

## Open Data

### Industry Connections Activity Initiation Document (ICAID)

Version: 3.0, 04 May 2020

IC16-001-03 Approved by the IEEE SASB 4 June 2020

#### 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: Wesley Diphoko

Email Address: [wesley@theinfonomist.com](mailto:wesley@theinfonomist.com)

Employer: Fast Company (South Africa)

Affiliation: **The Infonomist Institute**

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).

**Entity-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.

Data generated by governments (and the private sector) has clear value when viewed from the point of view of its impact. There is broad agreement that geospatial data, health data and transport data is critical for planning and decision making. There is also agreement about the value of data from an economic standpoint. There's however no common understanding about the economic value of open data. This is even more the case across regions. One part of the world may have a particular view of Open Data's economic value whilst the other may value it differently.

If society is to derive economic value from Open Data, there is a need to have a common way to determine and express economic value of Open Data. Establishing a way for Open Data to feature on financial statements of governments would likely increase progress in adopting Open Data as a key component in generating value and harnessing that value from governments, very significant originators of Open Data.

The IEEE Open Data initiative seeks to bring together various players including governments, businesses, academic institutions to develop a common way of determining and expressing economic value of Open Data. The community is established in South Africa and is initially looking at the regional context, and ideally would like to scale it to the global context if possible.

#### *What is Open Data?*

- Open Data is data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike.
- Availability and Access: Open Data must be available as a whole and at no more than a reasonable reproduction cost, preferably by downloading over the internet. The data must also be available in a convenient and modifiable form.
- Re-use and Redistribution: the data must be provided under terms that permit re-use and redistribution including the intermixing with other datasets.
- Universal Participation: everyone must be able to use, re-use and redistribute - there should be no discrimination against fields of endeavour or against persons or groups. For example, 'non-commercial' restrictions that would prevent 'commercial' use, or restrictions of use for certain purposes (e.g. only in education), are not allowed
- Not all data should be "open": the focus is on non-personal data (i.e., data which does not contain information about specific individuals) and data not subject to national security restrictions.
- More than text: Open data may include non-textual material such as [maps](#), [genomes](#) [chemical compounds](#), mathematical and scientific formulae, and

medical data. Problems often arise because these are commercially valuable or can be aggregated into works of value and cost money to produce.

Please see references [1], [2] and [3] for a more thorough description of 'Open'. Getting the right definition of Open is a key activity in this preparatory phase. The convention for both public and private organizations is that any access to all data is controlled. Control may be through access restrictions, licenses, copyright, patents and charges are levied for access or re-use. Conversely, some advocates of Open Data may argue that any restrictions are against the communal good and that these data should be made available without restriction or fee.

In this proposal we do not confine ourselves to only public institutions - private institutions are frequently required (and are well-served) through the regular reporting of material data, such as shareholders updates, and so on. The implications for organisations making data open will create significant business opportunities and make institutions more accountable.

#### *Goals:*

The goals of this proposal are:

##### Goal 1: Open Data Economic Value (2020)

- Determining the value of a dataset
- Tracing economic value chain in the development of an Open dataset
- Measuring the economic cost of developing open data
- Publishing financial cost of developing and managing open data

##### Goal 2: Open Data Economic index (2020-2021)

- Developing a common reference point for economic contributors to open data
- Developing a public outline of the economic value of open data
- Present Open Data Economic value across governments

##### Goal 3: Framework for Open Data Economic Value

- Develop framework and proposal for a common standard for measuring Open Data
- Publish the open data economic value framework in Africa and promote application and feedback; feedback from global stakeholders would be welcome.

##### Goal 4. Open Data Economic Value Standard Proposal

- Develop paper on Open Data economic value framework
- Develop proposal to standardize the framework for Open Data economic value

### 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.).

There is a considerable amount of attention given to the value of data and information by Gartner through work conducted by Doug Laney (former Gartner Researcher). [5].

### 3.3 Previously Published Material

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

Work conducted by Doug Laney to highlight the importance of measuring information is published in his book titled: *“Infonomics: How to monetize, manage, and measure information as asset for competitive advantage.”*

### 3.4 Potential Markets Served

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

The beneficiaries of a framework for Open Data economic value (and eventual standard) will be:

1. governments who can monetize their development of open data
2. entrepreneurs who will be able to access more quality data based on the appreciation of its value
3. local governments who will now get a better understanding of the value of open data and therefore treat as a critical element of local governments.

The above list of benefits is not exhaustive. The benefits of a universal Open Data economic standard are significant and profound. We would intent as part of this activity is to clarify benefits in different markets.

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

Open Data is a concept with vast potential for implementations that enable entrepreneurship, value creation, institutional transparency, leading to broad societal benefits. This work will be part of IEEE SA’s growing portfolio of work related to data, including P2896 Standard for Open Data: Open Data Ontology, which has been submitted for the June 2020 NesCom/SASB meetings.

## 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: 05/2022

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICom and the IEEE-SA Standards Board. Should an extension be required, please notify the ICom 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.

The following deliverables are proposed:

- a. Framework for an Open Data Economic standard which can guide government in measuring the value of their open data, which will be submitted as a standards proposal for formal standardization
- b. An Open data economic index which can provide latest information on the value of open data.
- c. A proposal to include open data economic value in financial statements of public sector entities

### 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.*

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 ICom.

Initially the activity would consist of volunteer organisations and individuals giving of their time and resources to establish a common understanding and shared objectives. The basic Industry Connections support provided by IEEE-SA is viewed as sufficient to accomplish the initial developmental goals of the group.

Thereafter, any deliverables benefitting from funding support (e.g. forum on Open Data and any other identified) would be subject to developing a plan and gaining acceptance

based on equal support from businesses, government and the IEEE. Some of this support will be in-kind, rather than financial.

## 7. Management and Procedures

### 7.1 Activity Oversight Committee

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

Has an IEEE committee agreed to oversee this activity?: No

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

SIEEE 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 an Executive Committee as defined in the baseline *Industry Connections 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.

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

There are many organizations looking at data and open from one or another point of view. For example:

- Open Knowledge Foundation
- Johannesburg Stock Exchange
- University of Cape Town
- University of the Western Cape
- South African Reserve Bank

**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.

We would start with 3-7 entities and grow the participating members to 15 or more including participating entities from other open data initiatives outside South Africa.

**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
Johannesburg Stock Exchange	Awaiting response	
South African Reserve Bank	Awaiting response	
City of Cape Town	Neil.Hoorn	
University of Cape Town	Majaha	

References

[1] Definition of Open <http://opendefinition.org/od/2.1/en/> and the normative reference: [https://en.wikipedia.org/wiki/Open\\_data](https://en.wikipedia.org/wiki/Open_data)

- [2] *Draft Open Data Policy*: <https://drafts.dc.gov/docs/draft-open-data-policy>
- [3] *Open data Handbook* <http://opendatahandbook.org/guide/en/what-is-open-data/>
- [4] *Out of the box*, The Economist, 21 November 2015, page 55
- [5] <http://www.theworldin.com/article/10648?fsrc=scn/tw/te/bl/ed/thewiderworldweb>
- [6] [http://www.capetown.gov.za/en/PublicParticipation/Documents/HYS\\_Open\\_Data\\_Draft\\_Policy\\_version\\_21\\_February\\_%202014.pdf](http://www.capetown.gov.za/en/PublicParticipation/Documents/HYS_Open_Data_Draft_Policy_version_21_February_%202014.pdf)
- [7] <http://www.opengovpartnership.org/blog/dumisani-nkwamba/2014/08/08/south-africa-co-chair-global-open-government-partnership>
- [8] *City portals incubate innovation*, Stephen Timm, Business Day, 7 Dec 2015, <http://www.bdlive.co.za/business/innovation/2015/12/07/city-portals-incubate-innovation>
- [9] *Global Open Data Index*: <http://index.okfn.org/place/south-africa/>
- [10] What is the economic value of data: <https://medium.com/mydex/what-is-the-economic-value-of-data-ef129e6485e>
- [10] The economic value of data: discussion paper: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/731349/20180730\\_HMT\\_Discussion\\_Paper\\_-\\_The\\_Economic\\_Value\\_of\\_Data.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/731349/20180730_HMT_Discussion_Paper_-_The_Economic_Value_of_Data.pdf)