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Abstract: The evolution of the legislation regarding the protection of critical infrastructures in Romania followed an upward path built with a sustained effort from several institutional actors to develop a legislative framework necessary to ensure a solid protection that responds to threats and vulnerabilities. Step by step, many normative acts were developed and issued, which created a legislative framework, necessary for the protection and resilience of critical infrastructures.

Keywords: critical infrastructures protection, national law, legislative framework, resilience of critical entities

INTRODUCTION

The essential services of society are provided through the functionality of certain infrastructures, referred to by several countries as critical infrastructure. These essential services include electricity supply, transport services, drinking water supply, information and communication services, health care, emergency services and last but not least national security. A series of undesirable events affecting the delivery of essential services, the functionality of critical infrastructures, the management of public authorities, and the state of normality of the population have led to the development of the field of critical infrastructure protection. Looking at the big picture, a conceptual framework emerged first, followed by a legislative framework and an operational framework. On the other hand, academia and research play an important role in the evolution of the critical infrastructure protection field.

The aim of this article is to analyse the main elements of the legislative framework in Romania concerning the protection of national and European critical infrastructures, starting from the implementation of the European Programme for Critical Infrastructure Protection (EPCIP), up to the transposition of a new directive on the resilience of critical entities.

The research hypotheses in this article are as follows:

- H₁: the national legislative framework meets the requirements of the European Union in the field of critical infrastructure protection.
- H₂: Romania has a complex and comprehensive legislative framework to ensure the protection of national and European critical infrastructures;

Further, the article is structured in 2 sections necessary to validate the research hypotheses, namely: the evolution of the EU Critical Infrastructure Protection Programme and the Romanian legislative framework for the protection of national and European critical infrastructures.

1. EVOLUTION OF THE EUROPEAN PROGRAMME FOR CRITICAL INFRASTRUCTURE PROTECTION (EPCIP)

Looking back, the landmark moment for the development of the field of critical infrastructure protection is Executive Order 13010 of 1996, issued by the US Presidential Administration. This order emerged, on the one hand, as a response to several undesirable events that had occurred on US territory, and, on the other hand, as a project for the future to reconfigure the policies, strategies, means and instruments involved in protecting those infrastructures that provided essential state services. Thus, in the content of the act these infrastructures are referred to as critical infrastructures and are referred to as "certain national infrastructures are so vital that their incapacity or destruction would have a debilitating impact on the defense or economic security of the United States" (Clinton, 1996:1). Today, EO 13010 can be identified as the first legislative landmark with innumerable implications in the legislation of several states of the world on the protection of critical infrastructures.

Several events with a strong international impact, such as the terrorist attacks of 11 September 2001 or the terrorist attacks in Madrid on 11 March 2004, led to a series of measures at European Union level. In this respect, in 2004, the first official document appeared, entitled Communication from the Commission to the Council and the European Parliament - Critical Infrastructure Protection in the fight against terrorism. The main elements of the document highlight the danger of terrorist threats in the physical and virtual environment, the definition of critical infrastructures and essential services, the adoption of a legislative framework at the level of EU institutions and Member States. In the light of several issues addressed in the last point of the Communication, the need to develop and implement a European Programme for Critical Infrastructure Protection (EPCIP) is highlighted (European Commission, 2004). One year later, in the context of other significant events, namely the launch of the terrorist attacks in London on 7 July 2005, the European Commission adopted the Green Paper, which is the second step in the process of developing EPCIP. At the same time, the Commission suggested the need to set up the Critical Infrastructure Warning Information Network (CIWIN) in order to facilitate the exchange of best practices and ensure a common European warning and alert system (European Commission, 2005).

On 12 December 2006, the Commission publishes the Communication for EPCIP - COM (2006) 786, outlining the general objective of the programme. This objective is to improve the protection of critical infrastructures in the EU by developing a consolidated framework for several lines of action, including the implementation of measures, support to EU Member States on the protection of national critical infrastructures, the development of an external dimension to EPCIP, the development of contingency plans to minimise the potential effects of disruption or destruction, specific financial measures, and last but not least the implementation of a common framework for

a Directive on the identification and designation of critical infrastructures (European Commission, 2006a).

Therefore, on 8 December 2008, the Council adopted Directive 2008/114/EC on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection. The Directive is consolidated on three main pillars: identification, designation and improvement of critical infrastructure protection. The identification of European Critical Infrastructures (ECIs) is carried out within each Member State on the basis of sectoral and cross-sectoral criteria. Designation is done through national legislation and the protection part involves the responsibility of the Critical Infrastructure Security Liaison Officers (LSOs), based on Operator Security Plans (OSPs). At European level, also in this act, the energy and transport sectors have been mentioned as sectors holding European Critical Infrastructures. At the same time, Member States had a deadline of 12 January 2011 to transpose the directive into national law (Council of the European Union, 2008). This moment represents, on the one hand, the concretisation of the effort made in previous years and, on the other hand, the establishment of an extremely important area at EU level with long-term implications for Member States. The content of the Directive contains, with some modifications, the main elements set out in the previous EPCIP regulations.

Further, in 2012, EPCIP, and in particular Directive 114, underwent a first review process, where preliminary findings were published in a European Commission working document on the EPCIP review (European Commission, 2012). A year later, a new approach to the programme was set out in another working document (European Commission, 2013). In the same context, an important moment in the evolution of the programme is its evaluation. The Commission launched the evaluation, involving a number of stakeholders, for the period January 2009 to August 2018, with the aim of analysing, both quantitatively and qualitatively, its implementation and application in all EU Member States (European Commission, 2019). The publication of the results in 2019 highlighted the limitations of the Directive in achieving a uniform approach across EU Member States to the identification and designation of ECIs. Moreover, the findings from the evaluation, together with other EU legislative discrepancies, contributed to the emergence of a new Directive, repealing Directive 2008/114, as of 18 October 2024. Directive (EU) 2022/2557 on the resilience of critical entities and repealing Council Directive 2008/114/EC aims to identify and support critical entities. Some studies show that the new EU directive aims to develop a common framework to support Member States' critical entities in the face of all types of threats (Pătrașcu, 2022:26), but some authors wonder how to assess the level of resilience of critical entities in relation to current threats (Rehak et al., 2023) or what is the risk picture behind the new directive (Pursiainen et al., 2022:86). One of the new elements is the term *critical entities*, mentioned in the very title of the directive. However, the protection part is assimilated to resilience, and this, in addition to European Critical Infrastructures, includes operators and owners as critical entities.

2. THE ROMANIAN LEGISLATIVE FRAMEWORK FOR THE PROTECTION OF NATIONAL AND EUROPEAN CRITICAL INFRASTRUCTURES

A few years before the first legislative act appeared in Romania, the concept of critical infrastructure, i.e. the protection of critical infrastructures, was already found in the scientific publications of several Romanian authors. Looking at the whole, there are a number of similarities and differences between the legislative approach and the academic or scientific research approach. A reference work by the Romanian authors Alexandrescu and Văduva in 2006, when Romania was not yet an EU member state, highlighted the possibility of including critical infrastructure protection in EPCIP in at least three ways. The first refers to adapting the system of legislation, action and response in emergency situations to European requirements, the second highlights the dependencies and interdependencies between Romanian and European critical infrastructures, and the third mentions participation in the development and implementation of policies and strategies to combat terrorism, illegal trafficking, organised crime and asymmetric threats (Alexandrescu et al., 2006:45-46). Later, Romania, as an EU Member State, made all the necessary efforts to transpose Directive 114 into national law. In December 2010, the Romanian Government issues the first legislative act on the protection of national and European critical infrastructures. With the publication and application of the Emergency Ordinance No 98 of 3 November 2010, Romania initiates a new approach to the protection of those infrastructures that produce goods and provide essential services, namely critical infrastructures.

The Romanian Government's Emergency Ordinance No 98 of 2010 is the first piece of national legislation in the field of critical infrastructure protection. With this regulation, Romania implements Directive 114/2008, creates the basis for the development of a complex legislative framework, i.e. a dynamic operational framework, involving state institutions, financial resources, specialists in the field and last but not least the academic and research environment. The main aspects of the act are the definition of CIP terms and expressions, the establishment of a number of 10 National Critical Infrastructure (NCI) sectors, the designation of a national coordination centre, the presentation of the identification and designation process of ECI and NCI in relation to sectoral and cross-sectoral criteria, and the obligation for operators to draw up a security plan. Also in 2010, the Romanian Government published GD no. 1110 of 03.11.2010 on the composition, tasks and organisation of the Inter-Institutional Working Group for Infrastructure Protection. This regulation mentions a number of 15 public authorities (ministries, services, agencies) that are obliged to appoint representatives to the Working Group. It also stipulates the tasks of both the Working Group and its Technical Secretariat.

One year later, GEO No 98 of 2010 was approved by Law No 18 of 11 March 2011. In addition to the approval of the ordinance, some changes are made in the law. Thus the deadline in the Ordinance for the completion of the process of identification and designation of NCIs was restored 8 months later, i.e. on 30 June 2011. Certain changes have also been made for the responsible public authorities. The next piece of legislation amending and complementing GEO 98 is Law 344 of 2015, which refers to the designation of ECIs according to a written consent of the national authorities holding competence and the EU Member State likely to be affected. A particularly important piece of legislation is Law No 225 of 2018, which makes important amendments and additions to the existing legislative framework. In this respect, the main changes

are directed towards the activities of the responsible public authorities, ECI and NCI owners and operators, as well as the tasks of the liaison officer. Instead, the additions consist of the definition of resilience, vital functions and OSP, the management of classified information, the establishment of the tasks of the National Coordination Centre, the application of contraventions and sanctions, the extension of the number of NCI sectors from 10 to 12 sectors, etc. A year later, the Government issues another ordinance (GEO No 61), redefining the responsible public authorities and the NCI. Another problem faced by operators and owners of NCIs or ECIs was solved with the publication of Law No 344 of 10 November 2023. Thus, natural or legal persons under public or private law who own, for whatever reason, land, buildings or technological installations on the perimeter of which NCI or ECI elements are located or installed, are obliged to allow unconditional access to specialised personnel in order to remedy malfunctions or carry out maintenance of the systems. In the event of damage resulting from such activities, the owners of critical infrastructures are obliged to pay the amount of compensation established by the assessors to those entitled within 60 days.

In June 2011, the National Strategy for Critical Infrastructure Protection was adopted by GD No 718. At that time, the legislative framework already consisted of the three regulations mentioned above. However, the development of a strategy in the field of critical infrastructure protection was necessary to create a strategic framework to implement measures to reduce risk factors and eliminate duplicative situations. On 16 November, GD No 1154 was adopted approving the critical thresholds for cross-sectoral criteria underlying the identification of potential national critical infrastructures and approving the Methodology for the application of critical thresholds for cross-sectoral criteria and the determination of the criticality level. The content of this legislative act is divided into three annexes. In the first annex, the critical thresholds associated with the cross-sectoral criteria, necessary for the process of identifying potential NCIs, are set out and approved. The second annex presents the methodology for the application of the thresholds mentioned in Annex 1 and the establishment of the criticality level. The third annex represents the logical scheme for the identification and designation of NCI.

Since 2012, the Romanian Government has issued a series of decisions designating National Critical Infrastructures. Thus GD No 1198 of 2012 is the first document containing several annexes with declared NCIs but with restricted access to the public. Subsequently, the decision was amended and supplemented by GD 639 of 2015, GD 276 of 2018, GD 1017 of 2020, GD 300 of 2021 and GD 1076 of 2022. During this extended period, in addition to these decisions, the Government issued GD on the designation of public authorities responsible for the protection of national and European critical infrastructures, amended and supplemented by GD 656 of 2021 and GD 930 of 2022 amending GD 1110 of 2010 on the composition, tasks and organisation of the Interinstitutional Working Group for the Protection of Critical Infrastructures.

CONCLUSIONS

The analysis of the evolution of the European legislative framework, followed by the analysis of the national legislative framework for the protection of critical infrastructures shows that Romania has complied with EU requirements, has transposed the EPCIP Directive into a new

legislative framework and has confirmed its effective implementation in practice, which confirms research hypothesis H1. The analysis of the main legislative acts shows the development over time of a legislative framework, characterised by the complexity of the legislative acts, the comprehensiveness of the application of the EU framework and the dynamics of the measures validated by law.

Moreover, some studies by foreign authors reinforce the validation of the two research hypotheses. Thus, Romania is considered as an EU Member State with a strong commitment to European policies and a proactive approach to the Europeanization of critical infrastructure protection. At national level, processes have been organised, functional critical infrastructure systems have been built, supported by public authorities and critical infrastructure operators or owners (Lazari et al., 2016; Mitrevska et al., 2019:60). Also, a number of EU Member States, including Romania, have special national laws used to regulate the field of critical infrastructure protection (Sikimić, 2022:63-72).

In the short term, Romania has until 17 October 2024 to transpose Directive 2557 of 2022 into national law. It will be interesting to see how the new elements will be implemented in a rather strong national legislative framework, how the critical entities and infrastructures will be functional and resilient, taking into account that some elements of the Directive are already questioned by several experts.

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