



Expansion and Advancement of ICON

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Emergent Metal Casting Technologies
(EMCS)

AMC Technology Review

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Overview

- *ICON directly supports DoW and DLA missions* by assisting industry quickly and efficiently support the manufacturing of base sustainment for legacy military systems—such as aircraft and armored vehicles that are essential to readiness. ICON recognizes that:

“External Data Dependency is the Primary Constraint”

- Gathering the data into a single locationto effect production of critical replacement parts efficiently, reducing delays and maintaining the operational availability of key weapon system support.

➤ Progress

ICON delivers a powerful advantage by combining automation with a Value-Added Network (VAN) to simplify how industry assesses government requirements. By streamlining data flow and improving visibility across opportunities, ICON removes common friction points, reduces manual effort, and accelerates decision-making. The result is a more efficient, accurate, and connected process that enables suppliers to quickly understand requirements and act with confidence.

➤ Transition

Through ongoing engagement with industry partners, ICON is actively expanding its impact by delivering regular introductions, live demonstrations, and hands-on support for both new and existing users.

➤ Cost Share -\$1,744,736 (thru April 2026)

Needs



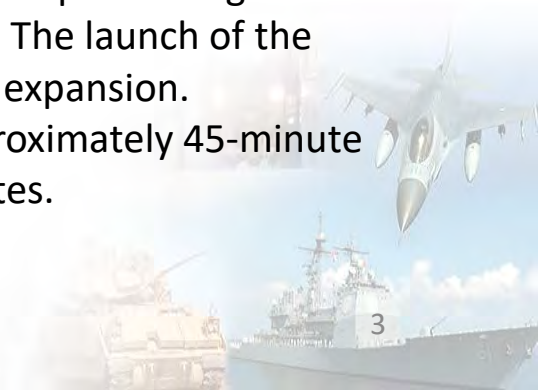
PROBLEM: A need exists to locate suppliers of component parts to support new and existing weapon systems and the ability to locate existing tooling; also, to focus on strategies for order fulfillment of small quantity orders for manufactured parts always addressing lead times for production and at a lower costs.



OBJECTIVE: Execute a structured approach to capturing more industry tooling, identify suppliers, and build a solid industrial capability “base”. Enabling “faster” access to relevant Supplier Capabilities and technical data to lower production costs.



TECHONOLGY: ICON execution through it’s Supplier Capabilities and Tooling modules with Suppliers that have these capabilities: Mold Cavity Builder, Rapid Tooling and Short Run into the supplier database. The launch of the Accelerated Contract Evaluation (ACE) expansion. Discernment tool that reduces an approximately 45-minute task-down to seconds or several minutes.

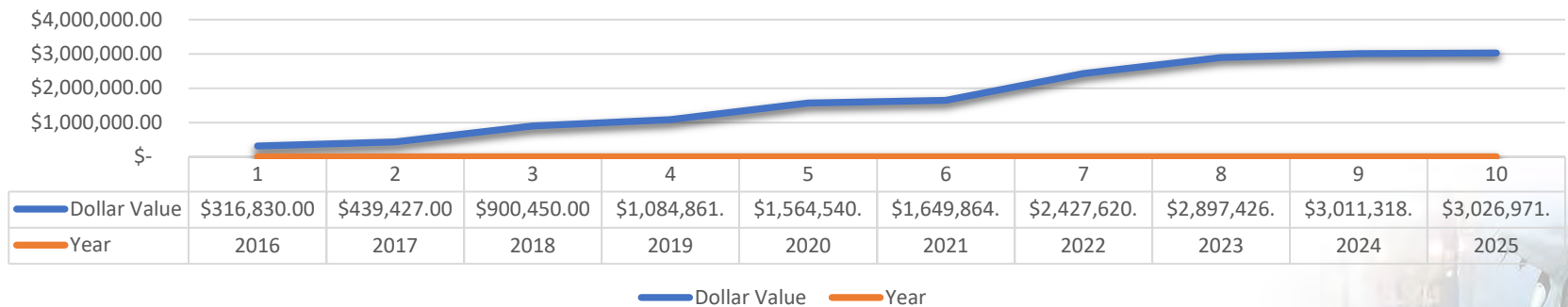


Benefits

➤ Growth and Capability Expansion (DoW/DLA)

- **Enhanced Visibility of Supplier Capabilities** – Expanded data (e.g., *rapid tooling, short-run production, casting/forging capabilities*) provides a more complete view of the industrial base
- **Accelerated Supplier Identification-** Advanced filtering, sorting, and matching capabilities significantly reduce time required to identify qualified suppliers for NSNs and critical components.
- **Reduced Supply Chain Risk** – Broader and more detailed supplier base improves resiliency and reduces dependency on single or limited sources.
- **Improved Quality and Performance Outcomes-** Matching requirements to suppliers with ***verified capabilities and experience*** leads to higher quality parts, better performance and fewer production issues.

COST SAVINGS ATTRIBUTED TO ICON



"ICON has greatly enthused our additive industry by allowing our application development force to engage the foundries with additive solutions to improve delivery and quality of cast products."

Marshall Miller, 3D Systems

Benefits –continued

Impact of Expanded Supplier Capability Data

1. Rapid Tooling & Short-Run Capabilities:

Enables DoW/DLA to quickly identify suppliers capable of producing **low-volume, urgent, or prototype parts**, critical for legacy system sustainment.

2. Deeper Capability Profiles:

Detailed supplier data improves accuracy in matching, ensuring requirements are met with the right processes, materials, and experience.

3. Faster Response to Requirements:

With more complete and structured data, ICON supports quicker decision-making and faster supplier engagement.

4. Stronger Industrial Base Engagement:

Encourages suppliers to showcase capabilities, increasing participation and competition.

GOLDEN NUGGET- Key Value Driver



Precision Matching= Higher Quality Proposals and Faster Awards- ICON filtering capabilities ensure that the **right supplier sees the right opportunity at the right time**, enabling industry to submit **technically aligned, high-quality proposals**—which directly improves procurement outcomes, reduces rework, and accelerates contract awards for DoW/DLA

ICON_ACE transforms procurement from a **manual, research-heavy process** into a **data-driven, precision-matching system**—resulting in faster sourcing, higher-quality outcomes, and a more responsive and capable industrial base supporting DoW/DLA missions

Milestones/Tasks

Task 1 – Tooling Integration

STATUS: In Progress – 67% completed

ICON: Tooling Module Active

Task 2 – MILDEP Tooling Identification

STATUS: 20% Completed, Dependency
(Gov Data)

ICON: Ready for Data Ingestion

Task 3 – OEM Tooling Identification

STATUS: 25% Completed, Dependency
(OEM/Gov)

ICON: Framework Established

Tasks 4–5A – Supplier Capability Buildout

STATUS: 100% Complete

ICON: Fully Operational Module: *Mold
Cavity Builder, Rapid Tooling and Short Run
into the supplier database.*



LEGEND

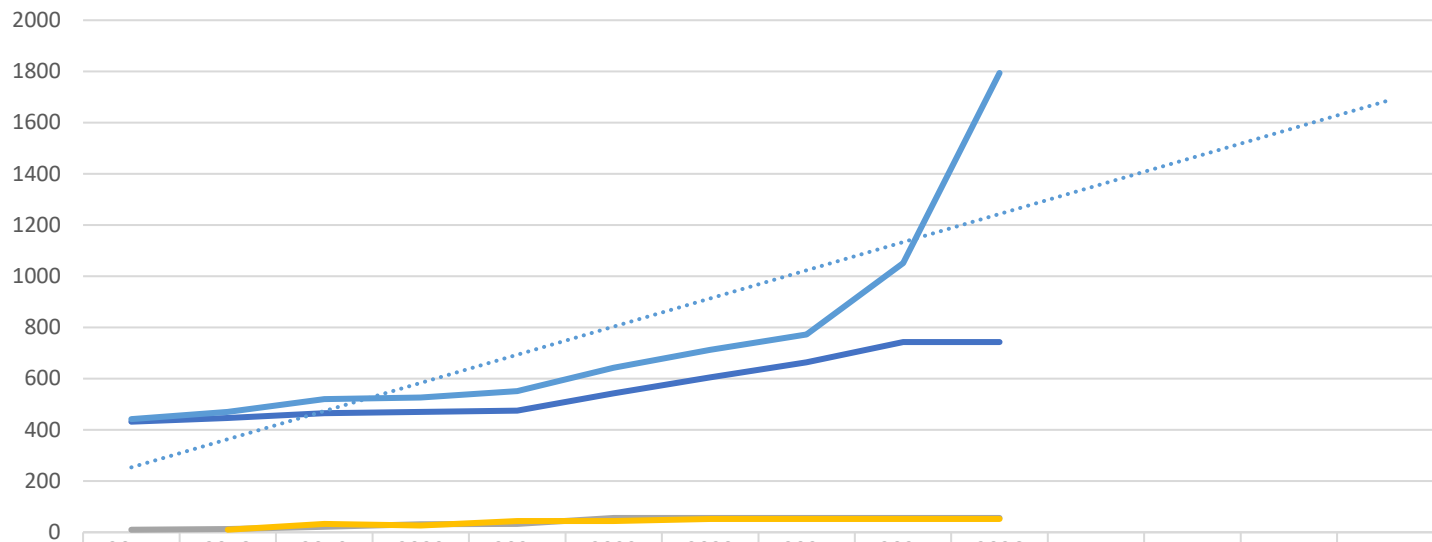
Green = Completed

Yellow = In Progress

Red = External Dependency

ICON USER TOTALS

Organization and Users of ICON



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026					
MS/Foundry	432	447	465	470	475	543	605	664	743	743					
Forging Industry									200						
GOV	10	13	22	31	33	56	56	56	56	56					
Other Suppliers		10	33	26	44	44	52	52	52	52					
TOTAL	442	470	520	527	552	643	713	772	1051	1794	As of May 2026				

MS/Foundry Forging Industry GOV Other Suppliers TOTAL Linear (TOTAL)

Technical Progress Post ACE Integration Sustainment Management

Over the past year many changes and strategies came into our long-term plans:
Many Metrics, Milestones and deliverables from the Forging to ACE Integration with ICON



Project Plans

FY	Description
2027	Cyber Security, ACE, reporting begins. ACE dev, compliance, infrastructure upgrade.
2028	ACE Beta, secure DB launch, AI feature integration, audits performance reviews.

Plan: High Level Summary.

1. Report Management System Optimization
2. Cybersecurity Enhancements
3. 508 Accessibility Compliance
4. Secure Database & Infrastructure Improvements
5. State-of-the-Art Feature Enhancements
6. ACE Phase II-Automated Contract Evaluation Machine



Objective: *To enhance ICON's platform capabilities, security posture, compliance standards, and intelligent automation, while expanding its value across the defense industrial base.*

TRANSITION PLANS

AMC
AMERICAN METALCASTING CONSORTIUM



FOCUS AREA	PLAN/SCHEDULE	DESCRIPTION	PARTICIPANTS
Planning & Industry Alignment Online access	Jan- Dec 2027	<ul style="list-style-type: none"> - Industry users engaged/notified - UAT users - Finalize platform training 	<ul style="list-style-type: none"> - Supply Chain Leaders - Industry users/Common Admin - Forging (FIA) - All Partners
Training & Documentation Rollout	Jan –Dec 2027	<ul style="list-style-type: none"> - Launch documentation Portal. - Releases user Guides and processes - Host Live Webinars - Deliver on-demand tutorials - Target in person workshops 	Government and Industry Users
Full Industry Engagement	Jan –Jun 2028	Industry On-boarding Help Desk Workflows	PMO, All Suppliers/DLA/DoW, Help Desk Support

- Webinars & Tutorials: Monthly updates and guided walkthroughs
- Workshops: Supplier-focused regional sessions
- Help Desk: support via email, phone, and live chat (Tier 1-3 escalation)



ICON to Supply Chain Integration Partners

Leveraging

The ICON_ACE project uses previous and current related work within and outside the defense industry. Taking advantage of other funding sources when available.

- FLIS, DECAF, DIBBS, EBS, SAM.gov
- Pulls authoritative procurement and logistics data
→ **Informed, real-time decision-making**



Communication with the Network

- Engaging **small manufacturers, Apex Accelerators** and current **industry partners**
- Real-time feedback loops and outreach
→ **Agile and responsive collaboration**



Strategic Data Analysis

- Deep visibility into **customer needs** and **supplier capabilities**
- Smart analytics drive resource alignment
→ **Better matchmaking, better outcome**



Additional Resources

- **IBAS Forging Project:** Accelerating defense forging opportunities
→ **Enhancing ecosystem support and industrial resilience**



Outreach & User Retention

- Social media presence to grow reach
- Support channels to retain users and orgs
- Uncovering new **partnership opportunities**
→ **Sustained engagement & expansion**



Replicable & Scalable Model

- Systematic model linking suppliers to **DoW needs**
- Ready to **scale nationally**
→ **Repeatable success for broader impact**



Leveraging Technology and Metrics

- 36,975+ Tooling Records
- Extensive **NSN & Part Number Cross-References**
- **473 Supplier Capabilities** easily searchable
→ **Powerful, tech-enabled insights**

Project Metrics

Description	Baseline	Threshold	Goal	How Measured	Target Date	Progress	How Demonstrated
Increase Tooling Records	27,000	32,000	37,000	ICON Program Reporting	14 Nov 2027	36,975	ICON Program
Increase the number of ICON registered industry users	1311	1811	2311	ICON Program Reporting	14 Nov 2027	1794	ICON Program
Solicitations viewed by ICON users	1500/year	2500/year	4000/year	ICON Program Reporting	14 Nov 2027	8,519	ICON Program

Acknowledgements

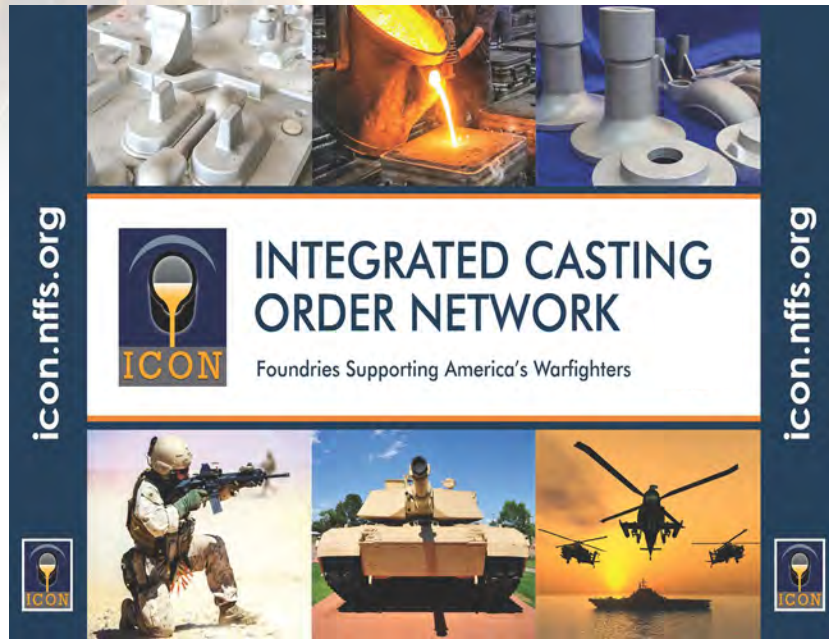
This research is sponsored by the Defense Logistics Agency Information Operations, J68, Research & Development, Ft. Belvoir, VA and DLA Troop Support, Philadelphia, PA.

Expansion and Advancement of Integrated Casting

Order Network (ICON)

DLA - POC: DLAR.DPR@dla.mil

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icon.nffs.org

**INTEGRATED CASTING
ORDER NETWORK**
Foundries Supporting America's Warfighters

icon.nffs.org

Problem

- The Casting supply chains while once robust are now fragmented, making it more difficult to identify and locate capable foundries and machine shop tooling located at suppliers, OEMs, or MILDEP locations. Target and identify capabilities for “short run” and “mold cavity builder” database suppliers.

Objectives

- Re-establish diminished casting supply chain capabilities. Working with the major OEMs and /or MILDEPS for DLA Land, Maritime, and Aviation casting supply chain locating specific NSN-related tooling. Increasing competition response rate from the industry on solicitations that contain one or more casting.

Benefits to Warfighter

- Improved response rate from the industry, reduced administrative and production lead times, and cost avoidance by eliminating the lead time required to create new tooling or locate industry tooling. Adding to the efficiency and competitiveness of the casting production process.

Description of Project: Strengthen the Supply Chain Network for cast parts leveraging ICON innovation, data infrastructure designs, and sustainable practices.

Team: Non-Ferrous Founders' Society, ATI and Horizon Industries.



Milestones / Deliverables

- Provide ongoing assistance to Machine Shops (MS) in identifying specific types of machining NSNs, update ICON database and direct the solicitation to the MS
- Develop a “Mold Cavity Builder” checklist/ categories of capabilities suppliers database
- Develop an expanded list of foundries with “Short Run Capabilities” in the Suppliers Capabilities database.
- Maintain/update source coding of infrastructure designs
- Maintain/increase Tooling and Suppliers Capabilities data.