

America Makes & ANSI Additive Manufacturing Standardization Collaborative (AMSC)

Status Update for AMMO
November 9, 2016

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AMSC Mission

- To coordinate and accelerate the development of industry-wide additive manufacturing (AM) standards and specifications, consistent with stakeholder needs, and thereby facilitate the growth of the additive manufacturing industry

To get involved: AMSC on the web

www.ansi.org/amsc

Why is Coordination Needed?

- To ensure a consistent, harmonized, and non-contradictory set of AM standards and specs
- A number of standards developing organizations (SDOs) are engaged in AM standards-setting
- Prior to AMSC, there was no process for identifying priorities and interdependencies in the development of AM standards and specs
- ANSI has a track record of serving as a neutral facilitator in such instances

AMSC Deliverable - produce a Roadmap

- Identify published AM standards and specs
 - Separate Standards Landscape spreadsheet also in development
- Make recommendations for new or revised ones
- Provide input to SDOs on stakeholder needs & priorities
- Help guide subject matter experts to participate in the work of SDOs

- AMSC is not developing standards or specs

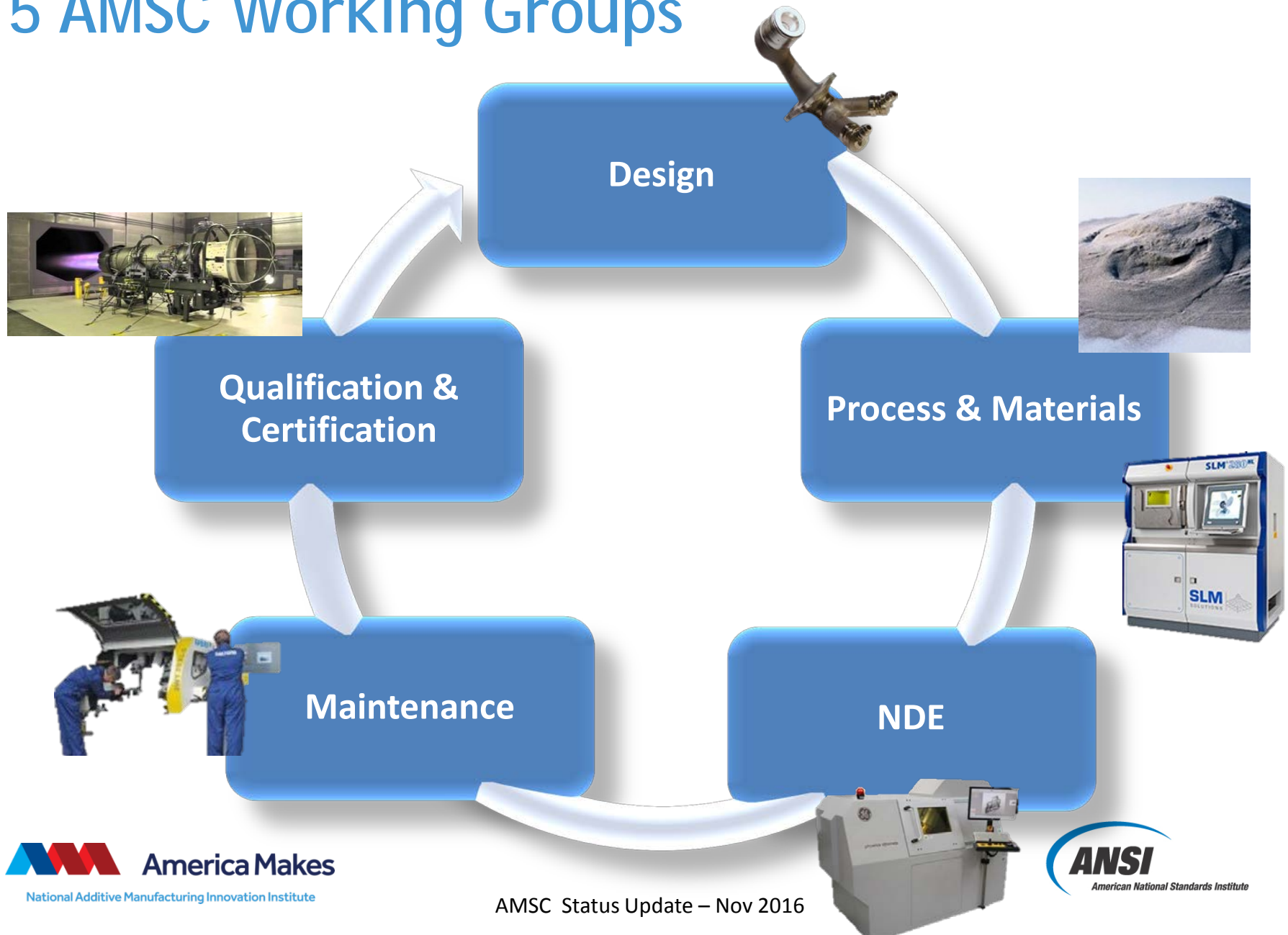
- Decisions are based on consensus

AMSC Leadership

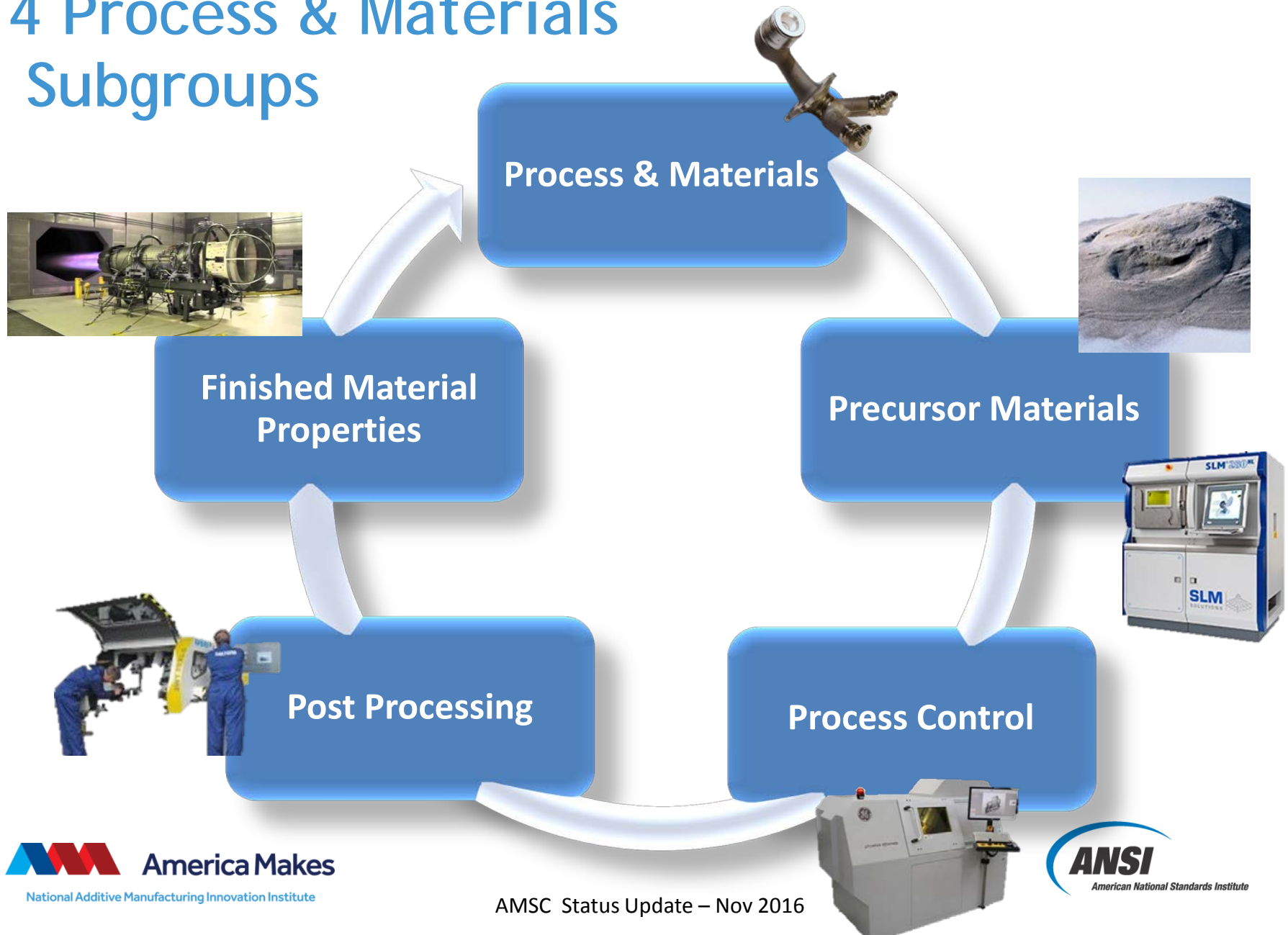
- Chair - Jim Williams (All Points Additive)
- Vice Chair - Lauralyn McDaniel (SME)
- Secretary - Jim McCabe (ANSI)
- Sponsor - Ed Morris (America Makes)

- Members include:
 - Industry
 - Government
 - Academia
 - SDOs
 - Equipment OEMs
 - Materials OEMs
 - Government and Industry Certification Organizations

5 AMSC Working Groups



4 Process & Materials Subgroups



AMSC Timeline

- Kickoff meeting (March 31)
 - Determine Working Group structure and leaders
 - Review landscape of existing standards / specs and those in development; assess what's missing
 - Discuss industry needs and coordination issues
- Cataloguing Phase (April - June)
 - Complete standards landscape of what already exists or is in development
- Gap Analysis Phase (June - August)
 - Identify gaps and priorities for needed standards
- Draft Roadmap (July - Sept)

AMSC Timeline (continued)

- Second face-to-face meeting (Sept 26, Youngstown, OH)
 - Review first draft of roadmap
 - Does it meet our expectations?
 - What needs to be refined? Are gaps and recommendations clearly delineated?
 - Will the document be used?
- Circulate revised draft for internal review & comment (Oct 6 - 28) / WGs on hiatus
- Resume bi-weekly WG meetings (Oct 31 - Dec 8) to review comments / make further revisions
- Issue revised draft for public review and comment (week Dec 12)
- Publish roadmap version 1.0 (Feb 2017)
- Follow up with SDOs on implementation (March 29, 2017)
- Promote participation in SDO work at RAPID + TCT (May 9 or 10, 2017)
- Promotion, monitoring of progress, roadmap update (Ongoing 2017)

Maintenance WG

Co-Chairs: David Coyle, NAVSUP WSS; Michele Hanna, Lockheed Martin

1. Introduction
2. Standard repair procedures
3. Standard technical inspection processes
4. Model based inspection
5. Standards for Tracking Maintenance Operations
6. Workforce Development
7. Cybersecurity
8. Finishing and Assembly, Welding, Grinding, Coating, Plating