

MEMORANDUM OF UNDERSTANDING
Between
The NASA Jet Propulsion Laboratory
and
The International Council on Systems Engineering

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is made this [Day] day of [Month], [Year], by and between the NASA Jet Propulsion Laboratory ("JPL"), with offices at 4800 Oak Grove Dr, Pasadena, CA 91109, and the International Council on Systems Engineering ("INCOSE"), with offices at 7670 Opportunity Road, Suite 220, San Diego, CA 92111, henceforth known as the "Parties." It sets forth the relationship and obligations for JPL, and INCOSE relating to mutual participation and collaboration. This MOU also refers to the Object Management Group ("OMG"), with offices at Needham, MA, with which INCOSE already has a related Memorandum of Understanding.

1. PURPOSE: This MOU describes the transition of an existing informal project collaboration between members of the Parties, to an updated collaboration structure. The Parties wish to develop and promote best practice processes and guidance, training, and supporting materials that can be used in projects and organizations in the field of Systems Engineering, particularly as advanced by the use of semantic technologies and information, such as model-based patterns and semantic reasoners. More specific historical and future objectives and intended outcomes are listed in Exhibit 1, which further describes the intended transition to a collaboration by the INCOSE MBSE Patterns Working Group with the same related activities, in which INCOSE will enhance the public availability of certain systems engineering assets as INCOSE Technical Products.

2. BACKGROUND:

INCOSE is a non-profit membership organization, dedicated to advancing interdisciplinary principles and practices that enable the realization of successful systems. The INCOSE MBSE Patterns Working Group is an entity already collaborating with the other two Parties on semantic technologies application of MBSE Patterns (<https://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns>). INCOSE Tech Ops is an entity already handling the publication of third party authored materials as INCOSE Technical Products. (<https://www.incose.org/about-incose/incose-organization-chart>)

The JPL Open CAESAR Project is a NASA project that includes developing and applying semantic technologies and information. This includes INCOSE and other public collaborations to enhance the related practices of systems engineering. (<https://www.slideshare.net/MagedElaasar/open-caesar-initiative>)

OMG is a computer industry standards consortium, part of an historical formal collaboration with INCOSE for the development of standards for the OMG SysML® Model-Based Systems Engineering (MBSE) language; SysML V2 is a current project that provides new options for the use of semantic technologies in systems engineering. (<http://www.omgsysml.org/SysML-2.htm>)

In addition to continuing the previously informal collaboration of the Parties, this MOU is to enhance the awareness and availability of certain systems engineering assets ("SP4SE Components") to INCOSE membership, and to thereby encourage the growth and success of that membership.

3. SCOPE AND OBJECTIVES: The Parties have personnel already collaborating as described in Exhibit 1, and that effort has identified opportunities and specific objectives on what each party is pursuing and how the collaborative efforts are related, shown in Exhibit 1.

All joint and collaborative opportunities and products will meet the necessary reviews of each of the Parties as prescribed by their respective policies. The embodiment of the cooperative relationship will comprise the specific recommendations in Addendum A, which will be kept up to date as the partnership and its objectives evolve.

4. OWNERSHIP: The Parties agree and acknowledge that any SP4SE Component which that is offered as an INCOSE Technical Product under this MOU will be subject to an INCOSE Author IP Release Form substantially

identical in content to Exhibit 2. This allows the author or author employer to retain an original submission copyright; confirms the non-exclusive release to INCOSE distribution of a derived work branded as an INCOSE Technical Product crediting the author and/or author employer as originator; provides for INCOSE to become the copyright owner of the derived INCOSE Technical Product through the use of a copyright agreement equivalent to the Creative Commons CC BY SA License; and provides that INCOSE will make such distribution to its members for their use without charge.

The Parties agree and acknowledge that the Parties are exclusive owners of all rights, title and interest throughout the world to the names of the Parties, including, and without being limited to, all rights in the trademarks, service marks, certification marks, and association marks.

During the term of this MOU, the Parties shall identify areas of mutual support of events; with a non-exclusive, non-transferable, royalty-free license to use the other party's Conference Marks in connection with any mutual advertising and marketing of these events. The parties shall comply with any branding and logo usage guidelines when producing publications and publicity material.

5. INTELLECTUAL PROPERTY: Each Party will honor and protect the intellectual property (IP) of the others. Each Party shall continue to own the intellectual property developed by it prior to or independently of this MOU.

6. INDEMNITY: The license of Exhibit 5 denies liability of the copyright owners arising out of use of the Technical Products, as well as any warranty such a fitness for use. Further, each Party shall indemnify and hold harmless the other Party (including its parents, subsidiaries, affiliates and its and their officers, agents and employees) from and against any and all claims, demands, liabilities, settlements, damages, costs, and expenses, including reasonable attorneys' fees and expenses, arising out of, or in any way connected with, any default, breach or negligent non-performance of this MOU or any negligent act or omission on the part of itself, its agents and employees arising out of this MOU. This provision shall also apply to any and all subcontractors employed by the indemnifying Party.

7. PROPRIETARY OR CONFIDENTIAL INFORMATION: During the term of this MOU, each Party may disclose to the other its Proprietary or Confidential Information. Proprietary or Confidential Information shall mean all information marked "Proprietary" or "Confidential" or under any similar legend indicating the nature of the information. Neither Party shall disclose to a third party Proprietary or Confidential Information of the other Party. Each Party further agrees to act as trustee for any Proprietary or Confidential Information jointly created or acquired through the Parties' participation in this MOU.

8. RELATIONSHIP MANAGEMENT AND ADMINISTRATIVE ROLES: Exhibit 2 illustrates that the primary administrative operational steps will be between submitting authors and the INCOSE Tech Ops organization, minimizing any administrative burden on the other Parties. For other than those aspects, the Parties will each name a representative who will act as a liaison between the organizations. The names and contact details of each representative shall be maintained at Addendum A.

9. GENERAL ADMINISTRATION, TERMS AND CONDITIONS:

Non-Binding: Except Sections 4, 5, 6, 7, and 9 of this MOU, which shall be binding, the Parties understand that nothing else herein shall be construed as a binding contract between the Parties. The Parties further understand that (i) the activities intended by this MOU may not be successfully completed; and/or (ii) the results achieved may not be as anticipated. Further, the Parties acknowledge and agree that this MOU is a non-exclusive engagement; nothing contained herein shall be construed as preventing or restricting either Party from pursuing any opportunity with other entities without involving the other Party or to enter into similar alliance arrangements with other entities.

Relationship of the Parties: This MOU shall not be construed to be an agency or a partnership or joint venture or an employment relationship whether for tax or for any other purpose. Neither Party shall be entitled to bind the other Party with any third party by its actions, unless it has specifically obtained the prior written consent of such other Party to do so. Each Party is an independent contractor, and no provision of this MOU grants either Party any express or implied right of authority to assume or create any obligations or responsibility on

behalf of or in the name of the other Party, or bind the other Party in any manner or thing whatsoever. This MOU is not a commitment of financial resources. Any commitment by a Party to pay fees or other amounts to the other Party must be approved in writing, by the paying Party in advance. Except as may be agreed by the Parties in an applicable Definitive Agreement(s), each Party will be responsible for all expenses incurred by such Party in connection with negotiation of this MOU and any promotion, marketing or other activities under this MOU. Each Party shall be liable to pay any tax attributable to it.

Compliance with Laws: Each Party warrants to the other Party that in performing their duties required under this MOU, they will comply with the applicable law and shall take no action which constitutes a violation of applicable law and which would subject the other Party to penalties under applicable law.

Governing Law and Jurisdiction: This MOU shall be governed by and construed and enforced in accordance with the laws of the United States of America and the State of California, without regard to conflict of laws principles.

Assignment: Neither Party may assign or transfer neither its interest in this MOU, nor any interest herein or claim hereunder without the express written consent of the other Party.

Complete agreement: This MOU constitutes the entire agreement among the Parties and supersedes all other prior MOUs of the Parties for the period to which it applies and may not be modified except in writing signed by the Parties.

Notices: Any notice given under this MOU to any of the Parties may be effected by: (i) email or, (ii) facsimile, receipt of which is confirmed by facsimile confirmation.

Counterparts: This MOU may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. If either Party uses a scanned or facsimile transmittal, that copy shall be deemed to be an original.

Financial Considerations: Each party agrees to bear its own cost of participation in this MOU. For financial considerations relating to a specific activity and/or event refer to the applicable addendum relating to the activity and/or event for such details.

Amendments: Amendments to this MOU may be made at any time subsequent to the initial effective date upon mutual consent of the Parties. Modifications to Addendum A that do not increase the total commitment of either party may be agreed between designated representatives without requiring re-authorization of this MOU.

Duration of MOU: This agreement shall remain in effect for a period of three (3) years, unless otherwise changed through mutual agreement of both Parties. Three months before the expiry of the MOU, the Parties shall meet to discuss renewal or changes of direction. At periods not exceeding each 12-month period from initial MOU signature, the Parties should meet to review progress towards agreed goals, plus any necessary revisions.

Termination: Either Party may dissolve this relationship after giving the other notice in writing 60 days in advance of cancellation date. Upon termination or non-renewal of this MOU, no Party may use, license, create derivative works, or exploit in any way the jointly owned works or intellectual property of the other Party without the written consent of the other Party. However, this does not include works that are owned by one of the Parties for which the other Party has contributed as part of a broader industry project team assembled solely for the purpose of creating or revising those works. Upon termination or non-renewal, each Party shall return any Proprietary or Confidential Information of the other Party in its possession.

No exclusivity: Nothing in this agreement shall prohibit either Party from establishing contracts, strategic alliances or MOUs with any other entity, organization or individual.

IN WITNESS WHEREOF, this MOU is executed by the Parties hereto by their respective undersigned and authorized officers as of the date first written above.

INCOSE _____ <i>Authorized Signature</i> Garry Roedler President The International Council on Systems Engineering, Inc Address for communications: 7670 Opportunity Rd, Suite 220 San Diego, CA, USA, 92111 <i><u>info@incose.org</u></i>	NASA Jet Propulsion Laboratory _____ <i>Authorized Signature</i> Name Title Organization Name Address for communications: Street Address City, State/Province Zip Code E-mail Address
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ADDENDUM A

Recommendations:

1. Implementation of a joint cross organizational activity through the INCOSE MBSE Patterns Working Group, INCOSE Tech Ops and OMG, collaborating with their related activities indicated in Exhibit 1.

Specific Areas of responsibility for INCOSE:

- INCOSE will take the lead on making INCOSE Technical Products available to its members
- INCOSE will promote the INCOSE SP4SE Technical Products to its members
- INCOSE will promote the benefits of INCOSE membership to potential members
- INCOSE will coordinate SP4SE Technical Products with its other MBSE Patterns Working Group activities

Specific Areas of responsibility for JPL:

- JPL will take the lead on connections of SP4SE Technical Products to its Open CAESAR Project
- JPL will promote SP4SE Technical Products at its JPL MBSE Symposia and related SE events
- JPL will contribute to SP4SE Technical Products where appropriate

Specific Areas of responsibility for OMG:

- OMG has already taken the lead on the technical specification of SysML mapping to OWL DL and related semantic technologies, under the existing separate INCOSE-OMG MOU.

Points of contact (designated representatives):

For INCOSE:

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For INCOSE:

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For NASA JPL:

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For OMG:

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Exhibits:

- **Exhibit 1: INCOSE Patterns Working Group Project Charter**
- **Exhibit 2: Flowchart--Project Administrative Flow**
- **Exhibit 3: INCOSE Author IP Agreement for SP4SE Technical Products**
- **Exhibit 4: INCOSE Technical Product Plan (TPP) for SP4SE Technical Products**
- **Exhibit 5: Creative Commons CC BY-4.0 License**