Bridging the Gap Between Guidelines and Bedside Care

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FACTS & FIGURES

Start date:	01/01/2026
End date:	31/12/2029
IHI funding:	4 895 668 €
Industry contribution:	4 218 750 €
Total Cost:	9.5 million €
Social media:	

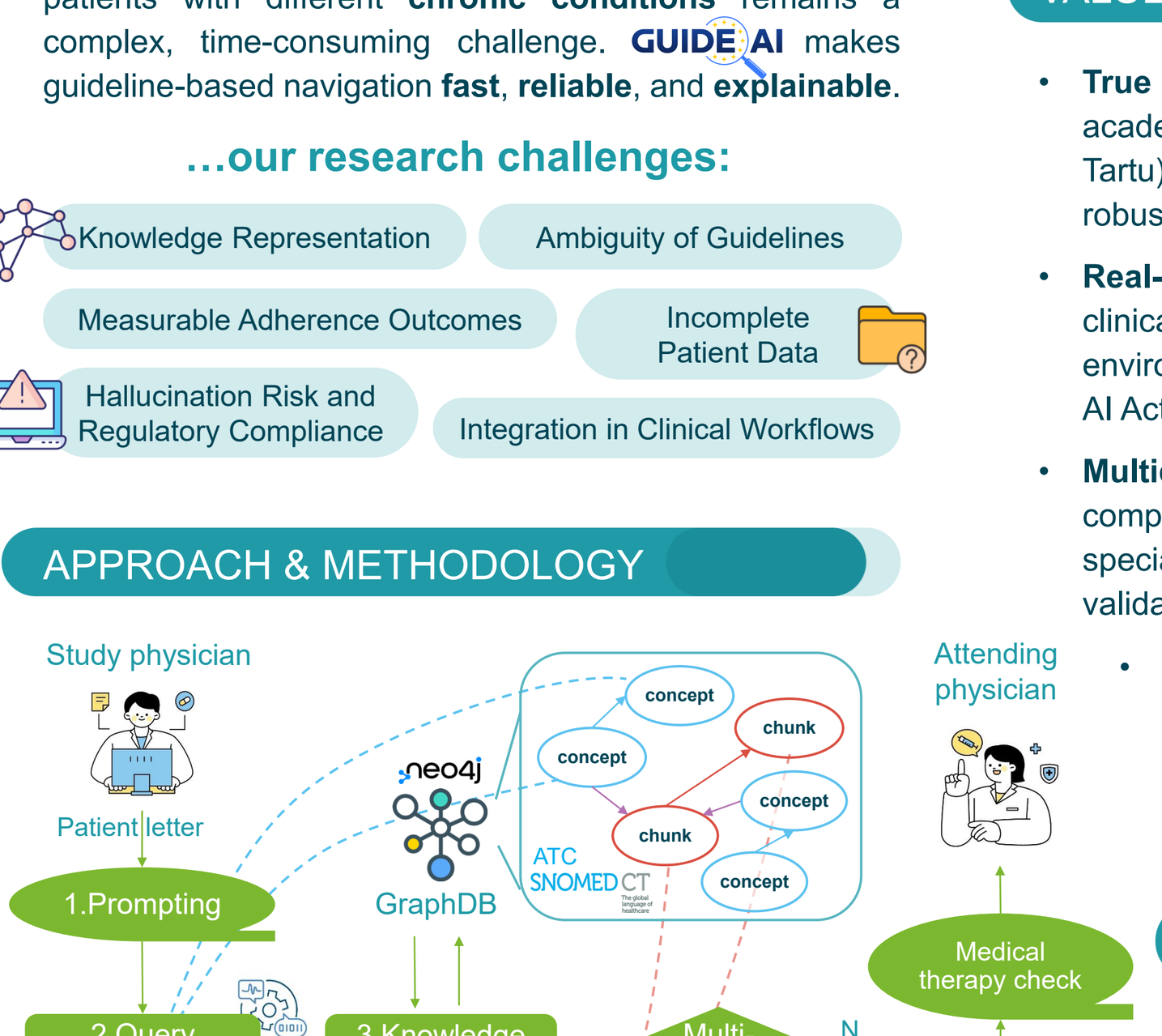
CHALLENGE

Clinical Practice Guidelines summarise the best available **evidence,** yet applying them to individual patients with different **chronic conditions** remains a complex, time-consuming challenge. GUIDE AI makes guideline-based navigation **fast**, **reliable**, and **explainable**.

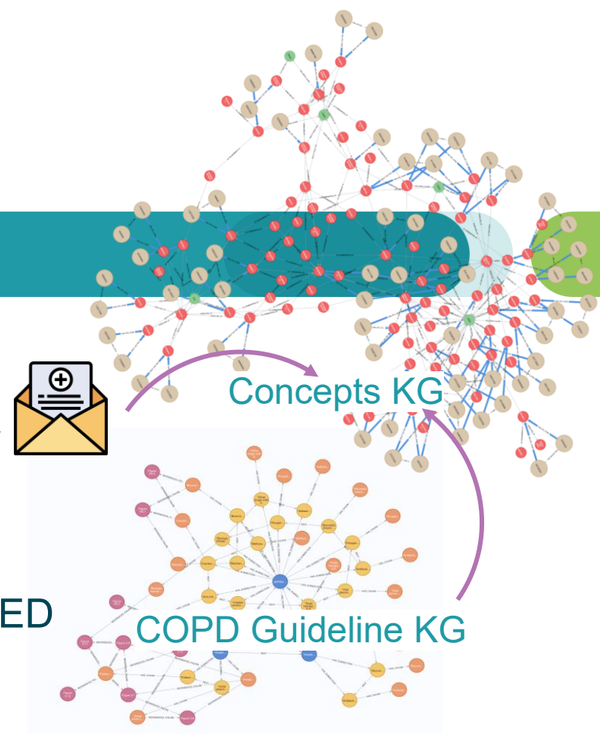
…our research challenges:

- Knowledge Representation
- Ambiguity of Guidelines
- Measurable Adherence Outcomes
- Incomplete Patient Data
- Hallucination Risk and Regulatory Compliance
- Integration in Clinical Workflows

APPROACH & METHODOLOGY



RESULTS



- **Structured information extraction** from patient's letter
- **Knowledge graph linking** of extracted information and guidelines' chunks with SNOMED concepts
- End-to-end **similarity-based guideline navigator** for COPD & comparison with guideline flowchart
- **Advancing population-based adherence evaluations** in COPD and HFrEF
- AI **classification of uncertainty** in clinical scenarios
- Multicenter retrospective **benchmarking protocol on 4000 patient records**

VALUE OF IHI COLLABORATION

- **True Public-Private-Co-Design:** uniting leading academic medical centers (Charité, Pavia, UMCG, Tartu) with EFPIA industry leaders to engineer clinically robust, regulatory-ready AI systems.
- **Real-World Cross-Border Data Access:** bridging clinical narratives across diverse European healthcare environments while maintaining rigorous GDPR and EU AI Act compliance.
- **Multidisciplinary Stakeholder Alignment:** integrating computer scientists, clinical guideline authors, medical specialists, and patient advocacy groups into a unified validation pipeline.
- **Pioneering Prospective Trial Infrastructure:** laying the groundwork for multicentric clinical trials that validate AI decision support on genuine patient outcomes.

CAREER IMPACT

- **Translational Leadership:** mastering the orchestration of complex, multi-stakeholder European consortia and bridging clinical medicine with deep AI systems engineering.
- **Regulatory & AI Safety Expertise:** developing cutting-edge competence in software, ethical AI deployment, and clinical evaluation metrics.
- **Cross-Disciplinary Fluency:** cultivating lasting international partnerships across clinical domains, biomedical informatics, and industry R&D.

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