



Expanding the Tactical Level in ISO/IEC 33014 to Deal with a Broader Set of Change Initiatives

Peter H. Carstensen¹ and Otto Vinter^{1,2}(✉)

¹ Department of Computer Science, University of Copenhagen,
2200 Copenhagen N, Denmark

peter.h.carstensen@di.ku.dk

² Department of People and Technology,
Roskilde University, 4000 Roskilde, Denmark
otv@ruc.dk, vinter@ottovinter.dk

Abstract. The ISO/IEC 33014 is an excellent guide for planning and implementing process improvement initiatives. The standard, however, only deals with improvement initiatives that are based on assessments of an organization's processes. For the standard to be capable of dealing with a broader set of change initiatives the tactical level in the standard needs to be expanded with a new perspective. In this paper we present a proposal for such an expansion. The central part of this expansion is the introduction of a change-charter that defines the directions, policies and guidelines for these change initiatives. We propose that the charter be built on the nine change-aspects that we have previously aggregated through a comprehensive literature study of prominent change management literature.

Keywords: Tactical approach to change · Change charter · Change-charter · ISO/IEC 33014 · Change plan development · Action plans · Aspects of change · Change-aspects · Change strategies · Change initiatives

1 Introduction

Performing changes in an organization is a challenge irrespective of whether you introduce a new IT-product, perform an organizational implementation as a result of a development project, or want to change the structures, processes and routines in the organization. They are all about changing people's way of working and consequently inherently complex, difficult and often prone to failure.

The ISO/IEC 33014 standard (Guide for Process Improvement) [1] “provides guidance on using process assessment as part of a complete framework for performing process improvement as part of a continual improvement activity.”

The standard introduces a framework, a process, methods and guides that aim at strengthening an organization's ability to carry out improvements. The framework operates with three levels of process improvement: Strategic, tactical and operational. The complete framework is shown in Fig. 1.

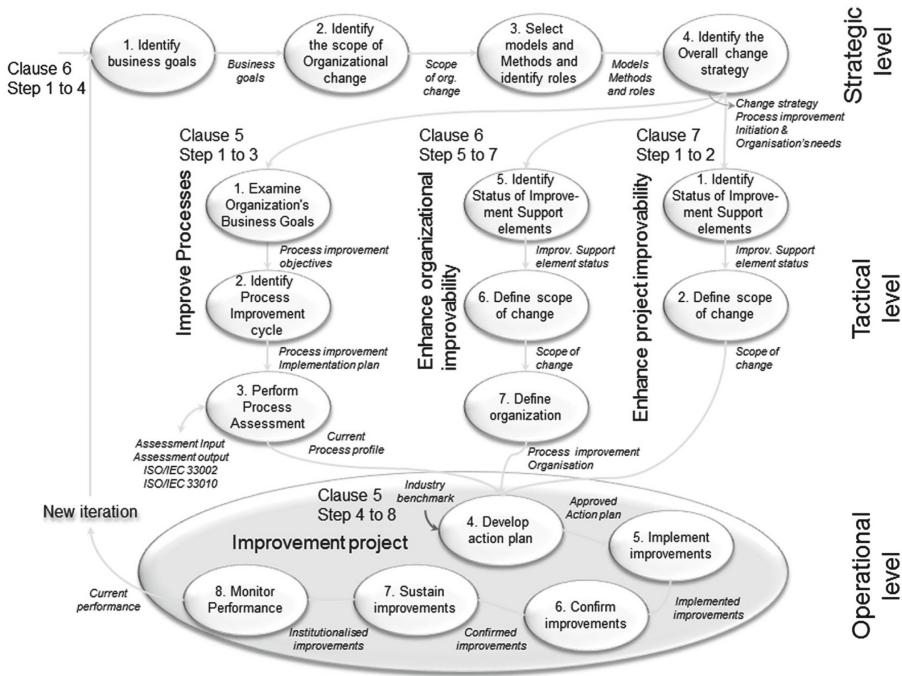


Fig. 1. Overview of the ISO/IEC 33014 guide for process improvement (Fig. 1 in [1]).

At the strategic level the standard advises an organization to define its business goals, scope of organizational change, models/methods/roles involved, and identify the change strategy applicable for specific situation/context of the organization.

At the tactical level the standard proposes three improvement perspectives: Improve processes; enhance organizational improvability; and enhance project improvability. The perspective that an organization selects depends on whether the organization wishes to initiate a process improvement programme, enhance the overall improvability of the organization, or ensure a process improvement project’s success.

At the operational level the improvement projects are planned, implemented and monitored. After this a new cycle of improvements can be performed initiated from the strategic level – constituting a continual improvement activity. The standard thus represents a significant contribution to how improvement activities should be organized, planned and implemented.

However, the focus of the standard is on improvements that have been selected exclusively based on assessments of the organization’s processes (clause 5 step 3, clause 6 step 5, and clause 7 step 1 in Fig. 1).

We find that the applicability of the standard could be significantly enhanced if expanded to deal with other types of changes in an organization than those based on assessments. We therefore propose an additional perspective to the tactical level in the ISO/IEC 33014 standard and this perspective will be elaborated on in this paper.

Most needs for changes in an organization arise from many other sources than an assessment of processes. For example the needs can arise from changes in the market, changes in laws and regulations, or new technology requiring new ways of working or new business models. These changes will often lead to a need for planning and implementing changes in the organization structures, values streams, products, services, tool implementations, internal processes or ways of working together.

For all these types of changes it could be advantageous for an organization to follow the steps at the strategic level of the standard (clause 6 step 1–4 in Fig. 1). Also the planning and implementing of a change could gain from following the steps at the operational level (clause 5 step 4–8 in Fig. 1).

However, there is little (or no) help for management or change-team at the tactical level of the standard to deal with these other types of change initiatives. This is the reason why an additional tactical perspective is needed. But which steps should this perspective consist of and how should the work at this level be structured?

We propose the perspective to consist of 3 steps and introduce the concept of a charter for change initiatives where the directions, policies and guidelines for the detailed planning and execution of the change are defined. Furthermore we propose that this charter is structured around the nine change-aspects that we have previously aggregated through a comprehensive literature study of prominent change management literature. The nine change-aspects are listed in Table 1.

The rest of the paper is organized as follows: Sect. 3 is central as it presents the proposed expansion of the tactical level in the ISO/IEC 33014 standard. But first in Sect. 2 we describe the research approach we have applied. In Sect. 4 we provide an overview of related research and practice, which can be seen as alternatives to our approach. Finally we conclude and propose future work.

2 Research Approach

Our original research idea was to deliver to management and change-teams a set of recommendations for action that they could build their change plans on. The recommendations should be based on what a series of prominent authors of literature on (change) management have found essential. The main approach to this part of our work could be understood as analytic induction.

We began by extracting recommended actions from the literature behind two of the ten ISO/IEC 33014 strategies [1] (Optionality and Specialist-driven). We read the texts end-to-end and extracted statements by the author(s) that seemed characteristic for the strategy. The extracted recommendations were kept as close to the original statements in the texts as possible. We looked into the resulting recommended actions and from this we initially identified eight central aspects that evidently need careful considerations when planning and executing changes. We coined these central aspects of change: change-aspects. We then hypothesized that the eight change-aspects would be applicable also to the recommendations for the remaining eight change strategies. We discussed each change-aspect and defined them properly. We quickly realized that the change-aspects were not completely orthogonal, which was never our intension. To validate the hypothesis we repeated the same process for first two more of the ten

strategies (Production-organized and Socializing) and then the remaining six strategies. The extracted recommendations from the literature were now analyzed whether they could be allocated to the identified change-aspects. We found this rather easy, which seemed to confirm the validity and applicability of the change-aspects.

In total the extraction of recommended actions from the literature has until now resulted in a gross list of more than 700 recommendations. Of these we have selected those recommendations that were most clearly indicative of each the ten strategies. This selection resulted in a total of 257 recommendations covering all of the change-aspects with 37 to 72 recommendations for each of the ten overall change strategies. In addition to this we also found 79 recommendations that could be applied to many strategies. The literature review is still ongoing (although rather few new titles are added), so the numbers might increase slightly over the next year.

The eight change-aspects were documented in [2] and published more widely in [3]. For a detailed description of the change-aspects please consult our paper [4].

Following this we evaluated the change-aspects and their relevance, usefulness and applicability through a number of sources. We discussed it with our research partners involved in the research project in which the ten strategies were originally identified. We had a number of masters students specializing in change management apply the change-aspects on their projects on different “real-life” change situations in their organizations. Finally we presented our change-aspects for change management practitioners at company seminars, experience exchange meetings etc. These evaluations have resulted in small changes in the understanding and definitions of some of the change-aspects.

Lately we have decided to split one of the original change-aspects (Methods & Techniques) into two because it was too broadly defined. The two change-aspects that replace it are: Attitude & Behavior and Maintaining Focus. The splitting was based on a renewed review of the existing recommendations looking for patterns. The resulting nine change-aspects are listed in Table 1 along with a short definition.

Following the work of identifying and defining the change-aspects, we have worked on how the change-aspects are best integrated into “real life” change processes in practice. This has been done by studying suggestions and models in existing approaches (e.g. the ISO 33014) and discussions with practitioners on how the change-aspects could be integrated into their approaches and ways of working with changes on a daily basis.

Through these discussions and trial applications we have come to realize that the change-aspects not only could be used to assist in the detailed planning, but could also be used proactively by management and change-teams to structure the work on setting the direction of a change i.e. be instrumental to the tactical level.

Looking at the collected recommendations from literature it became clear to us that many of them actually were more relevant at this level. This has led us to propose the use of the change-aspects to structure the work of setting directions, policies and guidelines for a change. Ultimately this has led to our proposal for expanding the tactical level of the ISO/IEC 33014 standard.

Table 1. The nine change-aspects aggregated from the change management literature.

Change-aspect	Short definition
Attitude and behavior	The attitude and behavior that should be exercised or demonstrated by the change manager/team during the execution of the change
Communication	Types of information that should be communicated, to/by whom, when/through which channels
Competences and training	The competences management and change-team should have before the work on the change is initiated, or which should be built up on the way
Culture	The culture that should be established/changed/supported in the organization to secure the success of the desired change
Decision-making	Decisions and commitments it is important to make and achieve before and during the work on the change, who should make them, when, and within what scope they can be made
Knowledge acquisition	The knowledge that should be obtained/gained/collected before and during the work on the change
Maintaining focus	How to maintain the direction and progress of the change focusing on objectives, outcomes and other results
Organizing	How the change-team as well as all involved or affected by it should be organized/structured, and their roles in the change defined
Processes and plans	Concrete processes and plans that management and change-team establish for the execution of the whole and/or specific parts of the work

3 The Proposed Expansion to the Tactical Level in ISO/IEC 33014

As mentioned above the focus of the ISO/IEC 33014 [1] standard is on process improvements that have been selected exclusively based on assessments of the organization's processes.

Employing assessments of processes is a good way of selecting and prioritizing the improvement work in an organization. However, most change initiatives arise from other sources. We therefore propose to expand the tactical level in the standard with a perspective for improving change initiatives from other sources than those based on assessments (i.e. a new clause 8 in the standard).

As these change initiatives have not been defined and prioritized by an assessment we propose that management and change-team instead develop a charter for the change. This change-charter should set the direction and establish a set of policies and guidelines of the change to be planned and implemented.

To assist in developing this change-charter we propose to structure it using the nine change-aspects that we have aggregated from the study of change management literature (see Sect. 2). They represent a categorization of the most widely recognized recommendations for action by major authors writing about how to organize and execute changes in a wide range of organizational contexts and change situations.

The proposed expansion to the tactical level in the ISO/IEC 33014 standard consists of the following steps:

- Step 1 – Identify status of change initiative
- Step 2 – Set directions for the change
- Step 3 – Define scope of change – and what to change

In Fig. 2 we have inserted the steps in the structure of the standard. The steps are described in the following subsections.

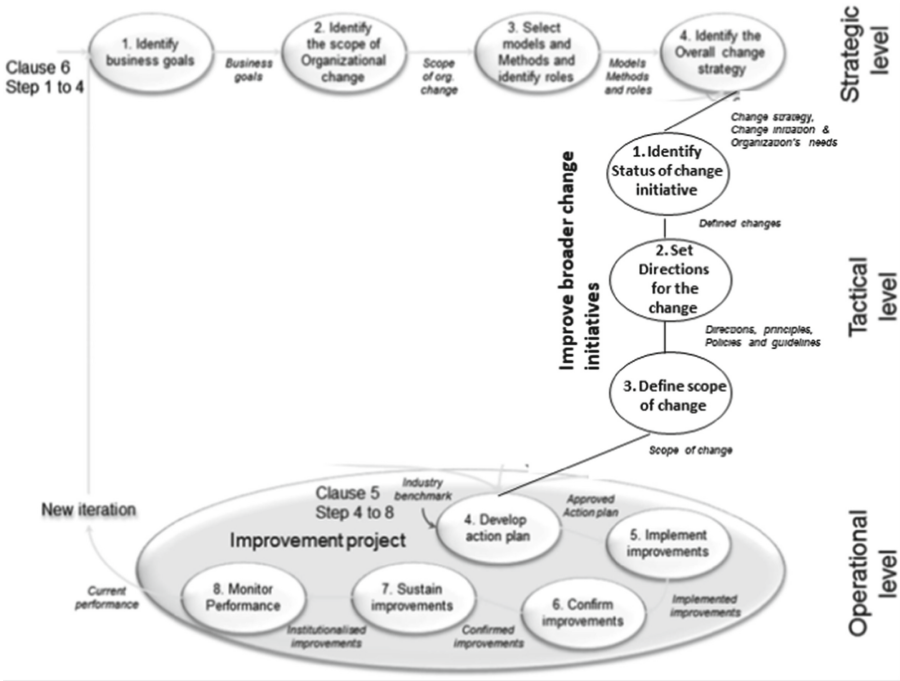


Fig. 2. The main steps in the expansion to the target level in ISO/IEC 33014 for dealing with the improvement of a broader set of change initiatives.

3.1 Step 1 – Identify Status of Change Initiative

Defining the changes needed i.e. the vision for the future is the responsibility of (top level) management. The change initiative should be aligned with the business goals and within the scope of the organizational change (clause 6 step 1 and 2 in Fig. 2). Models, methods, roles and the overall change strategy must have been identified (clause 6 step 3 and 4 in Fig. 2).

The step must be performed by management before embarking on the route to planning and implementing the change initiative. It is important that the desired end-state (after the changes have been implemented) is defined clearly, i.e. which specific goals to achieve.

3.2 Step 2 – Set Directions for the Change

After the status of the change initiative has been identified, management must elaborate on the vision, intent and idea of the change initiative making it clear how the changes to be initiated best meet the business needs of the organization, how the overall change strategies should be applied, and how the execution of the changes should be approached in the organization.

In order to assist management in setting the directions for the detailed planning and implementation of the change we propose that a charter for the change be developed. The structure of this change-charter should be based on the nine change-aspects that we identified and validated as described above in Sect. 2.

For each of the change-aspects listed in Table 1 management must discuss how they and the change-team will ensure that this change-aspect is properly addressed in the subsequent steps at the operational level. Through this discussion they should set the direction; establish policies and guidelines for the detailed planning and implementation of the change; i.e. develop the contents of the change-charter.

In Table 2 is shown how a partly completed hypothetical change-charter might look giving examples of directions for each aspect. The examples presented in Table 2 are taken from the recommendations we found in the change management literature and should therefore be replaced in practice by detailed and contextualized directions for the particular organization and change initiative.

Table 2. Partly completed hypothetical change-charter with examples from literature for each of the nine change-aspects.

Change-aspect	Examples of directions, policies and guidelines
Attitude and behavior	<ul style="list-style-type: none"> – We will act with benevolence to both victims and survivors e.g. through voluntary separation and generous compensation ([5] p. 614) – We will co-ordinate, advise and manage instead of keeping control centrally ([6] p. 39) – We will create situations in which curiosity and need are driving forces for improvement ([7] p. 91) – We will treat ...
Communication	<ul style="list-style-type: none"> – We will develop and publish clear documented corporate beliefs and purpose - a mission statement ([8] p. 36) – We will establish and maintain a shared vision ([7] p. 96) – We will meet the employees face-to-face and communicate our vision ([5] p. 612) – We will inform ...
Competences and training	<ul style="list-style-type: none"> – We will develop leadership skills among middle managers to install new values in them ([5] p. 620) – We will develop “cookbooks”, manuals and train employees in the standardized routines ([9] p. 40) – We will train change agents to become competent in interpersonal inquiry ([5] p. 608) – We will ensure ...

(continued)

Table 2. (continued)

Change-aspect	Examples of directions, policies and guidelines
Culture	<ul style="list-style-type: none"> – We will encourage individuals to establish improvement goals for themselves and their groups ([8] p. 19) – We will establish a sense of urgency to gain the needed cooperation for the change ([10] p. 37) – We will take steps to reduce the incidence of political behavior and potential conflicts ([11] p. 79) – We will engage in ...
Decision-making	<ul style="list-style-type: none"> – We will base our management decisions on a long term philosophy, even at the expense of short term financial goals ([12] p. 5) – We will drive responsibility downwards to set-off self-organization and innovation ([11] p. 282) – We will give the employees access to relevant information to encourage their participation in decision making ([13] p. 171) – We will delegate ...
Knowledge acquisition	<ul style="list-style-type: none"> – We will ensure that the impact of existing initiatives are evaluated and considered carefully before starting another series of improvement initiatives ([8] p. 159) – We will identify the process owners who are responsible for the business process ([14] p. 119) – We will identify change enablers (e.g. technological opportunities, constraining technological factors or constraining human factors) ([8] p. 48) – We will assess ...
Maintaining focus	<ul style="list-style-type: none"> – We will set standards or targets for performance, or expected outcomes; and take corrective action to remove any deviations from these ([11] p. 78) – We will ensure that people assigned to the change activities are not pulled away from these responsibilities ([15] p. 77) – We will apply risk management in order to identify, carefully evaluate and effectively mitigate risks involved in the change ([16] p. 13) – We will check ...
Organizing	<ul style="list-style-type: none"> – We will ensure that leadership of the change belongs to one small group of people typically located at the top of the hierarchy ([5] p. 605) – We will create loosely coupled organizations, where the experimenting units are highly buffered (separated) from the exploiting units ([17] p. 247) – We will ensure that senior management are on the board and play an active role in the change teams ([15] p. 74) – We will structure ...
Processes and plans	<ul style="list-style-type: none"> – We will ensure control at all stages of planning and operationalization of the strategy ([18] p. 55) – We will find the optimal rate of change rather than the fastest ([19] p. 62) – We will overhaul processes which create a vicious cycle of overload, stress, burnout and low morale ([5] p. 612) – We will execute ...

3.3 Step 3 – Define Scope of Change – and What to Change

After the identification of the status of the change initiative has been performed and the directions set, scoping has to take place together with (top level) management. Detailed scope, budget, time and resource issues must be decided on by management.

It is furthermore important to identify the people to be involved in the change (change manager/team) or affected by the change (target audience), and which role they will play in the execution of the change initiative.

After this step has been completed detailed planning and implementation of the changes can take place at the operational level.

4 What Have Others Done

Change processes and change management have been researched in many settings, and there exists huge amounts of literature on strategies for change and recommendations on how to organize and conduct strategic changes. Among the most widely known and acknowledged are: Kotter focusing on an eight point plan for a change [10]; Hammer and Champy arguing for reengineering the whole corporation [20]; Mintzberg's overall conceptual frameworks for understanding and changing different organization structures [9]; and Mintzberg and co-authors furthermore suggested a set of "strategy schools" approaching the strategy formation process as: a conception, a negotiation, a transformation, or as being a formal, analytical, visionary, mental, emergent, collective or reactive process [18]. Other central contributions to the change literature are Senge's approach to change organizations through socializing and learning [19]; and Huy focusing on structuring and sequencing of strategies over time [5]. As mentioned previously these widely acknowledged scholars have – together with a number of other authors – been the key starting point for our research.

However, most of these influential works can be regarded as representing, one specific approach: Either the focus remains on the strategic level of the process, or the authors provide a series of detailed recommendations for how to structure and undertake the change processes at the operational level. The tactical level is more or less absent in most of the change literature.

Few authors provide recommendations and suggestions for how to establish a set of directions, policies and guidelines. A number of layered or step-based models for change activities exist, e.g. Kotter's famous eight steps [10] and Lewin's unfreeze-change-freeze model [21]. They are relevant and useful as overall models for change at a strategical level.

One of the few attempts in the literature to address the tactical level of change work are Balogun and her co-authors [22, 23] that provide a diagnostic three layer framework called the "change kaleidoscope" for identifying appropriate "design choices". Besides an organizational strategic change context referring to the broader strategic analysis they suggest eight essential features of the change context and six dimensions of choices for the change agent. Hereby they provide a framework for understanding and reflecting upon the change process and the change agent role. In terms of a strategic, a tactical and an operational level of the change initiatives, Balogun and

co-authors have explicitly focused on the strategical level in their “organizational strategic change context”. The eight essential features and the six dimensions of choices focus on themes for the change context and for the role of the change agent, and both of these address the operational level rather than the tactical level of the change activities.

Also the guidelines in the original SPICE standard (ISO/IEC 15504-4) [24] do not mention a strategic or tactical level. It is mainly concerned with guidelines for the operational level. The strategic and tactical levels have later been introduced in the updated SPICE standard found in the ISO/IEC 33000 family of standards, i.e. in ISO/IEC 33014 [1].

The ISO/IEC 33014 standard in focus here contributes by defining fairly specific steps at the tactical level. But the three perspectives (see Fig. 1) all take their point of departure in process improvement based on assessments, and hence the steps focus on how to measure and assess the ability to improve.

Next to the academic literature lots of individual consultants, bloggers, and consultancy companies have provided their suggestions and recommendations. An example is strategy + business that provides ten principles for leading change management [25] focusing on culture, how to involve all layers in the organization, how to engage and lead etc. All ten principles are relevant and useful for many change settings, but they do mainly address our change-aspects of Attitude & Behavior; Culture; and Organizing. Throughout the literature are also mentioned aspects like: motivating people and sharing the vision. But there is still a need for also focusing on the other change-aspects that we have identified.

Many of the large consultancy companies have developed their own “standard processes” for how to prepare, plan and conduct changes in their customer organizations. A company like McKinsey presents their approach as a four step process of *Aspire, Asses, Architect and Act* [26]. Accenture describes their service on change management as to help their customers based upon “proven tools and methods” [27]. For most of these company-specific approaches the details and specific suggestions for standards and processes are kept as business secrets. Hence there is very little help and support for how set up directions and policies for the operational change work, i.e. how to support the tactical level of the change process.

In our studies of the change literature and from studying changes, change work and change processes in the “real world” clearly shows that a large number of changes have their origin from other sources, e.g. from changes in the market, changes in laws and regulations, or new technology or business models requiring new ways of working. Our proposed perspective at the tactical level of the standard should be seen as an expansion of the application for the ISO/IEC 33014 standard to deal with this broader set of changes.

We conclude from this overview of what others have done that it is our overall impression that most of the change literature presents strategies and approaches primarily at a strategic or operational level of recommendations. It focuses primarily on the overall approach to be employed in the planning and execution of the change.

Our approach has been to aim at suggesting how the nine change-aspects can be applied when setting out the directions for the change initiative, i.e. at the tactical level formulate policies and guidelines for the planning and implementation at the operational level.

The nine change-aspects we have established can be seen as overall headings for areas that must be taken into consideration when planning and conducting the actual change work (at the operational level), i.e. support the tactical level of change work.

5 Conclusion and Further Work

This paper has presented a proposal for expanding the tactical level in the ISO/IEC 33014 standard [1] to deal with a broader set of change initiatives. Focus has been on defining steps that can cover and support changes that do not have their main focus – or point of departure – from a process improvement perspective. We have briefly argued that this is the case for most change initiatives stemming e.g. from changes in the market, changes in laws and regulations and new technology.

Central to our suggested expansion to the tactical level is the concept of a change-charter for change initiatives, and the application of the nine change-aspects as a conceptual framework for structuring this change-charter and supporting the dialogue with top management when changes are initiated and directions, policies and guidelines for the operational level are established.

The nine change-aspects have been evaluated via interactions with a number of change managers and consultancy companies working with practical change planning and management in real work settings.

However, we still need further research on whether the change-aspects can be used by managers and change-teams in practice, and whether there are types of changes where they cannot be applied. This could lead to more detailed steps in the process.

Therefore much further testing and evaluation in real-life settings and in different types of change situations must be performed. It is our plan to do this through a number of close collaborations with different types of companies and organizations.

Part of our future research and evaluation work will also be to find out how the recommendations we have identified in literature can be provided to management and change-teams in a proper and useful way, and how the recommendations are best integrated with the steps at the tactical level of change initiatives.

To summarize, we are confident that our expansion to the tactical level dealing with other types of changes than those based on assessments is needed. We are also confident that the change-aspects we have found in literature are useful and applicable for assisting in developing change-charters for change initiatives in practice.

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The two authors of this paper are listed in alphabetical order only. The paper is a joint effort.

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