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Managing regional innovation strategy projects

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Introduction
Since 1990, the European Commission has funded in the STRIDE (Science and Technology for Regional Innovation in Europe; see e.g. Santos, 2000) and the subsequent RTP (Regional Technology Plan) and RIS (Regional Innovation Strategies) programs a wide range of learning networks at regional level. In this context, regions are understood as territories governed by distinct political institutions at sub-national level (Hooghe and Marks, 2001, p. 19). The European Commission's funding activities were aimed at leveraging the potential of European regions as arenas for developing effective innovation policies (Henderson, 2000; Prange, 2008) and for avoiding isolated agenda setting which would weaken the competitiveness of the national and even European innovation system (European Commission, 2005; Koschatzky and Kroll, 2007).

RIS projects were obliged to involve multiple stakeholder groups in project activities. The notion of interaction with a high number of actors from different regional sub-systems as key to regional innovation implies that these projects are exceptionally complex (Bateira and Ferreira, 2002; Benz and Fürst, 2002; Koschatzky and Kroll, 2007). This poses certain challenges to project management. Findings on similarly complex projects from other disciplines suggest that RIS projects should be managed in an agile way so that they would stay flexible for coping with uncertainty and unforeseen dynamics of a complex environment (for a summary, see Nerur and Balijpally, 2007).

This paper presents a qualitative interview study with 28 RIS project managers that aimed at understanding whether or not this is true in the context of regional innovation and what the specifics of managing regional innovation projects are. In taking up a recent claim for policy intervention studies which allow to "derive precise suggestions for their design and management" (Russo and Rossi, 2009, p. 76), the study investigated the interrelation between the agility of the management approach and the achievements of RIS projects. Findings raise serious issues concerning methodological approaches for the management of regional innovation projects and question whether the recent public funding mechanisms can lead to sustainable project results.

Project management approaches
In literature on project management, a project is understood as "a time bounded task to create a specific outcome", and task as "a broad series of work activities" (Paletz 2012, p. 422). Project management of innovative teams is consequently defined as "carefully planning and monitoring of scope, cost, risk, and quality, with particular attention to internal and external stakeholders" (Paletz 2012, p. 447).

It is commonly acknowledged that the project management approach has a broad impact on the success of innovative projects (for a summary, see Fernandez and Fernandez 2009). Kraft and Steenkamp (2010), for example, report on "an average of 66% of IT project failure rate, with 52% of the projects being cancelled, and 82% being delivered late" (p. 17) due to constraints caused by the linearity of project management. A similar picture is drawn by the CHAOS Report findings that are published by The Standish Group: The study shows that 66% of projects are either "challenged" or downright failures, leaving just 34% of projects to

be considered successful (Finch, 2011). Worse than that, Prosci Research's "Best Practices in Change Management Report" reports that between 1990 and 1998, about 91,000 contractors' projects failed leaving almost $23 billion in outstanding liabilities in the US (Prosci Research 2011).

Traditional versus agile project management

Tradional project management is still the dominant approach for structuring innovation, research and development activities. This methodology is based upon theoretical assumptions such as the existence of ideal models for project planning and control (Cicmil & Hodgson, 2006). In his extensive review, Söderlund (2004) shows that the "early knowledge development in project management was […] based in the engineering department of industrial companies that tried to improve their management skills" (p. 656). Related studies of project-centric research primarily investigate R&D and implementation projects. Söderlund further identifies two major streams of project-centric research (ibid, p. 659): The "optimization school" studies traditional project management techniques and methods like the Program (or Project) Evaluation and Review Technique (PERT) and the critical path method (CPM) for the optimal division of labor and planning of task integration. The "critical success factors" school searches for generic factors determining project success in quantitative studies with large sample surveys. Traditional project management approaches are characterized by a concept of rationality which sees work and manpower as definable sizes, a command and control approach in management and upfront linear project planning in milestones (waterfall model), sets of steps (sequential model) or phases (incremental model) (see for example Dalcher, Benediktsson and Thorbergsson 2005; Fernandez and Fernandez 2009).

However, already since the late 1990s there are voices pointing to the need to develop more appropriate project management approaches for innovative projects that take the contingency and complexity of projects into account (for example Lindkvist, Söderlund, and Tell 1998; Williams 1999; Engwall 2003, Paletz 2012). Scholarly work though suggests that, for dealing with diverse forms of complexity and novelty as necessary in innovation projects, traditional project management seems unable to leverage the full potential of projects (e.g. Conforto and Amaral, 2010). Therefore, the "project management research literature is opening up to new paradigms departing from the more traditional positivist approach" (Aubry, Hobbs, and Thuillier, 2007, see also Maylor, 2006).

In the state of the art project management literature, researchers extensively discussed different types of project management methodologies. Scholars propose agile project management as an alternative for relating to uncertainty, the multiplicity of stakeholders that have to be involved in innovative R&D projects, issues of transdisciplinarity and the need for learning (see for example Dalcher, Benediktsson and Thorbergsson, 2005; Fernandez and Fernandez, 2009). Agile project management approaches are described as "a creative and responsive effort to address users' needs focused on the requirement to deliver relevant working … applications quicker and more cheaply" (Dalcher, Benediktsson and Thorbergsson 2005, p. 465). Scholars suggest for example that managers of IT projects with a high uncertainty and unclear objectives who have to integrate and build upon the viewpoints of multiple stakeholders should apply agile project management practices (Nerur and Balijpally 2007, p. 81).

Agile project management

Agility is defined as "the ability to deliver stakeholder value while dealing with inherent project unpredictability and dynamism by recognising and adapting to change. Agile methodologies provide techniques for delivering stakeholder value on projects while creating

agility through rapid iterative and incremental delivery, flexibility, and a focus on working, developed plans" (Webb 2007, p. 9; adapted from Augustine 2005).

Agile project management (APM) arose from software development in the early 1970s as an approach to cope with a growing level of complexity in software projects and has developed project management methodologies such as for example Extreme Programming (e.g. Wysocki, 2009). Nerur and Balijpally (2007) describe similar shifts in other disciplines like architecture and strategic management. Recent approaches to supply chain agility underline the importance of the ability to adapt to unexpected changes (Collin and Lorenzin, 2006; Sanderson and Cox, 2008). Collyer and colleagues (2010) found in an interview study with 31 practitioners from different industries that the interviewees preferred "emergent planning, staged releases with the least possible early stages, competing experiments, and alternate control approaches" (ibid, p. 119-120) in rapidly changing environments.

APM follows three core foundational principles comprising six practices (Webb, 2007; Augustine et al., 2005): First, it fosters alignment and cooperation. A shared vision keeps project members aligned and acting toward common goals. Second, APM encourages emergence and self-organization. Processes and practices of project management are kept minimal (simple rules). Practising open information exchange is seen as essential because the richness of interaction among team members depends largely on their openness to the exchange of information. Using intelligent monitoring mechanisms helps project managers to manage the flow instead of trying to have everything under control. Third, APM incorporates learning and adaptation. Feedback is used for continuous learning, adaptation, and improvement. Projects that apply APM operate on their chaordic edge (the edge between chaos and order) where there is 'just enough' control, structure, optimization, and exploration. Adaptive leadership means to apply an overall humanistic problem-solving approach which considers all members as skilled and valuable, relies on the collective ability of autonomous teams and minimizes upfront planning in an unpredictable environment.

Research gap
Agile approaches to project management have been discussed regarding IT, architectural and management projects, but not in relation to regional development projects. At the same time, there is a claim for studies of policy interventions in regions that would allow to "derive precise suggestions for their design and management" (Russo and Rossi, 2009, p. 76). Several scholars underline the importance of an adequate "work organization" (Fritsch and Slavtchev, 2008, p. 2) and of "complementary innovations in administrative procedures" (Russo and Rossi, 2009, p. 93) for the successful implementation of complex policy interventions. However, the interrelation between the management methodology applied in regional development projects and their achievements has so far been neglected. Fritsch and Slavtchev (2008) outline that "very little is known about the conditions that are conductive or unfavourable for innovation activity." (ibid, p.2) Likewise, MacKinnon et al. point out that much of the literature fails to adequately ground arguments in empirical inquiry (2002, p.294).

This paper aims at closing this gap by presenting an interview study with 28 RIS project managers that aimed at analysing and understanding the specifics of managing regional innovation projects. The authors explored which methodology project managers of RIS projects applied in their projects. The study also investigated the interrelation between the agility of the management approach and the achievements of RIS projects.

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Methods
In this study, APM was expected to bring added value to RIS projects through by a process-based methodology for project management and implementation of project results that would help project managers and members to deal with randomness, stakeholder integration and uncertainty. The study focused therefore on an assessment of the project management practices applied and of the achievements of the projects in qualitative, semi-structured interviews (Creswell, 2008; see section 4.2 for details on the interview guideline). The interview guideline included both closed questions and open questions. The open and closed questions complemented each other and allowed for compensating blind spots and weaknesses of single perspectives (Bateira and Ferreira, 2002).

Sample
At the beginning of the study, i.e. in late 2008, 145 RIS projects had been conducted in Europe. The authors sent an email to all managers of (former) RIS projects asking them whether they would be interested in participating in the interview study. Of these, 32 RIS project managers agreed to the proposal. During the phase of scheduling the interview dates, four potential interviewees dropped out either because of loss of contact or because they felt - after having had a look at the survey - that as their RIS project had ended some time ago they would not be able to answer the questions. At the end, 28 RIS project managers, i.e. 19% of overall sample population, were interviewed in spring 2009. Table 1 presents the sample.

Table 1. RIS projects included into sample

Project region, country	Year of project start	Year of project end
RIS for Central Switzerland, Switzerland	2005	2008
Improve Zentralschweiz, Switzerland	2008	2010
RE-Bremen 006, Germany	1996	1998
RIS 3 plus / NÖ, Austria	2005	2008
RIS Weser-Ems, Germany	1996	1998
RIS Westschweiz/Bern, Switzerland	2005	2008
RIS Kent, UK	1996	2000
Spin Off Limburg, The Netherlands	1997	2000
RIS Oslo, Norway	1998	2001
RIS Overijssel, The Netherlands	2000	2002
SRIS Shannon, UK	1997	1999
RIS South London, UK	1999	2001
SPIN Yorkshire, UK	2005	2006
RIS Banska Bystrica, Slovakia	2005	2008
Discover Northeast Romania, Romania	2005	2008
RIS North Western and North Central Bulgaria, Bulgaria	2005	2008
RIS Plzen, Czech Republic	2001	2004
RIS South and East Lithuania, Lithuania	2005	2008
RIS South Central Bulgaria, Bulgaria	2001	2004
RIS South Great Plain Hungary, Hungary	2001	2004
RIS South West Bulgaria, Bulgaria	2005	2008
RIS Zlin, Czech Republic	2005	2008
RIS Abruzzo, Italy	2005	2008
RIS Central Hungary, Hungary	2002	2004
RIS Cyprus, Cyprus	2001	2004
RIS Jerusalem, Israel	2005	2008

GAL-EDGE, Israel	2005	2008
RIS South Montana Romania, Romania	2005	2008

Although this sample is not a random sample, the authors are convinced that it is a good basis for an exploratory analysis for two reasons. First, the sample includes projects from regions in Northern (seven regions), Western (six regions), Southern (six regions) and Eastern (nine regions) Europe. Second, it covers projects from the whole life cycle of the RTP and RIS funding programme, their starting time ranges being between 1996 and 2005.

The small size of the sample, however, limits the authors to a descriptive analysis. The findings presented below do not allow a general conclusion for all RIS projects in the sense of the reliability and objectivity that a quantitative study would have allowed. They must therefore be understood as tentative and indicative, qualitative and descriptive, first insights into the research question at hand.

Interview guideline
The authors developed a semi-structured interview guideline which consisted of a total of 33 open and closed questions. The interview guideline can be divided into three major parts:

The first part consisted of 16 questions. The first five questions (Q1-Q5) were aimed at collecting project-related statistical data such as information on the project region, the runtime, the number of consortium partners and international partners as well as the role of the interviewee. Question 6 presented the interviewees with a list of 21 possible project objectives which had been extracted from brochures and newsletters available at the website of the Innovating Regions in Europe Network to which all the RIS projects belonged. Interviewees selected the five major project objectives or — if the listed items were not applicable — to define these objectives themselves. The next four questions (Q7-Q10) assessed the familiarity of the interviewee with APM, and the following four questions (Q11-Q16) evaluated his or her level of experience with stakeholder engagement.

The second part comprised ten questions with numerous sub-questions. This part was aimed at evaluating the agility of the project management approach applied in the respective project. This part started with three open questions on the management approach applied (Q17-Q19): Interviewees explained whether and, if so, what was special about the RIS project, described their project management approach and the most important project management practices. Questions 20 to 26 related to the guiding principles of APM as presented in table 2 below.

Table 2. APM principles and related practices

APM principle	Foster alignment and cooperation	Encourage emergence and self-organisation	Institute learning and adaptation
Topic for open questions	Formal project structure and its impact on project success.	Project rules and the importance of simplicity.	Leadership presence, keeping the team on its creative edge and the project on track.
General APM practices	Building up and working in organic teams Q20 Developing and living (embodying) a guiding vision Q21	Developing and applying simple rules Q22 Practicing open information exchange Q23 Q25 (Trust) Managing the flow Q24	Practicing adaptive leadership Q26

Concerning each guiding principle, two open questions on the general topic of the principle were asked at the beginning of the section. These open questions were followed by a set of sub-questions that probed specifically on the type of project management methods applied for completing certain tasks. The authors focused on relevant APM practices identified from the literature (Webb, 2007; Augustine, 2005). For the sub-questions, the interviewees had to position themselves on a 7-point Likert scale where one end represented APM practices (value 1) and the other end a more traditional project management (value 7). Answers were partly in reverse order (7-1 instead of 1-7) to ensure that interviewees read and answered all questions carefully. During the whole interview, interviewees were not informed which of the practices belonged to APM and which to traditional management; they just chose from the available answers the option that resembled their project management style.

The only exception from the questionnaire design described above was the APM practice "Practising open information exchange" which comprised two sets of questions: the first one was related to APM practices as described above, the second was aimed at accessing the level of trust among the project members. Question 25 therefore surveys the status of the trust indicators identified by Müthel and Högel (2007).

The third part was composed of five open questions (Q 27-33) asking for the project achievements and the impact of the project management style on project results. Question 27 asked the interviewees to give a percentage to rate the achievement for each of the five major project objectives specified for question 6. Questions 28-33 were open questions asking for qualitative appraisals of the interviewee on which further results the project generated, which were the most important project results from the perspective of the interviewee and the project stakeholders, on the sustainability of the project results within a time frame of 5 to 10 years, on the influence of the project management practices on the project outcomes and on evidences for this interrelation.

Data gathering
For data gathering, the authors had to rely on telephone interviews because of the geographic distribution of interviewees and resource restrictions of the research project. Extant studies showed that there are almost no quality cutbacks between data obtained with face-to-face and telephone interviews (Rogers, 1976, Doloreux et al. 2004).The interview guideline was made available online as Evasys survey, an online system which included all required functions.

Sixteen student researchers conducted the telephone interviews. They worked together in groups of four, and each group targeted eight RIS project coordinators. They were trained in using the questionnaire in telephone interviews, and each group ran two test interviews. Interviewees were sent the interview guideline in advance to prepare for the interview. They received an access code at the beginning of the interview so that they were able to open the online survey and to see the questions in front of them. The interviewer then read out all questions to the interviewee and ticked the boxes with the given answer for all closed questions. Answers to the closed questions went directly into Evasys and were than exported into SPSS. In addition, all interviews were taperecorded. Answers to the open questions as well as additional information interviewees gave to the closed questions (like explanations etc.) were transcribed verbatim in an extra word document.

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Data analysis
The transcription of the qualitative data comprised 74 pages. The authors decided to analyse the interview material with an open coding, bottom-up approach which allows for the emergence of themes from the material (Flick, 2009). Answers to closed questions were additionally analysed with the means of descriptive statistics, calculating mean and average values.

For being able to learn about differences and similarities in project management in the project teams with high(er) and low(er) achievement rate of their five major project objectives (further called project success), the sample was divided into two sub-samples: 16 projects belong to the sub-sample of the more successful projects with an average percentage of objectives estimated as achieved from 71% and above which are further called 'high'. The other 12 projects were allocated to the sub-sample of the projects with lower estimated average success rate of 65% and below which we further call 'low'.

Open answers from the interviews were allocated for each question to the body of interview text assigned to the high or low category. The text body of the high sample comprised 38 pages; of the low sample 36 pages. During the analysis of the answers to the open questions, researchers applied an iterative procedure following the suggestions by Miles and Huberman (1994; p. 69-70). The involvement of different researchers in the interpretation of qualitative data helped to improve the interpretive validity of the data analysis (Lincoln and Guba, 1985).

Findings
The findings of the study provide broad insights into the particularities of managing RIS projects.

Project objectives and their achievement
As a first step, the authors wanted to know what the RIS projects strived for, and to what extent they achieved their objectives. They therefore conducted a descriptive analysis of the data on the success of RIS projects. Project success is here defined as the percentage to which the project managers estimated that the five major objectives of the project were achieved by the project. On average, the project managers assessed that their projects accomplished 68.2% of these objectives.

The authors additionally analysed how often the different objectives were selected and how their achievement was assessed by the interviewees. They found that the three most popular objectives for RIS projects were 9 "Promotion of a regional innovation culture" (19 projects), 3 "Strengthening the innovative capacity and competitive power of regional SMEs" (18 projects) and 1 "Improvement of regional government capacities for innovation policies" (18 projects). The objectives with the highest achievement rates were 19 "To provide a method to detect and assess the support needs of regional stakeholder groups concerning innovation" (91,6%), 7 "Technology/knowledge transfer between large firms and SMEs" (87,7%) and 13 "Evaluation of innovation policies, initiatives and programs" (80%). It is striking that the latter objectives seem to be much more concrete, less complex and easier to implement then the relatively fuzzy objectives selected most frequently. Objectives 19 and 13 can be achieved by the project core team without having to rely on stakeholders. Objectives 15 "Promotion of the innovative capacity of the region in the European Research area" (47,5%), 21 "To test new methodologies of delivering innovation support to small and micro businesses" (50%) and 20 "To measure the impact of available regional innovation support services" (60%) were the objectives which were achieved least. These objectives are very broad and their

achievement depended from the engagement of project stakeholders, at least in case of the objectives 20 and 21.

The authors searched for more explanation of the qualitative data and found that cooperation with stakeholders emerged as a major topic. All interviewees highlighted the challenge to attract stakeholder interest during the project and to maintain their consensus. Stakeholder integration was characterized as not easy, and this is reflected in the achievement rates of those objectives demanding it. When talking about mechanisms for stakeholder integration, interviewees in general mentioned project activities aimed at gathering and spreading information and feedback like publishing information on the website or sending out a newsletter. Reports on real stakeholder integration, i.e. on dialogic activities and commonly developing the project are rare; examples include workshops where project results were presented and discussed or informal meetings over lunch. We conclude that the apparent mismatch between some of the project objectives which demanded stakeholder integration and the activities conducted in most projects which were much more focused on providing stakeholders with information had an impact on the project success.

Application of APM practices
The interviewers asked the interviewees whether they were familiar with APM. Eight out of 28 interviewees confirmed that they had heard of APM as a project management methodology, three of them received training in it and four interviewees declared that they consciously applied APM. However, the findings show that APM practices have been applied in most projects — intuitively and demanded by the project characteristics, it is assumed. For a descriptive analysis, the authors aggregated the mean average, standard deviation and median in a successive process, first of the single subgroups of APM practices, second of the APM practices and third of the APM principles. The results are presented in table 3 below:

Table 3. Descriptive data: application of APM principles and practices

	Sample mean $\bar{y}$	Standard deviation (d)
APM principles, all items	**3.6**	**0.5**
Principle 1 (P1): Foster alignment and cooperation	**3.9**	**0.6**
Practice 1a: Building up and working in organic teams	4.0	0.8
Practice 1b: Developing and living (embodying) a guiding vision	3.8	0.8
Principle 2 (P2): Encourage emergence and self-organisation	**3.2**	**0.7**
Practice 2a: Developing and applying simple rules	3.2	1.2
Practice 2b: Practicing open information exchange	3.0	0.7
Practice 2b1 (P2b without trust)	3.5	0.7
Practice 2b2 (P2b trust)	2.5	0.9
Practice 2c: Managing the flow	3.4	0.8
Principle 3 (P3): Institute learning and adaptation	**3.7**	**0.7**
Practice 3: Practicing adaptive leadership	3.7	0.7

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The data analysed with the means of descriptive statistics tentatively point to a tendency towards the application of a mix between APM and traditional project management in RIS projects (mean of 3.6 on all items). Additionally, there are tendencies regarding the different principles: whereas the projects applied more classic project management practices concerning P1 "Foster alignment and cooperation" (mean of 3.9) and P3 "Institute learning and adaptation" (mean of 3.7), there is a slight tendency to the application of more agile project management practices regarding P2 "Encourage emergence and self-organisation" (mean of 3.2). At the level of practices, practices related to P2b2 "Trust" expose a strong tendency to APM (mean of 2.5). Practices related to P1a "Building up and working in organic teams" show the strongest tendency for the application of traditional project management methods (mean of 4.0). Analysing the standard deviations and confidence intervals, the highest variation is visible in the practice P2a "Developing and applying simple rules" with a standard deviation of 1.2.

Figure 1: Means and und 95% confidence intervals
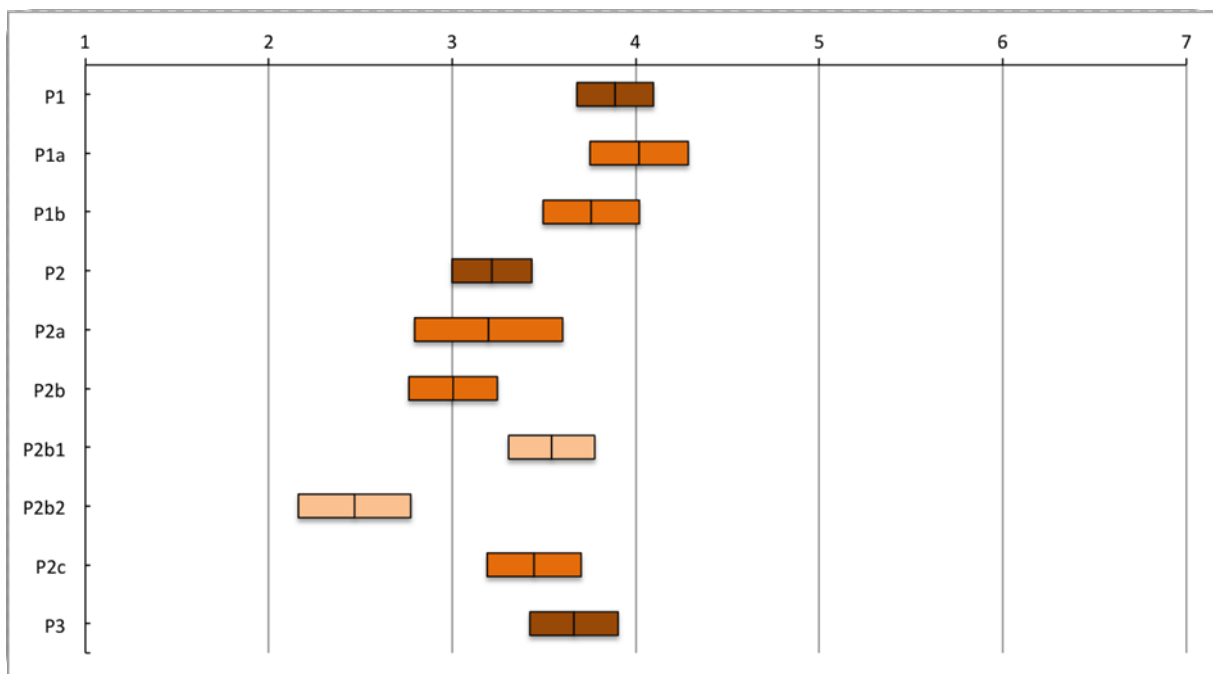
The means and confidence intervals show that in the studied RIS projects, the project management was significantly more agile concerning P2 than concerning the other two principles (P1 and P3 do not overlap with P2). The practices P1a and P1b overlap strongly what indicates that both APM practices have been managed equally traditional. In principle 2, none of the APM practices P2a, P2b and P2c is significantly more agile than the others. The practice P2b „Trust" attracts particular attention because it was assessed as highly agile. P2a "Developing and applying simple rules" shows the highest variation, which indicates that we can find here the highest differences in the judgements of the interviewees — and thus most probably large differences in managing RIS projects.

In line with this difference and the other descriptive statistical findings, the qualitative data analysis revealed a heterogeneous picture concerning project management practices that were applied in the RIS projects studied to organize the work within the core project management team. From the qualitative data analysis, three distinct project management styles used in RIS projects emerged; these are described below.

Project management style 1: Participative and self-organized
Five project managers reported that their aim was to lead the project in a participative way and to support self-organizing teams:

"Rules? We were very flexible, why do we need rules? I don't think that we have any rules except of involving the stakeholders and trying as fast as possible to develop action plans." (manager of project 8)

Interviewees acknowledge that in exchange for giving autonomy to the team, they expected project team members to engage in the project work. To them, participation and autonomy go hand in hand with commitment and engagement. Project managers also highlighted the high level of trust, the excellent qualifications of the team members and the very open flow of information in the core project management team. They understood their role as facilitator of the process, a role that also includes mediating conflicts in the team or with external stakeholders. These interviewees relied on an emergent planning strategy where "the structure of the project was developed during the project, according to results, modification of the plan, and so on" (manager of project 15).

Project management style 2: Setting frames
Fourteen interviewees highlighted the importance of the project manager setting up general conditions, frameworks and guidelines. They used a task-based management approach which they describe as a mixture between top-down and bottom-up management:

"Just, we prepared the work programme, the work packages, there were clear tasks and deliverables and there was clear planning … we also used modification of the plan according to steps or … results of separate phases in the project"(manager of project 15).

These interviewees saw their own role as a coordinator who keeps the project on track. They report that they regularly monitored whether milestones had been reached to ensure project progress and a high quality of project results.

Project management style 3: Command-and-control
The last third of the interviewed project managers used more classic project management methods like "project progress monitoring, meetings to tell the people what they have to do, very detailed work plans" (manager of project 19).

Their management practices included strong mechanisms for controlling and monitoring the work of project members. These project managers felt that their role was to "keep pushing" (manager of project 18) so that project objectives would be reached in time. Project plans were developed at the beginning of the project and only adopted if needed. Otherwise, rules set at the beginning of the project had to be followed: "Accomplish what is in the work program. There were basic ground rules. Milestones were very strict." (manager of project 20)

Relation between project management approach and project success
Concerning the relation between the applied project management approach and project success, the data reveal a tendency: there seems to be a preference of most project managers in the low sample for the second or third and in the high sample for the first and second project management approach. Table 4 displays the distribution of projects to the management styles:

Table 4. Distribution of project management styles

	Project Management Style 1: Participative and self-organized	Project Management Style 2: Setting frames	Project Management Style 3: Traditional approach
High project success	4	9	1
Low project success	1	5	5
Total	**5**	**14**	**6**

Asked about how far project management had an impact on project success, project managers from both samples often talked about a gut feeling that there might be an interrelation but were rarely able to provide concrete evidence. Some, however, mentioned indicators like ongoing cooperation in follow-up projects and the integration of project results into regional innovation policy programs and related them to the strength and focus of the agile project management approach that triggered them. Several project managers from the high sample argued that agile practices from P1b "Developing and living (embodying) a guiding vision" and P2b2 "Trust" had the strongest impact on project success. The data provide more insights into these interrelations.

The project vision
Project managers from both samples felt that the vision had a very important role for the project. However, the reasons they give differ. The majority of interviewees from the high sample highlighted that the vision provided the core project management team with an orientation in their activities, an objective to strive for. Interviewees from the low sample rather talked about the vision as something that helped them to communicate the project objective to the regional stakeholders and to develop consensus among them, i.e. the vision was an instrument "to keep the stakeholders at the project and to ensure their participation and to allow for consensus" (manager of project 25).

Trust
As described above, trust in the core project team was seen as very important, especially in those projects where project managers applied a very agile, participative project management style.

In general, there seemed to be no problem with trust within the project teams. According to project managers from the low sample, however, there was a serious problem with confidence in politicians from their regions. Interviewees reported on concrete incidents where politicians promised the project team something but then broke their promise and, even worse, tried to damage the project.

On the contrary, projects from the high sample were very successful in integrating regional policymakers into project activities, thereby ensuring their support. Some of the interviewees from the high sample expressed a certain suspicion when dealing with politicians and the problems the project faced because of a political change in the government (end of a legislative period). However, they never blamed political actors for a two-faced attitude. This indicates that for the success of RIS projects, trust in and support by regional politicians seems to play a major role.

Further challenges
Project managers from the low sample reported that they faced challenges and problems which resulted from a lack of expertise of the organizations involved in EU project management, from the non-existence of adequate project management tools and from missing personal networks of the project manager in the respective region. Project managers from the high sample did not report similar challenges and problems.

In both samples, project managers often experienced it as a constraint that they "had to comply with certain methodological requirements imposed by the commission" (manager of project 22). About 50% of the project managers reported that rules and guidelines set by the European Commission often were not applicable in the regional situation and that they had to translate them to make them feasible for the region and the stakeholders. About twothirds explained — sometimes in a very ironic way — that they tried to formally meet the objectives and respect the rules set by the European Commission but at the same time used all means for keeping the project flexible and agile so that it would benefit the regional stakeholders. This finding is important as it implies a certain need for change in funding, coordination and reporting mechanisms of the European Commission for projects which have an objective that necessitates flexibility and agility in the process of project conduction.

Discussion and conclusion
In this study, the authors assumed that RIS projects were very complex due to the necessity to develop a regional innovation strategy together with a large number of stakeholder groups in an emergent process (Bateira and Ferreira, 2002; Benz and Fürst, 2002; Koschatzky and Kroll, 2007). Following the suggestions from other disciplines such as architecture, strategic management and IT (for a summary, see Nerur and Balijpally, 2007), they hypothesized that these projects would benefit from the application of APM. It was expected that APM would provide project managers with a methodology for project management which would help to deal with project randomness and uncertainty. Findings support the hypothesis that the use of APM supports the achievement of project objectives. There is a tendency that high(er) project success is in most cases connected with a participative open or a frames setting project management style.

The findings show that APM was not well known among the RIS project managers; APM practices were applied rather accidentally. That only eight out of 28 interviewees acknowledged that they knew APM suggests a lack of proliferation of the term. For a systematic application in regional innovation projects, more work has to be done to support APM introduction and integration with current practice, to increase awareness of it, provide training in it, and raise its profile among academics and practitioners. This could be done by adapting specialized project management vocations from industries and areas such as the ICT industry that already apply, teach and train well-documented agile methods like Extreme Programming (Wysocki, 2009).

APM practices related to P2 "Encourage emergence and self-organization" were much more used than those related to the other two principles where project managers exhibit a slight tendency towards the use of classic project management practices. Besides the rather poor knowledge of APM, this might be an effect of the funding practices of the European Commission which are not in favour emergent planning. This finding supports those of earlier studies (see Novy and Hammer, 2007). Here, the authors conclude that there is a need to redesign the European Commission's funding schemes for regional development projects and

provide projects with a higher flexibility which would allow for dealing with emergent challenges and for real stakeholder integration.

Moreover, the findings of this study indicate that some of the APM principles are more difficult to implement in regional development than in ICT projects which have a much shorter runtime and focus on the development of a concrete product so that continuous stakeholder integration is easier to achieve. Stakeholder integration occurred in the RIS projects more as stakeholder information and rarely as collaboration. Denning (2013) discusses why agile management approaches so far have not attracted the attention of managers in other industries and concludes that one "reason for the neglect is that the management potential of Agile was … the discoveries were made by people who, in retrospect, one might think would be least likely to have solved a management problem — geeks" (p. 9). On the other hand, Turk et al (2002) found that not all types of projects are suited for APM methods. Future research should look into the particularities of stakeholder integration in regional development projects and develop insights into the appropriateness of agile methods and test processes for their application.

Little is yet known about how the different APM practices can be applied in regional development projects. This study leaves this to future research but provides some insights into important features that might serve as a starting point: The authors found that APM practices related to trust and to embodying a guiding vision had the most important impact on project success. The data show that the vision should not be used only as a communication instrument towards stakeholders. On the contrary, it needs to provide the project with an orientation which allows the project members to deal with emergence and uncertainty during the process. Trust seems to be a very important factor which supports the achievement of project objectives. Stakeholder engagement and APM require a lot of investment in terms of time and money if they are to be done in a meaningful way. The underlying issues relate to social capital, specifically the degree to which relationships are initiated, developed and maintained. Projects where stakeholder engagement is required and APM is assumed as being the right project management approach to facilitate require a foundation of good social capital in order to really work (Putnam, Leonardi, and Nanetti, 1993). This should be also accepted by project funders because the buildup and maintenance of social capital is much more cost intensive than project budget usually allows.

In more detail, this study identified no problems with trust in the core project management team. The group that managers of projects with low(er) project success distrusted most was politicians, whereas those from projects with high(er) project success were very good in the integration of this group into project activities. This implies that for developing a regional innovation strategy that should be implemented later on, it would be necessary to gain political support. This is again in line with former studies which outline that "the territorial division of power plays an important role regarding the extent to which regional innovation policies are implemented" (Prange, 2008, p. 41). Russo & Rossi (2008) suggest involving 'multivocal' service providers into the management of projects dealing with regional innovation who can act as mediators.

Three limitations apply to this study. First, the regional development projects studied all belonged to the same program; other projects might exhibit different characteristics. Research should strive for studying other types of regional development projects and compare to our findings to achieve a higher generalizability. Second, the project managers in the sample self-estimated the achievement of their five major project objectives, which might have produced some bias. The authors, however, hope that the format of the telephone interview, which

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allowed the interviewers to question unusually high rates and to ask for indicators for achievements, helped to keep this bias as small as possible. However, the authors feel that the evaluation of achievements of regional innovation projects is a topic that should be studied more extensively. Third, the small size of the sample limits the generalizability of the findings to those of a descriptive analysis. The findings of this paper are limited to the 28 projects studied and do not allow a general conclusion for all RIS projects. Therefore, the findings presented in this study can be understood only as tentative and indicative, qualitative and descriptive first insights into the research question at hand. This requires further studies that test and validate them in the frame of quantitative studies.

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