Knowledge Management Strategy Adopted by PNRA: A Case Study

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Outline of the Presentation

- Primary Reasons for KM in PNRA
- Objectives of the KM Strategy
- Identification of knowledge domains important for PNRA
- Identification of Knowledge Experts
- Assessment of the Knowledge Domains
- Knowledge Management System
- Conclusion

Primary Reasons for KM in PNRA

- Increasing manpower demand
- Expanding Nuclear Programme
- Non-availability of knowledge in a cohesive form
- Disorganized storing of Knowledge
- Difficulty in knowledge retrieval
- Aging of experts

PNRA's Objectives of the KM Strategy

- Identification of critical knowledge domains
- Identification of explicit and tacit knowledge resources
- Conversion of tacit knowledge into explicit
- Preservation of the knowledge capital
- Efficient and simple access

Identification of Critical Knowledge Domains

- KM Teams
- Brain storming sessions with:
  - Knowledge experts
  - KM experts
  - The higher management of PNRA
- A project based thematic approach was used
- Each project generating knowledge capital was identified as a domain

Identification of Knowledge Experts

- Every employee has to submit his/her job profile
- Further information collected about the workforce
- Developed two Proformas to further refine the identification process:
  - A Specialization Proforma (SP)
  - Training Needs Assessment (TNA) Proforma
- Experts short listed against each knowledge domain
- Training needs of the organization assessed corresponding to the organization's vision and mission

Assessment of the Knowledge Domains

- Each domain was assessed, using the three tools:
  - KM Assessment Tool
  - Knowledge Maturity Model and
  - Knowledge Criticality Model
- The KM experts explained these tools to the knowledge experts
- The knowledge experts filled the questionnaire for each tool
- The questionnaire was then analyzed by the KM Experts

KM Assessment (KMA) Tool

- Identifies the strengths and weaknesses in the KM strategy
- Results showed following practices are required, for effective knowledge management:

  - **Job Profiles**

  - **Work Force Planning**

  - **Succession Planning**

  - **Document management**

  - **IT Strategy**

  - **Information Management**

  - **Portals**
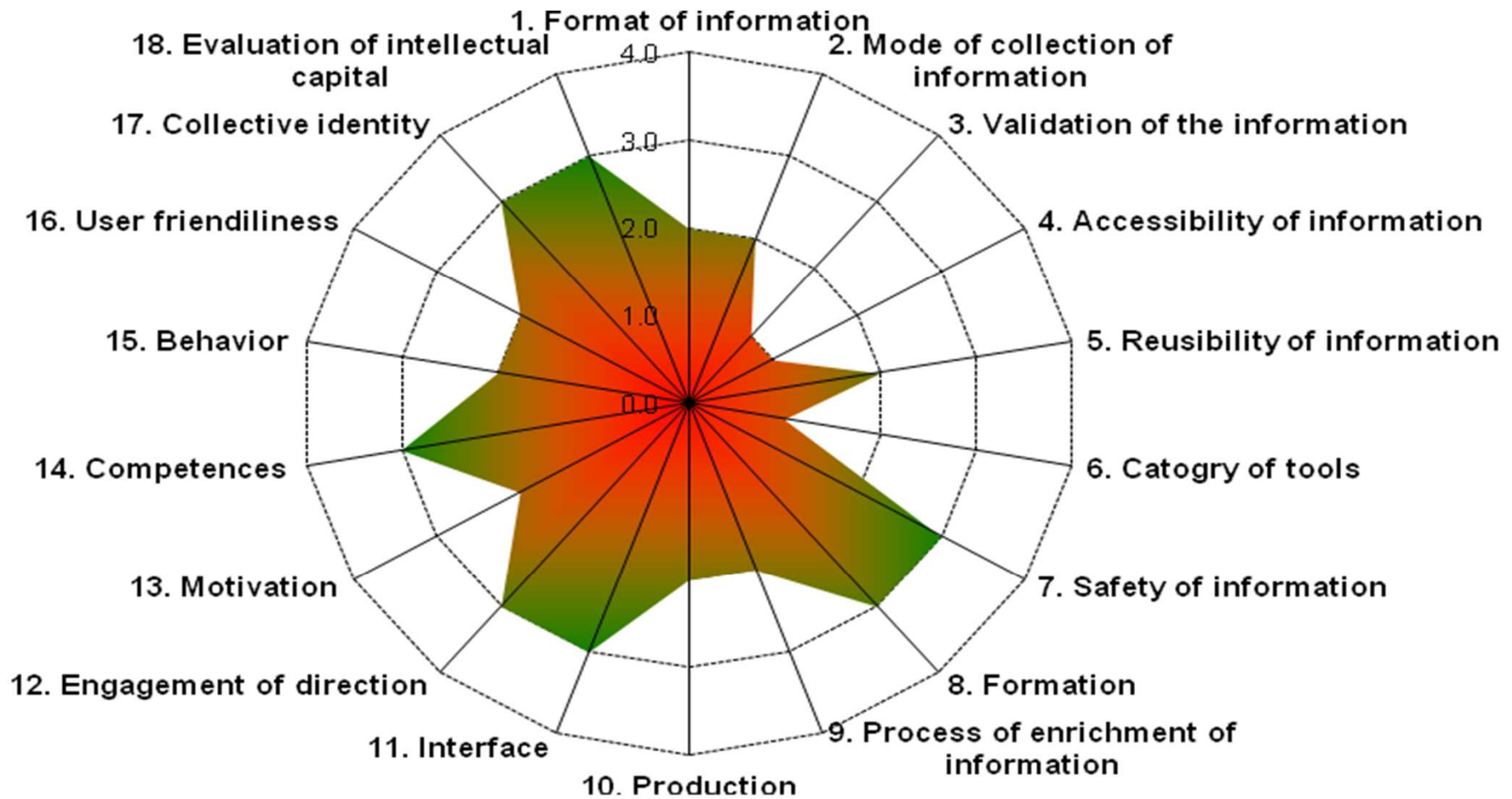
  - **Simulation Tools**

  - **Talent Programs**

Knowledge Maturity Model (KMM)

- KMM uses a number of parameters to assess the level of **maturity of the domain** and to identify an organization's strengths and weaknesses vis-à-vis that domain

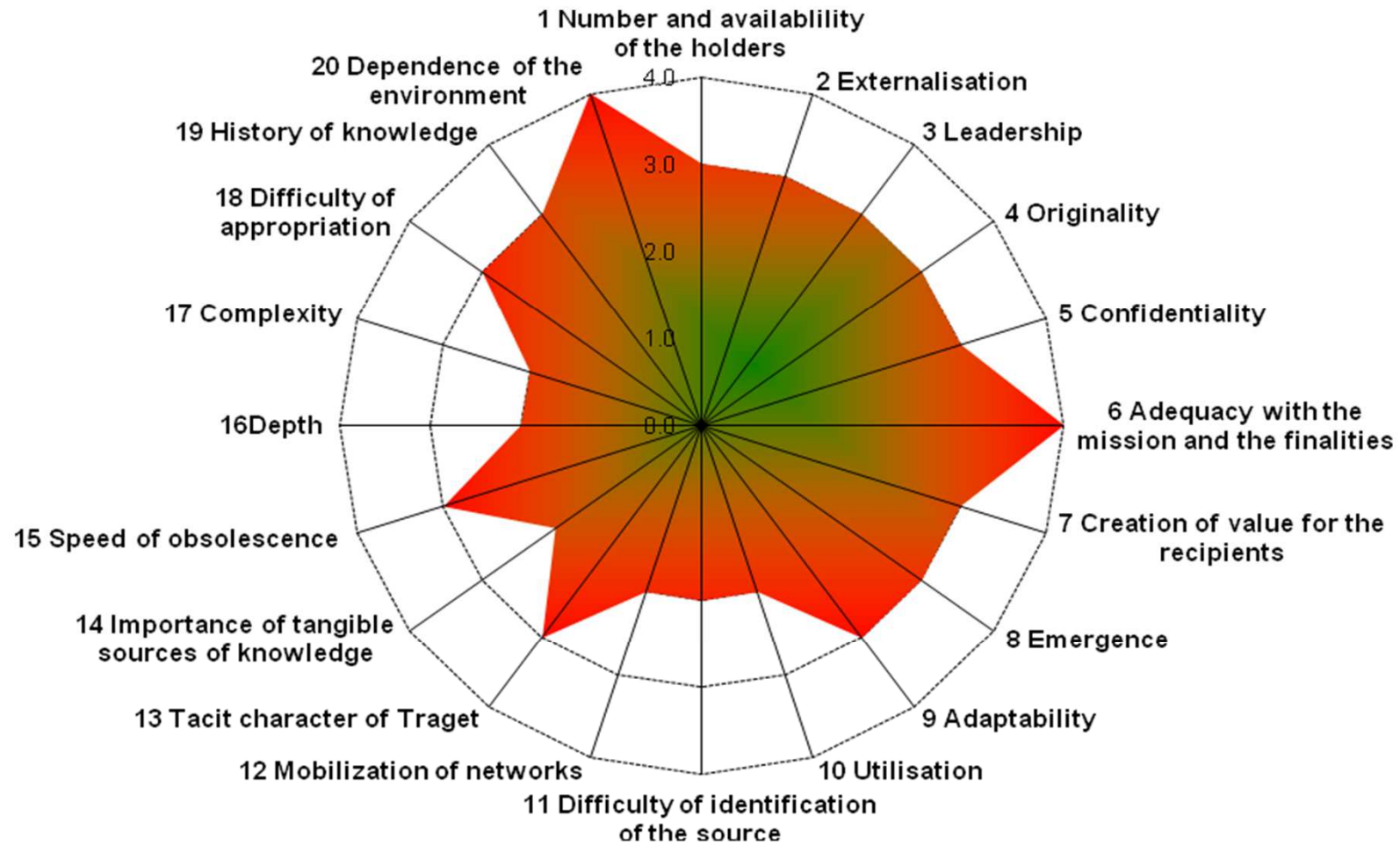# Knowledge Maturity Model (KMM)

Knowledge Criticality Model (KCM)

- KCM uses different parameters to assess the **significance of the domain** for an organization and the level of efforts required for its preservation and maintenance

Knowledge Criticality Model (KCM)

Knowledge Management System

- Domains, critical for PNRA, were identified
- KM Team recommended, initiated and implemented a number of measures for:
  - The conversion of tacit knowledge into explicit knowledge
  - Efficient access to the knowledge
  - Work force planning and
  - Succession planning

Conversion of Tacit Knowledge to Explicit Knowledge

- PNRA initiated the following measures for the conversion of tacit knowledge to explicit:
  - Development of working materials, manuals etc. by experts
  - Custom designed courses and their audio/video recording
  - Development of an audio/visual library
  - Knowledge Management Portal

Work Force Planning

- Establishment of National Institute of Safety and Security

- Simulation Tools

- Supporting the higher education of young engineers/scientists studying nuclear subjects

- Designing and installation of VPN to connect all the offices of PNRA

Succession Planning

- Attachment of two to three young officials with an expert

- Rehiring of the retiring personnel as consultants

- Lectures by university professors and regulatory affairs experts

- Leadership Development Program (LDP)

Conclusion

- Devised a comprehensive strategy for the proficient management and preservation of its explicit as well as tacit knowledge

- Activities initiated to achieve the objectives of the KM strategy

- Helped PNRA in the identification and preservation of knowledge and its resources, vital for a nuclear regulatory body

Thank you for your patience