

# "Living labs" practices as collaborative governance arrangements when addressing wicked problems

**Pr.Dr.Ing. Catherine FALLON**  
**SPIRAL – Université de Liège**  
[Catherine.fallon@ulg.ac.be](mailto:Catherine.fallon@ulg.ac.be)

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Policy makers and modern public administration are adequately equipped to address well structured policy issues and design efficient policies to address them. Facing ‘wicked problems’, how can the politico-administrative structures adapt to develop the innovative and flexible, context sensitive approaches which are necessary to develop an adequate grip on the emerging issues ?

This contribution starts from a field research by a multidisciplinary group of veterinary and political scientists on the transformations of an epidemiosurveillance governance system dedicated to animal diseases, when confronted to new emerging threats in the wake of global changes (Fallon et al., in *Vertigo* 12(3) 2012).

The hypothesis is that addressing “wicked problems” needs a new approach in public management and policy developments to favour innovative service. As these issues are not stabilised, the administrative grip must remain flexible and sensitive to unforeseen developments. The state legitimation is based on its capacity to protect population and its interests against hazards : when facing emerging diseases or new wicked issues (such as the climate change related questions), public control seems to be limited as the issues do not fit to the resources and knowledge of the state bodies (Borraz et Gilbert, 2008). A new approach to administrative knowledge developed with the statistics and its mobilization by the administration in the late 19<sup>th</sup> century (Desrosières 1996) : this major innovation formed the basis for epidemiological studies at the level of a population and a territory. On the basis of these probabilistic models, it was possible to develop regulation procedures and a monitoring and control network : « [des] risques sont ainsi identifiés, hiérarchisés, notamment en fonction des dommages éventuels aux personnes, aux biens, à l’environnement. Disposant de données chiffrées, de tableaux, les autorités publiques apparaissent en mesure de définir des priorités » (Gilbert, 2003 : 57). How can such networks entrenched in a specific frame of animal health address new emerging issues in a changing environment? Moments of crisis can be considered as opportunities when they call for new forms of regulations and a new referential for policy development (Fallon et al., 2008). In the case of epidemiosurveillance systems for animal health which will be presented hereafter, the administrative network is supposed to look outside of the “*canal d’alerte automatique* » (Chateauraynaud et Torny, 1999 : 18) for entering in a “vigilance system” able to address an event whose pattern, moment of emergence are still undetermined. The state keeps its center position but its role is less of a reference structure than a communication structure favoring innovative thinking : « *la science dans sa capacité à appréhender une réalité complexe, les pouvoirs publics dans leur aptitude à prendre les bonnes décisions en associant leurs administrés dans celles-ci, le public dans sa compétence à soulever des problèmes et sa faculté de se prendre en main sont les acteurs principaux du dispositif. Dispositif ouvert, perméable, réactif il va de soi* » (Clavandier, 2006 : 227).

The argumentation proposed here starts with 1) a review of recent approaches to innovation in policy networks before 2) a case study of emerging forms of knowledge governance in public networks facing “wicked issues”.

## ***I. Building innovative networks for public management of wicked problems***

Sørensen & Torfing (2011) put at the for the importance of external sources of innovation for the public sector : the capacity for innovation is linked to the ability to develop collaborative interactions with other groups through as ‘an intentional and proactive process that involves the generation and practical adoption and spread of new and creative ideas, which aim to produce a qualitative change in a specific context’ through collaboration with other public and private actors (Sørensen and Torfing, 2011: 849). To support collaboration between different public agencies or collaboration with societal actors, adequate innovation arenas or platforms for collaborative innovation should be developed. Collaborative governance have to be designed to support innovation by addressing individual and organizational barriers. On one side, there is a need for arrangements supporting transversal coordination within and between public organisations, for addressing wicked problems. On the other side, more activities are to be developed to open the network to the contribution of stakeholders and users, external to the public administration. Such collaborative governance arenas enhance problem understanding, formulation of new visions, solutions, strategies and problem solving capacities, and mobilize societal actors to help generate, adopt, and diffuse innovations (Sørensen and Torfing, 2011). public organisations can engage in collaborative interaction across governmental levels or departments but also with external actors, either citizens or organisations and organized interests. The logic of innovation is not only as qualitatively changing the form, content, and repertoire of goods, services (service innovations), but also transforming the underlying problem understanding, policy objective and program theory (policy innovations) (Sorensen and Torfing, 2011; PSICO<sup>1</sup>, 2015): When inviting for collaboration multiple stakeholders, these stakeholders bring in their own specific resources, such as knowledge, information, competences and experiences.

Users’ participation and collaboration between public-private sectors are important external drivers for innovation, but also barriers. Innovation through collaboration is deemed important, but often fails or is impeded by conditions (ref PSICO): what form of collaborative governance arrangements results in meaningful innovations regarding policies and services ? What organisational and individual conditions need to be present within administration to them ?

Sørensen et Torfing (2011) underlined the importance of the networks in innovation, on the basis of the seminal works of Freeman (1991) on the innovation networks in the industrial sectors : his works revealed the importance of collaboration processes in order to reframe issues at stake and open routes for new approaches. Such approach in policy networks is still under-analysed : there is no reason to believe that policy networks have no such capacities for producing and disseminating knowledge and information.

The administration is generally designed to enforce regularity under the umbrella of strict legal frames and political control, while developing most efficient procedures to handle recurrent processes and services: producing efficiently uniform services in a legal rational frame is the first mission of the administration. Even the status of public officials tends to reinforce such conservative approach. Changes tend to be marginal to avoid risky activities (Lindblom, 1959). Major Changes are possible but need the involvement of societal actors : the state does not learn by itself (Hall 1993) and propositions of external stakeholders, outside the public administration, are necessary to review the policy agenda or the issues framings. Dans le plupart des cas, l’innovation de service public nécessite la collaboration d’acteurs publics et privés, de fonctionnaires, d’experts, d’entreprises, d’associations et d’usagers, ... (Borins, 2001). Les réseaux sont innovants s’ils associent des acteurs diversifiés mobilisant des approches différentes de la problématique et favorisent des processus de communication internes et externes, c’est-à-dire intra et inter-organisationnels. Ils sont en tout cas plus innovants que les réseaux stables et formalisés mobilisant une vision de la problématique à laquelle adhèrent tous les acteurs associés.

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<sup>11</sup> PSICO – Public Sector Innovation by Cooperation is a new research project supported by the Belgian federal research administration (former BELSPO) and associating four Belgian research universities (UA – KUL – UCL – Ulg)

Sørensen et Torfing (2011) soulignent l'importance de favoriser l'implication de toutes les parties en évitant autant que possible les prises de pouvoir qui bloquent l'implication de groupes moins aguerris. Les processus participatifs et les dynamiques délibératives ne peuvent que favoriser l'appropriation des changements et des projets par les acteurs-même qui ont contribué à son design pour autant qu'ils soient convaincus que leurs implications et leurs discours ont eu un impact sur le processus, le projet et les autres participants.

Mais il ne suffit pas de rassembler les acteurs, encore faut-il les encourager à développer une approche réflexive et critique sur la situation existante : il s'agit de mettre à l'épreuve les connaissances tacites, les cadrages naturalisés, et les réflexes stabilisés pour favoriser un nouveau regard sur le secteur et la problématique « *that facilitates new interpretations and new ways of making sense of the world* » (Sørensen et Torfing 2011 : 859). Les trois conditions à la coopération sont des exigences : participation, communication et appropriation. Ces analyses ont été aussi mobilisées dans les travaux de sites d'innovation sociale tels que les « living labs »<sup>2</sup> (LL, in Dubé et al. 2014) qui fonctionnent comme des plateformes d'innovation orientées vers les besoins des usagers. Ce concept s'aligne sur le nouveau paradigme de l'innovation, qui met au centre du processus d'innovation l'interaction soutenue entre des acteurs aux compétences variées (chercheur, ingénieur, responsable marketing, responsable commercial, ...) et une série d'allers et retours entre ces acteurs. Le LL désigne un « espace » de rencontre qui s'appuie sur des méthodologies inclusives et interactives pour faciliter l'innovation ouverte et centrée sur l'utilisateur. En intégrant les utilisateurs finaux dans les processus de conception des innovations au côté des producteurs, l'approche permet une meilleure identification d'un besoin ou d'une demande sociale.

Des interactions de collaboration/participation sont rendues possibles par l'organisation d'ateliers créatifs ou « espaces de rencontre » réunissant des individus de toutes les fonctions et de tous les niveaux pour échanger les idées nouvelles face à un enjeu précis.

The first step is the definition of the relevant network. The LL approach starts with a policy analysis and a consultation of the actors involved in the policy to identify the active network : the actors in charge of the policy / service at all the levels of government, as well as other stakeholders (such as inhabitants, enterprises, etc). Starting the LL request establishing a group as community of practice whose participants share some common values and interest in the issue. Learning processes, which are necessary for innovations, are locally embedded (Bekkers, Edelenbos, Steijn, 2011; Fagerberg & Godinho, 2005; Osborne, 2005), which means that they are shaped by the local interactions of different stakeholders with their specific meanings and interests on a possible innovation (Bekkers & Homburg, 2007). These interactions are necessary to ensure that the local governance traditions in the country and in the specific policy sector are taken into account by the network of involved stakeholders (their interests, their interdependencies and their power resources) in the social innovation process.

The second step is organized with all the actors to identify the main issues of concerns (problems encountered or opportunities for innovation) concerning the possibilities of accomplishing their mission. The objective is to identify with the actors themselves the main issues at stake. A collaborative space can then be defined with a set of actors to take part in LL activities (such as scenario developments) on a defined specific contextualized shared experience, while avoiding to import hierarchical control, to define a space of “co creation” where solution can be developed, on the basis of several questions to be addressed : what is the issue ? what alternative ? who can contribute ? what would be the impact ? The organization will respect some principles which all refer to community of practice (Wenger 1999) : openness of participation; free sharing of knowledge to

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<sup>2</sup> Le concept de Living Lab apparaît en 1991 dans une publication (Bajgier et al., 1991) portant sur une expérience pédagogique de résolution de problèmes urbains. Le concept est repris et développé à la fin des années 1990 au MIT MediaLab dans le domaine de l'innovation urbaine sous l'impulsion de L. Mitchell, K. Larson et A. Pentland. L'Europe investit à son tour le concept en créant en 2006 le réseau ENoLL (European Network of Living Labs).

facilitate distributed cognition; and real-life environments. In this approach, the users are considered as the most suitable candidate to design a product or service, if equipped with the proper tools and if involved in an appropriate way. They are given room for initiative, by participating in all stages of development of the service (idea, concept, development and implementation).

Co-creation in open innovation requires an open mindset towards sharing and collaboration, which is not trivial (Mulder 2009). It can be supported by techniques such as “contextmapping” which involves users intensively in creating an understanding of the contexts of service use (Sleeswijk Visser 2005)<sup>3</sup> and “generative” techniques which can reveal tacit knowledge and expose latent needs (Sanders, 2000)<sup>4</sup>. The participatory techniques must respect some principles to ensure the sensitization of participants but they are to be adapted by the research group to the specific issue at stake (in terms of groups, number of meetings, type of activities, etc) as we already experiences for process development in siting conflicts<sup>5</sup>. The dynamic of communication needs the support of a “facilitator” whose responsibility is not to lead the group but to create the conditions for fair communication and to support long term investment from the partners.

Activities are designed to attenuate the power games between the actors, which are particularly strong within a hierarchical administration or between public officials and external actors. Space for creation also request resources and particularly time for creation. In order to construct trust relationship and cooperation patterns, a problem solving approach is often more efficient rather than a competitive approach. The techniques should help support such communication patterns with people of different functions, origins, and level of involvement, because the diversity of participants is an asset for the dynamic of cooperation : it is possible to import different frames) pour échanger les idées nouvelles (At the core of the co-creation in social innovation idea lies the sharing of ideas and the resources of different stakeholders (Von Hippel, 2007) (Fuglsang, 2008). Il faut néanmoins aussi mettre en place un certain leadership pour organiser le déroulement « However, our cases show that it is far from self-evident that these collaborations are run smoothly. Differences in preferences, expectations and interests and the absence of a clear leader ensure that sometimes a lot of time is being lost by discussing the priorities and direction of the co-creation project.”(ref: LIPSE p.55) Cooperation can be stimulated by efforts of bridging and bonding actors, but also by implementing monitoring possibilities or the creation of visible points of reference ; these can come from the public officials as well as from the users themselves.

It is possible to innovate in the construction of open arenas, mobilizing techniques which are currently designed for LL or open innovation platforms for associating stakeholders, whoever they are, but concerned by the issue at stake and capable of contributing with contextrich knowledge. The arena must be flexible, with an open frame, in order to undermine the power positions and the reproduction of hierarchical structures as well as preconceived solutions to the issue.

Faire appel à ce genre de techniques est en soi une innovation de gouvernance publique. En effet, l’administration fonctionne surtout dans une logique de spécialisation en fonction des missions et métiers de chaque direction et les fonctionnaires forment des réseaux relativement homogènes et stables avec les groupes associés à la mise en œuvre de leurs actions. Ils prennent rarement le risque d’ouvrir les portes à d’autres parties prenantes pour organiser des espaces hybrides, propices à l’innovation en matière de services.

Face à une organisation bureaucratique cloisonnée verticalement (ligne hiérarchique) et horizontalement (champ de compétences), créer les conditions concrètes de la co-création demande du temps, un lieu et des incitants pour que les intervenants échangent leurs idées, confrontent leurs

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<sup>3</sup> Sleeswijk Visser, F., Stappers, P.J., van der Lugt, R. & Sanders, E.B.-N. (2005). Contextmapping: Experiences from practice. *CoDesign: International Journal of CoCreation in Design and Arts*, 1(2), 119-149.

<sup>4</sup> Sanders, E. B.-N., Generative tools for codesigning. Collaborative Design, 2000 (Springer-Verlag: London).

<sup>5</sup> Claisse F., Joris G., 2011, Les cartes conceptuelles comme savoir émergent : forces et faiblesse d'un modèle 'performatif' de la participation, in Breux, S et al. (Eds.) Carte mentale et science politique. Regards et perspectives critiques sur l'emploi d'un outil prometteur

intuitions, en dehors des liens hiérarchiques ou des contraintes contractuelles directes (Capdevila and Moilanen, 2013). C'est impossible sans la liberté d'expression qui postule la confiance mutuelle, l'esprit coopératif, une approche de résolution de problème plutôt que l'approche compétitive entre chasses gardées. Il est pourtant possible de recourir à de telles techniques pour associer les usagers aux innovations dans les services publics. Eg. In the case of innovation in geomatics in Wallonia (Fallon et Calay, 2015), stakeholders were associated at the strategic level, to define strategic choices and the legitimating frames necessary to support them.

## *II. The case study : innovation in MOSS systems.*

The case study analyses the transformations of an epidemiosurveillance system dedicated to animal diseases, when confronted to new emerging threats in the wake of global changes, within the frame of risk management. The research field refers to the control of the health issues related to the emergence of bluetongue virus serotype 8 (BTV) in 2006 in Belgium. Fallon et al.2012)

### *Presenting the monitoring and surveillance systems*

Disease monitoring and surveillance systems (MOSS) are used to minimize the impact of health related events in the animal population, either for public health, trade, or animal health and welfare.

The MOSS is designed to collect, interpret and disseminate disease information, to provide the public authorities with the necessary data to help them decide on the control strategies. These control strategies are usually predefined for specific diseases in order to control or eradicate them. The current structure has evolved from the 19<sup>th</sup> century old public administration which developed to document and control newly identified diseases. The sources of primary information are very diverse: the animal owners, veterinary professionals – mostly private practitioners; animal health laboratories; livestock industry; research institutions etc. Secondary sources of information are the accounts and reports on diseases outbreaks in neighbor countries or trade partners : these data are coordinated at the European and at the international levels<sup>6</sup>.

In the “passive” MOSS, the local healthcare professionals report at their own discretion to the authorities clinical suspect cases. Such reporting is made mandatory in the disease control legislation : the list of diseases with mandatory reporting is regularly adapted according to transformation of risk factors. This system evolved to a “pyramid of scrutiny” in which the animal owner is the first level of scrutiny: he is confronted to clinical symptoms and may ask (or not) for further expertise. The private practitioner – as a second level of the pyramid - may then decide to send (or not) samples to a laboratory for further diagnostic. The quality of the network of laboratory can be variable between countries : the quality of their work and equipment depends on the industry and vets' investment in specific animal species and diseases, according to cost-benefit ratios. The first two levels of scrutiny depends on the quality of the relationship between the animal owner and its vet, but also the trust of these two persons to the MOSS systems and the regulation and the cost-benefit ratio of such a decision: the cost is mainly private and supported by the animal owner and the benefit is mainly public. The control mechanism for specific diseases are defined in the health legislation : in the worst case, for specific disease outbreaks (eg. BSE), the animal or the whole herd must be destroyed, and the owner might receive (or not) a compensation subsidy. The system is working well because it covers the whole population of animals under observation when it expresses identifiable and recognizable clinical signs of disease. It is a continuous process and each emerging disease bears only a marginal cost as the structure is in place. But the main problem is that it requires the particular disease to produce clear clinical signs. When the disease has a low fatality rate (or economic impact), “when it is considered as unproblematic because of the lack of information, when there is a distrust in the governmental authorities, a lack of appreciation of common responsibility and / or shortage of

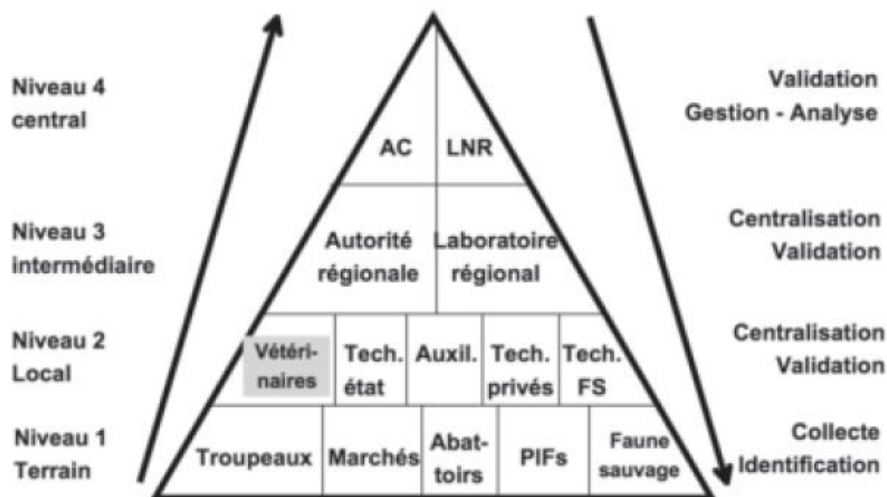
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<sup>6</sup> : l'Organisation Mondiale de la Santé (OMS), le récent European centre for disease control (ECDC) et pour les maladies animales, l'Organisation Mondiale de la Santé animale (OIE). Cette institution publie chaque année une liste de maladies animales considérées comme ayant une importance économique majeure et, par conséquent, notifiables par les membres de l'OIE. L'OMS, en partenariat avec l'OIE et l'Organisation des Nations Unies pour l'alimentation et l'agriculture (FAO), maintient un système d'alerte précoce pour des maladies animales majeures (Global Early Warning System for Major Animal Diseases, including Zoonoses, GLEWS, <http://www.who.int/zoonoses/outbreaks/glews/en/index.html>).

compensation funds” (Doherr & AUdigé, 2001:1101), the case reporting level may be as low as 50%... To better the MOSS system, most recommendations address the issues of disease awareness and reporting incentives, for example with an increase in premiums for reported cases. This is particularly true for emerging disease : a good disease awareness needs to be maintained (id.1104) along the chain, from the farmer to the authorities. But this includes also a good awareness of the clinical signs of the diseases: MOSS of the rare events appears to be a “thankless undertaking” as it is already difficult to maintain the existing standards.

**E. THIRY - A. MAUROY - B. MUYLKENS - B. PLOUVIER - A. SCIPIONI - C. SAEGERMAN**

Figure 1 : Le schéma de l'épidémiosurveillance. Le vétérinaire praticien en est un élément essentiel  
(PIFs : postes d'inspection frontalière ; Tech. : technicien ; auxil. : auxiliaire ;  
FS : faune sauvage ; AC : autorité compétente ; LNR : laboratoire national de référence).



In Belgium, the epidemio-surveillance system for animal health is still a federal responsibility. In the case of an innovation in animal health, it is important to consider the type of governance network which is at work in Belgium. The competence is still federal, within the hand of an Agency (AFSCA) which was settled as an independent entity after the BSE and dioxine crisis. The agency is responsible for the management of information, for establishing the regulation as well as for its follow up and evaluation. Stakeholders (from the agro & food industry; from the farmers' associations and consumers' organisations) are associated to the AFSCA governance as they seat in the administration board and the advisory board. The professionals of animal health are veterinarians, trained in two main public universities (Gent and Liège): several members of these universities seat in the scientific committee of the Agency. This public network structures all the territory through a web of decentralized reference and control entities. It is complemented by a series of structures supported by the producers themselves (ARSIA et xxxxx) , such as the laboratories they independently support. Some characteristics specific of this governance network should be put at the fore for the analysis of the case study.

1. The same federal agency (AFSCA and its officials) assume a position of information, regulation and control. This authoritarian structure does not encourage trust building between the farmers and the federal regulation authority. The web of independent laboratories are considered by the farmers as more conscious of their interests
2. The veterinarians are organized as liberal professionals: they have a close relationship with the farmers, which are first their clients. They are also in charge of animal health control and are due to report all health related issues to the public reference centers, with reference to a specific list of animal diseases specified within the federal law

3. The vets are all trained in the same university (French or Dutch speaking) : this means that there is a trustful relationship between them and the university experts which are in charge of advising the authorities

After recent health crisis (BSE in Europe), these administrations were denounced as too costly and not reliable when facing new risks. A MOSS system was designed to better manage the risks when confronted to (re)-emerging diseases.

### ***Emerging disease in Belgium : the case of FCO in 2006***

Durant l'été 2006, la Belgique a été confrontée à l'émergence d'une infection virale touchant les ruminants : la FCO (parfois dénommée « maladie de la langue bleue »), provoquée par un virus de sérotype 8 (BTV-8), est apparue de manière totalement imprévue dans notre pays (Thiry et al., 2006). En Europe, cette infection virale est cependant connue de longue date par sa présence dans les régions méditerranéennes avec un impact sur les troupeaux de moutons. Le virus est disséminé par l'intermédiaire d'un moucheron piqueur hématophage, un culicoïde.

Dans un souci de précaution, les experts avaient établi des scénarios d'émergence de la FCO en Europe du Nord qui prenaient essentiellement en compte les paramètres d'élargissement de l'aire de distribution du vecteur vers le nord. L'Union européenne a défini un cadre de vigilance pour cette maladie, valable pour tout le territoire, qu'il soit ou non exempt de cette maladie<sup>7</sup>. La Belgique s'était dotée d'une législation de lutte contre cette maladie qui est classée comme maladie à déclaration obligatoire<sup>8</sup>. Le laboratoire de référence fédéral, le CERVA (Centre d'Études et de Recherches vétérinaire et agrochimique) a été chargé de mettre au point les moyens techniques nécessaires pour assurer l'identification d'une possible émergence (Toussaint et al., 2007).

L'émergence de la FCO de sérotype 8 en été 2006 a été le fruit d'événements imprévus, non seulement par le sérotype, mais aussi par son adaptation quasi immédiate à des vecteurs indigènes.<sup>9</sup>

En juillet 2006, lorsqu'un médecin vétérinaire rural constata des signes cliniques particuliers chez quelques animaux dans plusieurs exploitations bovines. Il prit alors contact avec un médecin vétérinaire de l'Association régionale de Santé et d'Identification animale (ARSIA - organisme professionnel non gouvernemental). Si la FCO fut envisagée dans le diagnostic différentiel, elle fut d'emblée rejetée, car seuls les bovins étaient atteints à ce moment en Belgique alors que la maladie était officiellement référencée pour affecter particulièrement les ovins. Par la suite, un autre médecin vétérinaire contacta la faculté de médecine vétérinaire pour des cas similaires. L'attention est donc activée par un premier médecin vétérinaire, rapidement suivi par un autre confrère. Mais le réseau de surveillance ne permet pas de trouver rapidement une réponse à cet événement ni de relier les émergences multiples. Il faudra attendre la déclaration de la FCO aux Pays-Bas le 17 août 2006 : l'information transmise par le réseau d'alerte européen va attirer l'attention d'un responsable de l'Unité provinciale de Contrôle (UPC) de l'Agence Fédérale de la Sécurité de la Chaîne Alimentaire (AFSCA) pour la province de Liège. L'AFSCA réalisa des prélèvements d'échantillons chez 16 bovins et 5 moutons dans 11 fermes situées près des frontières hollandaises et allemandes, pour analyser la suspicion de FCO. Les résultats furent positifs et amenèrent à la déclaration de la FCO en Belgique (Toussaint et al., 2007). L'Allemagne et la France détectèrent la maladie sur leur territoire les 21 et 31 août 2006, respectivement. Le système de vigilance, une fois l'attention passée, autrement dit une fois la « mise en vigilance » activée, passe à une phase de vérification du phénomène. On retrouve cette séquence dynamique d'attention et de vérification inscrite au cœur du principe de vigilance : « la révélation d'un défaut ou d'un événement quelconque [qui] produit un état d'attention plus grand qui engendre à son tour des actes de vérifications » (Chateauraynaud, 1997 : p. 121).

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<sup>7</sup> Directive 2000/75/CE du Conseil du 20 novembre 2000 arrêtant des dispositions spécifiques relatives aux mesures de lutte et d'éradication de la fièvre catarrhale du mouton ou *bluetongue*

<sup>8</sup> Arrêté ministériel du 20 novembre 2001

<sup>9</sup> La source de l'infection par le sérotype 8 de la FCO n'a d'ailleurs toujours pas été élucidée (Saegerman et al., 2010). Ce sérotype a donc été importé d'un pays très éloigné, soit par l'importation soit d'un culicoïde vecteur infecté, soit d'un ruminant infecté.

La déclaration de la FCO en Belgique eut des conséquences immédiates en matière de législation. Dès le moment où l'infection est diagnostiquée, les autorités modifient le dispositif de gestion sanitaire pour intégrer les nouvelles connaissances et l'épidémiologie reprend le pas sur l'épidémiologie, au niveau national et européen. L'arrêté ministériel du 20 novembre 2001 *relatif à la lutte et à l'éradication de la fièvre catarrhale du mouton (Bluetongue)* fut modifié pour ne plus imposer l'abattage des animaux atteints et le confinement dans l'exploitation des animaux des espèces sensibles dans les zones de protection et de surveillance (suite à l'Avis urgent du Comité scientifique de l'AFSCA du 21 août 2006). En effet, ces mesures n'avaient pas de sens au vu des caractéristiques particulières de la situation épidémiologique et l'explosion du nombre de cas provoqué par des vecteurs indigènes. L'abattage des animaux atteints ne contribuerait pas à une réduction de cette dissémination, mais il aurait eu pour effet de bloquer toute montée d'information des éleveurs et praticiens vers les autorités de contrôle. Le dispositif de police sanitaire est engagé dans une dynamique d'apprentissage, pour compléter et adapter ses méthodes d'analyse et de gestion aux nouveaux événements<sup>10</sup>.

### ***Creation of a new MOSS for emerging diseases***

The control of such emergence of animal disease puts the administration under pressure, while the associated experts call for other functioning of the MOSS. Hendriks (2003) proposes to develop new communication structures in order to reinforce the margin of manoeuvre of the field experts (liberal vets) and to take distance from an excessive standardisation and centralisation. Is it possible to transform the existing network by opening spaces of open communication on unexpected information and data : these data which are out of the main epidemiological frame are considered as exotic but they should nevertheless circulate in the network. Local and expert networks should have more opportunity to be put in contact out of the standard procedures. Il s'agit de prendre appui à la fois sur les réseaux de communication nouveaux mais aussi sur un investissement plus important pour l'entretien de relations de proximité avec les acteurs de terrain. Hendriks (2003) propose de définir aussi des groupes d'experts spécifiques pour des maladies à haut risque d'émergence non plus dans une logique pyramidale mais dans une approche intégrée (à la fois au niveau des territoires et des expertises et des compétences) et coordonnée par des groupes d'experts.

After the FCO outbreak, we can identify attempts for renewal and organisational learning. The federal authorities, with the support of the vets' experts, proposed to implement a new vigilance system, which developed two dimensions (prevention and anticipation of the catastrophe) and tries to accommodate the surveillance system reactivity against uncertain events. This management initiative was launched in two steps.

In a first step, a communication campaign towards all field vets, in order to construct and implement the concept of "emerging animal disease" : what it ? how does happen ? how to face them? *Une « maladie animale émergente » est une maladie dont l'incidence augmente de manière significative dans une région donnée, une population donnée et période donnée. Cette maladie peut être causée par un nouvel agent pathogène, par un agent pathogène qui a muté ou par l'importation d'un agent exotique* (AFSCA, 2010). And the brochure presents also the risk factors, and a line of action in face of abnormal clinical signs, etc. This message by the federal authorities tries to support on the field another attitude, « une dynamique de soupçon » (Linhardt, 2001), but an attitude of suspicion which does not lead to a silencing reaction (as was the case in former emerging epidemics, such as BSE), but on the contrary to a reinforcement of information transfer.

In a second step, the authorities tried to develop a new communication network, on line and voluntary but parallel to the official and mandatory declaration system, MoSS – CERVA (Veldhuis et al., 2011)<sup>11</sup>. The system is supposed to reinforce the relation between experts of the field and with specific

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<sup>10</sup> quelques mois plus tard, un vaccin aura été mis au point avec un schéma vaccinal adapté

<sup>11</sup> Ce projet a été développé par des instances belges (l'Agence fédérale AFSCA et le Centre de recherche CODA-CERVA) et françaises (INRA). Il s'agit d'accélérer le transfert de données entre éleveurs, vétérinaires, AFSCA et laboratoires en ce qui



experts specialist in emerging disease, by avoiding a pyramidal approach but rather an integrated approach: integrating the territories as well as the types of expertise and capacities. The communication network should help (in real time) connect specialists which follow the patterns of emergence worldwide and field experts.

The actors in the network nevertheless raised a lot of doubts about the successful implementation of this online network (Delphi survey, reported in Fallon et al., 2012) for several reasons. On the field level : it is parallel to the mandatory and this double declaration systems contribute to create confusion. There is no real intensive to encourage declaration and the issue of “deficit of rapportage” itself is not really addressed. One of the way to compensate could be to officially reinforce a communication structure in charge of both surveillance and vigilance, based on « sentinelles » which would have access to multiple chanel of informations and the possibility to connect to other experts in case of doubt.

### III. A discussion As a form of conclusion :

The LIPSE project <sup>12</sup>analysed process of public sector innovation with citizens involvement and identified several problems and barriers to innovation.

The first problem is a risk-averse administrative culture because of the premanence of legalistic and bureaucratic culture. A conservative approach may be reinforced when the NPM principles are put in force, as these often increase the direct political control on the administration, and insist of short terms targets to be filled (Giauque & Emery, XXXX). This is particularly problematic when addressing “wicked problems” because of the inherent under-determination of the issue at stake and the possibilities to address them. It is not possible to present clear incentives and objectives to support cooperation and the involvement of stakeholders and to put at the fore what might be the added value of this new way of working between the partners : these elements are undetermined because of the open-endedness inherent to the process of innovation.

Secondly, when associating other departements or external stakeholders, public officials may feel threatened in their expertise or consider the other agents as being incompetent to address the public issues they are in charge of. Many activities in innovation arenas are organized to promote trust building between the partners and support acknowledgment of the legitimacy of all the stakeholders present.

Third, co-creation initiatives are usually developed alongside traditional public services, not as a complete replacement of them but compatibility with administrative mission is also an issue. Public organizations have to adapt to new open forms of collaboration (eg. with external users) but at the same time the same agency may be in charge of controlling the involvement of the users for their mainstream production activities. There is then an incompatibility or at least a tension between the two missions (eg. control and collaboration). In order to relax the tensions related to linking innovation with administrative routine work, some researchers propose that increasing the discretionary autonomy of public officials may help remove legal and bureaucratic barriers to co-creation (Gill, White, & Cameron, 2011).

This contribution starts from a field research by a multidisciplinary group of veterinary and political scientists facing uncertainties under the form of emerging diseases. While most of the means proposed by the authorities are based on the logic of known risk management, it is possible to identify attempts for renewal and organisational learning, especially with the proposal of a new vigilance system, which would allow open discussion and reporting through the decision process (Behaeghel, I. et al., 2012) supporting innovation. These platforms are designed as places for cooperation supporting trustbuilding rather than hierarchical controls, promoting the sharing of knowledge mobilizing

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concerne les animaux de rente, en assurant un protocole de communication plus structuré entre, d'un côté, les acteurs de terrain et, de l'autre, les experts et spécialistes actifs dans des institutions différentes, ainsi que les autorités sanitaires.

<sup>12</sup> Voorberg, W.H., Bekkers, V.J.J.M. & Tummers, L.G. (2015). Research Report: Co-creation and citizen involvement in social innovation: A comparative case study across 7 EU-countries. (Work package 2) [www.lipse.org](http://www.lipse.org)

multiple frames and different perspectives. This may be considered as a combined approach of forensic analysis and bricolage (Hisschemöller and Hoppe, 1996) and participatory policy design, with the mobilization of complex scenarios to support creative problem solving, as experienced in “Living Labs” (Bajgier et al., 1991).

Two main drivers for change in the governance network are linked to new public attitudes in public administration : admitting the persistence of unavoidable cognitive uncertainty (why innovate ?) and recognizing the importance for opening up arenas of lay and expert knowledge in multiple framing approaches (how innovate?). But the setting of such arenas still needs new practices and techniques for open communication and innovation. More can be learned from successful innovation networks in different policy sectors, such as the one proposed in the Living labs approach.

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