

Bringing AI
Everywhere.

& Digital Readiness
Challenges

 intel®



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Country Manager – Intel Indonesia

"Biggest Trends of CES 2024: AI, Transparent Screens and Off-Grid Tech to Power Your Home"
The trends emerging from the Las Vegas tech show are setting the tone for the year to come.
~ CNET (10 Jan 2024)

"Artificial intelligence (AI) and machine learning continued to dominate the spotlight at CES 2024"
~ Forbes (11 Jan 2024)



CES



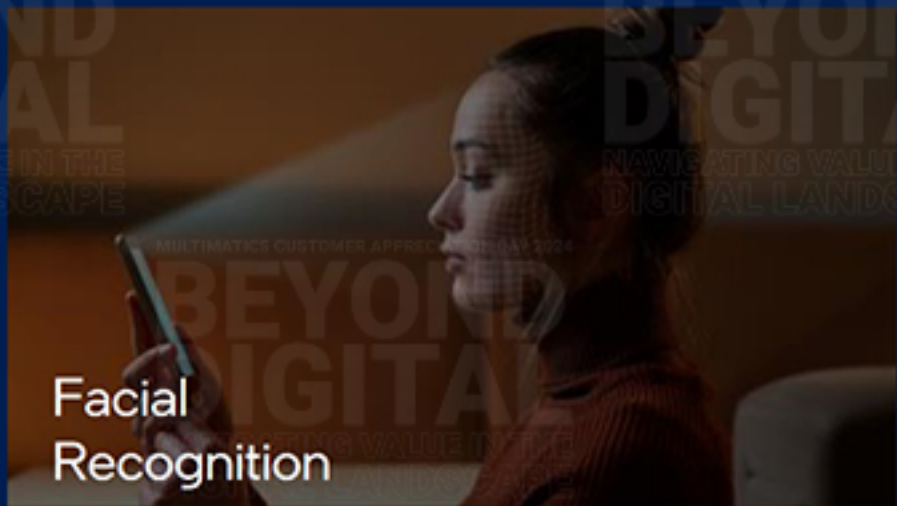
Data Encryption



Inventory Management



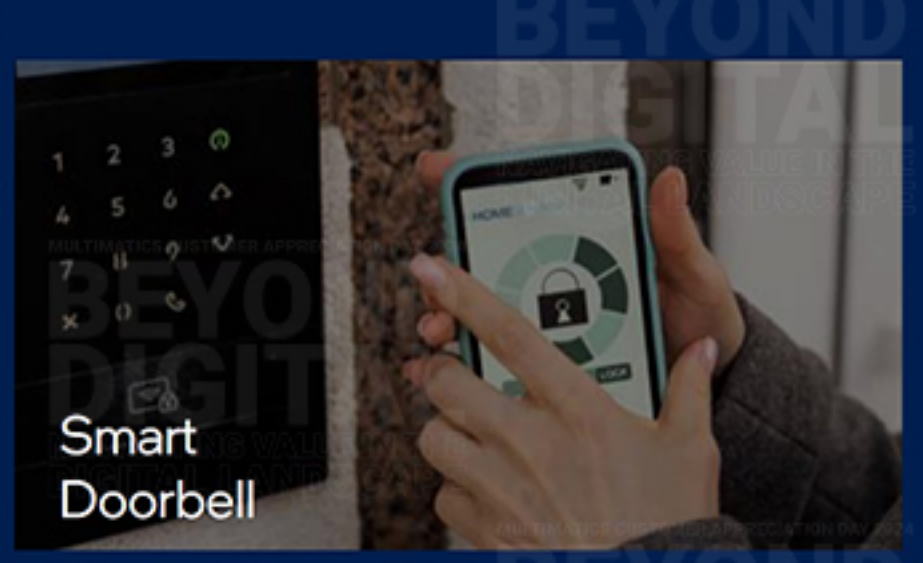
Noise Cancellation



Facial Recognition



Voice Assistants



Smart Doorbell



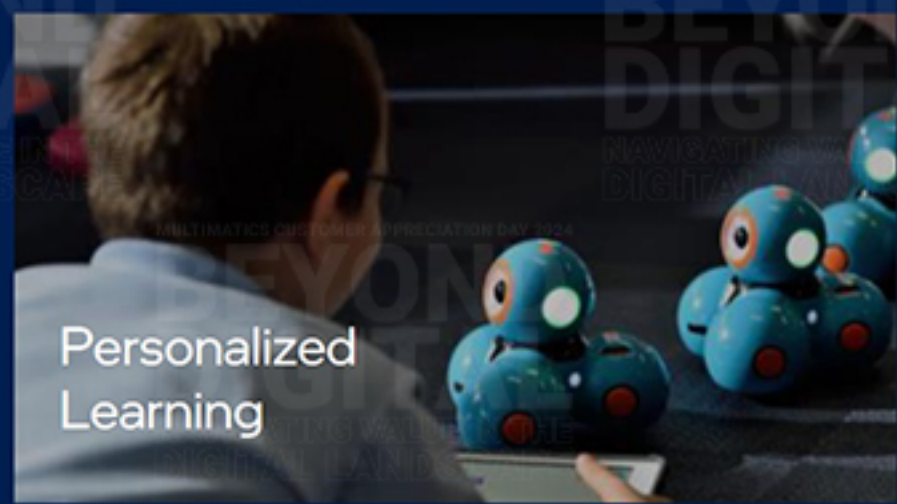
Autonomous Vehicles



Digital Assistants



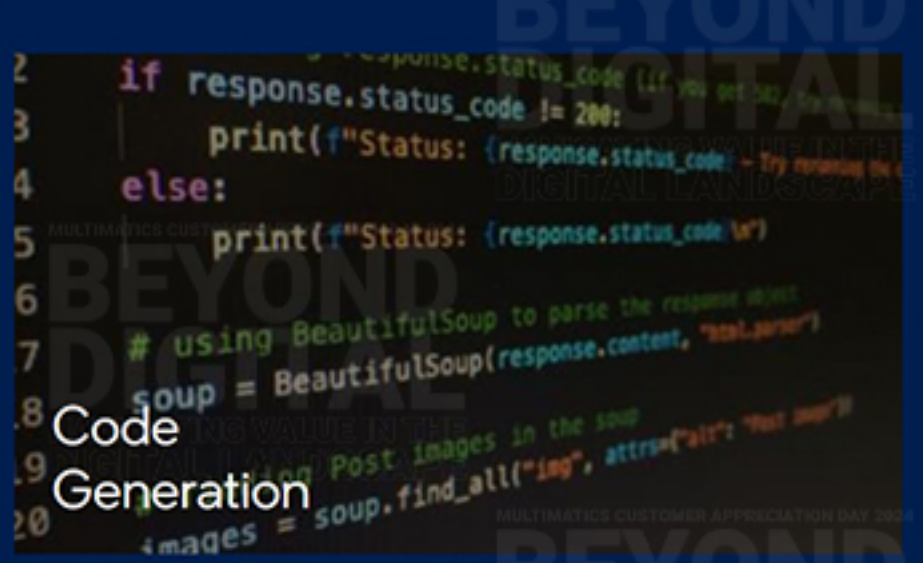
Purchase Recommendation



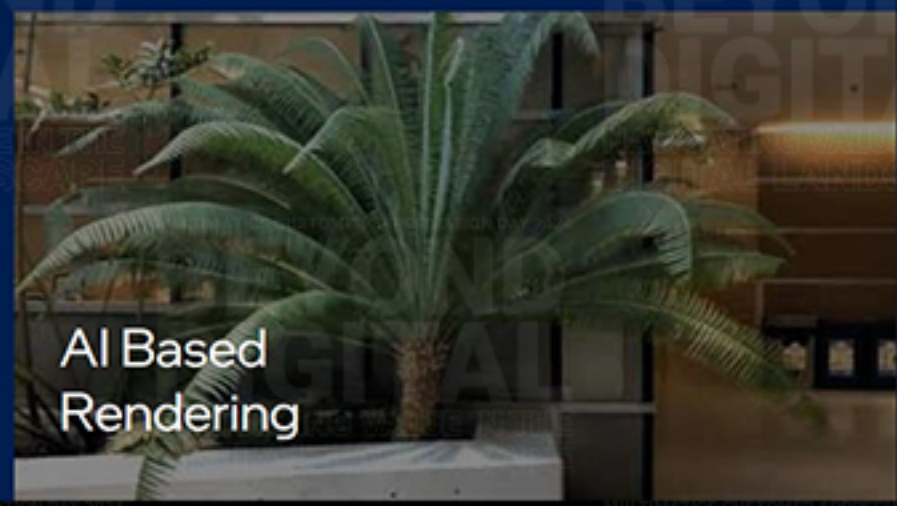
Personalized Learning



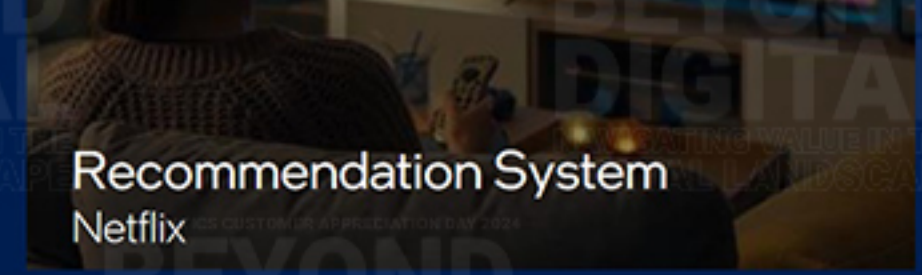
Video Conference



Code Generation



AI Based Rendering



Recommendation System Netflix



Robotics Vision

AI is transforming how we live everyday

Growing AI capabilities enabling business outcomes

Demand forecast

Anomaly detection

Classifications

Recommendations

Fraud detection

ooo

Machine Learning

CV Quality detection

NLP – Chatbots

Medical image diagnosis

ooo

Deep Learning

Architecture designs

Code generation

Marketing copy or images

Digital assistants

ooo

Generative AI

Path to the AGI era...2029?

AGI

Bringing AI Everywhere

Large

Unlock the AI Continuum

Novel Applications

Small

Training &
Fine-Tuning

Streamline the AI Workflow

AI Software

Inference &
Deployment

Cloud

Simplify the AI Infrastructure

Scalable Systems & Solutions

Client

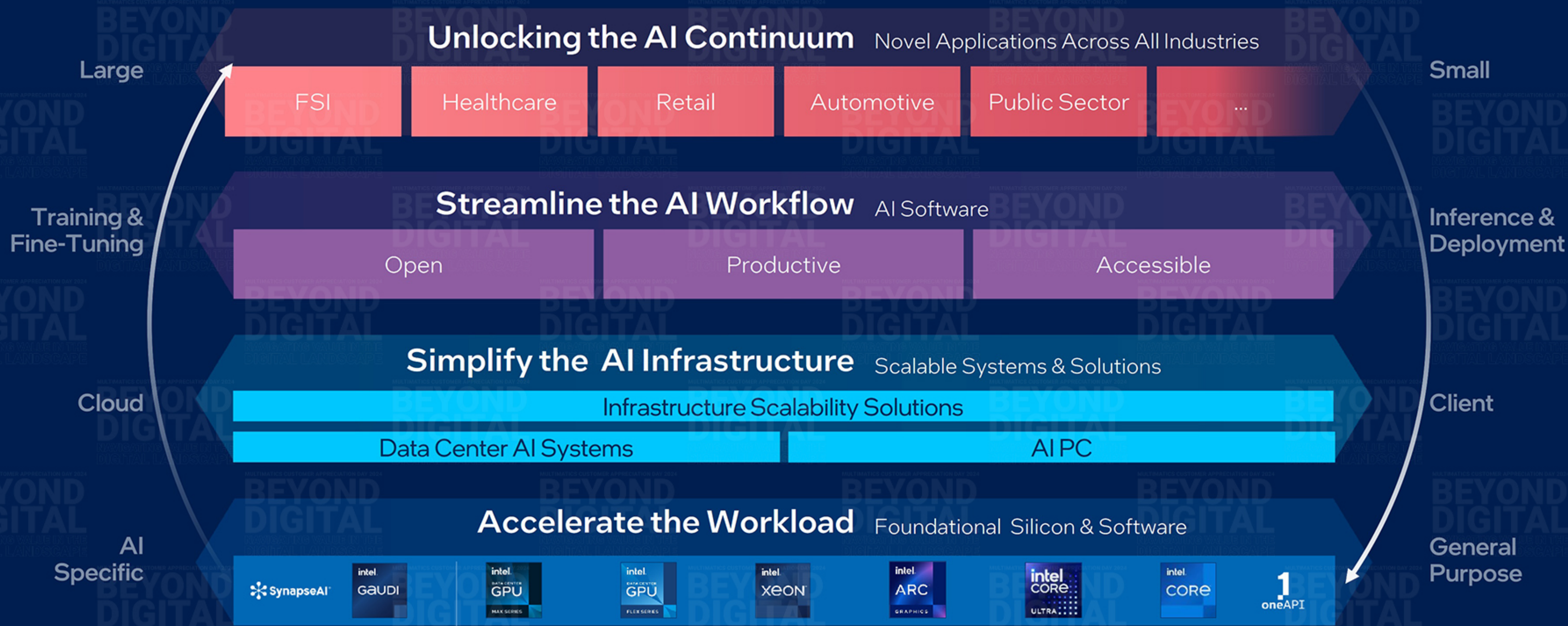
AI
Specific

Accelerate the Workload

Foundational Silicon & Software

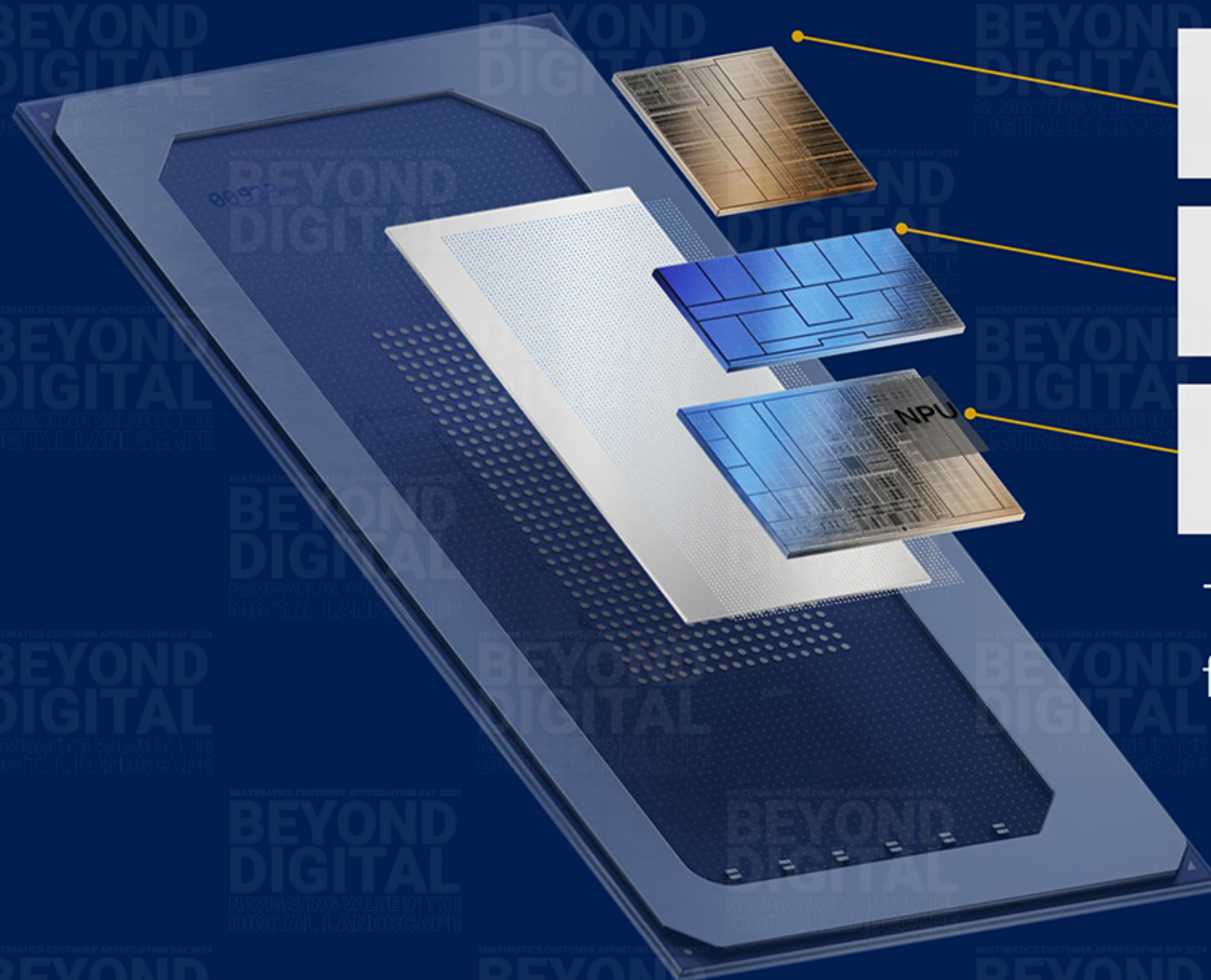
General
Purpose

Intel's Approach



Intel® Core™ Ultra Processors

First PC platform from Intel with built-in neural processing unit (NPU)
for AI optimization of workloads for today and tomorrow



CPU

Fast Response

Ideal for lightweight, single-inference, low-latency AI tasks

GPU

Performance Parallelism & Throughput

Ideal for AI infused in Media/3D/Render pipeline

NPU

Dedicated Low Power AI Engine

Ideal for sustained AI and AI offload

The right balance of platform power and performance
for AI and the right software tools to scale.



New xPU Performance and Optimizations for Next Gen AI Workflows

Collaboration



Streamlined collaboration with Microsoft Visual Effects Studio

- ✓ Smart framing
- ✓ Background removal
- ✓ Eye tracking
- ✓ Noise suppression

Today's Hybrid Work



Intuitive Microsoft Office AI workflows

- ✓ Text prediction
- ✓ Grammar check
- ✓ Voice access
- ✓ Live captions
- ✓ Reading coach

Content Creation



AI-optimized content creation with Adobe Premiere Pro

- ✓ Video editing
- ✓ Rendering
- ✓ Diffusion effects

Data Visualization



Supercharged data visualization tasks with Tableau and PowerBI

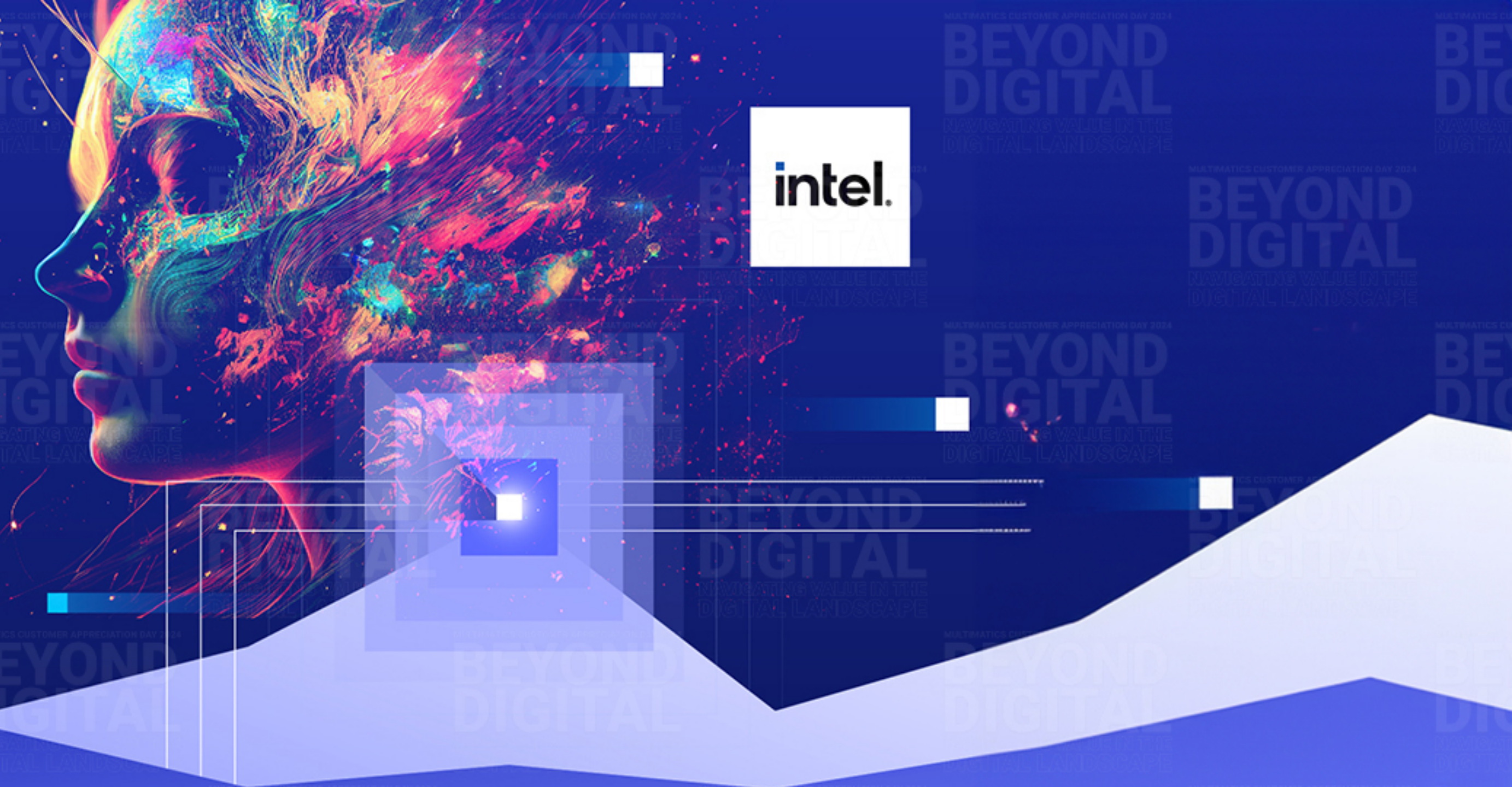
- ✓ 3D image creation and manipulation
- ✓ Report generation
- ✓ Student assessment

AI PC Acceleration Program Leadership in the Age of AI Software



To realize this advancement on the PC, Intel is connecting IHVs and ISVs with Intel resources that include AI toolchains, co-engineering, hardware, design resources, technical expertise and co-marketing opportunities. Together with the technology ecosystem, Intel will help maximize AI and ML application performance, accelerate new use cases and connect the wider PC industry to the solutions emerging in the AI PC ecosystem.

Starting with AI-acceleration built into every Intel® Core™ Ultra processor, people will have the power to do what they've never imagined – enhance collaboration, productivity and creativity in extraordinary new ways, right on their PC.



>100 million
PCs with AI accelerators
through 2025



Engaging with
100+
AI ISVs for AI PC optimization



300
AI-accelerated
ISV features in 2024



3x more¹
AI apps+ frameworks than
competing silicon vendors in 4Q23



Up to
8x more
power efficient vs.
previous generations²



AI-ready systems from
7+ global OEMs



Top AI developer
toolchains enabled
now



Intel has a
long history
of developing client
AI hardware/software for PC users

■ To learn more visit [intel.com/aipc](https://www.intel.com/aipc)

¹Based on public AI software roadmap releases and/or commitments from AMD, Qualcomm, and Intel as of 09 September, 2023.

²Based on internal estimates. Learn more at www.intel.com/PerformanceIndex. Results may vary. Intel technologies may require enabled hardware, software or service activation.

AI is evolving rapidly

Underlying data technologies....



Graph Databases



Data Lakehouse



Data Fabrics



Synthetic Data

60%

of data for AI projects will be synthetic by 2024

58%

of CEOs from leading public companies actively investing in AI

More than

50%

of enterprise-managed data will be created & processed outside the data center or cloud

Generative AI is disrupting industries

Growth of model sizes 1T+ parameter models

Growth of smaller model types

AI everywhere

By 2026

50%

of edge deployments will involve AI

Inferencing drives compute costs

Responsible AI

<https://chiefexecutive.net/the-rise-of-the-ai-ceo/>

https://blogs.gartner.com/andrew_white/2021/07/24/by-2024-60-of-the-data-used-for-the-development-of-ai-and-analytics-projects-will-be-synthetically-generated/

Gartner®, Hyperscalers Stretching to the Digital Edge, July 2023. GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All right reserved.

By 2026, at least 50% of edge computing deployments will involve machine learning (ML), compared to 5% in 2022 (Building an Edge Computing Strategy, April 2023)

Automation: Threat or Opportunity?

Some
23%
of jobs are
expected to
change by 2027¹

69 million
new jobs created¹

83 million
eliminated¹ (some
is due to AI, not all
of it)

12 million
occupational shifts
through 2030
caused by AI²

27%
of jobs at high risk
of automation³

30%
or more of the time
dedicated to tasks
within the workweek of
specific white-collar roles
expected to be efficiently
handled by GenAI.⁴

¹ <https://www.weforum.org/press/2023/04/future-of-jobs-report-2023-up-to-a-quarter-of-jobs-expected-to-change-in-next-five-years/>, ² McKinsey (2023, July 26). Generative AI and the Future of Work in America: <https://www.mckinsey.com/mqi/our-research/generative-ai-and-the-future-of-work-in-america> ³ <https://www.oecd.org/employment-outlook/2023/#ai-jobs> https://www.oecd-ilibrary.org/social-issues-migration-health/the-impact-of-ai-on-the-workplace-main-findings-from-the-oecd-ai-surveys-of-employers-and-workers_ea0a0fe1-en ⁴ <https://dazeinfo.com/2023/11/28/generative-ai-impact-on-jobs-in-india-by-2032-accounting-related-jobs-are-at-high-risk/>



Artificial
Intelligence



Why is AI challenging?



Business
Success

Complexity

Growing number of methods, capabilities and infrastructure requirements to run AI

Costs

Increasing costs as AI gets more widely adopted and consumed

Operationalizing

Many steps to get AI from proof of concepts through to production

Data Security and Privacy

Activating sensitive or regulated data globally while remaining secure, compliant

Human Impact

Enabling ethical and equitable AI requires a comprehensive approach to lower risks and optimize benefits

Expanding Digital Readiness

Digital Readiness encompasses the skills, trust, and ability of people to use technologies responsibly and effectively for broader socio-economic benefits.

Digital Skills

- Gain an understanding of emerging tech (e.g., AI, 5G, IOT)
- Acquire technical and social capabilities of emerging tech



Trust

- Build deep confidence in emerging tech:
- Ethics & Responsibility
 - Privacy & Control
 - Security & Reliability
 - Transparency & Accessibility



Responsible Use

- Understand potential & limitations, build impactful use-cases and solutions
- Integrate emerging tech for better productivity and efficiency

Expanding Digital Readiness is key to Intel's corporate purpose and 2030 RISE strategy.

Intel® Digital Readiness Programs

Digital Readiness = Digital Skills + Trust + Responsible Use

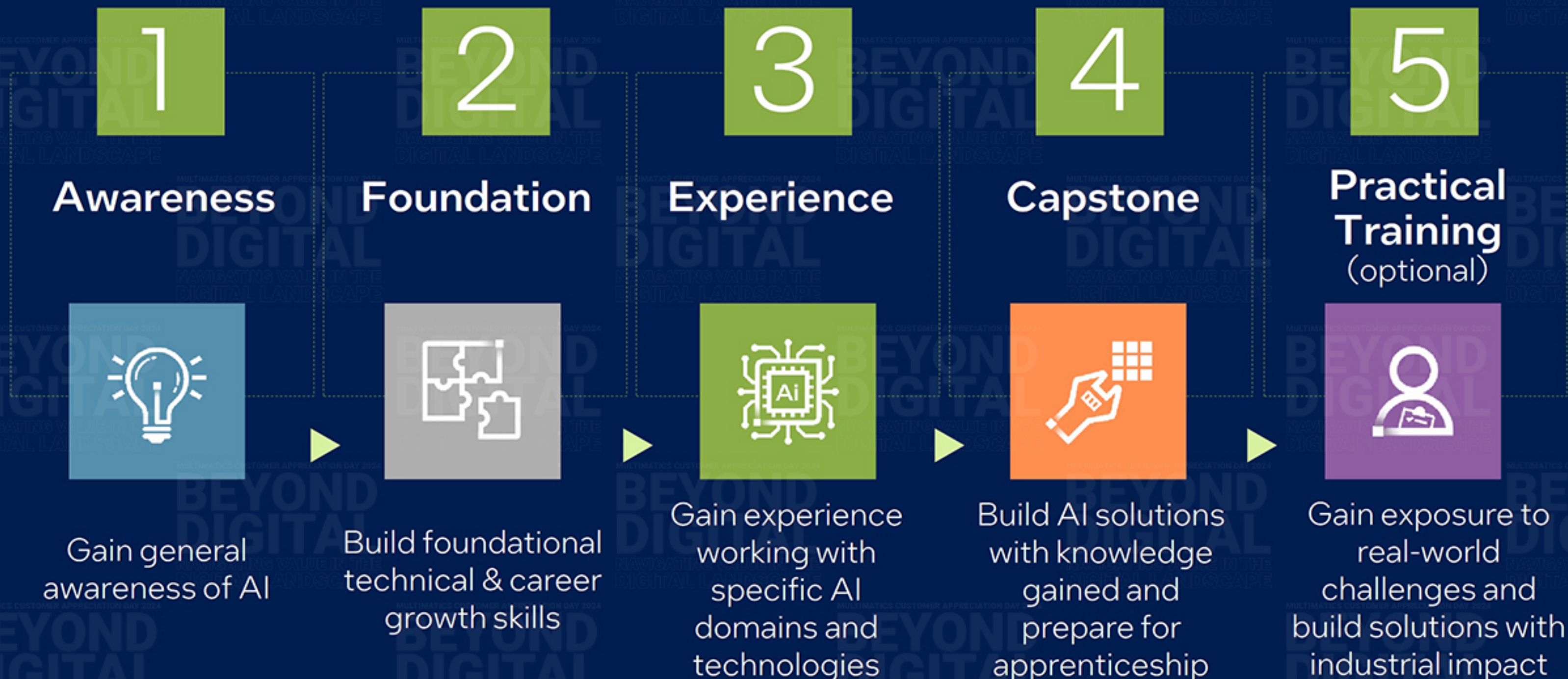
Program Name						
Government Goals	Engagement	Education	Employability	Employment/ Entrepreneurship	Economic Growth	Democratization of AI
Audience Needs	Public Awareness	High School Skilling	Vocational Skilling	On Job Upskilling /Reskilling	Leaders Tech Readiness	Impact Celebration

RISE Strategy: Make Technology Inclusive & Expand Digital Readiness	2030 Goal		2022 Achievement	
	Countries	30	27	
	Institutions	30,000	23,000	
	People trained	30,000,000	4,000,000	

Empowering Lives with Technology - www.intel.com/digitalreadiness

Intel® Digital Readiness For Future Workers

Skilling Journey



5-stage skilling journey to equip future workforce. 39 Modules. 216 hours

Intel® Digital Readiness For Leaders

The Objective

Educate and empower government leaders on emerging technologies such as AI, IoT and Cybersecurity with Intel.

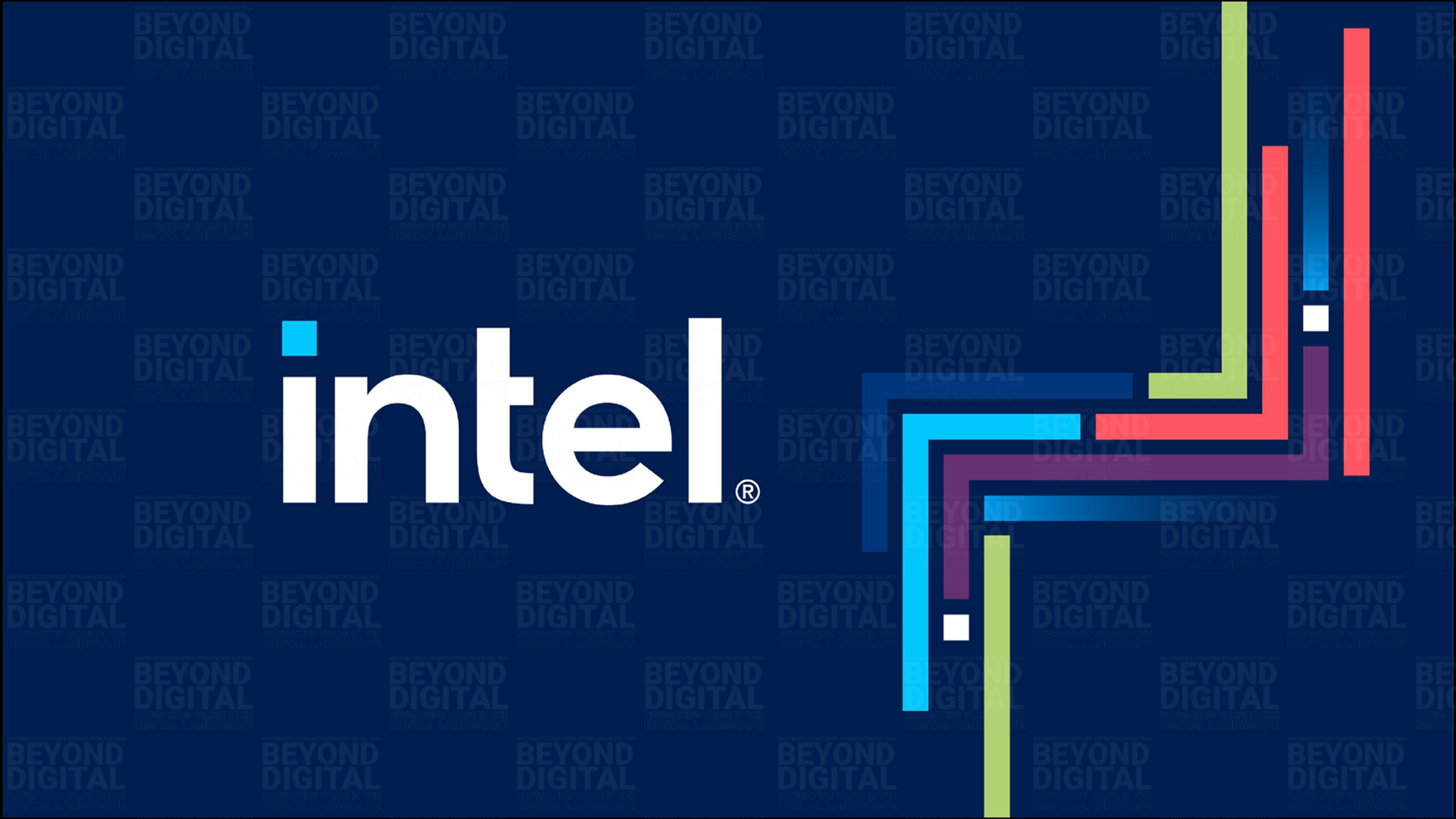
Target Audience

Government policy officials and decision makers.

The Program

Fully immersive, engaging and customizable workshops led by Intel technologists and business experts.

Topics: AI, Cybersecurity, IoT, 5G, Workforce Readiness.



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