

# PHAROS Training Series - Course 9 "RAG End-to-End: Architecture, Retrieval, Generation and Evaluation"

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## Why RAG? Hallucinations, knowledge cut-offs and grounded generation

*Tuesday, 7 July 2026 11:00 (15 minutes)*

This opening session explains why Retrieval-Augmented Generation is needed when Large Language Models must answer with factual, current and verifiable information. It introduces the main limitations of standalone LLMs, including static training knowledge, knowledge cut-offs, hallucinations and weak handling of specialised domain terminology. Using Greek public-service information as a motivating example, the session shows how RAG changes the task from generating from model memory to answering from retrieved evidence. Participants will see how an external knowledge source can support more transparent, context-aware responses, especially in domains where users need reliable guidance, citations and clear caveats. The session establishes the central concepts used throughout the webinar: user query, retrieval, evidence, grounded answer and source attribution. By the end, participants will understand the practical motivation for RAG and why retrieval quality matters before any answer is generated by the model. It clearly frames RAG as a reliability pattern for specialised knowledge-intensive applications.

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