



# Bylaws and Plans

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Version 4.00

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# **Section 1**

## **Bylaws**

## **BYLAWS (“Bylaws”)**

### **I. ORGANIZATION**

- i. Background: UCLA is the prime recipient of DOE Cooperative Agreement (DE-EE0007613). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or “Institute”) for smart manufacturing. The Program Principal Investigator (“Program PI”) is part of UCLA.
- ii. Formation: The Institute operates as a program within University of California, Los Angeles (“UCLA”), providing CESMII with the administrative and oversight capabilities of UCLA and The Regents of the University of California. (the “CESMII Program”)

### **II. PURPOSE**

The Clean Energy Smart Manufacturing Innovation Institute is committed to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies. The mission of the Institute is to partner with private and public sector organizations to develop, test, and validate to industry advanced sensors, controls, platforms, and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operations technologies and information technologies (OT/IT).

### **III. MANAGEMENT / CHIEF EXECUTIVE OFFICER**

CESMII shall have a Chief Executive Officer (the “CEO”), who will be responsible for day-to-day management, who shall be selected by UCLA based on the recommendations of CESMII Governance Board and subject to any DOE or governmental approvals required by the Cooperative Agreement. The CEO shall serve in conjunction with oversight responsibilities of Governing Board (as defined below). The duties of the CEO include but are not limited to the following:

- i. deliver on CESMII goals and objectives as defined in these Bylaws and in the Statement of Program Objectives (“SOPO”), including hiring and retaining qualified staff (including a Chief Technology Officer (“CTO”) and Chief Operating Officer (“COO”) and other staff as the CEO deems appropriate, subject to any DOE or other governmental approvals required by the Cooperative Agreement, and within the budgetary parameters of the CESMII. The most current CESMII organizational structure can be reviewed at the CESMII Member Portal at <https://cesmii.atlassian.net/wiki/spaces/>;
- ii. prepare and provide to each member of the Governance Board, the CESMII Program and each CESMII Member, an annual report addressing: (i) the proposed and approved projects, (ii) the budget and performance against the same, (iii) the strategic investment plan and performance against the same, (iv) any revisions, or proposed revisions, to the strategic investment plan, these Bylaws, (v) the names of the members of the Governance Board and (vi) Members and their status;
- iii. development and presentation to the Governance Board of an annual report that analyzes the CESMII’s progress against the SOPO, provides an evaluation of the status and results of all projects and initiatives, proposes new projects and initiatives, and includes any other information deemed by the CEO to be necessary for the governance of the CESMII;
- iv. development and presentation to the Governance Board of an annual CESMII report that assesses the administrative, technical, and financial performance of the CESMII

- Headquarters, each individual Smart Manufacturing Innovation Center (“SMIC”) and other sub-recipients and makes recommendations as needed for support, guidance, and administrative controls to promote alignment with the CESMII’s objectives as set by the Governance Board;
- v. review proposals from standing committees, advisory groups or working groups, or any other committee or subcommittee formed, decide what action if any to take in response to the proposals, and communicate such recommendations to the Governance Board and if directed by the Governance Board, communicate decisions of the Governance Board to the referring party;
  - vi. arrange for and give notice of agreed upon periodic meetings of the Governance Board and any other special meetings of the Governance Board;
  - vii. present to the Governance Board, proposed revisions to the Bylaws deemed necessary or appropriate by the CEO;
  - viii. ensure proper management of CESMII intellectual property; and
  - ix. prepare recommendations for and provide advice to the Governance Board regarding the CESMII’s strategic plan, annual operating plans, the membership agreement for the Members, the CESMII’s budget and other CESMII related documents.

#### **IV. THE GOVERNANCE BOARD**

A Governance Board (the “Governance Board”) will have responsibility for providing Program Governance and acting as an Advisory Board to the Program PI and CEO of CESMII. While assuring that the Governance Board is industry-led (i.e., a majority of direct participants from industry), the Governance Board will establish guidelines for the SMICs to use in appointing their representatives to the Governance Board. Said guidelines will include a focus on ensuring that various diverse perspectives are represented such as minority- and woman-owned businesses, and veteran and disabled populations. The rights, duties and composition of the Governance Board include but are not limited to the following:

- i. The Governance Board may amend these Bylaws. Additionally, any amendments will require a positive compliance recommendation from DOE and UCLA for the duration of the Cooperative Agreement.
- ii. The Governance Board will be composed as follows:
  - One member of the Governance Board shall be appointed by each Tier 3 Member category that is allowed by the Membership Agreement and Membership Model; and is currently considered to be a Tier 3 Member in good standing. Each such member of the Governance Board must be an owner, director, officer, or employee of the Tier 3 Member.
  - The CEO can appoint up to five Board Members with concurrence of PI and with Executive Committee approval for two-year terms.
  - The CESMII Board can include up to 10% CESMII or non-CESMII members for two-year terms with the approval of the GB. Nominations must be sponsored by the CEO, PI, DOE and/or existing CESMII GB members. UCLA will have two (2) members on the Governance Board, of which one (1) will be the Program PI.
  - Each SMIC may also be entitled to appoint up to three (3) members to the Governance Board with concurrence of the CEO. Members of the Governance Board appointed by an SMIC and the CEO serve two (2) year terms and shall not be eligible to be a member of the Governance Board again until at least one term has passed since the person’s term expired. While assuring that the Governance Board is industry-led (i.e., majority of direct participants from industry), the Governance Board will establish guidelines for the SMICs to use in appointing their members to the Governance Board.

- At its discretion, DOE may appoint federal government representatives to serve on the Governance Board equal to up to ten percent (10%) of the total membership of the Governance Board. In addition, the DOE Technology Manager may observe Governance Board activities to ensure compliance with the cooperative agreement and programmatic objectives.

iii. Management of the Governance Board:

- Regular meetings of the Governance Board will be held on an agreed upon period basis at a time and place to be determined by the Governance Board, using video conferencing as appropriate. Notice of each regular meeting shall be provided by the Chief Executive Officer to the members of the Governance Board prior to the meeting; the Chief Executive Officer shall also provide a proposed meeting agenda for each regular meeting to the noticed parties prior to the regular meeting.
- The Governance Board and the Chief Executive Officer may also call special meetings of the Governance Board. With respect to any special meetings of the Governance Board, at least forty-eight (48) hours' notice shall be given to the members of the Governance Board, along with a proposed agenda at the same time.
- A majority of the members of the Governance Board shall constitute a quorum for the transaction of business. The affirmative vote of a majority of the members of the Governance Board present at a meeting shall be necessary for adoption of any matter voted on by the Governance Board.
- Any action required or permitted to be taken by the Governance Board may be taken without a meeting and will have the same force and effect as if taken by a vote of the Governance Board at a meeting properly called and noticed, if authorized by a writing signed by a majority of the members of the Governance Board then in office.
- Federal Officials named by DOE and the DOE Technology Program Manager may attend the meetings of the Governance Board. Other people may attend meetings of the Governance Board, but they require the approval of the Governance Board.
- An Executive Committee (the "Executive Committee") of the Governance Board will be established to address any critical issues between Governance Board meetings. The Executive Committee will at a minimum be composed of four standing positions, of which two are the Chairman and a Vice Chairman, one is the CEO, and one is the UCLA Program PI. The Executive Committee may also include up to one additional member appointed by the DOE. All members of the Executive Committee shall be members of the Governance Board. The Executive Committee may, during intervals between meetings of the Governance Board, exercise the full powers of the Governance Board. The voting, quorum, notice and permitted attendees for the Governance Board under this Agreement shall apply to the Executive Committee, except that references to the members of the Governance Board shall refer to members of the Executive Committee. The DOE Technology Manager will invited to attend and participate in a non-voting capacity for all Executive Committee meetings, discussions of important matters, and similar communications. The DOE Technology Manager will be included on all Executive Committee correspondence.

**V. SM INNOVATION CENTERS (the "SMICs")**

- i. Establishment of SMICs: At the direction of the Governance Board, the CEO shall establish SMICs through the development and execution of Subrecipient Agreements which shall detail the legal and operational relationships between the CESMII,

Headquarters (as defined in the SOPO) and each of the SMICs, including administration, training, outreach, test bed development and project management, IP, export control, performance metrics, and other matters as deemed necessary by the CEO.

- ii. SMIC Requirements, Structure and Management: Each SMIC shall develop a statement of objectives and milestones and describing and committing to its approach to achieve CESMII established performance metrics, including an associated budget. Each SMIC shall establish business, management, and administrative facilities to manage and disburse funds; oversee and evaluate its responsibilities in membership recruitment and sustainment; drill down road mapping if appropriate to the region; networking and collaborative activities with other SMICs and CESMII; outreach and training to all relevant communities; test bed and hardware-in-the-loop project.

## **VI. COMMITTEES**

- i. Standing Committees: CESMII shall have the following standing committees: Technical, Business, and Outreach. Standing Committees shall provide advice only to the Governance Board and may not exercise any authority of the Governance Board. Each standing committee shall be composed of two (2) or more members of the Governance Board, as determined by the Governance Board. The CESMII Members and the SMICs shall have the right to appoint representatives to the standing committees consistent with their membership agreements. DOE may appoint up to two federal government representatives to serve on each standing committee. Each standing committee may create working groups to delve into topics in greater detail. The voting, quorum, notice and permitted attendees for the standing committees and working groups shall be determined by each standing committee and working group.
- ii. Advisory Committees. The following advisory committees may also be created: (i) Federal Executive Committee; (ii) Manufacturing Extension Partnership/Industrial Assessment Center Directors Committee; (iii) State Energy Directors Committee; (iv) Intellectual Property Committee; (v) SM Platform Committee; and (vi) National State and Local Governments Smart Manufacturing Council and National Smart Manufacturing Council. The members of these advisory committees shall be appointed by the Governance Board. These advisory committees shall provide advice only to the Governance Board and may not exercise any authority of the Governance Board. The voting, quorum, notice and permitted attendees for the advisory groups shall be determined by each advisory group.

## **VII. THE INSTITUTE MEMBERS**

- i. Membership Dues and Rights: The Governance Board, in consultation with the CEO, shall determine the membership dues and rights of the Members.
- ii. Membership Agreement: Membership fees and rights shall be set forth in a membership agreement which will detail the investment requirements of the CESMII Member and the benefits for that tier of membership. Benefits set forth in the agreements will reflect the CESMII services benefit structure.
- iii. Subject to the terms of the membership agreement, membership fees may be amended from time to time in the interest of sustaining the CESMII. Unless otherwise provided in the membership agreement, membership fees are nonrefundable.

## **VIII. PERFORMANCE OF WORK**

Absent an approved waiver, all activities under the Cooperative Agreement must be performed in the United States and no funds under the Cooperative Agreement shall be spent outside the U.S. This requirement is applicable to CESMII, Members, sub-recipients, contractors and

others performing work under the Cooperative Agreement. This requirement does not apply to the purchase of supplies and equipment; however, the Members should make every effort to purchase supplies and equipment produced within the United States.

#### **IX. INTELLECTUAL PROPERTY**

- i. The Intellectual Property Management Plan (“IP Plan”) governs the treatment of Intellectual Property and the rights between the CESMII and CESMII Members;
- ii. The rights in Intellectual Property between DOE, the CESMII and the CESMII Members are governed by the terms of the Cooperative Agreement;
- iii. In the event of a conflict between the IP Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence;
- iv. The purpose of the IP Plan is to maximize and optimize the deployment of CESMII-derived technologies. It is intended to address industry’s need to rapidly access suites of IP critical to their successful commercialization efforts and to address a broader U.S. economic goal - to disseminate CESMII data, tools, and results efficiently and widely to the larger research and development community; and
- v. Guiding Principles: There are three guiding doctrines to the IP plan: (1) promotion of U.S. economic interests; (2) promotion of the Members’ economic interests; and (3) protection of the Members’ proprietary information. While respecting the three guiding doctrines CESMII will strive to broadly (but not freely) disseminate IP owned, developed, or managed by the CESMII.

#### **X. DATA MANAGEMENT PLAN**

- i. The Data Management Plan (“Data Management Plan”) governs the range of data types which will be collected/and or managed under CESMII. This Data Management Plan is designed to be consistent with the Department of Energy’s (DOE) Public Access Plan; and
- ii. In the event of a conflict between the Data Management Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence.

#### **XI. CONFLICT-OF-INTEREST PLAN**

- i. The Conflict-of-Interest Plan (“Conflict of Interest Plan”) governs the conflicts of interest, ethics, and standards of conduct policies and procedures applicable to all CESMII Key Personnel, Member Institutions, Participants, and Partner Institutions; and
- ii. In the event of a conflict between the Conflict of Interest Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence.
- iii. Definitions:
  - **Partner Institutions** shall mean businesses, institutions or entities that associate with CESMII for limited periods of time through contractual means for the purpose of conducting specified CESMII research activities. Partner Institutions include subcontractors of Member Institutions.
  - **Participants** shall mean employees, agents, or representatives of the CESMII Member Institutions and Partner Institutions who perform CESMII leadership activities under DOE Cooperative Agreement or related instruments including but not limited to subcontracts. This includes members of the Governance Board, the Executive Committee, Institute Advisory Committees and the Institute Standing Committees.



**XII. EXPORT CONTROL MANAGEMENT PLAN**

- i. The Export Control Management Plan (“Export Control Management Plan”) governs any issues related to export controlled information and technology; and
- ii. In the event of a conflict between the Export Control Management Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence.

**XIII. U.S. MANUFACTURING PLAN**

- i. The U.S. Manufacturing Plan (“U.S. Manufacturing Plan”) governs its commitment to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of technologies that are developed under this Cooperative Agreement; and
- ii. In the event of a conflict between the U.S. Manufacturing Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence.

**XIV. FOREIGN ENTITY PARTICIPATION PLAN**

- i. The Foreign Entity Participation Plan (“Foreign Entity Participation Plan”) governs those cases whereby foreign entities may become eligible to be members and/or subrecipients of the Institute. The Foreign Entity Participation Plan also governs the review process for approving critical work that needs to be done outside of the U.S.
- ii. In the event of a conflict between the Foreign Entity Participation Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence.
- iii. CESMII’s definition of a Foreign Entity mirrors the definition set forth in the terms and conditions of CESMII’s Cooperative Agreement with DOE: The term “Foreign Entity” includes entities incorporated outside of the U.S.; entities whose primary place of business is outside the U.S.; and U.S. incorporated companies that are owned or substantially controlled (50 percent or greater) by foreign governments, firms, institutions, or individuals.
- iv. Foreign entities may become eligible to be members, sub-recipients or participants of the Institute if the entity is able to demonstrate to the satisfaction of the CESMII Management and the U.S. Department of Energy (DOE) that: 1) their participation is in the best interest of CESMII, U.S. industry, and U.S. economic development; 2) adequate IP and data protection protocols exist between the U.S. subsidiary and its foreign parent organization; 3) the work is conducted within the U.S. and the entity acknowledges the U.S. Manufacturing Plan; and 4) the entity will comply with any other conditions that may be deemed necessary by CESMII and DOE to protect U.S. government interests. No foreign entities may be admitted to membership until a positive recommendation to do so is received from the COO, the CEO, and the DOE.
- v. CESMII’s membership model gives its members access to Institute-generated Intellectual Property (IP). Foreign participation will be examined more closely to assure well-structured IP management. CESMII’s intent is two-fold:
  - To encourage Foreign Entities to establish, maintain, and resource U.S. based operations by enabling their access to Institute IP for those U.S. based operations. However, this access must be managed to assure that Institute IP is not used to benefit non-U.S. based operations of the Foreign Entity; and
  - To enable access to foreign-sourced technologies, software applications, and best practices that would be beneficial to CESMII, U.S. industry, and U.S. economic development.
- vi. As a public private partnership with the U.S. taxpayers through DOE, academia, and U.S. industry, the Institute reserves the right to limit foreign participation, in addition to each

potential foreign member satisfying the elements listed in Section 1. When the membership of foreign entities reaches 15% of total membership the CEO will confer with the CESMII Governance Board and with DOE (during the term of the Cooperative Agreement) to determine if limitations on Foreign Entity participation should be revised. No additional foreign entities may be admitted to membership until a positive recommendation to do so is received from both the Governance Board and the DOE.

- vii. In general, all work performed under this Cooperative Agreement must be performed in the United States. If it is critical that some portion of the work be performed outside the U.S., then CESMII has a Foreign Work Waiver Request process. In summary, the Recipient/Sub-Recipient must submit to CESMII in writing a Work Waiver Request that addresses the following criteria: (1) the rationale for performing the work outside the U.S.; (2) a description of the work proposed to be performed outside the U.S.; (3) a description of the anticipated benefits to be realized by the proposed work and the anticipated contributions to the US economy; (4) a description of the likelihood of Intellectual Property (IP) being created from the work and the treatment of any such IP; (5) the total estimated cost (DOE and Recipient/Sub-Recipient cost share) proposed for the work to be performed; and (6) the countries in which the work is proposed to be performed. The Work Waiver Request first needs to be submitted to CESMII's COO and needs to be approved by CESMII's CEO, COO, and Program PI. Then the CESMII COO will submit the Work Waiver Request to the DOE contracting officer for final review and approval. During this process, CESMII or DOE may request additional information for the Work Waiver Request.

## **XV. ANTITRUST POLICY**

It is the responsibility of every member of the CESMII to be guided by a policy of strict compliance with the antitrust laws in all CESMII activities. It is the special responsibility of officers, directors, and committee chairpersons to ensure that this policy is known and adhered to in the course of activities pursued under their leadership.

The following rules are applicable to all activities and must be observed in all situations and under all circumstances without exception or qualification other than noted below.

- (a) Neither the CESMII nor any Committee or activity of UCLA shall be used for the purpose of bringing about or attempting to bring about any understanding or agreement, written or oral, formal or informal, express or implied, among competitors with regard to prices, terms or conditions of sale, distribution, volume of production, territories or customers.
- (b) No CESMII activity or communication shall include any discussion for any purpose or in any fashion of pricing methods; future pricing; production quotas or other limitations on the timing, costs, or volume of production or sale; or any allocation of territories or customers.
- (c) No CESMII activity or communication shall include any discussion which might be construed as an agreement to prevent any competitor from gaining access to any market or customer for goods or services or to prevent any business or entity from obtaining a supply of goods otherwise purchasing goods or services freely in the market.
- (d) The Minutes of meetings shall include a copy of the following Antitrust Statement, and a note informing all attendees that the Antitrust Statement was available for review and

should be adhered to by all attendees at the meeting.

***Antitrust Statement***

*'As participants in this meeting, we need to be mindful of the constraints of antitrust laws. There shall be no discussions of, agreements or concerted actions that may restrain competition. This prohibition includes the exchange of information concerning individual prices, or any other competitive aspect of an individual company's operation. Each participant is obligated to speak up immediately for the purpose of preventing any discussion falling outside these bounds.'*

(e) Speakers at CESMII meetings shall be informed of the need to comply with this antitrust policy in the preparation and presentation of their talks.

## **Section 2**

# **Non-Disclosure Agreement**



# Non-Disclosure Agreement

## Version 2-01

<b>Date</b>	<b>Version</b>	<b>Description</b>
	NDA 1-01	Final Approved SMLC Plan
<b>12/10/2018</b>	NDA 02-01 for Novation	Modified for Novation CESMII from SMLC to UCLA. Started 10/4/2018 and approved 12/10/2018

This Non-Disclosure Agreement (“NDA”) is entered into by and between The Regents of the University of California, a California constitutional corporation, on behalf of its Los Angeles Campus, with offices located in 10889 Wilshire Blvd., Suite 700, Los Angeles, CA 90095-1406 (“UCLA”) and each member that is identified as a “Member” in the “CESMII Membership Model and Agreement” (the “Membership Agreement”) and is a signatory to the Membership Agreement (each a “Member”). UCLA and each Member are referred to herein as a “Party” and together as “Parties” to this NDA.

Whereas, the Clean Energy Smart Manufacturing Innovation Institute program (“CESMII” or “Institute”) is committed to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies that are developed under the cooperative agreement.

The mission of the Institute is to partner with private and public sector organizations to develop, test, and validate industry advanced sensors, controls, platforms and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operational technologies and information technologies (OT/IT).

The Institute operates as a program within UCLA, with UCLA as the recipient of DOE Cooperative Agreement DE-EE0007613. The primary purpose of the Cooperative Agreement is to establish and operate a Clean Energy Smart Manufacturing Innovation Institute for smart manufacturing.

Therefore, in consideration of their mutual undertakings under this NDA, the Parties hereby agree as follows:

- 1. Purpose.** This NDA shall govern the exchange of any information and data between the Parties in connection with CESMII, for purposes of this NDA, any Party may be a Disclosing Party (“Disclosing Party”) or a Receiving Party (“Receiving Party”), as determined by whether such Party is disclosing or receiving Confidential Information (defined below).
- 2. Confidential Information.**
  - (a) “Confidential Information” means any and all information or data owned or controlled by a Party, that (i) if disclosed in tangible form, is marked by the Disclosing Party with “CONFIDENTIAL” or equivalent restrictive markings, including those authorize under the Cooperative Agreement, at the time of its disclosure to the Receiving Party, or (ii) if disclosed orally or visually, is identified by the Disclosing Party as Confidential Information at the time of its disclosure to the Receiving Party and, within 30 days thereafter, the Disclosing Party provides a written summary of the Confidential Information and is marked “CONFIDENTIAL” or with other restrictive markings to the Receiving Party.
  - (b) If information is not marked or identified as “CONFIDENTIAL” at the time of disclosure, but the content of the information and circumstances surrounding the disclosure would lead a person knowledgeable in the relevant fields of scientific inquiry or business practice to believe such information should be considered Confidential Information, the Receiving Party shall treat such information as Confidential Information until it obtains clarification from the Disclosing Party as to whether or not such information should be marked or identified as such.

### 3. Receiving Party's Obligations

- (a) Confidential Information disclosed under this NDA shall remain the property of the Disclosing Party. Disclosure shall not grant the Receiving Party any express or implied license, right of use, or any other rights in Confidential Information under this NDA.
- (b) The Receiving Party shall use Confidential Information disclosed to it by a Disclosing Party only solely for activities of CESMII, including research projects of CESMII or to comply with any requirements or obligations under the Membership Agreement, ("Permitted Use") and for no other purposes.
- (c) The Receiving Party shall protect Confidential Information disclosed by the Disclosing Party against all unauthorized disclosure or use in the same manner and with the same care as it protects the confidentiality of its own Confidential Information, but in no event using less than reasonable care. The Receiving Party must notify the Disclosing Party immediately if it becomes aware that any of the Disclosing Party's Confidential Information has been disclosed to or is in the possession of an unauthorized person.
- (d) The Receiving Party shall not remove or alter any restrictive markings connected with any Confidential Information.
- (e) The Receiving Party shall not disclose Confidential Information to any other person or entity without prior written consent of the Disclosing Party, except that the Receiving Party may disclose Confidential Information to:
  - i) Another Member that has signed this NDA, covering disclosure and the use of the Confidential Information,
  - ii) One or more of its employees, consultants, and representatives, or
  - iii) One or more Government employees who are subject to the statutory provisions against disclosure of Confidential Information set forth in the Trade Secrets Act (18 U.S.C. 1905), **but only** if and to the extent that such disclosure is necessary to carry out the activities of CESMII or is required pursuant to the Cooperative Agreement. When disclosing Confidential Information to its employees, consultants or representatives, the Receiving Party will inform them of the proprietary interest of the Disclosing Party in the Confidential Information and of the obligations of the Receiving Party with respect thereto and will be responsible for any breach of this NDA by them.
- (f) Except as reasonably required to carry out the activities of CESMII or is required pursuant to the Cooperative Agreement, the Receiving Party shall not copy or reproduce Confidential Information without the prior written consent of the Disclosing Party
- (g) Upon the Disclosing Party's request, the Receiving Party shall return all Disclosing Party Confidential Information (including all copies thereof) made available to or otherwise obtained by the Receiving Party in connection with this NDA and shall delete all copies of Confidential Information from its computer files.

#### **4. Exceptions**

- (a) Nothing in this NDA shall prohibit or limit the Receiving Party's disclosure or use of information that is:
- i) already known to the Receiving Party, without an obligation of its disclosure and/or use, before it was disclosed to the Receiving Party hereunder; or
  - ii) is independently developed by the Receiving Party without use of the Confidential Information; or
  - iii) is acquired by the Receiving Party from a third party which was not a Member, nor, to the Receiving Party's knowledge, under an obligation not to disclose such information, or
  - iv) is or becomes publicly available through no breach of this NDA or other wrongful act by the Receiving Party.
- (b) An Receiving Party may also disclose Confidential Information to the extent necessary to comply with an order of a court, administrative agency, or other governmental body, or a law, regulation, or administrative or legal process, in which event the Receiving Party shall promptly notify the Disclosing Party of such process and, at the Disclosing Party's request, shall, to the extent permitted by applicable law, cooperate fully with the Disclosing Party's efforts, at the Disclosing Party's sole expense, to oppose (or narrow the scope of) such disclosure.

#### **5. Term, Termination and Survival**

- (a) This NDA shall remain in effect until the termination of CESMII, notwithstanding the exit or withdraw of any Member under the Membership Agreement.
- (b) This NDA shall be effective for each Member as of the Effective Date for that Member under the Membership Agreement until the Member exits or withdraws from the Membership Agreement.
- (c) For each Party, all obligations of confidentiality, non-disclosure, and non-use with respect to Confidential Information shall survive for a period of five (5) years from the earlier of (i) the termination of CESMII or (ii) from the exit or withdrawal of the Party from the Membership Agreement.

**6. Assignment.** No Party shall have the right to assign or otherwise transfer its obligations under this NDA, in whole or in part, without the prior written consent of the other Party.

**7. No Obligation to Disclose.** Nothing in this NDA shall obligate any Party to disclose any Confidential Information.

**8. Waiver.** If any Party fails to enforce any provision of this NDA, this shall not be deemed a waiver of such provision, nor of any other provision of this NDA. No waiver of any breach of this NDA is a waiver of any other or subsequent breach.

**9. No Relationship.** Nothing contained herein or done hereunder will be deemed to constitute or create any relationship of principal or agent or partners or joint ventures between the Parties or any other relationship other than those expressly, and not impliedly, set forth herein.



- 10. Entire Agreement.** This NDA sets forth the entire agreement and understanding between the Parties as to the subject matter of this NDA. This NDA may be executed simultaneously in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Copies of signatures sent by pdf transmission shall be deemed to be originals.
- 11. Modification.** This NDA may not be released, discharged, or otherwise modified except by an instrument in writing, signed by all Parties.
- 12. Severability.** If any term, provision, covenant, or condition of this NDA is held invalid or unenforceable for any reason, the remaining provisions of this NDA shall continue in full force and effect as if this NDA had been executed with the invalid portion eliminated, provided the effectiveness of the remaining portions of this NDA will not defeat the overall intent of the Parties. In such a situation, the Parties agree, to the extent legal and possible, to modify the invalid or unenforceable provision(s) or to incorporate a replacement provision to accomplish the originally intended effect.
- 13. Export Control Laws.** With respect to any information disclosed pursuant to this NDA: Each Party shall comply with all applicable U.S. export control laws and regulations, specifically including, but not limited to, the requirements of the Arms Export Control Act, 22 U.S.C. 2751-2794, including the International Traffic in Arms Regulation (ITAR), 22 C.F.R. 120 et seq.; and the Export Administration Act, 50 U.S.C. 2401-2420, including the Export Administration Regulations, 15C.F.R. 730-774; including the requirement for obtaining any export license or agreement, if applicable. Without limiting the foregoing, each Party shall not transfer or disclose any information it receives from the other Party that constitutes an export-controlled item, data, or service to foreign persons employed by or associated with, or under contract to that Party or the Party's suppliers, without the authority of an export license, agreement, or applicable exemption or exception.
- 14. Limitations on Enforcement.** This NDA is consistent with and does not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by any applicable statute, regulation or Executive Order relating to (a) classified information; (b) communications to Congress; (c) the reporting to an Inspector General of a violation of any law, rule, or regulation, or any mismanagement, gross waste of funds, or abuse of authority, or any substantial and specific danger to public health or safety; or (d) any other whistle-blower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by such statutes, regulations, and Executive Orders are hereby incorporated into this NDA and are controlling.
- 15. IN WITNESS WHEREOF,** the Parties hereto have executed this NDA as of the date of execution of the Membership Agreement.

## **Section 3**

### **Conflict of Interest Plan**



# CESMII Conflict of Interest Plan

Version 2.04

The Clean Energy Smart Manufacturing Innovation Institute (CESMII) is established under DOE Cooperative Agreement DE-EE0007613. The purpose of this Conflict-of-Interest Plan is to provide the CESMII Conflict of Interest plan, policies and procedures to support the institute regarding conflicts that can arise due to (1) financial interests in the research conducted, (2) management, operations and selections, (3) procurement, and (4) conflicting interests by member organizations. This document does not replace the DOE Cooperative Agreement. If there is a conflict between this Conflict-of-Interest Plan and the DOE Cooperative Agreement, the Cooperative Agreement takes precedence. This document incorporates other documents by reference.

<b>Date</b>	<b>Version</b>	<b>Description</b>
09/19/2017	1.01	Final with approved input from CESMII & DOE teams
11/7.18	Updated to 2.01 since major change	Version with substantial change to incorporate UCLA Policy and Compliance
11/9/18	Final Review	OCGA and CESMII
11/22/18	2.02	Updated following DOE discussion on 11/20 and
11/29/18	2.02	Updated with procurement office comments
12/23/18	2.03	Updated with response to 12/17/2018 DOE feedback and Ann Pollack review on 12/21/2108
1/3/19	2.04	Review and Changes Marcia Smith Final approval by DOE 1/9/2019

### **List of Acronyms**

<b>Acronym</b>	<b>Definition</b>
CEO	Chief Executive Officer
CESMII	Clean Energy Smart Manufacturing Innovation Institute
CFR	Code of Federal Regulations
COI	Conflict of Interest
COO	Chief Operating Officer
CTO	Chief Technology Officer
DOE	U.S. Department of Energy
SMIC	SM Innovation Center
SM	Smart Manufacturing
U.S.	United States
VP	Vice President
OCI	Organizational Conflict of Interest

**This Conflict of Interest Plan is in nine parts:**

- I. Purpose
- II. Definitions
- III. Financial Conflicts of Interest - Significant financial interests related to research to be conducted.
- IV. Procedural Conflict of Interest - CESMII management, operations and selections.
- V. Procurement Conflict of Interest - Significant financial or selection interests with procurement.
- VI. Organizational Conflicts of Interest – Conflicting roles or unequal access to information by organizational entities.
- VII. Compliance with CESMII COI Plan/Policy and Mitigation Plans
- VIII. Record Keeping
- IX. Notifications

## **I. PURPOSE**

Due to the high-profile nature of CESMII and its impact on U.S. manufacturing, it is important that any conflicts of interest (COI), whether actual or perceived, affecting the research conducted, purchases, contracts, selections, and decision-making of CESMII be identified and a mitigation plan be developed. Situations which may lead to a potential COI include but are not limited to: financial holdings; business relationships; current or former employer relationships; professional affiliations; and personal relationships; and/or existing, current, former or potential affiliations that may arise during the operation of CESMII involving foreign or domestic institutions or individuals.

The Institute operates as a program within University of California, Los Angeles (UCLA), providing CESMII with the administrative and oversight capabilities of UCLA and The Regents of the University of California. UCLA is the prime recipient of DOE Cooperative Agreement (DE-EE0007613). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute (CESMII) for smart manufacturing. Administrative support for research conducted under the Cooperative Agreement will be provided by CESMII.

This plan is designed to ensure that individual interests in areas related to research, purchases, contracts, selections, decision-making and ethical expectations shall not inappropriately interfere with CESMII activities. This Conflict-of-Interest Management Plan (COI Plan) reflects University of California and UCLA policies on conflicts of interest related to federally-funded research projects, and on procurement. It also addresses ethics, and standards of conduct policies and procedures applicable to all Covered Persons, which includes Key Personnel, Member Institutions, Participants, and Partner Institutions. The failure to adhere to this Plan may result in action up to and including expulsion of an Institute member (a “Member”) and termination of various contractual relationships.

## **II. DEFINITIONS**

### *Conflicts of Interest:*

- *A Financial Conflict of Interest* shall mean a personal financial interest that directly and significantly affects the design, conduct, or reporting of the research to be performed.
- *A Procedural Conflict of Interest* shall mean interests that directly and significantly affect decisions on merit reviews and selections, peer reviews, go/no-go decisions, purchase and contract decisions and decisions on CESMII Roadmap and Projects including but not limited to Roadmap Projects, Application Projects and Platform Projects. Included are the financial decisions by the Institute in the course of selecting and executing activities.
- *A Procurement Conflict of Interest* shall mean interests that directly and significantly affect decisions about purchases and contracts.

- *An Organizational Conflict of Interest* is a situation where because of other activities or relationships with other organizations, the person's objectivity is or may be impaired.

*Covered Person* shall include:

- a. Officers and employees of CESMII, including employees and officers who are employees of other organizations but acting by agreement as CESMII employees.
- b. Member sub-recipients on CESMII projects.
- c. Member representatives on Standing Committees including but not limited to members of the Governance Board, the Technical Standing Committee, the Business Standing Committee, and the Outreach Standing Committee.
- d. Member representatives on Advisory Committees including but not limited to: Intellectual Property, Smart Manufacturing Platform, and Manufacturing Extension Programs/Industrial Assessment Centers.
- e. Member representatives serving as reviewers in merit review and selection, peer review and go/no-go processes and of the CESMII Roadmap and Projects including but not limited to Roadmap Projects, Application Projects and Platform Projects
- f. SM Innovation Center (RMC) Directors, and RMC Co-Directors, and such other classes of persons identified by the CESMII Chief Executive Officer (the "CEO").
- g. Participants and Investigators as defined below.

For the purpose of this Plan, a Member of CESMII is not, as merely a Member, considered a Covered Person.

*Investigators* shall mean the Principal Investigator (the "PI") of the Cooperative Agreement and other individuals identified by the PI who share responsibility for the for the design, conduct, or reporting of the sponsored project. The term "investigator" is defined functionally rather than categorically. The Program PI resides at UCLA.

*Key Personnel* for CESMII are CEO, COO, CTO, VP Business Development, SMIC Directors and Co-Directors.

*Participants* shall mean employees, agents, or representatives of the CESMII Member Institutions and Partner Institutions who perform CESMII leadership activities under Cooperative Agreement number DE-EE0007613 or related instruments including but not limited to subcontracts. This includes members of the Governance Board, the Executive Committee, Institute Advisory Committees, and the Institute Standing Committees.

- *Partner Institutions* shall mean businesses, institutions or entities that associate with CESMII for limited periods of time through contractual means for the purpose of conducting specified CESMII research activities. Partner Institutions include subcontractors of Member Institutions.
- *Member Institutions* shall mean businesses, institutions or entities comprising the CESMII leadership and which are identified as Member Institutions by CESMII

*Significant Financial Interest* shall mean anything of monetary value, whether the value is

readily ascertainable and includes:

- a. Income including salary or other payment for services including consulting fees, honoraria, reimbursement of expenses (including travel), royalty payments, dividends, loans from an entity, or any other payments or consideration with value, including payments made to a health sciences compensation plan, during the prior twelve months or anticipated in the next twelve months of \$10,000 or more;
- b. Equity in the form of stock, stock options, warrants, real estate, loans to or from an entity, or any other investment or ownership interest exceeding either \$10,000 (current market value if publicly traded; otherwise, amount of investment) or a 5% ownership interest, for any one enterprise.
- c. A management position, whether paid or unpaid, such as board member, director, officer, partner, or trustee.
- d. All intellectual property interests such as patents, patent applications, trademarks, and copyright-able software (but not scholarly publications or other published works) that you own or is controlled by an individual or party other than The Regents, irrespective of whether such intellectual property has resulted in any income.

Reporting is for the individual, his/her spouse or registered domestic partner, and dependent children. Specifically excluded from the definition of Significant Financial Interests are intellectual property owned by The Regents and payments made by The Regents for remuneration from the University including salary, stipends, honoraria, reimbursement of expenses and royalty payments.

### **III. FINANCIAL CONFLICTS OF INTEREST RELATED TO RESEARCH**

Disclosures of significant financial interests related to the conduct of research will be submitted and reviewed in accordance with UCLA Policy 925, “Financial Conflicts of Interest in Research.”<sup>1</sup> This policy applies to all federally funded research projects (except those supported by the Public Health Service). The definitions and thresholds of Significant Financial Interests are based on the National Science Foundation (NSF) “Investigator Disclosure Policy.” UCLA Investigators (should use UCLA Form 740 ([http://ora.research.ucla.edu/RPC/Documents/RPCForms/Form\\_740.pdf](http://ora.research.ucla.edu/RPC/Documents/RPCForms/Form_740.pdf)) for these disclosures. Reviews will be conducted by the UCLA Conflict of Interest Review Committee (CIRC).

In accordance with UCLA Procedure 925.3<sup>2</sup>: the PI and all other Investigators, conducting research will submit disclosures of personal financial interests related to research being conducted under this DOE Cooperative Agreement. Disclosures of Significant Financial Interests must be made:

- a) Prior to submission of competing proposals (new & renewal)
- b) Prior to submission of supplemental funding requests
- c) When a new Investigator joins an ongoing project
- d) Whenever there is a change in an Investigator’s interest

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<sup>1</sup> UCLA Policy 925 see: <http://www.adminpolicies.ucla.edu/APP/Number/925>

<sup>2</sup> UCLA Procedure 925.3 “Disclosing Financial Interests Related to Federally Sponsored Research Projects (except Public Health Service)” (<http://www.adminpolicies.ucla.edu/APP/Number/925.3>)

Reviews must be completed prior to acceptance of an award or additional support, and before a new Investigator joins an ongoing project.

The UCLA Office of Research Policy and Compliance will notify DOE if UCLA identifies a financial conflict of interest that cannot be managed, reduced or eliminated. The Program PI is copied on correspondence from the campus Conflict of Interest Review Committee. The Program PI will forward to DOE copies of correspondence received pertaining to all other research financial conflicts of interests and the ways in which they will be managed, reduced or eliminated.

Investigators at other institutions are required to disclose significant financial interests to the institution at which they are employed. In accordance with UCLA Procedure 925.3: UCLA; the institution with which the Investigator is affiliated will review disclosed significant financial interests that are related to the research being conducted under DOE Cooperative Agreement (DE-EE0007613) to determine whether they rise to the level of a research financial conflict of interest. If conflicts are identified, those institutions will provide notice to UCLA with written assurances of their ability to manage, reduce, or eliminate the conflicts. Those notices should be directed to the UCLA Authorized Official named in the DOE Cooperative Agreement. Notices received will be shared with the UCLA Office of Research Policy and Compliance, Compliance Manager, and with the Program PI.

#### **IV. CESMII PROCEDURAL CONFLICTS OF INTERESTS**

A Compliance Manager, reporting to the COO, shall annually require the submission by all Covered Personnel a disclosure statement that discloses all potential and actual procedural conflicts of interests as defined above. The Compliance Manager may require submission of such a disclosure statement more frequently than annually from select individuals or the entire class of Covered Persons as the situation dictates.

A significant procedural COI will be deemed to exist and require the disclosures of conflicts when Covered Persons are involved in merit reviews and selections, peer reviews, go/no-go decisions, decisions on CESMII Roadmap and Projects including but not limited to Roadmap Projects, Application Projects and Platform Projects and procurement actions over \$25,000.

A Covered Person shall disclose a COI in connection with the completion of an annual CESMII disclosure statement and, in any case:

- a) Prior to voting on or otherwise discharging duties with respect to any matter involving a COI which comes before the CESMII Governance Board, any Standing Committee, any Advisory Committee, and any evaluation board
- b) Prior to entering into any contract or transaction selection on behalf of CESMII involving COI
- c) As soon as possible after the Covered Person learns of a COI.

All CESMII disclosure statements shall be completed, signed, and returned to the Compliance Manager within ten (10) business days of the request. All disclosures that indicate potential, actual, or apparent conflicts will be reviewed with the COO. Those deemed to warrant reporting to DOE as “Significant Conflict of Interest”, in accordance with the “Substantial Involvement” clause of the DOE Cooperative Agreement, shall be reported as required, and reported to the CEO.



All mitigation plans must be approved by the COO within twenty (20) business days of receipt of the disclosure statement by the Compliance Manager and reported to DOE Technology Manager, Technical Project Officer and Contracting Officer as required within the “Substantial Involvement” clause of the Cooperative Agreement.

CESMII disclosures that are not deemed to be “Significant Conflicts of Interest” will be reviewed with the CEO along with recommendations by the COO and the Compliance Manager as to: (1) the need for a mitigation plan; and (2) the scope, elements, duration, administration, and oversight of a plan if it is the recommendation of the COO and the Compliance Manager. In all such instances the CEO makes all final determinations as to the need for mitigation plans for procedural conflict of interests.

In the event there is a Procedural COI disclosed by the CEO, a mitigation plan will be developed and signed by the CEO and PI.

In the event there is a Procedural COI disclosed by the COO, a mitigation plan will be developed and signed by the COO and CEO.

Mitigation strategies will vary depending on the significance of the conflict, the role of the individual, the impact to CESMII, public perception of the conflict, and other facts. When useful to mitigation strategies or required reports, research financial interests and mitigation strategies and procedural financial interests and mitigation strategies will be coordinated when they overlap. General strategies to be considered by the Compliance Manager for recommendation to be included in a mitigation plan include, but are not limited to the following:

- a) public disclosure of significant financial interests
- b) training on conflicts of interest
- c) monitoring of work by independent personnel
- d) modification of the work or role of the individual
- e) disqualification from participation
- f) divestiture of significant financial interests
- g) severance of relationships that create actual or potential conflicts

## **V. PROCUREMENT CONFLICTS OF INTEREST**

All CESMII contracts and purchases through UCLA as holder of the Cooperative Agreement including the definition and administration of procurement conflicts of interests will be under UC Business & Finance Policy BUS-43 Materiel Management and UCLA policies in <https://purchasing.ucla.edu/purchasing/departamental-buyer/purchasing-policies>. The Compliance Manager will be responsible for coordinating training by UCLA Purchasing for the relevant Covered Persons in contracting and purchasing policy. It is the intent of this Procurement COI plan to comply with all requirements of 2 CFR 200.318.

A Covered Person who has or learns about a potential purchasing or contracting COI shall disclose promptly to the Compliance Manager the material facts surrounding such potential COI, including specific information concerning the terms of any contract or transaction with CESMII.

Following receipt of information concerning a contract or purchase involving a potential COI, the

CEO with potential consultation with the Governance Board Executive Committee (or in the case of a COI involving the CEO, the PI with potential consultation with Governance Board Executive Committee) shall consider the material facts with UCLA's Purchasing Department concerning the proposed contract or transaction, including the process by which the decision was made to recommend entering into the arrangement on the terms proposed. The CEO (or the PI) shall approve only those contracts or transactions: (a) in which the terms are fair and reasonable to CESMII and the arrangements are consistent with the best interests of CESMII; (b) which are consistent with UCLA's purchasing and contracting policies; and (c) which are consistent with the terms of the DOE Cooperative Agreement.

Consistent with UCLA purchasing and contracting policies, and with the concurrence of the Chief Procurement Officer or his designee, the CEO (or PI) may enter into a mitigation plan with the Covered Person in order to advance the purposes of this Plan in a particular case.

The CEO (or PI) in conjunction with UCLA Purchasing Department shall set forth in writing the basis for the decision with respect to approval of contracts or transactions involving a COI, including the basis for determining that the consideration to be paid is fair to CESMII. A written description of all procurement COI resolutions by the CEO will be provided to the Governance Board on at least an annual basis.

## **VI. ORGANIZATIONAL CONFLICTS OF INTEREST**

During the proposal process, CESMII Members, subrecipients and contractors will be required to identify potential Organizational Conflicts of Interests based on the proposed Statement of Project Objectives or Statement of Work. The Compliance Manager and the COO will review these identified OCIs, construct mitigation plans, and manage the contracts and sub-agreements in accordance with the requirement of 2 CFR 200.318.

All subcontracts and agreements, including but not limited to, vendors, sub-recipients, and independent consultants shall address Organizational Conflict of Interest. Covered persons as defined above would follow the process for individual disclosure above.

An OCI is a situation where because of other activities or relationships with other organizations, the person's objectivity is or may be impaired. As a result of the OCI, a person may provide another organization with unequal access to CESMII information or (2) the person with the OCI may have a conflicting role(s) that might bias their judgment.

Types of OCI:

- a) Unequal access to information: an unfair competitive advantage resulting from obtaining information not generally available to others seeking funding.
- b) Impaired objectivity: assessing performance or evaluating products of someone within your own organization or a direct competitor seeking CESMII support.
- c) Biased ground rules: having provided engineering or technical assistance or written the work requirements for a funding opportunity where someone within your own organization is an applicant.

- d) Serving as a reviewer on Roadmap or Application Projects which have been developed by the evaluator's organization or for which the reviewer's organization is an expected recipient or sub-recipient of funds.

## **VII. COMPLIANCE WITH CESMII COI PLAN/POLICY AND MITIGATION PLANS**

The Compliance Manager will review adherence to the CESMII COI Plan/Policy and all mitigation plans on a continuing basis, and will provide periodic reports to the COO, in a format to be developed by the Compliance Manager, on all relevant elements of the mitigation plan and the individual's adherence to the plan. Failure to adhere to the requirements of the CESMII COI Plan or individual mitigation plans will be immediately reported to the COO by the Compliance Manager and could result in disciplinary action up to and including termination of employment or contractual relationship.

Any person or organization failing to meet the requirements of their mitigation plan will be notified of such non-compliance by the CEO in writing. Said notice will require corrective actions within 15 days to bring the individual or organization into compliance and will provide possible CESMII unilateral actions that may be taken if non-compliance continues, up to and including termination of employment or contractual relationship.

## **VIII. RECORD KEEPING**

On an annual basis, the Key Personnel will complete a CESMII COI disclosure statement that will ensure compliance with the Significant Financial Interest COI policy, the Procedural COI policy, and the Organizational COI policy. These disclosure statements will be reviewed by the Compliance Manager and COO of CESMII. Any required COI Mitigation Plans will be put in place and any required notifications will be made to both UCLA and DOE as per the procedure outlined in this COI Plan.

Conflict of Interest disclosures and records of reviews will be maintained in accordance with University of California administrative record retention schedules. All other records relating to the CESMII COI policies and procedures, including, but not limited to disclosure statements and mitigation plans, and all other records shall be maintained for not less than five (5) years.

## **IX. NOTIFICATIONS**

CESMII is required to notify DOE of any significant Conflict of Interest (COI) issues. For purposes of this notice requirement, a significant COI is deemed to exist when actual or apparent conflicts are disclosed involving: Key Personnel; Governance Board Members; persons involved in project reviews or selections; and persons involved in a procurement action over \$25,000. Also, procurements involving SMLC will be deemed to be a significant COI.

Disclosures to DOE should be in writing and include: 1) a copy of the current COI plan; 2) a description of the COI; and 3) the individual COI mitigation plan that contains the actions to be taken to manage, eliminate, neutralize, mitigate, or otherwise resolve the COI. The notice must be provided within three (3) days of the Recipient learning of the COI.

## **Section 4**

# **Intellectual Property Plan**



# IP Management Plan

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## Version 04-01

Date	Version	Description
11/30/16	IP Management Plan 0-01	Mike Rinker Submitted draft of IP Plan
12/03/16	IP Management Plan 0-02	Addressed changes from internal CESMII Review
02/24/2017	IP Management Plan	Review & updated; submitted
04/19/2017	IP Management Plan (Revised) 01-02	For Review
04/28/2017	IP Management Plan Final 01-03	Clarified the project specific manufacturing and commercialization plans are intended to show how project teams will comply with the CESMII US Manufacturing Plan; changed reference to "Technical Projects" to "App Projects" to maintain consistency with the definitions; and, added a reference to "institute-generated software" aligning with the Membership Agreement.
09/17/2018	IP Management Plan Draft 02-01 for Novation	Modified for Novation CESMII from SMLC to UCLA. DOE comments 100318 CESMII comments 100718
10/25/2018	IP Management Plan modified Draft 02-02	Accepted previous redlines to have a clean foundation. Added in high-level IP model agreed on by Angela and Glen
12/10/2018	IP Management Plan Draft 03-01	Angela Kujak fresh start after agreements between Angie and Glen; new version using some of SMLC version 10/30/2018 DOE comments 110918 CESMII comments 111318 DOE final approval 121018 per Bill Prymak
3/13/2019	04-01	Howard Goldberg revision for the New Member model with IP democratization concept

## **Background, Operating Principles & Self-Sustainment Plan**

### **A. Background**

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or “Institute”) is committed to transforming the United States manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies that are developed under the Cooperative Agreement. The mission of the Institute is to partner with private and public sector organizations to develop, test, and validate advanced sensors, controls, platforms, and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operations technologies and information technologies (OT/IT).

The mission of the IP Management Plan is to:

- (1) promote U.S. economic interests
- (2) promote members’ economic interests
- (3) provide members both basic access and membership-level access to Institute Technologies (defined below)

This IP Management Plan is intended to further CESMII’s mission by promoting a simplified approach to the reporting, management, sharing, and disposition of IP among CESMII members. This IP Management Plan maximizes and optimizes the potential for deployment of data, tools, results, and technologies developed through Institute projects or otherwise acquired by CESMII. CESMII’s approach was developed specifically in response to industry’s need to rapidly access suites of IP critical to their successful commercialization efforts and the need to disseminate Institute Technologies efficiently and widely to the larger research and development community.

A CESMII objective is to drive the efficiency, effectiveness, and value of the proven and open architecture SM Platform™ for accessing services, tools, and resources for implementing real-time applications. This unique, industry-driven framework will be a core strength of CESMII and, to address the above objective, CESMII will acquire, develop, and harness critical IP to meet industry’s growing demands for these technologies. Using existing and new SM Platform™ assets, the SM Platform™ will allow users to integrate the hardware and software components developed by members (technology providers) required to assemble customized SM systems, proliferate their availability in the commercial market, and train the workforce. This process is designed to be user accessible and affordable regardless of an organization’s size or technical acumen.

CESMII’s efforts in this regard will be tempered by the need to support our members’ commercial interests and the protection of their Background IP and Foreground IP in accordance with the terms of the DOE Cooperative Agreement. It is anticipated that in the preparation for and negotiation of specific research projects (and other efforts) under the DOE Cooperative Agreement, CESMII will identify Background IP and Foreground IP that supports the above objectives with respect to both the development of technologies supported by the SM Platform™ and the continued development of the SM Platform™ itself. CESMII will negotiate appropriate rights with the project team for the benefit of all members and the further development of the SM Platform™. IP rights for the various Membership Levels are outlined in Section II below.

## **B. Operating Principles**

To accomplish the objectives of the Institute, the following principles will guide IP management and commercialization activities:

- Sustained and dedicated IP management leadership, expertise, resources and a focused plan to ensure the priority of the IP management function and successful commercial outcomes
- Consistent, efficient mechanisms for all Institute Members to participate in creating, accessing, and implementing IP strategies and approaches
- Proactive and effective IP creation and management targeted at accelerated adoption of solutions for well-defined, widely applicable industry problems in Smart Manufacturing
- Process to assure protection of member proprietary information
- Rapid and broad dissemination of data and research tools that emerge from the Members with the broader research and Smart Manufacturing development community

## **C. Self-Sustainment Plan**

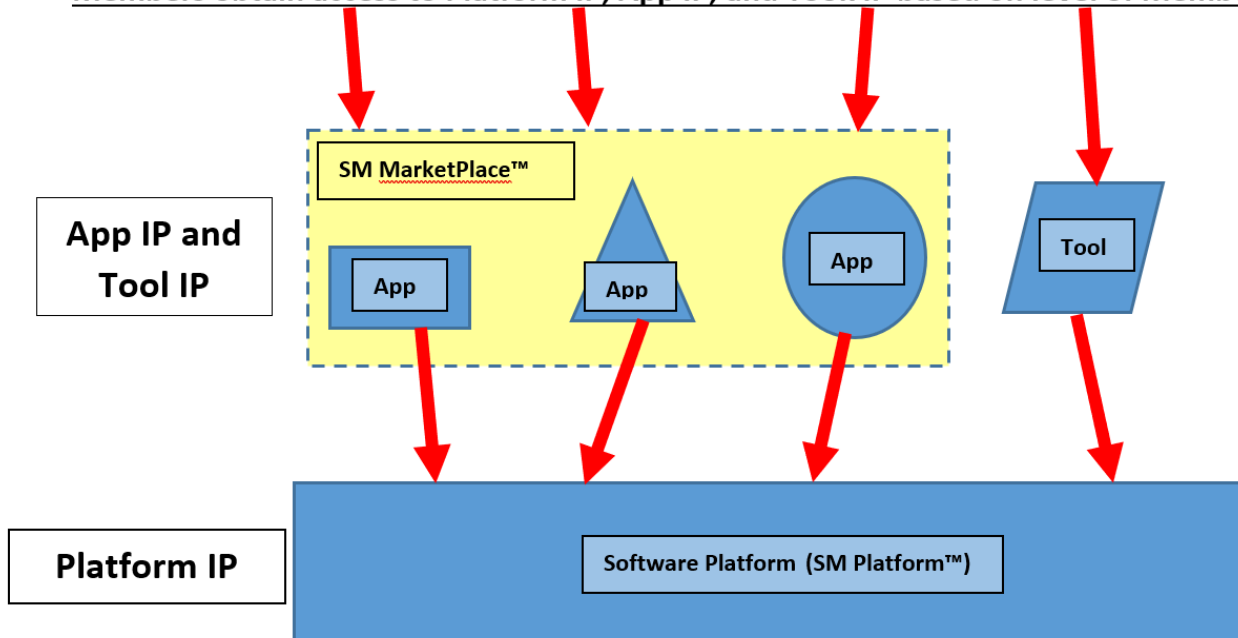
CESMII's current plan to become self-sustaining is to generate a revenue stream from memberships ("Membership Fees"), as well as from the out-licensing of Foreground IP and Background IP compiled from the various Project Participants and Members ("App and Tool Royalties"). Please note that, as detailed herein, CESMII may be required in certain circumstances to share App and Tool Royalties with the owners of the corresponding App IP and Tool IP owners, while in other cases CESMII may not be required to do so (e.g., the owner/Project Participant entered into a cost sharing arrangement wherein the Project Participant agreed to grant CESMII the right to keep the App and Tool Royalties resulting from out-licensing of such IP). Ultimately, all App and Tool IP will be bundled and out-licensed to a single commercial entity (licensee) that will make available the Platform and Apps/Tool IP available to Members, will collect fees in exchange for any commercial use of the Apps/Tools, and will pay to UCLA a portion of such fees (i.e., App and Tool Royalties), which UCLA will then share with the applicable owners of such IP to the extent required.

### **I. Membership Levels & Benefits**

All members have access to the SM Platform™ and/or SM Marketplace™ in accordance with the terms of their membership agreement (and membership level), as summarized in the bulleted list below. Members have access to a defined set of nationwide intellectual and resource capabilities. Access is in accordance with the commercial terms of the in-kind contribution agreement or acquisition agreement.

For all CESMII projects funded by CESMII or supported by CESMII under the DOE Cooperative Agreement, CESMII will negotiate, prior to granting the award, the scope of IP access and rights to defined and targeted IP (technical data, copyright, software, and patentable inventions pertaining to Platform IP, App IP, and Tool IP). CESMII's objective in the negotiation of IP rights will be to balance the project teams' commercial interests with CESMII's needs and objectives to support (improve) the SM Platform™, and to provide members tools, products, software, and processes to support integration of smart manufacturing into their industrial operations.

**Members obtain access to Platform IP, App IP, and Tool IP based on level of Membership**



CESMII’s membership comprises of the following four levels (Tier 3, Tier 2, Tier 1, and Observer) and their access to the Platform IP, App IP, and Tool IP is as follows:

- **Tier 3, Tier 2, and Tier 1 Levels:**
  - Free internal Use (R&D testing & evaluation) of the Platform IP & Apps IP and Tool IP.
  - Access, for a fee, to use the Platform IP for commercial (Production) purposes.
  - Access, for a fee, to use the Apps IP and Tool IP, for commercial (Production) purposes.
- **Observer Level:**
  - No access to Platform IP, App IP, or Tool IP. Upgrade to Tier 3, Tier 2, or Tier 1 level membership required for access to Platform IP, App IP, and Tool IP.

## II. Definitions, CESMII Project Types & Institute Technology Management

### A. Definitions:

- 1) **“App IP”** means the software applications, including the intellectual property rights (patent and copyright) contained therein, that will run on the SM Platform™ and will be made available via the SM Marketplace™.
- 2) **“Application Project IP”** means, the IP resulting from Application Projects, which can include Platform IP, App IP, and/or Tool IP Roadmap Projects are defined in Section III. B.2
- 3) **“Background IP”** means all IP developed before or independent of performance of work under a CESMII awarded project, except that in the case of an invention, such invention must have been conceived outside, and not first actually reduced to practice in the performance, of a CESMII-awarded project to qualify as Background IP.



- 4) **“CESMII”** means the Clean Energy Smart Manufacturing Innovation Institute (CESMII) hereafter referred to as CESMII or the “Institute.” CESMII operates as a program within The Regents of the University of California, Los Angeles (“UCLA”), providing CESMII with the administrative and oversight capabilities of UCLA and The Regents of the University of California. UCLA is the prime recipient of the DOE Cooperative Agreement.
- 5) **“CESMII Technology”** means all IP acquired, controlled, or managed by CESMII through purchase, subcontract, internal research, funded research and other agreements. CESMII Technology may be acquired from members who perform Roadmap or Application Projects under the DOE Cooperative Agreement. CESMII Technology may be acquired from members choosing to meet their membership agreement obligations for in-kind membership contributions by contributing IP.
- 6) **“DOE Cooperative Agreement”** means the Cooperative Agreement (DE-EE0007613) for which UCLA is named as the prime recipient. The primary purpose of the Cooperative Agreement is to establish and operate CESMII.
- 7) **“Foreground IP”** means all IP made, created, authored, invented or developed in the performance of a CESMII project under the DOE Cooperative Agreement.
- 8) **“Generated Information”** means information produced in the performance of work under the DOE Cooperative Agreement.
- 9) **“Institute Technologies”** means data, tools, results, and technologies developed through Institute projects or otherwise acquired by CESMII, including Roadmap Project IP, Application Project IP, Platform IP, App IP, and Tool IP.
- 10) **“Intellectual Property” or “IP”** means technical information, Inventions, developments, discoveries, know-how, methods, techniques, configurations, profiles, formulae, algorithms, data, processes, and other proprietary ideas (whether or not patentable or copyrightable). Intellectual Property also includes patent applications, patents, copyrights, trademarks, mask works, trade secrets, and any other legally protectable information, including computer software.

- 11) **“Invention”** means any discovery, or a new device, method, or process developed from study and experimentation that is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).
- 12) **“IP Manager”** means the person or entity within the CESMII team responsible for acquiring, storing, and providing access (which may be accomplished through licensing to a third party) to CESMII Technologies. This role includes the strategic and tactical planning to maximize CESMII revenue from CESMII Technology. The IP Manager will work in conjunction with, and under policies administered by, the UCLA Technology Development Group on disclosures of Foreground and Background IP, Institute patent application filings and office actions, and IP sharing/licensing/commercialization agreements. Additional duties of the IP Manager are listed in Section III.C.2.
- 13) **“IP Owner”** means a party, public or private, holding legal title to IP, consistent with Federal laws and regulations.
- 14) **“Members”** means the organizations that have executed membership agreements with CESMII and can refer to individual members as the collective membership or a subset of the membership.
- 15) **“Platform Project IP” or “SM Platform”** means the software, including the intellectual property rights (copyright and patent) contained therein, that serves as the software platform upon which the CESMII Apps and Tools will run.
- 16) **“Roadmap Project IP”** means, the IP resulting from Roadmap Projects, which can include Platform IP, App IP, and/or Tool IP Roadmap Projects are defined in Section III.B.1
- 17) **“Tool IP”** means any software, methods, know how, or other technology created by a Project Participant that may enable CESMII Members to improve their use of the Apps.
- 18) **“UCLA Administration”** means the administrative support that UCLA provides the Institute for the management of extramural awards, legal, compliance and control, HR, finance, IP, technology licensing, IT infrastructure, purchasing, accounts payable and receivable, etc. The UCLA Administration includes the following groups:
  - Office of Information Technology
  - Office of Contracts and Grant Administration
  - Office for Research Information System
  - Office of External Fund Management
  - Office of Research Policy and Compliance
  - Technology Development Group

## **B. CESMII Project Types – Platform Projects & App Projects**

### **1) Roadmap Projects**

The focus of Roadmap Projects includes the following: (1) to further develop, improve, and enhance the software platform (SM Platform™) upon which the App IP and Tool IP will run; (2) to further develop, improve and enhance the App IP; and/or (3) to further develop, improve and enhance the Tool IP. CESMII will enter into varying types of arrangements with Roadmap Project Participants depending on the particular Roadmap Project Participant. For example, CESMII may enter into an agreement with a large software development company wherein the software development company will substantially contribute to coding the software of the platform as part of its cost share contribution requirement. Note that some of the software will be compiled using open-source software. CESMII will maintain the specification of the platform and the rights to license the software that comprises the Platform IP.

At a minimum, the Roadmap Project Participants must be Tier 2 or Tier 3 CESMII members and will be required to grant the Institute a paid-up, royalty-free non-exclusive license under their interest in any Roadmap IP to enable other members to use such Roadmap Project IP for solely for R&D testing, evaluation, and educational purposes. Additionally, Roadmap Project Participants will be expected to grant CESMII Members access to their respective ownership interests in the Roadmap Project IP through an IP Licensing Agreement. While such IP Licensing Agreement will provide that the Roadmap Project Participant will extend a free license to their copyrights in any such Roadmap Project IP, CESMII and such Roadmap Project Participant will negotiate in good faith reasonable consideration (which may include in-kind consideration) to be provided to the Roadmap Project Participant in exchange for the grant of a license to any patent rights contained in such Roadmap Project IP (e.g., Foreground or Background patent rights). The level of consideration to be returned to the Roadmap Project Participant will be based on their respective contributions to the Roadmap Project (e.g., if Roadmap Project Participant provides full cost share, then CESMII may negotiate a revenue-sharing arrangement with such Roadmap Project IP owner, whereas if a Roadmap Project Participant provides less than full cost share, then such Roadmap Project Participant may provide a free license to its patent rights in such Roadmap Project IP).

Roadmap Projects leverage federal funds to:

- (1) Validate, demonstrate and ready new advanced sensors, controls, platforms and high performance and distributed computational modeling technologies and multi-provider application systems for production use, when appropriate through the use of testbeds.
- (2) Develop toolkits (as specialized collections of composed hardware and software and information about their application) that comprise reusable application templates and configurations for extensive cross industry use.
- (3) Develop systems engineering and computational modeling methods (for example, data analytics, optimization, mathematical modeling, simulation, visualization) and associated tools (including high performance computing) that support toolkits.
- (4) Develop the SM Platform™ and SM Marketplace™ business and technical functionality and services (web accessible cloud services that are industry-defined to implement application systems).
- (5) Develop content for training programs, pilot delivery, and identify future requirements for the SM Platform™.

Roadmap Projects can either be Industry-Hosted or Research and Development (R&D) projects. Industry-Hosted Roadmap projects use real industry manufacturing processes and operations to develop, validate and contribute intra- and inter-industry reusable technologies, sensor-to-action application systems, and deployment practices. Industry-Hosted Roadmap Projects demonstrate and measure industry and cross industry sector operational extensibility and effectiveness in achieving specific Institute objectives. R&D Roadmap projects offer the potential for development of specific technologies that are intended to address an unmet need in the industry (e.g., controls, sensors, data analysis, toolkits, open standards, control algorithms, and high-performance computing models). Members may propose R&D Roadmap projects, which proposals CESMII will evaluate, and decide as to whether to support such project, based on whether such R&D Roadmap project has the ability to substantially contribute to CESMII's operating principles and objectives.

## **2) Application Projects**

Application Projects are industry projects that use Institute developed hardware and software products and related services, training, and SM Platform™ infrastructure. The projects rely on member funding, cost share (where applicable) and/or other revenue/fund sources. In using the SM Platform™ as enabling infrastructure, Application Projects also provide direction and scale up requirements on the functionality and enabling role of the SM Platform™ and SM Marketplace™. The energy, training and sustainability goals of the Institute are better addressed through these Application Projects as the Institute progresses. The focus of Application Projects includes the following: (1) to further develop, improve, and enhance the software platform (SM Platform™) upon which the App IP and Tool IP will run; (2) to further develop, improve and enhance the App IP; and/or (3) to further develop, improve, and enhance the Tool IP

At a minimum, the Application Project Participants must be Tier 2 or Tier 3 CESMII members, and will be required to grant the Institute a paid-up, royalty-free non-exclusive license under their interest in any Application Project IP to enable other members to use such Application Project IP solely for R&D testing, evaluation, and educational purposes. Additionally, Application Project Participants will be expected to grant CESMII Members access to their respective ownership interests in the Application Project IP through an IP Licensing Agreement or a Joint Commercialization Agreement. While such IP Licensing Agreement will provide that the Application Project Participant will extend a free license to their copyrights in any such Application Project IP, CESMII and such Application Project Participant will negotiate in good faith reasonable consideration to be provided to the Application Project Participant in exchange for the grant of a license to any patent rights contained in such Application Project IP (e.g., Foreground or Background patent rights). The level of consideration to be returned to the Application Project Participant will be based on their respective contributions to the Application Project (e.g., if Application Project Participant provides full cost share, then CESMII may negotiate a revenue sharing arrangement with such Application Project IP owner, while on the other hand if an Application Project Participant provides less than full cost share, then such Application Project Participant may provide a free license to its patent rights in such Application Project IP).

## **C. Institute Technology Development & Management**

### **1) Sub-recipients**

CESMII will directly manage the development, implementation, and validation of the SM Platform. Such activities will be handled by CESMII staff, as well as by Tier 2 and Tier 3 CESMII Member Project Participants through the grant of Sub-recipient Agreements. Sub-recipient Agreements executed in relation to projects supported with DOE funds will be executed on a project-by-project basis and will flow down all terms and conditions, including those related to intellectual property, from

the DOE Cooperative Agreement. Furthermore, each sub-recipient agreement will be based on a full proposal including detailed budgets, a specific plan to implement this IP Plan and comply with CESMII's U.S. manufacturing plan, and a commercialization plan. Nothing in this IP Plan shall restrict project teams, contemplated in the preceding paragraph, from developing specific IP sharing agreements as they deem necessary, subject to such Project Participants assuring that the IP is commercialized consistent with the CESMII approved U.S. Manufacturing and Commercialization Plans and adheres to the provisions of this IP Management Plan.

## **2) IP Manager**

The IP Manager reports to the Institute's Chief Technology Officer, and will provide leadership, expertise, and dedicated resources to all the Members. This function will integrate and coordinate the activities related to IP management to maximize the benefits and outcomes arising from the Institute's activities. In this IP portfolio management function, the CTO and IP Manager will be advised by an IP Advisory Committee (IPAC), which will be comprised of representatives appointed by the Institute's Governance Board.

Specific responsibilities of the IP Manager include:

- Lead the management of Institute IP, including storing, access, dissemination, and commercialization.
- Develop and implement relevant policies and procedures coordinate the SM Innovation Centers and Institute Members.
- Educate Members directly and through the SM Innovation Centers on their rights and obligations relative to IP distribution and protection within the membership, the CESMII organization, and the Federal Government.
- Organize and disseminate information on Institute-wide patenting and publication regarding Inventions and innovations to all the SM Innovation Centers, the Institute Members, the DOE, and the public. Innovations includes technical, commercial, or financial data first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552(b)(4). (Protected Data under the DOE Cooperative Agreement)
- Support the Institute's sustainability by defining and then implementing marketing and commercialization strategies with participation from the Members.
- Ensure the dissemination of data and research tools to the broader research community.
- Work with the IPAC on the development of strategies related to Institute IP, its management and commercialization approaches.
- Develop and implement, and lead CESMII-wide efforts to assure (1) the consistent application of the use of the "Protected Data Rights" authorization set forth in the DOE Cooperative Agreement, and (2) assure that all project teams conducting research and development under CESMII authorization are cognizant of their rights and obligations under this IPMP and the DOE Cooperative Agreement.
- Assure that the classification of project data as "Protected Data" is done for two purposes: (1) to assure the objectives of the project-specific U.S. Manufacturing and Commercialization Plans are met; and (2) to facilitate each member's' economic interest in commercialization of technology.

- Work in conjunction with, and under policies administered by, the UCLA Technology Development Group managing the legal aspects of the IP portfolio. This includes disclosures of Foreground and Background IP, Institute patent application filings and office actions, and IP sharing/licensing/commercialization agreements.

## **D. Intellectual Property**

### **1) Foreground IP**

Subject to the terms and conditions of the DOE Cooperative Agreement and the sub-recipient agreements awarded under the DOE Cooperative Agreement, all sub-recipients shall retain title to IP invented or created solely by its employees and agents. Foreground IP must be disclosed to the IP Manager. IP Owner(s) shall provide a non-confidential title and abstract of any newly created Foreground IP to the IP Office within sixty (60) days after the author/inventor discloses it in writing to Member personnel responsible for the administration of IP. Such disclosures shall be restricted pursuant to the signed NDA, and distribution will be limited within each Member on a “need to know” basis.

Foreground IP in the form of non-patentable technical data will be disclosed in accordance with the requirements of the project specific reporting requirements checklist. Protection of the data may be claimed under the Protected Data provisions of the sub-recipient agreement. It is contemplated that all members and entities participating in a project will enter into further agreements to address the commercialization of any such Foreground IP and Background IP, subject to the rights and requirements of this IP Plan, the sub-recipient agreement and the DOE Cooperative Agreement.

### **2) Background IP**

Members that are sub-recipients will be required to disclose existing Background IP to the IP Manager, to the extent such Background IP is reasonably relevant to the Institute’s development and commercialization of its Platform IP, App IP, and Tool IP. Voluntarily disclosed Background IP should include details regarding the availability for licensing, including any limitations such as prior licenses in specified fields of use. During negotiations of specific project activities, CESMII may identify Background technical data or existing patents or trade secrets that would enhance the value of the SM Platform™ and SM Marketplace™. CESMII may negotiate rights to Background data during negotiations of specific App and Application projects, when such rights to data support the defined CESMII objectives.

### **3) Technical Data**

If members wish to exchange proprietary information, the membership non-disclosure agreement shall be used for such exchanges. The CESMII awarded Sub-recipient Agreements and the SMIC awarded Sub-recipient Agreements will incorporate by reference the Non-Disclosure Agreement.

Consistent with the terms of the applicable Sub-recipient Agreement through which the Institute funds are distributed to the sub-recipients, the parties may assert copyright in any of their Generated Information, including computer software. Awardees will be required to grant to CESMII a royalty-free, fully paid up, irrevocable, perpetual, nonexclusive license under their copyright interests in any project results (e.g., Platform IP, App IP, and Tool IP), including the right to sub-license such rights to its members to use the Platform IP, App IP, and Tool IP.

for R&D and Production purposes. To facilitate the sharing of information and the appropriate use and protection of the Institute IP, the members will agree, to the extent they are permitted to do so under their Sub-recipient Agreements, to disclose technical data, when such technical data is not identified as protected technical data. The management of Institute-generated data is described under the terms of the CESMII Data Management Plan. Authorization of publications shall be as set forth in the CESMII awarded Sub-recipient Agreements.

**4) Dispute Resolution**

Any dispute between members relating to the management and disposition of Institute Technology shall be handled by those particular members, per the Membership Agreement. Each involved member shall bear its own expenses incurred in connection with any attempt to resolve disputes.

## **Section 5**

# **Data Management Plan**





# Data Management Plan

## Version 2-01

<b>Date</b>	<b>Version</b>	<b>Description</b>
	Data Management Plan 1-01	Final Approved Plan
<b>11/1/2018</b>	Data Management Plan Final 02-01 for Novation	Modified for Novation CESMII from SMLC to UCLA. Started 9/17/2018 and approved 11/1/2018

## 1. INTRODUCTION

This Data Management Plan (DMP) covers a range of data types which will be collected/and or managed under CESMII. This DMP is designed to be consistent with the Department of Energy’s (DOE) Public Access Plan.

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or “Institute”) is committed to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies that are developed under the Cooperative Agreement. The mission of the Institute is to partner with private and public sector organizations to develop, test, and widely deploy to industry advanced sensors, controls, platforms and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operations technologies and information technologies (OT/IT).

The Institute operates as a program within University of California, Los Angeles (“UCLA”), providing CESMII with the administrative and oversight capabilities of UCLA and The Regents of the University of California. UCLA is the prime recipient of DOE Cooperative Agreement (DE-EE0007613). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute for smart manufacturing.

## 2 RATIONALE

CESMII is an Institute for Manufacturing Innovation (IMI) and part of the Manufacturing USA network. By furthering smart manufacturing technologies with a broad base of industry applications, the Institute will also support the administration’s effort to double U.S. energy productivity by 2030. CESMII is the third DOE-funded facility and is part of Manufacturing USA to scale up advanced manufacturing technologies and processes. New smart technologies that include advanced sensors, controls, platforms and modeling and new business data-based technology practices can help U.S. manufacturers capture, share, and process data in real-time to achieve new levels of manufacturing productivity and performance, process improvement equipment reliability, and product precision at a reduced cost. More efficient processes also mean less waste and greenhouse gas emissions. The Smart Manufacturing Institute will support research and development efforts in these areas to reduce deployment costs for smart technologies by as much as 50%, in addition to helping train the next generation workforce on these advancements. The Institute will focus on Technology Readiness Levels (TRL) 3-7, defined in Table 1.

TRL	Description
<b>TRL1</b>	Basic principles observed and reported
<b>TRL 2</b>	Technology concept and/or application formulated
<b>TRL3</b>	Analytical and experimental critical function and/or characteristic proof of concept
<b>TRL4</b>	Component and/or breadboard validation in a laboratory environment
<b>TRL5</b>	Component or breadboard validation in a relevant environment
<b>TRL 6</b>	System/subsystem model or prototype demonstration in a relevant environment
<b>TRL7</b>	System prototype demonstration in an operational environment
<b>TRL8</b>	Actual system completed and qualified through test and demonstrated
<b>TRL9</b>	Actual system proven through successful mission operations

### 3 DEFINITIONS

3.1 “**Generated Data and Information**” means data and information produced in the performance of the Cooperative Agreement between CESMII and DOE. Data is a re-interpretable representation of information in a formalized manner suitable for communication, interpretation, and/or processing.

3.2 “**Intellectual Property**” means patents, Trademarks, copyrights, Mask Works, Protected CRADA Information, data, and other forms of comparable property rights protected by Federal law and foreign counterparts, except trade secrets.

3.3 “**Research, Development and Demonstration (RD&D) Data and Information**” means the recorded factual material, data information necessary to validate and/or reproduce findings or take operational action. Research data also do not include:

- (A) Preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, communications with colleagues or physical objects (e.g., laboratory samples).
- (B) Trade secrets, commercial data and information, materials necessary to be held confidential by a researcher until they are published, or similar information which is protected under law; and
- (C) Personally Identifiable Information (PII), Health Insurance Portability and Accountability (HIPAA) protected medical information and other personally sensitive information, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, such as information that could be used to identify a particular person in a research study.

3.4 “**Proprietary Information or Limited Rights Data**”, disclosure of which would constitute a clearly unwarranted, (2) business sensitive and (3) commercial or financial information which is privileged or confidential under the Freedom of Information Act [5 U.S.C. 552 (b) (4)], any of which is developed at private expense outside of the Cooperative Agreement and which is marked as Proprietary Information.

3.5 “**Protected and Institute restricted and business sensitive**” means Generated data and information first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552(b) (4) and which data is marked as being “Protected Data” by a party to the project.

3.6 “**Validation**” means quantitative or qualitative corroboration, replication, or reproduction of research findings. Validation of research findings could be accomplished by reproducing the original experiment or analyses; comparing and contrasting the results against those of a new experiment or analyses; modeling or algorithmic comparisons, or other.

### 4 DATA TYPES AND SOURCES

CESMII will conduct project activities that involve data about how industry products perform; standards and patterns about how different industry products come together, data about patterns of how software and systems are engineered and configured; benchmark data; data that are aggregated to form new data sets, algorithms and tools that embody proprietary but aggregated data sets. These data, information and algorithms are Institute protected and managed. Plans also include benchmark data about products, systems, and applications: data about what and how standards are applied; data structures and configurations for analytics and modeling; and data for Institute metrics, assessments, reports and publications. General data and information examples include:

1. Source operational and test data generally streamed or collected over time from manufacturing plant or test facility; also used to establish network practices
2. Labeled, contextualized, interpreted data streams and standards for collection and contextualization; also used to build consensus on data standards and network practices
3. Data derived, merged, and computed to assemble Smart Manufacturing sensor to action enterprise systems, i.e.. SM systems, produce operational results and conduct performance analyses; also used to establish data aggregation, modeling and data derivation practices and standards.
4. Data about data, component and system configurations for SM systems that are used to build and update Toolkits, configurations, and profiles
5. Benchmark data on common sensor, control, platform and modeling products, services and/or facilities used for manufacturing.
6. Benchmark data on energy consumption and clean energy impacts for a range of manufacturing use cases.
7. Benchmark data on the use, cost, and operational impact of the SM Platform™
8. Benchmark data on product, use and transactions through the SM Marketplace™.

CESMII will collect data, manage source data between and among businesses; generate and manage derivative, de-identified (that is sensitizing for proprietary and related information), aggregated and/or merged data sets; manage data sets from models and analyses; publish data sets and data sets associated with published papers and reports. CESMII will also manage transaction data that are set up the agreements for shared use of these data sets. CESMII will collect and manage data that are the real-time operational outcomes and outcome analyses of Institute project activities, benchmarking, SM Platform™ use, technology and product use and energy and economic metrics. CESMII will collect and analyze workflow provenance, i.e.. data across workflow executions. CESMII will combine data, models, and applications to form Toolkits and systems engineering tools to be made available with managed access.

With reference to the above, because of the unique focus of the Manufacturing USA Institutes including CESMII to conduct research primarily in TRL 3-7 and to encourage U.S. Manufacturing, CESMII's Generated Data and Information will likely be protected as Intellectual Property or treated as Protected Data. Most of the research, development, and deployment (RD&D) will be conducted in a collaborative manner with industry leading or involved in projects. New data and information sets resulting from collaboration will be protected and managed as Intellectual Property. Additionally, much of the information that forms the basis of the project will be industry's Proprietary Information or other protectable data.

This DMP applies to all Generated Data and Information that are published as Research Data in scholarly publications (i.e., final, peer-reviewed and accepted manuscripts or, for participating publishers, the corresponding published journal article), as Research Data sets, and/or publicly accessible Toolkits that contain data and information application and the supporting Research Data and Information where the publication describes unclassified and otherwise unrestricted research findings produced with complete or partial DOE funding, unless otherwise prohibited by law, regulation, or policy.

In accordance with the definitions of General Data and Information and Research Data this plan does not include preliminary analyses (including raw data), drafts of scientific papers, and plans for future research, peer reviews, or communications with colleagues. Furthermore, data to enable peer review and publication/dissemination and/or to protect intellectual property may be temporarily withheld

from distribution and other proposed data management. This plan will make certain that the data produced during the period of this project is appropriately managed to ensure its usability, access and preservation.

## **5 CONTENT AND FORMAT**

The Generated Data and Information, supporting Research Data and metadata used for publicly available publication will be available in print from the publishers or electronically in that the public can read, download, and analyze.

## **6 SHARING AND PRESERVATION**

CESMII depends on data dissemination in the form of Toolkits; reports, analyses, and benchmarking; and technical publication to validate technology and business development. All members receiving DOE funding will be expected to publish results at various levels of institute access including public access to the extent possible.

Members will be required to submit meta-data and a link to the full-text accepted manuscript (or the text itself) to DOE's Office of Scientific and Technical Information (OSTI) and other proposed data management. This plan will make certain that the data produced during the period of this project is appropriately managed and otherwise unrestricted manuscripts publicly accessible if there is no other publicly available version. Generated Data and Information supporting published or supporting a scholarly publication, which is not otherwise publicly available, will be submitted to the Open Energy Information Platform (OpenEI - [http://en.openei.org/wiki/Main\\_Page](http://en.openei.org/wiki/Main_Page)), a centralized and secure resource for publicly accessible energy data managed by the National Renewable Energy Laboratory and/or maintained by CESMII on an open site. Research Data will be shared and preserved as supplementary information to the published article through OSTI, a CESMII hosted open site, and/or OpenEI.

## **7 PROTECTION**

CESMII's publication policy requires review before submission of a publication for peer review. This review will identify and protect confidentiality, personal privacy, Personally Identifiable Information, and U.S. national, homeland, and economic security; recognize proprietary interests, Proprietary Information, and Intellectual Property rights; and avoid significant negative impact on innovation and U.S. competitiveness.

As part of the publication review, the authors in collaboration with CESMII will determine and document the plan for how and if the supporting Research Data and Information will be made publicly available using the guidance set forth in this document.

## **Section 6**

# **Export Control Plan**



# Export Control Management Plan

Version 3.03

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or the “Institute”) operates as a program within The Regents of the University of California, Los Angeles (“UCLA”). UCLA is the prime recipient of the U.S. Department of Energy (“DOE”) Cooperative Agreement DE-EE0007613 (“Cooperative Agreement”). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute for smart manufacturing. The purpose of this Export Control Management Plan is to ensure compliance with U.S. export control laws and regulations. This document does not replace the DOE Cooperative Agreement. If there is a conflict between this Export Control Management Plan and the DOE Cooperative Agreement, the Cooperative Agreement takes precedence.

Date	Version	Description
12/03/16	0-01	Export Control Management Plan with DOE edits addressed
04/12/17	01-01	Final incorporating DOE Comments
9/17/2018	02-01	Modified for Novation CESMII from SMLC to UCLA
9/24/2018	02-02	Restarted based on Power America Plan
11/7/2018	02-02	Modified extensively after internal review and DOE discussion with UCLA
11/29/2018	02-03	Modified after internal review following DOE comments
12/21/2018	03-01	Modified after UCLA/DOE call on 12/17/18
1/2/2019	03-02	Review Marcia Smith and OCGA on 1/2/19
1/16/2019	03-03	Update after DOE discussion on 1/3/19 DOE Approval to make Final 1/16/2019

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## **1. Introduction**

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or “Institute”) and all its Members, including UCLA (“CESMII Members” or “Members”) are committed to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies that are developed under the Cooperative Agreement. The mission of the Institute is to partner with private and public sector organizations to develop, test, and widely deploy to industry advanced sensors, controls, platforms, and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operations technologies and information technologies (OT/IT).

The Institute operates as a program within University of California, Los Angeles (“UCLA”), providing CESMII with the administrative and oversight capabilities of UCLA and The Regents of the University of California. UCLA is the prime recipient of DOE Cooperative Agreement (DE-EE0007613). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute for smart manufacturing.

CESMII, and associated Member institutions, are responsible for occasionally handling export-controlled equipment, commodities, software, and technical data in a corporate environment that may include non-U.S. persons including (but not limited to) those who are staff members, clients, collaborators, subcontractors, or visitors. CESMII recognizes that preventing unauthorized access or disclosure (export) of controlled items to non-U.S. persons, whether on U.S. soil or elsewhere, is of vital importance to national and economic security.

CESMII manages any issues related to export controlled information and technology and this Export Control Management Plan (ECMP) through the CESMII Chief Operating Officer (COO) and a designated Compliance Manager working in conjunction with and with oversight by UCLA Research Policy & Compliance. The elements contained in this Plan apply to all elements of the Cooperative Agreement and the associated Statement of Project Objectives (SOPO), and all other CESMII activities. CESMII activity/task-specific technology control plans will be developed as needed to match protection requirements and conditions.

## **2. Background and Definitions**

2.1 Exports from the United States are regulated by the International Traffic in Arms Regulations (“ITAR”) or the Export Administration Regulations (“EAR”). The ITAR, which is administered by the Directorate of Defense Trade Controls (“DDTC”) of the Department of State, regulates the export of defense related articles and technical data. The EAR, which is administered by the Bureau of Industry and Security (“BIS”) of the Department of Commerce, regulates the export of dual-use articles and technology (i.e.. civilian and military applications).

2.2 With limited exception, the ITAR requires approval to be obtained from the DDTC before exporting any defense article or technical data. The EAR may require approval to be obtained from the BIS before exporting dual-use articles or technology depending on the country of destination, the end use, the end user, and the article or technology to be exported.

2.3 CESMII understands that materials and information used in and/or resulting from the performance of work in the CESMII program may be subject to export control laws and that each Member is responsible for its own compliance with such laws, with the Export Control Procedures set forth in this document, and with the Cooperative Agreement (DE-EE0007613). Significant civil and/or criminal fines and prison sentences can be imposed on persons and entities found to be in violation of the ITAR or EAR. Failure to comply with export control regulations may also result in the forfeiture of funds received under the Cooperative Agreement, expulsion from the Institute, and indemnification of UCLA, the Institute, DOE, the federal government, and other Members for any monetary damages caused by non-compliance.

## 2.4 Definitions

### A. Deemed Export

**As defined under the ITAR**, 22 C.F.R. § 120.17, Deemed Export means: “Releasing or otherwise transferring ‘technical data’ to a foreign person in the United States.”

**As defined under the EAR**, 15 C.F.R. § 734.13, Deemed Export means: “Releasing or otherwise transferring ‘technology’ or source code (but not object code) to a foreign person in the United States.”

### B. Export

**As defined under the ITAR**, 22 C.F.R. § 120.17, Export means: “(1) An actual shipment or transmission out of the United States, including the sending or taking of a defense article out of the United States in any manner; (2) Releasing or otherwise transferring technical data to a foreign person in the United States (a ‘deemed export’); (3) Transferring registration, control, or ownership of any aircraft, vessel, or satellite subject to the ITAR by a U.S. person to a foreign person; (4) Releasing or otherwise transferring a defense article to an embassy or to any of its agencies or subdivisions, such as a diplomatic mission or consulate, in the United States; (5) Performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the United States or abroad; or (6) A launch vehicle or payload shall not, by reason of the launching of such vehicle, be considered an export. However, for certain limited purposes, the controls may apply to any sale, transfer or proposal to sell or transfer defense articles or defense services.”

**As defined under the EAR**, 15 C.F.R. § 734.13, Export means: “(1) An actual shipment or transmission out of the United States, including the sending or taking of an item out of the United States, in any manner; (2) Releasing or otherwise transferring “technology” or source code (but not object code) to a foreign person in the United States (a “deemed export”); (3) Transferring by a person in the United States of registration, control, or ownership of: (i) A spacecraft subject to the EAR that is not eligible for export under License Exception STA (i.e., spacecraft that provides space-based logistics, assembly or servicing of any spacecraft) to a person in or a national of any other country; or (ii) Any other spacecraft subject to the EAR to a person in or a national of a Country Group D:5 country.”

### C. Foreign Person

**As defined under the ITAR**, 22 C.F.R. § 120.16, **and the EAR**, 15 C.F.R. § 772.1, a Foreign Person is a person who IS NOT a U.S. person. A U.S. person includes a:

(a) Citizen of the United States; (b) Lawful permanent resident, i.e., a person lawfully accorded the privilege of residing permanently in the United States as an immigrant in accordance with the immigration laws; (c) Person who is a protected individual, e.g., a person admitted as a refugee or granted asylum; or (d) Corporation, business association, partnership, society, trust, or any other entity, organization or group that is incorporated to do business in the United States, and any governmental (federal, state, or local) entity in the United States.

D. Fundamental Research

**As defined under the ITAR**, 22 C.F.R. § 120.11(8), Fundamental Research means: “basic and applied research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls. University research will not be considered fundamental research if: (i) The University or its researchers accept other restrictions on publication of scientific and technical information resulting from the project or activity, or (ii) The research is funded by the U.S. Government and specific access and dissemination controls protecting information resulting from the research are applicable.”

**As defined under the EAR**, 15 C.F.R. § 734.8(c), Fundamental Research means: “research in science, engineering, or mathematics, the results of which ordinarily are published and shared broadly within the research community, and for which the researchers have not accepted restrictions for proprietary or national security reasons.”

E. Fundamental Research Exclusion (FRE)

The Fundamental Research Exclusion provides that technology or software that arises during, or results from, fundamental research and is intended to be published is excluded from the export control regulations.

F. Restricted Party

An individual, organization or entity appearing on any one of the U.S. government restricted party lists (e.g., the Department of Treasury Specially Designated Nationals List (SDN) or the Department of Commerce Entity List) as a party prohibited from receiving U.S. exports or financial transactions and/or with whom U.S. persons are restricted from engaging in export or financial transactions.

G. Technical Data/Technology

**As defined under the ITAR**, 22 C.F.R. § 120.10, Technical Data means: “(1) Information, other than software as defined below, which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of defense articles. This includes information in the form of blueprints, drawings, photographs, plans, instructions, or documentation. (2) Classified information relating to defense articles and defense services . . . (3) Information covered by an invention secrecy order; or (4) Software . . . directly related to defense articles.” This definition does not include the following: (1) information concerning general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, (2)

information in the public domain, or (3) basic marketing information on function or purpose or general system descriptions of defense articles.

**As defined under the EAR**, 15 C.F.R. § 772, Technology means “information necessary for the ‘development,’ ‘production,’ ‘use,’ operation, installation, maintenance, repair, overhaul, or refurbishing . . . of an item. Technology “may be in any tangible or intangible form, such as written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae, tables, engineering designs and specifications, computer-aided design files, manuals or documentation, electronic media or information revealed through visual inspection.”

### **3. Export Control Management Plan**

#### 3.1 Purpose.

This plan is to ensure compliance with U.S. export control laws and regulations. Federal export control laws and regulations restrict the transfer of specific items, information, and/or services for reasons of national security or trade protection. In general, the export control regulations control:

- The export from the United States to a foreign country of certain items, information, or software;
- Verbal, written, electronic, or visual disclosures or transfer of scientific and technical information related to controlled items to foreign persons or entities inside or outside the United States;
- Transactions with, or travel to, certain sanctioned or embargoed countries for the conduct of activities such as teaching or research, or attending conferences; and
- Financial transactions, exports, re-exports, and deemed exports of items and information to Restricted Parties or End Users, or for Restricted End Uses.

#### 3.2 Applicability

This Export Control Management Plan (“Plan”) applies to the CESMII Institute, that is, all CESMII Members and subrecipients. In addition, UCLA must comply with supplementary, University of California-specific requirements for all CESMII projects performed at UCLA. These UCLA-specific requirements and UCLA’s compliance program are described in Section 3.3. Section 3.4 describes the compliance requirements that apply to all CESMII Members and subrecipients.

#### 3.3 UCLA-Specific Compliance Requirements

While it is understood that some Members and subrecipients of CESMII may perform export-controlled work funded under CESMII, it is UCLA’s policy to operate under the FRE. To maintain the FRE, UCLA does not perform work that restricts publication or the participation of foreign nationals. Thus, UCLA will not conduct export-controlled work funded under CESMII. Regardless, it should not be assumed that all work funded under the Cooperative Agreement falls under the FRE. The CESMII Institute, including UCLA and all other Institute Members, must conduct a review of each individual project to determine to what extent export control laws and regulations apply. See project submission and review process to ensure compliance described in Section 5.2.

UCLA ensures compliance with the U.S. export control regulations by obtaining export licenses and/or implementing control plans when appropriate. Even during fundamental research, transactions, items, or activities may require export licenses, control plans, or other compliance approaches. Transactions, items, or activities that may require export licenses, control plans, or other approaches to ensure compliance with the export control regulations include, but are not limited to:

- Transfer of proprietary information related to controlled items or technology,
- Receipt of ITAR-controlled items,
- Physical exports outside the U.S. of hardware, software, or technology,
- Dealings with restricted parties or entities,
- Defense services, Restricted end uses, or
- Transactions involving embargoed or sanctioned parties/countries

The Institute is responsible for notifying UCLA Research Policy & Compliance of any of the above activities for an export control review.

No foreign interaction or transaction with potentially controlled items (e.g., articles, materials, technical data, software, technical assistance, defense services, or military training) at UCLA shall take place without prior knowledge and coordination with UCLA Research Policy & Compliance, the CESMII COO and the CESMII Compliance Manager, and all exports and deemed exports shall be conducted in accordance with U.S. export laws and regulations.

In addition, all foreign travel conducted by UCLA CESMII faculty, staff, or students must be pre-authorized by the CESMII COO and must be reviewed for compliance with export control regulations by UCLA Research Policy & Compliance. Foreign travel that has been approved by CESMII and UCLA will be submitted to DOE for approval unless it was included in the approved budget. UCLA CESMII faculty, staff, and students must follow UCLA Laptop Security guidance, which includes using a loaner device carrying no proprietary or restricted information.

### 3.4 CESMII Member Compliance

Each Member understands that materials and information used in and/or resulting from the performance of work in the CESMII program may be subject to export control laws, and that each Member is responsible for its own compliance with such laws. Therefore, it is the responsibility of each Member to determine if their work under the CESMII program is subject to export control requirements and to pursue export licenses and/or implement control plans when appropriate.

Transactions, items, or activities that may require export licenses, control plans, or other approaches to ensure compliance with the export control regulations include, but are not limited to:

- Transfer of proprietary information related to controlled items or technology to a foreign person within the U.S.,
- Receipt of ITAR-controlled items,
- Sales and service agreements related to controlled items or technology,
- Physical exports outside the U.S. of hardware, software, or technology,
- Dealings with restricted parties or entities,

- Defense services, Restricted end uses, or
- Transactions involving embargoed or sanctioned parties/countries

CESMII Members and subrecipients are responsible for all export control compliance matters for their institutions as they relate to the Institute work, including, but not limited to, restricted party screening, license determinations and requests, voluntary disclosures of violations, monitoring, training, travel with technology, including cell phones and laptops with data, and notification requirements (see 5.6 below). In addition, CESMII Members must obtain prior approval from the CESMII COO for all foreign travel related to the work of the Institute. Foreign travel that is approved by CESMII and UCLA will be submitted to DOE for approval, unless it was included in the approved budget.

Furthermore, all CESMII personnel and CESMII Members participating in Membership Agreements, and all other forms of agreement with UCLA in relation to CESMII shall not collaborate or interact with any restricted party unless specifically authorized in writing by the cognizant federal agency.

Especially because of the likely participation by foreign scientists and students in the CESMII program, CESMII Members must ensure that they have a system in place to prevent the possibility of deemed exports.

#### **4. Compliance Manager**

UCLA Research Policy & Compliance maintains the position of an Export Control Officer whose responsibilities include, but are not limited to, developing and implementing an export control compliance program for the campus. The CESMII Compliance Manager reporting to the CESMII COO, in conjunction with and with oversight by UCLA Research Policy & Compliance, is specifically responsible for, among other things: (i) administering training (see 5.1 below); (ii) maintaining a library of proposed and approved project submissions including export control analysis (see 5.2 below); (iii) coordinating with the U.S. Department of Energy (DOE); (iv) maintaining a library of CESMII program document summaries (see 5.3 below); (v) maintaining a record of voluntary disclosures by CESMII Members (see 5.6 below); (vi) maintaining a list of CESMII Members registered with the DDTC (see 5.7 below); and (vii) maintaining a library of CESMII Members' certifications (see 5.8 below).

#### **5. Required Compliance Measures**

##### **5.1 Training**

CESMII, SMIC, and/or Member employees participating in any CESMII research shall attend an on-line training program developed by the CESMII Compliance Manager and reviewed and overseen by the Governance Board. The training program will be provided by the CESMII Compliance Manager prior to, or within one month after, starting work on a CESMII project and annually thereafter. CESMII, SMIC, and/or Member employees will certify adherence in the manner provided by the Compliance Manager with an example certification as follows:

*[\_\_\_\_Name of CESMII, SMIC, and/or Member Employee\_\_\_\_] hereby certify that I am knowledgeable of, agree to abide by, and am in compliance with the requirements of the*



*International Traffic in Arms Regulations and the Export Administration Regulations in the performance of efforts under this CESMII program at UCLA.*

#### 5.2 Submission and Review of Planned Projects.

All CESMII Roadmap, Application and Platform projects will be administered as UCLA projects or as subrecipient or vendor agreements with UCLA. It will be the obligation of all CESMII Members, subrecipients and vendors under agreement, to ensure compliance with export laws in the performance of the project. Prior to commencing any project, CESMII Members and/or SMIC Directors, shall advise the Compliance Manager of: (i) the name of the project, (ii) the description of the project, (iii) the identification of the USML category(ies) under which the project or technical data falls and whether such constitutes significant military equipment (if the project is defense related), (iv) the identification of the ECCN(s) under which the project or technology related falls (if the project is dual-use related), (v) whether the approval of the DDTC or the BIS is required to export the project or technical data or technology related thereto, (vi) any exceptions which would allow the Members to export the project or technical data or technology related thereto without the otherwise required approval of the DDTC or the BIS, and (vii) in what format technical data or technology will be maintained (e.g. identify the name of any specifications). The Compliance Manager will also review all CESMII projects carried out at UCLA to ensure projects are consistent with the FRE.

The CESMII Compliance Manager will notify each Member in writing of any concern with the Member's analysis of the required export control, but it will be the obligation of each Member to ensure compliance with export control laws in the performance of the project.

#### 5.3 Advance Notification to the Compliance Manager

Insofar as CESMII engages in activities involving the use of export controlled information, items or technology, or conducts research involving the use of export-restricted technology, as determined by applicable United States law, such CESMII Member shall inform the Compliance Manager thirty business days in advance of exporting (including deemed exporting) any CESMII program related Item (i.e. equipment, software, technical data/technology), or engaging any person who is not a citizen or permanent resident of the United States (or a protected refugee) in any such CESMII program. Such Member shall advise of: (i) the Item to be exported or to be disclosed to persons not citizens or permanent residents of the United States (or a protected refugee), (ii) the country of destination or the name(s) and nationalities of persons to whom the Item will be disclosed, (iii) whether or not the approval of the DDTC or the BIS is required before exporting the Item to persons not citizens or permanent residents of the United States (or a protected refugee), and (iv) if the Member believes that approvals are not required, the reason(s) for their belief.

#### 5.4. Documenting Project Information.

CESMII Members shall document technical data or technology developed under projects under the CESMII program in writing. That writing shall identify: (i) the title of the document (the name should be descriptive of the information contained in the document), (ii) the USML category(ies) and/or ECCN(s) applicable to any data included in the document, (iii) the name(s) of the principal author(s) of the document, and (iv) contact information for persons to whom questions regarding the document should be directed.

CESMII Members shall advise the Compliance Manager of the above referenced information within ten (10) days of the date of creation of the document.

CESMII Members shall mark all documents containing technical data or technology related to the CESMII program with one of the following legends (whichever is applicable) or some similar legend:

“This document contains information the export of which is regulated by the International Traffic in Arms Regulations. Exports of this document or disclosure of its contents to any person who is not a citizen or permanent resident of the United States (or a protected refugee) without the prior approval of the Directorate of Defense Trade Controls is prohibited.”

OR

“This document contains information the export of which is regulated by the Export Administration Regulations. Exports of this document or disclosure of its contents to any person who is not a citizen or permanent resident of the United States (or a protected refugee) without the prior approval of the Bureau of Industry and Security may be prohibited.”

OR

“This document does not contain information which requires the approval of the Directorate of Defense Trade Controls or the Bureau of Industry and Security prior to export or disclosure to a person who is not a citizen or permanent resident of the United States (or protected refugee).”

The Compliance Manager shall maintain a library of the information set forth in the first paragraph of this Article 5.4. The U.S. Department of Energy shall, upon request, be given access to such library.

#### 5.5. Records Retention

CESMII Members shall maintain for a period of five (5) years following completion of the CESMII program, records of: (i) any documents created pursuant to Article 5.4 and (ii) any export approvals received from the DDTC or the BIS.

#### 5.6. Notification of Disclosures.

CESMII Members shall inform the Compliance Manager in writing within five (5) days of making a voluntary disclosure of each violation of the ITAR or EAR related to Members’ performance of Institute research by *generally* describing the nature of the reported violations and any corrective actions taken.

CESMII Members also shall inform the Compliance Manager in writing within five (5) days of learning of an investigation by a Federal agency of their export control program.

Upon notification from the Compliance Manager, UCLA Research Policy & Compliance shall not further disclose such information to any party except the U.S. Department of Energy (and then only with the U.S. Department of Energy’s agreement not to further disclose such information



except as required by law). Disclosure documents should NOT be provided to UCLA, which will not be held responsible for maintaining the confidentiality of such documents.

UCLA Research Policy & Compliance will notify DOE in writing within three (3) business days of making a voluntary disclosure of each violation of the ITAR or EAR related to performance of Institute research. To the extent that UCLA Research Policy & Compliance is aware of and is legally able to, UCLA Research Policy & Compliance will notify DOE in writing within three (3) business days of learning of an export control related investigation by a federal agency. UCLA will notify DOE in writing within three (3) business days after receiving notification of a disclosure from a CESMII Member.

#### 5.7. ITAR Registration

CESMII Members who are involved in the export or manufacture of defense related articles or technical data with respect to the work of the Institute shall register with the DDTTC. (22 C.F.R. §122.1(a).) Such CESMII Members shall advise the Director of Compliance of their registration.

#### 5.8. Compliance Manager Reviews

Members will certify annually to the Compliance Manager, that they follow all applicable export control laws, regulations, and with these Procedures. CESMII Members shall cooperate fully in any review by the UCLA Research Policy & Compliance and/or DOE of the Members' compliance with the ITAR and the EAR. The Members shall remain responsible for the acts and omissions of their officers, directors, employees, and agents.

## **Section 7**

# **US Manufacturing Plan**



# U.S. Manufacturing Plan

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## Version 2-01

Date	Version	Description
	1-01	Final Approved Plan
<b>12/14/2018</b>	2-01	Modified for Novation CESMII from SMLC to UCLA DOE comments 100318 CESMII inputs 100818 CESMII inputs 101718 based on DOE feedback 100918 CESMII revised based on DOE feedback 102518 DOE revisions from GRD 110118 and 111418 CESMII revisions 111518 DOE Feedback and final approval 12/14/2018

## 1 Institute Description

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or “Institute”) is committed to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies that are developed under the Cooperative Agreement. The mission of the Institute is to partner with private and public sector organizations to develop, test, and validate to industry advanced sensors, controls, platforms and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operations technologies and information technologies (OT/IT).

The Institute operates as a program within University of California, Los Angeles (“UCLA”), providing CESMII with the administrative and oversight capabilities of UCLA and The Regents of the University of California. UCLA is the prime recipient of DOE Cooperative Agreement (DE-EE0007613). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute for smart manufacturing.

The Institute and its partners are *committed* to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of technologies that are developed under this award. The Institute and its members *agree* to preferentially apply the results from this institute to products manufactured in the U.S., by U.S. owned manufacturers, and to make accessible all Institute generated Intellectual Property (IP) to its members related to Smart Manufacturing (SM) methods and facilities funded by this award without exposing sensitive product and process IP.

CESMII is creating a national innovation industry ecosystem for Smart Manufacturing (SM) in the U.S. to enable transformational improvements in how energy is used for manufacturing productivity, which ultimately will lead to enhancing U.S. global competitiveness. The established Institute team is founded on a national collaboration across the US with the Institute headquarters located in Los Angeles. The membership spans large, medium, and small businesses; academic institutions and facilities; national laboratories; trade associations; state development organizations; and state, public, and private funding entities.

With the significant breadth and depth (technical and business) represented by the Institute membership, ensuring the proper level of commitment and engagement from all partners in supporting U.S. competitiveness is not inconsequential; and will be vital to achieving the outcomes for the institute which include:

- Supporting U.S manufacturing competitiveness for energy intensive/dependent industries and clean energy product manufacturing.
- Increasing energy productivity, domestic production capacity, growth of domestic supply chains, and impacting domestic job creation, trade balance and/or GDP.
- Improving regional economic development as a result of successful technology deployment and commercialization from the Institute’s related activities.

Successful technology adoption by industry is the key to driving the desired U.S. manufacturing market transformation. This U.S. Manufacturing Plan outlines the commitments that the Institute and its members agree to, as well as provides a brief commentary in recognition that this commitment is vital to meeting the Institute’s and DOE’s goals.

## **2 Strategy and Implementation**

The Institute's purpose is to promote competitiveness and innovation in U.S. manufacturing through the accelerated development and adoption of Smart Manufacturing. The U.S. manufacturing industry makes up a substantial portion of the GDP and generates revenue more than \$2.1 trillion. Manufacturing drives the U.S. economy more than any other sector. CESMII will provide a direct and measurable increase in domestic production capacity for smart manufacturing in the U.S. resulting in increased energy productivity, jobs, and economic development across the country, supported by targeted regions, and aims to do so within the initial 5-year Cooperative Agreement with DOE.

The interlinked regions that make up the Institute underpin a local, state, and national network of partners, facilities and private-public resources, with a coordinated strategy for accelerating impact in the areas of clean energy, energy efficiency, SM infrastructure and technologies, manufacturing technology, education and workforce development. The diversity of industrial and R&D testbeds across the regions will accelerate technology development, innovation, and deployment of sensors, controls, modeling, and simulations enabled by the SM Platform™, resulting in benefits to manufacturers. The regions will share successes, leverage lessons learned, cross pollinate results, and will feed technologies, best practices, and tools into the marketplace, resulting in new business models that support innovation and U.S. competitiveness.

Additionally, the Institute has a national network of SM Innovation Centers (SMICs) each focused on local relationships with opportunities for national impact in the areas of membership outreach, membership technology collaborations, and membership training. The power of this SMIC network is the cross-linking of resources, capabilities and expertise across business, workforce, and technical focus areas, leveraging each region's unique industrial environments.

This "network of networks" ecosystem provides both focused and coordinated impact for the Institute, and the nation at large, with centralized leadership to provide access to shared SM Research & Development (R&D). This larger base of information and activity will help reduce overall risk, in part due to the participation of many experienced users of the SM Platform™ and SM Marketplace™. The commitment to ensuring successful implementation of technologies in the market is significant to all partners. The location of CESMII committed facilities are near centers of manufacturing hubs for each of the targeted applications and regions, and culmination of results will be demonstrated through a combination of Institute Members, SMIC's, and partners that are involved in Roadmap Projects, Application Projects, and/or Testbed Projects.

## **3 Membership Commitments**

Due to the breadth of scope and technical applications to be conducted by the Institute Members and sub-awardees, commitments will vary depending on the type of technology developed. RD&D efforts, including RD&D Testbeds, under the Cooperative Agreement will substantially occur in the United States, with collaboration between U.S. universities, industry/commercial partners, states, non-profits, and other participating entities.

First of a kind industry hosted technology and replication Testbed projects under the Cooperative Agreement will be installed in U.S. based facilities. However, there are provisions set forth in the Foreign Entity Participation Plan, for those cases whereby a foreign entity could be considered for

participation and for cases whereby work outside the US could be considered under the Cooperative Agreement.

This will help to ensure that members engaged in Institute Test Beds and deployments, are focused on developing and promoting SM technologies, encouraging early adoption particularly with SMEs, and preferentially applying SM, and in a manner that creates new businesses and associated ecosystems within the U.S. and for the benefit of U.S. manufacturing and the economy.

There are a significant number of members (and future members) that are U.S. multi-nationals having manufacturing facilities outside of the U.S. While CESMII projects under the Cooperative Agreement will generally be conducted in facilities in the U.S., there will be cases where multi-national organizations will have strong economic drivers beneficial to CESMII to develop and/or incorporate Smart Manufacturing at their facilities outside of the U.S. In those instances, those projects will be performed either outside of the Cooperative Agreement or, where Federal or cost share funds are involved, a waiver request will be submitted to the Institute and DOE for project approval.

### **3.1 Member Agreement(s)**

The Institute members agree that a goal of the Institute is to provide substantial benefit to the U.S. manufacturing market, including implementation of methods and technologies that promote energy efficiency, improved throughput, productivity, and benefit the U.S. economy. In exchange for the benefits received under the Cooperative Agreement, the members therefore agree to the following commitments as a condition of potential federal funding and cost share:

- Products embodying Institute generated IP shall be manufactured substantially in the United States.
- Technologies, processes, services, and improvements thereof, which are covered by IP developed under the Institute, shall be incorporated into the member or subrecipient manufacturing facilities in the U.S. either prior to or simultaneously with implementation outside the U.S. Such technologies, processes, services, and improvements, when implemented outside the U.S., shall not result in reduction of the use of the same technologies, processes, services, or improvements in the U.S. unless the subrecipient can show to the satisfaction of the Institute and DOE that it is not commercially feasible to do so. DOE has the authority to approve potential foreign manufacture under the Cooperative Agreement.
- The sub-recipient members will not license, assign, or otherwise transfer any Institute derived or managed IP to any entity unless that entity agrees to these same requirements and with written approval from the Institute.

If the sub-recipient cannot agree or later finds that it cannot meet the requirements in the above provisions as written, the sub-recipient can submit a plan for providing a net benefit to the U.S. economy to DOE. If such a plan is approved by DOE, the plan shall replace the above provisions for the sub-recipient.

### **3.2 Intellectual Property**

To enhance U.S. industrial competitiveness, any Licensee shall ensure that products embodying the Institute IP, under the license granted by the respective Members and IP Office shall be substantially manufactured in the United States as provided for in the CESMII Intellectual Property Management Plan.

### **3.3 Export Control**

CESMII may engage in research and outreach activities that involve the development or use of products, material, software, or technology that may be subject to U.S. export control laws and regulations. CESMII understands the importance of export compliance and takes its responsibilities seriously. To comply with the export control regulations and lists maintained by the U.S. Department of Commerce (Export Administration Regulations -- EAR); the U.S. Department of State (International Traffic in Arms Regulations -- ITAR), and the U.S. Department of the Treasury (Office of Foreign Asset Control -- OFAC) the CESMII has developed an Export Control Plan (ECP) as part of the Bylaws that has been reviewed by UCLA. UCLA also has export control policies which CESMII will adhere to. The ECP will be followed by all Institute members to ensure that the Institute's exports, deemed exports, re-exports, transfers, and activities are transacted consistent with U.S. export control regulations.

## **Section 8**

# **Foreign Entity Participation Plan**





# Foreign Entity Participation Plan

Version 2.04

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or the “Institute”) operates as a program within The Regents of the University of California, Los Angeles (“UCLA”), UCLA is the prime recipient of the U.S. Department of Energy (“DOE”) Cooperative Agreement DE-EE0007613 (“Cooperative Agreement”). The primary purpose of the Cooperative Agreement is to establish and operate the Clean Energy Smart Manufacturing Innovation Institute for smart manufacturing.

The purpose of this Foreign Entity Participation Plan is to document the process through which foreign entities may become eligible to be Members and/or subrecipients of the Institute. This document does not replace the Cooperative Agreement. If there is a conflict between this Foreign Entity Participation Plan and the Cooperative Agreement, the Cooperative Agreement takes precedence. This document incorporates other documents by reference.

<b>Date</b>	<b>Version</b>	<b>Description</b>
1/03/2018	1.01	CESMII Foreign Entity Participation Plan
9/17/2018	2.01	Modified for Novation CESMII from SMLC to UCLA Added Section 8 Foreign Work Waiver Request
12/18/2018	2.02	Modified based on verbal feedback from DOE 12/17/18
1/3/2019	2.03	Review and changes by Marcia Smith and OCGA
2/5/2019	2.04	Addressed 1/10/2019 "All DOE" feedback with CESMII & OCGA Final draft version 1/21/2019. DOE approved 2/5/2019

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### List of Acronyms

<b>Acronym</b>	<b>Definition</b>
CEO	Chief Executive Officer
CESMII	Clean Energy Smart Manufacturing Innovation Institute
COO	Chief Operating Officer.
CTO	Chief Technology Officer
D&B	Dun and Bradstreet
DOE	U.S. Department of Energy
D.U.N.S.	Data Universal Numbering System
IP	Intellectual Property
ITAR	International Traffic in Arms Regulations
NAICS	North American Industry Classification System
R&D	Research and Development
SMIC	SM Innovation Center
SM	Smart Manufacturing
U.S.	United States

## **1. INTRODUCTION**

The Clean Energy Smart Manufacturing Innovation Institute (“CESMII” or “Institute”) is committed to transforming the United States (U.S.) manufacturing market and increasing global competitiveness through the application of smart manufacturing technologies that are developed under the Cooperative Agreement. The mission of the Institute is to partner with private and public sector organizations to develop, test, and widely deploy to industry advanced sensors, controls, platforms, and modeling for manufacturing, as well as to facilitate implementation of new manufacturing solutions and integration of operations technologies and information technologies (OT/IT).

This Foreign Entity Participation Plan describes the approach CESMII will use for engaging foreign entities to evaluate eligibility to become Members and/or subrecipients of the Institute. The Criteria are defined in Section 3.

## **2. DEFINITION OF A FOREIGN ENTITY**

CESMII’s definition of a Foreign Entity mirrors the definition set forth in the terms and conditions of CESMII’s Cooperative Agreement with DOE: The term “Foreign Entity” includes entities incorporated outside of the U.S.; entities whose primary place of business is outside the U.S.; and U.S. incorporated companies that are owned or substantially controlled (50 percent or greater) by foreign governments, firms, institutions, or individuals.

## **3. INSTITUTE FOREIGN ENTITY LIMITATION**

Foreign entities may become eligible to be members, sub-recipients, or participants of the Institute if the entity is able to demonstrate to the satisfaction of the CESMII Management and the U.S. Department of Energy (DOE) that they meet the following criteria (“Criteria”):

- 1) Their participation is in the best interest of CESMII, U.S. industry, and U.S. economic development.
- 2) Adequate IP and data protection protocols exist between the U.S. subsidiary and its foreign parent organization.
- 3) The work is conducted within the U.S. and the entity acknowledges the U.S. Manufacturing Plan.
- 4) The entity will comply with any other conditions that may be deemed necessary by CESMII and DOE to protect U.S. government interests.
- 5) The entity will comply with any other conditions that may be deemed necessary by CESMII and DOE to protect U.S. government interests.

No foreign entities may be admitted to membership until a positive recommendation to do so is received from the DOE. By acceptance of the Membership Agreement, the Foreign Entity agrees to comply with all CESMII policies and all mandatory sub-recipient flowdown terms imposed by the prime Cooperative Agreement.

As a public private partnership with the U.S. taxpayers through DOE, academia, and U.S. industry, the Institute reserves the right to limit foreign participation, in addition to each potential foreign member satisfying the criteria listed above. If the membership of foreign entities reaches 15% of

total membership, the CEO will confer with the CESMII Governance Board and with DOE (during the Cooperative Agreement project period) to determine if limitations on Foreign Entity participation should be invoked. In such a case no foreign entities above the 15% of total membership may be admitted to membership until a positive recommendation to do so is received from both the Governance Board and the DOE.

All project proposals, including those with foreign participation, must demonstrate that they comply with the U.S. Manufacturing Plan and that the result will be the creation of benefits aligned with CESMII's mission. Foreign participation will be examined more closely to assure well-structured IP management.

CESMII's intent is two-fold:

- To encourage Foreign Entities to establish, maintain, and resource U.S. based operations by enabling their access to Institute IP for those U.S. based operations. However, this access must be managed to assure that Institute IP is not used to benefit non-U.S. based operations of the Foreign Entity; and
- To enable access to foreign-sourced technologies, software applications, and best practices that would be beneficial to CESMII, U.S. industry, and U.S. economic development.

#### **4. IDENTIFICATION OF A FOREIGN ENTITY**

As a standard part of the membership application process, prospective members must certify the status of the entity's ownership by providing answers to the following four questions:

- a. Is the Parent Organization U.S. owned/controlled (yes/no)
- b. Is the Parent Organization Incorporated in the U.S. (and where) (yes/no)
- c. Primary place of business in the U.S. (yes/no)
- d. U.S. control/ownership (greater than 50% ownership and/or control from U.S. firms, institutions, or individuals) (yes/no)

If the answer to any of the questions above is "no", then the organization is considered a Foreign Entity. In addition, existing Members will be required to provide immediate notice of organizational changes that could impact its Foreign Entity status.

The CESMII process below will be used to verify information presented by prospective members in their application regarding the four questions above:

1. CESMII validates the information provided in the Questionnaire using the combination of the following:
  - a. Dun & Bradstreet (D&B) Hoover's<sup>1</sup>
  - b. Prospective member's website
  - c. Other public-domain web-based information on prospective member such as corporate annual/quarterly reports, financial disclosures, press releases, news articles, trade journal publications, etc.
2. Additionally, CESMII uses Dun & Bradstreet (D&B) Hoover's to assess their financial risk

## **5. EXPORT CONTROL**

Foreign entities shall not participate in or have access to any equipment, technology, software, data, or information that is controlled under the International Traffic in Arms Regulations or the Export Administration Regulations without authorization from the appropriate regulating agency.

## **6. PARTICIPATION INFORMATION – FOREIGN ENTITIES**

Foreign entities desiring to become CESMII Members must, at a minimum, provide the following information in a summary document:

- a. Relevant corporate structure
- b. The U.S. management team – personnel and experience
- c. Operational Structure – world-wide and U.S. (plants, products, revenues, key customers etc.)
- d. Relevant Smart Manufacturing (SM) technology applications in U.S. and the source of that SM technology
- e. Internal technology transfer mechanisms within their U.S. organizations, or provided to the U.S. organization by their parent organization
- f. U.S. based R&D operations
- g. Key U.S. based R&D providers
- h. The non-financial benefits to CESMII
- i. Anticipated benefits to the success of the CESMII mission and the broader membership and how the Foreign Entity can contribute to the CESMII expertise base
- j. The level of U.S. capability and resources now and/or planned in the future including employment, funding, investments in capital or human resources
- k. The technical resources available in the U.S. and the technical resources available outside the U.S. that could support CESMII’s mission; and
- l. Other relevant information as determined by CESMII

CESMII will use the information above to evaluate whether the Foreign Entity’s participation is in the best interest of CESMII, U.S. industry, and U.S. economic development. Section 7 below outlines CESMII’s review process.

## **7. MEMBERSHIP PARTICIPATION REVIEW PROCESS**

Once the Foreign Entity has submitted their participation summary information, CESMII will perform a restricted party screening of the potential member. If the potential member has been cleared, the CESMII internal review will be conducted.

- a. Foreign Entity participation summary information will be reviewed by the CESMII Chief Operating Officer (hereinafter “COO”) in consultation with the CESMII Chief Technical Officer (hereinafter “CTO”), and the relevant SM Innovation Centers (hereinafter “SMIC”s). Additional supporting documentation will be requested as appropriate based on this review.
- b. The COO will create a benefits analysis and risk assessment that identifies the potential opportunities for U.S. Manufacturing aligned with the CESMII metrics.
  1. The benefits analysis and risk assessment must define the conditions, requirements, and limits on the participant’s role as needed to assure that criteria listed in Section 7.b.2 are

- met. This requirement applies to all CESMII project activities – Roadmap Projects, Application Projects, and Innovation Projects. The risk assessment will evaluate the Foreign Entity’s participation with respect to Intellectual Property (IP) and data protection protocols, including the export control risk based on the data protection protocols. The risk assessment will also evaluate the technology being developed, the Foreign Entity and Foreign Entity Parent Organization location.
2. A Foreign Entity may be eligible to become a member, and subrecipient of Federal support with sufficient documentation that it meets CESMII criteria. To enable CESMII to evaluate a membership application from a Foreign Entity fully, a questionnaire, substantially in the format presented in Attachment A will be used. The specific format and substance of the questionnaire will be established by the COO and when modified, will be adopted, and then reflected in the version control table of this plan. To be eligible to be a member, the Foreign Entity must demonstrate to the satisfaction of CESMII and DOE that its participation as a member and/or a subrecipient adequately addresses the Criteria listed in Section 3.
  - c. CESMII Chief Executive Officer (hereinafter “CEO”) will review the response from the applicant and COO’s assessment for the potential benefits and alignment to the CESMII mission based on the responses to the questions listed in Section 6 and will provide a recommendation to approve or veto the acceptance of the Foreign Entity as a member.
  - d. The recommendation will be communicated to DOE along with the original entity response and any additional evaluation or notes. Prior to making a final admission determination, the CESMII CEO will provide DOE with a reasonable opportunity to review the applications for consistency with U.S. manufacturing objectives.
  - e. DOE will provide its recommendation to the CEO who will make the final determination. For the duration of the Cooperative Agreement, the CEO will require a positive recommendation from DOE to approve membership admission for foreign entities.
  - f. Additional language will be added to sub-agreements to protect IP, complete export control determinations, etc., as needed.
  - g. The CESMII COO, together with the Compliance Manager, will annually review the Foreign Entity status to ensure compliance with CESMII Foreign Entity Participation Plan, federal regulations, and the terms and conditions of the Cooperative Agreement. Restricted party screenings will be completed annually for all foreign entities.

**THE APPLICANT DOES NOT HAVE THE RIGHT TO APPEAL CESMII’S DECISION CONCERNING A PARTICIPATION REQUEST.**

**8. FOREIGN WORK WAIVER REQUEST**

In general, all work performed under this Cooperative Agreement must be performed in the United States. If it is critical that some portion of the work be performed outside the U.S., then CESMII has a Foreign Work Waiver Request process. In summary, the Member/Sub-Recipient must submit to CESMII COO in writing a Foreign Work Waiver Request that addresses the following criteria: (1) the rationale for performing the work outside the U.S.; (2) a description of the work proposed to be performed outside the U.S.; (3) a description of the anticipated benefits to be realized by the proposed work and the anticipated contributions to the US economy; (4) a description of the likelihood of Intellectual Property (IP) being created from the work and the

treatment of any such IP; (5) the total estimated cost (DOE and Recipient/Sub-Recipient cost share) proposed for the work to be performed; and (6) the countries in which the work is proposed to be performed. The Foreign Work Waiver Request must be submitted to CESMII's COO and first approved by CESMII's CEO, COO, and Program PI. Then the CESMII COO will submit the Foreign Work Waiver Request to the DOE Contracting Officer, Technology Manager, and Technical Project Officer for final review and approval. During this process, CESMII or DOE may request additional information for the Foreign Work Waiver Request.



**ATTACHMENT A**  
**Considerations To Address Whether A Foreign Entity’s Participation Is In The Best Interest Of Cesmii, U.S. Industry, And U.S. Economic Development**

**Table 1: U.S. Presence Considerations**

<b>Category</b>	<b>Description of the U.S. presence of the Foreign Owned/Controlled applicant</b>	<b>Presumption (recommend or deny)</b>	<b>Considerations that can overcome (reverse) presumption</b>	<b>Benefits to Institute</b>
<b>1</b>	Currently has U.S. manufacturing that will benefit from SM, and aligns with CESMII’s objectives	Recommend	<ul style="list-style-type: none"> <li>• Is applicant supporting a CESMII targeted industry</li> <li>• Strength of US operations vs. foreign operations</li> <li>• Applicant must show adequate IP controls to support CESMII requirements</li> </ul>	U.S. manufacturing of the target technology, potential expansion, contribution to U.S. economy, technical and supply chain benefit, contributes to sustainability
<b>2</b>	Technology Provider – has software that is of interest to at least 2 members and that is unique in the determination of Institute	Recommend	<ul style="list-style-type: none"> <li>• Differentiation of software</li> <li>• Can member needs be otherwise addressed</li> <li>• Applicant must show adequate IP controls to support CESMII requirements</li> </ul>	Technology import which addresses CESMII objectives – must be clearly defined.
<b>3</b>	Currently have non-manufacturing operations (R&D center, engineering offices, etc.) in U.S., strong technical capability in the field is of benefit to the U.S. membership and supply chain. (+if there is a commitment to locate manufacturing in the U.S.)	Deny	<ul style="list-style-type: none"> <li>• If the applicant has unique capabilities that supports CESMII objectives – the presumption can be overcome</li> <li>• Applicant must show how it will promote US Manufacturing</li> <li>• Applicant must show adequate IP controls to support CESMII requirements.</li> </ul>	Unique technical capabilities that can support CESMII objectives. Potential for manufacturing expansion into the U.S.
<b>4</b>	Minor U.S. presence	Deny	<ul style="list-style-type: none"> <li>• Must have a clear plan for growth in U.S. presence.</li> <li>• Unique capabilities</li> <li>• Supports proposed CESMII Project activities</li> <li>• Participation encourages growth in U.S. presence.</li> <li>• Applicant must show adequate IP controls to support CESMII requirements</li> </ul>	Benefit to Institute members based on technical offering, potential expansion, supply chain position, uniqueness and contribution to U.S. economy
<b>5</b>	No current U.S. presence with strong active commitment to locate manufacturing in U.S. and unique technical offering of benefit to the Institute Membership.	Deny	<ul style="list-style-type: none"> <li>• If the applicant has unique capabilities that supports CESMII objectives – the presumption can be overcome</li> <li>• Applicant must show how it will promote U.S. Manufacturing</li> <li>• Applicant must show adequate IP controls to support CESMII requirements.</li> </ul>	Technology import that supports CESMII objectives and members. Growth in US Manufacturing

In addition to U.S. presence, the factors listed in Table 2 will be considered favorable to the Institute.

**Table 2: Institute Benefit-Beneficial Factor Consideration**

<b>Potential Benefit</b>	<b>Beneficial Factor</b>
High	Applicant is a major user/provider or research contributor of one or more of the SM technology focus areas (e.g. advanced sensors and instrumentation, process monitoring, control and optimization; advanced hardware and software platforms; and real-time and predictive modeling and simulation technologies)
High	Applicant's position as a key entity in the supply chain associated with the SM technology focus areas
Medium	Applicant can contribute resources of value to CESMII (e.g.. specialized equipment, existing testbed(s), unique tools such as databases, software, etc.)
Medium	Unique expertise of applicant employees committed to participate in CESMII activities and on research, development and/or training projects
Medium	Applicant is the only available provider of a particular technology desirable to CESMII to advance the mission of the Institute
Medium	Applicant has implemented innovations in its current U.S. manufacturing operations and plans expansion of U.S. capabilities that help further the objectives of the Institute (e.g., supporting early stage applied R&D focusing on U.S. job creation, energy savings, and U.S. economic benefits)

**Exhibit A contains the current Questionnaire format used to evaluate potential Foreign Entity participants in the Institute.**

**EXHIBIT A**

**Foreign Entity Participation Plan Questionnaire**



## **Foreign Entity Participation Summary**

Companies considered foreign entities that wish to become members of CESMII must answer the following questions:

**Foreign Entity Company / Organization name (the "Applicant"):**

**Name of US entity and address:**

### **1. Your organization's relevant corporate structure.**

Please be sure to clearly show the US entity's reporting relationship to the foreign parent company(ies). Please also show any other foreign entities that report into the foreign parent company(ies). If there are multiple parent companies for the US entity, please also show % of ownership for each parent entity. Please explain ownership and countries of location.

**2. Your U.S. management team – personnel and experience.**

Please be as specific as possible in terms of names, roles, country of work residence, responsibilities, years of experience, LinkedIn profile links, etc.

**3. Reasons for joining the institute**

Please list your specific reasons for why your organization has decided to join CESMII. What do you expect to gain from your membership?

**4. Your organization's business overview – world-wide and U.S.**

Please include information such as locations and functions, products/services, annual revenues, key customers, number of employees per location, etc. (Focus on US operations and clients).

**5. List of Current Key U.S. Customers**

**6. List of key certifications and/or partners relevant for the US business**

Identify collaborations (if any) with any current CESMII member(s)

**7. Your organization's relevant Smart Manufacturing (SM) technology products/  
applications/services in U.S. and the source of that SM technology.**

Please describe how this is unique to your organization and cannot be easily sourced by CESMII from other US-owned companies

**8. Your organization's Internal technology transfer mechanisms within their U.S. organizations, or provided to the U.S. organization by their foreign parent organization**

Focus on how any technology that could be obtained from CESMII as part of the membership will be utilized to benefit US manufacturing and how it will be protected from transferred to any foreign parts of the company (if applicable).

**9. Describe U.S. based R&D operations**

Please be specific on when established, capabilities, number and types of R&D employees, etc.



**10. Describe any key U.S. based R&D providers**

**11. Your proposed non-financial benefits to CESMII**

Please describe how this is unique to your organization and cannot be easily obtained by CESMII from other US-owned companies

**12. Your anticipated benefits to the success of the CESMII mission and the broader membership and how the Foreign Entity can contribute to the CESMII expertise base.**  
Please also describe how this is unique to your organization and cannot be easily obtained by CESMII from other US-owned companies

**13. Your organization's level of U.S. capability and resources now and planned in the future including employment, funding, investments in capital or human resources.**

**14. The technical resources available in the U.S. and the technical resources available outside the U.S. that could support CESMII's mission.**

Please describe what project work (R&D, EWD, SM Platform demonstrations, etc.) could your organization do to support the mission of CESMII. Note: All CESMII work must be performed in the United States, however, CESMII may approve the performance of a portion of the work outside the United States under limited circumstances.

**15. Please describe your firm's IP and data transfer protection protocols between the U.S. subsidiary and its foreign parent company(ies).**

How will data and IP be kept within the US entity and kept from the foreign parts of the company?

It is important to show that there is an IP / data protection wall setup in a manner that keeps the CESMII work done with your US entity separate from your foreign parent company and other foreign entities. If such an IP / data protection wall does not exist in your organization today, assuming your organization is agreeable to doing this, please describe how you would establish such a IP / data wall, how it would work, how quickly this can be it be established, etc.?

**Can you acknowledge that the US Manufacturing plan has been read and understood?**

Note: The US Manufacturing plan is found in the CESMII bylaws and plans document that accompanies the membership agreement and membership application documents.

**Confirm:**

The Applicant hereby certifies that they understand that any CESMII work, under the award with the DOE, is to be conducted within the US. The Applicant has read, understands, and acknowledges all the guidelines and restrictions of CESMII's US Manufacturing Plan.

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Signature

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Title

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Print Name

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Date

Summary of applicant's information (reasons for why this foreign owned entity should be allowed membership with the institute)

\_\_\_\_\_ would be our \_\_\_\_\_ foreign entity participant. with the addition of \_\_\_\_\_, our total percentage of foreign entities in relation to our current membership count (\_\_\_\_\_) is now at \_\_\_\_%.

Approve	<input type="checkbox"/>	Deny	<input type="checkbox"/>	Require addition Information	<input type="checkbox"/>
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After a careful and thorough review of the foreign entity applicant's intellectual property and data protection protocols, CESMII hereby confirms the following:

- All the procedures in place meet the minimum viable requirements of the Department of Energy's adequate data protection policy;
- The Applicant does not propose a threat to CESMII based on our risk assessment;
- The Applicant's participation is in the best interest of CESMII, the U.S. industry, and U.S.' overall economic development; and
- There will be no access to Export Controlled information that requires specific controls.

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Howard Goldberg, COO

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John Dyck, CEO