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Methodology of reduction of uncertainties - Application to claims management in construction project

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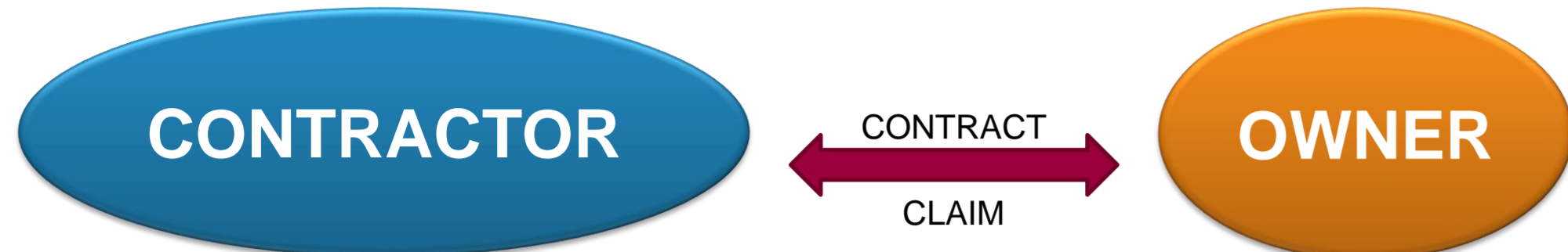
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Claim definition

A construction **claim** arises when a **party** to a construction contract believes that in some way, by **act** or **omission**, the **other party** has **not fulfilled its part of the bargain**. (Tadayon 2012)



Context of Construction projects & Research objectives

LOW PROFITABILITY INDUSTRY
(net margins, about 3% of the turnover)

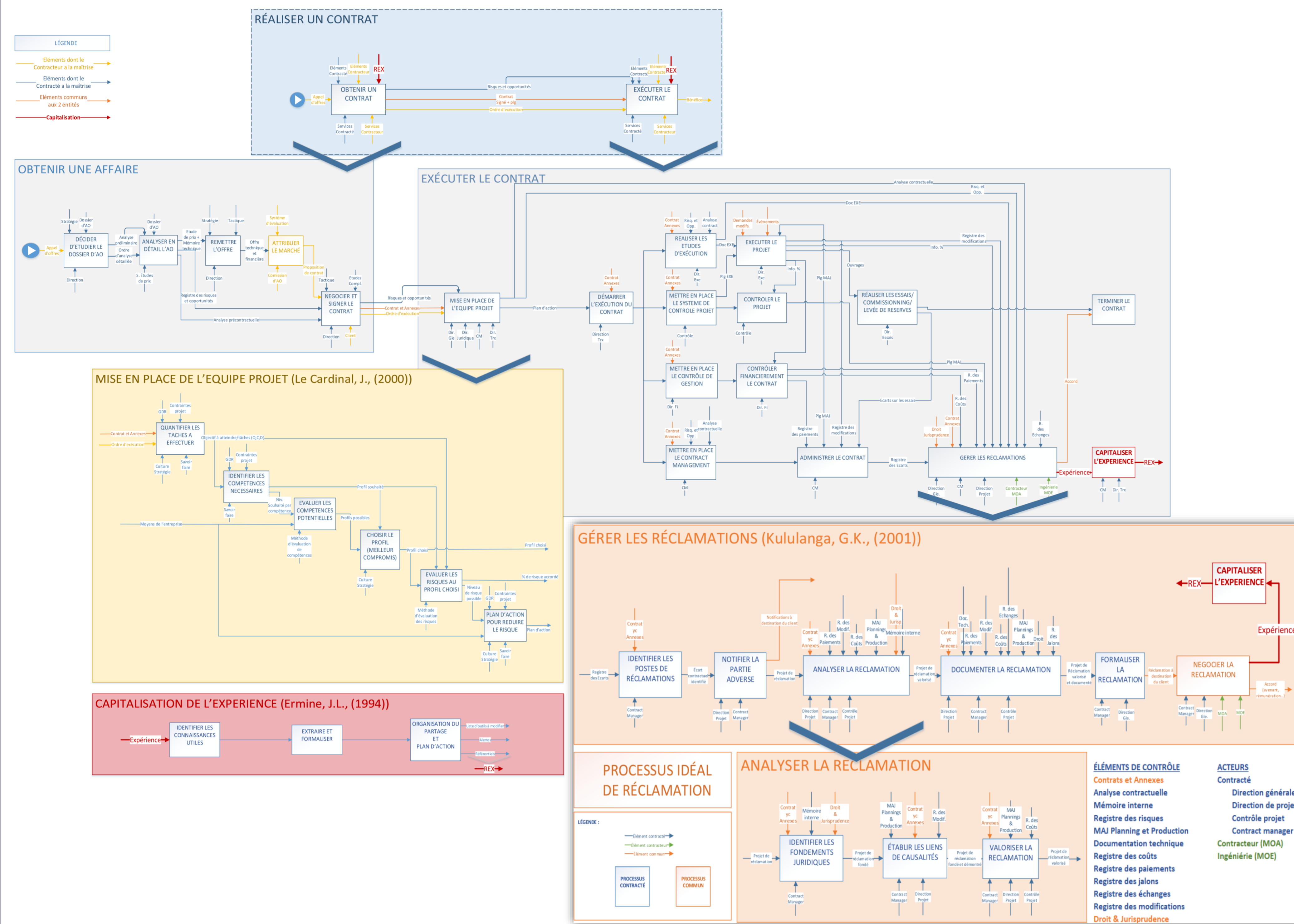
HIGHLY CLAIMS SENSITIVE
(5 to 50% of the turnover on a given project)

CLAIM RESULT IS VERY UNCERTAIN

Around 20% of turnover is subject to uncertainty (expert estimation)

To propose a methodology to reduce the uncertainty in claim process

Methodology and tools for process analysis



Identify ideal claims processes

- Experience
- Interviews
- Littérature review

How claim processes interact with production process?

- Experience
- Interviews
- SADT

Cases studies

- Interview
- Observation

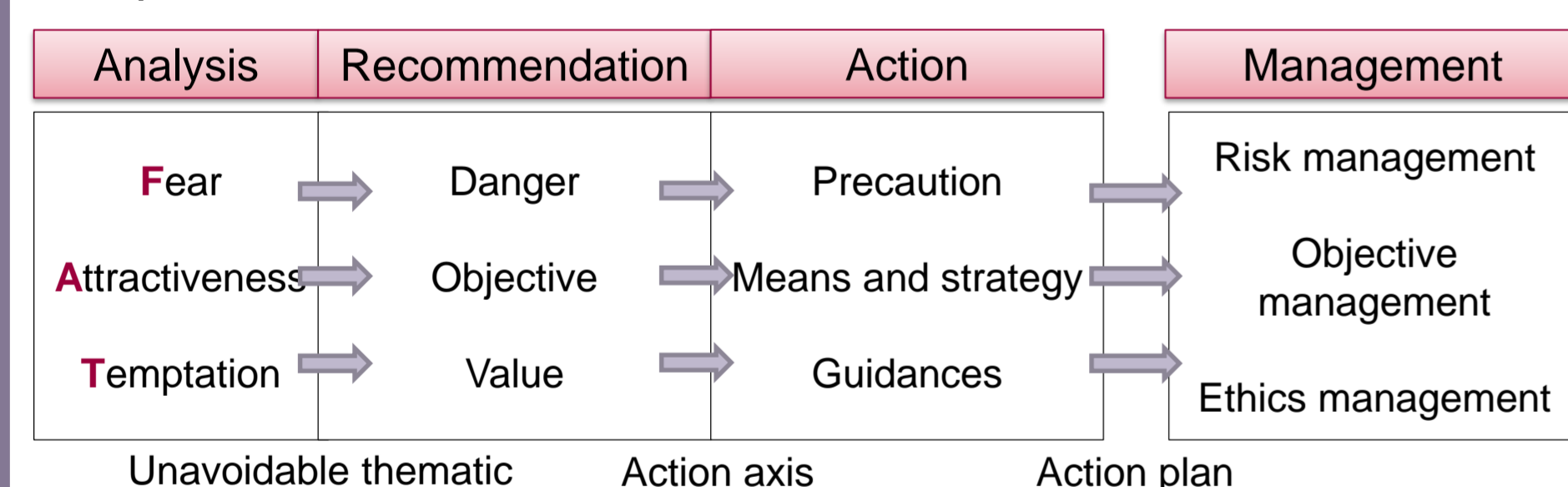
Findings

- Claim processes are known
- Claim process has very strong link to the project production processes and it can't stand alone
- Project management is at different level of maturity
- Quality of claim assessment is linked to three main aspects:
 - Actors' perception of the relation
 - Maturity of claim processes
 - A lack of capitalization of experience

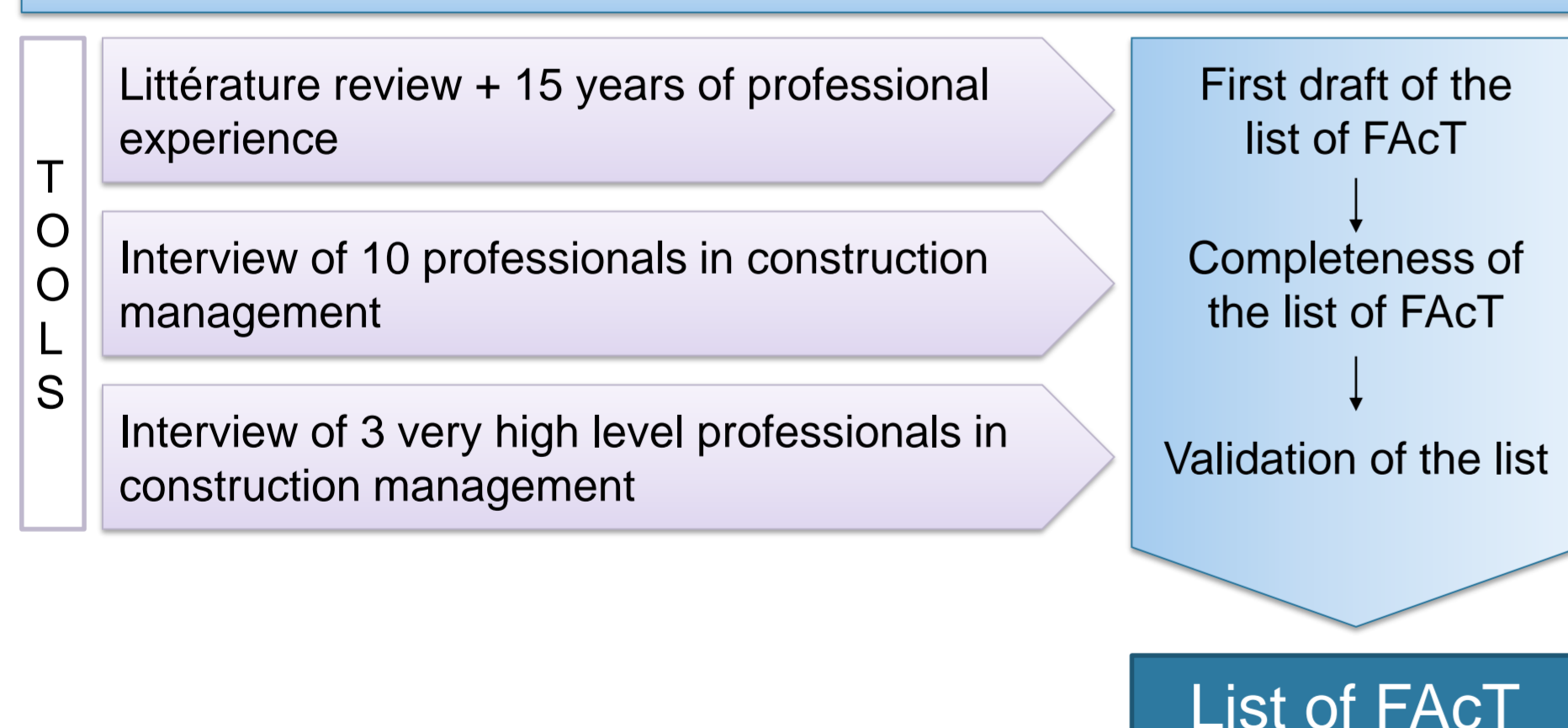
Methodology for analyse actors's perception of relation (Use of FAcT Mirror)

FAcT Mirror (Le Cardinal, G.) Method

FAcT Mirror method allows to study the relation among actors of a projet basing the analysis on Fears, Attractiveness and Temptations to treason of the actors.



FAcT List

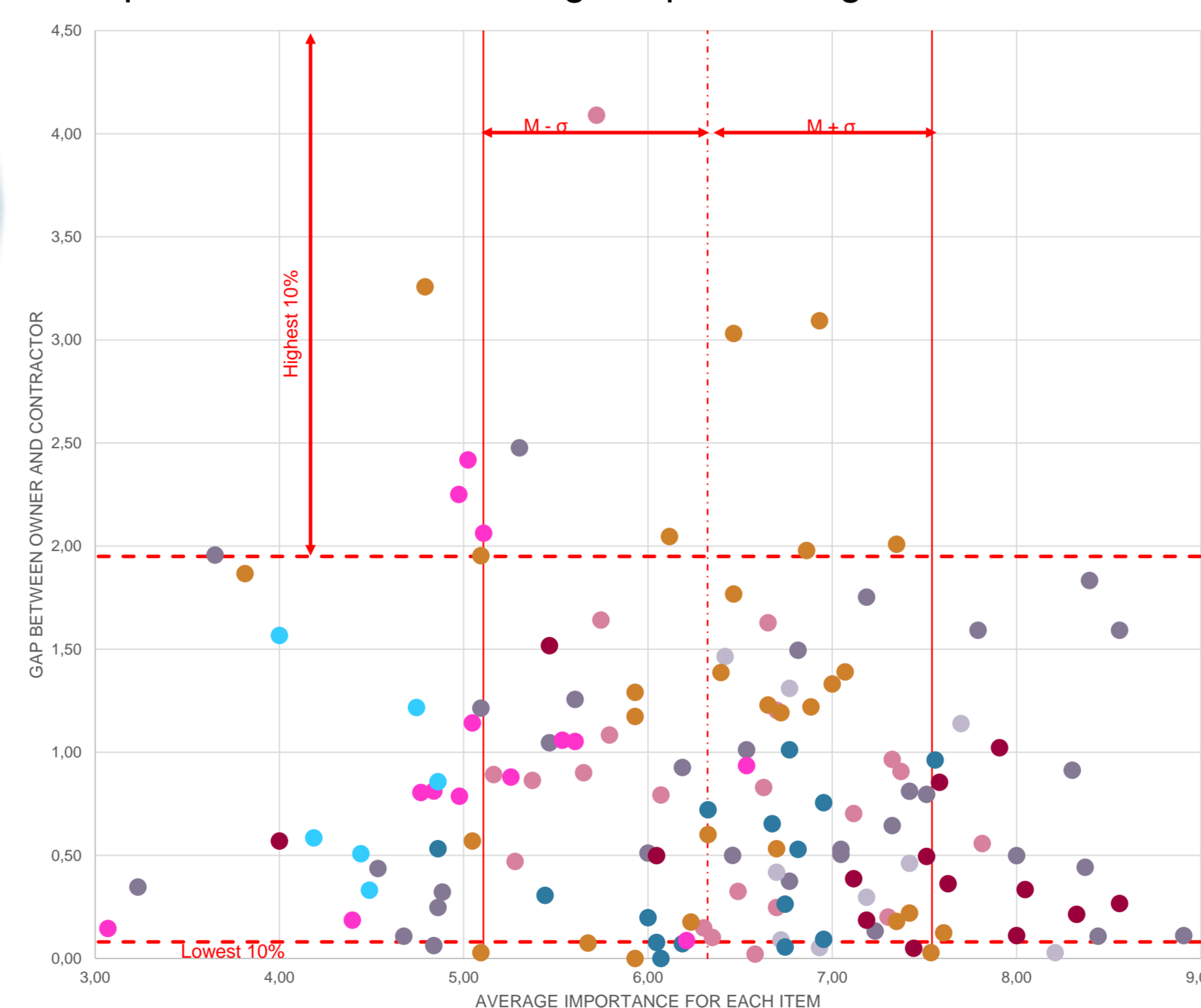


Evaluation of the importance of FAcT

Realization of a survey, in the form of a questionnaire sent to 167 professionnals of the sector (Answer rate 27%).

Synthesis of results

- Classification in unavoidable thematics and in two groups Owner and Contractor
- Distribution of FAcT along two axis « Gap in notation between group of respondents » and « Average importance given »



First findings

Most important FAcT items

Finance, Delays, Reputation, Quality → QCD Management

Least important FAcT items

Fears : Law, HR, Contract Management → Existing processes to counter wrong behavior

Biggest gap between groups of respondents

Suspicion of illegal and opportunistic behaviour → Difficult evaluation of fulfillment of item or evidence of not desired behaviour

Tiniest gap between group of respondents

Items with shared evaluation. Majority of owner's items → Contractor has better evaluation of owner's perception of the relation

It seems that « extrem » notation and gap concern common and evident items on which actors already elaborate strategies to avoid the consequences of a not desired behaviour.

Références

- Brunet, A., César, F., (2014), *Le contract management*, Eyrolles, Gestion de projet.
- Le Cardinal, G. (2014), *Construire la confiance de l'utopie à la réalité – La PAT-Miroir Attitude*, Presses universitaires de Sainte Gemme.
- Pluchart, J.J., & Al.(2016), *Master management des grands projets*, MA Editions, Master.
- Rabbe, M. (2002), *Manuel de management de projet*, Presses Ponts et Chaussées.
- Zack, J., (1993). "CLAIMSMANSHIP": Current Perspective. *Journal Construction Engineer Management* - 119, 480-497.
- Kululanga, G.K. & Al. (2001). Construction Contractor's Claim Process Framework. *Journal of Construction Engineering and Management*. Vol. 127. N°4. p. 309-314.

Futur works

- To Link FAcT items to processes which are source of:
 - Claims
 - Evidence for claims
- To Analyse results in regards with existing literature
- To Elaborate a methodology to reduce claims uncertainties