Transforming insurance

Subject	**Reflecting on transformation in the insurance sector**
Purpose of the paper	This paper sums up the factors of change that are forcing insurance companies to adapt. It then provides information for the content of the transformation and how it should be approached.
Key words	insurance, transformation, digital, regulations, method

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Summary

The insurance sector is affected by changes in regulations, market and technology. The big companies have announced considerable investments in their digital transformation. Will they be able, however, to withstand the arrival of newcomers whose radical approach does not have to burden itself with what already exists? Will the movement towards concentration start again, spelling the death of smaller sized companies, who will struggle to mobilize the necessary means to adapt?

The present article sums up the factors of change, which can be seen as both opportunities and threats, depending on the attitude that we adopt. It then presents some measures, in the aim of helping insurance companies carry out their transformation.

Our main message is that enterprise adaptation initiatives should not be designed separately, factor by factor, topic by topic. The transformation will be all the more effective and profound if it covers every dimension of the enterprise. Rather than spreading our efforts and budgets too thinly on multiple independent projects, it is more economical and more incisive to first think about *the enterprise as a whole*, by articulating all its components, from its ethical model to its technical systems, including its value proposition and its organization.

Praxeme, the enterprise transformation methodology, which results from the initiative for an open method, helps enterprises in this effort. How can we comprehend and control enterprise complexity without a minimum of rigor and method?

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1. Assessment: factors of change

Among the sources that influence the insurance market, we can distinguish between: the regulator, the technology and the client (more generally, the public). Added to that are the actors who take on a mediation role between the insurance companies and the public: brokers, distributors, and the different categories of partners and suppliers who may appear as the value chain is extended. New technologies do not constitute an independent source: they must be taken into account, as far as the public is receptive to them.

1.1 Regulations can be seen as an opportunity to adapt

There is increased regulatory pressure (the putting in place of Solvency II, the ACPR[1] requirements) and it is unavoidable. Faced with this situation, there are two ways of reacting:

1. in a defensive way, by limiting the investment to the response expected by the administrative authority, but without creating any value for the enterprise and increasing the complication of its procedures and its information system;
2. in a proactive way, by seizing the opportunity to adapt the enterprise and prepare it for the future.

Indeed, the regulations impose a better control of information, which can be transformed into an advantage. In particular, the anti-money laundering and counter-terrorist financing measure (AML/CTF), provided for by the monetary and financial Code, leads insurance companies and banks to have a better knowledge of their clients, so as to adjust the level of vigilance required.

Solvency II and enterprise architecture

The conclusion of the qualitative study "Impact of Solvency II on Insurance Enterprise Architecture", carried out in 2014 in Germany in the Insurance* sector, makes data quality the most important topic for insurance companies, with regard to enterprise architecture.
Solvency II is not the only prescription on the scene. We can also cite IFRS** 4 Phase 2.
Taking these regulatory aspects into account, as far upstream as possible, greatly facilitates the qualitative structuring of the huge amount of data necessary. It reduces the complexity of the project. The possibility of introducing a solution based on a data warehouse with a high level of quality and sufficient granularity of the data, after modeling (semantic aspect), drastically reduces the implementation efforts downstream. Without this consideration as far upstream as possible and in an overall manner, insurance companies may be faced with hard-to-meet schedules and additional costs brought about by complexity.

* Article from the *Multikonferenz Wirtschaftsinformatik 2014* conference proceedings, available at: https://wwwmatthes.in.tum.de/file/1mxux7xbj1d7d/Sebis-Public-Website/-/Al14-Impact-of-Solvency-II-on-the-Enterprise-Architecture-of-Insurances-A-Qualitative-Study-in-Germany/Al14.pdf

** IFRS: International Accounting Standards Board.

1.2 Technology creates obligations

Furthermore, the clientele and, more generally, the public, get used to different modes of interaction and have higher and higher expectations. As far as insurance is concerned, the use of price comparison websites has become systematic; the multiplication of communication channels – "digital technology" – is in the process of becoming the norm, especially among the next generations. Market players have a duty to adopt a new attitude in response to these expectations and to fend off the competition. They have to become proactive but not intrusive. There is a whole art to it! To succeed, they have to make good use of the overall knowledge they have of their market, and the individual knowledge they have of their clients.
For example, at the same time as they generalize communication channels (ATAWAD[2]), client contact preferences have to be precisely managed, with care taken to ensure that the client does not feel harassed but accompanied. In the same way, distributors will expect a production tool that measures up to the technical possibilities that have been popularized.

1.3 Clients exercise their freedom of choice

In France, the insured party is far more loyal, but behaviors are changing and tend to move closer to what can be observed in the English-speaking world. There, the competition is far tougher and forces insurance companies to be extremely reactive. The consequence of which can notably be seen in pricing: prices are adjusted on an almost daily basis. Access to price comparison websites[3] and alliances between insurance companies and service suppliers combine to introduce the same level of volatility to the French marketplace.

[1] The *Autorité de contrôle prudentiel et de résolution - ACPR* – is the independent administrative body responsible for supervising the banking and insurance sectors in France.
[2] "Any time, anywhere, any device" (acronym created by Xavier Dalloz). Phrase extended to ATAWADAC (+ "any content").
[3] More formidable still, actors exploit public data to evaluate the service provided by insurance companies.

In reaction, controlling costs is an imperative. However, it must not come at the expense of poorer quality. Reducing costs and improving the service provided do not necessarily conflict. For example, ensuring that the insured party does not have to contact several internal departments to deal with a request contributes as much to enterprise efficiency as it does to customer satisfaction.

1.4 It is time to see value through the eyes of the client

For decades, the insurance sector has experienced concentration processes. Mergers have enabled groups to increase their standing and stability, but have they produced value for clients? For that, we have to be capable of combining offers from subsidiaries and partners, breaking through the barriers between branches and even between banks and insurance companies. Yet, transforming the catalog is a very difficult topic, one that has changed very little. One pointer is the time required to bring a new product to market. The client is thus faced with a constellation of actors and does not feel as if the group is united, mobilized as a whole, towards his or her satisfaction.

Where are we really with quality in insurance activities?

In a sector where self-satisfaction dominates, sustained as it is by decades of regular profits, it is worth asking the question. Admittedly, we can see companies adopting the good practice of customer satisfaction surveys, aimed at online clients (too bad for the others). But we have all experienced, as consumers, these questionnaires, outside our concerns, which contribute more to the prevailing feeling of being in a rut rather than to radical improvement.

Let us take an example, one among thousands, and full of lessons to be learned – more telling than the difficult-to-find statistics on this subject. It is of a family taking out a top-up healthcare insurance. In fact, due to the different statuses (one parent employee, one self-employed, one child in high school, three students), no fewer than four contracts were necessary. It is not hard for us to imagine the time required for everything to be drawn up before being able to sign the contracts. There were three versions of some of these contracts. We have to say (and it will please the insurance company reader) that this family turned to their bank: more precisely, their bank, which had also developed an insurance activity “sold” the idea to them.

After several months, the parents became aware that they had not been reimbursed; the connection between the student healthcare policy and the top-up healthcare policy had not been set up. First telephone call: naively made using the number printed on the third-party-payer card. This first department responded by saying that the question was not within its remit and redirected the caller to another department. Second phone call. The insurance employee considered the problem and, after some investigation, found that a code, entered when both contracts were drawn up, listed the children as “disabled Marines ex-service personnel”. Surely, if that were the only problem, we would just have to change these three characters (you see, there are still some man-machine interfaces where codes appear!)? Ah but, this employee was not able to make the change. We would have to go through the branch director who had registered the contracts; the very same person who had needed to make two calls to a support hotline, in order to draw up the initial contracts.

Finally, one week and five telephone calls later, the fateful three characters had been corrected and everything returned back to normal within a month. The same client regularly receives customer satisfaction surveys, to which he does not reply, of course, having never been able to express his actual problems and promising himself he would make a summary of all his unanswered emails. Let us reassure ourselves, the bank-insurance company in question is doing very well, as is the whole sector!

We could multiply the examples, highlighting issues far better than global image or satisfaction surveys can do. Observations in the field (job shadowing…) soon show potential improvements. The conclusion is that the culture of quality, fully assimilated in other sectors and in other countries, still has a way to go in the insurance industry. The first obstacle standing in the path of progress is self-satisfaction, a widespread sentiment, whatever the size of the company.

2. What can be done?

After this rapid assessment of trends, let us now consider the actions to undertake, that is to say the content of the transformation.

2.1 The market approach: the network before the offer

Successful examples in the digital economy have taught us a radically different approach to the market. We can hardly talk about a sales approach any more. What is important is to establish a close contact with a population. The approach of a market segment must be a global one: it is not a question of selling what we produce but of maintaining a relationship, a daily one if possible, by providing services. The sale will follow. The approach consists in us addressing communities, even "tribes", and proposing a global offer that resonates with their way of life. Insurance will naturally integrate itself into this offer.
Finally, this approach does have points in common with the traditional position of mutual insurance companies as well as with the practices of affinity insurance. Actors in these markets therefore have an advantage. On the contrary, their offer cannot limit itself to a community, no matter how large. Economic pressure requires, on the one hand, economies of scale, and on the other hand, technical investments. We therefore have to multiply the communities we target. The prerequisite of this approach is the sharing of resources: the staff, the processes and the information system must not be fragmented; the same organization must be able to satisfy several communities. This requires an effort with regards to training and the in-depth redesigning of the solutions: it is absolutely necessary that the products, processes, organization and IT tools be decompartmentalized.

2.2 Digital offering: regular service before the product

There is no time to lose to provide all the services, from distribution to claims management, through new channels of communication. But for all that, the effects are not guaranteed. Some companies provide their clients with the possibility of consulting their accounts on the Internet. Site traffic rates are often disappointing (around 10%). This rate falls to a few percentage points for online shares. It comes as no surprise that the variations are quite strongly correlated with age. For the new generations, digital solutions are an obvious choice, whatever the need may be (not only that, more on a smartphone than a computer).
On this topic, the transformation strategy cannot make do with half measures: in some ways we have to get it right first time! That is to say, as soon as a new solution is launched, the client must be hooked. Should it be otherwise, the client will not come back and the enterprise will have to deploy considerable ingenuity in its efforts to convince him or her to try the experience again. Furthermore, if the services provided are limited to being able to consult a file which hardly changes on an annual or monthly basis, the client will not become accustomed to the solution. We therefore have to target a solution that will be of use in the client's day-to-day life. Imagining such a service is perhaps easier for the bank than the insurance company, but the opportunities do exist.
Developing the digital offering is therefore a task that mobilizes several disciplines. It makes demands:

- on the IT system, which has to be sufficiently well structured and sized to provide a good level of service to external actors (quality, agility, interoperability and traceability are some of the requirements to be considered)[4];
- on how expectations are perceived, which are not limited to the client-supplier relationship but cover life itself (it is only in this way that we are able to detect the service to be provided and can ensure the success of the proposed solution and the strength of the link created);
- on the design, from the seminal idea to how it is deployed and accompanied.

Producing and selling is no longer enough. The enterprise has to maintain a permanent contact with its public by offering them daily services.

[4] A well-led transformation of the IT system is a requirement to help the enterprise transform. In itself, it results in tangible and rapid gains, thanks to a better control of the system and a reduction in its volume.

2.3 A total approach: for increased effectiveness, rethink the enterprise in one go

Faced with all these injunctions to transform the enterprise, the error would be to take things one at a time, to deal with the different topics separately. The enterprise would risk wearing itself out doing so. Worse, it would increase its internal complication by piling up contingent answers, without raising the question of coherence. For example, to become compliant with the regulations presupposes, among other things, that we dig into the very bowels of the IT system. In order to do it well, it also calls upon solutions, such as agility measures, which we can benefit from. The consequences of these measures will appear more clearly if we deal with other topics at the same time, such as the organization, skills development, partnerships, product design, etc.
In the same way, the digital solutions that we can offer our clients or distributors will only be able to benefit from a rapid design and deployment if the IT system is rebuilt. Otherwise, they will resemble new windows tacked onto a system that was not designed to house them. The result of this would be greater complication, while the state of the systems is already very alarming.
Therefore, rather than dealing with the questions separately, the transformation will gain from adopting a holistic approach, dealing with all aspects of the enterprise and covering the maximum number of issues. Admittedly, in our organizations, there is nothing less natural than such an approach. It comes up against difficulties linked not only to the organization but also to the skills. General management has a role to play to encourage this interdisciplinary approach, even to lead it. The stakes are considerable: it is not only a question of avoiding spreading ourselves too thinly across projects, but also of identifying new ideas which will feed into our competitive advantage.

Organizing the transformation in project mode presents a considerable risk of dissipation and waste. A global approach enables us to reduce this risk. The general architecture document coordinates all the issues affecting the enterprise. It is a precondition for any project definition work.

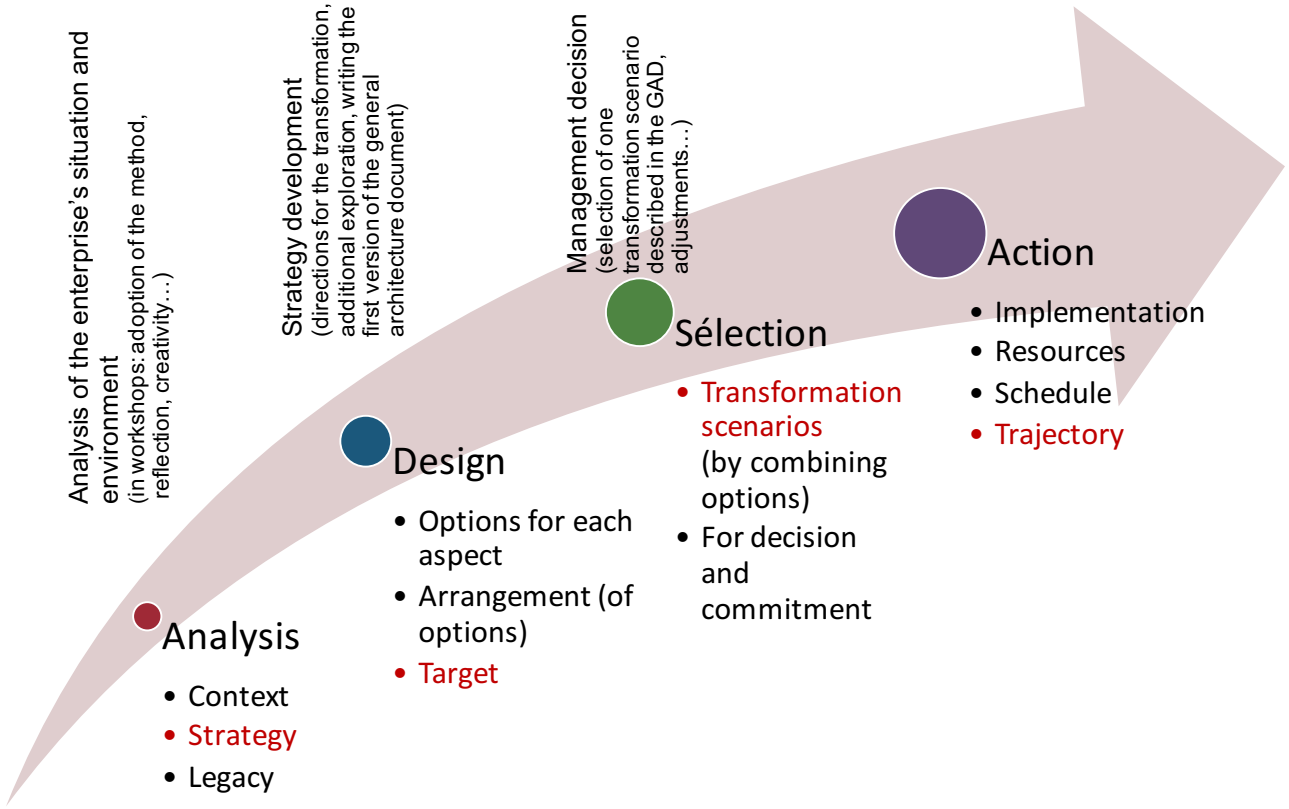
The general architecture document

The general architecture document (GAD) aims to propose the architecture for the enterprise, that is to say a coherent set of decisions that enable us to transform the enterprise. The term “architecture” is taken here in the sense of the overall design: it is a question of taking the enterprise as a whole and determining the best way of structuring it. The architecture is described as “general” insofar as it covers all aspects of the enterprise. This holistic approach extends the strategy development. It seeks to bring coherence to the different points of view and considers the transformation opportunities, in every dimension of the enterprise.

The GAD details the enterprise vision

First, it examines the factors that determine the enterprise and its future. More often than not, it starts from the strategic directions, whether they have been formalized or simply stated. In response to these factors, it decides on the measures for consolidating or transforming every aspect of the enterprise.
The purpose of this document is to articulate the different elements of the vision into a coherent whole, able to guide the investments throughout the transformation approach.

Figure 1. Management involvement in the general architecture of the enterprise



2.4 The IT system

Digital transformation will not be obtained solely by making additions. It presupposes a thorough restructuring of the IT system.

Moreover, is it really a *system*? When did we draw up its overall plan? When did we concern ourselves with its quality and behavior with regard to general requests and concerns? As far as systems are concerned, we are almost always dealing with a hodgepodge of applications, developed or acquired at different moments, in order to satisfy local needs, with no overall vision. The consequence is an unbelievable rate of redundancy. The redundancy of some data does not exclude that other data may be missing, which becomes an insupportable risk from the AML/CTF[5] perspective. The same data (for example, the client's address) may find itself saved in different places, in different forms. This information redundancy invites contradiction. A large part of the complication in today's systems comes from the need to fight potential contradictions, by synchronizing different "versions of the truth".

Worse, there is another form of redundancy, more insidious and devastating. It begins with the formulation of the business concepts. As an example, a notion as natural as "person" is almost always represented through numerous filters: prospect, client, colleague, beneficiary, etc. Instead of seeing the actual object, the enterprise only sees the object's role in relation to itself ("client" instead of "person"). Consequently, it becomes almost impossible for us to put ourselves in the person's position and see the world through his or her eyes. How can we then imagine the services that the person hopes for? Another consequence of this semantic confusion is to reduce interoperability: if one application records people as clients, another as colleagues, and a third as service users, it becomes more difficult to share and interpret the data between the different systems[6].

The problem arises all the more now that the information system is no longer a technical system limited to the boundaries of the enterprise. The information system goes beyond the enterprise: it involves external actors, like clients, prospects, the simply curious, but also distributors and partners. Extranets, and even more so the Internet, have shifted the boundaries of the information system, beyond the scope of the enterprise in its strictest sense. This new order leads us to remove everything that is linked to the enterprise's perception of the world from our representations.

[5] See p. 3.

[6] This tendency for redundancy is obvious in the existing exchange formats on the market. Moreover, these formats always have a sectoral aim. We should, on the contrary, seek genericity for the majority of the notions.

An enterprise must see world objects as they are – and as they also appear to external actors –, without adding its own internal perception to them.
The battle is fought at the semantic level. Its effects are totally concrete. To give an example, it is only recently that enterprises have decided to replace the client number with an email address, to connect to a client account[7].

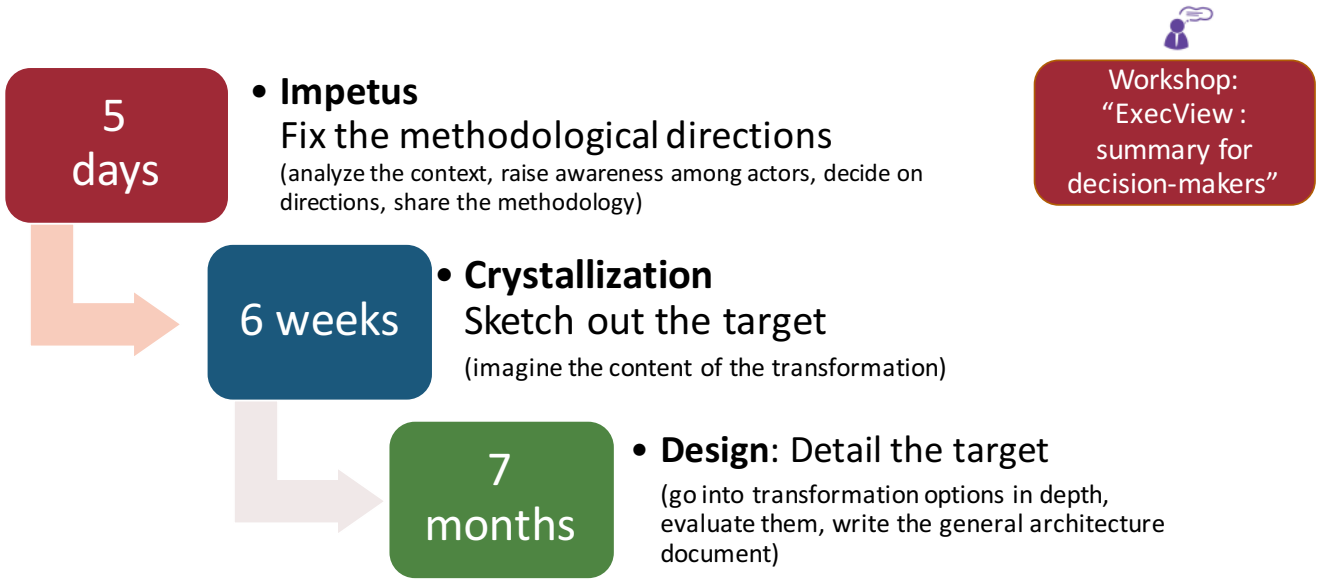
Thus, we have to approach the information system as a sociotechnical system extending beyond the enterprise, aimed at external actors and one that interoperates with other systems.

In these conditions, any unnecessary heaviness will prove to be fatal. In addition to the fact that redundancy increases the divide between development and maintenance, it endangers the communication with actors, the flexibility of the processes and the capability to rapidly adapt.

We can only imagine new service offerings if we simplify our systems and find, once more, the natural notions of everyday life. The first step for this conversion is through semantic modeling.

Figure 2. A temporal diagram to advance with resolute steps: "5 to 7"

Designing the transformation does not require a huge amount of effort. On the contrary, if the thought process drags on for too long, it exhausts itself and produces nothing new. We therefore have to move forwards quickly and show great determination. This is only possible by using a method. The "5 to 7" diagram offers a way of signposting the approach. Mobilizing decision-makers in the first step is a determining factor. General management must carry the general architecture document and support the transformation approach.



[7] This practice does not only affect the IT system. It applies equally to the telephone answering services. It will quickly become obvious, or rather: everyone will consider the former practice – the sacred client number – as an aberration. Thus goes History!

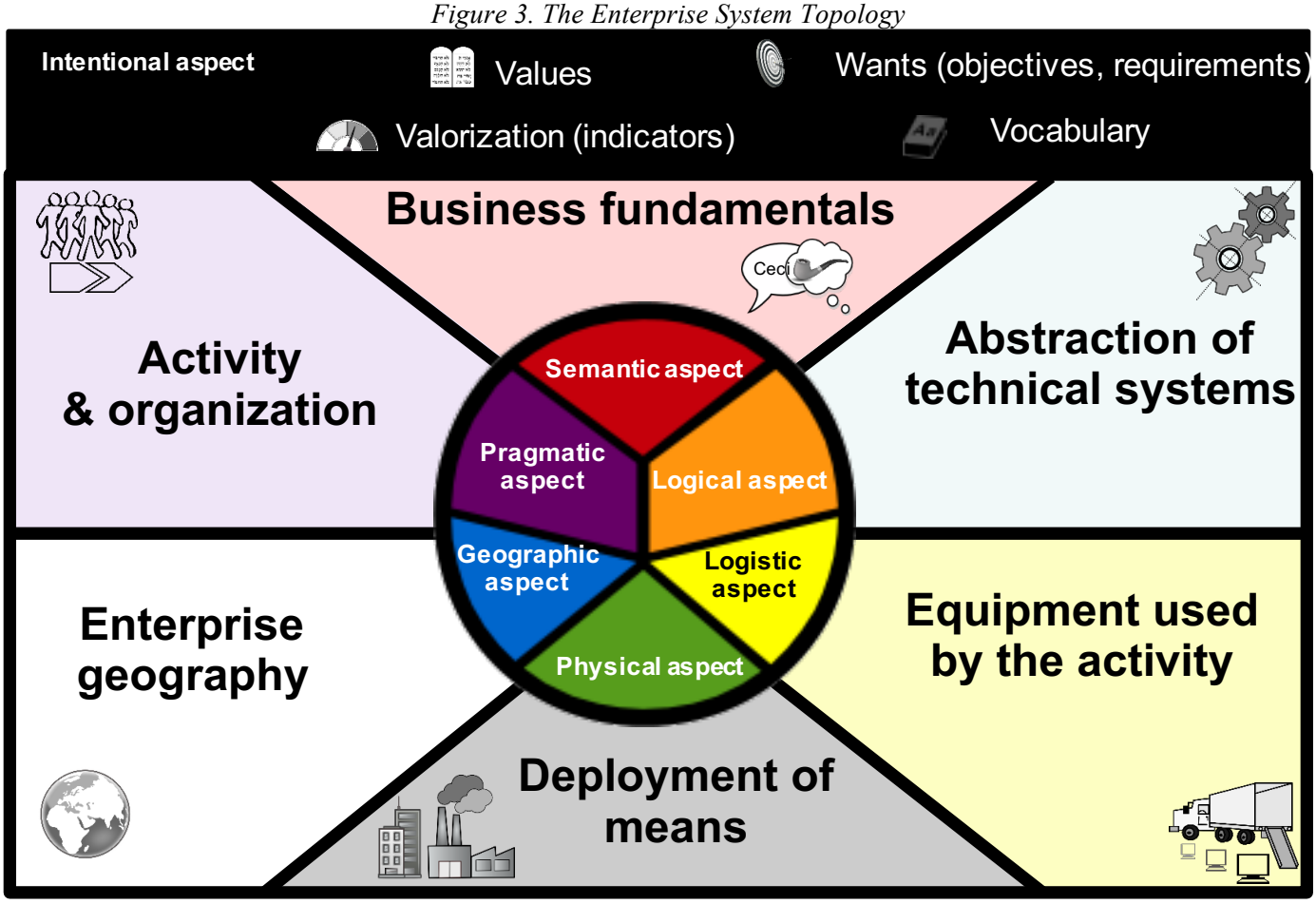
3. What target?

This third part clarifies the transformations referred to above and brings some method elements.

3.1 The Enterprise System

The initiative for an open method, launched in 2004, resulted in the Praxeme method which helps to design and lead enterprise transformations. It provides the tools to increase the intelligibility of this complex object that is the enterprise. It approaches the enterprise as a system that it looks to analyze in all its dimensions[8].
Praxeme implements the holistic approach recommended in § 0. It is concerned with articulating the areas of expertise to think of the enterprise as a whole, from strategy to infrastructure, from values to equipment. In this way, it contributes to the flow of ideas between specialized fields, which is one of the conditions for innovation. To succeed, Praxeme provides a representation framework, through which the enterprise can sort out the information and decisions concerning it. The figure below introduces this representation framework. The method distinguishes seven aspects of the Enterprise System.

Figure 3. The Enterprise System Topology



The following paragraphs illustrate the work to be undertaken for each of the aspects, in the insurance sector.
Beforehand, let us clarify that the inventory and articulation of these seven aspects respond to several requirements. First, the objective is to structure the mass of information and decisions that concern the enterprise, in particular in a transformation situation. Then, this structure obeys concerns of economy and efficiency. A piece of information, depending on its type, must be stored in one, and only one, place. It must be able to be connected with other pieces of information, but without that ruining the overall control. This is why the dependencies between aspects have been carefully studied and limited to what is strictly necessary[9].
Equipped with this theoretical infrastructure, the holistic approach that we advocate (§ 0) will be able to be deployed.

[8] For more detail, see http://www.praxeme.org.
[9] The justification of this construction is the subject of document PxPRD-01 of the Praxeme method (http://www.praxeme.org/telechargements/catalogue/).

The first thing that the enterprise should look for, to make its transformation approach secure, is a representation framework that will enable it to organize the mass of information and decisions to be exploited. Without such a framework, many ideas will be lost and will struggle to circulate between the different specialized fields involved in the transformation.

3.2 The intentions

Any transformation must start by analyzing the intentions. The method refers to an "intention" as any formulation that expresses an aim, a wish or a necessity which determines how the enterprise functions and is built. The study of the environment, outlined in the first part, is one starting point; another is the discourse around the enterprise values. In the insurance context, this topic reveals itself to be of particular interest. Indeed, the insurance activity takes on a *function of solidarity for society*. This function merits being developed. In the case of mutual insurance companies, the values manifest themselves even in the vocabulary: we do not speak of clients or insured parties, but of members. We can see, by that, the close relation between axiology (the study of values) and terminology.
Seeking coherence in the way the enterprise is built shows, in itself, a concern for *rationality* which forms the basis for the collective ethics: the enterprise would not reasonably know how to state its support for a value without demonstrating its sincerity through its very being and actions. This is why the work on values is also part of the transformation methodology. Moreover, the axiological model (that is to say the set of values and the relations between them[10]) has very practical consequences on the rest of the Enterprise System. It is not hard to imagine the impact a choice of values will have on the expected behavior of colleagues as well as on process design. We know that the slightest contradiction between the stated values and the enterprise reality can have a quite harmful impact, even if only in terms of image.

Every enterprise has a moral reality, buried in its culture. The transformation has to settle itself in this reality or, when necessary, seek to consciously bring about change.

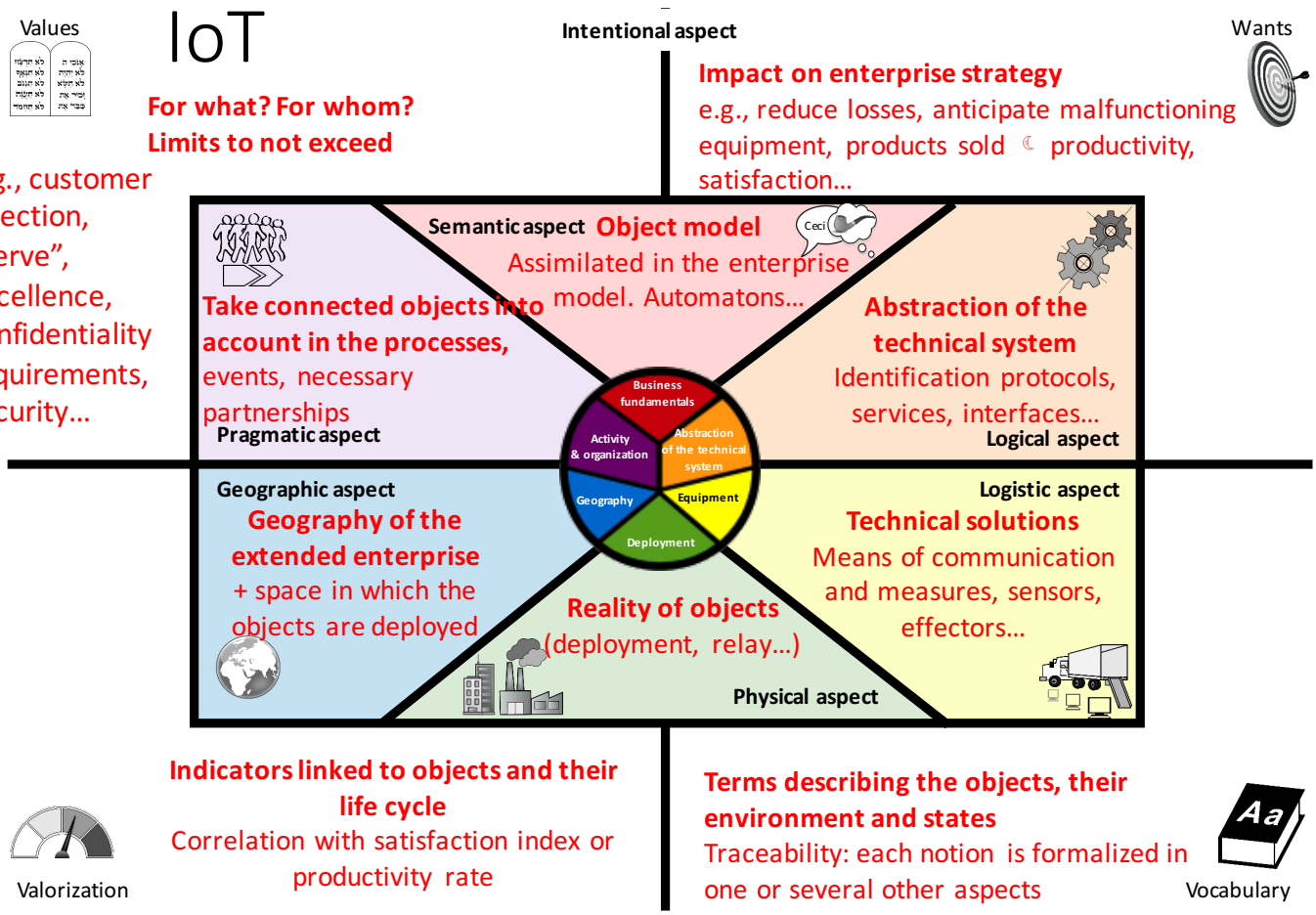
The extension of the value chain, made possible by digital technology, questions the ultimate aim of the enterprise. If the latter chooses an essentially "digital" strategy, it has a duty to provide services that shift the value provided: the insurance cover becomes almost secondary compared to these new services. Is it compatible with the enterprise values, its culture and its capabilities? If not, this strategy can still be chosen, so long as we allow for a cultural constituent in the transformation. Enterprise values can, to a certain extent, be changed.
Even if the chosen strategy is limited to absorb the digital technology shock, we will have to begin to work on the attitudes, linked to the values. For example, taking several days to reply to an email request will shortly no longer be tolerable. It is not an epiphenomenon: a criterion as simple as this one casts doubts on the attitudes of staff and the whole organization. Reactiveness is a requirement that has to be laid down and quantified from the outset, so as to later inspire the organization and IT design.

Technology, always, tests our moral coherence. The impact of digital technology on the insurance industry forces us to analyze the intentions.

The following figure shows how the Praxeme canvas[11] applies to the topic of the Internet of Things (IoT). Insurance companies will have to be able to exploit this potential technology, which in itself raises tricky questions of deontology.

[10] What is commonly known as a "value system." Values are not neutral when compared with each other. We have to analyze the enterprise ethics as a system, having an internal logic and dynamics. The method provides us with the tools to analyze and balance a value system.
[11] The Praxeme canvas is a simple tool, which guides the questioning about the enterprise, by applying the representation framework to it.

Figure 4. Example of intentional analysis on the Internet of Things topic



The intentional analysis examines the question raised through four facets: a) values (what should we respect?); b) objectives (what do we want to do?); c) indicators in the metrological model (how do we objectify ourselves?); d) terminology. Analysis hands over to intentional design: this is when the choices are made for the future of the enterprise. The exercise shown above takes things a stage further: it shows the implications of the intentional choices in the other aspects of the enterprise.

3.3 Working out the target

Once the intentions have been clarified, the first thing to do is to describe the future state of the enterprise, a little like an architect draws up the plans of the building to be built or renovated. We do stress this point: the description of the target must deal, head on, with *all aspects* of the Enterprise System. It takes the shape of a general architecture document, starting from the results of the intentional analysis and the consequences felt across all the aspects. There are, almost always, several trigger factors, but there is only one system. This thinking has to be carried out upstream of the projects, so as to optimize any investment. Often, a different division of the investment is deduced from it for greater efficiency.

The table below shows us a glimpse of the thinking and the measures that we can consider in the different aspects. Most of the transformation objectives will involve work in several aspects. For example, if the enterprise would like to reduce the time required to bring a new product to market, it will first have to completely rethink its description of the offering and enrich it with retroactions coming from other processes (work to be carried out in the pragmatic aspect). Adopting a rules engine (technical measure in the logistic aspect) will bring some agility to product design. Marketing and distribution will have to be examined in their geographic deployment, etc.

Figure 5. Examples of measures shared out depending on the aspect

Aspect	Measure	Comment

Aspect	Measure	Comment
Intentional	Put enterprise terminology in place	Preceding any program of scale. In the insurance domain, the terminology can be revisited. In any case, the terminological effort must not be limited to within the enterprise (which is already considerable). It must also think about the communication with clients. A particularly sensitive point in the insurance sector.
	Adopt a new vocabulary	To reflect a choice in direction ("member" rather than "client", "Indemnity Department" rather than "Claims", expressions used in contractual clauses…).
	Analyze performance	Thanks to a metrological model more precise than dashboards.
Semantic	Model external notions	By omitting to convey them into procedures and tools. Effort to rediscover the universal notions that will be easy to share.
	Combine Product catalogs	Which goes through an effort of semantic modeling. All branches and subsidiaries taken together, with the objective of increasing the value proposition (bundles…).
	Extend the semantics	To cover the objects which do not make up the core insurance business but which will act as the pretext for exchanges and services (notably, big data assimilation).
Pragmatic	Simplify the processes	Preceding any development of mobile applications on smartphones and tablets[12].
	Concentrate the organization	Never make the client bear the cost of the coordination between departments.
Geographic	Decide between real and virtual, proximity and availability…	Play on the different time zones to ensure a 24-hour/day presence (at least a telephone one)…
Logical	Design the ideal target for the IT system	By deriving the business models, and not by considering the IT solutions in place. SOA[13], IT city planning (urbanization)…
	Draw up exchange formats	It is possible to reduce the volume of exchange formats, of a factor compared to the solutions on the market (e.g., DARVA). The secret: start from a semantic model that distinguishes between objects and roles.
Logistic	Generalize agility measures	Like the rules engine mentioned above.
	Put in place a data management policy	Master Data Management, technical solutions to make restructuring easier… Data quality has become critical.
Physical	Choose a cloud	It is here that an ever-increasing share of exchanges with external actors takes place. Decide between in-house development and acquisition *(build or buy, make or take)*.

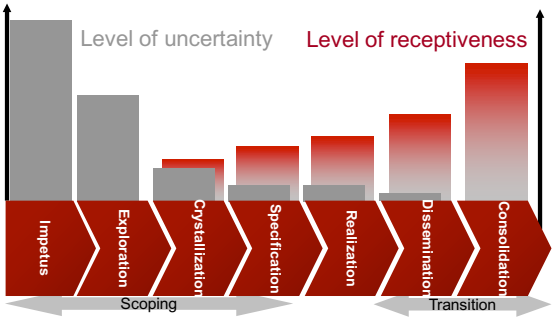
3.4 Transformation trajectory

The transformation trajectory can only be drawn up once the destination is known. This is described by the general architecture document, at a first level of detail. It will be clarified as things progress.
The first phase consists thus in designing the target. It includes the strategic thinking and design of the future enterprise architecture. Possibly, study and experimentation actions may be called for on specific points. At the end of this phase, general management will choose one of the proposed transformation scenarios.

[12] Case of the Indian insurance company L&T General Insurance Company, cited in Howard MILLS and Bernard TUBIANA, *Innovation in Insurance*: The Path to Progress, Deloitte University Press, 15 March 2013.
[13] SOA, acronym for "Service Oriented Architecture". Instead of considering the IT system as a set of applications, SOA design restructures it in finer-grained elements, called services, with a high rate of reuse. The consequences of this new approach to logical architecture are a significantly reduced level of redundancy and volume of the system.

The following phases depend on the enterprise priorities, its ambitions and the means it is ready to commit. We must not forget, all the same, that the market is engaged in a race against time.

Figure 6. An example of the contribution of the Praxeme method: the approach for innovative projects



For innovative or highly uncertain projects, it is illusory to impose an approach where everything is fixed in advance. It would even be contrary to the objective. The principle of the approach is based on the gradual reduction of uncertainty. We have to organize spaces for ideas to be discussed until the content of the transformation becomes more definite and clear. In the initial phases, management makes sure the enterprise avoids the organizational traps and cognitive biases that risk emasculating imagination and confining the transformation to several conformist formulas. For more detail, see the Praxeme Institute wiki: http://wiki.praxeme.org/index.php?n=Modus.DemInno.

3.5 Some recommendations

a. Semantic modeling

We have understood: the semantic model plays a key role in the transformation. Not only is it a precondition that must be addressed in Data Quality, Big Data or MDM projects, but it also provides a starting point to revisit the business, even to reinvent it. The semantic model captures the business knowledge, independent of practices and organizations. Semantic modeling thus requires an effort of abstraction. Its reward will be the capacity for innovation. Indeed, from the semantic model, which expresses the business fundamentals, regardless of organizational and technical circumstances, it becomes possible to imagine something new. To overcome the difficulties with this approach, generic models[14] help accelerate things. There are models on the market for insurance notions[15]. These models have two major flaws:

- on the one hand, they are not semantic models but data models: they do not express all of the concepts (more particularly, object life cycles are not represented whereas they are the main source of complexity[16]);
- on the other hand, precisely because they are sectoral, they lack the objective of semantic modeling, which is to identify the natural notions, under the specialized expressions, so as to share them across an extended value chain.

Nevertheless, these market models are useful, in so much as they bring part of the material to be dealt with in the semantic modeling.

b. Process modeling

Process modeling has, over the last decade, become glaringly obvious for everyone. There is now an international standard available for us to use for this work, which makes communication and sharing easier. This standard, BPMN[17], encourages realistic and robust process design, that is to say one that is able to react to the unexpected. What is more, process representation can be interpreted by a process execution engine. Should things evolve, we only have to modify the representation without intervening on the software itself. Thus the enterprise benefits from an additional degree of agility. These advantages presuppose, of course, skills and having recourse to technical solutions.

As far as the content of the activities is concerned, APQC provides a Capability Model for insurance. It is not a process model but a simple inventory of activities. We can take it as a very useful starting point to accelerate the pragmatic modeling. One of the new things in process design lies in the place given to external actors, in particular: clients, insurance brokers, distributors and partners (other insurance companies or outside of the insurance sector). Systematically, the designer must ask him or herself what, in the activity, can be entrusted to others. For example, everything that needs to be done when a claim is made does not require the skills of a claims management officer. By separating the actions according to this criterion of competence, we will be able to propose a suitable interface to the insured party. Many activities will thus be able to be carried out by different actors and in diverse conditions.

Finally, process design and management benefit from quantitative process analysis, which today is a well formalized and tooled discipline (from process simulation to Business Activity Monitoring). The simple fact of better managing peak loads has a direct impact on waiting and processing times, and so on customer satisfaction.

[14] The generic models of the semantic aspect deal, by the rulebook, with universal notions: temporality, real-world objects, geography, activity scheduling, etc. They are part of the offering from the company Praxademia.

[15] See, in particular, the Information Model from ACORD (cf. https://www.acord.org/resources/framework/Pages/default.aspx).

[16] A subject like the "customer journey" can be elegantly expressed as a life cycle (in fact, it is expressed through an assembly of several life cycles).

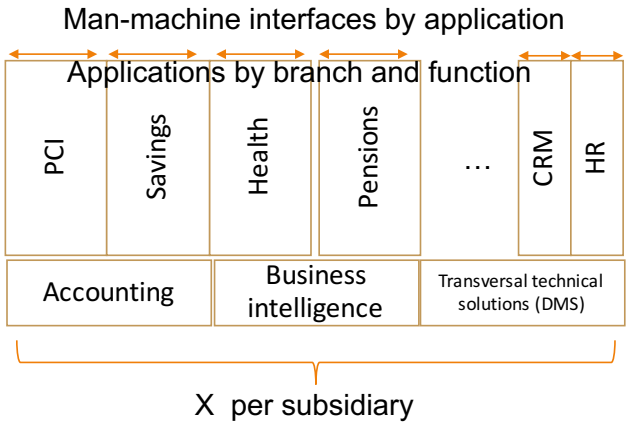
[17] BPMN (Business Process Model and Notation) is a standard of the OMG (Object Management Group).

c. Structure of the IT system

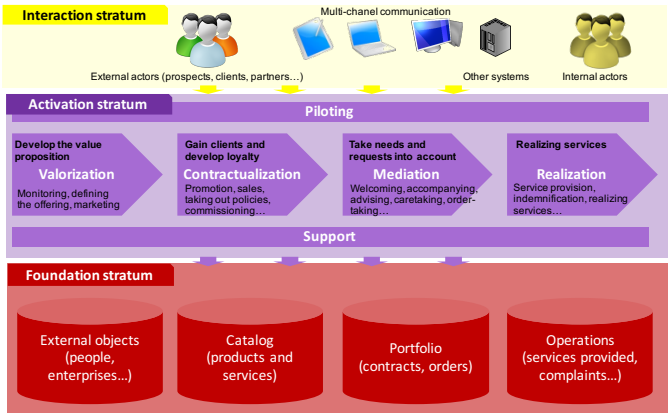
Adapting IT systems, in the insurance industry, is a painful affair. The weight of existing systems impedes enterprise transformation. Whether the system is based on specific applications or software packages, its structure always results from a functional approach, with division into branches, functional domains, activities… The redundancy that can be seen comes, in the main, from this approach. It is therefore illusory to think that we can improve these systems piecemeal, leaving them more or less as they are structured. Application silos, tacked on to the distinction between P&C (property and casualty) insurance, Health, Savings… have to be pulled down, or at least, uncapped to extract all the information that may be shared. In the same way, the functional domain (the functions of the enterprise) must not be the only decomposition criterion of the IT system. The approach reveals what are commonly known as repositories: sets of shared objects or information. The diagram below aims to give an idea of the changing face of the IT system.

Figure 7. Comparison between the classic (functionalist) structure of an IT system and the structure recommended by the Praxeme method

Typical application architecture of the functional approach



Logical architecture of the target system



Unified system for the whole group, federation…

The best way to get to the optimal structure of the IT system is to begin with the business representation. Should we need to remind ourselves, it is the only way to bring IT into line with business. We have seen, above, that the business is represented through two aspects: semantic (the business objects) and pragmatic (the business activities). This separation should be found in the structure of the IT system. The drawing up of this structure falls to the logical architecture discipline. The "land use plans" produced by the Information Systems city planning, are common in the insurance sector in France. They do not present the same level of rigor as that of logical architecture. One of the critical points is that of granularity. We have to stop seeing the IT system as a set of applications, these big software blocks. On the contrary, the substance of the future IT system should be 80% composed of more fine-grained software: services, in the SOA sense, some of which will be displayed through controlled interfaces. It is in this way that we will be able to develop, rapidly and at a lower cost, man-machine interfaces and increase them at every possible opportunity, in particular on new communication measures (extranets, smartphones, tablets, sensors, effectors…)[18].

d. Transformation scenarios

As already discussed in § 3.3 regarding the target, we expect enterprise architects to propose several scenarios, with general management responsible for selecting the one which best corresponds to its strategic vision. The scenarios are spread according to the level of ambition and importance of the transformation. The decision can be made in two stages:

1. first, fix the transformation objective, its content;
2. then, determine the rhythm of the transformation.

Thus, a same level of ambition can be reached more or less rapidly, depending on the approved level of investment.

[18] This approach was implemented at SMABTP, from 2004 onwards. The experience is outlined in the book "*Le Système d'information durable, La refonte progressive du SI avec SOA"* (Sustainable IT Architecture – A progressive way of overhauling Information Systems with SOA), Pierre Bonnet, Jean-Michel Detavernier, Dominique Vauquier, published by Hermes-Lavoisier (enhanced version *Sustainable IT Architecture*, published by Wiley). Version 2 of the Praxeme method for SOA is accessible through Praxademia training sessions.

One of the difficulties encountered in the transformation comes from the need to establish some foundations without any immediately visible effects (among others, the repositories referred to above). Conversely, we hear a lot of praise for furtive approaches that do not present this disadvantage: agile development for IT projects, POC (proof of concept) which is bound to be on a narrow topic, initiatives to design and build applications (hackathons,etc.). Without taking away any of the merits these approaches have and, despite their media effects, they cannot replace a true transformation approach. They remain limited and often superficial. The major issue is the in-depth transformation of the Enterprise System, in all its component parts, to adjust it for a new way of doing business. Be wary of gadgets!

4. Conclusion

The need for adaptation in the digital age is obvious to all. It must not eclipse the other reasons for transformation:

- intentional innovation (comply with regulations, reformulate the aim of the enterprise, adopt a new value system…);
- conceptual innovation (redefine the value proposition, revisit our thought and action diagrams, broaden our perception of the world…);
- organizational innovation (adopt a new style of regulations, generalize retroactions in the enterprise, increase the autonomy of operational business units, find the right combination between transformation and operations…).

We can see that innovation is not only technological.
Faced with change, wisdom consists in taking the bull by the horns, while it is still in the pen. When let into the arena, furious, it becomes infinitely more dangerous to confront it. Our first message is therefore that there is not a moment to lose to begin the transformation.
Our second message is that it is preferable to deal with transformation, in a conscious and global manner, taking care of all aspects of the enterprise from the outset. This effort is not more costly: it requires only a little discipline and organization. In return, it will avoid the waste brought about by dispersed, muddled attempts.

The holistic approach of the transformation is:
a) more efficient; b) more economical; c) more innovative.

To drive this effort, the Praxeme method provides a framework that integrates all transformation disciplines. It also specifies the procedures to be applied. In addition, the generic models (both semantic and logical) considerably speed up the work and make the projects secure. They bring the guarantee that the universal notions and mechanisms, which simplify the solutions and broaden their domain of application, will be kept.

Company presentation

Praxademia is a consultancy and training company, working in France and abroad.

Its "transformation journey" offering integrates:

- Praxeme's methodological contribution,
- the preparation of skills,
- the generic models,
- an accompanying role, in partnership with consultancy firms.

Certification of skills

The Praxeme certification allows us to ensure that the transformation programs have the necessary skills.

In addition to a "Praxeme Foundations" certificate, which guarantees a common basis of vocabulary and approach, the Praxeme qualification diagram distinguishes between the profiles of Transformation Officer (pilots of the transformation) and experts from the business, technical and logical design (the intermediary aspect) side.

Do you know the transformability index of your enterprise?

An initial class of indicators concerns how the enterprise functions at a given moment. The second gathers the transformation indicators that measure the progress between two states of the enterprise. The third class is concerned with an enterprise's ability to transform itself, more or less easily and rapidly. The transformability index summarizes these indicators. It gives an idea of the enterprise's attitude faced with the future.

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