



C A R I C

CONSORTIUM FOR
AEROSPACE RESEARCH AND
INNOVATION IN CANADA

2020-2021 CARIC CORPORATE PLAN

APPROVED VERSION

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Financial partner



Innovation, Science and
Economic Development Canada

Innovation, Sciences et
Développement économique Canada

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1 Introduction

A request to amend the end date of the CARIC agreement was approved by Innovation Science and Economic Development Canada (ISED). The new termination date is September 30, 2020. The objective of this extension is to manage the projects that have not completed their work and perform all administrative and legal work required to close the program. No supplementary operational funding is needed as all expenses are covered by economies realised within the original envelope. In fact, it is anticipated that administrative funds will be returned to ISED. On the project side, all ISED funding as been allocated and disbursed with a few exceptions when the recipients were not in good standing with CARIC. Most of these issues have been and are being settled.

CARIC is pleased to submit its 2020-2021 Corporate Plan, in accordance with Article VII of the Contribution Agreement between CARIC and ISED. CARIC is requested to provide the Minister with an Annual Corporate Plan, approved by its Board, no later than two (2) months before the beginning of the fiscal year.

1.1 Context

As described in the previous Corporate plan, CARIC has engaged all its resources available to support collaborative R&D projects for its first five-year mandate. During FY 2019-2020, CARIC managed its on-going projects, made the preparations to close the network down and kept a minimal presence across Canada to maintain some momentum for the advent of a follow-up program. This was meant to be the Aerospace Innovation and Research network (AIR) announced by Minister Bains. This initiative is being led by the AIAC without CARIC involvement and its status is unknown at the time of the production of this Annual Corporate Plan.

CARIC's focus for the 2020-2021 Fiscal year is to perform all the administrative tasks and fulfill all legal obligations required to close the network by 30 September 2020. The few on-going projects not yet completed will be managed for a few more months and CARIC will respect its engagements on a few committees until the end (AIAC TICA, CMAI BoD and GARDN BoD). No networking events or regional representation will be undertaken. All regional Directors position will be terminated by the 31st March 2020 and the CARIC head office staff will be further reduced.



1.2 Mission

CARIC's mission is to generate and foster dialogue and collaboration between players in the aerospace industry and to provide financial support in launching industry-led R&TD projects in partnership with these players.

More specifically, the outcomes that CARIC pursue are:

- Delivering innovation to foster competitiveness
- Strengthening the network to create synergy coast-to-coast
- Educating personnel to ensure sustainability

1.3 Strategy

The nine strategic guiding principles developed in 2016 by the CARIC's Board of Directors still apply.

1. TRENDS

Identify key drivers of competitiveness for the Canadian industry and design the program accordingly.

The CARIC's Board has decided to postpone activities planned this fiscal year for identifying the Key S & T Drivers, to after the confirmation of CARIC renewal. However, an exhaustive bibliographic research and analysis, conducted by UQAM (Université du Québec à Montréal) for CRIAQ (Consortium for Research and Innovation in Aerospace In Quebec) in 2017-2018, should constitute a basis for the CARIC exercise at the Canadian level, as soon as CARIC's Board approves it.

2. Network

Build an all-inclusive and cohesive network across Canada to tap into the entire pool of expertise available.

Although the power of attraction of CARIC is limited during the final year of the program because of the project-funding constraints, CARIC intends nevertheless to further strengthen its networks across Canada, interact with other relevant networks and encourage inter-regional collaborations.

3. SMEs

Provide specific support to SMEs, a key element of prosperity for Canada.

In 2020-2021, taking into consideration the resources available, CARIC will seek initiatives that directly support the R&D requirements of SMEs in their pursuit of global value chains, using tools and means provided by other programs.



4. SERVICE OFFER

Fulfill all members' R&D needs by using existing programs and any other appropriate R&D funding vehicle. Act as the front door to R&D services in aerospace.

CARIC will continue to familiarize itself with other national and provincial programs to guide its members when appropriate. It will also continue its working synergy with CRIAQ to leverage all project and network opportunities.

5. INTERSECTORAL

Reach out to other scientific and technology sectors, especially through its industry, associations, and academic leaders, where mutually beneficial partnerships and collaborations may emerge.

CARIC will continue to reach out to organizations from other sectors for mutual benefits. Significant opportunities exist because of the supercluster program as a whole and new ones will certainly emerge from the implementation of the Federal Government Innovation and Skills Plan.

6. INTERNATIONAL

Stimulate international collaborative R&D to link partners and supply chains.

CARIC will continue to raise the international profile of the network and to ensure the global positioning of the Canadian innovation ecosystem. In particular, it will interact with the International Cooperation in Aviation Research group (ICARe) initiative, led by the European commission, to develop the next generation of cooperation program like CANNAPE.

7. COLLABORATION

Collaborate with other networks to benefit from new tools; participate in a network of networks.

CARIC will continue to collaborate with other networks across Canada while continuing its close collaboration with AIAC - Aerospace Industries Association of Canada.

8. RESOURCES

Tap into other sources of funding to support its plan.

CARIC will explore possibilities with other level of governments and entities to generate opportunities for its membership.



9. METRICS

Define performance metrics to monitor progress.

CARIC will prepare a final report covering its activities and impacts during the 2014-2020 period. This document will be submitted to ISED at the end of the program.

2 2020-2021 Corporate Plan

2.1 Objectives, Strategy for the Upcoming Fiscal Year

2019-2020 was the sixth year of the amended contribution agreement. With the signing of the amendment, 2020-2021 will be CARIC's seventh year of operation and the closure of the program. Therefore, over the next fiscal year, efforts will focus on supporting ongoing collaborative projects as well as closing projects planned to end during this period.

2.2 Summary of Planned Activities and Anticipated Results

The following activities are planned for FY 2020-2021. They are the minimal level of activities required to close operations.

PLANNED ACTIVITIES	ANTICIPATED RESULTS
Hold meetings of the Board of Directors and its committees	1 Board of Directors meeting 1 General Assembly meeting If necessary, other meetings of the Board, the EC or the committees of the BoD will be organised
Perform administrative and legal tasks required to close the Network	Network closed by 30 September 2020. All requirements fulfilled: <ul style="list-style-type: none"> • Financial • Legal • Human resources • Governance • Partnerships Information on the activities of the network stored appropriately.



PLANNED ACTIVITIES	ANTICIPATED RESULTS
Partnerships (GARDN BoD, AIAC TICA and CMAI BoD)	Obligations respected: participation to meetings, analysis and production of documents
Retain members from industry and academia	Maintain the members involved in projects
Hold regional workshops, network meetings and events	None
Participate in outreach events	None

2.3 Statement of Planned Expenditures for CARIC Operations and Collaborative R&TD Projects for the Upcoming Fiscal Year, by Source of Funding

The detailed budget presented in section 2.3.1 provides the detailed planned expenditures for the 2020-2021 fiscal year for both operations and collaborative R&TD projects. The budget requested for 2020-2021 operations is \$249,483 with a contribution of \$85,062 from ISED.

2.3.1 Detailed Budget 2020-2021 (approved on January 29, 2020)





1	Revenues
2	ISED Canada - Administrative fees
3	ISED Canada projects
4	Membership - Industries
5	Membership - Universities and research centres
6	NRC-IRAP Program
7	Special events (Workshops, Forum)
8	Interest Income
9	Revenues - TOTAL

10	Expenses
11	Head office: Personnel and administrative charges
12	Ottawa office: Personnel and administrative charges
13	Regional offices: Personnel and administrative charges
14	Support, services and other expenses
15	Telecommunication and other supplies
16	Travel and representation expenses
17	Audit, accounting and legal (IP agreement and others)
18	Consultants (Scientific, technical advisor and others)
19	Support, services and other expenses - TOTAL
20	Liaison and network activities
21	Workshops and other events
23	AGM, Board of Directors and other meetings
24	Tools (Web platform, website & online network community, database)
25	Communication, sponsorship, advertisement and promotion expenses
26	Simultaneous translation and document translation
27	SME Program (NRC-IRAP)
28	Bad dept
29	Liaison and network activities - TOTAL
30	Research Programs
31	SPENT - Research projects - TRL 1-5 and Intl/CANNAPE
32	Research support projects and program, special projects (Private Fund)
33	Projects evaluation
34	Research Programs (Spent) - TOTAL

35	TOTAL Expenses
36	Total eligible expenses

37	Balance
38	Non reclaim taxes (to cover with private revenue)
39	Ineligible expenses (to cover with private revenue)
40	Bad Dept (to cover with private revenue)
41	Eligible expenses to cover with unused ISED fund

Budget 2020-2021 (Draft)	
Administration & Animation	Research projects
Network animation	
85,062 \$	- \$
10,911 \$	31,589 \$
20,000 \$	- \$
- \$	- \$
- \$	- \$
- \$	- \$
115,973 \$	31,589 \$

199,146 \$	- \$
- \$	- \$
- \$	- \$
10,000 \$	
5,000 \$	
30,000 \$	
10,000 \$	
55,000 \$	0
- \$	
5,000 \$	
5,000 \$	
- \$	
8,000 \$	
- \$	
10,000 \$	
28,000 \$	- \$
	- \$
	- \$
	- \$

282,146 \$	- \$
251,235 \$	- \$

(166,172) \$	31,589 \$
20,411 \$	
500 \$	
10,000 \$	
166,172 \$	



2.4 Risk Assessment and Mitigation Strategies

The following risks apply.

RISK ASSESSMENT	MITIGATION STRATEGIES
<p>1. ISED withhold up to 10% of the Contribution until all required audits, evaluations and reporting have been completed.</p>	<p><u>Probability</u> - Low <u>Impact</u> - High. This holdback could cause a cash flow issue. Budget would need to be revised.</p>
<p>2. Some amounts owing to CARIC are not recovered</p>	<p><u>Probability</u> - High probability that some accounts will not be recovered. But low probability that they are major accounts. The accounts left to be collected are of two natures: 1) industrial funding promised by participants for projects and 2) membership dues. <u>Impact</u> Overall: High impact if they are major accounts. Minimal impact otherwise. More explicitly: 1) Industrial funding - Low. Could affect some projects 2) Membership - High. Could affect our ability to cover some non-eligible expenses (like taxes for instance)</p>



2.5 Statement of CARIC's Annual Cashflow Requirements for the Upcoming Fiscal Year

Operations: \$85,062

Projects: \$0

For reference, the expenditures over the duration of the whole program are:

ISED contribution	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Total
Operations	1,302,909	1,697,027	1,752,042	1,797,712	1,775,712	593,858	85,062	9,003,952
Research	1,275,093	5,427,736	5,638,072	4,902,288	3,358,998	290,369	0	20,892,556
Recherche (Interest income)	4,087	35,709	22,425	7,976	20,654	12,6410	0	103,492
sub-total	1,279,180	5,463,445	5,660,497	4,910,264	3,379,652	303,010	0	20,996,048
Total ISED	2,582,089	7,160,472	7,412,539	6,707,976	5,154,994	896,868	85,062	30,000,000

2.6 Statement of all Amounts Owing to the Crown Pursuant to Legislation, this Agreement, any Other Agreement or any Other Authority

Interest income: \$12,641 (December 31, 2019)

\$0 (expected by the end of the fiscal year)



CARIC projects completed as of January 15, 2020

Project Number	Project-Status	Project Ending date	Total project value	Total CARIC contribution
OPR-706_TRL4+	Completed	2017-01-31	\$612 578	\$267 010
DPHM-702_TRL4+	Completed	2017-03-22	\$1 835 402	\$910 320
AVIO-718_TRL4+	Completed	2017-04-30	\$255 570	\$126 575
MANU-721_TRL4+	Completed	2017-06-30	\$780 850,60	\$377 623
MANU-724_TRL4+	Completed	2018-06-30	\$764 684	\$318 238
AUT-703_TRL4+	Completed	2018-07-31	\$2 317 675	\$1 105 922
DPHM-711_TRL4+	Completed	2018-08-31	\$1 472 978	\$687 322
MDO-714_TRL4+	Completed	2018-08-31	\$1 380 659	\$598 696
MANU-706_TRL4+	Completed	2018-09-30	\$349 513,50	\$135 755
MANU-710_TRL4+	Completed	2018-12-31	\$1 556 443,90	\$693 818
PLE-P-1652_TRL4+	Completed	2019-01-15	\$654 840,10	\$198 963
COMP-709_TRL4+	Completed	2019-03-03	\$2 626 498,50	\$1 020 000
AVIO-1601_TRL4+	Completed	2019-03-31	\$749 797,50	\$328 484
MANU-711	Completed	2019-03-31	\$603 663,75	\$38 970
ENV-715	Completed	2019-04-30	\$353 644,55	\$28 087
EUCA-PHOBI2ICE	Completed	2019-04-30	\$1 248 097,30	\$488 300
MDO-1650_TRL4+	Completed	2019-06-30	\$1 442 345,51	\$610 381,01
AUT-1629_TRL4+	Completed	2019-07-30	\$3 216 050,35	\$1 393 728
MANU-1625	Completed	2019-09-14	\$574 172	\$39 600
ENV-709	Completed	2019-10-31	\$1 150 230	\$80 080
MANU-1622_TRL4+	Completed	2019-11-27	\$951 783,90	\$312 610
AVIO-1603_TRL4+	Completed	2019-11-30	\$758 538,20	\$328 556
AVIO-1503_TRL4+	Completed	2019-12-20	\$3 314 088	\$1 602 000
AVIO-707	Completed	2019-12-31	\$862 475,85	\$60 000
COMP-1601_TRL4+	Completed	2019-12-31	\$1 802 734,80	\$665 967
ENV-1601_TRL4+	Completed	2019-12-31	\$1 425 800	\$702 760
Total for the group	26		\$33 061 114	\$13 119 765

CARIC projects to be completed before March 31, 2020

EUCA-AMOS	In progress	2020-01-31	\$1 463 950	\$481 000
COMP-1602_TRL4+	In progress	2020-03-20	\$3 824 274,74	\$1 696 795
ENV-708	In progress	2020-03-31	\$954 181,45	\$58 680
EUCA-EPICEA	In progress	2020-03-31	\$1 960 564,85	\$755 180
LEAN-702_TRL4+	In progress	2020-03-31	\$1 402 046,10	\$639 212
MDO-1601_TRL4+	In progress	2020-03-31	\$3 699 828	\$1 550 838
MDO-710	In progress	2020-03-31	\$989 892,40	\$69 526
Total for the group	7		\$14 294 738	\$5 251 231



CARIC projects to be completed from April 1, 2020 to September 30, 2020

MANU-1615	In progress	2020-04-01	\$775 675	\$0
ENV-702	In progress	2020-06-30	\$1 108 441,30	\$73 650
MDO-1649_TRL4+	In progress	2020-08-31	\$1 234 019,30	\$490 421
COMP-1633_INTL	In progress	2020-09-30	\$1 175 265,50	\$300 257
ENV-1648_INTL	In progress	2020-09-30	\$1 550 990,50	\$451 682
Total for the group	5		\$5 844 392	\$1 316 010

CARIC funded projects to be completed beyond October 1, 2020

ENV-1605	In progress	2020-12-31	\$1 097 100	\$19 520
MANU-1613_TRL4+	In progress	2020-12-31	\$1 996 800,80	\$863 675
OPR-1618	In progress	2021-02-28	\$2 321 523,40	\$38 976
MANU-1708	In progress	2021-10-24	\$1 469 383,75	\$20 675
IDIR	In progress	2022-12-31	\$5 478 404,50	\$150 000
Total for the group	5		\$12 363 212	\$1 092 846

Not funded by CARIC projects (CARIC's members participation only) to be completed beyond October 1, 2020

MANU-1712_TRL4+	In progress	2020-12-31	\$6 616 405	\$0
MANU-1707_TRL4+	In progress	2021-08-31	\$1 254 408,40	\$0
FlawDetect	In progress	2022-07-01	\$641 779,35	\$0
Total for the group	3		\$8 512 593	\$0

