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Big data PPP

Research addressing main technology challenges of the data economy



Industrial-Driven Big Data as a Self-Service Solution

D7.3: First report on Dissemination strategy and activities[†]

Abstract: This deliverable presents the work performed in WP7 – Task 7.2 “Communication strategy triggering awareness and new business opportunities” and consists of two parts. The first one refers to the definition of I-BiDaaS dissemination strategy, and the second one to the reporting and monitoring of the respective dissemination and communication activities during the first year of the project (M1-M12). As the objective of WP7 is to supervise the integrity and consistency of all dissemination efforts for creating awareness on the I-BiDaaS achievements, the main purpose of the current deliverable is to develop the framework of an effective dissemination strategy for the project, via specific means and activities. Such activities will be continuously monitored and measured against a set of KPIs, to ensure project’s maximum awareness and at the same time its presence in all relevant European Big Data communities that facilitate the vision of European Data Economy. This report is the first out of three reports that will be submitted on yearly basis.

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Contributors	All I-BiDaaS partners
Quality Assurance	Giuditta Morandi, ENPC Ramon Martin de Pozuelo Genis, CAIXA Kostas Lampropoulos, FORTH

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I-BiDaas Consortium

Foundation for Research and Technology – Hellas (FORTH)	Coordinator	Greece
Barcelona Supercomputing Center (BSC)	Principal Contractor	Spain
IBM Israel – Science and Technology LTD (IBM)	Principal Contractor	Israel
Centro Ricerche FIAT (FCA/CRF)	Principal Contractor	Italy
Software AG (SAG)	Principal Contractor	Germany
Caixabank S.A. (CAIXA)	Principal Contractor	Spain
University of Manchester (UNIMAN)	Principal Contractor	United Kingdom
Ecole Nationale des Ponts et Chaussees (ENPC)	Principal Contractor	France
ATOS Spain S.A. (ATOS)	Principal Contractor	Spain
Aegis IT Research LTD (AEGIS)	Principal Contractor	United Kingdom
Information Technology for Market Leadership (ITML)	Principal Contractor	Greece
University of Novi Sad Faculty of Sciences (UNSPMF)	Principal Contractor	Serbia
Telefonica Investigation y Desarrollo S.A. (TID)	Principal Contractor	Spain

Document Revisions & Quality Assurance

Internal Reviewers

1. *Giuditta Morandi, ENPC*
2. *Ramon Martin de Pozuelo Genis, CAIXA*
3. *Dr. Kostas Lampropoulos, FORTH*

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List of Abbreviations

- DoW** Description of Work
WP Work Package
EU European Union
SaaS Software as a Service
EC European Commission
PPP Public Private Partnership
M Month
EAB External Advisory Board
IPR Intellectual Property Rights
USP Unique Selling Proposition
IoT Internet of Things
ISV Independent Software Vendor
BDVA Big Data Value Association
MVP Minimum Viable Product
KPIs Key Performance Indicators
 Status: Completed
 Status: Started but not completed

Executive Summary

This document reports on the work executed in WP7 – Task 7.2 “Communication strategy triggering awareness and new business opportunities” with respect to the framework of the dissemination strategy of I-BiDaaS project. The report consists of two parts, namely (i) the definition of I-BiDaaS dissemination strategy, and (ii) the reporting/monitoring of the respective dissemination and communication activities during the first year of the project (M1-M12). This report is the first out of three reports that will be submitted on a yearly basis.

I-BiDaaS consortium has drawn up a dissemination strategy whereby dissemination activities at all levels were defined in detail. This strategy sets out the plan to raise awareness, share knowledge, attract potential users, and explore future commercial use in the context of the I-BiDaaS project, through various means, including the project’s website, distribution of dissemination material, publications in journals, and participation in conferences and other relevant events. As the objective of WP7 is to supervise the integrity and consistency of all dissemination efforts for creating awareness on the I-BiDaaS achievements, the purpose of the strategy is twofold: (i) ensuring project’s maximum awareness (measured against a set of KPIs) and at the same time its presence in all relevant European Big Data communities that facilitate the vision of the European Data Economy and (ii) paving the way to exploitation activities and long-term sustainability of the solution.

The main elements of I-BiDaaS dissemination strategy are: (i) projects disseminate-able results, defined with respect to projects’ objectives and milestones (Section 2.519); (ii) targeted group (Section 2.3); (iii) optimal means of dissemination (i.e. logo, poster) (Section 2.4); (iv) a breakdown of tasks, which includes partner responsibility, stakeholder or public addressed by the task, timing of the action and expected outcome (Section 2.6); (v) mapping of I-BiDaaS ‘products’ and services, which are potentially resulting from the project work, with targeted audiences and communicated means and activities (Section 2.3.1); (vi) events and publications that are suitable for presenting the project and promoting its objectives (Section 5.3); (vii) liaison and co-operation activities with other ICT projects in the Big Data, Software Engineering, Cloud Computing and Artificial Intelligence domains (Section 6); (viii) uptake of relevant standards and (ix) dissemination and communication short-term plans, continuously updated in agreement with the Consortium and with respect to KPIs, which will serve as an adjusting roadmap of the strategy (Section 4.1).

Moreover, this deliverable reports on some of the dissemination activities that have already been performed with respect to the prerequisites of sections 2.2.6 and 2.2.7 of the corresponding DoW (Section 5 and 6).

Finally, it is to note that as any dissemination in itself is strongly connected to project’s partial developments and outcomes, dissemination activities will be continuously monitored and updated (frequent adjustments are expected) with respect to project’s objectives and KPIs. Thus, dissemination is considered a “living” task and this version (two more will follow according to WP7 time plan) provides an overview of what is known and planned at the time of the document preparation.

1 Introduction

Organizations worldwide seek knowledge in order to develop competitive advantage in the Information Age and the convergence of IoT, cloud, and big data offers opportunities to this end. However, exploitation of big data technologies is at times extremely expensive in terms of funding, assets and workforce.

Considering the above, I-BiDaaS aims to facilitate utilization of big data technologies by providing organizations with a self-service solution that will empower their employees with the right knowledge and give the true decision-makers the insights they need to make the right decisions. Profitability, cost reduction and employees' empowerment are some of the impacts that I-BiDaaS will bring to the organizations, providing them eventually with the competitive advantage they need towards a thriving data-driven EU economy. In view of the plethora of domains that can exploit such self-service solutions, I-BiDaaS explores three critical ones with significant challenges and requirements: banking, manufacturing, and telecommunications.

I-BiDaaS will develop, validate, demonstrate, and support a complete solid big data solution that can be easily configured and adopted by end-users. Data processing tools and techniques will improve while the speed of data flow and access in real-time and real-world setting will also increase significantly. In such terms, one of the main objectives of the I-BiDaaS is to endorse innovation in managing vast and complex amounts of data and increase the efficiency and competitiveness of all EU companies and organizations.

In this context, I-BiDaaS supports the European vision of a European Data Market establishment, by defining a dissemination strategy to communicate its progress as well as the product itself to all interested parties.

1.1 Purpose

Data Economy is an integral part of the Digital Single Market strategy of the European Commission, and as such, it is considered as an essential resource for growth, competitiveness, innovation, job creation and societal progress in general¹.

This statement forces European funded projects like I-BiDaaS to push towards data integrity, sharing, exchange, and interoperability in the European industrial area. Thus, it is evident that the role of dissemination and communication activities namely, to raise awareness of data analytics tools for enterprises that possess big data and do not have the in-house expertise to extract the required actionable knowledge, is extremely critical.

Apart from prerequisites set in the DoW of the project, I-BiDaaS will adhere to the EC's IPR helpdesk and BDVA's guidelines and best practices to successful communications in order to be able to disseminate project results in the best possible way.

Following these instructions and with respect to project's objectives and envisioned outcome, this deliverable reports on the strategy for the dissemination of knowledge in the context of the Big Data, a report of the activities performed in the first twelve months of the project (M1-M12) towards the aforementioned purposes, as well as a list of short-term planned actions and events.

I-BiDaaS dissemination strategy will be used primarily by consortium members. However, it also serves the EC and/or other third parties in acquiring a full picture of the most important

¹ I-BiDaaS, Objective 5, DoW

activities undertaken or scheduled in the future route to full dissemination of the knowledge and activities.

I-BiDaas dissemination strategy analyses in detail involved stakeholders, available communication channels and key project events and results around which to base dissemination. Concrete dissemination activities are assigned to partners and a monitoring plan is defined so as to efficiently adjust according to the project's KPIs. The dissemination strategy is the basis for all the dissemination activities and it will be periodically revised as the project evolves based on I-BiDaas developments and achievements.

1.2 Structure

The document is structured as follows:

- *Section 2* describes in detail the design and development of the dissemination strategy. Dissemination objectives, key points, assets, targeted audiences and future development, are being reported, throughout the section. Sub-sections describe thoroughly pivotal parts of the dissemination strategy that are fully developed or still under development.
- *Section 3* provides an in-depth description of dissemination & communication tools that have already been used or will be used in due course. Tools to facilitate the web presence, such as the project's website and social media accounts are included in this section. Dissemination material such as factsheets and flyers are featured in sub-sections as well.
- *Section 4* includes an extensive summarization of dissemination KPI's and means to monitor them. In addition to a summarization of possible communication risks.
- *Section 5* presents the dissemination and communication activities executed until M12 of the project. Scientific journals, general and business publication along with public events and conferences that aimed to enhance the public awareness and press presence of the project, are part of the sub-sections of this section. EAB activities are also outlined.
- *Section 6* focuses on the collaboration activities aided to the dissemination & communication strategy effectiveness during the first twelve-month period.
- Standardization reporting for the first twelve-month of the project is included in *Section 7*.
- *Section 8* outlines upcoming short-term activities and tasks with reference to the dissemination and communication strategy (M12-M18).
- Finally, conclusions are made in *Section 9*.

2 Dissemination & Communication Strategy

2.1 Dissemination phases and dependencies

In agreement with the basic guidelines mentioned in Section 1.1, dissemination strategy design followed three main principles: (i) considering the target group(s); (ii) ensuring that the message is clearly defined and addresses the needs of each target group and (iii) selecting/fine-tuning the dissemination/communication activities and means.

2.1.1 Dissemination and communication phases

I-BiDaaS dissemination and communication strategy will be executed in four distinctive phases described in Table 1.

Table 1. I-BiDaaS dissemination and communication phases

Phase	Description – indicative actions	Duration	Dependencies
Starting point	Dissemination activities commenced even before the preliminary results of the project were available. They started with monitoring of literature, resources and events in the areas of Big Data batch and streaming analytics, data fabrication and visualization, software engineering and resources management frameworks, both in the academia and industry. Targeted group(s) have been initially identified and their full characteristics, needs and relation to the project's outcomes have been defined. Dissemination activities are supported by the project's website.	M1-M3	D1.1, D7.1
Inception Phase	Targeted group(s) are further researched and analyzed in order to develop correlations between stakeholders, tools and appropriate communication channels.	M3-M8	D1.2, D1.3, D7.2
Implementation Phase	According to the flow of relevant project information, activities to deliver the project's message to its audiences have been identified and will increasingly target professionals and events in the target sectors, via workshops and conferences, periodical publications, associations, software trade events, exhibitions and with the increasing use of social media. All types of activities designed and developed, aim to the rise of awareness with respect to the I-BiDaaS project.	M8-M12	MVP, D8.2, Technical reports due M12
Monitoring and Improvement	Effectiveness and costs optimization for communication products and activities is planned to be achieved via a yearly measurement of envisioned impact	M12-M36	KPIs, Project's objectives, BDVA goals, Technical and scientific achievements of the project

2.1.2 Dependencies

At this point, it becomes clear that the I-BiDaaS dissemination strategy and the respective activities cannot be regarded in an isolated way. All components of the project's dissemination strategy are either the outcome of other project's WP's or the data needed to other project's

tasks. In other words, there are dependencies with respect to the I-BiDaaS dissemination strategy and the rest of the project's phases and tasks (Figure 1).

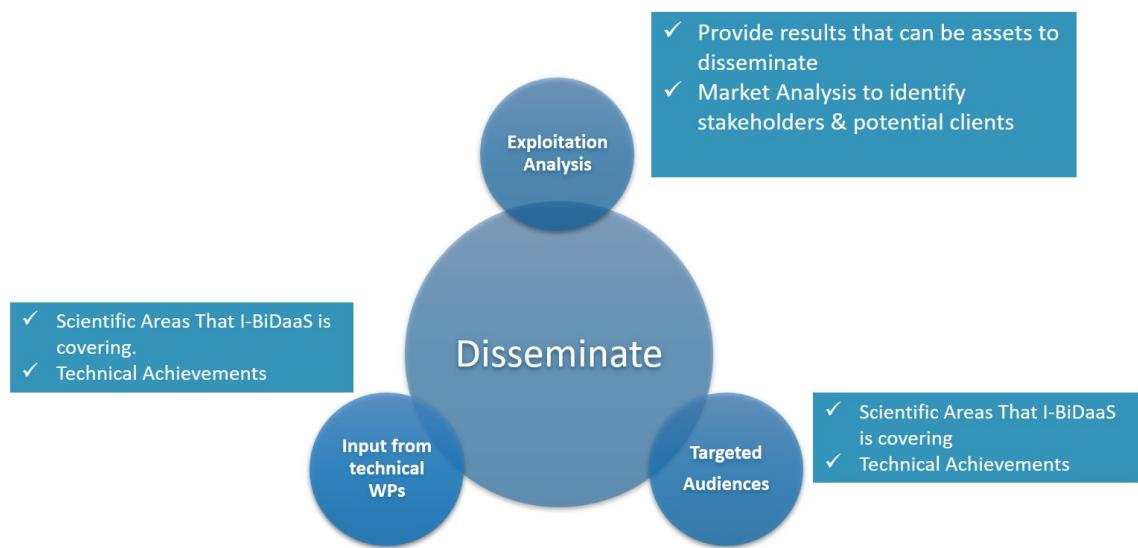


Figure 1. Dissemination Dependencies

The development of the dissemination tools and activities must be in line with the project's progress and status. Input from technical WPs (WP2, WP3, WP4 and WP5) throughout the project's development must be disseminated, correlated and communicated to corresponding target groups (WP1 and WP6). This is an ongoing process and will pave the way to exploitation and long-term sustainability (T7.3, T7.4).

2.2 Objectives and principles

2.2.1 Objectives

Develop technologies that will increase the efficiency and competitiveness of all EU companies and organisations that need to manage vast and complex amounts of data²

The main objective of I-BiDaaS dissemination strategy is to maximize the project's impact on all EU companies and organizations that deal with Big Data.

Guiding the dissemination activities should be the provision of appropriate and reliable information to the interested parties about the project's scope and expected results in order to enable exploitation beyond the project's end. Ensuring the proper awareness towards the project motivation and the rationale behind producing the specific results is a crucial step, which offers insight on what the I-BiDaaS project is about, who would benefit from it and how.

Proper awareness means understanding. There is no point in making the addressed target groups aware of what the project is, if this is not comprehensive and customisable to their specific needs and interests. Thus, one of the primary goals of I-BiDaaS dissemination activities is to explain to the audience what the project is about and then instantiate and to demonstrate the relevant products to different levels, aiming at higher penetration and ultimately exploitation of

² I-BiDaaS, Objective 5, DoW

underlying concepts and technologies to such groups. Moreover, to explain the usability and benefits for different stakeholders about project's offerings in the Big Data domain. All these activities will be in line with the ones performed by the exploitation tasks of WP7, which also aims to tailor, update and understand both the users' needs and expectation and how to address them in the best way.

Dissemination actions are deemed to be meaningful, if they succeed in spreading the technological achievements and knowledge of the I-BiDaaS project both to the research and academic environment, as well as the target industry domains (namely SMEs, large enterprises, software companies, data owners, data consumers, and service providers etc.) as potential users.

Based on the above, objectives can be further outlined as follows:

- Broadly disseminate the project concept, developments and findings to identified stakeholders (i.e. industry, academia, governmental organizations) using effective communication means and strategies;
- Ensuring that all the relevant communities will be reached out to in an interactive way, integrating their feedback at key timestamps of the project: namely specification requirements, market analysis, design, development and evaluation periods, as well as during exploitation tasks;
- Create and publish scientific contributions valuable to the research community;
- Participate in appropriate EU, BDVA and worldwide events (workshops, seminars, conferences, etc.) targeted at industry and academia with the goal to showcase I-BiDaaS vision, impact and results, but more importantly to create an active community for the project that will significantly enhance its entrance to the market;
- Support the liaison and co-operation activities with the other relevant ICT projects.

2.2.2 Principles

The development of the dissemination activities must be in line with the project's progress and status. Thus, an effective dissemination has also to consider the following principles:

- Information has to be available, accessible, adaptable and diversified. Depending on the different purposes, target groups and cultural backgrounds, dissemination activities and tools need to be continuously updated;
- Information has to be relevant and compatible to the different user groups so as to reach its maximum understanding and impact;
- Interaction with end-users must be stressed. Analysing the end-user needs and responses creates links between the project goals and actual achievements. This interaction requires a constant adoption of dissemination activities.

2.3 Targeted Groups and Application areas

2.3.1 Groups

I-BiDaaS has identified the initial stakeholders for communicating the results of the project to. Considering the project's achievements so far³ and the "Strategic Research and Innovation Agenda" report of BDVA⁴, the groups have been classified as depicted in Table 3. These target groups will be revisited in the exploitation tasks of WP7 and will be adjusted accordingly to

³ I-BiDaaS, "D1.1: Project Set-up", D1.3: "Positioning of I-BiDaaS"

⁴ <http://www.bdva.eu/SRIA>

keep coherence between dissemination and exploitation. Different target groups require different dissemination strategy and means.

Broadly speaking, it is possible to distinguish between scientific, industrial community and other groups such as the EAB members (Section 5.4), EC, policy makers and standardization bodies. The borders between groups can sometimes be blur due to their relevance to each other in somehow, but they can still be considered as a starting point to work on.

2.3.2 Application areas

Industry surveys show that the gains from Big Data Value are expected across all sectors, from manufacturing and production to services and retail. The following are examples of sectors that are especially promising with regard to Big Data Value⁴ and can be connected with I-BiDaaS (end users of I-BiDaaS as a Self-Service Solution)⁵.

- *Environmental organizations and programs*: Environmental data helps us to understand how our planet and its climate are changing and also addresses the role humans play in these changes. The overall intention of Big Data technologies is to improve the accuracy and availability of location data for the benefit of sectors including transport and industry as well as Europe's new air-traffic control system;
- *Energy companies and organizations*: The digitization of the energy system, from production and distribution to smart meters monitored by the consumer, enables the acquisition of real-time, high-resolution data. This coupled with the addition of other data sources, such as weather data, usage patterns and market data, and accompanied by advanced analytics, means that efficiency levels can be increased immensely;
- *Organizations in the mobility, transport and logistics domains*: Exploitation of Big Data will open up opportunities for innovative ways of monitoring, controlling and managing relevant business processes leading to both economic and environmental savings;
- *Public sector*: Big Data Value will contribute to increased efficiency in public administration processes. The continuous collection and exploitation of real-time data from people, devices and objects will be the basis for smart cities, where people, places and administrations are connected through innovative ICT services and networks;
- *Healthcare*: Applications range from comparative effectiveness research to the next generation of clinical decision support systems, which make use of comprehensive heterogeneous health datasets as well as advanced analytics of clinical operations. Of particular importance are aspects such as patient involvement, privacy and ethics;
- *Media and content corporations*: By employing Big Data analysis and visualization techniques, it will be possible to move from a few state-orientated broadcasters to a prosumer approach, where data and content are linked together, blurring the lines between data sources and modes of viewing.
- *Retail*: The retail domain will be especially focused on highly efficient and personalised customer assistance services. Retailers are currently confronted with the challenge to meeting the demand for a new generation of customers who expect information to be available anytime and anywhere.
- *Financial services*: Huge amounts of data are processed to detect issues such as fraud and risk and to analyse customer behaviour, segmentation, trading, etc. Big Data analysis and visualization will open up new use cases and permit new techniques to be put into practice.

⁵ Details for project's application areas, namely telecom, financial and manufacturing in D1.1, D1.2 and D1.3

- Telecommunications services: Big Data enables improved competitiveness by transforming data into customer knowledge. Possible use cases could include the improvement of service levels, churn reduction, services based on combining location with data about personal context, and better analysis of product and service demand.
- Tourism: Personalised services for tourists are essential for creating real experiences within a powerful European market. The analysis of real-time and context-aware data with the help of historical data will provide customised information to each tourist and contribute to a better and more efficient management of the whole tourism value chain.

Table 2. Targeted Groups and relevant dissemination activities

Community	Goals – Activities	Group
<i>Scientific</i>	<p><u>Goals:</u> Will be mainly interested in the research results of I-BiDaaS, the scientific publications generated by the project and advance beyond the state of the art. The scientific community will be able to reuse and leverage research project results in future projects.</p> <p><u>Activities:</u> Scientific dissemination will include an emphasis on conferences, scientific workshops, academic papers and scientific magazines (online and print). The main messages include the approach taken, the results gained, the innovation and processes. The intention is to spread widespread knowledge of the project and to foster feedback on complementary approaches.</p>	<p><i>Researchers and academics</i>, who provide access to state-of-the-art research in Big Data technology</p>
<i>Industrial</i>	<p><u>Goals:</u> Industrial community includes any kind of enterprise or individual that can be interested in the adoption of I-BiDaaS result because it brings a benefit to their business, competitiveness or return on investment.</p> <p><u>Activities:</u> Industrial dissemination builds interest in the project to complement the exploitation plan, gather feedback from the market and identify potential partners and users. It will focus on typically shorter and more generic communication items (web coverage, flyers, press releases, whitepaper, magazines and, etc.). The key messages revolve around what I-BiDaaS will be able to do, what benefits it will confer, the conditions under which it can be used and how and when users can become involved. The intention is to prepare the market, identify potential collaborators and users and to gather feedback. Organization of hackathons by consortium members also aims at such goal.</p>	<p><i>Data generators and providers</i>, who create, collect, aggregate, transform and model raw data from various public and non-public sources and offer them to customers;</p> <p><i>Organizations across different industrial sectors (private and public) and of all size</i>, who (i) want to improve their services and products using Big Data technology, data products and services; (ii) will make use of Big Data solutions for advanced decision making or automation; (iii) can provide valuable insights into user needs and the roles and/or interests of important user groups, as well as promising application scenarios; (iv) can benefit from advanced Big Data technology by generating value in the context of their business; (v) can inform the ecosystem about industrial requirements and challenges leading to new research questions;</p> <p><i>Data Entrepreneurs</i>, who build innovative data businesses and data services based on Big Data on the demand and supply side;</p> <p><i>Vendors of the ICT industry (technology and service providers)</i>, who (i) provide access to innovative ICT tools and platforms which offer a) data management and analytics to extract knowledge, b) data curation and c) data visualization; (ii) provide access to services that develop Big Data applications on top of the tools and platforms to provide services to user enterprises.</p>
<i>Other</i>	<p><u>Goals:</u> It would be an omission not to mention several other groups like EU and EAB whose role is to support and guide the project. For each one of these groups the dissemination goals differ.</p> <p><u>Activities:</u> Already mentioned in the previous communities</p>	<p><i>Policy makers</i>, responsible for establishing policy framework conditions that foster the adoption of Big Data technology in various sectors;</p> <p><i>EAB</i>, comprised by leaders of industry, standardization and policy, besides its advisory role in the project, EAB acts as an intermediary between the project and its end users and potential future clients;</p> <p><i>EU community</i>, responsible for funding and evaluating the project;</p>

2.4 Dissemination means and tools

I-BiDaaS, dissemination means and tools identified so far are outlined in the following list:

- *I-BiDaaS Website*: a website for the project has been developed to serve as a single-entry point to all the information about the project⁶.
- *Social Media Network Accounts*: To amplify its web-based presence I-BiDaaS will create accounts in popular social media networks and platforms as the means to communicate its message online.
- *Project's Dissemination Material*: To support the dissemination activities of the project, the consortium will regularly create dissemination material in the form of documents, papers, deliverables, technical reports, presentations, fact sheets and video clips.
- *Project Hackathons*: A number of hackathons about the I-BiDaaS platform and its validating will be organized.
- *Case Studies Documents - White Papers*: The project will create and publish white papers associated with case studies and key outcomes of the project.
- *Internal Dissemination within the partners' organizations*: All the project partners will present the results internally in their organization.
- *Organization of I-BIDAAS workshops and conferences*: I-BiDaaS will organize a limited number of Open Project Workshops to disseminate high-quality information, with a high level of audience involvement of the targeted industries.
- *Targeted workshops* with government officials, big data providers and other stakeholder organizations in a number of different and complementary domains.
- *Organization of Internal and External Training workshops/sessions/seminars and events*.
- *Liaisons with other projects (including EU projects)*: Liaison with other projects will be pursued and established, especially with the projects that I-BiDaaS will collaborate for the purpose of knowledge sharing and/or resource pooling.
- *Participation in EC Clustering mechanisms*.
- *National Level Dissemination of the project's results*: At a national level, every partner will act as a demonstrator in its own context. Special attention will be given to the SME involvement in order to explain the potentiality to distribute value added services through the I-BiDaaS project platform. Best practices of SME inclusion will be showed during the pilot phases.

The following table provides an overview of the basic dissemination means and tools.

Table 3. Optimal means of dissemination

Means	Purpose	Rationale
Logo	Promotion	The logo is representative of I-BiDaaS concept and vision
Website	Awareness Information Engagement Promotion	Hosting all public information about the project. Communicating with all I-BiDaaS stakeholders https://www.ibidaas.eu/
Social Network Sites (SNS)	Awareness Information Engagement Promotion	<u>Twitter feed</u> : allow members to provide quick updates on relevant to the project issues. <u>LinkedIn channel</u> : an effective way to communicate events and especially publications

⁶ I-BiDaaS, “D7.1: Project web site”

Promotional material	Promotion	Drafted in English language. Consist of leaflets, posters, etc. Although electronic communication is widely used promotional dossier in printed form can be distributed at conferences, workshops, etc. It will contain basic information about the I-BiDaaS project. If needed, partners will be asked to translate it into their native language. It will be downloadable from the project website.
Journal articles	Awareness Engagement Promotion	Articles in international journals will not only raise awareness and promote the project within the scientific community, but will also prove that the challenges addressed by I-BiDaaS are innovative and beyond the state of the art.
Conference presentations	Awareness Engagement Promotion	National and International conferences are important opportunities to share project results with other experts in the relevant scientific area.
Project showcases, Demonstrations	Awareness Information Engagement Promotion	The goal of these demonstrations is to present the achievements of the I-BiDaaS development to the stakeholders and get feedback that will assure an effective evolvement during the whole lifecycle of the project.
Workshops	Engagement	Small interactive events held among experts to showcase and discuss project-related topics and to achieve specific objectives
Liaison activities	Awareness Information	Coordination and cooperation with other related European projects or other existing networks

2.5 Assets to disseminate

Considering the project's technological achievements so far⁷ and BDVA's SRIA classification of Big Data tools and services, the following table provides an overview of I-BiDaaS tangible and intangible assets that can lead dissemination activities.

I-BiDaaS will provide Big Data Exploitation with Value in terms of derived knowledge leading to competitive advantage. Due to its architecture and adaptability within the Big Data ecosystem, I-BiDaaS can and will be used either as a stand-alone self-service solution or in synergy with other products and services.

Table 4. I-BiDaaS assets to disseminate

Asset	Description	Group
<u>Realization of Big Data Reference Architectures in the Industrial domain</u>	I-BiDaaS will provide a realization of general concerns and best practices encoded in the relevant Big Data reference architectures and reference models, provided by The National Institute of Standards and Technology (NIST ⁸) and by the Big Data Value Association (BDVA ⁹). Three industrial domains, namely telecom, finance and manufacturing have been selected. More details in the respective deliverable ⁷ .	Industrial community
<u>Big Data Types, Sets and Management</u>	I-BiDaaS will analyze several data types and create fabricated data sets based on specifications provided by the end user. Synthetic and realistic data will be made available according to the data management plan ⁹ .	Scientific and Industrial communities
<u>Tools and Services for data sharing, processing and analytics</u>	Diverse software engineering tools and services are provided by the project to support the realization of its architecture in the selected domains. Data ingestion and integration tools, batch processing algorithms, data analytics models, streaming processing services, programming interfaces, advanced data visualizations and interactive interfaces are some of the provided tools by the project. All of them linked through the architecture.	All communities

⁷ I-BiDaaS, "D1.2: Architecture definition"

⁸ NIST Big Data Interoperability Framework: Volume 6, Reference Architecture, NIST Special Publication 1500-6r1, June 2018

⁹ BiDaaS, "D8.2: Data Management Plan"

<u>Platforms for resource management and orchestration</u>	In order to effectively provide the resources that will be required to follow the dynamic properties of the Big Data applications, a resource management and orchestration platform will be provided	Industrial community
<u>Minimum Viable Product (MVP) and I-BiDaaS solution</u>	MVP will serve as the leading spear of the dissemination and communication activities. MVP, as well as the two prototypes, followed on M18 and M30 respectively (WP5), will become valuable assets to effective raise of awareness for the project but also will act as powerful marketing tools on the search for future clients.	All communities
<u>Consultation and knowledge</u>	All members of the consortium acquire knowledge that can be disseminated to all stakeholders	All communities

2.6 Roles & Responsibilities

Since a successful dissemination process is adaptable to changing needs of stakeholders, the impact of external events and lessons learned from on-going pilot/evaluation activities, participation to dissemination activities and engagement from all consortium members with respect to their roles and responsibilities is critical.

Communication of the work of all the project's involved parties both internally and externally will be a key factor to the success of I-BiDaaS and will require a genuine collaborative approach to ensure a common understanding. It is essential that everyone involved in the project is aware of the dissemination activity taking place and can benefit from the resulting positive exposure.

For all the aforementioned reasons, the dissemination manager (AEGIS) in collaboration with the rest of the partners have identified the dissemination tasks and assigned partners responsible for them. The basis of this assignment was, (i) the general I-BiDaaS approach (objectives) defined considering the partner's profile and (ii) their individual dissemination assets and intentions. Based on the identified dissemination target groups, each partner involved in the dissemination process has been assigned with the task to approach certain target groups. More specifically:

- Academic Partners: I-BiDaaS academic partner's (UNIMAN, ENPC, UNSPMF) along with internationally recognized research institutes (FORTH, BSC) will disseminate cutting-edge research results in the field of Big Data Analytics (batch and streaming processing), Software and Service Engineering, Cloud Computing and Resource Management and Orchestration. Due to their extensive knowledge on the state-of-the-art technologies addressed in I-BiDaaS and experience in participating in major events and conferences with a remarkable scientific contribution, these partners will guide the project dissemination activities, in order to target research groups with a potential interest in the project scientific achievements. Thus, I-BiDaaS innovations will be exposed to the scientific community and it will be active even after project's lifecycle.
- Industrial Partners: I-BiDaaS industrial partners (both large industries, namely IBM, ATOS, SAG and SMEs, namely AEGIS and ITML) will lead the dissemination activities to communicate project knowledge to the markets targeted for potential exploitation. The scope of this dissemination level is to promote the tangible assets inherited from the project implementation to the target audiences for communication activities referring to the business sector and the industrial community. Thus, the enhanced features of the I-BiDaaS system will be disseminated to the customer base of these partners, addressing the Big Data sector, so that new products could benefit from the innovative technologies.
- Use case providers: Use case providers (CRF, CAIXA and TID) being the core business end users of the project are an important part of the dissemination strategy of the I-BiDaaS results, since they will not only validate the project's technological

achievements, but they will also convey the gained knowledge to users of their relevant domains. With respect to their area of interest and to the selected use case experimental scenarios, they will target not only the respective business-oriented audiences, but also the general public through their communication channels, including INFO DAYS (Section 2.8), forums, events and exhibitions. Their role will be to act as a liaison between each use case existing community and the project's research and development efforts, assisting in particular in the definition of scenarios, requirements, technical specifications, glossaries, as well as dissemination activities.

Concerning dissemination to “Other” stakeholders mentioned in Table 2 (e.g. EC community and BDVA), AEGIS as the dissemination leader and FORTH as the coordinator of the project, will ensure the establishment of the respective communication channels. On the other hand, all partners of the project consortium are in touch with ICT projects of similar targets and objectives, mainly taking advantage of their participation also in these projects.

The following table contains individual partners’ plans and their intention on how to contribute to project dissemination.

Table 5. Partner’s specific dissemination assets and intentions

Partner	Dissemination Plans
<u>FORTH</u>	As project coordinator, FORTH will be deeply involved in the dissemination strategy. It will also be the main contact point for Collaboration activities and liaison with other initiatives. FORTH will take advantage of its large network of stakeholders, collaborators and community members to make them aware of I-BiDaaS through all available means. FORTH will also publish articles, papers and book chapters on topics related to I-BiDaaS. As a member of the association, FORTH will disseminate the project in BDVA.
<u>BSC</u>	Through participation in competitiveness clusters and having a technology transfer office, BSC has strong links to specific stakeholder networks. BSC is also keen on producing research papers and presentations at conferences and journals. Considering that BSC target audiences are the scientific community as well as research and development departments from private companies, dissemination of the project's results to achieve private collaboration projects with companies will also be aided by BSC. As a member of the association, BSC will disseminate the project in BDVA.
<u>IBM</u>	As a leading industrial organization in IT relevant domains, IBM will utilize its large network of contacts and customers to raise awareness of the project. Industrial events are planned to be attended for I-BiDaaS presentation. IBM will also aim to deliver I-BiDaaS technologies into IBM's Big Data, cloud and analytics products and services (Test Data Fabrication), aiming to benefit both citizens and businesses across Europe commercially. As a member of the association, IBM will disseminate the project in BDVA.
<u>CRF</u>	As one of the project's use-case providers, CRF will disseminate project's results both internally and externally via on-site demonstrations and workshop organizations. Exploitation of CRF's industrial network in the automotive sector will also prove beneficial for raising awareness of the project as well as for I-BiDaaS commercial success. CRF will organize one of the project's INFO DAYS in its World Class Manufacturing Center (aka Melfi Campus). More details in Section 2.8.
<u>SAG</u>	SAG is an experienced company in Software Engineering and will disseminate the project's results at conferences and public events. Moreover, SAG will exploit its liaisons to present the project's results to key stakeholders and other EU-funded projects that is engaged to. As a member of the association, SAG will disseminate the project in BDVA. If suitable, SAG will use the results from the project to enhance components of its Digital Business Platform, a platform based on open standards, with integration, process management, in-memory data, adaptive application development, real-time analytics, and enterprise architecture management as core building blocks. In addition, SAG will communicate the project results to its field organization so that it can be used in PoCs and customer projects, if desirable.
<u>CAIXA</u>	As one of the major banks in Spain, CAIXA contribution to project's dissemination is of great importance. Considering its role as an end-user, CAIXA is planning to disseminate both

	project's progress and results to its employees via workshops and seminars (Section 2.8). Moreover, CAIXA will exploit its network of stakeholders, customers and collaboratives in national and international level to raise awareness of I-BiDaaS.
<u>UNIMAN</u>	Through its highly respected and extensive internal and external communication networks, UNIMAN will disseminate the project results by publishing papers collaboratively with the I-BiDaaS consortium in academic and research communities. The university will also join collaborative activities between EU funded projects in the scope of dissemination and training.
<u>ENPC</u>	ENPC's contribution to dissemination strategy is to exploit research project results through its core business of offering high quality, cutting edge technology postgraduate courses and programs, including a wide array of specialized executive education courses that will be developed based on the effective transfer of expertise, research, content, partnerships and outcomes relative to this project. Moreover, Ecole des Ponts Business School will contribute with joint papers with other academic and industrial partners.
<u>ATOS</u>	ATOS will take advantage of its large network of contacts and customers. Industrial events are planned to be attended for I-BiDaaS presentation. At national level, ATOS is in charge of contacting the Spanish MEP and NCP for explaining both I-BiDaaS challenges. ATOS will also distribute PR through national press and will act as liaison with Spanish Technological Platform in ICT, Planetic. Atos can also exploit management links in BDVA in order to support project dissemination in this context. Furthermore, ATOS has a wide internal and external communication network (reaching 80,000 employees and many more clients and collaborators) and much experience in project dissemination. Examples of these could be potential to contribute with project articles to Atos Blog ¹⁰ and references in Atos Thought Leadership publications ¹¹
<u>AEGIS</u>	AEGIS will guide all dissemination activities and will foster dissemination while being responsible of coordinating and monitoring all activities related to the dissemination of I-BiDaaS relevant information to all audiences
<u>ITML</u>	ITML is recognized as a leading innovative SME in Big Data mining. ITML fully expects I-BiDaaS to be featured prominently in dissemination events such as presentations, as it is very close to its business evolution. ITML also plans to participate and present on-going results in EC hosted events as well as joint research platform working groups
<u>UNSPMF</u>	As a scientific and research institution and the technical coordinator of the project, UNSPMF will disseminate I-BiDaaS progress and results to its regional relative community by utilizing all appropriate channels and means and also by organizing INFO DAY(s) (Section 2.8.) aiming at the raise of awareness for the project as well as attraction of potential end-users and customers as well as future collaborators for publications in journals and conferences.
<u>TID</u>	TID is another end user of the project and will disseminate its results both internally and externally via on-site demonstrations and workshop organizations (INFO DAY – Section 2.8.). In addition, TID will exploit its stakeholders' network on to raise awareness of the project but also to enhance I-BiDaaS commercial success. In addition, TID will perform internal dissemination through internal email lists and newsletters for the achievements of the project and research outcomes as well as available tools built.

2.7 Dissemination and communication roadmap

At the time of this report's preparation, dissemination and communication activities have reached the yearly revision of the Monitoring and Improvement Phase. Targeted audiences have been identified and correlated to specific dissemination channels and project outcomes. Initial communication means, and tools have been set up with reference to the project's web-based presence such as the project website¹², the Twitter account¹³ and the LinkedIn profile¹⁴. Event-

¹⁰ <https://atos.net/en/atos-blog>

¹¹ <https://atos.net/en/insights-and-innovation/thought-leadership>

¹² <https://www.ibidaas.eu/>

¹³ <https://twitter.com/ibidaas?lang=en>

¹⁴ <https://www.linkedin.com/in/i-bidaas-horizon-8a6b9b174/>

based presence is constantly strengthened with attendance of the I-BiDaaS participants in events and conferences (Table 14). With respect to the development of the press-based presence, three publications have been featured in various scientific journals (Table 11). Complementary to the above, dissemination material including a factsheet and a flyer has already been developed and exploited (Section 3.3).

Within the first year, the dissemination and communication strategy has established well-fined means and tools to reach all targeted audiences of the project effectively. Events that have taken place in this 12-month period aided to public awareness of the project while the website and the social networked established, have provided the project's community and interested scientific parties with a platform for interaction and sharing of dissemination material regarding the progress of the project and its outcomes.

Close to the end of the project, I-BIDAAS will reinforce its dissemination activities on the basis of a fully-fledged marketing campaign. I-BIDAAS marketing campaign will be initially based on traditional channels, such as newspaper, advertisements, television commercials, web page banners, etc. Additionally, more target-oriented marketing paths, such as advertisements in branch publications and participation in public policy events, exhibitions and conferences, will be adopted.

The following table outlines the key actions of the dissemination strategy as they have been planned initially.

Table 6. Dissemination strategy roadmap

Activity	Remark	Status	Strong Contributor	Delivery Date (approx.)
<i><u>Project Website</u></i>	Initial version online		ITML, AEGIS	M2
	Updated version to be released		ITML, AEGIS	M6, M12, M18, M24, M36
<i><u>Project's Dissemination Materials</u></i>	Initial dissemination material (general purpose presentations, PPT, templates, factsheet).		AEGIS, FORTH, UNSPMF	M2, M6, M8
	Updated version to be released – fresh material		AEGIS	M14, M18, M24, M36
<i><u>Project Hackathons</u></i>	Hackathons organized as part of project's INFO DAYS		CRF, TID	M18 and M24
<i><u>Case Studies Documents - White Papers</u></i>	Focused and of limited length aiming at a targeted and comprehensive presentation of project's results	N/A ¹⁵	Academics	M18, M36
<i><u>Internal Dissemination within the partners' organizations</u></i>	Partners will present the results internally in their organization	N/A ¹⁵	All	M20
<i><u>Organization of I-BIDAAS workshops and conferences</u></i>	Organization of workshops and satellite conferences		UNSPMF (work.) CAIXA (work.) FORTH (sat. conf.)	M13 M20 M36
	Targeted workshops with government officials, big data providers and other stakeholder organizations in several different and complementary domains		UNSPMF (work.) All (EAB meeting) AEGIS, FORTH (sat. conf. in yearly EU event)	M13 M15, M27, M32 M24

¹⁵ Haven't started yet

	Internal and External Training workshops/sessions/seminars and events (part of the INFO DAYS)		CAIXA (work.) CRF (work.)	M20 M24
	Organization of Info Days	N/A ¹⁵	UNSPMF CRF CAIXA TID	M13 M18 M20 M24
<i>I-BiDaaS on the internet, including social networks (SN) and webinars</i>	Twitter account and LinkedIn profile creation		AEGIS, FORTH, ITML	M6
	YouTube Channel Creation		AEGIS	M14
	SN growth		All	M24
	BDVe Marketplace	N/A ¹⁵	AEGIS	M18
<i>Liaisons with other projects (including EU projects)</i>	Collaboration with other EU projects		AEGIS, FORTH, ITML and UNSPMF	Continuous
<i>Participation in EC Clustering mechanisms</i>	Focusing on BDVA		FORTH and AEGIS in two BDVA events FORTH, SAG, IBM and BSC members of BDVA	Continuous
<i>National Level Dissemination of the project's results</i>	Raising awareness of I-BiDaaS in national level	N/A ¹⁵	All	M24
<i>Standardization Activities</i>	Monitoring standards (internal process)		UNSPMF, AEGIS, IBM	Initial reporting until M14. Every second plenary updates will be provided

2.8 INFO DAYS

Info Days are essential to an effective dissemination strategy in terms of public awareness and offerings of training in I-BiDaaS technologies. To this end, at least three INFO DAYS will be organized, and during each one of them I-BiDaaS will organize and execute hackathons, educational and training events, webinars and seminars, to promote I-BiDaaS tools and technologies to all target groups.

2.8.1 TID's INFO DAY (Hackathon - M24)

TID plans to organize a hackathon at its premises in Barcelona, where participants can collaborate on creating new innovative ideas for using data offered by TID.

The aim of the hackathon is to help TID break internal and external data silos in a secure, privacy-preserving manner that respects any applicable legal requirements. For this cause, real anonymized data based on the datasets provided by TID for the realization of its 3 use cases in I-BiDaaS will be offered to the hackathon participants under appropriate legal conditions.

Data from AURA platform¹⁶ (an automated home assistant and customer service), Movistar+¹⁷ (a Video on Demand service) and BotCorn¹⁸ (a recommendation service for movies/tv series) will be offered and will serve as the basis for new applications. Participants would be able to utilize tools offered by the I-BiDaaS platform or other technologies to materialize their ideas. Working on ideas to use these data can lead to applications and services that could potentially be used on data coming from other similar services (e.g. MS Cortana, Facebook chatbots, etc.) and therefore open the way to break external data silos between companies.

2.8.2 CRF's INFO DAY (Hackathon/workshop – M18)

Centro Ricerche FIAT (CRF) intends to plan either a hackathon-type event or a large-scale workshop/training seminar in its dedicated R&D center, the World Class Manufacturing Center (aka Melfi Campus¹⁹), located in Southern Italy. Melfi Center is a small-scale automotive plant that is used to conduct research and training in the automotive and other manufacturing sectors with respect to standardization and optimization of relative processes such as manufacturing, logistics, safety, workplace optimization, and ergonomics. Huge volumes of real data from all manufacturing levels, namely plant floors, warehouses, logistics, external services and sales, as well as Big Data related services and technologies are aggregated in Melfi Center.

2.8.3 CAIXA's INFO DAY (Workshop - M20)

CAIXA is planning to organize an educational workshop/seminar as a part of the internal dissemination for the project. Specialized employees from various departments of the organization will participate in this event and will be informed about project's technological achievements. This workshop will serve as an introductory presentation to I-BiDaaS project.

2.8.4 UNSPMF's INFO DAY (Workshop - M13)

I-BiDaaS technical coordinator, UNSPMF, is planning together with member(s) of EAB to conduct a one-day industry-oriented INFO DAY in Novi Sad, Serbia, as a part of its contribution to dissemination activities. The INFO DAY is scheduled on 22nd of January 2019 (M13). Local Industries and SMEs (a few local banks, VIP mobile telecom company, etc.), as well as members of the scientific community around data science and Big Data in Serbia and the region will be invited and expected to attend on this three to four-hour event. During the event, an introductory presentation of the I-BiDaaS will be included along with a demonstration of the MVP. The INFO DAY will end with a discussion/brainstorming session including industry experts from finance and telecommunications sectors and potential future end-users of the project.

¹⁶<https://www.telefonica.com/en/web/press-office/-/telefonica-presents-aura-a-pioneering-way-in-the-industry-to-interact-with-customers-based-on-cognitive-intelligence>

¹⁷<https://www.telefonica.com/en/web/press-office/-/telefonica-launches-movistar-a-unique-television-offer-with-the-best-content-at-the-best-price>

¹⁸<https://www.botcorn.com/>

¹⁹<http://www.campusmelfi.it/>

3 Dissemination & Communication tools

3.1 Overview

Dissemination tools of I-BiDaaS can be categorized with respect to the communication channels of interest that have been identified at the starting point of the dissemination strategy:

- Web-based presence tools (website, social media, etc.)
- Event-based presence tools (workshops, conferences, presentations, etc.)
- Press-based presence tools (papers, fact sheets, flyers, etc.)

Different tools and means have been developed for different audiences and messages. The following sub-section outline each one of those utilized separately.

3.2 Social networks profile management and internet dissemination activities

Great emphasis will be placed by the project team to create a web-based community consisting of people who will / may be interested in I-BiDaaS implementations. Therefore, the project team will exploit the power of social networks and available internet tools in order to enable an active dissemination towards the community and enhance its web-based presence. The ultimate goal is to create an I-BiDaaS social community that will be flexible enough to engage its members during all project's noted periods. A prolonged and interactive communication campaign is necessary, and technical staff from the project will be recruited to actively engage with the identified community according to dissemination and exploitation objectives.

3.2.1 Project Website

I-BiDaaS deliverable D7.1⁶ fully describes the design and development of the project's website. Utilizing the Drupal CMS, ITML started the developing activities in M1 while at the beginning of M2 the website was ready to launch for full operation. The website contains information about the project's objectives, consortium, main domains, and platform. All internal and external dissemination materials and activities are being communicated through regular updates on the website. Since M3, the website has been enriched with pertinent content to a great extent.



Figure 2. I-BiDaaS Website Homepage

A blog page will be developed in future versions of the website in order to add more value to its coordinating role between internal and external interested parties of the project.

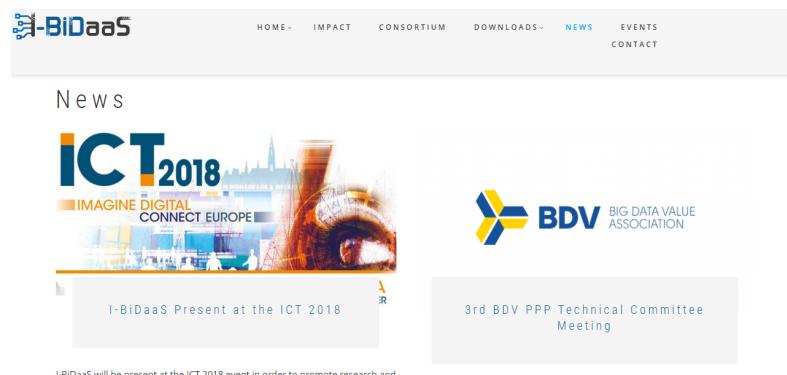


Figure 3. I-BiDaas Website News Page

3.2.2 Social Network accounts

During the first 12 months, two social media were created for the enhancement of the I-BiDaas web-based presence. A Twitter account¹³ and a LinkedIn profile¹⁴ have been launched since M6 in order to collaborate with the website and expand the reached targeted audiences. Dissemination material and activities are communicated via these platforms regularly with updates and posts. Social media presence will not only enhance public awareness of the project on the web, but it will also facilitate the creation of an I-BiDaas active community.

3.2.3 Twitter

Twitter account for the project was created in January 2018 (M2) and has been active for the past 12 months tweeting with respect to I-BiDaas dissemination activities. As of M11, the twitter account has made more than 123 tweets to 82 followers. With respect to the account statistics and analytics, even though a period of 18 months is needed in order to have measurements of significance, it is safe to state that activity of the account has been increased over 550% in the last few months (M10 & M11) which is a reasonable number considering the fact that many of the events significant to the I-BiDaas activities have taken place during this specific time period.

Figure 4. I-BiDaas Twitter Account

3.2.4 LinkedIn

I-BiDaas LinkedIn profile was created during M8 and has been active ever since with posts regarding the project's dissemination activities. So far, seven (7) connections have been

established with respect to the LinkedIn profile while the profile appeared 15 times at relevant searches within the specific platform. By the end of M14, a LinkedIn group will strengthen the LinkedIn presence of I-BiDaaS.

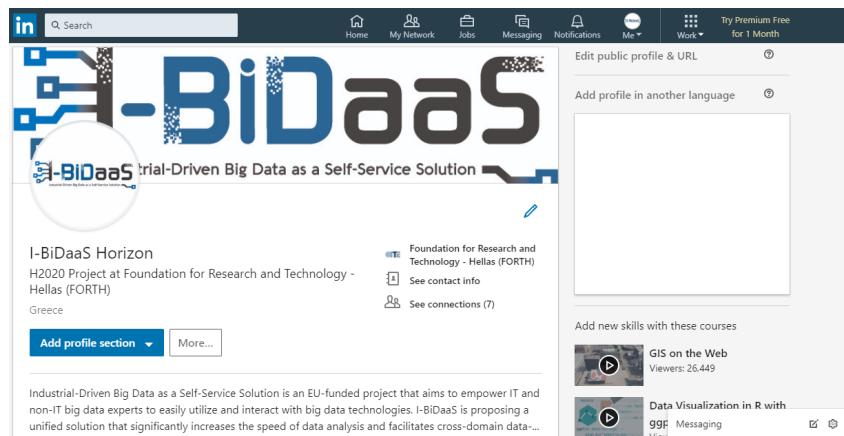


Figure 5. I-BiDaaS LinkedIn Profile

3.2.5 BDVe innovation marketplace

In the subsequent period (M18), I-BiDaaS is also planning to contribute to the BDVe innovation marketplace²⁰.

This channel is an excellent dissemination and exploitation opportunity for I-BiDaaS for promotion of its innovation results to a broader audience, as well as to help carry out match-making for potential future users of the I-BiDaaS platform and its components. The specific fields where we consider contributing include (according to the categorization at <http://marketplace.big-data-value.eu/>) Data Analytics, Data processing architectures, and Data Visualisation and Interaction. We believe that the I-BiDaaS framework (platform), I-BiDaaS processes, and several I-BiDaaS components can be highly relevant for several markets of the BDVe marketplace, including the Financial and insurance activities, and Information Service activities markets. The consortium will discuss about and develop a strategy for the BDVe marketplace in the upcoming period.

3.3 Dissemination material

From the beginning of the project, dissemination material is characterised by a common look and feel, since certain templates are being followed in order to avoid confusion and facilitate public engagement and awareness with I-BiDaaS at various communication channels. As a starting point, a general-purpose presentation of the entire project has been developed and implemented throughout various materials including a Factsheet, a Flyer and a PPT. Such tools are the ideal for use in order to showcase the project's various aspects in workshops, conferences and other events and they can easily be modified for each targeted audience.

3.3.1 I-BiDaaS Logo

Communication and branding are nowadays essential to enhance visibility and awareness of a project. The logo is the main graphic identity element and the key to building a successful dissemination campaign. The logo is in all graphic material and documents related to the

²⁰ <http://marketplace.big-data-value.eu/>

project. Therefore, the logo's design has been carried out in a way that can be a representative of I-BiDaS concept and vision.

The following figure presents the I-BiDaS logo.



Figure 6. I-BiDaS Logo

The logo is reproduced in all reports and deliverables by the project and aid recognition in the audience. The audience can better associate different reports from the project and it gives the work and website a more professional look.

3.3.2 Factsheet

The figures below depict the two-page fact sheet that has been created during the first year of the project. The first page includes the project's statement and concept along with basic information about I-BiDaS consortium, development duration and cost.

Project Statement: I-BiDaas aims to empower users to easily utilize and interact with big data technologies, by designing, building, and demonstrating, a unified framework that significantly increases the speed of data analysis while coping with the rate of data asset growth, and facilitates cross-domain data-flow towards a thriving data-driven EU economy. I-BiDaas will be tangibly validated by three real-world, industry-led experiments.

Concept: Organizations leverage data to drive value, while it is variety, not volume or velocity, which drives big data investments. The convergence of IoT, cloud, and big data, create new opportunities for self-service analytics towards a completely paradigm towards big data analytics. Human and machine collaboration will be key to achieving this. This will have a significant impact on our economy and society. To face the challenges, companies will upon expert analysts and consultants to assist them. A self-service solution will be transformative for organizations, it will empower their employees with the right knowledge, and give the right decision support they need to make the right decisions. It will also increase performance in an organization, increase efficiency, reduce costs, improve employee empowerment, and increase profitability.

Objectives:

- I-BiDaas will offer big data as a Self-Service to enterprises by allowing a seamless integration and execution of streaming and batch processing, and facilitate the adoption of big data analytics to enterprises that possess big data but may not have in-house expertise to extract the required actionable knowledge.
- I-BiDaas objectives are:
 - Obj No.1: Develop, validate, demonstrate, and support, a unified framework and big data solution that can be easily configured and adopted by practitioners;
 - Obj No.2: Break inter and intra-sectorial data-silos, create a data market and offer new business opportunities, and support data sharing, exchange, and interoperability;
 - Obj No.3: Construct a safe environment for methodological big data experimentation, for the development of new products, services, and tools;

Consortium:

- INSTITUTE FOR RESEARCH AND TECHNOLOGY HELLAS (IFORIT)
- BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION (BSC)
- IBM ISRAEL - SCIENCE AND TECHNOLOGY LTD (IBM)
- CENTRO RICERCHE FIAT SCPA (CRF)
- SOFTWARE AG (SAG)
- CAIXABANK, S.A. (CAIXA)
- THE UNIVERSITY OF MANCHESTER (UNIMAN)
- ÉCOLE NATIONALE DES PORTS ET CHAUSSEES (ENPC)
- ATOS SPAIN SA (ATOS)
- AEGIS IT RESEARCH LTD (AEGIS)
- UNIVERSITY OF TECHNOLOGY FOR MARKET LEADERSHIP (UTML)
- University of Novi Sad Faculty of Sciences Serbia (UNSPMF)
- TELEFONICA INVESTIGACION Y DESARROLLO SA (TID)

Figure 7. Fact Sheet page 1

The second page of the fact sheet includes part of the project's objectives along with the impact expected in certain industrial sectors of interest. The EU economy and its link to the I-BiDaS is also included in page 2.



Figure 8. Fact Sheet page 2

3.3.3 PPT

I-BiDaS general presentation is part of the different dissemination tools designed to support the project's dissemination efforts. This task includes the production/design of the project's presentation template and a project presentation. The template shall be used in all events and meetings where I-BiDaS results and activities are presented. It has been designed to facilitate the recognition of the project.

I-BiDaS project PowerPoint presentation provides a general project overview, background information, objectives, rationale, partners and first results. This presentation will be continuously updated during the course of the project.

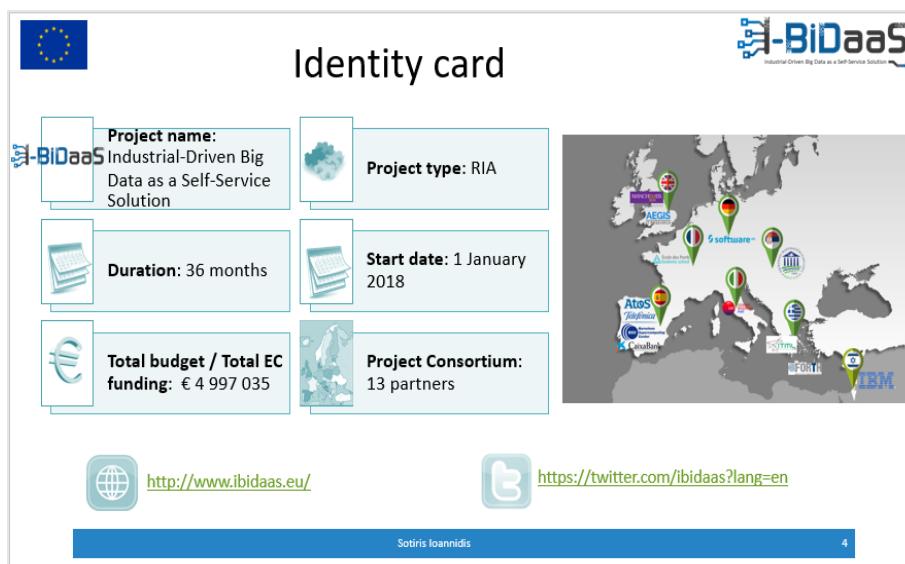


Figure 9. I-BiDaS PPT sample

4 Monitoring - KPI's

Progress in dissemination is being monitored by using key performance indicators (KPIs) which cover all forms of dissemination and in particular emphasize the results gained rather than the quantity produced. To this end, the dissemination manager, project coordinator and exploitation manager will be facilitated in modifying the strategy and incorporate feedback into the project.

KPIs cover website statistics, event participation and quantity of publications. Beyond merely registering the number of activities, the KPIs will expressly measure the dissemination value of actions. For example, the number of “reads” of online materials, the number of queries and comments received, the number of citations and backlinks. These KPIs will be used to steer dissemination to the most valuable activities.

4.1 Key performance indicators

The following table describes the basic characteristics that were initially considered when identifying the most appropriate KPIs at this early phase of the project. It is obvious that they will be continuously updated as the project evolves and I-BiDaaS achievements will become more tangible and concrete.

Table 7. Indicator characteristics

<u>Indicator</u>	<u>Measurement</u>
Clarity	Are the engagement tactics relevant and recognisable?
Focus	Has the right message been delivered to the right people?
Effectiveness	Is there an effective delivery mechanism for each message?
Responsiveness	Is there a system of collating all feedback to determine effectiveness?

Regular updates of the project achievements will be communicated, including results (live demo, presentations, press releases, participation in events, etc.) which will be highlighted on the websites, social media sites, etc.

For each of the dissemination activity, one or more success indicators or feedback mechanisms will be used to measure the effectiveness of the communication. The following table describes KPIs initially defined by the I-BiDaaS consortium.

Table 8. Dissemination KPI's

<u>Dissemination channels</u>	<u>KPI(s)</u>	<u>Success indicator</u>
<u>Website</u>	Number of unique visitors per year.	According to section 2.2.7 of the DoW, an average of 5000 visits per year would be a positive result. While over 300 downloads during the same period of time are considered as a success indicator
	Number of downloads from website's public resources (deliverables, prototypes, dissemination material)	
<u>I-BIDAAS on social media</u>	Will be monitored based on the total number of “views” and “clicks”	Significantly increase during project's highlighted activities, namely participation to an event, releasing a prototype, etc.
<u>I-BIDAAS videos</u>	Number of views	More than 10 videos will be produced and all will be evaluated by the total number of views

<u>Press echoes (from all over Europe)</u>	Number of references to different press means	Around 10 press references to the project all over Europe
<u>Online magazines and newspapers.</u>	Number of online references and links, measured via cataloguing and listing tools	Around 25 direct/indirect references and links to I-BiDaaS website project
<u>Conference - Journal publications (International referred journals)</u>	Number of publications	More than 10 publications
	% amount of publications with impact factor or ERA classification.	At least 33%
	% amount of gold open access journal articles	
<u>I-BIDAAS participation in conferences and expeditions and other events</u>	At least 3 conference or workshop participations per year.	Will be evaluated by the total number of participants with reference to the total number of events occurred (at least 20 in total)
	At least 2 active participations to a standardization body.	
	At least 4 participations to collaborative initiatives.	
<u>I-BIDAAS organization of workshops</u>	At least 3 workshops or special events.	Will be evaluated by the total number of participants
<u>I-BIDAAS on-site demonstrations</u>	At least 10 on-site demonstrations	
<u>Co-operation with other initiatives</u>	At least 3 collaborations with projects in H2020.	Will be evaluated via the common actions that will be implemented
	More than 5 collaborations in total	

4.2 Means to measure indicators

Each partner will be in charge of locally monitoring its own dissemination activity and reporting the progress and pitfalls to the dissemination leader. All partners are responsible for liaising with the local and regional media for dissemination purposes. In addition, external project material will be reviewed with the dissemination leader in order to comply with quality standards.

Furthermore, I-BiDaaS dissemination leader, AEGIS, and ITML (as the website owner) will be in charge of the following two tools that will monitor the traffic of I-BiDaaS community.

4.2.1 Google analytics

Focusing on the project website, Google analytics platform will be utilized to monitor the engagement of all the relevant stakeholders. Customized reports will be compiled and useful conclusions will be drawn regarding the content of the site.

The tool will also be used to modify, if necessary, the Search Engine Optimisation (SEO) strategy, with the ultimate goal to make I-BiDaaS popular to the web community. The project's presence in the most well-known search engines (such as Google, Bing and Yahoo) will be monitored weekly.

4.2.2 Search Engine Optimization

The following table summarizes the main characteristics of the utilization of Search Engine Optimization processes.

Table 9. Search Engine Optimization for I-BiDaaS project

<u>Characteristics</u>	<u>Description</u>
Objective	Make sure that the website is highly ranked in search engines
Key Message/Content	Raise general awareness of the project
Target Stakeholder	Major Search Engines (SE) like Google
Information Required & Level of Detail	Need to list relevant keywords and use them in the pages, titles Required tagging of the maps in the identified search engines Use of a SEO specialist
Information Providers	AEGIS
Communication Methods	Outsourcing SEO Web-based interactions with SEs
Activity Required for Production & Delivery	Decide upon advertising budget (optional) Create a Budget plan (by using Google AdWords – optional)
Frequency & Timing	Set up strategy and check if the strategy works after a period of time Modify the SEO strategy according to project milestones
Feedback and Follow Up Activity	Use traffic tools such as Google analytics and modify SEO strategy accordingly

4.3 Risks and issues

There are a number of risks and potential issues related to the communications side of the project. These risks will be monitored and mitigated by the Coordinator. The following table summarizes some of the possible communication risks.

Table 10. Risk Log

<u>Risk description</u>	<u>Priority</u>	<u>Actions to be considered</u>
Dissemination activities fail to target the correct audiences	High	Set clear objectives based on knowledge of the target audience, set specific goals.
Poor dissemination towards relevant stakeholders. The project may fail to get the wide participation of the citizens and the relevant stakeholders	High	A clear map of stakeholders. Ensure clear message across all dissemination material.

5 Dissemination & Communication activities (M1 to M12)

5.1 Overview

Dissemination & communication activities for I-BiDaaS have been planned and launched from M1. Activities include publications with respect to the project in scientific journals, conference and workshop publications and various events that aim to enhance public awareness with I-BiDaaS presence and participation in events and conferences, as well as organization of workshops, hackathons etc.

5.2 Publications

5.2.1 Scientific Papers

Table 11. Scientific Journal Publications

<u>Title of Journal</u>	<u>Title</u>	<u>Main author</u>
Eurasip Journal on Advances in Signal Processing, Special Issue on Optimization and Learning over Networks, invited paper; 1.92 5-year impact factor; 1.639 2-year impact factor	Communication Efficient Distributed Weighted Non-Linear Least Squares Estimation	Anit Kumar Sahu, Dusan Jakovetic, Dragana Bajovic, Soumyya Kar
IEEE Transactions on Automatic Control; impact factor 5.007	Communication-Efficient Distributed Strongly Convex Stochastic Optimization: Non-Asymptotic Rates	Anit Kumar Sahu, Dusan Jakovetic, Dragana Bajovic, Soumyya Kar
Computational optimization and applications; impact factor 2017 -- 1.413	Exact spectral-like gradient methods for distributed optimization	Dusan Jakovetic, Natasa Krejic, Natasa Krklec Jerinkic

5.2.2 General & business publications

Table 12. Business & General I-BiDaaS Publications (non-journal publications)

<u>Conference / Workshop</u>	<u>Title</u>	<u>Main author</u>
IEEE International Conference on Decision and Control, CDC 2018, Dec 17-19, Miami, FL, USA	Distributed Zeroth Order Optimization Over Random Networks: A Kiefer-Wolfowitz Stochastic Approximation Approach”	Anit Kumar Sahu, Dusan Jakovetic, Dragana Bajovic, Soumyya Kar
IEEE International Conference on Decision and Control, CDC 2018, invited paper, Dec 17-19, Miami, FL, USA	Convergence rates for distributed stochastic optimization over random networks	Anit Kumar Sahu, Dusan Jakovetic, Dragana Bajovic, Soumyya Kar
GlobalSIP 2018, IEEE Global conference on signal and information processing, Nov 26-28, Anaheim, CA, USA	Non-asymptotic rates for communication efficient distributed zeroth order strongly convex optimization	Anit Kumar Sahu, Dusan Jakovetic, Dragana Bajovic, Soumyya Kar
7th European Conference on Service-Oriented and Cloud Computing – EU Project Space track (ESOCC 2018), 12-14 Sep 2018, Como, Italy	I-BiDaaS: Industrial-Driven Big Data as a Self-Service Solution	Giorgos Vasiliadis, Dusan Jakovetic, Ilias Spais, Sotiris Ioannidis

IEEE BigData 2018	There goes Wally: Anonymously sharing your location gives you away	Apostolos Pyrgelis, Nicolas Kourtellis, Ilias Leontiadis, Joan Serra and Claudio Soriente
12th ACM International Conference on Web Search and Data Mining	A Simple Convolutional Generative Network for Next Item Recommendation	Fajie Yuan, Alexandros Karatzoglou, Ioannis Arapakis, Joemon M Jose, Xiangnan He

5.3 Events

5.3.1 Past Events

The following table includes dissemination activities in the form of conferences, workshop and other events where I-BiDaaS was present.

Table 13. Past Events of I-BiDaaS dissemination activity

Event	Place	Date
PATC: Programming Distributed Computing Platforms with COMPSs, school attendance	Barcelona, Spain	30/01/2018
Bid Data PPP Steering Committee event	Belgium	08/02/2018
BigSkyEarth workshop in Novi Sad, participation at the meeting	University of Novi Sad, Novi Sad, Serbia	26-27/2/2018
Interview on Radio-Television of Vojvodina (RTV) web portal	RTV, the public broadcasting TV service of the Vojvodina	06/03/2018
3rd Annual meeting of the SCOPES project, event participation	University of Novi Sad, Serbia	16/03/2018
Meeting of the Center for promotion of science, talk on I-BiDaaS as a good example of H2020 application and project implementation	Rectorate of the Univ. of Novi Sad	23/03/2018
Data intensive supercomputing and resource malleability	Technical University of Berlin	13/06/2018
Overview presentation of the I-BiDaaS project	Dept. of Telecommunications and Multimedia, Univ. of Zilina, Slovakia	15/06/2018
Big Data Value (BDV) Meet-up	Sofia, Bulgaria	14-16/05/2018
21st International Symposium on Research in Attacks, Intrusions and Defences (RAID2018)	Heraklion, Crete, Greece	10-12/09/2018
International workshop on Information & Operational Technology (IT & OT) security systems	Heraklion, Crete, Greece	13/09/2018
1st SMESEC workshop	Heraklion, Crete, Greece	14/09/2018
7th European Conference on Service-Oriented and Cloud Computing (ESOCC2018)	Como, Italy	12-14/09/2018
Summers School on Network & Information Security 2018 (NIS Summer School 2018)	Heraklion, Crete, Greece	24-28/09/2018
Greece's Researcher Night 2018	Heraklion, Crete, Greece	28/09/2018
World Circular Economy Forum 2018	Japan	22-24/10/2018
I-BiDaaS - PrEstoCloud Workshop	Athens, Greece	29/10/2018
European Big Data Value Forum 2018	Vienna, Austria	12-14/11/2018

Master Seminar: An Introduction to Supercomputing for non-Computer Scientists	Madrid, Spain	23/11/2018
ICT 2018 Conference	Vienna, Austria	4-6/12/2018
IEEE Big Data Conference 2018	Seattle, USA	10-14/12/2018
Presentation of privacy on Big Data at seminar in University of South Florida	Computer Science Department, University of South Florida, Tampa, USA	18/12/2018

5.3.2 Future Events

The following table summarizes upcoming dissemination activities (short-term) in the form of conferences, workshop and other events where I-BiDaaS consortium plans to present and raise awareness of the project.

Table 14. Future Events of I-BiDaaS dissemination activity

<u>Event</u>	<u>Place</u>	<u>Date</u>
PATC: Programming Distributed Computing Platforms with COMPSs	Barcelona, Spain	29-30 January 2019
Data Works Summit 2019	Barcelona, Spain	18-21/03/2019
22nd AGILE conference	Limassol, Cyprus	17-20 June, 2019
https://www.data-forum.eu/	TBA	TBA
IEEE INTERNATIONAL CONGRESS ON BIG DATA	Milan, Italy	08-13 July, 2019
https://bigdata.ieee.org/conferences#Upcoming	TBA	TBA
http://iccit.org.bd/2018/	TBA	TBA
ICT 2019	TBA	TBA
IEMSS	NanJing, China	18-20 May, 2019
INSPIRE	TBA	TBA
ISESS	Hong Kong, China	4-6 June, 2019

5.4 External advisory board

On October 25th, 2018, the first EAB Telco was conducted. The Telco focused on an introductory presentation of the I-BiDaaS project to the members of the EAB. The EAB members that attended the Telco are listed below:

- **George Vouros**, Professor, Department of Digital Systems, University of Piraeus
- **Ilija Susa**, Co-founder of Content Insights LLC
- **Jean-Marie Hurtiger**, CEO of Desmond sas Automotive Consulting, President of RENAULT light Commercial Vehicles, and former CEO of Renault Samsung Motors, Korea.

The Telco consisted of three parts.

- First part presented by FORTH outlined I-BiDaaS project vision, objectives and outcome.
- The second part, presented by UNSPMF, described in detail the technical solution and the innovations that I-BiDaaS has to offer.
- The third part showcased the three pilot test cases that the solution is going to apply.

Commitments and planning for future Telco and face-to-face meetings were made during this first Telco.

A second introductory Telco was conducted on October 29th, 2018 in which the following EAB member was invited to attend:

- **Nuria de Lama**, Representative of Atos Research & Innovation to the European Commission and Vice-Secretary General of Big Data Value Association (BDVA)

A brief overview of I-BiDaaS including the goals, the technical solution, the innovations, the available datasets and data sharing were presented.

Face-to-face meetings with EAB members have been planned for late February to early March 2019.

6 Collaboration Activities (M1 to M12)

6.1 Overview

Following EC's approach "***It is worthwhile to collaborate with others to amplify your work***", I-BiDaaS is open to collaborate and support the liaison and co-operation activities with the other projects. Collaboration is a fundamental concept in terms of approaching and driving innovation. In this context, I-BiDaaS focuses on cooperating with and contributing to other related European projects. This will thus ensure the wide diffusion and effective promotion of ideas and projects results to the target audience.

Collaboration activities among projects are strongly encouraged. This has been the case for several years and has taken different forms. The basic idea behind the collaboration is that projects working in the same areas can have synergies to exploit, can complement each other both in research and business, can join forces to reach their target audience, can reach the necessary critical mass to have a real impact, and so on.

To this end, I-BiDaaS consortium members are willing to provide contributions to the following activities:

- Exploitation of synergies / technical concentration: participation in workshops, joint meetings with other projects
- Joint activities for exchange, dissemination and training.
- Production and dissemination of publications aimed for communication with the general public.
- Co-ordination of standardisation efforts.
- Contribution to Open Source repositories and projects

6.2 Concrete actions so far

6.2.1 I-BiDaaS & PrEstoCloud

The following table provides in detail the collaboration activities of I-BiDaaS with EU-funded project PrEstoCloud²¹ during the 1st year of the project (M1-M12).

Table 15. I-BiDaaS & PrEstoCloud collaboration activities

<u>Characteristics</u>	<u>Description</u>
<i>PrEstoCloud formal overview</i>	The goal of PrEstoCloud is to make substantial research contributions in the Cloud computing and real-time Big Data technologies in order to provide a dynamic, distributed architecture for proactive cloud resources management reaching the extreme edge of the network for efficient real-time big data processing and to deploy and validate it in several challenging, complementary and commercially-very promising use cases.
<i>I-BiDaaS in comparison to PrEstoCloud</i>	Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation.
	PrEstoCloud focuses on Big Data flow and manipulation via cloud and fog computing, thus concerned more with back-end processes.
	I-BiDaaS aims to an end-to-end solution, with respect to Big Data exploitation by end-users with little or no big data analytics experience.

²¹ <http://prestocloud-project.eu/>

<u>Concrete collaboration activities so far</u>	PrEstoCloud – I-BiDaaS Collaboration Workshop 29/10/2018
<u>Concrete collaboration activities decided</u>	Cooperation regarding social media channels and newsletters was agreed on.
<u>Upcoming events</u>	PrEstoCloud is organizing a workshop in Japan next year (2019) and invites I-BiDaaS to submit proposals.

6.2.2 I-BiDaaS and Toreador

The following table provides in detail the collaboration activities of I-BiDaaS with EU-funded project Toreador²² during the 1st year of the project (M1-M12).

Table 16. I-BiDaaS & Toreador collaboration activities

<u>Characteristics</u>	<u>Description</u>
<u>Toreador formal overview</u>	<p>The TOREADOR project is aimed at overcoming some major hurdles that until now have prevented many European companies from reaping the full benefits of Big Data Analytics (BDA).</p> <p>Many companies and organisations in Europe have become aware of the potential competitive advantage they could get by timely and accurate Big Data analytics, but lack the IT expertise and budget to fully exploit BDA. To overcome this hurdle, TOREADOR takes a model-based BDA-as-a-service (MBDAaaS) approach, providing models of the entire Big Data analysis process and of its artefacts.</p>
<u>I-BiDaaS in comparison to Toreador</u>	<p>Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation.</p> <p>Both projects aim to facilitate Big Data exploitation with the development of relevant frameworks.</p> <p>Toreador focuses on model-based Big Data Analytics solutions for organizations.</p> <p>I-BiDaaS aims to an end-to-end solution, with respect to Big Data exploitation by end-users with little or no big data analytics experience.</p>
<u>Concrete collaboration activities so far</u>	Linked with Toreador established at the BDVA meeting in Sofia (May, 14-16 of 2018) followed by an introductory telco.
<u>Concrete collaboration activities decided</u>	Cooperation regarding target joint papers was agreed on.
<u>Potential Collaborations</u>	Possible implementation of I-BiDaaS tools on Toreador's service catalogue platform for future use in case studies.

²² <http://www.toreador-project.eu/>

7 Standardization activities

Standards and standardization activities have always been one of the crucial pillars of technological progress, since standards constitute the vehicle that consolidates major research results and promotes their usability from industry and users.

As a core part of its standardization activities, I-BiDaaS platform will be tested through industry-validated benchmarks. The IBM Test Data Fabrication will be utilized for this purpose to define fine-grained test data for benchmarking, as needed. Specifically, batch processing, i.e., graph analytics (and possibly other batch processing methods) will be tested within Graphalytics²³. I-BiDaaS coordinator FORTH is one of the founders of Linked Data Benchmarking Council.

SQL-compliant standardization and benchmark tools, such as the BigDataBench²³ and the Berkeley's Big Data Benchmark²⁴, will be utilized for the extensive benchmark and fine-tune of the overall performance of I-BiDaaS through its SQL interface. From the well-established standard TPC benchmarks²⁵ adjustments for Big Data such as BigBench²⁶ based on TPC-DS will be exploited as well.

Moreover, the Yahoo! Cloud Serving Benchmark (YCSB) is a benchmark suite initially developed by Yahoo! that is used to compare the performance of NoSQL databases. The YCSB framework consists of a workload generating client and a package of standard workloads covering different typical pattern of access. It has been designed to be easily extended to evaluate new data systems. In I-BiDaaS, it can be adapted to evaluate the performance of the data system composed of Hecuba and Cassandra²⁷.

I-BiDaaS will monitor and consider actively engaging in relevant standardization activities in the subsequent project period. The initiative will be two-fold. First, as a top-down approach, I-BiDaaS considers Big Data-relevant workgroups and standardization activities of major bodies like ISO and ITU, most of which have also been highlighted as the BDVA priorities at the BDVA technical committee meetings. These initiatives include 1) ISO SC 42 (artificial intelligence), more precisely their WG2 on Big Data, and SG 1 on Computational approaches and characteristics of artificial intelligence systems; and 2) IUT's Focus Group on Machine Learning for Future Networks including 5G and IUT's Focus Group on Data Processing and Management to support IoT and Smart Cities & Communities. I-BiDaaS will monitor these initiatives and attempt to join and actively participate in the relevant workgroup meetings and events. Second, as a bottom-up approach, I-BiDaaS will expand upon the standardization activities of their technology providers like IBM, SAG, and ATOS.

The ISO SC 42 WG2 (Big Data) is of particular interest to I-BiDaaS because of their projects ISO/IEC TR 20547-1: Information technology — Big data reference architecture — Part 1: Framework and application process, and ISO/IEC DIS 20547-3: Information technology — Big data reference architecture — Part 3: Reference architecture.

The IUT's Focus Group on Data Processing and Management to support IoT and Smart Cities & Communities is relevant for I-BiDaaS regarding the processing of IoT-generated data, related with the I-BiDaaS CRF's use cases, as well as regarding complex event processing tools.

²³ <http://ldbcouncil.org/ldbc-graphalytics>

²⁴ <https://amplab.cs.berkeley.edu/benchmark/#>

²⁵ <http://www.tpc.org>

²⁶ A Ghazal et al. BigBench: towards an industry standard benchmark for big data analytics. SIGMOD, 2013.

²⁷ Benchmarking Cloud Serving Systems with YCSB. Brian F. Cooper, Adam Silberstein, Erwin Tam, Raghu Ramakrishnan, Russell Sears. Yahoo Research. In proceedings of SoCC'10, June 10–11, 2010.

8 Short-Term future development and planning (M12 to M18)

Following the goals planned and the achievements of the dissemination and communication strategy of I-BiDaaS during the first year of the project, the present section outlines the planned actions that will take place the following months (M12-M18):

- Design and Development of website's Blog Page;
- Design and Development of YouTube Channel for the project;
- Face-to-face meetings with EAB members;
- Production of presentational/promotional videos;
- Organization of a series of events including Hackathons and Workshops;
- Presentations of the initial project result internally to each consortium member's organization;
- Collaboration with other EU projects and consortiums, etc.

The following table outlines the dissemination and communication actions that will take place in the next six (6) months.

Table 17. Short-term future dissemination actions

Project Month	Activity	Purpose	Partners involved
M14	Development of a YouTube channel	Upload of Dissemination audio-visual material	AEGIS
M12 to M18	Constant updates of social network accounts	Consolidate all social networking channels	
	Website	More matured and complete version online including Blog Page	
	Events – Journals	Participation in relevant events	ALL
	Liaison activities	Reporting	AEGIS, FORTH, UNSPMF
	Publication planning	Keep sharing conferences with partners, increase nº of publications as results are more matured	Academics
M15	Flyer and Roll-up	Enrich of public Dissemination Material	AEGIS
M13 to M18	Video Clips		AEGIS
M15	EAB	Face-to-Face meeting	ALL
M18	Dissemination strategy monitoring	Checking dissemination actions & evaluating KPIs	AEGIS
M14	Standardization reporting	Monitoring standards and relevant clusters, e.g. BDVA	AEGIS, FORTH, UNSPMF
M18	Collaboration with PrEstoCloud	Perform a joint collaborative task	AEGIS, FORTH, UNSPMF, ATOS

9 Conclusions

I-BiDaaS is still at its incunabula and therefore this document presents the strategy for the I-BiDaaS Dissemination as initially planned. In general, dissemination is the basis of a widespread information strategy providing an overall picture of the project and aiming at the rise of awareness throughout its lifecycle and beyond.

This deliverable intends to serve as a guide for all I-BiDaaS consortium members providing the necessary practices for an effective dissemination in terms of teamwork. In addition, this documents is itself an asset of internal dissemination among members of the consortium, providing them with knowledge of each member's contribution to dissemination assets and actions.

After having outlined the initial dissemination strategy plan of I-BiDaaS, fulfilled actions are summarized along with assets and activities that are planned, developed and deployed within the first year of the project. Based on the pointed objectives for dissemination and all generic dissemination activities, I-BiDaaS consortium will use a variety of dissemination assets to reach the variety of audiences that have been portrayed in this document.

Finally, considering the fact that any dissemination in itself is dynamic as it is related to the project's partial developments and outcomes, dissemination assets will be continuously monitored and updated (frequent adjustments are expected) with respect to project's objectives and KPIs.