



THE CO.R.E PROJECT: A STRATEGY FOR THE NEXT GENERATION EU FUNDS

WP7 – Deliverable 7.3

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D 7.3	The CO.R.E project: a strategy for the Next Generation EU funds
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1. D7.3 OBJECTIVES

The primary objective of this document is to explore potential strategies for applying the CO.R.E outputs to analyse the risk of corruption within procurement systems financed by the Next Generation EU (NGEU) framework. The CO.R.E project has successfully developed a novel method to evaluate corruption risks in public procurement during emergency periods, which are usually marked by relaxed national government regulations. This achievement is realized through the creation of a Composite Indicator (CI) for assessing corruption risk in Public Procurement (PP) during emergencies, which aggregates a range of elementary indicators, or "red flags," into a unified metric.

Within this document, we delve into the feasibility and implications of extending the application of CO.R.E indicators to scrutinize corruption risks in procurement systems funded under NGEU. We examine whether this extension necessitates minor adjustments to the project methodology or entails a fundamental reassessment of its indicators. Our analysis is informed by insights gathered from CO.R.E partners, notably those engaged in the statistical development of the corruption risk indicators and those involved in their technical implementation.

Ultimately, this deliverable aims to bolster the sustainability and applicability of CO.R.E project outcomes. By illustrating how CO.R.E indicators can potentially be adapted to a domain, such as NGEU, which goes beyond the original project scope of public procurement in emergency scenarios, we underscore the versatility of project outputs and promote their utilization in diverse contexts. This deliverable supplements two preceding deliverables produced under Work Package 7 (Sustainability and Exploitation): the "Sustainability and Exploitation Plan" (D7.1), which outlines strategies for leveraging CO.R.E results and ensuring project sustainability post-EU funding, and the "Model of transferability of the CO.R.E methodology for the definition of CI" (D7.2), which delineates approaches to facilitate the transfer of project results, tools, methodologies, procedures, expertise, and insights to other nations, emergency scenarios, and stakeholders.

The document is structured as follows: We begin by introducing the Next Generation EU (NGEU) program. Following a brief overview of its key characteristics, we highlight the parallels and potential synergies between NGEU and the CO.R.E project. Lastly, we delve into an examination of whether and how the application of CO.R.E indicators can be expanded to assess the risk of corruption within procurement systems funded under NGEU.



2. THE NEXT GENERATION EU PROGRAMME

Next Generation EU (NGEU) is the European Union's €806 billion temporary financial instrument to support the economic recovery from the COVID-19 pandemic and build a greener, more digital, and more resilient future¹.

NGEU is actually conceived to be more than a recovery tool: it is, in the words of the European Commission, “a once in a lifetime chance to emerge stronger from the pandemic, transform our economies and societies, and design a Europe that works for everyone”².

Five keywords characterise this action: Green, Digital, Healthy, Strong, Equal. Europe’s future will be aligned to these keywords, each one conflating into the European ambition to remain on track to become the first climate-neutral continent by 2050. A safer, healthier, more resilient Europe, in a future empowered by technology, where all Europeans sit at its centre and enjoy equal opportunities.

The European Commission specified that Member States must develop investment and reform plans in seven flagship areas, which include modernisation and its aim to accelerate the digitalization of public administration and services.

NGEU funds are channelled through several funding schemes, the main ones being:

- Recovery and Resilience Facility: a fund aimed at supporting reforms and investments to boost Member States’ economies.
- React-EU: resources channelled through cohesion policy to support the sectors most affected by the pandemic.
- Rural Development: subsidies to help rural areas achieve the European Green Deal’s goals.
- Just Transition Fund: a fund to support the green transition of the regions most affected by COVID-19.

The focal point of Next Generation EU is the Recovery and Resilience Facility (RRF), which serves as a mechanism to distribute grants and loans aimed at bolstering reforms and investments in EU Member States at a total value of €723.8 billion, which represent the lion’s share of the NGEU total budget. Member States must develop Recovery and Resilience Plans detailing their investment strategies to qualify for funding through the RRF. Additionally, they must meet specified milestones and targets, with the Commission conducting assessments to ensure satisfactory achievement of these benchmarks before disbursing funds

¹ https://next-generation-eu.europa.eu/index_en

² https://next-generation-eu.europa.eu/index_en

under the RRF³. Therefore, Member States enjoy a certain level of autonomy in implementing the strategies to distribute these funds, which also might involve changes to their law systems and spending procedures. The following sections discuss the possible strategies for the application of the CO.R.E outputs and tools to the monitoring of how NGEU funds have been used by member states.

³ https://commission.europa.eu/strategy-and-policy/recovery-plan-europe_en

3. CO.R.E AS A NATURAL FIT FOR THE NGEU SCHEME

The CO.R.E project was built with the NGEU values in mind and strongly inspired by the need to favour a transparent allocation of public resources during and in the aftermath of the COVID-19 pandemic. In line with NGEU priorities and key values, CO.R.E also promotes the use of new digital technologies for the improvement of the EU society, to make it stronger and more equal, by addressing one of its most crucial challenges: a fair, transparent, and corruption-free allocation of its public financial resources.

The CO.R.E project tackles the challenge of assessing corruption risk in public procurement during emergencies, when standard government regulations are loosened. It achieves this by creating a Composite Indicator (CI) specifically focused on corruption risk in public tenders during emergencies. This CI combines a collection of individual indicators (red flags) into a single metric. These red flags are designed to exploit the "time discontinuity" caused by the crisis. By comparing a company's and/or contracting authority's behaviour before and after the emergency period (pre-crisis vs. post-crisis), the red flags can highlight potential suspicious activities. The goal is to catch corruption risks sooner and provide better evidence to support changes in policy. The project outputs and tools are designed to be used by anti-corruption agencies, law enforcement agencies, civil society organisations, journalists, and citizens to hold governments and public bodies accountable.

NGEU also indirectly promotes digital technologies for a more transparent and corruption-resistant public procurement process in Europe, although that is not its primary objective. First, NGEU prioritises investments that support the EU's digital transformation. This, in turn, encourages member states receiving funds to utilise digital tools and technologies across various sectors, potentially including public procurement. Second, digital technologies themselves can streamline public procurement procedures. Online platforms for tendering, evaluation, and contract management can increase transparency and reduce opportunities for manipulation. Finally, NGEU's focus on strong risk management frameworks complements these efforts. Digital tools can aid in monitoring and auditing processes, potentially helping to detect and deter corruption. However, it is important to note that NGEU does not directly mandate specific digital tools. It is up to member states to decide how to implement these goals within their national contexts. Overall, Next Generation EU creates an environment that can potentially encourage the use of digital technologies for a more transparent and accountable public procurement process in Europe. However, the success depends on individual member states' actions and existing digital infrastructure.

The potential of new technologies in the fight against corruption is also acknowledged by the 2023 Dublin Declaration adopted by the European Partners against Corruption (EPAC), which calls on states, EU institutions, and international organisations to "promote the innovative usage of information and communication technology, such as big data technology, in combating corruption, as smarter and more



proactive investigative strategies may save resources and reduce costs of traditional ways of detecting, investigating and analysing corruption”⁴.

Controlling corruption by preventing fraud, malfeasance and misconduct is therefore crucial for governments who need to allocate resources across competing priorities, especially when surrounded by uncertainties such as the ones associated with the covid emergency and recovery phase. Here, risk assessment becomes a cornerstone of effective public administration. However, ensuring its reliability and accuracy remains a significant challenge. The CO.R.E project proposes that robust risk assessment should be central to integrity systems, empowering officials and managers to prioritise risk management and mitigation strategies. The most direct potential for use and development for the purposes of assessing corruption risk and preventing corruption is provided by public procurement databases and enabled by their increasing availability in a machine-readable format. Leveraging the growing availability of open data and advancements in big data analytics, the CO.R.E project aims to enhance the early detection of corruption risk through data-driven insights and big data techniques.

Therefore, the synergy between CO.R.E and the NGEU programme does not rely only on their common origins and shared values. CO.R.E can indeed represent a usable tool to monitor the risks and prevent corruption that may affect the allocation of the NGEU funds.

⁴ https://www.epac-eacn.org/fileadmin/Documents/Conferences/2023/Dublin_Declaration.pdf

4. APPLYING THE CO.R.E RESULTS TO THE NGEU FUNDING SCHEME

As mentioned, the CO.R.E project aims at developing new risk monitoring procedures in public procurement (PP) during emergencies, and its results are designed for direct application to PP data analysis. The CO.R.E methodological framework hinges on a critical concept: the “rupture” in data caused by an emergency declaration. This rupture essentially creates a pre- and post-crisis timeframe. The emergency declaration itself triggers a shift in how public contracts are awarded, often involving relaxed procedures or expedited timelines.

In this section, we discuss whether and how the application of the CO.R.E indicators can be extended to analyse the risk of corruption in the procurement system funded under NGEU, and whether this application would require only minor refinement of the project methodology or rather a radical rethinking of its indicators. This discussion is based on input collected from the CO.R.E partners, in particular those involved in the statistical development of the risk-corruption indicators and those involved in its technical implementation.

Based on the CO.R.E partners’ assessment, it appears that working on contracts that have been awarded under a public procurement procedure that derives from NGEU funds is ultimately feasible, contingent upon a pivotal prerequisite: the allocation of NGEU resources by Member States through public procurement frameworks. Therefore, thanks to their structural flexibility, transferability and reusability, the CO.R.E methodology and its indicators could be used to monitor the corruption risk in the use of the Next Generation EU funds and, in particular, the funds connected to the Recovery and Resiliency Facility (RRF), which roughly constitutes the 90% of the overall NGEU funding scheme, according to the numbers reported by the financial newspaper *Il Sole 24 Ore*⁵.

NGEU funds are also being used to reinforce several existing EU programmes. For example, the RRF is also crucial for implementing the REPowerEU plan, the Commission’s response to the socio-economic hardships and global energy market disruption caused by Russia’s invasion of Ukraine. The RRF facility is assisting EU countries make the critical reforms and investment needed to rapidly end their dependence on Russian fossil fuels. Whenever these reforms and investments are implemented through a standardised PP process, they can be monitored too through the CO.R.E methodology to assess the risk of corruption.

According to the assessment conducted by the CO.R.E partners, the necessary prerequisite that Member States distribute the NGEU resources through public procurement schemes is not always met. In Spain, for

⁵ https://www.ilsole24ore.com/art/next-generation-eu-cos-e-e-perche-l-europa-deve-correre-fondi-la-ripresa-covid-ADIKpzMB?refresh_ce=1

example, most of the NGEU funds are allocated outside the public procurement pipeline. An exploratory analysis conducted for the purpose of this deliverable by the Data Analysis Team of our Catalan partner Oficina Antifrau de Catalunya confirms this trend. The exploratory analysis has been conducted on the Spanish RRF/NGEU funds tracking website⁶, which allows to search for NGEU-funded tenders and calls for grants. It shows that, as to 21 March 2024, that a very significant part of the Spanish NGEU funds is funnelled not through public procurement procedures (34,66%), but through grant procedures (65,34%). The detailed data show that, to that date, there have been in Spain:

- 16.984 NGEU-funded calls for tenders, that represent a gross total of approx. 36.138 billion € (the precise figure being 36.138.900.645,25 €); and
- 3.646 NGEU-funded calls for grants, that represent a gross total of approx. 68.134 billion € (the precise figure being 68.134.624.312,19 €).

Another preliminary analysis looked for NGEU-funded emergency contracts in the Catalan and Spanish context. In this regard, no NGEU-funded emergency contracts were found in the Catalan procurement data, while a total of 75 NGEU-funded emergency contracts were found in the Spanish procurement platform (PLACE)⁷, which represents a gross total of 22,5 million € (22.511.055,81 € to be exact), with an average amount of 300.147,41 € per contract. By comparing this total amount to the total of the NGEU funds (104.272 billion €), it is clear that emergency procurement is absolutely residual in the spending of NGEU funds in Spain.

Therefore, a potential application of the CO.R.E indicators and methodology to assess corruption risks related to the NGEU funds in the case of Spain is not obvious. Even though part of the rationale underlying to some of the CO.R.E single indicators, and part of the methodology used in the conception and design of CO.R.E single and composite indicators as well could be reused, many aspects of the CO.R.E main outcome should be reviewed and probably re-imagined for an application in the Spanish context.

For this purpose, a different approach could be explored: since the outcome of the CO.R.E composite indicator application is, in fact, a risk score for any contracting authority and any company awarded with public contracts, and since some of the underlying elements that structure the CO.R.E indicators probably could be also found in the access to the NGEU-funded contracts (and perhaps even to the grants), future research could check if the authorities and companies that present a higher risk level in the CO.R.E indicators as currently applied have been awarded with NGEU-funded contracts and/or grants. Such a strategy in the deployment of the CO.R.E methodology could be the starting point of an interesting investigation and further research.

⁶ [Plan de Recuperación, Transformación y Resiliencia Gobierno de España](#)

⁷ <https://contrataciondelestado.es/wps/portal/plataforma>

In the case of Italy and its Recovery and Resiliency National Plan (PNRR), large amounts of the NGEU funds have been awarded through public procurement through a specific legislation that resembles an emergency legislation. In other words, the Italian PNRR is an emergency public procurement scheme by definition. PP contracts awarded through the PNRR scheme and registered in the open access database of the national anti-corruption authority (Banca Dati Nazionale dei Contratti Pubblici, BDNCP) are marked with a tag that is a specific reference to the PNRR. While it is true that, at the moment, these tagged tenders are only a few, they nevertheless refer to very large projects where a lot of money flow is involved, and we consider them worthy of special consideration.

The CO.R.E indicators could be adapted so to consider the analysis of PNRR public procurement. Still taking the Italian case as an example, a specific tag in the database of the national anti-corruption authority enables users to distinguish this PNRR-related procedures from other types of awarded contracts. Therefore, in this case the “emergency” at issue would consist in the handling of these contracts, regardless their specific object. In fact, instead of comparing the target unit behaviour with a post- vs. pre-emergency approach (as performed by the current CO.R.E elementary indicators), with a PNRR approach the red flags could reveal whether the target unit behaves differently in dealing with PNRR tenders with respect to non-PNRR ones.

Beyond this major application, there are ways to improve the efficiency of the deployment of the CO.R.E indicators to monitor the allocation of NGEU funds in Italy. The BDNCP dataset could be cross-referenced with other open data portals that are linked to the spending of the NGEU funds, such as OpenPNRR.it⁸, a civil society-led project monitoring the spending of the resources of the Italian PNRR. It is also possible to run the CO.R.E indicators using data from a single contracting authority (ex. a hospital), comparing its behaviour whenever it uses normal procurement schemes versus emergency procurement ones, the latter including resources coming through the PNRR if the authority implemented an ad-hoc marking system for them. Clearly, all these options and the technical viability of their application need to be further explored within the framework of a new project.

There are some foreseeable difficulties in applying the CO.R.E methodology to PP procedures handled during emergencies of various kind. In our application of the CO.R.E indicators to the Italian PP system, we have widened the emergency scenarios by including, other than the Covid-19 crisis, two further sub-national emergencies, namely forest fires and earthquakes, which occurred in 2016 and 2017 respectively, as case studies. Throughout the analysis of corruption risks associated with these emergencies, a significant challenge (beyond technical considerations) emerged: the necessity to confine the computation of red flags - integral to the CO.R.E Composite Indicator (CI) - exclusively to contracts awarded by contracting authorities and awardee companies that operate in the sub-national regions directly impacted by the emergencies in

⁸ <https://openpnrr.it/opendata/>

question, as well as to contracts awarded to specifically deal with those emergencies. While the physical locations of contracting authorities can be isolated through their fiscal codes, determining the geographical location of contracting companies poses a more intricate task. It is noteworthy that companies securing emergency contracts may not necessarily operate within the same areas affected by the respective emergencies.

A possible solution to this challenge could be to pre-select the contracts very carefully by analysing their object, which typically reports the character of the emergency procurement in a discursive form. Such a selection would be complex from an analytical point of view, as it would imply a textual analysis of the objects from a very large number of contracts, and it could be impeded by the lack of keywords referring to the emergency at stake. This is another avenue that could be explored in a future development of the CO.R.E project and that can favour the application of its indicators to funds awarded within the NGEU framework. Ideally, the data related to awarded contracts should include an explicit variable that clearly marks whether a certain contract is assigned through an emergency procedure or not, and a further variable detailing which emergency exactly the contract refers to. This constitutes an example of good practice that should be extended to all PP emergency procedures and that national and supra-national legislators and regulators should consider addressing.

Another challenge that we should consider in future developments of the CO.R.E methodology is represented by the fact that the very concept of “emergency time” is not based on a “black and white”, homogeneous dichotomy that clearly separate emergency times from non-emergency ones. While an emergency in the context of PP is normally defined by the law, the following example illustrates the complexity of this issue.

Major crises that unfold over longer periods of time like the Covid-19 pandemic, which represented the starting point of the conceptualization of the CO.R.E methodology, can be understood in distinct phases, each with distinct characteristics and levels of complexity to manage, and different effects and consequences on the risk of corruption in public procurement. These phases may vary depending on the specific crisis and the response mechanisms in place, but they include a preparation phase, a response phase, a peak or surge phase, a recovery phase, and finally a mitigation and preparedness for future events phase. These phases are not always linear and overlaps or variations can occur depending on the nature and scale of the crisis.

Preparation occurs before the crisis hits and involves initiative-taking measures to anticipate and prepare for potential emergencies. Characteristics include risk assessments, development of contingency plans, stockpiling of essential resources, and communication of preparedness measures to the public. Key actions may include conducting drills, training emergency response teams, and coordinating with relevant stakeholders.

The *response* phase begins when the crisis hits and involves immediate actions to address the situation and mitigate its impact. Characteristics include rapid mobilization of resources, activation of emergency response

protocols, and implementation of measures to contain and manage the crisis. Key actions may include establishing emergency operations centres, deploying medical personnel and supplies, implementing lockdowns and disseminating timely information to the public.

The *peak or surge* phase represents the peak intensity of the crisis. Characteristics include overwhelming demand for healthcare services, shortage of critical resources, and heightened stress on infrastructure and personnel. Key actions may include expanding healthcare capacity, implementing triage protocols, prioritizing allocation of resources, and coordinating international assistance if necessary.

The *recovery* phase begins once the crisis begins to stabilize, and efforts shift towards restoring normalcy and rebuilding affected communities. Characteristics include gradual easing of restrictions, resumption of economic activities, and provision of support for affected individuals and businesses. Key actions may include conducting assessments of the impact, implementing recovery plans, providing financial assistance and mental health support, and facilitating the return to normal operations.

Mitigation and Preparedness for Future Events is a phase involving learning from the crisis experience to strengthen preparedness and resilience for future emergencies. Characteristics include conducting post-crisis evaluations, updating, and refining response plans, and investing in long-term strategies to mitigate future risks.

Each of the previous phases has its distinct characteristics and different effects on the risk of corruption in public procurement. For example, during the crisis response phase, contracts for goods, services, and infrastructure projects may need to be awarded quickly to meet urgent needs. The lack of competitive bidding and oversight can increase the risk of corruption primarily in the awarding process. Differently, during post-emergency reconstruction, there is often a significant need for reconstruction and recovery efforts. Large-scale infrastructure projects and redevelopment initiatives are susceptible to corruption mostly due to the substantial funds involved and the complexity of the projects. Corruption risks over this last phase should primarily include bid rigging and inflated costs. The previous case exemplifies the need for corruption risk assessment systems to undergo adaptation during an emergency and consequently to rely on a different set of red flags over different emergency phases. The Recovery and Resiliency Facility, the NGEU fund that provides the financial strength to the Italian PNRR as well as the other recovery plans of the Member States, can be situated within the recovery phase. The CO.R.E methodology, and in particular its CoreSoi R Package, which is the software that allows the calculation of the CO.R.E indicators, has been designed to favour flexibility and its adaptation to various phases of a crisis and their specific features and needs.

5. CONCLUSION

In conclusion, the CO.R.E project represents a significant advancement in the realm of corruption risk assessment within public procurement in emergency contexts. By developing innovative risk monitoring procedures tailored to the unique challenges posed by emergencies, the project has provided a valuable framework for analyzing corruption risks in public procurement during crisis situations.

The exploration of the possible extension of the CO.R.E indicators to assess corruption risks in procurement systems funded under NGEU has yielded insightful findings. While the feasibility of such an extension largely depends on the allocation of NGEU resources through public procurement frameworks by Member States, there are promising avenues for adaptation, especially in contexts where public procurement schemes, such as those under the Italian PNRR, are employed.

Challenges encountered, such as the need for careful contract selection and the dynamic nature of emergency phases, highlight areas for further refinement and development of the CO.R.E methodology. Future iterations of the project could explore solutions to these challenges, including the incorporation of explicit variables in contract data to mark the use of NGEU funds and the consideration of different phases of crises in risk assessment.

Moreover, the flexibility and adaptability inherent in the CO.R.E methodology, exemplified by the CoreSoi R Package, position it well for application in diverse crisis contexts, including those beyond the scope of the original project. As demonstrated by its potential utility in monitoring the implementation of the Italian PNRR, the CO.R.E framework holds promise for enhancing transparency and accountability in the utilization of NGEU funds and similar initiatives aimed at post-crisis recovery.

Additionally, the CORE methodology and the expertise it embodies serve as a catalyst for potential policy reforms aimed at enhancing data availability, reusability, and standardization within public procurement frameworks across EU member states. Beyond the realm of public procurement, the principles, methodologies, and applications developed through CORE have the potential to inspire policy changes in various fields. The high transferability of CORE's insights underscores its value as a versatile tool for promoting transparency, accountability, and efficiency not only within public procurement but also across broader domains of governance and policy-making within the European Union.

In essence, the CO.R.E project underscores the importance of innovative approaches to combat corruption in public procurement, particularly during times of crisis. By continuing to refine and expand upon its methodology, the project stands to contribute significantly to efforts aimed at promoting integrity and efficiency in the allocation and management of public resources, ultimately fostering trust and resilience in governance systems.