

**Data Trading System Initiative**  
**Industry Connections Activity Initiation Document (ICAID)**  
**Version: 1, 28 May 2019**

IC19-006-01 Approved by the IEEE-SASB 11 June 2019

### 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:** Hiroshi Mano

**Email Address:** h.mano@data-trading.org

**Employer:** EverySense, Inc.

**Affiliation:** DataTrading Alliance

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Sponsors 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: 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.

Describe the motivation and goal.

The next large-scale transformation, leading to a human-centric society based on a system that highly integrates cyberspace and physical space has been termed Society 5.0 in Japan. Data sharing, augmented by algorithmic decision making/artificial intelligence and information technology, is a foundational building block to realizing this vision.

A data-intensive sharing model, in which data is gathered by particular entities and provided to other parties, has to address many issues such as privacy protection and avoidance of undesirable business practices. In addition, data generation, which is growing rapidly through the spread of IoT devices, makes the need for efficient sharing more critical.

Therefore, this activity proposes that the sharing of data should shift from a centralized system to an autonomous distributed sharing model. In this autonomous distributed sharing model, it is assumed that multiple different entities supply and receive data equitably from each other.

To realize the benefits of data sharing, data flow from the data provider to the data receiver and compensation flow in the opposite direction shall occur, and that is defined as "Data Trading". Multiple entities can trade data directly or through a mediator in the "Data Trading" environment. To enable this environment, some standards will be required to maintain trusted data trading.

In this activity, we propose drafting the PAR that will serve as the basis to form a new standards working group for a general standard for data trading scheme that is not dependent on the particular data type and protocol, and we expect to create related, more specific, standards proposals under that WG.

#### **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.).

Data Trading Alliance (DTA) in Japan is developing related activities. This ICAID will help globalize this work.

IEEE Big Data Governance Metadata Management IC

#### **3.3. Previously Published Material**

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

List the previously published material, if any.

none

### **3.4. Potential Markets Served**

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

Describe the potential markets.

Data trading can be applied to any type of data in commercial or consumer services.

Most of the existing standards related to big data management have narrow target scopes, either by industry or consumer sector.

However, a combination of wide variety data will drive the creation of innovative use cases. Therefore, the potential market for data trading is vast.

DTA (Data Trading Alliance), which was established in late 2017 in Japan got a huge number of members which include several government sectors and large industries.

In addition, the Japanese prime minister advocated the concept of DFDT in the WEF (World Economic Forum), are able to be discussed as a major topic in this year's G20.

Thus, the concept of data trading is expected to be commonly used in both industry and consumer sectors.

DTA recognizes the benefit of having global standards relating to data trading and is engaging with IEEE to globalize this work.

### 3.5 How will the activity benefit the IEEE?

The result of the ICAID will be standards proposals, and they will position IEEE as a leader in data trading ecosystem, and augment IEEE's data-related portfolio. This may increase membership of IEEE and open new business opportunities for standardization.

## **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:** 06/2020

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCOM and the IEEE-SA Standards Board. 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.

Specify the deliverables for this IC activity, please be specific.

PAR(s) as foundation to form DTSI (Data Trading System Initiative) Working Group

## **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 ICom.

Specify funding requirements and sources, if any.

This Activity will largely operate using the standard support and tools provided by IEEE SA to Industry Connections activities. This ICAID will be self-funded.

This Industry Connections Initiative will be self-funded, with IEEE-SA administrative support. Where additional funds may be needed for identified work products, it will also seek support by outside contributions from other partners in the Initiative.

## **7. Management and Procedures**

### **7.1. IEEE Sponsoring Committee**

Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has agreed to oversee this activity and its procedures.

**Has an IEEE sponsoring committee agreed to oversee this activity?:** Yes/No  
No

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

**Sponsoring Committee Name:** Committee Name

**Chair's Name:** Full Name

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

Additional sponsoring committee information, if any.

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### **7.2. Activity Management**

If no IEEE sponsoring 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).

Briefly outline activity management structure.

The activity will recruit interested stakeholders and will then have regular meetings, likely every other week in the beginning, to advance the goal of developing a PAR. The chair and vice chair will lead the work, with the standard administrative support provided by IEEE-SA.

### 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) Sponsor policies and procedures accepted by the IEEE-SA Standards Board, or (c) Working Group policies and procedures accepted by the Working Group's Sponsor. If option (a) is chosen, then ICom review and approval of the P&P is required. If option (b) or (c) is chosen, then ICom approval of the use of the P&P is required.

Specify the policies and procedures document to be used. Attach a copy of chosen policies and procedures.

(a), modified baseline P&P.

## 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.

Specify types of entities or groups of individuals.

Stakeholders who produce or use data, including private and public sector, academia, etc.

### 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.

Number of entities or number of individuals.

15-20

### 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 entity-based activity:

Entity	Primary Contact	Additional Representatives
Entity Name	Contact Name	Name

Use the following table for an individual-based activity:

Individual		Employer	Affiliation
Mano	Hiroshi	EverySense, Inc.	EverySense, Inc.
Yamada	Isamu	DataTrading Alliane	DataTrading Alliane
Yamahira	Tetsuya	Uniadex Ltd.	Uniadex Ltd.
Sugiyama	Kouji	Uhuru Corporation	Uhuru Corporation
Takebayashi	Hajime	Omron Corporation	Omron Corporation
Wakameda	Mitsuo	The Japan Research Institute, Limited	The Japan Research Institute, Limited

