

Redline version
compares ISO 21500:2021
to ISO 21500:2012



Project, programme and portfolio management — Context and concepts

Management des projets, programmes et portefeuilles — Contexte et concepts

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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.

~~International Standards are~~ 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 ~~rules given in~~ editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

~~The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.~~

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

~~ISO 21500~~ This document was prepared by ~~Project~~ Technical Committee ISO/PC 236/TC 258, *Project, programme and portfolio management*.

~~For the purposes of research on project management standards, users are encouraged to share their views on ISO 21500:2012 and their priorities for changes to future editions of the document. Click on the link below to take part in the online survey:~~

~~<http://www.surveymonkey.com/s/21500>~~

This second edition, together with ISO 21502:2020, cancels and replaces the first edition (ISO 21500:2012), which has been technically revised. The main changes compared with the previous edition are as follows:

- this document provides an overview of the environment for project, programme and portfolio management, their governance, and the general factors impacting the broader environment;
- this document provides a high-level view of the relationships among the standards on project, programme and portfolio management prepared by ISO/TC 258, while guidance on project management is now given in ISO 21502.

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.

Introduction

This International Standard provides guidance on concepts and processes of project management that are important for, and have impact on, the performance of projects. This document provides overarching guidance for the use of the standards on project, programme and portfolio management prepared by ISO/TC 258, and an overview of these disciplines and the related governance in an organization.

The target readership for this International Standard is the following audience for this document includes, but is not limited to:

- senior managers and project sponsors, in order to provide them with a better understanding of the principles and practice of project management and to help them give appropriate support and guidance to their project managers, project management teams and project teams, practitioners and professionals of project management, programme management and portfolio management;
- executives, senior management, sponsors and other governing bodies overseeing projects, programmes and portfolios;
- project managers, project management teams and project team members, so that they have a common basis upon which to compare their project standards and practices with those of others, programme and portfolio stakeholders;
- academia;
- developers of national or standards, organizational standards, for use in developing project management standards, which are consistent at a core level with those of others, industry standards and public policy;
- users of any of the standards on project, programme and portfolio management prepared by ISO/TC 258.

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Project, programme and portfolio management — Context and concepts

1 Scope

This document specifies the organizational context and underlying concepts for undertaking project, programme and portfolio management. It also provides guidance for organizations to adopt or improve project, programme and portfolio management using the standards prepared by ISO/TC 258.

This International Standard provides guidance for project management and can be used by any type of organization. This document is applicable to most organizations, including public, private or community organizations, and for any type of project, irrespective of complexity, size or duration. It is also applicable to any project, programme and portfolio, regardless of complexity, size or duration.

This International Standard provides high-level description of concepts and processes that are considered to form good practice in project management. Projects are placed in the context of programmes and project portfolios, however, this International Standard does not provide detailed guidance on the management of programmes and project portfolios. Topics pertaining to general management are addressed only within the context of project management. Further guidance on project, programme and portfolio management, and the governance thereof, is given in ISO 21502, ISO 21503, ISO 21504 and ISO 21505.

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2 Normative references

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There are no normative references in this document.

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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/>

3.1

benefit

created advantage, value or other positive effect

[SOURCE: ISO/TR 21506:2018, 3.6]

3.2

business case

documented justification to support decision making about the commitment to a *project* (3.15), *programme* (3.12) or *portfolio* (3.9)

[SOURCE: ISO/TR 21506:2018, 3.8]

~~2.1~~3.3

~~activity~~ deliverable

~~identified component of work within a schedule~~ unique and verifiable element that is required to be undertaken to complete a project produced by a project (3.15)

[SOURCE: ISO 21502:2020, 3.9]

3.4

governance

principles, policies and framework by which an organization is directed and controlled

[SOURCE: ISO/TR 21506:2018, 3.25]

3.5

governing body

person, group or entity accountable for the governance (3.4) of an organization, organizations or a part of an organization

[SOURCE: ISO/TR 21506:2018, 3.26]

~~2.2~~3.6

~~application area~~ opportunity

~~category of projects that generally have a common focus related to a product, customer or sector~~ risk occurrence that would have a favourable impact

[SOURCE: ISO/TR 21506:2018, 3.36]

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~~2.3~~3.7

~~baseline~~ outcome

~~reference basis for comparison against which project performance is monitored and controlled~~ change resulting from the use of the output (3.8) from a project (3.15)

[SOURCE: ISO 21502:2020, 3.10]

<https://standards.iteh.ai/catalog/standards/sist/9f478881-8b9c-45d7-b1e5-7d36e1722996/iso-21500-2021>

3.8

output

aggregated tangible or intangible deliverables (3.3) that form the project (3.15) result

[SOURCE: ISO 21502:2020, 3.14]

3.9

portfolio

collection of portfolio components (3.10) grouped together to facilitate their management to meet strategic objectives

[SOURCE: ISO/TR 21506:2018, 3.42]

~~2.4~~3.10

~~change request~~ portfolio component

~~documentation that defines a proposed alteration to the project~~ project (3.15), programme (3.12), portfolio (3.9) or other related work

[SOURCE: ISO/TR 21506:2018, 3.43]

~~2.5~~3.11

~~configuration~~ portfolio management

~~application of procedures to control, correlate and maintain documentation, specifications and physical attributes~~ coordinated activities to direct and control the accomplishment of strategic objectives

[SOURCE: ISO/TR 21506:2018, 3.45]

~~2.6~~ 3.12~~control programme~~

~~comparison of actual performance with planned performance, analysing variances and taking appropriate corrective and preventive action as needed~~ group of programme components (3.13) managed in a coordinated way to realize *benefits* (3.1)

[SOURCE: ISO/TR 21506:2018, 3.50]

~~2.7~~ 3.13~~corrective action programme component~~

~~direction and activity for modifying the performance of~~ project (3.15), programme (3.12) ~~work to bring performance in line with the plan~~ or other related work

[SOURCE: ISO/TR 21506:2018, 3.52]

~~2.8~~~~critical path~~

~~sequence of activities that determine the earliest possible completion date for the project or phase~~

~~2.9~~ 3.14~~lag programme management~~

~~attribute applied to a logical relationship to delay the start or end of an activity~~ coordinated activities to direct and control the realisation of identified *benefits* (3.1) and *deliverables* (3.3)

[SOURCE: ISO/TR 21506:2018, 3.54]

~~2.10~~ 3.15~~lead project~~

~~attribute applied to a logical relationship to advance the start or end of an activity~~ temporary endeavour to achieve one or more defined objectives

[SOURCE: ISO 21502:2020, 3.20]

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~~2.11~~ 3.16~~preventive action project management~~

~~direction and activity for modifying the work, in order to avoid or reduce potential deviations in performance from the plan~~ coordinated activities to direct and control the accomplishment of agreed objectives

[SOURCE: ISO 21502:2020, 3.24]

~~2.12~~ 3.17~~project life cycle sponsor~~

~~defined set of phases from the start to the end of the project~~ person responsible for obtaining the resources and executive decisions to enable success

[SOURCE: ISO/TR 21506:2018, 3.78]

~~2.13~~~~risk register~~

~~record of identified risks, including results of analysis and planned responses~~

~~2.14~~ 3.18~~stakeholder~~

person, group or organization that has interests in, or can affect, be affected by, or perceive itself to be affected by, any aspect of the *project* (3.15), *programme* (3.12) or *portfolio* (3.9) ~~project~~

[SOURCE: ISO/TR 21506:2018, 3.79]

~~2.15~~

~~tender~~

~~document in the form of an offer or statement of bid to supply a product, service or result, usually in response to an invitation or request~~

~~2.16~~ **3.19**

~~work breakdown structure dictionary~~ **threat**

~~document that describes each component in the work breakdown structure~~ **risk occurrence that would have a negative impact**

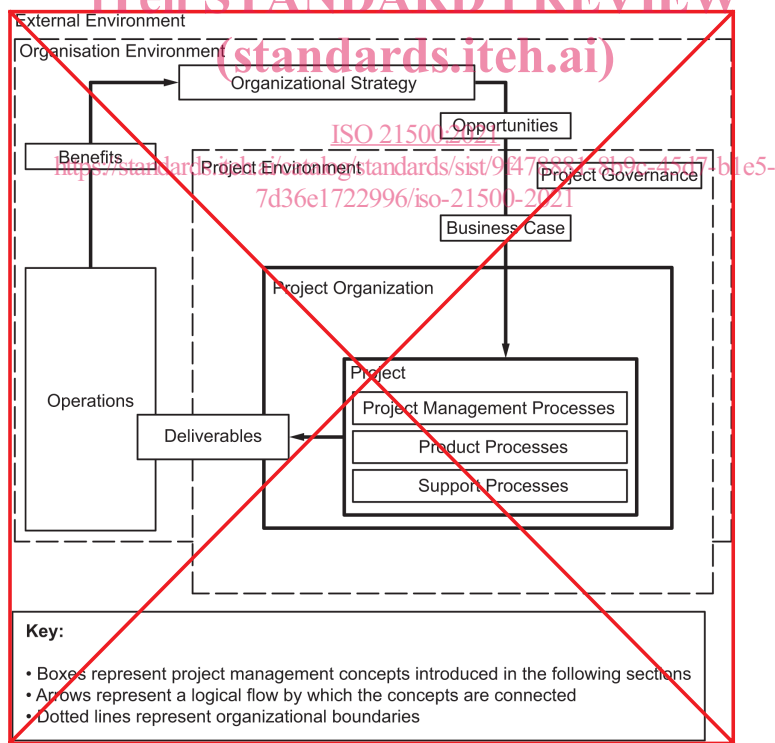
[SOURCE: ISO/TR 21506:2018, 3.83]

3.4 Project, programme and portfolio management concepts

~~3.1 General~~

~~This clause describes key concepts applicable to most projects. It also describes environments in which projects are performed.~~

~~Figure 1 shows how project management concepts relate to each other. The organizational strategy identifies opportunities. The opportunities are evaluated and should be documented. Selected opportunities are further developed in a business case or other similar document, and can result in one or more projects that provide deliverables. Those deliverables can be used to realize benefits. The benefits can be an input to realizing and further developing the organizational strategy.~~



~~Figure 1 Overview of project management concepts and their relationships~~

~~3.2 Project~~

~~A project consists of a unique set of processes consisting of coordinated and controlled activities with start and end dates, performed to achieve project objectives. Achievement of the project objectives requires the provision of deliverables conforming to specific requirements. A project may be subject to multiple constraints, as described in 3.11.~~

~~Although many projects may be similar, each project is unique. Project differences may occur in the following:~~

- ~~— deliverables provided,~~
- ~~— stakeholders influencing,~~
- ~~— resources used,~~
- ~~— constraints,~~
- ~~— the way processes are tailored to provide the deliverables.~~

~~Every project has a definite start and end, and is usually divided into phases, as described in 3.10. The project starts and ends as described in 4.3.1.~~

~~3.3 Project management~~

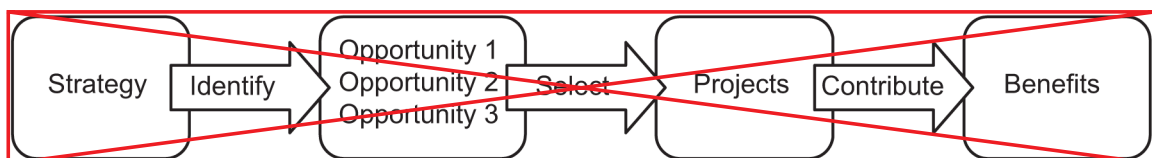
~~Project management is the application of methods, tools, techniques and competencies to a project. Project management includes the integration of the various phases of the project life cycle, as described in 3.10.~~

~~Project management is performed through processes. The processes selected for performing a project should be aligned in a systemic view. Each phase of the project life cycle should have specific deliverables. These deliverables should be regularly reviewed during the project to meet the requirements of the sponsor, customers and other stakeholders.~~

~~3.4 Organizational strategy and projects~~ (standards.iteh.ai)

~~3.4.1 Organizational strategy~~ ISO 21500:2021

~~Organizations generally establish strategy based on their mission, vision, policies and factors outside the organizational boundary. Projects are often the means to accomplish strategic goals. An example of a value creation framework is shown in Figure 2.~~



~~Figure 2 — Example of a value creation framework~~

~~Strategic goals may guide the identification and development of opportunities. Opportunities selection includes consideration of various factors, such as how benefits can be realized and risks can be managed.~~

~~The project goal is to provide measurable benefits that contribute to realizing the selected opportunities. The project objective contributes to the project goal by creating the required deliverables. Project goals are achieved when the benefits are realized. Goals might not be achieved until a period of time after the objectives are achieved.~~

~~3.4.2 Opportunity evaluation and project initiation~~

~~Opportunities may be evaluated to support informed decision making by responsible management, in order to identify feasible projects that could transform some or all of these opportunities into realized benefits.~~

~~These opportunities may address, for example, a new market demand, a current organizational need or a new legal requirement. The opportunities are often evaluated through a set of activities that provide formal authorization to start a new project. The organization should identify a project sponsor to be responsible for project goals and benefits.~~

~~The goals and benefits may result in a justification for the investment in the project, e.g. in the form of a business case, and that may contribute to a prioritization of all opportunities. The purpose of the justification is usually to obtain organizational commitment and approval for investment in the selected projects.~~

~~The evaluation process may include multiple criteria, including financial investment appraisal techniques and qualitative criteria, such as strategic alignment, social impact and environmental impact. Criteria may differ from one project to another.~~

~~3.4.3 Benefits realization~~

~~Benefits realization is generally the responsibility of organizational management, which may use the deliverables of the project to realize benefits in alignment with the organizational strategy. The project manager should consider the benefits and their realization as they influence decision-making throughout the project life cycle.~~

~~3.5.4.1 Project environment~~ **General**

~~3.5.1 General~~

~~The project environment may impact project performance and success. The project team should consider the following:~~

- ~~— factors outside the organizational boundary, such as socio-economic, geographical, political, regulatory, technological and ecological,~~
- ~~— factors inside the organizational boundary, such as strategy, technology, project management maturity, resource availability, organizational culture and structure.~~

~~3.5.2 Factors outside the organizational boundary~~

~~Factors outside the organizational boundary may have an impact on the project by imposing constraints or introducing risks affecting the project. Although these factors are often beyond the control of the project manager, they should still be considered.~~

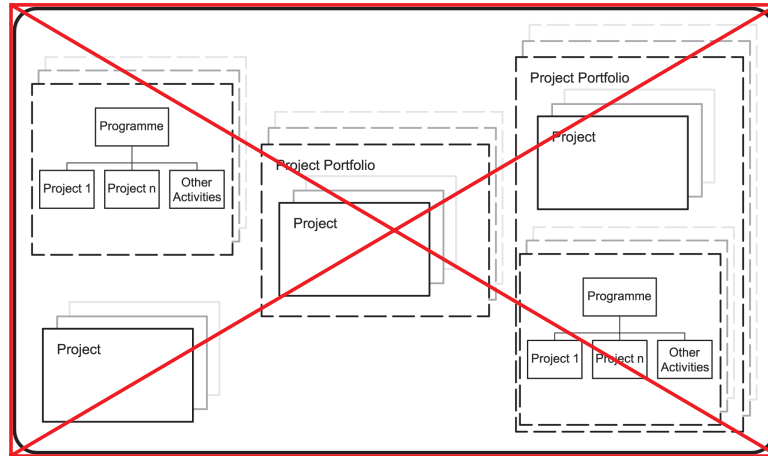
~~3.5.3 Factors inside the organizational boundary~~

~~3.5.3.1 General~~

~~A project usually exists inside a larger organization encompassing other activities. In such cases, there are relationships between the project and its environment, business planning and operations. Pre-project and post-project activities may include activities such as business case development, conducting feasibility studies and transition to operations. Projects may be organized within programmes and project portfolios. Figure 3 illustrates these relationships.~~

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~~Figure 3 Projects, programmes and project portfolios~~

~~3.5.3.2 Project portfolio management~~

~~A project portfolio is generally a collection of projects and programmes and other work that are grouped together to facilitate the effective management of that work to meet strategic goals. Project portfolio management is generally the centralized management of one or more project portfolios, which includes identifying, prioritizing, authorizing, directing and controlling projects, programmes and other work to achieve specific strategic goals.~~

~~It may be appropriate to conduct the opportunity identification and selection, as well as the approval and management of projects, through a project portfolio management system.~~

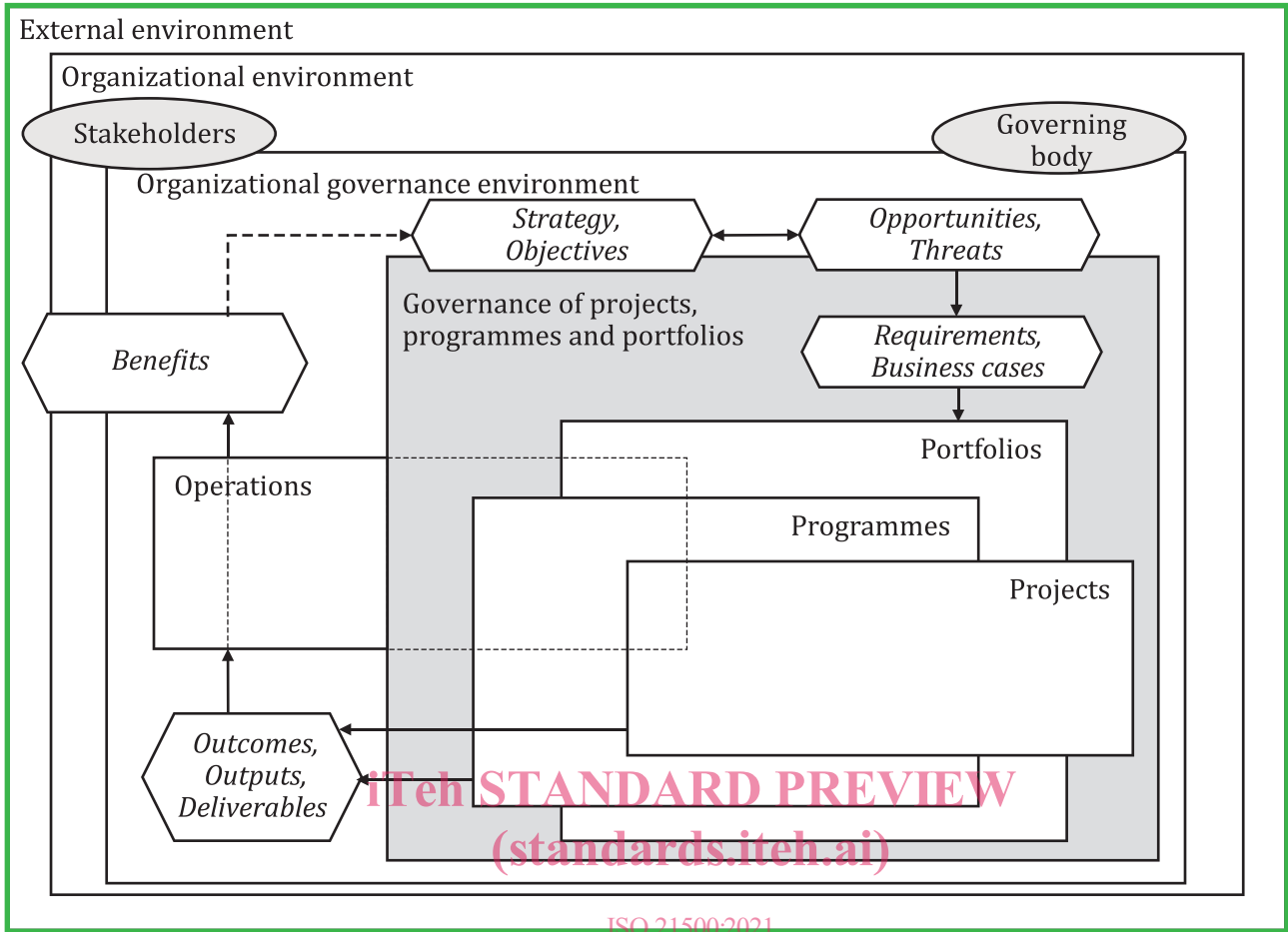
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~~3.5.3.3 Programme management~~

~~A programme is generally a group of related projects and other activities aligned with strategic goals. Programme management consists of centralized and coordinated activities to achieve the goals.~~

This clause describes the overall context in which governance and management of projects, programmes and portfolios operate. In addition to ongoing operations, project, programme and portfolio management provide an integrated management framework to deliver value. Projects, programmes and portfolios exist within the organizational environment and the organization exists within the larger external environment.

Figure 1 illustrates that opportunities and threats can be identified through organizational strategy and objectives. The opportunities and threats can be evaluated and further developed into requirements and business cases. Based on those business cases and using portfolio management or another management structure, the organization selects and authorizes projects and programmes that provide deliverables, outputs and outcomes to operations. When used in operations, deliverables, outputs and outcomes should contribute to realizing benefits for internal and external stakeholders. The benefits can also contribute to further development of the organization's strategy and objectives.



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- NOTE 1 Opportunities and threats are seen from a strategic perspective.
- NOTE 2 The dashed lines of the operations box indicate that operations can stretch into projects, programmes and portfolios (refer to “other related work”).

Figure 1 — Example of the context of the governance and management of projects, programmes and portfolios

3.6 Project governance

Governance is the framework by which an organization is directed and controlled. Project governance includes, but is not limited to, those areas of organizational governance that are specifically related to project activities.

Project governance may include subjects such as the following:

- defining the management structure,
- the policies, processes and methodologies to be used,
- limits of authority for decision-making,
- stakeholder responsibilities and accountabilities,
- interactions such as reporting and the escalation of issues or risks.

The responsibility for maintaining the appropriate governance of a project is usually assigned either to the project sponsor or to a project steering committee.

3.7.4.2 Projects and operations, programmes and portfolios

Project management fits within the general framework of management. Project management differs from other management disciplines by the temporary and unique nature of projects.

Organizations perform work to achieve specific goals. Generally, this work may be categorized as either operations or projects objectives. This work can be performed as ongoing operations, a project or a programme, or can be organized as a portfolio together with other related work. An example of the relationship among projects, programmes and portfolios is shown in Figure 2. Operations and projects differ primarily as follows. The focus of each of these organizational activities can be summarized as follows.

- operations are performed Operations are conducted by relatively stable teams through ongoing and repetitive processes and are focused on sustaining the organization;
- Projects are performed by temporary teams, are non-repetitive and provide unique deliverables, and provide deliverables, outputs, outcomes and benefits. A project can be managed as a stand-alone work effort within an organization or as part of a larger programme or portfolio.
- Programmes are groups of programme components managed in a coordinated way to provide advantages and synergies, contribute to the achievement of common strategic and operational objectives, and realize benefits.
- Portfolios are the sets of projects, programmes and other related work undertaken to contribute to meeting an organization's strategic objectives.



Figure 2 — Example of the relationship among projects, programmes and portfolios

3.8.4.3 Stakeholders and project organization Organizational environment

The project stakeholders, including the project organization, should be described in sufficient detail for the project to be successful. The roles and responsibilities of stakeholders should be defined and communicated based on the organization and project goals. Typical project stakeholders are shown in Figure 4.

Stakeholder interfaces should be managed within the project through the project management processes described in Clause 4.

The project organization is the temporary structure that includes project roles, responsibilities and levels of authority and boundaries that need to be defined and communicated to all stakeholders of the project. The project organization may be dependent on legal, commercial, interdepartmental or other arrangements that exist among project stakeholders. organizational environment is affected by both internal and external factors influencing organizational activities and decision-making. An organization should consider internal influences regarding the governance and management of projects, programmes and portfolios. The internal environment consists of internal stakeholders and is influenced by the structure, culture and processes of the organization. Internal stakeholders include, but are not limited to: