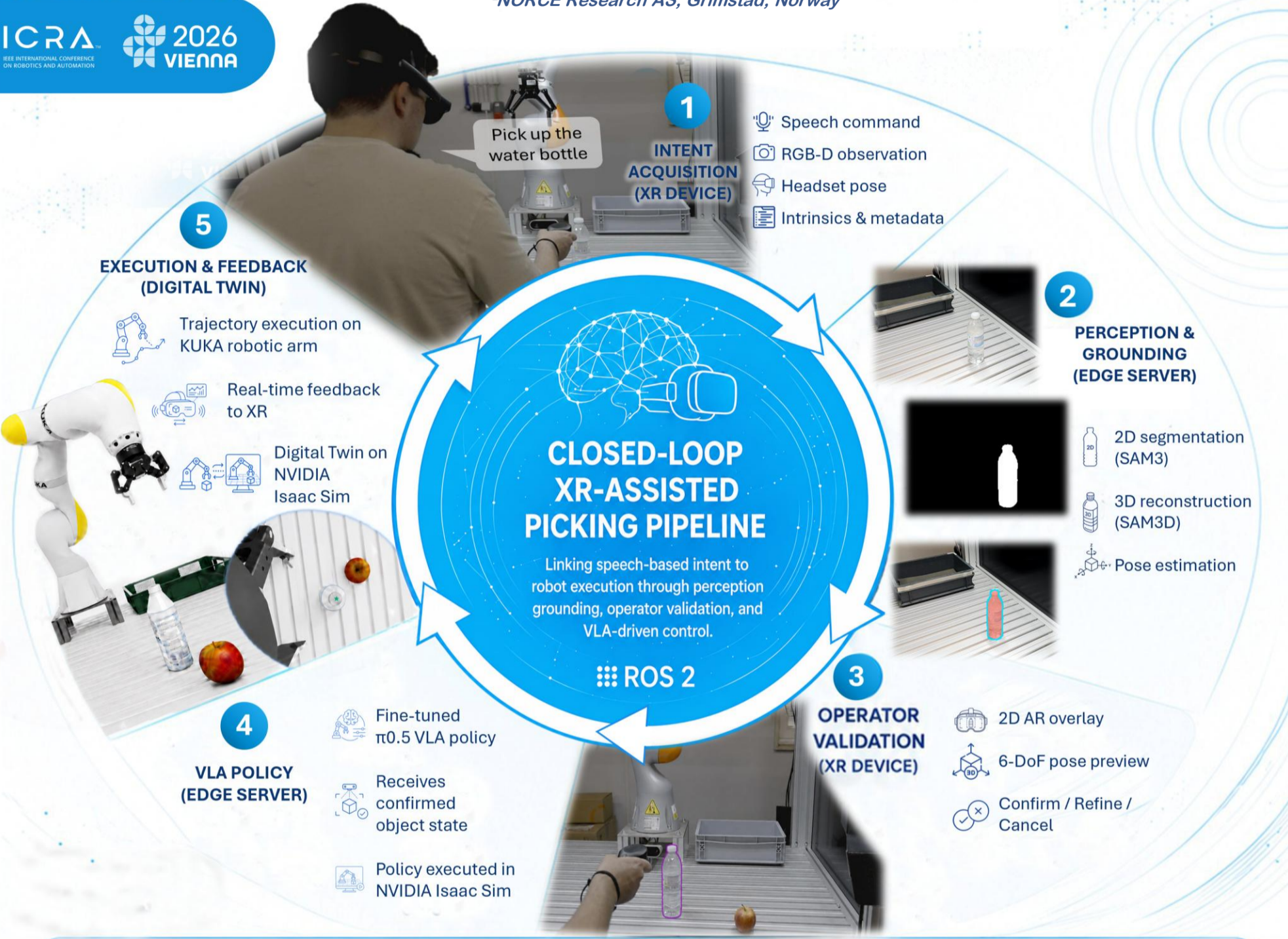
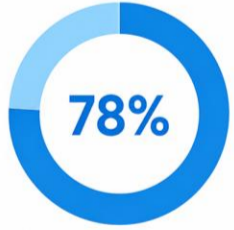


XR-BASED INTELLIGENT PICKING SYSTEM

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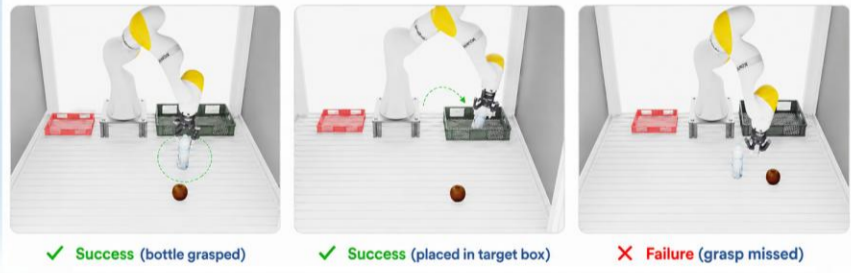


RESULTS SNAPSHOT



TASK SUCCESS RATE AFTER 30K STEPS
 Fine-tuning $\pi 0.5$ VLA policy in NVIDIA Isaac Sim with ROS 2 integration.

QUALITATIVE EXAMPLES



KEY TAKEAWAY

XR feedback enables explicit validation and reduces grounding ambiguity, leading to higher task transparency and improved human-robot collaboration.

MAIN CONTRIBUTIONS

- End-to-end XR-assisted pipeline connecting speech intent to VLA-driven execution.
- Interactive operator validation using 2D segmentation overlays and 3D pose estimation.
- Continuous trajectory projection in XR for transparency and situational awareness.
- Preliminary results showing 78% success rate after 30k fine-tuning steps.

XR + PERCEPTION + VLA = TRANSPARENT, HUMAN-CENTERED ROBOTICS

