1. How to establish, activate and steer a network of relevant national stakeholders?

We have identified broadly the stakeholders that are interested in post-disaster damage data collection in the upper part of the following figure:

We think that those stakeholders can provide relevant: knowledge on what data is relevant to them, how data provided by other sectors can be useful for them; what data they are already collecting; information regarding the exact meaning and unit of measure of data they collect.

One way to trigger the cooperation of those stakeholders is to show them through simple graphs (perhaps simpler than the above one) how they can also benefit from a more comprehensive data collection, with initial small experiments and then with larger endeavours. The most effective way to involve stakeholders is through a chain of interested parties who bring in new partners and partners they know and who may be interested, perhaps in a more structured way than has been done insofar. I mean if you have an ideal situation you have in mind thanks to the collaboration of...
already involved parties, you may target those who are really important but not yet involved in the collective effort.

2. How to use external expertise, best practices and lessons learnt?

A relevant way to use it is as a benchmark against which every participant can see what is the level of development in his/her country. Those experiences can be used as examples that may encourage others to follow the same paths. However there is the need to develop a full scale tool that can enable and facilitate the effort of comprehensive and multipurpose data collection and at the moment there are many initiatives and many projects but they are all very partial and look only at individual aspects/sectors/data type/sources of information. With this piecemeal approach my personal opinion is that we will not achieve what we want, that is a substantial improvement of the current situation.

3. How to prepare feasible roadmaps and action plans for DDLD collection?

We think that in order to advance, one needs to have clear in mind what is the ideal target of our work, independently from how far we are from accomplishing it and independently from what we think now is more or less feasible. In fact having in mind the final objective is important to address possible efforts towards the advancement towards the objective; second it is also important to acknowledge that particularly when working with public administrations what now seems impossible suddenly becomes mainstream and what we think is more trivial encounters many obstacles. So I think being flexible is the right way, exploring different paths towards the pre-set objective and then chose the direction that as for now seems more promising.

The target final objective is to achieve a structured, multi-sectors information systems that has at the base the local scale data collection at the lowest possible level, that is for example asset level for damaged objects and infrastructures; a system that is designed in a way to allow to collect better/new/changed data after a relevant period of time (so first collection during the emergency, second collection during early recovery) and also in a way that queries can be easily made to scale up to regional and national level summarizing data by sector or by category of assets. An information system that couples damage information to accurate information about the triggering phenomena (hazard event) and which is designed to support then multiple purposes, which means open to multiple different types of queries given the different goals of analysis (risk assessment, forensic, compensation, needs prioritization, recovery prioritization, etc.)

We think two types of activities can be envisaged:

Demonstration activities, regarding those parts of the information system on which we are more advanced and that we can actually apply for example to assess the Sendai indicators or to carry out other types of analysis like supporting he Flood Directive. 

Pilot activities representing a more explorative approach, related to aspects for which more investigation is required before providing definitive operational Information System solutions. Pilot activities may focus for example on the characterization of damage, including indirect damage to economic activities and/or cultural heritage, as both require further understanding of what constitutes relevant damage by asset, given the large variability of businesses and the difficulty to assess the irreversible damage to intangible values.
4. What common needs may be identified that could result in new policies and/or tools to support national, regional and local authorities?

- As for public administrators, they need to get an information infrastructure that will allow much faster and easier input of data they already collect for the declaration of state of emergency and for the allocation of funds eventually granted by the responsible level of government (generally regional, national, European or private donors). Also they are the stakeholders that need damage data for the larger variety of purposes as they are responsible for the accomplishment of tasks across the various phases of the disaster. Therefore for them it would be an added value to have system that may respond to most tasks they are called to enact (such as risk assessment, cost benefit analysis, recovery decisions, monitoring of recovery etc.).

- As for insurers and service providers for insurance, they have already started appreciating the need to get more refined data after events so as to better fine tune models they use. Both insurers and service providers already dispatch to damaged areas their representatives to get a more insightful understanding of the damage and the potential consequences in terms of business interruption for which insurance policies do provide cover. In the last years, in fact, the trend has gone not only towards the compensation according to subscribed contracts but also towards the support of insured in order to reduce as much as possible the cost of activities interruptions. Insurance companies are nowadays much more integrated with companies that not only provide them with initial overview of the damage scenario that has actually occurred, but also with companies that may guarantee a fast remediation of damage and restoration of activities.

- As for trade associations and chambers of commerce they have become increasingly involved in the recent disasters, as globalisation and the financial crisis have put the whole economic private sector under a great pressure, where lost days of work translate in to lost orders, lost customers, lost market shares that are not always easy to recover. When they are involved in recovery processes they become interested in understanding how they can better support firms and also to gain experience on how to increase the economic sector resilience.

- As for researchers, they see as an added value to get a better understanding of real events, to identify areas in which further investigation is needed and that are sometimes neglected. For example, residential buildings have been widely studied whereas other sectors, including factories, public facilities, and regarding damage aspects, such as indirect, intangibles have been less studied, also due to the inadequate understanding of what happens in the field, in a real event.

- As for social media providers, they have been already asked to contribute to damage assessment, especially in the crisis management phase, as through the direct reports of people witnessing or suffering an event important information regarding where immediate help is most needed and what are the most urgent requests can be gathered in rather short time. Such situational awareness is increasingly capacitating also official responders. In any case volunteers working on platforms such as Ushahidi are interested in getting more involved and contribute to the disaster field. We may take this as an opportunity to complement official data with data witnessed by volunteers and by citizens affected by an event.