IN 2008, a nuclear event occurred at Krško nuclear power plant in Slovenia. Even though it was classified as level 0 on International Nuclear Event Scale, the transparency policy of the Slovenian nuclear safety authorities prompted it to notify the international community. This was the first time that the European Community Urgent Radiological Information Exchange (ECURIE) notification system was used outside the exercise framework. The event was reported in all major European countries. In this contribution, we report on a content analysis of media articles related to this event. The main research question was if a nuclear emergency generates significant media coverage, even in the case of a minor event and a transparent communication policy. The analysis included more than 200 articles from printed and spoken media in Slovenia and other countries. The analysis revealed a high-intensity media coverage, emotional reactions and heated political discussion. The main media sources in countries with open political discussions on nuclear energy end up being the politicians, rather than resident experts.

1. Introduction

Transparent communication of nuclear authorities and operators is recognized in international documents as essential for effective emergency management, therefore advised or even mandatory (IAEA, 1994, 2006, 2007; ICRP, 1991; UNEC, 1998). However, in practice, transparent communication is a challenging task because of at least three reasons. Firstly, a transparent and sound communication from the nuclear authorities towards the public is often hindered by divergence of experts’ opinions related to scientific uncertainties (e.g., health effects of low doses), different perceptions of radiation risks (Slovic, Finucane, Peters, & MacGregor, 2004), and past experiences with low transparency of nuclear activities by operators and authorities (Whitfield, Rosa, Dan, & Dietz, 2009). Secondly, a compromise has to be reached between the transparency of communication and the security requirements in the nuclear field (e.g., possibility of a terrorist attack at a nuclear installation). Finally, there may be a conflict of interests among the industry, the regulators, action groups, general public, emergency actors on how much transparency is really needed in nuclear risk, and crisis communication. Related to this, different levels of transparency could be

- ‘Public has the right to know’ (UNEC, 1998).
- ‘Specific information is privileged’, to ensure safety of a nuclear infrastructure and its functioning,
To ensure a transparent communication, nuclear emergency actors need the mass media to reach the general public. In order to manage an emergency, nuclear actors must communicate on basic questions such as, What may happen? What happened? Is there a hazard for the population? Is there a danger now, in the near future or later? What do we need to do: immediately, soon, later? (Brunner, 2002). But a control over the distribution of the type of information or what information that mass media will distribute can not be assured (freedom of the press).

Nuclear events predictably induce enormous media coverage (Gamson & Modigliani, 1989). This is mainly because of the specifics of nuclear events, which mostly trigger the newsworthiness. Nuclear accidents have a high catastrophic potential, they can involve high exposures and may create long-lasting consequences (Dubreuil, Lochard, Girard, Guyonnet, Cardinal, Lepicard, Livolsi, Monroy, Ollagnon, Pena-Vega, Pupin, Rigby, Rolevitch, & Schneider, 1999). High media attention to nuclear events is also because of past contamination episodes such as the Chernobyl fallout, which, even after decades, continues to induce a lot of uncertainty and distrust (Carlé, T urcanu, Van Aeken, & Hardeman, 2007). In general, mass media play a dominant role at all levels of communication on nuclear emergency issues (IAEA, 2006). They are the prominent information channel for the general public, being used for communication by different stakeholders and acting as the ‘watchdog’ of society. However, media also have to fulfill the economic aspects of publishing or broadcasting, with ‘bad news is good news’ being a well-known phenomenon in journalism. Mass media play a progressively more important role in contemporary crisis situations. They help to create, shape, and terminate a crisis (Wien & Elmelund-Praesteker, 2009).

The journalists not only report about the reality but they also influence it. Journalists represent, interpret, and construct reality (Rupar, 2010). Gamson and Modigliani (1989) point out that journalists have an active role in reporting about an event (crisis). Political and public salience of issues is partly driven by media coverage of these issues. When media increase their attention to a given issue, the political elites jump on the bandwagon as well by stating their opinion, asking parliamentary questions about the issue, tabling law proposals, or issuing executive orders (McCombs & Shaw, 1972; Walgrave and Van Aelst, 2006).

In the literature, there are several examples related to the content of mass media (e.g., printed press) in a radiological or nuclear crisis (Rowe, Frewer, & Sjöberg, 2000). Cantone, Sturloni, and Brunelli (2007) analyzed the role of mass media, the reasons for the decision to phase out nuclear energy in Italy, and the communication strategies of the stakeholders that took part in the public debate on nuclear energy during the weeks following the Chernobyl accident. They found that media acted as a discussion forum, presenting the values and interests of various social actors in the political debate related to future of nuclear energy. More general, the research on the media agenda, including the studies of Vasterman (2005) and Wien and Elmelund-Praesteker (2009) shows that extended media attention can prompt important changes in public perceptions and governmental action towards underlying policy issues (Baumgartner, De Boef, & Boydstun, 2008).

In this paper, we explored the role of mass media in shaping the crisis after transparent and open communication of the main nuclear actor, in the case of minor nuclear event. What did they published and how did they focused the information?

We analyzed media response on the nuclear event at the Krško nuclear power plant (NPP) in Slovenia, which occurred on the 4th of June 2008. Even though the event was classified as level 0 on the International Nuclear Event Scale (INES), the transparency policy of the Slovenian nuclear safety authorities prompted it to notify the international community. The plant was initially in an emergency state because of an unidentified leak, which in turn triggered the activation of the National Response Plan. This was the first time that the European Community Urgent Radiological Information Exchange (ECURIE) notification system was used outside the exercise framework. Consequently, this event was considered newsworthy and thus reported in the media all around Europe (informative and daily press). The content of the news varied from country to country.

The analysis included more than 200 published articles from printed and spoken media in Slovenia, the neighbouring countries (Austria, Italy, Croatia, and Hungary), other European Union (EU) member states, and/or ECURIE members or IAEA members (see Table A1: Number of articles published in the media from different countries, in the Appendix).

New media channels (e.g., mobile phones, email) can replace interpersonal interactions in what is called an exploding crisis event, as people call friends and family to obtain information (Bracken, Jeffres, Neuendorf, Kopfman, & Moulla, 2005). However, we focused our attention on the traditional mass media since – in the case of a major crisis event – the new media channels have been found in past studies no more important in news diffusion than the traditional ones (Krippendorff,
2. Methodology

2.1. Description of the nuclear emergency event

On the 4th of June 2008, an event occurred at the Krško NPP in Slovenia. Operators of the NPP detected an increased leakage of water from the primary system inside the containment at 15:07. For such cases, adequate procedures are in place and they required that emergency of the lowest level – unusual event was declared at 15:56. According to the procedures, the plant started to decrease power at a steady rate. The reactor was shut down at 19:50 and the plant was cooled down after that until the following day. It was found out that the seal degraded on a valve on one of the smaller pipes, which were connected to the primary system. When the working conditions were reached, the valve was replaced and the fault was eliminated. At 16:07, 11 minutes after declaring the emergency, the operator of the NPP informed about the problem the Slovenian Nuclear Safety Administration (SNSA), which is as an independent nuclear safety authority. Table 1 summarized the timeline of events.

Table 1. Timeline of the Nuclear Emergency Event in Slovenia, 2008

<table>
<thead>
<tr>
<th>4 June 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 15:07 Operators observed leakage in the reactor building (~3 m³/h).</td>
</tr>
<tr>
<td>• 15:56 ‘Unusual event’ declared – level 0 emergency.</td>
</tr>
<tr>
<td>• Controlled shutdown initiated – 5 MW/min.</td>
</tr>
<tr>
<td>• 16:09 Slovenian Nuclear Safety Agency was informed by NPP Krško.</td>
</tr>
<tr>
<td>• 16:27 Emergency response team was activated.</td>
</tr>
<tr>
<td>• 17:38 Alert message was sent to ECURIE, indicating that the leak is inside containment.</td>
</tr>
<tr>
<td>• 18:17 First message for domestic media was distributed.</td>
</tr>
<tr>
<td>• 18:35 to 19:00 EMERCON messages to IAEA, Austria, Hungary, Croatia, and Italy (Word EXCERCISE from the template was not deleted – IAEA called immediately and corrected).</td>
</tr>
<tr>
<td>• 18:39 ECURIE system distributed message to other countries.</td>
</tr>
<tr>
<td>• 19:00 EC issued media statement about the event in Slovenia.</td>
</tr>
<tr>
<td>• 19:50 Reactor shut down, cool down, and depressurization continued.</td>
</tr>
<tr>
<td>• 21:20 SNSA notified ECURIE: reactor is shut down.</td>
</tr>
<tr>
<td>• 21:20 ECURIE second media update – ‘end of event’.</td>
</tr>
<tr>
<td>• 21:36 European Commission issued media statement about ‘end of event’.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 June 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Morning: According to director of SNSA, approximately 50 media vans in front of the NPP.</td>
</tr>
<tr>
<td>• 10:00 Report of Slovenian minister for environment and spatial planning at EU Meeting of (environment) ministers in Luxemburg.</td>
</tr>
<tr>
<td>• 11:00 SNSA, press conference.</td>
</tr>
<tr>
<td>• 12:00 NPP press conference.</td>
</tr>
<tr>
<td>• Afternoon: Greenpeace at SNSA.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9 June 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Slovenia reported at OECD/NEA CNRA, Oslo, 9 June 2008 about the event.</td>
</tr>
<tr>
<td>• 15:30 NPP Krško back in full operation and back in electricity supplying system.</td>
</tr>
</tbody>
</table>
of the latter argued that ‘Leakage from the primary system was relatively small and stable, but at that moment the reason for leakage was not known and possible increase of leakage could lead to a more serious event of the loss of primary coolant’ (Stritar, 2009).

The SNSA informed the public in Slovenia and abroad in the first hour. Slovenia is a signatory of the Convention on Early Notification of a Nuclear Accident and also of bilateral agreements with neighbouring countries, which refer to the early notification in case of a radiological emergency. As an EU Member State, Slovenia is as well liable to report to the European Commission and through this to all member states in the EU in the framework of ECURIE system. All these agreements prescribe an early notification when it comes to a situation when the state should take measures for the protection of its citizens.

2.2. Media news collection and coding

Media analysis was performed with the content analysis method. This method follows explicit rules of coding and enables large quantities of data to be categorized. The coding was performed by two independent coders plus a master coder that decided in case of disagreements in the coding of the same media news.

The media news used for this analysis have been obtained from press clippings ‘Daily press clipping book of Slovenian and international media’, compiled by the Slovenian government communication office, from the period between 4 and 13 June 2008. The European press newspapers included in the analysis were Süddeutsche Zeitung, Le Monde, Le Figaro, International Herald Tribune, El Pais, Il Sole 24 Ore, Il Corriere della Sera, FT, FAZ, The Economist, European Voice, Der Standard, Neue Zuericher Zeitung, Le Sair, Il Piccolo, Die Presse, Večernji list, Vjesnik, Globus, Politika, Večernje novosti, Vreme. The Slovenian mass media included in the analysis consisted of all national and regional daily and weekly press, as well as the informative programme of two TV stations (TVS and POP-TV) and the public radio station. The press folders were collected by the following keywords: ‘Krško nuclear power plant’ and ‘Slovenia’. Articles not related to the investigated topic were excluded from the research. Finally, we have analyzed 207 media texts, published or broadcasted between 4 and 14 June 2008 in 43 different media from 14 countries.

3. Results and discussion

3.1. Which countries reported about the nuclear event and what was the frequency of published media news?

Even though the nuclear emergency event at Krško NPP was classified as level 0 on the INES (i.e., no safety significance), the media response was enormous. The news frequency varied from country to country however. The average frequency of published news in media for each state (Figure 1) allowed to identify the countries with high attentiveness to this nuclear event. The number of articles published in the media from different countries is presented in Table A1 in Appendix.

The event was most frequently reported in Italian newspapers (12 articles per newspaper) followed by Slovenia (seven articles per one mass medium), Germany (six articles per newspaper), and Switzerland (five articles per newspaper). The states with the lowest

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**Figure 1.** Average frequency of media news in single media per country.
frequency of the published articles related to event in Krško (one per newspaper) were France, United Kingdom, and Spain.

Italy, Slovenia, and Germany have different nuclear status, as the public debate related to nuclear programme is also quite specific (see Table 2).

The political and public debate in Italy was at the time of the Krško event very vivid, focused on the possibility to reopen the nuclear programme. In Italy, the nuclear power was phased out with the legislation introduced in 1987 after the Chernobyl accident, the last power reactor being closed in 1990. The nuclear power debate was restarted by the government in 2005 with the intention to reopen the state nuclear programme and to build new NPPs in Italy. The political discussion, as well as the public attitude towards nuclear energy, was in 2008 extremely polarized. Although Italy was without nuclear reactors in operation in 2008, 43% of the Italian population was – before the nuclear event in Slovenia – strongly in favour of energy production by NPPs (Eurobarometer, 2008a).

At first glance, it might seem surprising that the German media reported about the event with such high frequency (average of six articles per newspaper). Germany had, at the time of nuclear event in Krško, 15 reactors in operation, but had adopted a ‘Nuclear exit law’ in 2000. The political discussion over nuclear energy was in the years 2002–2008 vibrant; it was set to be a key issue in coalition talks. The elections campaigns were focused on the phase out of the nuclear programme (pro and contra) and the population was divided among people being in favour or against nuclear energy. In the month before the nuclear event in Slovenia, a public opinion poll in Germany showed that 46% of Germans wanted the country to continue using nuclear energy; another 46% said they supported the nuclear phase-out policy and 8% were undecided (WNO, 2008).

The states with the lowest frequency of published articles related to event in Krško were those for which at the time of the nuclear event in Slovenia the discussion related to the nuclear programme was neither in the political agenda, neither in the public agenda. Those states were France, UK, and Spain. It is interesting that among this category of states appeared also Hungary. Hungary is a Slovenian-neighbouring state and the Krško NPP is less than 100 km from the common border. Hungary has one nuclear power plant with four units and the government of Hungary remains committed to nuclear power in order to serve its future electricity needs. The public opinion in 2008 was in general positive towards nuclear energy (Eurobarometer, 2008a) and there was no public or political discussion related to the future of nuclear energy.

The results support the assumption that the frequency of the media articles related to nuclear event in Krško NPP will be higher in the states with the nuclear programme under public and political discussion than in the states where the existence of NPPs is not considered as a future question.

As regards the distance from the nuclear emergency event, the results show that media coverage was not consequently higher in the neighbouring countries than in more distant states. This can be noticed especially for Croatia and Hungary.

3.2. Did the media sources differ among the countries?

As a rule of thumb, especially when reporting on crisis, reporters are expected to use multiple sources (Kovach & Rosenstiel, 2007; Wilson, 1996). The primary sources of the information related to problems in NPP Krško were three different notification systems used for notifying different groups of countries. The first one was the National Response Plan used in Slovenia, in the framework of which Slovenian citizens should be informed about radiological or nuclear emergencies. The second system was the bilateral agreement between Slovenia and the neighbouring countries (Italy, Austria, Hungary, and Croatia). The third system was the ECURIE, used to inform all European countries and Switzerland and Croatia. In all three notifications and information exchange systems, the original source of information was the SNSA as the responsible regulatory body. For other ECURIE states than the neighbouring countries, the European Commission has distributed the information, therefore acted as primary source of information (press release).

With the content media analysis, we explored the sources of information for published media news related to the nuclear emergency event at Krško NPP. The aim was to find out which sources were referred in mass media and whose information was the most quoted. The code of journalism assumes that a media article must refer to different sources of information, in order to present several views and depict the event taking different aspects into consideration. We analyzed the media sources for each of the following groups of countries separately: Slovenia, neighbouring countries, and other ECURIE members (distant countries).

In Slovenia, the most quoted media source was the SNSA as origin of information according to the national response plan. As expected, more than 40% of media news in Slovenia referred to SNSA. Second, most quoted source was the operator of the NPP at Krško (quoted in 34% of news), followed by unidentified sources of information. Almost 30% of media news distributed information about the nuclear event without referring to any identified source.

Figure 2 summarizes the media sources for the Slovenian media. It would normally be expected that the...
**Table 2. Public Opinion, Nuclear Programme, and Number of Media Articles Related to Krško NPP in Countries**

<table>
<thead>
<tr>
<th>Country*</th>
<th>Favourable public opinion** (Eurobarometer, 2005)</th>
<th>Favourable public opinion** (Eurobarometer, 2008b)</th>
<th>Change** 2005–2008</th>
<th>Number of articles related to Krško event in one media***</th>
<th>Status of nuclear before Krško event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>8%</td>
<td>14%</td>
<td>+6</td>
<td>3</td>
<td>Nuclear programme forbidden by law in 1978, prolonged in 1997</td>
</tr>
<tr>
<td>Belgium</td>
<td>50%</td>
<td>50%</td>
<td>0</td>
<td>2</td>
<td>Phase-out law in 2003; recommendation from energy commission in 2007 to extend operating life of existing reactors to meet CO₂ requirements</td>
</tr>
<tr>
<td>Croatia</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>3</td>
<td>Co-owns the Krško NPP together with Slovenia</td>
</tr>
<tr>
<td>France</td>
<td>52%</td>
<td>52%</td>
<td>0</td>
<td>1</td>
<td>Law in 2005 requiring that nuclear power be central to energy policy and security</td>
</tr>
<tr>
<td>Germany</td>
<td>38%</td>
<td>46%</td>
<td>+8</td>
<td>6</td>
<td>Continuing political and public debates about when the nuclear should be phased out</td>
</tr>
<tr>
<td>Hungary</td>
<td>65%</td>
<td>63%</td>
<td>−2</td>
<td>1</td>
<td>Government committed to nuclear power to serve its future electricity needs</td>
</tr>
<tr>
<td>Italy</td>
<td>30%</td>
<td>43%</td>
<td>+13</td>
<td>12</td>
<td>After referendum in 1987 all NPPs closed; in 2007 the government, intended to restart the nuclear programme</td>
</tr>
<tr>
<td>Slovenia</td>
<td>44%</td>
<td>51%</td>
<td>+7</td>
<td>7</td>
<td>In 2006, the government held internal discussions on adding a new block to Krško NPP.</td>
</tr>
<tr>
<td>Spain</td>
<td>16%</td>
<td>24%</td>
<td>+8</td>
<td>1</td>
<td>Existing nuclear programme, no nuclear restriction policy</td>
</tr>
<tr>
<td>Switzerland</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>5</td>
<td>Extended nuclear programme and many referendums on nuclear energy.</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>44%</td>
<td>50%</td>
<td>+6</td>
<td>1</td>
<td>In 2008, the government gave the go-ahead for building new NPPs.</td>
</tr>
</tbody>
</table>

*For Bosnia-Herzegovina and Serbia, no data available.

**Question formulated as: ‘Are you totally in favour, fairly in favour, fairly opposed or totally opposed to energy production by nuclear power stations?’ Only percentage ‘in favour’ compared.

***Correlation between the change and the number of articles is 0.74.
local government or the local population from the municipality with the Krško NPP will be highly present in the media, since they are likely to be most affected by a radiological release. Surprisingly, this source of otherwise important journalistic information was in Slovenian media quoted in only few articles (1% of news).

In the neighbouring countries Italy, Austria, Hungary, and Croatia, the most quoted source were by far the decision makers (see Figure 3). This category of actors includes politicians and representatives of governments other than Slovenian. 44% of articles published in the neighbouring countries presented the statements of the decision makers. The information or opinion given in the news was usually the opinion of a government or political party, e.g., the EU green parliament party. Decision makers were followed by secondary media sources. Secondary sources of information are reports of other media houses, press agencies, or correspondents abroad: ‘As reported by . . .’

The original information of the SNSA related to the nuclear emergency was presented only in 15% of the articles in these neighbouring states. This is, surprisingly, the same frequency as for the information presented by opinion makers. The category opinion makers include well-known personalities and politicians, scientists whose opinion is considered important enough to be represented separately, either in a full-fledged interview or via quotes. The actors grouped in this category represent themselves rather than an institution or a role attributed to them (the opinion given is that of an individual and not of a group). People from academic institutions also fall into this category when the opinion provided is theirs and not that of the department or division they belong to.

In more distant countries, the frequency of the most quoted sources was different to those in Slovenia or neighbouring countries. The most quoted sources of information were other media. This source of
information is the leading source in almost 60% of the articles related to the nuclear emergency event. In other words, media around Europe reported other media stories related to the nuclear emergency at NPP in Slovenia. This source of information for media in distant countries was followed by the operator of the NPP (39% of articles referred also to the NPP Krško). According to the journalism rule that the journalist has to go to the origin of the information (problem), this frequency of the NPP Krško appearance as source of information was to be expected. This was possible because of the transparent communication policy where also an operator (NPP) was allowed by the authorities to organize a press conference. The European Commission, which distributed the information to ECURIE members and published press release, ended with less than 30% of references on the fourth place of media source frequency (Figure 4). This may be due to poor and technically orientated information in the first press release published by the European Commission.

The results support the conclusion that, despite the existence of primary sources of information related to the nuclear emergency, the media around Europe preferred to refer to secondary sources of information and sometimes even omitted the primary one (SNSA or European Commission). While the most quoted source was the SNSA as the regulatory body in Slovenia, the most quoted sources of information in the neighbouring states were politicians and representatives of governments. A strong influence of published information in mass media can be recognized by the high frequency of secondary media sources. When the information about the nuclear emergency at the Slovenian NPP was published, mass media in Europe mostly took it over from other media, instead of making their story based on the information from the primary sources. This is in line with previous research showing that media coverage is affected by strong inter-media agenda-setting mechanisms leading to parallel increases and decreases in the attention of various media to the same issue (Vliegenthart and Walgrave, 2008). Media outlets (e.g., first pages) generally follow the same track (e.g., presenting an event as a crisis) and let their attention for the issue in a similar manner (Vasterman, 2005; Wolfsfeld and Sheafer, 2006).

### 3.3. What was the focus of the articles?

The analysis of the main focus of the articles allowed to identify the main challenge and the focal point of the crisis and post-crisis communication. The codes used to describe the focus of the articles were ‘technical aspect’, ‘inhabitants’, ‘international reaction’, ‘safety/risk aspect’, ‘ECURIE’ (European Community Urgent Radiological Information Exchange). Figure 5 depicts the percentage of articles (from total articles published in the country or country group) reporting on these focus points. Up to three focus points were allowed for each article.

The most important focal point of the published media news in all country groups (see Figure 5) was the safety/risk aspect. For Slovenia, the second most frequent focal point was the international reaction. For the neighbouring states, the second most discussed focal point was ‘other’, mainly consisting of political problems, ownership issues, ideological discussions etc. For other ECURIE countries, the second most discussed focal point was technical aspects.
3.4. Did the media reports include messages with negative connotation?

To assess whether the event at Krško NPP was reported with a negative connotation that might stimulate public’s emotions, we analyzed the keywords used in the articles. For this purpose, the frequency of the following keywords was calculated: Chernobyl, panic, alarm nuclear accident, catastrophe, danger, dread, alert (in the sense of warning). Synonyms, antonyms, and homonyms were included in accordance to linguistic properties (e.g., ‘dread’ also expressed with the words ‘fear’ and ‘threat’).

The results presented in Figure 6 show that words with negative connotation were present in the mass media, while they were not present (except for the word ‘alert’) in communications by the primary information sources.

It is interesting to notice that ‘alert’ was one of the messages delivered in the press release of the European Commission. The analysis revealed however that ‘alert’ was translated to ‘alarm’ (which has a more negative connotation) in almost 50% of Slovenian articles, 20% of articles in neighbouring countries and 15% of articles from more distant countries. The connotation of alert and alarm differs quite significantly: while alert refers to a warning, alarm relates to a fear resulting from the awareness of an imminent danger.

That a nuclear emergency is linked to a high catastrophic potential is proven by the frequency of the word ‘Chernobyl’. It was used in almost 20% of the Slovenian news and 10% of the articles published in neighbouring countries. If we compare the different groups of countries, we can confirm that with the distance from the affected site, the use of words with negative connotation decreased.
4. Conclusions

This paper analyzed the media content after the minor nuclear event at the Slovenian NPP. The analysis revealed that despite a transparent communication policy by the affected country and low level of emergency, this event triggered a high intensity of media coverage. The results showed that the frequency of the media articles was higher in the countries where the nuclear energy was in the public agenda. The states where the future of nuclear energy was under the political discussion (e.g., a planned referendum in Italy and a strong opposition from environmental organizations in Germany) reported even more than Slovenia.

Important differences as regards the information sources were noticed between different country groups. In Slovenia, the most frequently referred source of information was the nuclear safety authority. In the neighboring countries, decision makers (politicians) were the most important information source. In more distant countries, media mostly took over other media reports. Overall, secondary media were an important source of information.

The safety and the risk aspects were the main focal point in the media reports for all country groups. In Slovenia however, the international reaction on this event received almost equal attention.

The results clearly demonstrated that the media reports often included messages with negative connotation. Even if the event had no safety significance, the media linked the event with the nuclear accident at Chernobyl and used emotion-triggering words such as panic and danger.

The operators and the nuclear safety authorities are obliged by law to be transparent from and to openly communicate about nuclear safety issues, regardless of the possibility of (ab)using the emergency for political purposes. With constant and transparent communication, the communicators can avoid misunderstandings. However, emotional reactions and heated political discussions may arise when this is not accompanied by an adequate and transparent response in communication by international organizations because the main media sources in countries with open political questions related to nuclear energy tend to end up being politicians, rather than the resident experts.

References


Eurobarometer (2005), Public opinion in the European Union, EB65.


Eurobarometer (2008b), Values of Europeans, EB69.


Appendix

**Table A1. Number of Articles Published in the Media from Different Countries**

<table>
<thead>
<tr>
<th>Name of the media</th>
<th>Type of media</th>
<th>Country</th>
<th>No. of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV SI</td>
<td>TV (public)</td>
<td>Slovenia</td>
<td>18</td>
</tr>
<tr>
<td>POP-TV</td>
<td>TV (commercial)</td>
<td>Slovenia</td>
<td>11</td>
</tr>
<tr>
<td>Kanal A</td>
<td>TV (commercial)</td>
<td>Slovenia</td>
<td>3</td>
</tr>
<tr>
<td>Radio 1 SI</td>
<td>Radio (public)</td>
<td>Slovenia</td>
<td>17</td>
</tr>
<tr>
<td>Delo</td>
<td>Press (daily)</td>
<td>Slovenia</td>
<td>21</td>
</tr>
<tr>
<td>Dnevnik</td>
<td>Press (daily)</td>
<td>Slovenia</td>
<td>14</td>
</tr>
<tr>
<td>Finance</td>
<td>Press (daily)</td>
<td>Slovenia</td>
<td>1</td>
</tr>
<tr>
<td>Indirekt</td>
<td>Press (daily)</td>
<td>Slovenia</td>
<td>6</td>
</tr>
<tr>
<td>Slovenske novice</td>
<td>Press (daily)</td>
<td>Slovenia</td>
<td>3</td>
</tr>
<tr>
<td>Večer</td>
<td>Press (daily)</td>
<td>Slovenia</td>
<td>13</td>
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