Managing Projects in Turbulent Fields:
Project Manager's Practices of Coping with the Unexpected

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Abstract. *Some organizations try to manage complexity by transferring it into defined, controllable structures and processes, aiming at delivering outcomes in a predictable and reliable manner. Others trust a high degree of freedom at the shop floor and team level allowing for quicker decisions and self-determined choice to respond successfully to unexpected events. This paper explores the questions "What are practices of project managers to address complexity and which methods allow project managers to handle unexpected turbulences satisfactory?" It presents results from the communicative validation of previous empirical and theoretical results within an ongoing research project. Project managers and stakeholders taking part in a group discussion were invited to evaluate existing practices for use in project-oriented organizations. Testable assumptions were derived from theoretical findings on dealing with the unexpected in organizations as well as in projects on the one hand and two empirical sources, i.e. practice of human factors experts from aviation, medicine and fast-response-organizations, and practice of project managers on the other. This subsequently resulted in (refined) methods and procedures to manage the unexpected in projects in turbulent fields in existing or adapted form.*

Keywords: *The unexpected; complexity management; project management; decision-making; organization culture; group discussion; communicative validation.*

Introduction

In organization theory capabilities to deal with the unexpected and abrupt changes in the environment have been investigated from various theoretical viewpoints, in particular, research on high-reliability organizing (Weick & Sutcliffe, 2007; Weick, Sutcliffe, & Obstfeld, 1999), organizational resilience (Farjoun & Starbuck, 2007; Sutcliffe & Vogus, 2003; Välikangas, 2010) and human factors research (Badke-Schaub, Hofinger, & Lauche, 2012; Dekker, 2015). Traditionally, organizations attempt to get a grip on uncertainties by anticipating changes as early as possible, while solutions that are more recent call to rethink arrangements of structure and flexibility. Despite the long tradition of theoretical and empirical investigations recommendations are in disagreement. On the one extreme, we find strict rules, regulations and standard procedures, combined with intensive training, and very tight control and error-tracking system, and on the other pole a call for more flexibility and reduced control in decision-making situations, for responsibilities to be delegated locally, for situation awareness, collective sense-making and mindfulness (Nachbagauer, 2017; Nachbagauer, 2018a).

Common approaches focus primarily on process-oriented organizations; however, some of the practices react to circumstances given also in unique and complex projects. As projects and project-oriented organizations just were invented to address uncertainty and volatility, we would expect to find unambiguous answers on how to handle the unexpected. But that does not seem to be the fact: On the contrary, managing projects characterized by complexity in volatile environments has become a topic of growing dispute and diverging approaches (Daniel & Daniel, 2018; San Cristóbal, Carral, Diaz, Fraguela, & Iglesias, 2018; Stingl & Geraldi, 2017; Tywoniak & Bredillet, 2017), especially for megaprojects (Flyvbjerg, 2014; Nachbagauer & Schirl-Boeck, 2019b; van Marrewijk, Clegg, Pitsis, & Veenswijk, 2008).

Some project-oriented organizations try to increase direct control, reduce trust and transparency and intensify organizational politics when faced with project turbulences (Loosemore, 1998; Söderholm, 2008), especially by employing a vast bunch of project risk management methods (Marle & Gidel, 2014). Others

react with internal flexibility, such as agile project work, ad hoc teams and adaptive structures (deMeyer, Loch, & Pich, 2002, p.61). Perminova, Gustafsson, and Wikström (2010, p.74) claim that the exposure to uncertainties requires an approach less oriented towards planning: 'projects are better described as journeys of exploration in a given direction, rather than strict plan-following endeavors'. Atkinson, Crawford and Ward (2006) suggested that uncertainty management asks for trust-building, sense-making, organizational learning, and appropriate organizational culture. According to Saunders, Gale and Sherry (2016), project managers adopted inter alia an open and no-blame learning culture, decentralized decision-making and mindfulness to address uncertainties, while Kutsch, Hall and Turner (2016) argue in favor of project resilience. Summing up these findings, recommendations have promoted either more structure and planning or a shift towards flexible, informal structures.

Following this discussion, the paper explores the questions "Which practices and methods allow project managers to handle unexpected turbulences in complex, long-lasting projects satisfactory?" This paper is part of a more comprehensive research project and aims to present results from the communicative validation of previous empirical and theoretical results within an ongoing research project.

Prelaminar results from the theoretical research propose, that managing the unexpected demands the combination of apparently opposites: both a high degree of flexibility and open communication as well as clear decision-making structures and responsibilities (Nachbagauer, 2018b; Nachbagauer & Schirl-Boeck, 2017). Even more so, considerations show that complex projects can make use of autonomy just because they can rely on unquestioned organizational structures, and structures are most helpful if they allow for autonomy or even useful illegality (Nachbagauer, 2017; Nachbagauer & Schirl-Boeck, 2018b; Schirl-Boeck & Nachbagauer, 2017).

Two complementary research directions further refined theoretical propositions. As part of a qualitative survey, practitioners from the field of human factors (aviation, medicine) and high-risk organizations (fire-brigade, permanent technical service, emergency medical service) were interviewed in winter 2017 and spring 2018. The aim was to develop theses on the actual state of the use of methods and instruments to handle turbulences and unexpected events, on the structural framing (organization, group, person, task, environmental) that shapes opportunities to deal with uncertainties in complex situations, and planning and decision making in such situations (Nachbagauer, 2018a; Nachbagauer & Schirl-Boeck, 2018a).

All those organizations share to be process-oriented and quite stable, they are organized as functional single-line systems, and operations are derived from clear (strategic) goals. This provides opportunities to plan and control processes closely and to improve them by learning from previous events. However, issues might be quite different for projects as temporary and unique endeavors, especially for large, long-lasting and complex ones. Furthermore, the more complex and novel the problems are and the more urgent a reaction is needed, the non-standardized and flexible ways of handling turbulences beyond process management are deserved (Nachbagauer & Schirl-Boeck, 2019a).

In a second empirical study conducted in spring 2018, project managers were invited to respond to an online-based screen-and-keyboard interview. The first part of the semi-structured online questionnaire centered on dealing with uncertainty in a distinctive project, asking for the project managers' experiences and actions in this situation, a second part concentrates on the embedding of the projects into the organization. Results were summarized in eight cases vignettes of incidents and companies (Nachbagauer, 2018b).

Based on the results so far the research group formulated eight propositions (Nachbagauer, Schirl-Böck, & Weiss, 2018):
"P1: The more project managers disassociate themselves from the idea of fully predictable situations, the more successful they become in dealing with the unexpected and insecurity.
P2: The greater the error tolerance and active engagement with mistakes are, the more successful the project managers become in managing the unexpected and insecurity.
P3: The better project teams are trained to be able to act without routines, the more successful they become in dealing with the unexpected and insecurity.
P4: The better organizational culture and structure, existing resources and framework conditions harmonize with each other, the more successful organizations are in overcoming the unexpected and insecurity.

P5: Depending on the phase before, during or after coping with the unexpected, an organization needs different structures: clarity before and after the event, openness, and flexibility during its management.

P6: The more adaptable the decision-making and communication structures of a project-oriented organization are, the more successful the organization is in dealing with the unexpected and insecurity.

P7: In the identification and analysis phase, team empowerment and diversity of opinion enhance the decision. (Esser, 1991)

P8: In the coping phase, clear, centralized communication and leadership improve the outcome."

This paper focuses on the last step of the empirical research phase: Based on the previous results, project managers and stakeholders were confronted with the identified options condensed into conjectures as part of two group discussions, thus evaluating existing practices for use in project-oriented organizations.

Methodology and sample description

In the moderated group discussions, we wanted to know how well these propositions mentioned above – to a large proportion derived from process-oriented organizations – would fit a project-oriented organization. Especially topics on planning, organizational structure and decision making, and organizational culture were discussed to test the applicability of suggestions for project-oriented fast response organizations human factors research, organizational resilience and high-reliability organizations and were asked to assess the potential for transferring insights to projects. [1]

For the first group, discussion project managers were selected according to the length of their experience (at least 10 years), as well as diversity in terms of industry affiliation, the degree of complexity of managed projects and the international nature of the projects. While there were invited both men and women for the discussion, participants had to cancel at short notice, so that the gender ratio with 5 men to 1 woman is unbalanced (see table 1).

Table 1. *Sample description project manager*

No.	Experience (in years)	Industry	Gender	Degree of complexity	Degree of internationality
PM1	20	Telecommunications, space industry	male	very high	high
PM2	20	Management consulting	male	medium	low
PM3	25	IT	male	high	high
PM4	15	Management consulting	male	medium	low
PM5	20	Marketing & IT, Management consultancy	female	high	medium
PM6	20	Telecommunications, railway construction	male	very high	high

(own source)

The moderated group discussion (Bohnsack, 2004; Lamnek, 2005) consisted of two parts. Both started with a content-oriented input from our side, with the first teaser depicting state of the art and previous research results, and the second presenting some tools and methods common in Human-Factors training, high-reliability organizations and resilient organizing. The main part of each round was devoted to an unobtrusively moderated discussion among the participants, oriented towards their experiences and 'structures of relevance' (Schütz & Luckmann, 1979) Each part was completed by a wrap-up using cards (Figure 1).

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[1] Preparation and execution of the group discussions were conducted by Edgar Weiss, Iris-Schirl-Böck, and the author, all UAS BFI Vienna. Translation from the Austrian language into English by the author.
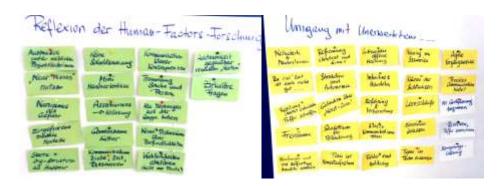
Figure 1. *Wrap-up results (own source)*

The moderated discussion was recorded on video and resulted in 1 hour 45 minutes of material, which was then (partially) transcribed (Kuckartz, 2016). The subsequent thematic coding (according to Flick, 2011) was based on the previously created conjectures and on the material, comprising categories like individual behavior, organizational structures, practices and patterns of action, basic assumptions, project orientation, project design, project culture and knowledge, tools and methods a.s.o.

A second group discussion, lasting 1 hour and 30 minutes, included six project stakeholders, both line managers of project-oriented organizations and members of project management associations. Unfortunately, we were not allowed to record and transcribe the discussion, thus lacking reliable empirical material. As simple notes made during the discussion arguably question the empirical status of results, references are omitted here. Nevertheless, this paper will refer to the discussion as a side-line.

Experiences in dealing with the unexpected

Planning and mental preparation

The participants of the group discussion agreed that complete planning for complex projects and long-lasting projects is not possible (PM1), questioning the common planning orientation in project management. Change is part of the project work; projects are characterized by uncertainty: "It would not be a project if you knew exactly what was coming." The project and the methods "only create a framework that reflects the current state of knowledge" (PM5).

Particularly in the case of highly complex projects, one can "expect the unexpected" (PM6). While the project context tends to remain stable over the lifetime in short-cycled projects, one can expect the unexpected with growing project complexity and long duration – periods of three years and upwards were named. One reckons that "the only constant sometimes is the change" (PM1). As a result, the project management and the team are more prepared to react to unforeseen turbulence, so flexibility is demanded. At the same time, it is often overlooked that the unexpected can also be positive. Focusing on problems and avoiding adverse effects often leads to missed opportunities that only turn out to be beneficial in the long run (PM6). Thus, it is pointed out that it is necessary to give room for development from scratch and to create context and meaning by installing an appropriate framework.

The impossibility of the complete planning must be clearly communicated by the project manager also to the project sponsor (PM3). Excessive expectations on the part of project sponsor (and sometimes also the project owners) are to be questioned right at the beginning of the project, especially if these are based on a point-in-time landing or a plan that is being carried out meticulously precise (PM4). For this to succeed, mutual trust between the project leader and the project sponsor is needed. The discussants also encourage the involvement of mentors and the creation of an appropriate network that provides support in case of problems to increase the resilience of the team.

Project teams, similar to like high-reliability organizations and high-performance teams, must learn to prepare for spontaneous action in the event of turbulence. According to the participants, a feasible procedure is the consideration of the unexpected as a "buffer" - especially regarding costs and time - in project plans. Here, too, the project sponsor can be involved: One participant reported on his positive experience when defining the buffer together with the project owner, making him responsible too. This can

also stimulate fruitful discussions on priorities, for example, that although higher costs arise now, ultimately the goal is achieved cheaper and faster. This connects to the often neglected "classical clarification of mutual expectations" (PM2) when placing an order because it forces the project client to formulate a clear goal.

In complex, long-termed situations, project plans are only rough plans for the entire duration, with a detailed plan only for the first phase (PM3), which is close to agile approaches. At the same time, though, plans and other structural project management methods, even if initially deemed unimportant or merely perceived as burdensome, can be helpful in the event of unexpected events, because project managers can then quickly come up with solutions. As an example: If you have previously considered a communication plan, then you know whom to contact in case of turbulence, thus avoiding time loss and further confusion (PM3).

For project managers, an "open systemic attitude" (PM2) in the project is helpful, which also signals the project team-high resilience. Rather than succumbing to actionism, it has proved useful to adopt an "observer perspective" that also teaches the team that turbulence is not a dreadful thing, "not a disaster" (PM4). Project management must make their team aware that the project and the project management methods "only provide a framework that reflects the current state of knowledge" (PM5), and change is an inherent part of project work. The team must understand that the plan represents only a snapshot. Besides the need for planning, it is important that the team has room for intuitive action in the event of turbulence, enabling quick and targeted action. This also requires flexibility, adaptability and "sensing" or "awareness" for turbulence (PM1) and "a continuous mindful sensorium" for changes that are necessary for the team.

Independent action and flexibility are grounded in trust in the team. Therefore, it is also essential that project management allows the team to make mistakes when acting (PM4) and tries to prevent the emergence of a "culture of fear" (PM6). The absence of sanctions promotes the autonomy and empowerment of the team. However, it must not remain with mere announcements, it is crucial that the culture of error is really lived (PM2). The project team can benefit from networks that provide coaching and mentoring support (PM3). This way, project teams are accompanied or prepared for the turbulence by more experienced ones.

Organizational structure and decision making

What the organization needs to provide to the project team for dealing with turbulence is the freedom to make decisions and actions (PM1). For this purpose, it is first necessary to classify the situation correctly, addressing the duration of the project and different degrees of complexity (PM1, PM2). When unexpected turmoil occurs, the group discussion participants found the tool "triage" useful for a first analysis: "How do I deal with the unexpected at the moment?", "Assessing the situation right from the start, where are we? "(PM2). The framework recommends first the definition of the situation and the degree of complexity together in the team, and in a second step complexity reduction, which provides for adapted standardized procedures ("routines") depending on the requirement. After coping, self-reflection and learning take place as a "systemic loop": "Was that correct, what I assumed?"; "Am I more relaxed now?" (PM2).

For classification, one could usefully also adopt the CYNEFIN framework. In the well-known framework, Snowden (Kurtz & Snowden, 2003; Snowden & Boone, 2007) differentiates between simple, complicated, complex and chaotic environments along the dimension of increasing complexity. Snowden connects these four areas with action patterns and problem-solving recommendations. While in simple and complicated contexts one can assume (more or less) obvious cause-and-effect relationships and thereby make fact-based decisions, complex and chaotic contexts are disordered and require reactions based on emergent practices. The application of the CYNEFIN framework can help the project team to understand better the context and the required responses.

Facilitating handling of the unexpected could mean agility in the project (PM3), as e.g. short-term agreement with the customer regarding required reactions are possible within this framework. Accordingly, this should also be structurally enabled by the organization. In order for the project management to be granted sufficient autonomy for decisions, it requires trust from the client (PM5). In addition, however, it also requires clearly defined processes, for example for information transmission when turbulence occurs (PM1). Here the organization is responsible for making these processes transparent and ensuring compliance.

The group discussion participants found the FOR-DEC model very helpful for decisions, according to which the decision-making process is structured in the following steps (Hörmann, 1994, p. 92):

1.) Facts/situation analysis: "What is actually the matter?"
2.) Collect options/action alternatives: "What options do we have?"
3.) Rate Risks & Benefits / Policy Alternatives: "What speaks for what?"
4.) Decision/decision: "What are we doing?"
5.) Execution: "Who does what, when and how?"
6.) Check / Feedback: "Is everything still correct?"

However, the implementation of a decision after these steps requires sufficient time for reflection. For complex projects, it may be more likely that rapid action is required, but not to the same extent as in particularly critical – sometimes life-threatening – situations in high-reliability organizations and high-performance teams.

Leadership here means getting involved with the sensitivities of the team, but before doing so objectively considering options. There is usually no time for detailed considerations, but quick reaction is required: "I have no time to think about it. That must work." (PM1). In general, long checklists or rational decisions in situations that require swift action are considered not helpful. In contrast, experience, an acquired sense for the right action, and prior planning considerations are often critical. On participant refers to this combination of pre-planning and gut feeling as "gut knowledge" (PM4) that can be retrieved quickly and facilitates improvisation (PM3).

Experienced project leaders know that a communication plan is very helpful in the event of turbulence, to know quickly whom to contact (PM3). Depending on the phase, the panelists have formulated different actions. In the identification and analysis phase, team empowerment and diversity of opinion enhance the decision. The panelists underlined that it is the task of the project management to consider different approaches and perspectives as a jointly developed situation awareness of the team members. In the decision-making phase on the turbulence, they can add value, while also paying attention to the different personalities and reactions of the team members. The task of the project management is to balance them and at the same time to promote the self-confidence of the team and to stabilize the emotional situation. In the coping phase, clear, centralized communication and leadership improve the result. After mastering the turbulence, one should initiate a self-reflection and learning process as a "systemic loop" (PM2) to better understand what is happening in a retrospective.

It should be noted that even behind "facts" ultimately different views and experiences are hidden. These issues can be made fruitful (PM4) by putting emphasis on small hints and directional words that can illuminate the background assumptions (PM2). Explicitly not envisaged in this model is the solicitation of sensitivities in the decision-making process, even though individuals (PM3) question the feasibility of this separation. This initial externalization of emotions should be in agreement with that of the project team and with their knowledge: the project leader must first set the focus to rapid, goal-oriented decisions, according to group discussion participants (PM1).

The participants consider the development of high resilience in project management to be central: "I have to see that I still have options. That I can manage and not be managed. "(PM1). First, it is about processing your own insecurity and your own stress. It is estimated differently how far the own concern can be made visible: "To what extent do I also communicate my uncertainty, if there is any?" (PM1). This is contrasted by the demand that "the team can see that the project manager always keeps his cool." (PM4). Resilience allows for the emotional stability of the project manager and thus emotional stabilization of the project team. Likewise, the team must be prepared to "think about it before, how to be stronger in those situations" (PM5).

However, it also requires understanding for the individuals in the project team and their attitudes to change so that they communicate professionally. Even if quick action is required, patience and observation are required; wrong would be "to believe that you can bring the unexpected back in a very short time so that everything fits everything." (PM2). In the short-term emotional deviation and imbalance must be accepted. Project managers need to be able to gauge the response to stress and the resilience of their team members to adapt to action and communication. On the group level, the project leader has to "capture" the situation

and emotion in the team and quickly come out of the "powerlessness" (PM1), in order to create a common situation awareness with the team. It seems to be helpful to apply the technique of re-framing for project management, which derives from systemic psychotherapy and neuro-linguistic programming: "How can I put things into context relatively quickly if I did not even realize that these things mattered?"(PM1).

Project and error culture

With regard to an open culture of errors, high-reliability organizations and high-performance teams engage in open and regular discussions about mistakes and near misses. Focusing on near misses can help focus on where "it got thin" (PM2), where you would need control tools. De-briefings are essential in order to re-analyze the complex social system and question what was decisive for (missed) success (PM1). An obstacle to this is the widespread tendency that everyone wants to protect his own project, as well as a lack of social acceptance to talk openly about problems and mistakes (PM5). In project management, even if very good experiences are reported in exchange with colleagues (PM6), there is still a great deal of "excessive self-esteem"; "Mental models" are "frozen", often in the context of rigid organizational structures (PM2). Therefore, it is essential to be aware of the existing mental models of all team members and to recognize the connection with existing organizational structures. In addition, it should be noted that it is not easy for all team members to speak openly about mistakes, as, for instance, this is more difficult for men (PM5) and narcissistic personality types (PM4). The project manager has to succeed in motivating all team members to openly deal with mistakes, sanction freedom is central here.

The introduction of an open error culture or no-blaming culture carries the risk that great openness can lead to insults to the participants (PM5). Assertiveness must, therefore, be supplemented by a sensitive and recipient-oriented attitude in communication. Here it is important to differentiate between the content-related level (e.g. consequences for company goals, resources, time) and the personal-emotional level, on which one can show personal understanding of mistakes, as the Harvard method emphasizes (PM2). It is important to know the people in your own team well. In addition, there is a need for culture within the project team that is permanently focused on making different points of view visible, accepting different opinions, and playing a significant role in the critical commentator, an "advocatus diaboli".

It is also essential for the project manager to become aware of the danger of groupthink in the project team (PM5). Here, it requires targeted creativity techniques to make different perceptions and opinions visible. The project management should plan for this time (PM5). Coming from systemic advice, circular issues also seem useful in the process of visualizing diversity of opinion. After the decision, as a project manager, you should also give room to the emotions of the team.

The participants in the group discussion agreed, "you should not let yourself get off track by the unexpected, because it's just part of it" (PM5). Coping with the unexpected is easier with more experience, so sharing knowledge is essential in the form of mentoring for project managers with less experience. However, the experience is one of the most important criteria in the selection of project managers for complex projects anyway.

Conclusion

The results of the group discussion confirm the previous research results to a very high degree the propositions derived from theoretical considerations (Nachbagauer, 2017; Nachbagauer & Schirl-Boeck, 2017; Schirl-Boeck & Nachbagauer, 2017) as well as the practice from aviation, medicine and emergency services (Nachbagauer, 2018a; Nachbagauer & Schirl-Boeck, 2018a) and project managers (Nachbagauer, 2018b). Even more so, the results of the second group discussion conducted with stakeholders and line-managers were very much in line with the statements presented above. Connecting the group discussions with the previous observations this article concludes as follows.

The project managers confirmed that complex projects do not succeed in completely planning the process. The more project managers disassociate themselves from the idea of fully predictable situations, the more successful they become in dealing with the unexpected and insecurity. Despite skepticism about the effectiveness of the plan to meet traditional expectations of coping with the unexpected, respondents continue to consider planning necessary. Planning defines a (collective) understanding of the project and prepares the participants for different scenarios that can be used in an emergency. Like theoretical

considerations, besides the possibility of building "organizational slack" (resources, time), the "conceptual slack" (Nachbagauer 2017b) as well as the situation-elastic connection of planning with current developments and experience-based routines and heuristics (Nachbagauer 2018a). Planning is a permanent task and always involves only preliminary answers that have to be specified and adapted in the course of the rollout (Nachbagauer & Schirl-Boeck, 2019b). In addition, the project sponsors must be included in these considerations regarding the new significance of planning and planning reliability.

In order to be able to act quickly in a turbulent situation, cumbersome and rational procedures often do not work; established routines can even be obstacles in dealing with the unexpected and insecurity. At the same time, however, temporary structures, such as communication channels, are valued. Similarly, while models like FOR-DEC are considered very valuable, checklists are rejected. This alleged contradiction can be resolved by two considerations. First, FOR-DEC and other instruments are understood as a mere guide to meaningful action. When planning structures in advance, the current decision is facilitated, if these structures are kept open for the current situation. However, the instruments mentioned as helpful do not make any substantive statements, as is common with checklists in medicine or aviation (Nachbagauer 2018a). Rather, only necessary stops are marked in the decision process without demarking preferred directions on HOW to decide. Second, it is recognized that the perception and interpretation of facts are significantly influenced by different views and experiences: What you put "into" the decision pipeline is decisive. For the project management tools, this means that they are useful for tackling turbulent situations when they describe topics that need to be considered but do not dictate what is "better" in terms of content (Nachbagauer & Schirl-Boeck, 2018b; Schirl-Boeck & Nachbagauer, 2017). Therefore, the connection of clear decision-making structures with experience and heuristics is required, as the term "gut knowledge" coined by a participant, expresses very nicely.

The assumption that greater forgiveness and active engagement with errors in the project team and organization increases the successful management of the unexpected and uncertainty was confirmed. However, for this positive attitude to take effect, it is necessary to build up a corresponding culture of trust, an endeavor that contains many challenges, especially in the project context. With regard to concepts from organizational and psychological research for dealing with the unexpected, many topics were named as relevant also in complex projects:
- the awareness of perceptual errors and groupthink together with targeted countermeasures through creativity techniques;
- triage tools and the CYNEFIN framework for the initial assessment of turbulence;
- decision-making according to the FOR-DEC model;
- systemic approaches such as circular questions, re-framing and learning as a systemic loop;
- an open error culture, especially the analysis of "near misses" and debriefing;
- avoidance of personalization and positive dealing with dissimilarities.

In line with previous results the management of project turbulence succeeded in those organizations that adapted their management style to the situation requirements (Nachbagauer, 2018b; Nachbagauer & Schirl-Boeck, 2017). To accomplish that it is essential for the project managers that they receive enough autonomy from the organization. At the same time goal orientation and clarity has to be established within the organization. One last requirement addresses primarily at the project sponsor and connects to a clear project goal and project benefits. Similar to theoretical considerations (Nachbagauer & Schirl-Boeck, 2017; Nachbagauer & Schirl-Boeck, 2018a), the panelists understand that autonomous decisions at the project level are possible precisely because they are based on undisputed organizational structures such as communication channels and hierarchies, knowledge of the participants, trust and clarity of strategic goals.

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