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.

Davenport, Thomas H. (1994), Saving IT's Soul: Human Centered Information Management. Harvard Business Review, March-April, 72 (2)pp. 119-131.
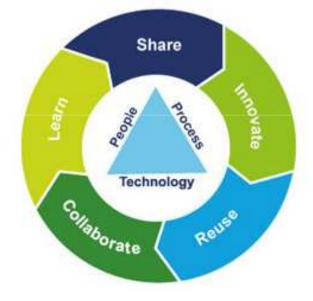*Duhon, Bryant (1998), It's All in our Heads. Inform, September, 12 (8).*

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*

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- 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

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- **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*

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- **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.

Solution?	Benefits?	Challenges?

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