

Executive summary — Jakarta EE Future Directions: Interest Group (Oct 30, 2025)

Purpose. Explore how Jakarta EE can play a distinctive role in the AI wave—especially “agentic AI”—by leaning into enterprise strengths (security, scalability, standardization) rather than chasing Python’s model-training ecosystem.

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Key takeaways

- **Positioning.** Jakarta EE is well-placed for the *operational* side of AI (stateful orchestration, security, compliance, reliability) rather than core training. Focus on “use the right tool for the right job”; let Python keep the training lead while Java powers robust, governed production systems.

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- **Agentic workflows.** Strong interest in *agent orchestration* using Jakarta EE capabilities (CDI, messaging, transactions, state). Kafka/pub-sub and event streaming were called out as natural fits; enterprise guardrails and access control are critical gaps AI adopters face today.

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- **Specs landscape.**
 - Jakarta EE is pursuing **Jakarta Agentic AI**; MicroProfile’s AI work is exploratory and currently aims at different problems—no hard overlap today.

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- Opportunity to *revisit/extend Jakarta Batch* for agent pipelines (data in → transform → hand-off → out), and to consider MCP integration and CDI-based patterns (e.g., LangChain4j/CDI).

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- **Real-world use cases.** Vertical, high-value automations (e.g., airline rebooking during disruptions) illustrate where Java’s reliability, orchestration, and state management shine for customer-experience outcomes.

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- **Risks & realities.** Hype vs. production needs; LLM non-determinism; lack of NumPy-like building blocks in Java for training; the need for explainability, security, and lifecycle hygiene (context, state, cleanup).

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Decisions / agreements

- Emphasize **enterprise-grade AI enablement** (agents, orchestration, guardrails) over model-training competition.
- Explore **spec-adjacent enhancements** (Batch, CDI, MCP hooks) to make Jakarta EE “AI-native” for operations.

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Action items

1. **Catalogue candidate verticals & use cases** (e.g., travel/transport, financial ops) where agentic automation reduces bottlenecks and proves value quickly.

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2. **Draft a proposal** outlining how **Jakarta Batch + CDI + messaging** can express agent workflows; identify gaps for a minimal “Agentic AI” API.

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3. **Map integrations:** Kafka/event streaming patterns, MCP client considerations, and CDI patterns (including links shared on the call).

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4. **Community next steps:** share links (LangChain4j CDI, Slack threads), and encourage calendar subscription to avoid time-zone misses.

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Attendees (not exhaustive): Neil Patterson (host), Mary Grygleski (guest), Steve Butler, Tanja, Ed Bratt, Ondro (OmniFish). **Next meeting:** in ~2 weeks (host to share agenda/recap).