

4th Network of Early Career Researchers in Sustainability Transitions Conference 2019

The role of management tools in the sustainable transition at the organization level: typology of impact valuation tools and mapping of business practices

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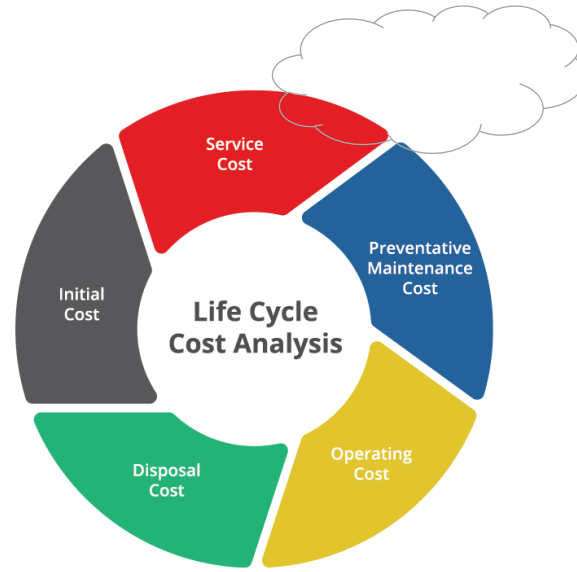
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SUMMARY



Sustainable transition



Management tools
&
Impact valuation



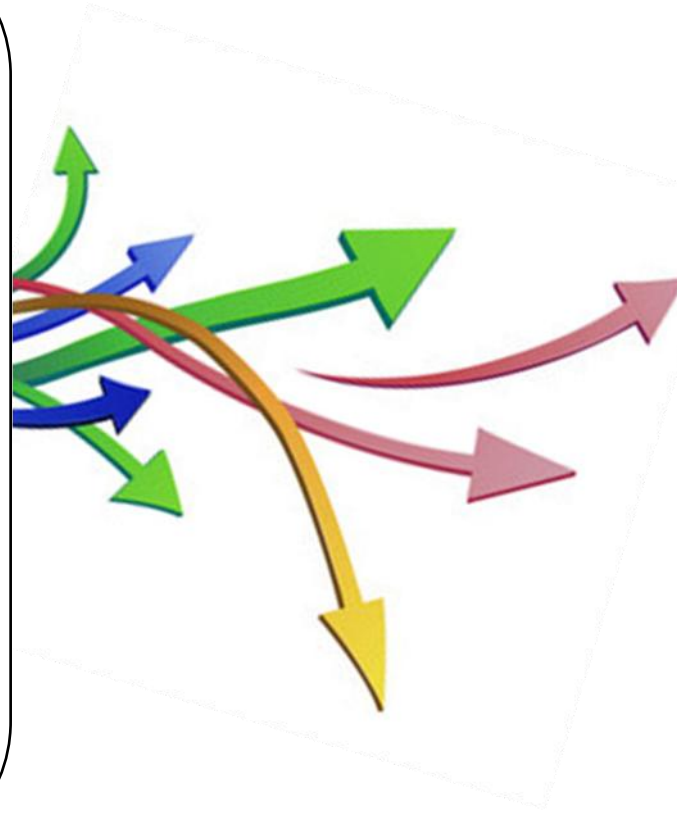
Survey

TRANSITION TO WHERE ?

Paradigm 1



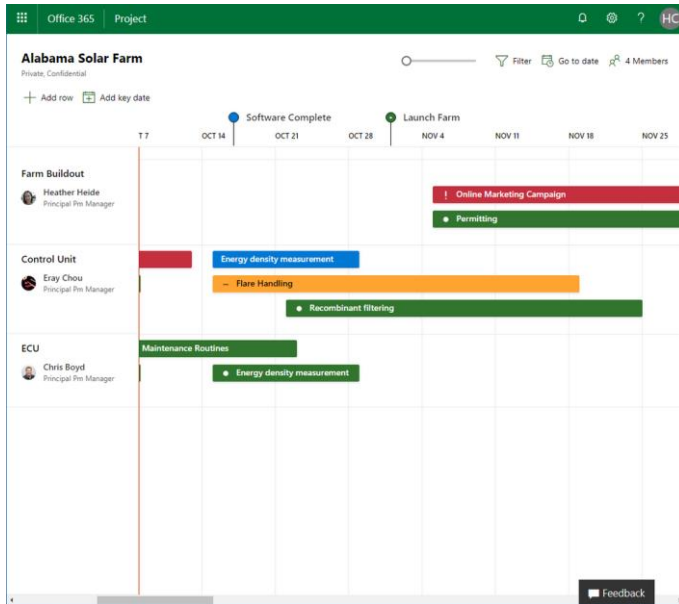
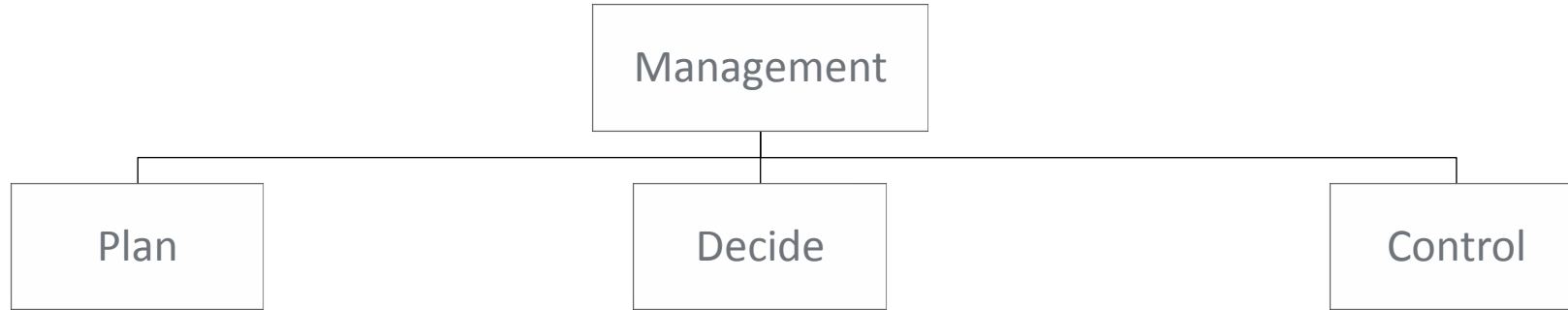
Linear economy



Paradigm 2



MANAGEMENT TOOLS- DEFINITION



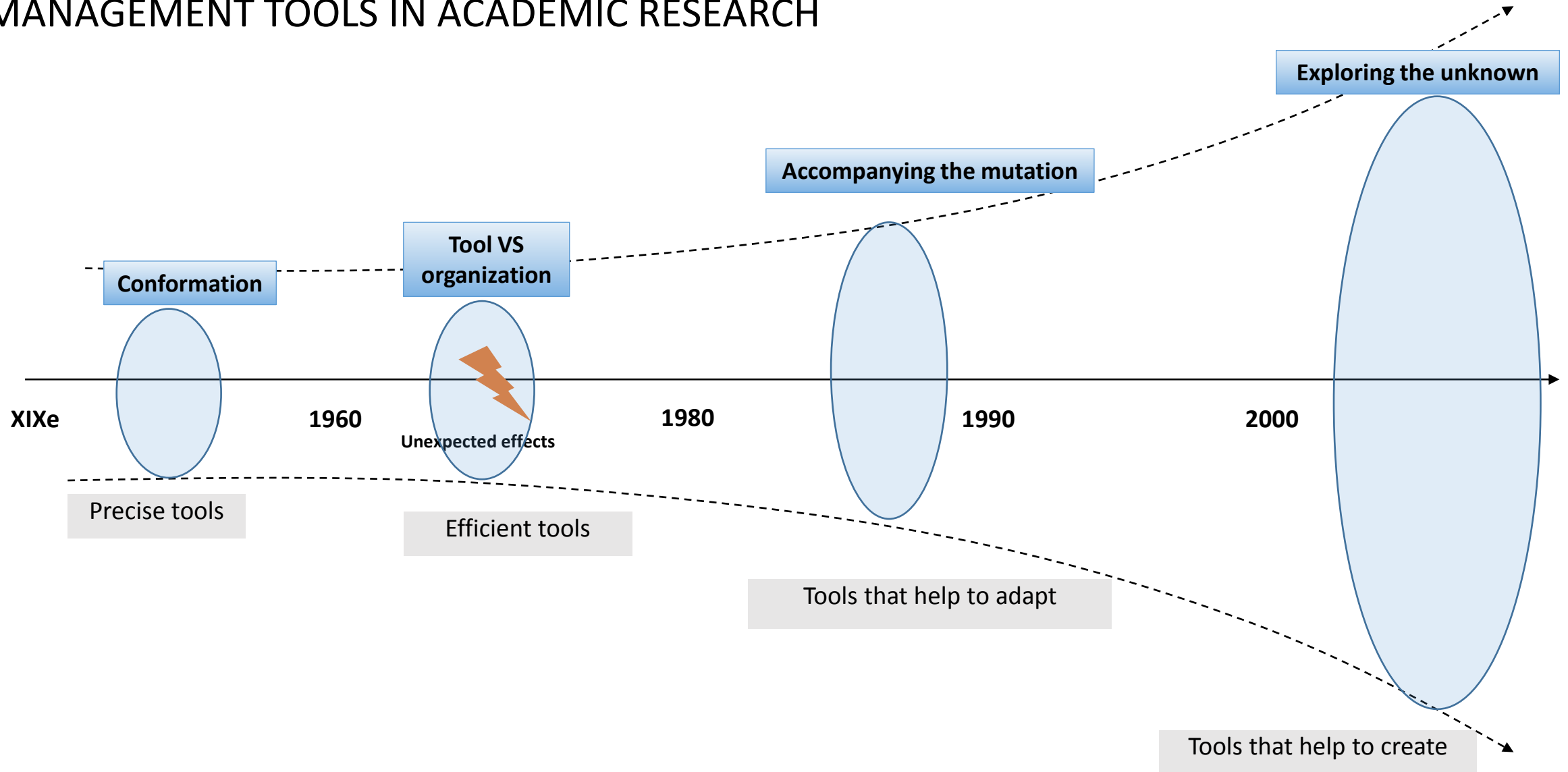
2016 Balanced Scorecard Targets and Performance

Corporate Objective	Indicator	Target	2016 Performance
CUSTOMERS' PERSPECTIVE			
Excel at serving injured workers	Worker service satisfaction score	4.20	3.90
Excel at serving employers	Employer service satisfaction score	4.20	4.19
INTERNAL PERSPECTIVE			
Excel at compensation programs and services	Duration of Time Loss claims	35.5 days	43.07 days
Excel at injury prevention programs and services	Total injury rate	5.90%	5.55%
ENABLERS' PERSPECTIVE			
External relationships	Speaking engagements	≥60	130
Engaged workforce	Engaged workforce	95%	95.6%
Continuous process improvement	Effective process index	95%	89%
FINANCIAL PERSPECTIVE			
Optimize costs	Optimize cost index	99%	97%
Ensure financial stability	Funded position	105-120%	118.7%



Source: (Moisdon & Hatchuel, 1997)

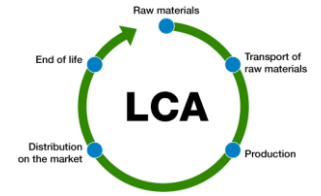
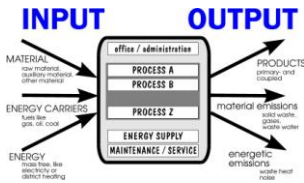
MANAGEMENT TOOLS IN ACADEMIC RESEARCH



Source: adapted from (David, 1998)

RESEARCH PROBLEM AND RESEARCH QUESTIONS

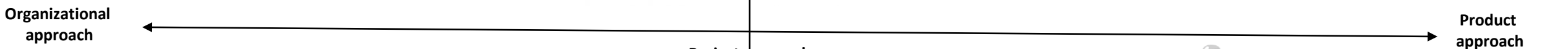
MANAGEMENT TOOLS AND THE ENVIRONMENT



Social LCA



Water Footprint

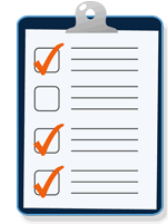


Project approach

Qualitative



Environmental Audit



Checklists



Negative list

Source: adapted from (Riot, 2014)

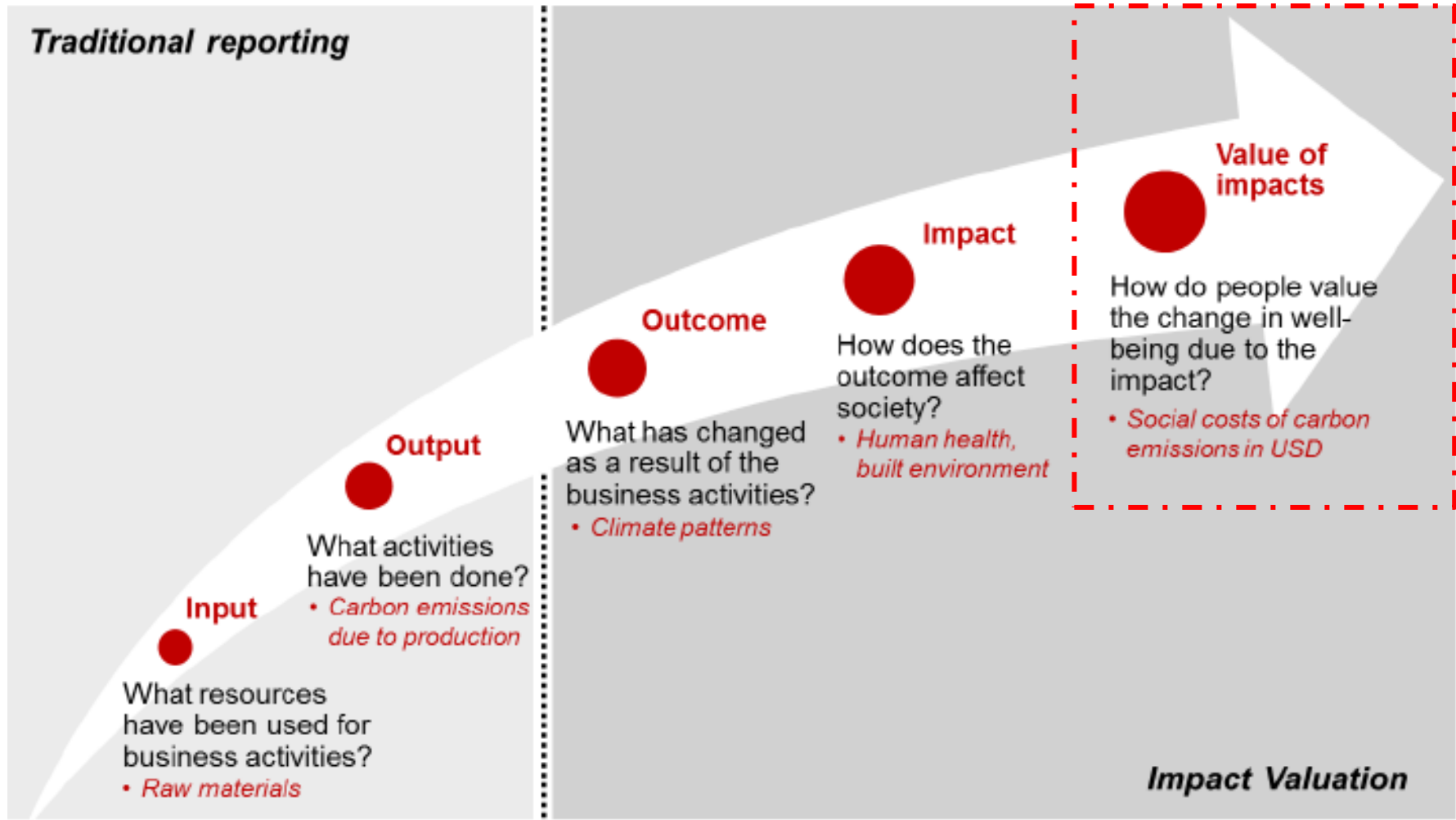
Hypothesis

Adopting a measurement tool is not a sufficient condition to conduct a sustainable transition in a company

Research question 1

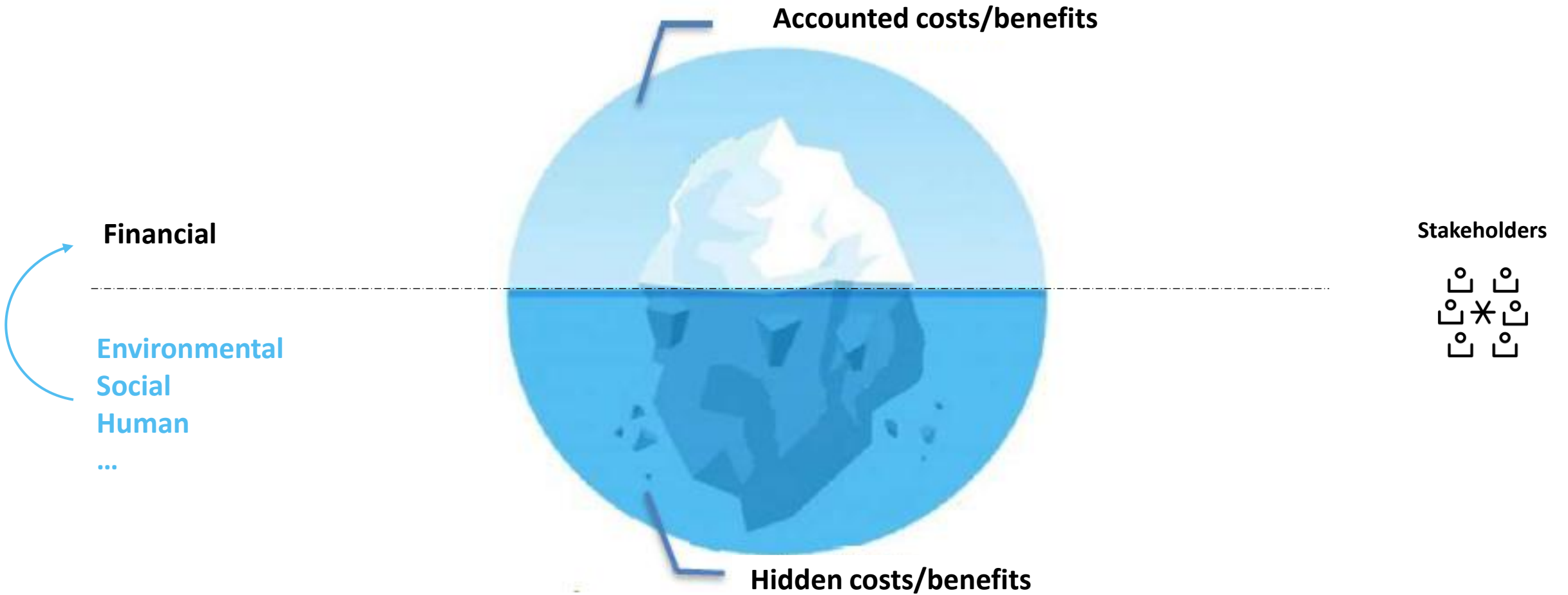
What are the other conditions?

RESEARCH PROBLEM AND RESEARCH QUESTIONS
IMPACT VALUATION TOOLS

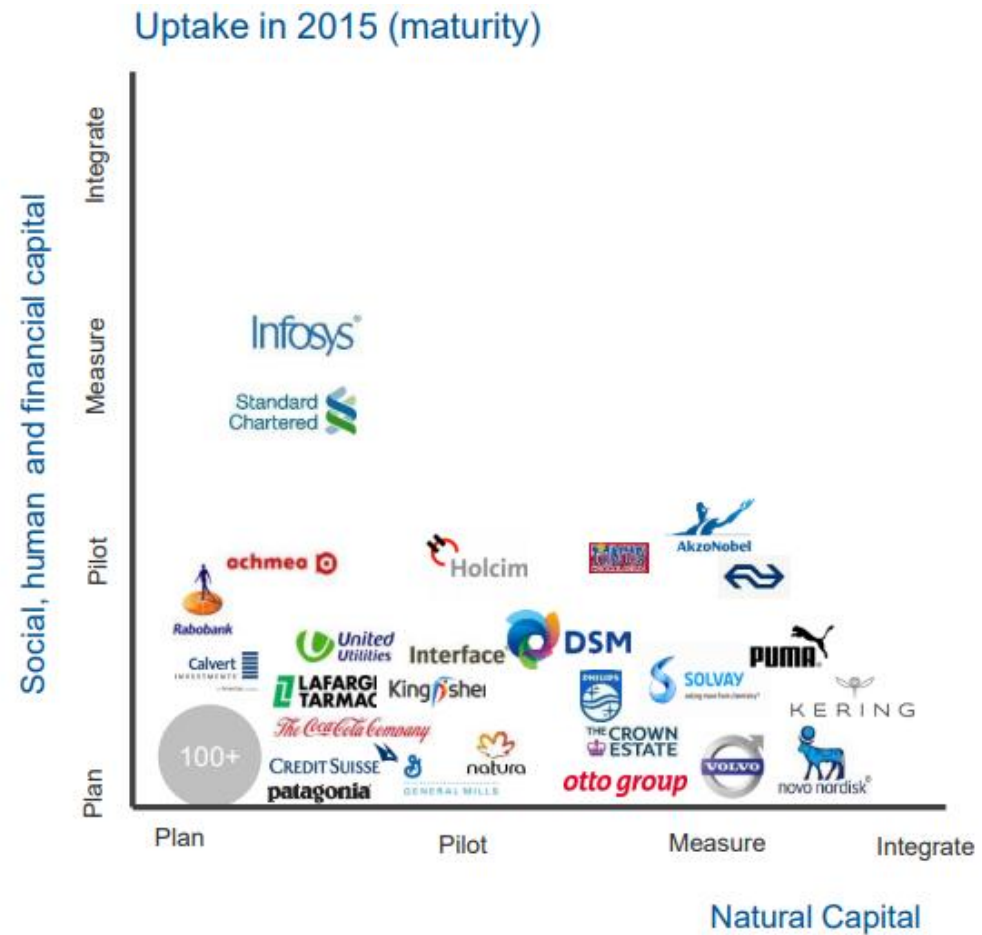
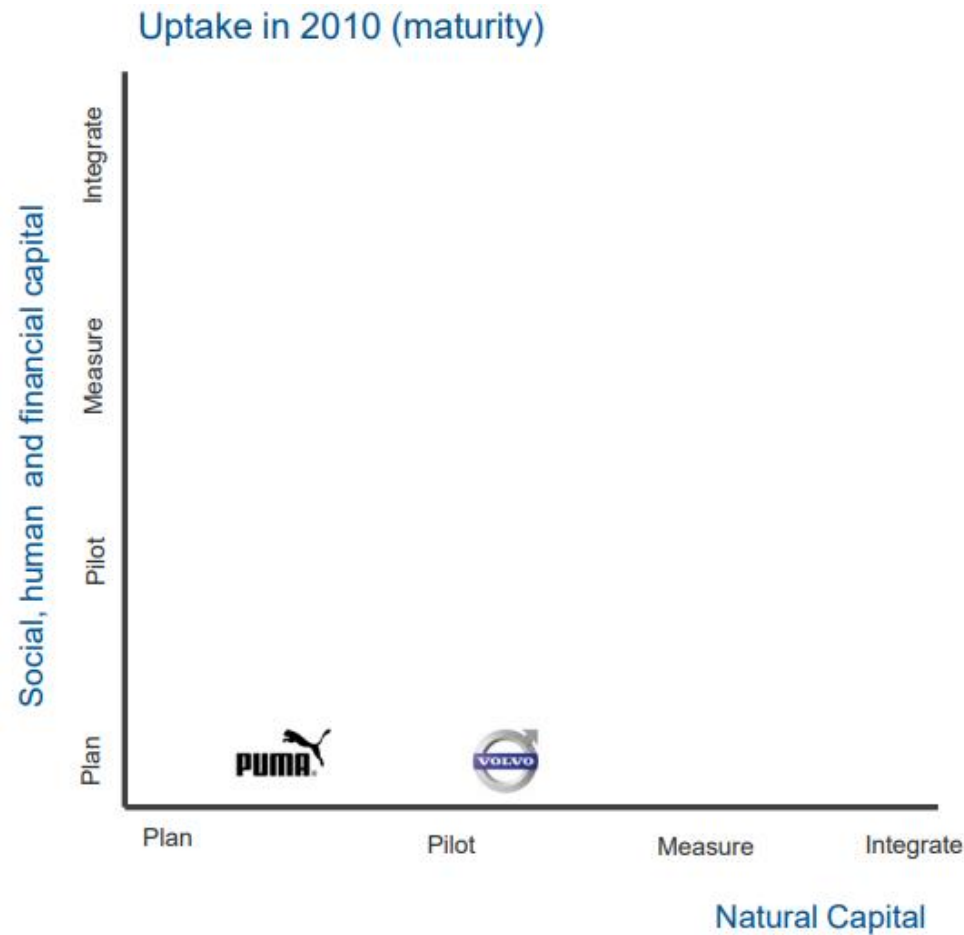


Source: Private Sector & Natural Capital, GNF 2017

RESEARCH PROBLEM AND RESEARCH QUESTIONS
IMPACT VALUATION TOOLS



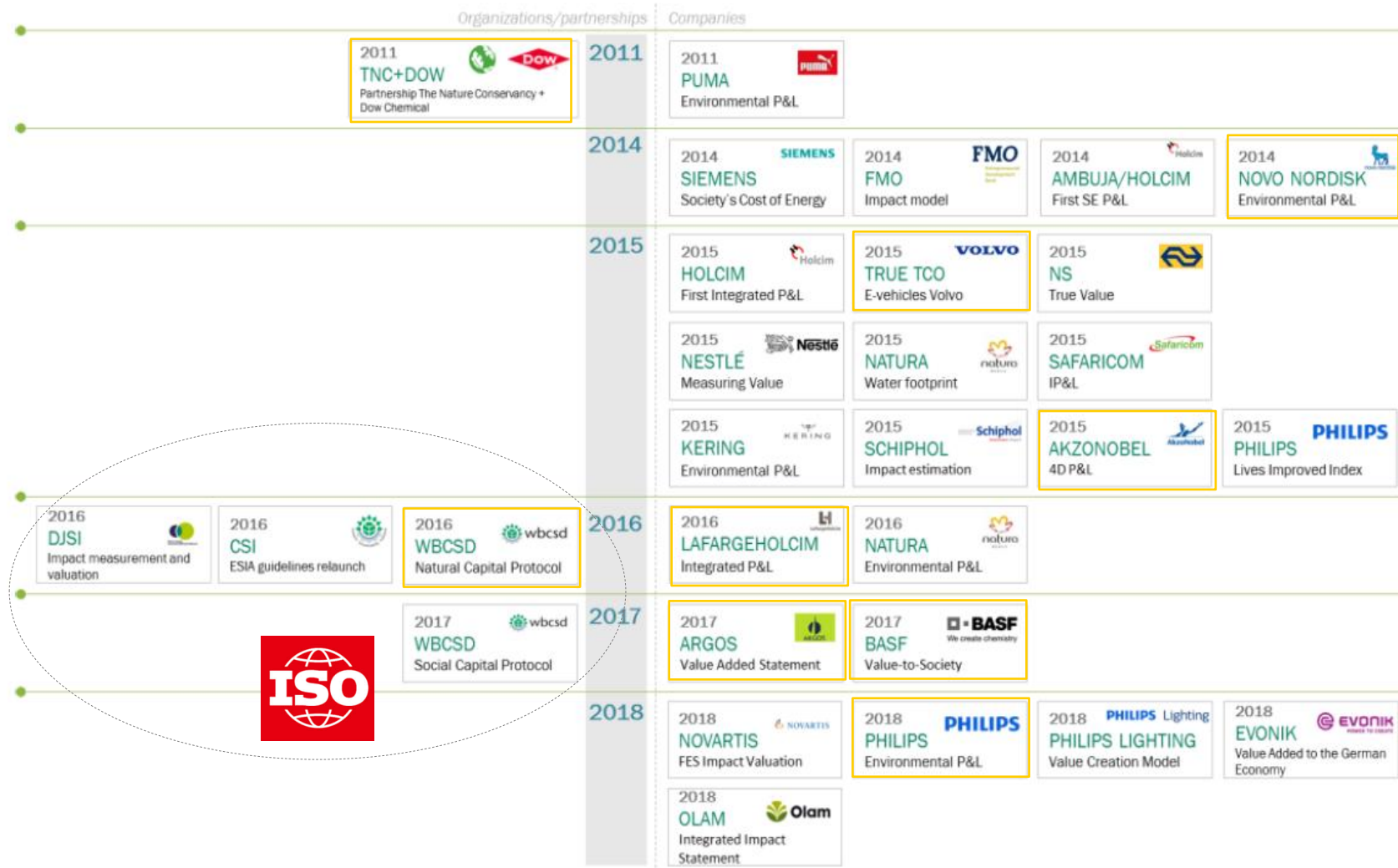
RESEARCH PROBLEM AND RESEARCH QUESTIONS
IMPACT VALUATION TOOLS



Source: Private Sector & Natural Capital, GNF 2017

RESEARCH PROBLEM AND RESEARCH QUESTIONS

IMPACT VALUATION TOOLS



 **Contacted**

Source: Rapport Value Added Statement 2017, Cementos Argos S.A

Observation

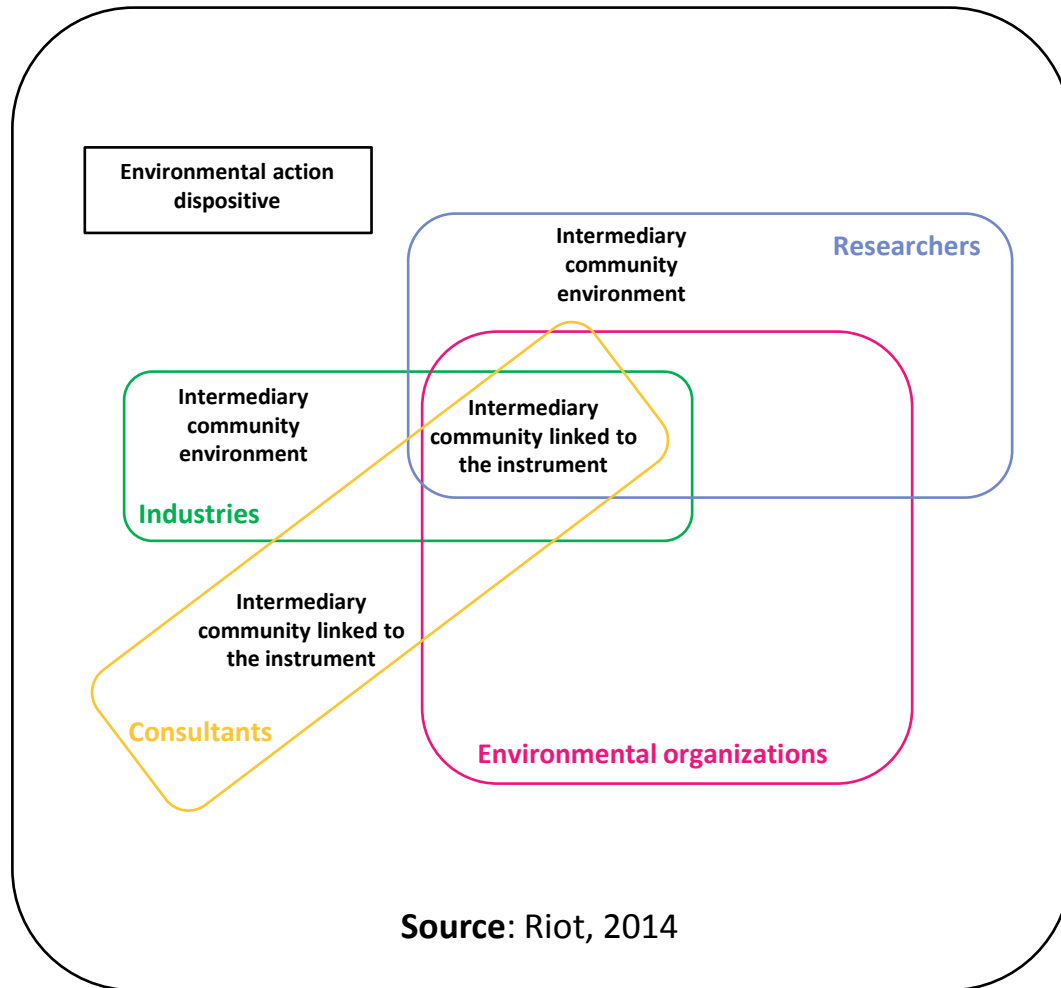
There is a growing trend of impact valuation in the private sector.

Research question 2

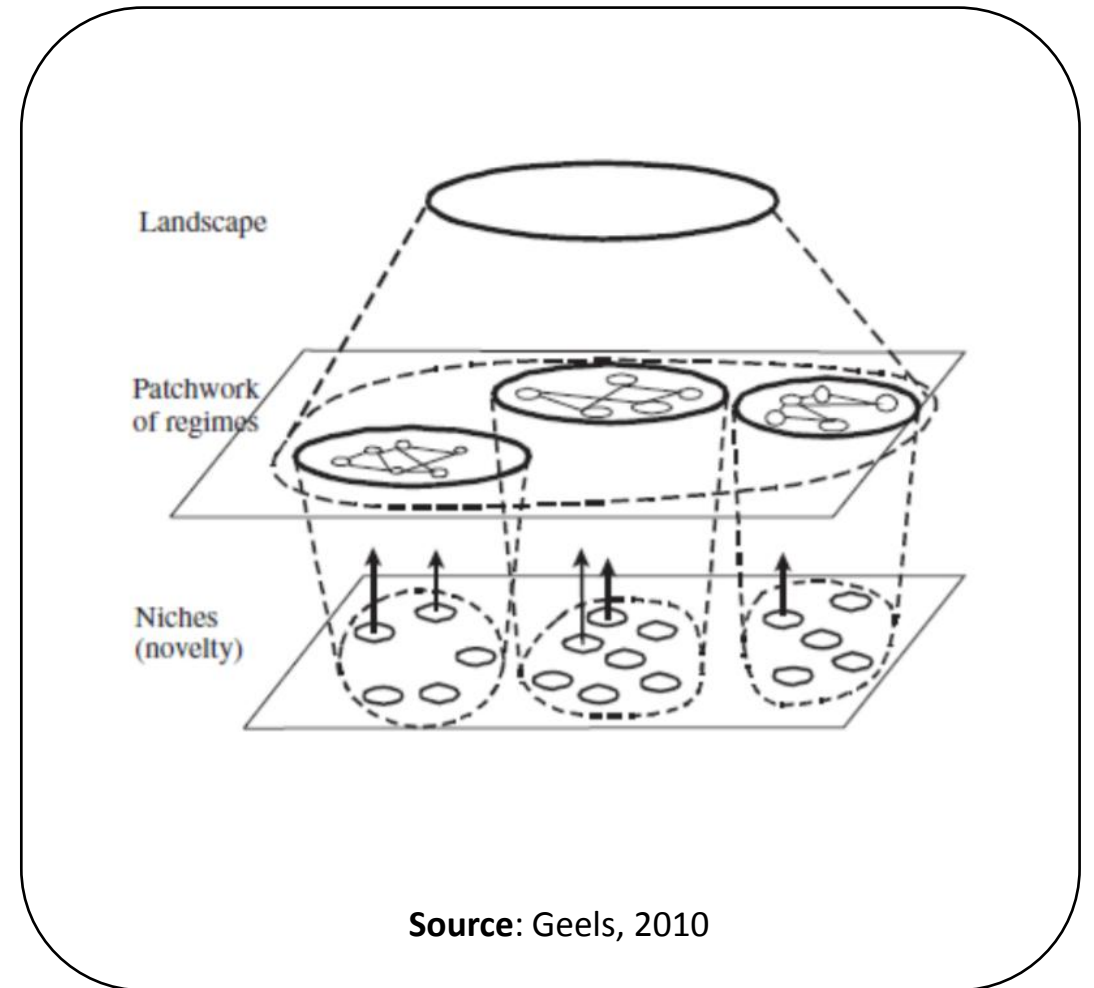
What are the existing tools and what is their added value?

RESEARCH PROBLEM AND RESEARCH QUESTIONS
THEORETICAL CONTRIBUTION

Management tools perspective



Sustainable transition perspective



OUR SURVEY

Objective

1. Understanding the role of management tools in the sustainable transition
2. Mapping impact valuation practices

Selection criteria

Organizations that have developed or used publicly known impact valuation tools

Data

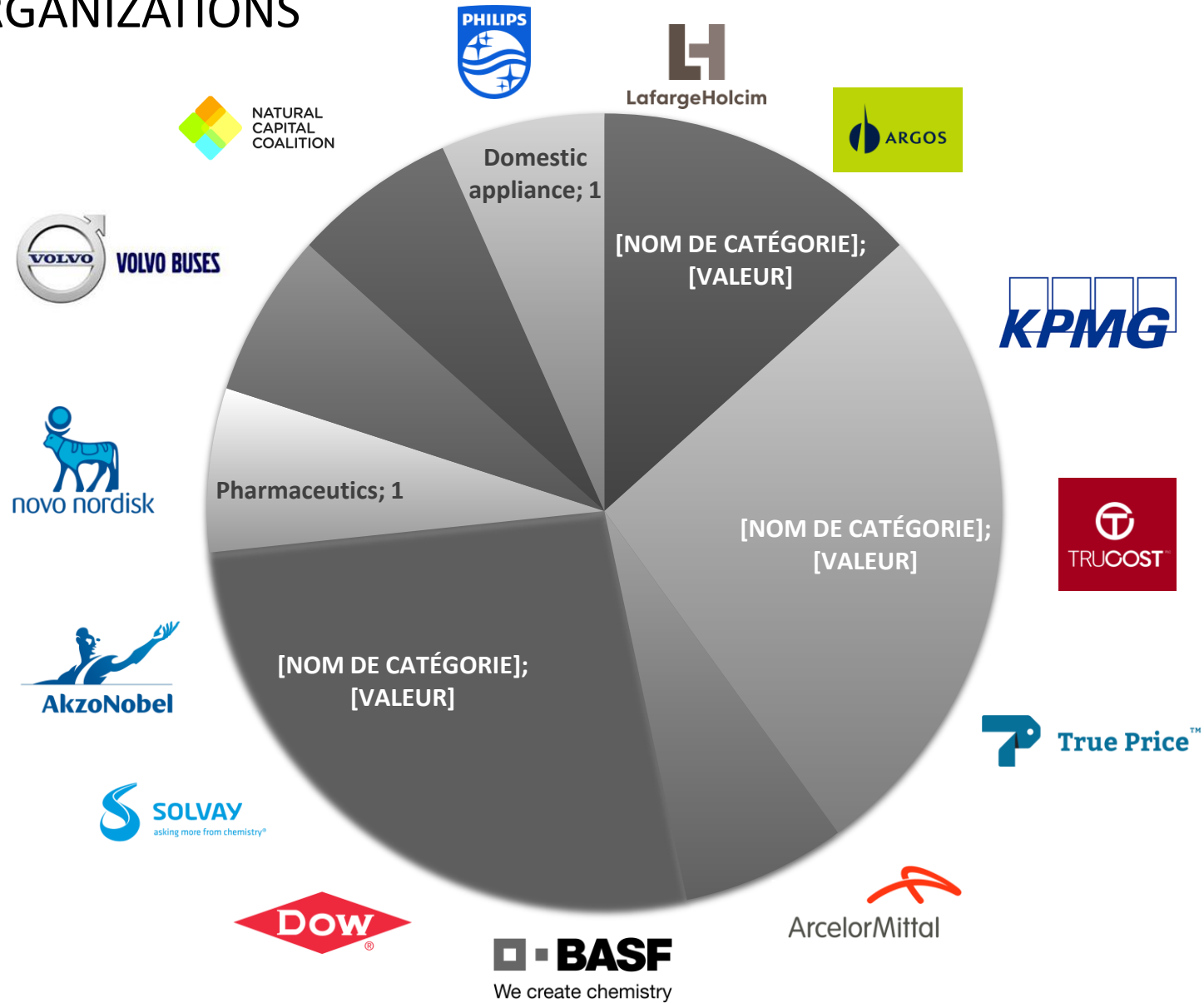
1. **Primary data:**
 - Survey 1: Semi structured interviews (open questions)
 - Survey 2: Questionnaire (closed questions)
2. **Secondary data:** grey literature

Data exploitation

Heat Map

Qualitative analysis

SURVEYED ORGANIZATIONS



INTERVIEW FRAMEWORK

Why?

- Context and motivation

How?

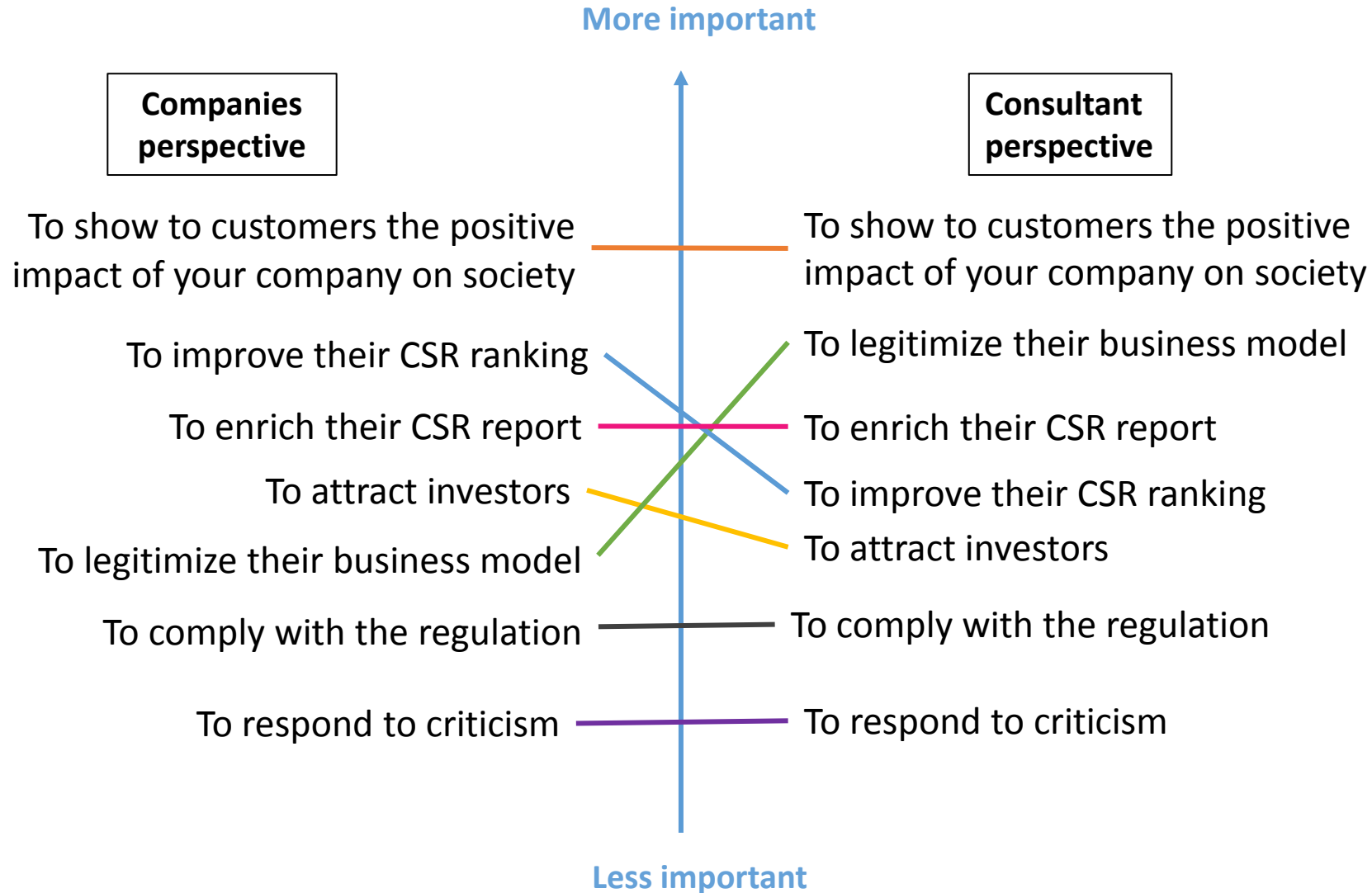
- The tools and their use

Results?

- The value added

Why?

- Context and motivation



Circulating

Source: adapted from (Chiapello & Gilbert, 2014)

Inscribed

Category 1

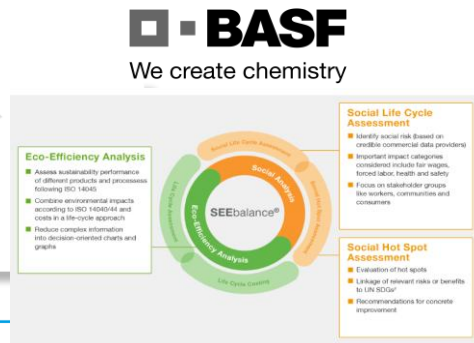
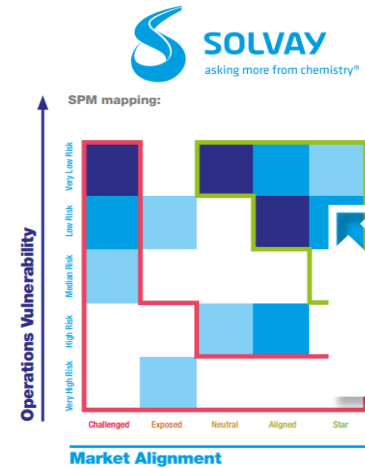
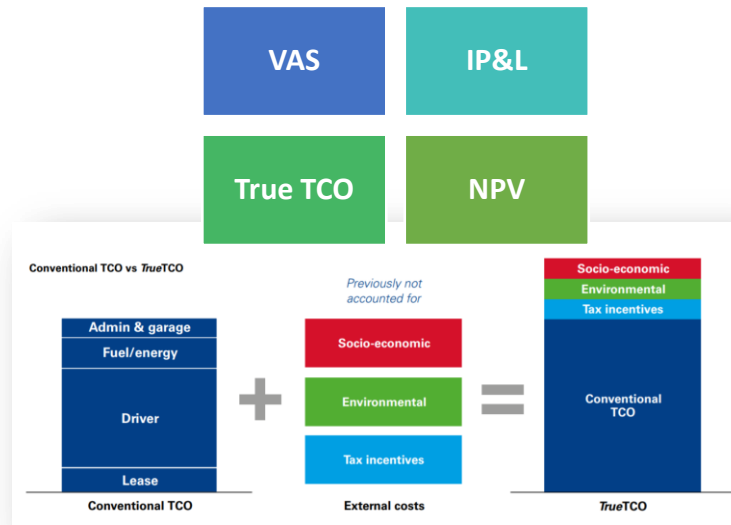
Creation of integrative concepts and business strategy

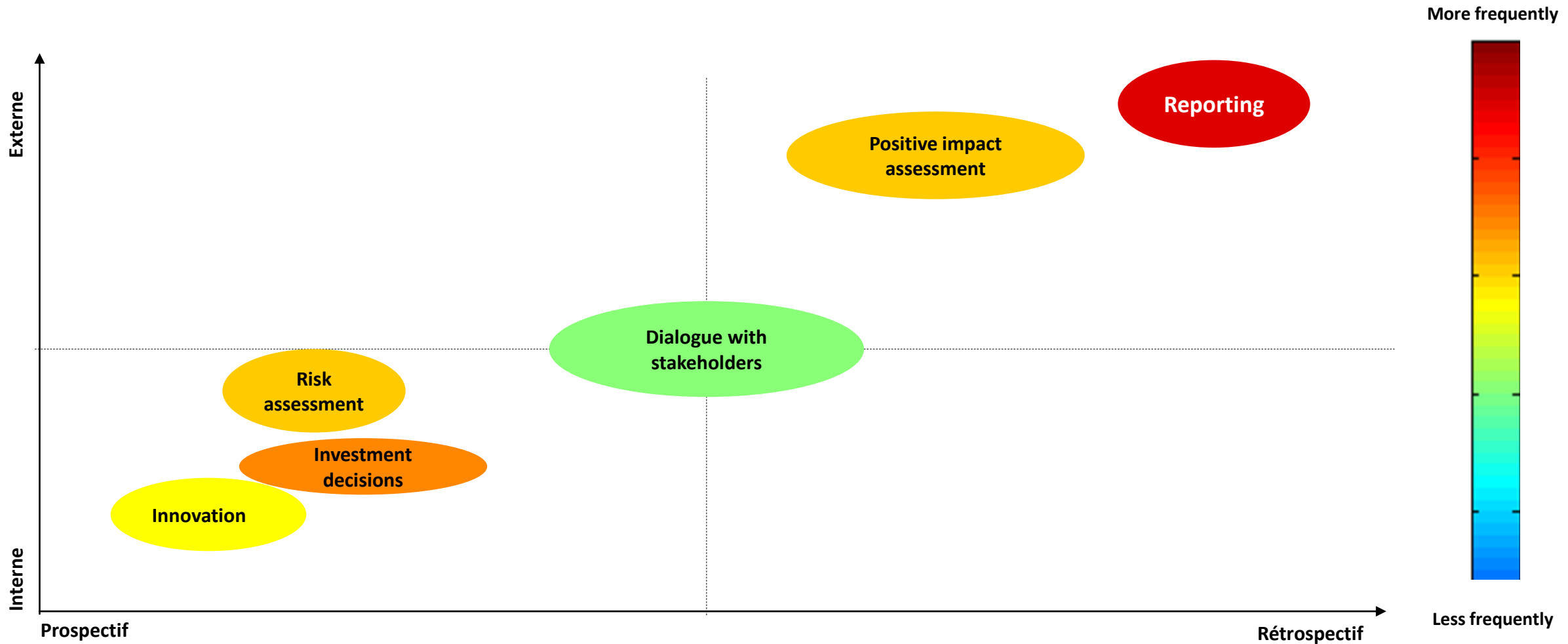
Category 2

Integration of externalities into standard economic indicators

Category 3

Integration with portfolio management tools

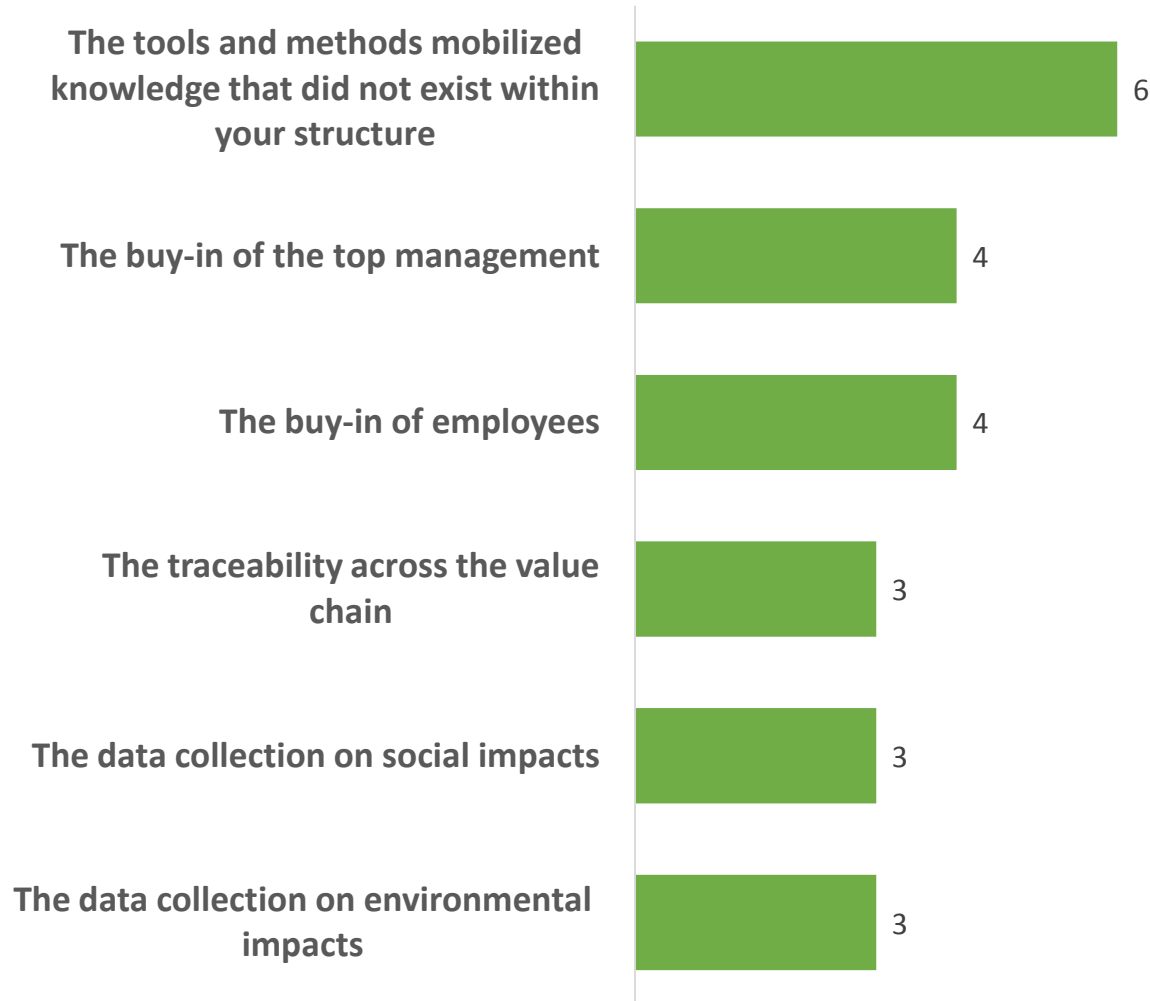




THE CHALLENGES

How?
The tools and their use

Companies perspective



Consultant perspective



Companies perspective



Consultants perspective



Limits of the study

Sample size

A posteriori
Story telling

Level of
analysis



Replicability

Transparency

Unobserved
phenomena

- **Q1: Conditions of a sustainable transition**

- Top management decision: main path of transition according to respondents
- The role of tools reinforced by the quantitative approach to sustainability

- **Q2: Impact valuation**

- Reporting is still the most frequent use (according to consultants)
- Impact valuation tools are still at their circulating form
- “It changes the mindsets, but it all depends on the using”

TAKE HOME MESSAGES

Management science
can support
companies in their
sustainable transition

More work needed
to support the
elaboration of
inscribed tools

Next step: observe
from the inside

REFERENCES

- Cementos Argos. (2017). *Value Added Statement*. Consulté à l'adresse <https://www.argos.co/Media/Default/images/vas-2017.pdf>
- Chiapello, È., & Gilbert, P. (2014). *Sociologie des outils de gestion*. 3.
- David, A. (1998). Outils de gestion et dynamique du changement. *Revue Française de Gestion*, N°120(Les organisations face au changement), 44-59.
- Geels, F. W. (2010). Ontologies, socio-technical transitions (to sustainability), and the multi-level perspective. *Research Policy*, 39(4), 495-510. <https://doi.org/10.1016/j.respol.2010.01.022>
- Global Nature Fund. (2017). *Private Sector and Natural Capital*. Consulté à l'adresse <https://naturalcapitalcoalition.org/private-sector-natural-capital-the-business-case-for-natural-capital-assessment/>
- Moisdon, J.-C., & Hatchuel, A. (1997). Du mode d'existence des outils de gestion. *Actes du séminaire Contradictions et Dynamique des Organisations-CONDOR-IX*, 6.
- Riot, J. (2013). *Le management de l'environnement à travers ses instruments : De la diffusion d'outils à la construction de dynamiques d'action collective pour l'innovation environnementale* (Phdthesis, Ecole Nationale Supérieure des Mines de Paris). Consulté à l'adresse <https://pastel.archives-ouvertes.fr/pastel-01022741/document>