Mobilising around a risk :
from alarm raisers to alarm carriers

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Since the law on health and safety was voted on the 1st July 1998, the role of the Institut de Veille Sanitaire (InVS)[1] has been to detect "any event which changes or might change the population's state of health" and to alert public authorities with the help of various health organisations, such as the Agence Française de Sécurité Sanitaire des Aliments (AFSSA)[2]. This requirement for a monitoring and alarm system came into being after the many public crises that marked the 1990s, and has become new common administrative and legal ground, some of the consequences of which we we will be examining here, by taking up the question of alarm raisers. We have been able to show how the configuration that we have labelled "vigilance policy" came into being, following on from a series of affairs and alerts in fields as far ranging as technology, the environment, human health, agriculture and food (Chateauraynaud & Torny, 1999b). Over recent years, what has above all been forced upon the actors involved is a deconfining of fields which had previously remained relatively closed and isolated: health and safety warnings now concern technological sectors (such as nuclear energy), environmental controversies increasingly relate to human health (legionnaire's disease, dioxin), agricultural debates examine questions of

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[1] Institute for health and safety.
[2] French agency for food safety.

risk (BSE, GMO), previously "political" dangers are re-examined in terms of risk (bioterrorism). The category of health and safety[3], created in the 1990s, has proven to be transversal, allowing multiple actors to group together and share topics and types of intervention that had previously been rooted in specific and distinct areas of activity. This general deconfining has created the conditions under which different approaches to risk can meet, thus giving substance to the notion that we now live in a "risk society" (Beck, 2001).

1. What place to accord alarms?

The change of configuration underlying the new health standards has led us to examine the place accorded to people or groups who raise or sound the alarm. Nowadays institutional relays are more numerous, and alarm raisers have greater public legitimacy – something which was previously very much lacking. In other words, the "alert" form has now reached a degree of public extension and evidence that everyone must accept, to the extent that in France we can now envisage *whistleblower rights*[4]. Whilst detection and alarms are matters for specialist organisations, equipped with tools for monitoring and for ensuring traceability, what is it that leads people or groups to set off an alarm? What is it that pushes people who are facing a danger towards the *power of action?* To raise the alarm is above all to demonstrate that one can no longer control a source of risk, that it is impossible to reduce a danger. When they raise the alarm, actors are not so much putting forms of justification to the test, as the capacity for action they accord others, especially the agencies specifically authorised to protect public welfare or interest[5].

Alarms alert the authorities deemed able to affect the future, but they also create constraints that vary in accordance with the devices within which

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[3] See (Tabuteau, 1995). On the development of the category and its role in the institutional changes of the 1990s, see (Torny, 2001), chapter 7.

[4] It should nevertheless be noted that since the colloquium organised by the Sciences Citoyennes foundation (29th March 2003), the question of whitleblower protection has not changed to any great extent in France, even though it was discussed during debates on the environment charter (Hermitte & Torre-Schaube, 2002 ; Chateauraynaud, 2003). For us, a whistleblower is a specitic case of alarm raiser:: it is a person contractually submitted to an authority (usually in the workplace) while alarm raisers can be groups, NGOs, governments or even animals, with no pre-existent link to the potential source of danger.

[5] The most complicated situation is that of alarm raisers within a company, a professional milieu or an institution; when they speak out, they create tension between three types of interest: that of the person or group sounding the alarm, that of the entity employing said person or group (or responsible for their activities) and, finally, that of the general public, be it in the form of public health, protection of the environment or overall safety (Bernstein & Jasper, 1996).

they are tested, i.e. in which they are taken into consideration, qualified, discussed or managed. In order for an alarm (or a criticism or a protest) to exist, the outside world must be "listening". This might be characterised by keen use of one's perceptual faculties, aided where necessary by instruments and metrology, and by an effort to remember, enabling one to list a series of events, of precursory signs, the potentialities of which relate to public interest and wellbeing. Taken as constant participation as events unfold[6], such vigilance is essential, and also involves redefining ??*ouvertures d'avenir*, without which there is no longer any real reason to act, because the weight of the past is such that all efforts are pointless and that it is already too late[7]. The most "trodden" example of an alert moving over to the public arena is that of the development of a debate or a controversy. The examination of numerous cases shows that one can defend the notion that the majority of alerts announced by official spokespersons or journalists mainly relate to how the alert is managed rather than to the emrging dangers.

Attention to the cognitive and political operations that actors use to sound their alarms in the public arena shows that mobilisation depends not only on the way in which routines, milieux and material and institutional devices are affected by the alarms, but also on the injustices involthe construction of victim groups nowadays being decisive for the progression of health and safety cases. This is one of the main avenues of case progression: by making the damage (real or potential) tangible for other actors, alarm carriers manage to deconfine their cause, which has an effect on the authorities (Dobry, 1992). For example, apiarists who mobilise well beyond their own sphere, by demonstrating that the fate of bees affects both the environment and public health; a consumer association which reveals that a dangerous product is being sold; an engineer who becomes an alarm raiser and declares the safety systems on a food chain or in a knacker's yard to be faulty. These operations have unequal chances of success, the constrainyts of which can be seen from the indicators provided by the actors themselves, i.e. via the arguments and tools that they develop through their actions and stances. When the *deconfining* of alarms succeeds, it has the effect of increasing the *concern* of far-removed actors, which in turn creates the conditions for a "media explosion" and for appearing on "political agendas", to use popular "crisis management" terms. The duration of the process is a crucial variable to take into account. For example, in the case

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[6] See the notion of propensity developed by F. Jullien (Jullien, 1996).
[7] On the notion of *ouverture d'avenir*, see (Duval, 1990)

of the "Chernobyl cloud" it took almost 15 years to organise a proper review of how the health consequences in France were managed, requiring in-depth analyses of contaminations of the food chain (milk, grasses, mushrooms, fruits). Some cases are marked by what we refer to as the *silent period*: a silent period is when there is a huge gap between what is being done by actors in the field, and how this is reported in the media and in political arenas (asbestos serving here as a paradigm).

The problem of alarms allows us to examine risks by changing the questions which are usually asked and which all too often revolve around the tension between "real risk" and "perceived risk". It means examining cases on the basis of questions such as: what is a pertinent alarm for a given sector of activity? Who raises it? Who is it aimed at? What entities are involved? What points of purchase does it provide to aid assessment? How much time does it leave to act? On a more theoretical level, one might wonder what the global political configuration produces, dominated over recent years by the principle of precaution, in terms of concrete activity, in laboratories, companies, associations and organisations. How can one cope with the complexity of the processes, the diverse milieux, devices and representations? Actors have to directly face the tension between period of waiting and emergency, advance declaration and period of observation, period of verification and crosschecking, period for public debate and decision-making. One of the challenges of sociology is to provide tools with which to describe moments when situations change and the reconfigurations through which the nature and scope of alarms and risks are redefined.

2. *Critical configurations and the political processing of bad signs*

Most alerts take shape through long processes which combine acts of continuous vigilance with the exploration of unexpected characteristics, mobilising heterogeneous capacities for expertise. This is why one can never fully rationalise an alert process using remote standards and calculations. It is only after the fact that one can project events into a calculation space. Indeed, risk management involves creating a *common calculation space*. This can be clearly seen in the normative activity of national or international authorities which focus conflicts and negotiations onon the elements to be taken into account in the calculations. How can a

series of experiences generate a new calculation space?[8] The relation between experiences and calculations was upset by the increasing number of health crises, the treatment for which had changed since the outbreak of the AIDS epidemic in the early 1980s and, in France, since the blood transfusion scandals (Hermitte, 1996). At both local and international levels, it is no longer possible to say, without exposing oneself to criticism, that "according to the calculations, the risk is negligible". Every case and every uncertainty must be examined, and numerous spokespersons must be must be listened to (Callon *et al.*, 2001). It is in this sense that the principle of precaution, which now serves as a framework for all protagonists, can be considered to be an imperative, even where there is a temporary absence of tangible scientific facts.

The emergence of new devices (health agencies, traceability tools, collective expertise procedures) goes hand-in-hand with a considerable volume of literature on the principle of precaution, seen as the new "standard for decision-making" or "principle of action" by some, and as a "rhetoric formula" or "political umbrella" by others – its inscription into the French constitution via the Charte de l'Environement[9] led to lively debate, even within the parliamentary majority. How can such a level of reasoning and representation correspond to the practical constraints of the actors, to the heterogeneousness of their milieux and to the modifications thay make there – sometimes silently – and which, in order to be revealed and taken into consideration, require the involvement of people or groups who are able to convince and mobilise the relevant authorities? Everything depends on the points of purchase that the phenomena offer (or not) to attention and opinion within the regular frequent contact of milieux. One cannot have "abstract" actors, without milieux, without involvement in the world. Every person, every group, every organisation develops forms of vigilance related to their activities. The vigilance of a veterinary surgeon will not be the same as that of a qaility manager in the food industry, or of militant in an association, or of an inspector from the DGCCRF[10] or the World Health

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[8] Sometimes a spectacular event is needed in order for a complete change to occur. For example, after the 11th September 2001, the risk of a plane crashing into a nuclear installation rose from "purely imaginary" status, from "totally negligible" (and indeed neglected) risk, to that of a major concern which forced the authorities to take emergency measures and to publicly admit the extreme vulnerability of said installations.

[9] Environment charter

[10] La Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes = department of the French ministry of economy and finance, dealing with competition, consumers and fraud.

Organisation[11]. But all of these activities require a common basis, a vital level of presence, intertwined with common sense that is not a stock of static or intangible representations (Fischler, 2000), but which is constantly changing. From common sense to the most formal expertise, vigilance allows people to adjust the points of purchase made necessary by changes in devices and milieux, and to realise relatively quickly when they are losing grip on an phenomenon.

As a reminder, there are two main models for dealing with collective risks. The first considers that societies such as ours have the ability to regulate and learn, and that it is always possible to reduce or eradicate dangers even if this means going through serious crises and a series of painful catastrophes; it is a question of time and resources, of rationally organising power and knowledge. This model takes the form of a generous positivism put into context, i.e. an evolutionism which admits that there are be obstacles and trials, but having confidence that human collectives will overcome them as long as they remain scientifically and technically rational. In this model, the alert is absorbed in risk management devices, and the ways in which it emerges is more often than not anecdotal. What is important is the tools used to identify and predict the risks, and these tools can only get better. This paradigm of risk supposes a sociology based on a model of actor alignment – of the type that was built up (at great cost) around the AIDS epidemic[12].

The second model takes an opposite stance, which is that there is no linear process that has simply been derailed by unexpected catastrophes, and that it is in fact a question of permanent change: when one has only just begun to resolve a problem, another difficulty or source of uncertainty arises, forcing one to change strategy and solutions, and, in so doing, to drop all ongoing work and/or to constantly revise one's priorities. With this model, researchers, decision-makers and members of the public are obliged to continually divert their attention and thus expose themselves to the tragic

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[11] *A priori*, given that the alarm raiser is a sociologically empty place, in as much as it can be filled by any player, official spokespersons can sometimes be alarm raisers. The nature of the credit given to their signal will change when the raiser can be easily separated from the alarm. For example, no-one thought to call the regional WHO director a "prophet of doom" when in January 2004 he declared that bird flu' had "the potential to kill millions of people if its most deadly strain were to combine with a human flu' that was moving towards Asia" (WHO, 27th January 2004).

[12] When one looks more closely things are far more complicated; one finds that heterogeneous players have contributed towards the development of measures, and that there were numerous controversies. See (Dodier, 2003).

consequences of situations that had supposedly been resolved. It is the latter hypothesis which underlies the notion that we have moved from a mindset of risk management using centralised calculation spaces, to one of vigilance and alarm that works by the one-off movement and mobilisation of actors and resources.

Even if there have been major changes within organisations, it cannot be said that the second hypothesis has definitively pushed out the first: it is more a question of a reconfiguration of the way in which tasks are shared between these two interpretations of "risk society". Whilst everyone is focusing on cases such as GMOs and global warming, it was already-known cases of risk that literally exploded in September 2001: a terrorist attack and a major chemical accident, which led many actors to revive longstanding questions. Similarly, the floods of September 2002 show that old regional planning problems have still not been resolved. Erika's oil slick had only just dropped out of the headlines, when the sinking of Prestige occurred to remind us that nothing had been solved with regard to sea transport.

We therefore have to give up on the idea that one given case is more important or more complex or more interesting than another (be it politically or intellectually), and give ourselves the resources and tools with which to build (working together as much as possible) a space for alerts and crises. The "novelty" of a given alarm is not a good criterion, and all types of announcement of a danger or catastrophe must receive the same level of attention, without there being any pre-determined risk scale[13]. There are three constraints for actors, be they experts, decision-makers, researchers, industrialists or members of the general public: the proliferation of sources and statements; the feeling that categories of analysis and decision-making responsibilities being constantly called into question due to new cases arriving and creating a permanent state of emergency; the difficulty of the overall appreciation and assessment of cases via the relationships between past series, the current configuration and future potentialities. Whether we are talking about work conditions, industrial wastelands, food safety, new viruses or scientific and technological challenges[14], most of the alerts that become crises suffer not only from occupation of the political-media space,

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[13] On attempts to classify threats and how it is impossible for alert-monitoring institutions to use a single scale of risks, see (Hirsch, 2002), chapter 22 in particular.

[14] On the scientific and technological aspects relating to sport, see (Duret & Trabal, 2001).

but also from scientific expertise, from other cases deemed to have priority and focusing attention on privileged sectors. Entry through the generation of alerts creates the conditions for a third avenue which falls between the two models mentioned above. It allows one to avoid agenda setting theories and free commentary on the "new fears" and "uncertainties" of the contemporary world

3. *Alarm time and mobilisation time: two models*

Let us begin this chapter with a reminder of the main results from our research on alerts. Analysis of the mobilisation and public decision-making processes in a wide range of domains reveals that three major parameters govern how an alert is handled: the degree to which the "catastrophe" can be predicted, the degree of intentionality implied by the real or possible damage, and the degree of reversibility attributed to the phenomena in question.

Regarding the first parameter, the degree of predictability, we have the contrast between catastrophes that take everyone by surprise (Mont Blanc Tunnel, Concorde crash, dioxin in Belgian chicken, AZF[15]) and the series of signs that gradually lead to a case file (asbestos, mad cow disease, thyroids, glycol ethers). With the former, the protagonists are immediately faced with an investigation and a search for responsibility. But the event serves as a precedent and leads to numerous corrective or regulatory actions – as with debates on the application of the Soveso directive after the Toulouse explosion. With the latter, the protagonists are faced with the question of subsequent extensions and new developments: how much time do they have to act and to come to a definitive decision? At the centre of the continuum we find devices that allow us to predict a catastrophe, or else to predict serious problems in the future (near or far).

The second parameter, the degree of intentionality, ranges from terrorism and industrial sabotage to the unleashing of natural forces such as the December 1999 storms. The most complicated and common situations are those which are located in the centre: there are voluntary acts, projects, intentions, strategies, but no intent to cause damage or harm people. In this type of case, radical criticism tends to blame everything on the intentional

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[15] Explosion at the AZF chemical plant in Toulouse, France, le 21 septembre 2001. Ten days after the September, 11th attack, the purposity of the explosion has immediately been discussed and remained as a official hypothesis for a long time.

part. The problem here is deciding who is responsible: who does the act, who claims responsibility for it? Under France's new criminal law, the notion of endangering the life of a third party allows responsibility to be imputed without having to consider actual damage, even though the law on unintentional acts considerably limts the scope of this.

The third parameter, the degree of reversibility, relates to the effect of the actions to be carried out: is it possible to turn back, isn't it too late to act, can we avoid disastrous consequences (mad cow's disease, global warming)? It allows us to distinguish between cases that are difficult to reverse, such as asbestos, where the fibres have been affecting victims' lungs for a long time, and other cases where action can substantially limit the damaging effects – such as toxic food infections and the now famous recall of products based upon increasingly extensive traceability (Torny, 1998).

At each stage of the process, at each moment of the test, these three fundamental parameters are explicitly examined by the actors involved. In other words they are at the very heart of the processes of monitoring, sounding the alarm, debating, accusing and standardising. Other gradients still affect the transformation of alerts or complaints, opinions or decisions: the degree of tangibility (degree of presence in the sensitive world), the extent (from local to global), the degree of publicity (degree of presence in the public space or the extent to which the matter has received political or media coverage). Numerous works over recent years have shown that when alarm raisers do not succeed in overcoming this combination of inseparably cognitive and political constraints, they more often than not opt for a form of radical criticism. This being the case, alerts can be carried by social movements or critical groups as exemplary themes or as stakes for mobilisation.

From these results we can draw up two main models which give us a better understanding of how alarm raisers contribute towards changing cases. Although the first is developed from the example of asbestos, it continues to reoccur whenever there is a major time-lag between the first alerts and the standardisation process that constitutes the end of the crisis – in the same way as the WHO declares an epidemic to be over.

The first model is marked by a considerable time-lag between the first alerts and controversies, and the the time at which the matter is taken into

hand. This creates gaps between risk measurements (scientific measurements but also administrative measures) and general mobilisation, represented here in bold (Figure 1). The repetition of alerts is necessary in order for public authorities to take charge of the case for its duration. In this type of case, litigation, debates and public protests are difficult to avoid, with the degree of reversibility diminishing even as the imputation mechanisms are falling into place. This being the case, the alarm raiser easily becomes *an exposer*.
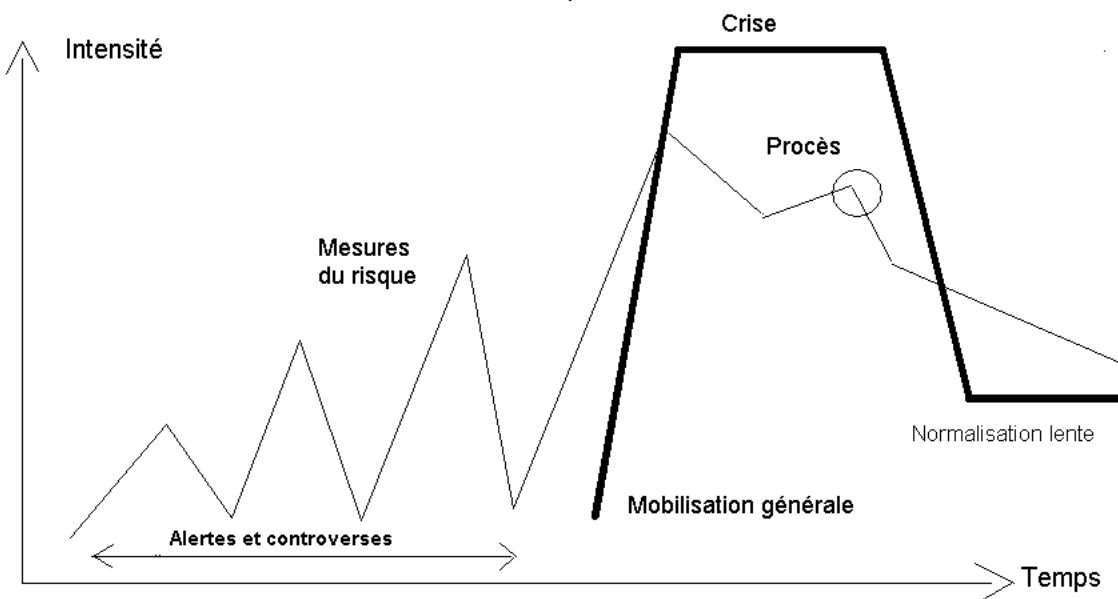

Figure 1 : Deferred alert management

In the second model, being based upon institutional devices (Figure 2), early alert management makes risk mobilisations and measures compatible. Despite this, with the help of communication consultants we continue to talk about "crises", even though compared to the previous example it is no longer a question of simply publicly taking the dangers and risks into consideration. The extent to which the phenomenon is reversible is often large, without it being possible to predict, even approximately, its future extension[16]. Demobilisation might occur if a phenomenon rapidly disappears, or fails to manifest itself; this demonstrates the need for

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[16] This does not prevent players from developing tools (such as epidemiological modelling) in an attempt to predict possible future outcomes. Epidemiological prediction of the number of victims of the variation of Creutzfeldt-Jakob disease, published in 2000, suggested a result of between 63 and … 136,000 victims in Great Britain! The gap was so huge that certain French newspapers told their readers that the expected number of victims was between 63,000 and 136,000 victims. On the effect of these predictions on how BSE is structured as a European public problem, see (Barbier, 2003)

vigilance with regard to administrative and political acts. Alerts then take on another meaning, because in this configuration they tend to relate to management procedures rather than to the events themselves, i.e. they constitute themselves in the shape of spin-off alerts. The alarm raiser becomes an *alarm carrier*, in as much as he remains with the alarms and the risks beyond the initial mobilising phases.
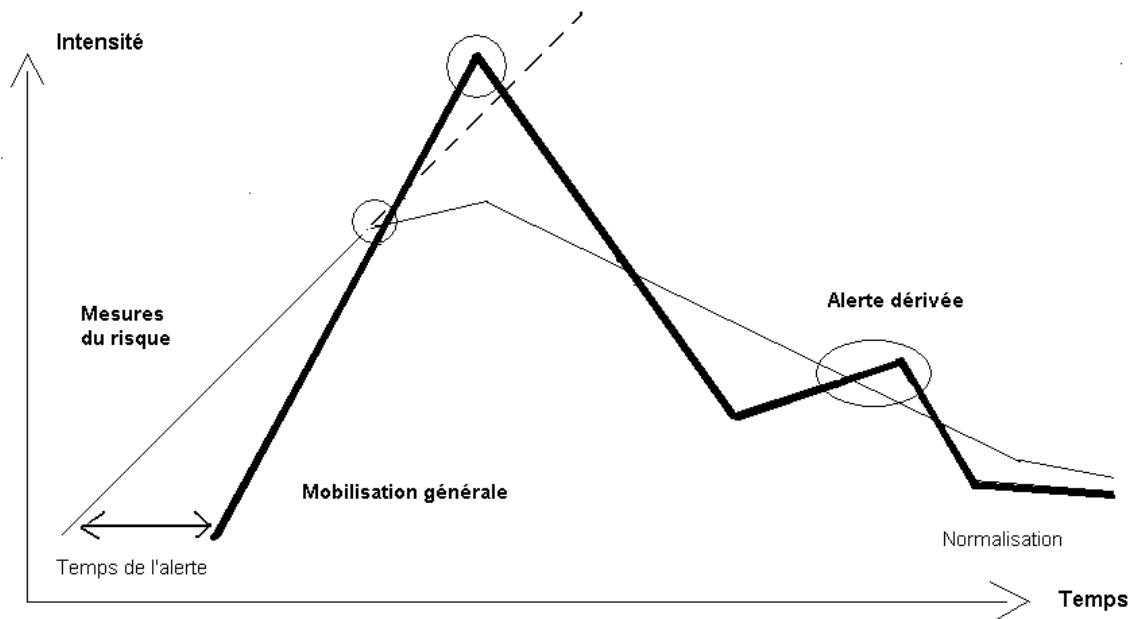

Figure 2 : Rapid alert management

It must not be thought that these too models belong to any given era – an "old" model dating back to the 1980s and a "new" model that has now taken its place. They constitute two different forms at the two extremes of alert management, the first being subject to the criticism of "it is already too late", whilst the second – as in the case of the Coca-Cola affair – raises the question of the precocity or the too rapid extension of public authorities or of extreme media coverage (Besançon *et al.*, 2004).

Between these two models, defining "the right moment to act" is vital, but it is less a case of being reactive in all situations[17] than of having the ability to manage and/or investigate cases and to maintain collective vigilance (Chateauraynaud, 1999) even when media and public interest has moved on to something else. From the public decision-makers' point of view, alert management, exposure of dangers and other claims do not in themselves resolve the question of case priorities and resource allocation

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[17] Following the heatwave crisis, the French health department (Direction Générale de la Santé) reorganised its alert unit in order for it to operate 24/7.

(Chateauraynaud & Torny, 1999a). Generalised recourse to new forms of expertise and public debates do not simplify the decision-making process, and we are seeing more and more case files which have already been deconfined and publicly discussed bounce back into the limelight after it has been demonstrated that reparatory measures have not been completed – two examples would be sites containing asbestos and sources of legionnaire's disease.

Conclusion : how can alarms be raised at international level?

The question of prioritising concerns has taken over from that of the silence or forgetfulness that characterised the previous era, giving up all its space to alarm carriers. New forms of "general public presence", of activism and "alternative" mobilisations occupy the public arena and modify the conditions for dealing with alerts and conflicts. The list of mediations is thus getting longer: new protest movements, new forms of public debate (citizens conference or social forums), the Internet and the 'information society" all combine to create a political configuration marked by a tendency to exaggerate matters within so-called "crisis communication". These changes involve new forms of speaking out and public debate, and the development of norms for action and opinion (collective expertise, traceability, principle of precaution, sustainable development, etc.). In return, they produce tangible modifications to the way in which public problems emerge and last, and consequently affect the processes of public decision-making.

The study of alert processes and how they are managed means we have to go beyond the framework of France. On the one hand we are seeing an increase in the sources of alert and risk, uncertainty and conflict, of which emerging diseases (Ebola, SARS, bird flu) are prototypes within the field of health. These phenomena again raise the question of international cooperation and of the confidence given to each country as a power of action capable of containing threats; they redefine the scope of national sovereignties within a traditionally regal domain[18]. On the other hand, then end of the 20th century was marked by the emergence of new critical figures in which the notion of alert is increasingly mobilised. Now banal under the

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[18] As an example, take the case of the Starlink GMO corn debacle, which led American authorities to allow Japanese inspectors onto their corn production and storage sites. See (Torny, 2003)

labels of "anti-globalisation", "alter-mondialism" or "criticism of globalisation" they have become obligatory for numerous cases. With this internationalisation of affairs it is more a question of the continuous invention of protest and overflow techniques[19] than any renewal of rhetoric in the critique of global capitalism[20]. Alarm carriers who become involved on such a scale of action and mobilisation need too be especially well equipped. The question of alerts here joins the notion of the emergence of mobilisation spaces on an international scale, and of how authorities exist (those which give body to what is referred to as the "international community").

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[19] Listing these types of action, which range from pulling up transgenic plants to computer hacking, is a major sociological programme in itself. It is also an opportunity to discuss the different theories on mobilisation. See (Snow, 2001)

[20] Certain authors have become masters in the art of seeing in every crisis the prodromes of a new type of apocalpse. See (Ramonet, 1997)