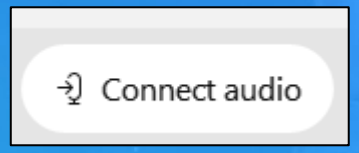
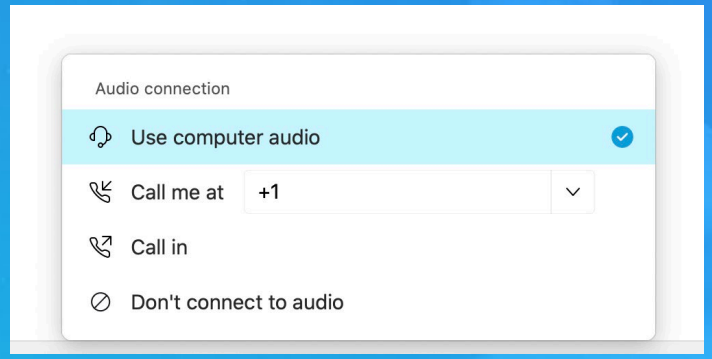
Welcome to the Open Power AI Consortium Domain Specific Model Working Group

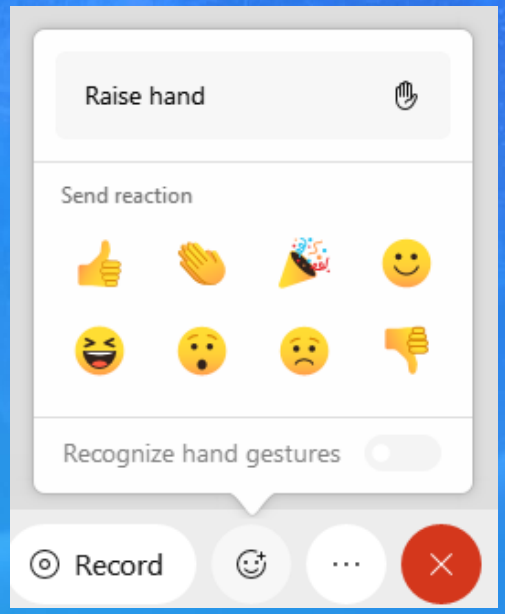
We will begin at 2:00 PM E.T.

Be sure you have an audio icon next to your name. If you do not, disconnect your audio and select one of the options shown. Your line has been muted by the host.

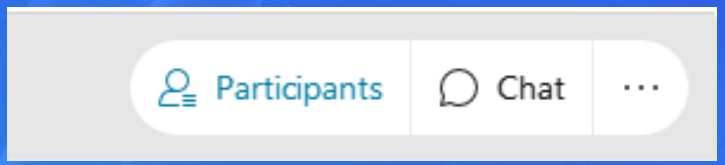




Like what you see or hear or want to raise your hand? Let the Presenters know.



You can submit a written question at any time through the presentation using the CHAT panel.
Please leave the recipient drop down to “Everyone”.



In Chat:
Name and Company

Reminder: This webcast is being recorded

Domain Specific Model Working Group

Open Power AI Consortium

Ben Sooter
Director R&D

19 March 2026

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Domain Specific Model Working Group Vision

Develop Electric Sector DSMs and Provide to the Industry

End-User Deployment Experiences

Benchmark DSMs to Understand Performance

Technical Transfer of Lessons Learned

Value through Collaboration

Collecting and Sharing Lessons Learned through Developing and Using DSMs

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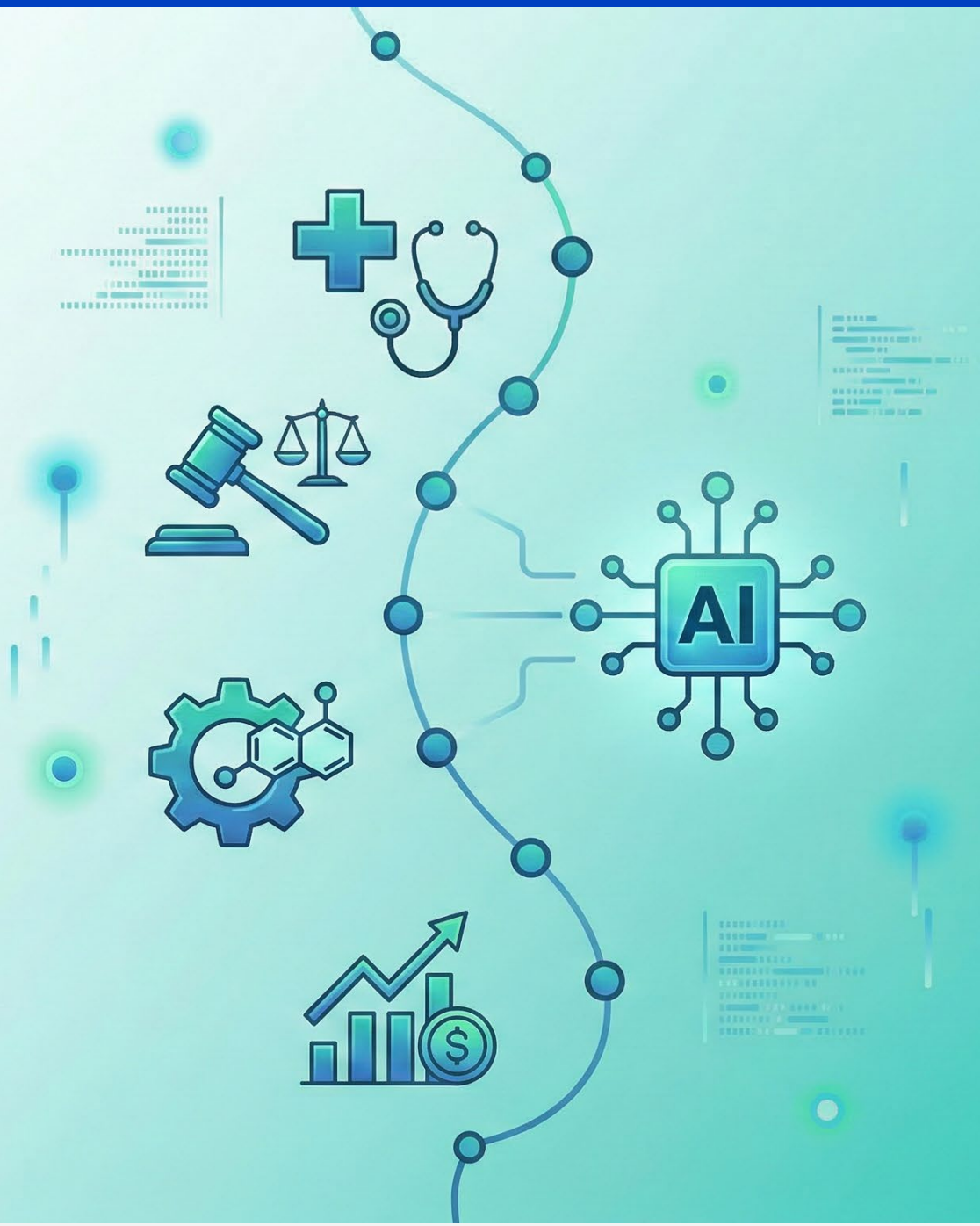
Agenda

- Welcome
- Updates in the world of DSMs
- Presentation from Neo4j



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WHAT'S NEW IN DOMAIN-SPECIFIC MODELS (DSMs): MARCH 2026 UPDATE

MAJOR INDUSTRY ALLIANCES

NVIDIA Nemotron Coalition

NVIDIA Nemotron Coalition
Global Coalition for Open Frontier Models
Base for Post-training & Specialization
Industry-Region-Regulation Focus

Mistral & Reply Partnership

Mistral Forge Platform
Highly Regulated Sectors:
Defense, Healthcare, Energy
Sovereign AI on Air-Gapped Private Data

SECTOR-SPECIFIC BREAKTHROUGHS

ENERGY & UTILITIES

Agentic Grid Workflows
Automating Grid Interconnection
-50% Administrative Delays

HEALTHCARE

Small Med Models (e.g., MedS)
Outperform GPT-4o on Clinical Reasoning
100x Smaller Size

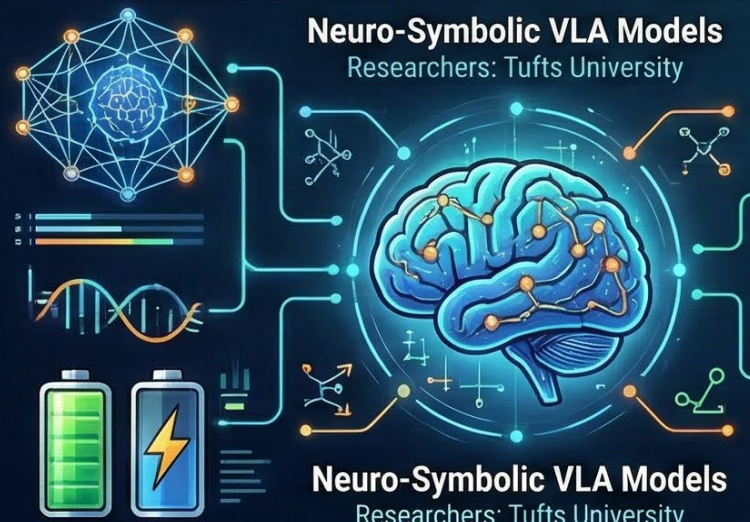
LEGAL

Harvey AI Custom Case-Law
$8B Valuation
97% Preference by Top Law Firms

SCIENCE

K-Dense 'Co-Scientist' Platform
Automated Hypothesis Generation
Experimental Design in Life Sciences

TECHNICAL INNOVATION: THE ENERGY PIVOT



Neuro-Symbolic VLA Models
Researchers: Tufts University

ENERGY EFFICIENT
1% Training Energy
5% Execution Power

RELIABLE

95% Success Rate
(vs. failure on unseen variations)

Neuro-Symbolic VLA Models
Researchers: Tufts University

ARCHITECTURAL TRENDS

MULTI-AGENT ORCHESTRATION

Swarms of Specialized Agents
- Monitor Trends
- Check Compliance
- Coordinate Response

SMALL LANGUAGE MODELS (SLMs)

7B-9B Parameters (e.g., Llama 3.1-8B, Qwen2.5-VL)
- Lower Latency
- Edge AI / On-Device

DOMAIN-SPECIFIC BENCHMARKS

Measuring Tangible Outcomes (e.g., GDPval, HealthBench)
(Beyond Linguistic Fluency)

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Neo4j

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