

INFORMATION RESOURCE
INVESTMENT AND EXPENDITURE PLAN

2021 • 2022

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2021-2022 Expenditure Budget
**Information Resource Investment
and Expenditure Plan 2021-2022**

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. THE CONTRIBUTION OF INFORMATION RESOURCES TO GOVERNMENT ACTIVITIES	3
3. FORECAST INFORMATION RESOURCE EXPENDITURES AND INVESTMENTS	5
4. INFORMATION RESOURCE PROJECTS	11
5. OVERVIEW OF INFORMATION RESOURCE ASSETS	13
6. INFORMATION RESOURCE STAFFING	17

1. INTRODUCTION

Each year, pursuant to section 16.1 of the *Act respecting the governance and management of the information resources of public bodies and government enterprises* (chapter G-1.03) (hereinafter the “Act”), the chief information officer submits to the Chair of the Conseil du trésor an investment and expenditure plan pertaining to the information resources of public bodies.

The plan describes the gouvernement du Québec initiatives in the information resources sector pertaining to:

- the contribution that information resources make to government initiatives and the matching of the master plans with the guidelines that the Conseil du trésor has adopted;
- the information resource investments and expenditures that public bodies anticipate;
- information resource projects whose total estimated cost exceeds the specific threshold set by the Conseil du trésor and the other projects that are deemed of government-wide interest;
- the inventory of information assets of public bodies, including an assessment of their condition;
- information resources staffing.

The data are usually presented by government department, except for those from bodies in the health and social services network, the education network, and the higher education network. Intervention strategies, as defined in the “Forecast information resource expenditures and investments” section correspond to the categories that public bodies must use to describe the initiatives and projects included in the programming of their information resource investments and expenditures. The same categories apply to accountability respecting the use of the funds.

2. THE CONTRIBUTION OF INFORMATION RESOURCES TO GOVERNMENT ACTIVITIES

The sharing of ideas and good practices and collaboration between public bodies are central to successful information resource work. Such work must be performed by a team determined to make decisions that maximize investments. In 2020, the COVID-19-related health emergency was a catalyst in the digital transformation of the gouvernement du Québec. By encouraging decision-makers to place individuals at the forefront of decisions and by offering their employees a workplace adapted to the new conditions, the implementation of the digital transformation, through the contribution of information resources, is succeeding.

The priority in the coming year will be to ensure the coherence of government initiatives, not only to create value for Quebecers but also to ensure the continuous improvement of existing services, especially by reducing waiting periods and curtailing or even eliminating certain steps.

Section 14 of the Act stipulates that each public body must send an information resource master plan to the information officer attached to the public body, and to the chief information officer. The notion of a master plan was introduced into the Act in 2018.

The information resource master plan is a vision document in which each public body sets out its risk management and the information resource measures implemented to fulfill its mission and strategic organizational priorities in a spirit of respect for government policy directions. Section 6 of the *Règles relatives à la planification et à la gestion des ressources informationnelles* stipulates that the plan must be submitted not later than December 31 of the year during which it is produced or updated.

Between January 1 and December 31, 2020, 26 new master plans were submitted, and 68 master plans were updated.

Generally, most of the master plans submitted during the latest period reflect the contribution of information resource projects to the attainment of strategic organizational objectives. In most of the public bodies that have submitted a plan, the information resource teams have adopted a vision that hinges on the business priorities included in their strategic planning. The digital conversion is well under way and measures have been adopted to implement the goals in the *Stratégie de transformation numérique gouvernementale 2019-2023*.

3. FORECAST INFORMATION RESOURCE EXPENDITURES AND INVESTMENTS

Annual information resource expenditure and investment planning

Investment and expenditure programming reveals the investment and expenditure choices made in information resources by the public bodies covered by the Act for the 2021-2022 fiscal year and for the three subsequent fiscal years.

Table 1: Annual information resource expenditure¹ and investment planning
(millions of dollars)

Ministerial portfolio	2021-2022		2022-2023		2023-2024		2024-2025	
	Expenditure	Investment	Expenditure	Investment	Expenditure	Investment	Expenditure	Investment
Affaires municipales et Habitation	32.1	9.7	32.6	12.3	33.8	10.6	33.3	8.8
Agriculture, Pêcheries et Alimentation	31.7	8.8	30.4	10.7	30.1	11.3	31.0	10.6
Conseil du trésor et Administration gouvernementale	385.8	101.4	400.7	146.5	370.9	90.5	390.2	121.9
Conseil exécutif	5.1	1.0	5.2	1.0	5.3	0.9	5.5	0.9
Culture et Communications	23.2	13.9	24.0	11.4	24.7	12.3	24.5	10.3
Économie et Innovation	9.6	1.3	9.8	1.5	9.2	1.5	9.3	1.2
Éducation	27.9	11.8	26.3	10.0	19.4	6.7	15.7	5.2
Énergie et Ressources naturelles	33.2	5.0	29.9	3.6	29.9	6.9	30.5	5.7
Enseignement supérieur	7.8	3.0	11.2	3.9	6.1	1.7	6.1	1.6
Environnement et Lutte contre les changements climatiques	19.5	6.5	19.3	6.9	19.3	7.2	19.4	4.9
Famille	31.2	11.7	28.5	12.8	25.7	12.7	26.6	11.5
Finances	275.9	130.3	281.9	121.5	286.6	119.2	293.6	117.7
Forêts, Faune et Parcs	31.1	8.9	25.6	9.7	25.9	10.5	27.6	7.2
Immigration, Francisation et Intégration	26.9	11.5	27.5	9.5	28.3	8.8	29.2	7.8
Justice	130.7	51.8	122.2	49.0	116.2	22.3	112.8	20.2
Relations internationales et Francophonie	4.3	0.5	4.5	0.4	4.4	0.4	4.5	0.3
Santé et Services sociaux	121.4	28.9	125.5	28.0	128.2	29.6	132.7	29.7
Sécurité publique	137.5	13.8	132.0	16.5	132.8	16.2	131.7	13.5
Tourisme	9.1	3.8	9.0	3.6	9.0	3.7	9.2	3.3
Transports	211.8	134.4	252.7	149.6	180.0	57.8	172.9	53.0
Travail, Emploi et Solidarité sociale	196.2	56.1	194.8	51.1	192.7	59.9	193.1	53.5
Education network	178.5	119.9	182.0	155.0	186.5	89.8	158.4	83.6
Higher education network	403.2	125.5	405.7	118.1	411.8	90.9	376.2	86.5
Health and social services network	806.1	206.2	787.2	192.6	788.7	157.8	799.1	135.8
Information resources reserve	0.0	44.5	0.0	96.8	0.0	132.5	0.0	123.3
Overall total	3 140.1	1 110.4	3 168.5	1 222.2	3 065.6	961.7	3 033.0	918.0

Note: The amounts have been rounded off and may not correspond to the total indicated.

¹ Expenditures do not include the amortization of the information resources of public bodies nor the social contributions and financial expenses of departments and budget-funded bodies.

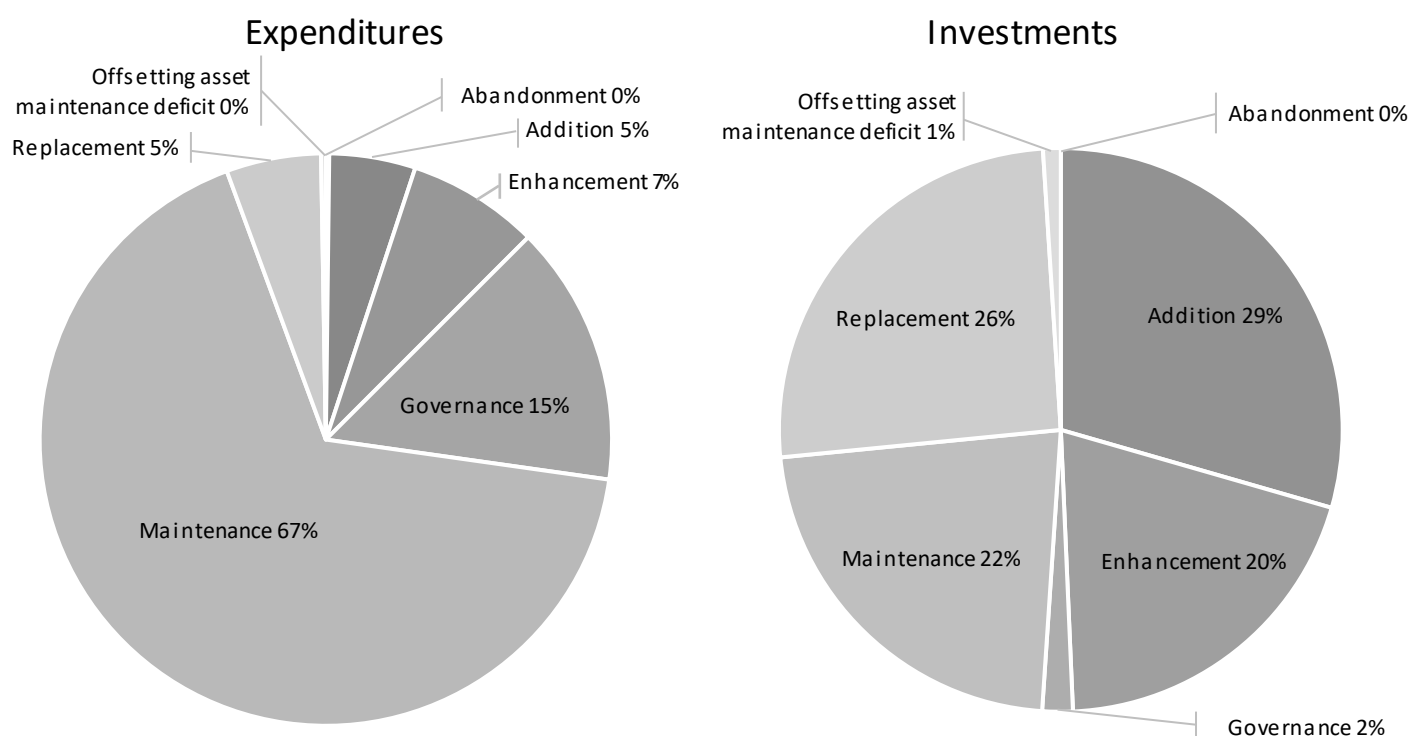
For the 2021-2022 fiscal year, anticipated information resource expenditures and investments by all public bodies subject to the Act stand at \$4.3 billion. Expenditures account for 73% of the amount, and investments, 27%.

The health and social services network, the education network, and the higher education network account for more than one-third of the anticipated information resource funding.

To describe the initiatives and projects included in their information resource investment planning, public bodies are obliged to classify them by response strategy. The seven strategies correspond to the categories to which the public bodies are obliged to resort:

- **Addition:** An initiative intended to acquire or design new information assets.
- **Enhancement:** An initiative intended to modernize, increase, or enhance the service potential of an existing information asset.
- **Maintenance:** An initiative intended to maintain the performance of an existing information asset and prevent its obsolescence.
- **Replacement:** An initiative intended to replace an existing information asset wholly or partly, usually at the end of its useful life.
- **Offsetting the maintenance deficit:** An initiative intended to catch up a delay in maintaining an existing information asset.
- **Abandonment:** An initiative intended to discard an information asset deemed obsolescent or that no longer satisfies the objectives pursued.
- **Governance:** An initiative intended to ensure the continuity of management and planning operations to implement the organization's information resources strategic objectives.

Figure 1: 2021-2022 annual information resource expenditure and investment planning by type of response strategy²



Most expenditures pertain to maintenance while investments are distributed in a balanced manner for purposes of addition, enhancement, maintenance, and replacement. Expenditures cover non-capitalizable costs, especially those related to manpower, including the remuneration of the staff of public bodies assigned to information resource activities and projects, and operating costs.

Annual investment planning under the *Québec Infrastructure Plan* – Information resources sector (QIP-IR)

The QIP-IR sets out for a 10-year period the investments required to carry out the information resource projects and activities to be funded through a contribution from the gouvernement du Québec. It is important to specify that only the information resource investments of public bodies subject to the *Public Infrastructure Act* (chapter I-8.3) are included in the QIP-IR. Accordingly, the investments planned under the QIP-IR are included in the information resource investments presented in Table 1.

² The breakdown percentages are calculated according to the planning reported by the public bodies under information resource planning, as stipulated in section 13 of the Act.

Table 2: Decadal information resource investment planning by government department for 2021-2031

(Gouvernement du Québec contribution, in millions of dollars)

Ministerial portfolio	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	2021-2031 amount
Affaires municipales et Habitation	3.6	3.7	2.8	2.8	1.9	2.0	2.0	2.1	2.1	2.5	25.5
Agriculture, Pêcheries et Alimentation	8.8	10.7	11.3	10.6	9.9	10.3	10.2	10.2	10.2	10.0	102.1
Conseil du trésor et Administration gouvernementale	101.4	146.5	90.5	121.9	56.2	94.0	63.4	48.7	48.7	49.0	820.2
Conseil exécutif	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	8.7
Culture et Communications	2.1	2.4	2.8	1.3	1.3	1.6	1.6	1.6	1.6	1.6	18.0
Économie et Innovation	1.2	1.5	1.4	1.2	1.2	1.2	1.2	1.4	1.2	1.1	12.8
Éducation	11.8	10.0	6.7	5.2	4.7	3.8	4.1	4.1	4.1	7.2	61.8
Énergie et Ressources naturelles	5.0	3.6	6.9	5.7	1.5	4.9	4.0	4.1	5.0	5.6	46.4
Enseignement supérieur	3.0	3.9	1.7	1.6	1.9	2.7	2.8	2.8	2.8	4.9	28.1
Environnement et Lutte contre les changements climatiques	6.5	6.9	7.2	4.9	3.2	3.7	3.7	3.9	3.7	6.0	49.8
Famille	11.7	12.8	12.7	11.5	7.4	11.2	6.3	5.7	4.9	8.1	92.5
Finances	88.0	88.2	87.3	85.7	82.6	83.3	82.7	82.7	83.0	82.8	846.2
Forêts, Faune et Parcs	8.2	6.7	7.8	5.6	3.6	6.1	5.4	5.4	5.4	5.5	59.8
Immigration, Francisation et Intégration	11.5	9.5	8.8	7.8	7.8	7.0	7.5	7.5	7.5	7.5	82.3
Justice	51.8	48.5	21.8	19.7	17.6	17.0	16.2	15.5	16.9	15.2	240.3
Relations internationales et Francophonie	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
Santé et Services sociaux	28.9	28.0	29.6	29.7	31.1	29.0	28.0	28.5	27.5	28.4	288.8
Sécurité publique	13.8	16.5	16.2	13.5	14.8	20.2	13.3	14.2	13.0	11.2	146.7
Tourisme	3.8	3.6	3.7	3.3	3.1	3.6	3.3	3.4	3.4	3.7	34.9
Transports	33.5	36.1	37.8	33.0	30.0	24.3	24.0	20.0	19.5	19.5	277.7
Travail, Emploi et Solidarité sociale	18.4	18.4	26.8	20.3	20.9	24.5	24.5	24.6	24.6	24.4	227.3
Sociétés d'état de la culture	8.0	7.7	8.9	8.5	6.5	6.8	6.9	6.8	6.9	6.9	73.9
Education network	115.8	151.1	85.9	79.8	80.8	82.5	80.3	82.1	82.6	85.9	926.7
Higher education network	100.0	100.7	74.5	73.7	75.1	78.2	74.1	74.1	74.7	74.8	800.0
Health and social services network	165.0	166.4	137.3	120.8	117.3	118.6	116.1	116.1	116.1	121.1	1 294.7
Information resources reserve	44.5	96.8	132.5	123.3	80.4	38.3	30.3	29.4	33.6	34.0	643.0
Overall total	847.8	981.5	824.3	792.6	661.9	676.1	613.1	596.2	600.1	618.0	7 211.7

Note: The amounts have been rounded off and may not correspond to the total indicated.

The investments planned under the 2021-2031 QIP-IR total \$7 211.7 million, including \$847.8 million for the 2021-2022 fiscal year.

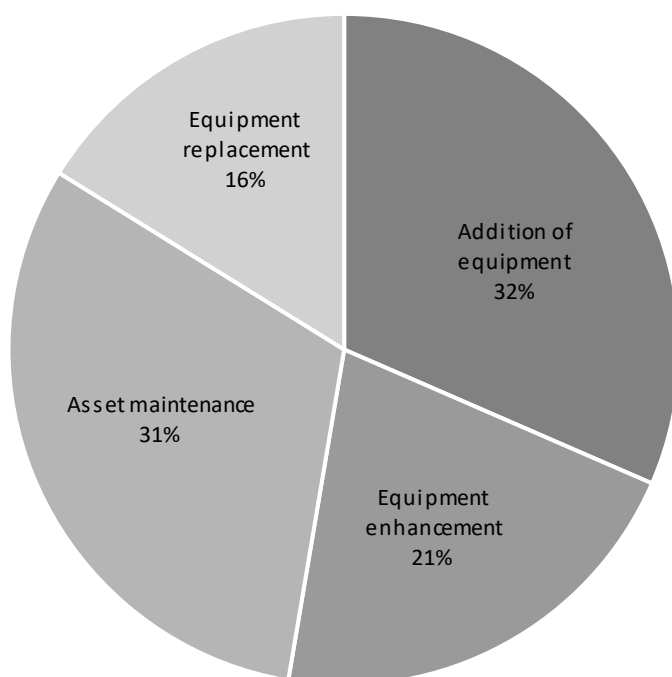
The investments planned under the QIP-IR are classified under four investment strategies, which group together the information resource response strategies presented earlier, as shown in Table 3.

Table 3: Investment strategies funded by the QIP-IR

Investment strategy	Information resource response strategy
Asset maintenance	Maintenance
	Offsetting the asset maintenance deficit
Equipment replacement	Replacement
	Abandonment
Improvement: Equipment enhancement	Enhancement
Improvement: Addition of equipment	Addition
	Governance

Figure 2 presents the breakdown of investments for the decade 2021-2031.

Figure 2: Decadal investment planning under the 2021-2031 QIP-IR by type of investment strategy



4. INFORMATION RESOURCE PROJECTS

The information resource projects of public bodies are presented in the information resource project trend chart published online at www.tableaubordprojetsri.gouv.qc.ca.

The trend chart presents projects costing more than \$100 000 whose execution phase is under way. It clearly indicates the importance and the performance of the projects and provides detailed information on the projects whose execution phase the Conseil du trésor has authorized.

When the Conseil du trésor deems it necessary to do so, certain major projects that affect several public bodies can be designated of government-wide interest. The following projects designated as being of government-wide interest are now under way:

Name of the project	Organization	Description of the project	Date of the designation
Integrated resource management business solutions (SAGIR) - SGR7 phase - Payroll system	ITQ	The SGR7 seeks to modernize the government's payroll system by replacing the existing system. The project will better support the remuneration and fringe benefit programs of staff and make the management of remuneration more efficient.	June 2018
Programme de Service québécois d'identité numérique (SQIN) – First project: Enhanced access to electronic service delivery for businesses and individuals Second project: Digital citizen identity	ITQ / SCT	The SQIN program will simplify access to government online services while limiting to a minimum the personal information disclosed based on consent for information sharing. It includes the establishment of a digital portfolio to support Quebecers' digital identity.	May 2020
Consolidation of the digital processing centres and optimization of processing and storage	ITQ	The digital processing centre program seeks to consolidate the data processing centres of public bodies and those of the establishments in the health and social services, education, and higher education networks identified.	June 2020

ITQ – Infrastructures technologiques Québec

SCT– Secrétariat du Conseil du trésor

5. OVERVIEW OF INFORMATION RESOURCE ASSETS

Public bodies subject to the Act must produce and maintain an up-to-date inventory of their information assets, including an assessment of their condition. The preparation of the inventory of assets entails listing the technological components of computer systems and infrastructure services, then linking the main components to the attendant systems and services. The overview of assets facilitates the elaboration of government information resource planning.

Definitions of IT assets

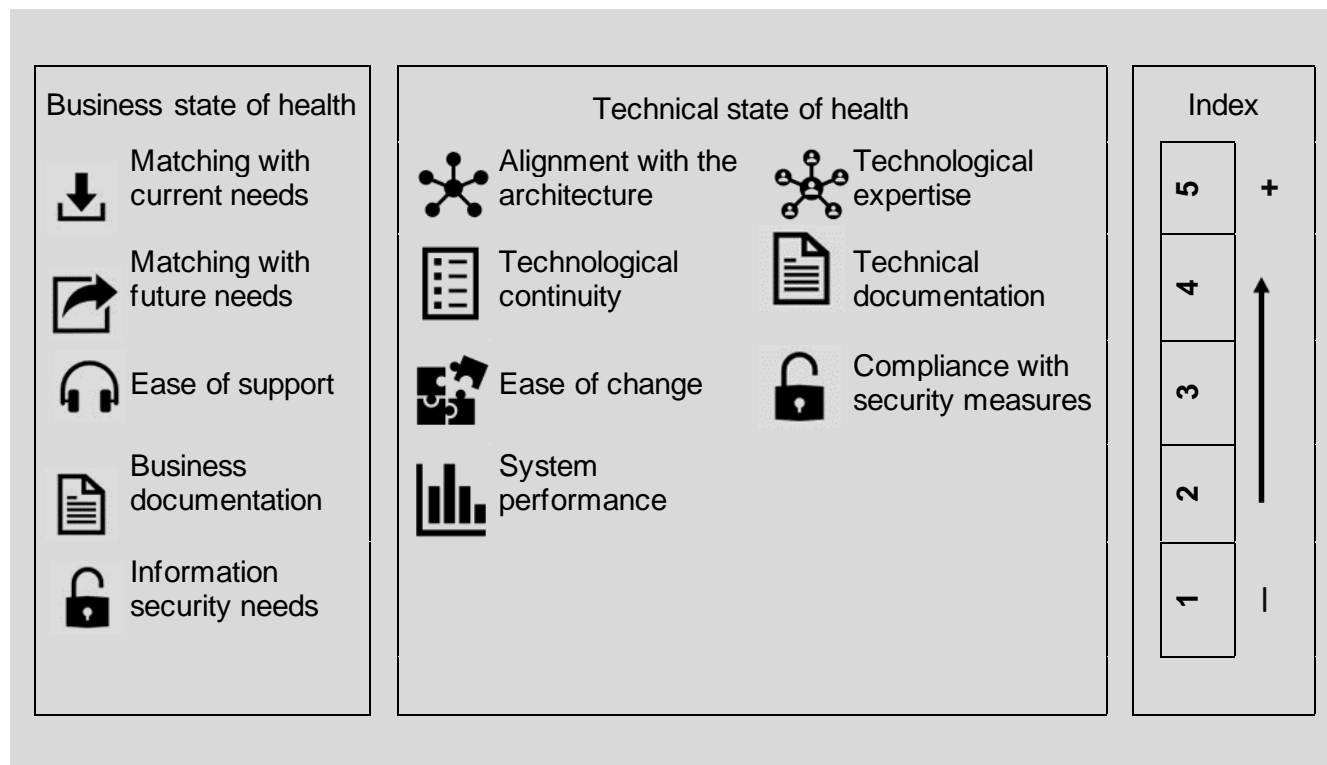
IT assets encompass data processing systems, infrastructure services, and technological components.

IT ASSETS		
Type	Sub-type	Definition
Data processing system	Mission suite	A system operating in a basic range of activities of a public body that constitutes the rationale for it.
	Support system	A system that supports the common processes of a public body, such as the management of resources, acquisitions, communications, legislation, and so on.
Infrastructure service		An integrated group of configuration elements that can include computer equipment and software, intended to satisfy a need, or attain an objective.
Technological component	Software	All software components and attendant data that instruct a computer. The software is organized according to software architecture and is used on technological infrastructure.
	Equipment	The physical components of a data processing system that take the form of computer equipment. Such elements comprise workstations, servers, network equipment, storage equipment, telephony, and printers.

Method to evaluate the condition of assets and health condition index

The evaluation of the condition of assets hinges on the business or technical state of health. The business state of health is intended to evaluate the mission suites or support systems, while the technical state of health assesses the state of infrastructure services according to the criteria indicated in Figure 1.

Figure 3: State of health evaluation criteria



The condition index, based on a scale of 1 to 5, presents on a unique, comparable basis the state of health of systems and services. The scale is ascending, i.e., 1 indicates a very poor state of health and 5, a very sound state of health.

Description of the inventory of information assets

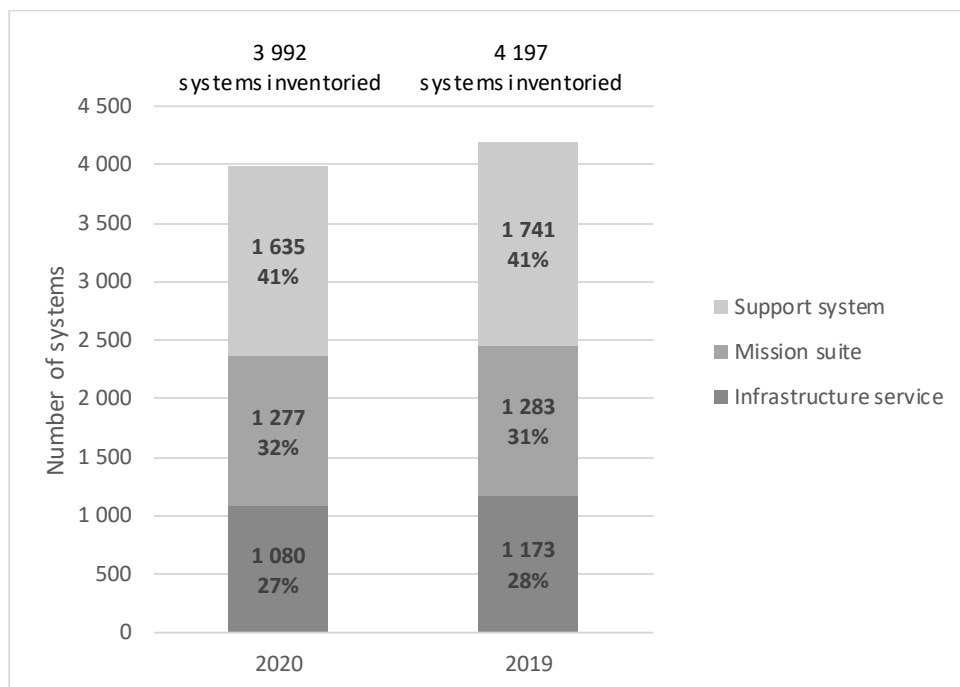
In 2020, the Secrétariat du Conseil du trésor (SCT) listed 3 992 systems, broken down as follows:

- 1 635 (41%) were support systems;
- 1 277 (32%) were mission suites;
- 1 080 (27%) were infrastructure services.

In 2019, the SCT inventoried 4 197 systems:

- 1 741 (41%) were support systems;
- 1 283 (31%) were mission suites;
- 1 173 (28%) were infrastructure services.

Figure 4: Number of systems by type

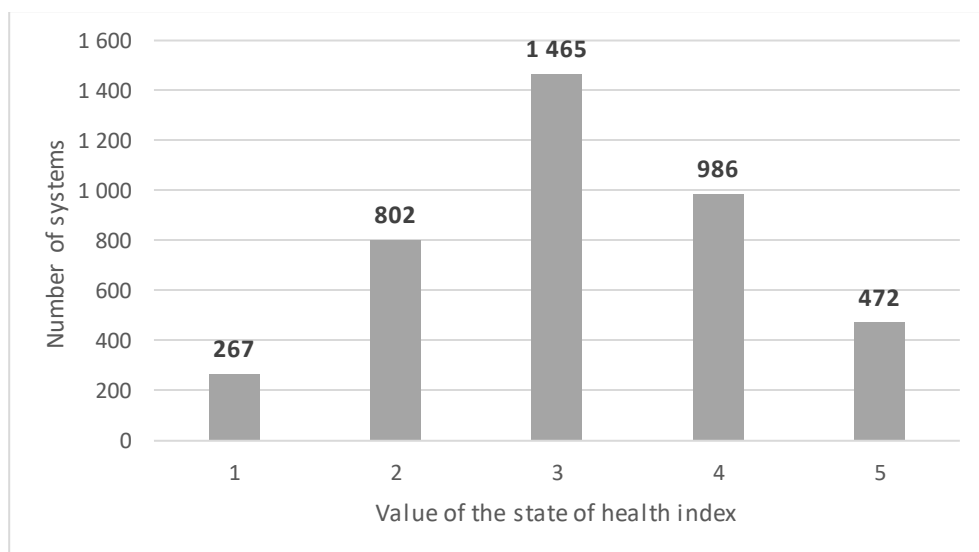


The total number of systems fell by 4.9% (205 systems) from 2019 to 2020. The reduction stems from a decrease in the number of systems and services reported by Infrastructures technologiques Québec (255 fewer systems and services in relation to the number of systems reported in 2019 by the Centre de services partagés du Québec) following a revision of assets included in the inventory.

State of health of information assets

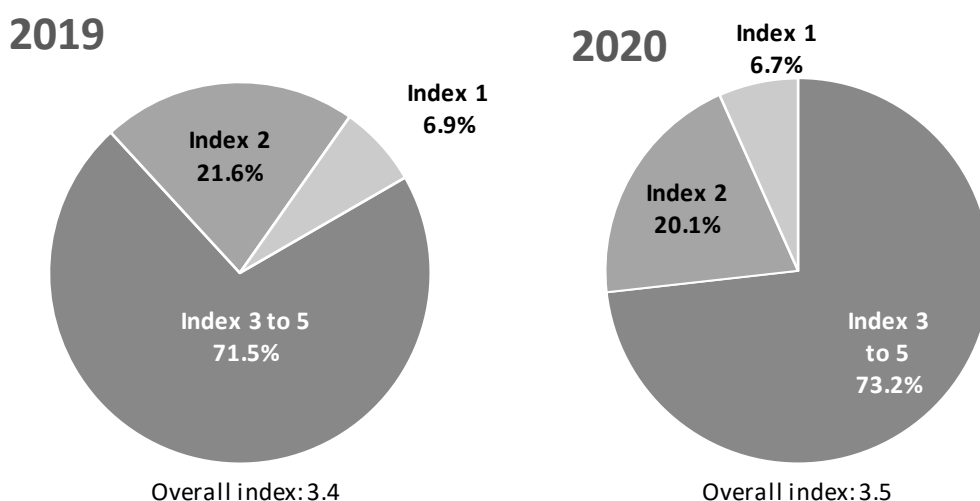
In 2020, the average condition index of the assets inventoried was 3.5 out of 5. The proportion of systems that obtained a rating equivalent to or greater than 3 out of 5 stood at 73.2%.

Figure 5: Breakdown of systems according to the value of the state of health in 2020



A slight improvement was noted in the overall state of health index of information resource assets in relation to 2019, which stood at 3.4 out of 5 (+0.1 point out of 5). The proportion of systems that obtained a rating equivalent to or greater than 3 out of 5 stood at 71.5%, nearly two percentage points lower than in 2020.

Figure 6: Breakdown of systems according to the value of the state of health



Generally speaking, infrastructure services display a better state of health index than other types of systems. Indeed, in 2020, infrastructure services had an index of 3.8 out of 5, as against 3.2 for mission suites, and 3.3 for support systems.

The situation has improved since 2019, when infrastructure services had a state of health index of 3.7 out of 5, compared with 3.2 for mission suites, and 3.3 for support systems.

Table 4: Average index by type of system

	AVERAGE INDEX		
	2019	2020	Discrepancy
Support systems	3.3	3.3	0
Mission suites	3.2	3.2	0
Infrastructure services	3.7	3.8	0.1
Total	3.4	3.5	0.1

6. INFORMATION RESOURCE STAFFING

The profile of manpower and recourse to consultants assigned to information resources (hereinafter “the profile”) has been elaborated since 2015. It is produced annually and reveals information resource manpower in the public sector. The 2019 profile presents data from a greater number of public bodies, which are now obliged to report their information resource sector staffing. Accordingly, to the data from 70 public bodies that have produced information concerning their information resource staff since 2015 are added data from 46 additional public bodies, for a total of 116 public bodies.

The total number of staff working in information resources in the 116 public bodies covered by the 2019 profile stands at 12 011, of whom (excluding vacant positions) 8 749 (72.8%) were internal staff and 3 262 (27.2%) were external staff.

Table 5: Comprehensive overview of internal and external staffing and vacant positions for the 70 public bodies (change from 2015 to 2019), the 46 additional public bodies, and the overall total of 116 public bodies

Category	70 PBs 2015	70 PBs 2016	70 PBs 2017	70 PBs 2018	70 PBs 2019	46 PBs 2019	Total 116 PBs 2019
Internal	5 889	5 973	6 185	6 427	6 749	2 000	8 749
External	2 976	2 388	2 297	2 552	2 787	475	3 262
Total	8 865	8 361	8 482	8 979	9 536	2 475	12 011
Internal	66.4	71.4	72.9	71.6	70.8	80.8	72.8
% External	33.6	28.6	27.1	28.4	29.2	19.2	27.2
Vacant positions	486	707	876	991	842	233	1 075
Internal and vacant positions	6 375	6 680	7 061	7 418	7 591	2 233	9 824
% Vacant positions	7.6	10.6	12.4	13.4	11.1	10.4	10.9

Table 5 indicates an upward trend in the number of internal staff working in the information resource sector between 2015 and 2019 when account is taken of the 70 public bodies that have provided data on information resource staff for the past five years. In 2015, the proportion of internal staff stood at 66.4% of the total, compared with 70.8% in 2019, a 4.4 percentage point increase. The number of internal staff recorded in each of the five years has risen without dropping.

The complete profile is available online in the [Publications](#) section of the Secrétariat du Conseil du trésor’s website.

