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**SUBTITLE: Strategic Plan**

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# ASSET

Action plan on SiS related issues in Epidemics And Total Pandemics

7<sup>th</sup> RTD framework programme

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### D3.1 Strategic Plan

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**Leader: ISS – Other contributors: LYON, PROLEPSIS, EIWH, DBT, FFI, IPRI, NCIPD, TIEMS, DMI, UMFCD, HU, ZADIG**

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## Strategic plan abbreviations and technical features

DEFINITION	ABBREVIATIONS	ASSET TECHNICAL FEATURES
Best Practice Platform	<b>BPP</b>	T 5.2 - The BPP is a web-based, ongoing, collection of best practices on SiS related issues in scientific and clinical research on pandemics.
Citizens Meeting Material		T 4.1/4.2 - Citizens Meeting Material involves all partners in the definition of questions, development of information material and the workshops. Task leader convenes (m25) a method-training seminar and involves project managers from the 8 partners which will carry out citizen meetings. The method-training seminar be built on the outcome of WP3, notably the Action Plan Handbook and the ASSET Toolbox.
Conflict of Interests	<b>CoI</b>	
Comenius Program		The Comenius Program is a European Union educational project. It concerns school-level education, and is part of the EU's Lifelong Learning Program 2007-2013. It aims "to help young people and educational staff better understand the range of European cultures, languages and values".
Seventh Framework Program	<b>FP7</b>	
Gender Issue Platform		T 7.9 aims to disseminate and promote gender-sensitive and women-centered research on pandemics. In particular it aims to disseminate information on flu pandemics related risks, notably for pregnant women and infants, preventive measures, antiviral drugs, vaccines and vaccination, and make information available to women to enable them to make informed and responsible decisions.
Geneva Music & Science Festival Report		T 7.11 - The Geneva colloquium aims to explore the possibility to use arts and music for people mobilization and to promote a scholarly reflection on the wider impact of infectious diseases on cultural productions and on the forms of their fruition.
Glossary and Terminology		T 1.2 - This deliverable collects the glossary including concepts and terminology.
H1N1 Expert Group on Science	<b>HEG</b>	
High Level Policy Forum	<b>HLPF</b>	T 6.1 - The High Level Policy Forum brings together selected European policy-makers at regional, national and EU levels, key decision makers in health agencies and pharmaceutical industry, and civil society organizations, in a unique and interactive dialogue to promote on-going reflection on EU strategic priorities about pandemics.
Intentionally Caused Outbreaks	<b>ICO</b>	
International Health Regulations	<b>IHR</b>	
Local Initiatives		T 5.3 - The Local Initiatives aims to promote mobilization and mutual learning at local level and to enhance the transferability of the most effective policies and practice.
Media Office		T 7.4 - ASSET Media Office works mainly via web-based multimedia products, and adopts open data and visualization data techniques that can make the data and tools developed by the Project more freely and rapidly usable by everyone.

Mobilization and Mutual Learning Action Plan	<b>MMLAP</b>	
Pandemic Preparedness and Response Bulletin		T 6.2 - We release a six month electronic bulletin which collects and disseminates information on policy initiatives devoted to pandemics and related crisis management, and policy developments at local, national and European levels.
Policy Report on Pandemic Consultation		T 4.3 - It is the final synthesis report of the public consultation. It also includes short reports of the analysis workshop and policy workshop.
Project Infrastructure		T1.3 - The project infrastructure is a virtual place of interaction which encourages transfer of knowledge, developing new ideas, reframing problems, and finding original solutions.
Research and Innovation Newsletter		T 7.10 aims to issue a biannual research & innovation newsletter devoted to Responsible Research and Innovation in the field of antiviral drugs and vaccines.
Responsible Research and Innovation	<b>RRI</b>	RRI is an inclusive approach to research and innovation (R&I), to ensure that societal actors work together during the whole research and innovation process. It aims to better align both the process and outcomes of R&I, with the values, needs and expectations of European society.
Science Communication		T 7.5 - ASSET begins a research paper series that will hold an ISSN number, available on the project's website, and feature the main outputs from the project in the form of research papers.
Science With And For Society	<b>SwafS</b>	The 'Science With and For Society' program will be instrumental in addressing the European societal challenges tackled by Horizon 2020, building capacities and developing innovative ways of connecting science to society. It will make science more attractive (notably to young people), increase society's appetite for innovation, and open up further research and innovation activities.
Science in Society	<b>Sis</b>	
Social Media Mobilization		T 5.1 - The Social Media Mobilization aims to exploit social media potentiality for citizens' and stakeholders' mobilization in pandemic emergencies.
Stakeholder Portal		T 5.2 - The stakeholder portal is a special area of the ASSET web site entirely devoted to different categories of stakeholders (health professionals, police/army/law enforcement officers, media, pharmaceutical industry).
Summer School on Sis in Pandemics		T 7.6 - The objective of the course is to foster exchanges on foundational and methodological approaches as well as on contemporary and educational issues in Sis related aspects of Pandemics.
Web Portal		T 7.3 - This task focuses on construction, maintenance and regular updating of the project Web portal, under the form of a multilayer open web infrastructure able to communicate in 2-ways with different targets: general public, media, stakeholders, decision makers, scientific community inside and outside the project.
World Health Organization	<b>WHO</b>	

## Introduction

During the history of mankind, the 2009 H1N1 influenza pandemic was probably the first pandemic for which many western countries prepared extensive and well-structured response plans, including relevant communication strategies. Worldwide, following the recommendations of international organizations, manufacturers raced against time to produce vaccines. Governments, policy makers and researchers developed initiatives to mitigate a potentially catastrophic impact on society.

Despite the mobilization of enormous resources, a climate of mistrust was evident among European citizens, with regard to official information sources such as health professionals, national health authorities, European authorities, and the media including TV, radio and newspapers, internet. This tended to exacerbate the vulnerability of the society to the adverse effects of a potential pandemic.

This phenomenon, still present and common to all the EU members' states, may jeopardize the current initiatives aimed at building preparedness and response capacity of the European society for the next pandemic or other global emergencies.

To build a more resilient society able to tackle such emergencies, it is of paramount importance to create conditions of co-operation between stakeholders, decision makers, health professionals, scientists and the citizens.

For that purpose, during the last few years, the European Commission has been promoting and using different approaches, particularly the "Science in Society - SiS" (FP7) of which "the greatest impact has been to raise the political importance of science in society [...], raising awareness of the problems and the need for all actors to work together, but also enhancing the understanding of the nature of problems". Furthermore, within the framework of Responsible Research and Innovation (RRI), two-way communication channels were promoted aiming at the 'scientific citizenship', consisting of "the active and knowledge-driven participation of citizens in democratic processes, including agenda setting, information gathering, co-creation and evaluation". Consequently, a particular project approach called the Mobilization and Mutual Learning Action Plan (MMLAP) was promoted to create potentially useful co-operation conditions between the scientific community, policymakers, citizen and their stakeholders. Finally, "the MMLAP provides an effective model for enhanced integration of stakeholders in European research".

## The ASSET project

Among these projects is ASSET (Action plan in Science in Society in Epidemics and Total pandemics), a 48 month Mobilization and Mutual Learning Action Plan (MMLAP), which was funded by the European Union's Seventh Framework Program, with a planned starting date on January 1, 2014.

The ASSET consortium was given the mandate to contribute in tackling the state of uncertainty and confusion characterizing the official communication during the last H1N1 2009 pandemic that has been recognized as a major risk factor affecting trust between citizens and decision makers and scientific community.

The overall objective of ASSET is therefore to contribute to incorporating Science in Society issues (public engagement, ethics, gender perspectives, science education, communication and access to and dissemination of scientific information) into the system of Research and Innovation related to pandemic preparedness.

Fourteen partners from 11 different Countries (Belgium, Bulgaria, Denmark, France, Greece, Ireland, Israel, Italy, Norway, Romania, Switzerland) constitute a real interdisciplinary consortium, combining together expertise in public health, vaccine and epidemiological research, social and political sciences, law and ethics, gender studies, science communication and media, in order to develop an integrated and transdisciplinary strategy, which will take place combining local, regional and national levels.

## ASSET objectives

According to the goal and the strategy of SiS and following the final report recommendations (2012) of the Expert Group on Science, H1N1 and Society (related research questions raised by the H1N1 pandemic and associated crisis management), 4 main objectives were defined:

- forge a partnership with complementary perspectives, knowledge and experiences to address effectively scientific and societal challenges raised by pandemics and associated crisis management;
- explore and map SiS-related issues in global pandemics;
- define and test a participatory and inclusive strategy to succeed tackling a potential new emergency;
- identify necessary resources to make sustainable the action after the project completion.

## A vision for the future in tackling pandemics and major emergencies

The ASSET Strategic Plan (SP) is a high-level plan that aims at providing a framework for MML strategy and, consequently, for the actions and activities to be included in the MML action plan. The SP plays the crucial role in defining a clear focus not only for the actions to be carried out by ASSET members but also for relevant stakeholders, to engage societal actors in the research and innovation process, and to create equal conditions for citizen's engagement, possibly also including specific strategies into pandemic policies in the European members states.

The ASSET consortium has been given the mandate to contribute in tackling the state of uncertainty and confusion characterizing the official communication during the last pandemic that has been recognized as a risk factor affecting trust between citizens and decision makers and scientists. This SP offers a model of change so as to make it easier to acquire the mastery in terms of knowledge, attitudes and behaviors in case of a threat like a pandemic, to build a more resilient society.

To obtain that, it is not only a matter of reaching the population (and the entire population) with an appropriate risk communication campaign, but also of raising the level of EU citizens' participation and promoting responsible research in different fields. Aligning research to values, needs, expectations of the society would contribute to addressing challenges which science and technology are involved in because it would tend to answer citizens' queries. This is the challenge that European governments should acknowledge, both as single member countries and as a whole state organization, and address using their instruments (laws, health system re-organizations,

communication campaigns, etc.). Furthermore, projects like ASSET may also promote conditions more favorable for changes connecting governments and population, stakeholders and scientists, particularly by the so called mobilization and mutual (understanding and) learning approach.

Consequently, the ASSET SP would have at its core the development of citizens' awareness, empowerment and action on the responsible research and innovation (RRI) mainstreams, as indicated in the project Description of Activities, by implementing instruments and tools of the mobilization and mutual learning approach.

## ASSET mission and vision

The **mission** of ASSET is to connect decision makers and researchers with citizens by trust-building processes in order to facilitate science in society (SiS) and responsible research and innovation (RRI) in the field of pandemics and crisis management.

The **vision** of ASSET is to promote mobilization and mutual learning (MML) among decision makers, researchers, healthcare workers, and citizens to increase participatory and evidence based preparedness and response capacity in the field of pandemics and crisis management.

## Building on the past experiences and acknowledging the challenges

The ASSET partners implemented an extensive and inclusive process to develop a strategic plan aimed to outline in the field of Pandemics or Infectious Emergencies the priorities for the MML Plan of Action following 6 main cross cutting themes indicated by the RRI, which are the governance, the unsolved scientific questions and open access to scientific outcome, the participatory governance and science education, the ethics, law and fundamental rights, the gender issues and inclusiveness, the intentionally caused outbreaks. For the aspects considered as priority, a strategy action line has been consequently developed.

Many other projects have strongly contributed to carry out the analysis preliminary to the ASSET SP. Particularly, the TELL ME project (*Transparent communication in Epidemics: Learning Lessons from experience, delivering effective Messages, providing Evidence*), a 36 month Collaborative Project recently closed, aimed to collect evidence to propose models for risk communication during large outbreaks crises with a transdisciplinary approach very similar to the ASSET's. Similarly, the Ecom, a 48 month project (*Effective Communication in Outbreak Management*) is developing an evidence-based tool for Europe aiming to "develop an evidence-based behavioral and communication package for health professionals and agencies throughout Europe in case of major outbreaks of infectious diseases".

## Line 1. The Governance

### Challenges.

The ASSET gray and official literature reviews portrayed the issue of governance of pandemics and epidemics from three interrelated perspectives, each involving a different stakeholder which participates in the process of risk communication, and performs its own role. Even though International Public Health Cooperation is essential to mitigate the spread of epidemics therefore, these stakeholders need to collaborate and communicate with the others in order to identify a pandemic, stop its spreading and prevent it.

- The role and performance of World Health Organization (WHO) during the 2009 H1N1 pandemic that has revised the International Health Regulations (IHR, 2005) and strengthened its position as a central global force with authority and accountability in the field of international health. Recent data regarding the status of country reports to WHO on implementation of Core Capacities show that more countries than before presented a detailed implementation plan. However, among the core capacities defined by the IHR, in all regions the most undeveloped capacity is human resources.
- The performance in the process of the pharmaceutical industry and the Conflict of Interests (CoI) with the health authorities plays a potential impact of those industries on the decision making process held by health authorities. Their influence ranges from providing finances to “The revolving door” phenomenon, i.e. a free movement of key employees between regulators and drug companies. While working within the public sector they might be reluctant to make decisions that would alienate a potential future employer, the CoI regarding research emphasis or conclusion is unavoidable when they move to the industry that they previously regulated.
- The role of the media for monitoring governance performance during the 2009 H1N1 pandemic. The communications occurred between the media and two central health authorities: WHO and the Center for Disease Control and Prevention (CDC). Both authorities held virtual press conferences during the pandemic, and issues like the declaration of the H1N1 influenza as such and the decision to hasten vaccines' production were raised while burning issues like possible CoI between the organizations and the pharmaceutical companies and transparency on the decision making process, were absent from the discourse.

## Line 2. The Unsolved Scientific Questions and Open Access to Scientific Outcome

### Challenges.

Following the proposals of the Experts Groups on Science, H1N1 and Society ('H1N1 Expert Group', or 'HEG'), designed by the European Commission, the ASSET project elaborated a reference guide of unsolved scientific related research questions raised by the H1N1 pandemic and associated crisis management. They suggested "a lack of research independent of industrial interests, but also that not enough research has been focusing on basic influenza mechanisms, in particular targeting questions essential for the protection of the society at large and not only for scientific interest". In a European context of well documented low trust in public authorities and politics ("post-trust society" phenomenon), the research community is challenged on many weak areas and topics. Among the number of issues find out in the mentioned guide, some "unsolved questions" more relevant to the methodological features of the MMLAPs, like ASSET, are here taken into consideration:

- communicating science in presence of uncertainties, particularly with initiatives for the public were carried out without significant expertise input
- involvement of civil society to contrast the actual uni-directional decision processes with no feedbacks from the civil society
- absence of compliance to the "epidemic intelligence framework" and low exploitation of data coming from new informal surveillance approaches
- lack of involvement of GPs in the process of increasing the awareness of pandemics and negative attitudes of healthcare workers towards vaccines, for example
- underestimation of the role of social networks to understand public perceptions and to disseminate information and increase knowledge and awareness
- inter-disciplinary scientific approach to public health problems (e.g. scarce interest towards sociology, anthropology, behavioral mathematical models in epidemiology).

## Line 3. The Participatory Governance and Science Education

### Challenges.

In epidemics and pandemics rumors and parallel informal information systems are challenging effective risk communication by health workers and authorities. Research studies have shown that rumors perpetually surface in situations that entail power asymmetries. Such situations often arise when knowledge is contested or is left to a small group of highly technical experts to unravel. Individuals or groups left outside such confined knowledge-hubs often produce their own version of the reality, in effect creating 'rumors'. Many reasons are identified in the ASSET literature review to explain that situation:

- overall lack of public (citizens and stakeholders) involvement in pandemic preparedness and response-planning and in risk communication
- top-down communication systems by experts and specialists and absence of two-way communication systems
- not taking into account the impact of social media and cellular phones on the spread of rumors and parallel information systems
- applying best-practice instead of incorporating local conditions in pandemic planning and response
- lack of flexibility in pandemic planning and response
- underestimation of citizens need and capacity to see and choose for themselves.

## Line 4. The Ethics, Law and Fundamental Rights

### Challenges.

The literature review carried out in the ASSET project, concerning the last pandemic, showed how inefficient handling of scientific evidence and fear of political side effects brought about for the general population restriction of personal freedoms and, consequently, decrease of active people participation on the event handling. The ignorance and lack of clear directives of the health workers and decision-makers were among the causes of increased number of preventable health consequences (avoidable morbidity and mortality). Sometimes, not taking into account scientific evidence and political manipulation of priorities drove decision makers to disperse available resources (like the case of unused drugs). Lack of careful control of existing privacy regulation (emergency justifies all!) has justified increase of number of individuals stigmatized for their suspect status failing protecting individual data. Finally, the high political level ministry of health and foreign affairs was not always able to establish an effective international cooperation and global governance so as to fail in adopting the International Health Regulations in the best possible way and increasing of population health risk, dispersion of resources, delay in the response.

## Line 5. The Gender Issues

### Challenges.

The ASSET literature review pointed out that there exist a multitude of problems in relation to gender and epidemics/pandemics and influenza vaccination, the main one being that women were not vaccinated to the same extent as men. Health professionals are not aware of the specific problems faced by women of all ages in relation to vaccination. Many groups of women, such as those who are pregnant, are particularly vulnerable as a result of the low level of vaccination. However, even in terms of women from non-vulnerable groups, influenza vaccination is problematic as the vaccine is not tested on women to the same extent due to low inclusion in clinical trials -many studies do not document sex-specific effects in vaccine efficacy or induced immune responses. Thus, women's biological differences from men in terms of how the body reacts to the vaccine is not taken into account. Instead the vaccine suitable for men is used as a standard dose, which may not be accurate for half of the population. Women's experiences and attitudes to vaccinations have not been studied sufficiently to allow for more knowledge about why women have a low uptake of vaccination, even though they are more likely to exhibit protective and avoidant measures towards influenza.

## Line 6. The Intentionally Caused Outbreaks

### Challenges.

Biological material spread maliciously with the intention of causing disease and illness can cause public problems, where the main issue is related to uncertainty and not properly addressing this issue may cause fear and speculation in the population. Malevolent actors may be able to obtain biological material suited for an attack through a lack of laboratory security or by making it themselves, and may even apply dual-use items that can be converted back to original purpose for production. For understanding and tackling the main governance problems posed by the risk of Intentionally Caused Outbreaks (ICO) in democratic societies, ASSET carried out the analysis of the history, state of the art and policy documents concerning intentionally caused outbreaks. The main challenges found out are:

- about the tension between secrecy and transparency: several countries do not have policy documents regarding intentionally caused outbreaks which will be handled under regular frameworks for outbreaks in the health sector, and law enforcement will be involved on an ad-hoc basis if necessary. If an intentional outbreak is suspected, governments may hold information back from the public, making society even more vulnerable to threats of intentionally caused outbreaks but governments' plans for addressing the public in case of an ICO are not standardized;
- about the freedom of research and security: this aspect involves dual-use issues, movements of agents and equipment, laboratory safety and security and the security of the public. Freedom of research seems to be a two-edged sword, contributing to the publications and release of material that can aid malicious actors to obtain or produce agents suitable for ICOs can be a threat to societies;
- about citizen involvement: it relates to the protection of citizens, their say in decision-making processes, involvement in prevention, preparedness, response and recovery as well as public communication aspects. Policy-makers often decide on which level they will protect citizens, with only basic knowledge of what the citizens actually require. It is a problem for governance taking into account experts' advice that the experts' opinion may differ from the public opinion in many cases.

## The ASSET strategic plan

### The general strategy proposed in the ASSET Mobilization and Mutual Learning Action Plan is broad and multifaceted.

Many societal challenges are facing today the European citizens, in the field of preparedness and response to pandemics and similar Emergency Crisis requiring a major role of the research (and the researchers' community) and the general population, the former to make efforts to align research lines to the values and questions of the citizens and the latter to achieve a higher level of empowerment in order to engage effectively in tackling such challenges.

Recently, the 'Science With And For Society' advisory group, expressed strategic opinion for research and innovation in the Horizon 2020, 2016-2017 work program, where this approach aims *"to build effective cooperation between science and society, to recruit new talent for science and to pair scientific excellence with social awareness and responsibility"*. Particularly, Horizon 2020 Specific Program states that *"The relationship and interaction between science and society as well as the promotion of responsible research and innovation, science education, science communication and culture shall be deepened and public confidence in science and innovation reinforced by activities of Horizon 2020 favoring the informed engagement of and a dialogue with citizens and civil society in research and innovation."*

Accordingly, the ASSET general strategy was set up on the basis of a specific problem setting framed on the 6 main RRI components (Governance, Unsolved Scientific Questions and Open Access to Scientific Outcome, Participatory Governance and Science Education, Ethics, Law and Fundamental Rights, Gender Issues, Intentionally Caused Outbreaks) (see previous chapter).

To define the following strategic lines consequently, a wide review of the available literature was carried out so as to outline them for the next years, beyond the date of the conclusion of the project. In this document, were taken into account only the strategic lines lying on the peculiar approach and instruments of the mobilization and mutual learning action plan. With the EC support, during recent years this approach is being clarifying and realizing by a substantial number of similar projects within the European Union that were identified and invited by the ASSET project to adhere to a virtual cluster to exchange experiences, particularly strong points and challenges of their implementation. The principle overarching the MMLAP is bringing together a broad number of actors to develop mutual understanding and joint solutions. Once set up the strategic plan, ASSET will be utilizing its "embedded" instruments to achieve that objective.

Following the experience of the MMLAP so far implemented in many MS, as a whole the project needs **to connect** the many issues composing the overall picture of the preparedness and response to pandemics. In this sense, what the common citizen thinks about this issues has to be linked to the development lines of the research community, for example, in this way connecting local (loco regional and regional) with global (national and international) issues. MMLAPs have the strong vocation **to communicate**; exploring existing resources to foster a dual-way communication between stakeholders, policy makers, particularly creating spaces among projects to share experiences, best practices and different groups values knowledges to eventually propose practical actions leading **to democratize** the society by means of promoting stable frames where, for example, the common

citizen, especially if belonging to marginalized groups, can participate and converse with decision makers and other stakeholders, having a say in research agenda setting.

### ASSET main instruments for mobilization and mutual learning

ASSET project disposes of different and articulated instruments to promote mobilization and to foster mutual understanding and learning about the many issues concerning pandemics response and preparedness.

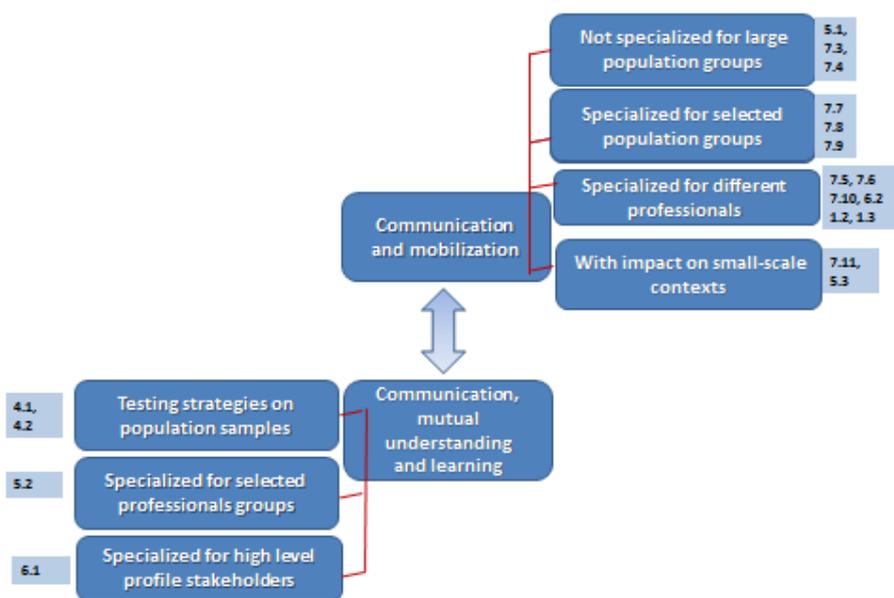


Figure 1, Approaches, characteristics, targets and related tasks (N.N) of the ASSET project

A pool of them are studied by the Consortium partners and **addressed to large layers of population**, like the web portal (7.3), an open web infrastructure headed to promote a 2-ways directional communication through various areas targeted to general public, media, stakeholders, decision makers, scientific community inside and outside the project operated utilizing web 2.0 tools (blogs, link to social networks, podcasts, video clips). Within the same group of instruments, it is included the Media Office (5.1, 7.4) that, by using via web-based multimedia products, is rendering

information and tools elaborated by the project more freely and rapidly usable by everyone, particularly media and decision makers and more generally the large world of social media (Facebook, LinkedIn, Twitter). Software has been studied and now is being applied to explore within Twitter the social reach of the theme of the pandemic and crisis emergencies and to monitor “conversations” going on over time to establish the best contents to the messages to convey to social media.

A second group of project instruments are intended **for dissemination and for raising awareness within special groups** belonging to different societal sectors. The general practitioners (7.7) are reached with a prize award aiming to recognize single or groups of these professionals particularly engaged in initiatives concerning Science in Society issues. In the same direction is set up cooperation with the Comenius program (7.8) aiming to propose to the primary and secondary school staff sharing and studying common initiatives to promote school children. To disseminate and promote gender-sensitive and women-centered research on pandemics a gender issues platform (7.9) is also constituted, notably for pregnant women and infants in the field of preventive measures, antiviral drugs, vaccines and vaccination.

A third group of instruments is targeted to **selected groups requiring more specialized information** to raise awareness and foster initiatives concerning the project objectives.

To promote effective communication, a research paper series with an ISSN number (7.5) is started and made available on the project web site together with some publication on peer reviewed journals to promote the academic and researchers’ interest. A summer school initiative (7.6) is also annually carried out to foster

exchanges on foundational and methodological approaches as well as on contemporary and educational issues in SiS related aspects of Pandemics, with a transdisciplinary approach to cover professionals' interest from different fields like social sciences, science communication, public health, vaccinology, bioethics, gender issues, clinical ethics, political science. Periodically, a Research and Innovation Newsletter (7.10) and a Pandemic Preparedness and Response Bulletin (6.2) are produced and made available on the project web site, the former to target researchers both in academia and industry and the latter to collect and disseminate information on policy initiatives devoted to pandemics and related crisis management, and policy developments at local, national and European levels. A glossary (1.2) of concepts and terminology related to science in society in epidemics and pandemics was elaborated by the project partners initially to facilitate internal communication contributing to ensure overall coherence, and forming a shared, transdisciplinary language for the Action Plan. In a second time, it will be made available through the project web site to different stakeholders with multiple different disciplinary and cultural backgrounds in order to avoiding linguistic misunderstandings and enhance common and synergic actions. Relevant specialized information is produced by a virtual cluster of Mobilization and Mutual Learning Projects (1.3) supported by ASSET and endowed by a reserved space on the web site platform. Facilitating the exchange of experiences with other MMLAPs and promote best practices would create the shared opportunity to make a better use of the approach and the tools of the MMLAP projects type.

In order to ensure the maximum result from the MMLAP approach, strategies and actions need to be citizen driven. To do that, the ASSET approach comprises a complex and effective system for citizens' consultation to create the best conditions for **fostering mutual understanding**. A transnational citizen consultation (4.1, 4.2) with simultaneous national face-to-face 1-day meetings with a web-based framework will take place to compare the national results. The information collected will contribute to give input to policy-making about policies on pandemic crisis, in terms of expression of informed ideas and opinion from near-representative samples of citizens to the policy making with a particular link to the EU parliament.

A set of instruments has been elaborated to **communicate effectively to specific stakeholders on a limited scale**. A strong opportunity to connect local contexts and national/international is constituted by a series of local initiatives (5.3). Fed by the results of the citizen consultations previously carried out by the project, the local initiatives are intended to capture the "spirit of the place" about large crisis emergency, the specific way(s) in which people living in a given city or region perceive, and react to the pandemic threat. In each city, selected stakeholders will be health professionals, police/army/law enforcement officers, media, and pharmaceutical industry.

The information collected in 8 European capital Cities involved aims to reinforce mutual understanding and offers a sound grounded multifaceted picture to all the stakeholders involved in the variety of activities promoted by the ASSET project. Particularly in Geneva (7.11), a music and science festival will be organized, to explore the possibility to use arts and music for people mobilization and to promote a scholarly reflection on the wider impact of infectious diseases on cultural productions and on the forms of their fruition.

This initiative, intended as a test carried out by ASSET project partners on a narrow scale with a sample of the population, will allow capitalizing useful elements for potential scaling up following the project termination.

A particular instrument to promote **mutual understanding and potential mobilization among selected group of specialists** is the Best Practice Platform (BPP) (5.2), essentially constituted by a web-based, ongoing collection of

best practices on SiS related issues in scientific and clinical research on pandemics, coupled with a Stakeholder Portal (5.2), which provides a gateway for interested stakeholders to register their interest in becoming involved. The area of interest is the Science in Society, now evolved into the Science With and For Society, which is at the center of the BPP. In the 2009 MASIS Expert Group Report<sup>1</sup>, debating on the “re-contextualization” of science in society, it was stated that *“the background question, of course, is what science (and innovation) for what society? The Report suggests this is not a matter of stipulation, but of open-ended debate and learning-by-doing”*. The ASSET stakeholder platform constitutes the more efficient opportunity to host this discussion, mainly with specialists like health professionals, police/army/law enforcement officers, media, pharmaceutical industry. The mutual understanding of the professional partaking the BPP of collected best practices on SiS related issues in research on pandemics will be fostered by the means of discussing best practices not yet been widely adopted, transferring knowledge of best practices among researchers, practitioners, institutions and organizations, developing and validating best practice guidelines and finally disseminating and encouraging best practice adoption.

A potentially powerful instrument among the MMLAP ASSETs is the High Level Policy Forum (6.2), where few **high level national stakeholders are invited to develop mutual understanding** of the most important and critical issues concerning pandemic response and preparedness into the MS. They are expected to engage in a unique and interactive dialogue to promote on-going reflection on EU strategic priorities about pandemics stemmed out from the thematic reports produced by ASSET and selected into the present strategic plan. The Forum is intended to produce recommendations, but its primary role is to create mutual trust, improve communication, and provide a “safe” environment to address questions which are otherwise difficult to discuss.

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<sup>1</sup> ‘Challenging Futures of Science in Society. Emerging Trends and cutting-edge issues’ [http://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/monitoring-policy-research-activities-on-sis\\_en.pdf](http://ec.europa.eu/research/science-society/document_library/pdf_06/monitoring-policy-research-activities-on-sis_en.pdf)

## Line 1. The Governance

### Strategy.

Trust is one of the most essential elements in managing and communicating risk to the public. It is easy to lose and difficult to win back. Confidence in the health authorities and their public health decisions is tied directly to the perceived independence, transparency, and fairness of the information communicated. At the same time, a lack of trust can change how safety information is evaluated by the public.

In the short term, in order **to increase the public's trust in policy makers regarding decisions on drugs and medicines**, ASSET will carry out the following short term strategy. Within the HLPF (6.2), members will discuss whether, whenever appointing members of national vaccine and medication advisory committees, the waiting period for people who receive grants or hold stock in an industry ought to be regulated so as to be long enough to avoid conflict of interests.

Moreover, the HLPF will analyze and give recommendations about the opportunity to set up comprehensive guidelines for policymakers or members of national vaccine advisory committees regarding previous funding or salaries from vaccine manufacturers whose vaccine is under consideration.

ASSET citizens' consultation and local initiatives will explore different categories of stakeholders, including public representatives and particularly marginalized social groups, to understand to what extent citizens are willing to participate and whether it is appropriate to encourage them to have a voice in the policy decision-making processes regarding vaccination policies.

Protocols of all vaccine advisory meetings will be made accessible to the media and to the general public, in order to increase transparency through the PPRB, the Newsletter and the specialized section of the web site, and offered for discussion on the stakeholder portal.

To help building an evidence based policy for the appointment of independent experts to coordinate the response to a threat of an outbreak the research community will be targeted to invite carrying out studies using the case of president Obama's appointment of Ron Klain as "Ebola czar" as a case study. Dissemination of information about the vaccine committees' decisions and activities will be essential for the governance and will be supported by the project official site, the mailing list (over 2,500 stakeholders) and through all the project links to the social media networks.

For **increasing the trust between policy makers, the media and the public**, ASSET Media Office (7.4, 5.1) will support mainly via web-based multimedia products the approach aimed to include in press meetings regular reporting on the discussions being held in various committees - in addition to specific questions asked by the journalists. The coordinated presence on social media, such as Facebook Pages, Twitter Handles, Google+, LinkedIn Brand Pages, YouTube Channels will widen the participation space of single citizen and organized stakeholders groups.

Within the HLPF the issue of the reports will be discussed as well about the ways to promote reports including transparent summaries of central issues and subjects that were discussed during the committee meetings, including dilemmas and contentious issues.

Furthermore, the Science Communication (7.5) activity and the Newsletter (7.10) will focus on the need to include communication to professionals in press conferences held during outbreaks -in order to strengthen the communication aspect of these meetings, in addition to the professional aspects.

## Line 2. The Unsolved Scientific Questions and Open Access to Scientific Outcome

### Strategy.

According to the report of the Expert Group on Science, H1N1 and Society (“HEG”) many unsolved scientific questions regarding pandemics are still remaining and the general aim of the report elaborated by ASSET partners was to identify what is needed to be done yet in case of a possible future pandemic. Due to the many and sometimes very different issues it is not possible to design a unique and consistent strategy for the project ASSET to carry out, but restricted to this section, the unsolved question will be tackled prospectively from the point of view of the different MMLAP instruments available to the ASSET project.

For the details of the different role played by the ASSET MMLAP tools, please refer to the previous chapter (*ASSET main instruments for mobilization and mutual learning*, page 15).

## Line 3. The Participatory Governance and Science Education

### Strategy.

#### **Developing capacity and increasing health-care workers influenza pandemic awareness and conducting information campaigns in the population, especially among high-risk groups.**

In the short term, ASSET will integrate this issue into the introductory materials for the Citizens meeting and in the following discussion. Especially in the context of a country where the overall coverage with influenza vaccine in the whole population is very low and overall distrust is high, it is more practical to first discuss and to conduct information campaigns among risk groups of people with chronic medical conditions and to educate healthcare workers.

This second part will be tested in the local initiatives (5.3) where the project will work out key messages targeted at specific risk groups (patients with cardiovascular disease, with lung diseases, mothers, healthcare workers) on the benefits of influenza vaccination. This issue will also be included in the social media mobilization (5.1) where the project will join the main group that are conducting active discussion on that topic.

The BPP (5.2) will be deeply promoted on the same theme and potentially best practices worth to be published will be also considered for the ASSET web site, and eventually in the specialized communication instruments PPRB (6.1), Newsletter (7.10), and science communication (7.5).

The SiS in Pandemic Best Practice Award for GPs (7.7) will identify single or group of professionals having prepared materials and participated in initiatives in order to increase awareness among the same medical professionals on the latest achievements in medicine in the field of influenza pandemic and epidemic, influenza vaccines safety and efficacy, or having supported their skills to convince patients of the usefulness and benefits of the prevention of influenza.

The science communication activity will target plan interdisciplinary (including sociologists, epidemiologists, psychologists, etc.) studies at the local/international level, related to a better understanding of attitudes and barriers to vaccination with influenza vaccines -in the general population, among healthcare workers, mothers, the Roma population. Particularly, the cross-cutting theme of the gender issue will be considered to promote the stakeholder participation in the ASSET gender platform. In the media portal (7.4) and in the communication with the research community ASSET will raise the issue of conducting interdisciplinary studies on media coverage of H1N1 influenza in different national contexts to expand the knowledge already gained by Government report.

Media coverage towards H1N1 influenza hasn't been studied in sufficient detail, in the context of different national levels -at the end comparison between different national levels will be presented. Particularly, some issues have to be encouraged for the media and journalists to be covered -as Pharmaceutical industry and Conflicts of Interests, transparency, and vaccine safety, messages to specific risk groups as healthcare workers, older people, and mothers.

The dissemination is planned to involve several institutions including the EU Parliament, experts, universities, technology assessments institutions and research centers and different strategic lines will be adopted to offset the marginalization of citizens and stakeholders, starting from top-down communication systems driven by experts and specialists and in absence of two-way communication. Bringing into the HLPF (6.1) the experience of the citizen-driven approach to the governance in the pandemic preparedness and response it will prove that EU citizens have the capabilities to be included in planning and response of an outbreak and will create the opportunity for its members to discuss and recommend adequate approaches for scaling up such an approach in other national or subnational settings.

ASSET will learn more about the dynamics of social media and pandemics, through the SiS Summer School, the citizen participation reports and all the data that are being collected from the social networks where ASSET is involved in. Software specifically elaborated to read and interpret Twitter posts will enable ASSET partners to partially explain the reactions of that network to certain topics, like the participatory governance. Results will be shared and published on the PPRB, the Newsletter and possibly on the science communication series. The experience will also be illustrated into the HLPF.

Flexibility in pandemic planning and response seemed to be a success key point in tackling the crisis and prevent rumors. In that sense, applying best-practices instead of incorporating local conditions in pandemic planning and response may be helpful. ASSET will operate to gather these conditions by disseminating results from the citizens consultations carried out in 8 European capital cities,

essentially stressing the aspects concerning the perceived trustworthiness of social media and internet communication. Participating to the Social Media Network, ASSET will be given the opportunity to raise the problem of the rumors and the potential risks of behaving consequently.

Vigilance and attendance of authorities on social networks could reduce the risk. Thus, through the HLPF (6.1) and the BPP (5.2) case-studies will be brought to their members on how authorities have a meaningful presence online so that they can recommend on social media presence by authorities during a crisis. Local initiatives (5.3), together with Comenius liaison (7.8) and the gender platform (7.9) will help understanding ways to disseminate at local level such an approach notably to prevent rumors. Geneva Music & Science Festival (7.11) will offer a good opportunity to experiment a peculiar approach in communicating about these topics by utilizing an artistic and more appealing approach. By engaging citizens in the complex and normative dimension of pandemic response planning, decision-makers will have a showcase of how citizens are able to comprehend complex information and prove their capacity to autonomously make the right choice in many concerned aspects. The citizen consultation will draw an actual picture on how citizen perceive their own role in pandemic planning and response and whether and to what extent they claim a more important part in the decision making process.

Within the HLPF necessary conditions and feasibility requirements will be discussed and recommended to the participating MS.

## Line 4. The Ethics, Law and Fundamental Rights

### Strategy.

Many international policy documents, such as the WHO International Health Regulations (2005), the Universal Declaration on Bioethics and Human Rights (2006), and the WMA Declaration of Lisbon on the Rights of the Patient (1981) provide a concrete framework for the formulation of national policies in the event of a large scale public health emergency, however, there are occasions in which specific decisions or the implementation of certain measures may come to direct conflict with ethical principles and values, even if these decisions or measures are in accordance with established policies and laws.

Ethical principles and societal norms may often come into tension with priorities and needs in a state of emergency, and decision makers are required to critically assess and timely take decisions on the best available evidence at every phase of the pandemic.

Creating a sound and unique base for solutions to ethical problems is far from the objective of this plan. Indeed, ethical problems can rarely be solved in the absence of specific contextual details. More adequate seems then to be addressing key points and promoting ethical best practices in the event of public health emergencies considering a base of key principles and values to be considered in addressing fundamental rights (e.g. restriction of personal freedoms), ethical issues (e.g. duty to provide care), societal issues (e.g. priority-setting) and political issues (e.g. international cooperation) in pandemic

preparedness and response. These principles are described as “key principles” since they inform every activity and decision at all phases of a pandemic.

There is a number of ethical values and principles that can inform decisions in the event of a public health emergency, whose importance may vary according to situational or contextual factors in the event of a pandemic. On broad terms, ethical values can be divided into two categories in the frame of pandemics: substantive and procedural values.

The substantive values are those which inform what decisions to make, whereas the procedural values are those which inform how to make decisions.

The first group concerns the Individual liberty, i.e. personal autonomy and freedom, Healthcare professionals and workers have the duty to provide care, protection and support in public health emergencies, the privacy, the Protection of the public from harm (following for example, the decision to proceed with mass vaccination in the absence of substantial evidence about the predicted risk-benefit ratio, the Proportionality, relating to the fact that interventions made in the name of safety and security in the event of a public health emergency should be proportionate to the risks, the Reciprocity where the society has an ethical responsibility to support those who face a disproportionate burden in protecting the public good, like the healthcare providers who have heavier responsibilities and may be due extra support, the Equity, the trust essentially for the relationship between government and citizens, between health care workers and patients, between organizations and their staff, between the public and health care workers, and among organizations within a health system, the Solidarity, both at international and national levels, the Stewardship, headed to protect and develop human resources where possible.

Typically, the procedural values that guide ethical decision-making in the event of a public health emergency are being open and transparent, inclusive, reasonable, responsive, accountable.

The strategy line for this specific area will not be able to produce manuals or guidelines, but will create conditions permitting studying perceptions of citizens and different stakeholders group, and practically promoting an active discussion within the same groups to identify best practices and recommendations to bring the ethical approach into the pandemic response and preparedness plans at international, national, and loco regional levels.

In the short term, it will be the study within the citizens consultation (4.1 and 4.2) the perception of the citizens of both groups of ethical principles and to what extent they feel it would be necessary to absorb them within any pandemic plan being developed.

Recording the level of involvement and perception of the social networks in the ethical issues (7.4) would be the first step of the process leading to the social media mobilization (5.1) where the most important ethical issues will be raised and discussed. Particularly important will be the involvement of the stakeholders’ portal and the best practices platform (5.2), where participants will be invited to identify best practices and then discuss ethical implication and feasibility in other contexts. Local initiatives (5.3) are expected to be an effective approach to convey inputs coming from citizens’ consultation and the stakeholders’ platform aiming to promote mobilization and mutual learning at local level and to enhance the transferability of the most effective policies and practice.

Recommendations coming out from the discussions within the High Level Policy Forum (6.1) will be utilized as useful indications to promote the interest and the motivation of the health professional and

the research community for adopting a stronger ethical approach nearer to the values and feeling of the general population. Results and references (international and national norms and documents) will be the object of the Pandemic Preparedness and Response Bulletin and the Research and Innovation Newsletter. The web portal (7.3) will host and update the ongoing debate on ethical issues, engaging the different sections (and members) into the debate.

The reflection will be enhanced by Widening the virtual community (1.3) to other EU funded projects, not necessarily only MMLAP, related to ethics, law and fundamental rights, notably in RRI (i.e. Satori). Input will come also from the summer school (7.6) where those topics are adequately covered. Within the gender Issues Platform (7.9) these aspects will be proposed to the participant stakeholders together with the problem of inequalities affecting women particularly in the area concerning vaccines and vaccination. In the long term, a meta-platform joining different current ASSET platforms and stakeholders will be promoted to constitute an international forum on ethical issues to carry out advocacy towards national and international (EU) governments.

## Line 5. The Gender Issues

### Strategy.

Basing on the literature and experts' opinions review carried out within the ASSET project, it has been recognized a multitude of problems in relation to gender and epidemics/pandemics, the main one being about influenza vaccination.

***The scientific data available show lower coverage levels of pandemic vaccine in women than in men, this epidemiological element is even up-scaled by some particular female risky condition (e.g. pregnancy).***

In the short term, the ASSET Consortium Partners will be gathering information on what the general public and specific population groups think and perceive about this specific issue related to the gender pattern in order not only to investigate and understand opinions, but also to enhance dialogue and trust where lacking. Beside citizens consultations and initiatives (4.1/2) to be carried out locally, testing discussions on social networks (5.1) and involving local CSOs (5.3) will be actions to develop.

Furthermore, the several tools and functions of the web portal (7.3) will be approached not only under a disseminating perspective but also to foster exchanges, debates as well as to speak both with journalists or communicators and with general public through press kits (made of press releases and video pills; 7.4), multimedia products (7.4). Parallel actions will deal with the scientific community and technical experts in the field to develop studies and a productive exchange on this specific issue related to the gender pattern: ranging from increasing the researchers' awareness to sharing similar experiences and/or practices in other MMLAPs (1.3) or within in an ASSET school dedicated learning unit (7.6), or even in the primary and secondary school settings (7.8).

Another area to cover concerns the return of results through innovated science communication models (best practices; 5.2) both with relevant stakeholders, from the related portal (5.2), the HLPF (6.1) and the specifically activated gender issue platform (7.9), and with public health authorities which coordinate

the whole process and play a crucial role for upholding the gender issue on vaccination strategies either in general or in the current pandemic plans.

In the long term, it will be necessary to check that the actions developed have produced tangible results in terms of impact on public health policies and authorities' organizations. Once that the whole process will be ongoing and has been developed in an integrated manner, it will be monitored first and valued afterwards, and it will be verified whether this issue related to gender pattern is represented enough at the Parliaments and their own Governments in order to drive decision-making processes for public health outcomes.

***Given this Society-issue related to gender on pandemic vaccination, on the other hand the Science-element applies: upstream the research and downstream the health care delivery/services. On the side of the scientific research, it has been retrieved that women are very low represented both in clinical trials and in attitude studies toward vaccination.***

In the short term, within the ASSET interventions, studies and an exchange among experts will be developed by sharing results through innovated science communication (7.5) models and increasing the academia and industry researchers' awareness (7.10) on the topic. There will be explored guidelines and/or evidence (6.2) worth to be published and indicated, where applicable, best practices (5.2) on increasing study on female representativeness in clinical trials and on women's experiences and attitudes to vaccinations.

Several tools will be used to engage with relevant stakeholders in the field: dedicated space slot for disseminating information and promoting gender-sensitive and women-centered research on pandemics (7.9), stakeholder portal (5.2), strategies (6.1) addressed to members states governments and their own public health authorities to make pandemic plans include the issues of women inclusiveness in clinical trials and that of few studies developed to analyze women's experiences and attitudes to vaccinations.

Even in this case, citizens' consultations (4.1/2) and social media (5.1) monitoring will be carried out, and the communication with the lay public will be aligned to the scientific work: by using blogs, social networks, audio-visual, multimedia products etc. (7.3/4).

In the long term, the expected outcome (more inclusion of women in research on pandemic vaccination, either as clinical trials or in attitude studies) should be checked and measured so that the actions developed would have produced tangible results in terms of impact on public health policies and authorities' organizations.

***Even in the Science-competence area, concerning the practical health care we found that, because of poor study on how the female body reacts to the vaccine, the delivery dose is suitable for men. Moreover, health professionals are not aware of the difficulties encountered by women in matter of vaccination.***

In the short time to better address a correct response to the female needs in matter of pandemic vaccination, it is crucial that important stakeholders in the field and above all public health authorities will be sensitized on these specific issues interrelated with the gender pattern. We will be able to achieve this goal by enhancing a constructive dialogue through the dedicated gender platform (7.9), the stakeholder portal to share best practices (5.2), the forum made of high level policy makers (6.1). This sort of target groups plays in fact a crucial role in coordinating the whole process and developing health workers' awareness.

The ASSET project can rely also on other tools to run this objective: a research paper series (7.5), dedicated articles/issues of the Bulletin on Pandemic Preparedness and Response (6.2) and of the RRI Newsletter (7.10) as well as mutual learning opportunity for a technical target (i.e. professionals involved in the topics of interest) such as specific sessions of the Summer School (7.6).

The common understanding of this lack in the health care structure among people is also a field for investigation and mobilization, too. Perceptions, ideas and opinions can be gathered both by physical meetings (4.1/2, 5.3) and by analyzing discussion threads going on the most used and popular social media (5.1). In the same perspective, the multifunctional web portal (7.3) has to be seen as a mean to foster exchanges and debates.

In the long term, it is quite difficult to mature such a change or a shift within health care structures like the dispatch of a vaccine dose suitable also for women and a major awareness of professionals on this gender issue. This impact on the female health is very country-sensitive and also connected with several variables ranging from industry interests for the vaccine dose to the specific arrangement and conditions of workers inside the health care system. However, even tiny changes could be retrieved and observed. According to a broader perspective, a desirable projection could be about the constitution and empowerment of such a group of experts (made of scientific research institutes as well as private organisations and associations) i.e. the ASSET project consortium that can be the reference for a function of advocacy. About this particular issue, concerning gender and pandemics/epidemic outbreaks, it is conceivable that for instance CSOs defending women health, or representative associations, committees and other organisms as well, could be supported in developing actions and interventions which were raised from the ASSET mobilization. In generating this flow, as a new deal, that could be increased by the “snowball effect” at different levels (locally, nationally and internationally), the ASSET nucleus plus several stakeholders who have been involved over the years remain at the centre. Both for a methodology aspect and for practical experience gained within the experimental period i.e. the project ASSET itself 2014-2017, that indeed would become the “pilot” study phase.

## Line 6. The Intentionally Caused Outbreaks

### Strategy.

The issue of intentionally caused outbreaks must be addressed in an open way highlighting the issues in order to avoid fear mongering and speculation. The facts and problem areas should be highlighted and presented to open up for constructive discussion among the public and the professionals.

If an intentional outbreak is suspected, governments may hold information back from the public, making society even more vulnerable to threats of intentionally caused outbreaks and governments’ plans for addressing the public in case of an ICO are not standardized.

***An essential strategy line is promoting several European Members Countries to endow themselves with policy documents regarding intentionally caused outbreaks to be handled under regular frameworks for outbreaks in the health sector, and law enforcement to be involved on an ad-hoc basis if necessary.***

In the short period, the ASSET project will explore citizens’ perceptions (4.1, 4.2) about specific issues related to intentionally caused outbreaks, particularly whether citizens fear attacks with biological agents and what are their perceptions of risks, to what extent they consider food and water security in their daily lives, what are their perceptions about their government’s ability to handle these issues and, finally,

their knowledge of relevant policies, if any. Social networks (5.1, 7.4) will be also involved for acquiring this information for the national and international levels. Within the HLPF (6.1) it will be crucial discussing governance problems, particularly risk communication past experiences, in intentionally caused outbreaks and identify which policies the HLPF members have already implemented and what they recommend in order to raise awareness and interest in the countries that have not. The project Pandemic Response and Preparedness Bulletin (6.2) and the science communication research series (7.5) will focus on that issue through a wide revision of existing policies and few short articles as well as the Research and Innovation Newsletter (7.10) targeted to the Research Community. The project site and the web portal (7.3) will support dissemination to media and general public using the information progressively collected.

In the following period, supporting and extending the project to other MS countries, the HLPF may allow them to share and adopt common and consistent policies leveraging the experience and the authority of the Health Security Committee, which will participate into the HLPF.

The best practices collected and analyzed together with the instances resulting from the social media and the citizens' consultation will help reinforce into the main national research institutes agenda the lines concerning knowledge and perceptions about intentionally caused outbreaks.

***A second strategy line concerns the ensure the necessary freedom of research despite the potential two-edged sword, contributing to the publications and release of material that can aid malicious actors to obtain or produce agents suitable for ICOs can be a threat to societies.***

In the short period, the ASSET project will primarily record citizens' perceptions about secrecy versus transparency in case of intentionally caused outbreak threat particularly whether the citizens feel comfortable with certain information and equipment not being publically available.

Some practices indicate that it is more important to publish than consider dual-use issues in the research. Within the world of social network where ASSET is present a discussion will be fostered as well as in the project stakeholders portal (5.2) and within the summer school (7.6) sessions. By means of the project instruments, the results will be disseminated among the main stakeholders, particularly to increase researchers' awareness about the necessity to evaluate security before publishing. Despite its importance, this issue has not received enough attention so far by the research community. ASSET will disseminate and sensitize researchers and other relevant stakeholders by means of specific papers on the project bulletin (6.2) and newsletter (7.10).

On the other side, this issue will be brought to the HLPF members' attention, particularly on the sensitive balance between secrecy and transparency. Their recommendations will be disseminated through the project specialized communication tools.

In the following period, best practices and sporadic experiences of government and community stakeholders' participation within mixed committee, will be collected and analyzed according to the approach of the local initiatives according to the ASSET project to point out the strategies to engage members states governments to regulate or consider content of results.

***Policy-makers often decide on which level they will protect citizens, with only basic knowledge of what the citizens actually require. It is a problem for governance taking into account experts' advice that the experts' opinion may differ from the public opinion in many cases.***

The strategic line concerning the citizen involvement and experts' advice versus policies has been treated in the section concerning the participatory governance.

## The ASSET MML action plan

On the basis of the strategic plan, it is provided a detailed description and timetable of MML actions in an Action Plan Handbook. The action plan is composed of action steps and includes a specific plan on competence development aimed at enhancing awareness, knowledge, commitment and capacity necessary to incorporate gender perspectives, ethical considerations, science communication, citizens participation, in flu pandemic preparedness strategies and actions.

## The ASSET Tool Box

A set of relevant tools is being developed, including standard operating procedures (SOPs), check-lists, templates, detailing the processes described in the Action Plan Handbook.

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