

## The IEEE AI Impact Use Cases Initiative Industry Connections Activity Initiation Document (ICAID)

Version: 1.0, 9 November 2021

IC21-012-01 Approved by the IESS SMDC 13 December 2021

### Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- **Shaded Text** indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE SA) Industry Connections Committee (ICCom) Administrator at the following address: [industryconnections@ieee.org](mailto:industryconnections@ieee.org).
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

### 1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

**Name:** [Meeri Haataja](#)

**Email Address:** [meeri@saidot.ai](mailto:meeri@saidot.ai)

**Employer:** Saidot

**Affiliation:**

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

### 2. Participation and Voting Model

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Specify: "Entity-Based" or "Individual-Based".

#### Individual-Based

### 3. Purpose

#### 3.1 Motivation and Goal

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

Recently the European Commission (EC) proposed its regulation on AI systems outlining a risk-based approach to governing innovation and application of AI systems. The proposed regulation suggests categorizing AI systems into categories based on the associated risks to health, safety and fundamental rights of people. The proposed

regulation suggests AI systems to be allocated to one of the risk categories: unacceptable risk, high risk, minimal or no risk. In addition, the draft regulation Annex II-III outlines a list of domains of AI use cases that would be considered high-risk and thus subject to requirements outlined in the regulation.

While the proposed regulation is widely considered as a key step in the right direction, there are a number of open questions when it comes to applying the regulation and understanding what could be considered high-risk under the regulation. This has also been a particular focus of a lot of industry consultation feedback received by the European Commission.

One of the best mechanisms to help support the rollout of the European Union (EU) and other AI regulations is to offer concrete use cases in an easily accessible and contextual manner with the goal of providing a central repository of real-world use cases that can aid to better inform and improve policy and technological outcomes. The value of this work is that it also aims to close a real gap between policy considerations and risk-based expectations and outcomes. The repository can offer an opportunity to close the gaps and therefore, provide a level of clarity that can enable trustworthy AI innovations and implementations.

The IC activity will identify, aggregate, and classify AI use cases across key sectors, with an initial focus on highest categories of risk as defined by the proposed AI Act. We aim to conduct an open call for use cases submissions; vet and assess associated risk tiers utilizing the EC's definition, expertise of IC18-004 ECPAIS IC members as well as of this initiative's expert volunteers; curate use cases with proper abstract and detailed implications; and where possible, invite submitters to share approaches to detailing the potential positive and negative impacts, and to mitigating the risks and potential harms. We intend to conduct an open content review period to elicit feedback from external entities and experts. As this information is contextualized and standardized in form, the output of this work would be a searchable database that can be utilized by developers, deployers and policymakers. In addition, a creative commons based report would be provided to complement the work and to release key learnings and how the work may be further built upon. At the conclusion of the work, we anticipate hosting a webinar on the identified use cases; and with partner entities to conduct workshops related to the findings and topic.

### **3.2 Related Work**

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

Describe the related work:

- [Feasibility study on a legal framework on AI design, development and application based on Council of Europe's standards adopted by the CAHAI on 17 December 2020](#)
- [White Paper on Artificial Intelligence: Public consultation towards a European approach for excellence and trust \(European Commission\)](#)
- European Commission's Proposal for a regulation of the European Parliament and of the Council laying down harmonized rules on Artificial Intelligence (Artificial Intelligence Act) on 21 April 2021
- [OECD's Framework for the Classification of AI Systems](#)
- [Consultation answers to the European Commission's proposal for the AI Act](#)

### **3.3 Previously Published Material**

Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

If publicly available, The Brookings Institute is publishing a report on AI Risk that could be utilized for this work.

### **3.4 Potential Markets Served**

Indicate the main beneficiaries of this work, and what the potential impact might be.

Markets / audiences include:

- Policy makers: From the EU, the US, UK and additional global regions
- Corporations: In these same regions, regulation around AI Risk will deeply influence the production and implementation of AI Systems products and services, along with how data is handled overall.
- Public authorities: Providers and users of AI in public sector
- Supervising authorities in EU member states
- AI startups and SME's: AI startups seeking to set their products in the EU market

### **3.5 How will the activity benefit the IEEE, society, or humanity?**

It is only by defining “risk” in regards to AI Systems (AIS) that IEEE (or the engineers, data scientists and technologists creating AIS) that human agency and safety will be protected and prioritized. Working with policy makers, where elements of “risk” such as transparency, accountability, explainability or similar issues are universally defined and honored, then end users of AIS and the data representing their identities will be honored.

Beyond this, the development of such a repository benefits the stakeholders involved by providing a place where they can learn and understand about practical and curated risk-based AI systems profiles, standardize and earn certification through ECPAIS to support their market aims. Thus, we expect increased visibility and direct engagement with the database; and potential positive ripple effects for IEEE as well.

## **4. Estimated Timeframe**

Indicate approximately how long you expect this activity to operate to achieve its proposed results (e.g., time to completion of all deliverables).

**Expected Completion Date:** 12/2023

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCOM and the responsible committee of the IEEE SA Board of Governors. Should an extension be required, please notify the ICCOM Administrator prior to the two-year mark.

## **5. Proposed Deliverables**

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

- A searchable repository for risk-based AI Use Cases and website that could complement the draft EU regulation on AI Systems and also build upon the ECPAIS (Ethics Certification Program for Autonomous and Intelligent Systems) efforts to date
- A recommendation for maintaining the above repository
- A taxonomy for reporting AI use cases and their impacts (positive and negative impacts)
- **A White Paper(s)**: This will discuss a spectrum of high-risk use cases representing all key standalone high-risk use case domains as defined by the proposed AI Act. Each use case will be discussed by

adapting the appropriate parts of the content and information structure suggested for the EU Database for standalone high risk use cases in the AI Act.

- **A set of AIS Risk Principles:** This set of Principles will be written as a predecessor to a Recommended Practice or full Standard PAR.
- Recommendations for IEEE Standards focused on AIS Risk and stratification of high, mid, low risk evaluations of AI Systems in a best practice manner
- Either through IEEE or with partner entities, running a series of webinars / live events supporting this work to be timed as stepping stones / member recruitment and marketing / communications tools to support the overall work.

### **5.1 Open Source Software Development**

*Indicate whether this IC Activity will develop or incorporate open source software in the deliverables. All contributions of open source software for use in Industry Connections activities shall be accompanied by an approved IEEE Contributor License Agreement (CLA) appropriate for the open source license under which the Work Product will be made available. CLAs, once accepted, are irrevocable. Industry Connections Activities shall comply with the IEEE SA open source policies and procedures and use the IEEE SA open source platform for development of open source software. Information on IEEE SA Open can be found at <https://saopen.ieee.org/>.*

Will the activity develop or incorporate open source software (either normatively or informatively) in the deliverables?: No

### **6. Funding Requirements**

*Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICCOM.*

There are no funding requirements at this time.

### **7. Management and Procedures**

#### **7.1 Activity Oversight Committee**

*Indicate whether an IEEE Standards Committee or Standards Development Working Group has agreed to oversee this activity and its procedures.*

Has an IEEE Standards Committee or Standards Development Working Group agreed to oversee this activity?: No

*If yes, indicate the IEEE committee's name and its chair's contact information.*

**IEEE Committee Name:** Committee Name

**Chair's Name:** Full Name

**Chair's Email Address:** who@where

Additional IEEE committee information, if any. Please indicate if you are including a letter of support from the IEEE Committee that will oversee this activity.

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

### **7.2 Activity Management**

If no Activity Oversight Committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

The Activity will be managed by the chair and other members of the executive committee as defined in the baseline IC Activity Policies and Procedures.

### **7.3 Procedures**

Indicate what documented procedures will be used to guide the operations of this activity; either (a) modified baseline *Industry Connections Activity Policies and Procedures*, (b) Standards Committee policies and procedures accepted by the IEEE SA Standards Board, or (c) Working Group policies and procedures accepted by the Working Group's Standards Committee. If option (a) is chosen, then ICCom review and approval of the P&P is required. If option (b) or (c) is chosen, then ICCom approval of the use of the P&P is required.

Modified baseline IC Activity Policies and Procedures.

## **8. Participants**

### **8.1 Stakeholder Communities**

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

- Members of the IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems
- Members of the IEEE P2863 Working Group focused on AI Governance
- Members of IEEE USA's committee on AI / AI Ethics
- Members of the EPPC committee on AI / AI Ethics
- Members of the IEEE AI Cities IC Program
- Members of the IEEE AI Defense IC Program
- Members of the IEEE AI BioSec IC Program
- Members of the IEEE ECPAIS Program
- Think and do tanks
- European entities implementing AI Systems
- Entities selling systems into European markets

### **8.2 Expected Number of Participants**

Indicate the approximate number of entities (if entity-based) or individuals (if individual-based) expected to be actively involved in this activity.

35-40.

Initially we anticipate 8 - 10 participants. Once the program is in motion, we anticipate the number to grow.

**8.3 Initial Participants**

Provide a number of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an individual-based activity:

Individual	Employer	Affiliation
Xin Chen	Huawei	
Sjoerd Kampen	Deloitte	
Meeri Haataja	Saidot	
Nikolina Grgic	PlattformIndustrie	
Andre Uhl	Self	
Sigmund Kluckner	Kluckner	
Joshua Meltzer	Brooking Institute	
Anand Rao	PWC	

**8.4 Activity Supporter/Partner**

Indicate whether an IEEE committee (including IEEE Societies and Technical Councils) has agreed to participate or support this activity. Support may include, but is not limited to, financial support, marketing support and other ways to help the Activity complete its deliverables.

Has an IEEE Committee agreed to support this activity?: No

If yes, indicate the IEEE committee’s name and its chair’s contact information.

IEEE Committee Name: Committee Name (Suggest SSIT or Computer Society)

Chair’s Name: Full Name

Chair’s Email Address: who@where

Please indicate if you are including a letter of support from the IEEE Committee.