



# Evaluation of (the use of) the Risicokaart *Summary*

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# 1 Summary

The 'Risicokaart' is a map you can access on line ([www.risicokaart.nl](http://www.risicokaart.nl)) that indicates the site-specific risks for Dutch citizens and companies in their living and working environments. The map is also intended to give authorities the opportunity to communicate better with the general public. For these reasons the map has a public section for the wider public and a private section for government institutions.

In 2013, the King's Commissioners (heads of the Dutch provinces) requested that the Safety and Justice Inspectorate examine the Risicokaart. The Inspectorate concluded at the time that there were flaws in the alignment between the various organisations' activities to establish the map and a (mutually agreed) coherent management. They also determined that details on the Risicokaart are not always correct, complete and/or up to date. According to the Inspectorate, the solution for improving the quality of the Risicokaart is not (yet) down to adjusting laws or regulations, but in providing input for the responsibility of tasks and better alignment between stakeholders in order to achieve clear agreements for establishing and using the map.<sup>1</sup>

This investigation looks at whether the Risicokaart fulfills its original aims. It also investigates what information the various stakeholders require and if the Risicokaart provides that now or could do so in the future. The investigation focuses specifically on risk communication (not on crisis communication), because that is one of the map's functions. Thus this investigation is not a repetition of the inspection in 2013. That is not possible because criteria like completeness and timeliness are not operationalised in the Inspection report. This new investigation does not aim to make a systematic inventory of whether the previous report's recommendations have been followed up by stakeholders (the chairmen of the 25 Dutch security regions, the Association of Netherlands Municipalities and the King's Commissioners).

## Aims, questions and approach

The *aims* of this investigation are:

Evaluate the Risicokaart as a tool to communicate the risks in citizens and companies' living and working environment, also to inform the authorities and services, in order to assess potential areas for improving the map and its use, bearing in mind other developments such as the introduction of the Digitaal Stelsel Omgevingswet (Digital Environment Act or DSO).

The *investigation questions* are:

1. How is the collaboration for the Risicokaart organised among the parties involved such as municipalities, provinces, safety regions and the government?
2. To what extent does the Risicokaart achieve the aims envisaged when it was introduced?

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<sup>1</sup>Inspectie Veiligheid en Justitie (2013), Scan Risicokaart. Onderzoek op hoofdlijnen naar de risicokaart, publication number J-21519.

- a. Who uses the Risicokaart and how frequently? What alternatives are there for the Risicokaart and to what extent are these being utilised and for what purpose?
  - b. For which risks in the living environment has the government used the Risicokaart to communicate with citizens and how frequently?
  - c. To what extent has the quality of the Risicokaart data improved in terms of being complete, accurate and up to date since the Inspectorate's 2013 investigation?
  - d. To what extent does the Risicokaart fulfil the information requirements of the users (citizens, companies, authorities and services)?
3. How does the Risicokaart relate to the Digital Environment Act<sup>2</sup> and its envisaged implementation in the period 2021 to 2024? What impact will the Act have on the Risicokaart and its additional value?
  4. In the users' opinion, in what ways could the Risicokaart be improved regarding the type of data, presentation method and governance, in order to better achieve its aims?

To obtain answers to these *investigation questions* we applied the following methods:

- **Desk study.** This looks at reports and investigations of the Risicokaart (and current legislation) as well as publications on risk communication in general.
- Collection and analysis of **web statistics.** To get a picture of the actual visits to and search behaviour with the Risicokaart, we collated and analysed usage stats.
- There were 18 **interviews** with a wide range of organisations directly or indirectly involved with the Risicokaart (including a programme manager, a controller, users, data suppliers and communication advisors). These discussions provide a more qualitative picture of the preferences and expectations regarding the Risicokaart.
- A **survey** on both the public and private sections of the Risicokaart website in December 2018 asked visitors to state their opinion about the map. A total of 139 people filled in the survey, 92 via the public section and 47 via the private section.

One of the challenges with collating citizens' information requirements about risks, is obtaining a sufficient number of responses. The survey on the Risicokaart website achieved this, providing dozens of reactions. The analysis of the completed questionnaires revealed that a large proportion of the respondents were professionals. This matches our impression from the interviews that the Risicokaart reaches the target group of professionals and a limited number of citizens visits the website. An alternative approach, for example a random sample of a large group of Dutch people, would in our opinion not achieve much better results, because the sample would have to be very large to obtain a sufficient number of respondents who know of the Risicokaart.

## Main findings

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<sup>2</sup>This Act aims to offer a digital service desk where initiators, authorities and stakeholders can see what is allowed in the physical environment. They can also report, request licences and check the rules and policies that apply to a location and details of the surrounding area.

*How is the current collaboration regarding the Risicokaart organised with the parties involved, such as councils, provinces, safety regions and the state? (1)*

The minister of Justice and Security is responsible for the Risicokaart system.<sup>3</sup> Although the provinces and safety regions play an important part in risk communication, the Provincial Executives are responsible for producing and managing a geographical map indicating the current risks in the safety regions, while the various authorities provide the data. The safety regions are responsible for setting up a risk profile to communicate risks at a regional level, thereby utilising the Risicokaart.

There are numerous laws and regulations linked with a wide range of stakeholders. In recent years the responsibilities for the Risicokaart have become more explicit. The King's Commissioners delegated the Provincial Secretaries and under them the Advisory Committee for Supervision and Control (VTH) is contracted to produce and control the Risicokaart. This committee is supported by an interprovincial Risicokaart programme with a programme leader and a team as contractor. There is also a Risicokaart Strategic Consultation for making decisions, consisting of representatives of the IPO, Dutch Municipalities, the ministries of Justice & Security, Infrastructure and the Environment, and the safety regions.

We note that one of the Risicokaart partners, namely the safety regions, do not have a formalised role and are therefore not able to exert much influence on the map. They develop their own initiatives, but thereby do make use of the Risicokaart. The provinces play a smaller role regarding risk communication towards the public, because they are only involved in licences for larger objects (which are also important, but municipalities and safety regions/service are much closer to the public).

*To what extent does the Risicokaart achieve the aims envisaged when it was introduced? (2)*

When the Risicokaart was introduced, it was aimed at both the wider public (increase knowledge of risks, strengthen safety awareness) as well as professional users (exchange information). In our opinion, the substantive public and private parts of the map fulfil these aims, but despite recent improvements, most interviewees find it insufficiently geared to public communication. The map has become a less suitable tool for risk communication, because the information supplied is often incomplete, out of date and static. That is why other authorities, mainly safety regions, are developing their own initiatives (again using the Risicokaart). Although the aims have not changed in the meantime, the emphasis has shifted to professional users. As far as the information exchange between professional users is concerned regarding proaction, prevention and preparation, the map has improved; however, diverse authorities have indicated that other sources need to be consulted to achieve a more complete and up-to-date picture. Not all users are aware of the map's underlying details.

*Who uses the Risicokaart and how frequently? What alternatives are there for the Risicokaart and to what extent are these being utilised and for what purpose? (2a)*

The average number of visitors per month to the public part of the Risicokaart is at least 10,000 (in the period September 2016 to September 2018). The Risicokaart viewer is used an average of 4,000 times a month (between January 2015 and September 2018). Both parts have been used consistently over these periods. Based on the (limited) response to our questionnaire and the discussions, we conclude that many of these visitors are professionals. They visit understandably the private part of the Risicokaart, on average 400

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<sup>3</sup>This means that the minister is responsible for establishing and operating the entire system of fire-fighting, medical services, disaster response and crisis management, as well as the impact on society. In this role the minister is advised about potential bottlenecks in the system.

(unique visitors) a month. This is 3.7 times more a month than visitors to the public part (1.8 times a month). Most visitors download and input data.

Those who visit the public part of the Risicokaart mention alternatives such as the 'Atlas voor de Leefomgeving', overstromik.nl, as well as their own sources and local signalling maps. People use these because the Risicokaart does not give a complete or correct picture, or because other sources are more user-friendly, cover different topics and are also indispensable. Along with the Risicokaart, visitors to the private part make much use of internal information systems and more specialised websites/sources.

*For which risks in the living environment has the government used the Risicokaart to communicate with citizens and how frequently? (2b)*

Based on our (empirical) findings, unfortunately we cannot answer this question. Firstly, numerous authorities use Risicokaart data to communicate with citizens. In many cases this data is presented in their own field/viewer, which makes the link with the Risicokaart less clear. Furthermore, the current map contains 13 risks which the government wishes to communicate with citizens (and safety regions or municipalities can do this at their discretion on their own websites, based on regional risk profiles). Considering the Risicokaart is not permanently available, it is less appropriate to ascertain how often the map is used (although it would be interesting to measure its use in times of crisis).

*To what extent has the quality of the Risicokaart data improved in terms of being complete, accurate and up to date since the Inspectorate's 2013 investigation? (2c)*

Our investigation did not aim to repeat the Inspectorate's investigation. Thus we cannot say in detail to what extent the map is complete, accurate and up to date. What is more, these aspects are not operationalised in the Inspectorate's report, while professionals and citizens may see these aspects in a different light. Obviously we made enquiries (questionnaire and interviews), which provided the following responses:

- The quality of the data (in both the public and private sections) has improved since the Inspectorate's report, but based on our interviews, the quality still seems to be insufficient to consider the Risicokaart as reliable source for communicating risks to the public (while at the same time people often support the idea of a Risicokaart).
- A minority of the survey respondents finds the data in the public section up to date (38%), accurate (23%) and complete (44%). The survey respondents are more positive about the private section: they find the data up to date (54%), accurate (37%) and complete (47%). We cannot, however, compare these percentages with earlier investigations.
- The requisite collaboration between the organisations involved has apparently not improved to such an extent that the validity and reliability of the Risicokaart have increased (up to date, complete). From that perspective, the Risicokaart is of limited use as source of information for professionals and could only be worthwhile for citizens if it was publicised more and the data was better organised.

*To what extent does the Risicokaart fulfil the information requirements of the users (citizens, companies, authorities and services)? (2d)*

Professional users require information especially on:

- Locations of hazardous or vulnerable objects, risk contours, influential areas/safety distances and the degree of risk.
- Dangerous substances and high-risk companies.

- Obtaining an overview of the area and vulnerable objects in times of crisis.

The need for up to date and detailed information greatly depends on the situation. Emergency services require real-time and the most up to date information, whereas policy departments can manage with long term and fewer details. The need for information is driven by the various authorities' legal duties. In our view the Risicokaart cannot possibly fulfill all the information requirements (indeed, providing services with real-time information is not one of the Risicokaart's aims).

Most of the professional users appreciate that the Risicokaart cannot meet all the demands for information (nor was the map intended to do so). They therefore make use of additional sources, for example internal information systems. However, they feel that the information the Risicokaart does offer should be up to date and complete (this is lacking). They would also like to have more information on the dynamics and interaction between high-risk objects, or even better insight in potentially hazardous chain effects.

According to the professional users, to a certain extent the Risicokaart fulfills their need for information, thus underlining the map's objective. It is important to note that the survey was only completed by professionals who visit the Risicokaart (the survey results reveal that some of them dropped out: at least half of the respondents indicate that colleagues have a negative opinion of the map). More than 70% of these respondents say that the map meets their information requirements but has to be combined with other sources. It was clear from the interviews that some users are possibly insufficiently aware of the map's shortcomings.

Visitors to the public section require specific insight in the risks in their own living environment (should be able to control the level of information). A smaller group requires information first and foremost on hazardous substances or greater risks. Roughly half of the respondents find the Risicokaart a good source or a good starting point for seeking information.

Visitors to the public section suggest the following improvements: also provide information on action perspectives, include explanations of the indicated objects, risks and impact, and do more to actively promote the existence of the Risicokaart.

*How does the Risicokaart relate to the Digital Environment Act and its envisaged implementation in the period 2021 to 2024? What impact will the Act have on the use of the Risicokaart and its additional value? (3)*

The Risicokaart makes use of the Risk Hazardous Substances Register (RRGS). This register comes under the Risicokaart's management organisation and is the responsibility of the Ministry of Infrastructure. This register will continue to exist as long as the External Safety Register (Rev) does not fully comply. Thereafter the RRGS will probably disappear. The Risicokaart can then consult the Rev for up to date data; one of the aims of the Rev is that this register serves as portal for parties interested in accessing risk information.

A wider development within the Environmental Act is the Digital Environment Act (DSO), which assumes that all sorts of geographical data will be digitally accessible as map material. This does not just apply to risk data from the Rev, but also details of other types of risks. Within the DSO the term 'safety in the environment' has come to stand for a policy of making the risk information more widely accessible than 'external safety'. It is still not clear what the DSO's scope will be.

The additional value of the Risicokaart depends on how it as well as the DSO develop in the coming years. On the other hand, the Rev will take over from the RGS register, and the DSO

will ensure that the risk data is included in the map material, but it is not yet known what types of risk (depending on the types of disasters) the DSO will cover.

*According to the users, in what ways could the Risicokaart be improved regarding the type of data, presentation method and governance, in order to better achieve its aims? (4)*

Professional users suggest the following:

- Improve the technical aspects of the map and make it more user-friendly.
- More control and better alignment to make the map up to date, reliable and complete.
- More background information on the map in the private section, for example about how far a potential crisis can spread and the applicable rules.
- Integration with other maps.

Users of the public section of the Risicokaart (some of them professionals) want to be able to adjust the level of information and require more details of specific risks.

The information gained from our investigation has led us to put forward five alternative ways for potentially developing the Risicokaart:

- *Alternative 1: Continue with the Risicokaart:* Continue in the same way and achieve incremental improvements aimed at making the current map complete and up to date.
- *Alternative 2: Divide the Risicokaart:* Make a clearer distinction between the target groups professional users and citizens, whereby the sources are identical but the look and feel of the website and applications are better aligned with the needs and preferences of each target group.
- *Alternative 3: The Risicokaart becomes invisible:* As the source files that form the basis of the Risicokaart are being increasingly swallowed up in other organisations' services and initiatives, it is as if the map (at least the geographical application) is becoming invisible.
- *Alternative 4: Abandon the Risicokaart:* Because of its unreliability regarding up to date and complete data, abandon the current Risicokaart. The Ministry of Justice and Safety firstly clarifies how it intends to be responsible for the system. It will have to be clear how the Rev can be developed in collaboration with the DSO.
- *Alternative 5: Develop an (open) data platform:* The Risicokaart is transformed into a platform in which a wide circle of stakeholders can share and (re)use data within a legal framework. The users themselves – also outside the government – are responsible for how they translate data into communication and services for the various target groups.





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