

Critical incidents in complex service contracts: Safety challenges and means of prevention

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Services in today's world...

UK | Wed Oct 1, 2014 9:32am BST

Babcock, BAE Systems win £3.2 billion UK naval contracts

LONDON | BY SARAH YOUNG

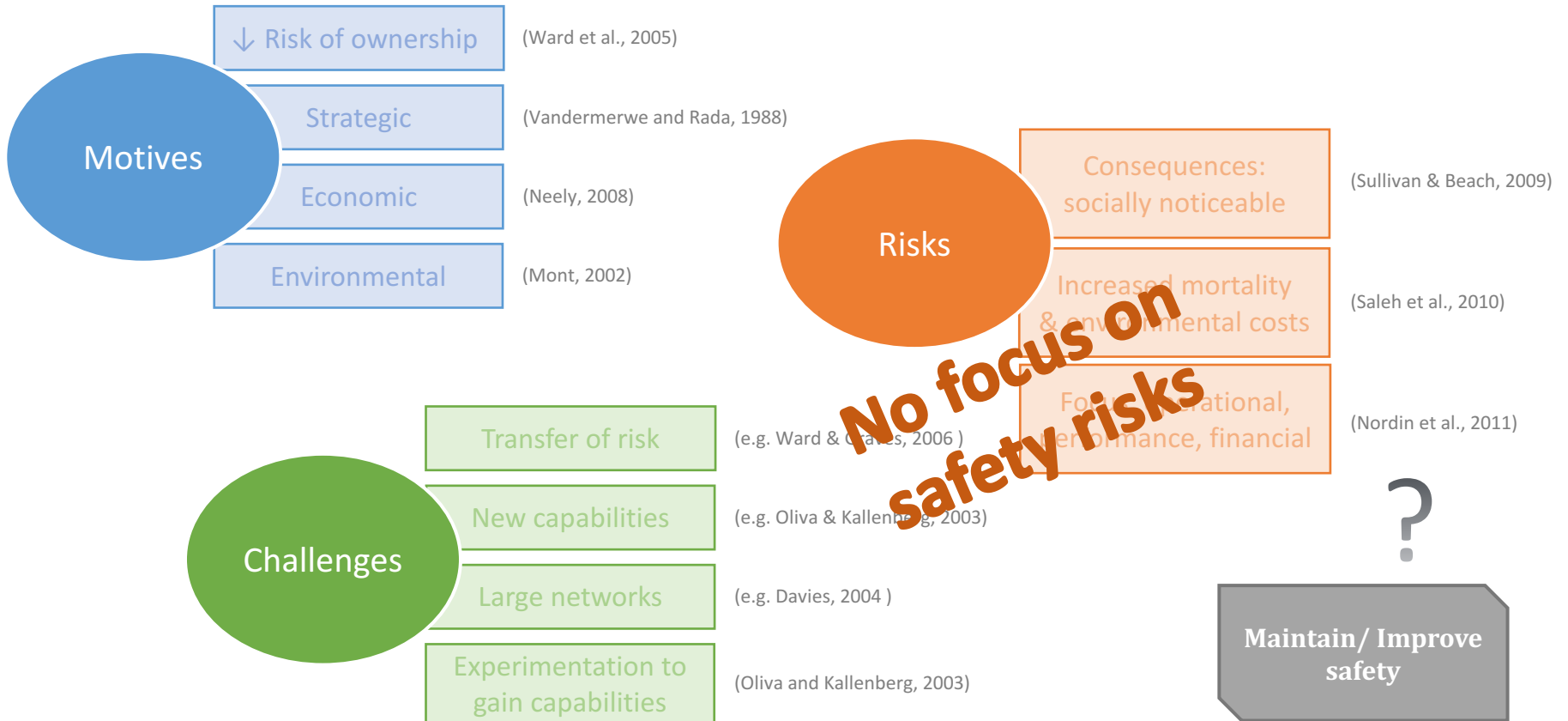
Source: <http://uk.reuters.com> accessed on 30/05/16

'Babcock International (BAB.L) and BAE Systems (BAES.L) have won contracts worth a total of 3.2 billion pounds to maintain British warships, submarines and naval bases for the next five years'

Servitization of Manufacturing

(Vandermerwe and Rada, 1988)

"..the process of creating value by adding services to products." Baines et al., 2009



Accident Causation

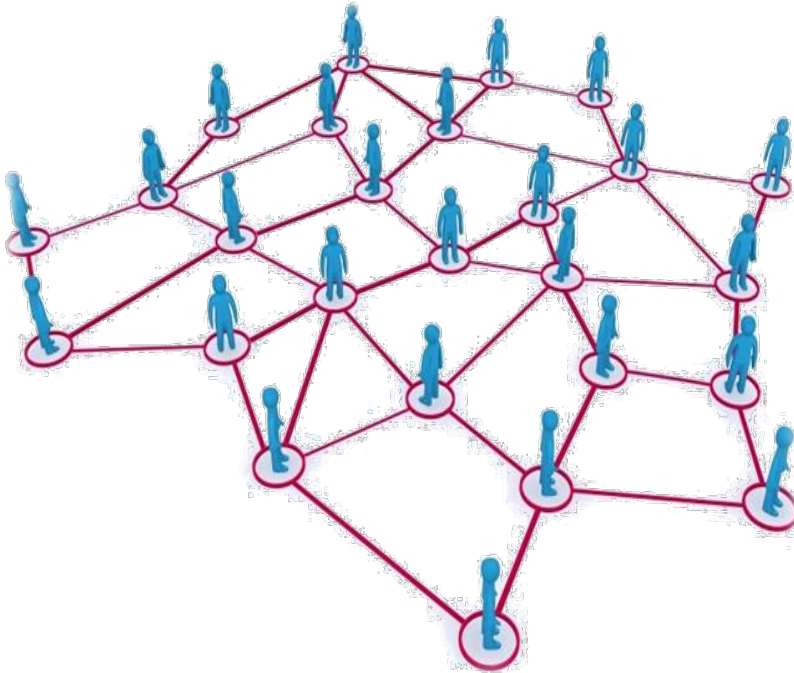
Accident Causation

* HROs Literature

*e.g. Roberts et al. 1994; Tranfield et al. 2003; Hopkins 2007; Sullivan & Beach 2009; Saleh et al. 2010; Lekka & Sugden 2011; Sutcliffe 2011; Makri & Neely 2015



Research Objective



How can servitized manufacturers manage safety challenges given the large networks involved in service provision?

Source: <http://www.julyan.biz/networks/> accessed on 31/05/16

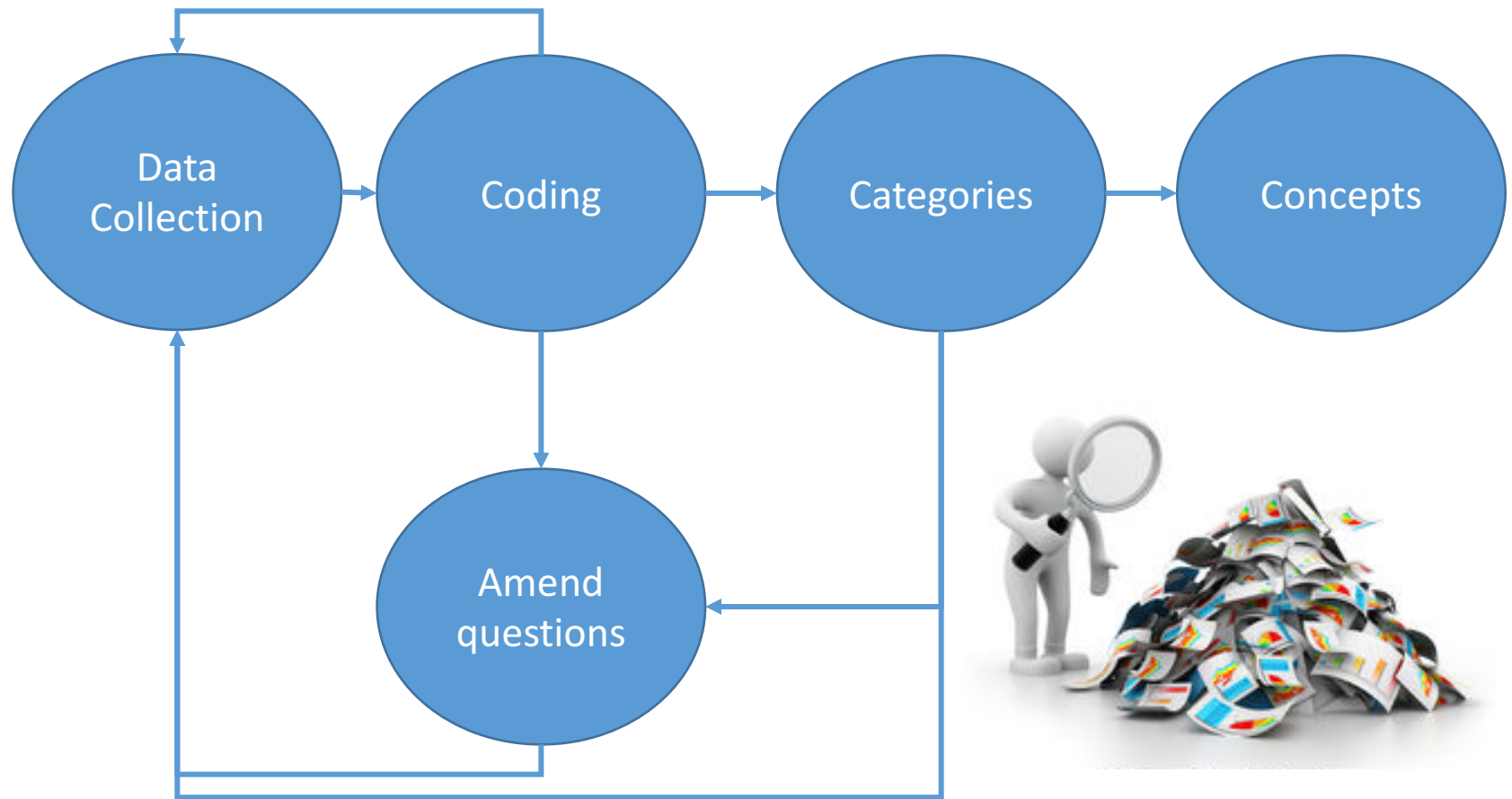
Data

23 Exploratory Interviews with open-ended questions

(Corbin and Strauss, 1990; Starks and Trinidad, 2007) – Theoretical Sampling

- *What sort of service contracts are you familiar with?*
- *What are the challenging aspects of these?*
- *How would you define accountability?*
- *How does the shift to a multi-organisational focus influence your perception of accountability?*
- *What mechanisms do you use to manage through-life accountability within your organisation?*
- ...

Analysis



Results & Discussion

Codes	Interviews	References	Codes	Interviews	References
Organisational	73%	16%	Legislation	27%	4%
Confusion over accountabilities	64%	12%	Technology	27%	2%
Lack of control	55%	10%	Cultural differences	23%	3%
Incentives	45%	6%	Cultural Issues	14%	1%
Balance between cost and risk	36%	7%	Culture of continuous learning	14%	3%
Culture (safe - just)	36%	9%	Normalisation of deviance	14%	1%
Conflicting accountabilities	32%	3%	Communication issues	9%	3%
Culture (personal - ethics)	32%	3%	Complacency	9%	2%
Culture (other)	27%	5%	Human redundancy	5%	1%
Incident reporting	27%	6%	Standard procedures	5%	3%

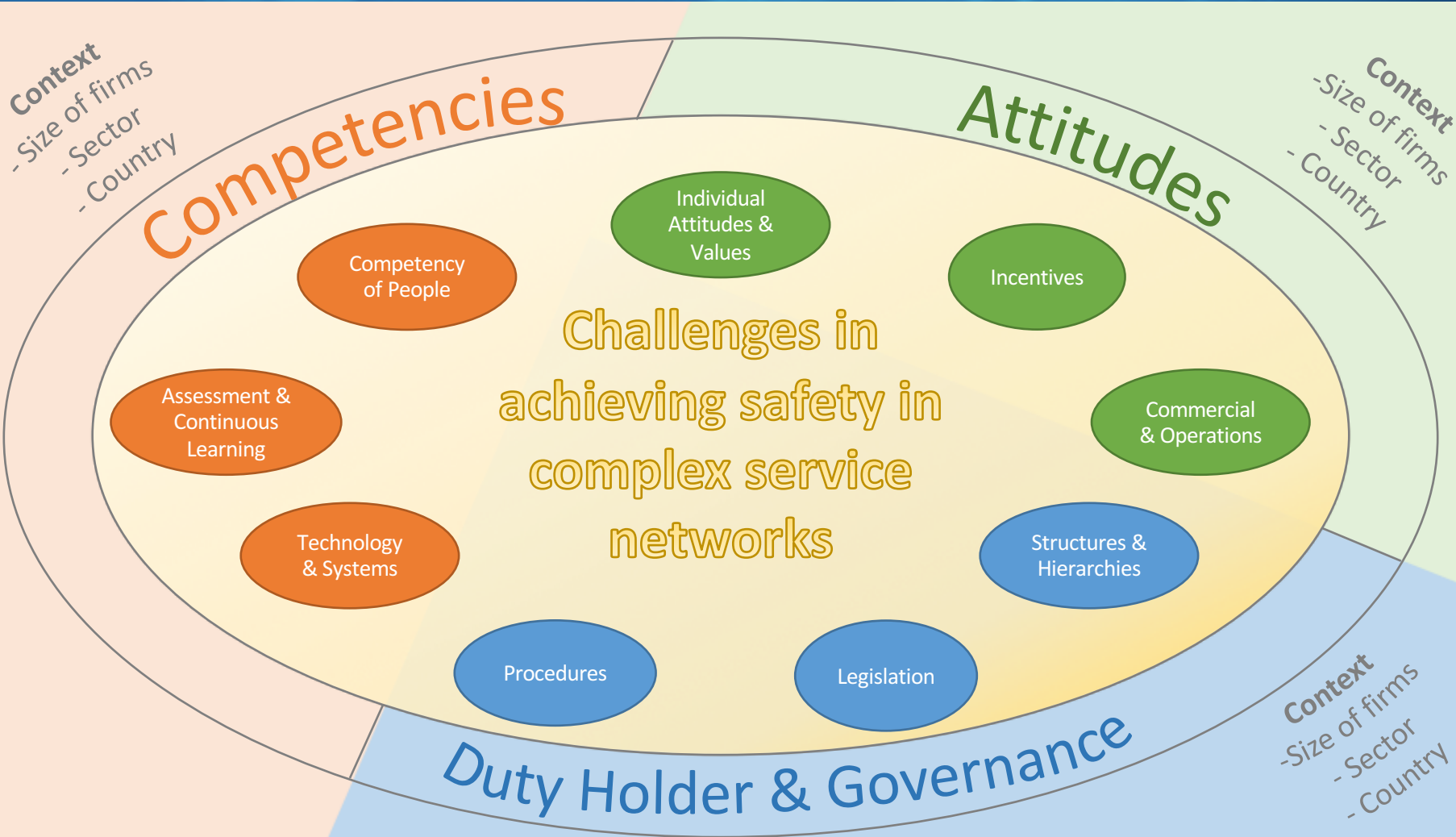
Results & Discussion

'I don't think it will ever fully be defined of who is accountable and responsible for what, within a service contract, and that is where we are putting our emphasis now, in making people understand.'



*Head of Product Safety
Defence Manufacturer*

Contextual Framework



Research Motivation	Research Objective	Data	Analysis	Results & Discussion	Contextual Framework	Concluding Remarks
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Concluding Remarks



Practice

- Guidance tool for servitized manufacturers



Theory

- Servitization
- Accident Causation

Concluding Remarks

Main findings

- Three main categories:
Duty holder &
Governance
Attitudes
Competences
- HRO attributes:
Need further evidence

Limitations & Further Research

- Exploratory Research:
-leads for further
research
-new propositions
- Supplement analysis
with past critical
failures: Interviews &
official investigation
reports

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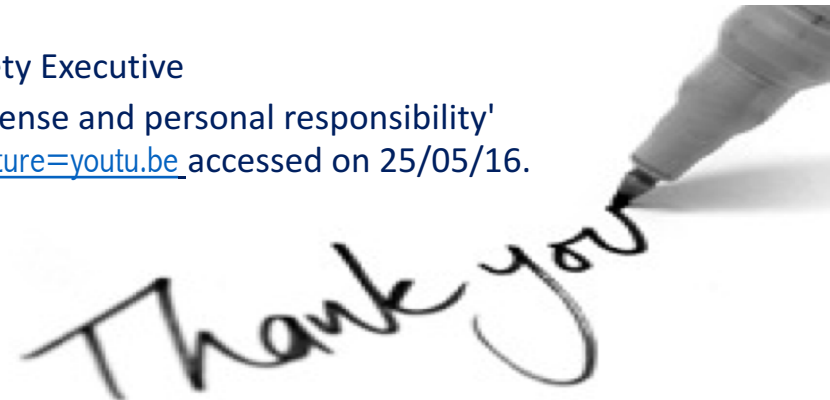


“Rules and prescriptions simply do not work. It is judgement, knowledge and competence, that is required to decide what is reasonable and what is practicable, you cannot manage health and safety through rules and ticking boxes”

Dame Judith, Health and Safety Executive

‘Health and safety: the journey back to common sense and personal responsibility’

Source: <https://www.youtube.com/watch?v=J4xQnuiGYdg&feature=youtu.be> accessed on 25/05/16.



Forthcoming Webinars

Date 14:30hr GMT	Topic	Invited speaker
April 11 th	Mapping Ecosystems: Identifying Service Innovations. ***TOOL***	Prof. Andy Neely
May 9 th	Supplying innovation: unlocking innovative behaviours in the supply chain	Dr. Jingchen Hou
June 13 th	Facilitating Co-Creation in Living Labs: The Josephs Study	Katherine Greve
July 18 th	Service in the Platform Context: a review of the state of art	Xia Han
September 12 th	Enterprise KPI's – Aligning metrics across complex service networks	Prof Andy Neely
October 3 rd	Critical Incidents in complex services contracts: human causes and means of prevention	Chara Makri
November 14th	Feedback from the Frontline: Engaging Front-Line Employees in Service Contracts	Dr Florian Urmeter
December 12 th	Tools Webinar	Prof Andy Neely