# A NEW TRANSNATIONAL REGIME FOR NUCLEAR LIABILITY AND COMPENSATION IN EUROPE

## Jakub Handrlica

**Abstract:** On 1 January 2022, two new international treaties governing nuclear liability and compensation entered into force. The Revised Paris Convention has established a up-to-date regime of liability of nuclear operators and superseded the liability framework existing in Western Europe since the 1960s. At the same time, the Revised Brussels Supplementary Convention has strengthened the system of public funds available for compensation of nuclear damages. This Article aims to analyse the main benefits this Revised Paris-Brussels system implies for potential victims of a nuclear incident within Europe. It also aims to deal with mutual relations of this newly established regime with other regimes of nuclear liability that currently exist in Europe.

Resumé: 1. ledna 2022 vstoupily v platnost dvě nové mezinárodní úmluvy, které upravují problematiku odpovědnosti za jaderné škody. Revidovaná Pařížská úmluva vytvořila nový režim odpovědnosti provozovatelů jaderných zařízení, který nahradil předchozí režim mezinárodní odpovědnosti, existující ve státech západní Evropy od 60. let 20. století. Revidovaná Bruselská úmluva současně zvýšila objem veřejných finančních fondů, které budou k dispozici pro případ nutnosti kompenzace nad rámec odpovědnosti provozovatele. Příspěvek si dává za cíl analyzovat hlavní přínosy nově vytvořeného Pařížsko-Bruselského systému pro potenciální poškozené. Příspěvek si současně dává za cíl analyzovat vzájemné vztahy mezi nově vytvořeným Pařížsko-Bruselským systémem a jinými mezinárodními odpovědnostními režimy, které v současnosti v Evropě existují.

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#### 1. Introduction

On 12 February, 2004, sixteen Contracting Parties<sup>1</sup> to the Convention on Third Party Liability in the Field of Nuclear Energy (Paris Convention, PC)<sup>2</sup> adopted a Protocol to Amend the Paris Convention.<sup>3</sup> The aim of this Protocol was to strengthen the international framework for peaceful uses of nuclear energy by establishing a new regime of nuclear liability by means of a revised multilateral treaty (Revised Paris Convention, RPC). On the

Belgium, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Slovenia, Spain, Switzerland, Sweden, Turkey and the United Kingdom.

The Convention on Third Party Liability in the Field of Nuclear Energy (adopted 29 Jul. 1960), as amended by the Additional Protocol of 1964 (adopted 28 Jan. 1964, entered into force on 1 Apr. 1968) and by the Protocol of 1982 (adopted 16 Nov. 1982, entered into force on 7 Oct. 1988).

The Protocol to Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960 as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982 (adopted 12 Feb. 2004, entered into force on 1 Jan. 2022).

same day, the Contracting Parties<sup>4</sup> to Convention Supplementary to the Paris Convention (Brussels Supplementary Convention, BSC)<sup>5</sup> adopted a Protocol amending the Brussels Supplementary Convention with the aim to establish a more robust regime of supplementary compensation for the victims of a potential nuclear incident by a new international treaty (Revised Brussels Supplementary Convention, RBSC).

It took seventeen years for the two new international treaties to enter into force. The Revised Paris Convention required ratification by two-thirds of the Contracting Parties as a precondition for entering into force.<sup>6</sup> While Switzerland and Norway deposited their instruments of ratification a decade ago (in 2009 and 2010 respectively), the European Union required its Member States to simultaneously deposit their instruments of ratification of the Revised Paris Convention.<sup>7</sup>

Consequently, on 17 December, 2021, Belgium, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Portugal, Slovenia, Spain, Sweden and the United Kingdom deposited their instruments of ratification of the RPC with the Secretary-General of the Organisation for Economic Cooperation and Development (OECD)<sup>8</sup> and requested that the deposit be registered on 1 January, 2022. At the same time, instruments of ratification of the RBSC were deposited with the Belgian Government.<sup>9</sup>

Thus, as of 2022, a new international regime of nuclear liability emerged in Europe. <sup>10</sup> Thirteen countries <sup>11</sup> of the region are now participating in the regime liability, as established by the RPC and simultaneously in the compensation regime of the RBSC. Together, these two international regimes compose a robust regional system of nuclear liability and compensation (the Revised Paris-Brussels regime). This robust regional framework would

<sup>&</sup>lt;sup>4</sup> Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Slovenia, Spain, Switzerland, Sweden and the United Kingdom.

<sup>&</sup>lt;sup>5</sup> The Convention of 31 January 1963 Supplementary to the Paris Convention of 29 July 1960 (adopted 31 Jan. 1963), as amended by the Additional Protocol of 1964 (adopted 28 Jan. 1964, entered into force on 4 Dec. 1974) and by the Protocol of 1982 (adopted 16 Nov. 1982, entered into force on 1 Aug. 1991).

<sup>6</sup> RPC art 20

See the Council Decision of 8 March, 2004 authorising the Member States which are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy to ratify, in the interest of the European Community, the Protocol amending that Convention, or to accede to it, OJ L 97, 1.4.2004, pp. 53–4 (this Council Decision was enacted with respect to Belgium, Finland, France, Germany, Greece, Italy, the Netherlands, Portugal, Spain, Sweden and the United Kingdom) and the Council Decision of 8 November, 2007 authorising the Republic of Slovenia to ratify, in the interest of the European Community, the Protocol of 12 February 2004 amending the Paris Convention of 29 July, 1960 on Third-Party Liability in the Field of Nuclear Energy, OJ L 294, 13.11.2007, p. 23–4 (this Council Decision was enacted with respect to Slovenia, which became Member State of the EU 1 May, 2004).

<sup>8</sup> RPC, art. 19.a.

<sup>9</sup> RBSC, art. 20.b.

The reasons it took seventeen years for the Contracting Parties to ratify the new convention, were outlined in detail by SCHWARTZ, J. Great Expectations: Where Do We Stand with the International Nuclear Liability Conventions? in PELZER, N. (ed), European Nuclear Liability Law in a Process of Change (Nomos 2010) pp. 42–68.

Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Slovenia, Spain, Switzerland, Sweden and the United Kingdom. Greece and Portugal are Contracting Parties only to the RPC, without participating in the RBSC. Turkey hasn't ratified the RPC yet and thus, belongs to the regime of nuclear liability, as established by the PC.

apply to nuclear incidents that may potentially occur in nuclear power plants operated within thirteen countries. <sup>12</sup>

Altogether, 105 nuclear reactors (out of 442 operated worldwide) with total operable capacity of 103,695 Mwe are covered by the Revised Paris-Brussels regime as of January, 2022. <sup>13</sup> At the same time, there are seven nuclear reactors under construction, which will be also covered by this regime when commissioned in the future. <sup>14</sup> However, the newly established regime applies far beyond those nuclear installations operated for purposes of power generation. Potential nuclear incidents, arising from the research reactors <sup>15</sup> and re-processing facilities <sup>16</sup> are also covered.

Simultaneously, the Revised Paris-Brussels regime will also be applicable to future underground repositories, which must be established throughout Europe for disposal of spent nuclear fuel, which has so far been produced in nuclear installations. Consequently, the purpose of the newly established regime goes far beyond protection of potential victims with respect to risks arising from power generation from nuclear. Irrespective of whether the Contracting Parties to the newly established regime will continue to use nuclear energy as a source of power or will opt for other means of power generation during the forthcoming energy transition to low-carbon economy, the Revised Paris-Brussels regime will still represent a major international mechanism for compensating potential damages arising from uses of nuclear materials.<sup>17</sup>

This Article aims to evaluate impact of the newly established regime of nuclear liability and compensation for Europe. Here, the term 'Europe' will be understood in its geographical meaning as a densely inhabited continent, which is bordered by the Arctic Ocean to the north, the Atlantic Ocean to the west, the Mediterranean Sea to the south and the Ural Mountains to the east. Nuclear energy is being used for different purposes in the entirety of this geographical space and an incident in a nuclear installation would have consequences across the continent of Europe, without the respect to the borders politically established between various countries.

The fact is that the Revised Paris-Brussels regime represents a considerable shift in the quality of protection for potential victims of a nuclear incident, when compared with the previously existing international regime of the PC and the BSC. However, the newly established regime is a regional one. It merely covers potential nuclear incidents, which may occur in installation situated in thirteen countries of Europe.

Belgium, Finland, France, Germany, the Netherlands, Slovenia, Spain, Switzerland, Sweden and the United Kingdom.

<sup>&</sup>lt;sup>13</sup> Calculated according to the information available at https://world-nuclear.org/ (accessed on 1 Jan., 2022).

<sup>&</sup>lt;sup>14</sup> These installations are in Finland, France and in the United Kingdom.

Research reactors are currently operated in Belgium, France, Germany, Italy, the Netherlands, Norway, Slovenia, Spain, Switzerland and in the United Kingdom.

<sup>&</sup>lt;sup>16</sup> These are operated in France and in the United Kingdom.

At the time of the adoption of the new conventions, the Revised Paris-Brussels regime attracted a considerable attention of legal scholarship, see HINTEREGGER, M. & KISSICH, S. 'The Paris Convention 2004 – A New Nuclear Liability System for Europe' (2004) 12 Environmental Liability, pp. 116–23. Also see FAURE, M. & FIORE, K. 'The civil liability of European nuclear operators: Which coverage for the new 2004 Protocols' (2008) 8 International Environmental Agreements: Politics, Law & Economics, pp. 227-36 and RUSTAND, H. 'The revision of the Paris/Brussels System: important improvements of the international nuclear liability regime' in PELZER, N. (ed), Brennpunkte des Atomenergierechts (Nomos 2003) pp. 135–46.

This Article aims to analyse impact of this newly established regime not only for these countries, but also with respect to the whole of Europe. In this respect, this Article aims to argue that while for certain regions, the entry into force of the RPC and the RBSC implies considerable increases of the level of protection, it also caused a further deepening of differences in the standards of nuclear liability within Europe. Thus, this Article aims to identify these differences and the measures to overcome them.

This argument will be presented as follows:

Firstly, the main achievements of the Revised Paris-Brussels regime, as compared to the previously existing international systems of nuclear liability under the PC and the BSC, will be presented in Part 2. Attention will be paid to strengthening the regime of nuclear liability by enlargement of its geographical scope of damages covered, enlargement of covered installations and potential damages, as well as prolongation of time to submit claim for damages and by a considerable increase in the financial means available to potential victims of a nuclear incident. The aim of this part is to present the newly established regime, which was put into existence in Europe as of 1 January, 2022, as an international system of nuclear liability, providing the highest guaranteed amount of compensation in case of a worldwide nuclear incident.

Nevertheless, the canvas of international nuclear liability is much wider than the Revised Paris-Brussels regime. Several other international regimes of nuclear liability have emerged worldwide since the 1960s. Thus, this Article will also pay attention to the mutual relations between the newly established regime and the other regimes of nuclear liability, which are currently existing in Europe (Part 3). In this part, relations with the regimes of nuclear liability, existing under the Vienna Convention on Civil Liability for Nuclear Damage (Vienna Convention, VC)<sup>18</sup> and under the revised version of the Vienna Convention (Revised Vienna Convention, RVC), which was established by the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage.<sup>19</sup> Both these "Viennese" regimes of nuclear liability recently co-exist in the countries of Central and Eastern Europe. The Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention (Joint Protocol, JP)<sup>20</sup> connects the international regimes, established under the Paris and Vienna Conventions as a kind of a virtual "legal bridge".

Lastly, the mutual relations between the Revised Paris-Brussels regime and the compensation scheme existing under the Convention on Supplementary Compensation for Nuclear Damage (Convention on Supplementary Compensation, CSC)<sup>21</sup> will also be a subject of attention. In this respect, gaps and difficulties arising from the co-existence of the newly established regime, on one hand, and the other international regimes of nuclear liability, on the other hand, will be identified.

<sup>&</sup>lt;sup>18</sup> The Vienna Convention on Civil Liability for Nuclear Damage (adopted 21 May, 1963, entered into force on 12 Nov., 1977).

<sup>&</sup>lt;sup>19</sup> The Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (adopted 12 Sept., 1997, entered into force 4 Oct., 2003).

The Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention (adopted 25 Sept., 1988, entered into force on 27 Apr., 1994).

<sup>&</sup>lt;sup>21</sup> The Convention on Supplementary Compensation for Nuclear Damage (adopted 12 Sept., 1997, entered into force 15 Apr., 2015).

In this respect, this Article argues that while the entry into force of the RPC and the RBSC represents a considerable shift in the level of protection of potential victims of a nuclear incident, further strengthening of the international framework by wider accession to the existing instrument of international law is needed in Europe.

## 2. A new regime within Europe

The new regime of nuclear liability, which has been established in thirteen countries of Europe as of January, 2022, consists of three tiers of financial compensation for a case of damages occurring as result of a nuclear incident. This Revised Paris-Brussels regime has considerably strengthened the three-tiers system of compensation<sup>22</sup>, which existed under the PC and the BSC in the twelve countries of Europe before.<sup>23</sup>

The first tier of compensation is based on the system of liability for nuclear damages, governed by the RPC. Here, the RPC shares the basic principles of nuclear liability, which were established already by the PC.<sup>24</sup> These principles differ considerably from the principles of liability of ordinary tort law.<sup>25</sup> Under the first tier, compensation for any damages that have potentially occurred as consequence of toxic, explosive, or other hazardous properties of nuclear materials<sup>26</sup> will be the liability of the *operator of the installation*, where such materials were used, or were transported to. The operator is *exclusively liable*<sup>27</sup>, which means no other person may be held liable for damages that may potentially occur with respect to uses of nuclear materials.

Thus, the first tier is based upon the *civil liability of the operator*, rather than the *liability of the State which permitted operation of the nuclear installation*. The nature of operators' liability is strict, which means the operator will be liable irrespectively of his fault. At the same time,

The three-tier system of compensation came into existence in Europe with the entry into force of the BSC (as amended by the Additional Protocol of 1964) on 4 Dec., 1974. At that time, Denmark, France, Norway, Spain, Sweden and the United Kingdom participated in the three-tier system, which was subsequently strengthened by accession of other countries, such as Germany (1975), Finland (1977), the Netherlands (1979) and Belgium (1985). Slovenia acceded to the three-tier system, as established by the PC and the BSC in 2003, being the only country of Central and Eastern Europe to join this system. Switzerland joined the three-tier system only as of Jan., 2022 with the entry into force of the RPC/RBSC.

For further details on the three-tier system, which had existed under the PC/BSC, see M. Lagorce, 'The Brussels Supplementary Convention and its Joint Intergovernmental Security Fund' in IAEA (ed), Nuclear Law for a Developing World (IAEA 1968) pp. 143–8.

For further details on how the principles of the PC were reflected in the new regime of nuclear liability and compensation, see J. Schwartz, 'The current revision of the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Brussels Convention Supplementary to the Paris Convention' in AIDN/INLA (ed), Nuclear Inter Jura 2001 (AIDN/INLA 2001) pp. 171–83.

<sup>&</sup>lt;sup>25</sup> See HARDY, M. 'Nuclear Liability: The General Principles of Law and Further Proposals' (1960) 36 British Yearbook of International Law, pp. 223-228. Also see CIGOJ, S. 'International regulation of civil liability for nuclear risk' (1965) 14 International & Comparative Law Quarterly, pp. 809–21 and more recently LEE, M. 'Civil liability of nuclear industry' (2000) 12 Journal of Environmental Law, pp. 317–32.

RPC, art. 1.vii. (the Convention refers about "results from ionising radiation emitted by any source of radiation inside a nuclear installation, or emitted from nuclear fuel or radioactive products or waste in, or of nuclear substances coming from, originating in, or sent to, a nuclear installation, whether so arising from the radioactive properties of such matter, or from a combination of radioactive properties with toxic, explosive or other hazardous properties of such matter").

<sup>27</sup> RPC, art. 6.b.

the RPC provides for only very limited exonerations. <sup>28</sup> As a quid pro quo of these very strict terms of operator liability, the RPC provides that each Contracting Party under its legislation may provide that the liability of the operator in respect of nuclear damage caused by any one nuclear incident shall not be less than 700 million  $\in$ . <sup>29</sup> Thus, compensation in the first tier will be provided by funds provided by insurance or other financial security, as maintained by the liable operator pursuant to the RPC. <sup>30</sup>

As the liability is channelled to the operator and all financial means for prospective compensation are concentrated in the State where the nuclear installation is situated, the RPC also provides that the court of this State has exclusive competence to deal with potential claims for nuclear damages.<sup>31</sup> Also, the RPC requires<sup>32</sup> for an equal treatment of all victims of a nuclear incident. The liability principles outlined in this paragraph – meaning exclusive liability of the operator, strict liability, exclusive competence of the courts and equal treatment of the victims – will be referred to in this Article as 'international principles of nuclear liability'.<sup>33</sup>

The second tier of compensation is provided by the RBSC. While the first tier is constituted of financial means provided by the liable operator, the second tier will be provided by the State in which the liable operator's installation is located.<sup>34</sup> The second tier is composed of public funds, which cover the difference between the financial amount established under the first tier and 1,200 million euro. This means that if a Contracting Party opts for limitation of operator's liability, it shall provide for public funds which will cover up to 500 million  $\epsilon$ .

Lastly, the third tier of compensation is composed of international public funds, established by all Contracting Parties to the RBSC. $^{35}$  The third tier equals an additional 300 million  $\in$  and the States are required to contribute to this tier according to a formula, provided by the RBSC. $^{36}$ 

Consequently, the Revised Paris-Brussels regime is based upon a transnational system, where the compensation for damages occurred as consequence of a nuclear incident will be provided by three varied of entities: (i) by the operator of nuclear installation in which the respective incident has occurred, (ii) by the State, which has permitted operation of such a nuclear installation in its own territory and (iii) by other States that participate in the international public funds established under the third tier. Under this robust regime, total compensation available to victims of a nuclear incident will be not less than 1,500 million  $\in$ . Thus, the Revised Paris-Brussels regime currently represents an international system of nuclear liability which provides the highest guaranteed amount of compensation in case of a nuclear incident worldwide.

<sup>28</sup> RPC, art. 9 (the operator shall not be liable for nuclear damage caused by a nuclear incident directly due to an act of armed conflict, hostilities, civil war, or insurrection).

<sup>&</sup>lt;sup>29</sup> RPC, art. 7.a.

<sup>30</sup> RPC, art. 10.a.

<sup>31</sup> RPC, art. 13.a.

<sup>32</sup> RPC, art. 14.a.

<sup>33</sup> Apart of the thirteen countries participating in the RPC/RBSC, the first tier of compensation also covers Greece and Portugal, which are Contracting Parties to the RPC only.

RBSC, art. 3.b.ii.

<sup>35</sup> RBSC, art. 3.b.iii.

<sup>36</sup> RBSC, art. 12.

The following paragraphs aim to provide detail about the shifts towards strengthening of the liability regime, which both revised conventions implicated in comparison to the previous circumstances.

#### 2.1 The Revised Paris Convention (RPC)

The regime of nuclear liability, as established by the RPC, stands upon the same international principles of nuclear liability as the PC. However, it also introduced several major enhancements, which were adopted to strengthen the position of potential victims of a nuclear incident. The most important of these enhancements are the following:

# Enlargement of the geographical scope

The regime of nuclear liability, as established by the PC, was only geographically applicable to those damages which occurred in the territory of the Contracting Parties, unless otherwise provided by the legislation of the Contracting Party in whose territory the nuclear installation of the liable operator was situated.<sup>37</sup> Certain Contracting Parties<sup>38</sup> made use of this option, but most of them have not. This timid provision, in contradiction of the principle that the polluter pays, was finally unable to hold out against global trends.<sup>39</sup> Therefore, the RPC provides<sup>40</sup> that the established regime of nuclear liability will be applicable to nuclear damages suffered in the territory of, or in any maritime zones, as established in accordance with the international law of:

- a) a Contracting Party;<sup>41</sup>
- b) a non-Contracting State which, at the time of the nuclear incident, is a Contracting Party to the VC, or to the RVC, and at the same time to the JP, provided however, that the Contracting Party to the RPC in whose territory the installation of the liable operator is situated is a Contracting Party to that JP;<sup>42</sup>
- a non-Contracting State which, at the time of the nuclear incident, has no nuclear installation in its territory or in any maritime zones established by it in accordance with international law;<sup>43</sup> or
- any other non-Contracting State which, at the time of the nuclear incident, has in legislation which affords equivalent reciprocal benefits, and which is based on international principles of nuclear liability.<sup>44</sup>

<sup>37</sup> PC, art. 2

<sup>38</sup> Eg. the Finnish Nuclear Liability Act provides (Art. 4) that damage caused by a nuclear incident in Finland but suffered in a state that is not party to the Paris Convention is covered by this Act.

See DUSSART-DESART, R. 'The Reform of the Paris Convention on Third Party Liability in the Field of Nuclear Energy and of the Brussels Supplementary Convention: An Overview of the Main Features of the Modernisation of the two Conventions' (2005) 75 Nuclear Law Bulletin, pp. 7–33, at p. 16.

<sup>40</sup> RPC, art. 2.a.

<sup>&</sup>lt;sup>41</sup> RPC, art. 2.a.i. At the same time, in its Art. 2.b., the RPC has also reconfirmed the right of any Contracting Party in whose territory the nuclear installation of the operator liable is situated to provide for a broader scope of application of this Convention under its own legislation.

<sup>42</sup> RPC, art. 2.a.ii.

<sup>43</sup> RPC, art. 2.a.iii.

<sup>44</sup> RPC, art. 2.a.iv.

The new provisions of the RPC on enlarged geographical scope have considerable impact towards strengthening the position of the potential victims of a nuclear incident in Europe. The impact of these provisions is as follows:

Firstly, the RPC is explicitly referring to nuclear damages, which may potentially arise in the territories of those countries, which are Contracting Parties to the VC, or to the RVC, which are at the same time participating in the JP.<sup>45</sup> However, the applicability of this provision is limited to those situations where the nuclear incident occurs in a Contracting Party to the RPC which is, at the same time, a Contracting Party to the JP. Thus, this geographical enlargement concerns eight of the thirteen countries participating in the Revised Paris-Brussels regime as of January, 2022.<sup>46</sup>

Secondly, the RPC aimed to satisfy those non-nuclear countries which are neighbours to the Contracting Parties of this Convention, and which have in the past often been very critical of the shortcomings of the PC.<sup>47</sup> These concerns have especially been expressed by Austria, Ireland and Luxembourg. Thus, the newly established regime also covers damages occurred in the territory of those non-Contracting States, which do not operate any nuclear installation at the time of the nuclear incident. This may potentially cover island nations, such as Iceland, Cyprus and Malta and also several small landlocked countries, which neighbour with nuclear States.<sup>48</sup> Since January, 2022, the potential victims from these non-nuclear countries will be able to claim for damages under the first tier of the RPC.

Lastly, the RPC will also be applicable to nuclear damages which occurred in non-Contracting nuclear States, under only two preconditions. Firstly, international principles of nuclear liability must be provided by the legislation of the nuclear State. At the same time, such a State must provide for reciprocity in the access to compensation of nuclear damages. In the future, this mechanism may potentially open doors for claims from those countries of Europe which have joined the regime of the RVC. This issue will be addressed in more detail in Part 3.2.

# Enlargement of the scope of installations covered

Apart from the enlargement of geographical scope of the nuclear liability regime, the enlargement of the scope of technological application represents another major achievement of the RPC. The fact is that the PC delimited<sup>49</sup> the scope of its technological application with respect to the state of the art of nuclear technology in the momentum of its adoption. Thus, the installations covered by the international regime of nuclear liability were defined as:

<sup>45</sup> However, we must bear in mind that these countries do not participate in the RBSC and, consequently, the potential victims will only be entitled to the benefits of the first tier of the compensation scheme.

<sup>&</sup>lt;sup>46</sup> Denmark, Finland, France, Germany, Italy, the Netherlands, Norway and Slovenia.

<sup>&</sup>lt;sup>47</sup> See eg. HINTEREGGER, M. 'Die Vereinheitlichung des Atomhaftungsrechts innerhalb der EU aus der Sicht Österreichs' in N Pelzer (ed), European Nuclear Liability Law in a Process of Change (Nomos 2010) pp. 221–234 (Article presenting the viewpoint of Austria) and NIDHUBHGHAILL, U. 'Reaction of a Non Convention State to the Study on the Harmonisation of the Nuclear Liability Regime considered in the EU context' in BEYENS, M., PHILIPPE, D. & REYNERS, P. (eds), Prospects of a civil nuclear liability regime in the framework of the European Union (Bruylant 2012) pp. 83–90 (Article presenting the viewpoint of Ireland). For more details on Austria's stance towards existing international regime, see HINTEREGGER, M. & KISSICH, S. Atomhaftungsgesetz 1999. Kurzkommentar (Manz 2004) pp. 47–53.

<sup>&</sup>lt;sup>48</sup> Andorra, the Principality of Liechtenstein and Monaco.

<sup>&</sup>lt;sup>49</sup> PC, art. 1.a.ii.

"reactors other than those comprised in any means of transport; factories for the manufacture or processing of nuclear substances; factories for the separation of isotopes of nuclear fuel; factories for the reprocessing of irradiated nuclear fuel; facilities for the storage of nuclear substances other than storage incidental to the carriage of such substances."

However, the developments of the following decades demonstrated several uncertainties concerning application of the regime of nuclear liability towards newly emerging technological situations. Firstly, a question of applicability of the PC on nuclear installations in various stages of their decommissioning arose in various countries throughout Europe. These developments were caused either by political decisions to phase-out the nuclear programme, or by the end of lifetime periods of earlier technologies. Secondly, with the increasing need to guarantee safe disposal of spent nuclear fuel, a debate arose on the applicability of the liability regime towards underground repositories, which will serve as safe disposal repositories of these toxic substances in the forthcoming decades.

The RPC reflected these discussions and also explicitly included<sup>52</sup> installations that are in the course of being decommissioned and installations for the disposal of nuclear substances into the international regime of nuclear liability and compensation. Thus, it was also made clear that the prospective operators of the future underground repositories, which will host spent nuclear fuel, will be liable under the scheme of the Revised Paris-Brussels regime.

Two problems of the technological scope remain unsolved by the RPC. Firstly, the research has concentrated during the last decades on nuclear fusion and there have been prospects of deployment of fusion reactors in the future. The fact is, however, that in the same vein as the regime of the PC, the regime of the RPC is also limited to risks arising from fissionable materials. Tonsequently, the RPC would be not capable of covering risks potentially arising from the deployment of fusion reactors in the future. A further revision of the RPC would be needed in the case fusion reactors will emerge that represent a considerable risk for human health and environment in the future. Secondly, in similar fashion as the PC, neither does the RPC explicitly address those nuclear installations which are being used for defence purposes. While the applicability of the first tier of the compensation scheme *vis-á-vis* these

See HORBARCH, N. & HANENBURG, E. 'Legal Aspects of the Decommissioning of Nuclear Facilities: A Comparative View' (1996) 58 Nuclear Law Bulletin, pp. 29–48. For further details on the application of the provisions of the PC to nuclear installations in the stage of decommissioning in the last decades, see HANDRLICA, J. 'Nuclear liability conventions and decommissioning: exclusion provisions revisited' (2018) 11 Journal of World Energy Law & Business, pp. 196–208.

See REYNERS, P. 'Underground nuclear repositories and international nuclear liability: the time factor' (2014) 17 Journal of Risk Research, pp. 133–43. Also see HANDRLICA, J. 'Underground repositories, re-processing facilities and floating nuclear power plants: liability issues revisited' (2019) 37 Journal of Energy & Natural Resources Law, pp. 263–288.

<sup>52</sup> RPC, art. 1.a.ii.

<sup>53</sup> RPC, art. 1.a.iii. (here, nuclear fuel is defined as fissionable material in the form of uranium metal, alloy, or chemical compound (including natural uranium), plutonium metal, alloy, or chemical compound, and such other fissionable material as the Steering Committee shall from time to time determine).

See C. Portier, 'Civil nuclear liability and fusion installations: challenge to international public law' in RAJESH BABU, R., RAM MOHAN, M. P. & REYNAERS, E. (eds), XXII Nuclear Inter Jura 2016. Proceedings of the Congress (INLA 2016) pp. 707–721.

<sup>55</sup> ibid, at p. 710.

installations remain unresolved<sup>56</sup>, the RBSC explicitly limits<sup>57</sup> the potential use of resources from the second and the third tier to compensation for nuclear damages occurring from peaceful uses of nuclear energy.

# Enlargement of the heads of damages covered

The delimitation of damages covered by the PC had been quite laconic and reflected the state of the art of the 1960s. Thus, under the PC, the operator of a nuclear installation was liable for (i) damage to or loss of life of any person<sup>58</sup>, and for (ii) damage to or loss of any property<sup>59</sup>, upon proof that such damage or loss was caused by a nuclear incident in such installation or involving nuclear substances coming from such installation.

The RPC newly provides for a considerable enlargement of damages, which will be compensated under the three-tier scheme. The new definition of nuclear damages includes the following:

- a) loss of life or personal injury;<sup>60</sup>
- b) loss of or damage to property;<sup>61</sup>

and each of the following to the extent determined by the law of the competent court:

- c) economic loss arising from loss or damage referred to in sub-paragraph a) or b) above insofar as not included in those sub-paragraphs, if incurred by a person entitled to claim in respect of such loss or damage;<sup>62</sup>
- d) the costs of measures of reinstatement of impaired environment, unless such impairment is insignificant, if such measures are actually taken or to be taken, and insofar as not included in sub-paragraph b) above;<sup>63</sup>
- e) loss of income deriving from a direct economic interest in any use or enjoyment of the environment, incurred as a result of a significant impairment of that environment, and insofar as not included in sub-paragraph b) above;<sup>64</sup>
- f) the costs of preventive measures, and further loss or damage caused by such measures. 65

For all these types of damages, except for those referred to in sub-paragraph f), the loss or damage must result from toxic, dangerous, or hazardous properties of nuclear substances. With respect to the enlargement of the scope of damages, which are to be compensated under the RPC, the Convention also provides for new definitions ancillary to these damages. <sup>66</sup>

The considerable enlargement of the scope of covered damages in the RPC has been the reflection of several factors.<sup>67</sup> Firstly, the RVC provided for a broad definition of nuclear

<sup>&</sup>lt;sup>56</sup> See DUSSART-DESART, n 39 above, at p. 13.

RBSC, art. 2.a. ("the system of this Convention shall apply to nuclear damage for which an operator of a nuclear installation, used for peaceful purposes, situated in the territory of a Contracting Party to this Convention").

<sup>&</sup>lt;sup>58</sup> PC, art. 3.a.i.

<sup>&</sup>lt;sup>59</sup> PC, art. 3.a.ii.

<sup>60</sup> RPC, art. 1.a.vii.1.

<sup>61</sup> RPC, art. 1.a.vii.2.

<sup>62</sup> RPC, art. 1.a.vii.3.

<sup>63</sup> RPC, art. 1.a.vii.4.

<sup>64</sup> RPC, art. 1.a.vii.5.

<sup>65</sup> RPC, art. 1.a.vii.6.

<sup>66</sup> See RPC, art. 1.a.viii. (measures of reinstatement), art. 1.a.ix. (preventive measures), art. 1.a.x. (reasonable measures).

<sup>&</sup>lt;sup>67</sup> For a more detailed analysis of origins of the new definition of "nuclear damage" in the RPC, see WAGSTAFF, F.

damages in 1997, including *inter alia* measures of reinstatement of impaired environment and the loss of income deriving from an economic interest in any use or enjoyment of the environment.<sup>68</sup> Thus, liability of nuclear operators for environmental damages became an integral part of a major international treaty which was adopted to represent a future face of the "Viennese" regime of nuclear liability.<sup>69</sup> These developments in the "Viennese" regime represented a challenge for the process of revision of the PC, as it was legitimately expected that the amended version of this treaty would provide for a similarly broad definition.

In parallel, a regional framework for environmental liability was established in the EU by the Directive on environmental liability (Directive).<sup>70</sup> Here, the environment is being protected as a public good with the aim to provide protection and remedy for the impaired environment.<sup>71</sup> However, this Directive provided that it shall not apply:

"to such nuclear risks or environmental damage or imminent threat of such damage as may be caused by the activities covered by the Treaty establishing the European Atomic Energy Community or caused by an incident or activity in respect of which liability or compensation falls within the scope of any of the international instruments listed in Annex V, including any future amendments thereof."

This exclusion was especially made with respect to the revision of the PC and with the outline. The revised version of this treaty will establish a parallel regime of environmental protection by the means of international law.<sup>73</sup>

In this respect, the concept of the newly added heads of damages in the RPC deserve a clarification. The concept of damage, as it appears in the RPC, is based on the concept of the civil liability of the operator. Damage suffered and claims raised are understood by the RPC as the individually attributed rights of a private person.<sup>74</sup> Pursuant to the RPC, the actually incurred costs of measures of reinstatement of a considerably impaired environment<sup>75</sup> shall be reimbursed to the person who undertook the reinstatement. Loss of income of a person

<sup>&#</sup>x27;The concept of nuclear damage in the revised Paris Convention' in PELZER N. (ed), *Internationalizing Atomic Energy Law* (Nomos 2005) pp. 197–220. Also see BLANCHARD, P. 'Responsibility for environmental damage under nuclear and environmental instruments' (2000) 18 *Journal of Energy & Natural Resources Law*, pp. 233–53.

<sup>68</sup> RVC, art. I.1.k.

<sup>69</sup> See LAMM, V. 'The Protocol Amending the 1963 Vienna Convention' (1998) 61 Nuclear Law Bulletin, pp. 7–12, at p. 7–9. Also see RUSTAND, H. 'Updating the concept of damage, particularly as regards environmental damage and preventive measures, in the context of the ongoing negotiations on the revision of the Vienna Convention' in OECD (ed), Nuclear Accidents, Liabilities and Guarantees (OECD 1993) pp. 218–238, at pp. 219–20.

Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143, 30. 4. 2004, pp. 56–75.

<sup>71</sup> See CASOTTA, S. Environmental Damage and Liability Problems in a Multilevel Context (Wolters Kluwer 2012) pp. 112–114.

<sup>&</sup>lt;sup>72</sup> art. 4.4. (the PC has been included into the list of international instruments, which are listed in the Annex V).

<sup>&</sup>lt;sup>73</sup> See DANZI, E. 'Some Reflections on the Exclusion of Nuclear Damage from the Scope of Application of the Environmental Liability Directive' in PELZER N. (ed), *European Nuclear Liability Law in a Process of Change* (Nomos 2010) pp. 191–212, at p. 192.

Yee PELZER, N. 'Deliberations on Compensation and Remediation of Nuclear Damage to the Environment' (2010) 86 Nuclear Law Bulletin, pp. 49-57, at p. 54. Also see RUSTAND, H. 'Updating the concept of damage, particularly as regards environmental damage and preventive measures, in the context of the ongoing negotiations in the revision of the Vienna Convention' in OECD (ed), Nuclear accidents. Liabilities and Guarantees (OECD 1993) pp. 218–238.

<sup>75</sup> RPC, art. 1.a.vii.4.

deriving from that persons direct economic interest in the use or enjoyment of the environment following a significant impairment of the environment following apply if such damage is not already covered by damage to property. Furthermore, measures to prevent economic losses as a result of damage to the environment are covered. Consequently, it is not the environment as a common asset of the general public which shall be protected by the newly added heads of damage, but the rights of individual victims. Thus, the liability regime of the RPC follows a model which is a purely anthropocentric, rather than an envirocentric model, putting the environment into the centre of interest.

In this respect, the legal scholarship has already expressed the opinion<sup>80</sup> that with the entry into force of the RPC, a dual regime for compensation of environmental damages will arise. While the compensation, as based on the Directive, will be based primarily on a remedy of the impaired environment, the compensation established by the RPC will compensate the private victims exclusively. This newly established dual system of compensation of environmental damages will certainly attract much attention and will perhaps also become a subject of criticism.

# Increased liability of the operators in the first tier

A considerable enlargement of damages, which will be covered by the liable operator under the RPC, represented a challenge for how the liability of the operator in the first tier of the Revised Paris-Brussels regime is shaped.

The PC provided for both maximal and minimal limits of operators' liability. Pursuant to the PC, the maximum liability of the operator in respect of damage caused by a nuclear incident shall be 15 million Special Drawing Rights as defined by the International Monetary Fund (SDR).<sup>81</sup> In this respect, the PC also allowed that each Contracting Party, considering the possibilities of the insurance market, was able to establish a lesser or higher maximal limit of liability.<sup>82</sup> Also, the PC provided for a minimum liability limit, which was to be maintained in the legislation of the Contracting Parties and which must be no lower than 5 million SDR.<sup>83</sup>

The fact is that the limits established were already considered unsatisfactory in the decade after the adoption of the PC.<sup>84</sup> Not only inadequate amounts available for prospective compensation, but also dependence of these amounts on the availability of insurance, rather than on real estimations of risk, became a subject of criticism.<sup>85</sup> Therefore, most of the

<sup>&</sup>lt;sup>76</sup> RPC, art. 1.a.vii.5.

<sup>77</sup> RPC, art. 1.a.vii.2.

<sup>&</sup>lt;sup>78</sup> RPC, art. 1.a.vii.6.

<sup>&</sup>lt;sup>79</sup> Pelzer, n 74 above, 54.

<sup>80</sup> See RAETZKE, C. 'Nuclear third party liability in Germany' (2016) 97 Nuclear Law Bulletin, pp. 9–34, at pp. 18–19.

<sup>81</sup> PC, art. 7.b.

<sup>82</sup> PC, art. 7.b.i.

<sup>83</sup> PC, art. 7.b.ii.

<sup>84</sup> See PELZER, N. 'On modernising the Paris Convention: reasons for revising the Paris Convention and objectives' (1973) 13 Nuclear Law Bulletin, pp. 46–54.

<sup>85</sup> See KYRTSIS, A. & RENTETSI, M. 'From lobbyists to backstage diplomats: how insurers in the field of nuclear third party liability shaped nuclear diplomacy' (2021) 37 History and Technology, pp. 25–43.

Contracting Parties did not wait for revision of the PC to make substantial changes to the amounts laid down in their respective national legislation. Taking into consideration the growing disparity between the amounts offered by the various jurisdictions of the Contracting Parties to the PC, the OECD recommended bringing the amount for the liability of nuclear operator up to at least 150 million SDR.

The RPC reflected upon the above-mentioned developments and provided for major changes in setting of liability limits in the first tier:

Firstly, the RPC has replaced the SDR as units of account by €. At the time of the adoption of RPC, this currency was already shared by nine of the fourteen countries of the PC, among them most of the main contributors to the second and the third tier.<sup>87</sup> The replacement of the SDR was also motivated by several other reasons. Euro as a unit of account offered the advantage of transparency for Contracting Parties as well as their citizens. Also, € offered easier mobilisation of insurance capacities, which, in the euro zone, no longer need to take account of exchange risks between any national currency and the SRD.<sup>88</sup>

Secondly, the concept of liability limitation itself underwent several fundamental changes. In this respect, the RPC newly presents an amount to which the Contracting Parties must fix the liability as a common minimum and no longer as a maximum.<sup>89</sup> The new common minimum amount has been raised to 700 million € by the RPC, which represented almost fourfold increase in the 150 million SDR, which were recommended by the OECD in 1990. By establishing this new minimum layer of operators' liability, several factors were considered. All the three major novelties of the RPC, which were outlined above − enlargement of the geographical scope, enlargement of installations covered and introduction of new heads of damages − implied a need for accumulation of higher amounts of finances available in the case of a nuclear incident. However, the ultimate criterion for setting the common minimum was, as before, the capacity of the insurance market.<sup>90</sup>

Lastly, while the PC provided for a mandatory maximum limit of liability, the RPC explicitly confirms<sup>91</sup> the right of each Contracting Party to opt for unlimited liability of the operator in national legislation. The fact is that the concept of unlimited liability has been widely discussed already under the PC. One of the Contracting Parties to the PC, the Federal Republic of Germany, has opted for unlimited liability in its own legislation.<sup>92</sup> This became trigger for other countries of Europe to introduce similar legislation. The fact is that the liability limitation has been seen as a tool for support of the nuclear industry by both academic scholarship and the public opinion in many countries.<sup>93</sup>

<sup>&</sup>lt;sup>86</sup> Recommendation of the Steering Committee of 20 April, 1990 [NE/M(90)1].

<sup>87</sup> See DUSSART-DESART, n 39 above, at p. 18.

<sup>88</sup> ibid.

<sup>89</sup> RPC, art. 7.a.

See DUSSART-DESART, n 39 above, at p. 18.

PPC, art. 10.b. ("where the liability of the operator is not limited in amount, the Contracting Party within whose territory the nuclear installation of the liable operator is situated shall establish a limit upon the financial security of the operator liable, provided that any limit so established shall not be less than the amount referred to in Article 7.a").

<sup>&</sup>lt;sup>92</sup> See RAETZKE, n 80 above, at pp. 9–12 (a short overview of the developments in nuclear liability legislation of Germany). For a classical account, dealing with the problem of unlimited liability in German law, see PELZER, N. Begrenzte und unbegrenzte Haftung im deutschen Atomrecht (Nomos 1982).

<sup>93</sup> See LEEBRON, D. 'Limited liability, tort victims, and creditors' (1991) 91 Columbia Law Review, pp. 1565–1650, at

Consequently, introducing of unlimited liability by national legislation was identified as a tool for strengthening the rights of potential victims and establishing a more transparent framework for peaceful uses of nuclear energy. The example of Germany inspired introduction of unlimited liability in neighbouring Switzerland. Other countries of Europe also introduced similar legislation, however, postponing its effects until the RPC will enter into force. For example, Finland amended its Nuclear Liability Act in 2005, providing that the liability of the nuclear operator will be unlimited as of the date, the revised Paris-Brussels regime will enter into force. In 2010, a similar legislation, providing for introduction of unlimited liability at the moment, the revised Paris-Brussels regime will enter into force, was adopted in Sweden.

Thus, the entry into force of the Amended Paris-Brussels regime has implied not only considerable strengthening of the framework at an international level, but also major shifts in national legislations of those countries, which made this momentum legally important for introduction of unlimited liability in their jurisdictions.

# 2.2 The Revised Brussels Supplementary Convention (RBSC)

Apart of the RPC, also the RBSC entered into force on 1 January, 2022. In the same vein as the BSC, the RBSC also has a subsidiary nature to the regime, established under the RPC. This subsidiarity is demonstrated by the fact, no country may remain a Contracting Party to the RBSC, if it is not a Party to the RPC. <sup>97</sup>

In the case a nuclear incident causing damage for which an operator covered by the RPC will be liable, the amount of which will exceed the cover provided by the said operator, the RBSC will be triggered on the basis of the mechanisms of the RPC, subject, however, to two exceptions. Firstly, as already mentioned above with respect to the technological scope of the RPC, the RBSC applied only to nuclear installations operated for peaceful uses. Secondly, while the RPC has provided for a rather enlarged geographical scope of application, the scope of application of the RBSC is limited to the territory of the Contracting Parties. Thus, financial means, which have been accumulated under the RBSC will serve exclusively for compensation of those damages, which occurred in the territory of countries, participating in the RBSC.

pp. 1575–1576. Also see RADETZKI, M. 'Limitation de la responsabilité civile nucléaire: causes, conséquences et perspectives' (1999) 63 *Nuclear Law Bulletin*, pp. 7–27.

<sup>94</sup> See PELZER, N. 'Focus on the Future of Nuclear Liability Law' (2015) 17 Journal of Energy & Natural Resources Law, pp. 332–353, at pp. 337–339.

<sup>95</sup> See OECD (ed), Nuclear legislation in OECD and NEA countries. Finland (OECD 2019) p. 14.

<sup>96</sup> See WÄRNSBY, M. & EDQUIST, M. 'Nuclear Energy Law in Sweden' (2013) Oil, Gas & Energy Law, p. 4, available at https://www.ogel.org/article.asp?key=3345.

<sup>97</sup> RBSC, art. 19. Any similar provision concerning the RBSC is lacking in the text of the RPC and consequently, participation in the RPC is not necessarily connected with participation in the RBSC.

<sup>98</sup> RBSC, art. 2.a. To avoid any disputes, each Contracting Party must, pursuant to the Art. 13, communicate to the Depository of the Convention (the Belgian government) a list of concerned installations operated in its territory.

<sup>99</sup> RPC, art. 2.a.

<sup>100</sup> RBSC, art. 2.a.

The rationale behind this concept is that since the supplementary compensation established by the 2<sup>nd</sup> and the 3<sup>rd</sup> tier is essentially "public" money, it should only be used to compensate victims in states who have agreed to participate in that supplementary regime.

While the regime of the RPC governs civil liability of the operators (the first ties of the scheme), the RBSC provides for compensation of nuclear damages, based on solidarity. In the second tier, it is the solidarity of the State with its own citizens, which is the reason for accumulation of public funds. In the third tier, the reason behind establishing public funds is the mutual solidarity of the States to each other. 102

# Increased amounts for compensation available in public funds

The BSC guaranteed compensation of nuclear damages caused by each nuclear incident in the amount of 300 million SDR. <sup>103</sup> This compensation was envisaged to be provided:

- i) up to an amount of at least 5 million SDR, out of funds provided by insurance or other financial security, such amount to be established by the legislation of the Contracting Party in whose territory the nuclear installation of the operator liable is situated;
- ii) between this amount and 175 million SDR, out of public funds to be made available by the Contracting Party in whose territory the nuclear installation of the operator liable is situated;
- iii) between 175 and 300 million SDR, out of public funds to be made available by the Contracting Parties according to the formula for contributions.

Due to the subsidiary nature of the BSC to the PC, the revision of the PC has automatically implied a necessity to provide adequate revisions of the BSC as well. Consequently, the SDR was replaced by  $\in$  as a unit of account also in the RBSC. Also, the provisions of the RBSC had also to consider the considerable increase of liability limits, as newly provided by the RPC. As of January, 2022, the RBSC guarantees<sup>104</sup> that the compensation for damages shall be provided up to 1,500 million  $\in$  for each nuclear incident, which may occur in the territories of the Contracting Parties. Thus, the RBSC provides for a more than fourfold increase of the original sum available for compensation, which used to be 300 million SRD.<sup>105</sup>

In this respect, the RBSC provides that the legislation of each Contracting Party must opt for one of the two following options in their national legislation:

- a) either the Contracting Party may establish the liability of the operator at not less than 1 500 million  $\epsilon^{106}$ ;
- b) or provide that where the liability of the operator is limited to 700 million €, or to a higher amount, the public funds will be allocated by such Contracting Party to cover the difference between the amount of operator's liability and the full amount to be compensated.<sup>107</sup>

<sup>102</sup> See FORNASIER, R. 'Une expérience de solidarité international: La Convention complementaire á la Convention de Paris du 29 juillet 1960' (1962) 8 Annuaire français de droit international, pp. 762–772, at pp. 763–764.

<sup>&</sup>lt;sup>103</sup> BSC, art. 3.a.

<sup>104</sup> RBSC, art. 3.a.

<sup>&</sup>lt;sup>105</sup> See M. Faure & T. Vanden Borre, 'Compensating nuclear damage: A comparative economic analysis of the US and international liability schemes' (2008/9) 33 William & Mary Environmental Law and Policy Review, pp. 220–259, at p. 236.

<sup>106</sup> RBSC, art. 3.c.i.

<sup>107</sup> RBSC, art. 3.c.ii.

By opting for the first solution, the Contracting Party to the RBSC would shift obligations to compensate damages occurred entirely to the operator. Under this option, the country will have no obligation to establish public funds to compensate the victims and will transfer the burden of compensation entirely to the subject operating the concerned nuclear installation.

The second option presumes, that the Contracting Party will establish a limit of liability by its own national legislation. Such limit might be 700 million  $\epsilon$ , or higher. In this case, the Contracting Party is obliged to cover the difference between this limit and 1,200 million  $\epsilon$  (the second tier of compensation) by public funds. Lastly, the third tier of compensation is being composed of amount equal to 300 million  $\epsilon$  and the States are required to contribute to this tier according to a formula, provided by the RBSC.<sup>108</sup>

Table 1. Increased amounts for compensation in the Amended Paris-Brussels regime

	PC/BSC	RPC/RBSC
First tier	minimum 5 million SDR	minimum 700 million €
(National limit on the operator's liability, as under the PC)		
Second tier	maximum 170 million SDR	maximum 500 million €
(Public funds made available by the country of the liable operator)	[difference between first tier and 175 million SDR]	[difference between first tier and 1 200 million €]
Third tier	125 million SDR	300 million €
(Public funds made available by all parties to BSC/RBSC)	[difference between 175 million SDR and 300 million SDR]	[difference between 1,200 million € and 1 500 million €]
Total amount for compensation available	300 million SDR	1,500 million €

<sup>108</sup> RBSC, art. 12.

## 3. Relations with other regimes in Europe

The Revised Paris-Brussels regime does not exist in a *limbo*. Several other international regimes of nuclear liability and compensation exist in Europe at the same time.<sup>109</sup> In both Central and Eastern Europe, both nuclear and non-nuclear countries are either participating in the regime of the VC<sup>110</sup>, or of the RVC.<sup>111</sup> Both these international conventions<sup>112</sup> stand upon the same international principles of nuclear liability, as the RPC. However, while the nuclear liability regime of the RPC is directly linked to membership in the OECD<sup>113</sup>, the "Viennese" regime of nuclear liability has been constructed as a universal convention, aiming to attract both nuclear and non-nuclear countries worldwide.<sup>114</sup>

Neither the RPC, nor the "Viennese" conventions provide for an explicit provision governing the question of simultaneous participation in both these international regimes. The fact is that the original intention of the signatories to the VC was to establish a universal framework, which would attract both the countries participating in the PC and the countries, not belonging to any international regime. Both Spain and the United Kingdom originally signed the VC, but – in the same vein as any other country belonging to the PC – have never ratified it. Both in the literature<sup>115</sup> and in the practice of the Contracting Parties, a common understanding has emerged that parallel participation in both PC/RPC and VC/RVC regimes would be only theoretically possible, but not in practical terms. Such simultaneous participation in both international regimes of nuclear liability would have as consequence that the operator must maintain separate insurance to comply with the requirements of each of the conventions, as both the VC<sup>116</sup> and the RVC<sup>117</sup> provide that the funds provided by

In the aftermath of the Fukushima-Daichi accident (2011), this "patchwork" of nuclear liability regimes in Europe attracted considerable attention of the legal academia. See eg. HANDRLICA, J. 'Harmonisation of Nuclear Liability in the European Union: Challenges, Options and Limits' (2009) 84 Nuclear Law Bulletin, pp. 35–64. Also see papers, presented at a seminar organised by the European Commission in 2011, which were subsequently published in BEYENS, M., PHILIPPE, D., REYNERS, P. (eds), Prospects of a civil nuclear liability regime in the framework of the European Union (Bruylant 2012).

<sup>&</sup>lt;sup>110</sup> Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Lithuania, North Macedonia, Republic of Moldova, Russian Federation, Serbia, Slovakia and Ukraine.

Belarus, Bosna and Herzegovina, Latvia, Montenegro, Poland and Romania.

Technically the VC was revised by the adoption of the Protocol to Amend the Vienna Convention in 1997. Pursuant to Article 19 of the Protocol, "a State which is Party to this Protocol but not to the 1963 Vienna Convention shall be bound by the provisions of that Convention as amended by this Protocol in relation to other States Parties hereto, and failing an expression of a different intention by that State at the time of deposit of an instrument referred to in Article 20 shall be bound by the provisions of the 1963 Vienna Convention in relation to States which are only Parties thereto." After the RVC came into force (2003), a State may only accede to the RVC, but in the mutual relations of the Contracting Parties to the VC the provisions of that Convention will remain in force until such time as they have acceded to the RVC.

RPC, art. 21.a. (government of any Member or Associate country of the OECD may accede thereto by notification addressed to the Secretary-General of the Organisation). At the same time, the following Article virtually opens a possibility for participation of a non-member country in the RPC, however, only with the consent of all of the Contracting Parties. In practical terms, there hasn't been any initiative from side of any non-member country to join either the PC, or the RPC.

<sup>&</sup>lt;sup>114</sup> VC, art. XXIV.1.

<sup>&</sup>lt;sup>115</sup> See SPLETH, P. 'The Simultaneus Application of the Paris and Vienna Convention in the Danish Draft Act' (1970) 6 Nuclear Law Bulletin, pp. 58–66, at p. 59.

<sup>&</sup>lt;sup>116</sup> VC, art. VII.3.

<sup>117</sup> RVC, art. VII.3.

insurance, by other financial security or by the Contracting Party "shall be exclusively available for compensation due under this Convention." Thus, in practical terms, there haven't been any cases of a State simultaneously participating in both "Parisian" and "Viennese" regime of nuclear liability. The countries belong either to the first mentioned, to the second, or to neither of them.

Since January, 2022, the Revised Paris-Brussels regime coexists in the geographical space of Europe with the above-mentioned international regimes. We must bear in mind that a nuclear incident, which may occur in the territory of one of the Contracting Parties to the newly established regime in the west of Europe, will be capable to cause damages in the territories of the countries, participating in either the VC, or in the RVC. Vice versa, a nuclear incident, that may occur in one of the nuclear installations being operated in the territory of the "Viennese" countries may with a rather high probability cause damages in the territory of the countries, participating in the Revised Paris-Brussels regime. Consequently, the problem of mutual relations between the various regimes of nuclear liability is of crucial importance for the further existence of the newly established regime in the thirteen countries of Western Europe. The following paragraphs aim to address these mutual relations.

## 3.1 The Vienna Convention (VC)

In contrast to the wording of both the PC and the RPC, the VC is silent regarding the geographical scope of its application. Thus, the regime of nuclear liability and compensation, as established by the VC, has been interpreted as being applicable only to those damages that occur in the territory of the Contracting Parties. Thus, the scope of the geographical application of the newly established regime in the west of Europe and the scope, as provided by the VC differ considerably. The problem of mutual relations between the two international regimes must therefore be addressed separately from the viewpoint of each of the regimes.

# The Revised Paris-Brussels regime and the VC

Under the RPC, the geographical scope of the liability regime isn't limited exclusively to the territory of the Contracting Parties. Thus, the RPC provides that those nuclear damages will also be compensated, if caused by nuclear incident that occurred in one of the Contracting Parties and will be suffered in the territory of any Contracting Party to the VC. Here, the precondition is that both the State where nuclear incident has occurred and the State where damage was suffered, are participating in the regime of the JP. Here, the JP serves the purpose of a "legal bridge" between the RPC and the VC. Legal December 120 In Europe, there are nine countries of the RPC. and seven countries of the VC. which are participating in this "legal bridge" as of January, 2022. Thus, for a case of a nuclear incident, the victims who

<sup>118</sup> See KISSICH, S. Internationales Atomhaftungsrecht. Anwendungsbereich und Haftungsprinzipien (Nomos 2004) pp. 181–182. Also see Vienna Convention on the Law of Treaties, art. 29 ("unless a different intention appears from the treaty or is otherwise established, a treaty is binding upon each party in respect of its entire territory").

<sup>119</sup> RPC, art. 2.a.ii.

<sup>&</sup>lt;sup>120</sup> See BUSEKIST, O. 'A bridge between two conventions on civil liability for nuclear damage: the Joint Protocol relating to the application of the Vienna Convention and the Paris Convention' (1989) 43 Nuclear Law Bulletin, pp. 10–39.

Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Slovenia and Sweden.

<sup>&</sup>lt;sup>122</sup> Bulgaria, Croatia, Czech Republic, Hungary, Lithuania, Slovakia and Ukraine.

suffer damages in the territory of any of these seven countries will have access to the first tier of compensation, as established under the Revised Paris-Brussels regime.

The fact is that the regime of the RPC goes beyond the "legal bridge", as established by the Joint Protocol. Several major nuclear countries, participating in the RPC have not joined the JP so far. This is the case of Belgium, Spain, Switzerland and the United Kingdom. Consequently, potential victims from the countries of the VC, who suffered damages caused by a nuclear incident that occurred in any of these States, will not be in position to use benefits of the JP. In this respect, the RPC provides<sup>123</sup>, that it shall be also applicable to those damages, which may occur in the territory of any:

"non-Contracting State which, at the time of the nuclear incident, has no nuclear installation in its territory or in any maritime zones established by it in accordance with international law."

This newly enlarged geographical scope of the RPC has considerable impacts for the liability of those operators, which have nuclear installations in the territory of the aforementioned countries, which do not participate in the JP. While under the PC, any obligation to compensate damages occurred beyond the scope of the JP was absent, the revised regime implies obligation to also cover those nuclear damages, which may occur in the territory of the non-nuclear countries, participating in the VC.<sup>124</sup>

With respect to the access of potential victims, who suffered nuclear damages in the territories of the Contracting Parties to the VC, one must bear in mind that these victims will *only* have access to the compensation from the first tier of the Revised Paris-Brussels regime, as the RBSC exclusively limits its application<sup>125</sup> to compensation of damages that occurred in the territory of its Contracting Parties. Consequently, access to the second and to the third tier of the compensation scheme, as established under the Revised Paris-Brussels regime, will be – as before under the PC/BSC – reserved to the victims from the countries, participating in the RBSC. However, the fact is that access of the potential victims from the "Viennese" regime into the first tier will also inevitably influence the amount of available compensation from the second and third tier, as larger numbers of claimants will soon exhaust the financial resources allotted by the operator and his insurance. 127

Lastly, it must be noted that the Amended Paris-Brussels regime is potentially opened for accession of many of the current "Viennese" states. As of January, 2022, several countries of the "Viennese" liability regime participate in the OECD as members of this international organisation <sup>128</sup> and, consequently, would be eligible to join both the RPC and the RBSC as new Contracting Parties. Such a step would, however, presume phasing-out from the "Viennese" system by these countries and simultaneously, their preparedness to allocate considerable public funds to be available under the RBSC. Thus, one can more realistically

<sup>123</sup> RPC, art. 2.a.iii.

Estonia, North Macedonia, Republic of Moldova and Serbia. Croatia co-operates a nuclear power plant with neighbouring Slovenia which is, however, situated in the Slovenian territory. Consequently, Croatia would also qualify as a "non-Contracting State which, at the time of the nuclear incident, has no nuclear installation in its territory" under the enlarged geographical scope of the RPC.

<sup>125</sup> RBSC, art. 2.a.

<sup>&</sup>lt;sup>126</sup> See KISSICH, S. n 118 above, pp. 229-231.

See DUSSART-DESART, n 39 above, at p. 27.

<sup>&</sup>lt;sup>128</sup> Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia.

presume that the division of Europe to the "Parisian" and "Viennese" regime will also persist in the future. 129

# The VC and the Revised Paris-Brussels regime

The legal situation is quite different if analysing the relation of the VC *vis-á-vis* the Revised Paris-Brussels regime. The regime of nuclear liability, as established by the VC, is limited exclusively to the territories of the Contracting Parties. Thus, any compensation of damages that would potentially occur in the territory of countries belonging to the Revised Paris-Brussels regime as consequence of a nuclear incident, originating in the territory covered by the VC, requires that the concerned countries must be participating in the JP.

As of January 2022, majority of European countries participating in the VC are also part of the JP. Consequently, access to compensation for nuclear damages which may occur as consequence of an incident in a nuclear installation operated in countries of the VC, may be facilitated by further accession of the countries, participating in the RPC, to the JP. This especially represents a challenge for Switzerland, which may potentially be endangered by a nuclear incident, occurring in one of the nuclear installations being operated under the VC.

The fact is, however, that even further accession of the Contracting Parties to the RPC to the JP will have no capacity to address the problem of those states, participating in the VC, which haven't accessed to the JP. Nowadays, this is the situation with the Russian Federation. Consequently, if an incident will occur in a nuclear installation operated in the Russian Federation, the scheme of the VC will be applicable only to damages that will occur in the territories of the Contracting Parties to the VC/RVC. Further accession, or ratification of the RVC will have the capacity to address these gaps, as will be demonstrated in the following paragraph.

## 3.2 The Revised Vienna Convention (RVC)

While the scope of the VC has been geographically restricted to the territories of the Contracting Parties, the RVC provides that it shall apply to wherever nuclear damage is suffered. Thus, in principle, the RVC provides for a universal application worldwide. At the same time, the RVC also provides that each Contracting Party may, by its own legislation, exclude application of the Convention to those damages that occurred in the territories of non-Contracting States, or in their maritime zones. However, such exclusion may only apply

<sup>&</sup>lt;sup>129</sup> See HANDRLICA, J. 'Mirage of universalism in international nuclear liability law: A critical assessment 10 years after Fukushima' (2021) 30 Review of European, Comparative and International Environmental Law, pp. 375–386, at pp. 383.

<sup>&</sup>lt;sup>130</sup> Bulgaria, Croatia, Czech Republic, Hungary, Lithuania, Slovakia and Ukraine.

<sup>&</sup>lt;sup>131</sup> See REYNERS, P. 'Une large adhésion au Protocole Commun: le moyen de promouvoir une meilleure intégration du régime de responsabilité civile nucléaire en Europe' in BEYENS, M., PHILIPPE, D., REYNERS, P. (eds), Prospects of a civil nuclear liability regime in the framework of the European Union (Bruylant 2012) pp. 155–165, at p. 160.

<sup>&</sup>lt;sup>132</sup> For further details, see HORBACH, N. '1997 Nuclear Liability Treaties: Conformities and Deficiencies in some EU Applicant States' (2000) 18 *Journal of Energy & Natural Resources Law*, pp. 378–403. Also see HAMILTON, J. 'Access by victims to the compensation régime of the Vienna Convention on Civil Liability for Nuclear Damage – the question of geographical scope' in OECD (ed), *Reform of Civil Nuclear Liability* (OECD 1999) pp. 99–114.

<sup>133</sup> RVC, art. IA.1.

<sup>134</sup> RVC, art. IA.2.

to nuclear countries which do not provide for equivalent reciprocal benefits. <sup>135</sup> Consequently, if compared with the machinery of geographical scope of the RPC, the RVC is based on a reversed logic: the scope of application is, a priori, generous, but counterbalanced by the right of each Contracting Party to exclude damages occurring in the nuclear countries. <sup>136</sup> As of January 2022, six countries <sup>137</sup> in Europe are participating in the RVC, while several other countries <sup>138</sup> signed the RVC, but haven't yet ratified it. Reflecting the future potential of the RVC to supersede the existing regime of the VC, the following paragraphs will address the problem of mutual relations between the Revised Paris-Brussels regime and the RVC and *vice versa*.

# The Revised Paris-Brussels regime and the RVC

The position of the newly established Revised Paris-Brussels regime towards the VC was outlined above. This outline is also applicable here, as the RPC treats the RVC in the same fashion as the VC.<sup>139</sup> Thus, the countries of the Revised Paris-Brussels regime are interconnected with the countries of the RVC, if both are participating in the JP. On the site of the Contracting Parties to the RVC, Latvia, Montenegro, Poland and Romania are also part of the "legal bridge", as established by the JP. Consequently, potential victims from these countries, who suffered damages as consequence of a nuclear incident in the countries participating in the RPC and in the JP, will access to the financial means available under the first tier of the RPC. However, as the RBSC reserves the second and the third tier only for damages, that occurred in the territory of the Contracting Parties to this Convention, victims from Eastern Europe will have no access to these funds.

The geographical enlargement, which the RPC provided<sup>140</sup> *vis-á-vis* the non-nuclear States is also capable to cover the countries participating in the RVC. Bosna and Herzegovina is example of such a non-nuclear country, which does not participate in the JP and, therefore, the potential victims would be not entitled the benefits of the "legal bridge". However, as the newly established geographical enlargement of the RPC will imply, the first tier will also cover damages potentially arising in the territory of this Balkan country.

Here, we approach the thorny issue of geographical enlargement of the application of RPV *vis-á-vis* nuclear countries. In this respect, the RPC provides<sup>141</sup> that it shall also apply to nuclear damage suffered in the territory of, or in any maritime zones established in accordance with international law of:

"any other non-Contracting State which, at the time of the nuclear incident, has in force nuclear liability legislation which affords equivalent reciprocal benefits, and which is based on principles identical to those of this Convention, including, inter alia, liability without fault of the operator liable, exclusive liability of the operator or a provision to the same effect, exclusive jurisdiction of the competent court,

<sup>135</sup> RVC, art. IA.3.

<sup>&</sup>lt;sup>136</sup> See DUSSART-DESART, n 39 above, at p. 17.

<sup>&</sup>lt;sup>137</sup> Belarus, Bosna and Herzegovina, Latvia, Montenegro, Poland and Romania.

<sup>&</sup>lt;sup>138</sup> Czech Republic, Hungary Lithuania, Slovakia and Ukraine.

<sup>&</sup>lt;sup>139</sup> See BLOBEL, F. 'Das Protokoll von 2004 zum Pariser Übereinkommen – wesentliche Verbesserungen im internationalen Atomhaftungsrecht' (2005) 27 Natur und Recht, pp. 137–142, at p. 139.

<sup>140</sup> RPC, art. 2.a.iii.

<sup>141</sup> RPC, art. 2.a.iv.

equal treatment of all victims of a nuclear incident, recognition and enforcement of judgements, free transfer of compensation, interests and costs."

With the entry of the RPC into force, the question arises to which extent was the liability of operators also extended to damages which may occur in the territory of those nuclear countries participating in the RVC, without being part of the JP? Belarus, which has launched its own peaceful-purposed nuclear programme in 2020, represents an example of such a country. The applicability of the RPC towards territories to non-Contracting nuclear countries has two preconditions. Firstly, the non-Contracting country must maintain a nuclear liability legislation based in the international principles of nuclear liability. This requirement will without any doubt be fulfilled in the case of a Contracting Party to the RVC, as both the RPC and the RVC share the same principles of nuclear liability. Secondly, the nuclear liability legislation of the non-Contracting country must afford equivalent *reciprocal benefits* for the victims from the countries of the RPC. The provisions of the RPC do not explicitly define exactly what such *reciprocal benefits* must imply. However, with respect to the limitation of operator liability, the RPC provides that, in cases where the Convention is applicable to a non-Contracting nuclear State, any Contracting Party may establish amounts of liability lower than the minimum amounts established by the RPC.

However, this possibility is restricted to the extent that such a State does not afford *reciprocal benefits* of an equivalent amount. Consequently, the existing literature<sup>143</sup> interprets these provisions in such a way that the *reciprocal benefits* apply only to the compensation offered. This interpretation opens a way for the victims who suffered nuclear damages in the territories of the Contracting Parties to the RVC a possibility to claim for damages under the first tier of the Revised Paris-Brussels regime. The Contracting Parties to the RPC may merely establish a different limit for operator liability with respect to such claims but have no right to exclude these victims from the scheme of the first tier. Consequently, the legislation of the countries participating in the RVC, especially the amounts available for the compensation, will be key factor for the access of victims from these countries to the first tier. <sup>144</sup>

Consequently, further accession of the Contracting Parties of the VC to the RVC is capable of considerably strengthening the regime of compensation for nuclear damages in Europe. The RVC represents a tool which may potentially open the doors for compensation in the Amended Paris-Brussels regime, depending on the amounts available under the domestic legislation of the countries belonging to the RVC. However, one must bear in mind that accession to the RVC will not provide access to the second and third tier of the Amended Paris-Brussels regime, which will remain only reserved for the citizens from the countries of the RBSC.

# The RVC and the Revised Paris-Brussels regime

In contrast with the RPC, the RVC has opted for a universal approach when dealing with geographical applications.<sup>145</sup> Thus, the financial means available under the RVC in principle are also available for potential victims from the countries of the RPC. The fact is that,

<sup>142</sup> RPC, art. 7.g.

<sup>&</sup>lt;sup>143</sup> See DUSSART-DESART, n 39 above, at p. 28-29.

<sup>&</sup>lt;sup>144</sup> See LAMM, V. 'The Unification of Nuclear Liability Law within the EU Member States from the Viewpoint of a Party to the Vienna Convention' in PELZER N. (ed), European Nuclear Liability Law in a Process of Change (Nomos 2010) pp. 213–220, at p. 219.

RVC, art. IA.1 (this Convention shall apply to nuclear damage, wherever suffered).

regarding the scope of geographical application, the RVC takes a different approach than the RPC. While the RPC explicitly provides for geographical enlargements, the RVC has chosen a universal approach, although providing for possible exclusions. A Contracting Party to the RVC may exclude<sup>146</sup> its application to such nuclear non-Contracting States which fail to provide for equivalent reciprocal benefits.<sup>147</sup> However, taking the recent framework of the Amended Paris-Brussels regime into consideration, one could hardly argue that such an exclusion could be used *vis-á-vis* the countries participating in this regime.<sup>148</sup> Consequently, from the viewpoint of the victims from the countries participating in the RPC, further accession of the Contracting Parties of the VC<sup>149</sup> to the RVC represents an ideal tool for strengthening their rights.

## 3.3 The Convention on Supplementary Compensation (CSC)

Lastly, the existence of the CSC makes the situation even more complex. The aim of this Convention was to establish a global framework of public funds for compensation of nuclear damages, which was intended to be open to all States that recognised the principles of nuclear liability, as provided by the Paris and Vienna Conventions. Consequently, the CSC was designed as a "free-standing" international convention, which is open to both to the Contracting Parties to either the Paris or Vienna Conventions, and to States not participating in these Conventions but recognising their principles in domestic legislation.<sup>150</sup>

In the same vein as the Revised Paris-Brussels regime, the CSC also envisages three layers of compensation for nuclear damages. The first tier consists of financial amount of at least 300 million SDR, which is to be ensured by the Contracting Party either by limiting the liability of the operator up to this amount, or by establishing its own public funds. <sup>151</sup> The second tier consists of additional public funds, allotted by the Contracting Parties and provided additional 300 million SDR. <sup>152</sup> Lastly, the CSC also recognises the right of the Contracting Parties to establish a third tier of compensation, which will be based by international agreements, adopted among various Contracting Parties to the CSC. <sup>153</sup>

As of January 2022, there were eleven countries<sup>154</sup> worldwide participating in the system of the CSC. However, only one of these countries (Romania) was situated in Europe. At the same time, several other countries<sup>155</sup> in Europe signed the CSC in the past and, consequently, one may await ratification of this instrument in some of these countries in the future. Thus, the mutual relations between the CSC and the Revised Paris-Brussels regime must be subject to a short analysis here.

<sup>146</sup> RVC, art. IA.2.

<sup>147</sup> RVC, art. IA.3.d.

<sup>148</sup> See REYNERS, P. 'Modernisation du régime de responsabilité civile pour les dommages nucléaires' (1998) Revue Général de Droit International Public, pp. 747–767, at p. 750.

<sup>149</sup> Czech Republic, Lithuania, Hungary and Ukraine signed the Protocol to Amend the Vienna Convention in 1997, but haven't yet ratified it.

<sup>150</sup> CSC, art. XIX.1.

<sup>151</sup> CSC, art. III.1.a.

<sup>152</sup> CSC, art. III.1.b.

<sup>153</sup> CSC, art. XII.3.

<sup>154</sup> Argentina, Benin, Canada, Ghana, India, Japan, Montenegro, Morocco, Romania, the United Arab Emirates and the United States of America.

<sup>155</sup> Czech Republic, Italy, Lithuania and Ukraine.

From the viewpoint of the CSC, there are no obstacles for the countries participating in the Revised Paris-Brussels regime to adhere to this instrument. On the contrary, the CSC explicitly declares that nothing shall prevent Contracting Parties from entering into regional, or other agreements with the purpose of:

"providing additional funds for the compensation of nuclear damage, provided that this shall not involve any further obligation under this Convention for the other Contracting Parties." <sup>156</sup>

Thus, the CSC openly calls countries, which had established regional compensation schemes – such as is the RBSC – to join the mechanism of subsidiary compensation. Such step would obviously establish even more financial funds for compensation of nuclear damages in Europe.

The viewpoint of the Revised Paris-Brussels regime towards the CSC is more complicated. In the first place, we must bear in mind that neither the RPC, nor the RBSC, contains any provision that would potentially hinder the Contracting parties to these conventions to accede to the CSC. The RBSC allows<sup>157</sup> a Contracting Party to use funds from the third tier in order to satisfy its obligations, arising from any "other international agreement in the field of supplementary compensation for nuclear damage."<sup>158</sup>

However, the RBSC presumes, that the use of such funds would be only possible in the case where all Contracting Parties to this Convention would ratify such "other international agreement in the field of supplementary compensation for nuclear damage." Consequently, only simultaneous accession of all thirteen countries, participating in the Revised Paris-Brussels regime, would allow them to "connect" the third tier of that regime with the CSC. Participation of only some of these countries in the CSC would imply a need to establish additional financial means for available compensation in order to fulfil the obligations under the CSC. The simultaneous accession of thirteen countries of Europe to the CSC in the future cannot be excluded at this point. However, considering the longevity of the ratification process of the RPC/RBSC, one can hardly expect this process to take place in a short period of time.

#### 4. Conclusions

On 1st January, 2022, the Revised Paris-Brussels regime of nuclear liability and compensation entered into force in Europe. This new regime is based on two international conventions, which provide for a transnational mechanism for compensation, involving both the civil liability of the operators and the solidarity of the States. Under this robust regime, total compensation available to victims of a nuclear incident will be not less than 1,500 million €. Thus, the Revised Paris-Brussels regime currently represents international system of nuclear liability, which provides the highest guaranteed amount of compensation in case of a nuclear incident worldwide.

<sup>156</sup> CSC, art. XII.3.a.

<sup>157</sup> RBSC, art. 14.d.

<sup>158</sup> See TOIUTOU-DURAND, F. 'The Convention on Supplementary Compensation for Nuclear Damage: A Solution for Europe?' in PELZER N. (ed), European Nuclear Liability Law in a Process of Change (Nomos 2010) pp. 257–274, at pp. 272–274.

The fact is, however, that the newly established regime merely covers nuclear installations, operated in thirteen countries of Europe. The Revised Paris-Brussels regime co-exists with other regimes of nuclear liability in Europe that are established under the VC and the RVC. While the newly established regime provides for a robust framework for compensation of victims of an incident that may occur in one of the installations in Western Europe, the international regime demonstrates considerable gaps in relation to potential damages that may occur as a consequence of an incident in Central and Eastern Europe.

As accession of all countries of Europe to the Amended Paris-Brussels regime does not seem to be probable soon, a reconciliation between the various existing international regimes of liability must be achieved. Here, the Joint Protocol represents a legal tool to "bridge" the "Parisian" and "Viennese" systems. Thus, further accession to the JP is a desirable goal for strengthening of the nuclear liability in Europe. Taking the benefits of the enlarged geographical scope in both the RPC and RVC, this Article also calls for wider ratification, or accession to the RVC in Central and Eastern Europe.

Consequently, this Article argues that, while the entry into force of the Revised Paris-Brussels regime represents a considerable shift in strengthening of nuclear liability in Europe, further developments are needed in order to establish a transparent and reliable regime of nuclear liability in the geographical space of Europe.