



**A**ugmented **R**eality for **E**nterprise **A**lliance



## Executive Summary:

# AI-Enabled Smart Glasses for Enterprise AR Applications

By ETHAR, INC.

The AREA © 2026. All rights reserved

This is the executive summary of an AREA member exclusive report prepared by Ethar Inc under contract with the AREA.

The entire contents of this publication are protected by copyright. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any electronic, mechanical, photocopying and recording means or otherwise, without the prior written permission of the AREA.

It is provided without warranty, whether express, implied, or statutory, including, but not limited to, any warranty of fitness for a particular purpose or any warranty that the contents of the report will be error-free.

In no respect shall the AREA or Ethar Inc and his research team incur any liability for any damages, including, but not limited to, direct, indirect, special, or consequential damages arising out of, resulting from, or any way connected to the use of the contents of this report, whether or not based upon warranty, contract, tort, or otherwise; whether or not injury was sustained by persons or property or otherwise; and whether or not loss was sustained from, or arose out of, the results of, the item, or any services that may be provided by the AREA or Ethar Inc.

#### Acknowledgements

The AREA would like to thank all the organizations and individuals who donated their time, insight, and expertise to participate in this study. You are among the leading organizations globally in the use of Augmented Reality technology and the insights have greatly assisted this research

# AI-Enabled Smart Glasses for Enterprise

## Market Landscape, Evaluation Framework, and Pilot Guidance

The market for AI-enabled smart glasses is moving fast -- and it is harder to navigate than it looks. Dozens of devices are now commercially available. Vendor claims are inconsistent. The phrase 'AI-enabled' is applied to products that function in fundamentally different ways, from audio-only camera glasses with a voice assistant to fully spatial AR systems with on-device AI compute. Without a clear framework to separate these categories, you end up comparing unlike products and making procurement decisions based on marketing language, not operational evidence.

This is the AREA's 17th Research Project executive summary. The full reports (for AREA members only) addresses this problem directly. The research establishes a device taxonomy covering four categories: audio-only AI glasses, utility display glasses, video display glasses, and immersive AR smart glasses. Each has different implications for wearability, battery life, AI architecture, manageability, and workflow fit. Alongside the taxonomy, the research delivers a Landscape Catalog that compares available devices across compute architecture, optics, display capability, sensors, connectivity, AI integration model, and enterprise readiness. Not all devices are suitable for managed enterprise pilots. A smaller subset is purpose-built for industrial deployment, with documented procurement channels, device management, and support infrastructure.

A central finding is that 'AI-enabled' covers four distinct integration patterns -- single-vendor AI, open platform with bring-your-own AI, open multi-AI consumer devices, and host-passthrough architectures where the AI runs on a paired phone or laptop rather than the glasses themselves. Each pattern has different implications for data governance, cybersecurity posture, vendor lock-in, and ability to operate offline or on-premises. This distinction matters most in regulated environments. A device that routes enterprise queries through a consumer AI service may perform well in a demonstration but fail the security review for a production facility, defense environment, or utility substation.

Structured interviews with enterprise practitioners across manufacturing, oil and gas, utilities, nuclear operations, construction, defense, and field service tested whether vendor claims match operational reality. The findings are consistent: the biggest adoption blockers are not display resolution, processor speed, or AI model capability. They are PPE compatibility, prescription lens support, device-sharing logistics, battery life in real field conditions, offline operation, cybersecurity controls, and integration with ERP, MES, and asset management systems. The research also identifies the strongest near-term use case families -- guided work instructions, inspection and documentation, and remote assistance -- and specifies the conditions each requires to deliver measurable value. Not every workflow justifies smart glasses. The report tells you which ones do, and why.

AREA members receive the complete research package: the full report, the Landscape Catalog, an AI Capabilities Analysis covering all four integration patterns, an Evaluation Toolkit with a Device Scorecard, a structured pilot planning guide, and an ISV Software Landscape covering guided work, remote assistance, inspection, training, and AI-enhanced frontline workflow platforms. Together, these give you a structured process from initial workflow definition through to a defensible business case for pilot investment. If you are evaluating AI-enabled smart glasses for enterprise deployment, this research is where that evaluation should start. Join the AREA to access the full package at [thearea.org](https://thearea.org).

---

*The full research reports are available exclusively to AREA members only. Find out about the benefits of [AREA membership here](#).*