Knowledge Management

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TRUSTED ADVISORS
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https://www.hueteco.com

QUANTUMRUN FORECASTING

https://www.quantumrun.com

FUTURES SPACE

Before We Start: Some KM History

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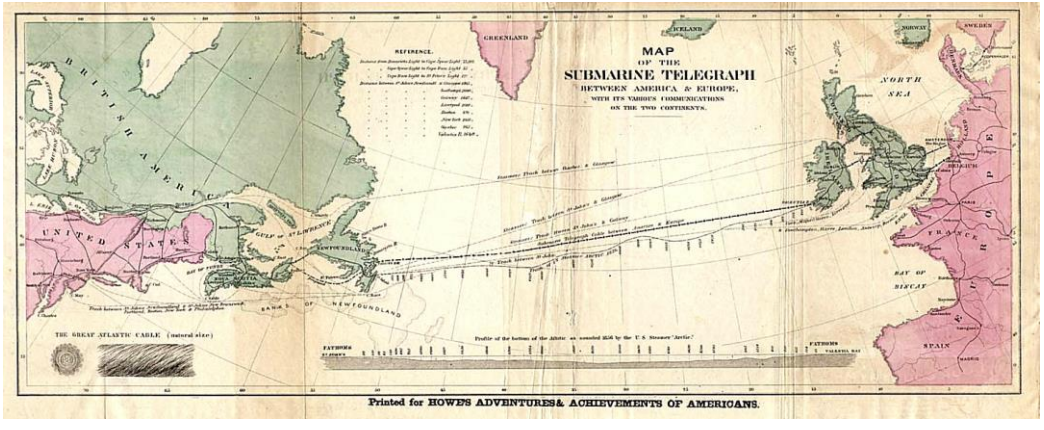
3500 BC
Cuneiform Language.
Information is stored, shared and preserved

2800 BC
Papyrus paper.
Light weight solution

1450 AD
Print Press. Johannes Gutenberg
Functional, movable, fast reproduction



1858 AD
Trans Atlantic telegraph.
Instantaneous long distance communication

Presenting yourselves

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Information:

1) Name, and 2 pieces of personal information
2) Organize yourselves in a line, in order of: size time with the company, distance to work…

Knowledge:

1) Tell us an area of life, Work, Private, Hobby, Family, where you have knowledge and why?
2) Organize yourselves in a line, in order of amount of knowledge!!
3) Ok easier… knowledge about the Company

Expectation Management

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- We will not solve all problems today
- This is a starting point to give direction and have a clearer internal picture
- Solutions are specific to each company, culture and way of work. Make your own way!
- Hard and Soft sides. Soft being people, change management, involvement. Hard being tools, systems.
- Think: What can we realistically do?
- Starting now: You are responsible
- Starting Tomorrow: You have the ownership to implement, develop and implement KM

- Today we want to achieve: Basic and common understanding of Information and KM. Inspiring and helpful examples. Working together to define the way forward.

Handout

Agenda

Introductions, Expectation Management	9:00 – 9:30
Information, Knowledge and KM	9:30 – 10:00
Group work Part 1	10:00 – 10:30
Pause	10:30 – 10:45
KM Dimensions, Benefits and Challenges	10:45 – 11:30
Group Work Part 2	11:30 – 12:30
Lunch	12:30 – 13:30
Methods/Tools	13:30 – 14:30
Industry Examples	14:30 – 15:30
Group Work Part 3	15:30 – 16:15
Closing Statements	15:15 – 16:30

General Notes

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Data, Information and Knowledge

To the heart of Business

Knowledge	condition of knowing something with familiarity gained through experience or association
Information	facts provided or learned about something or someone
Data	facts and statistics collected together for reference or analysis.

How, when and where to stop the vehicle
You will need to stop
Amber Light

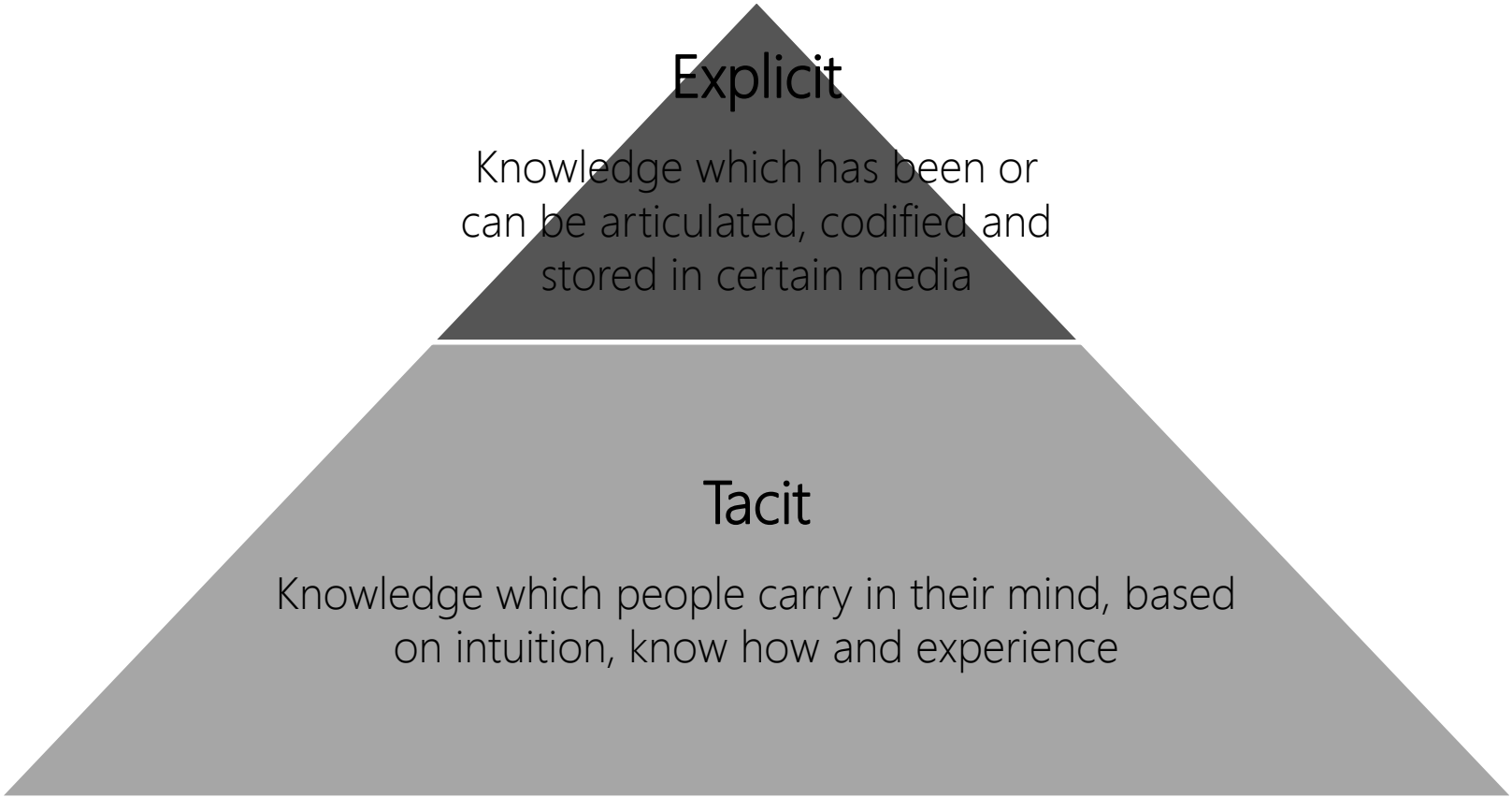
Data, Information and Knowledge

Types of Knowledge

To the heart of Business

K Type	Refered to as	Characteristics	Found in
Explicit	Know-What	- Easy to identify, store and retrieve - Considered simple in nature - Does not contain know how for competitive advantage - IT is essential for transfer and storage	- Databases - Memos - Notes - Documents - texts
Tacit	Know-How	- Intuitive - Hard to define - Experience based - Context dependent - Valuable in leading to breakthroughs and competitiveness - IT mainly as support - Transfered through socialization, mentoring, human interaction	- Minds of human stakeholders - Includes: cultural beliefs, values, attitudes, mental models, skills, capabilities and expertise

Types of Knowledge



KM Definition

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Knowledge Management is the formal, continuous process of **capturing, developing, sharing, managing, and effectively using organizational knowledge**.

It is the process of **creating the knowledge and information** of an organization.

It refers to a **multidisciplinary approach** to achieving organizational objectives **by making the best use of knowledge.**

The **strategies and practices** through which organizations **generate value** from what their members know in order to then **identify, preserve and share the information.**

Group Work Part 1

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In groups of 3, define:

- Information
- Knowledge
- KM

All 3 for Kolping

What is your definition of Information?

-

How do you deal/manage it currently?

-

What is your definition of Knowledge?

-

How do you deal/manage it currently?

-

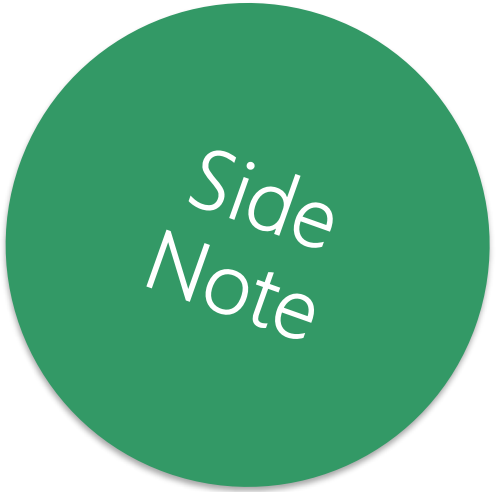
What is your definition of Knowledge management?

-

Life Long Learning

To the heart of Business

Knowledge is the engine of the modern economy all around the world. The European Commission highlights and supports the concept of **Life Long Learning**, meaning people have to learn and develop in **every stage of their life**, in order to be a beneficial and valuable member of the economy.



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KM Main Dimentions

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KM and company size
KM and locations
KM and costs
KM and company culture and people
KM and communication
KM and methods/tools
KM and leadership

KM and Company Size

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With 10 employees KM takes place in the tacit space. The explicit knowledge can be taken from external sources.

With 200-300 employees more formal KM takes place with specialized services like: HR, legal, financial, sales… departments). Likely to have 1-3 KM tools/methods

KM and Locations

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Number of locations influences the KM practices.

With 1 or 2 near locations knowledge is transfered by people interaction on a day to day basis

With multiple and separate locations knowledge and interactions need to be planned and stuctured in a better way to cover the deficit of personal interaction

KM and Costs

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Related to number of employees

Related to number of locations

Finding the balance of investement in formal structures and IT

KM and Company Culture and People

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If knowledge activities are not seen, invested into, lived, included into company values, have the right platforms to expand and management example… then don't expect employees to do this by their own.

Knowledge sharing culture creation

Incentives, carrer opps…

KM and Communication

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Important for the knowledge transfer

Verbal and non-verbal

Dependant of the status of the person giving the communication (mostly done by leaders) but spoken at all levels

KM and Methods / Tools

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They should support the tacit and explicit knowledge.

IT support or main factor depending an the type of knowledge.

Other tools and methods are just a support depending on the needs and specific situation.

KM and Leadership

6 Dimentions of KM

Leadership is the binding element that enables sustainable results through: living example, responsibility, sponsorship, objective setting, recognition and rewards.

Tech: high need of KM if high Tech

KM Benefits

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- Increased revenue, cost savings, and reduced risk
- Improvement of internal knowledge flow and use of tacit knowledge
- Faster access to information and knowledge, allowing employees to be more efficient and productive
- A better decision quality by access to the right knowledge, in the right format, when it's necessary for a better business performance
- Improved innovation and collaboration; enabling the whole organization to access perspectives of different business units
- More streamlined business processes and work time, reducing double work and repetition of errors
- Increased customer satisfaction as a result of all of the above working together to create an ideal product and buying experience

KM will greatly contribute to improved Excellence!!!

KM Challenges

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- Lack of executive support and leadership: As a result of short-termism prevalent in most public and private companies, knowledge management gets deprioritized
- Tacit knowledge held by key employees that leave the company
- ‘Silos’ between locations or departments slow down the information dissemination
- No single version of truth in data, leading to inconsistencies (parallel worlds)
- ‘Captured’ knowledge that exists in non-integrated systems
- Weak ongoing efforts to maintain staff training and develop new knowledge management techniques over time
- Insufficient capture of process and legacy knowledge

However, these challenges can be overcome with efficient management and communication within an organization from the start.

Main Trends in KM

47% Creating an Intranet
33% Data warehousing / knowledge repositories
33% creating Collaborative technologies (groupware)
24% creating networks of knowledge workers
18% mapping sources of expertise within organizations
15% establishing new knowledge roles (ex. Knowledge brokers)

https://elearninginfographics.com/the-evolution-of-knowledge-management-infographic/

Group Work Part 2

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In groups of 3, discuss:

- Challenges
- Success
- Expected key results

All 3 for Kolping

What problems do you think you will encounter?

-

What do you have that you think will make you successful?

-

What are the key results you expect?

-

How do you want to implement Knowledge management in your company to resolve the problem definition?

-

Lunch

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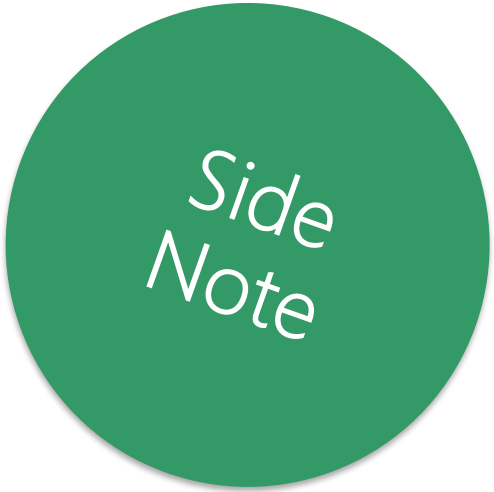
TED

Ideas Worth Sharing



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KM Methods and Tools

To the heart of Business

- Open radio
- Expert debrief
- Working out loud
- Lessons learnt
- Intranet
- Wikis and blogs
- Virtual-learning
- Topic communities and Expert communities
- Profiles
- Knowledge maps
- Lexicons
- Knowledge brokers
- Expert paths/careers
- Communities of Practice (CoP)

Open Radio (best practice calls)

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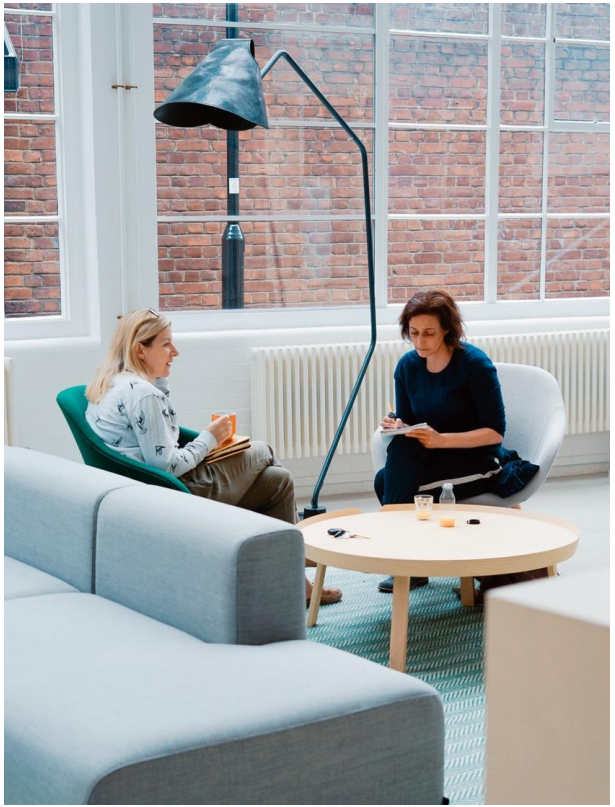
- Regular open call, where a topic is presented.
- Anyone in the company can participate and learn something new.
- Usually done per telephone conference and sharing screens.
- Time frame: about 1 Hr.
- Calls happen once or twice a month and all different types of topics are touched.

Expert Debrief

To the heart of Business

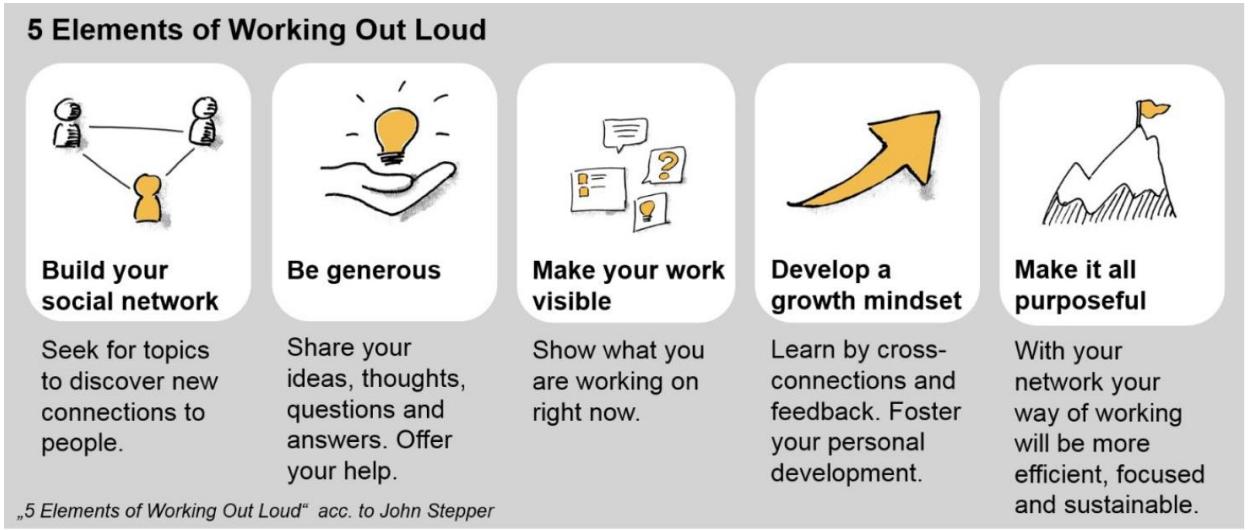
- Knowhow transfer for a leaving expert or manager
- Done over a period of time (weeks-months)
- Structured approach
- visualize and transfer formal and informal knowledge
- Kick-off (expectations, conditions, objectives
- Job map (History, tasks/responsibilities/ roles, Knowledge areas)
- Action plan (selecting suitable methods for knowledge transfer)
- Closure



Working Out Loud

Based on the Book: Working out Loud by John Stepper
By using 3 key capabilities:

- Openly sharing and communicating useful information and knowledge with others.
- Co-creating content through the use of group editing tools.
- Enabling and fostering more team-wide and company-wide communication and discussion of hot-topic areas through comments.



Lessons Learnt

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- Insights which are gained by positive or negative experiences
- Applicable in a similar situation
- Aims to avoid recurrence of failures and standardize best practices
- Leads to new or changed rules (e.g. standards, work instructions, guidelines, checklists, etc.)
- Individual experience transfer from person to person, meetings, workshops or by own experience
- Experience is documented and shared
- The quality of information is ensured by evaluation of the content

Lessons Learnt

To the heart of Business

	A	B	C	D	E	F	G	H	I	J	K
1											
2		**Lessons Learned from <Project Name>**									
3		**Topic**	**Experience**	**Impact & Recurrence (H/M/L for each)**	**Rank**	**Lessons Learned**	**Best Practice or Problem?**	**Actions Required To Implement Lessons Learned**	**Implement (Q/S/L)**	**Assigned To**	
4											
5											
6											
7											
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17											

Lessons Learnt

To the heart of Business

Interagency Aviation

Lessons Learned

No. IALL 07-05 **August 23, 2007** **Page 1 of 2**

Subject: Interagency Aviation Lessons Learned
Area of Concern: Aviation Flight and Maintenance Operations
Distribution: To All Aviation Users

FY 07 ANC07LA077 **Cessna 185 (floats)**

What Happened.

A recent accident investigation revealed an improper maintenance procedure and some good ideas from the pilot to reduce risks in any aviation operation.

Narrative: Following a 100-hour/annual inspection the DOI fleet aircraft received a post-maintenance run-up by two qualified government aircraft mechanics (no deficiencies noted). The aircraft was moved from the hangar to a small lake adjacent to the airport where the mishap pilot pre-flighted the aircraft for a short (5 mile) re-positioning flight to a larger lake where the aircraft could be re-fueled for the post-maintenance test flight. The pilot recognized that the left wing fuel gauge was just above empty and that the right wing fuel gauge indicated less than ¼ tank. Due to the short distance between the lakes and the need to be as light as practical to take off from the small lake the pilot accepted the low fuel gauge indications without physically checking the fuel quantity (dipping the tanks).

The pilot performed a proper run-up, received a take-off clearance, adjusted the fuel selector lever to the "both" position, and took off to the north. In order to avoid inbound traffic the pilot elected to fly at 500' above the surface and, while avoiding built up areas, to fly as directly as practical to the point of intended landing. Within three minutes after take off the engine failed. The pilot attempted to re-start the engine but was unsuccessful.

The pilot made an emergency landing on a small pond, but due to the size of the pond after touchdown the aircraft left the pond, hit an embankment became briefly airborne and flipped over.

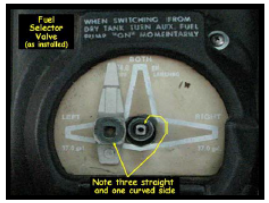
The pilot was properly restrained, and although he was not wearing (nor was he required to wear) a flight helmet he was able to egress by himself and use his cell phone to summon help.

The investigation determined that rather than fuel exhaustion due to lack of fuel quantity, the engine actually failed due to fuel starvation as a result of the improper installation of the fuel selector lever during the 100-hour inspection.

No. IALL 07-03 **Page 2 of 2**

Narrative (con't): Although the mechanics had used the appropriate checklist, the manufacturer's maintenance manual, and good cross-checking of each other's work, the fuel selector lever was installed 180 degrees out of phase so that when the pilot selected "both" he actually had turned off all fuel from the wing tanks.

The fuel selector valve assembly is designed to prevent improper installation (dog house shape). However, the assembly on this aircraft was worn enough that it easily permitted the lever on this aircraft to be improperly re-installed. Inspections of other fleet aircraft revealed no similar excessive wear or improper installation of this assembly. The NTSB is coordinating with Cessna to follow-up on this flight hazard.



Lesson Learned. This was the second fuel exhaustion / starvation event involving a Cessna aircraft in under a month. In this case the engine failed due to a human performance failure on the part of one of the mechanics.

Predisposition / framing can cause errors even when you follow the checklist. The mechanic who made the error was properly qualified, conscientious, thorough, and well-intentioned. He followed the checklist, used the maintenance manual, and had another mechanic check his work. Despite all of these precautions he installed the fuel selector valve 180 degrees out of phase. The investigation believes that because the mechanic "knew" the valve would only fit on the shaft one way he assumed that when it "fit" it was installed properly and did not visually check it with a flashlight. Wear on the valve handle and shaft combined with the mechanic's experience and mental "framing" defeated the system and resulted in the fuel starvation accident.

Lessons Learned. The pilot involved in this accident, though not responsible for the engine failure, offered the following three excellent suggestions that pilots of all types of aircraft should consider on every flight.

Ensure that you have the appropriate amount of fuel, not just "enough" fuel. The pilot knew that the takeoff lake was small and he wanted to be as light as possible. The pilot felt that he had enough fuel for the intended flight. Don't forget that FAR 91.151(a) requires a 30-minute fuel reserve for all VFR flights in airplanes. One of the truest axioms of aviation addresses the worthlessness of "fuel not in the tank".

Don't bet your life on your fuel gauges, visually check the fuel level by "dipping" all tanks. Some aircraft models have notoriously unreliable fuel gauges. Always visually ensure the fuel quantity of all tanks before takeoff and take a conservative response in flight when determining fuel remaining. Remember, it's safer to act as if there is less fuel available, than to think you have more fuel than you actually do and get an unpleasant surprise.

Given a choice between flying lower or higher… fly higher. To avoid traffic inbound to the airport the mishap pilot chose to stay low (500' AGL) and fly a more direct route to his destination. When the engine failed the pilot lost altitude and decreased his choice of emergency landing areas while attempting to restart the engine. In retrospect, the pilot said that he could have just as easily extended his initial heading gaining altitude and flying behind the inbound aircraft. A second axiom of aviation addresses the uselessness of "altitude above you".

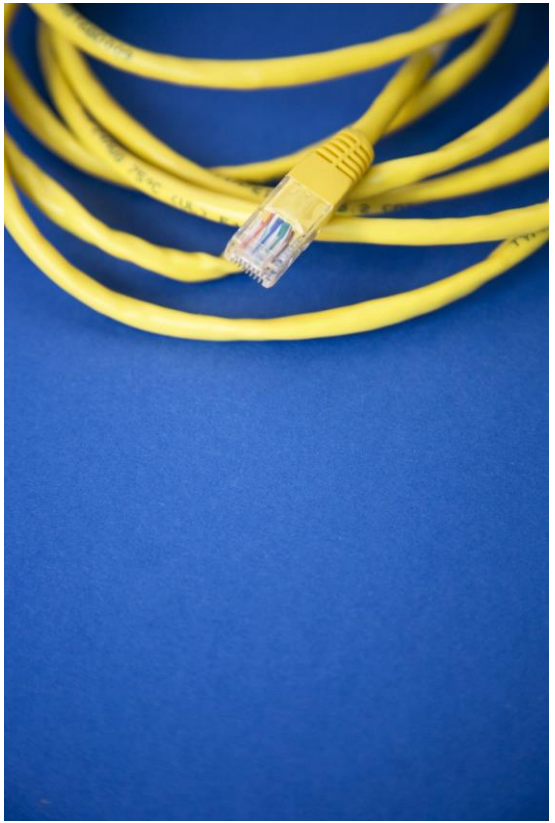
/s/ Robert Galloway
Robert Galloway
Aviation Safety Manager

/s/ Ron Hanks
Ron Hanks
National Aviation Safety and Training Manager

Intranet

To the heart of Business

- The main support for Company internal information and operation
- Specialized portal, team spaces, repositories.
- Organization wide search
- Communication on events, projects, news, leaders news, awards, exchange…



Wikis and Blogs

To the heart of Business

- Used to create and edit pages
- Used for collaborative and community websites
- Think: WIKIpedia!
- Blogs: discussion and informational website based on posts or entries
- Can be based on a wide range of topics

Virtual-Learning

To the heart of Business

- Learning supported by digital media
- Podcasts, videos, tutorials… and any type of digital communication
- Elements explain specific topics: technical, process, compliance…
- Can be accessed at any time and any place
- Digital log of training that has been done, digital certificates and refresher reminders

Topic Communities and Expert Communities

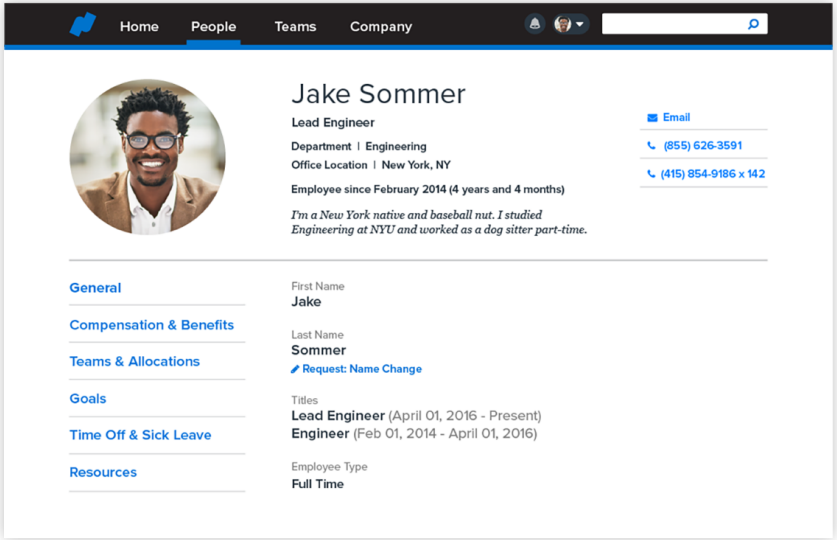
To the heart of Business

- Virtual areas where employees with a common interest can connect with each other to share knowledge
- Not limited to geographical position, time zone or working unit
- Employees can work together on business topics
- Creation of forums, virtual meeting rooms and social collaboration tools supported by IT
- Communities can also meet physically

Profiles

To the heart of Business

- Profile pages/ Yellow pages
- Each employee can create their page and be contacted
- Information displayed can be used for full-text search
- Think LinkedIn or professional Facebook
- Makes skills, knowledge easier to find within the company

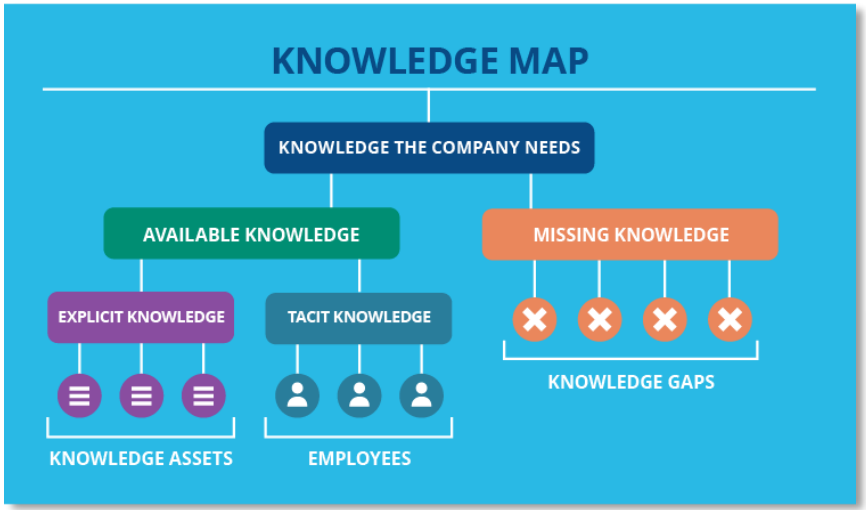


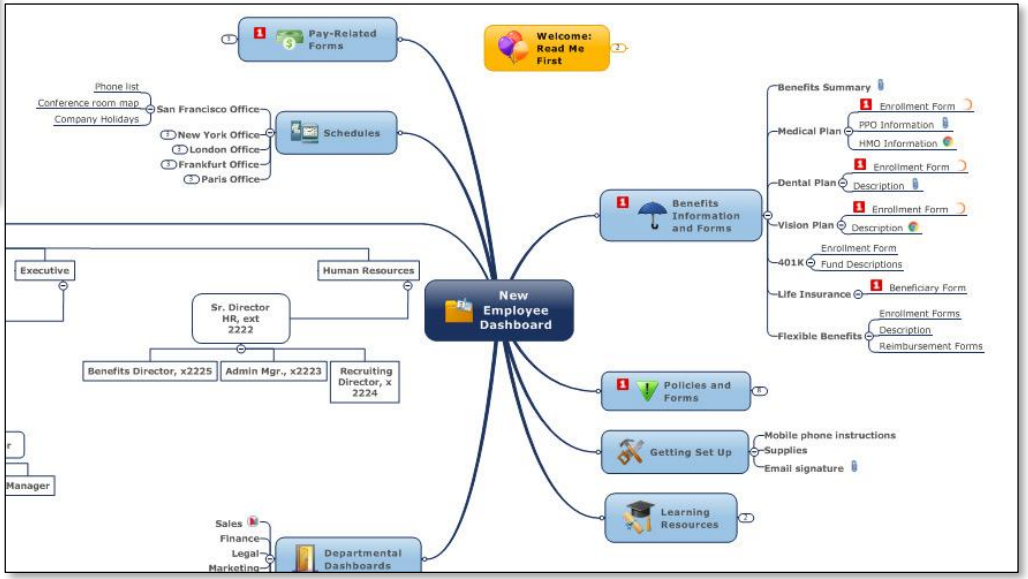
Knowledge Maps

To the heart of Business

- Identify the topic for your map
- With a starting point defined, branch into various nodes that represent people or places that hold information
- Continue branching into more specific nodes if needed
- Add keywords that explain how each node relates to one another

Knowledge Maps





Lexicon

- Repositories and data storage
- Specific vocabulary, abbreviations, acronyms for the company or knowledge areas
- Meanings are also defined as a type of dictionary

AERONAUTICAL LEXICON

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LÉXICO AERONÁUTICO

Airgways extiende a nuestros lectores el siguiente glosario de guía de abreviaturas y acrónimos de la jerga aeronáutica para una mejor comprensión en la experiencia de lectura e interpretación de los textos publicados en Airgways.com, logrando como objetivo una mayor familiarización de los contenidos.

AERONAUTICAL LEXICON

Airgways extends to our readers the following glossary of abbreviations and acronyms of the aeronautical jargon for a better understanding of the reading and interpretation experience of the texts published in Airgways.com, achieving as a goal a greater familiarization of the contents.

ABBREVIATIONS & ACRONYMS AIRCRAFT
ABREVIATURAS & ACRÓNIMOS AERONÁUTICOS

A

A ampere(s)

A autotuned navaid

A-BPSK aviation binary phase shift keying

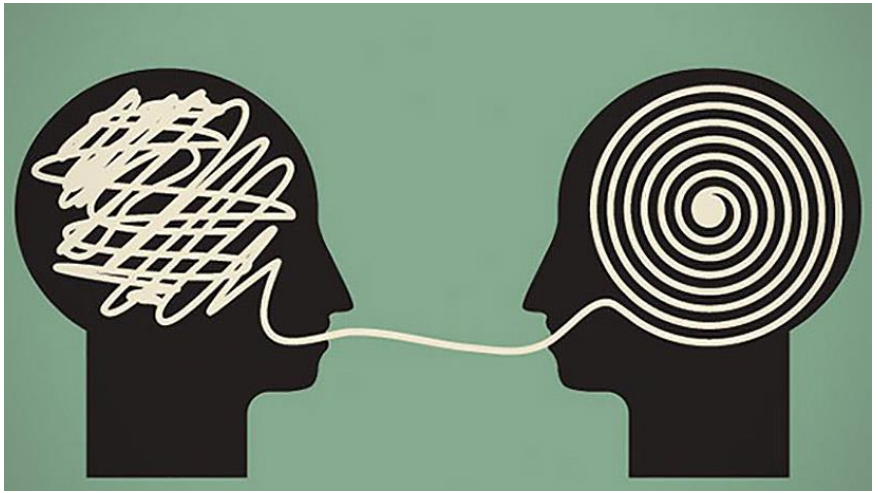
A-QPSK aeronautical quadrature phase shift keying

A-SMGCS advanced surface movement guidance and control systems

Knowledge Brokers

To the heart of Business

- KM practitioners
- Intermediary between producers and users of knowledge
- They manage intellectual assets
- Know about methods, tools and the ways to implement them
- Support the organization in the matters of KM related topics



Expert Paths/Careers

To the heart of Business

- Career path developed for certain core competence areas within the company
- Helps experts in topics to come together and share
- Provides an outlook on career development opportunities to help bind the employee (with knowledge) to the company
- Leads topical knowledge within the company

Communities of Practice

To the heart of Business

- Virtual or physical gatherings
- Groups of people that share a common interest
- Knowledge is share in the form of ideas, concerns, lessons learnt, experiences (storytelling)
- Can use collaborative workspaces that are either virtual or physical or a combination

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Industry Examples

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KM Industry Example: **Adidas**

To the heart of Business

- top down decision to build a corporate university (Learning Campus)
- Building a collaborative culture
- Building a learning organization
- 5 Learning Principles:
  - Working is learning and learning is working
  - Shift to an open and collaborative, connected social learning environment
  - Leadership means sharing, teaching and learning
  - Innovation is part of everyone's work
  - Create a new culture of self-driven life-long learning

KM Industry Example: **Schaeffler**

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- Global Intranet in 2001
- Communities of Practice / networks of competence 2003
- Expert debriefing 2006
- Wiki 2006
- Open knowledge space / Wissensforum 2010

SCHAEFFLER

KM Industry Example: **Audi**

To the heart of Business

- Community collaboration for all employees
- Monthly talks about cases from internal and external experts
- Talks are recorded and published as audio and video podcasts in the Audi mediathek
- All tools are linked with internal pages, creating available access where needed

KM Industry Example: **Böhringer Ingelheim**

To the heart of Business

- Communities based on practices
- Train the trainer concept
- Open radio – best practice calls
- Use of wikis for collaborative projects
- Use of blogs or wikis to create virtual discussion spaces that cancontinue 24/7 with no physical boundaries.
- Creation ofknowledge worker spaces, communities of practice, and social networks. This allows knowledge workers to discover the experts among them and to learn from each other.
- Use of blogs or wikis to connect knowledge sources for new knowledge creation and repositories of best practices

KM Industry Example: **Continental**

To the heart of Business

- Profiles and Yellow pages with full text search to find experts
- Corporate Lexicon with definitions, abbreviations and glossaries
- Virtual communities to share knowledge and work on topics
- Expert debriefing for structured know how transfer for leaving experts and managers
- Lessons learned
- E-learning, online training for specific topics

KM Industry Example: **Keppie Design**

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- Situation: rapid expansion, constant influx of trainees, technical experience gap from new employees entering directly from the University
- Objectives: facilitate internal communication, professional development of new trainees, work distribution over different locations
- Implementation:
  - Simple intranet model
  - Creation of an experience and skills database, based on employee interviews
  - Set up of an Observer Group to guide the process

Group Work Part 3

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In groups of 3, discuss:

- How?
- Measurement
- Preliminary Action Plan

All 3 for Kolping

What problems do you think you will encounter?

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What do you have that you think will make you successful?

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What are the key results you expect?

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How do you want to implement Knowledge management in your company to resolve the problem definition?

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How would you measure and check the effectiveness and implementation?

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First ideas to be discussed and put in place – Preliminary action plan

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Agenda

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Introductions, Expectation Management	9:00 – 9:30
Information, Knowledge and KM	9:30 – 10:00
Group work Part 1	10:00 – 10:30
Pause	10:30 – 10:45
KM Dimensions, Benefits and Challenges	10:45 – 11:30
Group Work Part 2	11:30 – 12:30
Lunch	12:30 – 13:30
Methods/Tools	13:30 – 14:30
Industry Examples	14:30 – 15:30
Group Work Part 3	15:30 – 16:15
Closing Statements	16:15 – 16:30

In General: Lessons Learned on KM

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- Time commitment is required
- The system/tools/methods need to deliver clear advantages from the start
- Implementation success depends greatly on people´s involvement, and collaboration
- Each contributor to the process needs to gain benefits
- Small company → start small and grow organically

Suggested Next steps

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- Conduct a knowledge assessment or audit (to determine the current state of knowledge sharing and collaboration)
- Define your KM vision, mission
- Establish your KM strategy (plan describing how to manage your knowledge)
- Define your KM values and “wish” culture
- Develop a project plan and measurement approach (objectives, deliverables, roles…)
- Creation of pilot teams

I can only encourage you to try things out and see what works for you the best. Maybe it is only a team exchange or open radio, or Virtual-learning… just try it continuously


"Knowledge has a beginning but no end."
— Geeta S. Iyengar