financial resources, skills and capabilities to innovate can yield interesting results. Most important for the data collection are the data on the innovation results such as the value created during the past defined period. Depending on the industry and age of the organization, it can often be useful to take data and results from the last three to four years into consideration.

For larger IMAs, pilot data collection may be useful, then a first general review could detect if the data shows abnormal patterns and outliers that might hide significant factors or indicate misunderstandings. Typical examples of abnormal data collection are:

— if different parts of the organization work in different ways (either due to different dynamics in the different industries they address or due to unstable processes) this could lead to unreliable data, which makes it harder to draw valid conclusions;

— organizational or ecosystem factors could lead to distorted data collection, for example, a lack of openness and the fear of talking about real issues might skew responses;

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— when examining staff commitment to the organization's mission and vision, some people might be more focused on personal goals than company goals or may be thinking of only their immediate team.

After reviewing the pilot data and making suitable adjustments of the IMA set-up, the full-scale implementation of the IMA can begin.

If online IM benchmarking tools are used for data collection, the benchmarking class can be selected in line with the defined objectives for the IMA. A comparison with the organizations from the same industry group, the same size and age of the organization, located in the countries where the main markets of the organization are, might be the preferred selection. However, if the organization would like to understand the innovation dynamics in different industries they are serving or countries that they would like to export to, the selection of the benchmarking class can be adjusted accordingly. Depending on an organization's ambition regarding their innovation performance, it can also be very relevant to benchmark with top innovators across all lines of business, industries and countries to identify the capability and IM gaps in relation to global top innovation performance.

To make optimum use of the IMA, data collection is best documented in an effective and efficient manner. Depending on the chosen IMA, its online tool(s) may provide different levels of automated documentation and reporting.

8.3 Data analysis

The data analysis will provide transparency of the strengths and weaknesses in the IM, but also in the IMA. This creates the basis for concrete improvement actions. The data analysis is performed in the following steps:

— data cleansing;

— data interpretation and gap identification.

8.3.1 Data cleansing

To ensure clear identification of strengths and weaknesses of the IM performance, there might be a need to clean the data from noise and/or outliers at this stage.

NOTE The data cleansing stage is not intended to be performed to influence a specific outcome or produce a predetermined result.

8.3.2 Data interpretation and gap identification

The IMA's comparison with pre-defined targets or with benchmarks reveals the gaps to these targets or benchmarks and highlight the area of improvement. They can be prioritized by their impact on the organization's value-creation (such as growth in profit, revenue, or social benefits for their key beneficiaries). During the data interpretation and gap identification, the scores are most effectively analysed by the key success factors of the IM [for example innovation vision, strategy, objectives, agility of the innovation organization and culture, innovation processes (innovation operations), innovation-enabling factors such as resources, (IT) tools and methods including protection of intellectual property and collaboration for innovation]. Strong focus can be put on the gaps related to innovation results. This will give an indication on the urgency for further improvement of the organization's IM. Some IMA tools provide average scores and scores of the growth champions as benchmarks.

If properly carried out, the interpretation of the IMA's results leads to improved understanding of the root causes of the IM strengths and weaknesses that have been identified. Only then meaningful strategies and actions for further improvement of the IM performance can be developed. For example, if the "time-to-market" of a new product or service for an organization is too long, this could be caused by lengthy decision processes, lack of alignment between the various organizational entities, or lack of resources allocated to the key innovation projects.

The data analysis might yield some gaps resulting from the IMA itself. These gaps might come from the set-up of the IMA, for example when only selected objects of the IM have been assessed and not all

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of them, or from the data collection if the level of detail was not at the required level to get to the final root/causes.

9 Conclude the Innovation Management Assessment

Based on the results from conducting the IMA, the findings and the corresponding recommendations for improvement, including the estimated timelines and resources required for their implementation, are identified, developed, documented, and clearly communicated to all primary stakeholders.

9.1 Document findings

A key part of the documentation of the IMA results are the improvement measures documented in a clear action plan that provide the specific actions, the expected outcome and deliverables, the roles, responsibilities, and the timelines. To be of most use, this action plan will provide an overview of all measures and their expected benefits, the interdependencies of the measures, and a detailed description of the activities, resources, skills etc., necessary the achieve the objectives. Ideally, the implementation of the agreed recommendations and the benefits derived from implementing those recommendations are defined such that the value added can be assessed and used to justify it (the value proposition of the IMA).

Every IMA approach will present its own specific report template and content list, but in general, they might use a document format covering elements such as the ones depicted in Table 3.

Table 3 — Example for IMA report structure and content

Section	Description
Management Summary	Brief description of the IMA trigger, procedure and its outcomes and actions for improvement
Instructions	An explanation on how to read the report.
Overview	Description of the main results and proposed actions arising from the IMA, suitable for a non-specialist audience
Performance for each assessment area	Description of the scores obtained from the data, ideally framed in positive terms, showing strengths, weaknesses, and gaps indicating the results of the assessment.
Detailed evaluation of each criterion/section	Comparison and interpretation of data, and any caveats.
IM improvement recommendations	Recommendations, actionable roadmap and action plan for improvement. A set of prioritized recommendations for improving the IM performance, based on the key findings of the analysis above. Recommendations may also include identifying areas that require more detailed analysis.
Glossary	List and definition of key terms used in the document, ideally with links to more detailed publications on relevant topics.
Annexes	For example, a detailed description of the data that was collected, ideally represented graphically.

9.2 Innovation Management Assessment report structure and content

The documentation of the data analysis could be organized by either topic/theme, urgency or complexity of the required improvement.

9.2.1 Examples of the data analysis results organized by topic/theme

Innovation Strategy

— The organization's overall innovation strategy is not coherent with the business strategy.

— The innovation results are not in line with the innovation objectives.

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Innovation Culture and Organization

— The focus on innovation is not strong enough in the assessed organizational entity (for example procurement, marketing, etc.).

— Innovation is not sufficiently embedded in the organization's performance measurement system(s) (for example HR, Culture, etc.).

— There is a lack of clear responsibilities for innovation in the organization.

Innovation Process

— The process hierarchy and workflows for innovation are defined but not fully implemented.

— The innovation projects do not flow in a timely manner.

Innovation support and enablers

— The intellectual assets (intellectual property and intellectual property rights) are not managed actively in the organization.

— New technologies driving innovation are not evaluated rapidly enough.

Innovation results

— The outcome/output of the innovation portfolio and its innovation projects is not fully evaluated.

— Sales of new products are below defined targets.

— The value that is created from innovation is below average to the peers in the benchmarking sample.

9.2.2 Examples of the data analysis results organized by urgency or complexity

The list of recommendations can equally be ordered by urgency according to the organization's strategic needs, expected impact/value, or complexity regarding necessary resources or the implementation time required for the improvement actions.

Annexes for the IMA document may include further details of the methods used to collect and analyse key data during the assessment. The assessment team is expected to work together with the organization, starting from the recommendations presented in the IMA report and prepare work-plans for their implementation.

9.3 Communication of the Innovation Management Assessment results

The documentation and communication of the IMA results are best designed to complement the organization's objectives. It is advised to manage the confidentiality and intellectual property of the IMA report appropriately. Wherever possible, it will be first presented to the senior management of the organization. Dissemination to the staff at different levels might take place through workshops or other interactive experiences that enhance the understanding of the main results and next steps and begin to encourage joint ownership of any actions identified in the report.

The main goal of communicating the IMA results is to gain the commitment of all the people involved in innovation activities towards the goals that will be set, taking care to align them to the specific strategic goals of the organization. In all cases, the objectives for the planned improvement are more likely to gain commitment where they are aligned at all levels of the organization, to maintain coherence during implementation. At the same time, each staff member will better be able to understand how they can contribute to the same goal(s) within their specific role in the organization.

Separate (or integrated) communications could be developed for external stakeholders to maximize the exploitation of the IMA, for example press releases, web, social communication and communication towards suppliers.

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To aid change management, monitoring the impact achieved by the communication activities will help to identify the need for further actions where there is lack of understanding.

9.4 Recommendations for Innovation Management improvement

The interpretation of the results leads to a better understanding of the organization's strengths and weaknesses in the IM and their root causes. Recommendations for further improvement of the IM can then be tailored to reflect the organization's strategic intent to innovate, and to increase the IM's value- creation while taking into account the organization's level of ambition to innovate, the urgency to improve the performance of the IM, and the organization's capacity and resources to successfully implement the required actions. To facilitate the monitoring of the recommendations' impact, an indication is necessary which key success factors of the IM will be addressed and further improved by the respective action.

The recommendations are likely to include:

— prioritized actions to ensure the benefits accrue within the defined timelines (either rapidly or incrementally);

— a clear definition of the expected output and contribution to enhance the IM performance;

— a clear timeline: define short, mid and long-term objectives;

— the definition of sufficient and dedicated resources to implement the actions, and monitor progress, using appropriate project management techniques;

— clear responsibilities;

— a monitoring system for the implementation of the recommended improvements.

If properly constructed, the recommendations will also provide information on how the implementation risks will be mitigated and be detailed enough for systematic improvement of the IM.

Examples of such recommendations may include:

— redefining the organization's innovation strategy;

— (re)defining key performance indicators for IM performance;

— acquiring, implementing or communicating proven IM practices;

— training employees and/or managers in developing their IM skills;

— restructuring of the organization to accelerate innovation.

These recommended actions for improvements are best shared with the people in charge of implementing them as well as with those that will be affected by them. The actions include:

— focus on value creation;

— drive changes in IM;

— enable learning and embedding the learning;

— provide indications for timelines for the implementation of actions;

— give insight into the conformity with the organization's processes, procedures, etc.

It is essential that top management demonstrates leadership and commitment to drive the implementation of the recommended actions for the improvement of the organization's IM, for example by communicating and celebrating the resulting successes from the further improvements of the IM. These successes ideally generate further resources and the motivation to implement all the other actions that have been defined for further development of the organization's IM.

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10 Improvement of the Innovation Management Assessment itself

10.1 Recommendations for improving the Innovation Management Assessment

After each IMA, principles of best practice suggest that the organization reviews the suitability of the IMA approach itself, and the deployed process, regarding their suitability for the organization's objectives to increase their value from innovation. This will result in lessons learned for the next IMA. The organization might redefine objectives for the recurring assessment or might choose a more in-depth assessment after a first high-level check-list approach.

Based on the insights from the execution of the IMA, the following steps can be taken, as appropriate:

— re-evaluate the objectives of the IMA in comparison with the organization's ambitions, strategic intent, capabilities, and resources;

— re-evaluate the appropriateness of the IMA approach chosen (benchmarking, assessment based on a scoreboard);

— decide on and prioritize actions and deliverables which are necessary to improve the IMA approach, process and results. These may include training of the team members in charge of developing and implementing the IMA, involving external expertise, improving the progress monitoring of the defined actions;

— define and prioritize the measures for improvement of the IMA in terms of their:

  — impact on the IMA and the organization's capabilities, competencies;

  — ease of implementation;

  — expected benefits (value) and investment.

Consequently, the IMA will further increase value for the organization at each step. This in turn, enhances the organization's overall ability to create value from innovation and to support its future development. As a result, the organization might go on to define more ambitious objectives for the next IMA.

10.2 Determine the roadmap for enhancing future Innovation Management Assessments

The actions defined for improving the IMA are most effectively prioritized by their impact on the next IMA and by their ease of implementation reflecting the effort the implementation requires. The roadmap will take into account the timing of the next IMA to ensure that the most important improvement measures are implemented in due time. The time and effort for training of the IMA team in the enhanced IMA approach will be considered as well. For completeness, the roadmap will include the actions, the timelines, the responsibilities, as well as the expected, clearly defined, and measurable deliverables and necessary budgets.

10.3 Implement roadmap actions

To maximise value from the IMA process, the organization is expected to define clear responsibilities for the implementation of the actions to further improve the IMA. These responsibilities might include the implementation within the defined timeframe, the defined budget and the defined impact that the actions are expected to deliver. Likewise, the roadmap will be most useful where it includes clearly defined actions. They might relate, for example, to more specific objectives for the IMA, to process improvements, to more effective and efficient assessment tools and approaches, to more ambitious targets for the IMA, or to stronger support of the key stakeholders. The actions will be embedded in a timeframe that takes the urgency, the degree of change as well as the availability of resources in the organization into account. Clearly defined and measurable milestones will facilitate the implementation process' effective monitoring.

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Annex A
(informative)

Principles of Innovation Management Assessment

A.1 Introduction

Innovation management has become a common topic of discussion in organizations independent of their size or activities. Managing innovation is a key prerequisite for value creation and future development. However, how this IM can generate value in a most effective and efficient way, needs to be assessed on a regular basis. This document provides seven principles to facilitate the design and implementation of the IMA.

These seven principles are:

— adding value to the organization;

— challenge the organization's strategy and objectives;

— motivate and mobilise for organizational development;

— be timely and focused on the future;

— allow for context and promote the adoption of best practice;

— be flexible and holistic;

— be an effective and reliable process.

They are of equal importance and are intended to give orientation to those in charge of developing the IM and its deployment. For more information, see other ISO standards on IM related topics.

A.2 PIMA 1 — Adding value to the organization and interested parties

A.2.1 Statement

The IMA, and its results, allow the organization to better concentrate its resources on the IM activities that create the most value, (for example tangible/ intangible assets, such as products, services, systems, knowledge, brand, partnerships, IP), directly impacting organizational success. It will help the organization's positioning in its ecosystem (for example policy makers and academia) and communicate adequately towards clients and institutions.

A.2.2 Rationale

IMA aims to spot which of the current IM activities are truly generating value for the organization, and which are not value-creating, so that the latter are either changed or removed. The IM activities that will be assessed include the definition of innovation strategies and objectives, managing the innovation life cycle from the idea generation and management of those ideas, developing the ideas into new value.

A.2.3 Key benefits

Key benefits include:

— Added value, for example increased profit, enhanced impact of services, products, business models;

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— Recognized as a role model in the ecosystem based on innovation success;

— Triggered action for improving the IM capabilities and performance;

— Defined areas where improvements are required to ensure the organization's future;

— New opportunities for public, private, academic and non-profit support for innovation.

A.2.4 Actions which can be taken as a result of the Innovation Management Assessment

The following are actions which can be taken as a result of the IMA:

— Define a vision to enhance the value from innovation.

— Modify or create an innovation plan.

— Allocate resources and define actions from the IMA results.

— Refresh or establish IM measures.

— Monitor the implementation of the derived actions.

— Maximise public relations opportunities from positive IMA results.

— Celebrate innovation successes.

A.3 PIMA 2 — Challenge the organization's strategy and objectives

A.3.1 Statement

The IMA encourages the organization to enhance its management capabilities and innovation portfolio, to strengthen its resilience and provide a common language, all of which help to focus their strategy to better anticipate future challenges.

A.3.2 Rationale

An innovation strategy is essential to focus the organization on its future success, however many organizations, especially small ones, do not prioritize the review of their strategy and objectives. Highly dynamic and volatile markets require timely review, an IMA is an effective trigger to challenge the organization's current position.

Analysis frameworks developed by practitioners and academics will help organizations take an informed decision on the best "innovative" strategy to pursue. A good assessment will enthuse the organization to change.

A.3.3 Key benefits

Key benefits include:

— Challenged preconceived concepts or dearly held beliefs to validate the principles that guide the organization's innovation;

— Open mindsets to new ways of thinking;

— Basis for deepening the definition of the innovation strategy and for allocating resources;

— Better prepared for future opportunities and challenges;

— Higher value, more resilient, innovation portfolio.

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A.3.4 Actions which can be taken as a result of the Innovation Management Assessment

The following are actions which can be taken as a result of the IMA:

— Renew or define an innovation strategy

— Identify strategic goals and objectives for innovation that are no longer appropriate given any changes in the context of the organization and update where appropriate.

— Communicate the revised objectives and goals internally and externally as appropriate.

— Investigate opportunities to help the regional innovation ecosystem to develop.

A.4 PIMA 3 — Motivate and mobilise for organizational development

A.4.1 Statement

By encouraging a reflective and participative approach to its people and culture, engaging and rewarding people in the process, and encouraging the development of skills necessary for successful innovation, the IMA contributes to the organization's overall learning, knowledge management, and development.

A.4.2 Rationale

Assessment in many organizations leads to defensive, and sometimes even hostile, reactions. By engaging the organization in open discussion on the current performance of the system, improved ownership and commitment will lead to a clearer evaluation of the organization's current innovation performance and to opportunities for further development including in open innovation schemes.

A.4.3 Key benefits

Key benefits include:

— Increased awareness within the organization of the importance of IM;

— Fresh insight into the status of the organization's current innovation culture and any need to change;

— An organization better able to master future innovation challenges;

— Highly motivated staff through recognition of their innovation skills, and easier recruitment of top quality staff;

— Positive image with clients and stakeholders built on a strong innovation culture.

A.4.4 Actions which can be taken as a result of the Innovation Management Assessment

The following are actions which can be taken as a result of the IMA:

— Share within the organization the objectives of the next IMA, the areas to be assessed and why.

— Identify key individuals as innovation ambassadors for engaging the organization in IM.

— Define areas for organizational development that will be included because of the IMA.

— Include innovation activities and skills in peoples' personal development.

— Organize interdisciplinary workshops where the IMA's results are discussed and actioned.

— Establish a dedicated communication plan and tools for the next IMA.

— Learn from failures, near miss situations and successes.

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— Capture the knowledge and experience of people in the organization.

— Gather knowledge from customers, suppliers, partners, and competitors.

— Capture undocumented knowledge (tacit and explicit) that exists within the organization.

— Create work methods and opportunities for greater involvement, to realize the potential of people and the organization.

A.5 PIMA 4 — Be timely and focused on the future

A.5.1 Statement

The IMA is best carried out at the right time to help the organization to proactively manage and drive necessary change and disruption (e.g. in organization, product, service, process, business model, sector, technology, societal status, regulation). It will encourage foresight and collaboration to open up potential for new areas of activity, whilst also taking into account organizational maturity and innovation lifecycles.

A.5.2 Rationale

Effective timing of an IMA will help secure the organization's future, but this requires awareness of the current organizational situation, its context and a clear focus on strategic goals. The organization that implements changes resulting from the IMA will outperform or move away from their competitors.

A.5.3 Key benefits

Key benefits include:

— Increased pace of innovation in line with market opportunities;

— New business opportunities for competitive advantage;

— A more resilient organization;

— Increase in organization's agility;

— New collaborative opportunities to accelerate innovation results, e.g. in new value chains or mechanisms;

— Increase demand from existing and potential external partners.

A.5.4 Actions which can be taken as a result of the Innovation Management Assessment

The following are actions which can be taken as a result of the IMA include:

— Define and agree on clear triggers when an IMA is best initiated, such as new market opportunities, emerging technologies.

— Define how the results of the IMA could be translated into future opportunities.

— Increase the foresighting/horizon scanning skills by attending workshops, training courses and conducting prospective studies.

— Develop a long-term actionable roadmap for future innovation activities.

— Search for new collaboration opportunities that contribute to strategic goals (e.g. Private and Public-Private Partnerships applying co-creation, co-design, and evaluation methodologies).

— Find and apply pragmatic tools that complement the IMA approach.

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— Use up to date data on geographical/sectorial development to support the IMA.

— Identify key research partners on value creation.

A.6 Allow for context and promote the adoption of best practices

A.6.1 Statement

By helping the organization to critically examine its current situation and core drivers, the IMA will highlight both internal and external opportunities to adopt good practices and appropriate external stimuli.

A.6.2 Rationale

Organizations might lack the knowledge of what best practice in IM is. Looking for best practice internally and externally will open up the organization's potential for change and further development.

A.6.3 Key benefits

Key benefits include:

— An understanding of the organization's strengths/gaps in IM;

— Opportunities to gain from better alignment of IM with current context;

— Reduced (entirely natural) fear of change within the organization;

— Insights into competitors' approaches to IM and into the competitive pressure they cause (where normative assessment tools are used);

— Insights into upcoming growth opportunities.

A.6.4 Actions which can be taken as a result of the Innovation Management Assessment

The following are actions which can be taken as a result of the IMA include:

— Identify different practices in IM internally and externally and their relevance to the organization.

— Test selected best practices and measure their impact on the organization's ability to create value.

— Organize appropriate actions to disseminate best practice(s).

— Evaluate the latest research on new trends, for example organizational/business models to support the development of new innovation activities.

— Make use of external resources (for example Master students already trained and experienced in IMA).

A.7 Be flexible and holistic

A.7.1 Statement

The IMA is best applicable when adequately simple, open, modular, adaptable to many types of organizations, while taking into consideration the IM components and the IM results achieved. This will increase the probability that the requirements of the assessed organization and the relevant internal and external stakeholders are met to a high degree.

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A.7.2 Rationale

The IM consists of several interdependent key success factors. They all have to be addressed individually and in their interdependence in the IMA for the organization to derive maximum impact. Pragmatic approaches and easy to understand results are vital for the successful improvement of the organization's ability to add value.

A.7.3 Key benefits

Key benefits include:

— Effective assessment outcomes that further the organization's IM capabilities;

— High understanding and acceptance of the assessment process and its results, by the organization and its stakeholders;

— High degree of implementation success, resulting from being flexible and holistic;

— Efficient execution of the IMA via the optimised use of resources.

A.7.4 Actions which can be taken as a result of the Innovation Management Assessment

Actions which can be taken as a result of the IMA include:

— Define the organization's criteria that the IMA is expected to meet.

— Screen various IMA approaches and select the most suitable one.

— Define the most appropriate process for implementing the IMA.

— Define the resources that will be dedicated to the IMA.

A.8 Be an effective and reliable process

A.8.1 Statement

The IMA should be a transparent process, with a clear structure, defined scope, acceptable time intervals, comparable data, actionable deliverables and qualified resources for successful execution and exploitation of the IMA results.

A.8.2 Rationale

An IMA is an investment from which the organization expects value. The output quality depends on the design and execution of this process. Having an effective and repeatable process in place will foster recurring assessments to develop the organization's long-term IM and its performance.

A.8.3 Key benefits

Key benefits include:

— Trustworthy outcome of the IMA from an effective process;

— Motivation of the organization to support the process and implement improvement measures or indicators;

— Stronger reputation and/or competitive position of the organization;

— Improved mechanisms for creating value from innovation.

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A.8.4 Actions you can take as a result of the Innovation Management Assessment

Actions which can be taken as a result of the IMA include:

— Agree on the scope of the IMA.

— Define and agree on the process and timescales.

— Define expected outcomes and deliverables.

— Determine the responsibilities for the execution of the process, perform it, and subsequently implement the improvements.

— Communicate progress, successes, and if necessary failures of the IMA process.

— Plan for recurring assessment and improve it when necessary.

A.9 Applying the PIMAs

These principles for IMA together build the basis for organizations to initiate, conduct and benefit from an IMA.

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Annex B
(informative)

Presenting results from the Innovation Management Assessment (examples of visuals)

B.1 General

The selection of the type of visual and the degree of detail depends on the objective of the IMA report. The following visuals are examples illustrating the results of an IMA. These examples have proven to be effective but are neither mandatory nor exhaustive. They are suitable to present the performance of an organization along different IM success factors.

The IMA report's visuals may feature highly aggregated assessment results suitable for the management summary and/or may present detailed assessment results highlighting specific areas either for improvement or for building upon as the scores might be already on the desired level of performance.

B.2 Visuals presenting aggregated results

Common visuals presenting aggregated results are the dashboard and the radar diagram. The dashboard indicates the organization's IM performance based on a defined scale with qualitative or quantitative performance levels. Figure B.1 is an example of how a qualitative dashboard is presented. It provides the organization with a high-level overview on their approach and how they manage innovation either overall or in a specific area.

Example

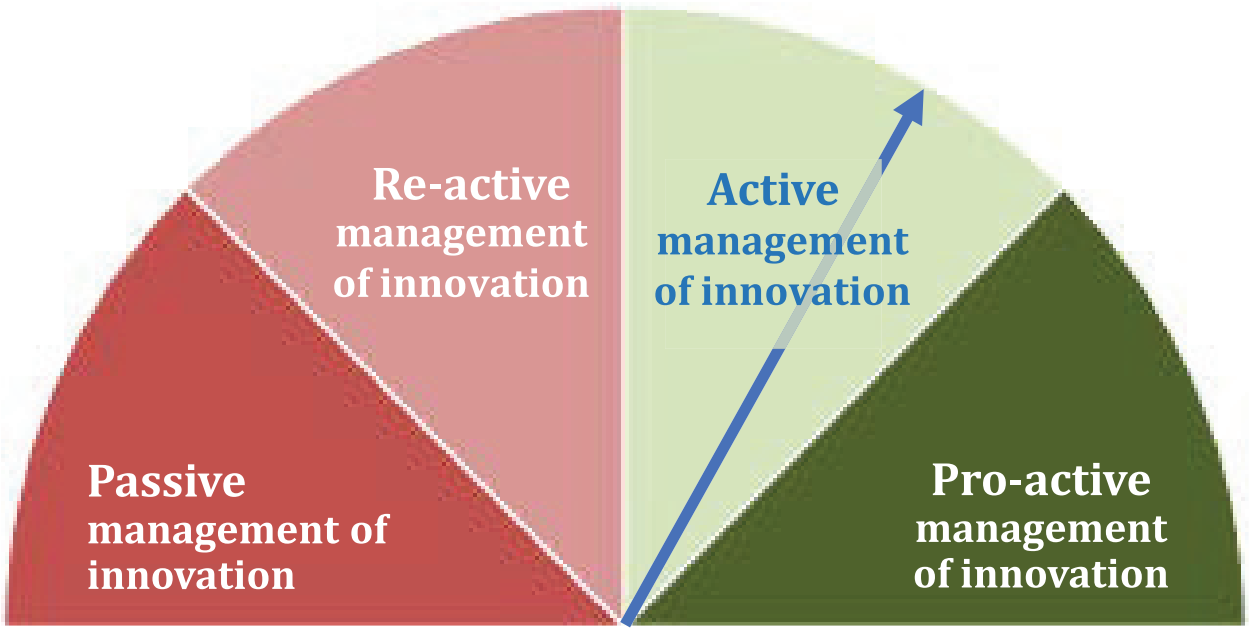

Figure B.1 — Example of a qualitative dashboard

In comparison to the dash board, the radar diagram provides the scores on the defined key performance indicators such as innovation strategy, innovation organization and culture, innovation life-cycle

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processes, innovation enabling factors and innovation results. These scores may be presented together with benchmarks showing the scores of the best performing unit and the average in comparison to the scores of the own organization (see Figure B.2).

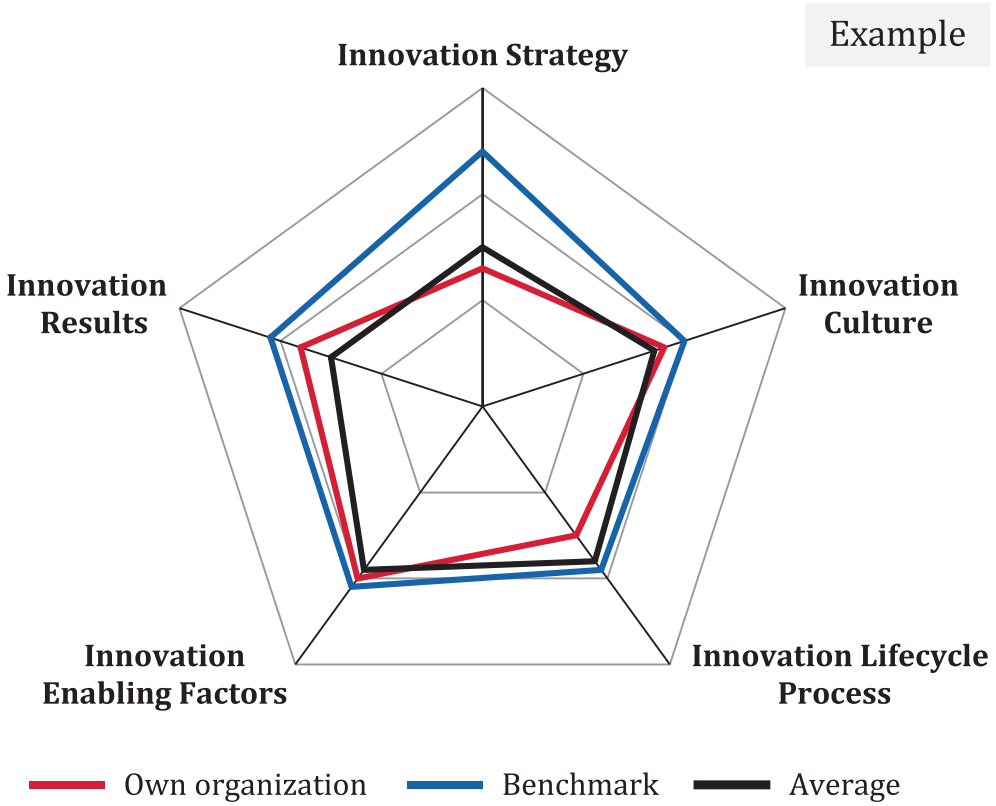

Figure B.2 — Example of a radar diagram on IM performance (benchmarking)

B.3 Visuals presenting detailed results

More detailed insights can be provided in histograms, bar charts and individually designed charts. They can be used to present the evaluation from different functions or members of the organization, highlighting the different perception of the organization's innovation management capabilities or performance (see Figure B.3).

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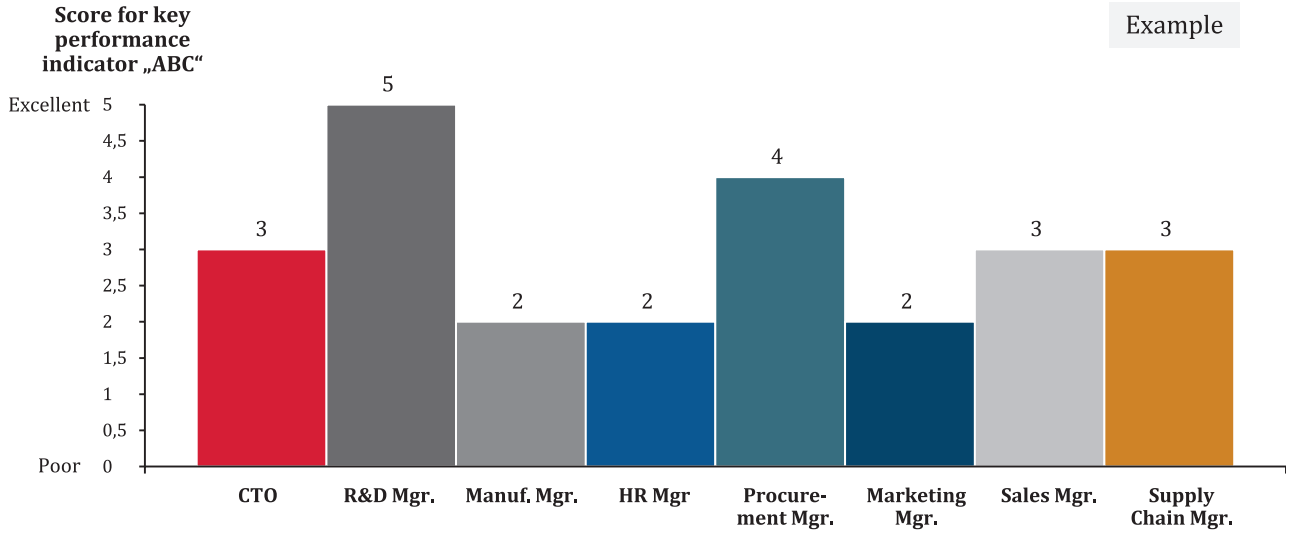

Figure B.3 — Example of a histogram, e.g. comparative perspective on innovation management performance

Bar charts can be used to provide the organization's current performance while at the same time highlighting the key performance indicators to be addressed with high priority. The key performance indicators can be defined by the organization in relation to the strategic objectives of the IMA (see Figure B.4).

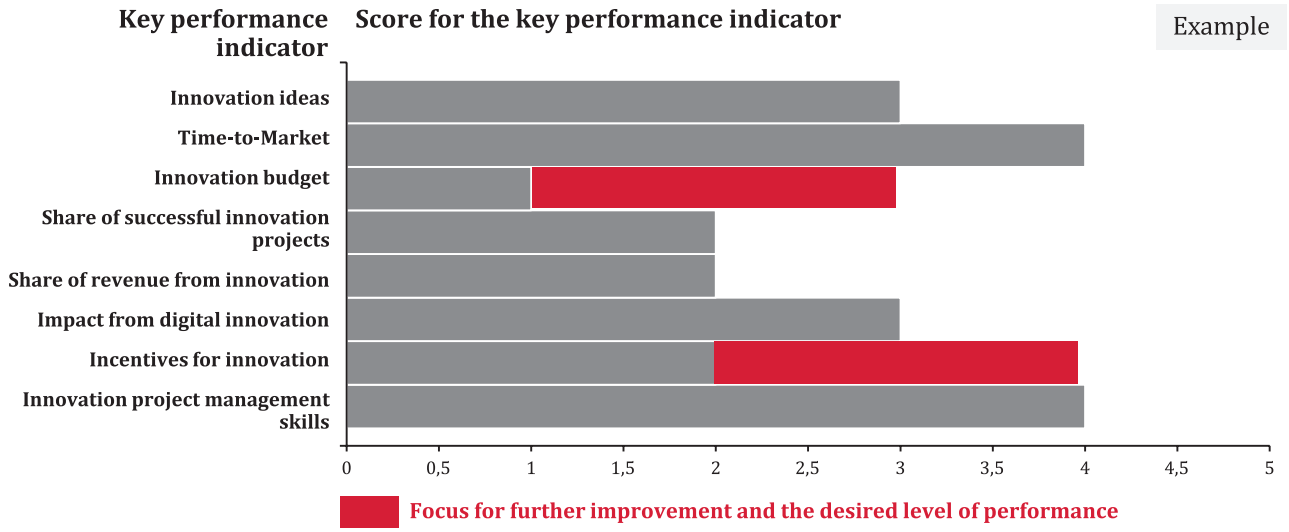

Figure B.4 — Bar chart presenting the score of key performance indicators and the focus for further improvement to reach the desired performance level

More detailed information can be provided in charts that combine the score with the recommendations for further improvement and their prioritization depending on the urgency as perceived by the team responsible for the IMA. The key performance indicators will be selected by the organization according to the defined IMA approach (see Figure B.5).

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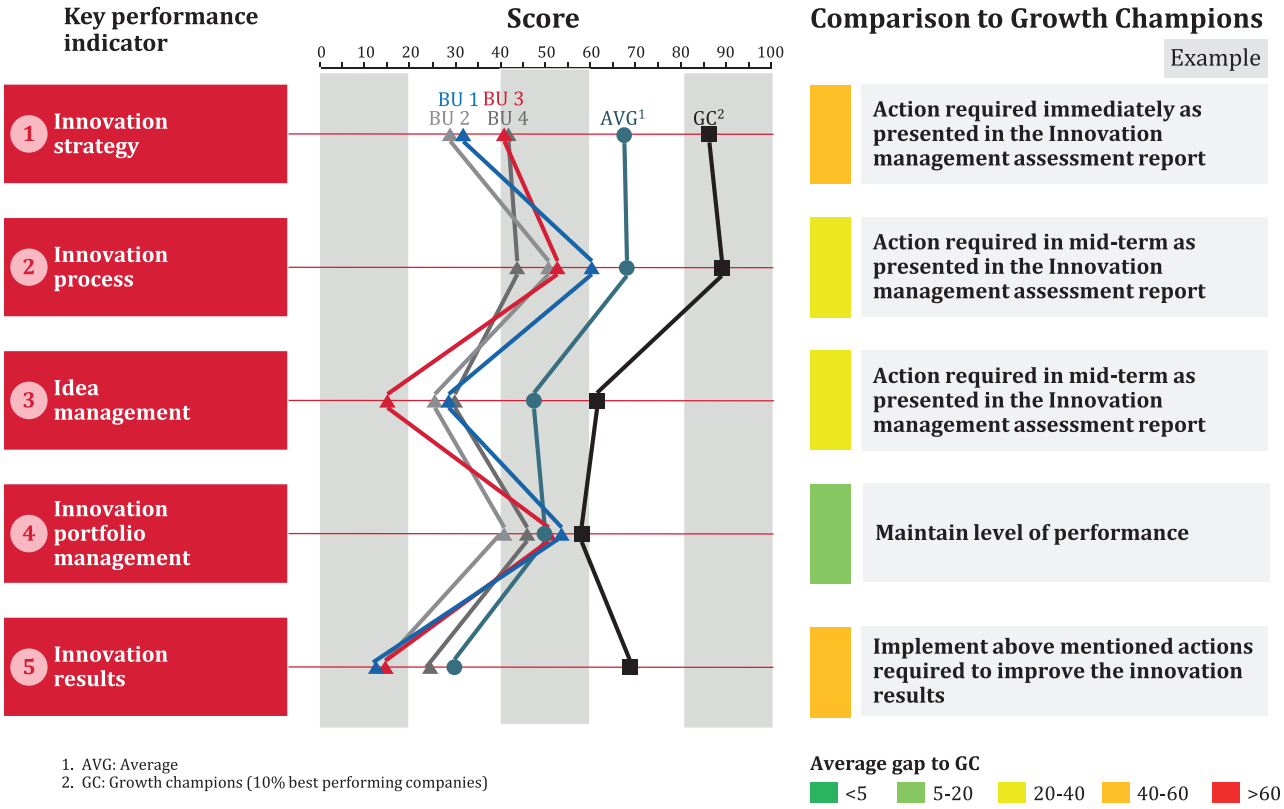

Figure B.5 — Example of Innovation Management scoring (benchmarking) with internal and external units

With a scoreboard, the current level of performance can be combined with the desired next level in line with the organization's level of ambition to further improve their innovation management capabilities and performance (see Figure B.6).

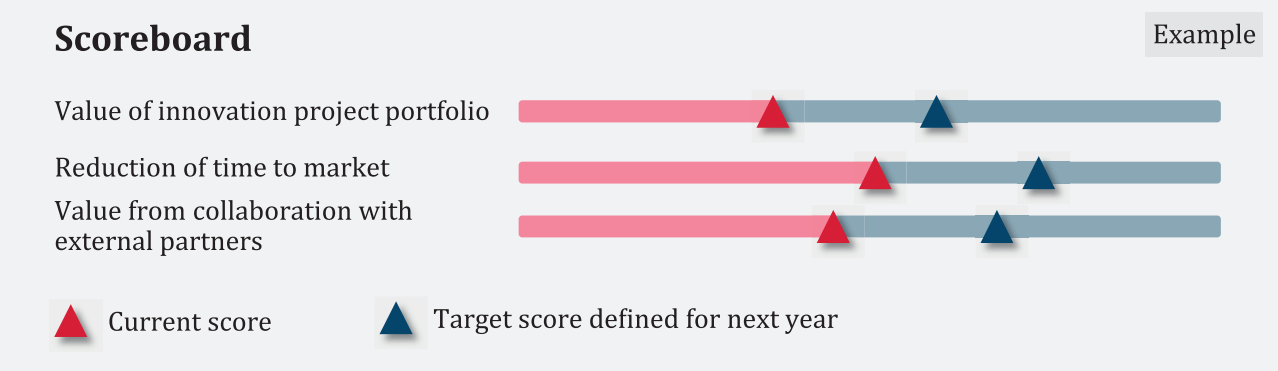

Figure B.6 — Example of a scoreboard indicating current and desired level of performance

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