JULY 23 2020

Process Simulation & Training European Advisory Board

AVEVA Unified Learning

Meet the team

AVEVA Unified Learning Product Manager Lead	AVEVA Dynamic Simulation & Control Emulation Product Manager	Pipeline Training Simulation Product Manager	XR & Connected Worker Portfolio Director
Coral Siminovich	**Andrea Macri**	**Alexander Troxell**	**Peter Richmond**
			

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AVEVA

Agenda

1. AVEVA Unified Learning Overview
2. AVEVA Process Competency Training & AVEVA Learning Management

----Break----

3. AVEVA Operator Training Simulator
4. AVEVA Pipeline Training Simulator

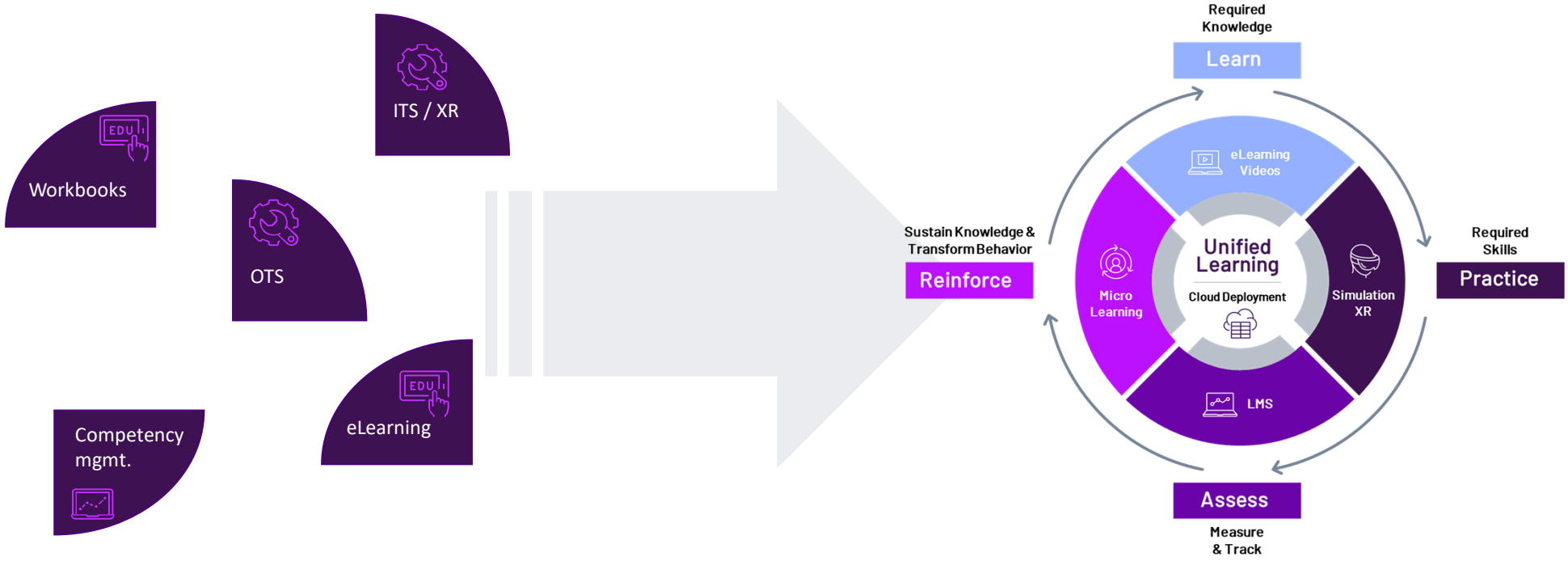
----Break----

4. AVEVA XR for Training
5. AI-Microlearning & Performance Support

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AVEVA Unified Learning

Going from a point solution to a unified approach

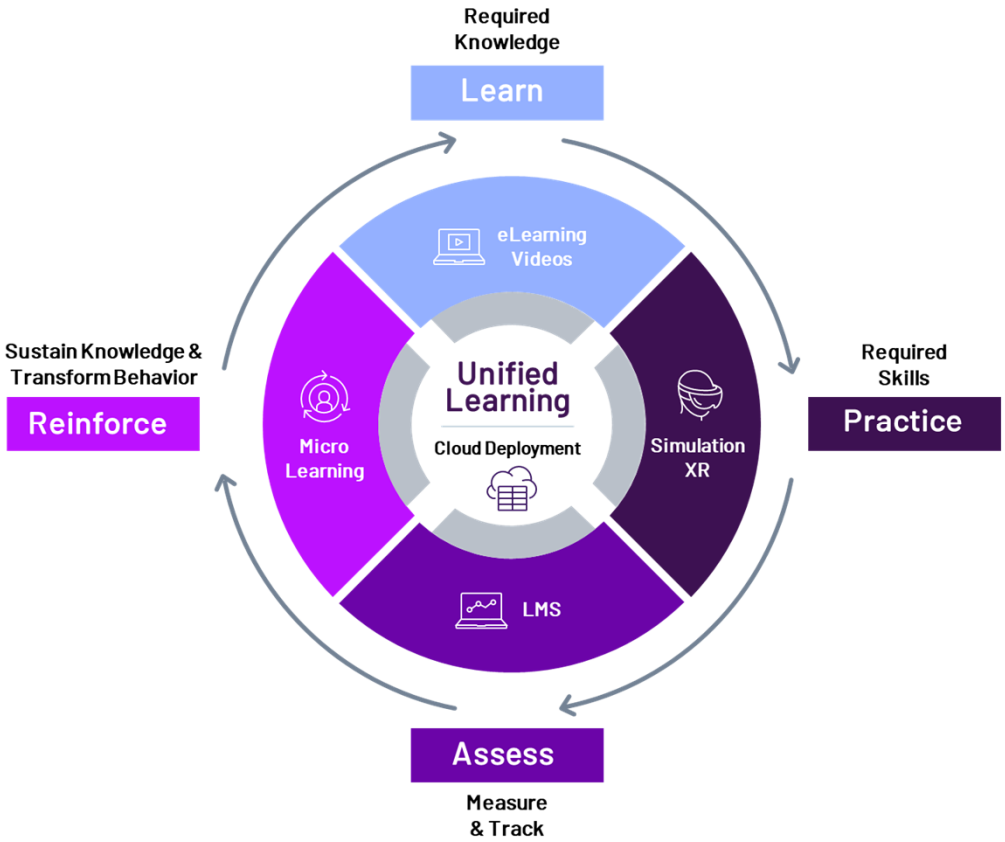


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AVEVA Unified Learning

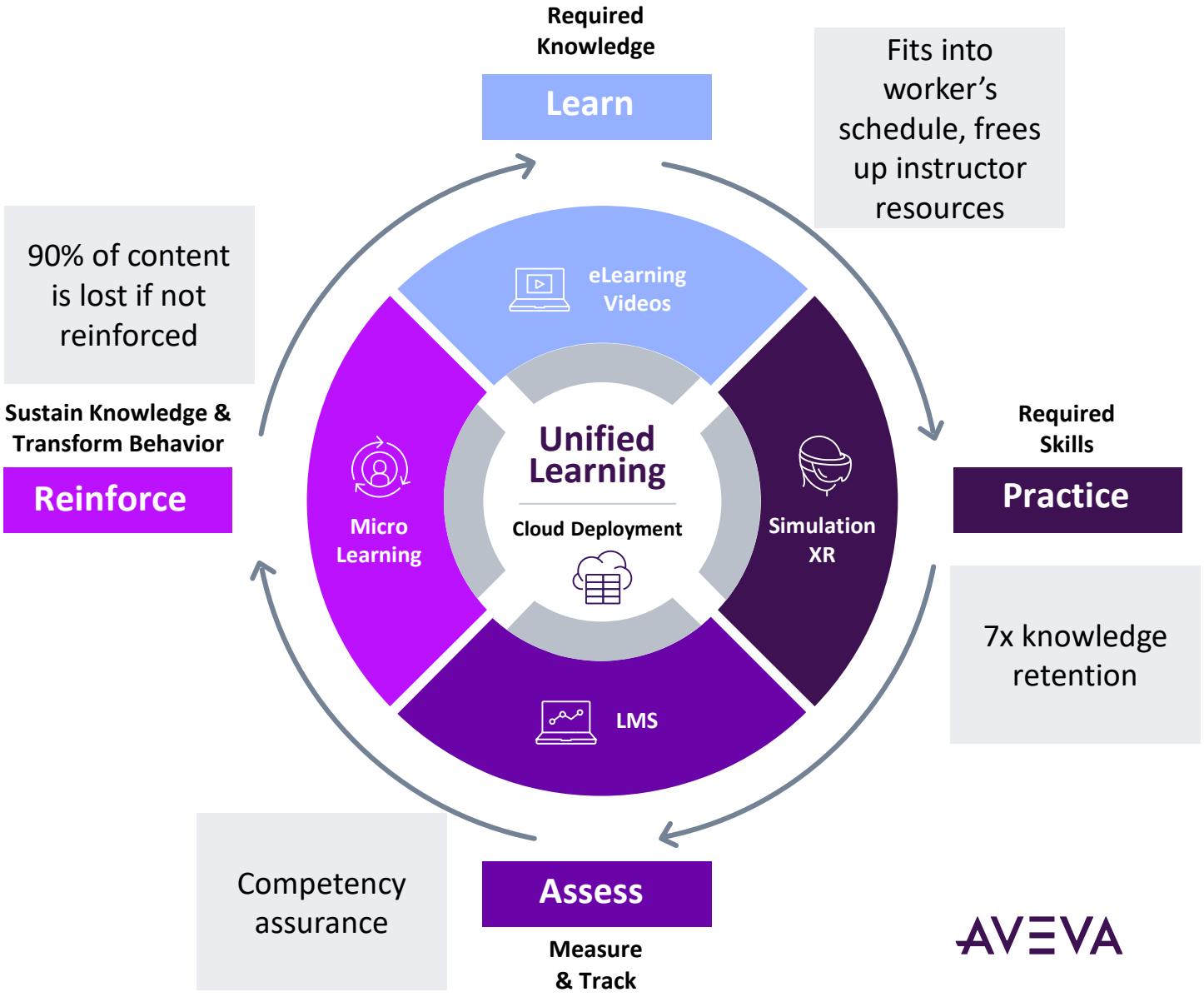
Integrated and scalable solution that combines eLearning, simulation, XR, LMS, AI, and microlearning as part of a framework that's designed to:

- ✓**Build competence**
- ✓**Improve worker performance**
- ✓**Drive behavior change**



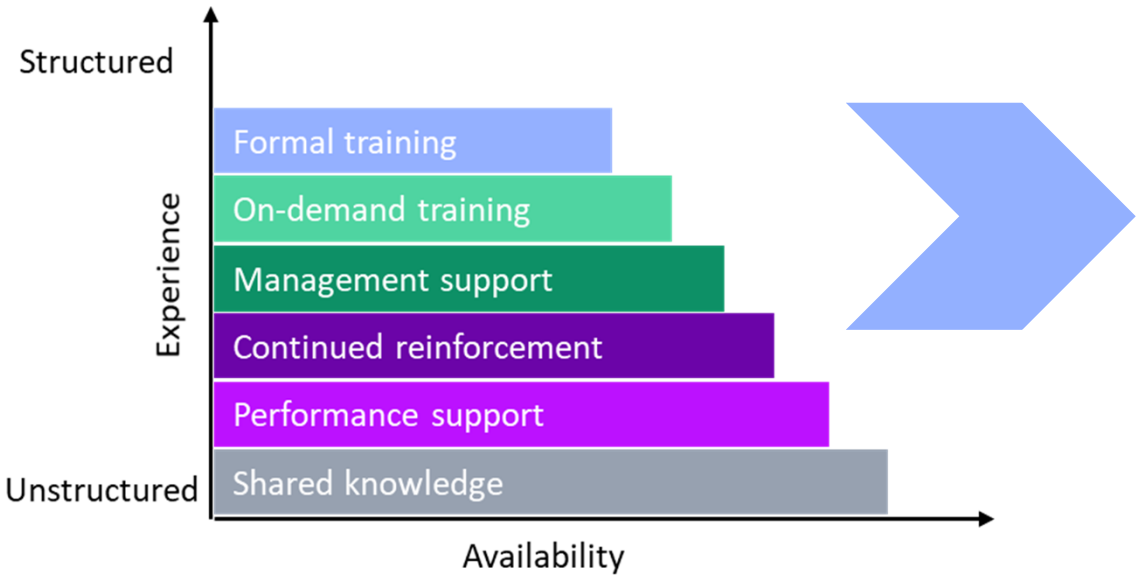
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Performance-driven competency framework for plant lifecycle



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Learning strategy for all stages of learning



- Learner centric
- Results driven
- Measurable
- Supported by Management
- Agile

Novice

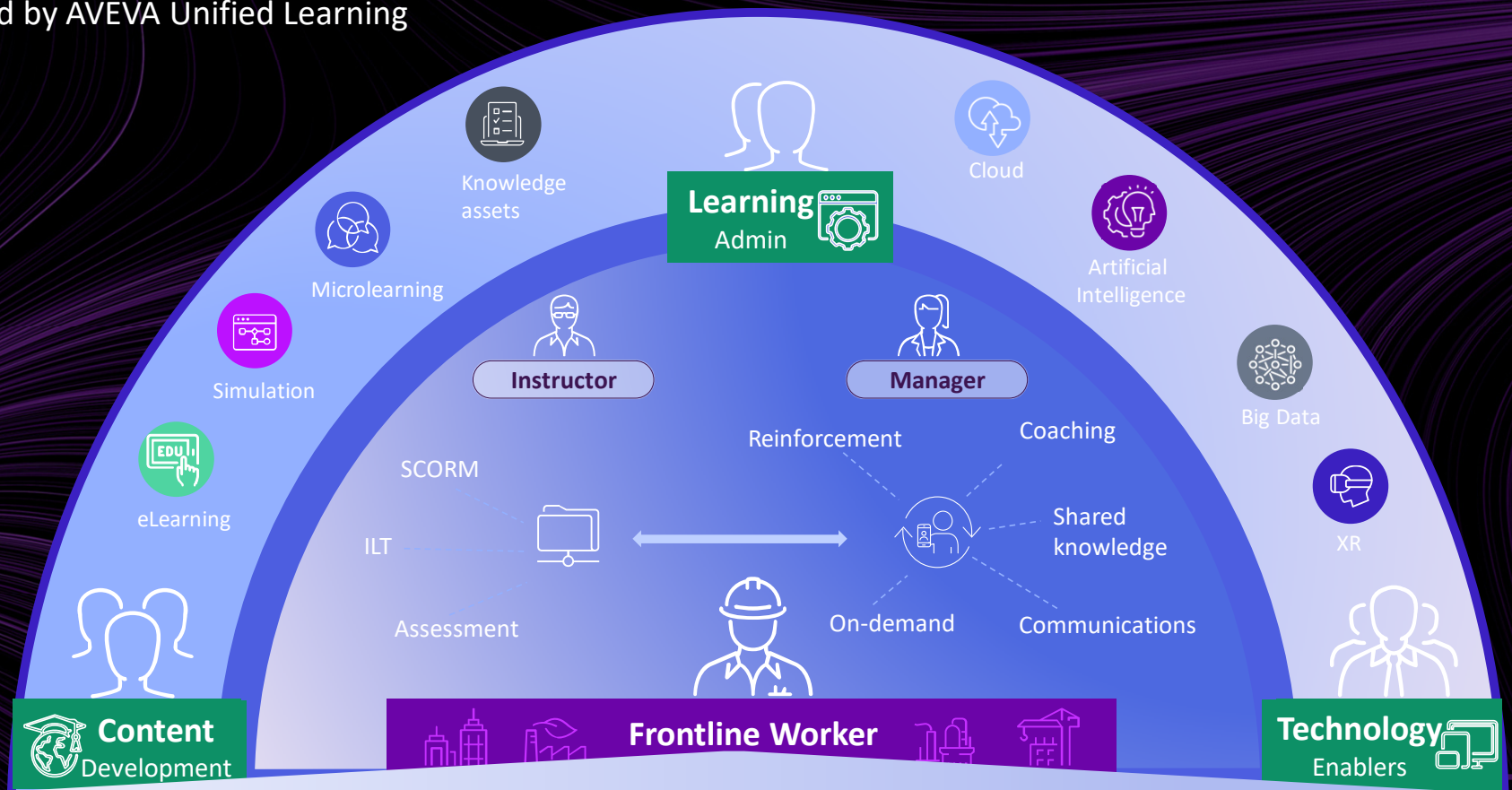
Skilled

Expert

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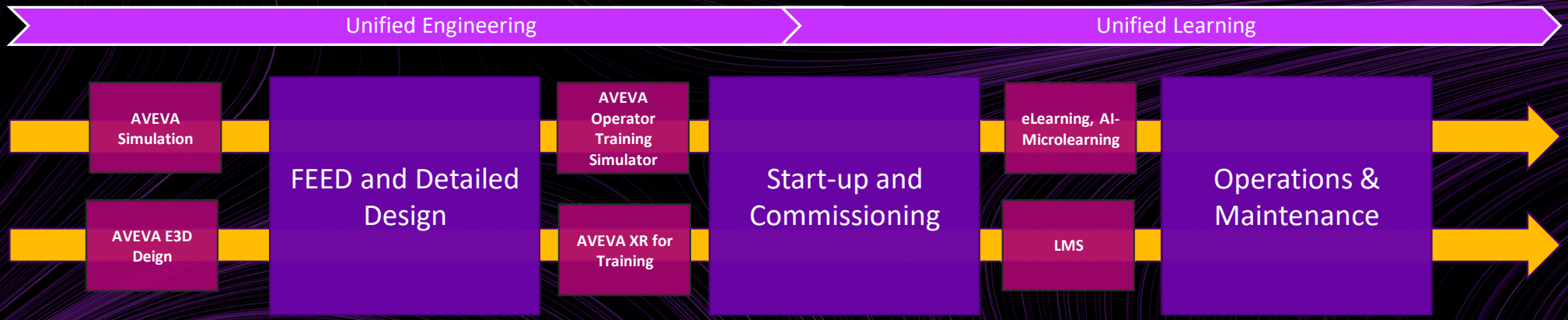
Performance-driven learning ecosystem for Industry's connected worker

Powered by AVEVA Unified Learning



RESULTS-DRIVEN LEARNING STRATEGY & COMPETENCY FRAMEWORK

From Simulation & Design to Experiential Learning



Extending the value of the digital twin across the plant lifecycle to unlock unparalleled value

- Gain valuable process insights
- Identify and eliminate design mistakes
- Analyze operability of highly integrated plants

- De-risk capital projects
- Shorten commissioning and startup time to nameplate capacity
- Make sure that people and systems are ready day one

- Build competence
- Improve worker performance
- Drive behavior change

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Multi-Generation Plan – AVEVA™ Unified Learning

	Today (delivered)	Tomorrow (in development)	Future (long range)
Goals	• Provide technical and behavior based experiential learning programs throughout an industrial organization's lifecycle • Extend the value of the digital twin with AVEVA™ Operator Training Simulator (OTS) and AVEVA™ XR for Training solutions that support an EPC 4.0 strategy • Improve ease of use and maintainability, and lower the cost of training simulators	• Accelerate learning initiatives with ready-made experiential courseware for industrial processes • Expand cloud-based capabilities across portfolio • Continue to Improve the UI\UX of training tools • Increase end-user flexibility through subscription-based licensing for all UL components	• Fully integrated cloud and subscription-based learning solution • Enable connected worker through continuous learning applications • Expand into other industry verticals • Cross-portfolio integration and AI capabilities for simulation and training • Improve software ease of use and engineering efficiency
Initiatives	• AVEVA Unified Learning: ○ End-to-end solution that combines eLearning, OTS, XR, LMS, AI, and microlearning for cloud-based self-paced training solutions ○ AI-enabled Microlearning Solution for Industry 4.0 customers ○ Cloud native LMS platform integrated with AVEVA eLearning, Standard OTS and XR for Training, and custom online LMS integrations • AVEVA Operator Training Simulator & AVEVA™ Pipeline Training Simulator : ○ Enhancements for AVEVA™ Dynamic Simulation platform, unit operations and thermo ○ Control emulation enhancements to support wider range of OTS applications ○ AVEVA Pipeline Training Simulator user experience improvements (new configuration and training UI\UX, Integration with AVEVA Dynamic Simulation) • AVEVA XR for Training: ○ New VR learning delivery applications for industrial personnel centred around safety and behavioural training items	• AVEVA™ Process Competency Training: ○ Simulation-based courses for NH3 and refinery processes (CDU/VDU, DCU) • AVEVA Operator Training Simulator & AVEVA Pipeline Training Simulator : ○ Enhancements for AVEVA Dynamic Simulation platform, unit operations and thermo (GUI modernization, LaaS licensing) ○ Control emulation enhancements (multi-box for Foxboro DCS simulation to deploy big-scale OTS systems in the cloud, LaaS licensing) ○ LMS integration for full blown OTS with Foxboro DCS ○ AVEVA Pipeline Training Simulator enhancements (advanced EOS, Configuration and SCADA interface mapping automation, LaaS and ALS Licensing) ○ Cloud Based Universal Pipeline Trainer • AVEVA XR for Training: ○ VR courses for safety and Industrial behaviors	• AVEVA Unified Learning: ○ Integration of microlearning offering into AVEVA's ecosystem for a seamless connected worker and user experience • AVEVA Process Competency Training: ○ Library of generic industrial experiential courses and microlearning • AVEVA Operator Training Simulator & AVEVA Pipeline Training Simulator : ○ AI/ML in OTS to link plant performance to competency and training and improve ROI, reduce engineering hours and maintenance efforts, and use of existing OTS as training for ML applications ○ Enhancements for AVEVA Dynamic Simulation platform, unit operations and thermo (import intelligent P&IDs and engineering data from DEXPI, learning monitoring tool, multi-threading calculations) ○ Control emulation enhancements (multiple operator workstations for cloud deployment) ○ AVEVA Pipeline Training Simulator enhancements (SCADA mimic front-end, Runtime Decision Assistant) ○ LMS integration with Pipeline Universal Trainer • AVEVA XR for Training: ○ Expanded template-driven configurations for rapid development

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What’s coming

Today

- Cloud native learning management platform integrated with eLearning, Standard OTS and XR for Training
- Enhancements for OTS to Improve ease of use and maintainability
- New VR learning delivery applications for industrial personnel centred around safety and behavioural training items
- AI-enabled Microlearning Solution for Industry 4.0 customers

Tomorrow

- Ready-made experiential courses for industrial processes
- Enhancements for OTS to improve UI\UX of training tools
- XR for Training templates and libraries
- Expanded cloud-based capabilities

Future

- Library of generic industrial experiential courses
- Enhancements for OTS to Improve software ease of use, engineering efficiency and training capabilities
- Fully integrated on-demand learning solution

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Q&A - Discussions

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Question

What is your preferred deployment method?

1. AVEVA Cloud
2. Private Cloud
3. On-premise/Local installations

Please answer using the chat

Question

How are simulation-based training programs implemented?

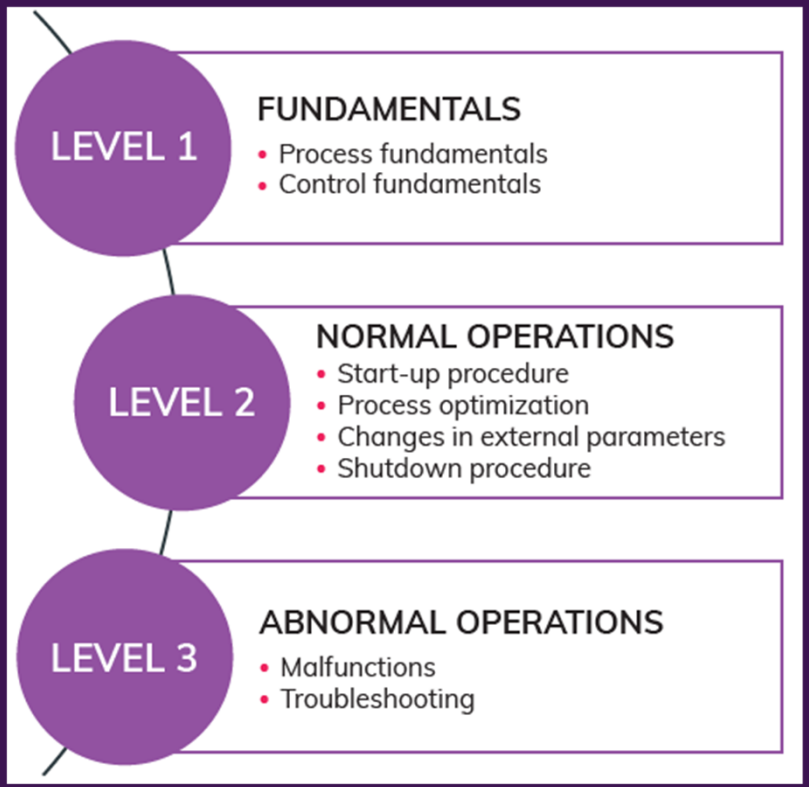
1. At the site level
2. At the corporate level
3. Hybrid

Please answer using the chat

AVEVA Process Competency Training
AVEVA Learning Management

Ready-made simulation-based courses for industrial processes

- Cloud-based
- On-demand
- Self-paced
- Course components:
    1. Theoretical part (done through an eLearning or video-based module);
    2. Practice exercise (done on the simulator);
    3. Assessments (built-in and tracked in LMS).



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AVEVA Cloud Training Center

coral.siminovich@aveva.com
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Dashboard > My courses > More...

Learning plans

My plans

SimLMS Demo Learning Plan

Recently accessed courses



TRAINING-DEMO
Distillation Process Competency ...



TRAINING-DEMO
Generic Combined Cycle - Scenario 1



TRAINING-DEMO
Generic CDU/VDU - Scenario 1

Starred courses



Distillation Process Competency Training

Course overview

In progress | Course name | Summary



QA

Course topics

Process units	CDU/VDU	DCU	NH3	Combined cycle
Basic Modules	Furnace	Distillation	Fired heater	Centrifugal pump
	Compressor	Valves	Heat exchanger	Basic Process Science

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AVEVA and OEG have partnered to bring library of rich, video-based learning content for industrial personnel training as part of AVEVA Unified Learning

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ALL

Learning Asset Type

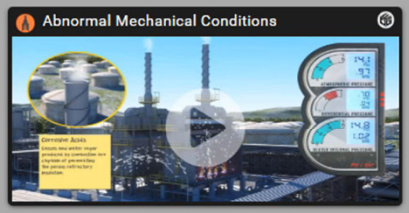
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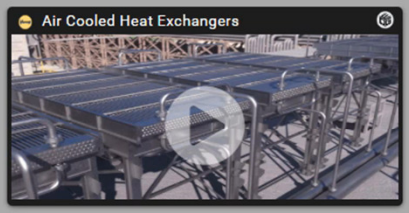
Search

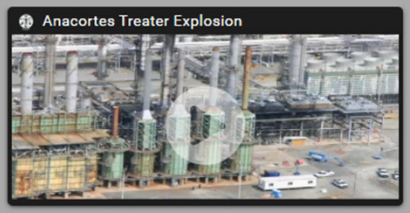
Notifications

Coral Siminovich

- Favorites
- Playlists
- Syllabus
- Micro Courses
- Assessment
- Assignment
- Support

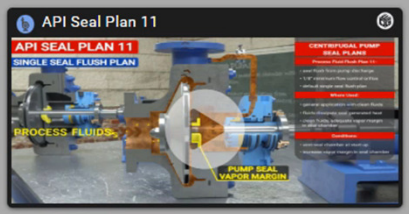




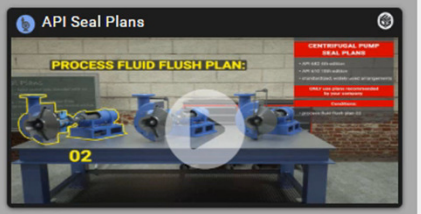




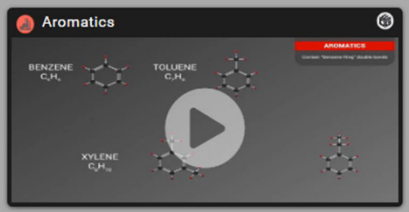




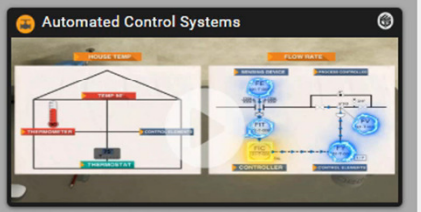




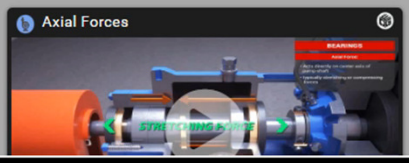


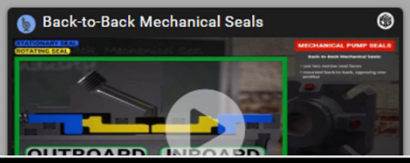


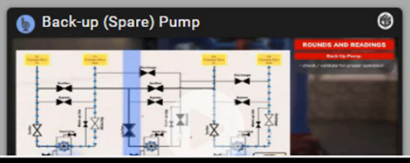












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Q&A - Discussions

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Question

Which units/processes are a priority?

1. FCC
2. LNG
3. Other

Please answer using the chat

Question

What type of learning content and format is most useful?

1. eLearning/Videos
2. Classroom
3. Both
4. None

Please answer using the chat

Question

Would you like to have competency management as a feature in the LMS?

1. Yes
2. No

Please answer using the chat

AVEVA Operator Training Simulator

For process and pipeline

AVEVA XR for Training

Safety and Behavioral Training is a new application of XR for Training

Cloud-based VR learning for all industrial personnel on AVEVA Unified Learning

- ✓ Situational awareness
- ✓ Managing abnormal situations
- ✓ Safe work planning and execution
- ✓ Proactive monitoring
- ✓ Managing instruments and alarms
- ✓ PPE
- ✓ Safety intervention and improvement

Goes beyond understanding and practicing the operating procedures:

- Ensures workers understand expectations and what to do when faced with particular challenges that may involve colleagues or even supervisors
- Assesses how people behave when faced with unexpected situations in the plant

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Q&A - Discussions

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AVEVA Learning Management

AVEVA Cloud Training Center

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Learning plans

My plans

SimLMS Demo Learning Plan

Starred courses



Distillation Process Competency Training

Recently accessed courses



TRAINING-DEMO

Distillation Process Competency ...



TRAINING-DEMO

Generic Combined Cycle - Scenario 1



TRAINING-DEMO

Generic CDU/VDU - Scenario 1

Course overview

In progress | Course name | Summary



QA

Question

Which LMS is preferred?

1. AVEVA Learning Management
2. Existing LMS
3. No LMS

Please answer using the chat

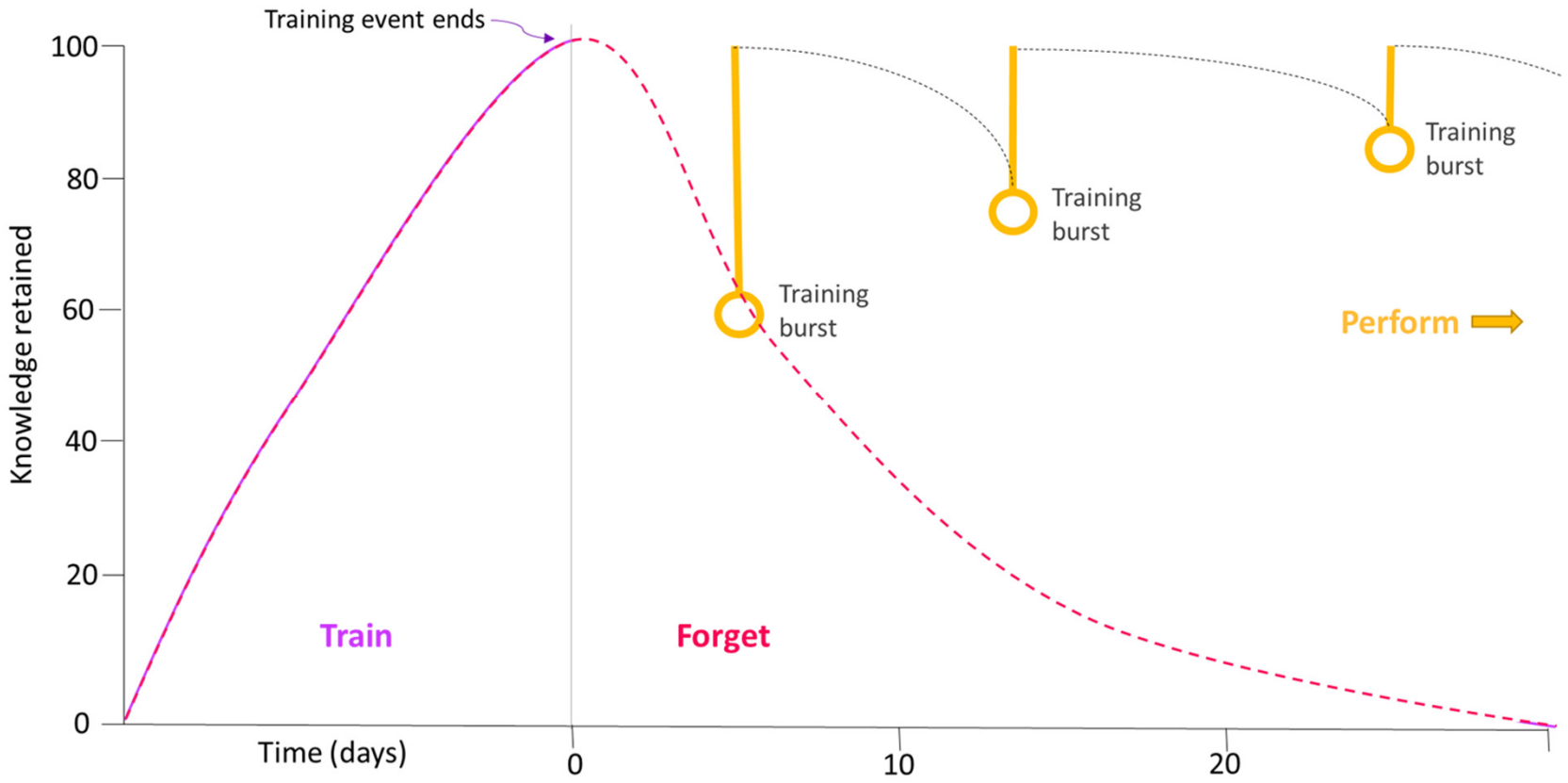
Microlearning & Performance Support

Why is microlearning gaining such momentum?





The forgetting curve



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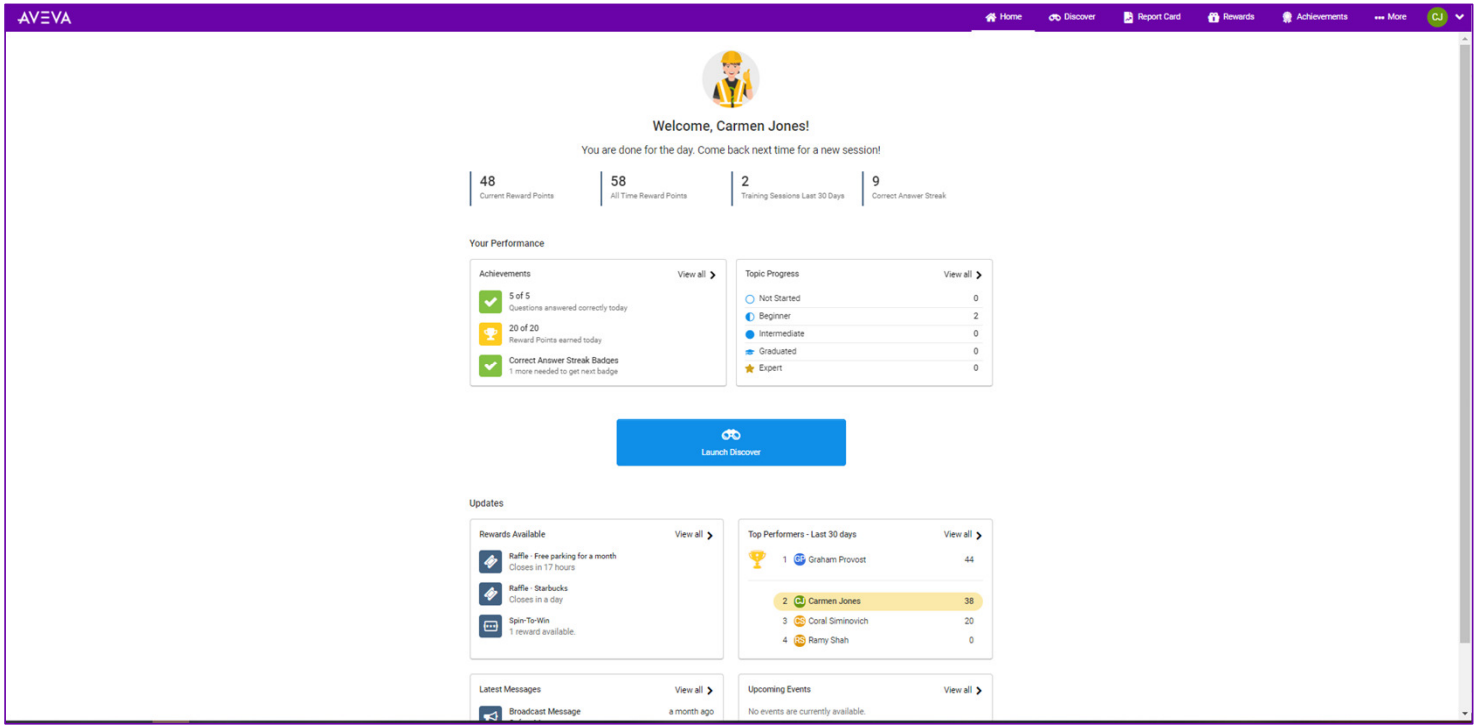
AVEVA and Axonify have partnered to bring modern frontline learning to Industry 4.0

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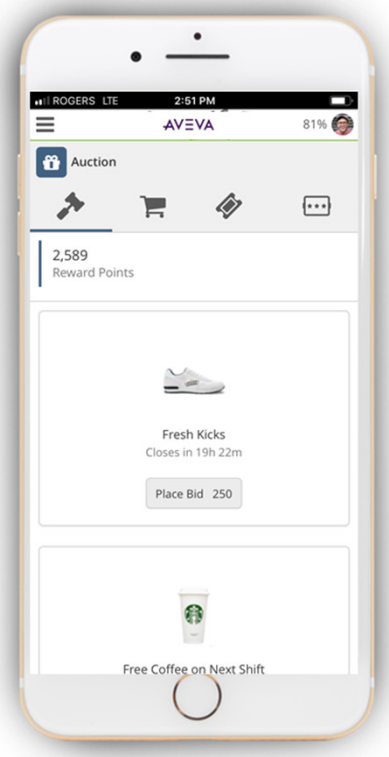
Adaptive learning for a tailored experience

AI and big data continuously identify and fill individual knowledge gaps

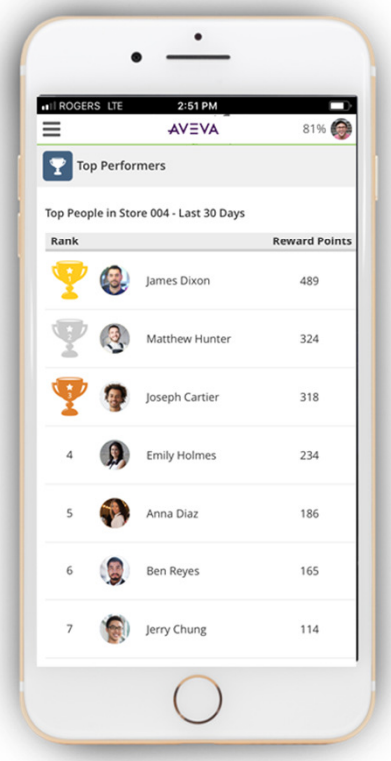


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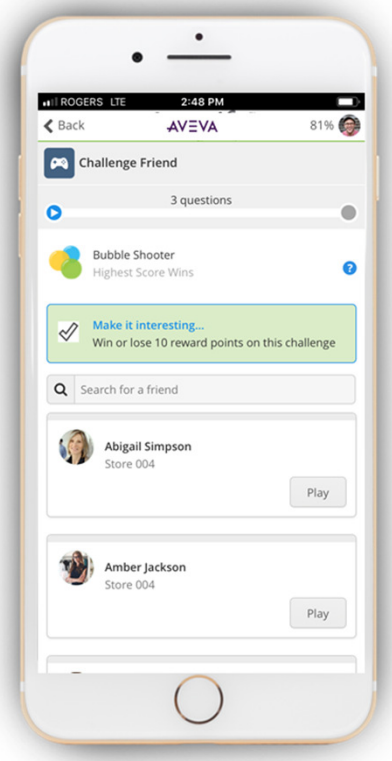
Built-in game mechanics to drive engagement



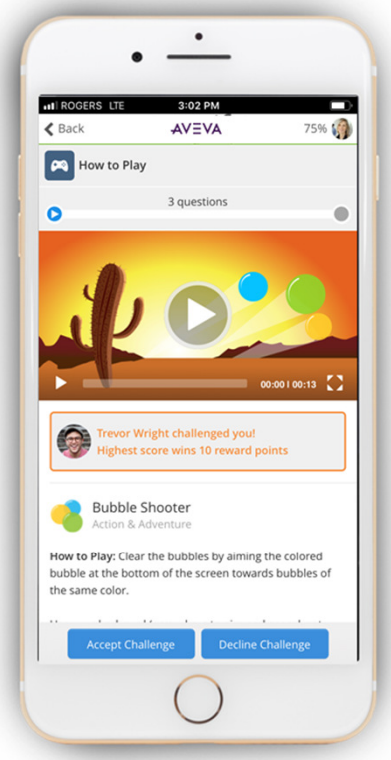
REWARDS



INCENTIVES



MOTIVATION

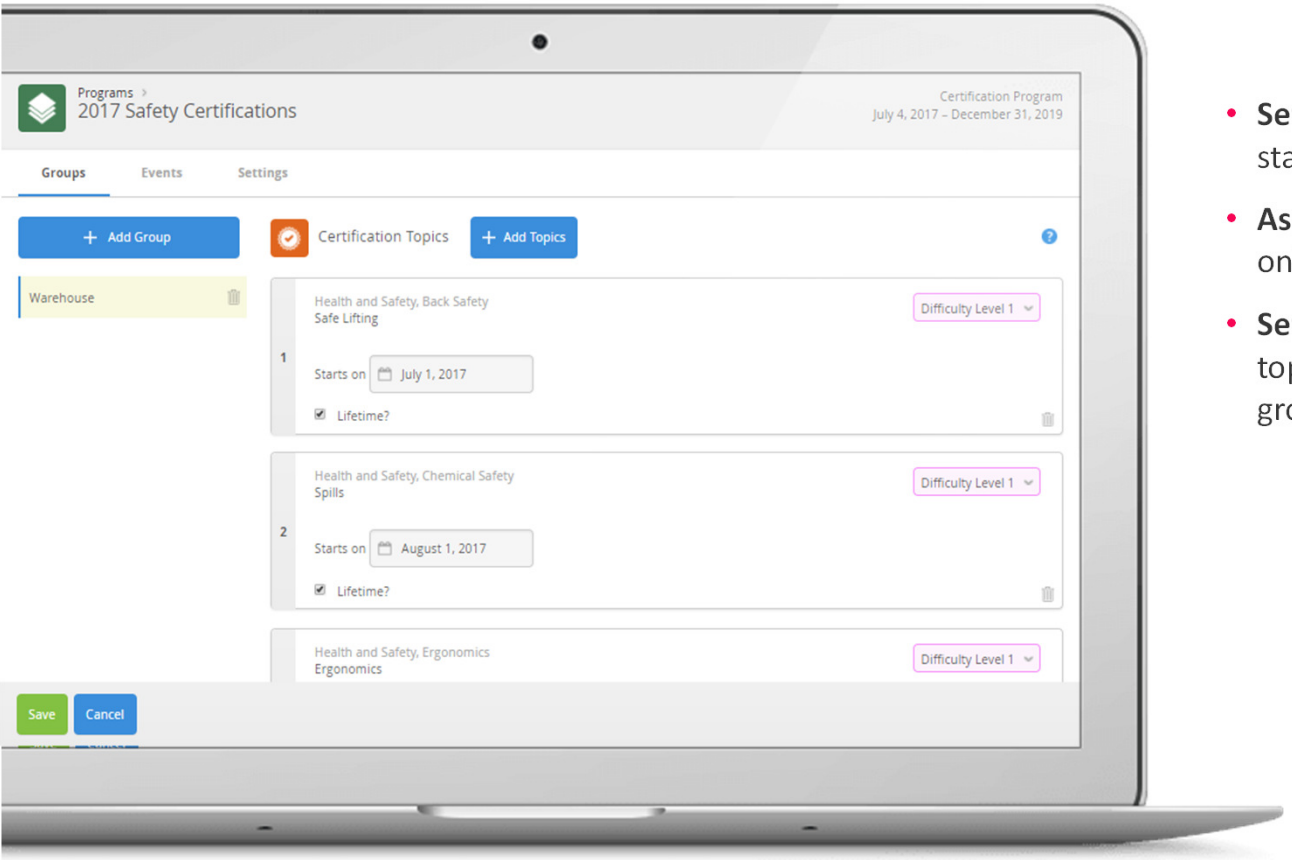


GAME PLAY

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Certifications / compliance

Hassle-free compliance with simplified certification administration

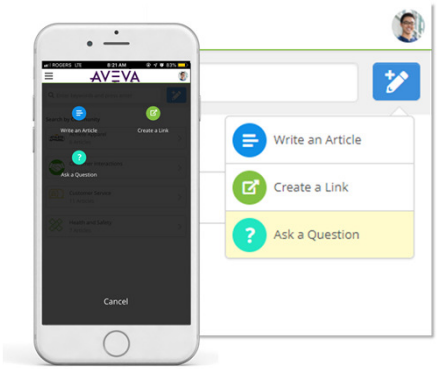


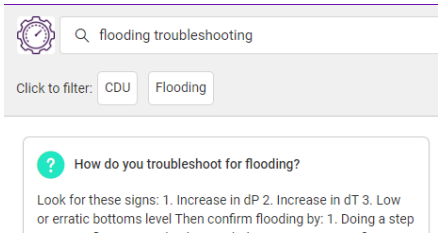
- **Setup Compliance Programs** with specific topics, start dates, and recurrence requirements
- **Assign lifetime certifications** for topics that must only be completed once
- **Setup Reinforcement Programs** using compliance topics to drive long-term knowledge retention and growth

Performance support

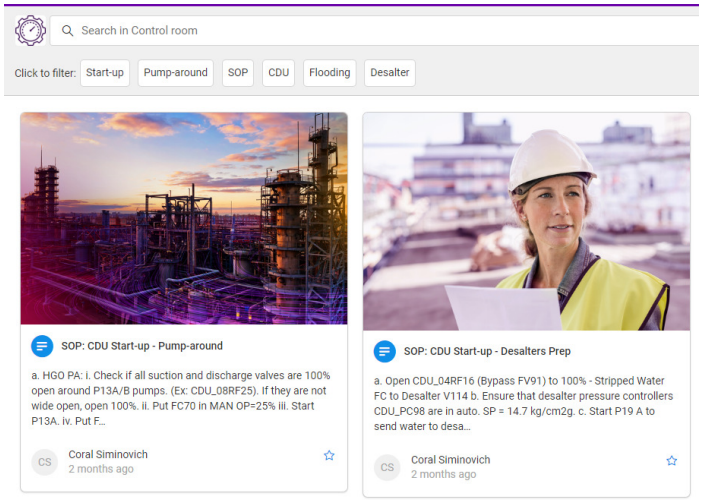
Social learning experience that connects workforce to the help they need, when they need it

1. Search or ask questions

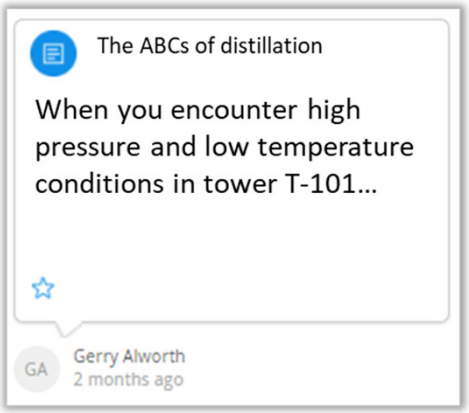




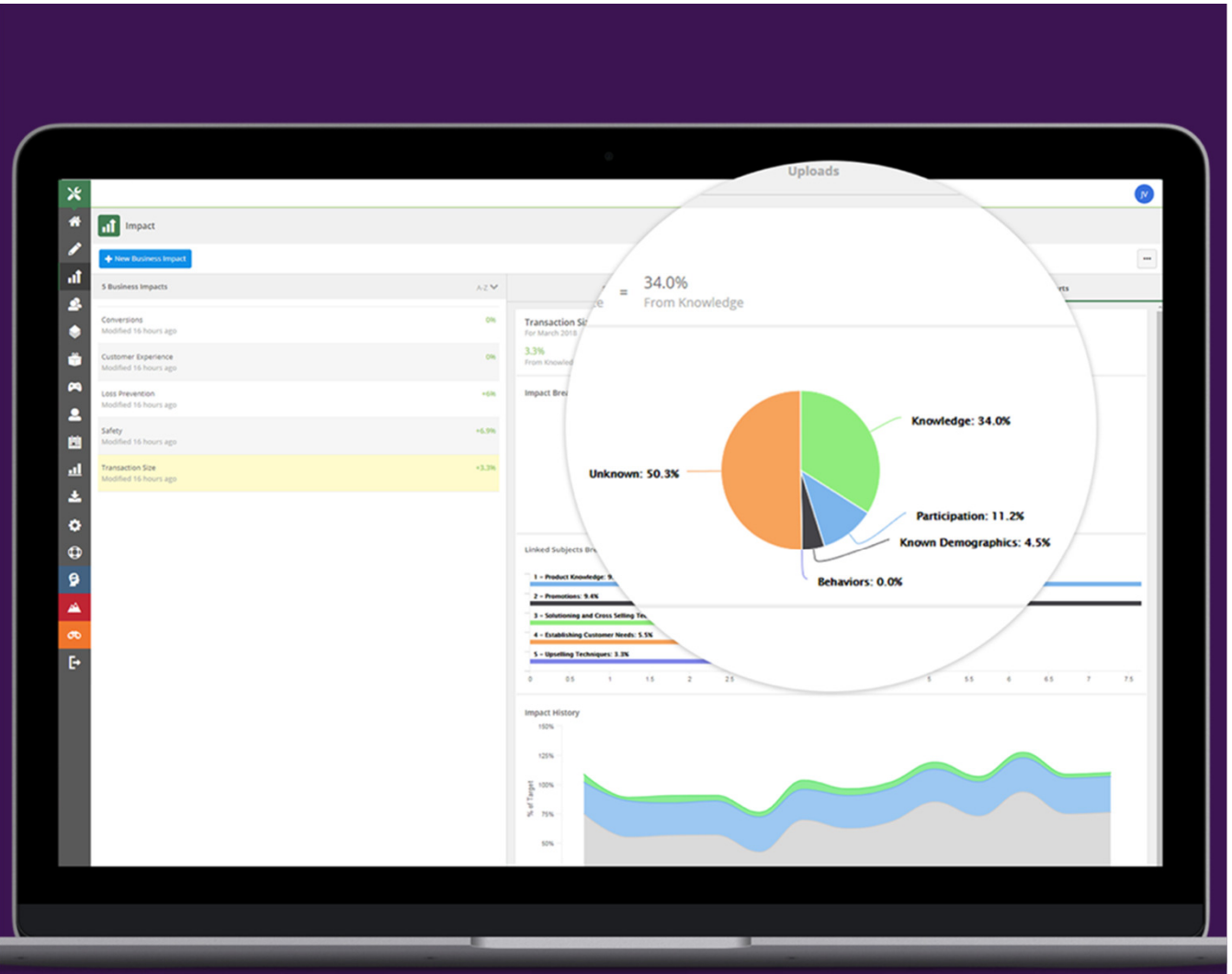
2. Discover answers



3. Share your knowledge



AVEVA



Smart enough to prove ROI

- Identify behavioral gaps
- See the impact of training on the organization
- Improve the effectiveness of programs
- Optimize results

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Management support

From the C-suite to the front-line

- Provides managers with intelligence and influence with easy to use dashboards and actionable insights on learning progress and content

- Managers can provide coaching to front-line employees based on supporting data regarding employees' knowledge levels and behaviors



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Q&A - Discussions

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Question

How soon will your organization consider implementing microlearning?

1. Already using
2. Within 1 year or less
3. Within 1 – 3 years
4. Not sure

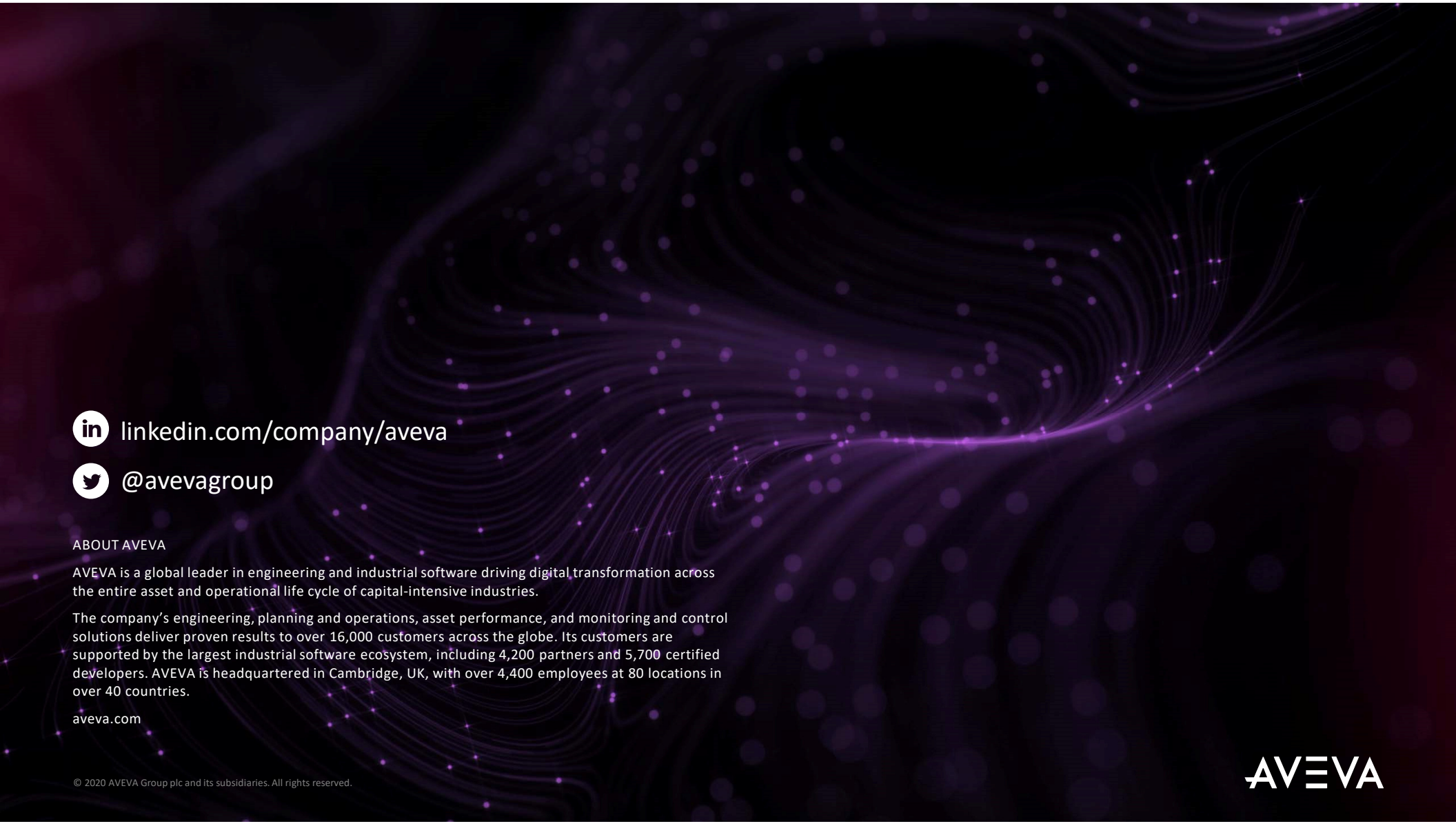
Please answer using the chat

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AVEVA



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ABOUT AVEVA

AVEVA is a global leader in engineering and industrial software driving digital transformation across the entire asset and operational life cycle of capital-intensive industries.

The company's engineering, planning and operations, asset performance, and monitoring and control solutions deliver proven results to over 16,000 customers across the globe. Its customers are supported by the largest industrial software ecosystem, including 4,200 partners and 5,700 certified developers. AVEVA is headquartered in Cambridge, UK, with over 4,400 employees at 80 locations in over 40 countries.

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