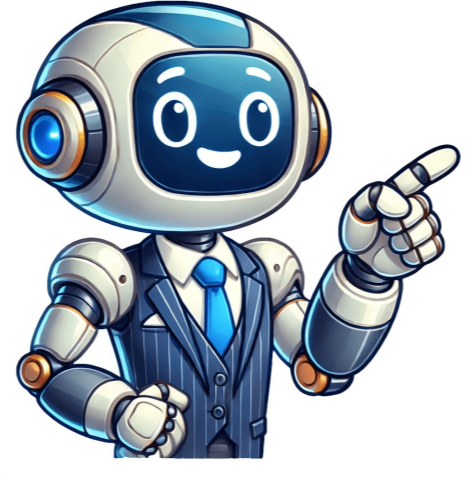


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Other federal government agencies have similar goals and interests to help manufacturers thrive and excel. As vital components of the manufacturing ecosystem, many agencies offer programs, funding opportunities, and other tools to assist manufacturers with various challenges, such as implementing advanced technologies on the shop floor, mitigating cybersecurity risks, managing their supply chain, and reshoring operations. Managed by NIST, manufacturing.gov provides a breadth of federal resources for manufacturers, whether they are a new start-up or a well-established company. The updates to manufacturing.gov and planned future enhancements fulfill requirements set forth in Division B6, TITLE I of Public Law 117-328, H.R.2617 Consolidated Appropriations Act, 2023, authored by U.S. Sen. Gary Peters (MI). These efforts play an important role in strengthening the manufacturing industry and empowering U.S. manufacturers to succeed. If you are a manufacturer and don't know where to start to find federal assistance, visitmanufacturing.govfor a list of programs, funding opportunities, announcements, reports, and more! Created December 13, 2024 Official websites use .gov A .gov website belongs to an official government organization in the United States. Secure .gov websites use HTTPS A lock (A locked padlock) or https:// means you're safely connected to the .gov website. Share sensitive information only on official, secure websites. Created August 3, 2016, Updated January 6, 2025 Official websites use .gov A .gov website belongs to an official government organization in the United States. Secure .gov websites use HTTPS A lock (A locked padlock) or https:// means you're safely connected to the .gov website. Share sensitive information only on official, secure websites. The National Institute of Standards and Technology's (NIST) Additive Manufacturing (AM) team develops standards and benchmarks for AM. See below for some example standards areas NIST AM is involved in. If you're interested in getting involved with any of these, or want to learn more, please contact us. NIST Standard Reference Data (SRD) is quantitative information related to measurable characteristics/properties of systems or digital data objects used for calibration, interpolation, and/or extrapolation of measured data. A NIST Standard Reference Material (SRM) is a certified reference material issued by NIST that meets additional NIST-specific certification criteria and is issued with a certificate or certificate of analysis. The certificate reports the results of the SRM's characterizations and provides information regarding the appropriate use(s) of the material (NIST SP 260-136). NIST AM produces SRD to support high quality research and manufacturing. See below for a few examples. Contact us to learn about our other SRD for additive manufacturing. A continuing series of highly controlled benchmark tests for additive manufacturing, with modeling challenge problems. Results are discussed at the corresponding conference series. Learn more. AM Bench 2022 logo NIST AM develops SRMs to support advancements in additive manufacturing. See below for a few examples. Contact us to learn about our other SRMs for additive manufacturing. This SRM is intended for use in calibration and performance evaluation of instruments used in polymer technology and science for the determination of the melt flow rate using ASTM D1238-13, Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer Standard Test Condition 190/2.16. Learn more. NIST SRM 1474b, Polyethylene Resin Metal AM Standards EffortsContact: Nik Hrabe,ASTM F42: Additive Manufacturing TechnologiesASTM Committee F42 gathers technical experts, additive manufacturing professionals, and individuals "with an interest in the future of additive manufacturing technologies" (ASTM). The committee hosts two yearly meetings and provides access to a network of additive manufacturing professionals. Learn more. International Organization for Standardization (ISO) Technical Committee (TC) 261: Additive ManufacturingISO/TC 261 on Additive Manufacturing is "the world-wide community to develop and support Standards to promote the industrialization of this new technology [additive manufacturing]" (ISO). ASTM F42.90, Executive Committee, Nik Hrabe, Member.ASTM F42.90.05, Research and Innovation Committee, Nik Hrabe, Chair & Liaison with ASTM AM Centers of Excellence.ASTM F42.04, Joint Group 37 on Design Guides, Nik Hrabe, Chair. WK72938, Standard Guide for Additive Manufacturing Design Part 3: Electron Beam PowderBed Fusion of Metals, Nik Hrabe,Lead,WK75184, Standard Guide for Guide for Additive Manufacturing of Metals Powder Bed Fusion Guidelines for Feedstock Re-Use and Sampling Strategies, NikHrabe, Support,Standard Guide for Additive Manufacturing Design Binder Jetting of Metals, Nik Hrabe, Support.ASTM F3001-14 (2021), Standard Specification for Additive Manufacturing Titanium-6 Aluminum-4Vanadium Extra Low Interstitial with Powder Bed Fusion, Nik Hrabe,Lead, Read more.ASTM F2924-14 (2021), Standard Specification for Additive Manufacturing Titanium-6 Aluminum-4 Vanadium with Powder Bed Fusion, Nik Hrabe, Support, Read more.ASTM F3001-14 (2021), Standard Specification for Additive Manufacturing Titanium-6 Aluminum-4Vanadium Extra Low Interstitial with Powder Bed Fusion, Nik Hrabe,Lead, Read more.ISO/ASTM 52911-1-19, Additive Manufacturing Design Part 1: Laser-Based Powder BedFusion of Metals, Nik Hrabe, Support, Read more.ISO/ASTM 52911-2-19, Additive Manufacturing Design Part 2: Laser-Based Powder BedFusion of Polymers, Nik Hrabe, Support, Read more.ISO/ASTM 52922-19e1, Guide for Additive Manufacturing Design Directed EnergyDeposition, Nik Hrabe, Support, Photopolymer AM Standards EffortsContact: Callie Higgins ASTM F42: Additive Manufacturing TechnologiesASTM Committee F42 gathers technical experts, additive manufacturing professionals, and individuals "with an interest in the future of additive manufacturing technologies" (ASTM). 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ASTM F42.05.02, Polymer Materials Subcommittee, Callie Higgins, Co-Chair, WK78224, New Test Method for Additive Manufacturing Vat Photopolymerization Next Generation Tensile Test Method, Callie Higgins, Lead,WK83109 New Guide for Additive Manufacturing Design Vat Photopolymerization, Callie Higgins, Co-Author, Polymer Extension Standards EffortsContact: Jonathan Seppala ASTM F42: Additive Manufacturing TechnologiesASTM Committee F42 gathers technical experts, additive manufacturing professionals, and individuals "with an interest in the future of additive manufacturing technologies" (ASTM). The committee hosts two yearly meetings and provides access to a network of additive manufacturing professionals. Learn more. 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Use the cards below to explore our Products & Resources, Research Areas, or the NIST Store to view other standards available for purchase.Back to Top Official websites use .gov A .gov website belongs to an official government organization in the United States. Secure .gov websites use HTTPS A lock (A locked padlock) or https:// means you're safely connected to the .gov website. Share sensitive information only on official, secure websites. Alaska brings to mind wild salmon, expansive wilderness and unique native cultures. But did you know there's a small and thriving manufacturing industry representing 4% of the states private sector Gross Domestic Product (GDP) and 4.8% of the employments based here? In fact, from 2012 to 2016, according to the U.S. County Business Patterns, Alaskas manufacturing employment grew 6.4% compared to overall employment growth of 3.2% during the same period. Nolan Klouda, Executive Director at the University of Alaska Center for Economic Development and one of the authors of a 2014 state extension service planning study in Alaska sponsored by the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP), recently commented: "Smartly chosen opportunities continue to exist in manufacturing in Alaska. Maybe not building aircraft, automobiles or consumer electronics, but clearly there are specialty areas like ship building, specialty aircraft components and unique foods which can play a part in a broader economic strategy. Isaac Vanderburg, Managing Director for Launch Alaska also shared his thoughts about manufacturings relevance in todays Alaska: We think that modern manufacturing offers some unique opportunities for Alaskans additive manufacturing and 3D printing could present opportunities to reduce our dependence on outside supply chains and unlock new potential for industry here, the digitization of manufacturing could mean lower costs for our state all of which could contribute to our transition from a resource extraction economy to a value-added economy. Study Highlights Alaskas Manufacturing Contributions The 2014 NIST MEP-funded study highlighted several exciting existing and potential contributions from manufacturing in Alaska. While fish processing is the largest manufacturing segment based on employment, entrepreneurs creating value-added products in the seafood industry are a potential growth segment. Barnacle Coast to Kitchen in Juneau uses locally grown, harvested and foraged ingredients like Kelp to make salsas and pickles. The MEP Center in Alaska, MAKE Partnership, worked with Spruce Root in Southeast Alaska to support a marketing strategy to increase sales for the firm. Because of the assistance, Barnacle boosted on-line sales and tapped into new markets. Beer, wine and beverage manufacturing represents a small but fast-growing sector with significant potential for expansion, and the small-scale food processing sector is rapidly expanding too. Moosestead of Fairbanks combines both sectors with their specialty beer mustards, and manufacturers of their gourmet mustards using local trees, wildflowers and products from the Alaskan interior. One of MAKE Partnerships partners, the Sea Grant Marine Advisory Service, quickly provided the necessary testing for Moosestead to comply with all updated state and federal food standards. The company estimates this resulted in an increase or retention of \$120,000 in sales in one year. There are a surprising number of companies that develop products for Alaska yet end up selling outside the state too. Shipbuilding,yurts, windows, aircraft components and fiberglass structures are all examples of products now serving markets around the world. Notably, 63% of the companies originally interviewed in the study said they earn regular sales outside of Alaska.Clearly, there are common barriers facing Alaska manufacturers. Costs of shipping (25%) and costs of inputs (22%) were ranked in a survey as the two most important factors preventing Alaska companies from competing in the lower 48. These factors can be tough to overcome due to geographic reasons, however many manufacturers seem to prevail over these challenges. NIST MEP continues to champion and invest in manufacturing as a vital and exciting part of every states economy, and like Alaska, perhaps not a widely known part at that. NIST MEP is holding a forum in Anchorage, AK June 7, 2018, to discuss continuing MEP services in Alaska as part of the MEP National NetworkTM. If you'd like to join the discussion, please view the regional forum information page and register to attend. To learn more about your states manufacturing economy, please contact your local MEP Center. The MEP National Network is a unique public-private partnership that helps small and medium-sized manufacturers generate business results and thrive in todays technology-driven economy. The MEP National Network comprises the National Institute of Standards and Technologys Manufacturing Extension Partnership (NIST MEP), the 51 MEP Centers located in all 50 states and Puerto Rico. Every year, employers across the United States open their doors to curious kids, inviting them to experience a day in the life of their parents at work. On The Manufacturing Extension Partnership National Network (MEPNN) advances U.S. manufacturing by helping small and medium-sized manufacturers grow, make Baseballs Opening Day brings with it both nostalgia and excitement. You dont have to be a die-hard fan to appreciate the dedicated folks who leave work early Official websites use .gov A .gov website belongs to an official government organization in the United States. Secure .gov websites use HTTPS A lock (A locked padlock) or https:// means you're safely connected to the .gov website. Share sensitive information only on official, secure websites. Manufacturing is the backbone of the U.S. economy. From the cars we drive to the electronics we use daily, almost everything we rely on is made in factories across the country. 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