Building Distributed Supply Chains for Mission-critical Defense Parts With Metal AM

NDIA Emerging Technologies for Defense

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Why?

New and emerging conflicts across the globe

- Increase production capacities

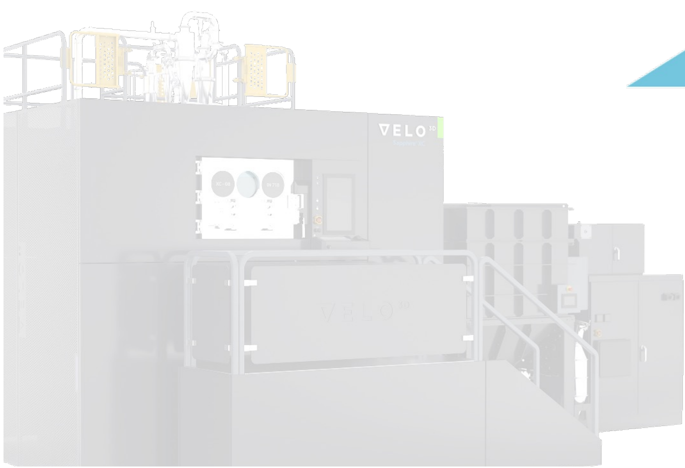
New battlefield landscapes and tactics

- Transform supply chain for adaptable production

A Part of the Solution: Advanced Metal AM

What's Possible

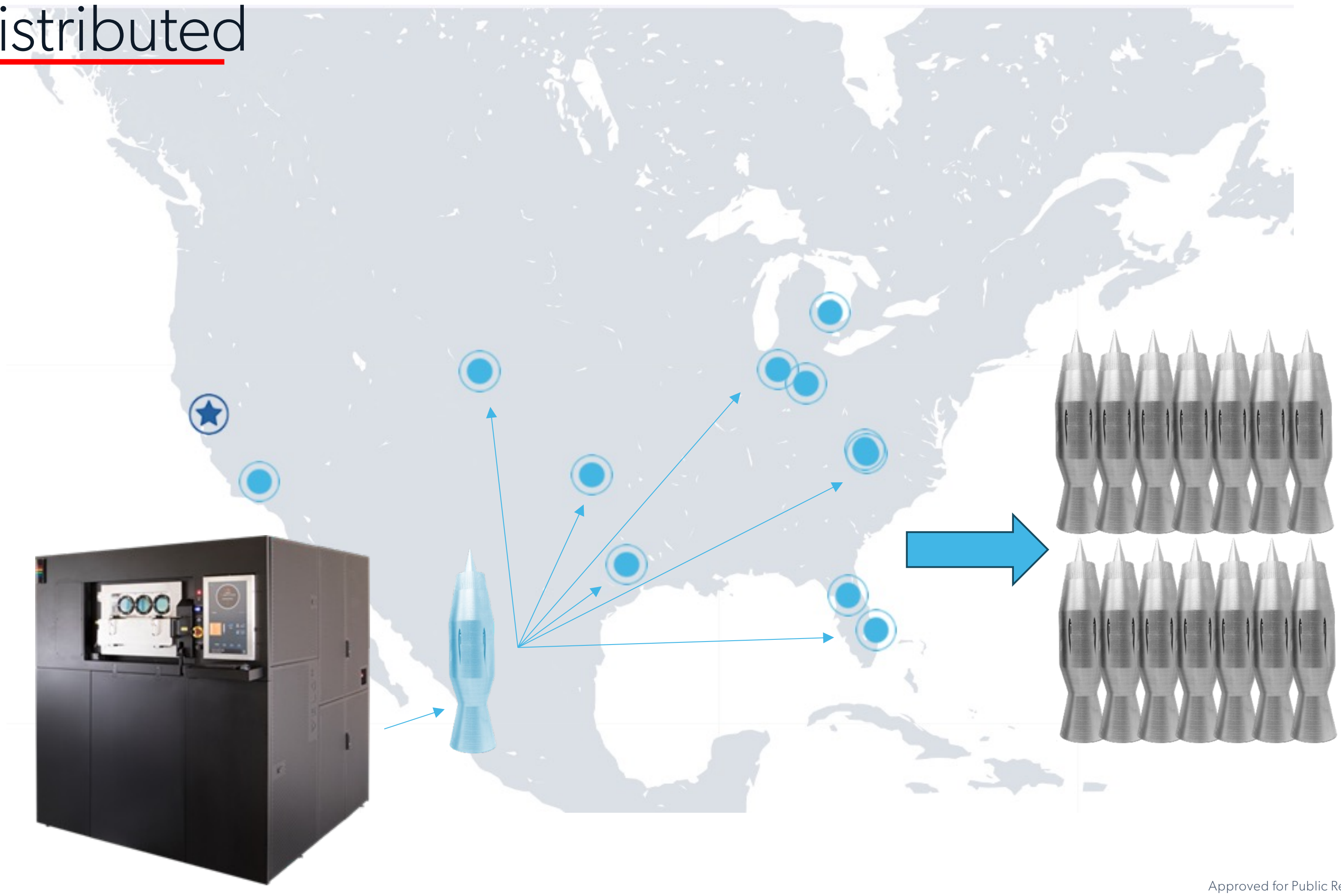
- Enable Production Flexibility
- Reshore and Lead Advanced Manufacturing
- Make Manufacturing Attractive Again



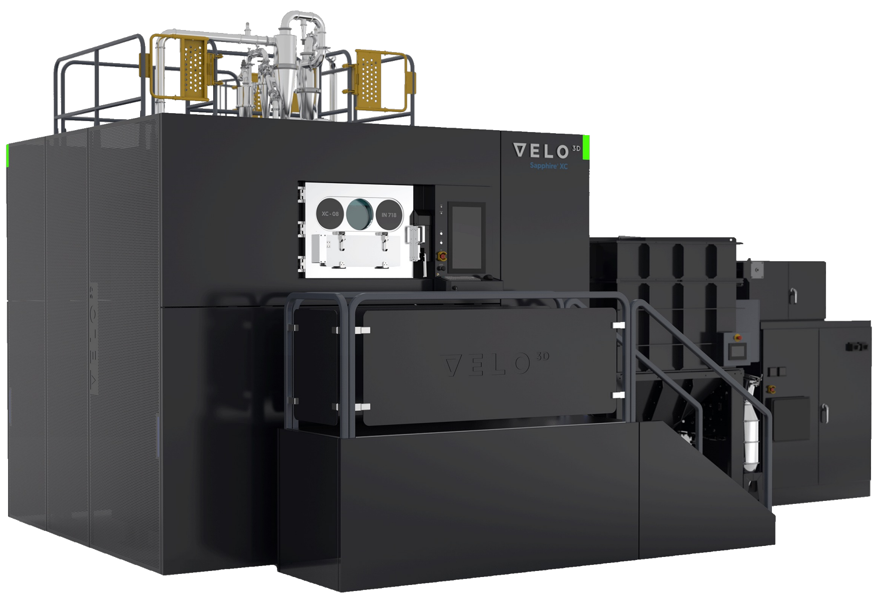
What's Required

- Traditional Machining Repeatability
- Automated Machine Calibrations
- Industry Standard Process Parameters
- Production Level In-Process Monitoring

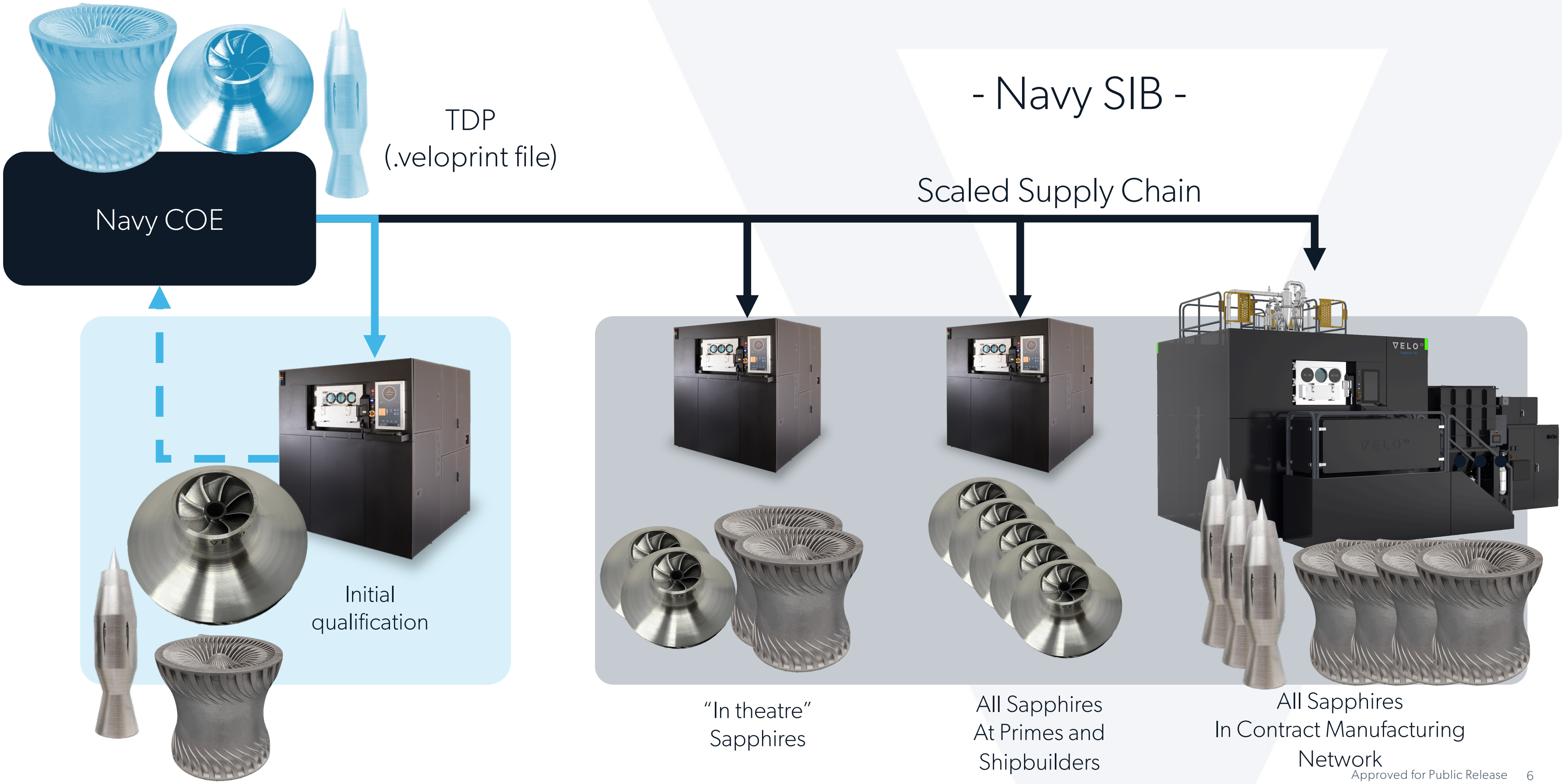
Distributed



Distributed + Flexible



Distributed + Flexible = Mission Ready Supply Chain



Examples in Industry

"URSA MAJOR RAISES $138 MILLION TO INTRODUCE SOLID ROCKET MOTOR LINE AND SCALE ROCKET PROPULSION FOR SPACE AND HYPERSONIC APPLICATIONS"[1]

- Traditional SRM production lines: slow to ramp, difficult to re-tool, workforce reliant[2]
- Ursa approach: faster, cheaper, scalable, flexible, and yields better performing motors[2]

Additively Manufactured Muzzle Brake

Casting Lead Time Reduction:

- 18 months to 4 weeks
- Enables functional improvements
- Does not eliminate machining

1. https://www.ursamajor.com/media/press-release/ursa-majors-dollar138m-boost-new-solid-rocket-motors-and-scaled-propulsion
2. https://breakingdefense.com/2023/11/ursa-major-takes-aim-at-dod-solid-rocket-motor-market/


THANK YOU