

The GPM P5 Standard for Sustainability in Project Management

Version 2.0

P5



Driving Sustainable Change



The GPM P5™ Standard for
Sustainability in Project Management

GPM Global

Version 2.0

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Tel. +1 800 580 3719

Fax +1 866 537 1525

E-mail: copyright@greenprojectmanagement.org

Web: www.greenprojectmanagement.org

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Foreword

The global focus on sustainable development, climate change, ethical behavior, social responsibility, and transparent supply chains has increased in recent years. So too has the demand for sustainable business practices.

As a supporter of the United Nations Global Compact, GPM views our role in fostering global citizenship through advocacy for sustainable projects as our primary remit.

As the steward of innovation, with representation in every industry worldwide, project management as a discipline is uniquely suited to address the challenges that humanity is facing. Since 2009, GPM has led the way in this effort.

Our initial release of the P5 Standard was downloaded over 16,000 times and has been utilized in almost every country in the world. This latest release aligns with the UN's Sustainable Development Goals to provide greater focus on shared value for project managers to be able to address global challenges.

It is GPM's position that our discipline can lead the way in placing sustainable development at the heart of project management, and placing projects at the heart of sustainable development.

We are hopeful that the enhancements in this release will provide still greater insight and guidance that will ultimately lead to more sustainable projects and a brighter future for us all.

Sincerely,

A handwritten signature in black ink that reads "Joel B. Carboni". The signature is written in a cursive, slightly slanted style.

Dr. Joel B. Carboni
Founder, GPM Global

1 Introduction

1.1 Today's Challenges

In the developed world, we regularly hear about jobs being shipped offshore and about the use of child or slave labor to manufacture clothing. According to the International Labour Organization (ILO), 11% of the world's children are in situations that deprive them of their right to go to school without interference from work.

And it's not just clothing. Developing countries with a lower wages are putting pressure on developed economies, and industries such as mining and agriculture are suffering structural adjustments or severe disruption.

Throughout the world, the cost of many essential items has been rising steadily: fuel for our vehicles, electricity for our homes, and even the cost of basic health care. The cost of housing has increased rapidly since 2000 putting home ownership out of reach of all but the wealthiest few.

As well, our planet has an aging population and some governments are not able to generate sufficient revenue to pay for the necessary essential services.

Then there are the environmental impacts. In August of 2016, yet another major oil spill occurred in the Gulf of Mexico. The Great Barrier Reef in Australia has suffered repeated occurrences of significant bleaching due to higher than normal ocean temperatures and increased ocean acidity. In 2018, *National Geographic* reported that 100% of the northern half of the reef had been completely bleached.

As a whole, we are living in a manner that consumes more resources than the planet can supply. As of 2022, we are consuming 1.7 planets worth of resources annually, and based on current trends, this will increase to two planets by 2030. Put another way, by late July, we begin stealing resources from the future years to pay for current excesses.

1.2 So what does this have to do with project management?

Clearly, change is needed, and projects are how we implement change. As well, projects often affect sustainability both directly (by creating pollution or misusing resources) and indirectly (through the design of the products and services they deliver).

GPM's recent study, *Insights on Sustainable Project Management*, found that among the over one thousand executives surveyed, 96% believe that projects and project management are integral to sustainable development. 100% of these same executives believe that project managers should understand how important sustainability is to their project.

Among project managers, 71% reported that the P5 Standard improved sustainability in their projects. Of the project managers who actively use P5 in projects, 95% were able to realize increased sustainability benefits.

Based on these findings and experience, it is GPM’s position that to address the challenges outlined in the previous section in a world where volatility, uncertainty, complexity, and ambiguity are the new norm, sustainability must be a focus for project management.

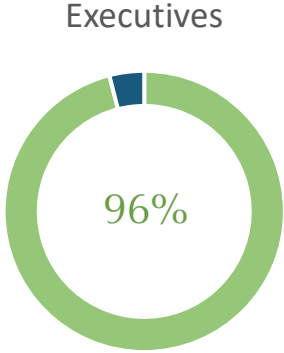


Figure 1 — GPM Survey Results

1.3 The Evolution of Project Management Focus

Dr. Martin Barnes introduced the *Iron Triangle* (also called the *Triple Constraint*) in the 1960s. For many years, the idea of “on time, within budget, and according to spec” was the mantra of project managers everywhere.

In 1994, John Elkington identified another set of considerations when he coined the term *Triple Bottom Line* (3BL) in his book *Cannibals with Forks*. His argument was that companies should be

preparing three different (and quite separate) bottom lines for cost accounting:

- **Profit** — the first bottom line is the traditional measure of financial performance — how responsible has the company been in terms of assuring its competitive prosperity?
- **People** — the second bottom line is the measure of a company’s social account — how socially responsible has the organization been in terms of its impact on the quality of life of the individuals it affects?
- **Planet** — the third bottom line is the measure of the company’s environmental account — how environmentally responsible has it been in terms of its impact on natural ecosystems?

More recently, with approaches such as *Projects in a Controlled Environment* (PRINCE2), *Managing Successful Programmes* (MSP), and GPM’s own *PRojects integrating Sustainable Methods* (PRiSM), there has been an increased focus on risk management and the delivery of value and benefits.

When we combine these perspectives, we end up with a **new** view of project management as illustrated in Figure 2 to the right. P5 has been designed to support this view.

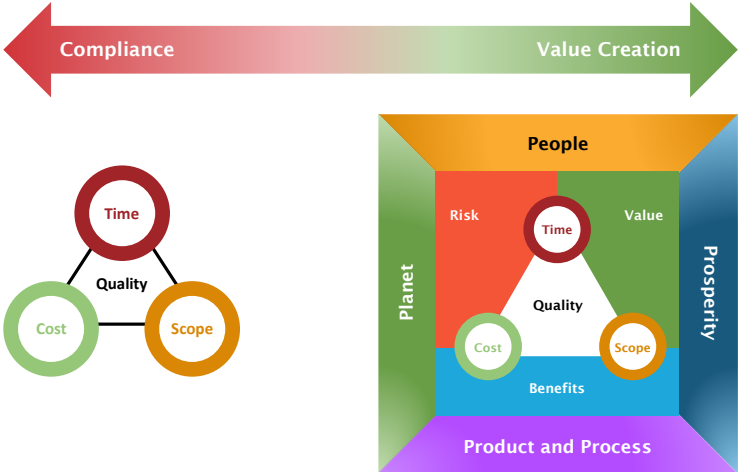


Figure 2 — Evolution of Project Management Focus

1.4 The P5 Ontology

The main purpose of P5 is to identify potential impacts to sustainability, both positive and negative, that can be analyzed and presented to management to support informed decisions and effective resource allocation.

The table below summarizes the P5 *ontology*. An *ontology* is a set of concepts and categories in a subject area that shows their properties and the relationships among them. An ontology helps to manage complexity by organizing the available information in a coherent way. Sections 2 through 5 provide guidance on what the project team should do to support each element as well as what sustainable outcomes the team may be able to achieve.

The top level of the table expands on the triple bottom line of People, Planet, and Prosperity by adding consideration of Product and Processes impacts. Thus P5 stands for Product, Process, People, Planet, and Prosperity.

PROJECT										
Product Impacts				Process (Project Management) Impacts						
Lifespan of Product		Servicing of Product		Effectiveness of Project Processes		Efficiency of Project Processes		Fairness of Project Processes		
People (Social) Impacts				Planet (Environmental) Impacts				Prosperity (Economic) Impacts		
Labor Practices and Decent Work	Society and Customers	Human Rights	Ethical Behavior	Transport	Energy	Land, Air, and Water	Consumption	Business Case Analysis	Business Agility	Economic Stimulation
Employment and Staffing	Community Support	Non-discrimination	Procurement Practices	Local Procurement	Energy Consumption	Biological Diversity	Recycling and Reuse	Modeling and Simulation	Flexibility/Optionality	Local Economic Impact
Labor/Management Relations	Public Policy/Compliance	Age-Appropriate Labor	Anti-Corruption	Digital Communication	CO2 Emissions	Water and Air Quality	Disposal	Present Value	Business Flexibility	Indirect Benefits
Project Health and Safety	Protection for Indigenous & Tribal Peoples	Voluntary Labor	Fair Competition	Traveling and Commuting	Clean Energy Return	Water Consumption	Contamination and Pollution	Direct Financial Benefits		
Training and Education	Customer Health and Safety			Logistics	Renewable Energy	Sanitary Water Displacement	Waste Generation	Return on Investment		
Organizational Learning	Product and Service Labeling							Benefit-Cost Ratio		
Diversity and Equal Opportunity	Mkt. Comm. and Advertising							Internal Rate of Return		
Local Competence Development	Customer Privacy									

Figure 3 — The P5 Ontology

The P5 Standard supports the alignment of projects with organizational goals for sustainability by focusing on the potential impacts of the project’s activities, results, and outcomes.

P5 is based on other internationally recognized standards, including:

- United Nations Universal Declaration of Human Rights
- International Covenant on Civil and Political Rights (ICCPR)
- International Covenant on Economic, Social, and Cultural Rights (ICESCR)
- Convention on the Elimination of all Forms of Discrimination against Women (CEDAW)
- ILO Declaration on Fundamental Principles and Rights at Work

- Vienna Declaration and Programme of Action
- The 2030 Agenda for Sustainable Development
- UN Sustainable Development Goals (SDGs)
- Sustainable Accounting Standards Board (SASB) Standards
- SA8000:2014 Standard (Social Accountability International)
- Ten Principles of the United Nations Global Compact
- Global Reporting Initiative (GRI) Standards
- Several ISO standards including ISO 20400:2017, ISO 37001:2016, and ISO 14001: 2015

This standard provides guidance on what to measure and how to integrate P5 into project activities. It can also be used by sustainability professionals to include projects in their reporting.

1.5 The Sustainable Development Goals

The initial release of the P5 Standard was based on a combination of the *UN Global Compact Ten Principles* and the UN's Global Reporting Initiative (GRI) *G4 Reporting Framework*. In this release, the primary drivers are the Sustainable Development Goals (SDGs) documented in the *2030 Agenda for Sustainable Development*. Throughout this standard, there are callout boxes that provide examples of how the P5 elements support specific SDGs.



Figure 4 — The Sustainable Development Goals

With 17 goals and 169 targets, there are many connections and combinations that are possible in any given project. In this standard, we have outlined several. For the complete mapping, visit www.greenprojectmanagement.org/p5

For more on the SDGs, visit <https://sustainabledevelopment.un.org/sdgs>

1.6 Professionalization in Project Management

For a number of years *professionalization* has been a key area of interest for those operating in the project management discipline. There has been an increasing desire for project management to be recognized as a profession, to have an increased status, and for project managers to be considered the equal of other professionals such as engineers, architects, or accountants. But with professionalization comes responsibility and the expectations to act ethically and for betterment of society.

GPM's position is that for project managers to be recognized as professionals, they must embrace sustainability. Our P5 Standard provides the foundation for this change.

1.7 Programs and Portfolios

P5 is explicitly focused on *projects*. Most projects will be part of one or more *programs* and one or more *portfolios*. Although there may be some differences in how sustainability impacts are identified and responded to at the program or portfolio level, the vast majority of the contents of P5 can be applied *as is* by simply changing the word *project* to *program* or *portfolio*.

Thus the P5 Standard, the Sustainability Management Plan template (see Section 5 and Annex 1), and the P5 Impact Analysis template (see Section 5 and Annex 2) can all be used in each of these domains to provide significant value and benefits.

2 Product and Process Impacts

The product and process categories concern the impacts that a project’s activities and results may have on people, planet, and prosperity as a result of decisions made about product characteristics and project management practices.

The impacts here may overlap with other areas to some extent. For example, when manufacturing a laptop, the impact of toxic chemicals might be included under the lifespan of the product, servicing of the product, project health and safety, or contamination and pollution. Where it is placed in the P5IA is not as important as ensuring that the impact is identified and responded to. In fact, it may be useful to record such an item in multiple locations to ensure proper visibility.

Product Impacts		Process (Project Management) Impacts		
Lifespan of Product	Servicing of Product	Effectiveness of Project Processes	Efficiency of Project Processes	Fairness of Project Processes

Figure 5 — Product and Process Impacts

2.1 Product Impacts

A *product* may be a physical item (e.g., a building, a phone, a new drug), a service (e.g., a consulting report, a departmental reorganization, a training course), or another type of asset (e.g., a research report, a feasibility study).

The outputs of a project are one or more products and are used to build capabilities that will eventually provide benefits to the organization (see also Section 5). Product impacts can occur during the project or after the project is complete.

Products commonly have a lifecycle with four stages:

- **Introduction** — the product is introduced to the market; sales growth is slow to moderate.
- **Growth** — the product gains visibility; the rate of sales growth increases.
- **Maturity** — the product is established; sales growth stabilizes.
- **Decline** — the market becomes saturated or shrinks; sales growth decreases.

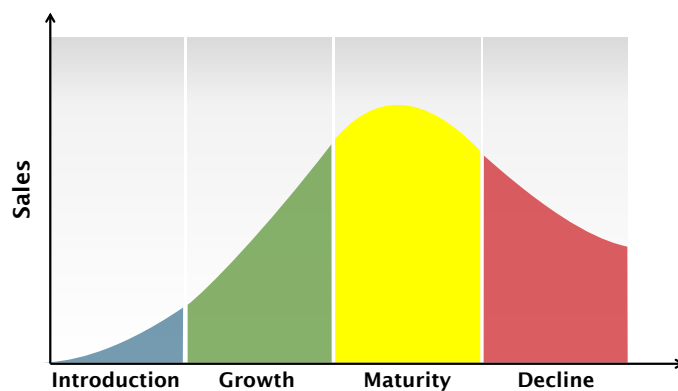


Figure 6 — Typical Product Lifecycle

Most people associate projects with the introduction stage, but in fact, most products will be supported by multiple projects over the course of their product lifecycle. For example:

- A hotel might have many maintenance and upgrade projects during its useful life.
- A passenger vehicle is generally updated annually with new features; each new version is created through one or more projects.
- Computer software is updated regularly with bug fixes and new features; each release is generally supported by one or more projects.

2.1.1 Lifespan of the Product

This element covers the policies, procedures, and practices needed to ensure that the project’s product will be sustainable throughout its useful life.

The project team should:

- Evaluate the quantity and types of materials and chemicals used in the design and manufacture of physical items.
- Explore options for reuse, recovery, repurposing, or recycling whenever possible.
- Consider product lifecycle costs (development, distribution, operation, and disposal).
- Apply design principles that support sustainability throughout the product lifecycle.
- Actively search for materials and products that do not harm people or the planet.
- Develop product designs that emit less CO2.
- Hold suppliers and their supply chains to the same standards.

Improved sustainability throughout the lifespan of the product helps to achieve the following sustainable project outcomes:

- Increased market differentiation and brand protection.
- Decreased environmental impact of the project.
- Reduced disposal costs.
- Reduced risk and increased value and benefits over the lifespan of the product



Supports SDG 12, Target 6. *“Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle”*

2.1.2 Servicing of the Product

This element covers the policies, procedures, and practices needed to ensure that the project’s product can be serviced sustainably throughout its useful life.

The project team should:

- Review new technologies for their potential to make servicing activities more sustainable.
- Avoid making unreasonable, misleading, or deceptive claims about the product’s serviceability.
- Consider servicing costs throughout the product lifecycle (development, distribution, operation, and disposal).
- Make conscious choices about energy required to service the product.
- Design and build the project’s product with servicing in mind.
- Hold suppliers and their supply chains to the same standards.

Improved product serving helps to achieve the following sustainable project outcomes:

- Increased market differentiation and brand protection.
- Decreased environmental impact of the project.



Supports SDG 12, Target 4. “By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment”

2.2 Process (Project Management) Impacts

According to the ISO 9000 series of standards, a process is “a set of interrelated or interacting activities that transforms inputs into outputs.” These interrelated or interacting activities apply *mechanisms* to *inputs* to generate *outputs* while subject to *constraints* as illustrated below.

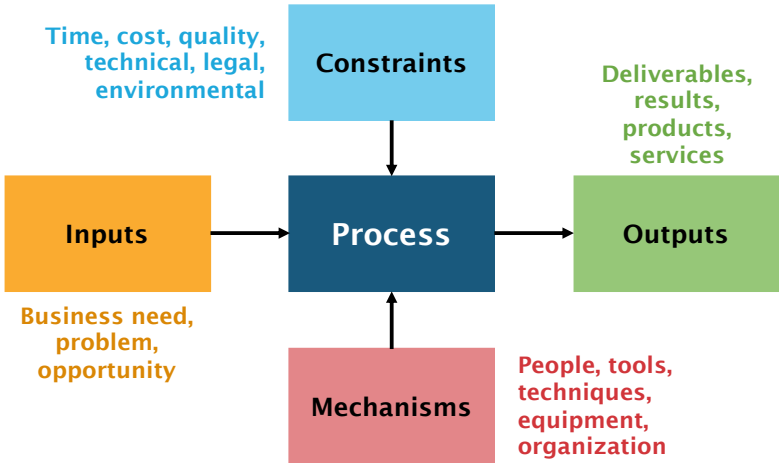


Figure 7 — Process Components

Processes used in projects can be categorized into three major types:

- **Project-management-oriented processes** which are concerned with identifying, describing, and organizing the work of the project.
- **Product-oriented processes** which are concerned with specifying and creating the project product (physical item, service, or other asset)..
- **Support-oriented processes** which provide relevant and valuable support to the other processes in disciplines such as logistics, finance, accounting, and safety.

The impacts of the project-management-oriented processes are covered in this section. The impacts of product-oriented processes are covered above in Section 0 and in some later elements. Support-oriented processes that are performed by project team members should be considered here. Support-oriented processes performed by suppliers or by others within the organization should be considered as part of the project's supply chain.

Process impacts are often difficult to identify since they may be imposed on the project from outside.

2.2.1 Effectiveness of Project Processes

This element covers the policies, procedures, and practices needed to ensure that the processes used to manage the project can be expected to deliver the desired results.

Many project management approaches do not consider sustainability factors. From a P5 perspective, they would be viewed as ineffective even if they are effective in achieving the traditional objectives of cost, time, and scope.

The project team should:

- Seek to optimize the effectiveness of the processes used in the project.
- Assess the effectiveness of the project's processes against industry benchmarks and *best-practice* frameworks.

Increased effectiveness of the project processes helps to achieve the following sustainable project outcomes:

- Minimal losses from rework and other forms of wasted resources.
- Improved project governance.
- Increased project execution capacity leading to increased profitability.

2.2.2 Efficiency of Project Processes

This element covers the policies, procedures, and practices to ensure that the processes used to manage the project can be expected to operate at maximum levels of productivity.

The project team should:

- Seek to optimize the efficiency of the processes used in the project.
- Assess the efficiency of the project's processes against industry benchmarks and *best-practice* frameworks.

Improved efficiency of the project processes helps to achieve the following sustainable project outcomes:

- Minimal losses from rework and other forms of wasted resources.
- Improved project governance.
- Increased project execution capacity leading to increased profitability.

2.2.3 Fairness of Project Processes

This element covers the policies, procedures, and practices needed to ensure that all individuals who come into contact with the project are treated fairly and with respect. Note that *fairness* does not always mean that they will be treated exactly the same.

The project team should:

- Ensure transparency and openness while delivering the project.
- Be fair to customers, suppliers, and other stakeholders at all times.

Increased fairness in the project processes helps to achieve the following sustainable project outcomes:

- Loyal team members, customers, suppliers, and other stakeholders.
- Improved reputation of the sponsoring organization.

3 People (Social) Impacts

The people (social) category of sustainability concerns the impacts that a project’s activities and results may have on individuals, society, and communities. The focus of the people category is on operating ethically and maintaining mutually beneficial relationships with employees, customers, suppliers, supply chains, and the wider community in general.

The people category contains the following subcategories:

- Labor practices and decent work
- Society and customers
- Human rights
- Ethical behavior

People (Social) Impacts			
Labor Practices and Decent Work	Society and Customers	Human Rights	Ethical Behavior
Employment and Staffing	Community Support	Non-Discrimination	Procurement Practices
Labor/ Management Relations	Public Policy Compliance	Age-Appropriate Labor	Anti-Corruption
Project Health and Safety	Protection for Indigenous and Tribal Peoples	Voluntary Labor	Fair Competition
Training and Education	Customer Health and Safety		
Organizational Learning	Product and Service Labeling		
Diversity and Equal Opportunity	Market Communications and Advertising		
Local Competence Development	Customer Privacy		

Figure 8 — People (Social) Impacts

3.1 Labor Practices and Decent Work

This subcategory deals with the project’s relationships with its workers. It covers employment and staffing, labor/management relations, project health and safety, training and education, organizational learning, diversity and equal opportunity, and local competence development.

3.1.1 Employment and Staffing

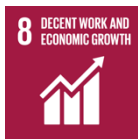
This element covers the employment and staffing policies, procedures, and practices for the individuals who will be part of the project organization. It deals with both supervisory staff such as a project steering committee or board as well as all members of the project team.

The project team should:

- Pay livable wages with equal pay for equal work.
- Engage staff using appropriate employment classifications (part-time or full-time, employee or contractor, paid or volunteer).
- Use appropriate employment conditions including provisions for healthcare, holiday and parental care, fair dismissal, and maintenance of a healthy work-life balance.

Improved employment and staffing helps to achieve the following sustainable project outcomes:

- Enhanced employment standards for the organization or industry.
- More productive and energized team members, often with less sick leave.
- An engaged and motivated workforce that is committed to personal and organizational success.
- Decreased recruiting and retention costs.



Supports SDG 8, Target 5. *“By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value”*

3.1.2 Labor/Management Relations

This element covers the policies, procedures, and practices needed to ensure an effective working relationship across all levels of the project organization.

The project team should:

- Recognize and support both legal and human rights for everyone involved in the project.
- Define and implement approaches for addressing disputes.

Better labor/management relations helps to achieve the following sustainable project outcomes:

- Reduced recruiting costs by being known as an *employer of choice*.
- Improved ability to attract well-qualified staff.
- An engaged and motivated workforce that is committed to personal and organizational success.



Supports SDG 10, Target 4. *“Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality”*

3.1.3 Project Health and Safety

This element covers the policies, procedures, and practices needed to ensure the health and safety of the project team.

The project team should:

- Identify and comply with any relevant health and safety laws and regulations.
- Identify and evaluate options for controlling hazards.
- Develop plans to protect workers during emergencies and nonroutine activities.
- Review new technologies for their potential to be more protective or less costly.
- Minimize the impact of the product on the health and safety of all involved.

Enhanced project health and safety helps to achieve the following sustainable project outcomes:

- A safe, secure, and healthy workplace for the project team.
- Minimal lost time and costs from workplace illness and injuries.
- Avoidance of fines and penalties from breaches of health and safety laws and regulations.



Supports SDG 3, Target C. *“Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks”*

3.1.4 Training and Education

This element covers the policies, procedures, and practices needed to ensure ongoing skills development and learning to support the ability of project staff to carry out project activities.

The project team should:

- Identify skills required for the project.
- Identify skills gaps and development needs of project team members.
- Support and encourage project team members to undertake training and development.
- Coach and mentor project team members to build competence.

Improved training and education helps to achieve the following sustainable project outcomes:

- A more efficient and effective workforce.
- Enhanced career opportunities for project team members.
- Reduced recruiting costs by being known as an *employer of choice*.
- An engaged and motivated workforce committed to personal and organizational success.



Supports SDG 4, Target 3. *“By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university”*

3.1.5 Organizational Learning

This element covers the policies, procedures, and practices needed to support both knowledge management and knowledge creation throughout the project.

The project team should:

- Incorporate lessons learned from past projects.
- Capture lessons learned and share them throughout the organization.
- Engage with stakeholders during the project to promote organizational learning.
- Share lessons learned outside the organization whenever possible.

Organizational learning helps to achieve the following sustainable project outcomes:

- Enhanced capabilities throughout the organization.
- Increased efficiency and effectiveness in projects.
- Opportunities for improved industry standards.

3.1.6 Diversity and Equal Opportunity

This element covers the policies, procedures, and practices needed to ensure that project staff do not experience discrimination for any reason.

The project team should:

- Provide equal opportunity for all based on skill.
- Show zero tolerance for bias based on age, gender, ethnicity, and other aspects of diversity.
- Leverage the project team members' skills and experience in solving problems.

Support for diversity and equal opportunity helps to achieve the following sustainable project outcomes:

- Reduced recruiting costs by being known as an *employer of choice*.
- Creation of innovative solutions to problems due to the diverse background of project team members.



Supports SDG 10, Target 3. *“Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard”*

3.1.7 Local Competence Development

This element covers the policies, procedures, and practices needed to increase the likelihood that the skills needed to complete the project will be available no matter where the project is located.

The project team should:

- Take into account the abilities of local and indigenous people for project resource planning.
- Use local labor when possible.

- Leverage local practices and culture to improve efficiency.
- Incorporate local employment targets in supplier contracts.

Development of local competence helps to achieve the following sustainable project outcomes:

- Local support for the project and the product.
- Local support for future projects.
- Growth in the local economy.



Supports SDG 4, Target 7. *“By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development”*

3.2 Society and Customers

This subcategory deals with the project’s interactions with society and with the customers who will make use of its results. It covers community support, public policy and compliance, protection for indigenous and tribal peoples, customer health and safety, product and service labeling, market communications and advertising, and customer privacy.

3.2.1 Community Support

This element covers the policies, procedures, and practices needed to ensure support for the project’s activities and results from the affected communities.

The project team should:

- Engage affected community representatives in discussions about the project.
- Be open and honest about the project’s effects on the community.

Community support helps to achieve the following sustainable project outcomes:

- Acceptance of the result of the project and improved benefits realization.
- An improved relationship between the sponsoring organization and the community.



Supports SDG 11, Target A. *“Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning”*

3.2.2 Public Policy Compliance

This element covers the policies, procedures, and practices needed to ensure that the project complies with relevant laws and regulations.

The project team should:

- Identify and comply with the relevant laws and regulations where the project operates.
- Report regularly to relevant stakeholders on compliance related matters.

Public policy compliance helps to achieve the following sustainable project outcomes:

- Increased transparency and accountability.
- Protection of the sponsoring organization’s reputation and brand.
- Improved community support.
- Lower risk.



Supports SDG 10, Target 4. “Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality”

3.2.3 Protection for Indigenous and Tribal Peoples

This element covers the policies, procedures, and practices needed to ensure that the project protects the rights of indigenous and tribal peoples to enjoy and practice their cultures, customs, religions, and languages.

The project team should:

- Prevent any action which might deprive indigenous and tribal peoples of their cultural values or ethnic identities.
- Prevent any action which might dispossess indigenous and tribal peoples of their lands or resources.
- Prevent any form of forced population transfer which might violate or undermine any of their rights.
- Prevent any form of communication that promotes or incites racial or ethnic discrimination.
- Seek opportunities to incorporate relevant aspects of the cultures and customs of affected indigenous and tribal peoples into the project’s activities and results.

Protection for indigenous and tribal peoples helps to achieve the following sustainable project outcomes:

- Ensuring the long-term existence of indigenous and tribal lands, cultures, religions, and ways of life.
- Increased trust from potential employees.
- Improved reputation of the sponsoring organization.



Supports SDG 11, Target 4. “Strengthen efforts to protect and safeguard the world’s cultural and natural heritage”

3.2.4 Customer Health and Safety

This element covers the policies, procedures, and practices needed to ensure the health and safety of the customers (individuals and organizations) who will use the project's results.

The project team should:

- Identify and comply with relevant health and safety laws and regulations.
- Identify and comply with relevant product safety standards.
- Act to minimize any negative effects of the project's results.

Customer health and safety helps to achieve the following sustainable project outcomes:

- Enhanced credibility with consumers and investors.
- Increased transparency and accountability.

3.2.5 Product and Service Labeling

This element covers the policies, procedures, and practices needed to ensure that the project's results are labeled correctly as to content, sourcing, safe use, disposal, and any other factors that may have an effect on society or customers.

The project team should:

- Treat accurate and correct labeling as a mandatory requirement.
- Hold suppliers and their supply chains to the same level of product and service labeling standards.

Improved product and service labeling helps to achieve the following sustainable project outcomes:

- Support for values-based, sustainable purchasing decisions by customers.
- Increased awareness of the lifecycle impacts of a product or service.
- Improved reputation through the full disclosure of product contents and the sources of ingredients or components.

3.2.6 Market Communications and Advertising

This element covers the policies, procedures, and practices needed to ensure that truthful and accurate information about the project's activities and results is shared with affected individuals and organizations.

The project team should:

- Publicize the project's support for sustainability.
- Avoid making unreasonable, misleading, or deceptive claims about the project's activities or results.
- Correct any misinformation as quickly as possible.

Better market communications and advertising helps to achieve the following sustainable project outcomes:

- Greater customer loyalty.
- Enhanced community support.
- Improved market and shareholder value.
- Improved reputation of the sponsoring organization.



Supports SDG 17, Target 10. *“Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda”*

3.2.7 Customer Privacy

This element covers the policies, procedures, and practices for the handling of customer information, customer complaints, or the loss or compromise of customer information.

The project team should:

- Identify and comply with all relevant laws and regulations (e.g., GDPR in Europe).
- Ensure that safeguards are in place to protect customer information from unauthorized access.
- Collect customer information only where necessary.
- Use customer information only for its intended purpose and in accordance with the agreed terms of collection.

Improved customer privacy helps to achieve the following sustainable project outcomes:

- Enhanced reputation of the sponsoring organization.
- Prevention of business disruptions from privacy violations.
- Reduced potential for scams and fraud.

3.3 Human Rights

This subcategory addresses the rights inherent to all human beings regardless of race, sex, nationality, ethnicity, language, religion, or any other status. It covers non-discrimination, age-appropriate labor, and voluntary labor.

3.3.1 Non-Discrimination

This element covers the policies, procedures, and practices needed to ensure that the project does not discriminate on the basis of race, color, national or ethnic origin, age, religion, disability, sex, sexual orientation, gender identity and expression, veteran status, pregnancy status, or any other characteristic protected under applicable law.

The project team should:

- Enforce zero tolerance for discriminatory bias of any kind.
- Avoid discriminatory bias when making decisions.
- Actively work to maintain a positive work environment free of fear and harassment.
- Compensate staff based on skill.
- Provide equal opportunity for all based on skill.
- Hold suppliers and their supply chains to the same standards.

Support for non-discrimination helps to achieve the following sustainable project outcomes:

- Reduced costs by reducing absenteeism, increasing productivity, and fostering a more motivated and committed team.
- Increased benefits from leveraging additional perspectives and insights.
- Enhanced reputation of the sponsoring organization.



Supports SDG 5, Target 1. *“End all forms of discrimination against all women and girls everywhere”*

3.3.2 Age-Appropriate Labor

This element covers the policies, procedures, and practices needed to ensure that children are not exploited by the project’s activities. This goes beyond simple observation of minimum age requirements and includes prohibiting work that deprives children of their childhood, interferes with their potential and their dignity, or that is harmful to their physical and mental development.

The project team should:

- Provide support for the ILO *Minimum Age Convention*.
- Ensure that all workers are at or above the minimum age required by law.
- Prevent children from being put into situations that might harm their health or general well-being.
- Protect the human rights, including the right to an education, of any child workers.
- Hold suppliers and their supply chains to the same standards.

Age-appropriate labor helps to achieve the following sustainable project outcomes:

- Enhanced community support.
- Improved reputation of the sponsoring organization.



Supports SDG 16, Target 2. *“End abuse, exploitation, trafficking and all forms of violence against and torture of children”*

3.3.3 Voluntary Labor

This element covers the policies, procedures, and practices needed to safeguard against forced or compulsory labor.

The project team should:

- Provide support for the ILO *Abolition of Forced Labour Convention*.
- Use only voluntary workers.
- Report any observed incidents of forced or compulsory labor to relevant government agencies, non-governmental watchdogs, or both.
- Hold suppliers and their supply chains to the same standards.

Support for voluntary labor helps to achieve the following sustainable project outcomes:

- Enhanced community support.
- Improved reputation of the sponsoring organization.



Supports SDG 8, Target 7. *“Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms”*

3.4 Ethical Behavior

This subcategory deals with the need to recognize that conscious leadership in support of a higher purpose provides the foundation for successful projects and stronger organizations. It covers procurement practices, anti-corruption, and fair competition.

3.4.1 Procurement Practices

This element covers the policies, procedures, and practices needed to supply the project with purchased resources.

Procurement is the process of obtaining products or services from outside the performing organization. It may also be called contracting, acquisition, purchasing, or tendering. It includes development of a procurement strategy, financial appraisal of the options available, identification and selection of suppliers, preparation of contract documentation, and management of the agreed contracts.

The project team should:

- Consider sustainability in all procurement decisions.
- Ensure timely and fair payment of suppliers.
- Hold suppliers and their supply chains to the same standards.

Effective procurement practices can help to achieve the following sustainable project outcomes:

- Brand protection.
- Reduced costs without compromising quality.

3.4.2 Anti-Corruption

This element covers the policies, procedures, and practices needed to ensure transparent communication to avoid all forms of corruption, including extortion and bribery.

The project team should:

- Identify and comply with any relevant laws and regulations.
- Prohibit all forms of bribery whether they take place directly or through third parties.
- Prohibit team members from soliciting, arranging, or accepting bribes intended for their benefit.
- Provide protections for whistleblowers.

Eliminating bribery and corruption helps to achieve the following sustainable project outcomes:

- Strengthened brand reputation and market presence.
- Reduced risks of lawsuits.
- Reduced recruiting costs and higher rates of employee retention.



Supports SDG 16, Target 5. “Substantially reduce corruption and bribery in all their forms”

3.4.3 Fair Competition

This element covers the policies, procedures, and practices needed to ensure that the project does not participate in anti-competitive behavior, especially that which might result in legal action.

The project team should:

- Refuse to participate in collusive contracting activities such as bid-rigging.
- Refuse to participate in price-fixing agreements.
- Hold suppliers and their supply chains to the same standards.

Support for competitive behavior helps to achieve the following sustainable project outcomes:

- Avoidance of schedule delays and cost overruns.
- Lowered risk of lawsuits or criminal investigations.

4 Planet (Environmental) Impacts

The planet (environmental) category of sustainability concerns the impacts that a project’s activities and results may have on living and nonliving natural systems. These systems include land, air, and water as well as the flora, fauna, and people that live in them. The focus of the planet category is on preserving, restoring, and improving these natural systems.

The planet (environmental) category contains the following subcategories:

- Transport
- Energy
- Land, Air, and Water
- Consumption

While these subcategories are detailed as part of the environmental category, most have social and economic impacts that may need to be accounted for in those categories.

Planet (Environmental) Impacts			
Transport	Energy	Land, Air, and Water	Consumption
Local Procurement	Energy Consumption	Biological Diversity	Recycling and Reuse
Digital Communication	CO2 Emissions	Water and Air Quality	Disposal
Traveling and Commuting	Clean Energy Return	Water Consumption	Contamination and Pollution
Logistics	Renewable Energy	Sanitary Water Displacement	Waste Generation

Figure 9 — Planet (Environmental) Impacts

4.1 Transport

This subcategory deals with the need in many projects to move people, goods, and information from one place to another. It covers local procurement, digital communication, traveling and commuting, and logistics.

4.1.1 Local Procurement

This element covers the policies, procedures, and practices needed to procure resources, goods, and services from local suppliers. It complements element 3.4.1, *Procurement Practices*.

The project team should:

- Actively search for local suppliers.
- Give preference to local suppliers whenever possible.

Local procurement helps to achieve the following sustainable project outcomes:

- Support for the growth of the local economy.
- Reduced CO2 emissions from transportation.



Supports SDG 12, Target 7 “Promote public procurement practices that are sustainable, in accordance with national policies and priorities”

4.1.2 Digital Communication

This element covers the policies, procedures, and practices needed to reduce the consumption of nonrenewable resources by using technology for project communications.

The project team should:

- Seek to minimize the amount of paper used for project communications.
- Make use of digital communication technology such as video conferencing, cloud-based meetings, and online collaboration tools whenever possible.

Digital communication helps to achieve the following sustainable project outcomes:

- Time and cost savings from reduced travel.
- The ability to hire the best people for the job regardless of their location.
- Reduction of stress from long-distance travel and extended periods away from home.
- Reduced CO2 emissions from transportation.



Supports SDG 9 Target 5c. “Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020”

4.1.3 Traveling and Commuting

This element covers the policies, procedures, and practices needed to limit unnecessary travel and ensure that the use of travel-related resources has as little impact on the environment as possible.

The project team should:

- Allow project team members to work remotely or flexibly whenever possible.
- Encourage the use of commuting options such as mass transit, ride-sharing, and bicycles.
- Consider the use of non-standard work hours and four day weeks.

Reduced traveling and commuting helps to achieve the following sustainable project outcomes:

- Improved productivity and team member engagement.
- Time and cost savings from reduced travel.
- Reduced need for vehicle support infrastructure such as parking lots.
- Reduced CO2 emissions from transportation.

4.1.4 Logistics

This element covers the policies, procedures, and practices needed to ensure environmentally friendly transportation of items to and from the project.

The project team should:

- Use bulk purchasing arrangements to reduce the frequency of shipping.
- Favor local suppliers to minimize air pollution, traffic congestion, and CO2 emissions.
- Design packaging to allow for reuse, recovery, repurposing, or recycling.

Better logistics helps to achieve the following sustainable project outcomes:

- Reduced transportation costs.
- Reduced waste.
- Reduced lead times for critical components and products.
- Reduction or elimination of non-recyclable packaging.



Supports SDG 13 “Take urgent action to combat climate change and its impacts

4.2 Energy

This subcategory addresses how the project manages its energy resources. It covers energy consumption, CO2 emissions, clean energy return, and renewable energy.

4.2.1 Energy Consumption

This element covers the policies, procedures, and practices needed to minimize the amount of energy consumed by the project’s activities.

The project team should:

- Consider product lifecycle costs (development, distribution, operation, and disposal).
- Use energy-efficient supplies and materials whenever possible.
- Prioritize the use of renewable energy.
- Apply design principles that prioritize energy efficiency.

Reducing energy consumption helps to achieve the following sustainable project outcomes:

- Reduced energy costs.
- Reduced emissions both during the project and over the useful life of the product.
- Increased market differentiation and brand protection.

4.2.2 CO2 Emissions

This element covers the policies, procedures, and practices needed to minimize the amount of CO2 emitted during the project.

The project team should:

- Manage the carbon footprint of both the project activities and the product produced.
- Source alternative energy solutions.
- Develop product designs that emit less CO2.
- Seek to offset CO2 where residual CO2 emissions occur.

Reduction of CO2 emissions helps to achieve the following sustainable project outcomes:

- Improved air quality.
- Improved health and well-being for project team members, the local community, and other stakeholders.
- Reduced emissions both during the project and over the useful life of the product.

4.2.3 Clean Energy Return

This element covers the policies, procedures, and practices needed to maximize the amount of renewable energy generated by the project's activities or product.

The project team should:

- Seek opportunities to generate clean energy as part of the project.

The return of clean energy helps to achieve the following sustainable project outcomes:

- Energy returned to the power grid.
- Secondary energy sources provided to the local community.
- Reduced stress on the power grid.

4.2.4 Renewable Energy

This element covers the policies, procedures, and practices needed to maximize the use of renewable energy to support the project's activities and to incorporate renewable energy into the project's product.

The project team should:

- Make conscious choices about energy use to support the project.
- Advocate for the use of renewable energy.

Using renewable energy helps to achieve the following sustainable project outcomes:

- Improved brand reputation.
- Reduced risk from energy price fluctuations and supply shortages.
- Reduced impact on the causes of climate change.



Supports SDG 7, Target 2. “By 2030, increase substantially the share of renewable energy in the global energy mix”

4.3 Land, Air, and Water

This subcategory deals with the project’s use of land, air, and water resources. It covers biological diversity, air and water quality, water consumption, and sanitary water displacement.

4.3.1 Biological Diversity

This element covers the policies, procedures, and practices needed to protect living organisms from all damage by the project’s activities or results. Living organisms include flora and fauna in both terrestrial and aquatic ecosystems as well as the ecosystems themselves.

The project team should:

- Identify and comply with any relevant laws and regulations.
- Work to achieve a net positive impact (NPI) by ensuring that any negative impacts from the project are outweighed by biodiversity gains.
- Hold suppliers and their supply chains to the same standards.

Protection of biological diversity helps to achieve the following sustainable project outcomes:

- Healthy ecosystems that protect food, fiber, medicines, and other potential resources.
- Future access to land and other natural resources.
- Improved reputation among regulators and within the communities that the project affects.
- Continued availability of ecosystem services such as atmospheric regulation, nutrient cycling, and pollination.



Supports SDG 14, Target 2. “By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans”



Supports SDG 15, Target 1. “By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

4.3.2 Air and Water Quality

This element covers the policies, procedures, and practices needed to minimize the impacts of the project's activities and product on air and water quality.

The project team should:

- Identify and comply with any relevant laws and regulations.
- Seek to minimize impacts on the local water table and connecting bodies of water.

Increased awareness of air and water quality helps to achieve the following sustainable project outcomes:

- Preservation of local bodies of water such as lakes, ponds, rivers, and streams.
- Preservation of local ecosystems and the water tables that support them.
- Prevention of water-related diseases.
- Improved air quality.

4.3.3 Water Consumption

This element covers the policies, procedures, and practices needed to minimize the amount of water used by the project.

The project team should:

- Avoid using water unnecessarily.
- Minimize the use of bottled water.
- Minimize the use of drinking water where non-potable water could be used.
- Implement water-saving technologies whenever possible.
- Capture and use rain water when possible.
- Use greywater when possible.

Reducing water consumption helps to achieve the following sustainable project outcomes:

- Reduced project costs for water use and water treatment.
- Decreased environmental damage from the project.



Supports SDG 6, Target 4. "By 2020, Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity"

4.3.4 Sanitary Water Displacement

This element covers the policies, procedures, and practices needed to manage the introduction of water into a different location.

The project team should:

- Ensure that water runoff will be handled appropriately and sanitarily.

Improved management of sanitary water displacement helps to achieve the following sustainable project outcomes:

- Prevention of water-related diseases and insect infestations.



Supports SDG 6, Target B. “Support and strengthen the participation of local communities in improving water and sanitation management.”

4.4 Consumption

This subcategory deals with how the project uses materials and supplies in its activities. It covers recycling and reuse, disposal, contamination and pollution, and waste generation.

4.4.1 Recycling and Reuse

This element covers the policies, procedures, and practices needed to maximize recycling and reuse by the project.

The project team should:

- Make use of recycled and responsibly sourced supplies and materials whenever possible.
- Promote recycling and reuse within the project.
- Ensure that its recycling and reuse practices have a net positive impact on the environment.
- Look for opportunities to participate in circular economy programs.

Responsible recycling and reuse helps to achieve the following sustainable project outcomes:

- Reduced impact on natural resources by lowering the need to source raw materials.
- Enhanced brand reputation by promoting the use of responsibly sourced supplies and materials.
- Reduced disposal costs by minimizing waste.



Supports SDG 12, Target 5. “By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse”

Supports SDG 12, Target 6. “Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle”

4.4.2 Disposal

This element covers the policies, procedures, and practices needed to ensure proper disposal of unneeded items during the project as well as proper end-of-life disposal for the project’s product.

The project team should:

- Consider the whole life cost, including the cost of disposal, as part of the business case.
- Ensure that all unneeded items are disposed of responsibly.
- Explore options for reuse and recycling of the product and its component materials.
- Design and build the project's product with disposal in mind.

Responsible disposal helps to achieve the following sustainable project outcomes:

- New or additional revenue streams through the use of unneeded resources by others in support of a circular economy.
- Prevention of illness from contamination.
- Minimal contamination of ecosystems.

4.4.3 Contamination and Pollution

This element covers the policies, procedures, and practices needed to minimize the contamination and pollution of air, water, or soil through the introduction of foreign or unwanted substances.

The project team should:

- Identify and comply with any relevant laws and regulations.
- Actively search for materials and products that do not contaminate or pollute.

Reduced contamination and pollution helps to achieve the following sustainable project outcomes:

- Minimal contamination of ecosystems.
- Prevention of sicknesses and diseases caused by contaminants and pollutants.
- Reduced risk from a spill or release of contaminants or pollutants.



Supports SDG 12, Target 4. *“By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment”*

4.4.4 Waste Generation

This element covers the policies, procedures, and practices needed to minimize the amount of waste generated by the project.

The project team should:

- Actively seek ways to optimize the use of available resources.
- Promote recycling and reuse within the project.
- Identify potential markets for any waste generated by the project.
- Design packaging and other product features to minimize waste.

Limiting waste generation helps to achieve the following sustainable project outcomes:

- Reduced project costs.
- Reduced impact on the environment.
- Reduced disposal costs for unwanted, toxic, or hazardous substances.



***Supports SDG 12, Target 5.** “By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse”*

5 Prosperity (Economic) Impacts

The prosperity (economic) category of sustainability concerns the impacts that a project’s activities and results may have on the finances of the project’s stakeholders. The focus of the prosperity category is on maximizing positive returns for as many stakeholders as possible.

The prosperity category contains the following subcategories:

- Business case analysis
- Business agility
- Economic stimulation

Prosperity (Economic) Impacts		
Business Case Analysis	Business Agility	Economic Stimulation
Modeling and Simulation	Flexibility/ Optionality	Local Economic Impact
Present Value	Business Flexibility	Indirect Benefits
Direct Financial Benefits		
Return on Investment		
Benefit-Cost Ratio		
Internal Rate of Return		

Figure 10 — Prosperity (Economic) Impacts

When considering this category, P5 uses the following terminology:

- **Outputs** — deliverables developed by a project. A deliverable may be a service (e.g., a departmental reorganization) or a tangible product (e.g., working software).
- **Capabilities** — what an organization can accomplish. New capabilities typically come from combining existing capabilities with the outputs of one or more projects.
- **Outcomes** — the results of using capabilities.
- **Benefits** — the measurable positive changes produced by the outcomes. Benefits are expected to contribute positively to one or more stakeholders in support of one or more organizational objectives. Some stakeholders may view some benefits as dis-benefits.
- **Dis-benefits** — the measurable negative changes produced by the outcomes. Dis-benefits are expected to affect one or more stakeholders negatively and may also interfere with one or more organizational objectives. Some stakeholders may view some dis-benefits as benefits.

- **Organizational changes** — such as new departments, new reporting structures, and new procedures are often need to support new capabilities. Organizational changes may or may not be included within the scope of the project whose delivered capabilities trigger them.
- **Side-effects and consequences** — secondary changes that occur as a result of an organizational change triggered by new capabilities. For example, new policies and procedures could either reduce or increase employee turnover.

The figure below (adapted from Axelos, 2011) illustrates the relationships among these terms.

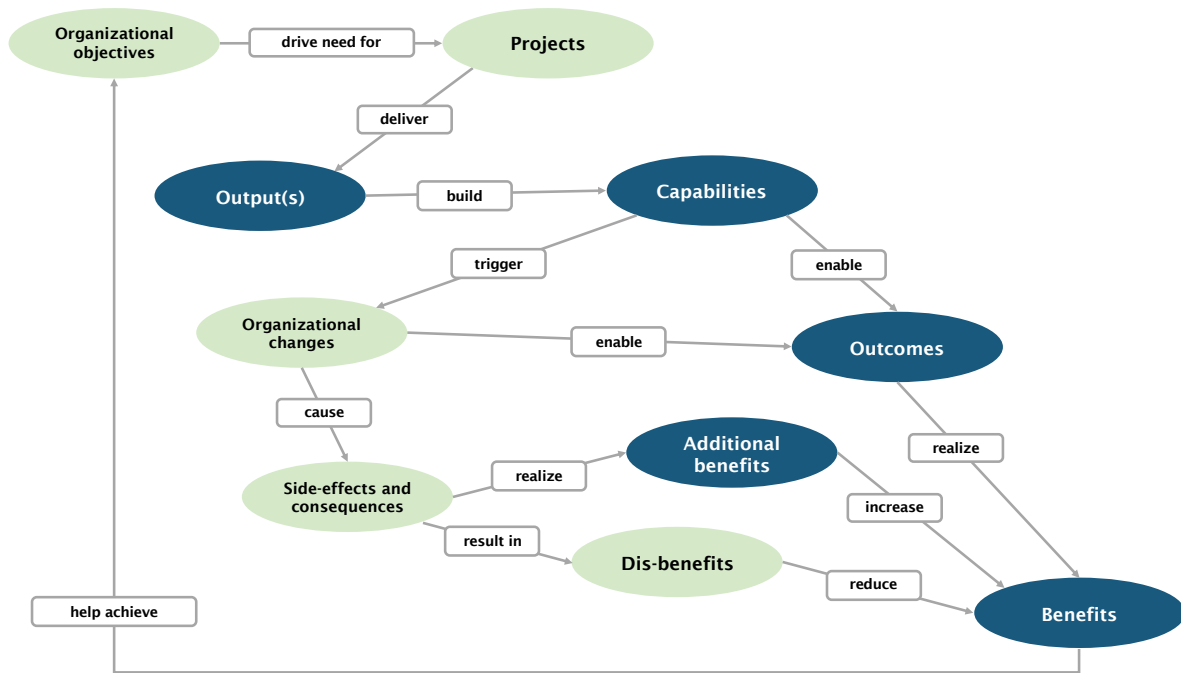


Figure 11 — Organizational Objectives and Benefits Realization

5.1 Business Case Analysis

This subcategory deals with analysis of the results expected from the project. It covers modeling and simulation, present value, direct financial benefits, return on investment, benefit-cost ratio, and internal rate of return.

When funding a project, the expectation is that the project will generate more value than it consumes. Value includes monetary returns and non-monetary returns such as regulatory compliance. The metrics described within this subcategory are widely accepted approaches to evaluating that expectation. However, business case analysis of projects is complicated by several factors:

- All of these calculations normally use single values as inputs, while numbers for projects are almost always ranges, and often large ranges. This means that financial analysis for projects should almost always be probabilistic rather than deterministic.

- The values used in the calculations must include *all* project costs and *all* expected benefits to minimize the potential for errors in the calculated results. For example, many project budgets do not include fully-loaded salaries and thus understate the actual cost of the project.
- The values used must be updated regularly throughout the project, and the business case analysis calculations must be redone with the new values. The updated results must be considered when deciding whether to continue the project.
- There is no “one best” metric. It’s possible for one metric to show that Project A is best while another shows that Project B is best.

In performing financial analysis, the project team should:

- Consider the effect of each of the factors listed above.
- Ensure that benefits can actually be measured and realized by the sponsoring organization(s).
- Ensure that benefits and costs are both measured over the same periods.
- Understand that expected benefits are forecasts, not guarantees, and that they may be realized over many years.
- Account for the possible effects of inflation, deflation, and exchange rate variances.

Realistic financial analysis helps to achieve the following sustainable project outcomes:

- Support for the organization’s long term viability.
- Creation of resources to support future projects.
- Accurate justification for the project.
- Awareness and acceptance of the costs and benefits.
- Recognition of cradle-to-cradle costs.

5.1.1 Modeling and Simulation

A model is a physical, mathematical, or logical representation of a system. A simulation uses that model to analyze alternatives and provide input for decision making. In business case analysis, simulations are used to understand the range of possible outcomes based on the uncertainty of the input variables.

5.1.2 Present Value

Present value (PV) is the current value of a future amount of money given a specified rate of return. It reflects the fact that a future amount is worth less than the same amount today. In financial terms, the future amounts are *discounted* by the available interest rate to determine their present value. Present value is calculated using the following formula:

$$PV = \text{Future value} / (1 + r)^n$$

where r = the expected rate of return and n = number of periods

Since projects often extend over multiple periods, net present value (NPV) is more commonly used than simple present value. NPV is the sum of the present values for each period with the additional consideration that each period's future value is the net cash flow for that period.

Present value is *not* related in any way to Planned Value (PV) which is used in earned value calculations.

5.1.3 Direct Financial Benefits

Direct financial benefits are gains that are derived from project activities or project outcomes. For projects done under contract, direct financial benefits are generally limited to the payments received for project work. For most other projects, direct financial benefits come from the use or sale of the project's product. Estimates of direct financial benefits should reflect *present value* as described above.

5.1.4 Return on Investment

Return on Investment (ROI) is used to evaluate the expected financial return from the money expended on a project. ROI is calculated using the following formula:

$$\text{ROI} = (\text{Direct Financial Benefits} - \text{Project Costs}) / \text{Project Costs}$$

ROI is normally expressed as a percentage (i.e., if the raw calculation results in a value of 0.32, the ROI is expressed as 32%). Both figures should reflect *present value* as described above.



Supports SDG 1, Target B. “Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions”

5.1.5 Benefit-Cost Ratio

A benefit-cost ratio (BCR) is a metric used to evaluate the relationship between the benefits and costs of a project: the higher the BCR the higher the value of the investment in the project. A BCR is calculated using the following formula:

$$\text{BCR} = \text{Benefits} / \text{Costs}$$

Both figures should reflect *present value* as described above.

The inverse of a BCR is called a cost-benefit ratio (CBR).

5.1.6 Internal Rate of Return

The internal rate of return (IRR) is the annual rate of interest that could theoretically be earned by investing the project's cash flows in an alternative investment. If a project's IRR is higher than the return offered by those alternatives (e.g., other projects, stock purchases, bank accounts), the project represents a good investment.

IRR is usually calculated using a financial calculator, spreadsheet, or computer program. It is calculated using the following formula:

$$0 = CF_0 + \frac{CF_1}{(1 + IRR)} + \frac{CF_2}{(1 + IRR)^2} + \frac{CF_3}{(1 + IRR)^3} + \dots + \frac{CF_n}{(1 + IRR)^n}$$

where CF_0 = the initial outlay and $CF_1, CF_2, CF_3 \dots CF_n$ = cash flows for each period.

5.2 Business Agility

This subcategory covers the ability of an organization to adapt in response to the changes that inevitably occur in every project. It covers flexibility/optionality in the project and increased business flexibility.

5.2.1 Flexibility/Optionality

This element covers the policies, procedures, and practices needed to evaluate and manage the competing interests within the project. Competing interests include, but are not limited to, the business case, the project scope, cost, schedule, quality, staffing, reporting, risk, expected benefits, and sustainability.

The project team should:

- Recognize that changes are inevitable in most projects and plan accordingly.
- Look for opportunities to adjust requirements to achieve a higher degree of sustainability.
- Apply *value analysis* or similar techniques to meet requirements without sacrificing sustainability.

Increased flexibility/optionality helps to achieve the following sustainable project outcomes:

- Higher degree of success.
- Identification of opportunities to improve social and environmental impacts.
- Superior benefits realization.

5.2.2 Business Flexibility

This element covers the policies, procedures, and practices needed to balance the organizational benefits that will be realized from the project with the needs of society and the environment.

The project team should:

- Focus on expected benefits.
- Look for creative ideas to generate additional benefits.

Increased business flexibility helps to achieve the following sustainable project outcomes:

- Greater chance of project success.
- Enhanced ability to implement improvements.
- Competitive advantages for the organization.
- Increased potential to respond effectively to changes.

5.3 Economic Stimulation

This subcategory deals with the financial effects that may occur as a result of the project’s activities. It covers local economic impact and indirect benefits.

5.3.1 Local Economic Impact

This element covers the policies, procedures, and practices needed to manage the project’s impact on the local economy.

The project team should:

- Consider the local community as a key stakeholder.
- Identify opportunities to support the local economy.
- Procure goods and services locally whenever possible.

Awareness of the local economic impact helps to achieve the following sustainable project outcomes:

- Creating opportunities for local employment.
- Provision of additional economic benefit from money spent in the local economy.
- Potential for an improved standard of living for individuals who reside in the local community.
- Tax revenue for the community to support services and infrastructure.
- Support for a cycle of prosperity.



Supports SDG 1, Target 4. *“By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance”*

5.3.2 Indirect Benefits

This element covers the policies, procedures, and practices needed to increase benefits that may not appear in the business case, but may still materialize as a consequence of the project.

The project team should:

- Regularly review the project context for additional costs and benefits.
- Regularly review the project context for additional risks and opportunities.

Recognition of the importance of indirect benefits helps to achieve the following sustainable project outcomes:

- Ownership and a focus on benefits realization.
- Added justification for the value and benefits of the project.
- Support for similar projects in the future.

6 P5 Applications

This section describes some of the more common uses of the *P5 Standard for Sustainability in Project Management*.

6.1 P5 Impact Analysis

A P5 Impact Analysis (P5IA) is used to define and prioritize sustainability impacts to:

- Improve the project's expected benefits.
- Increase positive impacts and reduce negative impacts to society, the environment, and the project's value.
- Contribute to the sponsoring organization's sustainability goals.

A P5IA gives key decision makers actionable information to justify changes to the project in socially, environmentally, and fiscally responsible ways.

6.1.1 P5IA Mechanics

In general, a P5IA should be completed as early in the project as possible. In GPM's PRiSM (PProjects integrating Sustainable Methods) project lifecycle, it is done in the Discovery phase. In addition, the P5IA should be updated regularly throughout the project to ensure that the information is current, correct, and useful.

To perform a P5 Impact Analysis, the project team must understand the business case, the project requirements, and the organization's sustainability goals. Lessons learned from previous projects can also provide useful input.

To perform a P5IA, the project team should generally follow the following steps:

- Identify internal and external events which may occur during the project or during the useful life of the project's product for each of the elements described above.
- Describe the cause(s) of the event and the potential sustainability impacts of each.
- Rate the impacts based on the magnitude of their effect on sustainability.
- Identify possible responses to each event to minimize the impact of negative events and maximize the impact of positive events.
- Re-rate the impacts based on the assumption that the response is implemented.

6.1.2 Assigning Items to Elements

Many of the P5 elements overlap to some extent. For example, when manufacturing a laptop, the impact of toxic chemicals might be included under the lifespan of the product, servicing of the product, project health and safety, or contamination and pollution. Where it is placed in the P5IA is not as important as ensuring that the impact is identified and responded to. In fact, it may be useful to record such an item in multiple locations to ensure proper visibility.

6.1.3 Format

GPM offers a template to support preparation of a P5 Impact Analysis. The template is free and can be downloaded here:

<https://www.greenprojectmanagement.org/p5ia>

Instructions for use are included within the template.

6.2 Sustainability Management Plan

A Sustainability Management Plan (SMP) describes how sustainability will be addressed during a project. P5 has an integral role in developing an SMP as P5 identifies the subjects to be addressed. An SMP should generally include:

- Purpose
- Approach
- Roles and Responsibilities
- Budget
- Key Performance Indicators for Sustainability
- Impact of Scope Exclusions on Sustainability
- Reviews and Reporting
- P5 Impact Analysis

GPM offers a template to support preparation of an SMP. The template is free and can be downloaded here:

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6.3 Sustainability Awareness Training

Today, most people are aware of the importance of protecting and regenerating the environment to achieve true sustainability, but many are unaware of the other aspects of sustainability as identified in the UN's SDGs and in this P5 Standard. For project teams, a review of the P5 categories, subcategories, and elements can be useful in communicating this broader view.

GPM offers courseware built around P5 and PRiSM through its training partners and partner universities.

6.4 Project Status Reporting

Project status reports are used to monitor a project’s progress toward delivering its expected results and promised benefits. P5 can be used to ensure that the impact on sustainability is included in that monitoring. For example, changes in P5IA ratings at the subcategory level would provide a useful overview.

6.5 Project Closure

When a project is completed, P5 can provide useful information to support lessons learned about sustainability. This includes:

- The effectiveness (or ineffectiveness) of measures taken in response to sustainability impacts.
- Sustainability issues that arose during the project that could not be addressed or resolved and the reasons why.
- Areas to focus on in future projects or in similar projects that are in process.

6.6 Sustainability Reporting

The Global Reporting Initiative (GRI) defines a sustainability report as, “a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities.” GRI goes on to say, “a sustainability report is the key platform for communicating sustainability performance and impacts — whether positive or negative.”

Because P5 addresses sustainability performance and impacts from a project, it can provide useful inputs to support the organization’s GRI, UNGC, or similar sustainability reports.

Recommended Reading

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Annex 1

Sustainability Management Plan Template

A Sustainability Management Plan (SMP) describes how sustainability will be addressed during a project. P5 has an integral role in developing an SMP as P5 identifies the subjects to be addressed.

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Instructions for use are included within the template.

Annex 2

P5 Impact Analysis Template

A P5 Impact Analysis (P5IA) is used to define and prioritize sustainability impacts to:

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- Contribute to the sponsoring organization's sustainability goals.

A P5IA gives key decision makers actionable information to justify changes to the project in socially, environmentally, and fiscally responsible ways.

In general, a P5IA should be completed as early in the project as possible. In GPM's PRiSM (PProjects integrating Sustainable Methods) project lifecycle, it is done in the Discovery phase. In addition, the P5IA should be updated regularly throughout the project to ensure that the information is current, correct, and useful.

Many of the P5 elements overlap to some extent. For example, when manufacturing a laptop, the impact of toxic chemicals might be included under the lifespan of the product, servicing of the product, project health and safety, or contamination and pollution. Where it is placed in the P5IA is not as important as ensuring that the impact is identified and responded to. In fact, it may be useful to record such an item in multiple locations to ensure proper visibility.

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Instructions for use are included within the template.

Version Control			
Version	Date Approved	Approved by	Summary of Changes
1.0		Joel Carboni	<ul style="list-style-type: none"> • Initial release
1.5		Joel Carboni	<ul style="list-style-type: none"> • Numerous updates; detail not recorded
2.0	Sept 2019	Joel Carboni	<ul style="list-style-type: none"> • Reformatted to match new GPM standard • Edited for consistency of terminology and presentation • Added two elements under Planet category • Restructured and renamed Business Case Analysis • Incorporated revised Sustainability Management Plan and P5IA templates • Added numerous examples of suggested project team actions and sustainable outcomes
2.0.1	February 2020	W.R. Duncan	<ul style="list-style-type: none"> • Fixed two SDG callouts with wrong SDG icon
2.0.2	February 2020	Joel Carboni	<ul style="list-style-type: none"> • Fixed pagination and several minor inconsistencies in references to P5 categories