# Extending Project Practices for the Future of the Profession

## Final Report for the Research Project: P3M Implementation Framework for Grand Challenges Policies

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# Acknowledgments

# Table of Contents

# Introduction to the Research and Research Questions

What does scholarship, practice, and the profession of project, program, and portfolio management (P3M) have to offer as a response to recognizing the increasingly complex and interdependent challenges that societies worldwide are facing? The current global pandemic, with its social and economic repercussions as well as its impact on the individual livelihoods and lived experiences, provides a clear lesson to governments and industry leaders about the extremely fragile equilibrium that societies and economies are in, and the baffling interdependence of systems and cascading failure that ensues when this subtle balance is disrupted. We also learned that rather than creating a separate challenge, the global pandemic has simply exacerbated the existing societal challenges and created breakpoints along the fault lines that have been known for a very long time but have been managed in more or less successful ways. On the upside, the global pandemic has also provided unprecedented examples of progressive innovation and transformation projects due to the urgency and compulsion to deliver projects in high levels of uncertainty.

Other current challenges relating to public health, environmental, and geopolitical concerns serve as sober reminders that no one can underplay and ignore the criticality of the "Grand Challenges" (Kuhlmann & Rip, 2014), which are key for the survival and prosperity of societies worldwide, and which require transdisciplinary and transnational approaches to be alleviated and eventually solved.[1]

An important aspect of almost any Grand Challenges framework (typically defined by organizations based on their areas of activity) pertains to climate change, which is now seen as the most urgent area and one where governments and industry should direct their attention. Ever since the introduction of the first legally binding global climate deal, the 2015 COP21 in Paris with 195 national governments as signatories across both the developing and developed world, we are seeing governments and multilateral bodies making ambitious commitments to climate change goals in relation to the reduction of carbon emissions by 2050. While it is clear that projects, programs, and portfolios will be key to the achievement of those policy goals, mechanisms for planning, oversight and coordination, and monitoring and controlling remain particularly weak—or in some cases absent—as outlined in the UK National Audit Office (NAO) report on achieving government's long-term environmental goals, "there is still a long way to go before government can be confident that it has the right framework to deliver on its aspirations and ensure value for money from the funding it has committed to environmental projects" (NAO, 2020). In other words, the enabling mechanisms for transdisciplinary work are not yet present, which creates obstacles for the implementation of the environmental goals.

Over recent years, the climate change agenda has also made significant inroads into the profession of project management. In 2017, Peter Morris published an influential piece, a call to arms, for the discipline of project management to increase its role in addressing global climate change mitigation and adaptation goals (Morris, 2017). Within this thought-provoking piece, Morris argues that climate change goals can be accomplished by implementing P3M practices, such as establishing a single point of responsibility (e.g., a project/program management office [PMO]) to define, oversee, and coordinate the various national climate plans. Following this report, the UK Association for Project Management (APM) has been developing a structured program of activities around climate change leading to a statement and action plan about the continuing commitment of the profession to climate change and biodiversity loss. The Project Management Institute (PMI) has similarly shown a strong dedication to the area, recognizing the climate crisis as a 2021 megatrend. These conversations recognize the importance of innovation projects in the achievement of ambitious climate change goals through the

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[1]  The United Nations currently defines the following global issues: Africa, Aging, AIDS, Atomic Energy, Big Data for Sustainable Development Goals (SDGs), Children, Climate Change, Decolonization, Democracy, Food, Health, Human Rights, International Law and Justice, Oceans and the Law of the Sea, Peace and Security, Population, Refugees, Water, and Women.

development of new technologies, services, and systems that will help governments to deliver on their ambitious climate change goals.

At the same time, the introduction of the United Nations (UN) Sustainable Development Goals (SDG) in the agendas of many business organizations in the sector marks important steps in the journey toward a (more) sustainable future. This, of course, includes the project profession as many of the initiatives in organizations are "tagged" against one of the 17 SDGs. SDG #13 is dedicated to climate action and urges governments and organizations to "take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy." As vaguely defined as it is, it nonetheless sets an important focal area for directing action and initiatives. In summary, there are several forces at play which suggest that climate change is a key challenge to be addressed by project organizations, either as a professional megatrend, government priority area, element of the SDG framework, or as part of the organizational strategic agenda itself.

While details are to be revealed at the 2021 United Nations Climate Change Conference (COP 26), there are some promising signals of the global climate change agenda acquiring a stronger shape (particularly in the aftermath of the global pandemic and its economic impact). It is to be expected that more governments are to make ambitious commitments that will create ripple effects across the business sector around the world. It is also possible we will see increasing levels of support for "green recovery" projects and continuing or increasing investor interest in green (infrastructure) projects. The main challenge will remain in the implementation and the lack of technologies and solutions to achieve net-zero targets and the need to accelerate the delivery of these goals (i.e., projects), leading to a renewed focus on the long-standing debate around delivery efficiency expressed as the iron triangle of time, cost, and quality.

As eloquently expressed by climate change activists with wide public outreach, such as in Greta Thunberg's influential and sobering "How Dare You" speech (*The Guardian*, 2019) and Sir David Attenborough's "There Is No Going Back" address to the UN (*The Guardian*, 2020), we cannot forget the fact that the unsustainable present has been built through projects, programs, and portfolios and by neglecting wider issues and Grand Challenges. So, the next challenge for the project management profession will be to build a better world using the principles of project, program, and portfolio management (P3M).

The goal of this research was twofold: (1) to develop a more profound understanding of the role and relevance that the management of P3M entails for the implementation of the climate change goals agenda and (2) to explore, better understand, and prioritize the challenges that climate change poses for the scholarship, discipline, and practices of P3M.

Applying these insights in the context of project scholarship, this study will begin building an implementation framework for Grand Challenges policies. This will be useful for national governments, project-based organizations, and project professionals, including business executives and policy makers who are responsible for making project decisions facing uncertainty regarding how climate change will unfold. We asked the following research questions:

Q1: To what extent are P3M practices being employed in projects that have clear climate change objectives (as opposed to those that do not)?

Q2: To what extent can P3M as a domain of knowledge and practice be further developed to better address the challenge of climate change?

To address the research questions, this research focuses on projects in the built environment and organizations and policies that deliver them. Those are sometimes referred to as "infrastructure projects" characterized by large scale and complexity, time line for delivery, and involve a number of participants across organizations in private and public sectors. To position our study, we focus on projects as the unit of analysis contextualized within their wider macro-level policy and industry settings and the micro level of their respective organizations within which they are delivered.

# Research Frame: Concepts and Brief Literature Review

To address the policy and organizational context of project practices for the adoption of climate change objectives, we focus on:

- Projects in the sociotechnical transitions framework seeking to understand how large-scale sociotechnical change occurs through and is facilitated by projects, with a particular focus on vanguard projects that are undertaken to develop new technologies and services, enter new markets, and develop capabilities.

- Project practices enacted at the strategic level of decision-making by organizations that undertake those projects.

Given the priority of developing the technologies, services, and systems as solutions that will enable the climate change and sustainability objectives to be met, projects become the key mechanism through which governments will support and encourage the business sector industries to innovate and achieve the high-level global agendas. Recent discussions have been about the importance of projects with a high degree of innovation. In project scholarship, these are referred to as *vanguard, exploratory, or hybrid* projects (Lenfle et al., 2019; Frederiksen & Davies, 2008; Laurila & Ahola, 2021). Those are defined as projects undertaken for purposes of exploration and discovery in conditions of high uncertainty and without clearly defined objectives. Research has used examples such as the Manhattan Project to elaborate on this type of project and concluded that vanguard projects are not only about the execution of government policies and organizational

strategy, but also their development and direction-setting and can therefore play a key role in articulating and designing responses to climate change.

Innovation literature suggests that such vanguard projects take place in the context of sociotechnical change that describes how sociotechnical systems achieve shifts across steady states of technology, practices, meanings, business models, etc. In particular, the angle of sociotechnical sustainability transitions is useful for developing an understanding about how innovative projects can induce change across the levels of industry and policy through "multi-actor, long-term, goal-oriented, disruptive, contested, and nonlinear processes" (Geels et al., 2017). This theoretical angle combines evolutionary economics, sociology of innovation, and institutional theory, thereby introducing a new cross-disciplinary level of analysis. As such, this approach allows us to understand the role of projects, and particularly vanguard projects, in the process of sociotechnical transition to sustainability as a pathway to achieve climate change objectives.

While projects that introduce and develop new technologies are important for governments and business sector industries to embark on innovation and value mechanisms, in the grand scheme of things they will always be relatively few and far between and, as a result, insufficient for achieving the ambitious net-zero and climate change policy objectives. There is an evident need to complement the highly innovative and one-off vanguard projects with day-to-day projects undertaken by organizations as part of their business as usual (BaU) practices in their projects. In particular, we are interested in project-based organizations (PBOs), defined as organizations that operate exclusively through projects (Lundin et al., 2015) and how Grand Challenge policy agendas, such as climate change, affect their day-to-day practices. While they participate in vanguard and highly innovative projects, project-based organizations also undertake a range of other kinds of projects that fulfill their client brief and business and operational model.

The way in which wide-ranging policy agendas are absorbed into practices of the permanent organization and projects (as temporary organizations) becomes a key issue to understand and explore. To understand how this process occurs, in this research we broadly draw on

*practice theory* in project and organization studies to argue how and why practices develop in organizations as a reaction to the policy agendas and how they develop into project practices (Blomquist et al., 2010; Brunet, 2019; Buchan & Simpson, 2020). The practice angle focuses on "sayings and doings," the conversations and actions of stakeholders who are in the process of achieving a particular goal, i.e., who are "practicing." It explains organizational hierarchies and stakeholder and project dynamics via the unfolding of practices and the meanings that are assigned to them in their context (Nicolini & Monteiro, 2017; Schatzki, 2018; Floricel et al., 2014).

# Methods

In this research we employed an exploratory approach based on qualitative enquiry of a field that has previously been scarcely understood (i.e., projects for the delivery of Grand Challenges policy agendas). To answer the two research questions, our exploratory study addresses projects, programs, and portfolios in the context of (1) sociotechnical transitions to sustainability and (2) organizational strategy toward the adoption of the UN Sustainable Development Goals.

To understand the role of P3M practices in projects for Grand Challenges policies, we focused on projects in the urban and built-environment domain and reviewed literature and secondary data on "vanguard" projects and cross-industry initiatives with climate change objectives in the United Kingdom and the United States. Some examples include Hydrogen for Heat, with the aim of developing an ecosystem of solutions and network for achieving the transition from natural gas to hydrogen in residential and commercial buildings;[2] and Ivanpah Solar Power Facility in the Mojave Desert, completed in 2014, which, spread over 14 square kilometers, is one of the largest solar thermal energy plants in the world. We also broadly reviewed the UK's *Transforming Construction Challenge* and *Transforming Construction Network Plus* initiative as an industry innovation movement to catalyze small-scale vanguard projects that address the Grand Challenges at the industry ecosystem level.

This broad review of vanguard projects provided us with insight into the rationale, goals, and conceptual reasoning behind cross-industry and policy initiatives that address Grand Challenges in the built-environment space. We then turned to an in-depth analysis of how these policy and industry-level initiatives are being transformed and adopted in organizations that undertake projects, programs, and portfolios. To this end, we undertook an empirical investigation based on an inductive analysis of interviews with senior members of a major consultancy and advisory services project-based organization (PBO) as a paradigmatic case of an organization with a considerable legacy and reputation for project management innovation in the infrastructure and built-environment domain. Our primary data set comprises 17 interviews at the strategic domain within this organization (Deliverable A1 in Appendix 2). The interviews capture the transition in practices from conventional project management to the operational model based on projects driven by the agenda of the UN Sustainable Development Goals capturing the sustainability and climate change agenda of this research.[3] The 17 senior interviewees capture a snapshot of the transition of strategic practices as this PBO moves from a traditional, project-based operating model to an operating model based on engaging with the UN SDG agenda.

Finally, the research proposal featured an important component of supporting the development of early-career researchers.[4] This collaboration focused on the development of the conceptual contribution elaborating the role of vanguard projects as intermediation spaces in sustainability transitions, currently being prepared for publication in a project journal (Deliverable A2 in Appendix 2).

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[2] Hydrogen for Heat is a £25-million program managed by the UK Department of Business, Energy, and Industrial Strategy (BEIS).

[3] Upon approaching the organization and clarifying the research goals in the domain of climate change and how they affect project practices, we jointly focused on a broader agenda of the United Nations Sustainable Development Goals which, at the time, were in the process of adoption in that organization. As climate change features prominently in the SDG agenda (as SDG #13), and as the SDG framework has features of a "Grand Challenge" policy agenda as the focus of this work, we designed the empirical data collection around the adoption of SDGs in the mentioned organization. The interviewees are very senior and include, for example, the outgoing chairman of the group.

[4] The original project proposal suggested using the research project to embed an early-career postdoctoral researcher. Circumstances of the project (as discussed in correspondence with PMI and formalized in the approval of the request for amendment) led to the modification of this plan such that instead of the project hosting an early-career researcher full-time (the equivalent of 6 months), the Co-PIs established and maintained collaboration with two early-career researchers: Kate Gasparro, PhD, and Carter Boon Casady, PhD, who at the time of writing the project proposal was affiliated with the Stanford Global Projects Center as an academic partner on this research project. During this research project, both early-career researchers transitioned into permanent roles in the industry and academia, which is why we consider that the career development goal of the research project has been successfully fulfilled.

# Primary Results and Discussion of Findings

The main set of findings in this research revolves around the realization that the role and practices of projects supersede the conventionally understood idea of projects as vehicles for operational execution and delivery. For governments and organizations to achieve their priorities of climate change and sustainability goals, they will have to consider the transitional and strategic potential of projects, programs, and portfolios. The conventional project management toolkit focused on projects as operational execution entities will, however, not be sufficient and needs to expand and consider an expanded set of practices of Grand Challenges policy implementation. In this section, we elaborate on the two sets of project practices that were revealed in our research, and which will be needed to expand the operational execution focus on projects: (1) sociotechnical transition practice in vanguard projects and (2) strategic practices in project-based organizations.

## Vanguard Projects and Transition Intermediation

In the first part of this research, we took the setting of vanguard projects that develop new technologies and services. Literature suggests that these projects are typically organized in the form of networks for one-off endeavors motivated by a high-level policy goal or aspiration, and they enroll several actors in the process (Laurila & Ahola, 2021; Brady & Davies, 2004; Lenfle et al., 2019). We extend the current literature by exploring the role of vanguard projects in the sociotechnical sustainability transition context and elaborate on the project practices of *transition intermediation* that enable pathways to achieve the transition to net-zero

carbon, sustainability, or other climate change goals. In this context, core and external project actors take on the role of *intermediaries,* working together with the goal of not only achieving project outputs, but also setting the project on the pathway to achieving sociotechnical sustainability transition, enabling project-led learning, and developing key capabilities. Transition intermediation is about mutual alignment of goals and the negotiation of priorities that allow the transition to a new sociotechnical state and a new sociopolitical, technological, and environmental status quo to take place. As such, intermediation is more than the practices of project execution and delivery among core and external project actors. We can refer to it as outward-facing, purposeful project execution in direct conversation with policy objectives. However, project actors and stakeholders assuming the role of transition intermediaries will not be different from core and external project actors, but the different contextualization of goals (transition vs. project delivery) provides the background for the different practice. The project practice that emerges is driven by the goals of sociotechnical transition rather than operational delivery of outputs, which makes it different from the conventional project execution practice. As it occurs in network settings of vanguard projects, the sociotechnical practice of transition intermediation is important because it can enable solutions and technologies to be developed at the interfaces of conventional disciplines and professional structures. Those technologies will then, through an evolutionary process of selection and refinement, find their place and application in industries and technology and policy space. Project-based organizations learn how to address policy objectives from vanguard projects and can use them to develop capability that will be transferred into BaU projects that form the basis of their business and operational models. In the next section we address this aspect of the research.

## Strategic Project Practices in Project-Based Organizations

The second part of this research is based on primary empirical data and focuses on the adoption of Grand Challenge goals and objectives into organizational strategy as a key driver for project practices.[5]

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[5]  This is written up as a research article presented and discussed on 17 June 2021 at the European Academy of Management 2021 conference's Project Organising track.

Our empirical study of the PBO suggests that project practices emerged in the strategic domain and are informed by the policy agenda. As opposed to the vanguard projects argument, the focus on BaU projects suggests the Grand Challenges agenda is translated into strategic narratives of the organization, legitimizing and justifying a new agenda, and therefore shaping the direction of travel of the organization—its future strategic choices as well as its current and ongoing operational activities. As most commercial organizations cannot operate based on vanguard projects only and need a steady pipeline of projects generating a healthy income as the basis of their business model, it is important to include the policy agenda into the BaU projects. In this context, we find that the project practices are strategic in that they are about the *why, what,* and *who* of the project (strategic direction-setting and selection) as opposed to the *how* and *when* aspects of the project (operational delivery and execution aspects), which are still important but no longer the sole focus of attention. We found that the strategic dimension of projects is as important as the executional one, with our findings revealing that strategy and operations in projects reflect two equally important worlds of actions and conversations that are sometimes in harmony and sometimes reflect opposites in conflict.

The key finding of emphasizing the strategic project practices of *project framing* (defining the project in relation to policy priorities), *definition* (defining the detail of the project based on the framing and policy priorities), *selection of projects* (based on the alignment of the client brief with the policy goals), and *staffing* (finding the project team that will commit to the project based on the alignment of their values with policy priorities), is here complemented with the prominent absence of the transformation of operational project practices as they are discussed in the professional bodies of knowledge of project management. This suggests a more complex relationship between the conventional dichotomous understanding of *strategic thinking* (talking the talk) on the one hand, and *operational doing* (walking the walk) on the other hand. Whereas vanguard projects have significant potential in launching innovation in an upward spiral of impact on policy, PBOs can also use these projects to develop the organizational capabilities needed to support BaU projects.

These projects should be delineated, understood, staffed, and run as pockets of innovation and creativity that can be mobilized to have a ripple effect throughout the entire PBO. PBOs can then undertake a structured effort of retention of key staff and redeploy them not only on vanguard projects, but also BaU projects, as this is where transmission of capability is likely to take place. Based on our findings we suggest this is how strategic project practices will eventually spread through the organization and turn into operational project practices, which is important for every commercial project business and especially a PBO.

## Key Insights Addressing Research Questions

Based on the two analytical angles we thus conclude that:

Q1: P3M are instrumental in projects that achieve climate change objectives in the same way that they are instrumental for any other project. However, we extend this and claim that specific project practices need to be introduced into the P3M mindset that consider the strategic direction-shaping and policy-setting role that projects have—and will continue to have—in the realization of climate change objectives.

Q2: P3M, as a framework, should be upgraded to take into consideration the macro-level, sociotechnical practice of intermediation and meso-level strategic project practices of legitimation and justification. Similarly, the Grand Challenges and climate change angle impacts and transforms on the existing P3M practices of *project shaping, definition, selection*, and *staffing*. The focus of the expanded set of P3M practices is on the *why, what,* and *who* of the project.

We next reiterate and summarize our ongoing findings into the following key insights:

***Insight 1***—***Expansive Project Management:*** Project practices for Grand Challenges policies are not only about execution and delivery; they are also about the role of projects in climate change and sustainability transitions and organizational strategy for adopting Grand Challenge agendas into their BaU. Therefore, projects should not be confused with the operational dimension of execution, but can be seen as strategic and policy transformational entities. This extends the idea of project management as a discipline and profession from the core domain of operational execution and delivery.

**Insight 2—Capability Pendulum:** Vanguard and exploratory projects are of strategic significance as they shape priorities and define strategy. They are pockets of discovery and will be instrumental on the path to climate change outcomes. However, vanguard projects are not enough, and we need to think of BaU projects as they provide the backbone of the business model and operations. The translation of Grand Challenges agendas into the organizations happens through the strategic legitimation and justification of existing projects as well as shaping future thinking about projects.

**Insight 3—The New Old:** New project practices that are needed for addressing the Grand Challenges are not necessarily new; however, what makes them different is their intentionality and goal orientation. In this way, project practices or actors are not necessarily new, different, or grand. On the contrary, they can be usual, old, and small practices, but understood with the intention and context of their transformational potential in the domain of organizational strategy and sociotechnical transitions to sustainability and climate change goals.

**Insight 4—So Close, Yet So Far:** Even if we did not identify a new set of emerging practices related to climate change outcomes, there is a transformation ahead. This transformation will require institutional work due to the external pressures for the project profession to remain within its current boundaries. Breaking the "iron cage" will require institutional entrepreneurship and a bottom-up movement acknowledging that the boundaries and ethics of the profession are shifting.

Based on these ideas and insights, we developed our P3M implementation framework for Grand Challenges policies (see Figure 1) to:

a) Position projects in the context of Grand Challenges and climate change transitions and suggest that the strategic contribution and impact of projects is as important as their role in executing project objectives.

b) Understand emergent project practices in organizations adopting new ways of operating and working while taking into consideration the Grand Challenges agendas.
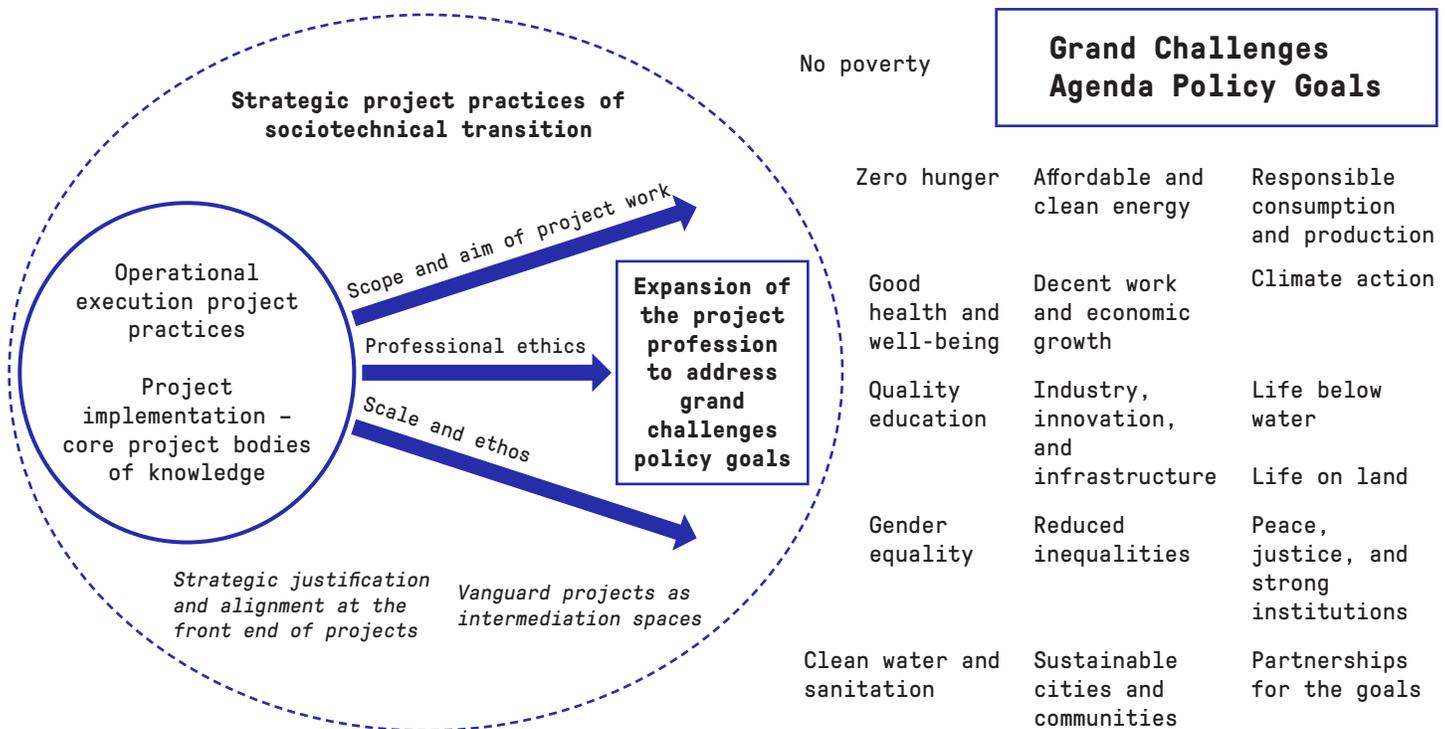


**Figure 1.** The P3M implementation framework for Grand Challenges policies.

The framework is a reflective tool that suggests the expansion of project management practices from the core focus on operational-execution project practices (full-line boundary) to a broader set of practices including strategic and sociotechnical transition (dotted-line boundary). Our research identified that this expansion of the practices occurs through extensions across three dimensions: a) the scope and aim of the project work; b) the professional ethics that set the values and norms of right and wrong within the practice; and c) the reconsideration of scale and ethos of the project profession considering the multiple levels and domains where projects occur beyond the conventional operational execution angle. We suggest that it is along the lines of such an expansion that the project profession will be able to adequately address Grand Challenges and complex policy agendas such as the SDGs as shown in Figure 1.

Building on the above summary insights from this research, the next section focuses on recommendations for the project profession.

# Practical Implications for the Project Profession

As a response to Peter Morris's (2017) "call to arms" suggesting the key importance of projects, programs, and portfolios in tackling climate change, in this section, we develop recommendations for the project management profession. Rather than focusing on practitioners and the practices they are creating and maintaining, we focus on the *community around the practices*. Most importantly, our findings suggest that the conventional remit of the project management profession[6] can be extended to account for the need to address climate change and other Grand Challenges through project-based organizing. We specifically suggest that the operational execution-focused role of project management as a profession should be extended to encompass the strategic and sociotechnical transition aspects of projects and their practices. The sociotechnical and strategic project practices require considerations of a wider set of priorities than the conventional project management efficiency criteria. These include, for instance, commercial and social, technological, and environmental priorities, calling for an expansion of our understanding of the political, moral, and intellectual dimensions of the project management profession and a reconsideration of the remit for *responsibilities and obligations* of project managers. We suggest that climate change and Grand Challenges should be embraced urgently as an opportunity for the project profession to reinvent itself as a key part of the solution to climate change and sustainability transitions.

We specifically argue that the profession adopts a decentralized, organic, and "*small is beautiful*" approach to engaging with Grand Challenges such as climate change. Such an approach suggests that climate change objectives are addressed through *small*, localized practices which collectively have the potential to redefine the project management profession.

## Scope and Aim of Project Work

The first implication of the extension of project practices is on the scope of the *decision-making authority* of the project professional and, by implication, the extension of the *aim of the work* of project managers. Whereas previously project professionals could remain preoccupied with the efficiency of their management practice (time, cost, quality), they are now required to consider multiple priorities. Such outward-focused decision-making can capture priorities identified throughout the sociotechnical transition and the strategic realms. As such, project practices are not only about *doing the projects right* but also about *doing the right projects*, which introduces a strategic and transitional dimension of *effectiveness* and *critical evaluation* into the decision-making framework within the project management profession.

The project profession can address this challenge by broadening the body of competencies of future project professionals so that their fundamental skills include perspective-taking and critical evaluation of the positions, stakeholder requirements, and project strategies that would address those. The ability to consult, negotiate, and reconcile divergent interests in the broader project context of climate change suggests that project managers need to become political actors in the process of reconciling diverse interests toward achieving complex goals across boundaries of other professions.

## Professional Ethics

The discussion on expanding the remit of project practices on "doing the right thing" brings us to the key considerations of professional ethics. While the environmental and broader societal considerations featured as a wider set of project priorities in our review of literature, interviews, and broader interactions with key stakeholders of this research, they were not explicitly referred to as "ethical" requirements. We contend that it is precisely the advancement of a

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[6]  One which is primarily focused on the management of projects, programs, and portfolios and the enabling and controlling role of the project management office (PMO).

coherent body of professional ethics that will determine the evolution of the project profession and the nurturing of future generations of professionals. It is because of embodied professionalism and a professional identity that is adopted as a primary individual identity that practitioners are attracted to a profession (Evetts, 2013; Giddens, 1990, 1991), not only because of the rewards and social status that a profession affords (Konstantinou, 2017). Future generations of project professionals are likely to seek a professional code of ethics that is mainly rooted in their own practice and experience of the world and the evolving nature of project work (Horobin, 1983). It is important for professional ethics to not only provide distinct normative guidance, but to also create the spaces in which future generations of project professionals can explore, articulate, and evolve new conceptions of ethics in professional project practice with the support of the community of the project profession (Konstantinou, 2019).

## Scale and Politics: *Small* Practices for Grand Challenges

Our current understanding of project practices assumes a logic/narrative of grandness—Grand Challenges—that command grand collaborations, grand organization, grand practices, grand teams, grand projects, and grand compromises and reconciliations. Our study shows that this logic gives birth to practices of intermediation and structured meaningful discussion and discourse at the strategic level of projects and project organizations. But, perhaps most importantly, a closer look amplifies the role of the future project profession and its relationship to the scope and nature of work and ethics of its practices. Climate change, global poverty, social inequalities, and other Grand Challenges cannot be tackled by only relying on large-scale projects and programs (however important they might be). Grand Challenges require the mobilization of projects across different scales: from everyday projects that may seem

to be mundane to "grand" initiatives. Taking the practice's conceptual angle, this study suggests that we shouldn't overlook the importance of the seemingly "small" practices that, when taken together, contribute to the aggravation and resolution of Grand Challenges in ways much more significant than often acknowledged. As individuals and members of the profession, we take part in behavioral, commercial, operational, and political decisions and actions that create the conditions for Grand Challenges to continue growing, be alleviated, or even eliminated. It is ultimately a question of individual choice and agency to take a stance toward those issues and address them regardless of how small the scale of impact might be perceived to be.

Finally, it is important to acknowledge that climate change involves a political dimension that can lead to the airing of the voices and perspectives of certain stakeholders, while other rightful ones remain silent. This means that the cost and benefits—who pays, who gains—of climate change may be distributed unevenly. Here, we see a role for the project professional and the ethics of the profession, as both will be involved in these discussions. Even within the community of the profession we expect and hope there will be different voices and interpretations of what is justice in climate change. This issue of justice becomes increasingly important, especially if projects across all scales are to be mobilized toward addressing climate change and other Grand Challenges. For example, in a recent study about solar and wind farms, social scientists found that residents were keen to support such initiatives as long as they were located at a significant distance from one's home (Agterbosch et al., 2007; Langer et al., 2018). To address this challenge, the community of project professionals can develop its interpretation of the *climate change ethos* in project management. We anticipate that the development of the *climate change ethos* will extend beyond the strict boundaries of the ethics of professional project practice (e.g., loyalty, non-maleficence, benevolence, justice, etc.).

# Conclusions: A Project Profession for the Future?

Although professional practices change to reflect changes in society (Bernstein, 1980), major changes in society may radically transform and even break the boundaries of a profession. For example, what used to be a fully-fledged, established profession in librarians saw its demise in the advent of information and communication technologies that replaced the core tasks of a librarian (Bell, 2007). Similarly, doctors have found themselves down a one-way path to more patient-focused and participative medicine that has altered the boundaries of their authority in the doctor-patient relationship (Ford et al., 1996). Our study suggests that new practices are emerging, which raises several questions for the rethinking of our profession to address climate change and other Grand Challenges of our future (and present).

- How radical are the practices we identify and how does the body of project management knowledge need to change to accommodate them? Is this a step toward the expansion of the project management profession or perhaps a fundamental transformation of what it entails? In response to this question, we argue that strategic project practices and sociotechnical practices both strengthen the basic principles behind the project management profession and reflect instances of professionals embracing disruptive ideas, which can reinvent and reconfigure the role of a profession in society (Abbott, 1988).

- The second question relates to the tension between the evolution of the profession that takes time, negotiation, and thoughtful consideration and the urgency of tackling Grand Challenges. In simple terms, the question is: Do we have the time to expand (and possibly transform) the profession when a climate disaster is imminent? Within the current models of the political, economic, and business environments we do not see how achieving such a key transformation will be possible. To begin addressing this conundrum, we argue that ultimately it is down to us, as project practitioners who are called upon to shape and deliver projects against the backdrop of climate change, to define the boundaries of the role of the project profession. It is down to us to determine whether the profession will change, react, or fundamentally shape the climate change agenda; how much power the profession will seek to yield; and what the severity and intensity of its response to climate change will be. Agency and power are in our hands as we, as practitioners, have an important role to play in ultimately defining the profession, the economy, society, and the survival of the planet.

# Appendix 1: List of References

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# Appendix 2: List of Outputs

## Main Project Deliverables (as Specified in the Project Milestones Table)

A1: Zerjav, V., & Konstantinou, E. (in press). Strategic project practices: Discursive adoption of sustainable development goals in project-based organisations. Submitted for review to *Project Management Journal*.

A2: Gasparro, K., Zerjav, V., Boon-Casady, C., & Konstantinou, E. (in press). Vanguard projects as intermediation spaces in sustainability transitions. Under review with *Project Management Journal*.

A3: Konstantinou, E., & Zerjav, V. (in press) Climate change and the evolution of the project management profession. Submitted to *ProjectManagement.com.*

A4: Gasparro, K., Zerjav, V., & Konstantinou, E. (2019, June 25–27). Project intermediation: The critical role of negotiating socio-technical regimes and technological niches to achieve climate change policies. *Working Paper Series, Proceedings of the EPOC 2019 Conference, Engineering Project Organization Society*, Vail, Colorado, USA.

## Presentations and Talks

- B1: *Dr. Efrosyni Konstantinou's keynote address on project management education: Who is it for, and why?* at the Project Management Education Conference [online] at the London Southbank University, 5 May 2021.

- B2: *UK project managers declare climate and biodiversity emergency.* Dr. Vedran Zerjav, invited talk, hosted online by UK Project Managers Declare Group (https://uk.projectmanagersdeclare.com) on 25 August 2020.

- B3: Dr. Vedran Zerjav delivers research presentation to Bartlett School of Sustainable Construction, 21 May 2021.

- B4: Dr. Vedran Zerjav research presentation in BI Oslo, November 2019, Oslo, Norway.

- B5: *Thought leadership breakfast.* Dr. Effie Konstantinou talks about "professionalism for project managers" for the Arup PPM Group, Arup, London, 24 July 2019.

# Appendix 3: PI Bios

**Vedran Zerjav, PhD**, is an associate professor of infrastructure project management in the Bartlett, UCL. He is a scholar of projects with an interest in a range of organizational issues in project-based organizational forms. His main areas of interest include strategic, operational, and value considerations in projects, with his empirical focus on urban infrastructure and its delivery. He is a qualitative researcher with an interest in hybrid and novel methodologies for project studies.

**Efrosyni Konstantinou, PhD**, is an associate professor in strategic management of projects at University College London, UK. She leads an interdisciplinary program of independent research focused on the politics of identity and knowledge in organizations, in connection with professionalism and ethics. Her research studies the individual as an agent (sociological perspective), a human (philosophical perspective), and an employee (organization studies perspective), and brings to light the multidirectional and multidimensional nature of human existence. She is also chair of the Knowledge and Learning Special Interest Group in the British Academy of Management.
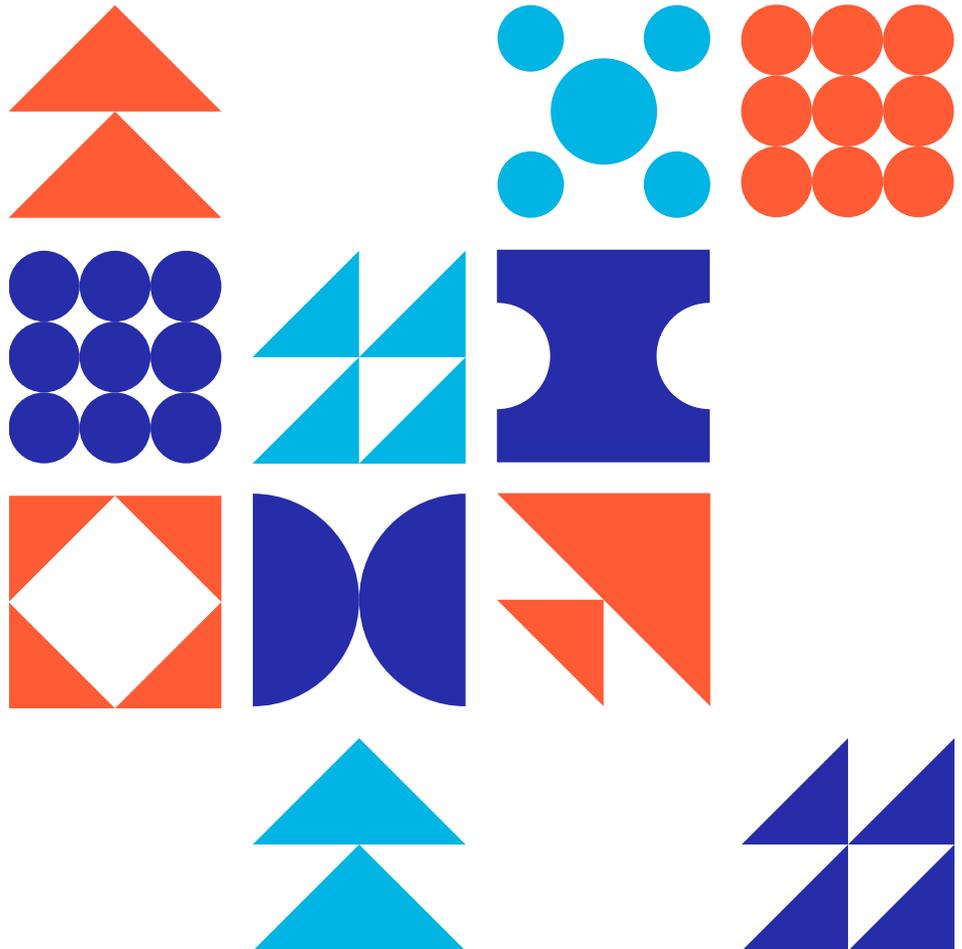
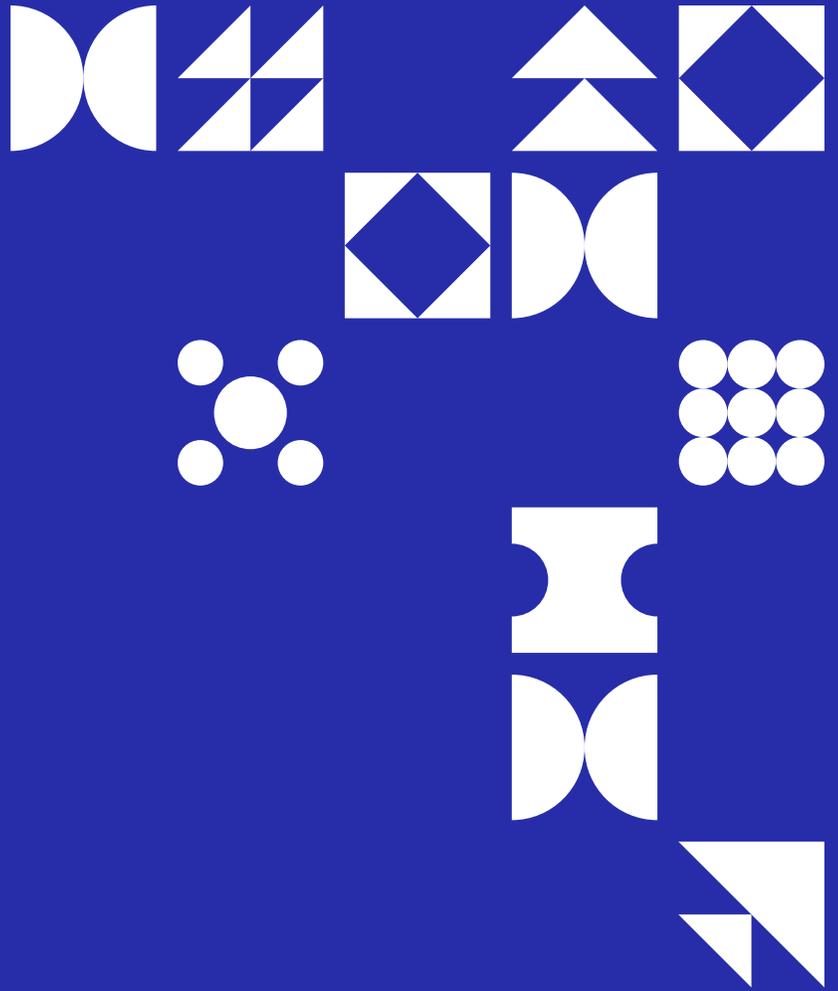# About Project Management Institute (PMI)

PMI is the world's leading association for those who consider project, program or portfolio management their profession.

Through global advocacy, collaboration, education and research, we work to prepare more than three million professionals around the world for the Project Economy: the coming economy in which work, and individuals, are organized around projects.

Celebrating our 50th anniversary in 2019, we work in nearly every country around the world to advance careers, improve organizational success and further mature the project management profession through globally-recognized standards, certifications, communities, resources, tools, academic research, publications, professional development courses and networking opportunities.

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