Submission Guidelines

Overview

The submission is best described as a "visual" extended abstract that utilizes graphical objects as the primary means to communicate the learnings and outcomes of the team's efforts to capture innovation, integration, and exploration significance. As innovative thinking is the primary objective of the competition, creative problem solving is encouraged. The articulation of this objective needs to be conveyed in an exploration context with a clear demonstration of the enhanced value of the new approach. An innovative approach to your submission can be associated with an advance in either innovation, data integration or exploration significance or in combination, with the latter scoring higher.

The presentation should be communicated as if to a panel of generalists, e.g., Board members, investors, stakeholders, etc., who are the "real world" decision makers and require the simplicity and specificity of your story. Visual simplicity trumps textural detail.

Approach

We suggest that your approach your submission like an exploration project. Exploration projects start with a clear objective/strategy (i.e., what is your hypothesis or what problem are you looking to solve), project scope, team makeup, and budget (in your case, your budget is time, not money). We have provided a **Team Planning Guideline** (at the end of this document) to assist you from start to a successful completion. Please note that we are here to assist you with **mentorship support** especially in getting started and utilising the datasets.

Please carefully review the **Assessment Rubric** at the end of these guidelines. The rubric clearly outlines how the judges will assess each submission based on the three criteria. Although you need to meet a basic standard level for each criterion, as a team, you need to determine whether you want to excel (focus) on one, two or three of the criteria. Manage your expectations, our industry sponsors are more interested in how you collaborate as a team and your approach to resolving your objective / strategy / hypothesis than providing them with a completely new exploration methodology.

We recommend that you structure your time (efforts) like what is expected in half-year course semester. We strongly suggest getting the support of your professor or **mentor** (we can help to arrange a mentor) that will assist your team to focus on what is achievable in maximising what is achievable while managing your time commitments.

Submission Format

All submissions are to be in Microsoft PowerPoint format. Key messages and outcomes of the project must be included in the presentation and entrants/teams must NOT rely on the judges' evaluation of any other materials. Given that visualization and integration are the key themes of the Frank Arnott-Next Generation Explorers Award (NGEA™), it is expected that these key messages and outcomes be explained concisely through illustrations. Supplementary text - like references - should be minimal and contained within the notes section of the slides.

Entrants/teams can use any vendor software platform for the project (which must be referenced in the submission), however, all materials submitted must be independent of a licensed product.

Submission Framework

Use the following guidelines to help frame the submission.

The content should speak to the background of the project, key information about the preparation of the data, visualisation methods, integration methods, and in-depth discussion on the innovative components of the submission.

Consult the Assessment Rubric/Judging Criteria for the weight (score) of each of the components of the submission. The submission should be limited to 25 to 30 slides.

Title

The title slide should include the following:

- Title of the submission (this should be concise)
- Full names of all the team members, including affiliations and their role in the project (include any mentors or academic supervisors)

The name of the team, affiliation and the names of individual members will be redacted from the submission presented to the judges so that the entries are judged entirely on their technical merit.

Summary

The summary needs to be concise and speak to:

- Why the particular dataset(s) were chosen;

- The makeup of the team and each member's contribution to the final report;

- The innovative outcomes around the key focus areas – innovation, integration, impact and exploration significance, and team collaboration;

- The superiority of the team's approach over existing approaches for solving such problems;

- The superiority of the team's submission over other teams.

Submission Rights

All final PowerPoint submissions will be made public and will be made available on our website. You need to obtain all relevant permissions and keep confidential any proprietary technology, data, etc. However, we do request that you cite any use of proprietary technology, data, etc.

Assessment Rubric

Refer to the rubric below for the criteria that will be used to rate your presentation.

NOTE: You must meet a minimum of two forms of "Team Diversity" for entry into the NGEA™. Diversity may be in the form of discipline/specialisation, gender, nationality, culture, etc. Please note that each different discipline/specialisation is considered a form of "Team Diversity".

NGEA™ Assessment Rubric

Criteria	Description	Wt.	Total
Innovation	**Novelty – New, Uncommon, Common Use** Something that is different, new, or unusual whether a concept or experience. Innovation examples include new methods of visualisation or interpretation, innovative use of existing methods, or the representation of new data types in ways not commonly used.	10	**25**
	Thinking Outside the Box Or "Thinking Outside the Square" refers to how innovation compels a team to think creatively, freely, or from a new perspective that is not limited by traditional ways of problem-solving.	10	
	Feasibility Clearly explain the feasibility of the innovation. The economic viability in terms of cost and training, along with ease of use, is important for accessibility to the widest possible range of users.	5	
Integration	**Utilisation and Variety of Data Types** Incorporation and utilisation of the available data types to enhance the understanding of important exploration relationships. Effectiveness of extracting useful geological information from the data.	10	**25**
	Novelty – New, Uncommon, Lateral Thinking Inclusion of non-traditional yet relevant data types in conveying the exploration concepts. Use of diverse data types and data from other sources.	5	
	Improved Understanding of Geological Information Integration must demonstrate improved understanding for geoscientists in relation to conveying key exploration concepts.	10	
Impact and Exploration Significance	**Enhance Mineral Systems Analysis** Clear explanation of how innovation and integration improves the understanding of geological factors that control the generation and preservation of mineral deposits	10	**30**
	Improvement of Exploration Project Outcomes Clear explanation of how innovation and integration changes, or would change, the identification of significant mineral deposits. A comparison with conventional approaches could help illustrate this point.	10	
	Scale of Impact Creates or improves upon the economic, social, and environmental benefits for the global exploration community. Ease of incorporation into exploration projects.	10	
Team Collaboration	**Project Planning, Management and Execution** Explanation of team member interactions for information and ideas exchange, collaboration and development of professional skills. How did the team avoid "groupthink"? The efficiency of the teamwork and identification of significant outcomes will be rated highly.	10	**20**
	Utilisation of Networks and Mentors Utilisation of networks and mentors beyond the team.	10	

NGEA™ Team Planning Guideline

Initial Planning		Assemble a Team		Select Dataset and Technologies		Project Development		Project Completion
Think of your project as being an mineral exploration project	→		→		→		→	Submissions are due October 31st, 2023

Form Team

Having the right team is critical

- Ensure the team is diverse as per submission guidelines

- Get the right mix of members to draw on a broad range of expertise (e.g. geologists, geophysicists, data scientists, environmental scientists, geochemists, engineers, etc.)

- Select a team lead

Divide and Conquer

- Assign roles, responsibilities and tasks, and delegate work

- Set milestones for each team member

Team Assignments

- Select a dataset based on each team member's expertise or other motivations (e.g. social, environmental)

- Ensure each team member's data assignment fits with their expertise

- Determine what skill sets the team needs to utilse the selected software and othet technologies

On-Going Project Management

- teams should meet on a regular basis to enure that the project is progressing and you are achieving on your project milestones

Team Work Completion

- what is required by the team to prepare the final submission?

- what are the team assignmsnts for preparing the final submission?

Define Objectives	Data Strategy	Project Development Strategy	Project Development Strategies	Project Completion Strategies
- Using the rubric, assess what is required in the final submission - Decide on an overall strategy. Do you focus on one of the categories (target generation, data interpretation, overall, etc.) or all? - Define scope of work - Define how much time team members can commit - Define scope of work and set project milestones - Set project milestones	- What is your overall data strategy (i.e., picking targets, data interpretation, etc? - How will you use data to fit to your defined outcomes? - Are there motivations (i.e., social, environmental, etc.) for selecting a particular dataset?	- Decide on the software and other technologies (e.g. AI/ML) that will be used and what skillsets are required of the team members - Conduct a desktop study to determine any other available data in your selected region (e.g. geological survey databases, "Seek Data" in Oasis Montaj)	- Are you meeting your project outcomes and milestones? If not on track, re-assess or modify data assignments and responsibilities - Scale back workload if necessary. A submission is better than no submission!	- Begin preparing the final Powerpoint submission a few weeks in advance of the due date - Revisit rubric and make sure everything is included, especially the "easy points" such as notes on team collaboration, making use of mentors, etc. -Have an outsider (mentor or fellow student) look over final submission using the rubric to help spot any missing items and provide comments or revisions - Submit. Good luck!

NGEA™ Support	NGEA™ Support	NGEA™ Support	NGEA™ Support	NGEA™ Support
- NGEA™ will endeavour to provide an industry mentor to assist teams in thinking through their exploration strategy and how to get started	- NGEA™ will endeavour to provide a data specialist to assist teams in thinking through their data strategy	- NGEA™ will assist teams in organizing software licenses - if required, NGEA will endeavour to get the software companies to provide training or tutorials	- NGEA™ members will check-in with teams on a regular basis and provide additional support (e.g. industry mentorship) if needed	- NGEA™ members will assist teams in finalizing and delivering on their submissions

Helpful References

[NGEA™ Submission Guidelines](#)

[NGEA™ Datasets](#)

[The Mineral Exploration Roadmap (Visual Capitalist)](#)

[Generalized Model of Mineral Resource Development](#)

[CIM Mineral Exploration - Best Practice Guidelines](#)