Capturing and Transferring Knowledge - basic concepts

(D2.08 – presentations and practical session)

Andrey Pryakhin

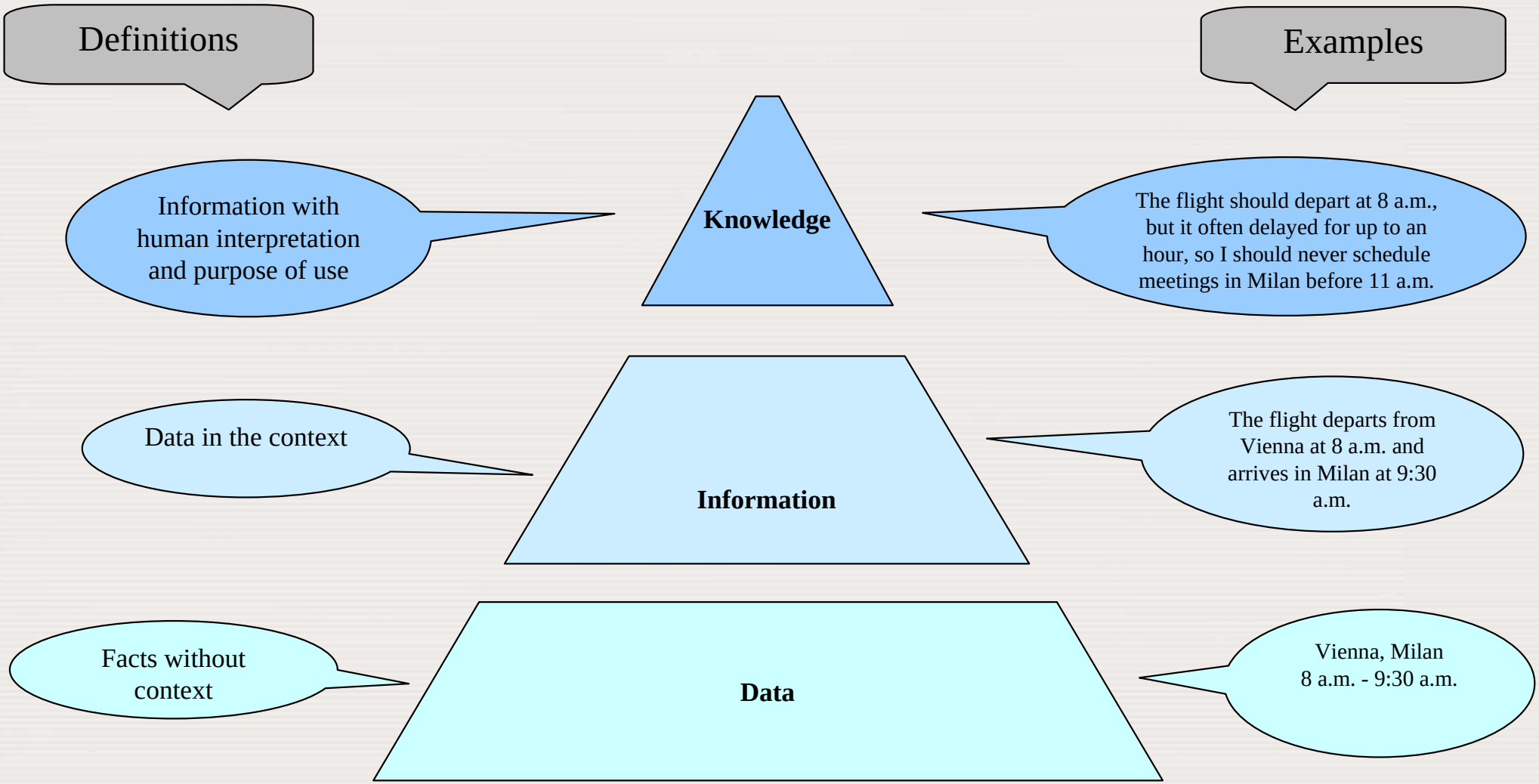
IAEA

Atoms for Peace: The First Half Century
1957–2007

Issues addressed

- Knowledge
- Explicit knowledge vs. Implicit knowledge
- Knowledge capture and transfer
  - Practical exercise
- Knowledge gaps and targets

Data, Information and Knowledge



Explicit knowledge vs.
Implicit knowledge vs. Tacit knowledge

- Explicit knowledge –
  - 20% (captured, recorded, codified)
- Implicit knowledge –
  - 30% (not been captured yet)
- Tacit knowledge
  - 50% (difficult to recall)

Explicit knowledge

- Organizational
  - Organization chart, who is who
- Environmental
  - Nuclear industry, member states
- Formal or procedural
  - Manuals, guides, procedures
- Theoretical or academic
  - Theorems, equations, math, physics

Implicit knowledge

- Intuitive organizational
  - Undocumented or informal rules
- Practices
  - How to format document

Tacit knowledge

- Skills
  - How to ride a bicycle,
  - How to organize a meeting
- Attitudes
  - How to persuade other people
  - Social network
- Automatisms
  - Write software
  - Type a document

Implicit vs. Tacit

- Not a big difference
- In most cases – as synonyms
- In a person's mind
- Tacit -> Implicit -> Explicit

Basic aspects

- Knowledge capture
- Knowledge transfer
- Knowledge gaps
- Knowledge targets

Capturing implicit knowledge

- Why capture implicit knowledge?
- What kind of knowledge could be captured?

- From whom might you wish to capture?
- How could it be captured?

Transferring knowledge

- From whom to whom?
- How might it be transferred (explicit vs. implicit)?

- How might it be utilized in the future?
- What might be the benefits?

Exercise

- Split into 4 groups
- 2 groups are assigned with one of the 2 areas
  - Knowledge capture
  - Knowledge transfer
- Discuss 4 questions posed for the selected area
  - 15 mins
- The designated reporter reports the results
  - 3-5 mins for each group

Capturing

1. Why capture implicit knowledge?
2. What kind of knowledge could be captured?
3. From whom might you wish to capture?
4. How could it be captured?

Transferring

1. From whom to whom?
2. How might it be transferred (explicit vs. implicit)?
3. How might it be utilized in the future?
4. What might be the benefits?

Exercise

- Summary Reports from each group

IAEA test case on capturing and transferring knowledge

- Insight series session in June 2007
- INIS and NKM Section (R.Workman and M.Ruyssen)
- Brainstorming – IAEA staff members
- Common responses from grouped participants

Knowledge gaps

- Are there age gaps in your organization?
- Is your organization losing experienced people?
- Does your organization have a graduate recruitment programme?
- Do you still have access to retired staff?

Knowledge targets

- Is there a need within your organization to preserve knowledge for further re-use?
- Which areas (with focus on nuclear knowledge) would you target?
- Which knowledge is important for your organization?
  - Now
  - In the future
- Are there projects ore areas in which you feel sufficient knowledge has not been captured yet?

Summary

- Conclusions
- Question and answers
- Thank you!