Deliverable 1

Risk assessor database development report; process and major findings

As first step of the "Risk assessment from Policy to Impact Dimension – RAPID" project the project group aimed to establish a thematic network of risk assessors and develop a database where interested users can find information about those who do risk assessment in partner countries. The project working group developed a survey tool (see in Annex I.) which has been translated to each participant country language and used for data collection.

The following report summarizes conduct of the risk assessor survey and major results. Countries are presented according to their order in contract on the project and presentations are followed by summary of major findings and short discussion. The report is divided into two chapters. The first described and discusses the survey process and the second presents and discusses the main findings.

Chapter I. Conduct of risk assessor survey

SDU, Denmark

In order to identify potential candidates eligible for participation in the survey, an initial internet search was conducted using the key words: risk assessment, risk analysis and risk management. From this search 8 organisations were identified. These were contacted by phone and a total of 12 contact persons were identified. Feedbacks from these contact persons as well as personal connections lead to another 14 eligible contact persons.

Questionnaires were sent in to rounds, in November the initial group of 12 contact persons received the questionnaire and in January the additional group of 14 received the questionnaire. At the end of February 2010 14 had filled in a questionnaire.

The overall response rate of the survey was 53.8%; 21.4% (3) of responses came from Governmental institutions, 28.6% (4) from Industrial institutions, 7.1% (1) from a Medical institution, 57.1% (8) from private or other organisations.

SUM, Poland

Issue identification

Risk assessment in Poland is present since 1950s. After joining European Union work protection, health protection and life protection were strictly divided. In general, risk assessment experts in Poland are concentrated in university research groups, economic associations and research-scientific institutions. The biggest spectrum of experts concerns:

- identification and assessment of health hazards from chemicals
- development of a system to prevent adverse health effects
- occupational pathology: principles of early diagnosing, certification and prevention
- pathogenesis, diagnosing and treatment of acute and chronic poisonings
- assessment of biological activity, occupational exposure, and health effects of the exposure to industrial dusts
- assessment of biological activity, occupational exposure, and health effects of the exposure to noise, vibration, and electromagnetic fields, assessment of exposure to radon and its daughter products, X-ray radiation
- physiological, psychological and psychosocial assessment of workload and work hazards
- employee's work ability, development of the principles for assessing candidate's working capacity, assessment of environmental health hazards.
- epidemiological assessment of the health risk associated with the occupational and environmental exposure (health promotion at work, organization of occupational health care, educational programs and training in occupational medicine, work hygiene, and public health.

The risk assessment process is also a tool in financial and economical branches (financial risk management, financial risk assessment, financial risk modeling, risk retention, risk transfer).

Expert's identification

1. Literature review (paper review, conferences reports, legislation acts, textbooks etc.)
2. Web pages review (following descriptors: "risk assessment", "risk management", "risk identification", "risk characterization")
3. Expert's consultation
4. Employment structure analysis of the chosen scientific institutes; list of institutions was chosen both for public and private sectors, central and regional levels.
    - National Institute of Public Health,
    - Institute of Occupational Medicine in Sosnowiec,
    - Nofer Occupational Medicine Institute in Lodź
    - Institute for Ecology of Industrial Areas,
    - Central Institute for Work Protection- National Research Institute
    - Institute of Environmental Protection
    - Central Mining Institute
    - Institute of Agriculture Medicine
    - Universities in: Warsaw, Krakow, Lodz, Poznań, Gdańsk, Wroclaw, Katowice
    - Associations: Polrisk (Polish Association of Risk Assessors)
5. Translation of the questionnaire survey (standardization based on individual translation of three persons).

Methodology

The questionnaire survey was modified to polish law conditions (Personal Data Protection Act). The list of universities (technical, economic, medical), scientific institutes, craft companies was chosen based on expert's opinions (RAPID-Poland consultant). Above mentioned institutions were precisely selected using statistical standards. The main descriptors used in the verification process were 'risk assessment', 'risk management' and other forms of risk analysis present on polish ground. Specialists were divided into following groups:

1. National experts (head directors of the national range scientific institutes: PZH-NIZP, IOS, IMP, CIOP, IETU, KASHUE)
2. Regional experts (specialists from medical, technical and economic universities, head directors of the regional scientific institutes)

3. Managers and cooperates of the regional institutions departments

Above mentioned specialists are engaged in the both national and international projects. Their past activities were significant during European integration process and during implementation of the European Commission directives before European Union enlargement. Data collect process was based on the following steps:

1. e-mail contacts: 142
2. response rate concerning this step was: 25.5%
3. post letters contacts: 25 (followed by telephone contact)
4. response rate based on this way was estimated : 64%
5. interviews: 2
6. response rate was: 100%

Summary (dissemination of results)

56 full-filled questionnaire surveys were collected. Response rate for whole data collection process was estimated on 33% level. The majority of experts accepted data protection conversion process (according to RAPID coordinator suggestions). 49% of the specialists were engaged in the financial risk assessment process, 51% of the surveyed were environmental assessors and 80% were dealing with health risk assessment. The majority of the experts accepted the opportunity of the training course guided by the both national and international representatives.

RUVZ, Slovak Republic

Organization of the survey

RUVZ as one of two RAPID project partners from Slovakia was responsible for conducting of the survey in the public health sector in Slovakia. The main reason for such selection was the fact, that according to the Act. No 355/2007 Coll. on Protection, Support and Development of Public Health, from January 2010 public health authorities in Slovakia (at national and regional level) carry out the evaluation of impacts on public health on national, regional and local level.

Public Health Authority of the Slovak Republic also establishes committees for the examination of professional competence and issues certificates on professional competence for evaluation of health risks from the environment for the purposes of the assessment of their possible impact on health. There was also included “the Health at work services” to the survey as a relatively newly established public health services dealing also with the risk factors and health protection at work. Activities of Health at work services should also contain risk assessment so as a pilot “attempt” at regional level (Košice region) they also were asked to complete the survey tool.

The survey was organized via internet, introductory text with questionnaire were sent to regional public health officers, public health officer of the Slovak republic and to the directors of Health at work services. When it was required by respondents, more information was provided by telephone.

Response rates

Basic information

Total number of institutions contacted	40
Number of institutions responding	23
Response rate	57,5%
Total number of questionnaires received	38*

**Note – altogether 6 public health institutions sent more than 1 completed questionnaire (more information is in next part of this report)*

More detailed information

Number of public health institutions contacted	**37**
Number of public health institutions responding	**22**
Response rate	**59,5%**
Number of Health at work services contacted	**3**
Number of Health at work services responding	**1**
Response rate	**33,3%**

A brief overview of the participants's interest in participating in the RAPID project

Total number of received questionnaires is 38

	Database (participation)		Workshop (participation)	
	yes	**no**	**yes**	**no**
Number	27	11	29	9
%	**71,05**	**28,95**	**76,3**	**23,68**

General comments

a) **Problems with translation of the survey tool (from project partner side).**

Because of the concerns about possible misunderstandings of the literal translation the phrase "public health sciences", we chose the term "public health". It was clear to us that our respondents were practitioners and could have had problem to check the "proper" discipline (question number 1 in the survey tool).

- **Problems in completing the survey tool (from respondents side) - so called "an approach problem"**

Several respondents had problem to handle the survey tool. They were not sure whether they had been expected to complete it as an individual person working at institution, or as a representative of particular department of this institution or as a representative of institution itself. They were advised to take into account their attitude to the process of HIA implementation and their own implementation strategy. In six cases more than one completed survey tool was sent. This is the reason why we have got 38 responses from 23 institutions.

EASP, Spain

The final questionnaire and introductory paragraph elaborated by the whole RAPID team was used but some modifications were introduced to tailor it to our national circumstances. The questionnaire was translated to Spanish taking into account also that some of the categories had to be adjusted to the structure and organization of our health system. We based our dissemination strategy on using key professionals of the National Health System and Spanish Scientific Societies to act not only as respondents but also to fuel participation of their staff and members.

Questionnaire

We found minor elements that could not be well understood in the Spanish context, and therefore it could affect to the final number of reported experts. Risk Assessment (RA) is still not broadly introduced in our country (nor Health Impact Assessment), and many professionals, even in the Public Health sector could not see themselves contributing to this procedure in any extent. However, some of the activities included in the questionnaire are essential competences in Public Health and Public Administration.

On the other hand, the broad dimensions included in the questionnaire (Risk Assessment, Risk Management and Risk Communication) are more related to Risk Analysis framework than to Risk Assessment alone. As an example, Risk Analysis is the bases of EU Food Safety Legislation and professionals will better identified themselves and their work with this approach. According to this, in the cover letter used with the questionnaire, the concept Risk Analysis was added.

The Public Health dimension as a working area was break down in the following subcategories: Food Safety, Epidemiology, Environmental Health, Health Promotion and Others. However, all of them are being reported as Public Health for the RAPID-Data Base.

Dissemination strategy

Spanish scientific societies related to any of the elements of Risk Analysis framework were identified. Specifically we contacted the Directive Board of the following ones:

- Spanish Society of Environmental Health: http://sanidadambiental.com/
- Spanish Society of Food Safety: http://www.sesal.org/
- Spanish Society of Epidemiology. http://www.seepidemiologia.es/
- Spanish Society of Toxicology: http://www.aetox.com/

The number of professionals affiliated to those societies as a whole is higher than 5000 people. We contacted directly the Chief Director and explain the purpose of the project and the questionnaire. The societies used their one mailing list procedure to send to their members our petition. In our point of view, this approach ensured a higher feedback and rate of return.

The questionnaire was also sent to: the Spanish Ministry of Health; Regional Health Authorities (17 ones); and a group of Experts we knew from previous research projects, and by running an Internet survey on articles related to risk assessment topics..

Limitations

Due to the time frame of the project and available resources, it was not possible to run a more exhaustive enquiry. We assume that there must be more professionals working in any of the Risk Analysis dimensions, and more precisely in Risk Assessment in other sectors different from Health. As an example, the new legislation related to authorization, classification and labeling of chemicals (REACH), biocides or the IPPC Directive demand from private companies to report the possible risk for human health associated to their chemical products or industrial activities. However, key informants have reported to us that there is a big gap of knowledge in this matter.

Profile of Experts in Spain

From the results obtained in the present survey, it can be underline the higher rate of response from professionals working in Environmental Health issues at Governmental

Institutions (regional, national or local). Most of them developed their activities framed in the context of Risk Management and Risk Communication. Within Risk Assessment, the major part of professionals is implicated in Hazard identification, followed by hazard characterization and Exposure Assessment. The greatest barriers are in the quantification of risk.

UBB, Romania

On the basis of an internal archive created in late October 2009, we selected approximately 40 institutions with formal mandates in the field of social risk analysis. This was a pilot activity, with more institutions to follow according to internal lessons learned and methodological adaptations.

The sampling method is a mixed one: theory-driven, problem-based and probabilistic. The sampling levels are national, regional (according to the current division by development regions) and county (multi-stage approach).

The national sampling universe was firstly grouped thematically according to the project document and particularly the demand for relying on the principle of theoretical and methodological subsidiarity. The thematic clusters were:

- Environment
- Economy
- Culture, civil society and public communication
- Medical system
- Public Administration and Political System

In operational terms, for the first wave of the survey / inventory process, the weighing of these clusters will be done, in line with current theoretical frameworks in public health and social risk analysis, as follows:

- Environment: 13 %
- Economy: 22 %
- Culture, civil society and public communication: 15 %
- Medical system: 28 %
- Public Administration and Political System: 20 %

From the institutions grouped according to these principles, the most representative were selected by the national research team based on its previous literature review).

Model for sampling list

1. Environment: 6 sampling elements

National level

- Environment Ministry
- Environment Guard headquarters
- One non-governmental organisation

Regional level

- Environmental protection agency
- One non-governmental organisation

County level

- Environmental Direction in the Local County of the Municipality of Cluj-Napoca

2. Economy: 10 sampling elements

National level

- Ministry of the Economy
- Ministry of Transport, Construction and Tourism
- A private company from the top 10 quoted at the Romanian Stock Exchange

Regional level

- Agency for Development North-West
- One company each from the top 20 at the level of 3 developmental regions

County level

- 3 private companies from amongst the first 20 at the level of the Cluj county.

3. Culture, civil society and public communication: 7 sampling elements

National level

- Ministry of Education and Research
- The Institute for the Research of the Quality of Life
- The Institute of Sociology of the Romanian Academy
- The Faculty of Sociology and Social Work of the University of Bucharest
- 1 national journal from amongst the first 3 one in terms of online traffic

Regional level

- 1 regional portal based in the Municipality of Cluj-Napoca

County level

- Direction of Communication and Public Relations of the Local Council of the Municipality of Cluj-Napoca

4. Medical system: 13 sampling elements

National level

- Ministry of Health or the National Intervention Committee regarding Pandemias, or similar institutions associated with the Ministry of Health, for example the National Institute for Research and Development for Microbiology and Immunology „Cantacuzino")
- National School for Public Health and Health Services Management, Bucharest

Regional level

- 4 Institute of Public Health

County level

- 3 Public Health Directions based in the residences of the Regional Development Agencies
- 4 hospitals with regional coverage, starting from the developmental regions not covered by the above item

5. Public Administration and Political System: 9 sampling elements

National level

- Presidential Administration
- National Agency for Governmental Strategies

Regional level

- N/A

County level

- 7 County Councils based in the residences of Regional Development Agencies

Research process and methods

We originally planned to assign methods by levels of analysis. Yet no semi-structured interviews were performed, despite original openings being realised through preliminary discussions. Conversely, exploratory content analysis through quick surveys of online mass-media proved to generate more material than expected.

<table>
<tr><th>Level</th><th colspan="2">Research methods</th></tr>
<tr><td>Central public agencies</td><td rowspan="3">Direct interviews

Internet-based analysis</td><td rowspan="3">Documentary analysis

Telephone interviews</td></tr>
<tr><td>County level public agencies</td></tr>
<tr><td>Private sector</td></tr>
</table>

It should be mentioned that, apart from conceptual and methodological challenges, resource management proved to be more stressful than originally thought. The recruitment of the lead researcher took around half a year to complete, much longer than anyone would have expected. Yet, thanks to dedicated team efforts and a number of sleepless week-ends, the project could be said to have been brought in line with original expectations in mid-December.
In mid-January 2010, more than 100 institutions have been recorded in the SharePoint database, following the strict observance of our multi-sector stratified sampling methodology. An important part of them confirmed their intention to participate in the project's workshops. The response rate was more positive than we had originally expected (more than half, with another quarter postponing their answer or soliciting the application of the questionnaire through email). The no answer rates were almost equal for public and private actors.

We estimate that an important incentive for respondents has been the mentioning of the planned workshops at which other actors would participate to exchange their experiences as well. The biggest challenges to data collection were represented by the simultaneous building of the research team, the provision of training for research staff and the pressure for rapid data collection to keep in line with the requirements of the project, all taking place during a relatively tense electoral period held at the end of the year.

IVZ RS, Slovenia

First we had to translate the questionnaire into Slovenian language. Then we sent it together with formal invitational letter to 24 different institutions - health institutes, research institutions, faculties. We found their addresses on the Internet.

In formal invitational letter we explained that we take part in RAPID project group and what is the purpose of that project. In near future we intend to organize different kind of meetings and workgroups to educate the stakeholders about influences of legislation, planned projects of interventions on different determinants of health. We ask them if they could fill in the questionnaire in attachment and if they are interested in cooperation later on.

We got 13 responses (more than 50 % response rate):

- 6 medical institutions (regional institutes of public health)
- 4 private institutions
- 2 university institutes
- 1 independent, non-profit organization

CNR-IFC CNR, Italy

Country background

Italy is one of the larger European Country with a total population of more than 60 million inhabitants with a complex network of Public Bodies operating in the research field, supported by almost ninety universities carrying out independent and co-funded research. Many subjects of this network are involved in risks evaluation and management, although often without integrating and coordinating each other into a single framework. The private sector also contributes to the risk analysis with independent research or with technical support for public sector. The operational strategy after detailed, has been adopted in order to be aware of location and characteristics of professionals and most renowned experts on risk assessment, risk management, and risk communication, operating in the network.

Rational

In order to include professionals from job sectors mentioned in the survey tool, we planned to contact subjects from a nationwide list built for this purpose, by email.

At first it was asked people's interest in the survey, completing a request of personal identification data. In case of a limited number of interested subjects, collected questionnaire could easily be manually uploaded in the main RAPID data base; on the contrary a higher number would have required a specific access key to connect to the central database, in order to allow upload of questionnaires by respondents themselves. A limited number of respondents has determined the manual entry of questionnaires into the central database by IFC-CNR Rapid staff.

Process of data collection

An Internet search was performed with different combinations of the following terms: Health, Environment, Public Policy, Governance, Risk, Evaluation, Assessment, Management, Communication. Organizations which match searching criteria, as well as the network of dependencies and of cooperation between them are the output of this search (figure 1). A half-time person working for one week was employed to find out and validate the completeness of the list of selected subjects and their respective web addresses.

From a specific RAPID account an e-mail was sent to the chief offices of all relevant departments, offices and operational units carrying out risk management, assessment and communication (e.g. Presidents' Secretaries, Directors of Departments, Departments of Public Relations). A large number of erroneous users/domains in the email addresses was signalled, causing document delivery failures for some of the contacts and of subgroups with same domain. A portion of those target subjects were recovered after a validation of addresses.

Three subjects of the team have independently validated an introductory text that briefly describes the project (funding, partners and goals) and makes a request for information dissemination to subordinate units potentially involved. A web link for is also provided for individual registration and to access to the questionnaire. The compilation of individual details and confirmation of interest, to join the database construction phase and future seminars, are required in order to receive the questionnaire (Fig. 2). Additional project information are

downloadable in a pdf file (an adapted and translated version of the Project Brochure) clicking the link provided.

The outputs of the online registration are the automatic building of a users database and the automatic reply with the questionnaire attached in doc format, to be returned to a displayed address. Two kinds of users have been recognised from recording: people with a generic interest in the project, which did not have compiled the questionnaire but confirmed their interest for seminars, and those who registered and also compiled the questionnaire. Thus we finally received 33 subscriptions and 24 questionnaires. New users registrations have been signalled by a message on RAPID email account in the overall period from 12 October 2009 till the end of January 2010.

Response rates

Personal email addresses were not available on the web for the government departments (Ministries Divisions, Armed Forces Specialized Divisions, Civil Protection Departments), mainly for privacy issues. To overcome such a difficulty, telephone calls to secretariats were done, encountering difficulties to speak directly with an operator. The main national associations of professionals have also been called directly (contact persons: presidents, vice-presidents, secretaries..) to ask a contribute in disseminating the Rapid request by their own subscription lists. NGOs were excluded from the mailing list as their major experts consultant are also included in the organizations already mentioned.

The failure rate[1] in email delivering turned out higher than expected (32% failure out of total addresses) and a registered subjects final modest number was obtained. Nevertheless, the adopted protocol allowed to include at least one representative by each categories between those in figure 1. Considering excluded categories and undelivered email, the overall response rate was approximately 11%, allocated in different groups as shown after in the descriptive table.

[1] Principal reasons:

- Illegal host/domain name found
- Remote SMTP server has rejected address
- Mailbox full
- No mailbox by that name

Category	*N° respondents*
Academy	*2*
Research	*3*
Agencies/N.H.S. Depts/Institutes	*20*
Local government authorities	*5*
Private advisor	*1*
Total	***35***

The distribution of responses to the questionnaire, summarized in figure 3 shows a major involvement of medical and government organizations, of experts from public health sciences, which focus on risk characterization and management at the project level.

Problems and discussion

In some cases the leading departments in risk evaluation (mainly from Academies, NHS, and institutional research centres) did not joined the request in the email, as well as some major experts. We expected to recover a fair amount of contacts through direct calling at secretaries, experts or referents of the main professional associations. This expectation did not materialize, resulting conclusively useful to consider the integration of multiple methods (generic mail, telephone contact, private communication) for the collection of questionnaires.

An initial registration was required with the aim to allow access to the questionnaire only to those involved in risk assessment and interested to participate in the survey. This one more step might have contributed to a lower than expected number of questionnaires collected. Was also sent a reminder to those who were registered and had not sent the questionnaire.

Regarding a possible misinterpretation of the terminology used in the questionnaire, in only one case a clarification has been requested. In this case we were asked whether an expert in risk management at a clinical laboratory could participate in the survey, while it has been noticed that the questionnaires were sent mainly by local healthcare departments and also by local environmental agencies.

Pros and cons of the strategy

The described process of risk assessors identification had in the aim to avoid a geographical selection bias as well as a selection conditioned by affiliation or by the expert's reputation (Fig. 4). Before starting the process, a computer engineer assessed the feasibility of basing the survey on a computerized communication method, by creating a web site RAPID on the Institute website and activating an email address for RAPID on a personal computer, in use by the staff. An advantage in management and collection of questionnaires is the creation of a dynamic web space for registration, that remains open until the deadline for questionnaire collection. The administrator of the RAPID web page can read the personal details of registered people in an updated list, and store the respective questionnaires as they appear on the Rapid address. Future communications to participants are then possible for the RAPID aims.

On the other hand the request to spread information on Rapid Survey through the mailing list, has the disadvantage of relying on the availability, sensitivity, diligence of those who must forward the notice to potential interested departments/experts. The integration with contacts in the personal agenda of the Rapid collaborators has then been needed, as well as (in some cases) targeted phone calls. Furthermore, due to limited reliability of the addresses recovered by the web, a validation procedure of addresses and a second email sending have been carried out, not being planned.

Fig. 1. Involved subjects matching search criteria.

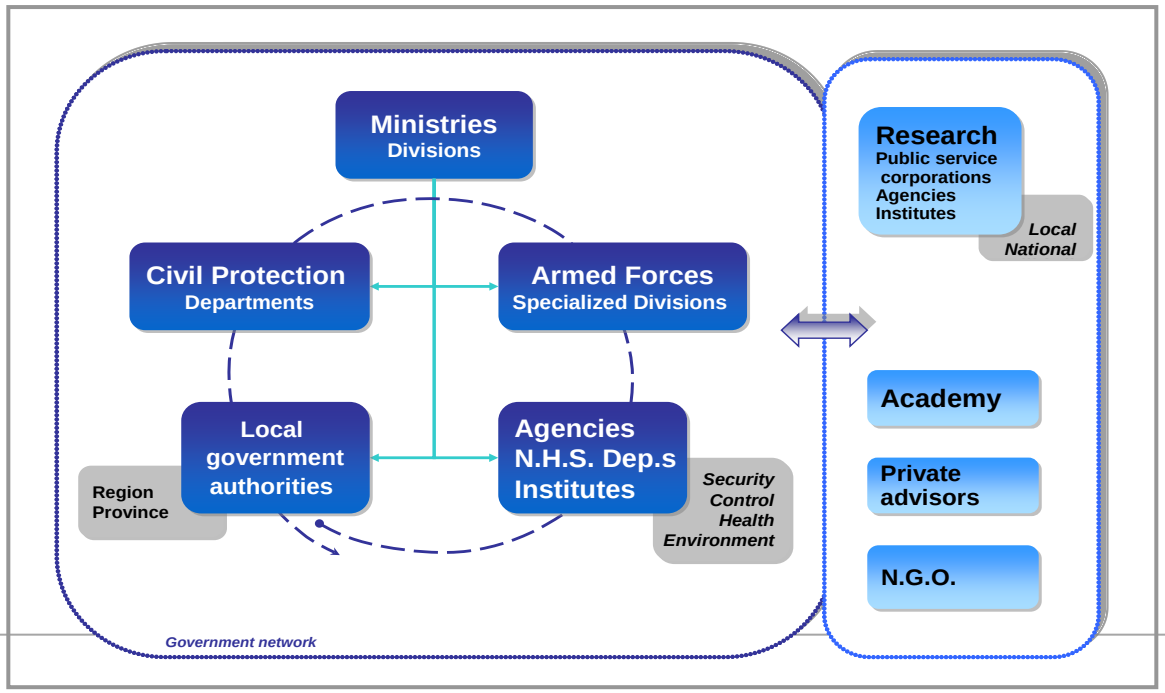


Fig. 2. First contact web page at web address: http://ermete.ifc.cnr.it/rapidproject/.

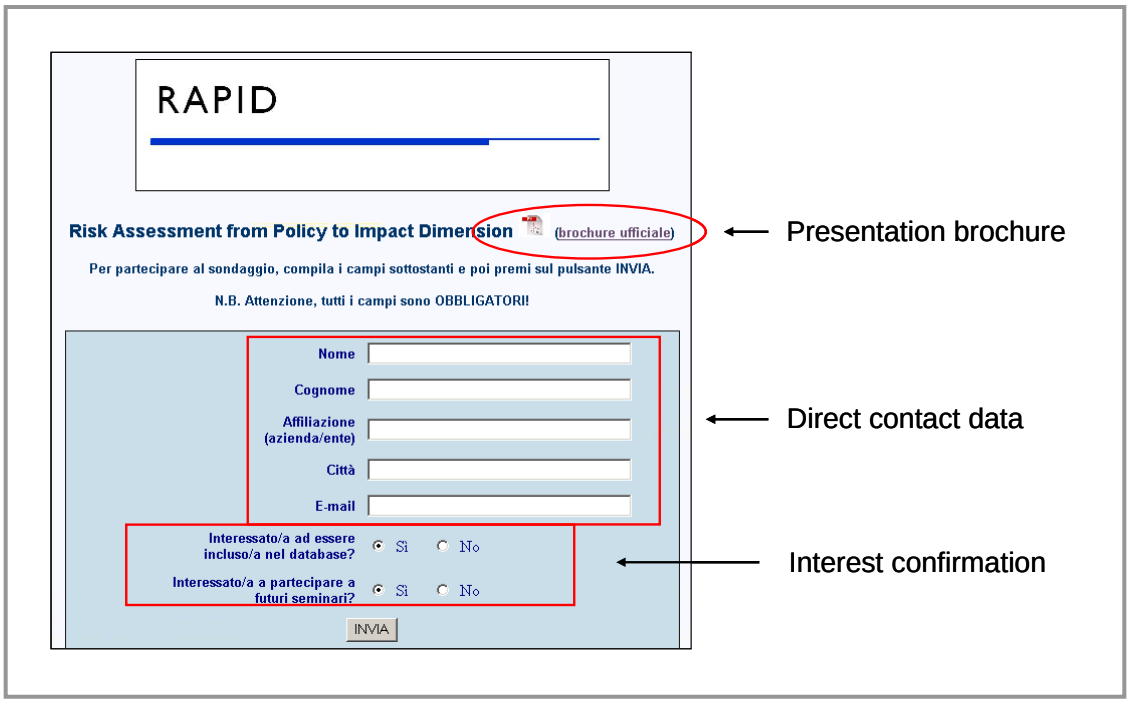


Fig. 3. Results from questionnaire, Italian partner.

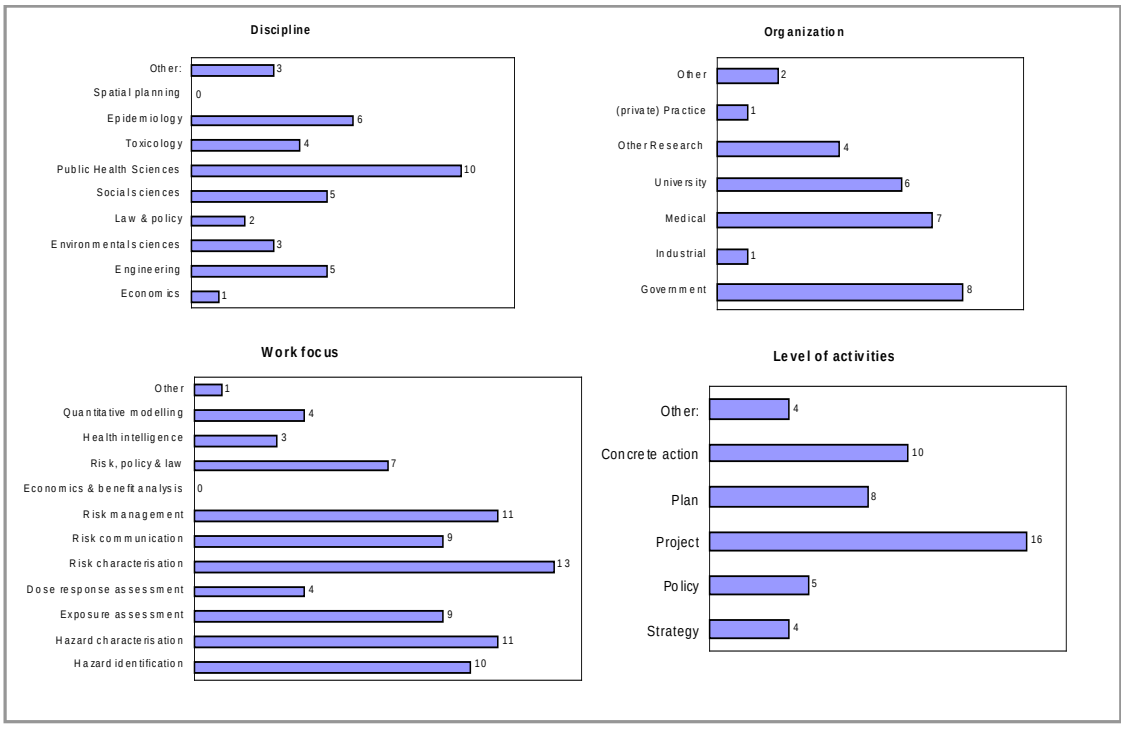


Fig. 4. Geographic distribution of respondents, Italian partner.

TRU, Slovakia

Background

The survey has been conducted within the Work package 1 of the project. The goal was to explore the availability of capacities in all stages or components of risk assessment in Slovakia. This data will serve for a broader description of the situation in the countries present in the consortium of the project. The standard unified questionnaire was used to collect information. The questionnaire has been created within the project based on the identified needs for specific information. The original version provided by the work package coordinator was translated from English to Slovakian language.

Methodology

First, identification of fields in Slovakia where risk assessment or its parts could be used within various activities or processes was performed. After identification we explored the fields of business or research in terms of existing concrete enterprises, organizations or other entities. Next, we have contacted the identified entities and found out whether they used risk assessment or its parts within their regular duties or business as a tool. If identified, concrete persons were contacted by phone and asked for completing the questionnaire which will be sent to them via email. If after the sent email we did not see a response within one week, another phone call was made to remind the person his/her participation. If there was no response after the reminder, we considered this person as not responding to our survey. Information from all questionnaires which we have received completed were input using the online form at the Sharepoint site of this project according to the instructions in this section of the site.

Results summary

Two fields were identified within the survey as potentially implementing risk assessment or its part. First, Environmental Impact Assessment (EIA) and second, Occupational Health Services were identified as such fields.

As to EIA – according to the legislation in Slovakia every person conducting EIA must own a valid certificate granted to him by the responsible governmental agency. We identified a list of experts with such a certificate and contacted them according to the methodology stated above. Out of 11 persons identified, all were contacted and 5 responded to our survey (response rate of 45%).

In the Occupational Health Services group – such a business requires again according to the legislation a certificate issued by the respective governmental authorities. Out of 68 identified Occupational Health Services we have succeeded to get in touch with 38 and we had a response from 15 of them. This gives a response rate of 40%.

Additionally one person from the academic field has been identified.

The total number of completed questionnaires input to the database was 21.

UD MHSC, Hungary

The potential candidates to be enrolled into a list of Hungarian risk assessors have been looked for using previous experiments and personal connections of the HIA workgroup, as well as Internet search with key words: risk appraisal, risk assessment, risk management, risk perception, risk communication, impact assessment. On-line databases and directories with comprehensive information on enterprises, companies operating in the health/environment/engineering/labour/safety/construction and other related sectors were also searched. Public company information system of the Ministry of Justice and Law Enforcement was used to check current status and activity of private companies in order to ensure the validity of target group of the survey.

Altogether 137 organisations have been identified as potential and contactable targets for data collection, among them 13 national institutions (ministries, inspectorates, services, etc.), 16 academic institutes (university faculties and departments) and 108 private companies involved either in health impact assessment, environmental impact assessment or occupational health and safety.

It has been agreed upon to use email to make contact and send the questionnaire attached in electronic form considering the large number of targets and the ease of implementation. Only one feedback has been received indicating difficulty to use this way of information exchange.

Questionnaires have been sent out in October and 18 answers were received till the end of 2009. Considering the low response rate, the process was repeated in the beginning of 2010 by giving our appreciation to the repliers and asking the others for contribution. The second round resulted in an additional 13 reply.

The overall response rate of the survey was 22.6%, 6 national institutions (46%), 5 academic institutes (31%) and 20 private companies (5.4%) have responded to our initiation. The relatively low response rate is mostly due to the few replying companies; however, that phenomenon can be reasoned by the large-scale, to some extent too excessive, survey of the

market. Those private actors of the Hungarian risk assessment business whom our HIA workgroup has ever come into work contact with are well represented among responders. As a summary, the survey resulted in a list of risk assessors that includes the most important professional organisations of risk assessment in Hungary.

LIGA.NRW, Germany

Process of collection

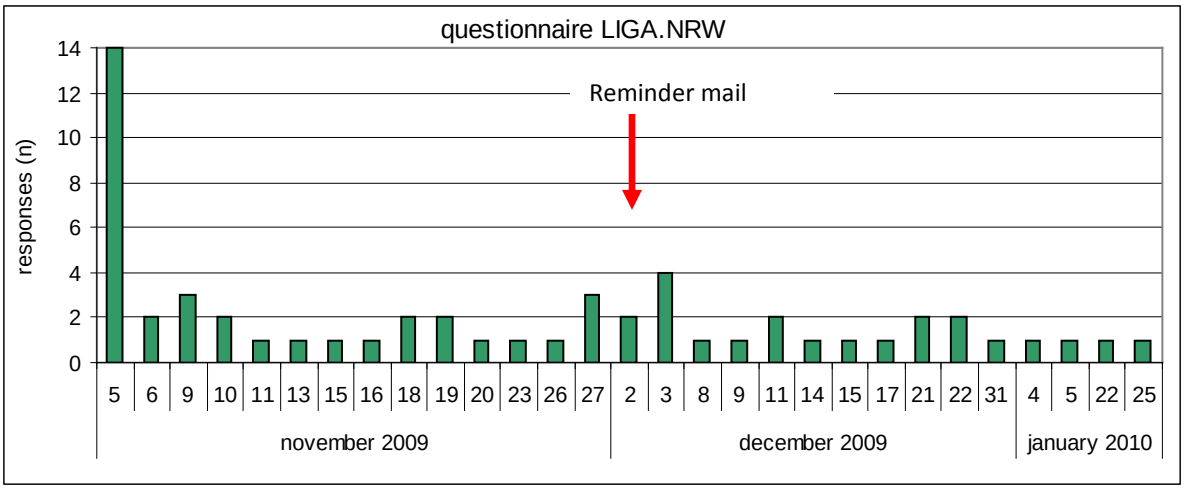
During September and October 2009 the survey was translated into German language by LIGA.NRW. In addition, the letter and glossary was slightly adapted to the German situation: general information on HIA was added and the objectives of risk assessment methodology development were described in detail. At the same time email-addresses of about 230 experts were collected. Doing this, we used different strategies:

1) use of existing mailing-lists of working groups in the field of risk assessment: WG Human Health (in cooperation with German EIA Society); German WG on probabilistic exposure and risk analysis; German members of the Society for Risk Analysis
2) involvement of other state institutes for health, and the federal health authorities
3) web-based search for experts in the field of risk assessment
4) as we in LIGA.NRW already had decided on our RAPID policy and RAPID health outcomes, we searched for experts on topics of our interest (housing and traffic) in addition.

On November 4, 2009 we sent out the survey by email including the letter as email body text and in addition letter and questionnaire as a word document. After 4 weeks we sent a reminder mail (December 2, 2009).

Response rates

57 completed survey-questionnaires were sent back to us until the 31 January (35 responses until 2 December).



Problems/Discussion with survey participants

We received a small number of queries from survey participants (per telephone call and per email). Only one survey-participant refused joining the database. One respondent reported difficulties to choose his fields of work. A few respondents raised questions about the ownership and access rights of the database in the future. A general problem of this survey seems to be that many persons hesitate to claim risk assessment expert status because they do not see themselves explicitly as risk assessors. Beyond the chemical sciences, the concept of risk assessment seems to be not very established.

VASC, Lithuania

Only numerical evaluation provided, see tables.

DOHM, Malta

Malta did not conduct the survey due to drop –out negotiations caused by public official status and financial consequences of it.

Discussion of data collection process

Understanding of risk assessment process both related to definitions and language, selection of respondents and response rates are key issues to discuss with regard the process of data collection.

While developing the survey tool definition of risk assessment, relations of risk assessment, management, governance, communication, perception and other terms came up as important to discuss and agree upon. All of them do differ by countries influenced by different public health and health cultures. These differences are further deepened by language differences in countries.

Individual meetings, knowledge of stakeholders, membership in different national associations and knowledge of national public health systems were key resources used to identify potential survey respondents in partner countries. The understanding and language issue has influenced response rate which varies from 25% to 100%across countries and different audiences.

The Italian partner, while running tasks finalised to coordination of WP7, has had the opportunity to deepen some of the topics listed for discussion (selection of respondents, definition of relevant terminology, identification of potential survey respondents), through an exchange of information with an Italian research group of the European project “Risk Asset’s”. They are carrying out a survey on training courses for Risk Assessors already working in Italy. A common problem has been highlighted concerning the confusion between risk analysis and assessment. Clarify this misunderstanding is essential to outline a program of "training" for risk assessors and the public suitable for courses.

Some inputs to answer the question about the relation between public health - toxicology - epidemiology - that is: “Is it possible to do Risk Assessment in public health but not toxicology and epidemiology?”, have been collected by an initial search for projects on risk assessment

financed by the European community. The parent project about this issue concerns the description of schemes available for training of risk assessors (courses, master, workshops).[2]

At presents results of the project show two "main lines" at opposite ends for training scheme, as exemplified by the scheme adopted in the two courses below. A master for **public officers** (in London) where the skills and knowledge required are minimal, and it is suffice a link of the working issues with the proposed content; and a master of science that requires a **high profile expertise** (in Milan). The first aims to acquire knowledge in analysis, management and communication of risk, the second is aimed at acquiring detailed knowledge of risk assessment as well as on general knowledge in management and analysis of risk.

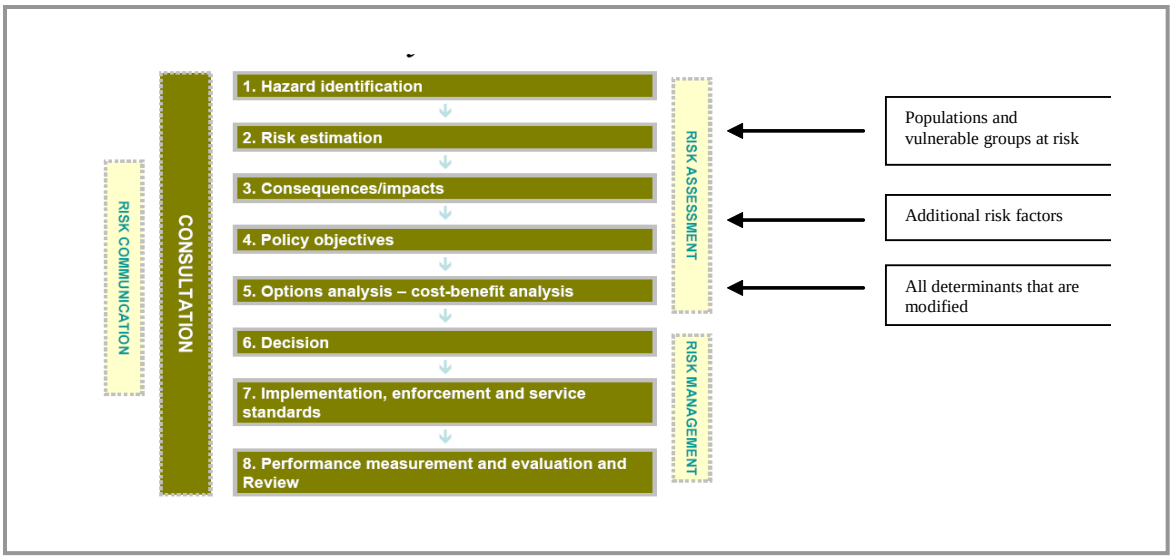
A third option is based on a one-day seminar training scheme, with low entry requirements and **heterogeneous audience**, aimed at acquiring skills for decision making in the environmental sector.

It is then possible to argue that if the risks considered are mainly linked to: toxicity and eco-toxicity of chemical, bio-chemical and biological compounds, occupational exposure to chemicals, biological compounds, the approach of training scheme for risk assessors is not suitable for a communication aiming to explain and practice a full chain risk assessment methodologies.

It looks better an audience composed primarily of those involved in risk management and secondly by those interested in risk communication aspects, with a final goal to be competent for judging the risks rather than estimate them (e.g. scientific factors go under experts assessment). The diagram below explains this starting view.

[2] Risk Assessment training schemes of relevance to the work of the non-food scientific committees established by Commission decision 2004/210/EC.
http://ec.europa.eu/health/ph_risk/documents/risk_rd02_en.pdf

Figure 1. Risk Analysis Guidance (Source: European commission. Brussels, Conference on risk assessment, 2008). “Full chain” additional elements on the right.



Annex I. The survey tool

Survey tool (Database RAPID)

1. In which area do you work?

a) discipline (check at least one)

Economics ☐
Engineering ☐
Environmental sciences ☐
Law & policy ☐
Social sciences ☐
Public Health Sciences ☐
Toxicology ☐
Epidemiology ☐
Spatial planning ☐
Other:

_____

b) type of organisation (check at least one)

Government ☐
Industrial ☐
Medical ☐
University ☐
Other Research ☐
(private) Practice ☐
Other:

_____

2. What is your research / work focus within (policy) risk assessment? *(check at least one)*

Hazard identification ☐
Hazard characterisation ☐
Exposure assessment ☐
Dose response assessment ☐
Risk characterisation ☐
Risk communication ☐
Risk management ☐
Economics & benefit analysis ☐
Risk, policy & law ☐
Health intelligence ☐
Quantitative modelling ☐
Other:

_____

3. On which level of documentation do you do these activities? *(check at least one)*

Strategy ☐
Policy ☐
Project ☐
Plan ☐
Concrete action ☐
Other level, please specify _____

4. Please mention some relevant references and / or projects

_____

_____

_____

I am /we are interested to be included in database ☐
I am / we are interested to participate in workshop ☐

Definitions

Risk assessment:

- In accordance with internationally accepted definitions, risk assessment is one of the three components of risk, the others being risk management and risk communication. Risk assessment is a scientifically based process comprising four steps: hazard identification, hazard characterisation, exposure assessment and risk characterisation.
  Within the Commission there is a functional separation between risk assessment and risk management. This is essential in order to protect the scientific integrity of the risk assessment process and to ensure an appropriate balance of the various factors that affect risk management choices. http://ec.europa.eu/health/ph_risk/risk_assess_en.htm
- Risk assessment is the determination of quantitative or qualitative value of risk related to a concrete situation and a recognized threat (also called hazard). In the context of public health, risk assessment is the process of quantifying the probability of a harmful effect to individuals or populations from certain human activities.
  http://en.wikipedia.org/wiki/Risk_assessment

Risk Communication:

- Risk Communication means the interactive exchange of information and opinions throughout the risk analysis process as regards hazards and risks, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, businesses, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions.
  http://ec.europa.eu/health/ph_risk/risk_com_en.htm
- The National Research Council (1989) defined risk communication as "...an integrative process of exchange of information and opinions among individuals, groups, and institutions; often involves multiple messages about the nature of the risk or expressing

concerns, opinions, or reactions to risk messages or to the legal and institutional arrangements for risk management." http://www.va.gov/wriisc-dc/risk/definition.asp

- Activities to ensure that messages and strategies designed to prevent exposure, adverse human health effects, and diminished quality of life are effectively communicated to the public. As part of a broader prevention strategy, risk communication supports education efforts by promoting public awareness, increasing knowledge, and motivating individuals to take action to reduce their exposure to hazardous substances.http://www.ci.emeryville.ca.us/bf/pp-appendix-d.html

Risk management

- Risk Management means the process, distinct from risk assessment, of weighing policy alternatives in consultation with interested parties, considering risk assessment and other legitimate factors, and if need be, selecting appropriate prevention and control options. http://ec.europa.eu/health/ph_risk/risk_man_en.htm
- The process of identifying, evaluating, selecting, and implementing actions to reduce risk to human health and to ecosystems. The goal of risk management is scientifically sound, cost-effective, integrated actions that reduce or prevent risks while taking into account social, cultural, ethical, political, and legal considerations http://www.riskworld.com/Nreports/1997/risk-rpt/volume2/html/v2epa1.htm

Chapter II. Main findings of the Risk assessor survey

Presented results reflect the status of risk assessor survey at March 1st, 2010.

Doing risk assessment within pre-defined disciplines by partner country, absolute numbers

N (% in some cases)	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania
Economics	1	1	4	2	1	1	5	6	15	1
Engineering	5	9	3	5	4	5	18	10	14	1
Environment	3	4	6	3	8	9	22	16	16	4
Law & policy	2 (4.1%)	2 (14.2%)	3 (23%)	2 (3.4%)	0 (0)	3 (3.75%)	13 (11.4%)	0 (0)	1 (1.8%)	2 (13.3%)
Social science	5	0	2	0	1	2	6	9	4	0
Public health	10	1	7	52	5	59	22	27	15	12
Toxicology	4	0	1	3	3	9	2	10	13	1
Epidemiology	6	0	2	7	2	9	6	16	3	4
Spatial planning	0	0	1	0	1	0	2	5	1	2
Other	4	2	0	1	4	2	32	11	9	0
Total number of responses	24	14	13	59	18	80	114	58	54	15

The total number of responses is not necessary the sum of positive responses for each discipline.

Main area of work by partner country, absolute numbers

N (% in some cases)	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania
Government	6	3	0	38	2	58	68	23	10	9
Industry	1	4	0	1	4	3	18	2	3	0
Medicine	7	1	7	31	3	9	32	9	7	2
University	6	0	1	3	4	10	3	23	17	1
Other research	4	0	1	2	1	6	4	3	30	0
Private business	1	4	2	8	5	2	5	5	5	0
Other	3	4	3	1	2	1	1	5	8	4
Total number of responses	24	14	13	59	18	80	114	58	54	15

Work focus of risk assessors by partner country, absolute numbers

N (% in some cases)	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania
Hazard identification	9	5	7	32	12	53	70	28	45	2
Hazard characterization	10	4	5	27	12	32	69	0	39	12
Exposure assessment	9	5	5	31	6	40	53	30	34	5
Dose-response	4	1	3	9	4	13	24	23	16	3
Risk characterization	12	8	7	32	9	33	18	30	41	11
Risk management	11	8	4	31	9	37	70	24	31	3
Economic cost-benefit	0	4	4	2	2	5	17	8	12	1
Risk policy &law	7 (29.2)	5 (35.7)	5 (38.5)	3 (5.1)	3 (16.7)	6 (7.5)	19 (16.7)	23 (39.7)	8 (14.8)	1 (6.7)
Health intelligence	3	0	8	33	3	4	15	11	2	10
Quantitative methods	3 (12.5)	4 (28.6)	4 (30.8)	1 (1.7)	2 (11.1)	4 (5)	5 (4.4)	23 (39.7)	11 (20.4)	1 (6.7)
Other	3	4	4	1	2	4	5	23	11	1
Total number of responses	24	14	13	59	18	80	114	58	54	15

The total number of responses is not necessary the sum of positive responses for each discipline.

Risk assessment from policy to impact dimension - RAPID

Level of documentation by partner country, absolute numbers

N (% in some cases)	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania
Strategy	4 (16.7)	4 (28.6)	5 (38.5)	8 (13.6)	7 (38.9)	11 (13.8)	45 (39.6)	25 (43.1)	16 (29.6)	3 (20)
Policy	5 (20.8)	2 (14.3)	4 (30.8)	3 (5.1)	3 (16.7)	8 (10)	27 (23.7)	13 (22.4)	13 (24.1)	2 (13.3)
Project	16	8	6	25	7	35	42	46	37	11
Plan	8	4	6	14	5	27	30	21	20	6
Concrete action	9	4	3	45	10	46	37	16	37	11
Other	5	0	0	4	3	4	14	16	10	1
Total number of responses	24	14	13	59	18	80	114	58	54	15

Participation in RAPID

	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania	Total
Yes	**21**	**6**	**12**	**43**	**13**	**73**	**91**	**58**	**54**	**15**	**386**
% of total	**87.5**	**42.85**	**92.3**	**72.88**	**72.21**	**91.25**	**79.8**	**100**	**100**	**100**	**85.9**
Total	24	14	13	59	18	80	114	58	54	15	449

Vast majority of those who responded is interested to participate in RAPID (cca 86%)

Interest to participate in workshops in last phase of RAPID

	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania	Total
Yes	**21**	**6**	**12**	**43**	**16**	**55**	**91**	**50**	**43**	**12**	**349**
% of total	**87.5**	**42.85**	**92.3**	**72.88**	**88.89**	**88.75**	**79.8**	**86.2**	**79.6**	**80**	**77.7**
Total	24	14	13	59	18	80	114	58	54	15	449

Vast majority of those who responded is interested to participate in RAPID (cca 77.7%)

Cross-tabulation of doing risk assessment within public health and policy & law area

Public health	policy & law		Total
	No	Yes	
No	191	48	239
Yes	178	**32**	210
Total	369	80	449

- 7.1% of respondents claimed doing RA on these two areas; discuss this compared with the percentages form table on work focus of risk assessors where the range is between 5.1% in Slovak Republic to 39.7% in Germany (17.8% for whole)!

Public health RA within different institutional settings, absolute numbers

N (% in some cases)	Italy	Denmark	Slovenia	Slovak Republic	Hungary	Spain	Romania	Germany	Poland	Lithuania
Government	2	0	0	34	2	48	20	17	5	8
Industry	0	0	0	0	0	1	0	1	1	0
Medicine	6	0	7	30	3	7	3	5	7	1
University	1	0	0	3	2	5	1	8	5	1
Other research	0	0	1	2	0	1	0	2	9	0
Private business	0	0	0	6	0	1	0	1	1	0
Other	1	0	0	1	0	0	0	0	3	3

This table summarizes cases where a respondent answered “yes” both to doing public health risk assessment and within enlisted branches (settings). Most of public health related risk assessment is clearly done within governmental institutions, medicine and universities

Discussion of main findings

RAPID aims to improve knowledge on public health related risk assessment of policies and results of the survey fully justify this aim. Very few institutions do risk assessment of policies in relation to public health impacts.

Governmental, university and research institutions are those most often dealing with risk assessment what signalizes a need to move more toward practice and supply the increasing demand from policy making sector on different levels (from international to local).

Inclusion of quantitative methods into risk assessment is rather rare; this opens another field for more research and especially translation of research knowledge into practice as models for quantitative risk assessment do exist on research level.

Conclusions

The sampling strategy for risk assessor survey was rather flexible and open, yet it lead to quite substantial number of responses with various response rates. At the end of the project via national workshops it could be considered (discussed9 to update the survey (and the database) via a kind of “snow-balling method” using workshop participants to disseminate the survey.