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Australian Government
Department of Defence
Science and Technology

Competing Definitions and Differing Understandings: E-Procurement, A Physicist's Perspective

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Presentation Overview

What is E-procurement : *A personal perspective*

Complementary to the paper submitted to PGCAR - *The Nexus of Competing Definitions and Differing Understandings: The Super Seasprite Project*

What is this presentation will include

- Differing definitions with e-procurement
- Differences between types
- Wicked problem
- Difficulty with definitions

What this presentation will not include

- Specific Case studies
- An encyclopedic recitation

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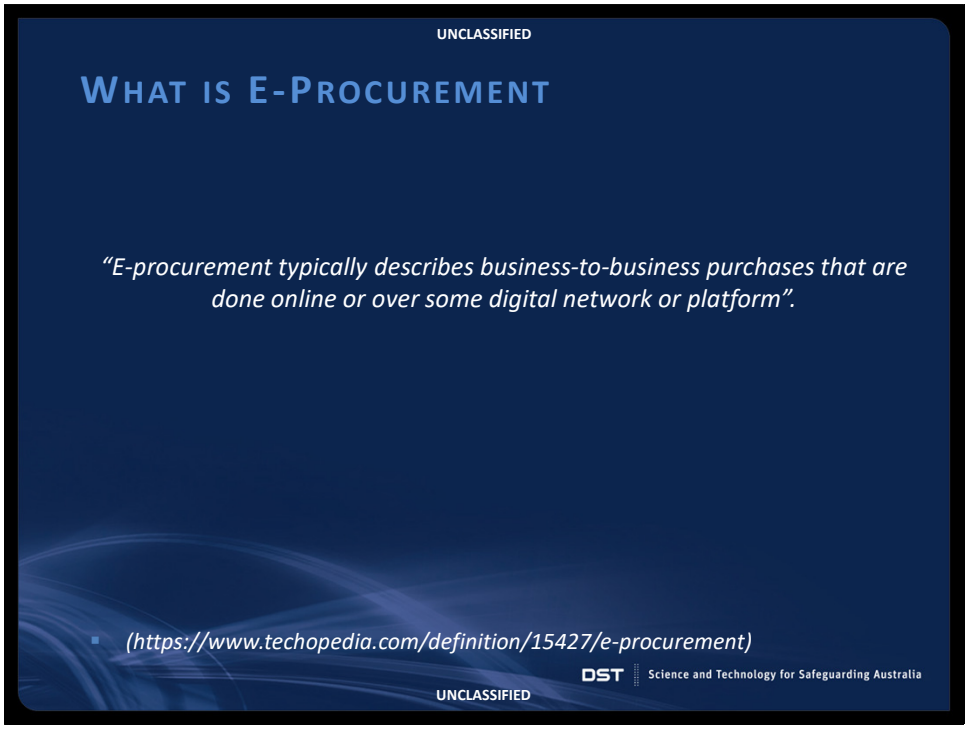
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WHAT IS E-PROCUREMENT
"E-procurement typically describes business-to-business purchases that are done online or over some digital network or platform".
(https://www.techopedia.com/definition/15427/e-procurement)
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WHAT IS E-PROCUREMENT
"The use of the internet or a company's intranet to procure goods and services used in the conduct of business".
(http://www.businessdictionary.com/definition/electronic-procurement-e-procurement.html)
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WHAT IS E-PROCUREMENT

"e-procurement, in terms of governance, increases competition, empowers more transparent decision-making processes, combats corruption, regarding the management, reduces paperwork, allowing time and money gains"

- *(Ferreira and Amaral 2016 p.9).*

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WHAT IS E-PROCUREMENT

"According to the European Commission, e-procurement refers in general, the replacement of pre-contractual procedures, on paper, by communication and processing based on technology and information systems……..developed taking into account the political and legal specifities of the public sector"

- *(Ferreira and Amaral 2016 p.10).*

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Conveying Information Clearly

Information can be lost in the detail or completely misunderstood by the smallest alteration or change in context.

Let's eat, grandma
or
Let's eat grandma

It can even be as simple as different backgrounds of the staff involved

ESD Environmentally Sustainable Design
or
ESD Electro Static Discharge

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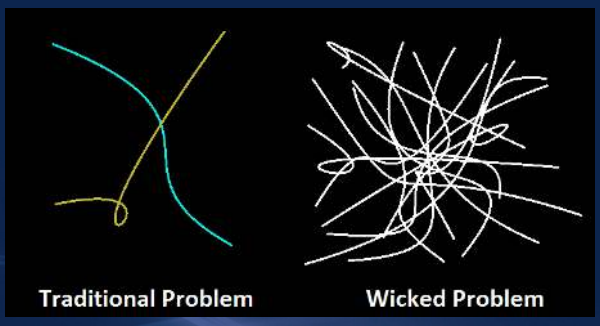
Wicked Problems

A wicked problem is one that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize



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Why is E-Procurement a Wicked Problem

Has no obvious resolution and has contradictory or changing requirements making it difficult to reconstruct

Seasprite changed from 3 crew to 2

Defies easy definition

Requirements changed during and after negotiations

Constantly changing and evolving

Number of craft and status changed during procurement

Definition of e-procurement morphs in response to the process

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3 Major Themes

E-Procurement can be broadly grouped into three categories or themes

Simple

- Online shopping

Automated

- Fridge orders your prespecified items when items low

Artificial Intelligence

- 'Smart' items tell fridge what items to order for your health

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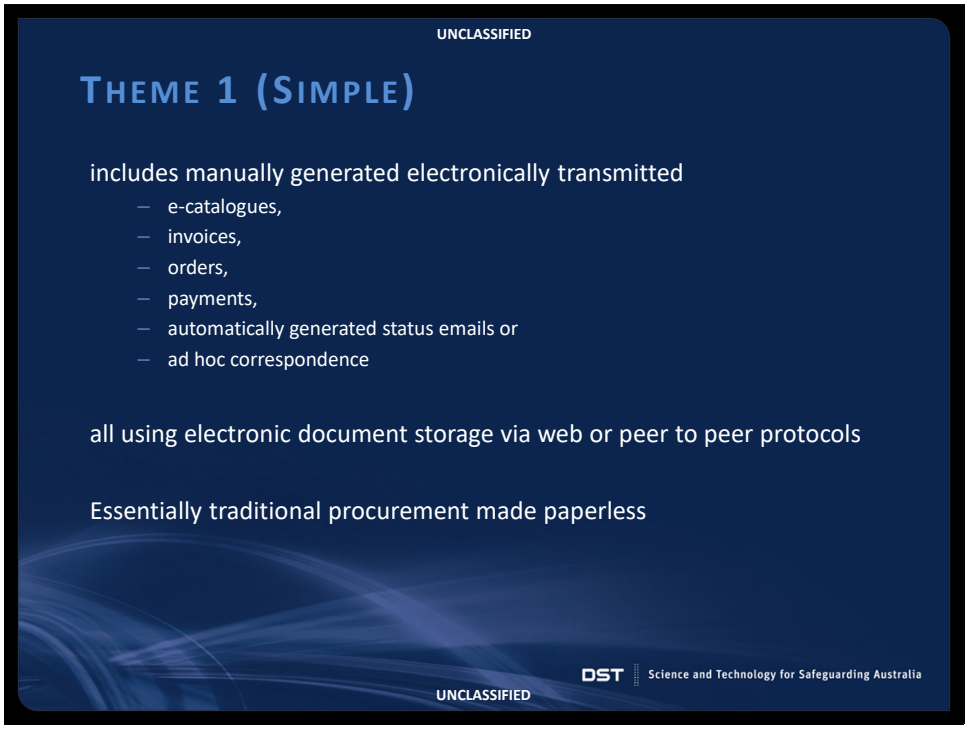
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THEME 1 (SIMPLE)
includes manually generated electronically transmitted
– e-catalogues,
– invoices,
– orders,
– payments,
– automatically generated status emails or
– ad hoc correspondence
all using electronic document storage via web or peer to peer protocols
Essentially traditional procurement made paperless
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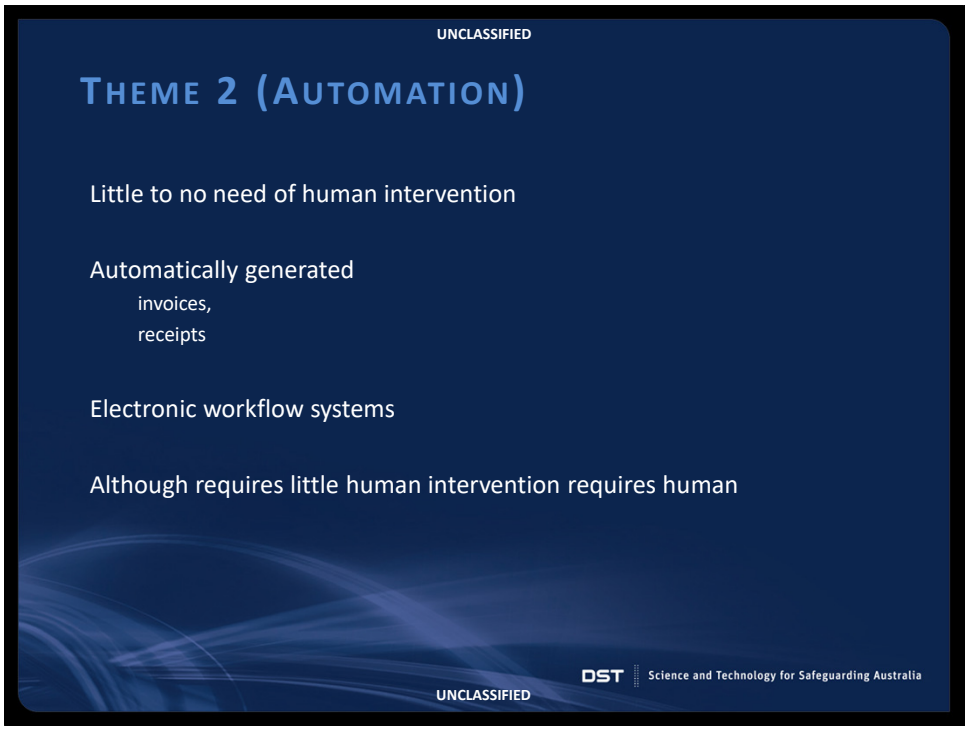
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THEME 2 (AUTOMATION)
Little to no need of human intervention
Automatically generated
invoices,
receipts
Electronic workflow systems
Although requires little human intervention requires human
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Theme 3 (Artificial Intelligence)

utilises machine learning

artificial intelligence (AI)

predict requirements via the advantages afforded by use of 'big data'

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Pros

One of the most obvious advantages of e-procurement is offered by the ability to track and interrogate purchases with greater ease and detail

No longer reliant on the "lost filing cabinet" that contains the only copy of previous work.

Has the potential to reduce timeframes, costs and add higher internal integrity to the process

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CONS
Alongside with increased use of e-procurement, needs for standardization arise.
Amount of data increases to fill available storage space – how to find the right information needed.
Knowledge management becomes a crucial aspect of being able to find and sort data.
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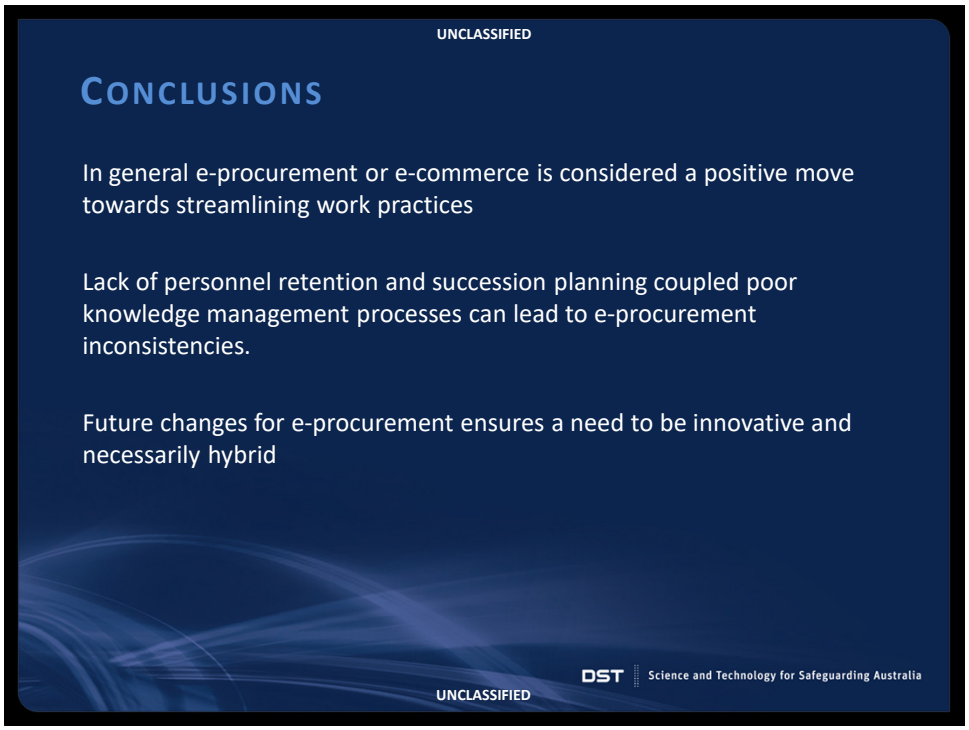
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CONCLUSIONS
In general e-procurement or e-commerce is considered a positive move towards streamlining work practices
Lack of personnel retention and succession planning coupled poor knowledge management processes can lead to e-procurement inconsistencies.
Future changes for e-procurement ensures a need to be innovative and necessarily hybrid
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Difficulties with Language

Celestial Emporium of Benevolent Knowledge

Foucault quotes a 'certain Chinese encyclopaedia' in which it is written that animals are divided into:

a) belonging to the Emperor,
b) embalmed,
c) tamed,
d) suckling pigs,
e) sirens,
f) fabulous,
g) stray dogs,
h) included in the present classification,
i) frenzied,
j) innumerable,
k) drawn with a very fine camel hair brush,
l) etcetera,
n) that from a very long way off look like flies
m) having just broken the water pitcher,

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Group M: Just Broken a Water Pitcher

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Group M: Just Broken a Water Pitcher

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References

Ferreira, I. and L. A. Amaral (2016). Public e-Procurement: Advantages, Limitations and Technological "Pitfalls". Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance. Montevideo, Uruguay, ACM: 9-12.

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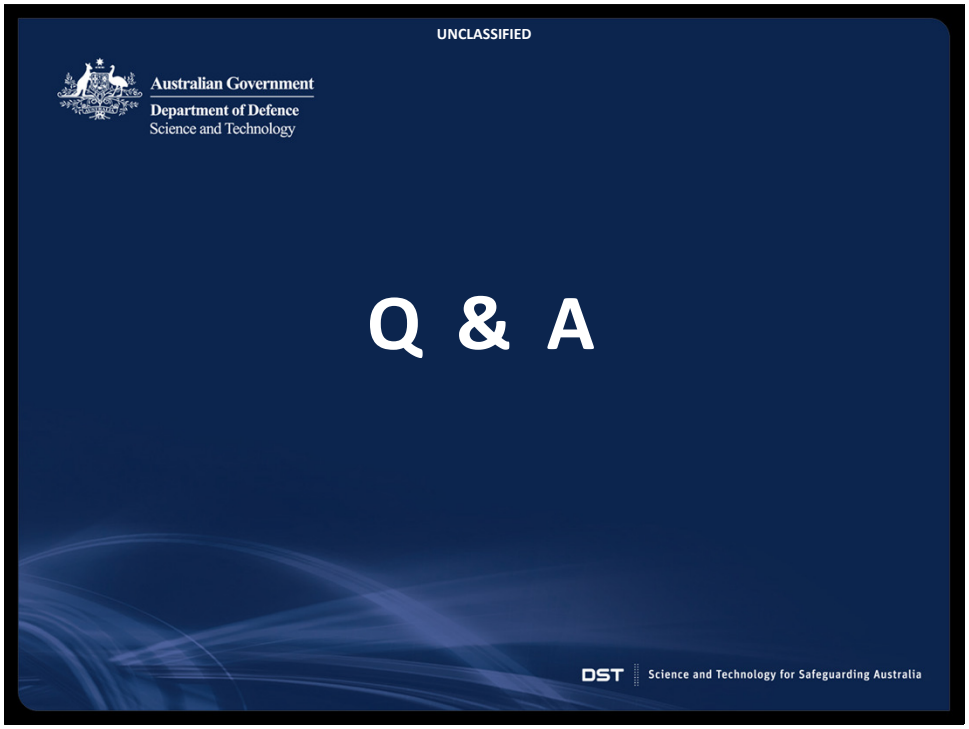
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