

Project Management Update from Italy¹

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Italian PM in wonderland: A Risk Management Interview

Introduction

For our second appointment of 2022 from Italy, I will present my interview about one of the fundamental topics of Project Management which I consider one of the key factors for a successful project: Risk Management.

With the collaboration of one of the most representative Risk Management Leaders in Leonardo SPA, a company which operates in several market areas in different countries, we will attempt to explore the efforts and challenges to be faced in order to build an effective Risk Management culture into a large organization following the discipline Project Management.

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About Leonardo Fiocchetti

The career Leonardo Fiocchetti has lived up to now is a training path towards his current role. It is not only the outcome of a course of study, but it has been shaped through the acquisition of skills and responsibilities that have evolved in parallel with the technological and organizational progresses of the companies (Datamat², Finmeccanica³ and Leonardo) in which he worked. "By becoming Chief Technology Officer (CTO) I went from a project leading role to a more strategic-oriented one. The next step as Risk Manager synthesized the set of my experiences over the years, representing the outcome of a path partly personal and partly determined by business changes".

Graduated in Electronic Engineering with IT in Rome in 1991, Fiocchetti began his career as analyst programmer in Datamat, a dynamic enterprise that led him in a few years to take on the role of project manager in the Defense and Space sector. His expertise was consolidated with the participation in 1997 to an Anglo - French - Italian defense project, and the collaboration in France from 1998 to 2001 with Eads LV for the implementation of the ATV spacecraft software control system (Automated Transfer Vehicle), a cargo module intended for transporting utilized by the International Space Station. Back in Italy, he was charged Leader for the software development of the ATV program, and then head of the Modelling, Simulation & Space On Board line, and participated also in following military projects.

In 2005, with the acquisition of Datamat by Finmeccanica, a series of internal transformations conducted Fiocchetti to the role of head of Simulation programs for the Integrated Systems division of Selex, a Finmeccanica's subsidiary. Here he dealt with cyber security projects and in 2013 he assumed the role of CTO in the Cyber Security lab.

Since 2014, Finmeccanica has launched guidelines for the Group's new organizational and operational model with the purpose of aggregating its many subsidiaries in a single large company, a more cohesive and efficient group, with centralized and integrated processes.

² <https://it.wikipedia.org/wiki/Datamat>

³ [https://it.wikipedia.org/wiki/Leonardo_\(azienda\)](https://it.wikipedia.org/wiki/Leonardo_(azienda))

The transformation process culminated, in 2016, with the operational launch of the new company, renamed Leonardo, in which the organizational structure is split into divisions corresponding to the different business segments.

One of the first innovations was the establishment of the risk management function at the first level in corporate, with Salvatore Lampone⁴ as Chief Risk Officer. He was responsible for selecting and growing the professional family of risk management.

In this context, Fiocchetti takes on the role of first level risk manager of the Systems for Security and Information division. At the end of 2019 he becomes CRO of Leonardo International, the structure of all the group's holdings outside the domestic business - represented by Italy, the United Kingdom, Poland and the USA, and in September 2021 takes over the RM function in the Business Unit Elettronica Italia.



Leonardo is one of the world's leading companies in the Aerospace, Defense and Security sectors, and provides global solutions based on cutting-edge technologies, also aimed at the civilian market. Leonardo operates worldwide, through an industrial presence in four national markets (Italy, UK, Poland and USA) and a commercial network in about 40 countries, for a total of 49,500 employees of which more than half are in Italy. In 2019 it recorded revenues of €13.7 billion, of which 84% from international markets, and its products, solutions and services are used in more than 150 countries. With €1.5 billion spent on Research and Development in 2019 (11% of revenues), Leonardo is second in Europe and fourth in the world among all companies for investments in R&D.

Q1: With regard to the discipline as we know it from the “holy writ” and manuals of the Good Risk Manager, what is your thought about the level of the maturity within the sector in which you work for in the application of the same?

Leonardo Fiocchetti (Fiocchetti): Measuring the maturity of a discipline is a bit like verifying the possession of a certification. All companies, depending on the sector in which they operate, are required to comply with more or less strict standards and regulations. The stock Exchange listing adds further levels of standardization.

Therefore we could first analyze the collective maturity, that is in some way forced by the context in which we operate, and without a doubt this is very high.

We should take into consideration that, in Leonardo, the constitution of the central function of Risk Management dates back to 2014 and since that time many steps have been taken in order

⁴ <https://www.leonardo.com/it/about/management/lampone>

⁵ <https://www.leonardo.com/en/home>

to uniform practices that, until then, had seen different levels of implementation in the various entities (legally distinct companies at the time).

Today processes and procedures are unified throughout the group; we utilize a single shared tool and centralized DB that enables the company to perform analysis and reporting at different levels of aggregation: from projects to programs, business lines, divisions, up to the entire Group. General and specialized training courses for the discipline are provided massively.

Although the effort has been enormous, we must not overlook aspects such as risk appetite, the various themes of different risk perception and the traps we can fall into due to different cognitive biases.

For those reasons, the aforementioned effort is meant to be constant and never-ending, since the work on the individuals is practically continuous: in other words, while the collective maturity is high, the maturity of the individual is very variable.

Q2: What are the main indicators of progress in the application of the discipline and what are the major obstacles to achieving the best results?

Fiocchetti: The two elements to be considered are the concept of Risk Based Approach introduced by ISO 9001 2015 and the well-known “triangle” of any organization: People, Processes and Tools. For the application of the discipline, to be "complete" and effective, the involvement of the whole triangle is required.

Processes need to inherently utilize a Risk Based approach, meaning that the process definition should include KPIs, and especially KRIs, individuation. The absence of the latter is definitely a sign of "limited" risk-based approach.

People working in the companies must, with the support of specific training programs, take a conscious and constructive approach to risk management. We must not overlook the well-known principles "prevention is better than cure" and "risks very often conceal opportunities". A conscious approach inevitably involves a better preparation and therefore the reduction (in the best cases the elimination) of the management by the emergency, and the search of the best conditions to exploit the possible opportunities.

The tools must support this approach by making the information "risk" a valuable information, shared and above all embedded in the context. Just think of how many plans do not include, or include in a very limited way, relevant information on the riskiness of the plan itself, often making unavailable such information to the management that, to different extents, can be influent and sometimes crucial for the success.

Now, although the complete pervasion described above represents the peak of the application, in my opinion the main obstacle is constituted by the people. It is still too often the case that we are victims of the typical human approach, in which we believe to be in control, and discover, typically too late, that this was a misjudgment.

I use the expression "to get the discount": when you give yourself some methodological and/or procedural "freedoms", often because you think to anticipate the times reducing the costs. Most of the time we find, sadly, that the slightest savings made with the shortcut have caused far greater damage. And among the discounts that people tend to give themselves, a highly frequent case is to pay little or no attention to risk analysis.

Another obstacle that is worth mentioning, is the adoption of processes, methods and tools that are too complex and that end up becoming more a formality than a real decisional support.

In Leonardo there is a great deal of attention to the integration of the RM process into other processes and the correct execution through the establishment of a dedicated function at each Division.

Q3: Regarding the assessment of the final impact of the Risks of a program, how can you do it with respect to the entire business?

Fiocchetti: The quantitative approach adopted in Leonardo is not only intended to "calculate" a number on the basis of which to allocate protection to cover the risk, but rather to determine the risk profile of the initiative(s).

For this purpose, the modeling (quantitative analysis) of the single risk is rather rigorous: the economic and temporal impact is in fact expressed through the identification of a range and the relative description of the distribution within that range.

The risk profiles, calculated through Monte Carlo Simulation for both the scenarios before and after the treatment plan, are analyzed for the following purposes:

- Detection of abnormalities (indicators of potentially critical risks). In these cases, we ask that the treatment plan be further strengthened in order to eliminate or at least reduce these anomalies.
- Valuation of goodness of the treatment plan: in particular, we observe that the potential benefit is "justified" with respect to the plan both in terms of content and costs. Very ambitious plans (big reduction of riskiness against modest costs) are destined to fail.
- Assessment of the protections to be allocated to cover the remaining risk: in accordance with the principles of Risk Appetite defined by the Corporate and on the basis of previous analyses, we give indications of the coverage deemed suitable with respect to the resulting profile.

Of course, the final deviation of the individual program can fluctuate significantly from the initial risk assessment, but I can tell you that on average our programmes comply with the assessments.

Q4: In my experience as a PM, I have always tried to maximize "investments" in risk mitigation actions by minimizing contingency amounts. In your opinion, is it right to always act this way? Are there any disadvantages?

Fiocchetti: The "textbook" recipe suggests taking action when the (uncertain) benefit is greater than the (certain) cost of the action.

Our manual (Leonardo) requires that the risks whose RPI (Risk Priority Index expressed in the range 1..25) is ≥ 5 have a dedicated treatment plan.

It also requires, according to the Corporate Risk Appetite, the allocation of protection equal to at least 50 percentile of the residual (post-treatment) risk profile of the initiative.

My experience in the field leads me to say that the real critical point consists in the correct (exhaustive and precise) identification of the risks, because many times the most serious damages are generated from those risks that had been neglected and/or underestimated, especially in the early stages of the program and even earlier in the bidding phase. When this is true, protections are quite always not enough. So proper identification is the antechamber of a good treatment plan. Additionally, a good initial risk identification should cause the solution to be revisited in order to "reduce"/"eliminate" the risk, I would say, by design.

Now, maximize your investment in mitigation actions in order to minimize contingencies...

I prefer to put it in a slightly different way: I would like to bear the least of the riskiness possible even knowing that in general it cannot be "zeroed". Or even better, I would like riskiness to be "compatible" with the initiative. In this sense, therefore, the actions, as I said in the previous answer, must be consistent (we ask that they be specific and special) with the risk in terms of content and cost.

In essence, considering that riskiness and contingency are two different things: actions are not meant to reduce contingency as much as riskiness. The protections to be allocated are the result of a managerial decision that we support on the basis of what I have said before, but we do not work for protections but for riskiness.

Therefore, the decision on the suitability of the treatment plan should not overlook the fact that the action becomes a certain cost that does not have the guarantee of reducing the risk, while the risk retains its characteristic of uncertainty.

In short, the evaluation is however articulated: it depends on the cases, the contents, the initiative, its riskiness. For example, an action without a substantial reduction effect could still be considered fundamental for strategic aspects (e.g. customer intimacy).

My personal habit is always having a treatment plan, but this is not because of contingency reduction, but rather because I believe that defining a treatment plan means "knowing better your risks".

Q5: There is much talk about the so-called "Novel Risks" and how to deal with them. His thoughts on this issue.

Fiocchetti: My personal opinion is that there are no novel risks, but neglected possibilities.

To better clarify the concept, it is necessary to revise risk conception. According to the Project Management, the risk is an uncertain event or condition that in case of occurrence has positive or negative impacts on one or more of our objectives.

In Leonardo we adopted a descriptive methodology that we call meta language that requires us to identify

1. Context/Case -> the certain context which makes possible ...
2. Event -> the occurrence of an uncertain event whose occurrence ...
3. Effect -> will have an effect on the objective.

This work of identification and separation allows to facilitate the definition of a treatment plan that can intervene on the context/cause and/or event in order to prevent the occurrence of risk as well as on the effects to reduce their impact.

Since prevention can be carried out even if the effects of the risk are not fully known, as well as reduction can be carried out even if the context/cause and/or the event that could generate the effects that we are reducing are not fully known, it is evident that it is not always necessary that in order to mitigate a risk it must have been completely identified.

To better grab the concept, I would like to propose the following simplification.

The achievement of a goal can always be schematized as a function of transformation that, given the appropriate inputs (materials, resources, energy, documentation, etc.) in the right time and in compliance with the expected costs, provides to realize the output through the execution of the transformation, that obviously must be known, defined and implemented (e.g. machines that transform materials into components or persons that take the incoming documentation and produce documents and/or items in output - SW components or cards).

This simple abstraction allows us to say that the risks of not reaching the goal are all those that impact on one or more of the inputs and/or one or more of the transformation elements. To these risks, we must add those that make the goal no longer actionable (think of a competitor who takes orders from us).

Even knowing that in practice the operation I am about to describe becomes very complex, in theory using this schematization it is always possible to identify and analyze the various risks that can affect inputs, processes and outputs (objectives).

I think we can see now why I say that these risks are neglected rather than novel ones.

But let's get back to the point of how to deal with risks that have not been identified. We could consider a triple defensive action: continuous monitoring, management reserve, business continuity approach.

Continuous monitoring: risk analysis is performed continually since everything evolves. This point is fundamental: assuming that all the risks have been identified at the beginning and that they stay the same all the time long is a big mistake. Continual monitoring allows updating the analysis of the risk before identified as well as identifying new risks.

Management reserve: it can be used to protect ourselves against the “unknown unknowns”, that could seem a contradiction with respect to what we said before. Nevertheless, it is a way to treat what was not identified in advance.

Let's come to Business Continuity: as we said, you don't need to have fully identified a risk to be able to deal with it.

Think of resources, for example. We could address all risks whose impact results in resource availability being limited by simply adopting dual sourcing techniques from different suppliers in different geographical areas. A typical approach of Business Continuity. Such approaches require analyzing the solution adopted to verify that there is no single point of failure on one side and that there are no events that can impact the solution globally, which in other words would be a bit like saying that the whole solution contains a single point of failure.

In essence, therefore, on the one hand we must strive to identify "all" risks, on the other, knowing that completeness does not pay, we must adopt solutions of "safety" with the aim of reducing the risk exposure perimeter and thus reducing the research space.

Q6: What, in your opinion, are the critical success factors for effective risk management in complex organizations, and what are the main obstacles that you perceive nowadays?

Fiocchetti: The question takes up the concepts already expressed in the first and second questions. Let's start from the concept of Risk Based Approach and try to reduce it to the triangle of the People, Process and Tool organization.

The Risk Based Approach in its simplicity is in fact the real key to success: there is nothing that is risk-free and therefore there is nothing that can be taken for granted. Yet while concepts like Security or Safety by Design are now widespread, embedded risk management is not yet.

The process of Risk Management, as I said at the beginning, is the result of a behavior derived from the “intrinsically embedded” risk management within each process supported by the use of appropriate KPIs and KRIs and an organic fusion of these indicators within a dashboard that allows you to assess in "real time" the state of risk that the organization is facing.

When the indicators of one or more processes begin to deviate from the expected values, obviously we must intervene to verify if it is an alarm and what is the actual cause in order to control the phenomenon and govern it as much as possible. If, on the other hand, the context analysis shows that this was a false alarm, it will be necessary to revise the indicators in order to adapt them to the observed phenomenon.

In fact, this approach is considered very mature within the CMMI by virtue of the implementation of a data-driven decision-making mechanism.

The conjunction with the well-known triangle at this point is practically obvious: the processes must accommodate the Risk Based approach that results in the identification of the indicators already mentioned that through the tools in use of the given process are "continuously" measured and shared at the upper level where through the appropriate aggregation is operated the RM of the organization.

We could conclude that at this point the presence of man is irrelevant given the integration process-tool. But we must not forget the analytical capacity and the change management both not native in the previous integration. The human component introduces the ability to observe the phenomenon and the consequent need for adjustments and improvements.

And this ability in extreme synthesis expresses the beauty of RM: what we did today is not what we will do tomorrow, because tomorrow we will do better in order to further reduce the threats and exploit even more opportunities. And only the human being can do all this.

Q7: Talking about the huge literature about the subject of Risk management; according to your opinion, has it already said everything or does this subject still hide new thematic that will be the subject of future studies?

Fiocchetti: I would quote one of the famous phrases "all intelligent thoughts have already been thought. Everything is to remember them".

Let's start with the consideration that Risk Management is not made exclusively of Risk Management. Every methodology is in some way a form of risk management. Having a method, even if it does not guarantee the result, reduces the errors resulting from the adoption of a not rigorous approach.

Ultimately, I expect a lot of risk Management "specialization": political risks, environmental risks, safety risks and so on. But above all I expect that Machine Learning and Artificial Intelligence will get more and more applied also in the field of risk analysis in order to support the decisions as proposed in the previous answer.

Q8: Can emerging new paradigms such as "Stakeholder Perspective"⁶ make a contribution to the standard discipline of Risk Management?

Fiocchetti: Let us not forget that risk exists because the objective exists. Risk Doctor (David Hillson) says that risk is "uncertainty that matters" (an uncertainty relevant to us in case of occurrence). Neglecting the stakeholder objectives of our initiatives, be they employees, suppliers, customers or other entities involved in various ways, can seriously compromise the success of the project.

⁶ <https://pmworldlibrary.net/wp-content/uploads/2020/07/pmwj96-Aug2020-Pirozzi-stakeholder-perspective-series3-stakeholder-identification-and-analysis.pdf>

In other words, the human factor is the key to success or failure, and in the human factor there are all the stakeholders.

Conclusions

During this wide spectrum interview we tried to make a simple storytelling regarding several aspects which are individually worth a deeper focus. What is important to underline, after many years of theories and discussions, is that without a strong commitment and awareness of the entire organization (the so called “pervasion” of concepts, goals and processes named by Fiocchetti in more than one answer) the pathway towards a useful Risk Management is extremely hard to cross.

More interviews from other Italian Project Management Leaders, covering other PM topics as Procurement, Cost and so on, will be released in the near future. Don't miss them!

About the Author



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Alessandro Quagliarini, MScEng, PMP, MBA, is an experienced Program Manager, with more than 18 years of experience in the ICT sector. He holds a Master's Degree in Telecommunication Engineering from the University of Rome “Tor Vergata” and a doctor's degree in Business Administration from the Bologna University Business School. He got both PMP® and ISIPM-Av® advanced certifications in Project Management, and he is also certified as an Information Management Systems Lead Auditor. He is a Member of the Board of the "Italian Institute of Project Management" (ISIPM) for ten years, and he is an Accredited Teacher in Project Management.

Alessandro is currently engaged in the "Digital Transformation" engineering and industrialization programs of the new Italian "Open Fiber" telecommunications network, with particular focus on the engineering of delivery and assurance processes for the provision of retail, business and industries customers, on the operational management and procurement support for the definition of specifications and contracts, on the definition of operating rules/instructions for maintenance and of requirements for systems development, on the support to the commercial and regulatory lines for the definition of services and processes for customers (Other Licensed Operators and Industries), and on the definition and management of operations compliance with ISO Standards and International Best Practices.

As a Member of the ISIPM Board, he focuses his volunteer activities mainly on the cultural diffusion of the project management to young people – specifically to high school students and also staff, including teachers. As an ISIPM accredited teacher, he has taught project management in public and private institutions, in schools and in universities. He has experience in the organization of events and as a speaker in conferences, and also in proposing and managing EU-funded projects.

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