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Accelerating time to impact: Deconstructing practices to achieve project value

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Abstract

Accelerating time to impact is a serious and important challenge for today's organizations. This paper combines the literatures of project acceleration and benefit management to inquire into the possibilities of accelerating time to impact. Specifically, it explores a practitioner-driven Danish initiative targeted at increasing the speed at which project benefits are attained, and it analyzes why some projects were able to achieve benefits faster than others. The initiative functions as a major social experiment, where the same project methodology was implemented in several Danish project-based organizations. We analyze five of these organizations. We identified reasons for the differences and grouped them in a conceptual model: the 'house of time to impact' with three areas: valuing speed, owning speed and entraining speed in the organization. The paper's contribution is the bridge between the literatures on benefit and time management, bringing two pressing issues together. The contribution to practice lies in the considerations and stories of other organizations attempting to reconcile the increasing need for effectiveness. © 2018 Elsevier Ltd, APM and IPMA. All rights reserved.

1. Introduction

This research bridges two fundamental yet disjoined challenges in managing projects: the persistent need for quick results (Ellwood et al., 2017) and the emerging focus on delivery of value as opposed to project output (Winter et al., 2006). We live in an accelerating society (Rosa, 2013) and experience an increasing pressure to deliver more, better and quicker. Projects' intrinsic relationship with time makes them an important vehicle for speeding (Ellwood et al., 2017). Ever since its emergence in the 1950s, project management has encompassed a myriad of classic practices to accelerate project delivery, such as PERT, critical path and the possibility to 'crash' schedules (Zirger and Hartley, 1994; Ellwood et al., 2017). While the field of project studies has dedicated only little attention to acceleration of

* Corresponding author. *E-mail:* psve@mgmt.au.dk (P. Svejvig). projects (Padalkar and Gopinath, 2016), the topic is empirically and theoretically studied in the literature on new product development (NPD). However, this body of literature focuses on accelerating the creation of new products, not on the benefits that these products are envisioned to create. The literature on project studies suggests that managing projects with a predefined scope in mind is problematic, as the scope needs to develop with the project not prior to it (Maylor et al., 2017), and the context of projects that drift, requiring changes in scope to keep projects relevant (Kreiner, 1995). Scholars have called for a strong focus on projects as a value creation process (Winter et al., 2006), and for alternative management practices to deliver value (Kreiner, 1995). Today, these practices are grouped around a stream of literature called benefit management (Ward and Daniel, 2012; Laursen and Svejvig, 2016). The overall empirical observation and argument of the literature is that delivering value requires a different management approach than delivering predefined

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output. As the literature on accelerating projects builds on approaches for delivering predefined output, accelerating the delivery of benefits would potentially require alternative approaches. Our research combines the literatures on project acceleration and benefit management to investigate the possibilities of accelerating the value delivery process.

Empirically, we study an initiative led by Danish project practitioners; it implemented a new project methodology in a number of Danish companies promising, in their words, to "accelerate time to impact of projects". Impact is defined as similar to benefit—that is, an outcome perceived as an advantage by one or more stakeholders (adapted from Bradley, 2010: xiii). This Danish initiative provided a unique research opportunity – a real-life experiment, where the same group of people, working collaboratively, were responsible for implementing the same project methodology across sectors to deliver value more quickly.

In this article, we engage critically with the interventions across five real-life projects that adopted the new project methodology. The cases were five organizations across different sectors. We compare each of the projects with similar projects within their respective organization and explore its impact in terms of speeding up the value creation process. As expected, although all projects implemented the new project methodology, some projects were more successful in speeding time to impact than others. This article proposes explanations for the acceleration of time to impact and sheds light on the relationship between projects, time, and value creation.

Our findings show that there are five reasons for the differences across the five cases: valuing speed, project ownership, timing of project methodology introduction, the nature of the project, and the institutional context and governance structures. Our findings therefore indicate that accelerating time to benefit requires more than simply augmenting the resources and 'cracking' the schedule. Organizations require a commitment to speed. In line with this more holistic understanding of speed, we grouped the reasons and propose a conceptual model for accelerating time to impact consisting of 'valuing time to impact', 'institutionalizing time to impact', and finally 'managing time to impact'. By developing the concept of accelerating time to impact in projects, the findings answer to a recent call for more integration between the literatures on innovation and project studies (Davies et al., 2018).

Value delivery through projects also happens at the program and portfolio levels (Martinsuo and Killen, 2014; Musawir et al., 2017), but the focus in this paper is on the project level. From this perspective, projects are seen as vehicles for value identification, value creation, and value capture or delivering (Bowman and Ambrosini, 2010; Laursen and Svejvig, 2016). While attempting to cover different industries and project types, our study is limited to project delivery in private Danish organizations. This limits our ability to generalize the research to other contexts, apart from theoretical contributions, and calls for further investigations. Moreover, we followed only the implementation of a project methodology which offers an attempt to accelerate time to impact: its success or failure therefore provides limited evidence of the ability of projects in general to accelerate time to impact. Instead, our reflections on the findings point to contextualized possibilities for acceleration as opposed to generic patterns aimed at normative guidance across contexts.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature about accelerating projects and delivering value from projects. Section 3 details the research methodology of the study including research design, research setting, data collection and analysis. This is followed by description of five cases in Section 4. Section 5 presents the results followed by a discussion in Section 6. Finally, the conclusion with contributions and future research are presented in Section 7.

2. Related research

2.1. Accelerating projects

Accelerating projects has been a recurring theme in the innovation and product development projects literature (Brown and Eisenhardt, 1995; Ellwood et al., 2017). By accelerating projects we mean the increase on the speed of the progress of a project in relation to a similar project (see also Barber, 2004; Zidane et al., 2018). Central themes within accelerating projects literature are drivers for acceleration, acceleration practices and consequences of accelerating projects, as exemplified in Table 1:

There are many acceleration drivers, including time-tomarket and the intension to be a first mover (Brown and Eisenhardt, 1995), and warding off a threatening disruption to an organization (Brossard et al., 2018). There is a large body of literature with suggestions for practices aimed at accelerating product development and increasing project efficiency (Zirger and Hartley, 1994; Ellwood et al., 2017), mainly within product development but also outside (Wearne, 2006; Zidane et al., 2018). Accelerating projects can have both positive and/or negative effects (Ellwood et al., 2017). The first generation of the Ford Taurus was demoted because the project was completed six months later than scheduled (project management failure), but the initiative is generally regarded as a commercial success, with the funder (the Ford Motor Company) probably satisfied with its return on investment in the project (investment success) (Shenhar and Dvir, 2007). Thus, success in one dimension does not imply success in another (Cankurtaran et al., 2013), which means the relationship between accelerating projects and achieving success is not straightforward.

Some empirical studies have documented a positive effect of accelerating projects, while others have not (Cankurtaran et al., 2013). A German manufacturer was able to accelerate product innovation cycles and reduce the average number of milestone delays per top project from 30 in 2009 to 11 in 2011 (Sting et al., 2015), which shows a positive effect of acceleration. A recent study from Norway on school and prison construction projects shows increased speed in both planning and

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Table I			
Themes	in	accelerating	projects.

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Themes in accelerating projects	Illustrative examples
Drivers for acceleration	 <i>Time-to-market</i> of new products and time-based competition to build competitive advantage (Mahmoud-Jouini et al., 2004; Ellwood et al., 2017; Zidane et al., 2018), where time reduction is often more important than cost reduction (Chen et al., 2010). <i>First mover advantage and fast follower strategy</i> (Brown and Eisenhardt, 1995; Mahmoud-Jouini et al., 2004; Chen et al., 2010). <i>Unexpected urgent projects</i> that arise because of a new business opportunity, protection against a sudden threat, or to restore a severely damaged asset (Wearne, 2006; Wearne and White-Hunt, 2014).
	 Business disruption relates to strategies for warding off disruption and speeding of innovations for product development, business operations, etc. (Downes and Nunes, 2013, Brossard et al., 2018).
Acceleration practices	• <i>Strategic practices</i> , such as time as a goal and an emphasis on speed (Zirger and Hartley, 1994; Kessler and Chakrabarti, 1996), goal clarity (Kessler and Chakrabarti, 1996; Chen et al., 2010), and top management support and champion presence (Brown and Eisenhardt, 1995; Chen et al., 2010).
	 Project practices with parts reduction and parts standardization (Zirger and Hartley, 1994), schedule compression techniques (Larson and Gray, 2014), and agile practices (Conforto et al., 2016).
	• <i>Team- and people-oriented practices</i> , related, for example, to collaborative problem solving (Sting et al., 2015), empowered and dedicated team members (Zirger and Hartley, 1994, Kessler and Chakrabarti, 1996), project leaders with power and vision (Kessler and Chakrabarti, 1996), and team co-location (Chen et al., 2010; Zirger and Hartley, 1994).
	• Process practices, such as concurrent development (Zirger and Hartley, 1994, Chen et al., 2010), iteration, frequent testing, and learning (Brown and Eisenhardt, 1995, Chen et al., 2010), and freezing design (Zirger and Hartley, 1994).
Consequences of accelerating projects	 Positive effects: Operational success, such as reduced development costs (lower price), technical product performance, or other product competitive advantage. External success related to market share, sales volume, revenue, and customer satisfaction. Financial success, including profitability, margin, and return on investment (Cankurtaran et al., 2013: 468–469). Negative effects: Overemphasis on acceleration can have hidden costs or detrimental effect on other factors (Ellwood et al., 2017: 510) often involving the balance between positive short-term effects and negative long-term effects (Zidane et al. 2018)

construction phases due to re-use of documents and plans, a learning effect (repetition), and increased efficiency in user and stakeholder participation (Økland et al., 2018). Another study on Algerian superfast telecommunications infrastructure projects solved in three months compared to two years for a comparable project showed short-term success with a financial upside, but with negative consequences such as safety breaches and other client projects suffering because of this project (Zidane et al., 2018). Furthermore, quantitative cross-sectoral studies question the positive impact of acceleration on success. Some studies have not found a significant relationship between (reduced) development time and commercial success (Meyer and Utterback, 1995; Griffin, 2002), while others point to the potential relevance of contextual factors to explain the relationship. For example, Ittner and Larcker (1997) "document a positive relationship between average firm-level cycle time [for product development] and perceived overall success for the computer industry but find no such association for the automobile industry" (Cankurtaran et al., 2013: 468). Thus,

Table 2 Benefit, value, and impact: definitions. the relationship between project success and acceleration is only partially supported empirically.

The majority of studies related to accelerating projects focuses on development speed and how this relates to project success (Cankurtaran et al., 2013). The relationship between accelerating projects and value creation has not been the core focus of articles, and the empirical evidence available is mixed: while some point to a negative long-term impact of acceleration practices, others suggest a neutral or positive impact. We need a more nuanced understanding of this relationship, which is the aim of this article. To achieve this, we connect the literature on project acceleration with that on delivering value. The latter is discussed in the next section.

2.2. Delivering value through projects

Delivering value from projects implies doing value identification, value creation and value capture during and after the project (Lepak et al., 2007; Laursen and Svejvig,

Concept	Explanation
Benefit	Benefit is an outcome of change perceived as an advantage by one or more stakeholders (adapted from Bradley, 2010: xiii).
Value	Value is "the benefits delivered in proportion to the resources put into acquiring them"-i.e., benefits (monetary)/use of resources
	(expenditure, money, people, time, energy, and materials) (Office of Government Commerce, 2010: 5). Value is relative and is viewed differently by
	different stakeholders. Value might thus be positive or negative for specific stakeholders depending on the benefits and disadvantages for them (Laursen
	and Svejvig, 2016), whether at the individual, organizational, or societal level (Lepak et al., 2007: 182).
Impact	Impact includes all anticipated effects and emergent effects that can be attributed as the result of the project, positive and negative, short term and long term,
	for different stakeholders (inspired by Volden, 2018; 111). Impact is understood as a more inclusive concept than value and benefit.

2016; Martinsuo et al., 2017). The terms 'value' and 'benefit' are often used interchangeably (Aubry et al., 2017: 6), and there appears to be many overlapping and ambiguous concepts such as value (Morris, 2013), benefit (Chih and Zwikael, 2015), worth (Zwikael and Smyrk, 2012), and impact (Volden, 2018). Table 2 shows how we use the terms value, benefit, and impact.

Delivering value from projects is covered by the benefits management (BM) discipline. BM aims to harvest benefits to ensure that the strategic goals of a project are translated into benefits. This implies setting up organizational processes and project governance structures that work toward the delivery of planned benefits (Ward and Daniel, 2012; Serra and Kunc, 2015; Musawir et al., 2017). BM can be viewed as a discipline that bridges strategy management and project/program management (Breese, 2012).

The mainstream BM methods are linear lifecycle models consisting of a number of phases (Ward and Daniel, 2012), while advances on the mainstream BM methods are models addressing BM capability, competences, and practices (Ashurst et al., 2008; Ashurst and Hodges, 2010). The benefit realization capability model focuses on benefits planning, delivery, review, and exploitation competences, and a number of practices associated with these competences (Ashurst et al., 2008). To a high degree, BM practices are linked with and depend on sound project management practices (Badewi, 2016). Musawir et al.'s (2017) study suggests that the benefit management practices of continuous review and realignment of project outcomes and targets are most strongly correlated with project success as well as the development and monitoring of high quality business cases. Ashurst et al. (2008) present a framework of benefit realization practices such as 'establish benefit/stakeholder interactions' and 'benefit-driven project appraisal'; they recognize that adoption of these BM practices is lacking in 25 IT projects, which were examined using the framework.

Thus in spite of the widespread knowledge of BM methods and BM practices, there is nonetheless a lack of adoption in organizations (Musawir et al., 2017), and many projects still fail to deliver the expected benefits (Economist Intelligence Unit, 2016, Aubry et al., 2017). The question of whether and how BM practices improve benefit realization remains unanswered. First steps have been taken (Ashurst et al., 2008; Badewi, 2016; Musawir et al., 2017), but BM practices in projects still require substantial research.

In conclusion, our turbulent, high speed and highly competitive society raises a practical challenge in connecting acceleration with benefits and value creation. To our knowledge, there is a gap between the two research streams underpinning this challenge: practices for accelerating projects (Ellwood et al., 2017) and delivering value through projects.

3. Research methodology

3.1. Research design

Our research design is a multiple case study (Yin, 2003; Stake, 2006). We chose this approach as it allows both an in-

depth examination of each case individually and the identification of elements that distinguish each case from the other. Furthermore, multiple case studies are expedient for validating findings from a single case study through cross-case comparisons and to theorize across cases (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). This study is part of a large research project comprising 17 cases; each case represents the implementation of a new project methodology in one pilot project and the comparison with a similar project within the organization not using the new project methodology. We selected five case projects from five different companies based on three criteria:

- data availability: we opted for organizations that were involved in the initiative from the beginning, increasing the period of data collection, which is important to examine the project impact
- differences in performance: as perceived and reported 'accelerated time to impact'. The underlying rationale is to explore reasons for the varying degrees of performance through the comparison of the cases
- differences in project types: so we could understand the challenges across different settings.

We compare and contrast the cases to explore why some projects achieved benefits faster than others did. The philosophy applied in the paper is pragmatism bridging subjective and objective understandings (Van de Ven, 2007).

3.2. Research setting

The initiative started in 2013 as an informal network from Danish industry discussing how to develop project management in the light of the apparent high project failure rate (e.g. CHAOS Reports (Hastie and Wojewoda, 2015, Standish Group, 2015), and with the ambition to manage projects in a different way. The initiative matured and gradually began to formalize; from Spring 2015 it was funded by The Danish Industry Foundation and called Project Half Double. The project kick-off took place in June 2015; the intention was to apply a new project methodology on 17 real projects (Svejvig and Grex, 2016). In spring 2016, the initial ideas about the new project methodology were operationalized into the Half Double Methodology focusing on impact, flow and leadership (see Appendix A). Version 1.0 is now completed and a book released about the project methodology has been released (Olsson et al., 2018). The big research project is still in progress experimenting with the new project methodology in other organizations. Our engagement in the five cases discussed in this paper is completed. The focus in this paper is not on the Half Double Methodology per se, but on the effect of using the project methodology in the pilot projects.

3.3. Data collection

The five cases represent Danish companies with global presence (GN Audio, Grundfos, Novo Nordisk) or Danish

Table 3	
Data collection	overview.

Data Collection Overview	Siemens Wind Power	Grundfos	Lantmännen Unibake	Novo Nordisk	GN Audio
Number of projects mapped	Pilot project and three reference projects (four projects in each organization			anization)	
Number of interviews, focus group meetings, workshops, and review meetings	16	9	14	13	7
Project documentation, presentations, governance documentation, company information, emails etc.	Several docume	ents			
Internal write-up report comparing projects qualitatively and quantitatively (confidential)	24 pages (excluding appendices)	24 pages (excluding appendices)	20 pages (excluding appendices)	20 pages (excluding appendices)	19 pages (excluding appendices)
Public documents about Project Half Double across cases (only selected)	Reports: • Project Hali 2016) • Project Hali (Svejvig et Project Hali (Svejvig et Book: • Half Doubl 2018)	f Double: prelim If Double: Adde al., 2017b) f Double: curren al., 2017a) e: projects in ha	inary results for p endum: current re at results for phas alf the time with	whase 1, June 201 esults for phase e 1 and phase 2, double the impac	6 (Svejvig et al., 1, January 2017 December 2017 et (Olsson et al.,

subsidiaries of international companies (Lantmännen Unibake, Siemens Wind Power). As portrayed in Table 3, we collected data on four projects in each of the organizations: a pilot project focused on experimenting with the Half Double Methodology and three similar reference projects, which are used for comparison (Svejvig and Hedegaard, 2016). As a result we have mapped five pilot projects and 15 reference projects for the five companies (20 projects in total). The research team met with the companies between 7 and 16 times at workshops and interviews and supplemented the data with relevant project documentation (Myers, 2009). We used mixed methods (Tashakkori and Teddlie, 1998; Cameron et al., 2015) for data collection and to map the projects. We recorded how the specific Half Double Methodology practices were used and the benefits created and compared it with the reference projects. The Wenger et al. (2002) definition of practices was used as 'a set of socially defined ways of doing things in a specific domain: a set of common approaches and shared standards that create a basis for action, problem solving, performance and accountability'. The mapping is based on a comparison framework, which we designed for this study (Svejvig and Hedegaard, 2016). The framework is inspired by reference class forecasting (Flyvbjerg, 2006) and based on open systems theory (Andersen, 2010; Chen, 2015), evaluation theory (Pawson and Tilley, 1997; Stufflebeam and Shinkfield, 2007), and the diamond model for project characteristics (Shenhar and Dvir, 2007). An overview of data collected is shown in Table 3

Detailed information about the specific data we collected in each organization is described in Appendix B.

3.4. Data analysis

The data analysis is divided into two parts: The first part consists of a highly structured approach using the comparison framework for mapping pilot projects and reference projects. The result is documented in a report for each organization (confidential) and three reports that are publically available (Svejvig et al., 2016; Svejvig et al., 2017a; Svejvig et al., 2017b). This first part of the analysis was used to determine to what degree the pilot projects were able to accelerate impact as shown in Table 4; it was based on a comparison of selected key performance indicators between pilot project and reference projects (see also Appendix B).

The second part involved an inductive coding process (Charmaz, 2014) where we constructed 28 codes organized into five categories (see Appendix C) based on several readings of the findings from the project reports, PowerPoint workshop presentations, project documentations and listening to digital recordings from the many meetings and workshops. NVivo (Bazeley, 2007) supported the data management and coding process, and a number of themes emerged from this process such as "Valuing speed" and "Institutional clashes and context". This was used to analyze practices applied in the projects; the practices with more than 10 references in the NVIVO database we selected (see Table 5). The inductive coding process combined with the comparison process using mixed methods was then used to determine to which degree the selected practices in Table 5 were classified as either fulfilled (yes), partly fulfilled (partly) or not fulfilled (no). The classification is based on multiple sources (triangulation) although several of the practices in Table 5 are quite easily identified such as co-location. We furthermore performed a query of all the sources in the NVivo data in order to capture the frequency of words (see Appendix D) to supplement the inductive coding process, which was done to understand the focus of organizations and in particular on creating impact.

Finally, we theorized across the cases (Eisenhardt, 1989; Eisenhardt and Graebner, 2007) to develop a conceptual model related to managing, valuing and institutionalizing

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Table 4 Overview of cases

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	Siemens Wind Power	Grundfos	Lantmännen Unibake	Novo Nordisk	GN Audio
Contextual factors	A world leading supplier of wind turbines Size: 7000 employees	The world's largest pump manufacturer Size: 18,000 employees	Food service industry Size: 6000 employees	Global healthcare company Size: 41,600 employees	Professional and consumer audio solutions company Size: 1000 employees
Project governance	Highly mature with strict governance and project models	Highly mature with strict governance and project models	Not so mature	Highly mature with strict governance and project models	Some governance structures implemented
Project type	Engineering product development (wind turbine)	Engineering product development (new generation of pumps)	Market and product development project (bread concept for stores)	IT project (supply chain)	<i>E</i> -commerce project / IT project (channels for online marketing and sales)
Project duration	Long term (four to five years)	Long term (33 months)	Medium term (6 months)	Medium term (15 months)	Short term (3 months)
Project complexity	Indicated higher	Indicated higher	Indicated lower	Indicated medium	Indicated lower
Physical artifact	Yes	Yes	Yes	No	No
Project output (products and/or services delivered from the project)	Wind turbine and related services	The project was stopped, so the output was not used for the product development process	Bread concept launched for stores, including organizational procedures	A new approach to variant planning was implemented with successfully	<i>E</i> -commerce platform launched including organizational procedures
Impact	The Siemens Wind Power pilot project was not able to reduce time to impact, but was able to retain the planned lead time and retain the commercial value of the project	The Grundfos pilot project was not quite able to reduce time to impact, but had useful learning from the project	Accelerating time to impact was achieved by delivering sales faster than comparable reference projects	Accelerating time to impact by better and faster planning process in shorter time compared to reference projects	Accelerating time to impact by reduced lead time for introducing an e-commerce platform and with higher quality (accuracy) compared to reference projects
Accelerate time to impact	No	No	Yes	Yes	Yes

time to impact as our attempt to contribute to a longstanding call for stronger theorizing and middle range theorizing in project studies (Packendorff, 1995; Geraldi and Söderlund, 2018).

4. Case descriptions

Table 4 provides an overview of the five cases, which are described in more detail below (Svejvig et al., 2016; Svejvig et al., 2017b).

Siemens Wind Power is a supplier of high-quality wind turbines and related services and provides solutions for power transmission and distribution across the entire energy conversion chain. The company is project oriented and highly mature, with strict governance and project models.

The pilot project is a product development project. It was initiated in 2014 with the purpose of introducing an innovative onshore wind turbine capable of producing 19% more energy compared to earlier models. The organization describes the project as "a must-win battle". The project is an extensive, highly technical and complex project with a large number of participants across various work areas and divisions. The main driver for acceleration was a strong focus on time to market and product cost in order to reach its breakeven target in only a few years. The new project methodology was introduced during the design and prototype phase, so the project had already passed an

Table 5		
Summary of practices	applied in	the pilot projects.

Practices	Grundfos	Siemens Wind Power	Lantmännen Unibake	Novo Nordisk	GN Audio
Value creation (impact case and impact solution design)	Yes	Yes	Yes	Yes	Yes
Frequent follow-up with pulse checks	Yes	Yes	Yes	Yes	Yes
Co-location	Yes	Yes	Partly	Yes	Yes (virtually also)
Project rhythm	Yes	Yes	Yes	Yes	Yes
Sprint planning	Yes	Yes	Yes	Yes	Yes
Visualization	Yes	Yes	Yes	Yes	Yes
Active project ownership	Partly	Partly	Partly	Yes	Yes
Project leadership	Yes	Yes	Yes	Yes	Yes
Resourcing issues (lack of resources)	Partly	N/A	Partly	Partly	Yes

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Table 6						
Examples of busi	ness impact an	d behavioral	impact	from	pilot	projects.

Pilot project	Example of business impact	Example of behavioral impact
Grundfos	The front-loading phase from gate #1 to gate #2 is reduced from nine to six months	A non-serviceable product is accepted by the customers
Siemens Wind Power	Breakeven is achieved after launch of product after x years	Active project owner to engage with the project team on site monthly
Lantmännen Unibake	Turnover from the pilot project is achieved from April 2016 (already achieved from January 2016)	Lantmännen Unibake on customer x Top 10 list as an innovative and trusted partner, February 2016
Novo Nordisk	Reduced time for pilot project impact, where go-live time is accelerated from February 2017 to September 2016	Increased planner job motivation
GN Audio	Launch of m marketplaces and n new channels with decreased complexity by 2017	Involvement of relevant project managers from initiation to launch

important gate and locked the project toward the release gate, thus limiting the possibility for making changes.

The pilot project was able to retain the commercial value and launch as needed. Yet, despite this stronger attention to impact, the pilot project did not achieve a pronounced effect when compared with similar projects at Siemens. However, the project manager and project owner were able to change internal practices and experienced high impact in a closer collaboration between the technical units and the business units in the project. This experience triggered discussion in the organization on how to integrate the units more closely in future projects to maintain awareness of the business impact and commercial deliveries, and not just technical matters and the product, but with no tangible benefits as yet.

Grundfos is a large pump manufacturer, developing, producing, and selling a broad range of pump solutions, including electric motors for pumps and electronics for controlling pumps and other systems. In 2012, Grundfos established a model for frontloading projects consisting of three stages after ideation: initiate, create, and mature. Frontloading projects is used as a way to accelerate knowledge and limit major uncertainties prior to product development. Grundfos' project governance is highly mature, with strict governance and project models.

The pilot project is a frontloading project. It was initiated to safeguard an increased market share whilst maintaining the company's leading position as a world class pump manufacturer. This is expected through the development of a robust concept, which not only needs to be technically feasible but also to have the projected attractiveness and impact for Grundfos' customer segments. The main driver for acceleration is an overall aim to reduce time to market in the research and development process. The tangible output from frontloading projects is a so-called 'fact pack', which includes documentation such as business evaluation, innovation profile, and design ambition. A fact pack is used as input and foundation for the product development project, which will be carried through following the frontloading project.

Various acceleration practices were introduced into the pilot project. On the positive side, practices such as the pulse check (scoring tools for stakeholders in the project), visual planning, and co-location were reported to work well and to contribute beneficially to running the pilot project; the participants aim to continue employing these practices in other Grundfos projects. On the negative side, involvement of senior management was below expectation. Although the project manager attracted the attention of the chairman of Grundfos, which helped gain required attention for the project, committee members often cancelled participation in sprint reviews; the project owner did not attend joint meetings instead assigning a representative to participate in project meetings.

The frontloading phase ran smoothly and could be completed ahead of schedule. However, reduced time to impact was not achieved, as realizing impact depended on the next step in the development process being allocated and ready to take over. When observing the project portfolio, senior managers gave priority to other, more pressing projects. Therefore, the effective project portfolio processes in Grundfos delayed time to impact.

Lantmännen Unibake (LU) is one of Europe's leading suppliers of high quality bakery products to retailers, wholesalers, and the food service industry; LU offers a wide range of solutions for both professional customers (B2B) and consumers (B2C) and has 35 bakeries in 21 countries. LU's aim is to make bread a profitable business for its customers and to serve consumer needs through highquality products and superior solutions, including a sustainable mindset and excellent food safety standards. The company mainly focuses on operational activities and has a low project governance maturity.

The pilot project is a commercial concept development project. LU was approached by one of its store customers and tasked with the development of an entirely new concept with a range of bread and pastries for a new in-store concept to be launched in spring 2016. The position of the new concept was meant to contest the main competitors (other stores), while at the same time not replacing the existing product range supplied to the customer, but serving as a novel concept appealing to consumers. The project's main purpose revolved around creating a new business model adding value for the parties involved by 1) developing a new in-store concept, including defining a range of products and new packaging; and 2) building closer relations with the customer. From LU's perspective, the project helped approach its vision of becoming the customer's preferred supplier within this specific type of concept, which is also the main driver for acceleration.

The pilot project was initiated in August 2015. In December 2015, after four and a half months, the steering committee decided to terminate the initiative organized as a project and to continue the implementation of the new concept in an operational set-up headed by the previous project owner. During the project period, only limited experience of the accelerating practices was gained. In January 2016, the first launch was actualized: sales were generated six months after the project started, which was considerably shorter than reference projects which would generate sales in 10–15 months.

Novo Nordisk is a global healthcare company with a history of more than 90 years of innovation and leadership in diabetes care. Novo Nordisk supplies more than half of the world's insulin. Regarding project governance, the organization is highly mature, with strict governance and project models.

The pilot project is categorized as an IT enhancement project with the purpose of creating a more stable, faster, and flexible planning solution incorporating future business requirements for handling different variants of the same product. Initially, the project was planned for launch in February 2017 following the classic IT development approach of analyze, specify, develop, test, and launch, but the project was redesigned leading to a first launch in June 2016 and a second one in September 2016. The new solution impacted approximately 25 end users and all Novo Nordisk production sites. Thus, the Novo Nordisk pilot project reduced time to impact considerably by changing going live from February 2017 to June and September 2016, which is faster than comparable reference projects in the organization. Besides speeding up the project, another goal was to increase the quality of the deliverables in the project. Thus, a broad range of acceleration practices was integrated in the pilot project, supporting impact, flow, and leadership in the project. The project output was a new IT system implemented and in use with associated documentation and training of employees.

GN Audio is part of GN Great Nordic, a Danish-based technology group founded in 1869. GN Audio was founded in 1987 and today it is a global operator and among the leading and fastest growing suppliers of intelligent audio solutions.

The pilot project at GN Audio is categorized as a sales/IT project and is about developing new ways of working with digital sales (e-commerce) and launching a new marketplace. The main driver for accelerating the project was to reduce project lead time and time to market specifically from nine to three months. Since its launch of online sales channels, one of GN Audio's challenges has revolved around a tendency toward stagnating launches due to heavy after-work to correct errors from previous launches, thus tying up resources that could have been utilized elsewhere to perfect existing channels and to develop new channels. The reduced lead time was obtained through a focus on higher quality in terms of better accuracy rates on the content, integration, pricing and inventory, as well as new work processes and clear organizational responsibilities.

The pilot project was supported by a broad range of acceleration practices related to impact, flow, and leadership.

5. Results

First, we describe the implementation of the new project methodology practices across the cases and the results of each pilot project in terms of its stated aim, namely, "reduction of time to impact". Three cases had good results in terms of speeding up time to impact. When Lantmännen Unibake started its pilot project in August 2015, it had a clear goal to reduce time to impact by having 60% crossfunctional team allocation. The results show that the time to impact was reduced from 10 to 15 months to 6 months when compared with reference projects. Similarly, Novo Nordisk reduced time to impact and moved the anticipated launch from February 2017 to September 2016 while delivering the expected business impact and quality. Finally, the GN Audio pilot project had a slightly reduced lead time but delivered considerably higher quality when compared to reference projects in the organization.

However, two cases did not achieve reduced time to impact although both projects had the intention to do so. First, Grundfos intended to reduce time to market from nine to six months expecting to finish in April 2016, but they were not able to finish until June 2016, and hence did not achieve any time reduction. Second, Siemens Wind Power aimed at closing design specification in order to complete a milestone in March 2016, but the actual completion took place in June 2016.

When comparing the results across cases, our analysis suggests that the implementation of new project practices may have helped but were not sufficient to accelerate time to impact. We identified three factors that contributed to accelerating time to impact: valuing speed, owning speed, and entraining speed in the organization and supply network. No factor can be seen as an isolated explanation of differences between the projects and their achieving reduced time to impact, but together, they provide some explanation.

5.1. Implementing the new project methodology: Helpful but not sufficient

Despite difficulties and different levels of adoption, we noted a genuine attempt to implement the new project methodology across the cases. Implementation is defined in terms of the use of the practices suggested in the new project methodology in the pilot project, that is, the project that was testing these practices. Empirically, we looked for evidence for implemented practices through interviews with project practitioners, asking whether and how the implementation of the practices took place. The data was triangulated with discussions with consultants in charge of the implementation of the practices and documents related with those practices. Table 6 summarizes important practices used in the five pilot projects:

The table shows that nearly all practices have been followed by all five cases, except for active project ownership and resourcing. Having the right resources at the right time appears to be a general challenge in the five cases despite the extra focus that these pilot projects have received from the companies. This is to be expected as availability of resources is a common problem in projects; as Cooper et al. (2000: 19) state: "too many projects, not enough resources". We will not go further into the common resource challenge but focus on the other practices in the following sections.

5.2. Valuing both speed and impact

In this section, we discuss the extent to which the organizations valued impact and valued speed. Our findings suggest that while impact was overall highly valued across organizations, speed was not necessarily so. All organizations were indeed able to establish a strong focus on impact. The new project methodology is impact driven, and the word 'impact' itself is the second most frequent word in our empirical data (see Appendix D), which indicates that discussion of impact was high on the agenda across all cases.

We observed that achieving impact acted as a guiding rule throughout the intervention in all cases and was particularly salient in two project practices: impact case and impact solution design. Impact case describes how to drive behavioral change and business impact, while the impact solution design focuses on how to design your project to deliver impact as soon as possible with end users close to the solution (Olsson et al., 2018).

All five cases worked intensely with an impact case. Two of the cases worked only with impact solution design due to the later introduction of impact solution design as a tool. The application of impact cases is illustrated with examples in the Table 6.

The Table 6 shows that all cases have worked with the impact case and it has been a much more integrated part of the project work than typically seen in more classic approaches. For example, the implementation of the new project methodology in the pilot project at Siemens Wind Power led to a new dialog on impact: the project manager worked toward reboosting team meetings with a new agenda and set-up as well as the involvement of the project owner. The project owner was able to see for himself the posters with key focus points and visual plans on the project room walls. He challenged the project team's priorities and strong focus on technical matters and directed the discussion toward the business impact that the project initially set out to realize. Consequently, the project owner helped create new insight and awareness regarding the importance of commercial deliverables and the potential risks of continuing the current product-oriented practice. At the end of meetings, priorities had been updated to accelerate commercial deliverables, which might otherwise have been postponed. In that way, the project owner was able to create a new discourse on time to impact and create awareness of the necessity of bridging technology and business sections.

Thus, overall in the organizations, the new project methodology achieved a shift in practices away from delivering projects as output and toward delivering value through projects. However, the value of speed was not as evident across the cases.

Speed was a clear competitive advantage for GN Audio and Lantmännen Unibake. For example, GN Audio had a strong belief that "implementing a better way of launching new markets will generate faster business". It intended to use the new project methodology to be able to "launch of mmarketplaces and n new channels with decreased complexity by 2017.

The most salient counter case was Grundfos. Grundfos had ascribed limited value to speeding up the project or its benefits. It was no longer necessary to finish the project early as the next step in the product development process was halted, and the allocation of resources was therefore attuned to this schedule, balancing the project portfolio. Consequently the project was not sped up as originally planned because it was not relevant.

A further indication of valuing speed is the active participation and leadership of the project owner or senior managers. Active project ownership explained some of the differences across the cases. While Novo Nordisk and GN Audio were able to establish an active project ownership, Lantmännen Unibake, Grundfos, and Siemens Wind Power achieved this only partially. This might be a factor explaining the cases that were able to reduce time to impact (Novo Nordisk and GN Audio). Lantmännen Unibake was able to achieve the intended results despite active project ownership being only partial. The reason might be that the Lantmännen Unibake department executing the pilot project is part of a local country organization of around 500 employees with highly committed project members to the pilot project, which might have compensated for the busy project owner. The following statements underline the importance of active project ownership:

"Involvement and ownership from project owner and steering group are important and a big asset – dialog rather than control" (Novo Nordisk meeting April 2016).

"The project owner was deeply involved in the implementation of the [new project methodology]. First and foremost he appeared frequently in the co-location room; participated in status and sprint planning meetings – but also in the way the steering committee was involved" (GN Audio, phase 1 report June 2016).

While the following indicates the challenges at Lantmännen Unibake, Grundfos and Siemens Wind Power:

"Active project ownership and commitment are crucial for project success, and this has been a challenge for the pilot project because the project owner had multiple roles and simply was too busy" (Lantmännen Unibake, phase 1 report June 2016).

"*Request for more project owner cooperation*" (Siemens Wind Power meeting March 2016).

"There was a desire to get the steering committee close to the project and participate in sprint finalization meetings (sprint review). One member of the steering committee attended a few meetings" (Grundfos, phase 1 report June 2016).

Therefore, it is reasonable to expect that valuing speed is relevant to actually speed up projects and its generated impact, although the nature of the benefit can vary from tangible operational costs, strategic advantages or overall marketing and even to peer pressure.

5.3. Speeding project output - Understanding the physical boundaries to higher speed

Characteristics of the project output stood out as another potential explanation of different results across the cases. As shown in Table 4, the five cases are different in terms of project time, duration, complexity (measured in terms of project size and organizational dependencies), and materiality of project output (whether the project created a physical artifact or not).

Both the Grundfos case and the Siemens Wind Power case are long-term engineering product development projects with a high degree of interdependencies (technical and organizational) and a high degree of materiality – the process was intertwined in the development of physical artefacts. The influence of materiality and complexity on speed was particularly visible at Siemens Wind Power. Such complex products and systems had a few items with long lead times with clear path dependencies. Thus, accelerating time to impact requires classic methods of accelerating the schedule, such as crashing (Larson and Gray, 2014), and they have physical limitations.

Counter illustration of the impact of product intangible output and the ability to speed up in GN Audio and Novo Nordisk where the new project methodology seems to be more adequate to IT projects executed at GN Audio and at Novo Nordisk. These projects both have a shorter duration and a lower complexity when compared to Grundfos and Siemens Wind Power.

5.4. Institutionalizing time to impact

Finally, time to impact had to be institutionalized in the organizational practices, and, in some cases, across the supply chain. We identified three levels of institutionalization of speed in our cases: speed across the project supply chain, across project governance and project methodologies used in each organization, and across the experiment itself.

Supply chain: As discussed in the last section, some of the projects have a high degree of materiality, and speeding up the project would require changes across the supply chain, not only their own organizations. For example, in Siemens Wind Power, the speeding up the delivery of a new wind turbine required quicker development of different components produced across the supply chain. Thus, accelerating time to impact is not only contained to the project or organizational boundaries of the company studied, it also requires the involvement of various partners across the supply chain. It also requires a basic understanding of what can realistically be sped up.

Organizational governance and context: Speeding up also requires the organization to accelerate the development. The governance structures put constraints on all the pilot projects and especially Grundfos, Siemens Wind Power and Novo Nordisk, which have a more mature project organization. Effective project portfolio management was the main reason why Grundfos did not reduce time to impact. The pilot project was related with other projects to realize the intended benefits, and it simply didn't make sense to accelerate the pilot project as it would not yield benefits without the completion of the other projects. The effective project portfolio practices at Grundfos recognized the issue and didn't accelerate the project. For Siemens Wind Power, an assessment showed that "rules, rigidity and standardized practices before the needs of the specific project" (Siemens Wind Power meeting March 2016) was a prevailing understanding in the project despite the pressure for changing behavior according to new project methodology thinking. When embedded in these institutional structures, it can be difficult to break out of the "iron cage" (DiMaggio and Powell, 1991). The governance structures at Novo Nordisk resemble those at Grundfos and Siemens Wind Power, but the project team managed to work with flexible gate meetings meaning that although there were specific requirements for passing a gate, the committee were flexible about the requirements and accepted passing a gate despite lacking specific documentation and activities.

Lantmännen Unibake and GN Audio are smaller and nimbler organizations. The constraints posed by governance structures were not perceived as a barrier. The GN Audio project is a sales/IT project working with digital marketplaces involving sales, marketing, supply chain and two IT departments geographically dispersed, but nonetheless the project owner and project leader found it acceptable to remove the roadblocks also from governance structures. Finally, Lantmännen Unibake might have benefitted from having a higher project maturity (and thereby governance structures), but nevertheless they succeeded in reducing time to impact.

Constraints imposed by the institutional context (governance structures) on projects are relatively recognizable while enablers from the institutional context are more invisible and embedded in the daily practices and routines carried out. Examples of enablers range from product specification methods at Grundfos to standard key performance indicators at Novo Nordisk, which makes part of the project practices, making projects more efficient while not clashing with the new project methodology.

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Fig. 1. The house of time to impact.

Finally, it is worth noting that speed was 'institutionalized' in the project management community in Denmark as part of the wider impact of the initiative. The application of the project methodology and its impact on time to impact were recorded and the results were made publically available and widely publicized within the project community in Denmark through events and reports. For example, the first report from the Danish initiative (Svejvig et al., 2016) was downloaded more than 500 times, several of the public events were fully booked and had waiting lists. Therefore, the five cases we discuss in this paper were under pressure to show results and were observed. It would be naïve to argue that the visibility of the results to the outside would not increase pressure to demonstrate an acceleration of time to impact, and motivate organizational actors to act accordingly. Therefore, we argue that the initiative demonstrated what is known as the Hawthorne Effect (Baritz, 1960, Roethlisberger et al., 1961 (1939)), that is, the experiment itself impacted the empirical data to be observed.

6. Discussion

6.1. Theorizing about time to impact

This study set out aiming to investigate the possibilities of accelerating time to impact. With this purpose in mind, we analyzed a large Danish initiative aimed to accelerate time to impact. We analyzed the implementation of a new project methodology across five pilot projects in five different companies. Most of the practices suggested in the new project methodology were implemented fully or partially and differences in terms of their level of implementation did not provide adequate explanations of the differences we observed in terms of the achieved reduction in time to impact. Thus, while project methodology practices may be a factor, they are not sufficient to accelerate time to impact. Further comparison between the cases led to five salient differences between the cases: valuing speed, project ownership, timing of project methodology introduction, the nature of the project, and finally the institutional context and governance structures.

Combining these findings and the literature on related areas, we developed a conceptual model illustrated as 'the house of time to impact', see Fig. 1. The house contains three areas of drivers or barriers to the acceleration of time to impact. We use the house as a metaphor to explain our findings and reflections. 'Valuing time to impact' and 'institutionalizing time to impact' constitute the foundation of the house, which is required to support the actual application of the practices – 'managing time to impact'. The practices and foundations of the house are able to sustain its hoof - the ability of the project to 'accelerate time to impact'.

6.1.1. Valuing time to impact

Other than simply implementing practices and managing project output: acceleration should also be valued. The core finding here is that acceleration is not an inherent value but rather contextual. A second and more subtle implication is that valuing speed can take different forms and is subjective in nature. Our empirical data point to a more strategic and multifaceted understanding of value, beyond, for example, the classic financial benefits of a quicker return on investment. It hinges not only on financial facts but on the

ability of the project manager and those in charge of the project to persuade intra-organizational stakeholders of the need for speed. Speed is becoming "a strategic imperative in many markets, especially high technology industries" (Zirger and Hartley, 1996: 143).

6.1.2. Institutionalizing time to impact

Here, we discuss clashes between (1) organizational structures and external environment (e.g., supply networks), and (2) the new project methodology and its implications to project governance structures. These clashes could limit the ability of projects to implement a different project methodology within an organization and in the external environment. This challenge should be expected and is mentioned as a barrier to adopting agile project management methodologies in industry reports (Conforto et al., 2014; VersionOne, 2016), where agile methodologies bear some resemblance with the project methodology applied in this study.

6.1.3. Managing time to impact

This is concerned with specific project practices and characteristics. Managing time to impact therefore refers to what project practitioners would consider an active part of their role as managers; the new project methodology offers practical tools to execute the work, so it speeds time to impact by using, for example, impact case and impact solution design (Olsson et al., 2018). The project management practices suggested overlap the many examples in the literature to accelerate projects such as team co-location (Chen et al., 2010), top management support (Brown and Eisenhardt, 1995), and, at a more general level, focusing on benefit delivery capabilities (Ashurst et al., 2008). This means that the specific practices applied is not unique as such, but the collection of practices and the permeated focus on impact might give a different approach on accelerating projects.

6.2. Discussion in the light of related literature

We suggest that this research provide four contributions to the literatures in acceleration of projects and benefit management. First, it contributes to our understanding of acceleration in projects. Extant literature on the topic reveal mixed findings in relation to the consequences of acceleration to projects: some empirical findings suggest a positive (Sting et al., 2015; Zidane et al., 2018) others a negative effect (Ittner and Larcker, 1997). Our research provides a more nuanced view by explicitly connecting acceleration and benefit. An interesting finding that emerges from our study is that acceleration may not lead to positive outcomes because it is not necessarily valued or required. By considering explicitly the value of speed, our study provides a contextualized view of acceleration practices. The implication to practice is that acceleration is not an intrinsic project value; instead, practitioners could benefit from considering it a conscious choice dependent on the context and purpose of each specific project.

Second, and of high relevance to our research question. the literature proposes four types of practices that enable acceleration: strategic, project, team and people and process practices (see summary in Table 1). Although the project methodology we studied was developed with practitioners with limited regard to the current state of the art of research, it encompassed these different types, but suggesting different types of practices. Of particular relevance is that this project methodology puts emphasis on people-oriented practices that have impact on process, project and strategic practices. For example, link to strategy is achieved not only through impact case and impact solution design but also through pulse check as well as a very collaborative approach to leadership. Although the causality between practices and impact cannot be established, this finding points to the possibility that the practices related with accelerating time to impact as opposed to the completion of the project might require a softer and more people-centric approach to projects (Crawford and Pollack, 2004).

Third, as we suggested in the results, the practices alone could not explain the differences in performance. Considering the nature of the intervention, companies have an interest in being seen to have achieved higher speed by the project management community. Therefore, the Hawthorne Effect (Baritz, 1960, Roethlisberger et al., 1961 (1939)) may possibly explain part of the success in the implementation of the new project methodology and its success that is, change in behavior is not due to the nature of the experiment but the mere fact that there is an experiment, and that practices in projects are being measured and receive increased attention. Thus, possibly the results we observe can be explained by the Hawthorne effect-that is to say, the fact that there was an intervention, and not the nature of the intervention per se, was the key contributing factor to the acceleration. Thus, acceleration is not a free option and should be a judgment choice about priorities of the project in its context.

Finally, the study further contributes to the literature on benefit management by confirming the critics on the logic of the iron triangle. One of the core publications pointing to the need for a more careful engagement with benefits is Atkinson (1999) who suggests adding benefits to the triple constraints. The traditional key argument of the iron triangle is that increasing one of the variables will have an impact on the other variables. In contrast, the idea behind the Danish initiative was to reduce the time used by half in projects and double its benefit, which would be the Holy Grail for any project. Our data are mostly silent about the specific costs incurred in participating in the project, and extra resources were required; moreover, the research funding paid a consultant to help organizations implement the new project methodology. It would be naïve to believe that the projects achieved double the speed in half the time with the same budget, but time reduction is often more

important than cost reduction (Chen et al., 2010), so a higher cost in an accelerated project might be acceptable, if acceleration is valued.

7. Conclusion

Accelerating time to impact is a serious and important challenge for today's organizations. This paper explores a practitioner-driven Danish initiative targeted to increase speed in which project benefits were attained; also it analyzes why some projects were more able to benefit from the initiative and achieved benefits faster than others. We identified five main reasons for the differences: valuing speed, project ownership, timing of the project methodology introduction, the nature of the project, and the institutional context and governance structures. These factors cannot be seen in isolation but, overall, they seem to explain the differences. Interestingly, although pressured by the public visibility of the results, some of the organizations were able to suspend the pressure for speed when the context changed and speed no longer made sense to them. They also 'pushed back' in the implementation of some of the initiatives and didn't accept the consultants' suggestions at face value.

The main theoretical contribution from this study is the three areas leading to or hampering acceleration of time to impact related to valuing speed, owning speed and entraining speed in the organization. The conceptual model sets the foundation for theorizing about the relationship between value and speed, which extends the current discussion about delivering value in projects (Martinsuo et al., 2017) and benefits management (Musawir et al., 2017) where timing was not a central part of the discussion.

Additionally, this study contributes to a growing need for cross-fertilization and collaboration between research disciplines (Davies et al., 2018). In this study, the accelerating project research from innovation management and new product development (Ellwood et al., 2017) is cross-fertilized with benefits management research (Serra and Kunc, 2015; Musawir et al., 2017). This was driven by studying complex and multi-faceted empirical realities and illustrates the value of cross-fertilizing across disciplines (Davies et al., 2018).

Finally, much literature about delivering value in projects and benefits management has focused on practices at project level, project governance, etc. (Serra and Kunc, 2015, Musawir et al., 2017) where the contextual information is limited to controlling variables such as region, role, and cost. This study offers a rich description of contextual factors and practices based on the five cases, which have been used for theorizing. This is an answer to Musawir et al. (2017: 1669) who asked for greater detail about project governance and benefits management and shows how rich longitudinal case studies can contribute and complement survey-driven studies.

Its practical implication is that it shows what you can obtain by introducing a new project methodology and to what extent it is successful in fulfilling goals with the project methodology (see also Joslin and Müller, 2016). Many organizations aim to improve their project management, and this study offers useful information as to which internal and external project factors should be considered when wanting to use project methodologies. Furthermore, this study gives practical insight into how organizations can make a shift toward an impact (benefits) mindset by focusing on relevant project practices and considering the wider context.

This study is subject to limitations. Firstly, one should be cautious about the relationship between applying a new project methodology and accelerating time to impact, as there might be several explanations, such as the Hawthorne Effect and additional resources from consultants. Secondly, introducing a new project methodology that accelerates projects comes at a price and is not the Holy Grail. This study focuses on benefits and leaves out the resource and cost side, which is a limitation. Finally, it could be stated that using a project methodology that accelerates impact at the project level may hamper the portfolio level, so the value from the portfolio may not be maximized (Martinsuo and Killen, 2014) as only a single project may be suboptimized at the expense of the project portfolio.

Future studies might evaluate projects using a new project methodology without the spotlight inherent in being part of a community-wide experiment (with a potential Hawthorne Effect) and without intervention from highly skilled consultants. Such a study would be able to show whether use of the project methodology can 'survive' without consultant support through knowledge and pressure on the organization to focus on impact. Secondly, the accelerating impact was on the project level and the effect at portfolio level is unknown, so a study focusing on accelerating impact at the portfolio level would be interesting, especially one which also takes resources (costs) into consideration (Laursen and Svejvig, 2016). Finally, from a theoretical perspective, the crossfertilization of accelerating projects from innovation management and benefits management from project management appears to be underdeveloped and there may be new avenues for sharing of new concepts (Davies et al., 2018), where the topic of accelerating time to impact can act as a boundary spanner.

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Appendix A. Half double methodology

Below in Fig. 2 there is a very brief description of the Half Double Methodology in order to present the main elements of the project methodology.



Fig. 2 The Half Double Methodology.

Fig. 2 expresses the focus on impact, flow, and leadership which has been pursued in all pilot projects. The Half Double Methodology is an add-on to existing project methodologies and organizational governance structures. The project methodology is further described in a book (Olsson et al., 2018).

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Appendix BDetails about data collection

Table 7 below shows the detailed information we have collected in each organization using a variety of data collection methods: interviews, focus group meetings, workshops, review meetings, project documentation, presentations, governance documentation, company and product information, and emails:

Data collection topic	Type of data	Used for mapping and comparison
Company information		
General information about the company (size, turnover, industry, products etc.) and potentially contextual information (competitive situation)	Qualitative and quantitative	
Project governance and company specific project methodologies/methods	Qualitative	
Project information (pilot project and reference projects)		
Project description	Qualitative	
Schedule, phases, major milestones, resources and cost	Quantitative	Yes
Project characteristics	Qualitative and quantitative	Yes
 Diamond model (Shenhar and Dvir, 2007) with complexity, novelty, technology and pace (possible organization tailored elements IPMA Denmark: Characterization of management complexity (Fangel, 2005, 2010; Fangel & Bach, 2002) 		
Practices used in the project	Qualitative and quantitative	Yes
Half Double Methodology practices (Olsson et al., 2018)Other practices		
Output as "the development or improvement of a product, system, service or facility, etc. (Winter et al., 2006: 644, Office of Government Commerce, 2009: 21).	Qualitative and quantitative	Yes
Impact (benefits and value): Examples are sales figures, quality measures, time to launch, and number of rework iterations	Qualitative and quantitative	Yes
Learnings from the pilot project	Qualitative	

The data collected in Table 7 is documented in internal write-up reports with both quantitative and qualitative information including different statistical analyses such as descriptive statistics and time series analyses. The public reports about the Half Double cases reveal much information about the companies and their projects although the projects are anonymized, but not the company name (Svejvig et al., 2016; Svejvig et al., 2017a; Svejvig et al., 2017b).

Appendix CCoding Summary

Name	Sources	References
Valuing speed	4	24
Nature of project	1	1
Institutional clashes	3	17
Enabling context and Implementation of the Half Double methodology	0	0
Value creation approach and thinking	5	49
Weekly meetings	3	6
Visualization	2	16
Translation and tailoring of HD methodology	1	4
Too much administration	1	1
Team spirit and cooperation	1	1
Sprint planning	3	12
Rhythm in project	4	17
Resourcing	3	11
Project organization	1	1
Project leadership	3	12
People before execution model	2	4
Kill complexity	1	3
Iterative development	1	1
Half Double to reduce overtime and stress	1	1
Half Double methodology in general	2	4
Geographical distance	1	3

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(continued)

Name	Sources	References
Front-loading	1	5
Frequent follow-up with pulse checks	3	26
Customer and stakeholder involvement	4	5
Cross-organizational alignment	1	2
Co-location	4	18
Active project ownership	3	24
Challenges and problems in projects	2	16

Appendix DWord Frequency Analysis

Word	Length	Count	Percentage (%)	Similar words
Projects	8	1587	006	Project, projected, projects
Impact	6	495	002	Impact, impact', impacted, impacts
Teams	5	325	001	Team, teams
Half	4	299	001	Half
Double	6	284	001	double, doubled, doubling
Meetings	8	242	001	Meet, meeting, meetings
Plans	5	234	001	Plan, plan', planned, planning, plans
Timing	6	232	001	Time, times, timing
Pilot	5	224	001	Pilot, pilot'
Design	6	177	001	Design, designated, designed, designing, designs
2016	4	170	001	2016
Works	5	168	001	Work, worked, working, works
Solution	8	166	001	Solution, solutions
Key	3	161	001	Key
Methodology	11	160	001	Methodological, methodologies, methodology
Weekly	6	143	001	Week, weekly, weeks
Managing	8	137	000	Manage, managed, management, manager, managers, managing
Pulse	5	134	000	Pulse, pulse'
Processes	9	134	000	Process, process', processes, processing
Owner	5	131	000	Owner, owners'

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