

Fostering security of supply in contract-based preparedness in the public sector through the proactive contracting and legal design approaches

International Journal of
Commerce and Contracting
2025, Vol. 9(1-2) 35-63
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DOI: 10.1177/29768829251325810
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Abstract

The article discusses the proactive contracting and legal design approaches and their role in enhancing contract-based preparedness and supply resilience in the public sector. It focuses on the impact of the COVID-19 pandemic on public procurement and supply chains, mainly in the health-care sector in Finland. The pandemic exposed the need to prepare for unconventional threats and emphasized the importance of effective supply chain management. However, the classical legal approach and competitive tender mentality have dominated public procurement processes and contracts, limiting resilience and flexibility. Proactive contracting and legal design see contracts as multifaceted tools for preventing problems and promoting business success, and relationships. The article discusses tensions at the intersections of public procurement, supply resilience, proactive contracting and legal design approaches, and opportunities for enhancing contract-based preparedness. We argue that proactive contracting and legal design can complement Finland's comprehensive security approach by developing an organization's contracting and resilience capabilities to enhance contract-based preparedness.

Keywords

Proactive contracting, legal design, security of supply, public procurement, supply chain resilience

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Introduction

Events in recent years have shown how quickly our operating environment and security situation can change. The COVID-19 pandemic and its aftermath caused a severe global crisis. The exceptional increase in the demand for certain products and services, and the significant disruptions in supply chains, created new challenges for public purchasers. In the health care sector, demand surged for essential supplies, including personal protective equipment, vaccines and machines such as ventilators. As a result, there was a shortage of these items. The pandemic thus highlighted the need to prepare for unconventional threats, such as health crises and supply chain disruptions, and the importance of supply chain management.¹ Thus, to effectively prepare for future crises, it is important not only to evaluate past events but also to identify ways to improve agility and resilience.²

Resilience refers both to the ability ‘to cope with shocks and to keep functioning in much the same kind of way’ and to the ability ‘to adapt and change, to reorganize, while coping with disturbance’.³ Resiliency, thus, requires different practices and capabilities before, during and after a disaster occurs.⁴ Securing supplies that are critical for the continued functioning of organizations and activities is essential once a disaster hits,⁵ but it is equally important to mitigate the effects of a disaster by preparing for disruptions in the flows of goods and services in the procurement phase.⁶ In this article, we will use the term *supply resilience* to highlight the buying organization’s ability to secure supply before or after the occurrence of disruptions caused by extreme events.⁷

Public actors’ dependence on suppliers of critical goods and services is a result of multiple developments observed in the past decades: fragmentation of production, lengthening supply chains, focusing on core competences in the public sector and outsourcing the provision of services and supplies to the commercial sector.⁸ In this paper, we use the term *security of supply* to describe

1 Christine Mary Harland et al., “Practitioners’ Learning about Healthcare Supply Chain Management in the COVID-19 Pandemic: A Public Procurement Perspective,” *International Journal of Operations & Production Management* 41, no. 13 (December 17, 2021): 178–89, <https://doi.org/10.1108/IJOPM-05-2021-0348>.

2 Harland et al.

3 Brian H. Walker, “Resilience: What It Is and Is Not,” *Ecology and Society* 25, no. 2 (2020): art11, <https://doi.org/10.5751/ES-11647-250211>.

4 Abubakar Ali, Amr Mahfouz, and Amr Arisha, “Analysing Supply Chain Resilience: Integrating the Constructs in a Concept Mapping Framework via a Systematic Literature Review,” *Supply Chain Management: An International Journal* 22, no. 1 (2017): 16–39, <https://doi.org/10.1108/SCM-06-2016-0197>.

5 Nonhlanhla Dube et al., “One Crisis, Different Paths to Supply Resilience: The Case of Ventilator Procurement for the COVID-19 Pandemic,” *Journal of Purchasing and Supply Management* 28, no. 5 (December 2022): 100773, <https://doi.org/10.1016/j.pursup.2022.100773>.

6 Christopher L. Atkinson and Alka K. Sapat, “After Katrina: Comparisons of Post-Disaster Public Procurement Approaches and Outcomes in the New Orleans Area,” *Journal of Public Procurement* 12, no. 3 (March 1, 2012): 356–85, <https://doi.org/10.1108/JOPP-12-03-2012-B003>.

7 This definition of *supply resilience* is adapted from Dube et al., “One Crisis, Different Paths to Supply Resilience: The Case of Ventilator Procurement for the COVID-19 Pandemic,” 1.

8 NESAs, “Methods and Tools,” 2023, <https://www.huoltovarmuuskeskus.fi/en/security-of-supply/methods-and-tools/>; Soonhong Min, Zach G. Zacharia, and Carlo D. Smith, “Defining Supply Chain Management: In the Past, Present, and Future,” *Journal of Business Logistics* 40, no. 1 (2019): 44–55, <https://doi.org/10.1111/jbl.12201>; Barbara Scala and Claire Frances Lindsay, “Supply Chain Resilience during Pandemic Disruption: Evidence from Healthcare,” *Supply Chain Management: An International Journal* 26, no. 6 (September 6, 2021): 672–88, <https://doi.org/10.1108/SCM-09-2020-0434>.

the outsourced availability of critical supply and capacity in the civil sphere.⁹ We use the experiences relating to the health care sector (mainly in Finland, with some references to health care sector procurement research at European and international level) as an illustrative environment to discuss security of supply in the context of public procurement. Finland has a long-standing tradition of organizing its security of supply and is considered a leading example of emergency supply and preparedness on a national level.¹⁰ Although Finland was generally successful in safeguarding its essential supplies during the COVID-19 pandemic, it faced problems with the availability of protective equipment in healthcare. The pandemic highlighted shortcomings in contract-based preparedness in the health care and social welfare sector. It prompted the conclusion that more attention should be paid to the role and responsibilities private service providers have in preparedness. It also prompted conclusion that preparedness should be taken into account in the preparation of public procurement when deemed meaningful.¹¹

Similar to *security of supply*, the concept of *contract-based preparedness* does not have a precise, established definition. It is a market-based approach that relies on contracts between the public and private sectors. Contract-based preparedness was already growing in importance before the coronavirus crisis and, according to security of supply experts, the most likely development in the field of preparedness is an increase in public sector contract-based preparedness.¹² This article discusses the proactive contracting and legal design approaches and their role in enhancing contract-based preparedness and supply resilience within the public sector.

The structure of the article is as follows. First, it presents Finland's approach to security of supply, the role of public procurement in this setting, principles for continuity management and model clauses for contract-based preparedness, and shortcomings in the Finnish response to the COVID-19 crisis. Second, it introduces the proactive contracting and legal design approaches. Third, it discusses the tensions of integrating supply resilience, public procurement and the proactive contracting and legal design approaches, as well as the opportunities for enhancing contract-based preparedness. Fourth, it concludes that the proactive contracting and legal design approaches could be a complement to the Finnish approach to security of supply, and that the existing comprehensive approach to security

9 There is no universally accepted definition of security of supply, and no legally binding definition in place within the EU. The meaning and implementation of the concept can vary considerably from one Member State to another. The EU's security of supply strategy has been limited in scope, focusing primarily on ensuring a reliable supply of energy. Human health has not been conceptualized as a security of supply issue (Tuominen, Salminen, and Halonen 2022). See Tomi Tuominen, Mirva Salminen, and Kirsi-Maria Halonen, "The European Union's Responses to the COVID-19 Crisis: How to Fight a Pandemic with the Internal Market," *Maastricht Journal of European and Comparative Law*, 2022, <https://doi.org/10.1177/1023263X221130182>.

10 Henri Vanhanen, "COVID-19 and European Security of Supply: Growing in Importance," *European View* 19, no. 2 (October 2020): 146–53, <https://doi.org/10.1177/1781685820966908>.

11 National Audit Office of Finland, "Conclusions and Recommendations of the National Audit Office 10/2021: Security of Supply and Safeguarding It during the Covid-19 Pandemic" (Helsinki: National Audit Office of Finland, 2021), <https://www.vtv.fi/app/uploads/2021/06/NAOF-recommendations-10-2021-Security-of-supply-and-safeguarding-it-during-the-Covid-19-pandemic.pdf>; Valtiontalouden tarkastusvirasto, "Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana," Valtiontalouden tarkastusviraston tarkastuskertomukset (Helsinki: Valtiontalouden tarkastusvirasto (VTV), 2021), <http://urn.fi/urn:isbn:978-952-499-510-8>.

12 Christian Fjäder et al., "The New Normal of Security of Supply : Scenarios for a Post-COVID World and Their Impacts on Security of Supply" (The National Emergency Supply Agency, 2020); National Audit Office of Finland, "Conclusions and Recommendations of the National Audit Office 10/2021: Security of Supply and Safeguarding It during the Covid-19 Pandemic"; Albert Sanchez-Graells, "Procurement in the Time of COVID-19," *Northern Ireland Legal Quarterly* 71, no. 1 (April 22, 2020): 81–87, <https://doi.org/10.53386/nlq.v71i1.531>.

of supply in Finland, together with the established network of cross-sectoral cooperation, provides a strong basis for initiating changes in contracting practices. Finally, concluding remarks, research limitations and suggestions for future research are presented.

Supply resilience and Finland's preparedness for the COVID-19 pandemic

The Finnish approach to security of supply

Traditionally, and still in a continental context, the concept *security of supply* is understood as 'the availability of a given product, function or service'.¹³ Finland has, however, already applied security of supply in a broader sense for a long time.¹⁴ The focus of security of supply operations has shifted from supply of materials to ensuring the operating capability of critical infrastructure (such as the electrical grid, the water supply, transport routes, secure data communications and financial transactions).¹⁵ Today, the purpose of security of supply is described as striving to maintain the vital functions of society even in the event of a major crisis or disruption.¹⁶ The overarching goal, and the definition of security of supply, is stated in the Government Decision on the Objectives of Security of Supply as 'the safeguarding of the critical production, services and infrastructure necessary for the livelihood of the population, the national economy and the national defense in cases of serious incidents and emergencies'.¹⁷ The starting points for this work are 'a stable

13 Ilari Aula et al., "Critical Nordic Flows: Collaboration between Finland, Norway and Sweden on Security of Supply and Critical Infrastructure Protection" (Helsinki: Finnish National Emergency Supply Agency, 2020), 9, <https://www.huoltovarmuuskeskus.fi/files/8c21565b6c4e2f8b05f62b7d5967fa24cc0e932a/critical-nordic-flows.pdf>; NESAs, "Methods and Tools."

14 Tuomas Iso-Markku, "The EU and Finland's Security of Supply: A 'Turn' in EU Thinking Provides New Opportunities, but Significant Differences Remain" (Helsinki: Finnish Institute of International Affairs, 2022), https://www.fiia.fi/wp-content/uploads/2022/01/bp330_the-eu-and-finlands-security-of-supply_tuomas-iso-markku.pdf. The Finnish National Emergency Supply Agency (NESAs) has considered the concept of security of supply to be somewhat problematic in terms of its scope of content from a national and international perspective. It has suggested alternative concepts such as *resilience* or *economic security* to replace the concept of security of supply (see Mika Aaltola et al., "Huoltovarmuus muutoksessa: Kansallisen varautumisen haasteet kansainvälisessä toimintaympäristössä," FIIA Reports (Helsinki: The Finnish Institute of International Affairs, 2016), 78–81). Security of supply in Finland is also closely interwoven with the concept of *comprehensive security*, which is based on the idea that the vital functions of society are safeguarded through cooperation between authorities, businesses, associations, and citizens (see The Security Committee, "Security Strategy for Society," Government Resolution, November 2, 2017, https://turvallisuuskomitea.fi/wp-content/uploads/2018/04/YTS_2017_english.pdf#:~:text=The%20Security%20Strategy%20for%20Society%20was%20drawn%20up,the%20business%20life%20NGOs%20and%20communities%2C%20and%20citizens.).

15 NESAs, "Objectives," 2023, <https://www.huoltovarmuuskeskus.fi/en/security-of-supply/objectives/>.

16 NESAs.

17 "Government Decision on the Objectives of Security of Supply (1048/2018): Unofficial Translation" (Ministry of Economic Affairs and Employment Finland, 2018), <https://tem.fi/documents/1410877/2095070/Government+Decision+on+the+Objectives+of+Security+of+Supply/>. For the original document in Finnish, see "Valtioneuvoston Päätös Huoltovarmuuden Tavoitteista (Finlex)," 1048/2018 § (2018), <https://finlex.fi/fi/laki/alkup/2018/20181048>. Notably, a new Government Decision on the Objectives of the Security of Supply (568/2204) was issued on 24 October 2024, but the definition of *security of supply* remains unchanged; see "Valtioneuvoston päätös huoltovarmuuden tavoitteista (Finlex)," 568/2024 § (2024), <https://finlex.fi/fi/laki/alkup/2024/20240568>. The definition in the Government Decision corresponds closely to the purpose and definition set out in Section 1 of the Finnish Act on the Measures Necessary to Secure Security of Supply ("Laki huoltovarmuuden turvaamisesta 18.12.1992/1390 (Finlex)" (1992), <https://www.finlex.fi/fi/laki/ajantasa/1992/19921390>).

public economy, a diverse industrial and other production base, a competitive national economy and functional international markets'.¹⁸

The strength of the Finnish security of supply system comes from the effective cooperation between the public, private and third sectors. The National Emergency Supply Agency (NESA) is tasked with integrating the objectives and interests of both society and the business community, together with the sectors and pools of the National Emergency Supply Organization (NESO).¹⁹ The sectors and pools maintain and develop security of supply and continuity management within a network of companies and organizations in their sector. This is a cooperative structure that broadly covers the value and supply chains relevant to security of supply and the key actors involved.²⁰ Extensive international cooperation is also considered important owing to international interdependencies and global value chains.²¹

The role of public procurement in the Finnish security of supply system

Despite the role of pre-established sectors and pools in the Finnish security of supply system, the bulk of procurement of specific goods and services needed for maintaining the vital functions of society will not be done by the actors within the remit of the NESO.²² Instead, contract-based preparedness lies in the hands of procurers within each organization. When outsourcing the availability of critical supply and capacity for the basic structures, services and related functions that are essential for maintaining the vital functions of society, some of the actors involved in procurement will inevitably be public sector organizations. These actors will need to comply with public procurement rules when procuring goods and services from external providers.²³

Public procurement in the European Union (EU) is governed by a set of laws and rules that aim to promote transparency, competition and efficiency in the procurement process. The main legal

18 NESA, "Objectives."

19 NESA, "Overview of Security of Supply," 2023, <https://www.huoltovarmuuskeskus.fi/en/security-of-supply/overview/>. The National Emergency Supply Organization (NESO) is a network that works together to ensure Finland's operational capability and security of supply. It consists of the National Emergency Supply Agency and its board, the security of supply council, and sectors and pools from various industries. In addition, here is also cooperation with regional actors, such as regional administrations, municipalities and cities, and several regional commissions, see NESA, "Huoltovarmuusorganisaatio," 2023, <https://www.huoltovarmuuskeskus.fi/huoltovarmuusorganisaatio/>.

20 NESA, "Public-Private Partnership," 2023, <https://www.huoltovarmuuskeskus.fi/en/security-of-supply/public-private-partnership/>.

21 NESA, "Objectives."

22 Notably, emergency stockpiling of certain goods is provided for in several pieces of legislation. Thus, emergency stockpiles are maintained by NESA but carried by companies by agreement, and the products circulate as part of the companies' normal operations. Regarding compulsory stockpiles (of mainly pharmaceuticals and imported fuel), companies and other key operators are required by law to hold certain inventory level of specified goods, equivalent to the consumption during a specified period of time. Security stockpiles are held by relevant companies by agreement with NESA. For more information, see NESA, "Methods and Tools".

23 Harland et al., "Practitioners' Learning about Healthcare Supply Chain Management in the COVID-19 Pandemic"; European Commission, "Public Procurement in Healthcare Systems : Opinion of the Expert Panel on Effective Ways of Investing in Health (EXPH)" (Luxembourg: European Union, April 18, 2021), https://health.ec.europa.eu/system/files/2021-05/027_public_proc_healthcare_sys_en_0.pdf.

framework for public procurement in the EU is set out in the Public Procurement Directive.²⁴ The Public Procurement Directive establishes the procedures and principles for public procurement by states and contracting authorities. The objective of procedures of the Directive is to ensure that public contracts for goods, services and works are awarded in a transparent, competitive and non-discriminatory manner.²⁵ The underlying policy objectives are to ensure that suppliers have equal opportunities to participate in transparent public procurement processes and that public funds are used in the most efficient way. The Directive was incorporated into the national laws of Finland by the Public Procurement and Concession Contracts Act.²⁶ The purpose of the Act is that the national and municipal authorities, as well as other contracting entities mentioned in the Act, shall carry out their procurements and concession contracts by competitive tender in accordance with the Act.²⁷ From the bids submitted, the most economically advantageous one shall be selected. This means a bid at the lowest price, at the most affordable cost, or with the best price-quality ratio for the contracting entity.²⁸ The rules on public procurement cover different types of procedures available for awarding contracts, for example, the open procedure, restricted procedures, negotiated procedure and innovation partnerships.²⁹ The legislation also lays down rules on the preparation and publication of procurement notices, the selection and qualification of suppliers or contractors, the evaluation and award criteria, and the overall conduct of the procurement process.

When it comes to the public procurement contract, the regulation does not contain a comprehensive legal definition. Public procurement contracts are required to be made in written form³⁰ and the contract and its conditions must comply with the terms of the call for tenders. According to Directive 2014/24/EU, a contract must be concluded in writing and, for pecuniary interest, between one or more economic operators and one or more contracting authorities, and must provide for the execution of works, the supply of products or the provision of services.³¹

24 “Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on Public Procurement and Repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, p. 65–242” (2014), <http://data.europa.eu/eli/dir/2014/24/oj>. Other EU legal acts that govern public procurement include the Utilities Directive (Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, p. 243–374) and Concessions Directive (Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, p. 1–64); the Utilities Directive sets out the rules for procurement by public utilities, such as water and energy companies, while the Concessions Directive sets out the rules for awarding concessions for public works and services.

25 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, p. 65–242, art. 18.

26 “Act on Public Procurement and Concession Contracts 29.12.2016/1397 (Finlex; translation of Laki julkisista hankinnoista ja käyttöoikeussopimuksista)” (2016), <https://www.finlex.fi/en/laki/kaannokset/2016/en20161397>.

27 Act on Public Procurement and Concession Contracts 29.12.2016/1397 (Finlex; translation of Laki julkisista hankinnoista ja käyttöoikeussopimuksista), sec. 1.

28 Act on Public Procurement and Concession Contracts 29.12.2016/1397 (Finlex; translation of Laki julkisista hankinnoista ja käyttöoikeussopimuksista), sec. 93.

29 European Commission, “Public Procurement in Healthcare Systems : Opinion of the Expert Panel on Effective Ways of Investing in Health (EXPH).”

30 Act on Public Procurement and Concession Contracts 29.12.2016/1397 (Finlex; translation of Laki julkisista hankinnoista ja käyttöoikeussopimuksista), sec. 128.

31 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, p. 65–242, art. 2 (1), (5).

Principles for continuity management and model clauses for contract-based preparedness

In Finland, business and public administrations have codeveloped recommendations for continuity management within a network of partner organizations and subcontractors, with an aim to maintain a suitable service level (SOPIVA). These recommendations aim to improve the resilience and continuity management of networks of different actors.³² This implies, among other things, recognizing the importance of the networks of different actors, providing simple contract models and recommendations for continuity management, and encouraging operators to develop their own activities through continuity planning. The recommendations also contain four model clauses prepared in 2009 to facilitate the implementation of these recommendations in contracts. The clauses are divided as follows: binding subcontracting, binding partnership, non-binding subcontracting and non-binding partnership model. In a binding subcontracting model, the provider commits to fulfilling continuity recommendations, and in a binding partnership model both parties commit to the recommendations. In addition, the parties must provide the compliance report upon request. In the non-binding subcontracting model, the provider and in the non-binding partnership model, both parties acknowledge the recommendations, consider them and strive to comply with them when economically feasible.³³

In 2019, the Ministry of Social Affairs and Health published guidelines for the use of social and health care actors in contract-based preparedness. According to the guidelines, the general principles of contract-based preparedness and risk management in the event of disruption require organizations to consider the continuity of their own services and operations in all situations, including those involving partners and those where they fail to meet their obligations. In addition, threats, incidents and disruptions identified within the supply chain must be addressed.³⁴ In practical terms, the level of contract-based preparedness hinges on whether public purchasers include preparedness clauses in their contracts, the content of these clauses, the types of disruptions they are designed to address and the scenarios they cover.³⁵

Shortcomings in Finland's response to the COVID-19 crisis, and potential development scenarios

In April 2020, the European Commission issued a guidance on how to use the public procurement framework in the emergency situation related to the COVID-19, thus giving procurers green light to divert from the regular public procurement procedures – but only for a (short) time to fulfil the

32 In total, there are 28 recommendations, which are divided into the following groups: management, operational management, human resources, partnerships and continuity management assessment.

33 NESA, "Sopimuksiin perustuva varautuminen – SOPIVA," 2023, <https://www.huoltovarmuuskeskus.fi/sopiva/>.

34 Sosiaali- ja terveysministeriö, "Sopimusperusteinen varautuminen: Ohje sosiaali- ja terveydenhuollon toimijoille," Sosiaali- ja terveysministeriön julkaisu (Helsinki: Sosiaali- ja terveysministeriö, 2019), <http://urn.fi/URN:ISBN:978-952-00-4068-0>.

35 Valtiontalouden tarkastusvirasto, "Tarkastusmuistio. Terveysturvallisuuden huoltovarmuus," June 19, 2021, <https://www.vtv.fi/app/uploads/2021/06/VTV-Tarkastusmuistio-10-2021-Terveysturvallisuuden-huoltovarmuus.pdf>; Valtiontalouden tarkastusvirasto, "Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana."

immediate needs in the extreme urgency situation caused by the spread of the disease.³⁶ In its reports on the security of supply and its safeguarding during the COVID-19 pandemic, the National Audit Office of Finland (NAOF) found that Finland had mainly succeeded well. The most significant problems were related to the availability of protective equipment in the health care sector during the early stages of the pandemic. The NAOF concludes that Finland did not have a national overview of the availability of medical supplies within its borders before the pandemic.³⁷ In its audit reports, the NAOF noted that shortcomings in the contract-based preparedness of health care and social welfare services were highlighted during the pandemic.³⁸ For example, the NAOF survey of hospital districts revealed that only 7% of the respondents had included preparedness clauses in their contracts and 50% planned to do so.³⁹ In addition, the disruptive situations mentioned in the contracts were related to operational continuity and the services rather than material preparedness.⁴⁰

The Finnish authorities' post-pandemic reports pointed out a lack of procurement capability among various units and actors.⁴¹ For example, one of the key areas identified as requiring development was the improvement of skills in the procurement of protective equipment.⁴² The NAOF also recommended the systematic consideration of contract-based preparedness in all procurement processes, in such a manner that 'conditions related to preparedness are included in such procurement contracts where they are considered to be relevant when the procurement is planned'.⁴³

Looking towards the future, a scenario report published by the NESAs in 2020 explored the permanent changes in the operating environment caused by the COVID-19 crisis and their impact on

36 In April 2020, the European Commission noted that the COVID-19 is 'a health crisis that requires swift and smart solutions and agility in dealing with an immense increase of demand for similar goods and services while certain supply chains are disrupted'. The Commission emphasized that, despite the crises presenting an extreme and unforeseeable urgency, the EU directives on public procurement did not contain procedural constraints, but allowed public procurers to use the negotiated procedure without publication, as provided under Article 32(2)(c) of the Directive. The Commission even provided suggestions on ways for public buyers to speed up their procurement, including to contact potential contractors in and outside of the EU by phone, e-mail or in person, to hire agents with contacts in the markets, and to send representatives to countries with necessary stocks that could ensure immediate delivery. Notably, the use of the negotiated procedure without direct award were to be used only to cover the gap until more stable solutions could be found, such as framework contracts for supplies and services, awarded through regular procedures. Thus, while procurers were allowed to use practices normally adopted by commercial actors to meet the immediate needs under the extreme urgency caused by the COVID-19 crisis, they were required to turn to regular procurement procedures once the criterion of extreme urgency no longer applied. For further information, see the European Commission, "Communication from the Commission: Guidance from the European Commission on Using the Public Procurement Framework in the Emergency Situation Related to the COVID-19 Crisis (2020/C 108I/01)," Pub. L. No. 2020/C 108I/01, Official Journal of the European Union 108 I (2020).

37 National Audit Office of Finland, "Conclusions and Recommendations of the National Audit Office 10/2021: Security of Supply and Safeguarding It during the Covid-19 Pandemic."

38 National Audit Office of Finland; Valtiontalouden tarkastusvirasto, "Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana."

39 Valtiontalouden tarkastusvirasto, "Tarkastusmuistio. Terveystenhuollon huoltovarmuus."

40 Valtiontalouden tarkastusvirasto; Valtiontalouden tarkastusvirasto, "Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana."

41 Huoltovarmuusneuvosto, "Huoltovarmuusneuvoston tarkastelu korona-kriisin vaikutuksista" (Helsinki: Huoltovarmuusorganisaatio, 2020); Valtiontalouden tarkastusvirasto, "Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana."

42 Huoltovarmuusneuvosto, "Huoltovarmuusneuvoston tarkastelu korona-kriisin vaikutuksista."

43 National Audit Office of Finland, "Conclusions and Recommendations of the National Audit Office 10/2021: Security of Supply and Safeguarding It during the Covid-19 Pandemic," 5; Valtiontalouden tarkastusvirasto, "Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana," 9.

security of supply. The report also included findings from a scenario planning study, consisting of a questionnaire and supplementing interviews involving different groups of experts. The results of the study showed that the security of supply experts believed that an increase in contract-based preparedness in the public sector was the most likely development under the theme of preparedness. In contrast, however, respondents in the health sector were more sceptical than others about increasing contract-based preparedness.⁴⁴ Notably, compared to other respondents working in public administration, the security of supply experts also considered it to be a more likely development that the private sector will play a greater role in ensuring the continued operation of society. The report concludes by suggesting four scenarios, of which three scenarios explicitly emphasized the role of contract-based preparedness.

The proactive contracting and legal design approaches

Proactive contracting

According to the classical and neoclassical contract law⁴⁵ (hereinafter the classical view of contracts),⁴⁶ contracts are viewed as detailed arrangements that outline the obligations and rights of the parties involved, including safeguard clauses for protecting the parties' own interests in the event of conflicts.⁴⁷ The role of law and lawyers is highly dominant in contract drafting and contracts are seen primarily as legal instruments that prioritize legal objectives and interests.⁴⁸ Moreover, instead of seeing contracts as a continuous and evolving process throughout a business relationship, the classical legal view relies on contract documents. Thus, the significant limitation of the classical view of contracts is that it typically does not adequately consider non-legal elements and the broader social impact of contracts.⁴⁹

44 Fjäder et al., "The New Normal of Security of Supply: Scenarios for a Post-COVID World and Their Impacts on Security of Supply."

45 For models of classical and neoclassical contract law, see Ian R. Macneil, "Contracts: Adjustment of Long-Term Economic Relations under Classical, Neoclassical, and Relational Contract Law," *Northwestern University Law Review* 72, no. 6 (1978): 854–905.

46 Haapio uses the term 'classical legal paradigm', see Helena Haapio, *Next Generation Contracts: A Paradigm Shift* (Helsinki: Lexpert Ltd, 2013), 54.

47 Soili Nystén-Haarala, *The Long-Term Contract: Contract Law and Contracting* (Helsinki: Finnish Lawyers' Publishing, 1998).

48 Helena Haapio, "Quality Improvement through Proactive Contracting: Contracts Are Too Important to Be Left to Lawyers!," in *ASQ's 52nd Annual Quality Congress Proceedings* (ASQ World Conference on Quality and Improvement Proceedings, Milwaukee: American Society for Quality, 1998), 243–48; Nystén-Haarala, *The Long-Term Contract: Contract Law and Contracting*. The fact that contracts are viewed primarily as legal instruments is quite astonishing as research shows that, on average, almost 80% of the content of contracts is non-legal issues. See Tim Cummins, "Contracting as a Strategic Competence" (World Commerce & Contracting, 2003): 1–8; Soili Nystén-Haarala, "Why Does Contract Law Not Recognize Life-Cycle Business? Mapping of Challenges for Future Empirical Research," in *Corporate Contracting Capabilities: Conference Proceedings and Other Writings*, ed. Soili Nystén-Haarala (Joensuu: University of Joensuu, Department of Law, 2008), 18–50.

49 Directive 2014/24/EU requires public contracts to be in writing. However, it does not prevent non-legal aspects and broader social considerations from being considered in the contracts. On the contrary, it offers several ways to integrate, for example, social responsibility into the procurement process, as long as these aspects comply with the principles of proportionality, transparency and non-discrimination. However, the implementation and evaluation of such criteria may require policy changes and investment in capabilities and can increase transaction costs. Sönnich Dahl Sönnichsen and Jesper Clement, "Review of Green and Sustainable Public Procurement: Towards Circular Public Procurement," *Journal of Cleaner Production* 245 (February 2020): 118901, <https://doi.org/10.1016/j.jclepro.2019.118901>.

Proactive contracting is a multidisciplinary research stream that sees contracts as legal, economic, managerial and social artefacts.⁵⁰ Helena Haapio has defined proactive contracting as an approach ‘recognizing and making use of contracts and contracting processes as planning tools to guide and support the success of your business’.⁵¹ She stated further that it ‘provides the support needed to identify opportunities in time to take advantage of them—and potential problems in time to take preventive action’.⁵² Proactive contracting applies various theoretical and methodological approaches to the study of contracts and contracting, depending on the research questions.⁵³ The approach is influenced by theories from a wide range of disciplines, including law, organizational studies, management, economics, design and psychology. It recognizes the various functions of contracts and emphasizes that contracting and contracts are joint efforts of multi-professional collaboration.⁵⁴ Contracts therefore need to be both legally and operationally functional, that is, they need to be well-designed in order for them to serve the intended purposes effectively. In practice, this means applying design research and methodologies to the designing of contracts.

The proactive contracting approach has two dimensions: preventive and promotive. The preventive dimension has its theoretical roots in the preventive law movement introduced by Louis M. Brown in the 1950s.⁵⁵ The main idea behind the preventive law approach is to identify the causes of potential problems and prevent them.⁵⁶ The promotive dimension emphasizes the positive, proactive dimensions of contracts by viewing them as tools for promoting business success, enhancing opportunities and fostering collaboration and relationships.⁵⁷ The proactive contracting approach is also influenced by relational aspects of contracts, such as trust, flexibility and solidarity,⁵⁸ and highlights the link between a formal contract and relational

50 Marcelo Corrales Compagnucci, Helena Haapio, and Mark Fenwick, eds., *Research Handbook on Contract Design*, Research Handbooks in Information Law Series (Northampton: Edward Elgar Publishing, 2022); Haapio, *Next Generation Contracts: A Paradigm Shift*.

51 Haapio, “Quality Improvement through Proactive Contracting: Contracts Are Too Important to Be Left to Lawyers!,” 246.

52 Haapio, 246.

53 Soili Nystén-Haarala, “Ennakoivan sopimisen tutkimusmenetelmät,” *Lakimies* 115, no. 7–8 (2017): 1015–35.

54 Anna Hurmerinta-Haanpää and Jouko Nuottila, “The Proactive Contracting Approach: The First 25 Years and Beyond” (Forthcoming). Over the decades, the proactive approach to contracting and, more broadly, proactive approach to law has been developed worldwide, with numerous conferences, books and articles on proactive contracting and proactive law (for a comprehensive history of the proactive contracting approach, see, for example, Gerlinde Berger-Walliser, “The Past and Future of Proactive Law: An Overview of the Development of the Proactive Law Movement,” in *Proactive Law in a Business Environment*, ed. Gerlinde Berger-Walliser and Kim Østergaard, 1st ed. (Copenhagen: DJØF Pub, 2012): 13–31; Jouko Nuottila, Osmo Kauppila, and Soili Nystén-Haarala, “Proactive Contracting: Emerging Changes in Attitudes toward Project Contracts and Lawyers’ Contribution,” *Journal of Strategic Contracting and Negotiation* 2, no. 1–2 (March 2016): 150–65, <https://doi.org/10.1177/2055563616669738>.

55 The legacy of Louis M. Brown is carried on by the National Centre of Preventive Law (NCPL) at the California Western School of Law in San Diego. The centre is dedicated to preventing legal risks from turning into legal problems.

56 See, generally, Louis M. Brown, *Preventive Law* (New York, NY: Prentice-Hall, 1950).

57 Haapio, *Next Generation Contracts: A Paradigm Shift*.

58 Laura Poppo and Todd Zenger, “Do Formal Contracts and Relational Governance Function as Substitutes or Complements?,” *Strategic Management Journal* 23, no. 8 (August 2002): 709–10, <https://doi.org/10.1002/smj.249>. For relational aspects, see Stewart Macaulay, “Non-Contractual Relations in Business: A Preliminary Study,” *American Sociological Review* 28, no. 1 (1963): 55–67; Stewart Macaulay, “The Use and Nonuse of Contracts in the Manufacturing Industry,” *Practical Lawyer* 9, no. 7 (1963): 13–40; Macneil, “Contracts: Adjustment of Long-Term Economic Relations under Classical, Neoclassical, and Relational Contract Law.”

governance.⁵⁹ Thus, the proactive contracting approach aligns with the ideas of relational contract theory but is more practice-oriented, providing practical tools for implementing the ideas of relationalists in the context of contract design.⁶⁰

While it is crucial that contracts are legally binding, it is important to recognize that they have multiple functions and that an emphasis on their legal function should not overshadow the other purposes. Contracts should also prevent problems from occurring, minimize the impact of risks that cannot be avoided and proactively promote business and cooperation.⁶¹

The following table (Table 1) summarizes the main differences between the classical legal approach and the proactive approach to contracts.

The role of design in the legal field

The definitions of *design* and *design thinking* vary depending on the discipline and the goals of design.⁶² At its core, design thinking is a human-centred innovation process that applies design-based methods to problem-solving, discovering unmet needs and opportunities, and creating new solutions.⁶³ In the design process, the goal is to involve different actors and professionals, including users.⁶⁴ The view is that all actors, regardless of their expertise, are designers and can use design-based methods and tools. Over the past decades, design as an important strategic asset for an organization has also gained increasing recognition through its impact on public policies and services.⁶⁵

59 Anna Hurmerinta-Haanpää, "The Many Functions of Contracts: How Companies Use Contracts in Interorganizational Exchange Relations" (Doctoral Dissertation, Turku, University of Turku, 2021); Hurmerinta-Haanpää and Nuottila, "The Proactive Contracting Approach: The First 25 Years and Beyond."

60 Hurmerinta-Haanpää, "The Many Functions of Contracts: How Companies Use Contracts in Interorganizational Exchange Relations."

61 Haapio, *Next Generation Contracts: A Paradigm Shift*; Hurmerinta-Haanpää, "The Many Functions of Contracts: How Companies Use Contracts in Interorganizational Exchange Relations."

62 See, among others, Gerlinde Berger-Walliser, Thomas D. Barton, and Helena Haapio, "From Visualization to Legal Design: A Collaborative and Creative Process," *American Business Law Journal* 54, no. 2 (2017): 347–92; Lotta Hassi and Miko Laakso, "Making Sense of Design Thinking," in *IDBM Papers Vol 1*, ed. Toni-Matti Karjalainen, Mikko Koria, and Markku Salimäki (Helsinki: IDBM program, Aalto University, 2011), 50–62; Ulla Johansson-Sköldberg, Jill Woodilla, and Mehves Çetinkaya, "Design Thinking: Past, Present and Possible Futures," *Creativity and Innovation Management* 22, no. 2 (June 2013): 121–46, <https://doi.org/10.1111/caim.12023>; Lucy Kimbell, "Rethinking Design Thinking: Part I," *Design and Culture* 3, no. 3 (November 2011): 285–306, <https://doi.org/10.2752/175470811X13071166525216>; Lucy Kimbell, "Rethinking Design Thinking: Part II," *Design and Culture* 4, no. 2 (July 2012): 129–48, <https://doi.org/10.2752/175470812X13281948975413>.

63 Thomas Lockwood, "Transition: Becoming a Design-Minded Organization," in *Design Thinking: Integrating Innovation, Customer Experience and Brand Value*, ed. Thomas Lockwood (New York, NY: Allworth Press, 2010), 81–95.

64 Lockwood.

65 Christian Bason, *Leading Public Sector Innovation: Co-Creating for a Better Society*, 1st ed. (Bristol: University Press, 2010), <https://doi.org/10.2307/j.ctt9qgnsd>; Christian Bason, *Design for Policy* (Farnham, Burlington: Gower Publishing, 2014); Christian Bason and Robert D. Austin, "Design in the Public Sector: Toward a Human Centred Model of Public Governance," *Public Management Review* 24, no. 11 (November 2, 2022): 1727–57, <https://doi.org/10.1080/14719037.2021.1919186>; Brigitte Borja de Mozota and Fabiane Wolff, "Forty Years of Research in Design Management: A Review of Literature and Directions for the Future," *Strategic Design Research Journal* 12, no. 1 (July 12, 2019): 4–26, <https://doi.org/10.4013/sdrj.2019.121.02>; Richard Buchanan, "Worlds in the Making: Design, Management, and the Reform of Organizational Culture," *She Ji: The Journal of Design, Economics, and Innovation* 1, no. 1 (2015): 5–21, <https://doi.org/10.1016/j.sheji.2015.09.003>; Rachel Cooper, Sabine Junginger, and Thomas Lockwood, eds., *The Handbook of Design Management*, Published in paperback (London New York: Bloomsbury Academic, 2017).

Table 1. How the classical legal approach and proactive approach views on contracts and their primary objectives differ (adapted from Haapio 2013).¹²⁵

	Classical legal approach	Proactive approach
View contracts as	A source of rules, piece of evidence	Legal, managerial, social and economic artefacts, enablers, facilitators of communication and collaboration
Sees contracts primarily as	Legal tools	Management tools
Sees as contracts' primary objectives	Legal objectives	Business objectives, supported by legal objectives

Legal design is an umbrella term that merges forward-looking legal thinking with design thinking and shares several basic assumptions with the problem-solving methodology of design thinking.⁶⁶ However, legal design goes beyond design thinking. It is more like design doing and applying design thinking to the real world by working in a design mode.⁶⁷ According to the Design Alliance – an interdisciplinary network of researchers and practitioners in law, design and other fields – legal design ‘applies human-centered design to the world of law to enable desirable outcomes and prevent the causes of problems from arising and developing into conflict and disputes’.⁶⁸ One of the pioneers of legal design, the lawyer and designer Margaret Hagan, defines legal design as ‘the application of human-centered design to the world of law, to make legal systems and services more human-centered, usable, and satisfying’.⁶⁹ Legal design has also been defined as ‘an interdisciplinary approach to apply human-centered design to prevent or solve legal problems’,⁷⁰ and as a problem-solving competency based on the cognitive styles and dynamics of design thinking involving ‘knowing, analyzing, synthesizing, and creating’ capacities.⁷¹ Based on the various definitions, it can be summarized that legal design is a multidisciplinary, user-centred and proactive way of thinking, acting and solving problems in a legal domain, covering legal information, documents, legal services, processes and systems.⁷² Figure 1 illustrates the sub-fields of legal design.

66 Berger-Walliser, Barton, and Haapio, “From Visualization to Legal Design: A Collaborative and Creative Process”; Michael Doherty et al., “A New Attitude to Law’s Empire: The Potentialities of Legal Design,” in *Legal Design: Integrating Business, Design and Legal Thinking with Technology*, ed. Marcelo Corrales Compagnucci et al. (Cheltenham: Edward Elgar Publishing, 2021): 1–8, <https://doi.org/10.4337/9781839107269>.

67 Rossana Ducato and Alain Strowel, “Legal Design Perspectives. Theoretical and Practical Insights from the Field,” October 28, 2021, <https://doi.org/10.5281/ZENODO.5710845>; Amanda Perry-Kessaris, *Doing Sociolegal Research in Design Mode* (Abingdon, Oxon; New York, NY: Routledge, 2021), <https://doi.org/10.4324/9780367177683>.

68 Legal Design Alliance, “Legal Design Alliance: A Network for Human-Centered Legal Innovation,” 2023, <https://www.legaldesignalliance.org/>.

69 Margaret Hagan, “Law by Design,” Online book, Law by Design, sec. 1. Legal design: What is Legal Design?, accessed February 27, 2023, <https://lawbydesign.co/>.

70 Arianna Rossi and Helena Haapio, “Proactive Legal Design: Embedding Values in Design of Legal Artefacts,” in *Internet of Things. Proceedings of the 22nd International Legal Informatics Symposium IRIS 2019*, ed. Eric Schweighofer, Franz Kummer, and Ahti Saarenpää (Bern: Eiditions Weblaw, 2019), 537.

71 Bason, *Leading Public Sector Innovation*, 140–42.

72 Berger-Walliser, Barton, and Haapio, “From Visualization to Legal Design: A Collaborative and Creative Process”; Doherty et al., “A New Attitude to Law’s Empire: The Potentialities of Legal Design”; Stefania Passera, “Beyond the Wall of Contract Text – Visualizing Contracts to Foster Understanding and Collaboration within and across Organizations” (Doctoral Dissertation, Espoo, Aalto University, 2017).

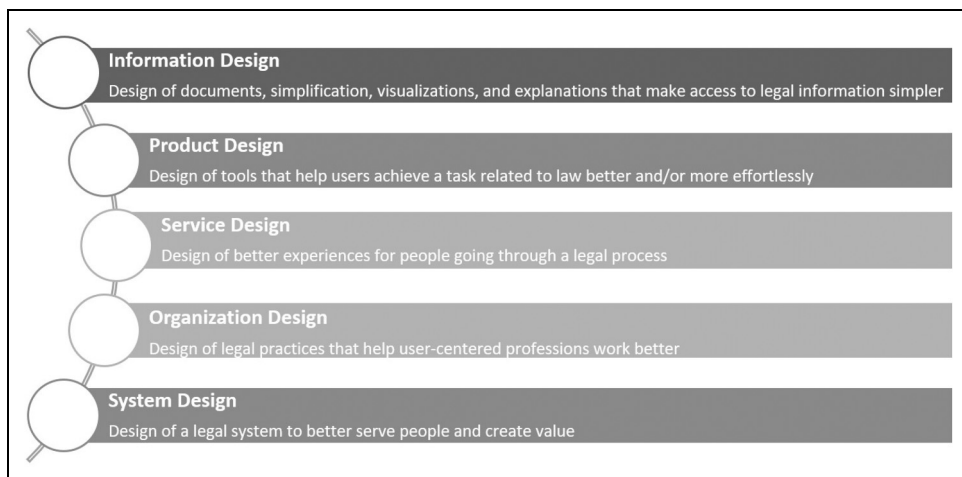


Figure 1. Conceptualization of the field of legal design (adapted from Hagan (n.d.); Passera 2017).¹²³

Tensions and opportunities at the intersections of public procurement, supply resilience and the proactive contracting and legal design approaches

In this section, we present the results of an analysis of the intersections of public procurement (focusing on the open and restricted public procurement procedures, which are commonly used),⁷³ supply resilience (with a focus towards the health care sector) and the proactive contracting and legal design approaches. It is based on literature from the areas, and represents a starting point for further analysis and research in this field.

Challenges in enhancing resilience through public procurement and the proactive contracting and legal design

The concept of resilience has been researched with increasing intensity in the past years, also within the literature streams focusing on purchasing and supply management. As noted above, we here use the term *supply resilience* to refer to the buying organization's ability to secure supply before or after occurrence of disruptions caused by extreme events. *Public procurement* in turn stands for the procedures and principles for procurement used by contracting authorities, and is a field in law as well as a literature stream in purchasing and supply management. *Proactive contracting and legal design* are uprising multidisciplinary streams of literature and practice that are receiving increased attention among lawyers. Figure 2 illustrates the tensions identified at the intersections of these areas. Each intersection, as well as the challenges when considering them jointly will be described next.

⁷³ The Expert Panel on effective ways of investing in Health (EXPH) describes the open procedure as "the default approach" that in principle works well for standardized products, and can work also for non-standard products or services (see the European Commission 2021, 20).

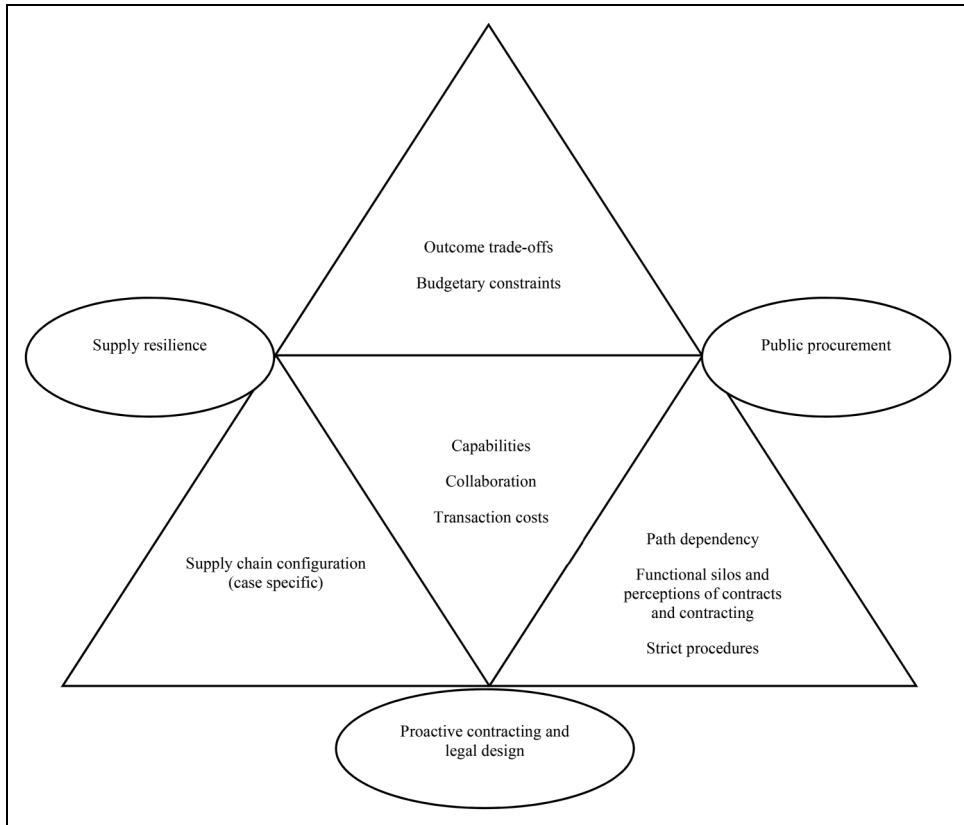


Figure 2. Tensions at the intersections of supply resilience, public procurement and proactive contracting and legal design (source: the authors).¹²⁴

Public procurement–supply resilience. Enhancing supply resilience (i.e. the buying organization’s ability to secure supply before or after occurrence of disruptions caused by extreme events) through the regular open public procurement procedure reveals part of the constraining nature of public procurement when it comes to handling the unknown. First, the main objective of the EU public procurement rules is to ensure that suppliers have equal opportunities to participate in transparent public procurement processes and that public funds are used in the most efficient way. While some countries include provisions in their procurement legislation that allow or even promote the selection of national suppliers,⁷⁴ the EU promotes competition on the internal market and thus discourages the selection of suppliers based on their ‘nationality’.⁷⁵ Speed and certainty of delivery (as presumably provided by suppliers closer to the buyer) may thus be considered difficult to include as

⁷⁴ Francis Ssenoga, “Examining Discriminatory Procurement Practices in Developing Countries,” *Journal of Public Procurement* 6, no. 3 (March 1, 2006): 218–49, <https://doi.org/10.1108/JOPP-06-03-2006-B002>.

⁷⁵ Carina Risvig Hamer and Marta Andhov, “Article 18: Public Procurement Principles,” in *European Public Procurement: Commentary on Directive 2014/24/EU*, ed. Roberto Caranta and Albert Sánchez Graells, Elgar Commentaries Series (Cheltenham, UK ; Northampton, Massachusetts: Edward Elgar Publishing, 2021), 187–207.

the procurement criteria, if perceived to be in conflict with the principles of non-discrimination and equal treatment.⁷⁶

Secondly, a major challenge for enhancing supply security in the public sector could be budgetary constraints. Jan Grumiller, Hannes Grohs and Werner Raza noted that ‘buyers of medical products – including public institutions as the most important buyers of medical products – rarely pay a premium for security of supply’.⁷⁷ Paying a premium for anything beyond what is defined as fulfilling the immediate needs, for example, for redundancy in the supply network, would require strategic decision-making and justifications for the use of public funds.⁷⁸ On the other hand, procuring during a crisis such as a pandemic also requires resources and incurs negotiation and contracting costs, and prices may be set by suppliers.⁷⁹

Supply resilience—proactive contracting and legal design. The specific context (sector, location, etc.) in which supply resilience is pursued may have implications for the proactive contracting and legal design approaches. In the health care sector, buyers may require a very large number and wide range of items to be able to provide the services to the final customers.⁸⁰ Part of the items are procured through wholesalers/distributors instead of directly from manufacturers,⁸¹ which adds a tier in the supply chain, and in effect layer, in the flow of information that is relevant for integrating resilience and security of supply in the different phases of procurement (including contract management).⁸² Lack of inventory visibility and distance to suppliers may add exposure to vulnerabilities in health care supply chains.⁸³ This setup, with many supply chain tiers, entails that neither procurer nor supplier (distributor) may have direct access to information regarding vulnerabilities, which has implications for the possibility to achieve supply resilience through the proactive contracting and legal design approaches. In other words, the configuration can inhibit the contract parties’ ability to ‘identify opportunities in time to take advantage of them—and potential problems in time to take preventive action’.⁸⁴

Proactive contracting and legal design—public procurement. The phenomenon of path dependency is widely recognized in public management literature, both at the policy and organizational

76 Regarding the exceptions during the Covid-19 crisis, see Sanchez-Graells, “Procurement in the Time of COVID-19”; Eleanor Aspey, “Direct Awards and Extreme Urgency: Lessons from UK Procurement during the COVID-19 Pandemic,” *Manchester Review of Law, Crime and Ethics*, no. 11 (2022): 70–96.

77 Jan Grumiller, Hannes Grohs, and Werner Raza, “Resilience in Sustainable Global Supply Chains: Evidence and Policy Recommendations,” Working Paper, Research Division Middle East and Africa, Research Network Sustainable Global Supply Chains (Berlin: German Institute for International and Security Affairs, 2022), 52.

78 Isabell Therese Storsjö and Hlekiwe Kachali, “Public Procurement for Innovation and Civil Preparedness: A Policy-Practice Gap,” *International Journal of Public Sector Management* 30, no. 4 (May 8, 2017): 342–56, <https://doi.org/10.1108/IJPSM-10-2016-0177>.

79 Valtiontalouden tarkastusvirasto, “Huoltovarmuus ja sen turvaaminen covid-19-pandemian aikana,” 27.

80 Miroslava A. Rakovska and Stilyana V. Stratieva, “A Taxonomy of Healthcare Supply Chain Management Practices,” *Supply Chain Forum: An International Journal* 19, no. 1 (January 2, 2018): 4–24, <https://doi.org/10.1080/16258312.2017.1395276>.

81 Rakovska and Stratieva.

82 Scala and Lindsay, “Supply Chain Resilience during Pandemic Disruption.”

83 Scala and Lindsay.

84 Haapio, “Quality Improvement through Proactive Contracting: Contracts Are Too Important to Be Left to Lawyers!,” 246.

levels.⁸⁵ It refers to the statement ‘history matters’, which means that the future behaviour of an organization is constrained by history and routines.⁸⁶ This may imply a status quo bias, that is, a cognitive state involving a preference for the existing state of affairs. Changing the status quo may be perceived as risky or uncertain, and may require additional effort or resources.⁸⁷

A common problem in business contracting is the perception that contracts are merely legal documents disconnected from the actual business operations. However, this disconnection between contracts and the business is even more pronounced in the context of public procurement.⁸⁸ Due to legal and administrative control and command tradition, public procurement contracting tends to be perceived as a series of legal formalities that must be followed closely and regarded simply as a legal-based function.⁸⁹ Thus, public procurement is often seen as a system of competitive tendering rather than purchasing, where compliance with legal formalities tends to ignore the real purpose and objectives of procurement. Moreover, the challenge of strengthening the relational aspects of contracts, building trust and sharing information is compounded by the existence of a competitive tendering system.⁹⁰

Supply resilience—public procurement—proactive contracting and legal design. The most prominent tensions at the intersection of the three areas supply resilience, public procurement and proactive contracting and legal design considered here relate to collaboration, capabilities and transaction costs. The rules governing public procurement can become an obstacle to achieving resilience, by preventing close collaboration with suppliers (when using the open and restricted procedures).⁹¹ The absence of inter-organizational integration is also an overall problem: Rakovska and Stratieva found that some hospitals’ poor relationships with suppliers was a result of ‘the rather scarce information sharing, the absence of joint activities and knowledge transfer, short-term contracts, and multiple source procurement as a way to prevent stock-outs and to press suppliers to lower prices’.⁹² Traditionally, the interaction between buyers and suppliers has been perceived as an arms-length and transactional process where regulation and culture are barriers to building

85 Erk P. Piening, “Dynamic Capabilities in Public Organizations: A Literature Review and Research Agenda,” *Public Management Review* 15, no. 2 (February 2013): 209–45, <https://doi.org/10.1080/14719037.2012.708358>.

86 David J. Teece, Gary Pisano, and Amy Shuen, “Dynamic Capabilities and Strategic Management,” *Strategic Management Journal* 18, no. 7 (1997): 509–33.

87 William Samuelsson and Rickard Zeckhauser, “Status Quo Bias in Decision Making,” *Journal of Risk and Uncertainty* 1, no. 1 (1988): 7–59.

88 Soile Pohjonen and Katja Koskelainen, “Empowering Contracting Parties – Proactive and Dialogic Contracting in Public Procurement,” in *Proactive Law in a Business Environment*, ed. Gerlinde Berger-Walliser and Kim Østergaard, 1st ed. (Copenhagen: DJØF Pub, 2012), 267–303.

89 Pohjonen and Koskelainen; Soile Pohjonen and Katja Koskelainen, “Visualization in Trialogic Public Procurement Contracting,” in *2012 16th International Conference on Information Visualisation (2012 16th International Conference on Information Visualisation (IV))*, Montpellier, France: IEEE, 2012), 383–88, <https://doi.org/10.1109/IV.2012.70>; Soile Pohjonen and Katja Koskelainen, “Public Procurement Contracting as a Collaboration Process,” in *CO-CREATE 2013 – The Boundary-Crossing Conference on Co-Design in Innovation, Espoo, Finland, June 16–19*, eds. Riitta Smeds and Olivier Irman (CO-CREATE 2013, Espoo: Aalto ARTS Books, 2013): 395–406; Esa Väänänen, “Utilization of Private Purchasing Best Practices in Procurement of Services in Finnish Municipalities – The Case of Housing Services for the Elderly” (Doctoral Dissertation, Helsinki, Aalto University, 2017), <http://urn.fi/URN:ISBN:978-952-60-7334-7>.

90 Pohjonen and Koskelainen, “Empowering Contracting Parties – Proactive and Dialogic Contracting in Public Procurement”; Pohjonen and Koskelainen, “Public Procurement Contracting as a Collaboration Process.”

91 Risvig Hamer and Andhov, “Article 18: Public Procurement Principles.”

92 Rakovska and Stratieva, “A Taxonomy of Healthcare Supply Chain Management Practices,” 14.

long-term relationships and trust.⁹³ As a result, public procurement is often not recognized as contracting, and procurement contracts are not regarded as tools to promote collaboration between the parties and stakeholders.⁹⁴

Doing public procurement that achieves supply resilience through proactive contracting and legal design approaches is inhibited by lacking capabilities. Public organizations are typically multi-faceted entities with centralized procurement expertise, while substance expertise is often dispersed throughout the organization.⁹⁵ Actors with different backgrounds and tasks look at the process from different angles, and often the idea of the contracting process recedes into disconnected details and the overall picture is lost.⁹⁶ Furthermore, in public procurement, there often appears to be a practical gap between contract drafting and procurement, and the actors who draft the contracts and make the deals are not the ones who implement them.⁹⁷ The role of legal counsels may also be too strong, resulting in procurement being carried out strictly in line with the law rather than based on procurement expertise and contracts being written in complex legal language that is difficult for laypeople to understand,⁹⁸ thus, not optimally facilitating successful procurement.

The increase or decrease of transaction costs is also a major challenge. Having a long-term provider may allow a degree of trust to develop, which arguably enables less expensive contract monitoring processes, but at the same time may limit market entry by competitors.⁹⁹ The most economically advantageous tender could include a wide range of criteria, including those that enhance security of supply and resilience, but operationalizing these criteria and allocating scores against them can be a very complex task, thus increasing transaction costs.¹⁰⁰ When procuring items with a new paradigm to contract and contracting (for enhancing resilience), as in using proactive contracting and legal design approaches, the first times will presumably involve increased ex-ante transaction costs for both procurer and suppliers. However, the approaches may reduce the ex-post transaction costs over time.

93 Andrew Erridge and Jonathan Greer, "Partnerships and Public Procurement: Building Social Capital through Supply Relations," *Public Administration* 80, no. 3 (January 2002): 503–22, <https://doi.org/10.1111/1467-9299.00315>; Paul C.S. Lian and Angus W. Laing, "Public Sector Purchasing of Health Services: A Comparison with Private Sector Purchasing," *Journal of Purchasing and Supply Management* 10, no. 6 (November 2004): 247–56, <https://doi.org/10.1016/j.pursup.2004.11.005>; Kostas Selviaridis and Martin Spring, "Fostering SME Supplier-enabled Innovation in the Supply Chain: The Role of Innovation Policy," *The Journal of Supply Chain Management* 58, no. 1 (2022): 92–123, <https://doi.org/10.1111/jscm.12274>.

94 Stefania Passera et al., "User-Friendly Contracting Tools – A Visual Guide to Facilitate Public Procurement Contracting," in *Proceedings of the 2013 IACCM Academic Forum for Integrating Law and Contract Management: Proactive, Preventive and Strategic Approaches*. Phoenix (AZ), USA, 8 October 2013., ed. J Chittenden (IACCM Academic Forum on Contract and Commercial Management, Ridgefield (CT): The International Association for Contract and Commercial Management, 2013): 74–94; Pohjonen and Koskelainen, "Empowering Contracting Parties – Proactive and Dialogic Contracting in Public Procurement"; Pohjonen and Koskelainen, "Visualization in Triologic Public Procurement Contracting"; Pohjonen and Koskelainen, "Public Procurement Contracting as a Collaboration Process."

95 Storsjö and Kachali, "Public Procurement for Innovation and Civil Preparedness."

96 Pohjonen and Koskelainen, "Empowering Contracting Parties – Proactive and Dialogic Contracting in Public Procurement"; Pohjonen and Koskelainen, "Visualization in Triologic Public Procurement Contracting"; Pohjonen and Koskelainen, "Public Procurement Contracting as a Collaboration Process."

97 Pohjonen and Koskelainen, "Empowering Contracting Parties – Proactive and Dialogic Contracting in Public Procurement."

98 Gerlinde Berger-Walliser, Robert C. Bird, and Helena Haapio, "Promoting Business Success Through Contract Visualization," *Journal of Law, Business, and Ethics* 17 (2011): 56; Väänänen, "Utilization of Private Purchasing Best Practices in Procurement of Services in Finnish Municipalities – The Case of Housing Services for the Elderly."

99 European Commission, "Public Procurement in Healthcare Systems : Opinion of the Expert Panel on Effective Ways of Investing in Health (EXPH)," 30.

100 European Commission, 50–51.

Opportunities for enhancing contract-based preparedness through proactive contracting and legal design approaches in public procurement

Being aware of the tensions described above, we consider the proactive contracting and legal design approaches new paradigms for contracts and contracting that could also promote the goal of achieving security of supply for public sector organizations. Traditional purchasing and supply management is primarily concerned with identifying and analysing problems that exist in the present world (*problem focus*). In contrast, design science has a more solution-oriented approach, with its focus on creating artefacts and solutions that can address these problems (*solution focus*) and shape a desirable future world.¹⁰¹ This approach also differs from the analytical problem-solving approach employed by lawyers or business professionals.¹⁰² The proactive contracting and legal design approaches thus provide methods and policies to depart from the path dependency of a public organization, and to develop the organization's procurement processes and contract documents to be more solution-oriented. Moreover, purchasing and supply management design provides tools for anticipating the future world and shaping the behaviour of stakeholders involved to meet the demands of change.¹⁰³

Legal design merges legal and design thinking and provides tools to design services, processes and systems within the legal domain (see Figure 1). Moreover, it provides tools to make legal communication simpler, more user-centred and more effective. In contracting, this means a shift from traditional contract drafting to contract design. It involves intentional and strategic development of contract processes and contract documents to enhance comprehension, and knowledge interactions, and foster collaboration within the contracting lifecycle.¹⁰⁴ By reducing information asymmetry, improving mutual understanding and increasing mutual trust, clear contracts facilitate the establishment of strong relationships. Thus, clear contracts also have a crucial role to play in driving forward the development of relational governance.¹⁰⁵ Information design plays a significant role in contracting by enhancing the effectiveness and efficiency of the contract processes and contract documents. By simplifying legal language, organizing information in a logical structure and using visual elements, such as icons, diagrams,

101 Raphael Stange, Holger Schiele, and Jörg Henseler, "Advancing Purchasing as a Design Science: Publication Guidelines to Shift towards More Relevant Purchasing Research," *Journal of Purchasing and Supply Management* 28, no. 1 (2022): 100750, <https://doi.org/10.1016/j.pursup.2022.100750>.

102 Berger-Walliser, Barton, and Haapio, "From Visualization to Legal Design: A Collaborative and Creative Process"; Rae Morgan and Emily Allbon, "Is Law That Special?," in *Legal Design Perspectives: Theoretical and Practical Insights from the Field*, eds. Rossana Ducato and Alain Strowel (Milan: Ledizioni, 2021).

103 Jörg Henseler and Manuela Guerreiro, "Design and Marketing: Intersections and Challenges," *Creativity and Innovation Management* 29, no. S1 (December 2020): 3–10, <https://doi.org/10.1111/caim.12412>; Herbert Alexander Simon, *The Sciences of the Artificial*, 3. ed. [Nachdr.] (Cambridge, MA: MIT Press, 1996).

104 Passera, "Beyond the Wall of Contract Text – Visualizing Contracts to Foster Understanding and Collaboration within and across Organizations."

105 Thomas L. Huber et al., "A Process Model of Complementarity and Substitution of Contractual and Relational Governance in IS Outsourcing," *Journal of Management Information Systems* 30, no. 3 (December 2013): 81–114, <https://doi.org/10.2753/MIS0742-1222300304>.

charts, images and design patterns effectively, information design promotes clarity and accessibility.¹⁰⁶

When looking specifically into the context of contract-based preparedness in the public sector, organizations need to choose between possible resilience-enhancing practices, due to resource constraints.¹⁰⁷ Drawing from the holistic framework on supply chain resilience developed by Ali et al.,¹⁰⁸ we suggest a few ways, as well as the more fundamental changes needed, to enhance contract-based preparedness (and ultimately, resilience) through the proactive contracting and legal design approaches in the different phases of public procurement.¹⁰⁹

For establishing needs and procurement strategy, the procurer would benefit from *situation awareness*, which could be based on continuity planning and risk mitigation (with the aim of avoiding procurement in haste after an actual disturbance occurs). The SOPIVA framework developed by the Finnish security of supply system could be useful, especially since it has been drafted jointly by the public administration and industry. However, the effectiveness and usefulness of the framework could be further enhanced by using a solution-oriented approach based on design thinking principles.

When designing the procurement process and contract documents, the procurer could use established connections to the supplier network in the market consultation phase and *collaborate* with these market actors in order to include relevant security of supply considerations in the process and contract design. It would also be essential to involve multiple professionals for defining the needs and deciding the procedure and how to evaluate bids – in addition to health care professionals and patients, also risk and disaster management knowledge should be represented in the procurement advisory team.¹¹⁰

106 Helena Haapio and Margaret Hagan, “Design Patterns for Contracts,” in *Networks. Proceedings of the 19th International Legal Informatics Symposium IRIS 2016*, ed. Eric Schweighofer (Wien: Österreichische Computer Gesellschaft, 2016), 381–88; Helena Haapio and Stefania Passera, “Contracts as Interfaces: Exploring Visual Representation Patterns in Contract Design,” in *Legal Informatics*, ed. Daniel Martin Katz, Ron Dolin, and Michael J. Bommarito, 1st ed. (Cambridge: Cambridge University Press, 2021): 218–38, <https://doi.org/10.1017/9781316529683>; Passera, “Beyond the Wall of Contract Text – Visualizing Contracts to Foster Understanding and Collaboration within and across Organizations”; WorldCC Foundation, Stefania Passera, and Helena Haapio, Contract Design Pattern Library, 2023, <https://contract-design.worldcc.com/>.

107 Dube et al., “One Crisis, Different Paths to Supply Resilience: The Case of Ventilator Procurement for the COVID-19 Pandemic.”

108 Ali, Mahfouz, and Arisha, “Analysing Supply Chain Resilience: Integrating the Constructs in a Concept Mapping Framework via a Systematic Literature Review.”

109 The literature provides many different alternatives for dividing the procedure into separate phases, and we present a consolidated view of the phases of the procurement process. The Expert Panel on effective ways of investing in Health (EXPH) divides the phases (specifically for procurement above the EU thresholds) into the following steps: adequate definition of what is to be acquired (1), publication of the contract notice (2), evaluation and award (3), selection of winner (4), and execution of contract (5); see European Commission, “Public Procurement in Healthcare Systems : Opinion of the Expert Panel on Effective Ways of Investing in Health (EXPH).” Elise Pekkala, on the other hand, divides the procurement process into fourteen stages: procurement strategy and guidelines (1), mapping the procurement needs and planning of the procurement (2), deciding on the procurement procedure (3), drafting the call for tenders (4), publishing the procurement notice and call for tenders (5), drafting the bids (done by the potential suppliers) (6), receiving and opening the tenders (7), verifying the suitability of the bidders (8), comparing the tenders (9), making the procurement decision (10), informing the bidders (11), making the procurement agreement (12), publishing the contract award notice (13), and implementing the agreement (14); see Elise Pekkala, *Hankintojen kilpailuttaminen, Hankintojen kilpailuttaminen, 7. uudistettu laitos* (8. painos) (Helsinki: Tietosanoma, 2017).

110 European Commission, “Public Procurement in Healthcare Systems : Opinion of the Expert Panel on Effective Ways of Investing in Health (EXPH).”

When advertising the public contract and subsequently evaluating the bids and bidders, security of supply criteria could be included in the evaluation to support the procurer's *situation awareness* and *robustness*. It should also not be forgotten that requiring suppliers to provide more information (regarding, e.g. the supplier network or inventory levels) or commit to the buying organization's possible future needs regarding available goods and capacity (e.g. by requiring certain inventory levels or delivery time), should correspond with incentives, so that the (business) success of both parties is ensured. When it comes to the contract management phase, *collaboration* aspects that increase visibility through the supply chain could be promoted with information sharing provisions in the contract, for example, regarding risks for disruptions in supply. In the contract itself, communication and knowledge sharing could be enhanced through design (simplification, plain language, visualization).

At a more fundamental level, the procuring organization (and suppliers) needs to develop their dynamic contracting and resilience capabilities: they need to develop their *ability to anticipate* disruptions, by involving multiple professionals, focusing on solutions, and considering the multiple functions of contracts and preventive and promotive dimensions of contracting in the public procurement process. They need to develop *their abilities to adapt and respond* to disruptions, by designing their organization's processes and documents from the perspectives of the sub-disciplines of legal design (information-, product-, service-, organization- and system design), while also respecting the limitations given by public procurement legislation (e.g. regarding the possibility to adapt product specifications). Finally, they need to *develop abilities to recover and learn*, by evaluating and redesigning throughout the contract life-cycle (in an iterative process). Learning could be enhanced by establishing processes for reflecting on past experiences, for learning from other procuring units and developing best practices, and by involving suppliers in the review of past contracts and contracting.

To start the process of changing existing practices, it is essential to view contracting as an integral part of business processes and to integrate it into all internal processes and operations of the organization.¹¹¹ In addition, it is important to enhance an organization's dynamic contracting capability by harnessing individual capabilities within the organization to design, maintain and manage contracting processes and contracts.¹¹² The integration of processes and operations together with the development of dynamic organizational capabilities enables the organization to effectively integrate, build and reconfigure competences and its overall resilience.¹¹³ The change requires multi-professional cooperation, effective communication and knowledge sharing. Individual skills, expertise and knowledge should be combined to enhance competences at different levels of the organization and to turn them into a functioning whole. Thus, the ownership of contracts is collective, and all the actors and stakeholders involved are responsible for them and have the right to contribute to discussions and decisions related to them.¹¹⁴

111 Piia Kaave, *Irti vakiosopimustoiminnan polkuriippuvuudesta ennakoivalla sopimisella* (Helsinki: Kauppakamari, 2022); Nystén-Haarala, "Why Does Contract Law Not Recognize Life-Cycle Business? Mapping of Challenges for Future Empirical Research"; Kaisa Sorsa, "Elinkeinoelämä tarvitsee ennakoivaa sopimusosaamista," *Defensor Legis*, no. 1 (2009): 128–47.

112 Nystén-Haarala, "Why Does Contract Law Not Recognize Life-Cycle Business? Mapping of Challenges for Future Empirical Research."

113 Piening, "Dynamic Capabilities in Public Organizations"; Teece, Pisano, and Shuen, "Dynamic Capabilities and Strategic Management," 516.

114 Pohjonen and Koskelainen, "Empowering Contracting Parties – Proactive and Dialogic Contracting in Public Procurement."

Conclusions

Public procurement focuses on procedural issues and due to the legal and administrative control and command tradition, public procurement processes and contracts tend to be dominated by the classical legal approach. Furthermore, public procurement is seen as competitive tendering rather than purchasing and contracting. From a resilience perspective, procurement professionals are normally constrained by regulations, rules and norms that can hinder resilience, for example, by limiting close collaboration with suppliers and discouraging flexibility. The buyer–supplier relationships have traditionally been viewed as an arm’s-length transaction where regulation and culture are barriers for building long-term relationships and trust.

We argue that taking a *bird’s eye view* on public procurement exposes its nature as a complex social system comprising various interconnected subsystems.¹¹⁵ Recognizing this complexity is crucial for ensuring that public procurement contracting is not only legally binding but also operationally effective and functional, thereby supporting successful procurement and enhancing contract-based preparedness. Moreover, we argue that a holistic view on resilience, encompassing capabilities and possible practices in the different phases of a disaster,¹¹⁶ could aid public procurers in developing contract-based procurement (and enhanced resilience) in their own specific context.

The inclusion of disaster preparedness, response and recovery considerations in public procurement is argued to not only save money (compared to the costs of procuring in haste after a disaster strikes) but to also ensure that the principles of public procurement (effective public expenditure, competition, fairness, equal opportunities, transparency, etc.) are upheld in the process.¹¹⁷ In this paper, we have presented the proactive contracting and legal design approaches as means to enhance contract-based preparedness. These approaches promote multiprofessional collaboration, effective communication and knowledge sharing among stakeholders, and provide methods and policies for developing public procurement processes and contract documents. We noted that this requires the development of organizations’ contracting capability and resilience capabilities such as the ability to anticipate, adapt, respond, recover and learn.¹¹⁸ This, in turn, may require organizations to rethink and change their procedures and processes, adapt their current practices, make organizational changes and even change their culture.¹¹⁹

When it comes to Finland, the strength of its security of supply system is the effective cooperation between the public, private and third sectors. Although Finland was generally successful in safeguarding its security of supply during the COVID-19 pandemic, it faced problems with the availability of essential supplies in the health care sector. In their post-pandemic reports, Finnish authorities noted that the shortcomings of the contract-based preparedness of health care and social welfare services were highlighted during the pandemic. Moreover, they stated that public–

115 This approach is based on sociologist Niklas Luhmann’s (1927–1998) system theory, see, for example, Thomas D. Barton, “A Sociological Theory of Law by Niklas Luhmann,” *California Law Review* 74, no. 5 (1986): 1805–27; Niklas Luhmann, *Law as a Social System*, ed. Fatima Kastner et al., trans. Klaus A. Ziegert, Oxford Socio-Legal Studies (Oxford; New York: Oxford University Press, 2004).

116 Ali, Mahfouz, and Arisha, “Analysing Supply Chain Resilience: Integrating the Constructs in a Concept Mapping Framework via a Systematic Literature Review.”

117 Atkinson and Sapat, “After Katrina.”

118 Ali, Mahfouz, and Arisha, “Analysing Supply Chain Resilience: Integrating the Constructs in a Concept Mapping Framework via a Systematic Literature Review.”

119 Elvira Uyarra et al., “Barriers to Innovation through Public Procurement: A Supplier Perspective,” *Technovation* 34, no. 10 (October 2014): 631–45, <https://doi.org/10.1016/j.technovation.2014.04.003>.

private partnerships and contract-based preparedness need to be developed, specific sectoral competencies must be exploited further, and silos are to be avoided. In this article, we discussed how to foster security of supply in contract-based preparedness in the public sector, through the proactive contracting and legal design approaches. In our view, the Finnish comprehensive security approach, with its already established cross-sector networks of actors that cooperate to enhance security of supply for vital services, constitutes a basis for initiating changes in contracting practices that the proactive contracting and legal design approaches entail.¹²⁰ In other words, there are already practices of collaboration across the value chains for health care service provision, aimed at enhancing security of supply, which could be exploited further to enhance contract-based preparedness. For the organizations who procure products, services and works using public funds, and the companies who provide for their needs, we thus argue that the proactive contracting and legal design approaches would be a complement to the Finnish approach to security of supply that would enhance contract-based preparedness.

Limitations and future research

Proactive contracting and design research are practice-oriented research streams. They also involve a multidisciplinary and multi-method approach. When studying contracts and contracting in different business models, it is beneficial to complement the study of general contract law doctrines with empirical research. This approach allows for a practical perspective that goes beyond theoretical principles and enables a deeper analysis of the structures, characteristics and dynamics of contracting in different business models. This article focuses on contracts and contracting in the public sector from a conceptual perspective with an aim to start a discussion on how proactive contracting and design methods can be used in public procurement. To move forward, future research on the topic should be empirical and focus on public procurement contracts and contracting with the aim of enhancing security of supply (and consequently, resilience), from the perspective of proactive contracting and legal design. This could be done by both examining the current state of procurement, and then to use design thinking and action research to plan, make and evaluate changes in information, products, services, organizations and systems (see Figure 1), and in processes. This will help us to better understand how these methods can be applied in practice, and under what conditions.

Furthermore, one suggestion for future research is to focus on the proactive contracting and legal design approaches in public procurement, and study the actors involved from the theoretical perspective of dynamic capabilities, to develop propositions for conceptual advancement. This could be done for instance by first examining public buyers' ability to 'sense and seize opportunities, as well as reconfigure when change occurs'.¹²¹

At a regulatory level, the proactive contracting and legal design approaches could potentially be used as a lens when evaluating and reforming the laws on public procurement, especially when driven by a need to incorporate resilience as a policy goal. This would also be in line with the Opinion of the European Economic and Social Committee on 'The proactive law approach: a

120 This is also emphasized by Sauli Niinistö, Former President of the Republic in Finland, in his capacity as Special Adviser to the President of the European Commission, see Sauli Niinistö, "Safer Together: Strengthening Europe's Civilian and Military Preparedness and Readiness," October 30, 2024, https://commission.europa.eu/document/download/5bb2881f-9e29-42f2-8b77-8739b19d047c_en?filename=2024_Niinisto-report_Book_VF.pdf.

121 David J. Teece, "Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance," *Strategic Management Journal* 28, no. 13 (December 2007): 1341, <https://doi.org/10.1002/smj.640>.

further step towards better regulation at EU level’, and their recommendation that the legislator ‘should be concerned about producing operationally efficient rules that reflect real-life needs and are implemented in such a manner that the ultimate objectives of those rules are accomplished’.¹²²

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Declaration of conflict of interests


The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This article is a result of the research project LEXSECURE Law for Secure Supply: Internalizing the Crisis Exceptions funded by the Academy of Finland (2020–2023), decision: 338643 and 338644.

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¹²² European Economic and Social Committee, “Opinion of the European Economic and Social Committee on ‘The Proactive Law Approach: A Further Step towards Better Regulation at EU Level’ (2009/C 175/05), OJ C 175, 28.7.2009, p. 26–33,” July 28, 2009, 27.

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