



## BIG DATA EUROPE

Support Action

# Big Data Europe – Empowering Communities with Data Technologies

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## Deliverable 2.10 Report on Community Building Activities II

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**Abstract:** This Report summarizes the Community Building Activities undertaken during the second year of the project. Furthermore a categorization of all related activities is provided in two sections, i.e. BDE Community Management and Community Building Tools & Initiatives, respectively.

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# Executive Summary

In this deliverable we outline the Community Building efforts, corresponding to the second year of the project, continuing the strategy outlined in Deliverable 2.1: Community Building, Coordination and Planning and the first year efforts reported in Deliverable 2.3: Report on Community Building Activities I. The activities carried out in 2016 are categorized under two sections, each of which provides information and statistics that give an indication of the extending network and communities for each of the seven societal challenge domains.



## Abbreviations and Acronyms

<b>SC</b>	Societal Challenge
<b>EC</b>	European Commission
<b>RE</b>	Requirement Elicitation
<b>RS</b>	Requirement Specification
<b>WP</b>	Work Package
<b>BDE</b>	Big Data Europe
<b>BDI</b>	Big Data Integrator



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# 1. Introduction

In the second year of the project, the BDE WP2 working group focused on extending the seven societal communities established in the first year. These activities continue to be led by the respective societal challenge domain representatives, as shown in Table 1 below. These partners continue to act as key umbrella organizations in their respective domain. Aside from organizing workshops, conferences and other events they are also the contact point for engaging stakeholders in project activities, which in 2016 could be classified as follows:

- Networking at events, identifying stakeholders and inviting them to become BDE stakeholders.
- Maintaining stakeholder interest through regular publishing of relevant activities and material through the dedicated Societal sections<sup>1</sup> in the website.
- Promotion of yearly workshops and networking with participants.
- Promotion of monthly hangouts (domain-oriented, informational).
- Promotion of technical (SC-independent) webinars.
- Showcasing pilot progress for the seven pilots, obtaining feedback for their improvement, and promoting external adoption by interested stakeholders as additional applications of the BDI platform.

Specific information about these activities is included in the rest of this deliverable.

**Table 1: Technical and domain leads for each of the seven societal challenge areas (Month 12)**

Societal Challenge	Chairs (Technical, Domain)
<b>Healthcare</b>	<i>Leading partner: Open PHACTS</i>
Technical	Victor de Boer (VU)
Domain	Bryn Williams-Jones & Kiera McNeice (Open PHACTS)
<b>Food &amp; Agriculture</b>	<i>Leading partner: FAO</i>
Technical	Timea Turdean (SWC) & Nikos Manouselis (Agro-Know)
Domain	Valeria Pesce (FAO/GFAR) & Panagiotis Zervas (Agroknow)
<b>Energy</b>	<i>Leading partner: CRES and NCSR-D</i>
Technical	John Vlachos (CRES)

<sup>1</sup> <https://www.big-data-europe.eu/sc-networks/>



Domain	Fragiskos Mouzakis & Andreas Androutopoulos & Stathis Tselepis (CRES)
<b>Intelligent Transport</b>	<i>Leading partner: Fraunhofer , entity to be subcontracted</i>
Technical	Luigi Selmi (Fraunhofer) & Josep Maria Salanova (CERTH)
Domain	Maxime Flament & Andrea Toth (ERTICO)
<b>Climate &amp; Environment</b>	<i>Leading partner: NCSR-D</i>
Technical	Iraklis Klampanos (NCSR-D)
Domain	Spyros Andronopoulos (NCSR-D)
<b>Inclusive &amp; Reflective Societies</b>	<i>Leading partner: CESSDA</i>
Technical	Martin Kaltenböck (SWC) & Simon Scerri (Fraunhofer)
Domain	Ivana Ilijasic Versic & Jean-Baptiste Milon (CESSDA)
<b>Secure Societies</b>	<i>Leading partner: EU SatCen</i>
Technical	Manolis Koubarakis & George Papadakis (UoA)
Domain	Sergio Albani & Michele Lazzarini (EU SatCen)

Table 1: Technical and domain leads for each of the seven societal challenge areas (Month 12)

## 2 BDE Community Management

### 2.1 Stakeholder Community Management

The primary dissemination and community activities continue being coordinated over the stakeholder mailing lists established by the consortium members covering the 7 SC domains. These lists are regularly extended (see next subsection) and updated. Aside from adding/removing stakeholders as per request, the management also ensures that the information about the community members remains secure and internal. Stakeholders who under an increase their engagement level with the project, by interacting with the technical or pilot efforts, participating in community activities, providing feedback or otherwise engaging with the project team’s efforts, are appropriately marked with a higher engagement level as defined in Deliverable 2.1 (Community Building, Coordination and Planning).



Due to minimal activity, the 7 original W3C Community Groups proposed have been discontinued in the second year. However, a W3C dedicated to the project still remains<sup>2</sup>; serving as a contact point for community members needing to solve technical issues related to the BDE technical contributions, including the platform. However, most of the project’s SC-specific communications are channeled via the 7 SC pages on the project’s website.

## 2.2 Stakeholder Community Building Progress

In the second year of the project the stakeholder identification exercise continued, again based on the four-step guidelines presented in Deliverable 2.1 (Community Building, Coordination and Planning): Initial Identification, Analysis, Mapping and Prioritisation. Below, we give an update of the societal communities, their size and their engagement level. For convenience, we reproduce the engagement level classification (based on the multi-level engagement categories defined in D2.1, Section 4.2) below:

- **Observers** (Stakeholders with a general, non-committal but confirmed interest in the project’s contributions)
- **Followers** (Stakeholders that subscribe to notifications, activities and publications by the consortium)
- **Endorsers** (Stakeholders that forward project contributions, notifications, activities and publications amongst their extended networks)
- **Contributors** (Stakeholders that attend project activities, contribute to discussions, problem identification, requirements elicitation)
- **Owners** (Stakeholders that are involved in the projects activities, including participating in pilots, prototype trials and who provide continuous feedback)
- **Leaders** (*Only BDE Reps are the leaders for their SC, so this does not apply to stakeholders*)

The table below summarizes the amount of stakeholders contacted (and the total count initially targeted in D2.1). The total at M24 stands at 1633 (81% of the targeted 2020) up from 1021 (51%) at the end of M12.

**Table 2: Stakeholder Community Size (Month 24) and Engagement Level**

Societal Challenge	HEALTH	FOOD	ENERGY	TRANSPORT	CLIMATE	SOCIETIES	SECURITY	MISC.
Total Stakeholders:	155	141	147	237	146	108	121	20
M12	151	197	204	335	221	167	167	
M24 (Target M36)	(360)	(290)	(270)	(345)	(275)	(235)	(245)	
Progress (w.r.t Target)	44%	68%	76%	97%	80%	72%	68%	-

<sup>2</sup> <https://www.w3.org/community/bde/>





Stakeholders with a lower level of engagement *	149	162	176	--	180	120	120	14
Stakeholders with a higher level of engagement **	2	35	28	--	41	47	47	6

Table 2: Stakeholder Community Size (Month 24) and Engagement Level

\* A lower-level of engagement refers to Observers and Followers

\*\* A higher-level of engagement refers to Endorsers, Contributors and Owners

## 3 Community Building Tools & Initiatives

### 3.1 Networking efforts at 2016 BDE Workshops

A major driver of the community building activities in 2016 was once again based on networking in the 7 yearly workshops. In this second series of workshops, existing contacts were strengthened and new ones were sought to contribute to the discussions. The success of the interactive sessions in the first series was repeated; with sessions dedicated to contemporary issues in each SC domain as well as generic challenges faced by those communities. The engagement level of workshop attendees was promoted to contributors (level 4), and repeat attendees and stakeholders who provided repeated feedback on pilot use-case progress were promoted to owners (level 5).

More information about the Workshops, including the interactive sessions held, has been provided in Deliverables 2.6 (Report on Interest Groups Workshops III) and 2.7 (Report on Interest Groups Workshops IV).

### 3.2 Engagement through Online Hangouts

In 2016, Work Package 2 members organized a total of 11 Hangouts. These were promoted through the seven SC communities by means of invitations to the stakeholder lists, as well as via the newsletter and the SC pages on the project Website. The hangouts were once again based on the blueprint provided in Deliverable 2.1 (Community Building, Coordination and Planning), with some modifications to allow sufficient time to introduce the pilots and provide updates on their progress. As in the first year, attendees were given the opportunity to engage with the organizers, provide feedback, raise concerns and ask questions.



A good portion of the hangouts have been recorded and are publicly available online, thus extending and multiplying their value beyond the actual event. Information about the individual hangouts (including links to their reports) is provided in the table below.

**Table 3: SC Hangouts organized in 2016**

<b>SC</b>	<b>Title</b>	<b>More information</b>	<b>Participants</b>
SC1.H3	The Open PHACTS pilot	<a href="#">Event Description</a> <a href="#">Report</a>	-
SC2.H3	AIMS: Perspective on Big Data in the CGIAR	No Description available <a href="#">Report</a>	-
SC3.H2	BDE in Energy domain – Data acquisition for System monitoring	<a href="#">Event Description</a> Report not available	13
SC4.H3	Behind the scenes of the BigDataEurope Transport Pilot	<a href="#">Event Description</a> <a href="#">Report</a>	45
SC4.H4	Big Data and Transport, where can it take us?	<a href="#">Event Description</a> <a href="#">Report</a>	30
SC5.H2	Description and Evaluation of 1st Climate Pilot Use Case	<a href="#">Event Description</a> <a href="#">Report</a>	12
SC5.H3	2nd BDE SC5 Pilot	<a href="#">Event Description</a> <a href="#">Report</a>	10
SC6.H2	New General Data Protection Regulation Adopted	<a href="#">Event Description</a> <a href="#">Report</a>	61
SC6.H3	Citizens' budget at municipal level	<a href="#">Event Description</a> <a href="#">Report</a>	6
SC7.H2	Big Data in Secure Societies I	<a href="#">Event Description</a> <a href="#">Report</a>	16
SC7.H3	Big Data in Secure Societies III	No Description available	6



		<a href="#">Report</a>	
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Table 3: Hangouts organized in 2016

### 3.3 Engagement through Online Technical Webinars

Following the release of the first Big Data Platform architectural blueprint, and the concretization of the seven pilots, in the second year of the project there was sufficient material to also organize online **Webinars** (dissemination of general technical contributions for feedback and discussion) in addition to the SC-oriented **Hangouts**. In 2016 two technical Webinars were organized: 1 following the specification of the seven pilots, and another one following the release of the first Big Data Integrator (BDI) platform. A summary of these activities is provided below. A link to the Webinar content<sup>3</sup> is prominently featured under the ‘Events’ tab of the BDE website, and includes their embedded recording.

Following the BDE material presentation, the Webinars allowed live participants to ask questions (which other participants could up- and down-vote) which the organizing team answered live. This feedback was particularly valued following the first Webinar, due to its more generic nature and because it was the first widely advertised event informing the general public about BDE’s technical and pilot plans. As a result, that Q&A session has been transcribed (as linked below).

<b>Webinar</b>	<b>Title</b>	<b>Description</b>	<b>Live Visits</b>	<b>Views (M25)</b>
BDE.W1	Big Data and the 7 Societal Challenges Out-of-the-box technology for the future	<a href="#">Report</a> <a href="#">Recording</a> <a href="#">Q&amp;A Session</a>	385	718
BDE.W2	Getting started with Apache Flink using the BDE platform	<a href="#">Report</a> <a href="#">Recording</a>	--	241

Table 4: Webinars organized in 2016

### 3.4 Community Building via other Synchronous Engagement

In the Table below, we provide a summary of the progress update over the original targeted synchronous engagement measures covered in Sections 3.1 - 3.3.

#### Table 5: Goals for Synchronous Engagement

<sup>3</sup> <https://www.big-data-europe.eu/webinar/>



Channels	Targeted Engagement Level Group <sup>4</sup>	Goal	By M12	By M24
Interest group face-to-face workshops	- Endorsers - Contributors - Owners	7-14 (1-2 per year per SC)	7 (1 per SC)	14 (2 per SC)
Interest group calls\Hangouts	- Followers - Endorsers - Contributors - Owners	14 (2 per year per SC)	8	19
Webinars/Training Sessions on platform, components and applications	All	15 (original target: 30-35)	0	2

Table 5: Goals for Synchronous Engagement

In addition to the workshops, online hangouts and webinars, a number of other activities have taken place where direct interaction with the stakeholders was initiated or sustained. These activities also elevated the engagement level from observers to followers, endorsers, contributors and even owners (pilot partners). The most notable secondary activities leading to community extensions in the second year of the project were the following:

- **Pilot Efforts.** Pilot efforts, driven by WP6 leads and led by each of the established SC pilot lead(s) continued in the second year of the project, as progress transitioned from the first to the second (out of three) phase. The contributions from one external party (CERTH, SC4 pilot) increased so much that by the end of the year it was agreed that an amendment is to be filed for their inclusion as a project consortium member. Other stakeholders have expressed interest in recreating the demonstrated pilot externally for their own objectives. These stakeholders are being increasingly supported by the consortium to maximize the project’s impact.
- **Apache BigData\_Europe Conference.** The 7 yearly workshops seek to raise awareness and mobilize stakeholders to agree on common big data management priorities. As a result, a good

<sup>4</sup> Leaders are by default always included since they are part of the consortium.



portion of the participants tend to come from a more political, rather than technical background. As the technical contributions of the project became more concrete, in the second year it was agreed to also start disseminating project results also within the technical community. For the purpose, the Apache BigData\_Europe conference<sup>5</sup> was identified as the ideal venue. As a sponsor of the event, BigDataEurope was allocated visibility, a booth for technical demonstrations and a 1 hour collocated session<sup>6</sup>, titled: “Integrators at Work! Real-Life Applications of Apache Big Data Components”. In addition, a talk<sup>7</sup> introducing the technical objectives of the project was also accepted. Attendees to both event expressed a great deal of interest, provided feedback on the current platform prototype, and the consortium was also invited to participate more actively in the Apache Big Data community. A report, with links to the presentations, is available online<sup>8</sup>.

- **Big Data Value Association Summit 2016.** In this second major dissemination and networking event, participants attending this yearly Summit were treated to two consecutive 90 minute sessions dedicated to the BDE technical contributions<sup>9</sup>, particularly the progress in the pilots, and the current state of the platform. A number of the attendees expressed interest in recreating additional pilots and to use the platform for their needs or as a reference technological base for future projects.

In addition to the major events outlined above, BDE members attended and presented project results in additional events; reported in Annual Dissemination Report (not public).

### 3.5 Community Building through Asynchronous Engagement

In Deliverable 2.1 (Community Building, Coordination and Planning) we outlined planned asynchronous forms of engagement, which also led to the indirect extension of the established SC-centered communities. These activities include blog posts on the website, newsletters, Tweets about the project and activities, sharing of recorded hangouts, presentations, photos and other material; as well as direct emailing with suggested contacts. These activities have also been reported thoroughly in the Annual Dissemination Report (not public).

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<sup>5</sup> <http://events.linuxfoundation.org/events/apache-big-data-europe/>

<sup>6</sup> <https://apachebigdataeu2016.sched.com/event/8qdR/integrators-at-work-real-life-applications-of-apache-big-data-components-moderated-by-phil-archer-w3c>

<sup>7</sup> <https://apachebigdataeu2016.sched.com/event/8qgP/demonstrating-the-societal-value-of-big-smart-data-management-soeren-auer-fraunhofer-iaais>

<sup>8</sup> <https://www.big-data-europe.eu/bde-with-apache/>

<sup>9</sup> <https://www.big-data-europe.eu/bde-bdva-valencia-summit/>



## 4. Summary

In this deliverable we provide a progress report related to the community building activities in the project, which continue to be a key basis for this coordination and support action. In the last first 12 months of the project we will focus on raising the engagement level of the stakeholders in the communities, to maximize impact. A core means to achieve this objective is to raise the visibility of the seven SC pilots, following the completion of the last two phases; to showcase the value of the BDI platform as a flexible, free, open-source and reusable solution for all kinds of stakeholders.