

Is the Military Operational Decision Making Approach Applicable to Managing the Covid-19 Crisis?

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ABSTRACT

Drawing from his dual experience in the army and in fire departments - which are also major actors of the French medical emergency services - General Joël Prieur attests to the success of military methods in the field of civil defense. Observing the current (mis) management of the COVID-19 pandemic, he considers their extension into the wider health services. According to him, the state's «silo» organizational model is not well suited to deal with crises, defined by urgency and uncertainty, and neither is its traditional method of decision-making process focused on expert consultations and functional lead meetings. He suggests public administration, in particular health agencies, could benefit from the military model, based on an efficient organization in emergency operational centres (EOC) and a proven operational decision-making process (MDMP). This model could restore the state's agility and efficacy that it currently lacks in times of major crises, as recently pointed out by General Lizurey, former director of the Gendarmerie in his report to the Prime Minister four months after the beginning of Covid crisis.

Keywords: Crisis management, Decision making process, MDMP, COVID-19, Inter-ministerial action

¿El enfoque de toma de decisiones operativas militares es aplicable a la gestión de la crisis de COVID-19?

RESUMEN

Basándose en su doble experiencia en el ejército y en los departamentos de bomberos, que también son actores importantes de los servicios de emergencia médica franceses, el general Joël Prieur da fe del éxito de los métodos militares en el campo de la protección civil. Al observar la (mala) gestión actual de la pandemia de COVID-19, considera su extensión a los servicios de salud más am-

plios. Según él, el modelo organizativo de “silo” del estado no es adecuado para hacer frente a las crisis, definidas por la urgencia y la incertidumbre, y tampoco lo es su método tradicional de proceso de toma de decisiones centrado en consultas de expertos y reuniones de líderes funcionales. Sugiere que la administración pública, en particular las agencias de salud, podrían beneficiarse del modelo militar, basado en una organización eficiente en centros operativos de emergencia (EOC) y un proceso de toma de decisiones operativas (MDMP) probado. Este modelo podría devolverle al Estado la agilidad y eficacia que actualmente le falta en tiempos de grandes crisis, como señaló recientemente el general Lizurey, exdirector de la Gendarmería en su informe al presidente del Gobierno a cuatro meses del inicio de la crisis del Covid.

Palabras clave: Gestión de crisis, Proceso de toma de decisiones, MDMP, COVID-19, Actuación interministerial

军事行动决策方法是否适用于管理2019冠状病毒病危机？

摘要

凭借在军队和消防部门（这也是法国医疗急救服务的重要行动者）的双重经验，Joël Prieur将军证明了军事方法在民防领域的成功应用。通过观察当前对2019冠状病毒病（COVID-19）大流行的（错误）管理，他考虑将其扩展到更广泛的卫生服务。他认为，国家的“单一”组织模式不太适合应对由紧迫性和不确定性定义的危机，同样不适合的是其传统的决策过程方法，后者聚焦于专家咨询和职能领导会议。他暗示，公共行政部门（特别是卫生机构）能从军事模式中受益，该模式基于应急行动中心（EOC）的高效组织和经过验证的行动决策过程（MDMP）。正如国家宪兵署前署长Lizurey将军在COVID危机开始四个月后向总理提交的报告中指出的那样，这种模式能恢复国家目前在重大危机时期所缺乏的敏捷性和效力。

关键词：危机管理，决策过程，MDMP，2019冠状病毒病，部际行动

Introduction

The endless pandemic of the coronavirus shows to what extent decisions at the highest level are complex when a “real crisis” occurs, one of those that the French Society of Disaster Medicine (SFMC) qualifies as a catastrophic accident with major effect (ACEM). The COVID-19 pandemic corresponds indeed to this concept of major crisis defined by Professor R. Favre as “*a destructive and brutal reversal of the pre-established order of a natural or human group*”.

Decisions at the level of a Head of State are taken in conditions made terribly uncomfortable by the lightning scope of the phenomenon and the mysterious and evolving nature of the virus, and are worked out in restricted circles of ministerial advisers, after consultation with scientific experts from the competent units (no less than 8 in France). Shaped by centuries of centralism, our presidential political system leads to a strong personalization of power and in turn induces high expectations from the population, which rarely feels compassion for the ultimate decision-maker, a human being, a mere mortal, who has to act under sometimes inhuman conditions. However, even more than in the personality or intrinsic qualities of the leader, it is in the organizational model of the technostructure that surrounds him that we must look for the deep causes of adaptation or maladjustment of the decision-making process to major crisis situations.

1 - The limits of the “functional” model in times of major crisis

In the functional organization model, which is still largely dominant in all the world’s administrations, each department (or ministry) works on its own field. It is a vertical and thematic organization, built in organ pipes, where the synthesis of the strategic level is the sole responsibility of the authority placed above the pipes: a head of state or government, or even a minister. This person, even if well surrounded, knows that he or she will ultimately have to take responsibility for decisions, which is why we will refer to him or her here as “the leader”, regardless of his or her official title, whether civilian or military. The functioning of this strategic decision-making level is often opaque¹, whereas the administrations that are subordinate to them at least have the merit of publishing their organizational charts. Each function (ministry) is a more or less closed world, jealous of its prerogatives, which is why this model is often described as a “silo” organisation.

- Advantages of the functional model: In normal times (“peacetime”) the advantages of this model (its solidity, its reassuring specialization by “trades”, etc.) outweigh all others. This is particularly true in the departmental organization.

¹ “*The essence of the ultimate decision remains impenetrable to the observer, and sometimes even to the decision-maker.* Allison GT, Zelikow PD. *Essence of Decision: Explaining the Cuban Missile Crisis*, 2nd edn, New York, Longman, 1999.

- Disadvantages of the functional model: In times of crisis (“wartime”), this model does not stand up well to the pressure of urgency and uncertainty, which the military calls the “fog of war”. When the crisis reaches a certain threshold of severity and complexity, the decision-making exercise becomes superhuman, and no brain, whatever its cognitive and psychic capacities, can manage the avalanche of informations and emotions that overwhelm the decision-maker in a crisis situation. This leads to avoidance strategies, wasted time, failures, aberrant decisions and mishaps. Added to this is the difficulty of coordinating verticalities, due to the reluctance of silos to work in synergy. To get an idea of the dysfunctions of a functional governmental model in a major crisis situation, the reader can refer to the report of the audit commissioned at the end of March 2020 by the French Prime Minister, who was anxious to quickly learn the lessons of the real health “blitzkrieg” he had just undergone (Lizurey report², available on the internet). Another disadvantage of the functional system is its bureaucratic rigidity, which can be a demotivating factor, by weakening zeal and sometimes discipline, especially at the lower levels. This phenomenon can be summarized as follows: *“I do what I can with what I have (obligation of means). After all, the solution is the boss’s problem (obligation of results)”*.

There is, however, an alternative example of strategic decision-making that overcomes the cumbersome “silo” functioning of the administrative organisation, optimises the classic process of the directorial round table (“1 chief + his advisors”), and above all avoids the risk of exhaustion that threatens the decision-maker when the crisis starts to last. Inspired by the military, this model is based on an original organization ³(the CO) and on a specific method of elaborating operational decisions ⁴(the MDMP).

2 - In times of crisis, the operational centre stands between the chief and the silos

The EOC is an organization with variable geometry (from 6 to 60 people), permanent or temporary, but whose organizational and operational principles remain identical, whatever the nature of the crisis, which gives it a certain universality⁵.

2 Report of the mission on the quality control of health crisis management. Prepared by Richard Lizurey, Army General recalled to active duty, with the support of Amélie Puccinelli, Inspector of Administration-June 2020.

3 Emergency Operational Center (EOC) for English-speaking readers

4 Military Decision Making Process (MDMP)

5 In 2010, during the major earthquake that devastated the island of Haiti (280,000 dead - 300,000 wounded - 1.3 million homeless), the heads of international relief columns or NGOs with a military culture had no difficulty in blending into the American command system inspired by the NATO model used in Western armies.

The cells of an EOC are formatted and specialized to answer 4 main questions, those which precisely assail any decision-maker when he is confronted with a major disaster situation, namely :

1. What is it about? What am I facing (nature/gravity)?
2. What can i do? What are the possible solutions?
3. Can I afford it? With whom? with what? how?
4. And then? What effects? what consequences?

This results in the following flowchart, which is used as a basis in all military-type EOCs and derivatives.

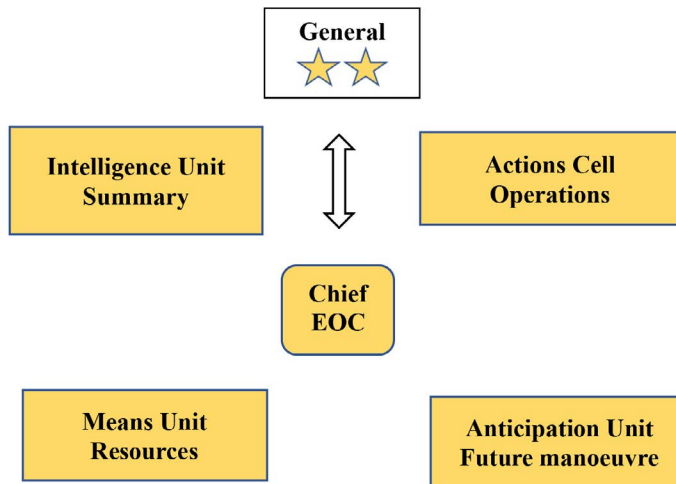


Figure 1: Basic organization of a EOC around a leader who coordinates the cells to answer the 4 fundamental questions of the MDMP (BSPP Model)

The different cell leaders composing a EOC are not representatives of a function (a silo). Their purpose is to relieve the brain of their leader (the “general”) by taking on each of the 4 fundamental questions (Figure 1). They are answer givers, not advisors. It is then up to them to train their teams, with advisors and experts as a second line. They act and interact with each other under the guidance of a EOC leader, who coordinates the work of the cells, organizes, enforces the method, and sets the pace.

To dare to use a medical metaphor in front of my friends at the SFMC, it is nothing less than a kind of encephalization of the staff. Just as a brain functions in an immediate way on certain specialized cervical areas, permanently interconnected and devoted to the search for an effect to produce, the EOC acts in the same way. It is in this delegation of the cognitive mechanisms of decision making that the EOC model breaks with the “directorial table” model.

When the crisis occurs, the EOC is activated and it stands between the “chief” and the rest of the functional structure (the silos). At the same time, each silo sets up a mirror structure to facilitate the conduct of crisis management through better understanding and the introduction of a shared culture.

However, this more agile organization can only work with strict work rules.

3 - The method of reasoning guarantees the effectiveness of the decision-making process (MDMP)

The EOC cells work in a formal and methodical way according to the 3 phases of MDMP :

1. **Analysis:** The purpose of this phase is to provide information on all the known elements that characterize the phenomenon generating the crisis, and to deduce the consequences. It also establishes the list of basic actions to be carried out as a precautionary measure (“reflex” measures). This phase covers the general framework of the action, the mission, the study of unfavourable and favourable factors. This analysis phase ends with an initial summary which, after evaluation of the factors studied, makes it possible at this stage to determine a “**major effect**”⁶ to be achieved.
 2. **The study of possibilities:** This phase aims to develop and propose operational solutions. The EOC must imagine 2 or 3 modes of action that meet the major effect, respecting the constraints identified in the previous phase. The comparison of these modes of action (advantages - disadvantages - risks) is carried out in the presence of the general.
 3. **The decision:** This last stage of the process aims to choose the most appropriate course of action, adjusting it if necessary. This crucial phase leads to a final plenary meeting, in the presence of the general, who has all the information at his disposal and who decides (sometimes in front of all the EOC cell leaders).
- Advantages: taught in practically all war schools in the Western world, the effective EOC/MDMP model is, to our knowledge, the only one capable of dealing with the constraints of uncertainty and urgency that characterize the management of a major crisis, because it forces us to stick to the four fundamental questions (see above). It is a solid model, which holds up in the storm. The effectiveness of the analysis phase, which is broad and deep, is unanimously recognized. During the first wave of the COVID-19 pandemic,

6 Contrary to popular belief, the military method places more emphasis on the spirit of orders than on their application to the letter. The fact that the “major effect” is known right down to the lower echelons thus makes it possible to avoid a blind and bureaucratic application of orders. In the army, the obligation of result takes precedence over the obligation of means.

and if the crisis management had applied the MDMP, the systematic review of the available resources, including those outside the Ministry of Health (Army Health Service, fire and rescue services, private medical sector, large groups managing old people's homes, first aid associations, etc.) would probably have allowed for a better coordination of all the available resources, and it would have decided on effective protective measures more quickly. The intellectual discipline of MDMP's decision-making process would then have allowed for operational solutions free of bias. Indeed, since the EOC cell chiefs are not representatives of a function, they are freer to explore avenues that would have been more or less censored, or even biased, by functional managers, who are more concerned with their own houses than with the general interest. For example, the decision to sideline the private hospital sector during the first wave of the COVID-19 pandemic (4,000 reanimation beds according to the President of the Confederation of French Medical Unions) should have been argued. However, the rigour of the process does not restrict the imagination, the brainstorming of the EOC often reveals fertile personalities, and "out of the box" solutions are not rare. Finally, we will give credit to this model for its subsidiarity, especially when it comes to taking action, to which we will return later. While this cardinal principle is commonly claimed by the ministerial organisation, it is interpreted differently in the military model, which, as we have seen, thinks in terms of "effects to be achieved", where the spirit prevails over the letter. This principle of subsidiarity transfers responsibility for implementation to the actors on the ground, while ensuring that they are given a certain amount of freedom of action, but always in accordance with the famous triptych dear to the military: "one leader - one mission - one means".

- **Disadvantages:** unsustainable over the long term, this model is immediately opposed to the highly thematic organization charts of the silos, whose managers are reluctant to be demoted to the second line in the decision-making process. Its implementation therefore requires a strong will on the part of the chief, but also a selection and a specific (and restrictive) training of the heads of cells. As a result, and with the exception of the armed forces and certain "operational" services (fire and rescue services, civil defence, gendarmerie, etc.), this alternative model is unknown to senior civil servants in France, and is therefore absent from their training at the École Nationale d'Administration. To be honest, the formalism inherent in military culture sometimes overburdens this reasoning process, which claims to be agile, and the strong discipline that reigns in a EOC can appear unbearable to the uninitiated. Teamwork at full speed excludes individualistic behaviour and is not without effects on the psyche. Unlike the advisors on the tour de table, who are concerned but not necessarily involved, the officers of a EOC never evolve "in a comfort zone", especially the cell leaders when they go through the big oral presentation. They

are under a lot of pressure, which means that they have to be relieved, and therefore double the teams.

4- The implementation of orders, a crucial step in the process

In the Army as elsewhere, once the decision has been made, the first difficulty in taking action is that of mediation between the EOC and the functional verticalities of the silos. This crucial step in the process is the responsibility of the EOC chief, whose orders constitute the staff' output. There are two types of orders:

- “orders to...” addressed to each of the functional managers. They are the expression of the decisions of the highest level (context, idea of manoeuvre, effects to be obtained, distribution of missions, objectives to be achieved, etc.). The major effect, the central element of the MDMP, is explicitly described under the heading “intention”, according to the famous formula *“in order to..., I want...for that...”*, a real bravura piece of the officers' competition. Here is an example (which will remind the reader of one of the first polemics on the question of surgical masks): *“in order to limit the circulation of the virus by saliva projection, I want to make up for the insufficiency of strategic stocks of masks, for that purpose, I temporarily encourage the generalization of all circumstantial or improvised solutions covering nose and mouth”*. This clarification of the major effect to be produced in the orders thus consecrates the primacy of the spirit over the letter. These operational orders are called upon to follow one another in time⁷ as much as necessary and at each important change of situation, which gives rise each time to a restart of the process;
- the “orders of...” These are drawn up by the heads of each of the silos, who, as we have seen, are required to organize “mirror” interfaces at their levels to implement the top decisions in accordance with the principles of the MDMP and the EOC organization.

The triptych “**leader - mission - means**”, on which the military bases the effectiveness of the implementation of orders, is often mocked from the outside for its extreme simplicity (its “simplism”), which would naively lead one to believe that the combination of these three factors would be sufficient to ensure the success of an action. I will not comment on this judgment, but I would like to point out that this triptych has its equivalent in the business world, under the name of management by project⁸. I have often taken part in crisis meetings in ministerial or interministerial training, and I have always been struck by the lack of interest in the question of “how”, which is precisely the question to which the “Means/Resources” unit of the EOC must respond. In France, the answer to this question

⁷ Operation Orders (or OPOs in NATO jargon).

⁸ Delisle L. The organizational and functional structures of firms. (November 13, 2013). Bachelor's degree program in Organizational Sciences. Université Paris-Dauphine.

is too often to pass on the responsibility for implementing orders without always questioning the feasibility of the decisions taken at the meeting. In France, it is agreed that the will of the executive should be communicated to the competent administrations, where “*everyone knows what to do*”, and from where the solution on the ground will flow. In times of crisis, and given the degree of thickness and complexity that our bureaucracy has now reached, I would argue that this way of looking at taking action is, quite simply, magical thinking.

Inspired by the three famous principles of warfare decreed by Marshal Foch (“*economy of means - concentration of efforts - freedom of action*”), who knew a lot about desperate situations, the military model does indeed push for simplification, and it is destructive of complexity. But the latter may have another explanation, relating to the degree of personal involvement of those responsible for implementing orders. Indeed, the triptych “one leader - one mission - one means” severely exposes the leaders responsible for their application⁹. The judicialization of the exercise of responsibilities has come to the fore, and it is indicative of the Administration’s appetite for complexity. In 2019, France broke a record for normative production with a volume of consolidated law in force amounting to some 84,619 legislative articles and 233,048 regulatory articles. This normative profusion makes it increasingly difficult to identify “*who does what*” by introducing confusion into the silo and diluting responsibilities.

5 - Is the MDMP model exportable outside the military world?

No one knows exactly who invented MDMP¹⁰, today taught in all western armies, but this method has long since crossed the borders of the military world. Logically, the civil defence world was the first to be interested in it. The MDMP and the organization in EOC have been taught for thirty years to senior officers of civilian fire brigades at the National School of Fire Brigade Officers (ENSOSP) in Aix-en-Provence, which has been able to adapt this tool with intelligence, by ridding it of all its military heaviness. The command of the Paris Fire Brigade (BSPP), the third largest fire brigade in the world and the main public ambulance service in the capital, of course operates on this model. Its actions include participation in fast-moving crises, as for the wave of “mass shooting” type terrorist attacks that plunged our country into mourning in 2015¹¹. Since then, the MDMP has

9 J. Prieur . Criminal liability in civil security. *Inflexions* 2010/3 (n°15)

10 However, military history buffs know that this method was developed by the Prussian general staff in the middle of the 19th century. Aware that the great pre-established plans do not resist beyond the first days of war, the Germans have always preferred the initiative to planning, and the “major effect” to fussy orders. This was particularly successful for them later on (wars against Austria in 1866, against France in 1870, at the beginning of the 1st and 2nd world wars etc.). In spite of its superiority, the American army tested its effectiveness at its expense in 1944-1945. It in turn adopted this method of reasoning (MDMP) and then imposed it on NATO.

11 On the evening of the multiple and simultaneous attacks of November 13, 2015, which plunged

gradually penetrated the walls of hospitals (at least those with emergency services), where it now appears in the training courses of the Directors of Medical Rescue (DSM) and in some SAMUs, without the Ministry of Health ever having expressed the wish to do so, nor ever having imagined its application for its own ministerial¹² crisis unit.

The interest of this method has also attracted the attention of certain large private companies, at least those familiar with risk. Let's mention here the case of Electricité de France (EDF), which has put its trust in the military model for the management of crises that regularly occur on its distribution network (storms, technological accidents, collapses etc.). Producing 80% of its electricity from one of the largest nuclear power plants in the world, perhaps EDF has also come to this conclusion in view of the catastrophic crisis management of the major accident at Chernobyl in 1986?

How can we not mention in passing the fascinating experiment that the FMCS has been conducting for two years in Romania. Its government, still very much marked by a strong planning culture and a bureaucracy inherited from the communist period was at the same time anxious to give back agility to its emergency chain. Romania asked our honourable learned society to organise, in three weeks, the training in MDMP and EOC of senior fire brigade officers commanding emergency operations (COS) and medical directors of emergency medical services (DSM), while opening up to inter-service collaboration (police, gendarmerie, NGOs, etc.). The "thinking outside the box" of the French method and its holistic vision of crisis management always surprise our trainees at first, but the intellectual conversion is made very quickly, by dint of concrete exercises (in classrooms) and situational exercises (on the field).

However, it should be recognized that, in our country, this model is not easily exported beyond the Ministries of the Army and the Interior. It is regrettable that the Ministry of Health is not included in this category. For the moment confined to the world of the "operational", the application of the MDMP and the organization in EOC would in fact impose the return to school of a few experienced senior civil servants, probably not very enthusiastic about the prospect of questioning themselves after reaching the top of the hierarchy (a common occurrence in the army).

However, a hope appeared ten years ago, which proves that the question of the applicability of the MDMP to the senior civil service was once raised at the highest level of the State. During the feedback from the 2009 health crisis known

Paris into horror, the first situation analysis produced by the BSPP CO was carried out 30 minutes after the first explosion. For at least 3 hours, the OC of the Paris fire brigade was the only one to usefully inform the entire state apparatus...

12 Cf. the Lizurey Report's comments on the Ministry of Health and Solidarity's Health Crisis Centre (CCS) during the first phase of the Covid 19 crisis.

as “H1N1”, a sort of dress rehearsal for the one that is sweeping the world today, the French government, aware of its weaknesses in terms of crisis management and the lack of synergy between its “silos”, set up the Inter-ministerial Crisis Centre (CIC), which was presented as the State’s highest decision-making body. The CIC was inspired by the EOC military model, whose architecture it clearly took over, with the notable exception, at least until March 2020, of the “Means/Resources” cell (see explanations above). When the Covid crisis broke out in January 2020, the absence of a head of the EOC forced the Prime Minister’s chief of staff to coordinate the cells himself, almost full-time, throughout the first wave of contamination, when he probably had other things to do with the Head of Government. Moreover, this half-hearted EOC never applied the MDMP, due to the lack of senior officials trained in the method, and its staff worked at the limits of physical and psychological exhaustion. It is a pity that this body, although placed between the Head of State and the ministerial organ pipes, has not been able to find its feet, due to a lack of preparation and political will, as it should logically have been at the centre of the governmental decision-making process for crisis management (cf. Lizurey report¹³).

In conclusion, a brief review of organizational models

Organizational science defines social systems built to achieve a certain type of objective, which implies a formal goal, a division of tasks, organizational charts, a set of rules for evaluating activity, and of course a decision-making mechanism. The latter is largely determined by the very architecture of the structure in which it is embedded. Indeed, the formal framework in which the decision-maker evolves obliges him to deal with the solutions proposed by the advisors. Choosing them is a test, and adapting them to the field always poses a problem of implementation, especially when the event is new, brutal and complex.

In the functional organization model, which still prevails in the ministerial world, each department (or function) works on its own area. The synthesis is done at the level of the chief, who is also the decision-maker. In this vertical model, decision-making remains a personal responsibility and is rarely collegial. This construction is organized as a pyramid and is highly hierarchical. However, nothing is simple: time is not the same from one function to another, the different levels of the structure do not always correspond to each other, and the resources of the silo remain under the responsibility of the functional leader, who is often the only one to know them, which gives him a certain assurance when he is called to the management table. Whatever the disadvantages, we will nevertheless recognize a

13 “An insufficiently interdepartmental CIC, which did not allow for the involvement of other key players in crisis management... The superposition of structures with similar roles / blurred and partially overlapping jurisdictional boundaries, made the sharing and circulation of information for crisis management more complex.” etc...

certain effectiveness of the functional model in the event of a major crisis, because it at least respects the place and the role of the leader. But there is worse...

To compensate for the rigidity of this hierarchical model, the business world invented, in the libertarian wave of the 1960s, the matrix organization¹⁴. This consists in adding horizontal layers of responsibility to the verticality of the classic functional model, for the sake of transversality and flexibility. Applicable in the competitive sector, this system is based on an internal functioning of a precision worthy of watchmaking, and knows only one absolute limit: that of the income statement. As these tyrannies do not exist in the Administration, the transcription of the matrix model in the State services proves to be of mediocre performance. In the public sector, the matrix organization chart most often degenerates into a “noodle dish” organization. However, it is this matrix model that is at work in the organization of public health in France, which strives to cross vertical chains (central administration, regional health agencies, etc.) and horizontal chains (social security, local authorities, etc.). In case of a major crisis, the matrix organization becomes a real misfortune, and the Covid health crisis, at least in the first months, offers a striking example. The adoption of this disastrous model is certainly also explained by the importance of the legal risk¹⁵, because the matrix organization, as we have seen, has an appreciable advantage, that of making it almost impossible to identify responsibilities and to keep the judge at a safe distance.

14 Delisle L. Les structures organisationnelles et fonctionnelles des entreprises - Organisation matricielle et impact sur les projets.

15 The contaminated blood crisis, a political and financial scandal that affected several countries in the 1980s and 1990s, probably accelerated the phenomenon (the “responsible but not guilty” attitude).

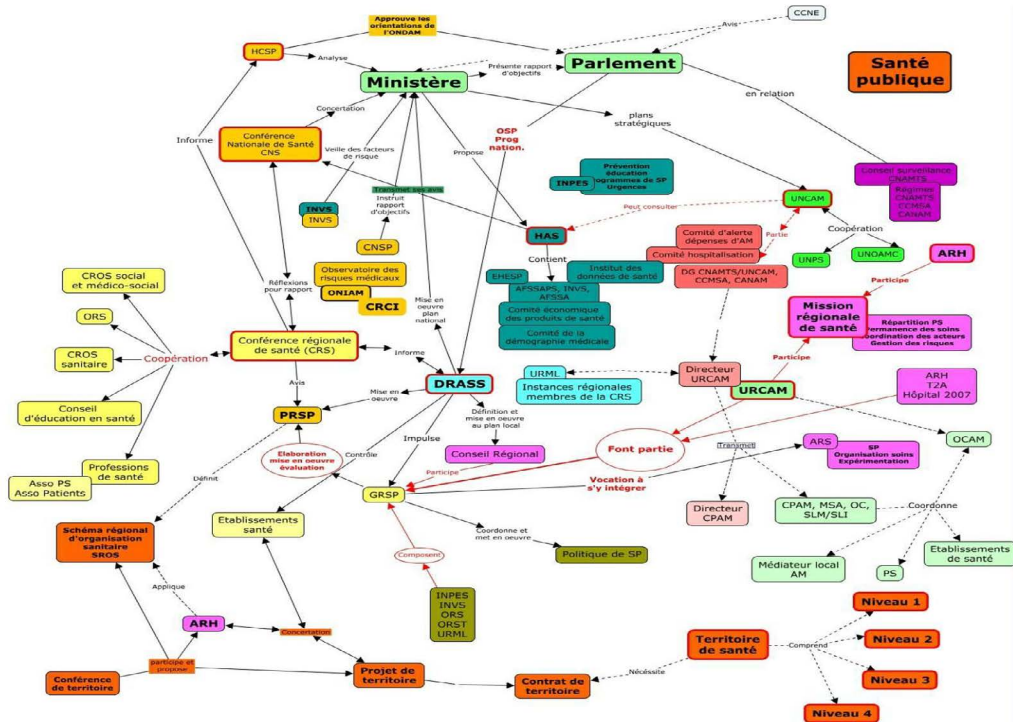


Figure 2: “Noodle” organization of the public health system in France in 2020

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