



# Integrating Knowledge-based Management and Artificial Intelligence

**Prof. Dr. Andreas Brandner**

**8<sup>th</sup> International Knowledge Based Management Conference**

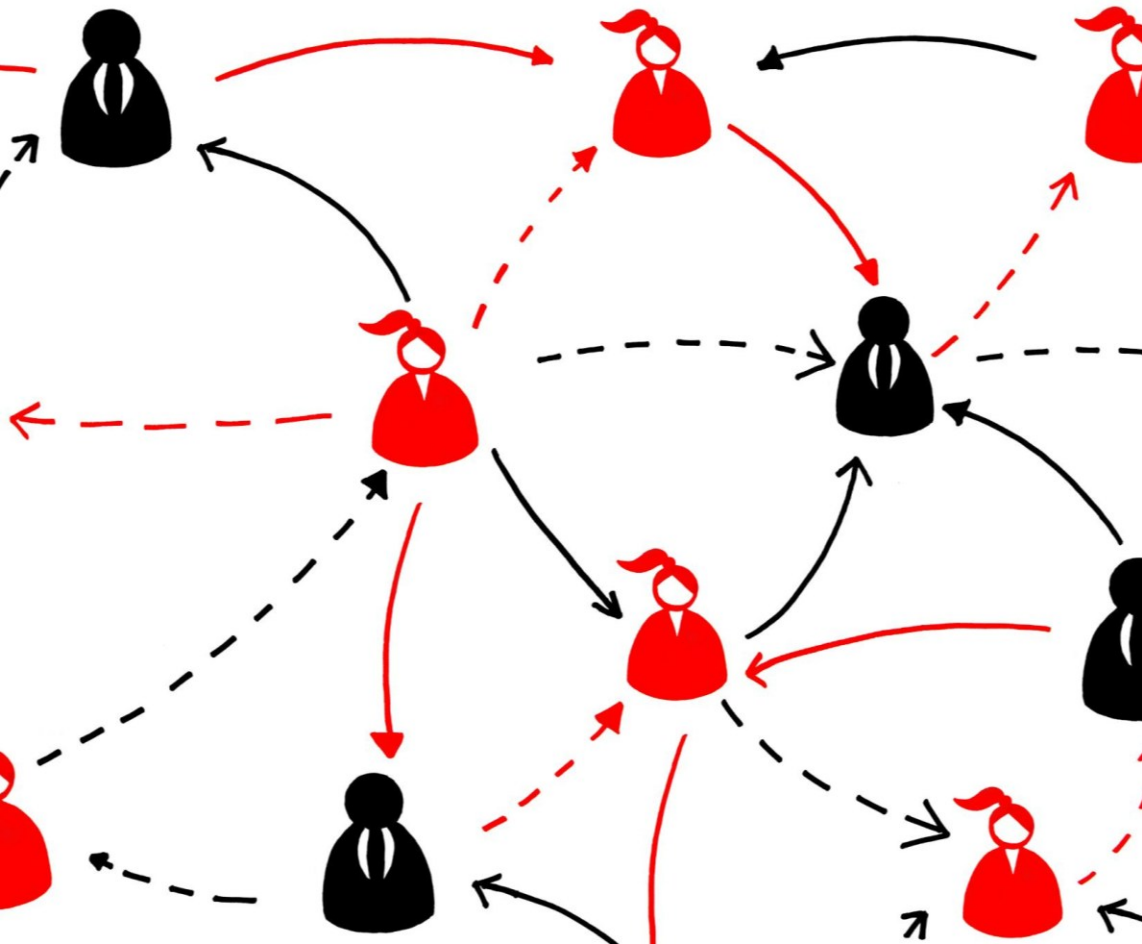
Tehran, 8 October 2025

Knowledge is at the heart of sustainable development!

# 1

# KNOWLEDGE-BASED MANAGEMENT

# Knowledge-based Management



## Systematic Approach to Knowledge

Knowledge Management is a structured approach to capture, distribute, and use knowledge efficiently within organizations.

## Enhancing Organizational Performance

Effective knowledge use improves organizational performance by enabling better decision-making and problem-solving.

## Fostering Innovation

Knowledge management encourages innovation by facilitating idea sharing and creative collaboration among employees.

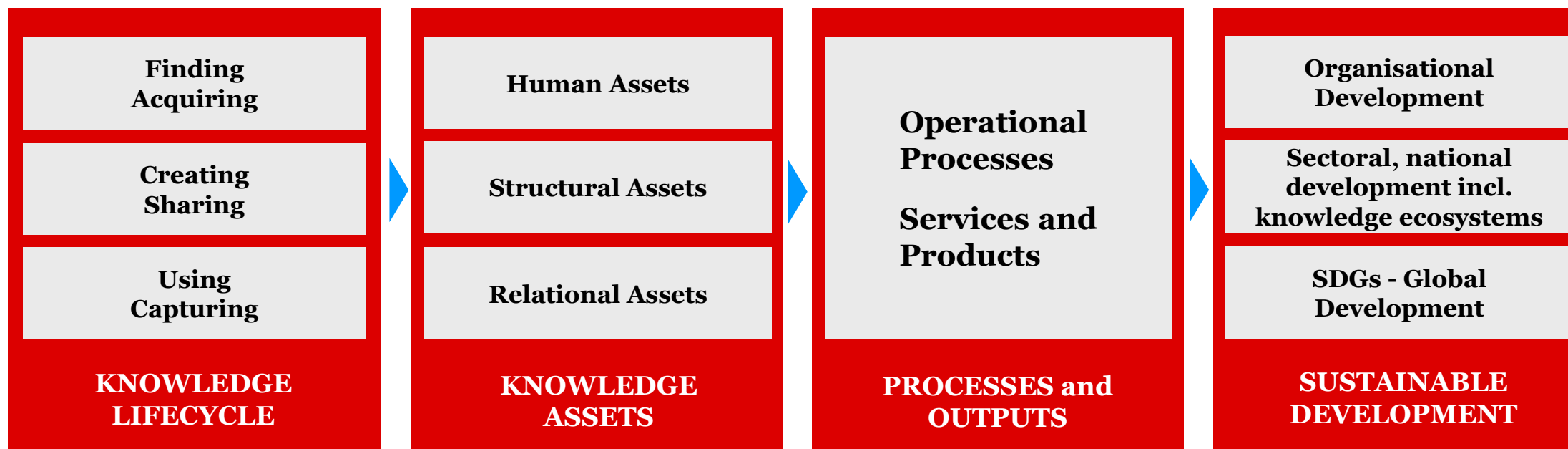
## Societal Development based on knowledge

Knowledge contributes equally to societal development and healthy relationships in economy, society, and environment.

# The KM4D Framework



## Knowledge Leadership and Governance



## Monitoring and Learning

# The Agenda Knowledge for Development

see [www.k4dp.org/agenda](http://www.k4dp.org/agenda)



The KDGs are a key element and based on the statements of the 150+ authors.

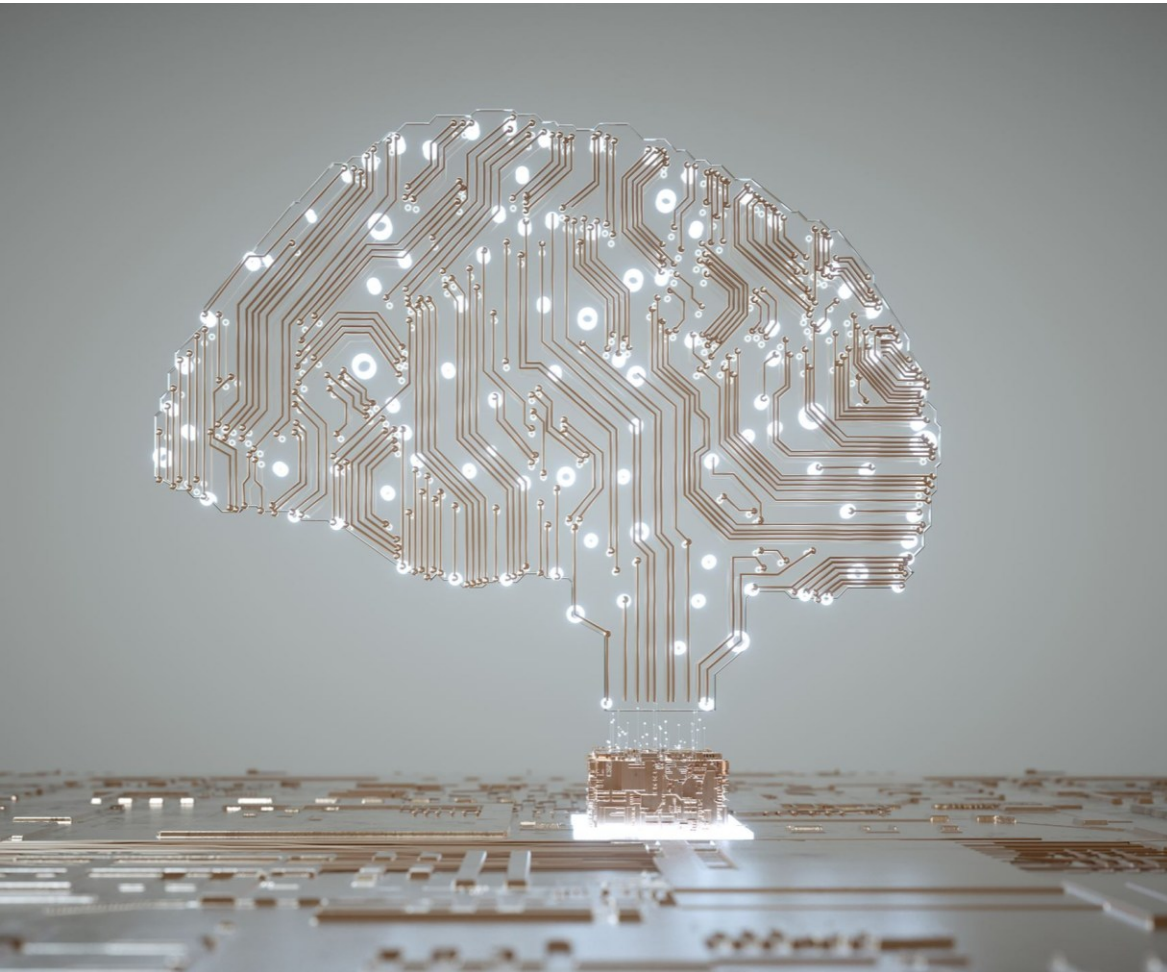
- E Goal 1: Pluralistic, diverse and inclusive knowledge societies
- E Goal 2: People-focused knowledge societies
- E Goal 3: Strengthening local knowledge ecosystems
- E Goal 4: Knowledge partnerships
- E Goal 5: Knowledge cities and rural-urban linkages
- E Goal 6: Advanced knowledge strategies in public and development organisations
- E Goal 7: Capture, preservation and democratisation of knowledge
- E Goal 8: Fair and dynamic knowledge markets
- E Goal 9: Safety, security, sustainability
- E Goal 10: Legal knowledge
- E Goal 11: Improved knowledge management competences
- E Goal 12: Institutions of higher education to play an active role
- E Goal 13: Information and communication technologies for all
- E Goal 14: The arts and culture are central to knowledge societies
- E Goal 15: Knowledge of nature



# 2

## **ARTIFICIAL INTELLIGENCE: A GAMECHANGER**

# Definition and core concepts of AI



## **Artificial Intelligence: Definition**

AI involves computer systems performing tasks that usually require human intelligence.

## **Learning and Reasoning**

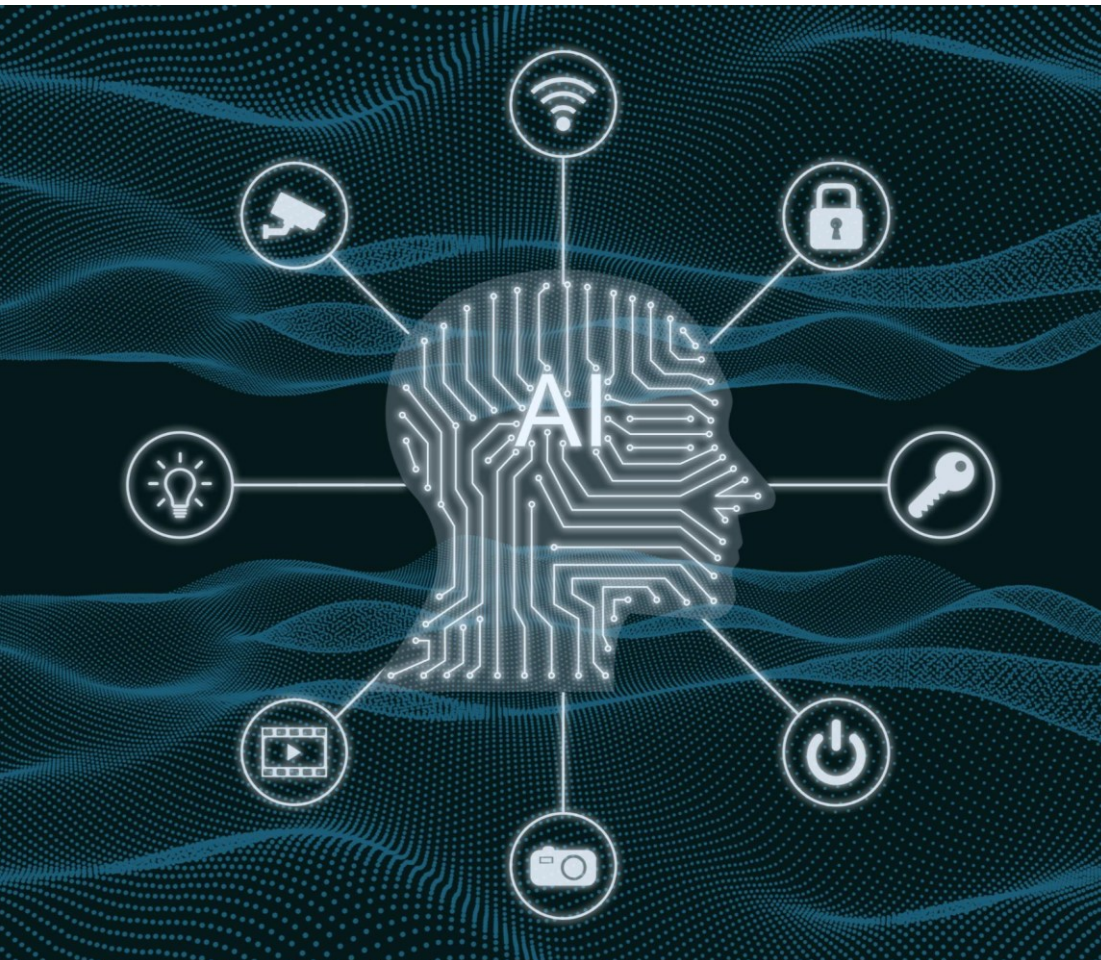
AI systems learn from data and apply reasoning to solve problems effectively.

## **Natural Language Processing**

AI enables machines to understand and generate human language for communication.



# Types and Applications of AI



## AI Types Overview

Key AI types include machine learning, deep learning, and natural language processing for various intelligent tasks.

**Customer Service Applications:** AI enhances customer service through chatbots and virtual assistants, improving response time and satisfaction.

**Predictive Analytics:** Businesses use AI-powered predictive analytics for forecasting trends and informed decision-making.

**Automation and Decision Support:** AI automates repetitive tasks and supports complex business decisions for efficiency and accuracy.





# Trends and Advancements



**Generative AI Advances:** is evolving rapidly, creating new possibilities for content creation and design automation.

**Explainable AI Importance:** Explainable AI enhances transparency, making AI decisions understandable and trustworthy for users.

**Ethics:** Ethical AI development ensures responsible use, fairness, and safety across AI-driven applications.

**Industry and Society Adoption:** AI adoption spans industries, driving innovation and improving operational efficiency worldwide while also societal challenges – like climate adoption and biodiversity – can benefit from AI

# 3

## LINKAGES BETWEEN KM AND AI

# How AI enhances Knowledge Management Systems



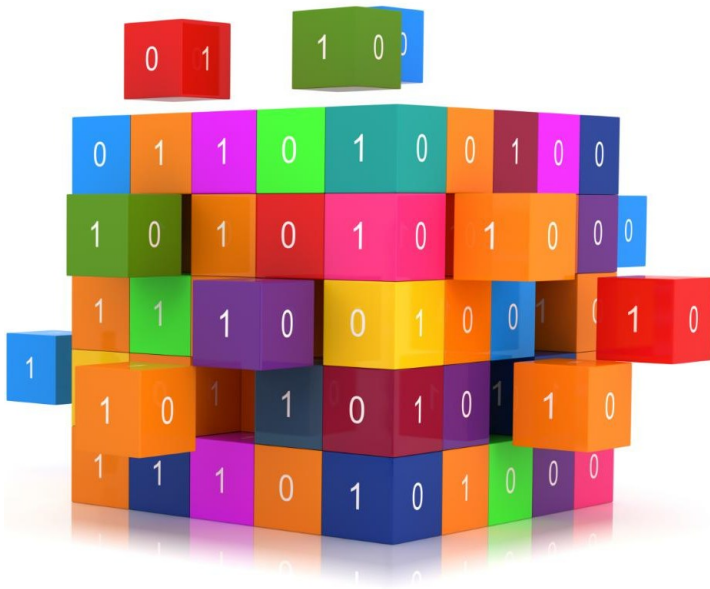
**Automated Knowledge Discovery:** AI automates the extraction and identification of relevant knowledge from large datasets efficiently.

**Intelligent Search Facilitation:** AI enables intelligent search mechanisms that improve retrieval accuracy and speed in KM systems.

**Personalized Content Delivery:** AI customizes content delivery based on user preferences and behavior to enhance user experience.

**Decision-Making Support:** AI supports better decision-making by providing insightful analytics and recommendations.

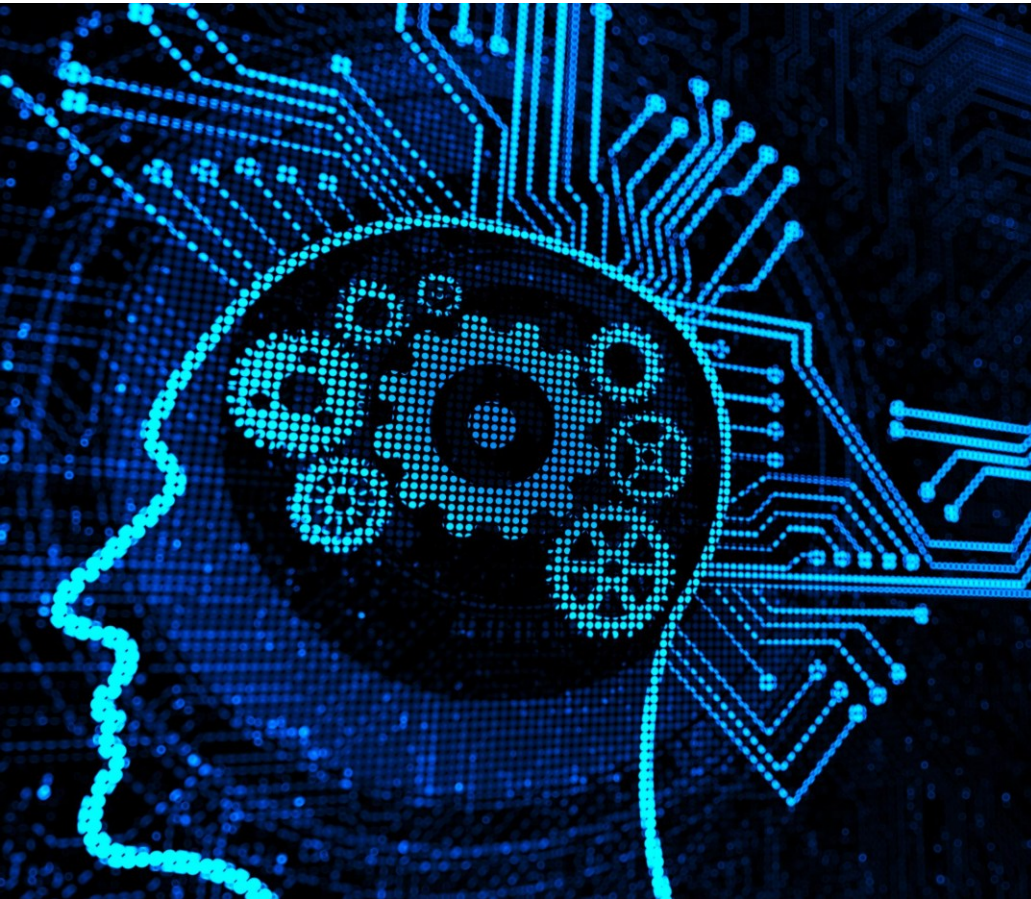
# How Knowledge Management enhances AI Solutions



- KM provides structured data essential for training accurate AI models.
- Knowledge sharing improves AI system adaptability and learning speed.
- KM frameworks help integrate AI insights into organizational workflows.
- Enhanced collaboration through KM supports continuous AI improvement.



# Challenges and Opportunities in Integrating AI with KM



**Data Quality Challenges:** AI integration faces challenges due to inconsistent and poor data quality affecting outcomes.

**User Adoption Resistance:** Resistance from users can hinder effective adoption of AI in knowledge management systems.

**Technical Complexity:** Complex AI systems pose technical challenges during integration with existing KM frameworks.

**Opportunities for innovative KM:** AI enhances knowledge accessibility, delivers improved insights, and accelerates innovation in organizations.

# The role of data in driving synergy between KM and AI



## **Data as Foundational Element**

Data forms the essential base for knowledge management and artificial intelligence integration.

## **Quality and Structure Importance**

High-quality, well-structured data empowers AI to produce meaningful insights and support KM practices.

## **Human responsibility**

Data quality and structure require humans. Knowledge Management provides the human and organisational foundation for AI.



# The Role of knowledge culture in driving synergy between KM and AI



- Knowledge culture fosters trust and openness essential for KM-AI collaboration.
- A strong knowledge culture encourages continuous learning and knowledge sharing.
- Cultural alignment supports seamless integration of AI technologies into KM processes.
- Empowered employees actively participate in leveraging AI-enhanced knowledge tools.
- Leadership commitment to knowledge culture drives sustained KM and AI synergy.

# I wish fruitful discussions!



# Contact



- **Prof. Dr. Andreas Brandner**
  - Knowledge Management Austria / Academy / Associates
  - Knowledge for Development Partnership
- [andreas.brandner@km-a.net](mailto:andreas.brandner@km-a.net)
- [www.km-a.net](http://www.km-a.net) [www.k4dp.org](http://www.k4dp.org)

# My background



- Founder and Managing Director of KM-A (Associates/Academy/Austria)
- Managing Director, knowledge.city (Vienna, Kampala, Nairobi, Togo, Lagos, Lusaka, Berlin, Ghana)
- Executive Director, Knowledge for Development Partnership ([www.k4dp.org](http://www.k4dp.org))
- Core team member, km4dev Community ([km4dev.org](http://km4dev.org))
- Adjunct Professor at Makerere University Business School in Kampala, Uganda
- Director, Knowledge for Development Centre, Makerere University Business School, Uganda
- Director, Joint Centre for Knowledge Sciences, International University of Management, Namibia
- Headquartered in Vienna/Austria, acting globally