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Project Management Governance: a situational approach

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Abstract

The purpose of this paper is to show how project management governance is addressed through the use of a specific meta-method. Governance is defined here on two criteria: accountability and performance. *Accountability* is promoted through transparency and *performance* is promoted by responsive and responsible decision-making. According to a systemic perspective, transparency and decision-making involve having information, tacit or explicit knowledge, as well as understanding of the context, the different parameters and variables, their interaction and conditions of change. Although this method of methods was built according a heuristic process involving 25 years of various researches and consulting activities, it seems appropriate to draw its foundations. I clarify first my epistemological position and the notion of project and project management, as Art and Science. This lead me to define a "Be" / "Have" posture to this regards. Then, the main theoretical roots of MAP Method are exposed: Boisot' s Social Learning Cycle, Praxeology and Theory of Convention. Then we introduced the main characteristics of the method and the 17 methods and tools constituting MAP "tool box", thus with regard to the project management governance perspective. Finally, I discuss the integration of two managerial modes (operational and project modes) and the consequence in term of governance in a specific socio-techno-economic project/context ecosystem.

Key words: epistemology, project management governance, social learning cycle, praxeology, theory of convention, ecosystem, map method, meta-method.

Introduction

This paper presents a Meta method towards establishing project management governance. Project management governance is understood here as the project management systems that enable acting and answering the demands of a wide range of stakeholders for increasingly high levels of accountability and performance. Here, governance is based on two criteria: accountability and performance. *Accountability* is promoted through transparency and *performance* is promoted by responsive and responsible decision-making. According to a systemic perspective, transparency and decision-making involve having information, tacit or explicit knowledge, as well as understanding of the context, the different parameters and variables, their interaction and conditions of change. Thus, we can consider that there is a systemic and dynamic link between governance, transparency & decision-making and information, knowledge, learning and understanding in a given context and under given conditions.

This meta method is well grounded in sound theoretical organisational frameworks. With a project management governance perspective, we can say the meta method (called MAP Method) is about designing a contextual structure that:

- Provides a privileged place for individuals, project managers and stakeholders to act and learn and such learning in project environment needs to integrate the two perspectives, as there is a need for a blend of creative or exploratory learning and application or exploitative learning (Boisot, 1998, p. 116). Having in mind the need for efficiency and effectiveness, a project team acts as a temporary dissipative structure (Declerck, R., Debourse, & Declerck, J., 1997, p. 207), generating first entropy (that is knowledge) creating knowledge with many degrees of freedom, then applying it (entropy reduction by reduction of complexity, Boisot, 1998, p. 67-68) in the former stage of a project.
- Facilitates this praxis through a specific meta-method, one of the underlying paradigms being that there is a co-evolution between the subject/actor/researcher/student and his or her environment. This involves inseparability between the subject and the object in this observation-action process. This observation-action is related to an epistemo-praxeologic cognition through an observational chain (perception of what is true or wrong – epistemological subjectivity), a decision chain (decision made founded or unfounded – pragmatical subjectivity), and an effect chain (action fulfilled feasible or unfeasible – praxeological subjectivity). This epistemo-praxiologic cognition involves both partial subjectivity AND partial objectivity, congruent with our previous alternative epistemological position.

- Enables to generate a specific convention (configuration of order) and some kind of stability to cope with uncertainty and ambiguity in a given project's complex situation. The MAP Method helps to create a coherent or dissonant framework of symbols, promoting dynamic management practices which are creating adequate initial conditions for decision-making (and thus performance), and transparency (and thus accountability) while being conscious of rational voids.

The purpose of this paper is threefold:

- 1 – To demonstrate why project management has to be seen as a complex integrative field and clarify my epistemological position accordingly;
- 2 –To introduce a meta-method based on a praxeological approach and theory of convention;
- 3 –To advocate that a contextual approach is needed to capture the different kind of managerial situations.

Project Management as a Complex Integrative Field

As professor and director of the post graduate programmes in project management as well as a practicing consultant, I am constantly surprised by the way the world, i.e. organisations, universities, students and professional bodies, sees project management: as a set of methods, techniques, tools, interacting with others fields – general management, engineering, construction, information systems, etc. – bringing some effective (?) ways of dealing with various sets of problems – from launching a new satellite to product development through to organisational change. The problem being that most of the tools, techniques, and methods involve a conceptual approach, based on a specific paradigm, which is mostly, in project management, a positivist one.

We need to question whether this is the appropriate paradigm for the kind of project management, which claims to be able to deal with complex problems that do not have clear or straightforward solutions. The apparent lack of a theoretical foundation, the lack of a clear epistemological position in most of the research to date and the lack of a clear paradigm in most of the literature, seem, from my perspective, to be a real barrier to effective understanding and communication of the true nature of project management. This leads to nonsense, to a dynamic, a fad, where hype, advocacy of one's own practice is the rule, reinforced by a lack of critical thinking by the practitioners, who complacently accept seemingly reasonable answers, even if they lead to major failures. It is often convenient, and lucrative to reinforce accepted belief systems built on many centuries of thinking based on the positivist paradigm. Positivism has led in some cases to over-simplification – one

problem equals one solution – and in many cases has obviated against recognition of the complexity and of the relativity of the world. The place of project management within most universities and as a research field shows that it is not yet considered as a discrete discipline. In most universities it is treated as a sub-discipline of construction, engineering, IT or business faculties. At the same time it is claimed to be a trans-functional discipline. This situation itself contributes to a reinforcement of the positivist paradigm that pervades teaching, research, and practice of the discipline.

Kurtz & Snowden (2003) question the three basic assumptions that pervade the practice and the theory of decision-making and thus the governance of organisations: assumptions of order, assumption of rational choice and assumption of intentional capability:

- *"The assumption of order: that there are underlying relationships between cause and effect in human interactions and markets, which are capable of discovery and empirical verification. In consequence, it is possible to produce prescriptive and predictive models and design interventions that allow us to achieve goals. This implies that an understanding of the causal links in past behaviour allows us to define "best practice" for future behaviour. It also implies that there must be a right or ideal way of doing things.*
- *The assumption of rational choice: that faced with a choice between one or more alternatives, human actors will make a "rational" decision based only on minimizing pain or maximizing pleasure; and, in consequence, their individual and collective behaviour can be managed by manipulation of pain or pleasure outcomes and through education to make those consequences evident.*
- *The assumption of intentional capability: that the acquisition of capability indicates an intention to use that capability, and that actions from competitors, populations, nation states, communities, or whatever collective identity is under consideration are the result of intentional behaviour. In effect, we assume that every "blink" we see is a "wink," and act accordingly. We accept that we do things by accident, but assume that others do things deliberately."*

I concur with them and would argue that project management needs to be understood as a complex discipline because it aims to deal with complex reality. In mathematics, since Ashby (1958) and the law of requisite variety, it is well known that to control a complex system with n dimensions, you need an $n+1$ dimensional system. The available control variety must be equal to or greater than the disturbance variety for control to be possible. A number of conclusions can be derived from information theory, or from games theory; in a

communications system, to transmit a message and receive it successfully, the coding/decoding variety must exceed the interference variety. In a game the variety of moves you have available must be greater than the variety of moves available to your opponent if you are to be able to win. This implies that it is important to plan for many states (= situations) and many misunderstandings (see below the role of conventions). As part of the key resulting concepts and principles, the following can be mentioned as very pertinent to the governance topic:

- The Conant-Ashby Theorem: Every good regulator of a system must have a model of that system. Implication: The principle prompts one to think through and create a model of what you are teaching / managing / guiding.
- The Darkness Principle: Even though a system is never completely known, it can be managed effectively (black box theory)
- The Redundancy of Resources Principle: To minimize the effect of disturbances or noise, the system requires backup systems of critical resources (human and machine) in order to maintain stability. Implications: Plan actions before disturbance or noise happen, because they will.

Project management also needs to be simple, as far as its principles are concerned (again, see below the role of convention): like white light is transformed into multiple colours through a prism, project management applications may be seen as coming from some general principles. Project management needs to integrate both quality (To Be) and quantity (To Have). Project management is a process of naming, of revelation, of creation. Thus, my purpose is to defend the proposition that project management has a "raison d'être" in itself; it is both a discipline and an art and contributes to a better understanding of the integrative epistemological position proposed, in which is the very nature of project management.

Indeed, project management is praxis. Praxeology is "*The science of human action that strives for universally valid knowledge. In all of its branches this science is a priori, not empirical. Like logic and mathematics, it is not derived from experience; it is prior to experience. It is, as it were, the logic of action and deed.*" (Von Mises, 1976, Chapter 1 §6) It is the source of creation of value(s) – human and economic – and this justifies the fact that it is essential to better understand the very nature – gnosis – of project management, beyond the positivist mirror.

The role of the project management discipline within organisations is to design, analyse, manage and implement strategy, and as source of competitive advantage through the

development of knowledge and understanding, leads me to question the way the project management field is defined.

Indeed this field is the basis for the development of standards, of competencies, and beyond this, a source of value for people, organisations and society. The following insights into some major issues within the project management field, provide an inventory of the main questions.

Project management as a strategic approach

For the past 40 years, project management has become a well-accepted way to manage organisations. The field of project management has evolved from operational research tools and techniques to a discipline of management (Cleland, 1994; Bredillet, 1999). *Management of Projects*, the way to manage projects within the same organisation (Morris, 1997), and *Management by Projects*, projects as a way to organise the whole organisation (Gareis, 1990; Dinsmore, 1999), are both good examples of that tendency. Many authors emphasize this evolution in the way of managing projects: "*This book traces the development of the discipline of project management*" writes Morris (1997). Project management becomes the way to implement corporate strategy (Turner, 1993; Frame, 1999) and to manage a company. Projects are a form of organisation that positions a company in relation to its environment. As projects are the vectors of the strategy (Grundy, 1998), project management is also a way to deal with the characteristics of the whole environment: complexity (Arcade, 1998), change (Voropajev, 1998), globalisation, time, competitiveness (Hauc, 1998). Thus, with the help of project management, strategic management really becomes really the management of irreversibility (Declerck et al, 1997), concentrating on the ecosystem's project/organisation/context, operation/organisation/context and its integrative management (Declerck, R., Debourse, & Navarre, 1983).

Competencies as a source of Competitive Advantage and Creation of Value

Projects, as strategic processes, modify the conditions of the firm in its environment. Through them, resources and competencies are mobilized to create competitive advantage and other sources of value. As resources are easily shared by many organisations, the organisation's competencies are the most important relevant driver. Thus, through the organisation's processes or projects, past action is actualized as experience; present action reveals and proves competencies; future action generates and tries out new competencies (Lorino & Tarondeau, 1998). Competencies (both individual and organisational) are at the source of competitive advantage and the creation of value (Stata, 1989; de Geus, 1988).

Project Maturity and Performance

Recent research has been working on the assumption that the more competent the project managers, teams, or organisations (maturity), the more efficiently they will perform, the more effective the performance of the projects will be, and the more successful the organisation will be (Crawford, 1998; PMI *Project Manager Competency Development Framework*, 2002). Such research, and indeed the development of professional certification programs in general, seem to contradict former findings. For example, Pinto and Prescott (1988) concluded that the "personnel factor", even if designated in theoretical literature as a crucial factor in project efficiency, is a marginal variable for project success at any of the four project life cycle phases considered (for a critique of their findings, see Belout (1998)). A working paper (Turner, 1998) demonstrates the influence of the project managers' competencies on value of shares of a company. But performance also comes from the maturity of the organisation in dealing with projects. And in respect of maturity, learning is especially significant. The *Organizational Project Management Maturity Model (OPM3™)* (PMI, 2003) and other papers (example, Remy, 1997; Saures, 1998; and Fincher & Levin, 1997) explore the relationship between maturity of the organisations and success of projects portfolios, programs and projects.

A situational Competency approach

To develop competencies, knowledge is needed. Two main views of competence development may be considered. One traditional view is that it involves applying a body of knowledge to known situations in order to produce rational solutions to problems (what I call the "have" or "quantitative" perspective). However, in a rapidly changing world and information-based society, practitioners and organisations increasingly need to respond intelligently to unknown situations and go beyond established knowledge to create unique interpretations and outcomes (Schön, 1971; Ackoff, 1974; Toffler, 1980, 1990; Reich, 1991) — what I call the "be" or "quality" perspective. As a result, it is no longer adequate to base professional development just on transmitting existing knowledge and developing a predefined range of competences on the basis: one problem equals one solution. Instead, practitioners need to be able to construct and reconstruct the knowledge they need and continually advance their practice (Schön, 1987, p. 35-36), thereby leading to a systemic and dynamic development of their competencies (For a review of the link between knowledge, personal and performance-based dimensions of competence see Crawford (1998)). These alternative approaches of going beyond traditional models of production and knowledge use, while recognizing its validity in some areas, are mainly based on reflecting, questioning and creating processes.

Project management: A knowledge field that is not yet grounded

If, considering Audet's (1986) definition "*a knowledge field is the space occupied by the whole of the people who claim to produce knowledge in this field, and this space is at the same time a system of relationships between these people*", we assume that the project management knowledge field does exist. We can see "these people" as competitors trying to gain control of the definition of the conditions and the rules of production of knowledge, with respect to the behavior of professional bodies, authors, and academics. For example, the relationships between established professional bodies (PMI, International Project Management Association (IPMA), etc.) and their way of development (PMI, through A Guide to the Project Management Body of Knowledge (PMBOK® Guide); IPMA, through a shared competence baseline (ICB – IPMA Competence Baseline), contextualized according to the nationals' needs of the national associations; the fact that PMI withdrew from the Global Project Management Forum, a kind of supra-institutional body trying to promote a common basis in term of knowledge; the wish to create global standards; the fact that PMI is very active in supporting research in such areas as establishing a theory of project management, demonstrating project management value for executive, achievement of corporate strategy through successful projects, to quote a few; the evolution of bodies of knowledge (PMBOK® Guide, APM BOK, etc.), of the themes of papers and books, from techniques to psycho-sociology of temporary groups through knowledge creation and organisational learning, illustrate this. In addition, the field, currently characterised by this abundance of initiatives, development of standards, increasing use of project management methods and techniques, is in pre-paradigmatic phase according to Kuhn (1970). It is actually the place of a revolution, inaugurated by a growing sense, still restricted to a small project management community, that the existing positivist paradigm has ceased to function adequately in the exploration of the nature. A second and more profound aspect upon which the significance of the first depends is that the success of revolutions necessitates the partial relinquishment of one set of institutions in favour of another. Is it the sense of the creation, in the U.S.A., of an alternative professional body (American Society for the Advancement of Project Management) to PMI with different rules (in particular, much more flexible about the legal aspects and copyright rules, the aim being to make knowledge produced by the members available and usable by the community in large)? Is it the sense of a PMI initiative, the wish to establish regional headquarters?

Therefore, I argue that many applications of project management are done without questioning the deep nature of projects: What is a project? On which epistemological foundations can we build the project management field? Which hypotheses apply to the field? Why is project management unique? What is the specificity of project environment

(project vs. operations) as far as knowledge and learning are concerned? What are the consequences on the development of knowledge and learning in project environment?

Trying to address these questions involves clarifying my epistemological position.

Scrutinizing the concept of project

From one perspective (Leroy, 1994), the concept of project is generally approached by listing its intrinsic characteristics. I have selected three definitions, chosen to demonstrate the range of different perspectives in the approaching of the project concept:

- *"a project is a temporary endeavour undertaken to create a unique product or service"* (PMI, PMBOK® Guide, 2000), pointing out the instrumental perspective;
- *"an endeavour in which human, material and financial resources are organised in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives."* (Turner, 1993), putting forward the cognitive perspective;
- *"a project is a whole of actions limited in time and space, inserted in, and in interaction with a politico-socio-economic environment, aimed at and tended towards a goal progressively redefined by the dialectic between the thought (the project plan) and the reality"* (Declerck et al, 1983, 1997), illustrating the political perspective.

These different perspectives illustrate the polysemic nature of the concept of project (Boutinet, 1996). This polysemic nature is at the source of two underlying visions which have evolved with the development of project management.

On the one hand, it is interesting to note that the development of project management was accompanied by the constitution of codes of practice and this according to two plans:

1. First, in the plan of the people, from the builders of cathedrals to the National Aeronautics and Space Administration (NASA) 100 rules of "the good" project manager, while passing by the processes of certification of the people, this being connected in the majority of the cases to an "initiation rite" (and rite comes from the Sanskrit rita = order), where theoretical knowledge is not enough, even if essential, but must be accompanied by recognition of the peers and of the practice;
2. Then, in the plan of the processes of management of the trajectory of the projects by the organisations, with the appearance of the standards, either with descriptive or prescriptive feature. The underlying vision is, here, a positivist one: experiences and practices lead to standard and rules, standard and rules lead to theories, which lead to paradigms, and all

these, according to certain assumptions, are used as a basis of code of practices, bodies of knowledge.

On the other hand, through projects, man builds reality and as highlighted by authors like Declerck et al (1997), the management of projects by its mode of deployment within the ecosystem project/firm/context implies a systemic vision, "*an "intelligent" action, "ingenium", this mental faculty which makes possible to connect in a fast, suitable and happy way the separate things*" as stated by Lemoigne (1995), quoting Giambattista Vico (1708). Thus, the evolution noted in the use of project management and/or management by projects (Giard & Midler, 1993) and its structuring characteristics suggests a constructivist vision (Cognitive Constructivism with Jean Piaget and Social Constructivism with Lev Vygotsky).

Tensions and paradoxes in project management

These two visions appear to be consubstantial with the concept of management of projects underlining the "*tensions and paradoxes in project management*". Boutinet (1997) shows that the project model can constitute a suitable reference for the management of organisations, as, through, them it is possible to create and to innovate by using several parameters, which they organise in a paradoxical way. Not being conscious of this often involves us toward a drift of totalitarian or technicist project or toward simplification, the vulgarizing of projects brought back to our daily life. Current organisations in the mobility of our post-industrial culture resort readily to the figure of the project as a model of management: industrial companies, social or educational establishments, services, etc. This recourse seems suitable insofar as we move in complex and fluctuating environments which confront us to create and innovate, while always resorting to a plurality of parameters; to reason in terms of objectives is to be located from the unidimensional point of view, that which we knew; to reason in terms of projects, it is precisely to take into account this multidimensional thought made of a plurality of components take into account; however those by the force of the things often maintain between them the paradoxical relations. Indeed to speak about paradox is deliberately to fit in a way of thinking uncommon, founded on a non-traditional logic, that of unexpected, 'fuzzy' and uncertainty in particular.

This way of thinking is completely congruent with our time of post-modernity marked by the advent of the post-industrial culture; we have now left the universe of the certainty, the constants, the determinisms and the laws to enter that of fluidities and paradoxes. Doesn't the currently dominant reign of the communication networks represent an emergence, impossible to circumvent, of the plural oppositions which make us initially have a presentiment of an environment conditioned by the mode of its diversities and its contrasts?

The project embodies completely this paradoxical reality since it exists only to disappear as soon as it is carried out! To speak about the non-traditional paradox of logic is to take a stand in opposition to traditional formal logic which has dominated until the end of the industrial age. This traditional logic was concerned with coherence and haunted by the principle of non-contradiction; discipline of the mind and controlled sets of steps. This logic can, however, twist the rational one in the direction of rationalizations, artificially giving to reality desired intelligibility. The increasing complexity of our environments means that the opportunities to use this traditional kind of logic are increasingly random; the relevance of the recourse to the paradox today is precisely related to the fact that it constitutes a suitable figure to think through the 'fuzzy', uncertain, and even the strangeness of our intentions, that is, the heuristic framework of our projects.

These considerations on the different perspectives embodied in the concept of projects, on the polysemic nature of the concept, and consequentially on the underlying positivist and constructivist visions consubstantial to the concept of management of projects and its paradoxical and non-traditional logic, lead me to present an epistemological position on project management.

An epistemological perspective for project management

After Polanyi (1958), I propose an alternative epistemological perspective both to positivism and constructivism. I have no intention to separate personal judgment from scientific method. I argue that, especially in project management, knowledge creation and production has to integrate both classical scientific aspects and 'fuzzy' or symbolic aspects. A "reality" can be explained according to a specific point of view and also can be considered as the symbol of higher order (Guéron, 1986) and a more general reality (example, a two-dimensional form can be seen as the projection on a plan of a n-dimensional figure). I argue that the "demiurgic" characteristic of project management involves seeing this field as an open space, without "having" (Have) but rather with a "raison d'être" (Be), because of the construction of "Real" by the projects. It could be considered to be a fundamental explanation of the pre-paradigmatic nature of this field (Kuhn, 1970): the dominant paradigm, source of well established theory(ies) is NOT to find, the deep nature of project management implies this paradox of being built on moving paradigms reflecting the diversity of the creation process by itself.

This field is thus composed of both quantitative aspects (Have), dependent upon the positivist paradigm, where people have few degrees of freedom (operational research in network optimization, cost engineering, statistical methods, bodies of knowledge, application

of standards, best practices, code of ethics ... all these are seen as the truth), and qualitative aspects (Be), dependent upon the constructivist paradigm where people have many degrees of freedom (organisational design, learning, knowledge management, change management, systemic approaches, contextualisation of the life-cycle, meta-rules, etc.), some of these aspects being linked together: for example the creation and evolution of standards seen from the Theory of Convention (social construct) and their application (positivism). The problem is that, most of the time, people are using methods and tools without any idea of the validity of the underlying assumptions.

Thus, my vision for project management would be one of an integral function: the knowledge field is made up of differential elements; each of them able to be defined, for example cost control, scheduling, communication, quality, information system, temporary group, etc. Seen as a whole, it is a transition to the limit, and in mathematics the result of an integral is both quantitatively and qualitatively more than the sum of the parts. In other words, it can be called a system effect: parts A, B and C forming a system S, keeping some of their properties and potential performances, losing some others, but gaining some entirely new performances (Legay, 1996).

From this point of view of the conceptual field of management of projects, like Lemoigne (1995) we could argue that there is *"inseparability of the knowledge and its representation understood in their distinctable activity, the intentional experience of the knowing subject and the groping construction of the subject representing knowledge, this undoubtedly constituting the strong assumption on which are defined teachable knowledge today, both scientific and ordinary"* (See below the role of symbols in Theory of Convention).

So for me, project management as a knowledge field is both an art and a science, in their dialectic AND integrative dimensions (close to the "critical-rationalist" and "interactionist" approach of Popper), and thus according to the two epistemological approaches:

- The positivist epistemology (materialist – quantitative – Have): *"the relation of science to art may be summed up in a brief expression: from Science comes Prevision, from Prevision comes action"*. (Comte, Positive Philosophy, Chapter II, p 43. 1896)
- The constructivist epistemology (immaterialist – qualitative – Be), with two hypotheses of reference as underlined by Lemoigne (1995):
 - The phenomenological hypothesis – the cognitive interaction between the object or the phenomenon to be known and the subject knowing forms at the same time the knowledge of the object (in "organising the world") and the mode of development of

knowledge by the subject (in "the intelligence organising itself"). This hypothesis associates to the strict design knowledge (the cognizable reality is a phenomenological reality, which the subject experiments) an active conception: the knowledge which the subject builds by its experience organises simultaneously the method of construction of this knowledge, or his or her intelligence.

- The teleological hypothesis: the intentionality or the finality of the knowing subject, according to its decisive role in the construction of knowledge (phenomenological hypothesis), must be taken into account.

Most of the works on organisational learning, learning organisations, knowledge management, knowledge-creating organisations, etc., are based on a traditional understanding of the nature of knowledge. We could name this understanding the "positivist epistemology" perspective since it treats knowledge as something people, teams, and organisations have. But, this perspective does not reflect the knowing found in individual and team practice, knowing (understanding) as an "intelligent" action, "ingenium", as stated by Lemoigne (1995), in calling for a "constructivist epistemology" perspective. The "positivist epistemology" tends to promote explicit over tacit knowledge, and individual knowledge over team or organisational knowledge.

This integrative epistemological approach for project management suggests that organisations will be better understood if explicit, tacit, individual and team/organisational information /knowledge /understanding are treated as four distinct forms (each doing work the others cannot), and if information, knowledge and understanding are seen as inseparable and mutually enabling. Thus, *"Information is descriptive; it is contained in answers to questions that begin with such words as what, which, who, how many, when and where. Knowledge is instructive; it is conveyed by answers to how-to questions. Understanding is explanatory; it is transmitted by answers to why questions. To understand a system is to be able to explain its properties and behaviour, and to reveal why it is what it is and why it behaves the way it does"* (Gharajedaghi & Ackoff, 1984).

In the next part of the paper, I am going to introduce a meta-method (model) resulting of twenty five years of research, learning and practice in various organisations from World Bank, to Defence sector through Retail, Bank and Small Business. This meta-method (MAP Method) aims at providing a contextual and situational model for project governance and management. Most of these developments are the results of research undertaken as part of the CIMAP Research Centre – Groupe ESC Lille, and are grounded on the former works of the founders Declerck and Debourse (1983, 1997).

Toward a meta-method to organise accountability and performance

This model was developed (and is still being developed) according to a highly heuristic process. Each research or consulting activity has brought and is bringing its contribution. Nevertheless before introducing the meta method (MAP method), I think it is worthwhile to write few words about the underlying theories in which it is rooted, even if some of them are a posteriori justifications.

MAP method's roots

Three main theoretical areas, aligned with our epistemological position exposed earlier in this paper are considered here. This meta method is grounded on "N-Learning" vs. S-Learning dialectic (see below), a praxeological epistemology and theory of Convention.

N vs. S-Learning. I am borrowing from Boisot (1998) a model grounded on an information perspective and Complexity science, a set of theories describing how complex adaptive systems work. For him (p. 34), knowledge assets emerge as a result of a two-step process, constituting the two distinct phases of the evolutionary production function: creating knowledge ("process of extracting information from data") and applying knowledge ("testing the insights created in a variety of situations that allow for the gradual accumulation of experiential data"). He defines an Information space (I-Space) according to three dimensions: codification (information codified/uncodified), abstraction (abstract/concrete), and diffusion (diffused/undiffused). The creation and diffusion of new knowledge occurs in a particular sequence (Social Learning Cycle – SLC, p. 59): scanning, problem-solving, abstraction, diffusion, absorption, impacting. Two distinct theories of learning, although not mutually exclusive, are introduced as part of identification of two distinct strategic orientations for dealing with the paradox of value (i.e. "*maximising the utility of knowledge assets compromises their scarcity, and maximising their scarcity make it difficult to develop and exploit their utility*", p. 90). In neoclassical learning (N-Learning) knowledge is considered cumulative. Learning becomes a stabilizing process. This approach may lead to excessive inertia and fossilization of the knowledge assets. In Schumpeterian learning (S-Learning), change is the natural order of things. Abstraction and codification are incomplete. "Knowledge may be progressive in the sense that successive approximation may give a better grasp of the underlying structures of reality, but it is not necessarily cumulative" (p. 99). S-Learning is more complex than N-Learning integrating both certainties and uncertainties, and requires an "edge of chaos" culture (p. 116).

Praxeological epistemology. One of the key understandings in project management is that learning and practice are integrated into praxis – praxeological approach (see above the notion of "ingenium").

Praxeology (early alteration of praxiology) is the study of human action and conduct. The name praxeology takes its root in praxis, Medieval Latin, from Greek, doing, action, from *prassein* to do, practice (Merriam-Webster Dictionary). The term *praxeology* was first used in 1890 by Espinas in "Les Origines de la technologie", *Revue Philosophique*, XVth year, XXX, p. 114-15. Praxeology is the study of those aspects of human action that can be grasped a priori; in other words, it is concerned with the conceptual analysis and logical implications of preference, choice, means-end schemes, and so forth. The basic principles of praxeology were first discovered by the Greek philosophers, who used them as a foundation for a eudaemonistic ethics. This approach was further developed by the Scholastics, who extended praxeological analysis to the foundations of economics and social science as well. In the late nineteenth century, the praxeological approach to economics and social science was rediscovered by Carl Menger, founder of the Austrian School. The term praxeology was first applied to this approach by the later Austrian economist Ludwig von Mises.

Along with his students (including Friedrich Hayek and Murray Rothbard), Mises employed praxeological principles to show that much existing economic and social theory was conceptually incoherent:

"It is no longer possible to define neatly the boundaries between the kind of action which is the proper field of economic science in the narrower sense, and other action. Acting man is always concerned with both "material" and "ideal" things. He chooses between alternatives. ...Choosing determines all human decisions. ...Out of the political economy of the classical school emerges the general theory of human action, praxeology. ...No treatment of economic problems proper can avoid starting from acts of choice; economics becomes a part, although the hitherto best elaborated part, of a more universal science, praxeology. Praxeology—and consequently economics too—is a deductive system. It draws its strength from the starting point of its deductions, from the category of action. Praxeology is a theoretical and systematic, not a historical, science. Its statements and propositions are not derived from experience. They are, like those of logic and mathematics, a priori. They are not subject to verification or falsification on the ground of experience and facts." (Von Mises, 1981)

Theory of Convention. Gomez and Jones (2000) outline the main characteristics of the Theory of Convention: starting with the notions such as "deep structure" (Giddens, 1986; Gersick, 1991, Schein, 1980) and "system structure" (Crozier & Friedberg, 1980, Senge, 1990, 1994), they adopt *"this viewpoint that a state of "un-enlightenment represents neither a failure nor a consequence of cognitive limitations, but rather that it has a social function, and that it exists because it is essential for the smooth running of relationships in society"* (Gomez & Jones, 2000, p. 697). They argue that it could, indeed, constitute a referential notion, making compatible individual calculations and social context, and allowing for their co-construction and co-evolution (Schumpeter, 1989).

Three main notions are discussed before they propose a definition of convention: uncertainty, "rationalization" and the process of justification of the behaviour to cope with uncertainty, and rational voids (systems of non-justified beliefs). The rational void is *"surrounded by a screen of information which both provides individuals with signals that they share the same assumptions, and also distracts their attention from questioning it"* (Gomez & Jones, 2000, p. 700). These signals are said to operate also as symbols.

So, what is a convention? A convention is a social mechanism that associates a rational void, i.e., a set of non justified norms, with a screen of symbols, i.e., an interrelation between objects, discourses, and behaviours. People acting according to a given convention refer to the same non justified criteria and take for granted the symbolic meaning of signals they receive. Convention is an archetype or "structure" in Levi-Strauss' definition, that is to say, "a set of formal relationships among the elements in a symbolic system which can be modelled" (Levi-Strauss, 1971, 1974).

More formally, the concept of convention can be described as follows (Gomez, 1994, p. 95).

- A convention eliminates a situation of uncertainty where the result of a decision or an action for an agent would be indeterminate by individual calculation alone.
- A convention is an evolutionarily stable (Sugden, 1989) element of regularity. It provides a justifying set of norms (the rational void), which makes justification of some choices dispensable, but which gives them sense in the context of a screen of symbols, which relate objects, discourse, and behaviours to the same rational void.
- A convention is based on a shared belief. Five criteria, known as Lewis' conditions (Orlean, 1989; see also Lewis, 1969, p.42) are used to verify this: (1) There is general compliance with the convention. Those who comply are known as adopters. (2) All adopters anticipate that others will also comply (adopt). (3) Everyone prefers compliance with the convention to be general rather than less than general. (4) There could be at

least one other alternative regular solution for the problem the convention exists to solve.
(5) These first four conditions are common knowledge.

From this several important consequences are drawn and discussed. Among the most important on which are based MAP Method seen as a "convention generator":

- "An individual always finds himself or herself within a conventional system of rationalization. An observed behaviour is not always in relation to all symbols. It is situated in the screen of symbols, which means that it is linked with some others behaviours or objects but not the totality of them. This notion of situation is crucial to understand the dynamics of conventions.
- Conventions are stable but not static patterns. Conventions evolve, modify themselves, and sometimes disappear.
- Within any convention, conformism allows individuals to escape the perils of uncertainty.
- Conventions are never completely isolated. If indeed an alternative provides a more coherent set of symbols, the individual can spontaneously escape ambiguity and potential uncertainty by behaving according to this one.
- The more numerous the symbolic signals received by an individual, the higher the probability of finding dissonant signals, and thus to be "attracted" by another convention. Learning plays an ambiguous role in this matter as even the organisational learning process (Argyris & Schön, 1978) can itself be either a new source of conformity and conservatism, when it leads to the recognition of only coherent symbolic signals, or a source of nonconformist behaviour when it allows an increase in the number of signals that the individual perceives and the probability of encountering dissonance.
- No one individual can change a whole convention, but that everyone, by acting on it and within it locally, contributes to its evolution. This gives precision to the role and the limit of managerial action in organisations. Managers are not planners and decision makers applying a supposedly pure rationality, as they are always included in a social environment which gives both sense and limits to their rationality. They do not choose to act in one convention over another, but rather, as individuals, to escape the inhibiting effect of uncertainty. Once again, for any individual, the fact that the diversity of conventions allows some room for doubt and ambiguity is paradoxically the fact which gives them some freedom for action.
- Convention highlights in particular the important task of symbolic management. This allows us to better understand that management practices can also be a way of creating coherence, or creating gaps between the hidden and the visible, which leads to dissonance. Management has the subtle task of creating the conditions for routinization

and, eventually, deroutinization. In practice, the use of a conventionalist framework leads us to understand organisational situations rather than organisations as an abstract and static whole". (Gomez & Jones, 2000)

Governance using MAP method (= model) in project environment

This "method of methods" is grounded on the previous development and is the fruit of the CIMAP research works. By the very nature of these researches works (alternate epistemology, praxeological theory and observation-action method) this method focuses on some generic aspects enabling contextualisation/situational use.

An immediate consequence is that Project Management generic theories, concepts, methods and tools will need a specific framework enabling the contextualisation of their use in the project ecosystem. Furthermore, they will also need a specific framework enabling their contextualisation according to the specific dynamic of a project trajectory or life-cycle phase.

Definition, objectives and characteristics

MAP is a process of analysis, solving and decision of macro and micro socio-economic problems (dissipative structure, see Exhibit 2). It is founded on the constitution of an office of strategic decisions – the Map room – and on the dynamic interaction between analysts (project management team) and decision makers and various stakeholders. And as stated by Sterman (1994), "in practice, effective learning from models occurs best – perhaps only – when the decision makers participate actively in the development of the model" (p. 43).

MAP may be seen as a place of "social practice" (Brown & Duguid, 2001) and a place providing the individuals, teams and stakeholders with 'representations' (Weick, 1995; Weick & Roberts, 1993), conventions and symbols (Gomez & Jones, 2000).

MAP is a governance system, providing the initial conditions for accountability and performance through a structure for generating information, knowledge, and understanding, and facilitating transparency, and decision-making.

MAP objectives and characteristics, according to the governance dimension (Performance, accountability), are presented in Table 1.

Table 1: MAP objectives and characteristics, according to the governance dimension

Performance	Accountability
<p>Resolution of the ill-structured problems. The banal experience of whoever has worked on entrepreneurial decision-making is to note that the great difficulty is not to discover solutions but, on the contrary, to better formulate the 'statements' of the problems, posed initially in vague terms, sometimes ambiguous or contradictory. MAP Method comprises an iterative process leading to increasingly precise formulations and allowing the analyses that prepare for the decision, the implementation and the control of the project.</p>	<p>Common language for a team working on a project. MAP Method is conceived for teamwork. This method is essential for the two following reasons. First, teamwork supports the creativity: the controversies, the variety of ideas caused by the complementarities between members of the group generating logical reasoning, accompanied by the phenomena of associations. Second, the dynamics of the dialogue between the analysts and the decision makers limits the dangers of excesses of technocracy or subjectivity.</p>
<p>Piloting the process of the management of the project. From the fuzzy, ambiguous, contradictory awareness of an idea of project until the immersion in an institutionalised operation, the project describes a complex trajectory throughout which Method MAP applies. In particular, the management of the studies and the definitions of the alternatives scenarios for the project considered are dealt with by the method. Thus it possible to avoid what one too frequently observes: a lack of adapted method that introduces an implicit skew into final decisions. MAP Method aims to make management of the project a process where the thought and the action interact, not a linear course of a study from the hands of analysts and specialists direct to the decision makers.</p>	<p>Overall perception of a project. MAP Method leads to visual and synthetic representations of complementary aspects of projects. The map room gathering the whole of these representations plunges the analysts and the decision makers into an environment of information that leads them to an overall perception – the psychologists say "gestaltist" – of the project. It is important that this contributes to a vision that translates into an intimate knowledge of the project. MAP Method makes it possible to exceed the simple analytical evaluation of each aspect of a project and prepares a global, participative and multi-criterion judgement.</p>
<p>Crossroads of quantitative and psycho-sociological techniques. MAP was born from the will to associate in a coherent method both quantitative, qualitative and psycho-sociological approaches. The concept of model – a necessary representation through which management takes on the real world – has operational existence only thanks to the control of the quantitative techniques (system analyses, PERT, simulation, data processing, etc.). These techniques, however, form part of a really creative process only insofar as they serve the reflection and the action of a team. Therefore MAP largely calls upon the psycho-sociological techniques, such quiet groups method, techniques of creativity, groups of confrontation, etc</p>	

Inside the black box

MAP method is constituted of a set of concepts, methods tools and techniques for designing, analysing and managing complex situations. This socio-technical 'tool box' takes its roots in the previous development. It enables to identify the appropriate breadth (limits and priorities) and depth (quantity, quality of information) of the project context: identifying the whole scope of the project, focusing on the main aspects and going to the right level of detail for these aspects.

We consider three main phases: system design, system analysis and system management. These stages are to be considered in interaction and concurrently, even if it is convenient to follow a kind of linear process to introduce them.

The table (table 2) below gives a brief overview of the socio-technical "tool box", and the link with Project Management Governance. (Daniel & Lecubin, 2003)

Table 2: Phases, socio-technical "tool box", and Project Management Governance

Phase	Methods and tools		Overview	Main dimension of Governance
System design	Social system design	Stakeholders constellation	Identifying actors involved in the project: producing directly or impacting indirectly	Accountability
		Interactions Matrix	Revealing inputs, outputs or variables from stakeholders, able to impact the project positively (opportunity) or negatively (threat)	Performance
		Check-lists	For each potential impact from a cause, identifying the ambiguities and uncertainties, the group of stakeholders involved, and potential actions to reduce the risk	Performance and accountability
	Technical system design	Logical Framework	The logical framework is a set of related concepts that describe in an operational way in matrix form the most important aspects of a project. It provides a way of checking whether the project, and its sub-systems, has been well designed and it facilitates improved monitoring and evaluation. In addition to the logical relationship between activities, results, project purpose and overall objectives, there are external factors (assumptions) that influence the success of a project and they are also included in the logical framework.	Performance and accountability
		Logical System Tree	Designing the logical process of the project and identifying the various sub-systems leading to expected performance and success. Identifying technical inputs, technical outputs and stakeholders	Performance
System Analysis	"Risk" analysis	Technical Risk Assessment	Ranking the level of uncertainty of the socio-technical systems using the following criteria : external dependency, level of blockage & level of innovation	Performance
		Technical Risk Mapping	Representing graphically the level of risk of all the systems. Preparing the strategy to manage each system	Performance
		Social Risk Assessment	Ranking the level of uncertainty of the stakeholders involved in the project, using the following criteria: level of resistance, level of instability. Ranking the "influence margin" of the project team toward each stakeholder, using the following criteria : level of quality & level of control	Performance
		Social Risk Mapping	Representing graphically the level of risk of all the stakeholders. Preparing the strategy to manage each stakeholder	Performance
	Scenario analysis	Stakeholders variables	Identify the impacting variables from dangerous stakeholders. Reveal variables from other stakeholders influencing the initial variable of the dangerous stakeholder. Finally designing stakeholders zones of power	Performance and accountability
		Stakeholders' Zones Matrix	Identifying the sub-systems strongly impacted by the various stakeholders zones	Performance
System Management	Scheduling	Chronological System Tree	From the "Logical System Tree", reorganise all the socio-technical sub-systems over time. Revealing critical "ambiguity and uncertainty path", bottlenecks & phases in the project trajectory	Performance
		Strategic Gantt Chart	Assessing the systems duration and the total duration of the project from the social & technical risk analysis	Performance
	Organising and planning	Linkages Matrix	Analysing the connections between the various stakeholders (and stakeholders zones) and the members of the project team. Revealing the necessary competences and the basic organisation of the project	Accountability
		Stakeholders Management Actions	Preparing actions to influence the stakeholders, through the influence of stakeholders' zones	Performance and accountability
	Strategic control	Dynamic System Matrix	Preparing the monitoring of the project. Designing a piloting dashboard of all the sub-systems: intermediate sub-systems of the project and final operational system of the project	Performance and accountability
		Dynamic System Maturity Mapping	Representing graphically all the level of completion and innovation of all the sub-systems of the project. Preparing the strategy to control the project over time	Performance

Contextual and Situational approach for Project Management Governance

I advocate that a situational approach is needed to capture the different kind of project situations. The basic assumption is here that different situations involve different contexts for project governance, and different governance characteristics.

Project Management Governance is not a virtual exercise. It takes place in various situations and contexts. Understanding these situations and contexts, and adapting decision-making and learning systems accordingly, is crucial. (For a critical review of the link between information, knowledge, organisational learning, learning organisation in project environment see Bredillet (2004).

For instance, acknowledging the specificity of project management, De Meyer, Loch & Pich (2002a, 2002b), explain the different management characteristics (Project manager's role, managing tasks and managing relationships) under four types of uncertainty (variation, foreseen uncertainty, unforeseen uncertainty and chaos). Courtney, Kirkland and Viguerie (1997) put forward four levels of uncertainty about the future (clear enough future, alternate future, range of futures and true ambiguity) and show that tailored analysis, postures and moves have to be considered to address them.

While recognizing that the "traditional" existing methods of analysis and management are still valuable under given conditions, I propose new paths for reflection to understand and deal with the uncertainty, ambiguity and complexity which lies in many project situations and contexts.

Projects vs. operations: the nature of projects

Every organisation acts according to two fundamentals modes:

1. an *operational mode*, aiming at the exploitation of competitive advantage and current position on the market and providing profits and renewal or increase of resources and
2. an *entrepreneurial mode*, or project mode, focusing on the research of new position and new competitive advantage, consuming money and resources. To ensure their sustainability and development, all organisations need to combine both modes. (Declerck in Ansoff, Declerck, & Hayes, 1976)

Thus we have to face two types of activities, and I wish to propose the dichotomy of operations vs. projects.

- *Operations* can be defined as ongoing and repetitive activities, prone to influence of numerous factors. The factors of influence are mainly internal (endogenous), rather than environmental, and they can be manipulated by the operation manager. The environmental factors explain only a low part of the fluctuation of outputs. The inputs present random variations. It is possible to measure and to estimate the probabilities associated to these variations. The variation of inputs can be made statically stable. Future effects can be predicted with a specified margin of error. Non-usual variations coming from perturbations external to the operation lead to slight penalizing and never to disaster. Operations are reversible processes: perturbations can be detected, the nature of these causes can be identified, and these causes can be eradicated. The reversibility of operations can occur within economically acceptable limits. Operations may interact with the actions of the observer.
- *Projects* are non-repetitive activities. Decisions are irreversible. Projects are subject to multiple influences. The main influences come from environment (exogenous) and may vary considerably. The decision-maker cannot usually handle an important number of variables (exogenous variables). It is very tough to measure the effects of these influences. The project is generally not in statistical stability, and it is not possible to associate probabilities to the effects one tries to measure. A "bad" decision and/or a non controllable influence of a major event may lead to catastrophic result.

Table 3 emphasizes the main characteristics of these activities. I focus here on two types although, in reality, activities may be a blend of these two pure types.

Table 3: Operations vs. Projects

Operations involve	Projects involve
Planned actions	Creative actions
Masked actors	Unmasked actors
Process	Praxis
Rational	Para-rational
Algorithmic	Mosaic
Anhistoric	Historic
Cooperation	Confrontation
Stable and making one feel secure	Rich, ambiguous, instable

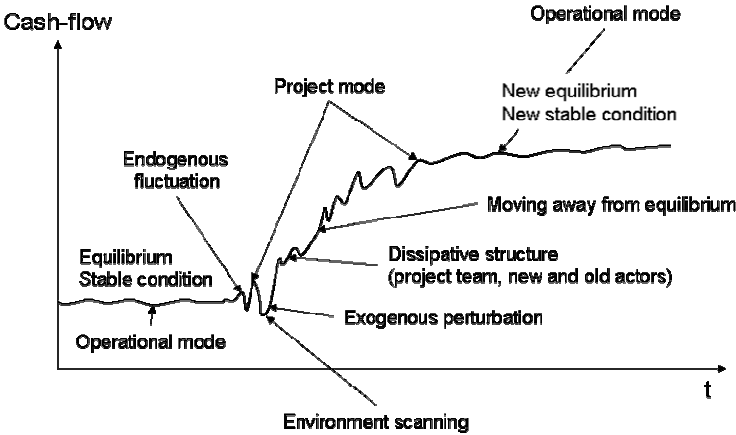
It is now appropriate to look at the way an organisation is linked to its environment. We can define strategy as a function of linkage between an organisation and its environment (Ansoff, 1975). If we consider the operational mode, the problem is to optimize performance of the function that is the strategy of penetration of the organisation regarding its environment and to optimize the internal performance. On the other hand, in the project mode, the problem is to look at opportunities of expansion and/or diversification and/or reconfiguration, choosing,

among a set of possible strategies, the most effective function, and select, among a set of possible organisational structures, the most efficient.

The problem of integration between the two modes and from one mode to another is raised. This problem is characterized by the allocation of resources between operations (generating profits and stable) and projects (risks, ambiguities and uncertainties), the risk of deterioration of existing activities by new activities, the new activities' organisational structure and modification of ongoing activities' organisational structure.

Two different but complementary perspectives can be considered: a synchronic perspective (on a short given period of time), during which the manager has to deal with the coexistence of operations and projects, and during which these two kinds of activities are not significantly changing; a diachronic perspective during which project activities are gradually or dramatically changing and interact with operational activities in a process of mutual modification.

From this we can draw two fundamentals assumptions: for return and profitability reasons (performance), it is necessary that a project turn into an operation; the managerial and behavioural mode of managers must change according the type of activities (accountability). Very often, the transformation of a project into an operation involves a discontinuity (e.g., change from a project manager into a manager) and goes with evolution of some characteristics (Exhibit 1).



Characteristics	Project mode	Operational mode
Level of noise	High	Low
Signal/noise	Low	High
Variation	High	Low
Nature of activities	Creative	Repetitive
Spaces of liberty	Many	Few
Culture	Emerging, Turbulent	Stable, Ritual

Exhibit 1: Integrative transformation process: from project to operational mode

To generalize very simply and almost metaphorically, the management of a portfolio of projects and operations will involve over a short period of time that the sum of cash-flows generated by operations and projects is positive; over a long period of time, the sum of the cash-flows (actually discounted sum or integration) being maximized (optimization perspective) or superior to a certain threshold (minimum satisfaction behaviour).

Linking an organisation and its environment

An ecosystem is defined as *"the complex of a community of organisms and its environment (biotope) functioning as an ecological unit"* (Merriam-Webster dictionary). Here the biotope is the environment including the context sub-system. This one is defined according to pertinence criteria by decision makers and/or project managers. Of course environment and context do exist only in their dialectical relationship with an organisation, operation and project. Perturbations arise and reach their critical mass within the context. Shocks and macro destabilizations arise within the environment.

In a similar way we have earlier defined knowing as an "intelligent" action, and learning as knowledge development, therefore project involves praxis, and is action-oriented to meet a goal in interaction with a specific context and environment. Therefore the understanding of the dynamic relationships between information, knowledge, learning and acting, leads to consider a systemic perspective.

Considering the dynamic aspect of the socio-techno-economic ecosystem project/context, three propositions can be made:

1. A project starts with a simulation then continues with series of dissimulations...;
2. A project is a place for spontaneous generation of positive feedbacks;
3. A project is a dialectic complexification / decomplexification.

Following Galbraith's (1977) perspective about organisations being information processing systems, the whole dynamic of the ecosystem and the information generated can be represented as follows (Exhibit 2):

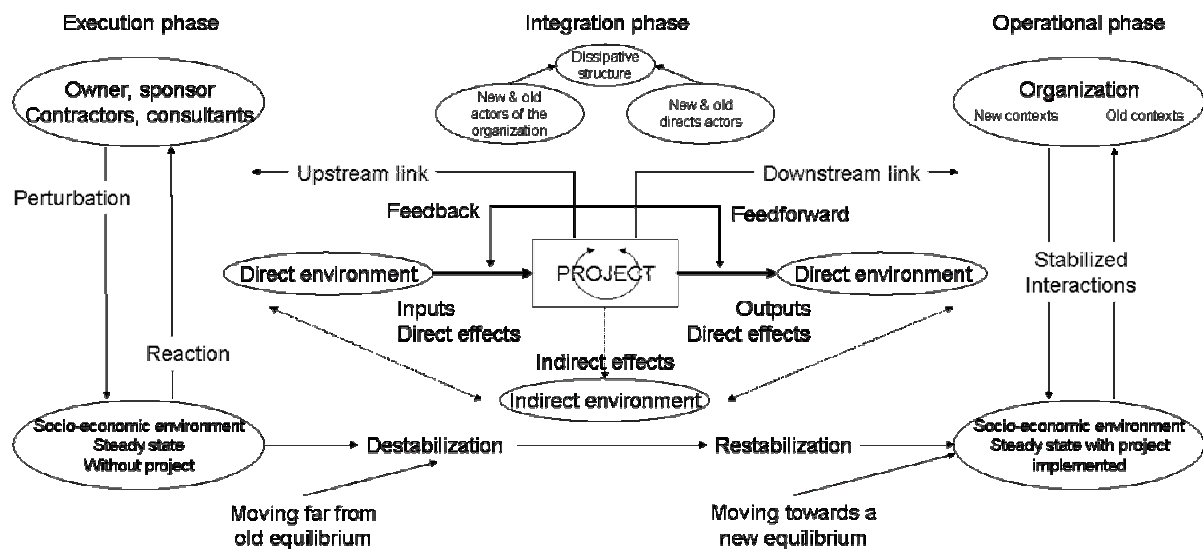


Exhibit 2: Morphogenesis of project ecosystem and information flows

Having this in mind, and to be able to insure relevant bases and conditions for project governance, we have to consider beyond the information generated, knowledge and understanding. As explained by Gharajedaghi & Ackoff (1984), "*information, knowledge and understanding form a hierarchy; Information presupposes neither knowledge nor understanding. Knowledge presupposes information and understanding presupposes both. One can survive without understanding, but not thrive. Without understanding one cannot control causes; only treat effects, suppress symptoms. With understanding one can design and create the future*" (p. 289). This is the final aim of any sound governance.

Within this perspective, we can look at the characteristics of operational and project activities. Let us synthesize some of the key perspectives and characteristics. (Table 4)

We have briefly defined above the project seen as a socio-techno-economic system. To act and to learn about anything requires an image or concept of it, a model. Traditionally, two types of model have been used in efforts to acquire information, knowledge and understanding of social systems: *mechanistic* and *organismic* (Gharajedaghi & Ackoff, 1984). These authors and others (Lemoigne, 1995; Beinhocker, 1997) demonstrate that, in a world of accelerating change, increasing uncertainty, growing ambiguity and complexity, it is becoming apparent that these are inadequate as guides to decision, action and control. There is thus a need for a different model.

Table 4: Operations and projects: key perspectives and main characteristics

Epistemology	Positivist – 'Have'		Constructivist – 'Be'	
Main acting mode	Operations		Projects	
Knowledge	Codification, information processing Explicit knowledge. Linear thinking. Knowledge market.		Personalization Tacit knowledge Dialectical thinking: "synthesizing dialectical thinking", aiming at identifying contradiction and resolving it by means of synthesis or integration, from "compromising dialectical thinking", focusing on tolerating contradiction	
Organisational Learning (understanding)	Single-loop learning Information theory (knowledge as formal and systematic-hard data, codified procedures, universal principles)		Double-loop learning Information theory (Nonaka, 1991, Boisot, 1998) System dynamics theory (Senge, 1990, Kim, 1993)	
Learning Organisation (understanding)	Neoclassical learning (N-Learning), knowledge is considered cumulative. (Boisot, 1998)		SECI cycle, <i>Ba</i> latform for the knowledge creation process, Knowledge assets, needs for a supportive organisation. (Nonaka, 1991) Schumpeterian learning (S-Learning), change is the natural order of things. (Boisot, 1998)	
Situations (Declerck, 1997)	Deterministic	Probabilistic Statistical stability	Statistically unstable	Complex
Models	Analytical	Stochastic Statistical	Statistical control	Qualitative numeric
Logic	Deductive/predictive	Deductive/predictive Inductive/projective	Fuzzy or impossible	Computable
Decision	Certainty	Stochastic Risk Statistical Risk	Uncertainty	Unpredictability

The consequence at the governance and action level is twofold. On the one hand, focusing on the "Have" side, there is a need for some form of knowledge – guidance, best practice, standards, etc. – at the individual, team, and organisational level. The developments of professional certification programs, as well as maturity models, are important in this. It is important to recognize that such standards have to be seen as largely social constructs, developed facilitate communication and trust among those who are adopting them, but their evolution is in line with the experiences gained by the users, or because of new developments or practices is vital to avoid any fossilization (Bredillet, 2002). On the other hand, on the "Be" side, the need of more creative competence, flexible frameworks (e.g., use of meta rules), and organisational structure to enable the sharing of experience and understandings is fundamental.

To not conclude...

In this paper my purpose was to show how project management governance is addressed through the use of a specific meta-method. Although this method of methods was built according a heuristic process involving 25 years of various researches and consulting activities, it seems appropriate to draw its foundations, thus a 3 step process:

1- I clarified my epistemological position and the notion of project and project management, as Art and Science. This led me to define a "Be" / "Have" posture to this regards.

2- I exposed the main theoretical roots of MAP Method, Boisot' s Social Learning Cycle, Praxeology and Theory of Convention. Then we introduced the main characteristics of the method and the 17 methods and tools constituting MAP "tool box", thus with regard to the project management governance perspective.

3- I discussed the integration of two managerial modes (operational and project modes) and the consequence in term of governance in a specific socio-techno-economic project/context ecosystem.

In doing so, many themes have been tackled, and this leaves (a lot of!) room for further research and development.

This presentation of MAP method is just to be taken as a possible example of Project Management Governance structure used to design, analyse and manage project and to reconcile organisational and project performance and accountability. The results of this ongoing research (by nature) are providing what appears to be, in "praxis", a strong basis for better Project Management Governance. Of course, it does not introduce a "one best way" or "one size fits all" method, and the approach builds upon human intelligence, recognizing the need to adapt Project Management Governance to a specific context in given time and type of situation.

And it is certainly not the only way to insure a sound Project Management Governance.

Ordo ab chaos

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