Knowledge Management: Applications in Practice

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My KM background

• Academic background
  – Computer Science, BSc
  – Information Management, MSc, Manchester Metropolitan University
  – Knowledge Management, PhD, Cranfield University

• KM practice in contexts such as
  – Siemens Industrial Turbomachinery
  – UK Ministry of Defence
  – General Electric (Energy)
  – UK Railway Industry (Railway Safety and Standards Board)
  – iQor (intelligent customer interaction)
  – Coventry University (Cyber security management research)
Knowledge Management - a definition?

- Several definitions

- An early definition of KM by Davenport (1994):

  ... the process of capturing, distributing, and effectively using knowledge.


Duhon, Bryant (1998), It's All in our Heads. Inform, September, 12 (8).
Knowledge Management - *enablers*

- Organisational culture
- Strategy and leadership
- Information and communication technology and systems.

*Different for different organisations and contexts.*
Knowledge Management in Practice
Knowledge Management
- internal collaboration

• Context: a Consultancy Firm
  – One the world's largest professional service networks
  – More than 150 countries and almost 200,000 people with different expertises

• Knowledge problem:
  – How to make the expertise available within the organisation accessible to all staff as and when needed?

• Solution:
  – Staff directory: skills, previous projects, contact details, short bio, and more.

Benefits? | Challenges?
Knowledge Management
- product improvement

• Context: a Gas Turbine Manufacturer
  – One the world's largest engineering companies
  – Wide range of electrical- and electronics-related products and services

• Knowledge problem:
  – Feeding the customer experience back into new products

• Solution:
  – Face to face collaboration between Customer Service staff and design and manufacture departments.

Benefits?  Challenges?
Knowledge Management - an interdisciplinary team

• Context: an Infrastructure Management challenge
  – Remote management of all infrastructure required for the successful operation of a group of experts
  – Setting up a new interdisciplinary management team

• Knowledge problem:
  – Multiple dimensions of the concept of Infrastructure
  – Knowledge required from the management team. Definition of individual roles and responsibilities

• Solution:
  – A series of Knowledge Sharing sessions with focus on Infrastructure.

| Benefits? | Challenges? |
Knowledge Management
- knowledge retention

• Context: an after sales IT service company
  – One of the world's largest business process outsourcing
  – Telecommunications repair services, spare parts management
  – Valued expertise

• Knowledge problem:
  – Potential loss of expertise

• Solution:
  – Knowledge capture and sharing through modelling and mentoring

Benefits? | Challenges?
Knowledge Management
- a cross-industry view of safety

- Context: British Railway industry
  - Need for a cross-industry understanding of safety in future railway

- Knowledge problem:
  - Several views of safety

- Solution:
  - A cross-industry knowledge sharing exercise with focus on the modelling of the concept of Railway Safety

Benefits?  Challenges?
Knowledge Management
- improving customer services

• Context: a Power Conversion Manufacturer
  – One the world's largest and more innovative companies
  – Divisions include energy- and technology-related products and services

• Knowledge problem:
  – Mobility of their products
  – Potential lack of knowledge of their products in different regions
  – Potential inconsistencies in the customer service experience.

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<th>Solution?</th>
<th>Benefits?</th>
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Knowledge Management
- the basis of a Cyber security strategy

• Context:
  – Cyber security and knowledge management

• Research group
  – Cyber Security Management
  – Privacy, Data and the Digital Era
  – Data-Driven Innovation
Thank you