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# Mission-oriented public procurement: international examples

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by Mariana Mazzucato

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IIPP is housed in The Bartlett, a leading global Faculty of the Built Environment at University College London (UCL), with its radical thinking about space, design and sustainability.

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# **Mission-oriented public procurement: lessons from international examples**

Mariana Mazzucato

## Abstract

This report analyses public procurement as a fundamental tool in the implementation of a mission-oriented approach. Public procurement is a significant component of public spending at the global, European and international level. Therefore, using the procurement process to direct and steer can have important effects on the social and economic structure of different countries. This report discusses four international examples (the United States, the United Kingdom, Sweden and Denmark) and outlines some guidelines regarding legal and policy instruments that allow a State to give greater direction to public procurement. The report concludes with some policy implications for green public procurement.

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## 1. Design, project and implementation of a mission-oriented approach to public procurement

The effectiveness of the mission-oriented approach is tied to specific tools that are important for implementing and achieving the best result possible within the mission-oriented framework<sup>1</sup>. Among these, public procurement is an essential tool for directing public (and private) demand towards precise and pre-identified missions.<sup>2</sup> Considering Figure 1 below, public procurement plays a fundamental role in the planning and implementation of individual projects, and provides a demand side tool for crowding in private sector innovation and investment.

Procurement is a tool that can foster the creation of new markets in the process of achieving specific missions. The Internet, GPS, and the aerospace and semiconductor industries are among the best-known examples of products and technologies that resulted from public strategies capable of promoting stable demand and of triggering technological innovation thanks to continuous stimulus on the supply side. Moreover, procurement policies can also reshape existing sectors — construction, transport and food above all.

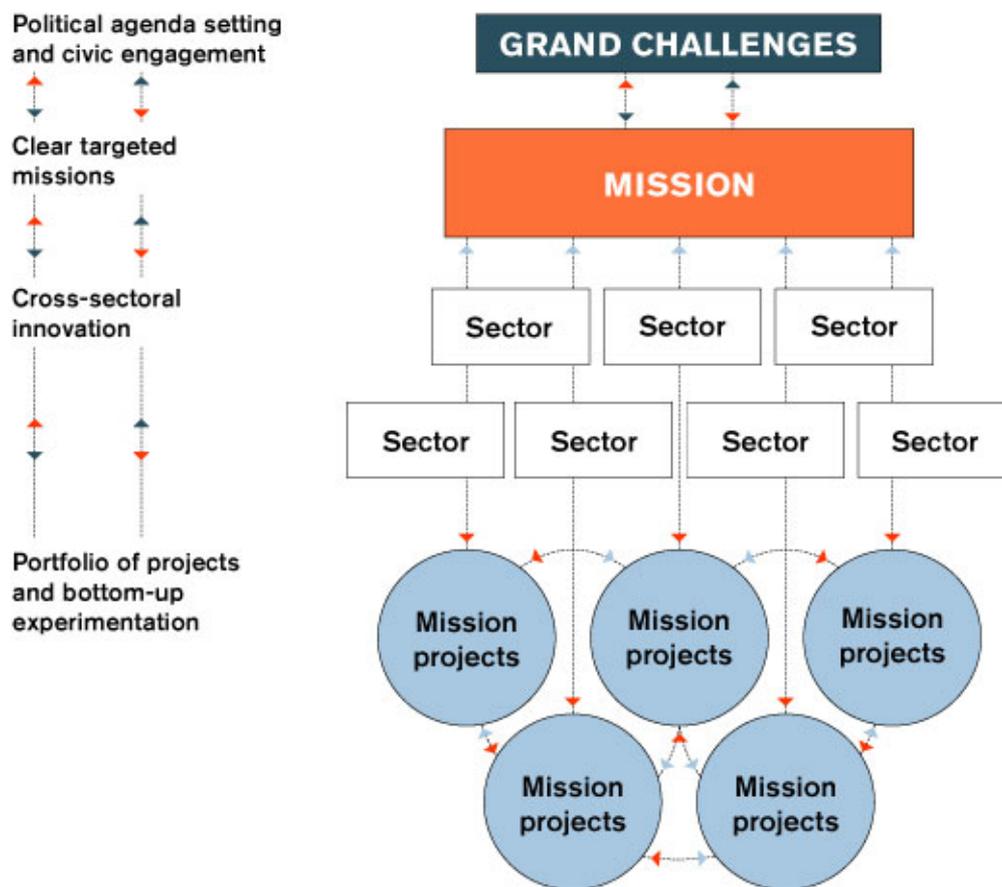
Consequently, in order to implement a series of missions, the instrument of public procurement — and therefore the supply of goods, services and technologies to public entities — must also be able to respond to criteria that are based on more than just the highest bidder, based on cost. Procurement becomes a strategic instrument of economic policy if it is addressed to specific economic or social objectives, such as the growth of companies, the development of technologies, environmental sustainability, or health protection. Therefore, missions require rethinking the setting and implementation of procurement, moving towards schemes based on the allocation of prizes for the achievement of specific quantitative objectives but also, more importantly, qualitative objectives.

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<sup>1</sup> Mazzucato, M. (2018). *Mission Oriented Research and Innovation*. Report for the European Commission Report for the European Commission, ISBN 978-92-79-79918-1  
<https://publications.europa.eu/en/publication-detail/-/publication/5b2811d1-16be-11e8-9253-01aa75ed71a1/language-en>

<sup>2</sup> Mazzucato, M. (2019). *Governing Missions in the European Union*. Report for the European Commission ISBN SBN 978-92-76-08744-1  
[https://ec.europa.eu/info/sites/info/files/research\\_and\\_innovation/contact/documents/ec\\_rtd\\_mazzucato-report-issue2\\_072019.pdf](https://ec.europa.eu/info/sites/info/files/research_and_innovation/contact/documents/ec_rtd_mazzucato-report-issue2_072019.pdf)

Figure 1: From challenges to projects through missions



The mission-oriented approach, which the European Commission<sup>3)</sup> has recognised as a policy framework for the Horizon Europe programme, offers the potential to structure different economic policy objectives by specifying the final results to be obtained (such as safe driving on the roads) rather than the solution (for example, self-driving cars). This allows margins for experimentation and coordination of the public procurement process across different institutions and value chains. An effective procurement system for missions can create a positive dynamic that selects “willing” actors (picking the willing) instead of predetermined “winners” (picking the winners).

The European Commission has also recognised the need to use procurement as a tool to stimulate innovation. Public organisations can support innovation through

<sup>3)</sup> Mazzucato, M. (2018). *Mission-Oriented Research & Innovation in the European Union: A problem-solving approach to fuel innovation-led growth*. Report for the European Commission, ISBN 978-92-79-79918-1 <https://publications.europa.eu/en/publication-detail/-/publication/5b2811d1-16be-11e8-9253-01aa75ed71a1/language-en>

procurement in different ways within a mission-oriented approach. They can create new markets for cutting-edge products and systems thanks to the boosting effect of public demand, which enables them to bear the risk of companies that invest to obtain technological innovations. Similarly, procurement can encourage innovation by creating a lead market for new technologies and solutions or by providing a testing ground for innovative products.

This report illustrates the main configurations of public procurement and presents some examples from international cases. It particularly focuses on green public procurement, also in the Italian context, given its relevance within the Italian Green Deal and the EU, as well as the allocation criteria of resources from the Next Generation EU program.

### **Box 1**

#### **Public procurement at the European level**

EU Directives 2014/23/UE, 2014/24/UE, 2014/25/UE)

The system of so-called “fourth-generation directives” has revised public procurement at the European level, requiring the various Member States to incorporate them into their internal jurisdictions. Although the criterion of sustainable development entered European legislation with the Treaty of Amsterdam in 1997, these recent directives have the dual objective of modernising the procurement system and acting as a link between the procurement process and the general policies of the Union, thus making it functional to develop an innovation and knowledge economy. The basic idea is to obtain a public procurement that is open to competition, with a variety of solutions depending on the different cases (the so-called toolbox approach). Although the directives had also attempted a push towards green public procurement (GPP), the goal has not yet been fully achieved, due to the difficulties of implementing national directives, especially for issues related to tax liability and internal competences of administrations.

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## 2. Different types of public procurement

Public procurement is a crucial component of public spending and is therefore a fundamental tool for directing demand and supply. Estimated expenditures amount to over 15 per cent of world GDP, while in Europe this figure reaches 19.4 per cent.<sup>4</sup> Thanks to the huge number of public contracts, increasing the demand for sustainable products and services would also have a crucial impact on the supply side, thus stimulating industrial production. Besides its great potential in terms of expenditures, procurement is a fundamental policy tool with which to pursue and achieve sustainability, social justice and innovation goals, as envisioned in the Sustainable Development Goals (SDGs).

### 2.1. Pre-commercial procurement

When evaluating the potential impact of a new procurement system in terms of innovation and the mission-oriented approach, the role of the so-called pre-commercial procurement is essential. Pre-commercial procurement involves buyers and sellers or products and services collaborating at an early stage, before products are priced or for sale, to define the scope and criteria for development. This approach mainly concerns R&D for public clients and aims to develop new solutions for challenges facing the public sector. Such a mechanism can stimulate the process on the demand side; this requires innovative solutions for the public sector and contextually provides preliminary feedback to the company, leading to improvements in it having a competitive advantage over product or service supply. Private companies commonly use public procurement aimed at R&D to achieve an initial advantage. Expanding this approach could ensure better efficiency and product quality.

Akin to the mission-oriented approach, which tends to reflect on societal challenges (for example, clearing the oceans of plastic by 2050), pre-commercial procurement aims to respond to specific needs or challenges of the public administration by fostering innovation of new solutions in a heuristic way.

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<sup>4</sup> Edquist, C., Hommen, L., Tsipouri, L., & Tsipouri, L. J. (Eds.). (2000). Public technology procurement and innovation (Vol. 16). Springer Science & Business Media.

## 2.2. Product procurement and functional procurement

Conceptually, when discussing public procurement, it is important to distinguish between product procurement and functional procurement.

In the former, the public servant describes the product it intends to purchase, which must be something that already exists in its complete form.

The latter relates to those contracts in which the administration describes the function, the objective or, even better, its mission rather than the product itself. Hence, this is a tender for a product with a certain function. In this case, innovation can be part of the process, or at least this option is left open. If functional elements are indicated in the tender, the documents generally contain both the description of the product and that of the function it should perform.

A progressive shift from product procurement to functional procurement is emerging as a general trend.

## 2.3. Theme classification for procurement

From a policy perspective, several classifications can be used for public procurement. In some cases, different sectors are used to classify procurement (for instance, in military or IT sector public procurement), with reference to specific products or services. However, there are also horizontal elements with respect to the various categories, such as innovation public procurement or green public procurement. In this case, the focus is on the directionality imparted to the demand, aiming to stimulate growth in a certain direction, thus leading to innovations and/or green solutions.

The different sectoral classifications are summarised briefly below:

- **IT public procurement.** Concerns the procurement of IT services, such as software or application development and implementation, by the public administration.
- **Military public procurement.** Historically plays a strategic role given the nature of this sector, which usually involves high-end technology in compliance with national security demands.

Classifications according to horizontal elements imparting directionality to public procurement:

- **Green public procurement.** Relates to the procurement of goods and services (of any sectoral area), which conjugates environmental aspects, such as the demand for more environmentally friendly products, a greater attention to the sustainability of the production chain of the good or service covered of the contract, or criteria that relate to the life cycle of the good or service. The Swedish government introduced a food policy stipulating that, by 2030, 60 per cent of food consumed by the public sector must be organic.<sup>5</sup>
- **Innovation public procurement.** Relates to the use of public purchasing centres to stimulate the adoption of innovative solutions that are not yet commercially available.<sup>6</sup>

Several countries have combined these types of procurement, to different extents. In the United States, for instance, military procurement is extremely relevant to the national innovation landscape. Generally, the share allocated to green public procurement is still relatively low in nearly all countries. As reported recently in academic studies<sup>7</sup> working on international examples of public procurement, even advanced countries (such as OECD countries) have not yet developed a toolbox to re-organise public procurement. Hence, there is ample room to introduce procurement as a tool in green mission perspective. As has also emerged from an assessment of the Italian case, difficulties in this path essentially come from the initial skills and responsibilities that the individual officer needs to undertake.

## 2.4. Public procurement and capabilities

Recent studies have analysed a series of barriers to the implementation of public procurement for innovation, such as complexity in the development of new strategies, time spent in the process, and the lack of communication between different administrations and actors involved in process.

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<sup>5</sup> Swedish Government (2017). Regeringens handlingsplan: En livsmedelsstrategi för Sverige — fler jobb och hållbar tillväxt i hela landet, Prop. 2016/17:104. Stockholm.

<sup>6</sup> European Commission: <https://ec.europa.eu/digital-single-market/en/public-procurement-innovative-solutions>

<sup>7</sup> Lember V., Kattel R. and Kalvet T. (2015). *Quo vadis public procurement of innovation?* Innovation: The European Journal of Social Science Research, Vol. 28 (3), pp. 403–421.

Among these, a special role is played by the capabilities of the different administrations in charge of setting the tender and managing the entire process; that is, the public buyers. There is a need for specific technical skills to write a tender and be able to choose the best offer, especially when the selection includes elements other than cost. The link between the quality of the announcement and the contract as a whole is even more fundamental when other criteria are inserted such as environmental matters.

The lack of technical capabilities (in the chemical, physical or engineering fields) in constructing a tender and evaluating the proposed technologies undermines the ability of the purchasing entity to obtain a policy result through procurement. Capabilities must be found in the public administration, but they can also be the result of a learning process of public procurement, as they occur within companies through the accumulation of dynamic capabilities by means of learning-by-doing processes.

The state must invest in its own resources, developing internal capabilities in strategic areas, including the ability to design contracts aimed at achieving public policy objectives. Without these key competences, which the private sector normally develops, the public sector will not be able to achieve its objectives. Investing in the capabilities within the public administration, especially in the procurement area, becomes a prerequisite for rethinking the relationship that public procurement agencies establish with private suppliers in a more dynamic and symbiotic way.

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### **3. Rethinking procurement to implement missions: international examples**

With a view to adopting a mission-oriented approach to economic policy, governments must rethink their tools, starting with procurement. The quality of procurement — that is, how it is structured and oriented — is crucial, as is the quantity. The following sections focus on this aspect, exposing some international cases where public procurement has been oriented towards achieving economic and social objectives, within the framework of a mission.

### 3.1. The US and the UK

USA (SBIR). The Small Business Innovation Research<sup>8</sup> (SBIR) programme is a public procurement programme that was established in 1982 but significantly expanded between 1988 and 1992. Its main objectives are to stimulate technological innovation and to use small and medium-sized enterprises to meet the R&D needs of federal agencies and departments. In doing so, SBIR encourages the participation of socially and economically disadvantaged companies that would otherwise not be able to introduce technological innovations. Finally, it is concerned with increasing the commercialisation of innovations resulting from federal R&D funding.

SBIR requires that all federal agencies with R&D expenditures in excess of \$100 million commission a defined portion of their total external R&D spending through a set of procurement procedures established by the programme. This portion is now around 3.2 per cent of the annual budget.

The SBIR implies an explicit risk-taking attitude by federal agencies, as well as a desire to encourage the development of specific technologies or SMEs. This implies the existence of technical expertise within the agencies, in terms of being able to recognise the technological characteristics of the services acquired, the developments in the sectors in which the companies operate, etc. Not surprisingly, the agencies use technical and scientific personnel with specific competencies in drafting tender contracts.

The way in which the SBIR programme is structured and managed is crucial for its success. Its main elements are:

- Federal agencies signal the new “themes” every two years. Typically, a theme refers to the technology needs of the agency, for its own aims or for more general objectives.
- The allocation of procurement funds happens in three distinct phases:
  - Phase I, up to \$150,000 for a feasibility study that can last for a period of up to six months.
  - Phase II, up to \$1 million for two years, to be used to develop the project.

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<sup>8</sup> Connell, D. (2017). *Leveraging Public Procurement To Grow The Innovation Economy*. An Independent Review of the Small Business Research Initiative.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/669605/Leveraging\\_Public\\_Procurement\\_David\\_Connell\\_report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/669605/Leveraging_Public_Procurement_David_Connell_report.pdf)

- Phase III, during which federal funds can be received on a non-competitive basis and cover the commercialisation of the project.

SBIR prizes cover 100 per cent of the project's costs and include a profit margin. This is a crucial difference with respect to the EU schemes, where the joint contribution of SMEs is always required. At the same time, the partnership with other organisations is not compulsory.

- At the end of the process, the company owns the intellectual property rights of the project.

## Box 2

### The NASA example

An interesting case of procurement is that of NASA in the United States. In *Managing NASA in the Apollo Era* (1982), Arnold Levine explained how the term '*procurement*' was inadequate for describing NASA's purchasing programmes for goods and services from the private sector. There were three reasons for this: (1) there was no clear division between the award of the contract and its subsequent administration; (2) the responsibility for the purchasing the contracts was not centralised in a particular office, as all NASA executives were involved in the process; and, above all, (3) the contract was intrinsically linked to project planning. Procurement and planning were elements of a two-way process.

A more correct term for this type of programme would be '*acquisition process*', which NASA defined as 'an orderly progression of Agency programs from early concept through the development and operation of hardware [...] and [provision of] the best sources [...] in the execution of projects'. Therefore, the NASA procurement process was therefore dictated by the nature of the programme, not the other way around. Not knowing precisely what to acquire, in terms of the technical characteristics and its final use, NASA procurement had to be shared with suppliers, making it impossible, and unserviceable, to organise open and competitive tenders. To make the process as smooth and efficient as possible, NASA was given the opportunity to enter into contact and agreement with any type of organisation, as long as the process was completed.

*United Kingdom* (SBRI). Taking advantage of the R&D exemptions within the EU procurement restrictions, in 2009 the UK created a dedicated commercial pre-procurement programme called the Small Business Research Initiative<sup>9</sup> (SBRI). The SBRI's goal was to connect public problems within government with innovative solutions from the private sector.

The SBRI programme has enabled the British government — mainly the Ministries of Energy and Defence — to solve problems while saving resources. For example, it is estimated that in 10 years the SBRI programme could provide solutions for 7 million patients, saving £1.5 billion.

As with the SBIR programme in the US, SBRI is a procurement scheme that helps the most ambitious small and medium-sized enterprises (SMEs) to grow (66 per cent of SBRI resources go to SMEs). They can obtain commissions of up to £100,000 to explore an idea and up to £1 million to develop a prototype. On average, companies participating in the SBRI programme experience annual revenue growth rates of over 30 per cent.

However, in contrast to the US programme, the British SBRI involves only implicit support for the attraction of venture capital to specific SMEs, as well as much less emphasis on the creation of new industrial entities.

The UK is one of the countries that has most insistently tried to include criteria other than mere price in their procurement system. Another example is that of the Public Services Social Value Act (SVA), enacted by a parliamentary act in 2012 in an attempt to impose other evaluation criteria, in addition to cost, in the British public procurement process. At a pre-procurement stage, the SVA requires consideration of how the procurement process itself can improve the social, economic and environmental well-being of a specific area.

In certain types of contracts envisaged by law, the obligation to carry out this assessment was specifically foreseen and concrete examples were provided regarding what is meant in qualitative terms for other criteria such as social criteria (for example, offering work to ethnic minorities, collaborating with third-sector organisations,

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<sup>9</sup> Manchester Institute of Innovation Research (2015). A Review of the Small Business Research Initiative.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/662657/A\\_Review\\_of\\_the\\_Small\\_Business\\_Research\\_Initiative\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/662657/A_Review_of_the_Small_Business_Research_Initiative_.pdf)

monitoring the supply chain, etc.); economic criteria (the creation of jobs, the creation of apprenticeship opportunities, opportunities for SMEs, etc.); and environmental criteria (such as environmental and disaster prevention policies, monitoring of greenhouse gas emissions, and protection of public assets). There are various ways in which social value can be incorporated into the procurement process, including specific conditions or requiring the use of certain products or suppliers, or even inserting clauses that implement an upstream selection, such as companies that pollute.<sup>10</sup>

In 2018, a first attempt was made to evaluate this new approach to procurement, acknowledging the efforts that have been made. At the same time, it recognised a series of structural problems with respect to this paradigm shift, such as the difficulty in monitoring qualitative elements such as those described above, the importance of raising awareness of the measure taken, and the complexity of defining the concept of 'social value'. Surely the British attempt was an important first step that requires policymakers to reflect on what they are buying, how they will buy it and what kind of socio-economic impact it will then have.

### 3.2. Sweden<sup>11</sup>

Sweden is an innovative country with a strong drive for ecological transition. In January 2018, the Parliament (Riksdag) approved a new framework for the green transition, which consists of three fundamental pillars, as outlined below.

**The Climate Act.** This parliamentary act establishes three priorities: the government's climate strategy must be based on climate objectives and must define how this strategy will be articulated; the government is required to present a Climate Report every year in the budget law; every four years, the government is required to outline a plan for how it intends to achieve the established climate objectives.

**New climate goals for Sweden.** By 2045, Sweden has planned to reach a net zero emissions target. Emissions will have to be reduced by at least 85 per cent compared to 1990 levels. In addition, a series of milestones are expected. For example, by 2030,

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<sup>10</sup> Department for Culture, Media & Sport (2018). The Public Services (Social Value) Act 2012: An introductory guide for commissioners and policymakers. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/690780/Commissioner\\_Guidance\\_V3.8.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/690780/Commissioner_Guidance_V3.8.pdf)

<sup>11</sup> This section has been based on a private conversation with specialised personnel from VINNOVA, the Swedish innovation agency, whose role is to support different stakeholders in the procurement process.

emissions from domestic transport, excluding air transport, will be reduced by 70 per cent compared to 2010.

**The Climate Policy Council.** This specific institution has the role of supporting the government by contributing through independent analyses (assessments) if the plans presented by the government are compatible with the climate objectives.

The Swedish strategy also required a series of roadmaps and sectoral targets to achieve the zero-emissions target, while maintaining the competitiveness of industrial sectors. Crucial industries, such as aviation, concrete, steel and construction have been asked to identify how they intend to pursue the zero-emissions target, what technologies they will need to develop and what investments they plan to make. In particular, the construction sector sees the three large Swedish construction companies SKANSKA, NCC and PEAB as active players in the search for new solutions that would allow the reduction of emissions in a sector that most contributes to pollution.

Within this overall strategy for the ecological transition, Sweden has long since incorporated procurement as a tool for achieving it. In 2003, the Swedish government decided to establish the Swedish Environmental Management Council (SEMCo) in order to formalise the attempt to use of green procurement as an environmental policy tool.

The action plan contained the following objectives:

- Increasing the share of overall procurement which includes environmental and sustainability elements;
- Establishing a greener contract framework;
- Expanding the number of central and local public authorities adopting environmental criteria for procurement.

An example of green procurement developed in the following years is represented by the public catering services of the city of Malmö, which envisaged the introduction of 100 per cent organic food by 2020. A pilot contract used for the Djupadal School provided for the introduction of a series of requirements, including the inclusion of organic products in the menu, but also the provision that deliveries would be made once a week, with vehicles complying with the municipal directives on the sustainability of city transport. By the end of the pilot project, 97 per cent of the food served by the

canteen was organic, with the economic impact minimised by switching from meat to seasonal vegetables.

Another project, launched in 2011, concerns a joint procurement of 296 organisations led by the city of Stockholm for the purchase of electric vehicles. This project aimed to reduce administrative costs for participating organisations, reduce prices, send a strong demand signal to the market and guarantee access to electric vehicles for smaller municipalities. The partners contributed jointly to the definition of the vehicles' characteristics, including the criteria for CO<sub>2</sub> emissions and the calculation of life cycle costs. Following the first purchase made in 2012, it was possible to save 34 tons of CO<sub>2</sub>, a reduction of 95 per cent compared to equivalent petrol vehicles.

These and other pilot projects are proof that a different procurement system can be implemented to achieve certain results. Aware of this, the Swedish government launched the National Strategy for Public Procurement in 2016 to promote procurement for innovation.

The Swedish case is interesting for a number of reasons. First of all, the recently built policy framework does not legally require the inclusion of sustainability criteria in the tender. As reported by VINNOVA, the public agency for innovation in Sweden, the political agenda is conceived as a national strategic objective, so there is no need for regulatory arrangements to enforce the insertion of environmental criteria.

A second interesting aspect concerns the importance of the municipalities that contribute together with the central administrations to procurement. The vast majority of Sweden's 290 municipalities have fewer than 10,000 inhabitants. Although these areas are small in terms of population, they are autonomous in terms of procurement management and have incorporated the environmental element into their procurement of goods and services. Therefore, the aspect of political awareness has a pervasive dimension, which starts from the central level and reaches the municipalities.

Finally, a third aspect of crucial importance concerns the capabilities that public administrations have, a crucial element for enhancing procurement so that it becomes a policy tool. Almost all municipalities have an internal environmental coordinator; that is, an expert in environmental sustainability with technical competences on the public procurement process, who is involved from its design to its final implementation.

### 3.3. Denmark (Copenhagen)

In Denmark, procurement has a rather strategic orientation with respect to green areas, small and medium-sized enterprises, social issues and, to some extent, also innovation. At the same time, it is mainly managed locally, with only 16 per cent taking place centrally, via the SKI procurement agency. Procurement programmes aimed at satisfying environmental policies are being adopted mainly at the city level.

For some years now, the city of Copenhagen has set the ambitious goal of becoming a carbon-neutral city by 2025 (“CPH 2025 Climate Plan Roadmap 2017–2020”). There is a clear green mission for transforming the energy system at the city level.

The City of Copenhagen has adopted the following objectives:<sup>12</sup>

- Replacing the high-pressure sodium lamps on Copenhagen's residential streets, larger streets and highways with 20,000 custom-designed, energy-efficient LED streetlights;
- Improving the quality of street lighting to ensure greater safety and well-being;
- Integrating lighting control activities within the data management system of traffic density to adapt lighting levels according to road traffic in the future;
- Developing a central system to ensure effective control and management of street lighting.

The contracting authority opted for a competitive procurement dialogue, whose evaluation criteria were 25 per cent based on the price, another 25 per cent on the execution and organisation of tasks, 20 per cent on the lighting solution for and 30 per cent on energy and environmental quality.

The results of this qualified procurement process with a clear green objective have been remarkable. With the introduction of LED streetlights, energy consumption in public lighting was reduced by 57 per cent, with a consequent decrease in the carbon footprint and maintenance costs (1.6 million euros per year, for an investment of 26 million euros).

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<sup>12</sup> Commissione europea (2018) Orientamenti in materia di appalti per l'innovazione. Comunicazione della Commissione. <https://ec.europa.eu/transparency/regdoc/rep/3/2018/IT/C-2018-3051-F1-IT-MAIN-PART-1.PDF>

### 3.4. Italy

Recent experiences, such as the reconstruction of the Genoa Bridge and especially that of the health emergency, have shown how targeted projects can be implemented within strict deadlines. If it is true that extraordinary situations cannot become regulatory practice, it is also possible to learn from the lessons that Italy has had.

One case is exemplified by the experience of the team led by Domenico Arcuri, the Special Commissioner for the COVID-19 crisis in Italy. In this situation, public procurement was directed towards strengthening SIARE, the only Italian company producing ventilators. Within a few months the company went from producing 12 devices a week to more than 70 a day. Similarly, through public contracts, the activities of IMA and Fameccanica — major players in the machine tools sector — have been re-oriented towards producing machine tools able to manufacture tens of millions of masks per day. This was done in collaboration with other companies, namely FCA, Luxottica and Angelini.

These measures were the consequence of an extraordinary moment, such as the example mentioned above in Box 2 on NASA, where it was possible to address specific needs with exceptional tools. Italy today is looking towards a manageable and feasible approach to procurement, aiming at introducing further flexibility and modernisation, in line with the EU directives.

In this sense, a reflection on the importance of procurement as an essential tool for a mission-oriented approach cannot be separated from a dynamic and innovative public procurement system that works in times of ordinary administration.

As far as green public procurement is concerned, there are three main regulatory references that Italy has adopted.

1. The main rule concerns the inclusion of green criteria pursuant to article 34 of the Italian Procurement Code. This procedure was created with the "environmental link" of 2015, with the obligation for contracting authorities to make purchases in compliance with environmental criteria. Previously, following the national green public procurement plan of 2008, Consip itself (the national procurement agency) introduced the requirement of environmental criteria in public procurement, the so-called minimum environmental criteria (*Criteri Ambientali Minimi*, CAM). These CAMs must be included in all procedures for the purchase of goods or services for which a specific decree has been issued

by the Ministry of the Environment, as required by the Procurement Code (Article 34 of Law 50/2016)<sup>13</sup>.

2. Article 95 of the procurement code provides for the evaluation on the basis of the quality-price ratio, except in some cases (provided for in paragraph 4 of article 95), in which special reference is made to the criterion of the lowest price. In evaluating the value for money, as required by paragraph 6 of the same article, reference is made to "objective criteria, such as qualitative, environmental or social aspects, connected to the subject of the contract". However, the system is made more complex both by the fact that the quality-price ratio lends itself to different interpretations, and by the obligation of having to specify the different criteria in each project. Furthermore, the inclusion of these objective criteria leads to an increase in costs and the consequent 'fear of signing'. This aspect, combined with the scarcity of flexible and negotiated procedures and the need to rationalise public spending, has halted the change that was required.
3. There are two other rules, article 93 and article 100 of the Procurement Code, which encourage — albeit timidly — the adoption of environmental criteria. Article 93 states that the surety that the contracting authorities require is reduced if the operators are in possession of environmental certification. Article 100, on the other hand, concerns the execution of the contract and provides that the contracting authorities may require discretionary criteria that relate, for example, to social and environmental needs.

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<sup>13</sup> Green purchases represent one of the cornerstones of the programme for the rationalisation of procurement, whose main "green" objectives concern the following sectors: energy, goods and services, material recycling, waste.

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## 4. Conclusions: lessons for mission-oriented public procurement

The lessons drawn from this paper are summarised below:

- **Discretionality.** Within EU procurement rules, there is a certain degree of discretionality in shaping public procurement for wider goals, as long as the tenders respect certain competitive criteria.
- **Directionality.** Still, too small a share of procurement is aimed at tackling socio-economic challenges, such as climate change. With the same overall expenditure, a reshaping towards certain areas, or a more marked directionality, would allow countries to make a greater transformative impact
- **Capabilities.** Reflection is needed on the nature of the capabilities existing within the structures dedicated to procurement, at all levels: central, regional and municipal. In order for tenders to be written with greater directionality, while respecting competitive rules, but with more specific technical evaluation criteria, greater interdisciplinarity and strengthening of technical and scientific capabilities in areas related to IT, green technologies, would be necessary. For example, the presence of an environmental expert in each procurement agency, as is the case in Sweden, would give a strong impulse to technical evaluation both in the design phase and in the subsequent evaluation phase of the various proposals, allowing a more careful examination of criteria other than price.
- **Flexibility.** As in some of the examples shown in the previous section, several countries no longer have legal obligations to include environmental criteria in tenders. Therefore, it is important to ask what other governance tools are available to raise awareness among central and local administrations on the importance of including environmental criteria in tenders for public procurement. The inclusion of sustainable criteria not only aims to reduce emissions and moving towards a circular economy model, but it also concerns the transformation of the public administration into a promoter of sustainable development.

For this it is essential to nest the dynamics of public procurement within a new logic for public administration (PA). A PA driven by public value and public purpose. One that is focussed on catalyzing investment and innovation across a wide variety of actors in the economy, in the public, private and civil society sectors. Only in this way can public purpose be brought to the centre of economic growth that is more inclusive and sustainable.



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