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# Learning from citizens: a Venetian experience

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## Abstract

In the context of different projects, some participatory methods were used, together with more traditional ones, in a research process aimed at eliciting local knowledge about risks derived from industrial activities. The policy implications of this approach are towards promoting citizen awareness and encouraging their involvement in actions addressed to reducing community vulnerability to risks. The paper illustrates the objectives and methodology of a project on public risk perception and comments on some of its findings. Drawing also from other research experiences, it outlines a set of ‘principles’ which can guide the interpretation of citizens’ concerns and aspirations. © 2000 Elsevier Science B.V. All rights reserved.

*Keywords:* Major accident hazards; Seveso directive; Risk perception; Risk communication; Public participation; Public trust

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## 1. Background

Although the environment was not on the original agenda of the European Economic Community and is not mentioned in its founding Treaty (signed in Rome in 1957), over the years, it has become an issue of major concern and extensive regulation. The starting point of the Community environmental policy is commonly considered to be the Summit of the Heads of State held in Paris in 1972. Out of it came an invitation to the institutions of the Community for establishing an action programme for the environment.

The first action programme of 1973 was followed by other four in 1977, 1983, 1987 and 1993. These designed a general framework for environmental policy, which was then enacted through norms addressing specific topics and areas of concern. The fifth

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Programme is entitled “Towards Sustainability” and defines the Community policy orientations and objectives up to the year 2000. It is of greater scope than the previous ones, and is derived from the endorsement in the Maastricht Treaty of 1992 of the European Union (EU) policy on the environment as a structural one, rather than just a possible addendum to other areas of intervention.

The Programme defines a strategy which complements the traditional legislative ‘top-down’ approach with a ‘bottom-up’ one, aimed at enlarging the basis of consensus, by including societal inputs in policy decisions. This requires the involvement of a broad range of economic and social partners, including public authorities, public or private enterprise, and the general public. One basic tenet of this innovative strategy is the increased circulation of information through extended social networks. Its aims include: warning and alerting people about risks, facilitating their understanding of complex issues, promoting positive attitudes and appropriate behaviours, enhancing an ethics of responsibility, and favouring a sense of agency and citizenship.

The availability and sharing of information, and the quality and level of the dialogue between partners are often recalled as key elements of success. Indeed, the implementation of the programme is conceived as a joint effort and a societal endeavour. The following quote best illustrates its intent: “This Programme is not merely a task for the Community institutions: it will require the full partnership and full support of all the actors necessary to make it work” (Ref. [1], p. 93).

One can say that the recognition of the European citizens’ rights in being informed and taking part in policy decisions on risks and the environment are by now largely established as guiding principles in the EU policy and are reflected in many directives and other EU legislation. However, the mechanisms that allow practical implementation of such principles and norms are often inadequate. They need to be improved through a revision of current procedures, as well as of the prevailing mentality.

## **2. The Public Risk Perception and European Union Environmental Policy (PRISP) project**

The European Commission’s IV Framework Research Programme reflects this amplified concern to risk and environmental issues by including their economic, social and cultural aspects, and also by considering their policy implications.

The PRISP project, funded under the IV Framework programme, was developed through case studies in three European countries and had a broadly comparative aim [2]. Its main objective was to investigate the ‘social framing’ of risk perception, addressing the local cultural, socio-economic and historical factors influencing the process of public perception of risks. The risks that were considered in more detail were those posed by major accident hazard sites of the chemical industry, i.e. the ones subjected to the European regulation known as the ‘Seveso’ directive. (The so called ‘Seveso directive’ was first passed in 1982 (82/501/EC) and subsequently amended twice, in 1987 (87/216/EEC) and 1988 (88/610/EEC). At the time we started our research, the so-called ‘Seveso 2 directive’ (96/82/EC) had not entered into force yet. It did in

February 1997 and all the EU member States were due to implement it by February 1999. In reality, this was not always the case. For a detailed account of both legal and practical implications see Ref. [3].) The name of the directive comes from that of the municipality mostly affected by the accident that occurred in 1976 at the Icmesa factory, located in Meda, northern Italy, when dioxin was released into the environment [4,5].

The project, although not policy-driven, was somewhat policy-oriented, as it aimed at providing some indications for risk management practices and civil protection policies. The research design combined several methods of investigation so as to provide a full account and a thorough understanding of local dynamics in connection to the risk issue.

Not only the variety of methods was considered important, but also their sequence, which was basically the same in all the case studies. Thus, a quantitative survey was performed in each locality only after a community profile had been completed, using more qualitatively oriented methods, such as participant observation, analysis of secondary sources and semi-structured interviews. In this way, we were able to build a questionnaire well suited to the local context. A third phase involved focus groups (FGs) with relevant stakeholders who were asked to discuss issues that emerged in the previous phases, which can possibly add new information and insights.

This triangulation of methods [6], each conceived as complementary to and not as substitutive of the other, allowed us to ‘saturate’ the research concepts in the meaning defined by Glaser and Strauss in their Grounded Theory [7]. The first phase helped to explore and clarify the main research issues, and to develop some hypotheses on the relevance and connections of a number of variables, also on the basis of previous research (For a review see Ref. [8]; see also Ref. [9]). These were tested in the second phase, when a random sample of the community residents were submitted a questionnaire. Finally, the understanding gained by the teams in the previous phases was used to structure FG discussions in the third phase, to verify whether new insights could be added to previous findings and interpretations. Monitoring of situational changes continued throughout all the research phases applying participant observation and updating data from secondary sources.

Our approach to data gathering and analysis was framed as to generate a ‘learning process’. In other words, no pre-defined ‘strong’ hypotheses were designed for testing. Rather, at each stage of the research, interpretative categories were inductively generated from the data, and in their own turn, these provided a conceptual frame for the subsequent stages of data collection and analysis.

This methodological approach has much in common with those taken in other EC-funded projects, in which the present author was also involved. Particularly, the VALSE project, where the valuation of environmental amenities and natural capital was approached “in a multi-dimensional perspective reflecting the variety of scales over which a problem may be considered and the range of individual and collective interests that may be involved” (Ref. [10], p. 1). Also the ULYSSES project, focusing on urban lifestyles and sustainability in the context of climate change, in which groups of citizens assisted by facilitators explored the integration of knowledge from diverse sources through the use of Integrated Assessment (IA) models [11].

In the PRISP research, two or three communities were selected in each country, where major accident sites are located or (in one of the Italian cases) planned. Apart

from this common feature, the communities are highly diversified. As with so few cases where no sampling based on statistical ‘representativeness’ is possible, the project partners aimed at producing as many different instances as possible on the basis of a set of criteria considered relevant and applicable either to the sites or to the communities. These were: type of location, industrial setting, age of site, nature of off-site hazard, visibility/proximity, local risk politics, site operator behaviour, past experience of emergencies, demographic characteristics of the surrounding community, socio-economic status, prosperity and employment levels, cultural diversity. The partners agreed to balance the need for (some) comparison, with the desire of including different types of communities. They felt that their community-based studies could offer “important insights into the complexity of risk perception processes and how people come to construct meaning about local risks from multiple social interactions, experiences and knowledge sources” (Ref. [2], p. 16).

A total of seven case studies were investigated: two in the UK, two in Spain and three in Italy. The Italian case studies are as follows.

(1) Torviscosa — A town of about 3000, created in the late thirties in connection with the expansion of a local chemical site. It is one of the few examples of ‘company town’ in Italy.

(2) Monfalcone — A town of about 27,000 located on the coast of the North Adriatic Sea. When the PRISP project began, a proposal was pending for the construction of a terminal for the re-gassification of liquid methane adjacent to the town.

(3) Marghera — A town of about 27,000 situated within the municipality of Venice, on the mainland across the lagoon, in the proximity of one of the main Italian chemical sites.

In this article, only the last case will be taken into consideration.<sup>1</sup>

### **3. Venice, Marghera and Porto Marghera**

The Municipality of Venice consists of 18 boroughs, including the world-famous historic city of Venice, five separate island boroughs within the Venetian lagoon and nine mainland boroughs. The mainland boroughs incorporate the urban areas of Mestre and Marghera, in the proximity the Porto Marghera industrial area. There, large-scale chemical plants adjoining the environmentally sensitive Venetian lagoon pose an important risk of accident and contamination.

The origins of the industrial zone date back from the period of the First World War when an important local personality, the Count Volpi, developed a plan for industrial take-off. He envisaged the development of the basic industry (metallurgical, chemical and petroleum products) utilising primarily imported and low cost materials, which

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<sup>1</sup> For some other findings regarding the Italian cases, see the article by L. Pellizzoni and D. Ungaro in this issue.

could be delivered directly by sea through a new port. Their processing would be possible because of the local availability of energy.

It was, of course, the mainland, which seemed the most suitable area for the creation of ambitious industrial projects for the economic development of the entire municipality and beyond. These projects materialised in one of the largest European industrial sites, at a time when there was hardly any of the relevant environmental problems.

The *Società per il Porto Industriale di Venezia* was established in 1917 to implement this plan. It developed the necessary infrastructure, including the new industrial and commercial port, rail and road links on an area of 2000 ha of mainly reclaimed land. The first installations, in the 1920s and 1930s, were industries that still exist today, for example: production of sulfuric acid, phosphate fertilizers; coal distillation; oil refining and storage.

During the 1930s and 1940s, non-ferrous metallurgical production (aluminium and its alloy, zinc) was developed and a major plant for ammoniac production of fertilizers, using coke-oven gas, was established. After the Second World War, a second industrial area was planned, besides the original one, which, since then has been identified as the First Zone. A new canal was dug, from Porto Marghera to the Malamocco harbour entrance, to direct traffic away from the historic city of Venice. A new oil terminal was located in the Southern Malamocco section of the lagoon. The first petrochemical installations date back to 1951. Fibres production was first established in 1959 and new chemical productions followed.

At the end of the 1960s, the time of its maximum expansion, the workforce employed in Porto Marghera was of about 40,000, but a rapid decline started in the 1970s. In 1994, the total workforce was of 15,000, of which, 5000 were in the chemical sector. Figures have continued to decline and the estimate for the present is some 11,000 employees working for approximately 300 firms. In recent years, huge investments have been made in projects for the re-conversion of abandoned parts of the industrial zone. Some have been realised, some are under way, and some are still being debated.

The community of Marghera suffered the changes in numbers and type of establishments and workforce. In the 1930s, it had been designed as a kind of 'garden city' to accommodate managers and white collars for the newly created factories. But later, in the 1960s, the 'wild' proliferation of installations and the growing immigration of low-income residents destroyed this project. The new immigrants were either people moving out of the Venice historical centre or former peasants abandoning the countryside. Despite the uncontrolled growth, for a long time, there was a kind of symbiosis between the community and the industrial zone, which is nowadays totally lost. The 1995 figure for the Marghera population was of 27,323, with a loss of 4555 residents since 1981.

The main hazards connected to the industrial area of Porto Marghera can be summarised as follows.

(1) Pollution of air, waters and land deriving from industrial operations. The burden of the past is quite heavy and impinges upon the present and future. Awareness, regulation and control have developed gradually, and are greater nowadays than in the past decades. However, the consequences of the past *laissez faire* style of management are strongly felt, and episodes of misconduct occasionally still come to surface.

(2) Accident hazards deriving from the transportation of dangerous substances (toxic and flammable/explosive materials) to, from, within and outside the industrial zone, by road, rail, pipeline and water.

(3) Major-accident hazards originating from Seveso-type installations. There are presently 39 such companies, of which, 30 are subjected to notification under article 5 of directive 82/501/EEC [3].

From both the interviews with qualified informants and the survey,<sup>1</sup> it emerged that all the three types of hazards listed above are of great and constant concern for the local population. Many episodes, even recently, have alarmed both the residents and the local authorities. Also, there are some judicial procedures pending against the management of a few companies.

As it pertains specifically to major-accident hazards, the populations mostly exposed are those living in Marghera and Malcontenta, both within the municipality of Venice, and that of the neighbouring municipality of Mira. Some houses and public buildings, including schools, are located in the immediate vicinity of the dangerous installations. At the time of the study, the Seveso type installations were regulated in Italy by the Decree of the President of the Republic no. 175/88, implementing the Seveso Directive, and by some consequent regulations.<sup>2</sup>

Among the many requirements derived from the Seveso directive, there is the provision of information to the public. In Italy, this obligation is the direct responsibility of the mayor of the town where the dangerous activities are located, i.e. the mayor of Venice. However, since his jurisdiction does not extend outside his municipality, the inhabitants of Mira are not necessarily entitled to receive information. One may conclude that the Italian legislator has not learnt the lesson from the case which is known worldwide as the ‘Seveso accident’, but occurred in the neighbouring municipality of Meda.

The attention paid to the public information requirement on the part of the successive Venice administrations has been quite variable. Some plans for public information campaigns have been initiated and dropped, sometimes in connection with local political ‘crises’. The present administration has taken a much more definite stake in the issue, even if, up to now, the public information requirement has been only partially fulfilled. Some sirens for alerting the population have been put into place, a control centre has been designed, and a ‘communication module’ has been tested, including the preparation of a leaflet and its diffusion to the local population.

The present author was involved in the design of such pilot exercise, together with Silvio Funtowicz. (The research work was conducted within the project “Rischi di incidenti rilevanti di origine industriale. Informazione alla popolazione (DPR 175/88)”. The project was sponsored by the Municipality of Venice and co-ordinated by the

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<sup>2</sup> At the time of writing, the matter was regulated in Italy by the Law no. 137, of 18th May 1997. Such law is a “Sanatoria” combining and updating the several temporary decrees passed and then expired. It is very difficult to find an English equivalent for the Italian “sanatoria”, which conveys a meaning of “fixing” or “mending”. The ‘Seveso 2’ directive has been subsequently implemented by the *Decreto legislativo* 17 August 1999, no. 334.

Consorzio Venezia Ricerche (CVR). It consisted of various work packages. The design of a pilot communication module was assigned jointly to the Institute of International Sociology of Gorizia (ISIG) and to the Institute for Systems, Informatics and Safety (ISIS) of the European Commission Joint Research Centre (EC JRC). For an account, see Ref. [12].) We suggested that preparatory research work be done through FG discussions with local stakeholders. (The FG technique was first developed by the sociologist R.K. Merton as a means both to collect data and to observe social interactions. See Ref. [13]. Then, it was long forgotten by sociologist and applied mainly in market research. Recently, it has gained new popularity in different field and with regard to different issues. For an overview of the technique and possible applications, see for example, Ref. [14].) In our exploratory work, we conducted five FGs, each comprising from six to 11 participants. These came from a wide variety of sectors including local industry, chemical and other; public administrators; emergency services; diverse citizen groups and associations; productive and commercial activities; etc. The basic hypothesis was that local actors, building on the knowledge and experience derived from daily life in the community, could contribute with useful indications and insights not only to the effective implementation of the public information requirement, but actually, to the overall exercise of emergency planning.

Our theoretical premises were derived from Funtowicz and Ravetz's idea of 'extended peer community' [15]. We aimed at exploring whether expert judgements and lay knowledge can reciprocally enrich one another and whether experts and lay people can both profit from a mutual clarification of their understandings, perceptions and assumptions. In the list of arguments in favour of considering perceptions in risk regulation and management designed by Pidgeon, our work could best fit under the heading "Public risk perceptions can enrich expert analyses" (Ref. [16], p.12).

We also share Wynne's criticism of the artificial separation between intellectual and ethical concerns about risks. The 'received view' conceives intellectual concerns as "calculative, material and instrumentally tractable through deployment of 'sound science', as in current risk assessment". In contrast, ethical concerns from the part of lay people are considered as categorically distinct, though legitimate. As a consequence, the former can inform policy, while the latter cannot have any material effects on technological commitments [17]. Even if the argument has been raised in relation to the current debate on genetically modified organisms in agriculture, it seems applicable to other types of issues, including major accident hazards.

#### **4. Four 'guiding' principles**

Four 'principles', which emerged as a result from previous research [12] were further developed: knowledge-sharing, congruence, resources and trust. We estimate that such principles can provide a guide for action whenever the citizens' participation is solicited, either for research or policy purposes, in whatever issues of concern [11,18].

In brief, 'knowledge-sharing' refers to the necessity of 'discovering' and integrating different types of knowledge, which follow from both experts and lay people. The latter

type derives from daily experience in the community, dealing with real world problems and participating in local networks. ‘Congruence’ both to the internal coherence of ideas and plans, and also, their correspondence with the realities of past experience and of practicable future initiatives. The local residents spontaneously perform ‘congruence tests’, when discussing risk issues. ‘Resources’ are thought of as those local recourses which can be activated for reducing community vulnerability to hazards, including plans, facilities, expertise, skills, connections, networks, etc. The perception of risks is not disjoint from the awareness about the existing resources.

Encompassing and permeating all the three principles above is that of ‘trust’ (for a strong statement about the importance of trust in risk management controversies, see Ref. [19]). This is conceived as the mutual conviction, among all relevant stakeholders, that each will behave with integrity within the confines of one’s role. The nature and range of trust are to be explored as meaningful predictors of the success of initiatives aimed at the reduction of community vulnerability, such as public information campaigns, emergency planning and management.

From a research viewpoint, the PRISP project provided the best setting for further testing the relevance and applicability of such principles. As stated above, the PRISP approach to data gathering and analysis was framed as to generate a ‘learning process’. Thus, the interpretative categories developed in previous research provided a conceptual frame for research work with a new set of FGs. A similar frame had proved useful in the already mentioned ULYSSES project [11].

Within the PRISP project, two FGs were conducted involving representatives of local stakeholders groups. These were selected among those with their ‘finger on the pulse of the community’, due to their roles, functions, or location inside community networks. They were then asked to ‘speak for the community’ rather than for themselves, reporting on local attitudes, opinions, expectations and concerns, on the basis of their best knowledge and understanding. We were cautious, however, about recruiting ‘movers and shakers’ from groups who were politically or professionally engaged with risk issues or local industry, since we were aiming at a non-biased report on ‘public’ perceptions. Instead, such key informants had been interviewed individually in a previous phase of our research.

If data were collected only by this technique, two FGs would be a very low number indeed. However, in the PRISP design, the FG phase was but one in three. Moreover, as specified above, in the case of Marghera, five other FGs had been conducted previously, also addressing the issue of risks posed by the chemical industry, although in a different setting [12]. The results obtained proved that in fact, the criterion of ‘saturation’ of concepts had been met [7]. In other words, the two FGs failed to generate additional categories or themes. Instead, they were valuable for refining the interpretation of previous findings and producing more sophisticated and deeper insight in the overall research results.

The two groups were composed of nine individuals each and included: members of citizen groups and local associations, representatives of the borough (‘quartiere’) of Marghera, civil protection volunteers, school teachers and headmasters, union members, and priests. An attempt was made to include representatives of as many as possible stakeholder groups. Contacts established in previous research proved very useful in the



tasks of identifying and involving participants in FG discussions. The groups were convened at a cultural centre in Mestre, which provides the venue for many events.

The agenda was set according to the main PRISP research themes, also taking into account the data generated in the previous phases of the research. It was not a rigid one since the discussion was supposed to be wide-ranging in nature, within a general frame agreed by the three national teams, but with possible adjustments in order to accommodate local peculiarities and to ease the expression of opinions. The discussion in each group lasted for about an hour and a half and was supervised by two researchers. One of the two had the task of introducing the themes and keeping the participants 'on track' if they were to deviate too much from the focus of the exercise. The other acted mainly as an external observer. This arrangement proved very useful in the subsequent phase of data analysis, which the two researchers performed first separately and then jointly, exchanging feedback and subsequently, integrating their observations.

The main points emerging from the FGs discussion on the risks generated by the industrial installations in Porto Marghera are discussed in the following. As mentioned above, the FG participants were requested 'to speak for the community'. They were invited as key witnesses of the local situation, and asked to provide the researchers with feedback on their previous results and new input for further interpretation. The facilitators encouraged the expression of all opinions and judgements in an attempt to achieve an overall picture of the situation, which may include, of course, different perspectives. There was much consensus within and between the two groups. The framing of the meetings within a 'research setting' (as opposed to, e.g. a policy decision setting) certainly contributed to a civilised and non-confrontational discussion. The findings will be analysed within the 'four principles' frame of analysis, and also, in the light of the insights generated from the previous phases of the research (construction of community profiles and survey).<sup>1</sup>

With respect to the chemical risk issue, the community is not a *tabula rasa*. Though official information activities have been quite discontinuous, the perception of impending dangers is never absent. The knowledge of risks derives from different sources, including personal or family experience in factory work. This link is now much weaker than in the past, due to the decrease in employment and the sub-contracting of many tasks to outside firms which hire non-local (including foreign) manpower. The mass media have occasionally contributed to the diffusion of information, mainly in coincidence with accidents or the release of reports from epidemiological studies and judicial inquiries. Moreover, the main source of information remains as the experience, direct or indirect, with different kinds of nuisance, incidents and accidents. Such experience is connected with the proximity to the sites and consequently varies considerably within the community. Those who live close to the installations feel more threatened, but do not have the social skills to take action, as they are often poor and have to face other serious problems of daily living.

Lack of agency, however, seems to be pervasive in the community. In general, the population shows a rather passive attitude of resignation or psychological removal, with the exception of some very specific groups. Such attitude seems to be partially linked to some kind of fatigue or discontent with previous experiences, when the community involvement in risk reduction activities was prompted by local authorities, but never

followed through to completion. Such activities included information campaigns, conferences and training courses, practical drills, etc., in which many resources were invested and (many people feel) dissipated. When talking of resources, the participants do not refer only to money, but also to energy, time, confidence, enthusiasm, and even hope. Such capital, present in the community, was never adequately exploited for enhancing participation. This applies, for example, to a multiplicity of existing associations (cultural, recreational, religious professional, etc.) which could be a vehicle for the promotion of a culture of safety. Also, to retired residents previously working in the industrial area, whose knowledge and understanding of risks may help in emergency planning activities.

As a whole, the local authorities showed a lack of consistency, as they often tackled the issue of chemical risk, but failed to mobilise local resources and promote a culture of safety. This resulted in an incongruent (and consequently, ineffective) message: of urgency of problems on the one hand, and of delay in action on the other. Another incongruity which people perceive is the unbalanced attention, in regulation and practice, to different types of risk, which they instead tend to see as strictly connected. Two distinct discourses on risk emerge, which are common to all the sites considered within the PRISP project [2]. The first can be labelled as ‘acute risks’ and correspond to the off-sites threats posed by explosions, fires, or toxic releases hazards, i.e. the ones associated with the major accident hazards directive. The second, ‘chronic risks’, correspond to contamination/pollution hazards and are mainly associated with health problems, in particular chronic diseases, and cancer.

Risks of the second type seem to pose greater concerns, as risk agents are perceived ‘to be always there’, often undetected and uncontrollable, also due to (past and present) mistakes, incompetence and corruption. The FGs participants insist on the uncertainty about the sources of hazards, the type, extension and severity of possible consequences, the efficacy of safety and restoration measures. When speaking of the soil in Porto Marghera and the waters in the lagoon, they often make comments such as “nobody knows what is there, not even the experts”. Therefore, there is some skepticism about the current decontamination operations, in the context of the re-conversion of parts of the industrial zone.

Residents, with the exception of those living in the close proximity of the sites, tend to consider acute risks as more remote. This attitude is not so much linked to a perceived low probability of the events, as to the conviction that they are likely to be managed on-site by the quick activation of emergency measures. According to FGs participants, there is kind of a ‘superstitious’ attitude in the community (which most of them share), preventing the consideration of worst-case accident scenarios. However, acute risks are seen as possible originators of chronic risks if an accident generates environmental pollution with possible long-term health consequences.

On the border between acute and chronic risks are transport risks which, on the basis of past experience, are perceived as most threatening and not at all unlikely. In this case, it is felt that the community is left with no defense to face acute risks migrating off-site, and then, possibly generating chronic risks. The resources necessary for managing the event are perceived as scarce, not so much in terms of material means, but rather, in terms of competence, availability of precise information and the possibility of

quickly diffusing correct instructions to the exposed population. It is felt that emergency planning is somewhat inadequate in this respect and the emergency and health services are not appropriately trained and equipped.

Those who know about the existing information requirement under the Seveso directive or those who have been exposed to official information campaigns, all point to the incongruity of a legislation and policy that leaves out a significant source of risk. Other instances of incongruity are identified, as in measures for the prevention of different hazards that are mutually contradictory, or in suggested protection measures, which are largely inapplicable in the given social context. The group participants take such cases as illustrations of the alienation of the experts from real world situations. It is felt that input from local residents would assist experts and technicians in the design of more credible and more effective emergency plans.

Inconsistency creates uneasiness and opens the door to mistrust. In the case of Marghera, mistrust seems to manifest itself as lack of confidence in the overall capacity of responsible actors to plan jointly for risk reduction and risk management. Yet, when it comes to single actors, significant distinctions are made. In particular, the municipal civil protection service, with the attached volunteers, is granted large credit for its actions. This positive judgement is usually based on personal knowledge and experience, not necessarily linked to industrial risk. In a way, the local civil protection is the only agency, which has been able to elicit local resources by exploiting social networks for amplifying awareness about risk and safety issues.

Local Seveso type companies are recognised as having their private agenda, but there is no surprise that they resist disclosing information about accidents. It is considered normal that public authorities, rather than private actors, be in charge of alerting the population in case of danger. In other words, people do not trust local companies in this respect, but neither do they think they ought to be trustful. To the contrary, there is much disillusion about public authorities, which ought to protect the citizens. As mentioned above, delays and inaction have significantly eroded the reservoir of trust over the years. Personal trust is granted to single individuals, or sometimes, to coalitions, but not to institutions as such. As to experts, there is no ‘matter of principle’ mistrust, but, as indicated above, their work is considered too abstract, lacking consideration of specific, local contingencies.

## 5. Conclusion

This paper attempts to show how a multi-method approach can best capture the complexity of risk perception processes in specific hazard locations. The use of a wide range of techniques and tools in the PRISP project allowed the researchers to bring to the surface people’s real concerns and needs, also, to capture the social dynamics in which these take shape. The accounts so provided convey the impression of a reality in motion rather than frozen, as in a movie vs. a snapshot. This result is consistent with the PRISP approach, aimed at generating a research ‘learning process’, to be enriched and revitalised at each subsequent step of the investigation. In this view, the researcher does

not only interpret data, but ‘creates’ it through the constant refinement of hypotheses and interpretations. Scientific rigour consists in making explicit this ‘intervention’.

Moreover, in the PRISP project, as well as in others mentioned in this article, the interest in the investigation was not disjoint from possible policy-relevant applications. In the Marghera case in particular, the two were closely linked, due to the protracted involvement of the present author in fieldwork in the community, also in the context of research for emergency planning. The accumulation of findings and experience generated some guiding principles, which proved useful both in the interpretation of fresh data and the provision of recommendations for policy.

It is suggested that such principles can find applications well beyond the given context. The discourses on risk are peculiar to different hazard locations, however, the ways in which they are constructed may present notable similarities. Therefore, insights on how discourses are constructed, i.e. on process rather than outcome, can also cast light across different local realities. In particular, trust, with a significant base in congruence, seems to be a key element in all discourses on risk, across geographical locations. It emerges as the *conditio sine qua non* for any kind of profitable dialogue between stakeholders.

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