

ACADEMIC EVENTS, COMMENTS AND NOTES

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Scientific Facilities as a Subject Matter of “Infrastructure Law”: *Une Approche Québécoise*¹

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Abstract: The article deals with the original approach of Canadian French-speaking province (federal entity) to legal regulation of scientific facilities as a type of infrastructural objects governed by “infrastructure law.”

The author firstly proves that the expression “scientific facility” and “Megascience” represent no more than the specific types of social infrastructure and, thus, generally denoted in legal instruments as “research infrastructure” which may be qualified as “large” (Megascience), “medium”, “small” etc.

Further the article explores the modern legislation of Quebec which, unlike other countries, has decided to create a full-fledged “infrastructure law” governing, amongst other types of infrastructure, the research infrastructure.

The article points out and analyses the particularities and principle findings of Quebec infrastructure laws and by-laws: the “supraministerial” governance of all infrastructure projects, the general public infrastructure company (Quebec Society of Infrastructures) etc. The latest developments in the Quebec “infrastructure law” relating to information infrastructures are also taken into account.

Keywords: scientific facility; Megascience; infrastructure; infrastructure law; investment; Canada; Quebec; European Union

¹ Note: *an approach of Quebec*, the French-speaking province (federal entity) of Canada with it's own legal system and extensive political autonomy. The work was financially supported by RFBR (project 18-29-15007).

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I. Scientific Facility as a Research Infrastructure and its Legal Definition

The facilities under construction or operating in different countries of the world, which are designed for the purpose of scientific research (experimental reactors, colliders, light-sources and other particle accelerators, telescopes etc.), including the most powerful among them (Megascience facilities, such as Large Hadron Collider), both from legal and substantive points of view should be considered as an infrastructural object (infrastructure).

Therefore, it is obvious that in various legal instruments adopted at national, international and supranational level the abovementioned facilities are generally qualified as “research infrastructure” (in singular or in plural: “research infrastructures”), with additional specifications such as “large,” “large-scale” or “very large” infrastructure (with respect

to Megascience facilities), “strategic,” “medium,” “small” research infrastructure etc. The concept of research infrastructure is also present in Russian law, being mentioned, for instance, in the Strategy for Scientific and Technological Development of the Russian Federation approved by the Decree of the President of the Russian Federation No 642 dated December 1, 2016 (Chetverikov, 2018).

Among the legal definitions of research infrastructure existing elsewhere, the most comprehensive one is construed in the latest supranational legislation of the European Union (EU) relating to financial support of scientific and technological development in the EU Member States and Associated Countries, adopted in 2021:

“research infrastructures’ means facilities that provide resources and services for the research communities to conduct research and foster innovation in their fields, including the associated human resources, major equipment or sets of instruments; knowledge-related facilities such as collections, archives or scientific data infrastructures; computing systems, communication networks and any other infrastructure of a unique nature and open to external users, essential to achieve excellence in RandI [Research and Innovation]; they may, where relevant, be used beyond research, for example for education or public services and they may be ‘single sited,’ ‘virtual’ or ‘distributed’.”²

II. The place of “Infrastructure Law” in the Legal System of Quebec

Research infrastructure is nothing more than an example of diverse and widening world of infrastructures indispensable for any society, especially in the 21st century (transport, healthcare, information, space infrastructure etc., each one with its own subtypes). Infrastructures in different spheres of life serve different purposes and their legal

² Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe — the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013. OJ L 170, 12.05.2021, p. 1–68. Available at: <http://data.europa.eu/eli/reg/2021/695/oj> [Accessed 15.06.2021].

regulation as well as public management could hardly be reduced to a common denominator.

Thus, although the expression “infrastructure law,” or “law governing infrastructures” (“droit de l’infrastructure,” “droit de la régulation des infrastructures” in French) is familiar to modern legal practice and doctrine (Chevalier, Frison-Roche, Keppler and Noumea, 2008), it is used there, generally, as a sort of an “umbrella” notion, embracing rules of various branches of law concerning the construction and operation of infrastructures in their proper fields, without any attempt to become itself a separate full-fledged branch of law.

However, the legal palette of the world has always been characterized by its diversity. Together with the growing trend towards the convergence of legal systems in the context of globalization, in each state (and in each federal entity when the federal states are concerned) there have always been, and still are, developed the unique national approaches to legal regulation of the similar issues (unity in diversity).

With respect to regulation of infrastructures, a prominent example of a legal system with such a unique approach is given by a province of Quebec that enjoys a high degree of political and legal autonomy within the Canadian federation, determined by its historical and cultural origins dating back to *Canada française*.

The legislator of Quebec has taken a stance in favour of creating an “integral” legal regulation of public infrastructures as a whole based on a sort of general infrastructure code: the Public Infrastructure Act.³

According to the introductory provisions of the Public Infrastructure Act (Chapter I “Purpose and Scope”), it applies to public infrastructures in every field of social life and with any purpose, including, therefore, the research infrastructures.

The Public Infrastructure Act covers issues relating both to the construction of new and to the operation of existing infrastructural objects, or, as it is stated in the Act itself: “This Act establishes governance rules for public infrastructure investment planning and public infrastructure management.”

³ Public Infrastructure Act. Chapter I-8.3. Updated 10. 18 March 2021. Available at: <http://legisquebec.gouv.qc.ca/en/showdoc/cs/i-8.3> [Accessed 15.06.2021].

The introductory provisions of the Public Infrastructure Act do not expressly define “infrastructure.” However, the meaning of the latter may be construed from the legal definition of “public infrastructure investment” in chapter II of the Act entitled “Investment Planning and Infrastructure Management.” According to this chapter “public infrastructure investments” include any investment made for the maintenance, improvement, replacement, addition or demolition of an “immovable, facility or civil engineering structure” that belongs to a public body or that is used to deliver public services of the State, or else that is funded by the government.

By adopting and implementing the Public Infrastructure Act, the Quebec legislator seeks to create a level playing field for the development of all types of infrastructure necessary for the society. This is expressed in the following goals, embedded in the introductory provisions of the Act:

- 1) establish a long-term vision for government infrastructure investments;
- 2) ensure appropriate planning of public infrastructures by prescribing the rigorous and transparent administration of the amounts allocated to public infrastructures and by promoting best management practices and improved accountability;
- 3) contribute to the quality and longevity of public infrastructures, in particular by ensuring that investments are properly apportioned between asset maintenance and infrastructure development;
- 4) contribute to the prioritization of public infrastructure investments and ensure the rigorous management of public infrastructure projects;
- 5) ensure optimal management of rental premises and immovable assets of public bodies.

The provisions of the Public Infrastructure Act are further developed and supplemented by secondary legislation (by-laws) of the Treasury Board of Quebec (Conseil du trésor in French). In the constitutional framework of Canada and its federal entities, as well as that of some other countries which were formerly part of the British colonial empire (Australia, New Zealand, etc.) the Treasury Board is a sort of “superministry” that coordinates the operation of the entire

government administration and is empowered to issue mandatory instructions to the executive authorities, including ministries (executive departments), concerning the management of human, budgetary and material resources, and also governing the provision of public services to citizens and enterprises.⁴

The infrastructural law-making of the Quebec Treasury Board can be illustrated by its Decision of 11 February 2014 “Defining Criteria for Considering that a Public Infrastructure Project is a Major Project” (the basic criterion: at least 50 million in Canadian dollars for a project).⁵

III. The Procedure for the Implementation of Infrastructure Projects in Quebec

Following the “integral” approach to the legal regulation of infrastructures in Quebec, their construction and operation is based here on three main practical findings laid down in the Public Infrastructure Act.

The first one is the establishment within the government of a “superministry” responsible for all infrastructure projects. This body is the abovementioned Treasury Board, which, *inter alia*, has the legal mandate to determine for every public body the mandatory measures regarding “needs assessment, required authorizations, documents to be submitted in support of those authorizations, and public infrastructure project closure” (Public Infrastructure Act — Chapter II “Investment Planning and Infrastructure Management” — Division II “Public Infrastructure Project Management”).

In addition, the Treasury Board, as noted above, defines the criteria for considering infrastructure project as a “major” project. It also prepares

⁴ With respect to the Treasury Board of Quebec the abovementioned powers stem from the Quebec Public Administration Act. Updated to 18 March 2021. Available at: <http://legisquebec.gouv.qc.ca/en/showDoc/cs/A-6.01?anddigest=> [Accessed 15.06.2021].

⁵ Gouvernement du Québec C.T. 213639, 11 février 2014 Loi sur les infrastructures publiques (chapitre I-8.3). Détermination des critères permettant de considérer qu’un projet d’infrastructure publique est un projet majeur. Gazette officielle du Québec, 26 février 2014, 146e année, no 9 721. Available at: <http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=1&file=61110.pdf> [Accessed 15.06.2021] (In Fr.).

and submits for governmental approval the directives with respect to investment planning and management of public infrastructures within public bodies or a class of public bodies (for example, the Directive “On the Management of Major Public Infrastructure Projects” of 2016).⁶

It is further worth mentioning that the Chair (head) of the Treasury Board may, if “the Chair considers it advisable,” conduct audit in order to verify compliance with the rules prescribed under the Public Infrastructure Act. On the basis of this audit he makes recommendations to the Treasury Board, which may then require the public body concerned to take “corrective and appropriate follow-up measures and to comply with any other measure” determined by the Treasury Board (Public Infrastructure Act — Chapter II “Investment Planning and Infrastructure Management” — Division III “Responsibilities”).

The final important point here is the power of the Treasury Board to recommend the exemption of a public body and (or) an infrastructure project from the general rules of Public Infrastructure Law. In case of approval of such a measure by the government of Quebec the latter by its decision may “set specific conditions applicable” to the project exempted (Public Infrastructure Act — Chapter I “Purpose and Scope” — Division II “Scope”).

The second main practical finding of the Quebec legal approach to infrastructure regulation is the mandatory state planning of infrastructure investments, equally in all fields of social life.

According to the Public Infrastructure Law (Public Infrastructure Act — Chapter II “Investment Planning and Infrastructure Managements”) the state planning of infrastructure investments shall have both a short-term (1 year) and a long-term (10 year) dimension.

The instrument for short-term planning is called “annual investment management plan.” It is drawn up and submitted to the Chair of the Treasury Board by each minister in respect of the investments made by the minister’s department and by the public bodies under his or her

⁶ Directive sur la gestion des projets majeurs d’infrastructure publique. Québec: Gouvernement du Québec, 2016. Updated to 10 December 2020. Available at: <http://legisquebec.gouv.qc.ca/en/ShowDoc/cr/I-8.3,%20r.%202%20/> [Accessed 15.06.2021] (In Fr.).

authority, taking into account the terms and conditions established by the Treasury Board.

The name of the long-term planning tool is “Quebec Infrastructure Plan.” This plan is drawn up and presented to the government of Quebec by the Treasury Board and is subject to approval by the National Assembly (parliament of Quebec).

The current Quebec Infrastructure Plan 2021–2031 allocates a total of 135 billion in Canadian dollars for infrastructure investments. The planned investments are divided into four sections and eighteen subsections corresponding to various fields of social life and types of public infrastructures, including research infrastructure that is given a budget of 984 million in Canadian dollars (Conseil du trésor, 2021).

Among the research infrastructure projects being implemented in Quebec nowadays, one can mention such projects as the creation of twenty-six research laboratories at the Higher School of Technology in Montreal; construction of a pavilion in the same School for the Quebec supercomputer; procurement of equipment for the manufacture of nanomaterials at the University of Sherbrook; construction of a new pavilion for personalized medicine and applied medical research at the same University; conversion of premises and installation of new computer equipment at McGill University in Montreal (Secrétariat du Conseil du trésor, 2021).

Last but not least, the Public Infrastructure Act provides legal foundations for a general public infrastructural company, the Quebec Society of Infrastructures (Société québécoise des infrastructures in French), with a purpose to facilitate implementation of the infrastructure projects or to implement them itself.

According to the Public Infrastructure Act (Chapter III “Quebec Society of Infrastructures”), the Quebec Society of Infrastructures (hereinafter: Society) is vested with two principal missions:

- 1) on the one hand, to support public bodies in their infrastructure activities;
- 2) on the other hand, to establish and operate a common stock of immovable assets for infrastructures, including construction, operation and management services.

The government of Quebec may prescribe to any public body to “deal exclusively with the Society to satisfy its requirements in terms of rental space and the construction, operation and management of immovables.” As far as major infrastructure projects are concerned, their implementation, as a general rule, should always be entrusted to the Society. With the exception of transport infrastructures, a public body also “must exclusively use the services of the Society to acquire or dispose of an immovable.”

In addition to its principal missions, the Society carries out several other related activities. In particular, it can advise the government “on any matter related to public infrastructure projects”; it creates a “documentation center accessible to all interested persons on matters related to the management of public infrastructure projects”; for the latter purpose, it has the right and obligation to collect and analyze “information on similar experience in Canada and abroad.”

It is noteworthy that, as a public legal entity acting as a “mandatory of the State,” the Society may enter in agreements with governments, departments and bodies both within Canada and abroad as well as with international organizations, that is work an international actor including the promotion of international research infrastructure cooperation.

Concluding the article, it should be added that in 2020, by a separate legal instrument, the province of Quebec has established a second public infrastructural company, Quebec Technological Infrastructures. The new company should oversee the construction and operation of technological infrastructures, ensure the cybersecurity in the information infrastructures and manage “Government Infrastructure and Digital Services Fund” (Quebec Technological Infrastructures Act).⁷

References

1. Chetverikov, A.O., (2018). Legal forms of big science (Megascience) within the international integration: a comparative research. *Yuridicheskaya nauka [Legal Science]*, 1, pp. 13–27 (In Russ.).

⁷ Act respecting Infrastructures Technologiques Québec. Chapter I-8.4. Updated to 18 March 2021. Available at: <http://legisquebec.gouv.qc.ca/en/ShowDoc/cs/I-8.4> [Accessed 15.06.2021].

2. Chevalier, J.M., Frison-Roche, M.A., Keppler, J. and Noumea, P. (2008). *Économie et droit de la régulation des infrastructures. Perspectives des pays en voie de développement*, LGDJ, Paris (In Fr.).

3. Conseil du trésor, (2021). *Québec Infrastructure Plan 2021–2031*. Available at: https://www.tresor.gouv.qc.ca/fileadmin/PDF/budget_depenses/21-22/6-Quebec_Infrastructure_Plan.pdf [Accessed 15.06.2021] (In Fr.).

4. Secrétariat du Conseil du trésor, (2021). *Tableau de bord des projets d'infrastructure*. Available at: https://www.tresor.gouv.qc.ca/public-infrastructures/tableau-de-bord-des-projets-dinfrastructures-de-50-millions-de-dollars-et-plus/?L=2andtx_tdbpip_tdbpip%5BshowResults%5D=1andtx_tdbpip_tdbpip%5Baction%5D=listandtx_tdbpip_tdbpip%5Bcontroller%5D=ProjetandcHash=6643f3231fa7fd40a7ece868d61de8f7 [Accessed 15.06.2021] (In Fr.).

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