



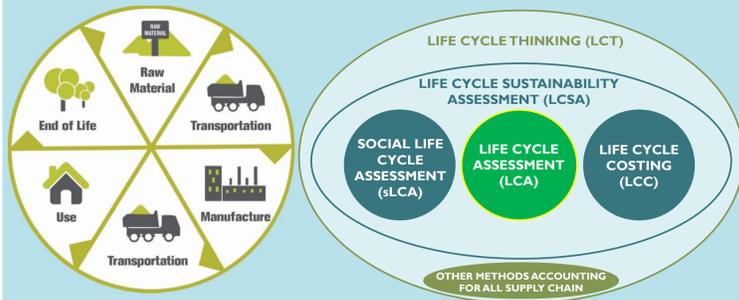
# THE USE OF LIFE CYCLE ANALYSIS (LCA) TO INFORM BUSINESS STRATEGY



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## WHAT IS LCA?

Life Cycle Assessment (LCA) is a method used to evaluate the environmental impacts of a firm's products, processes and services from cradle-to-grave (raw material extraction, processing, manufacture, distribution, use, reuse and disposal). Firms often combine LCA with life cycle costing (LCC) and social life cycle assessment (sLCA).



Source: sustainability.owenscorning.com

## WHO IS USING IT?

- Sectoral information is out of date.
- There is no reliable data on current use.
- The evidence indicates that LCA's use and importance are increasing.
- Industry participation in the LCM conference was 35% and growing
- To illustrate its growing importance the following are some of the companies involved with the conferences ACLCA and LCM, and the industrial international chair for LCA at Polytechnique Montreal.



## RESEARCH QUESTION

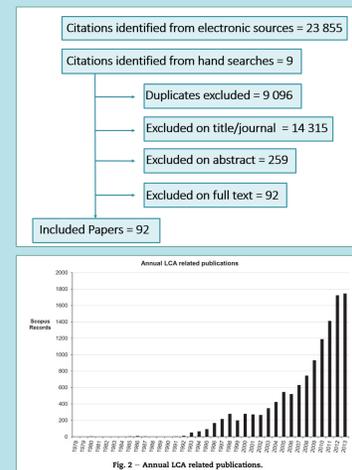
How is LCA used to inform business strategy?

## MOTIVATION

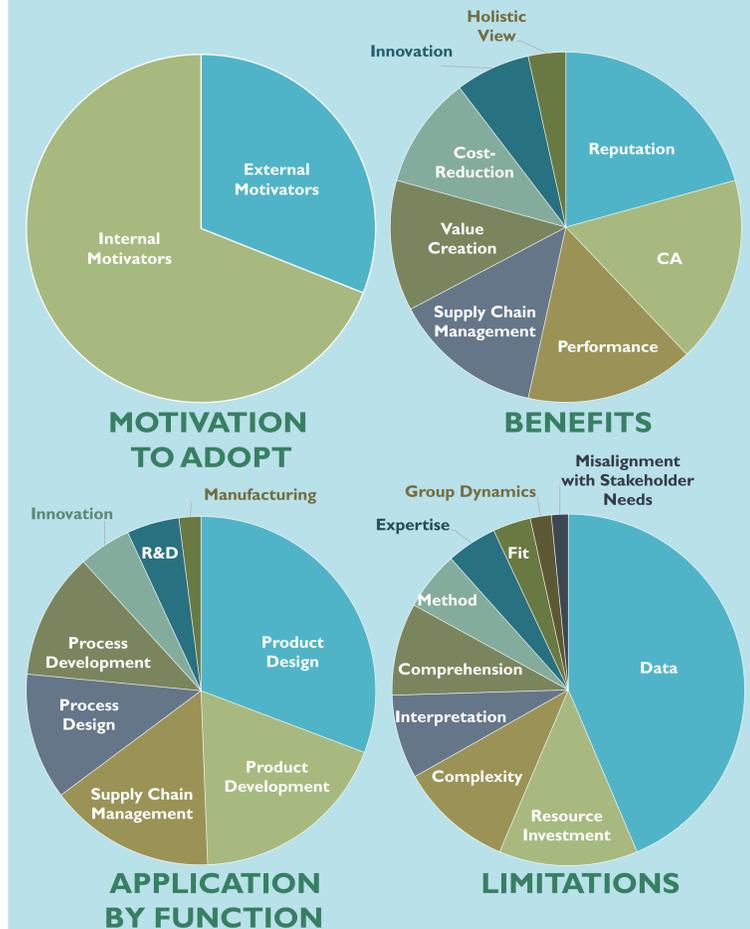
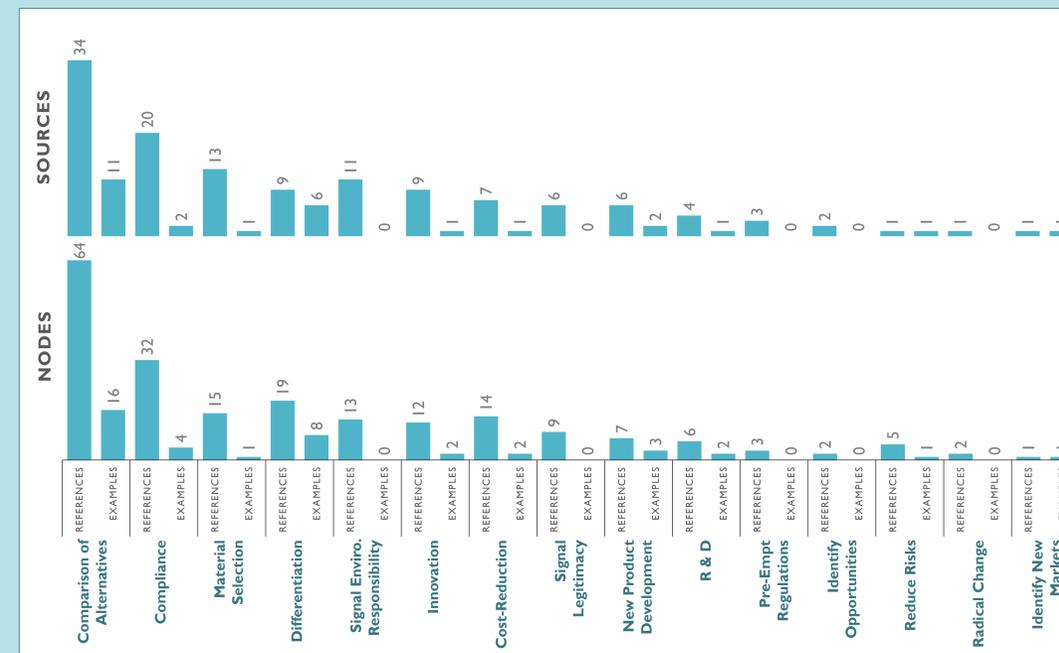
- There is evidence that LCA is beginning to be used to inform the strategic decision-making of firms
- Research unclear and fragmented with respect to 'HOW', 'IF' and 'WHY' firms use LCA to inform business strategy

## METHOD

- Conducted key word literature search
- Last 20 years
- Databases and key journals
- Focused on LCA use and strategic outcomes in firms
- Excluded technical articles



## RESULTS



## SO WHAT?

From the academic research it is not clear how LCA is being used to inform business strategy.

There is a lot of discussion about the value of LCA, but not much concrete evidence.

- Few papers linked the use of LCA to the achievement of organizational goals beyond their environmental goals
- There are diverse motivations, benefits and applications of LCA
- There is little detail about how the benefits are realized and what specific decisions LCA is informing
- The identified limitations and barriers appear to be interfering with the use of LCA to inform strategy
- Proactive use of LCA is still very rare