*Please remove this page when submitting your application*

| ***Important note:*** *remember to fill in the online application form with all your requests. There should be no discrepancies between requests in this document and the online form. Failing to include ALL your requests in the online application form might impact your final allocation, if your application is successful. In case of discrepancy, the online form will prevail.* |
| --- |

***Purpose of this document***

*This document will be reviewed by a committee made up of your peers (i.e. Canadian faculty members with expertise in the subject area) following the review criteria available in the* [*application guide*](https://www.computecanada.ca/research-portal/accessing-resources/resource-allocation-competitions/rpp/)*. It will also be reviewed by technical staff of the Compute Canada Federation in order to ensure that the resources requested will be used appropriately and efficiently.*

***General presentation***

***Please remove all text in italics.***

*The document must have this format:*

* ***Maximum of 8 pages (before References and the Appendix)****.* ***Page limits will be enforced****; any information after page 8 (except for References and Appendix, when applicable) will be ignored. Note: it is not required to use the maximum page limits to be successful: applications asking for a small amount of resources may need fewer pages: what matters is the quality, not the quantity, of the information provided.*
* *­Letter paper size (8½ x 11 inches)*
* *­Minimum of 2 cm margins on all sides.*
* *­Font in Times New Roman (12 pts or more) or Arial (11 pts or more).*
* *­Header on all pages includes the title of the project and the name of the PI.*
* *­All pages numbered consecutively.*

***Submission***

* *This document must be submitted* ***in pdf format only.***
* *Please consult the* [*Technical Glossary*](https://docs.computecanada.ca/wiki/Technical_glossary_for_the_resource_allocation_competitions)*.*

***Evaluation Criteria***

**Project Justification** **(50%)** (max 6 pages)

* *Project description, objectives and goals*
* *Use of the Platform/Portal*
* *Expected Outcomes*
* *Progress Over the Past Year*
* *Resource Request Justification*

**Resource Management and Expertise of the Team (50%)** *(max 2 pages)*

* *Funding*
* *Expertise of the Team*
* *Management Strategy*

*2022 Research Platforms and Portals Application Template*

**Project Justification** *(max 6 pages)*

**1. Project Description, Objectives and Goals** *(suggested ½ page)*

*Discuss the problem or need that each platform or portal listed in this proposal will address, and list the general objectives and specific goal(s) of the portal or platform.*

**2. Use of the Platform/Portal** *(suggested ½ page)*

* *Describe the user community for which the platform will provide services. Include (if possible) estimates of the size and activity of the user community.*
* *Describe the added value that the platform/portal will create or is currently creating for the user community.*
* *If applicable - Describe the level of interaction between Canadian and international research groups and platforms.*

**3. Expected Outcomes** *(suggested 1 page)*

*New projects should concentrate on the development of the platform or portal, while existing platforms should focus on continuing operations and possible expansion of the offerings and user community.*

* *Present a clear timeline for the delivery of the anticipated outcomes over the entire duration of the requested allocation (see table below).*
* *Provide a detailed list of the outcomes resulting from the use of resources provided by the Compute Canada Federation and the expected schedule for achieving these outcomes.*
* *Explain the means by which the expected outcomes will be measured.*

*The table below is provided as a suggestion. Please adjust according to the needs of your project. You can also include a Gantt chart.*

| **Phase** | **Year 1**  2021-2022 | **Year 2**  2022-2023 | **Year 3**  2023-2024 | **Dependent on CCF resources?** |
| --- | --- | --- | --- | --- |
| *Phase 1* | *[goal, milestone or outcome]* |  |  | *Yes / No* |
| *Phase 2* |  |  |  |  |
| *Phase 3* |  |  |  |  |

*Note: Keep in mind that RAC resources are typically allocated from April to April each year.*

**4. Progress Over the Past Year***(suggested ½ page)*

*Highlight any notable CCF-enabled research that you have performed. This may be linked to a publication in your CCV publication record, or it may be a work in progress.*

**5. Resource Justification** *(suggested 3 ½ pages)*

*This section addresses the technical details of your computational, storage or cloud needs. Complete only the sections that are applicable to the resources you are requesting. If you do not understand the technical questions, contact* [*rac@computecanada.ca*](mailto:rac@computecanada.ca)*.*

**5.1 History of past computational utilization**

*If you had a compute allocation in the past year and your projected usage is 50% or less, you* ***must*** *provide a justification for the low utilization of the resources awarded. If you have not had a resource allocation, please mention any utilization of computational resources provided by the Compute Canada Federation via the Rapid Access Service.*

**5.2 Resource request summary**

*Please summarize your request here and then provide a detailed justification in the next sections. Feel free to modify the table to suit the needs of your project.*

| **Resource Type** | **Year 1** | **Year 2** | **Year 3** |
| --- | --- | --- | --- |
| ***Compute Cloud VCPU*** |  |  |  |
| ***Compute Cloud VGPU*** |  |  |  |
| ***Persistent Cloud VCPU*** |  |  |  |
| ***Cloud Volume and Snapshot Storage (GB)\**** |  |  |  |
| ***Cloud Object storage (TB)\**** |  |  |  |
| ***Cloud Shared Filesystem Storage (TB)*** |  |  |  |
| ***/project storage (TB)\**** |  |  |  |
| ***/nearline storage (TB)\**** |  |  |  |
| ***CPU (core years)*** |  |  |  |
| ***GPU (GPU years)*** |  |  |  |

***\*The amount of storage requested in your application must reflect the sum of any existing storage allocation or data that you may currently have with the Compute Canada Federation PLUS any new, additional storage needed to meet the goals of your project. For example, if you request an allocation for 2 years and expect that in year 1 you will need 50 TB of storage and 50 additional TB in year 2, then the request should be as follows: Year 1: 50 TB, Year 2: 100 TB (and* not *50 TB for year 2).***

| ***Important note:*** *remember to fill in the online application form with all your requests. There should be no discrepancies between requests in this document and the online form. Failing to include ALL your requests in the online application form might impact your final allocation, if your application is successful. In case of discrepancy, the online form will prevail.* |
| --- |

**5.3 Description of cloud needs**

*Please provide details supporting the cloud asks summarized in section 5.2. We suggest including a breakdown according to use or service as illustrated below, but we understand that each portal can be very unique; the following table is provided just as an example—feel free to modify it based on the specific needs of your project.*

*If you request VGPUs, please justify why you cannot use GPUs in the general purpose clusters.*

| **Use** | **Instances** | **VM’s** | **Cloud storage** | **Network** |
| --- | --- | --- | --- | --- |
| *Web Front-end* | *2* | *2-core VM’s with 4 GB* | *100 GB persistent for temporary data.* | *2 external IPs* |
| *Back-end compute* | *4* | *16 core VM’s with 60 GB for the incoming data analysis.* | *1 TB local ephemeral* | *Internal network.* |
| *Database #1* | *1* | *4 core, 16 GB* | *500 GB persistent* | *Internal network* |
| *User storage* | *1* | *4 core, 8 GB* | *2 TB* | *Internal network* |
| ... |  |  |  |  |

**5.4 Description of storage and compute needs *(if applicable)***

*If you need storage and/or compute resources, please provide justification here. Download and use this spreadsheet (*[*Excel*](https://drive.google.com/open?id=1kgaK-gl44ZIqMtdgoLXJeBj_dNt4tYfa) *or* [*Open Document*](https://drive.google.com/open?id=16YosUK1IotYroTLyYqsZdX_kcNCElHmq) *format) to help you calculate the amount of compute resources needed. We recommend including the results of your calculations in the format presented below.*

*For jobs NOT using GPUs*

|  | **Number of jobs to run** | **Duration of each job in hours** | **Number of cores per job** | **Memory per core (GB)** | **Core-year to request** |
| --- | --- | --- | --- | --- | --- |
| 1 | *10000* | *22* | *8* | *4* | *200.78* |
| 2 | *2* | *768* | *1024* | *8* | *179.43* |
| 3 |  |  |  |  | *0.00* |
| **Total** | | | | | ***380*** |

*For jobs using GPUs*

|  | **Number of jobs to run** | **Duration of each job in hours** | **Number of GPUs per job** | **Number of cores per job** | **System Memory per GPU (GB)** | **GPU-year to request** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | *1000* | *3* | *10* | *20* | *16* | *3.42* |
| 2 | *100* | *24* | *1* | *5* | *4* | *0.27* |
| 3 |  |  |  |  |  | *0.00* |
| **Total** | | | | | | *3.7* |

**5.5 Rationale for the choice of specific cloud, computing and storage resources *(if applicable)***

*If you have any preferred location(s) for your cloud allocation, please mention it here and justify it. Check the list of* [*Available Resources*](https://www.computecanada.ca/research-portal/accessing-resources/available-resources/) *to know how these must be requested in the online form.*

**5.6 Description of high demand periods *(if applicable)*.**

**Resource Management and Expertise of the Team** *(max 2 pages)*

*This section is mandatory for ALL applications. This criterion evaluates the capacity of the research team as a whole to manage, develop and operate the platform or portal, and the ability of the team to make efficient use of the computational resources requested. It also assesses the overall feasibility of the project based on the expertise of the team. The level of detail needed to get a high score for the* Resource Management and Team Expertise *depends on the size of the team and the amount of computational resources requested.*

*Please describe how the portal or platform will be managed, or is currently managed, to achieve goals and outcomes.*

**6. Funding Available to Use Advanced Research Computing Resources**

*Provide details of any funding available to* ***directly*** *support the project(s) requesting computational resources provided by the Compute Canada Federation in this application. Important: It is expected that applications asking for large amounts of computational resources will have funding to justify the request. Please make sure that any funding reported in this section is available in your CCV; if that is not possible, please explain why.*

*If* ***no*** *funding is available, explain how the project will be resourced and the computational resources requested will be used.*

*When applicable, please include a table like the one below.*

| ***Projects*** | ***Funding source*** | ***Grant*** | ***Grant expiry date*** | ***Total grant award*** | ***Portion allocated to support the project(s)*** |
| --- | --- | --- | --- | --- | --- |
| *Project 1* | *NSERC* | *Discovery Grant* | *07-01-2023* | *CAD $250,000* | *CAD $50,000* |
| *Project 2* | *Regional funder* | *Provincial Grant* | *03-31-2021* | *CAD $50,000* | *CAD $20,000* |
|  | *Total* | *2 grants* |  | *CAD $300,000* | *CAD $70,000* |

**7. Team Configuration and Expertise** *(required)*

*Describe the team assembled to manage, develop and operate the platform and show that it has the right combination of skills (where positions are not yet filled, a description of the position should be included.) Please mention any previous experience of the Team using computational resources provided by the Compute Canada Federation (e.g. via a RAC award, the Rapid Access Service, etc.) or using any other HPC resources in Canada or abroad.*

*The table below is provided as a suggestion. Please adjust according to the needs of your project.*

| **Full name** | **Position** | **Allocation to project (%)** | **Brief description of the position** |
| --- | --- | --- | --- |
| *Full name 1* | *E.g. Team Lead* | *100%* | *Brief description of position 1* |
| *Full name 2* | *Position 2* | *50%* | *Brief description of position 2* |

**8. Management Strategy** *(required)*

*Describe how the team will be managed to make efficient use of the computational resources requested and achieve project objectives.* ***When applicable, clearly explain the role and contribution of each Co-PI to the project.***

*------------------ Anything below this line does not count for the maximum page limit--------------------------*

**References** *(as required)*

**Appendix** *(optional - max 1 page) - Use only if strictly required*

*You may include here images or other information that could add value to but is not critical for the overall understanding of the application.*