



September 2024

Challenges faced by LCA Research



CIRAIG



**POLYTECHNIQUE
MONTREAL**

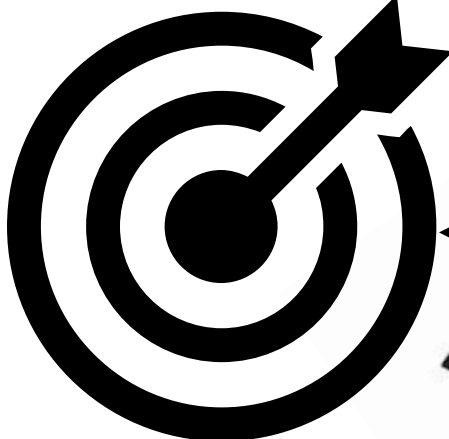
Prof. Anne-Marie Boulay, PhD

Chemical Engineering Dept, Polytechnique Montreal
General Director of CIRAIG

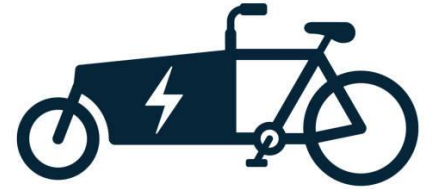
anne-marie.boulay@polymtl.ca



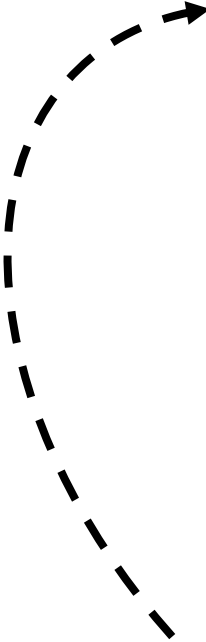
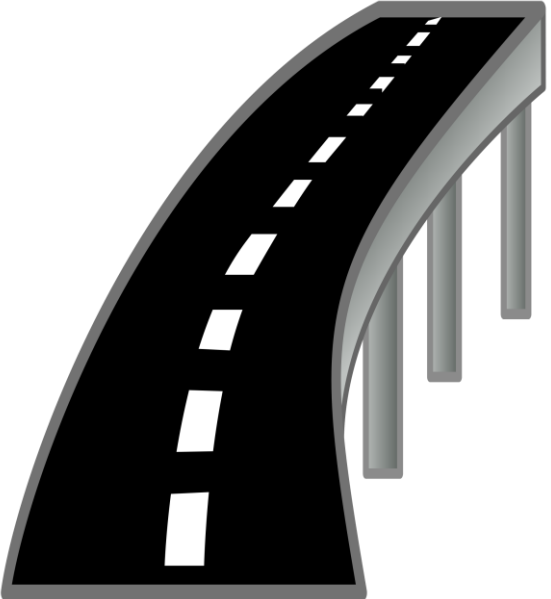
OBJECTIVE



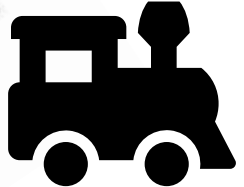
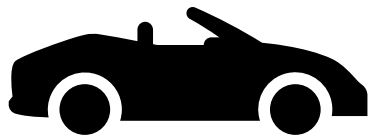
COMPROMISE



METHODS



MEANS

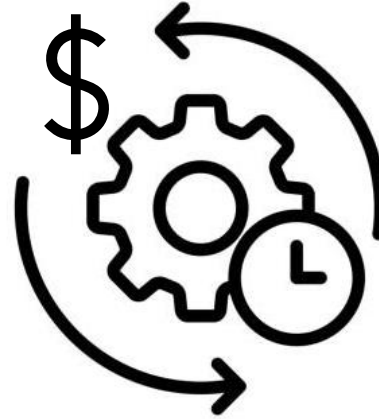


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MEANS → or “victims of our success”



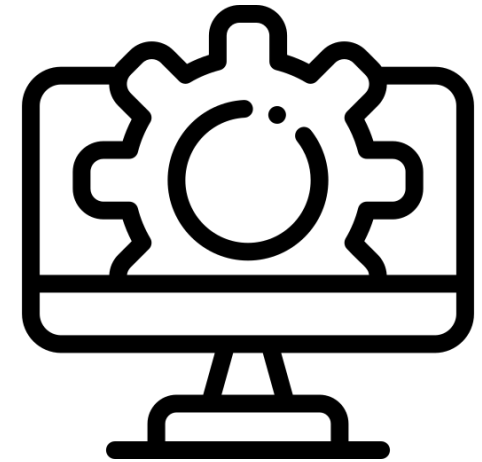
Professors and University Programs



Funding for maintaining tools and methods developed

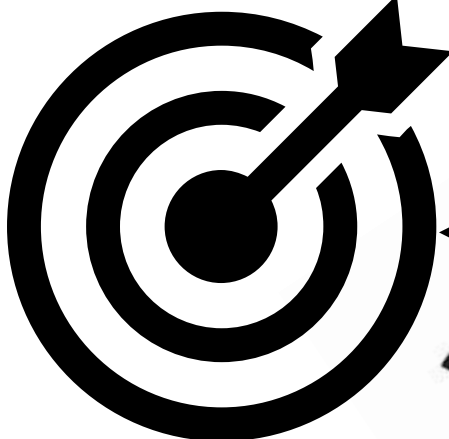


Confidential data vs transparency

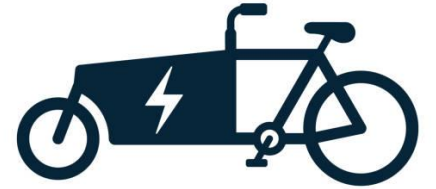


Digital tools and connectivity

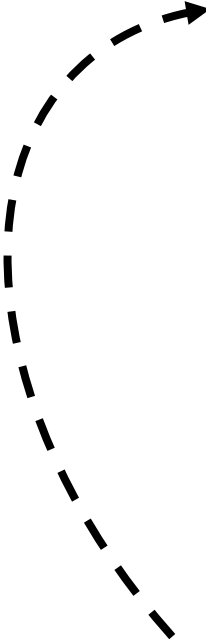
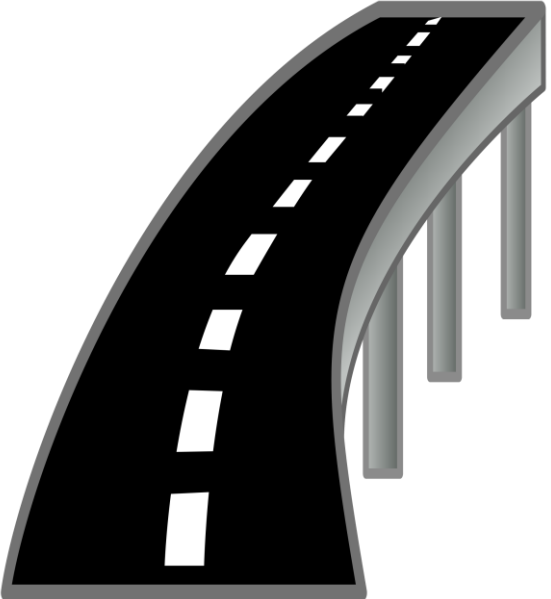
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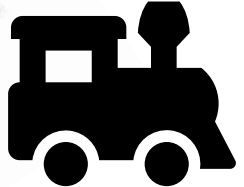
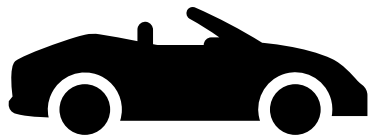
COMPROMISE



METHODS



MEANS

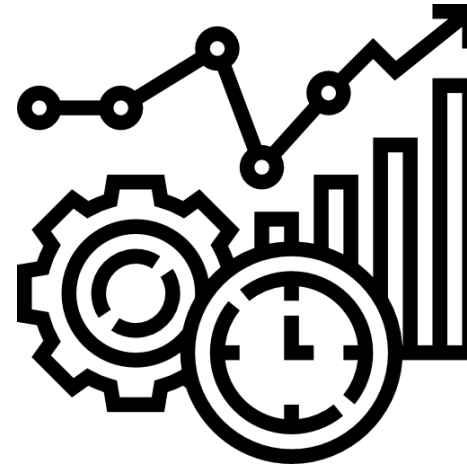


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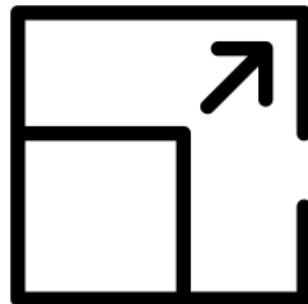
METHODS → or “modelling a complex world”



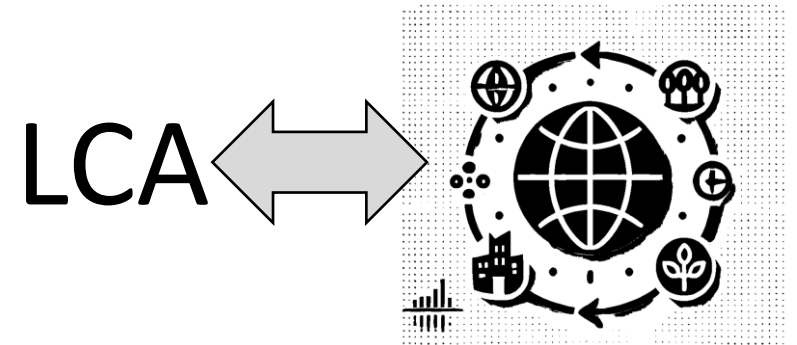
Modelling of biodiversity impacts and ecosystem services



Integration of the temporal dimension



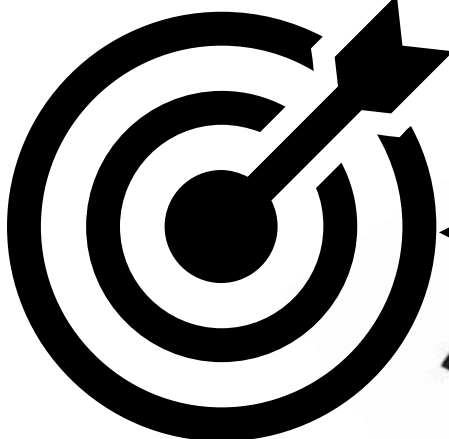
Connecting small scale (small problems) with big scale (big problems)



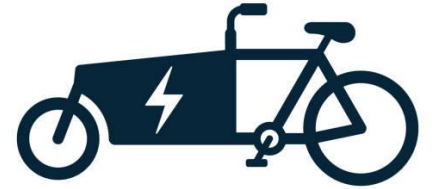
Compatibility and Connection with other tools (IAMS, MFA, etc)



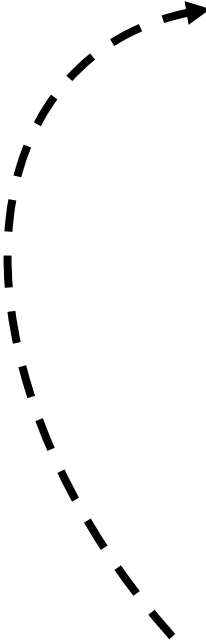
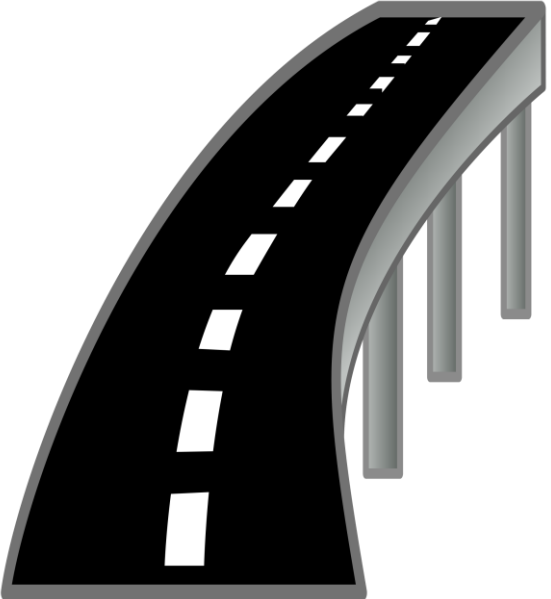
OBJECTIVE



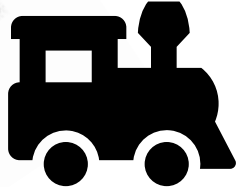
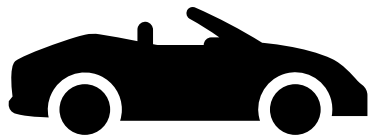
COMPROMISE



METHODS

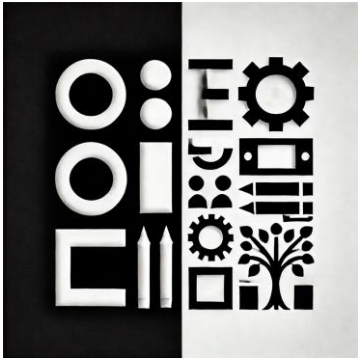


MEANS

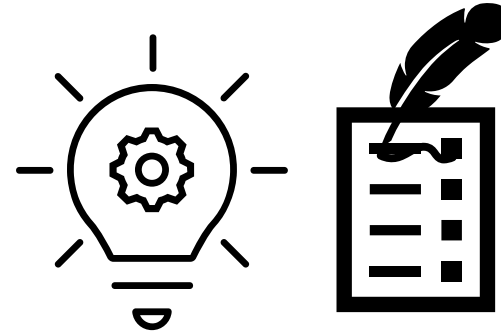


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OBJECTIVE → Or “relevance”



Generic vs Specific

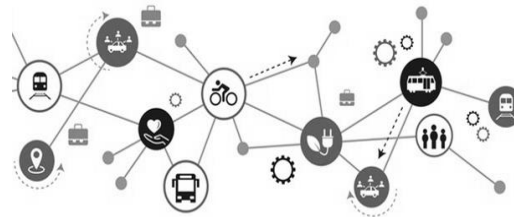


Updated / State-of-the-art VS Standards/ policies

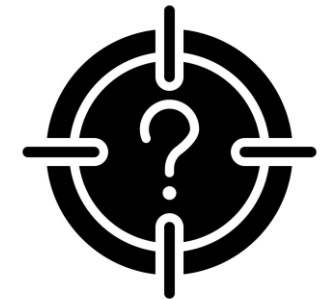


Product

VS

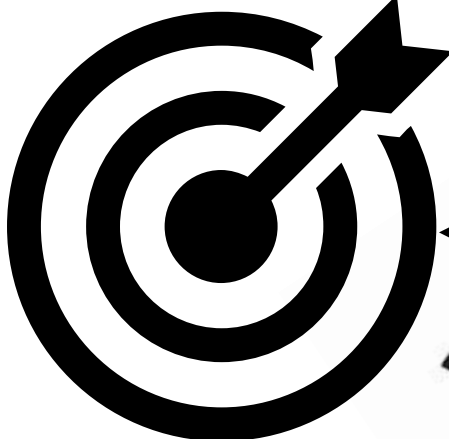


System

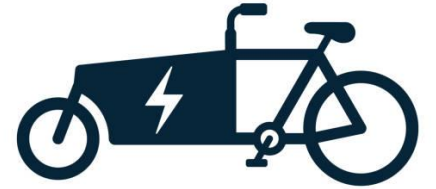


Relevance of the question

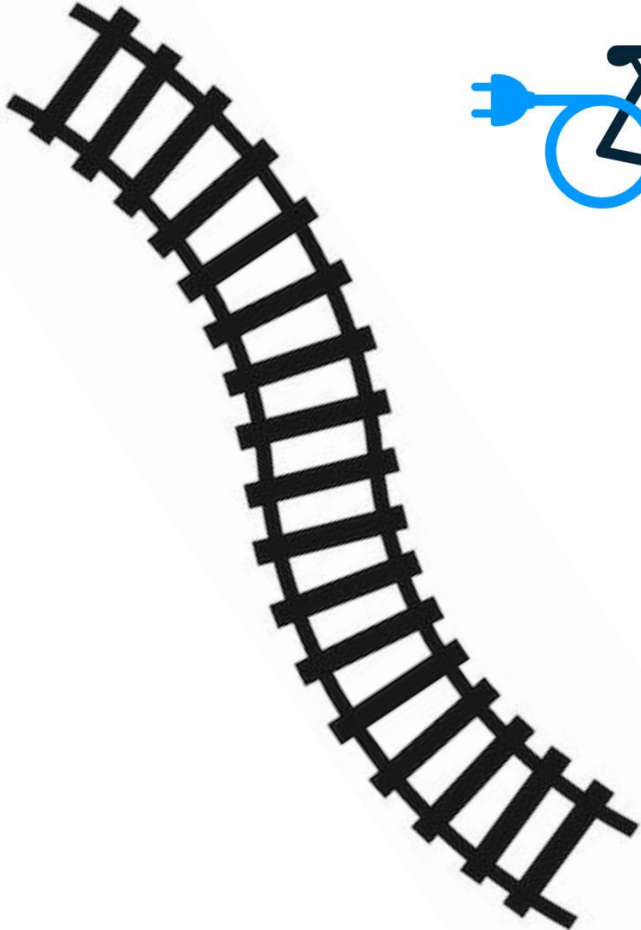
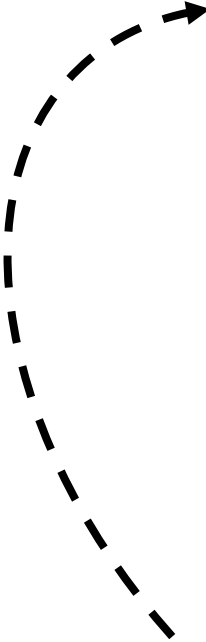
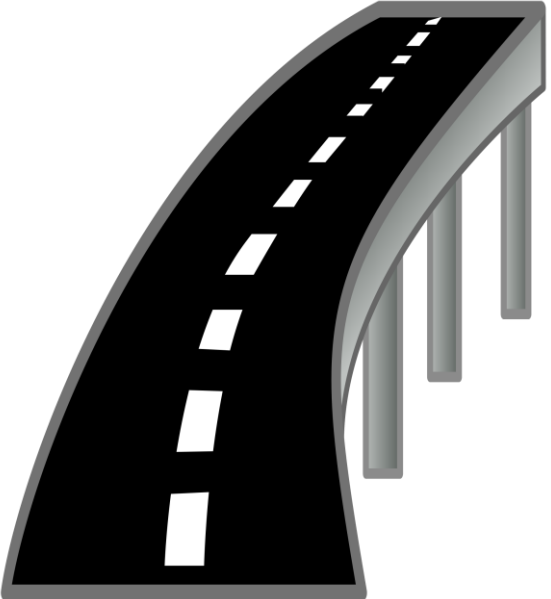
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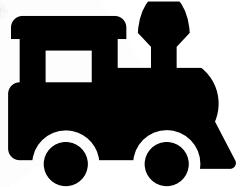
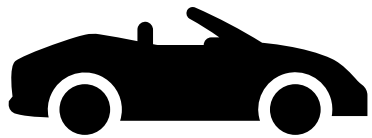
COMPROMISE



METHODS

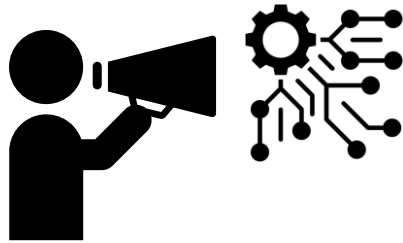


MEANS

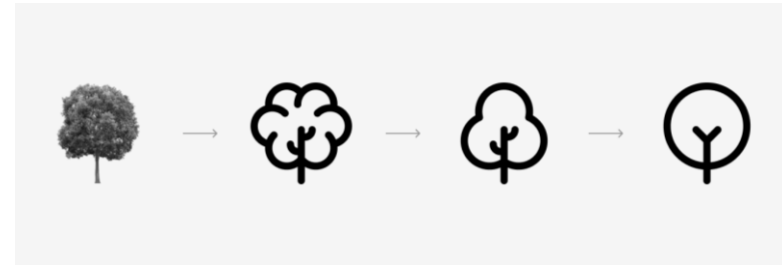


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COMPROMISE → or “optimizing quality, message, and accessibility”



Communication of complexity and nuances simply



Simple and faster tools vs rigor and clearer picture



Scaling up of reviews and validation




Conclusion

1- LCA is not an answer, nor a question. It is a tool.

2- We need to support democratization of knowledge in a healthy way and without impairing its quality.

3- Our tools need to evolve to answer the relevant questions at the speed required.





**Thank you for
your attention!**

Thank you to the CIRAIG's co-chairs for their input: Manuele Margni, Cécile Bulle and Guillaume Majeau-Bettez

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