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Managing Process Change and Standardisation in ERP Projects:
An Assessment of the SAP Template Approach

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Abstract — **The use of templates for process alignment in ERP projects is an established practice and many companies have used this approach when implementing the SAP ERP software system. This research paper deals with the question of how companies use a template in a business process management environment and, more specifically, what happens when there are requests for changes to the template. Based on a literature review and personal interviews, this article assesses the commitments that manufacturing companies make regarding template implementation within SAP business process management. It suggests that "Defend the template!" may be an appropriate overarching goal.**

Keywords — SAP; ERP; Enterprise Resource Planning; BPM; Business Process Management; Template; Process change; Process standardisation; People capabilities.

I. INTRODUCTION

This article builds upon previously published research [1][2] which describe that Enterprise Resource Planning (ERP) software packages have been widely deployed since their emergence in the late 1980s, and on the role of Business Process Management (BPM) maturity models and ERP systems highlighted the significance and value of templates in aligning or remodelling business processes in such projects. Foth [3] defines a template as a unified set-up containing the necessary documentation and programmes for the construction of a new system. In addition to facilitating improved business processes, the use of a template offers numerous other potential advantages, including a reduction in implementation costs and required manpower, and an increased level of data consistency. This article examines how templates can be used to manage and improve business processes, and also assesses the importance of people skills and competencies in ERP systems projects. Following this introductory section, Section II discusses the relevant literature and develops the research questions for this paper. Section III then describes the research methodology and Section IV provides a summary of the research findings. Section V addresses the research questions and, finally, Section VI presents the conclusion and suggestions for possible future research.

II. LITERATURE REVIEW

An ERP system is generally seen as a software package which automates and integrates business processes, shares common data, and produces and accesses information in a real-time environment. ERP software can also be implemented in stages and therefore, be used to connect previously isolated IT systems and functional departments within a company. ERP is also viewed by some researchers [4][5][6] as a fundamental method for achieving best practice within business operations – the implementation of the ERP package requiring the application of certain disciplines within main business processes. According to Turban et al. [7], ERP not only provides business discipline, but it also allows the alignment of IT deployment with overall business strategy and business goals. Implementing ERP may thus also require a change in core processes, often termed business process reengineering or "BPR" [8]. The globalisation of business activities has reinforced the need to structure and standardise business processes across the enterprise and to adhere to corporate rules and procedures.

In general, "the main goal of process standardisation is the development of one standard or best-practice process to be used as a template for all instances of the process" [9]. Gavidia [10] asserts that it is common practice to develop a template as the base configuration for all areas and locations of a company to increase compliance and data consistency. This new template will then have a consistent set of reports and will be adapted to the existing business processes within the company.

There are a number of third party products that focus on process design and management. Metastorm, for example, uses a "BPM Designer" by which "you design the actual process, define business rules, set roles and associate forms. The main components of the process are where you start from, the steps or 'stages' that will be traversed, and the endpoints" [11]. ERP products like SAP usually offer "best-practice" templates for BPM in different industries and business processes. However, for various reasons, the suggested best practice is often found not to work well, and thus many companies define their own BPM templates to meet their specific needs [12]. In addition, it may be necessary to distinguish between a global template and local requirements and to define mechanisms that address such differences [13].

Some companies do not adopt a template approach at all, preferring instead to map, document, analyse and improve their processes using in-house methods, even when implementing ERP systems. This is particularly the case in small and medium-sized enterprises (SME), where processes may have developed and been customised over many years to meet specific ways of working or customer requirements and
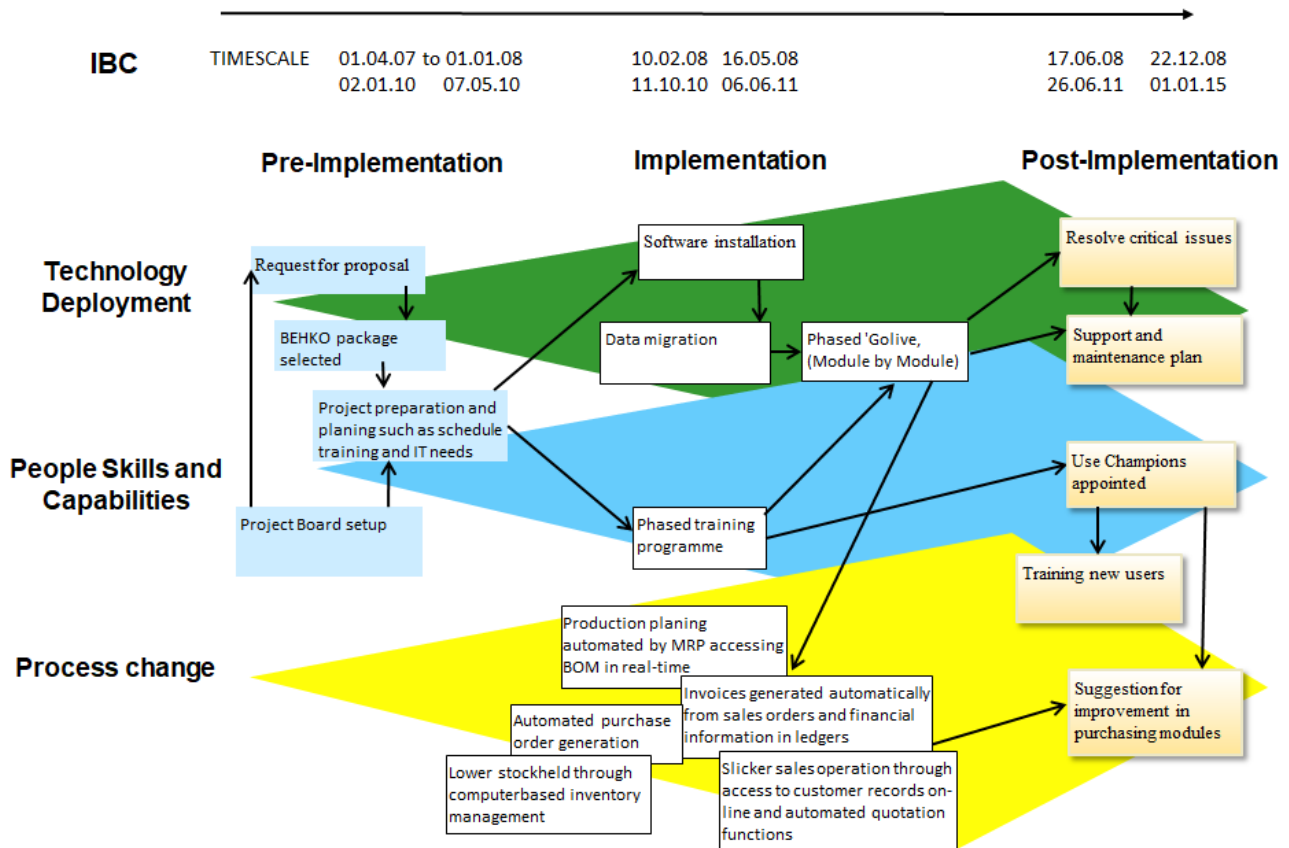
Figure 1. Implementation of the BEHKO ERP systems at the Isfahan Bus Company [15].

the template approach is thus difficult to implement [14]. This point is illustrated by a recent study by Rezaeian and Wynn [15] of ERP systems implementations in three Iranian manufacturing SMEs. The mapping of company processes provided the basis for selecting the best-fit ERP product available, but the modification of existing processes to fit the software was limited. Nevertheless, as the packages were implemented (sometimes module by module), small scale ad hoc process change allied to limited customisation of the software provided reasonably successful outcomes, notably at the Isfahan Bus Company (Figure 1). As Pajk and Kovačič [16] note, "these days ERP systems need to offer a lot of functionality in order to cope with a large number of business requirements. This functionality needs to be aligned with the business in order to create value for the organisation, confronting the organisation with the options of either configuring the enterprise system, the organisation, or a combination of both".

From an Information Technology (IT) perspective, it makes sense to standardise business processes and associated procedures and transactions. Costs are reduced if the organisation can adopt the business models inherent in an ERP system, rather than vice versa [17]. However, this approach is criticised in the literature. For example, Gavidia [10] reports that blanket implementation of a uniform template reflects a

failure of management and risks damaging existing customer relationships. A process template can only be effective if it takes into account the operational and information requirements of all areas of a company.

Heeks [18] identifies the key aspects of change that provide a frame of reference for effecting the organisational transition associated with and required by, the implementation of an ERP system, and this adds an interesting perspective regarding the value of process templates. Heeks suggests that there are four aspects of an organisation that must change as it adopts major new information systems like an ERP product.
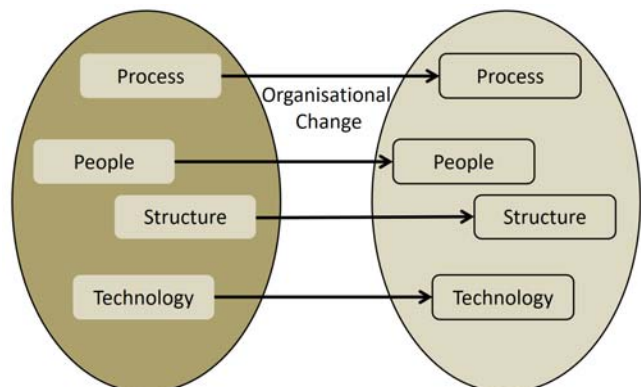

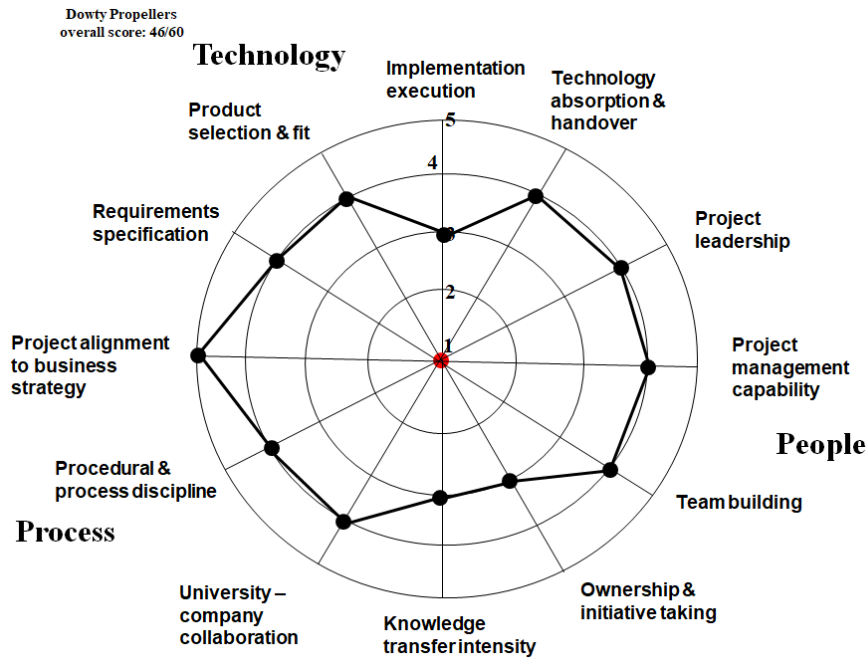Figure 2. Design - Actuality Gap Model [18].

Figure 3. Change factors in the Dowty Propellers ERP implementation [20].

He sees these as constituting a "Design-Actuality" gap – i.e., a gap between where an organisation may currently be, and where it needs to be to successfully adopt major new systems. One of these four elements does indeed focus on Process, but the other three are of equal importance - People, Structure, and Technology (Figure 2). In similar vein, recently published research on technology transfer by Wynn [19][20] included a number of ERP projects in which a range of change factors were identified for successful implementation. These were grouped into three main dimensions of change, encompassing technology, process and people factors (Figure 3).

Figure 4. Earl's model of Information Systems strategy formulation [21].

Michael Earl's classic model of IS strategy formulation and implementation (Figure 4) is also of relevance to the debate regarding process templates. Earl's "three-pronged" model remains one of the standards in the analysis of information systems delivery. Although many see his three possible strategies as alternatives, Earl, in fact, argued that all three can be used in combination and that different strategies suit different business contexts. This depends on a number of factors including the nature of the basic IT infrastructure, the structure of the organisation and the level of development of the organisation's main business systems.

The "top-down" approach is driven by a formal attempt to match IS investment with business needs. It identifies the business plans and goals and then applies an analytical approach to identify information systems requirements. Critical Success Factors (CSFs) can be used to establish information and systems needs. It ensures business managers are involved in IS strategy formulation, which is thus seen as "top-down". The "bottom-up" approach is an evaluation of the capabilities of information systems currently in place. Earl notes that "IS strategies are rarely developed from a green field site, but have to recognise the strengths and weaknesses of the current applications portfolio" [21]. This may establish that some of the existing systems could be better exploited for strategic advantage or be improved upon to produce "significant added value". The "inside-out" approach attempts to "identify opportunities afforded by IT/IS which may yield competitive advantage or may create strategic options" [21]. An IS strategy based on deployment of an ERP package is likely to "top-down" at the outset, based on a strategic vision for the company and a preparedness to change business
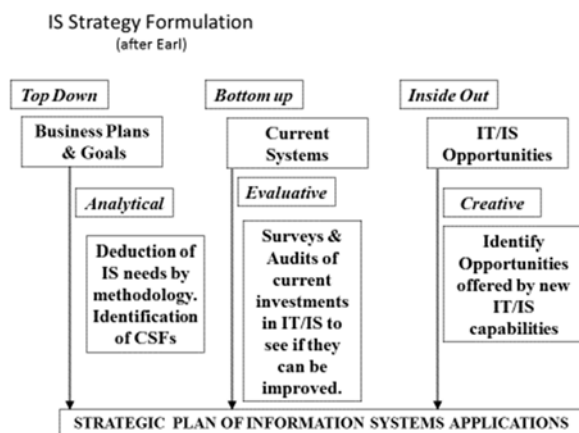
processes in pursuit of a more efficient company utilising a state of the art software system. However, as such projects progress, this may be complemented by a "bottom-up" approach, which may lead to the retention of some pre-existing software and challenge adherence to the ERP vendor's process templates.

With these considerations in mind, this article addresses two research questions (RQs):

RQ1: To what extent should the process template be adhered to in ERP implementations (with a focus on SAP templates)?

RQ2: What measures need to be taken to ensure People Process and Technology elements are kept in balance when using a strict template approach to process and systems management?

III. RESEARCH METHODOLOGY

The research on which this article is based takes a post-positivist position and is based on the perspectives of Ryan [22] and Guba [23]. The goal of research from the post-positivist perspective is to generate new knowledge that other people can learn from, and on which they can base their own decisions [24]. Semi-structured and in-depth interviews were used to gather practical experience of companies that use SAP templates and BPM. These interviews were followed by an analysis of the interview material and here an abductive approach [25] was adopted. This is an explanatory study, as defined by Collis and Hussey [26], which uses interviews with experts who have already gained practical experience in the areas of BPM in ERP projects and the use of SAP templates. It is quite possible that the involvement of other experts would lead to slightly different results, but this is in accordance with the post-positivist research position, which accepts that the world is more complex than that which the opinions of some experts may suggest.

To address the research questions, this research combined two research methods with the aim of achieving a greater depth of understanding of the complex environment being studied [27]. Following a literature search and review, semi-structured interviews were conducted with experts in their field. Figure 5 depicts the overall research strategy. The time horizon for this research is a cross-sectional snapshot study [28]. The research analyses the current practical situation and evaluates the state of affairs at the time of the study [29].

In the context of the semi-structured interviews, an expert had to have experience in the areas of SAP and BPM. Practical experience of ten years or more in the mentioned areas was expected. Due to the small number of interviews, this research did not differentiate between which modules of SAP these experts used or were familiar with, or within which industrial sector they had worked, or currently did work. Respondents were selected with the aim of gaining as much expert knowledge as possible from practice. Using semi-structured interviews provided flexibility to scrutinise the understanding and explanation of the experts' opinions [30].

The qualitative data analysis and the comparison of the transcribed interviews were supported by using the software tool MAXQDA.
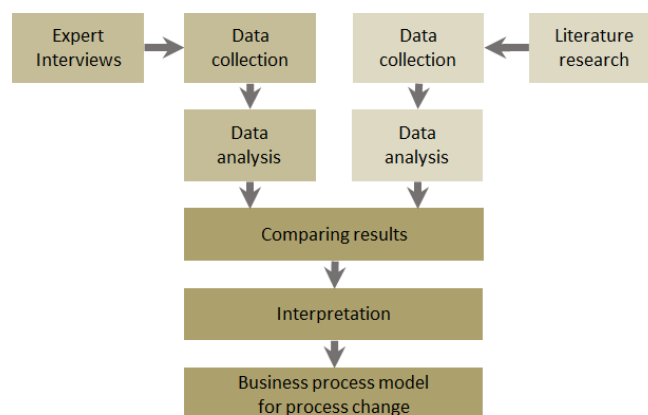

Figure 5. Research Strategy for the Template Study.

The coding functionality of the MAXQDA tool was used to analyse the experts' answers. The software was used to manually encode the qualitative data within the interviews and to obtain an overview of all the experts' answers based on the encodings. Due to the small number of interviews, the aim is not to reach an overall and general conclusion for all industries, organisations or SAP modules. However, the findings may well provide a platform and theoretical grounding for further research in this field of study.

Sixty-four people were identified as potential experts in the business process and SAP environment, drawn from the authors' personal and business contacts in Germany, Austria, and Switzerland. These people were then invited for an interview. Many of those asked for an interview declined, citing their reluctance to pass on internal and confidential company data. Therefore, from this initial pool, eleven people confirmed that they were willing to be interviewed. The findings from these face-to-face interviews are discussed below. All statements and insights described here are the personal opinions of the experts. The total duration of the interviews was in excess of 14 hours in total and only excerpts are presented here.

IV. FINDINGS

This section reviews the experts' perspectives on the SAP templates and business processes. It discusses the nature of templates, the implications of "localization" of processes, the trade offs between flexibility and standardization, the role of human factors, and the need for cross-company buy-in to process change.

Interview feedback suggested that the SAP ERP system offers a variety of "out-of-the-box" business processes for the general SAP system, as well as those for special business sectors, such as for the real estate or the pharmaceutical industries. With the basic process templates, a company can cover almost all of its standard processes, which can provide a solid basis for assessing the (possibly more idiosyncratic) daily business activities. This can help a company to standardise its processes and rapidly implement changes accordingly. For example, sales processes are similar in different companies and across different industries. It is helpful to use a standard SAP template for the best-practice approach as a starting point that provides a step-by-step

illustration of the best-practice process sequence. In summary, these SAP templates can show and illustrate process details for general valid standard processes.

In such a standard SAP process template is embodied considerable industry expertise that has been accumulated from various industries and many projects. However, this does not mean that this template is optimal for any particular company, nor that the company's own process steps, which were developed and implemented in-house – and may deviate from the corresponding SAP process specifications - are not appropriate for that company. The experts pointed out that an approach that slavishly follows the given SAP processes is usually only used if a company has no existing processes or IT infrastructure. The interviewees pointed out that a single process initially has nothing to do with IT, but IT does support the later execution of the processes. As noted above, SAP offers the "out of the box" or "best-practice" processes which illustrate how IT supports business process behaviour.

Normally, a company has already established its own process flows, based on its perceived business needs and past experience. In these circumstances, such a company would not fully use the SAP "best-practice" standard template, but rather develop its own process template based on the SAP standard. This template must then have a certain degree of flexibility. A tax-paying process in Germany is different from one in, for example, Brazil or India. The basic process templates must be flexible enough to be used globally in different business and cultural environments, where there will be a certain amount of local variation in rules, regulations and working practices. Local adaptation must only be set up where a process, or a process step, is genuinely local and cannot be supported by a global SAP template. However, this means that the development of a company's own solution is divergent from the global template, creating a "shadow" process, which is only used for local requirements. The disadvantage of this route is that process change then becomes more difficult because the adaptation is known only locally, on the level of one company or business unit.

In light of the above, the experts emphasised that process templates should be as flexible as possible from the beginning of the set-up. They should be scalable and applicable to specific local needs. In the interviews, the experts identified this as the biggest challenge for a process template. A key point for consideration is whether new requirements that emerge can still be incorporated into the applied process template, and how quickly subsequent changes can be implemented company-wide. A process template must allow for a certain amount of agility to obviate the need for shadow process development.

In addition to the previous statements, the interviewees also reported that a process change is often triggered by humans and their adaptation needs. The problems linked to the introduction of such a process change and the subsequent use of process templates are often related to human behaviours. The human being is, therefore, a big driver but also a big preventer. Nearly every employee must be confident that such a template implementation really supports the company's needs and requirements. Some employees will always come up with reasons why their company is absolutely special and

cannot use the standard template, and thus needs to keep with their own processes and IT programming. It is thus possible that another significant problem within implementing a process template is the human factor and the fact that some template descriptions and statements could be misinterpreted. As discussed by Hall [31], people can play an active role in the decoding and interpretation of a template. Each employee applies a template in the manner in which this use makes sense to him or her personally, even if this differs somewhat from the original intention of the template designer.

One of the experts emphasised the importance of the human factor in template implementation. This encompasses not only the prior knowledge of each employee but also the interpersonal behaviour between departments or among team members. It may thus be appropriate for the human resources department to be involved in process change and template introductions to oversee human relationship issues and potential conflicts. Not only must the technical aspects of template introduction be addressed, but personal relationships may also need to be clarified.

Regarding the use of standard processes, one expert raised the issue that business consultancies, when advising client companies, frequently use standard SAP templates without adequate assessment of the individual processes within the client company. This means that standard templates are established without optimising them to "best-fit" existing processes and special behaviours of each company. On the other hand, there are clear benefits in process standardisation through the introduction of a process template. This means, for example, that in a multi-site manufacturing company, each site would not be allowed to conduct its business according to a business process it wants and likes, but that a company-wide standard is set up and must be followed. The more complex and individualised the established processes are, the harder it is to run the business on one new company-wide process template. Uniform processes can create synergies and clarity, and a process template should help to minimise fragmentation and process variations in the company. The experts also maintained that there is a need for every company to analyse their processes individually, in order to uncover improvement potential. However, an organisation must also realise that non-individualised solutions can also be effective. Some of the experts suggested that nearly 80% of processes are very similar in industrial companies, and only a very few processes need an individual solution.

One expert gave the view that localisation of processes is a challenge because it can only be developed in collaboration with the local business departments. He highlighted the fact that the business must then maintain and update such localised processes, their templates and documentation because only the local team know how they really work. That said, another expert opined that the overall aim is to provide a standardised process template that is not subject to localisation and could be protected against further variation and customisation.

In this context, one interviewee mentioned the saying "Defend the Template", which is apparently current in some consultancy circles. The implication here is that a business should think very carefully about the repercussions of changing processes away from the template guidelines.

Another expert also declared that a template should be a "leader" for all processes, with functional processes introduced via a company-wide, valid template. The question is then no longer how the individual divisions or business units within an organisation carry out a task; instead, one "valid" process is established throughout the whole company. A process in the enterprise can then only be arranged based on these template specifications; nevertheless, there exist different variations, which are offered by a catalogue structure within the template. The potential benefit of minimising process diversity is that this may result in a significant reduction of costs and overheads. The goal of a process template must be to offer stable and mature process solutions for a company. A general default template must be defended against any further fragmentation or diversification within an organisation. The experts observed that it requires a lot of time and money to realise individual solutions, and define and develop unique processes involving specific coding.

These processes are then rolled out company-wide, and it is ideal to undertake a process without local on-site adaptation because these local adaptations cost in term of time, money, and manpower. A hurdle to avoid is being too detailed in the description of a process template. The more detailed the description of a process, the more likely it is to be a description of localised or specific particularities. The objective must be to develop an enterprise-wide process template that works equally well in a five-person facility as it does in a business unit with 800 employees in another country.

One of the interviewees stated that the use of SAP processes can be the catalyst for the introduction and assessment of standard business processes. Overall the findings from the interviews suggested there are then two ways forward. On the one hand, these standard processes can be increasingly embedded in company operations in a specific, individualised manner. On the other hand, companies may come to realise that not every process has to be individualised and that specific and individualised processes are rarely the best solution for a company overall. If a large ERP system like SAP has to be adapted, this means that human IT support will always be required. A system like SAP is so complex that changes in the SAP system cannot be adopted by everyone. Most of the time, a company relies on experts for these changes. The consequent additional time and cost must be taken into account when pursuing this option.

Using fewer individualised solutions and more standard process templates means that process changes can be implemented more quickly. This can also result in lower costs. Every process change, every system upgrade and change release - all carry the possibility of failure, and the risk of serious operational implications is reduced if there are fewer variations in the template catalogue that need to be taken into account. "Defend the template" aims to encourage the optimal use of process templates. With the resultant harmonisation of processes and operational activities, businesses should and can be convinced that the use of standard processes is not a negative approach.

But even if a standard template is to be adhered to, there must be scope to amend it or customise it when necessary; however, such a change should never be decided by one business unit alone. Such decisions should be taken by a cross-company body with overall process responsibility, consisting of, for example, process owners and process managers. Such a cross-organisational body can best assess the wider XXX implications and decide whether, and to what extent, processes can be changed or whether a business unit may use a local adaptation.
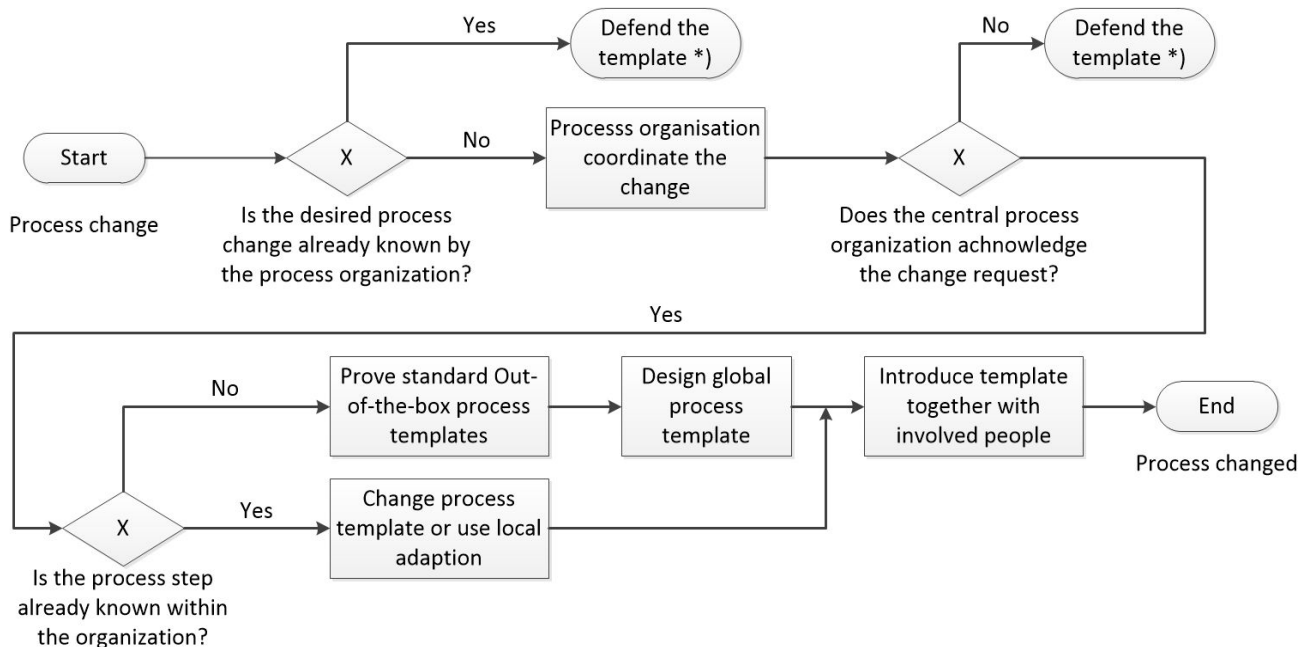
Figure 6. A simple model for process change and defence of the template.

V. ANALYSIS

A combination of evidence from both the literature review and the expert interviews provides the basis for addressing both RQs.

RQ1: To what extent should the process template be adhered to in ERP implementations?

On balance, both the literature review and the interviews suggested that a lack of standardisation in the use of process templates should be avoided it at all possible, as this will lead to too much diversification to the detriment of the organisation overall. This manifests itself in the sub-optimal integration of processes and in unnecessary overheads in effecting future system changes and upgrades.

In the specific context of the SAP system, companies need to be aware that harmonising and optimising global business processes in, for example, a large multi-national company is an extensive project that can last for years. If variations have been introduced into a template, it will be more difficult and time-consuming to maintain this template and to manage every future change process within it. Companies should search for the lowest common denominator and defend the existing template as far as they can.

Business process management tools can be used to capture and document processes, allowing a company to visualise, sort and structure its processes and their management. This may lead to a degree of structural change and reorganisation (as noted in Heeks' model [18]); it often becomes evident that processes in different business units are similar. A process template must be built from these documented and structured processes, including all recognised process, flow, and, if appropriate, excluding certain process features and declaring them invalid.

For the practical introduction and implementation of the newly developed processes, the process team then has the task of establishing and defending these process templates and processes, even if they encounter resistance. Just because a process has been carried out in a company for years in a particular way, does not mean that this approach was the optimal solution for the business. However, when such a traditional and established process is changed, it is important to clarify why the new solution is a more effective approach and to present its benefits to all parties involved. Especially in such a case, the new process template must be defended, even if there may be strong resistance to it.

With such an extensive application of process implementation and the use of a template, this implementation has a lot to do with the human factor. It is important to address those involved team members directly and to integrate them into the template introduction process. Participants need to understand why a template is to be introduced and how it will be used.

As discussed above, some experts reported that business consultants like to introduce an SAP template without carrying out an individual process examination of the company. This kind of process template usage is to be avoided and every template introduction in the company must be checked for its usability before it is used.

The "defend the template" principle can be viewed as the essential starting point in a procedure for investigating process change requests. The difficulty is estimating the extent to which a template should be defended, as there can be legitimate doubts that a particular process template is an optimal solution for a company. In this case, a process owner or a process organisation must decide either to change the process or to make a local adjustment. Decisions in such exceptional cases should not be made by a business unit itself, but by a superior process organisation, which is responsible for the process and thus has to approve a change or local adaptation.

Customization of standard processes is sometimes unavoidable because an identical, single global process can never be appropriate for all scenarios - for example, when country-specific legislation has to be adhered to. This then contradicts the "defend the template" approach. In these cases, the challenge is to introduce country-specific modifications but to use the standard processes as much as possible.

From an analysis of the literature and the expert interviews, a procedure for changing a process template has been developed to provide an easy-to-use model to defend possible process changes. Such a procedure could consist of the steps shown in Figure 6. This figure contains two important gateways for a process change. First, the process organisation must be informed about the desired process change. If the process organisation already knows about the desired process change and has opted for another solution, then this alternative solution must be defended. The same applies to the second gateway. If the central process organisation does not accept a new change request, this decision must be defended by the process organisation against any resistance that may arise.

The process steps depicted in Figure 6 demonstrate that a template can be defended in several different locations within a process change. The advantage of this rigorous approach is that an escalation in local adaptions and shadow processes can be avoided.

In the context of the model previously put forward by Grube [1], care should be taken to use standard out-of-the-box process templates wherever possible, and to keep process extensions simple. Diversification from standard process functionality will create increased effort later on. Nevertheless, customer-specific process development must always be explicitly analysed when system changes are made.
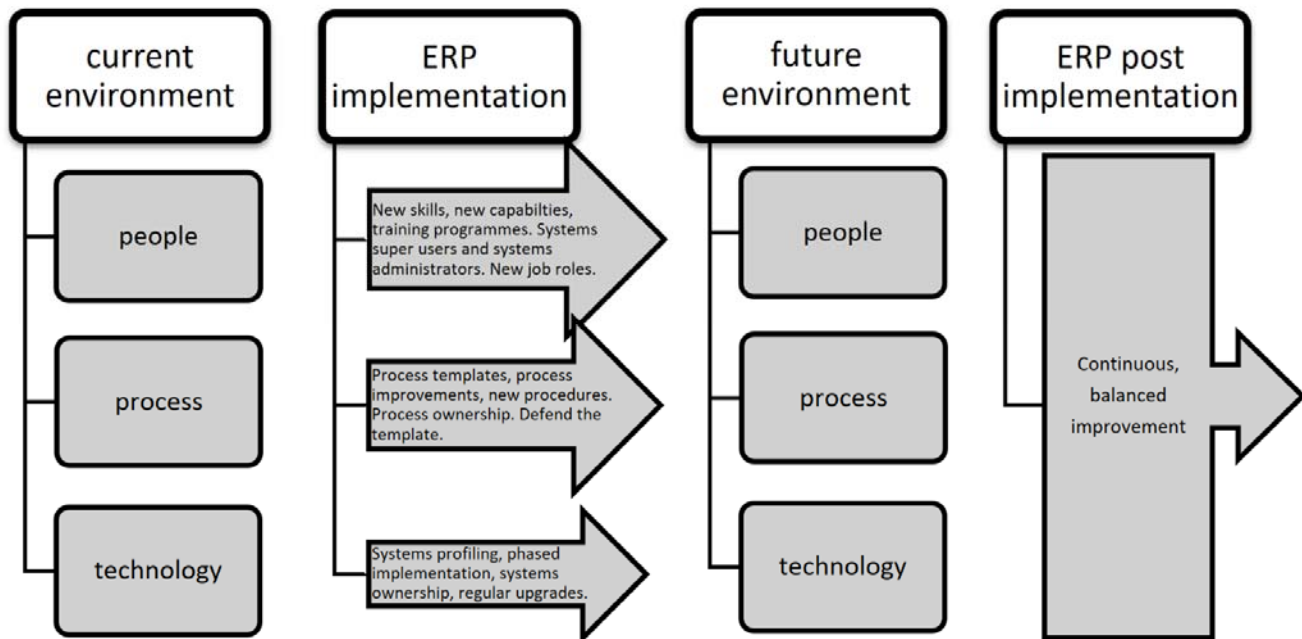
Figure 7. Continuous, balanced improvement in People, Process and Technology dimensions for ERP projects.

RQ2: What measures need to be taken to ensure people aspects are given appropriate focus when using a process template approach in an ERP implementation?

In addition to significant changes to processes, an ERP implementation may well require a balanced introduction of new staff skills and technology capabilities, as well as changes to organisational structure (Figure 7). For successful template implementation, all employees and appropriate departmental functions must be included. Only then can productive implementation be carried out successfully, with employees understanding the benefits and accepting the changes. A company should also consider that a template rollout requires a long-term implementation phase, which can take 2–5 years, and may require a budget of $10 million or more in a large international company [13].

The enforcement of a template is a practical difficulty in the process rollout. Often, this causes implementation delays and project and business goals can be impacted. A global template must be approved and accepted by all affected business units and employees, with appropriate briefings, workshops and training programmes. This requires discipline from all employees involved in the implementation of the template, because things may be repeated during the rollout, or there may be resistance against the implementation [32].

When implementing a new process template or defending a template, the responsible process department should not be afraid to bring the human resources department into the process. When implementing and defending process standards, HR departments can offer communicative support that an IT professional might have mediated differently. In the event of significant change, the people affected by the change must be considered. It is known from various sources that most people dislike any form of change. In this context, a well-known quote from an unknown author is: "The only person who doesn't resist change is a baby with a wet diaper" [33]. As the experts confirmed, it is imperative that people implement changes; but to do this successfully, the people involved must be convinced of the value of template application. A literature search would yield a large number of articles about the successful implementation of change. The three-step change model of Lewin is of relevance here as an illustrative example. This model represents a simple approach to change management and divides the change process into the three steps or phases - unfreezing, changing and refreezing [34]. The first phase helps to introduce and prepare employees because many people are against changes. Everyone involved in a change must first be prepared for this change. Lewin calls this phase unfreezing. The second phase is where the step-change is carried out and people learn the new behaviour. The final phase involves the refreezing step in which the change is stabilised and embedded (Figure 8).

Implementing ERP systems may entail significant changes to job briefs and roles, often involving new working practices. Employees will be required to change, and, more importantly, they should feel involved in that change. It is therefore crucial that employees understand the rationale for the new ERP system, the process changes required and the significance and value of the process template, and feel shared ownership of the new system, the new processes and the project as a whole. There are a number of tools and methods for charting the change in the people capabilities as an ERP system is implemented. For example, the People Capability Maturity Model (PCMM) may be of value in monitoring changes in workforce skills and capabilities. This model consists of five

maturity levels - Initial, Managed, Defined, Predictable and Optimising – that can be applied at the process level to help gauge advances in people skills and coordinate them with related process and technology change. This can lead to a program of continuous workforce development within which training programmes can be embedded and cross-referenced with process improvement and technology deployment [35].

VI. CONCLUSION

The findings from the literature review and the expert interviews suggest that a suitable compromise must be found between standardisation, (i.e., adherence to the template) and flexibility to adapt to local requirements. The practical experience of the experts interviewed in this research demonstrates that the "defend the template" principle can act as a useful starting point for process management and alignment. Processes of all units within a business should be considered before a process template is created. Despite this preliminary work, a process template may have to be adapted later, but this adaptation must be coordinated by the process organisation, and must not be decided locally by a single business unit. If a suggested adaptation is not supported by the process organisation, the "defend the template" principle applies, as depicted in Figure 6.

The coordination of process change and technology deployment with people skills enhancement, new capabilities and appropriate training programmes are of paramount importance. These three dimensions of change should be managed in unison (Figure 7), and thus the "defend the template" principle could usefully be amended to "defend the template – but don't forget the people". In terms of Earl's model, a "bottom-up" approach can become of equal importance in implementation as a "top down" approach may have been in determining the systems strategy itself. Even as we move into an era of increased use of robotics, chatbots and artificial intelligence in many aspects of business life, people skills and capabilities remain a vital element of major systems projects.

This research clearly has its limitations. Only a few experts were interviewed, and it is quite possible that the inclusion of other experts, different industries or other ERP products would have led to different or additional results. Future research should closely examine the arguments put forward in this article, with a view to encompassing different business environments and ERP products. In addition, further research with more participants could significantly increase responses and lead to more diverse outcomes and analysis. This could, for example, include an online questionnaire to validate the steps shown in Figure 6, allowing the collection of a larger amount of data from more participants from different business and consultancy backgrounds and with different knowledge and experience of ERP systems and BPM products and practices.
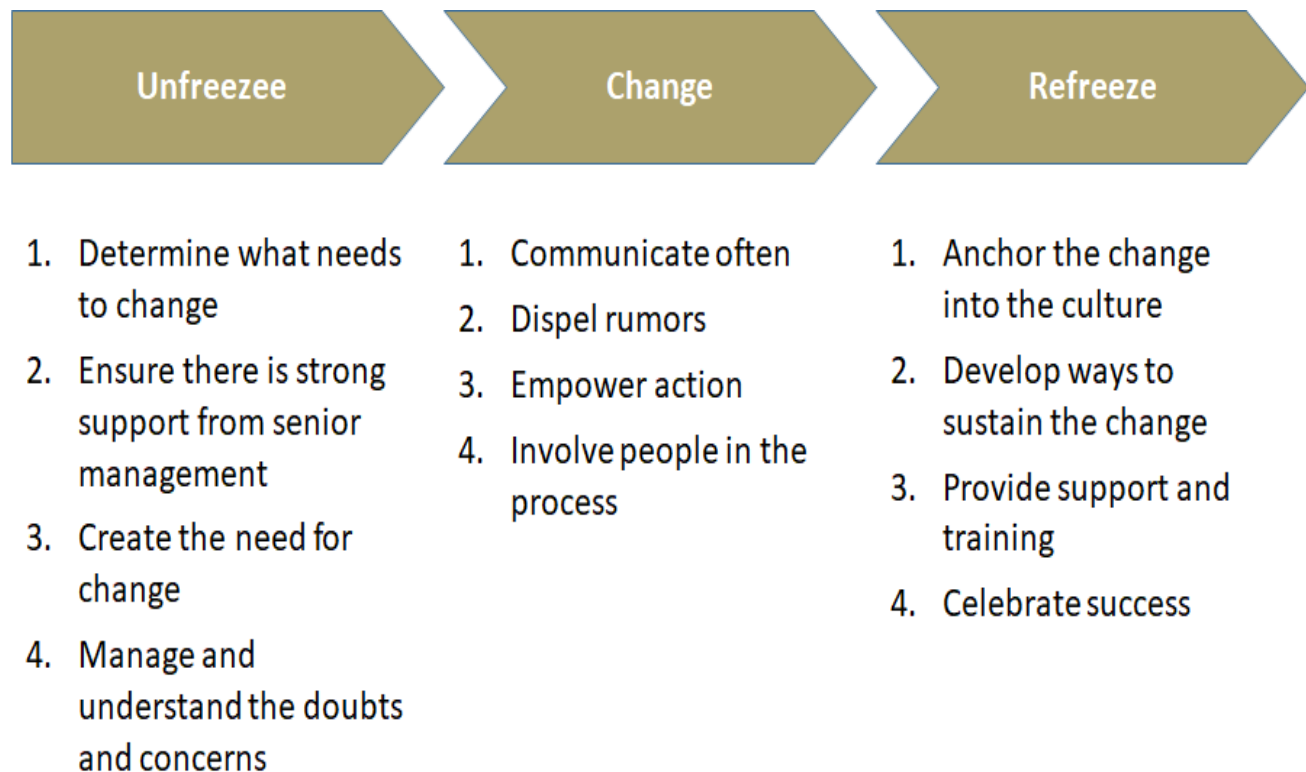

Figure 8. Lewin's three-step model for change management [36].

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