

# Information to the public and Major Accident Hazards

## Discussion document

### For Mutual Joint Visit Workshop on Seveso Inspections on Information to the Public (Article 14)

Within European environmental law the right of the public to be provided with information is an important principle. In particular, the requirements of the UN ECE Aarhus Convention has been addressed in various EU Directive, including the Seveso III Directive. When “Information to the public” is referred to in connection with the Seveso III Directive, the first thought of many is of the information according to Article 14, Paragraph 1 and Annex V of the Directive. However, these are not the only aspects of the legislation that require that the public be provided with information or with access to the information. Article 14 itself has further requirements, in particular with respect to upper-tier establishments.

In the following, the requirements to provide information to the public or access to information within the Seveso III Directive are described and analysed. Bearing in mind that the mere provision of information or access to information does not guarantee that the information is provided in an appropriate form or that effective communication is achieved, a discussion of some aspects of risk communication is delivered. Finally, opportunities to improve the communication process are highlighted.

#### Requirements of the Directive

##### Article 14 - Information to the public, and Annex V

<p><i>1. Member States shall ensure that the information referred to in Annex V is permanently available to the public, including electronically. The information shall be kept updated, where necessary, including in the event of modifications covered by Article 11.</i></p>
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With regard to the provisions of Article 14, paragraph 1 one of the significant requirements is that, the information is made permanently available to the public, including electronically. This indicates that the information should be available online on an internet web page. However, it also implies that another media format should also be used. There is no description or indication of what form this permanently available information should take and a variety of solutions have been adopted. These range from notices posted on the fence of the establishment, information being made available in printed form at the gatehouse or information being posted on a village noticeboard, where this is a recognised form of providing information to the public. The electronic provision of information has also taken various forms. In some EU Member States, there a central national website for the Seveso establishments has been set up. Other Member States have decided that the provision of information to the public is purely the responsibility of the operator and that they should publish the information. This has meant that the information is most probably on the web site of the operator, but finding it can be a challenge. Industry associations or other organisations have also provided services for hosting this information, however once again finding the information can prove difficult if its location is not already known.

2. For upper-tier establishments, Member States shall also ensure that:

(a) all persons likely to be affected by a major accident receive regularly and in the most appropriate form, without having to request it, clear and intelligible information on safety measures and requisite behaviour in the event of a major accident;

(b) the safety report is made available to the public upon request subject to Article 22(3); where Article 22(3) applies, an amended report, for instance in the form of a non-technical summary, which shall include at least general information on major-accident hazards and on potential effects on human health and the environment in the event of a major accident, shall be made available;

(c) the inventory of dangerous substances is made available to the public upon request subject to Article 22(3).

The information to be supplied under point (a) of the first subparagraph of this paragraph shall include at least the information referred to in Annex V. That information shall likewise be supplied to all buildings and areas of public use, including schools and hospitals, and to all neighbouring establishments in the case of establishments covered by Article 9. Member States shall ensure that the information is supplied at least every five years and periodically reviewed and where necessary, updated, including in the event of modifications covered by Article 11.

3. Member States shall, with respect to the possibility of a major accident with transboundary effects originating in an upper-tier establishment, provide sufficient information to the potentially affected Member States so that all relevant provisions contained in Articles 12 and 13 and in this Article can be applied, where applicable, by the potentially affected Member States.

4. Where the Member State concerned has decided that an establishment close to the territory of another Member State is incapable of creating a major-accident hazard beyond its boundary for the purposes of Article 12(8) and is not therefore required to produce an external emergency plan under Article 12(1), it shall inform the other Member State of its reasoned decision.

For upper-tier establishments the requirements of paragraph 2 (a) that *all persons likely to be affected by a major accident receive regularly and in the most appropriate form, without having to request it, clear and intelligible information on safety measures and requisite behaviour in the event of a major accident* is a clear and highly specified regulation. In past versions of the Seveso Directives this had become a recognised brochure of behaviour to be adopted in an emergency. This brochure has covered information such as alarm mechanisms, the chemicals potentially involved, and the behaviours to be adopted. Whilst the circle of people likely to be affected by a major accident can be identified through examination of consequence analysis and emergency planning, it becomes more difficult when the most appropriate form of provision of information is considered, and even more so when the requirement of “clear and intelligible information” is viewed.

To what extent do operators of an establishment reflect on:

- Who those people are who are likely to be affected?
- What are their information needs?
- What is the most suitable means of communication?
- What does “clear and intelligible information” mean for this communication task?

The majority of members of the public have not had a university education; do not understand the complexities of chemical reactions, technological systems; do not understand the vocabulary and concepts of risk management particularly well. There appear to be very few examples where a true assessment of the questions listed above has taken place and a targeted form of communication has been devised.

To ensure that the information has been supplied to the public pursuant to Article 14 is one of the express requirements of the Inspection by the competent authorities.

For upper-tier establishments, there is also the requirement that the Safety Report prepared according to Article 10 be made available upon request. There are provisions made to prevent disclosure of sensitive content of the safety report at either at the request of the operator or by decision of the competent authority. In such cases, an amended report with at least general, non-technical content is to be provided. For some establishments the safety report is very large. It may be held in digital form, or be submitted to the authorities as a printed document of numerous files. Maintaining one version of the Safety Report for the authorities to assess and for the establishment's own use, as well as a "public version" without sensitive content is an onerous task. This requires extensive management of the content and detailed knowledge and awareness with regard to which information should be considered sensitive. If this is not well managed then there is the risk that the Safety Report may disclose information which should be held back or that the Safety Report becomes unintelligible and cumbersome to read, because considerable portions are missing. In developing the Safety Report consideration should be given to the way in which the document relates to other official submissions to the authorities, e.g. planning, construction or permitting documents, and the extent to which they are made available to the public. The Member States are tasked with ensuring that these requirements are met. They are however embedded into the national implementation and the framework of other requirements relating to official documents, applications and access to information. In addition, the installations and operations of each establishment must be considered on a case-by-case basis.

An increasing concern regarding the provision of this information to the public is the growing trend for applications and other official submissions to the public authorities to be made available via the internet. This development may signify a growing openness to some, however authorities, operators and the local public must realise that the greatest interest in a Safety Report may not stem from the local community, but rather from less desirable players perhaps on the other side of the world (competitors, industrial espionage, cybercriminal activities, etc.). Thought should be given not only to what is made available, but also to how this should take place.

## Article 15 - Public consultation and participation in decision-making

1. Member States shall ensure that the public concerned is given an early opportunity to give its opinion on specific individual projects relating to:
  - (a) planning for new establishments pursuant to Article 13;
  - (b) significant modifications to establishments under Article 11, where such modifications are subject to obligations provided for in Article 13;
  - (c) new developments around establishments where the siting or developments may increase the risk or consequences of a major accident pursuant to Article 13.
2. With regard to the specific individual projects referred to in paragraph 1, the public shall be informed by public notices or other appropriate means, including electronic media where available, of the following matters early in the procedure for the taking of a decision or, at the latest, as soon as the information can reasonably be provided:
  - (a) the subject of the specific project;
  - (b) where applicable, the fact that a project is subject to a national or transboundary environmental impact assessment or to consultations between Member States in accordance with Article 14(3);
  - (c) details of the competent authority responsible for taking the decision, from which relevant information can be obtained and to which comments or questions can be submitted, and details of the time schedule for transmitting comments or questions;
  - (d) the nature of possible decisions or, where there is one, the draft decision;
  - (e) an indication of the times and places where, or means by which, the relevant information will be made available;
  - (f) details of the arrangements for public participation and consultation made pursuant to paragraph 7 of this Article.
3. With regard to the specific individual projects referred to in paragraph 1, Member States shall ensure that, within appropriate time-frames, the following is made available to the public concerned:
  - (a) in accordance with national legislation, the main reports and advice issued to the competent authority at the time when the public concerned was informed pursuant to paragraph 2;
  - (b) in accordance with the provisions of Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information (17), information other than that referred to in paragraph 2 of this Article which is relevant for the decision in question and which only becomes available after the public concerned was informed in accordance with that paragraph.
4. Member States shall ensure that the public concerned is entitled to express comments and opinions to the competent authority before a decision is taken on a specific individual project as referred to in paragraph 1, and that the results of the consultations held pursuant to paragraph 1 are duly taken into account in the taking of a decision.
5. Member States shall ensure that when the relevant decisions are taken, the competent authority shall make available to the public:
  - (a) the content of the decision and the reasons on which it is based, including any subsequent updates;
  - (b) the results of the consultations held before the decision was taken and an explanation of how they were taken into account in that decision.
6. Where general plans or programmes are being established relating to the matters referred to in points (a) or (c) of paragraph 1, Member States shall ensure that the public is given early and effective opportunities to participate in their preparation and modification or review using the procedures set out in Article 2(2) of Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment (18).

Member States shall identify the public entitled to participate for the purposes of this paragraph, including relevant non-governmental organisations meeting any relevant requirements imposed under national law, such as those promoting environmental protection.

*This paragraph shall not apply to plans and programmes for which a public participation procedure is carried out under Directive 2001/42/EC.*

*7. The detailed arrangements for informing the public and consulting the public concerned shall be determined by the Member States.*

*Reasonable time-frames for the different phases shall be provided, allowing sufficient time for informing the public and for the public concerned to prepare and participate effectively in environmental decision-making subject to the provisions of this Article.*

Article 15 requires that the public is informed and is able to participate in the processes related to Land-Use Planning under Article 13 of the Directive. This can cover new Seveso establishments, significant modifications to Seveso establishments that have an impact on Land-Use planning or certain developments in the vicinity of a Seveso establishment relevant to land-use planning. The processes by which the information and participation are to be carried out depend very much on the individual regulations within the Member States. There are minimum requirements on the information content with an effort to ensure transparency and timeliness of the information and of the decision making process. There is also a clear aim that there should not be duplication of information which is already provided under the requirements of other EU Directives.

## **Article 12 – Emergency Plans**

1. *Member States shall ensure that, for all upper-tier establishments:*
  - (a) *the operator draws up an internal emergency plan for the measures to be taken inside the establishment;*
  - (b) *the operator supplies the necessary information to the competent authority, to enable the latter to draw up external emergency plans;*
  - (c) *the authorities designated for that purpose by the Member State draw up an external emergency plan for the measures to be taken outside the establishment within two years following receipt of the necessary information from the operator pursuant to point (b).*
2. *Operators shall comply with the obligations set out in points (a) and (b) of paragraph 1 within the following time-limits:*
  - (a) *for new establishments, a reasonable period of time prior to the start of operation, or prior to the modifications leading to a change in the inventory of dangerous substances;*
  - (b) *for existing upper-tier establishments, by 1 June 2016 unless the internal emergency plan drawn up under the requirements of national law before that date, and the information contained therein, and the information referred to in point (b) of paragraph 1, complies with this Article and has remained unchanged;*
  - (c) *for other establishments, two years from the date from which this Directive applies to the establishment concerned.*
3. *The emergency plans shall be established with the following objectives:*
  - (a) *containing and controlling incidents so as to minimise the effects, and to limit damage to human health, the environment and property;*
  - (b) *implementing the necessary measures to protect human health and the environment from the effects of major accidents;*
  - (c) *communicating the necessary information to the public and to the services or authorities concerned in the area;*
  - (d) *providing for the restoration and clean-up of the environment following a major accident.*

*Emergency plans shall contain the information set out in Annex IV.*

4. *Member States shall ensure that the internal emergency plans provided for in this Directive are drawn up in consultation with the personnel working inside the establishment, including long-term relevant subcontracted personnel.*

5. Member States shall ensure that the public concerned is given early opportunity to give its opinion on external emergency plans when they are being established or substantially modified.

6. Member States shall ensure that internal and external emergency plans are reviewed, tested, and where necessary updated by the operators and designated authorities respectively at suitable intervals of no longer than three years. The review shall take into account changes occurring in the establishments concerned or within the emergency services concerned, new technical knowledge, and knowledge concerning the response to major accidents.

With regard to external emergency plans, Member States shall take into account the need to facilitate enhanced cooperation in civil protection assistance in major emergencies.

7. Member States shall ensure that emergency plans are put into effect without delay by the operator and, if necessary, by the competent authority designated for this purpose when a major accident occurs, or when an uncontrolled event occurs which by its nature could reasonably be expected to lead to a major accident.

8. The competent authority may decide, giving reasons for their decision, in view of the information contained in the safety report, that the requirement to produce an external emergency plan under paragraph 1 shall not apply.

In paragraph 5 of Article 12 the public is to be given an early opportunity to give its opinion on external emergency plans when they are being established or substantially modified. No further detail is provided on this requirement. The requirement does not describe any requirements that information or the contents of the external emergency plan must be provided in a particular form or be made available in a particular manner. There is no requirement to inform the public that the authority has decided that the requirement to produce an external plan shall not apply.

In paragraph 3 (c) there is the requirement that the emergency plans should be set up with the objective of communicating the necessary information to the public, however there is no direct explicit link between this requirement and the Information to the public provided under Article 14, paragraph 2 (a). In Annex IV Nr. 2 (f) the external plan is required to describe arrangements for providing the public and any neighbouring establishments or sites that fall outside the scope of this Directive in accordance with Article 9 with specific information relating to the accident and the behaviour which should be adopted, however once again there is no mention of Article 14.

It is therefore within the responsibility of the Member States in their implementation of the Seveso III Directive in national to make this connection, and to ensure that consistent information and emergency planning regimes are adopted.

#### **Article 17 - Action to be taken by the competent authority following a major accident**

*Following a major accident, Member States shall require the competent authority to:*

- (a) ensure that any urgent, medium-term and long-term measures which may prove necessary are taken;*
- (b) collect, by inspection, investigation or other appropriate means, the information necessary for a full analysis of the technical, organisational and managerial aspects of the accident;*
- (c) take appropriate action to ensure that the operator takes any necessary remedial measures;*
- (d) make recommendations on future preventive measures; and*
- (e) inform the persons likely to be affected, of the accident which has occurred and, where relevant, of the measures undertaken to mitigate its consequences.*

Article 17 places a requirement on the competent authority, in the event of a major accident, to inform the persons likely to be affected that such an accident has taken place and the relevant measures undertaken to mitigate the consequences. The persons likely to be affected fall into two groups: those within the boundary of the establishment, i.e. the employees and contractors and those outside the boundary of the establishment, i.e. the members of the public in the neighbourhood. For the group of people within the boundary of the establishment it is relatively simple for the authority to identify who they are and to provide the required information in some form or other. For those outside the boundary the situation becomes more complex. The requirement is “likely to be affected”, which means that there does not need to be any absolute burden of proof. It also accepts that there may be those who do not receive information, because they were not identified as belonging to the group of likely affected. However it does mean that the competent authority needs to have some means of identifying that there is an information requirement and ensuring that this is achieved. There is no time frame given in which the information requirement should take place and also no form in which the information should be given. It needs to be considered that for a major accident it may be unclear for several weeks as to what has actually occurred. Some mitigation measures are based around an immediate response with follow-up measures, for example recommendations that fruit and vegetables from local fields and gardens should not be consumed due to potential contamination is often coupled with a sampling and analysis programme, which can take several days or weeks to complete.

Major accidents are relatively rare events. This level of communication needs to be built into the contingency planning to ensure that it is carried out in the event of a major accident occurring.

## Article 16 Operator

*Member States shall ensure that, as soon as practicable following a major accident, the operator shall be required, using the most appropriate means to:*

- (a) inform the competent authority;*
- (b) provide the competent authority with the following information as soon as it becomes available:*
  - i. the circumstances of the accident;*
  - ii. the dangerous substances involved;*
  - iii. the data available for assessing the effects of the accident on human health, the environment and property;*
  - iv. the emergency measures taken;*
- (c) inform the competent authority of the steps envisaged to:*
  - i. mitigate the medium-term and long-term effects of the accident;*
  - ii. prevent any recurrence of such an accident;*
- (d) update the information provided if further investigation reveals additional facts which alter that information or the conclusions drawn.*

The requirement that the operator should inform the competent authority in the event that a major accident occurs and that this information should be updated as the investigation reveals additional facts is an important part of the communication process. The competent authority is not part of the emergency response itself. The requirements of Article 16 are part of an information transfer process. If this step is not successful then it becomes very difficult for competent authorities to carry out their role as required in Article 17.

## Some aspects of risk communication related to major accident hazards

With careful consideration, it becomes apparent that information to the public within the context of the Seveso III Directive is a particular case of risk communication. Communication processes have often, in the past been described using a transmitter-receiver model. Whilst this is a simple analogy, which fits well for describing how information flows from an operator or the competent authority to the public, it does little to show how complex this communication process is or to suggest why the process so often is less effective than it could be.

## Social Amplification of Risk Framework (SARF)

It is difficult to consider information to the public on major accident hazards without also taking note of the concepts of risk perception. There are numerous parameters which can impact the willingness of the public to be receptive to information on hazardous industries and their potential impact on them and their environment. There are not only influences on how receptive the public is, but also on how the received information is translated into understanding. A considerable body of research has been conducted since the late 1980s leading to the theoretical development of the “Social Amplification of Risk Framework” (SARF). This theoretical framework proposes that there are a variety of aspects, independent of the actual risk factor itself, which lead to an amplification or attenuation of the risk perception and effects within the different levels of society as a whole. These effects can then have impacts, for example on the operating company of a hazardous industry. Figure 1 shows the relationships within this framework.

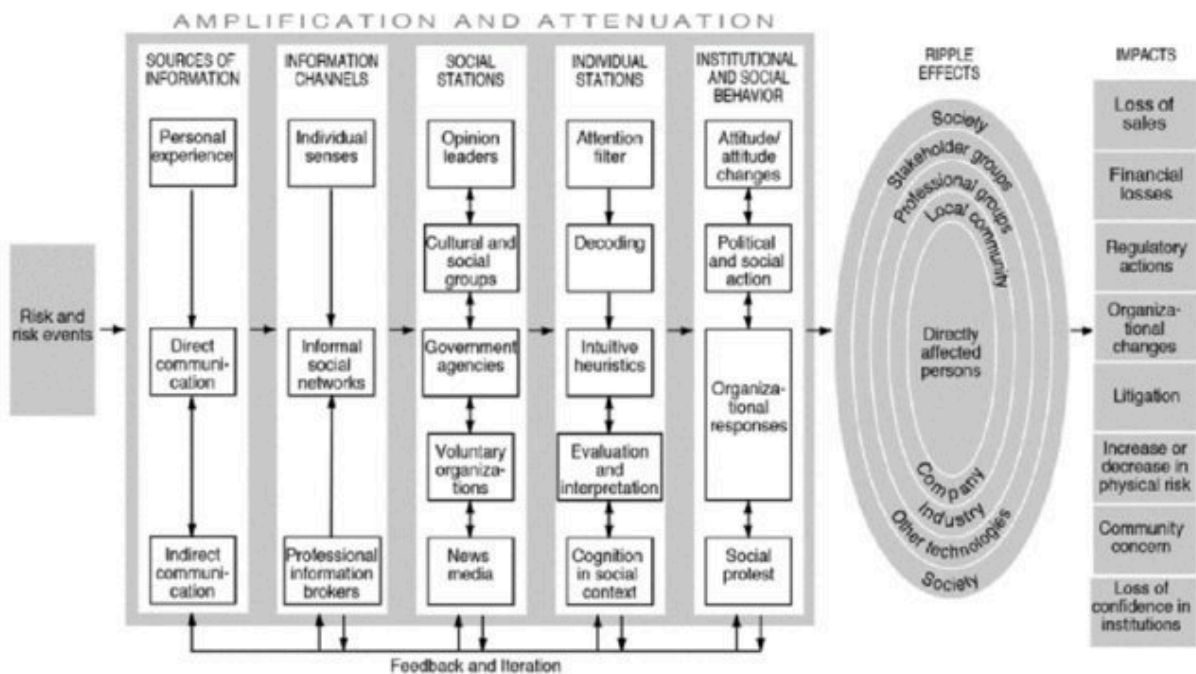


Figure 1 Social Amplification of Risk Framework (Pidgeon, N.; Kasperson, R.E.; Slovic, P. (Eds.) *The Social Amplification of Risk*, (2003) p.14

Recognising that the activity of informing the public is highly affected by risk perception and that this is a complex phenomenon provides a background to understanding why successful communication is difficult, as well as indicating which approaches and strategies could lead to a better outcome.



## Trust

“No matter how well planned or applied, risk communication interventions will fail to enable people at risk to make informed decisions to act to protect their lives, their health, their families and communities against threats if they do not trust the information source.” Source: Communicating risk in public health emergencies, A WHO guideline for emergency risk communication (ERC) policy and practice (2017) – Recommendations A

Within the Social Amplification of Risk Framework (SARF) trust plays a significant role. The passage quoted above indicates how crucial this can be in relation to the management of major accident hazards. Technical risk analysis is based primarily on the identification of hazards, the conceptualisation of how those hazards can develop into scenarios involving the release of hazardous substances with toxic effects, fire or explosion, and an estimate of the probability and magnitude of those impacts. Decision makers within industry and public authorities then base their planning and decisions to manage those risks on these outcomes. However, it is increasingly recognised that the public do not view the risks or the decision-making processes in the same way as the “experts” within industry and the public authorities. This leads to conflicting viewpoints and controversies and can lead to the public rejecting the information from industry and the public authorities, regardless of the accuracy, suitability or quality of the content.

This means that efforts need to be undertaken to develop trust within the potentially affected community, which involve a wide range of stakeholders. It is not sufficient to provide more information or better information. The concept that the public needed to become “better educated” with regard to risks, in particular technological risks has been seen to be flawed. Trust building, with respect to information to the public, should not start with the information. Trust building needs to involve the public and recognise how the “messengers” are perceived, what the public’s concerns are – they risk of a major accident may be only one of a multitude of other concerns which have also not been addressed. In addition the information needs and requirements must be considered. Whilst it must be recognised that it is impossible to address the concerns and needs of every single individual person, there needs to be concerted effort to bridge the gaps. The public must be respected as individuals with their diversity of views. There is a significant emotional aspect to risk communication and the provision of information to the public, which should not be ignored.

## Outrage

Outrage has been defined as the sum of all those aspects that lead to the public’s perception of risk being greater than the risk, which scientific or technical experts would assign to a particular situation. Outrage very often occurs when the concerns of the public are not recognised or not respected. It is about the degree of importance that a community places on particular risks. When outrage exists, there is a real grievance. Outrage may be brought about by (excerpt from Sandman, 2012):

- exposure to the risk is not voluntary
- industrial not natural
- exotic, not familiar
- past failures
- high level of dread, e.g. towards cancer
- catastrophe is a real possibility
- benefits are not distributed fairly

- lack of trust
- secrecy, lack of apologies for past failings, lack of courtesy
- technocratic response instead of compassion.

This means that in dealing with outrage efforts must be made to address what leads to the grievances. This needs to include risk reduction and improved risk management, but it is insufficient to provide risks in very small numbers or charts and graphs and technical explanations.

Failure to address this early on will make dealing with an emergency even more difficult. In such situations where the failures are acutely felt, e.g. flames, black smoke clouds, uncertainty and dread within the local population, it becomes even more necessary to have empathy and to be open, responsive, and respectful of the local community.

### **You can never do enough**

Information to the public should not be seen as a single event. In particular, it should not be seen as merely a legal compliance requirement. Risk communication is a process. This means that the partners, i.e. industry, public authorities and public need to develop and maintain channels of communication which function in both directions. Information that is provided, but offers no opportunity for feedback or questions does not engender trust or support the acceptance of the information.

There have been notable cases where industrial sites have worked with local communities to develop community contact groups that meet with the company on a regular basis. An important feature being that senior management are committed members of this partnership. These groups do not replace the information process or the provision of information itself. They support the process and build a foundation to break down barriers and enable a dialogue to develop so that concerns can be heard and addressed at an early stage, before they become a problem.

### **Opportunities to improve the communication process**

From the information above, there is clearly a need for and there are opportunities to improve the provision of information to the public. The question that is often raised is, must more be done than the legal minimum required. There is no question that there is a need for legal compliance. However, the requirements of the Major Accident Prevention Policy (Article 8, Seveso III Directive) in requiring a commitment to wards continually improving the control of major-accident hazards, and ensuring a high level of protection suggest that “paper compliance” is unlikely to be good enough. In requiring that information is adequate (Annex V, Part 1, No. 5) means that that there should be some reflection on the part of the operator as to the needs and requirements of the public concerned.

Article 20 No. 2 (d) requires the authorities to ensure within their inspection that the information has been supplied to the public pursuant to Article 14. This should therefore mean that the inspector considers whether the requirements have been met. This should mean that not only that the “information transfer” has taken place, but also that the content, appropriate presentation, and adequacy of the information can be demonstrated.

## Literature

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