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Enabling the European Business Graph for Innovative Data Products and Services



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Impact Creation Report

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Executive summary

The use of Big Data and the ability to gather, process and analyze big streams of company data is a key technology for staying competitive in current and future markets within Europe and at a global scale. In order to tackle the fragmentation of the European Market with respect to data formats, availability and ontologies, it is crucial to further push on common standards.

Following its communication strategy, euBusinessGraph has attempted to create high awareness in the company data domain. Additionally, euBusinessGraph has used the BDVE to spread the word and connect with other European projects in the field of data processing and analysis. Through participation in various conferences in Europe euBusinessGraph has raised interest for a common description of multiple data sources (ontology) and company data services (BusinessGraph, Marketplace).

The impact of the communication activities is confirmed by more than 4200 visits throughout the project's runtime. The presence of more than 180 followers on the euBusinessGraph Twitter account also demonstrates continuous interest in the project's news. Additionally, we are present on other social networking platforms such as YouTube, GitHub and LinkedIn. Through activities of all project partners we demonstrated that the euBusinessGraph project overall meets the needs of the market, which is increasingly demanding products around big data technologies. For information on how the outcomes of the project will be further exploited, please see D5.4 "Post-project Business Exploitation Strategy".

This impact creation report and showcase summarize the main science and technology outputs that were produced over the course of the project. These include:

- The euBusinessGraph (including the Ontology)
- Marketplace portal
- The business cases

Considering the high attention that euBusinessGraph communication activities have gathered, we are proud to say that the communication planning supported and enabled a successful and effective project communication campaign, which was geared to inform stakeholders about the project, its goals and its outcomes.

Acronyms

API	Application Programming Interface
BR-S	BRC Norwegian Registries API Service
CED	Corporate Events Data Access
CRM	Customer Relationship Systems
CRM-S	CRM Service
DJP	DW's Data Journalism Product
TDS	Tender Discovery Service

1 Introduction

This report details all the communication activities that have been carried out throughout the whole course of the project (M1-M30). The report is based on the "Exploitation and Dissemination Strategy" deliverable from M6 and it details the work carried out to promote the project and its outcomes.

euBusinessGraph has successfully completed its tasks, with 6 business cases and one central market platform demonstrating the value and potential of company data value-added services within and across several business sectors and jurisdictions. The project outcomes culminated in a central platform which integrates data from various data providers and various jurisdictions. Several services can be used to upload data and for enrichment, analysis and visualization processes.

The euBusinessGraph Consortium has also been very active with regard to project dissemination using the website and social networks, through conferences, and via personal contacts. Additionally, partners have invested considerable effort to promote the project to existing and potential customers.

2 Exploitation and Dissemination Strategy

As stated in the exploitation and dissemination strategy there are two major communication phases for the project: The goal of the first phase (first year) was primarily to create awareness about the euBusinessGraph project and to connect to relevant communities. The second phase aimed at engaging users to try out technical components and demonstrate the added value of the euBusinessGraph platform, and how it will contribute to their businesses.

As it is essential to align the dissemination activities according to target groups, in the euBusinessGraph project there are a number of target groups involved:

- Private and public companies
- Data experts and initiatives
- Scientific community
- General public

To connect with these groups, the contribution of all the partners was essential. Initial dissemination activities helped to identify the respective position of the actors and their importance and improved the initial exploitation and dissemination plan.

The major objectives of the impact activities - as set out in the dissemination and exploitation report - are to:

- Raise attention and inform about the development of the overall project and single business cases
- Make project outcomes and applications available to targeted audiences
- Demonstrate that euBusinessGraph adds value to the European society and its markets

In the following chapters, the main technology results are shown. This is followed by a presentation of the used communication channels and activities. Wherever applicable, the effects of the communication activities are shown in numbers in order to concretely attest to the impact that euBusinessGraph communications activities have given.

3 Main Science and Technology Results

The primary goal for the euBusinessGraph project was to meet the project objectives through the development of a data and service marketplace. The project partners have created the euBusinessGraph Marketplace portal (an integrated, flexible, and reliable service for data uploading, transformation, enrichment and analysis), and six business cases.

3.1 euBusinessGraph / Marketplace

A public demonstrator of the euBusinessGraph data marketplace application is online at:

- <http://marketplace.businessgraph.io>

This public demonstrator seen in Figure 1 below, contains a subset of company data covering the following jurisdictions (countries): the United Kingdom, Italy, Germany, France, Belgium, Luxembourg, Norway, Bulgaria. The source data is provided by the following consortium members: OpenCorporates, SpazioDati, Brønnøysund Register Centre and Ontotext in the project.

The main goal of the data marketplace application is to ease the search and discovery of company data in the EU. We list several core characteristics of the data marketplace:

- The application uses a GraphDB database to store data,
- The architecture is built according to the microservices architectural pattern that ensures great flexibility in development and deployment,
- Two different types of search are implemented: 1) full-text and 2) faceted search, where one can explore the knowledge graph and search for companies that meet specified criteria,
- Integrates third-party software to search for news articles and events,
- Provides different graphs of data which can be analyzed, searched and explored by invoking queries directly across a set of diverse datasets sharing common properties,
- Data providers joining the business graph share a common subset of their data described in accordance with a common data model,
- The common shared data are kept in a GraphDB database in the form of a graph of linked data that conforms to the common semantic model (ontology).

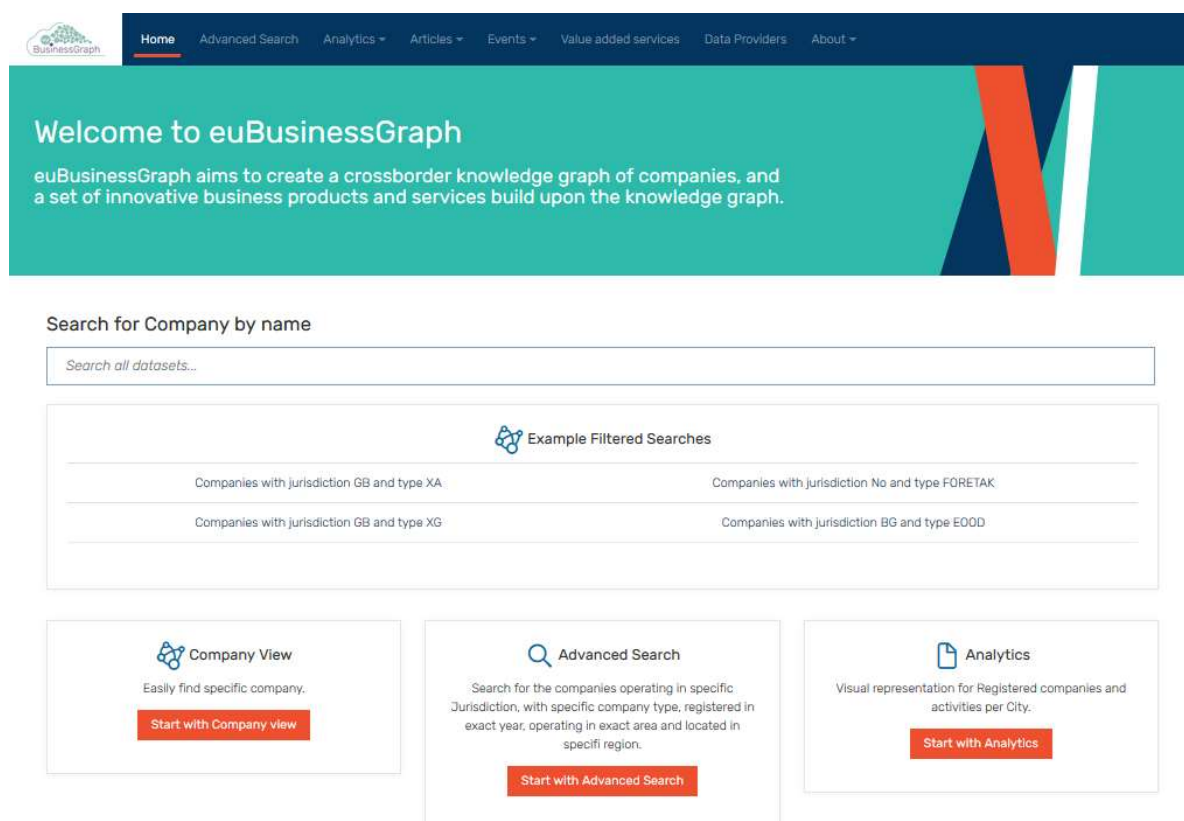


Figure 1. Marketplace application - home page

3.2 Business Cases

This section provides the final description of the products developed within each business case and outlines the implemented main features and their use of technical components. The business cases have developed several products for different sectors. Each business case focuses on various products for different customer segments addressing different markets, internal process improvements and public sector needs:

Table 1: Summary of euBusinessGraph business cases

CED	CED is an EU-wide product around standardized corporate events data across jurisdictions, derived from company registers and government gazettes. The product gives users insight into significant events in a company's lifecycle, including changes in status, name, address, directors and officers.
TDS	TDS supports companies across jurisdictions in discovering new untapped business opportunities in the Italian market. It enables easy, fast and intuitive discovery of relevant open public administration tender calls tailored to rich company and company-related information. TDS focus is on marketing solutions and sales managers.
Atoka+	Atoka is a SaaS B2B lead generation service on the Italian market that provides a single point of access to very detailed, organized, summarized, up-to-date company information from open and non-open, official and unofficial sources. Atoka+ is a new product extending the existing solution and widening its potential customer base by servicing new jurisdictions through company and company-related information in the United Kingdom and Norway. Targeted customers are mostly sales representatives and marketing managers.
CRM-S	CRM-S product is a service for bridging the gap between operational and analytics CRM systems for EVERY's rich customer base. CRM-S is offering effective analytics on company

	data across jurisdictions, and integrated with standardized business processes. The solution is easily integrable with customer CRM and ERP systems.
DJP	DJP is a service aimed at journalists to assist them in dealing with large volumes of complex company-related data. DJP supports storytelling by enabling journalists to easily and quickly search for and monitor relevant company-related information/data across multiple sources, and quickly create associated digital content items. The service covers three core parallel workflows: research, monitoring and content production.
BR-S	BR-S is an API service that provides access to authoritative data about Norwegian businesses. It aims at increasing the usage of authoritative business data in private and public sectors of Norway. BR-S is enabling modern access to three major Norwegian authoritative public sector registers.

In the following sections, the results of each of the business cases mentioned in Table 1 will be explained and summarized.

3.2.1 Corporate Events Data Access Service (CED)

The Corporate Events Data Access Service (CED) from OpenCorporates is a new product which provides cross-jurisdictional data and alerts about changes in companies, deriving this from official primary sources (primarily company registers and at later stage government gazettes), and making them available in a standardized form.

Such events give critical early warning to users who need 'signals' about changes at companies of their interest (e.g. status, name, directors, address, industry, etc.), including Know Your Customer (KYC) and due diligence users, as a change in director or industry, for example, will often mean that KYC processes need to be refreshed. Other key users include partners of the companies (suppliers, customers, banks, trade finance companies, etc.), regulators and competitors of the companies.

This data is available to users: (a) via the website, so that users can see the events relating to a given company with a timeline of the key lifecycle points, (b) via the API, so that users can both see events for a company and also get the latest events of a given type, and (c) via bulk data.


Of those three, bulk data will bring in the greatest revenue by quite some margin – however, making the data available via the website is important for the delivery of OpenCorporates' public-benefit mission (of making company data freely available for public benefit), as well as it is a marketing tool for the product.

This product is well **aligned to our core product**, moving us from 'fresh' snapshots to time-series of company data. Our existing clients and prospects are the **target market** within the KYC/AML sector, with business information providers, and financial services. Corporate events will become an important part of our product portfolio in the future, delivering growth from both new and existing clients.

Finally, the architecture we have chosen – using microservices to create events from various triggers – not only provides a maintainable and iterable system, but crucially, given the overall OpenCorporates technical roadmap, it provides a system that allows to migrate the main monolithic app to a more distributed, microservices architecture without having to change the events' elements.

→ ↻ OpenCorporates Ltd [GB] | https://opencorporates.com/companies/gb/06053251/events

🔔 Announcing the [OpenCorporates Trust](#) – a new entity that guarantees the OpenCorporates mission



☒ Companies ☐ Officers

The Open Database Of The Corporate World

Events for A & P ELECTRICAL LTD

- **On 2007-01-15** [Incorporated](#)
- **Between 2007-01-15 and 2019-03-01** [Addition of officer ANDREAS PROCOPIOU, director](#)
- **Between 2007-01-15 and 2019-03-01** [Addition of officer EVANTHIA PROCOPIOU, secretary](#)
- **Between 2007-01-15 and 2019-03-01** [Addition of officer FORM 10 SECRETARIES FD LTD, secretary](#)
- **Between 2007-01-15 and 2019-03-01** [Addition of officer FORM 10 DIRECTORS FD LTD, director](#)

Figure 2. Corporate Events for a company on the OpenCorporates website

3.2.2 Tender Discovery Service (TDS)

TDS aims at enabling customers to easily and quickly identify pertinent open public administration tenders, tailored to customer interests, rich company profiles and capabilities. Hence, TDS is aimed at marketing and sales lead in both large, and small and medium-sized companies (SME), facilitating business growth and search for prospective customers. It is being implemented as an offering of Cerved's marketing solutions and lead generation portfolio of products.

The TDS service is a set of algorithms and services that enables easy, fast and intuitive discovery of relevant open public administration tender calls based on tender call content, company profiles, and interests expressed through past participations to similar types of calls by customers. The current solution relies on open tender calls data and closed contract data for Italy, as well as the Italian company register.

Bando di gara e contratti pubblici by Cerved	
CONCORSO DI IDEE EX ART. 156 D.LGS 50/2016 PER LA VALORIZZAZIONE CULTURALE E/O TURISTICA E/O SOCIALE E/O IMPRENDITORIALE DEL COMPENDIO DI VILLA ALARI DI CERNUSCO SUL NAVIGLIO (MI) Bando attivo	
Cig 77883890E9	Cup G96D1900000004
Informazioni su importi e tempistiche	
Importo 499.999,00 €	Data termine offerta 31/07/2019
Data pubblicazione 14/03/2019	
Chi emette il bando	Procedure e criteri
Ragione sociale stazione appaltante COMUNE DI CERNUSCO SUL NAVIGLIO	Tipo procedura PROCEDURA APERTA
Codice fiscale 01217430154	Tipologia appalto 02
Luogo stazione appaltante Cernusco sul Naviglio	
Tipologie e attività	Fonte
Cpv 71240000-2	Fonte bandi-osservatorio-lombardia
Denominazione Cpv Servizi architettonici, di ingegneria e pianificazione	Vai ai dettagli del bando
Settore Settore ordinario	Cerca con Google
	Responsabile unico procedimento ACQUATI MARCO
Potrebbero interessarti anche	
SERVIZI DI INGEGNERIA E ARCHITETTURA PER I LAVORI DI BOULEVARD DEI PAESAGGI 11-12 SERVIZI DI INGEGNERIA PER GLI INTERVENTI DI MESSA A NORMA DEGLI EDIFICI CHIMICA A E CHIMICA B PRIMO STRALCIO INCARICHI PROFESSIONALI PER IL RESTAURO DELL'ESEDRA DI LEVANTE DI VILLA MANNI A PASARIANO, COBORO (UD) PROCEDURA APERTA PER L'APPALTO DI SERVIZI DI ARCHITETTURA, INGEGNERIA E GEOLOGIA, CON RELATIVE INDAGINI, PER LA REDAZIONE DELLA PROGETTAZIONE DI FATTIBILITA' TECNICA ED ECONOMICA 2a FASE, DEFINITIVA ED ESECUTIVA E IL COORDINAMENTO DELLA SICUREZZA IN FASE DI PROGETTAZIONE, CON RISERVA	

Figure 3. Screenshot of TDS showing details of one open tender and recommended tenders

The final solution enables the user to authenticate, search, filter and rank relevant open tenders and receive recommendations based on their profiles. The recommendation service, which is the core part of the TDS service, relies on: (a) tender-to-tender similarity, (b) recommending open tender based on company's past participation history, i.e. contracts, and (c) recommending open tenders to companies without tender participation history by extending the previous functionality through company-to-company similarity. This service is being delivered as part of Cerved's Marketing Solutions lead generation offering.

3.2.3 Lead Generation Service (Atoka+)

Atoka is a lead generation service that provides a powerful search interface to retrieve company information. Through this interface, users define highly detailed queries that retrieve companies fitting certain profiles. To support the definition of these rich queries, Atoka takes company information from national registers and enriches company profiles integrating information from additional official and non-official sources.

SDATI's efforts within the euBusinessGraph project have been directed towards growing the number of jurisdictions covered by Atoka and providing richer information for each company in the knowledge base. To tackle the complexity in making sense of increasing amounts of information that come with more jurisdictions and richer company information, we have also worked to build a layer of interpretation on top of all the information gathered. This layer of interpretation is realized through indicators that summarize the performance of a company and provide ways to compare it against others.

Atoka now operates in two additional jurisdictions: the United Kingdom and Norway. We integrated official information from the national registers and extended our corporate web crawler to enrich company entities in these jurisdictions with company descriptions, contact information, social media accounts and information about e-commerce and customer engagement tools that companies use to operate online. Additionally, we updated our company news streamer to work with news articles in

English and with companies in the new UK and Norwegian jurisdictions, using JSI's EventRegistry alongside our Dandelion text analysis tool.

We integrated several additional information sources for Italian companies. Atoka holds information about company certifications (e.g., ISO 14001 regarding environmental management, prEN 9100 for the aerospace industry, etc.), territorial indicators that describe the surroundings of company sites in aspects such as the quality of adjacent buildings and socio-economic characteristics of the population, foreign markets in which the company operates, job positions, public funding received by the company, owned real-estate, shareholders and ownership of other companies.

As part of our work bringing additional information sources to Atoka's knowledge base, a customer data integration pipeline was built. This tool minimizes the effort required to use information provided by our customers for highly specialized lead generation tasks. It is operated by defining collections of extra data, linked to individual company instances, and filters that operate on this extra data for searching and faceting in the same way as the other filters offered by Atoka. Moreover, the pipeline also makes this extra data available through Atoka's APIs, enabling integration back into existing tools and processes of the customer.

To facilitate interpretation of the information contained in the knowledge base, we added a number of indicators that describe the performance of the company and other phenomena associated with it. The Seasonal Indicator predicts the company's reliance on seasonal workers based on historical data about the number of employees. The Foreign Market Score considers data about companies selling abroad and/or looking for foreign business to build profiles that predict the likelihood that other companies will do the same. The Innovation Score ranks company profiles regarding the presence of salient characteristics typical of Italian start-ups. Finally, the Web Centrality score indicates how connected is the webpage of a company to other webpages on the corporate web.

All the work done to enable new jurisdictions, integrate additional sources and to provide interpretation of the information in the knowledge graph has broadened the appeal of Atoka to prospects that operate in the new jurisdictions or require the information in the new sources to perform highly specialized lead generation activities.

3.2.4 Customer Relationship Service (CRM-S)

CRM-S is a generic service that enables us to provide valuable insight to data provided in the euBusinessGraph. The main scientific and technological results accomplished are that we have created a service that is:

- **Autonomous:** the models are automatically trained, tested, validated and deployed,
- **Adaptive:** models are updated continuously based on new data, as it becomes available.

The models that are deployed to the CRM-S service are defined through using a model specification, a blueprint of the model defining the location of the data to train and test on, model parameters, features, how often the model should be updated, etc. Based on this specification, the models can run continuously without any human intervention. This allows the CRM-S to support analytics on a large scale.

Many companies also want to use internal data from sources such as CRM and ERP systems to achieve a higher degree of insight into their business. Since CRM-S is built using Docker and Kubernetes, customers can run the service in their own cloud to gain the power of CRM-S in combination with their own data.

We have developed a credit risk model for Norway that is running on CRM-S. The model is deployed using a model specification, and new specifications can easily be created for other countries in Europe. This allows the CRM-S to support analytics on a large scale.

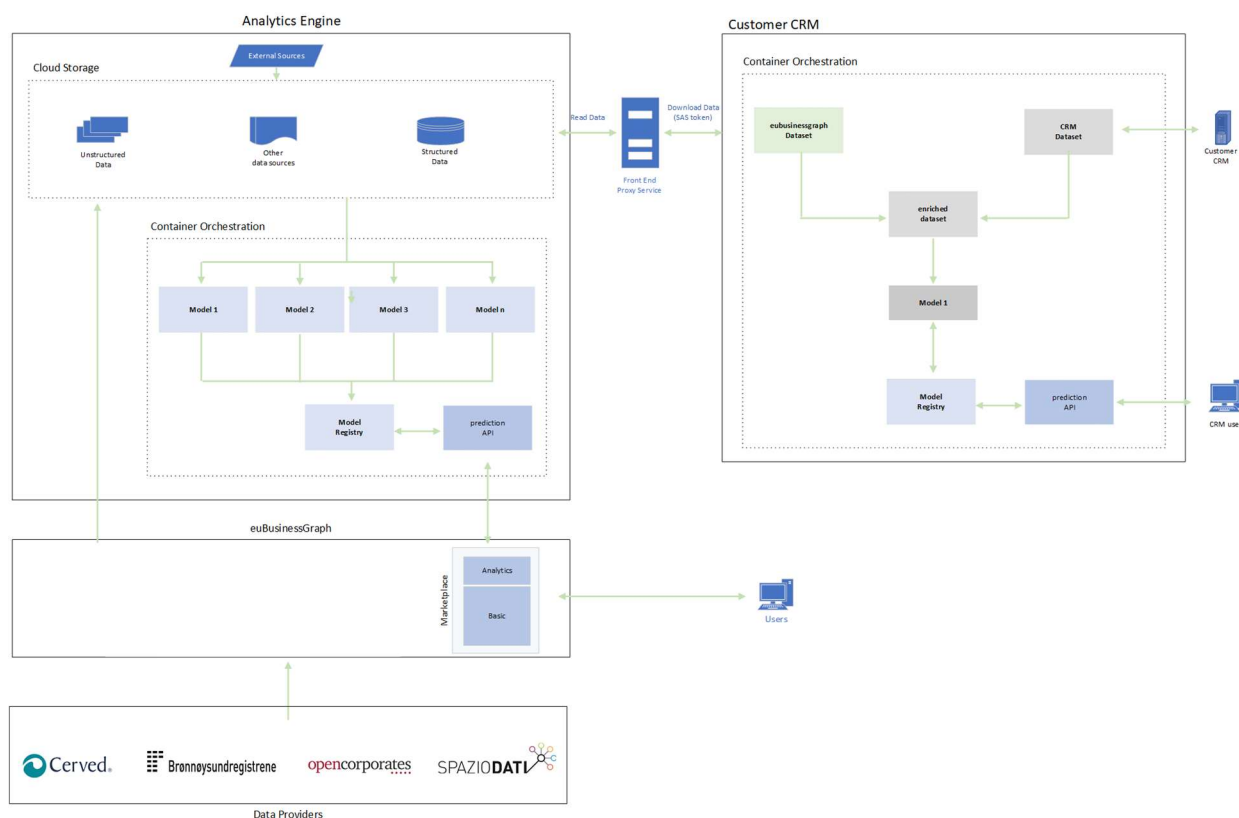


Figure 4: CRM-S Architecture Model

3.2.5 Data Journalism Product (DJP)

DW's business case is called the Screener Tool. It is a web-based application, targeted at general and business journalists, and designed to fit journalist workflows and requirements of factual content. The Screener can be primarily used for company-specific research and information monitoring but also for the production of data-related visual content items, ready for publication online and in social media. Via application programming interfaces (APIs), the Screener application provides access to company-related data from:

- EventRegistry, which empowers companies to analyze current and past news content using artificial intelligence techniques
- OpenCorporates, which is the largest open database of companies in the world with more than 169 million companies,
- DW's own news articles,
- Business Graph Marketplace, which is a new linked data source developed in the euBusinessGraph project.

In addition, there are links to other business data sources for journalists and selected data tools. The tool aims to improve company- and business-related storytelling by providing novel insights, reducing the time taken to conduct tedious research and offering multilingual data access.

At this stage, the Screener Tool focuses on business journalism, company information, specific associated company registration and news databases, and visual company information boxes that can be produced semi-automatically, on the basis of a corporate design template. In the future, the scope of the tool could be widened in order to integrate further open databases (APIs) and provide multiple visual content formats and related visual identity templates.

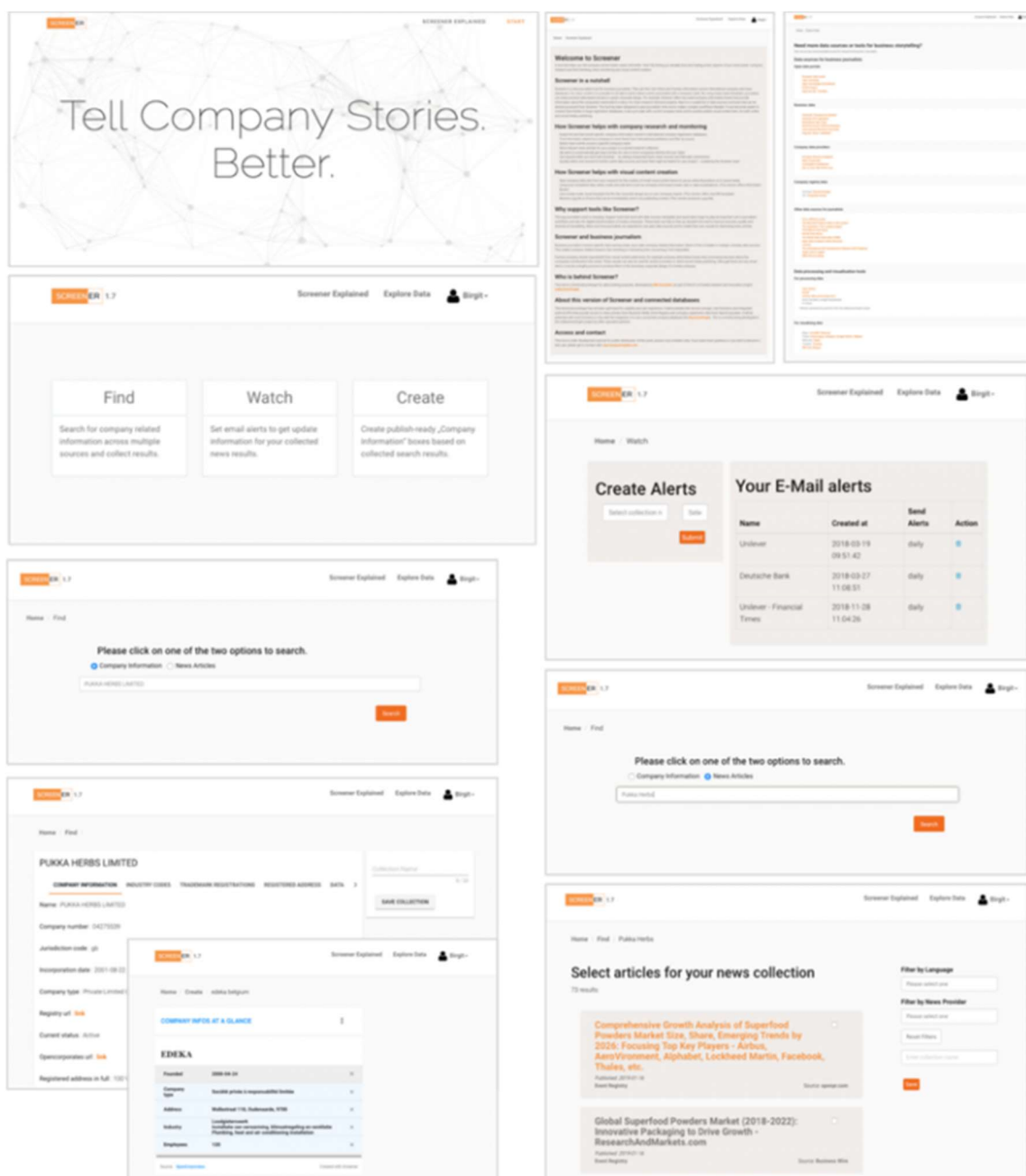


Figure 5: The Screener Tool – illustrated by Screenshots

The tool covers three journalistic workflows:

1. Find and Fact-Check Data.
2. Monitor News.
3. Create Content.

Allowing for easy usage and avoiding multiple open tabs in the tool, the following features are combined within one interface:

- Finding and fact-checking specific company-related information in multiple, international company registration databases,
- Finding news articles related to a company name in an international news database, including international multi-language results, source filter and article search collection,
- Automatic receipt of articles related to a company name into the email inbox, based on the setting of specific “watch-alerts” for continued news monitoring,

- Producing small visual content items in a given corporate design and ready for publication, e.g. a company information box based on company data from the database,
- Providing direct links to a curated set of further international databases for journalistic research and tools for visual storytelling, data analysis and data visualization.

3.2.6 Norwegian Registries API Service (BR-S)

BR-S is an API service that provides access to authoritative business data from Norway. The main goal of the BR-S service is to enable consistent and common access to business data, thereby increasing the use of authoritative business data, and reducing the need for specialized distributions and duplicate copies of business data. The service provides APIs for the following data sets:

- **Central Coordinating Register for Legal Entities.** Contains information about all legal entities registered in Norway. This includes organization number, name, addresses, status information, subsidiaries and other authoritative information. Users can look up legal entities or subsidiaries by organization number, or search by other parameters. Deleted entities can be looked up, and the service can provide a list of legal entities changed since a supplied date.
- **Register for State Aid** provides information about government aid granted to businesses. The purpose is to facilitate transparency about state aid grants. The API provides information about the grant recipient and organization giving the grant, and about the grant itself. The type of the grant, its amount, legal basis and other information is supplied.
- **Annual Accounts Register.** Users can look up key figures from the Annual Accounts Register by organization number. Aggregated numbers for income, expenses, results and balance are provided. Data can be supplied in JSON or XML format.

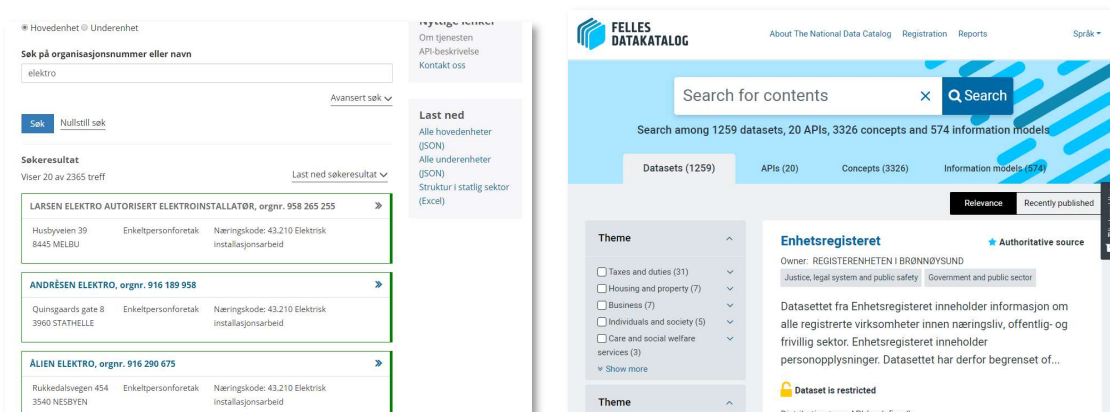


Figure 6: BR-S Register Service

BRC has 18 public registries, and most of them are conceptually aspects of the same organization. The BR-S service sustains publishing information from further registries in the future. This may for instance be the Register of Business Enterprises, the Bankruptcy Register and the Registry of Reporting Obligations.

The main target customer categories are:

- **Businesses** - either stand-alone businesses with their own information, or in a B2B scenario a business looking up information about another business it has a commercial relationship with,
- **Intermediaries** – this is a large group of various actors ranging from credit agencies, other business service providers to data journalists and innovators. Mainly they are creating targeted services, where authoritative business data is combined with other data or services,
- **Public agencies** – a public authority requires official data to, for example, prefill information when a business is reporting or filing an application, and also for control.

The registers and APIs are described in the National Data Directory to make them easier to find by potential users and enable them to evaluate whether APIs of interest are suitable for them.

4 Impact Creation

As shown in the previous sections, euBusinessGraph has developed a data market platform, using many technical components as a foundation layer and six business cases around it. The euBusinessGraph equips data providers and consumers with novel services, tackling both data publication and access to the marketplace.

In addition, each euBusinessGraph business case provider has a specific exploitation plan (cp. D5.4 "Post-project Business Exploitation Strategy") that is defined based on its respective area.

4.1 Customer Contacts

The euBusinessGraph project set out with the aim to create impact to meet the needs of the community and customers with regard to business and company data processing, enrichment, analysis and publishing.

Publishers and users can interact with the platform and the data in the manner which they find most relevant and useful. In addition, by adhering to the common standards, developers can access data published by a variety of publishers and on a variety of topics in a much simpler manner, reducing the time and resources required to find multiple data sources.

This section shows an overview of the impact creation activities carried out by the project during its lifetime. The impact creation tasks were oriented towards assuring that all partners have a clear business plan for exploitation of their results during and after the project, and that they reach their expected impact in their target groups.

OpenCorporates is the largest open database of companies in the world, with over 160 million companies in 130 jurisdictions. We have a strong reputation, and work closely with public benefit groups such as NGOs (Global Witness, Transparency International), journalists (ICIJ, national newspapers) and commercial clients, including both blue-chip companies (Mastercard, Factset) and tech innovators (Stripe, Transferwise).

Starting late 2017, we have been reaching out to clients – both bulk data and API clients – about our Corporate Events Product, developed as part of this project, and have been using these meetings both to solicit interest from clients, and to get feedback on the design of the product. The public launch of June 2019 will give us an opportunity to further reach out to our customers, including the more than 250 commercial clients using the API, and to prospective clients, including a social media outreach.

CERVED, Cerved is an Italian business data driven company. Our company data enables us to provide high added value services, from business information and marketing solutions to managing non-performing loans. CERVED customer contacts and promotion events have been continuous during the lifetime of the project, with reference to its business case, TDS, which is offering contracts and open tender solutions coupled with public administration and company firmographics. Some details on our client contacts are listed below (the exact names and details of the potential client companies remain confidential):

- March 2017: B2B meeting at an Italian leading bank headquarters, interest in offering TDS as a solution to its B2B clients.
- February 2018: Telco with an Italian leading bank.
- June 2018: B2B meeting at one of Italian larger banks company headquarters.
- July 2018: Event Digital 360 awards, Lazise Italy. B2B meetings with potential customers.
- December 2018: Commercial contacts with a large facility management company in Italy offering services for property, the environment and in support of health care services.
- November 2018: Commercial contacts with a large Italian company that is leading management of services aimed at personal services, and at large public and private real estate.
- December 2018: Commercial contacts with a company specialized in marketing of medical devices, which has shown interest in using the contract and open tender service for their daily operation.

- January 2019: Commercial contacts with an agency offering nationwide employment administration services to public administrations, for their daily operations.
- January 2019: Commercial contacts with an electrical construction company, for their daily operations.
- January 2019: Commercial contacts with a producer of medical diagnostic instruments, for their daily operations.
- January 2019: Event AI WorkLab, Rome, LUISS EnLabs. B2B meetings with potential customers.
- February 2019: B2B meeting at an Italian leading bank headquarters.
- April 2019: B2B meeting at leading Italian telecommunication service provider headquarters. Sector of interest - utilities.
- April 2019: B2B meeting with an Italian insurance company, showed interest in using open tender data service.
- April 2019: Telco with a major Italian bank.
- May 2019: Two meetings at headquarters of an information technology equipment specialist of large Italian telco. Sector of interest - utilities.
- May 2019: Event Data Driven Innovation, Rome, University Roma3. B2B meetings with potential customers.
- June 2019: Event Agile Venture, Vimercate. B2B meetings with potential customers.
- June 2019: Event Cerved Next, Milano, Megawatt. B2B meetings with potential customers.

SDATI, SDATI leverages Big Data, Machine Learning and Semantic Web technologies to build a high-quality knowledge graph that powers their text analysis and business information products. Atoka, the main asset in SDATI's portfolio, is the leading platform for lead generation, marketing and sales intelligence in Italy. Atoka+, SDATI's business case in the euBusinessGraph project, brings Atoka to two new markets: the United Kingdom and Norway, while it integrates new data sources for the Italian market.

Throughout the timeframe of the project, SDATI has continued to promote and sell Atoka through their own direct sales channels, and also in partnership with CERVED, including Atoka in CERVED's Marketing+ family of products, greatly increasing their user base in the process.

Additionally, SDATI has repositioned Atoka beyond conventional lead generation tasks, enabling highly specialized uses by integrating their own customers' datasets. This has resulted in new business with customers in the banking and credit insurance sectors that saw the appeal of combining Atoka's business information graph with their own data.

Finally, SDATI has also promoted Atoka's ability to work in the new UK and Norwegian jurisdictions. In the process, they have sparked the interest of already existing customers in the credit insurance sector that have business in Italy and in the new jurisdictions. SDATI is exploring with these customers the possibility of using the recently integrated data in Atoka in combination with data the customers already have in the new jurisdictions.

The composition of Atoka's customer base is as follows (only new customers since the start of the project):

- 7 financial institutions (banks, insurance, credit risk analysis),
- 120+ marketing geography and general marketing services,
- 100+ in other sectors (telecommunications, postal, equipment leasing, news),
- 300+ small and medium customers in diverse sectors through our direct sales channels.

EVRY, EVRY is one of the largest tech companies in the Nordic IT sector and it is listed on the stock exchange. Covering several market segments including banking and finance, insurance, industries, public sector and private sector.

Infotorg has the key role in contacting customers to verify the Business Case of CRM-S as part of the future strategies of delivering the DAaaS (Data Analytics as a Service) concept to the market. Infotorg is a business unit in EVRY that delivers society critical data content to customers in the Norwegian and Nordic market. CRM-S will be part of new analytical services at Infotorg. The process has been to

have close and confidential meetings with a select group of customers that have worked as sounding board for the development of the concept. Through 2018 and 2019 several meetings have been held with these customers. The customers represent the following three sectors; Public sector, Insurance and Debt collection. Activities and names are confidential due to the nature of the project.

DW, DW is a public service news media company (and a not-for-profit organization) financed by the Germany public. DW is an international broadcaster (Online, TV and Radio) and is known for its in-depth, reliable news and information in 30 languages. DW has organized several workshops and meetings to get in contact with potential users of the DJP:

- Global Media Forum 2017, 2018 and 2019: presenting and demonstrating the Screener Tool and the euBusinessGraph,
- Several workshop meetings with DW staff in Berlin and Bonn: demonstrating the Screener Tool and the euBusinessGraph,
- Several meetings with DW focus group and other DW internal panels.

The **Jožef Stefan Institute** is the largest Slovenian research institute, with a long history of EU and international collaboration. The Artificial Intelligence Laboratory (AILAB - ailab.ijs.si) has over 40 researchers conducting research in the field of data analysis with an emphasis on text, web and cross-modal data, scalable real-time data analysis, visualization of complex data, semantic technologies and language technologies. It is one of the largest European research groups working in these areas. The Artificial Intelligence Laboratory operates in collaboration with a number of academic and commercial organizations, some members of the Laboratory are involved with Stanford University, University College London, Jožef Stefan International Postgraduate School and companies, such as Quintelligence, Qlector, LifeNetLive, Modro Oko and Envigence.

- September 2018: Bled Strategic Forum. Participation in a panel discussion for high-level strategic dialogue among leaders from the private and public sectors (potential collaborators or customers) on key issues facing Europe and the world in the 21st century.
- January 2019: Workshop on Trusted Smart Statistics: policymaking in the age of the IoT, 2019 (workshop with Eurostat). Presentation of JSI technological achievements in the area of data mining, machine learning and artificial intelligence to potential collaborators or customers.
- March 2019: AI Governance Forum, Presentation and discussion of cross-lingual real-time global media monitoring with potential collaborators or customers.
- April 2019: meetings with representatives of Quintelligence and Qlector companies as potential collaborators.

5 Dissemination of Results

Besides the more commercial activities stated in the previous section, general dissemination activities about project results in more scientific and technical environments have been continuous during the project lifetime. euBusinessGraph partners have presented euBusinessGraph products and results at technical conferences, seminars and workshops. Examples include ICT Conferences and Big Data Value Association meetings.

5.1 Dissemination Activities

The dissemination of euBusinessGraph outcomes, resulting from fairs, conferences and publications, has been the main communication objective. In this regard, the euBusinessGraph Consortium has been very active during the two and a half years of the project. Each partner has participated in several dissemination events that could be split by the following classification:

Table 2: Dissemination summary – activities

IMPACT CREATION 2017-2019	TOTAL	OUTREACH (estimated number of individuals)
Organization of workshops (incl. webinars)	32	1024
Press releases	3	680
Non-scientific and non-peer-reviewed publications (popularized publications)	1	163
Flyers	600	N/A
Training events	6	130
Social media (Twitter, LinkedIn, Facebook)	23	N/A
Website (incl. articles)	13	4591
Organization of conferences	3	230
Participation in conferences	63	3580
Participation in workshops (incl. webinars)	25	623
Participation in events other than conferences or workshops (incl. hackathons, summer schools)	14	60
Video/film	13	1448
Brokerage events	1	N/A
Pitch events	7	58
Trade fairs	1	70
Events with other H2020 projects	6	N/A
Presentations and industry panels	7	804
Total		13337

Table 3: Dissemination summary – target audience

TARGET AUDIENCE	OUTREACH (estimated number of individuals)
Industry	3673
Scientific community (higher education, research)	2398
Civil society	1232
General public	652
Policy makers	670
Media	292
Investors	0
Customers	230
General public (views/visits)	4190
Total	13337

5.1.1 Online

In the following chapters, the communication means and activities are presented. Wherever applicable, the effects of the communication activities are shown in numbers in order to concretely attest the impact that the euBusinessGraph communications activities have proven.

5.1.1.1 Web Presence

The euBusinessGraph project website <http://eubusinessgraph.eu/> was continuously being updated throughout the lifespan of the project and served as the major online communication channel. It has been designed as a central information place with key information about the latest developments and achievements of the project and news about the data technologies market.

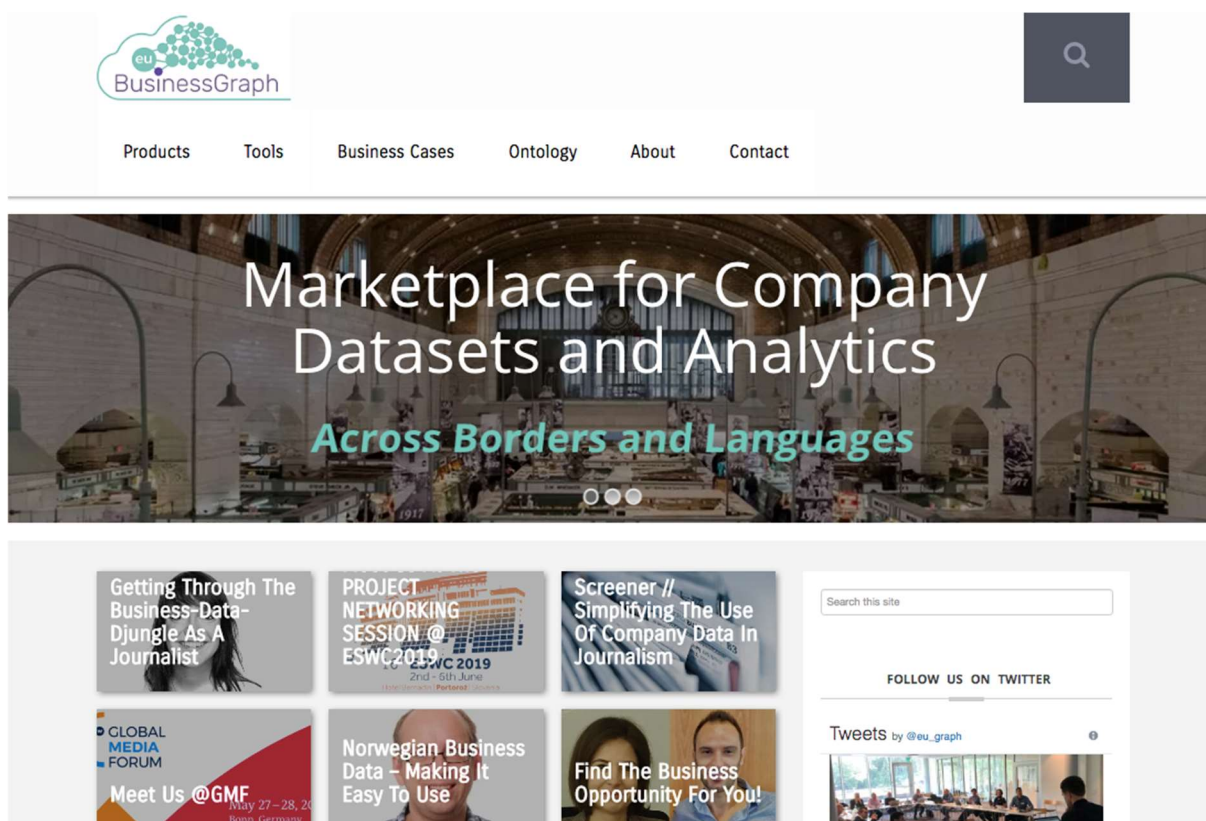


Figure 7. The homepage of the euBusinessGraph project, promoting the Marketplace

More than 4400 visits (with an ever-increasing number of visitors compared to the same period of time the previous year) were registered throughout the course of the project. Connections came from all over Europe, especially Italy, Norway and Germany, but also from the United States, South America and Asia.

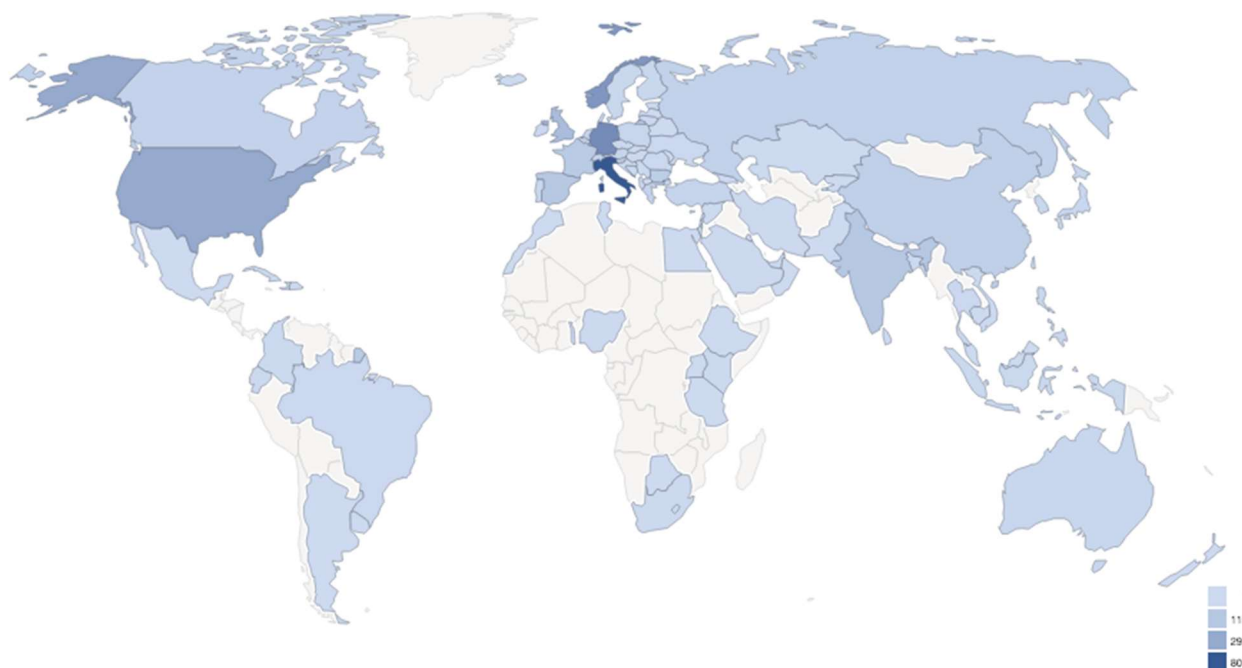







Figure 8. Screenshot shows the global distribution of the website's visits (4400 visits in total)

Throughout the second half of the final period we have populated the website with a series of interview-style articles called #WhyCompanyDataMatters. Each time the blog post was written by a

different partner and proof-read and formatted by the communication leader Deutsche Welle. Six articles closely related to Business Data and corresponding technologies were published:

 <p>Getting Through The Business-Data-Djungle As A Journalist</p>	<p>Getting through the Business-Data-Djungle as a Journalist</p> <p>Eva Lopez Deutsche Welle</p>	<p>185 views</p>
 <p>Norwegian Business Data – Making It Easy To Use</p>	<p>Norwegian business data – Making it easy to use</p> <p>Bjørn Grøva, Brønnøysund Register Centre</p>	<p>288 views</p>
 <p>Find The Business Opportunity For You!</p>	<p>Find The Business Opportunity For You!</p> <p>Divna Djordjevic and Diego Sanvito Cerved</p>	<p>447 views</p>
 <p>Be At The Top Of Your Data Game With Atoka</p>	<p>Be at the top of your data game with Atoka</p> <p>Javier Paniagua SpazioDati</p>	<p>517 views</p>
 <p>Shining A Light On What Happens To A Company</p>	<p>Shining a light on what happens to a company</p> <p>Mollie Hanley OpenCorporates</p>	<p>601 views</p>


	<p>Knowledge Graphs for Fun and Profit</p> <p>Vladimir Alexiev Ontotext</p>	<p>735 views</p>
		<p>Total of 2773 views</p>

Figure 9. Overview of series of #WhyCompanyDataMatters blog posts produced

5.1.1.2 GitHub

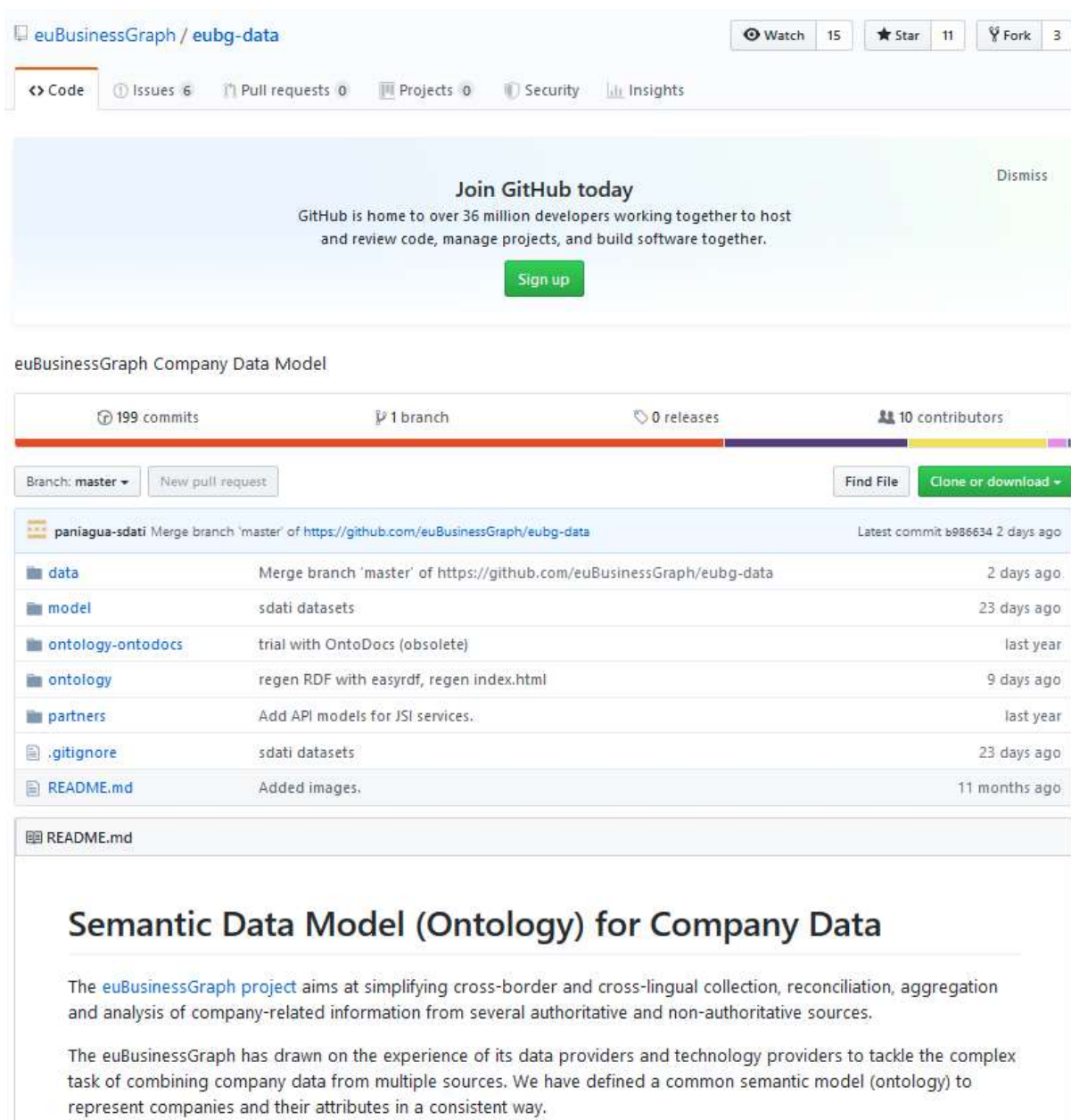
All open-source software (OSS) developed in the project is made available under respective open-source licenses on GitHub. We created one euBusinessGraph organization¹ account which hosts the repository for the euBusinessGraph Company Data Model (ontology). This repository contains:

- Prefixes file,
- Instance model file in Turtle format,
- Instance model files for diagrams,
- Generated ontology file in RDF format,
- RDF shapes for validation,
- RDF data (e.g. NACE .csv sheet), conversion scripts and resulting RDF,
- Diagrams for the master document,
- Links to online documentation and other web references.

In addition to the main GitHub organization account, technical partners (in WP3) are using their respective GitHub accounts to host other open-source software components developed or enhanced in the project. Information and links to these GitHub repositories, including links to installation and user guides, are presented for each tool in the tool section on the project website².

¹ <https://github.com/euBusinessGraph>

² <http://eubusinessgraph.eu/tools/>



The screenshot shows the GitHub repository page for 'euBusinessGraph / eubg-data'. At the top, there are navigation links for Code, Issues (6), Pull requests (0), Projects (0), Security, and Insights. A 'Join GitHub today' banner is present, followed by repository statistics: 199 commits, 1 branch, 0 releases, and 10 contributors. A table lists recent commits, including a merge of the 'master' branch and updates to 'data', 'model', 'ontology-ontodocs', 'ontology', 'partners', '.gitignore', and 'README.md'. The 'README.md' file is expanded, showing the title 'Semantic Data Model (Ontology) for Company Data' and a description of the project's goals and the defined semantic model.

Semantic Data Model (Ontology) for Company Data

The euBusinessGraph project aims at simplifying cross-border and cross-lingual collection, reconciliation, aggregation and analysis of company-related information from several authoritative and non-authoritative sources.

The euBusinessGraph has drawn on the experience of its data providers and technology providers to tackle the complex task of combining company data from multiple sources. We have defined a common semantic model (ontology) to represent companies and their attributes in a consistent way.

Figure 10. euBusinessGraph Company Data Model repository on GitHub

5.1.1.3 Twitter

Twitter has been intensively used to inform communities about euBusinessGraph activities and achievements. By selected tweets and retweets, we created an ongoing awareness of the developments in the project in specific target groups. Additionally, Twitter was used for our followers to easily engage with the euBusinessGraph project, either by following, mentioning, retweeting or commenting on our tweets. By the end of the project runtime, the Twitter account has more than 190 followers. On average, this community was provided with updates twice a week resulting in over 250 posts during the project's lifespan.



Figure 11. The homepage of the Twitter account, aiming to engage with users

🔄 Tweets most retweeted

- euBusinessGraph** @eu_graph 9:15 AM - 1 Oct 2018 via Twitter Web Client 🔄 20 ⭐ 21

Here is FT's Visual Vocabulary [github.com/ft-interactive...](https://github.com/ft-interactive) This amazing overview can't be shared too often. It helps you to identify which charts to choose when visualizing your data #ddj #BigData @ftdata <https://t.co/3akPFcsvgBU>
- euBusinessGraph** @eu_graph 3:17 PM - 10 Jul 2018 via Twitter for iPhone 🔄 9 ⭐ 12

Still/only one year to go. During a very efficient and productive consortium meeting we made a big step further to the actual businessgraph and marketplace while enjoying the beauty of Brønnøysund, Norway. And this has only been day one 🙌 #creativeminds #datagraph #horizon2020 <https://t.co/QETJsbfnSo>
- euBusinessGraph** @eu_graph 12:35 PM - 31 Jan 2017 via Twitter for iPhone 🔄 9 ⭐ 15

Let's get the ball rolling - we are looking forward to 2.5 years of productive and successful collaboration #Horizon2020 <https://t.co/uWANDKYwa1>
- euBusinessGraph** @eu_graph 2:03 PM - 21 Aug 2018 via Twitter for iPhone 🔄 8 ⭐ 13

We are excited to be featured at this week's #ProjectoftheWeek campaign realized by @BDVA_PPP. The campaign covers different aspects of our project day by day. I hope you enjoy this special week as much as we do 🙌 If you have any comments & questions, please contact us 🙌 <https://t.co/e1uJvFCGwl>
- euBusinessGraph** @eu_graph 2:48 PM - 23 Jan 2018 via Twitter Web Client 🔄 7 ⭐ 14

Superinteresting consortium gathering @opencorporates. Seeing things from a bird's eye perspective (39th floor!) lifts ideas to a whole new level, literally! Stay tuned about upcoming European #knowledgegraph for #companydata visit eubusinessgraph.eu credits: @EU_H2020 <https://t.co/FM9uPd1Jxh>

Figure 12. The most retweeted contributions (list provided by the statistic tool Twitonomy)

The Twitter account is a central channel to promote the euBusinessGraph platform and the marketplace and engage with an interested audience, even beyond the official end of the project.

5.1.2 External Cooperation

euBusinessGraph has made close cooperation with the TheyBuyForYou and EW-Shopp projects – both innovation actions under the H2020 programme.

EW-Shopp

The EW-Shopp project aims at deploying and hosting a data integration platform to ease these data integration tasks, by embedding shared data models, robust data management techniques and semantic reconciliation methods.

TheyBuyForYou

TheyBuyForYou will build a technology platform, an online toolkit and a public portal which allows suppliers, buyers, data journalists, data analysts, control authorities and regular citizens to explore and understand how public procurement decisions affect economic development, efficiencies, competitiveness and supply chains.

5.1.3 Publications and Papers

Table 4: Publications and papers 2017 - 2019

Publications 2017-2019			
Partner	PUBLICATION	TITLE	AUTHORS
OCORP	Other	Introducing corporate events: timeline data for companies	Chris Taggart, Mollie Hanley
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Tabular Data Anomaly Patterns	Dina Sukhobok, Nikolay Nikolov, Dumitru Roman
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Usability of Visual Data Profiling in Data Cleaning and Transformation	Bjørn Marius von Zernichow and Dumitru Roman
SINTEF	Publication in a Conference/ Proceeding/ Workshop	A Visual Data Profiling Tool for Data Preparation	Bjørn Marius von Zernichow and Dumitru Roman
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Data preparation as a service based on Apache Spark	Nivethika Mahasivam, Nikolay Nikolov, Dina Sukhobok and Dumitru Roman.
SINTEF	Publication in a Conference/ Proceeding/ Workshop	ALaDIn: Shining a Light on Air Quality through Data Integration and Machine Learning	Dumitru Roman, Mike Kobernus, Rune Ødegård, Nikolay Nikolov, Dinaa Sukhobok, Bjoern Marius von Zernichow, Till Christopher Lech.
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Tabular Data Anomaly Patterns	Dina Sukhobok, Nikolay Nikolov, Dumitru Roman
JSI	Publication in a Conference/ Proceeding/ Workshop	Relation Extraction from News	M. B. Massri, I. Novalija, M.Grobelnik
JSI	Article in Journal	Automatic estimation of news values reflecting importance and closeness of news events.	BELYAEVA, Evgenia, KOŠMERLJ, Aljaž, MLADENIĆ, Dunja, LEBAN, Gregor
OCORP	Other	Patisserie Valerie shows why we need Corporate Events data	Mollie Hanley
SINTEF	Book/Monograph	Proceedings of the On the Move to Meaningful Internet Systems. OTM 2018 Conferences - Confederated International Conferences: CoopIS, C&TC, and ODBASE 2018, Valletta, Malta, October 22-26, 2018, Proceedings, Part I	H. Panetto, C. Debruyne, H. A. Proper, C. A. Ardagna, D. Roman, R. Meersman

SINTEF	Book/Monograph	Proceedings of the On the Move to Meaningful Internet Systems. OTM 2018 Conferences - Confederated International Conferences: CoopIS, C&TC, and ODBASE 2018, Valletta, Malta, October 22-26, 2018, Proceedings, Part II.	H. Panetto, C. Debruyne, H. A. Proper, C. A. Ardagna, D. Roman, R. Meersman
SINTEF	Book/Monograph	Rules and Reasoning. Second International Joint Conference, RuleML+RR 2018	C. Benzmler, F. Ricca, X. Parent, D. Roman
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Towards a Collective Awareness Platform for Privacy Concerns and Expectations	G. Flouris, T. Patkos, I. Chrysakis, I. Konstantinou, N. Nikolov, P. Papadakis, J. Pitt, and D. Roman
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Ontologies for the Real Property Domain	L. Shi and D. Roman
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Enabling Data Markets using Smart Contracts and Multi-Party Computation	D. Roman and K. Vu
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Towards Integrating Public Procurement Data into a Semantic Knowledge Graph (poster)	A. Soylu, O. Corcho, E. Simperl, D. Roman, F. Y. Martnez, C. Taggart, I. Makgill, B. Elvesaeter, B. Symonds, H. McNally, G. Konstantinidis, Y. Zhao and T. C. Lech
SINTEF/JSI	Publication in a Conference/ Proceeding/ Workshop	Towards a Knowledge Graph based Platform for Public Procurement	E. Simperl, O. Corcho, M. Grobelnik, D. Roman, A. Soylu, M. J. F. Rufz, S. Gatti, C. Taggart, U. S. Klima, A. F. Uliana, I. Makgill and T. C. Lech
UNIMIB	Publication in a Conference/ Proceeding/ Workshop	Facet Annotation with Reference Knowledge Bases	R. Porrini, M. Palmonari, I.F. Cruz
UNIMIB	Publication in a Conference/ Proceeding/ Workshop	Using Ontology-Based Data Summarization to Develop Semantics-Aware Recommender Systems	Tommaso Di Noia, Corrado Magarelli, Andrea Maurino, Matteo Palmonari, Anisa Rula
UNIMIB	Publication in a Conference/ Proceeding/ Workshop	ABSTAT 1.0: Compute, Manage and Share Semantic Profiles of RDF Knowledge Graphs.	Renzo Arturo Alva Principe, Blerina Spahiu, Matteo Palmonari, Anisa Rula, Flavio De Paoli, Andrea Maurino
UNIMIB	Publication in a Conference/ Proceeding/ Workshop	Towards Improving the Quality of Knowledge Graphs with Data-driven Ontology Patterns and SHACL.	Blerina Spahiu, Andrea Maurino, Matteo Palmonari
JSI	Article in Journal	Modeling of temporal fluctuation scaling in online news network with independent cascade model	Jan Choloniewski, Julian Sienkiewicz, Gregor Leban, Janusz Holyst
OCORP	Other	Creating the German open company data: how we did it	Chris Taggart, Mollie Hanley, Alex Skene
SINTEF	Publication in a Conference/ Proceeding/ Workshop	Enabling semantic interoperability for risk and vulnerability analysis of public buildings	L. Shi, B. E. Pettersen, and D. Roman
UNIMIB	Publication in a Conference/ Proceeding/ Workshop	Training Temporal Word Embeddings with a Compass.	Valerio Di Carlo, Federico Bianchi, Matteo Palmonari

5.1.4 MSc & PhD Theses as part of euBusinessGraph

The following five theses examine euBusinessGraph technologies and are supervised by Matteo Palmonari from the University of Milan-Bicocca:

MSc Thesis

- Valerio Di Carlo. "Temporal Word Embeddings: A Global Context Approach." (completed in 2018)
- Francesco Barrera. "ARGO: Un gioco online per lo studio sistematico di analogie preposizionali." (completed in 2018)
- Federico Bertuzzi. "Link Prediction per Knowledge Graph Embeddings Basati Su Testo." (completed in 2018)

- Paolo Nicoli. "Semantic Comparison of Aligned WordEmbeddings". (to be completed in October 2019)

PhD Thesis

- Federico Bianchi. "Distributed Knowledge Models for Comparative Analysis." (to be completed in November 2019)

5.2 List of Events

The following table shows the events at which the project was promoted through conference papers, presentations etc. specifically about euBusinessGraph:

Table 5: Events 2017 - 2019

DATE	PLACE	EVENT	DISSEMINATION ACTIVITY	PARTNER
2017				
17-18 January 2017	Luxembourg	Big Data PPP Information Day	Participant in Conference	SINTEF, UNIMIB
23 January 2017	Rome	Launch of LEIT ICT 2017 calls, by APRE	Events with other H2020 Projects	UNIMIB
9-10 February 2017	Brussels, Belgium	BDVA AG meeting	Participant in Workshop	SINTEF
15 February 2017	Oslo, Norway	Workshop with BRC and DIFI	Workshop Organization	SINTEF, BRC
24-25 February 2017	Rome	Data Driven Innovation	Participant in Conference	SDATI, CERVED
2 March 2017	Oslo, Norway	BDV Norwegian Seminar	Workshop Organization	SINTEF
8 March 2017	Trento	SAA 2017	Participant in Webinar	SDATI via FBK
14-15 March 2017	Brussels, Belgium	BDVA AG meeting	Participant in Workshop	SINTEF
24-26 March 2017	Sofia	BG Datathon	Participant in Hackathon	ONTO
26-28 March 2017	Oslo	FEBIS (Federation of Business Information Service)	Participant in Conference	OCORP
6-7 May 2017	Lecco, Italy	Joint workshop EW-Shopp-euBusinessGraph	Workshop Organization	All
12-13 May 2017	Sofia	Hackathon "10 years Bulgaria in the EU"	Participant in Hackathon	ONTO
23 May 2017	Oslo, Norway	Oslo Big Data Day 2017	Participant in Conference	SINTEF
28 May – 1 June 2017	Portoroz	ESWC (European Semantic Web Conference)	Participant in Conference	JSI, ONTO, UNIMIB
31 May 2017	Oslo, Norway	HealthInsight workshop	Participant in Workshop	SINTEF
8 June 2017	Milan	Webinar for CERVED Corporate Clients	Participant in Webinar	SDATI, CERVED
16 June 2017	Ravenna	Culta Summer School	Participant in Conference	SDATI
12-14 June 2017	Bonn	Global Media Forum	Participant in Conference	DW
23 June 2017	Oslo, Norway	Gemini Summer Seminar	Participant in Workshop	SINTEF

2'8 June 2017	Oslo, Norway	DataGraft and RDF Surveyor integration with University of Oslo	Participant in Workshop	SINTEF
10 July 2017	online (Italian)	"Cosa si nasconde nel web?" about text analysis on business-related sites	Participant in Webinar	SDATI
21 August 2017	Prague	Innovate-Data 2017 : The 3rd International Conference on Big Data Innovations and Applications	Participant in Conference	SINTEF
13 September 2017	Amsterdam	Semantics 2017	Participant in Conference	ONTO
13 September 2017	Dubrovnik, Croatia	euBusinessGraph/EW-Shopp joint workshop	Workshop Organization	SINTEF, UNIMIB, JSI
27 September 2017	Oslo, Norway	The European Conference on Service-Oriented and Cloud Computing (ESOCC)	Participant in Conference	SINTEF, UNIMIB
5 October 2017	Milan, IT	Intelligenza Artificiale: dalla Ricerca ai Nuovi Mercati	Participant in Workshop	SDATI
5 October 2017	Capri, IT	Venture Capital: la visione delle aziende grandi	Participant in Workshop	SDATI
19-20 October 2017	Brussels, Belgium	BDVA AG meeting and IDC Workshop on "European Data Economy by 2025"	Participant in Workshop	SINTEF
23-25 October 2017	Vienna, Austria	ISWC	Participant in Conference	SINTEF, SDATI
24 October 2017	Rhodes, Greece	OnTheMove Federated Conferences & Workshops - ODBASE (2017)	Participant in Conference	SINTEF
30-31 October 2017	London, UK	DataPitch review for SMEs applying for euBusinessGraph challenge	Participant in Workshop	SINTEF, SDATI
3 November 2017	Oslo, Norway	Meeting/Workshop with Infotorg	Workshop Organization	EVRY, SINTEF
14-17 November 2017	Seoul, South Korea	SAL Conference	Participant in Conference	SINTEF
20 November 2017	Versailles, France	BDV PPP Steering Committee	Events with other H2020 Projects	SINTEF, UNIMIB
21-23 November 2017	Versailles, France	BDVA Summit	Participant in Conference	SINTEF, UNIMIB
4 December 2017	online	Bilateral telco with IPlytics	Pitch Event	SINTEF
4 December 2017	online	Bilateral telco with OU Register	Pitch Event	SINTEF
5 December 2017	Oslo, Norway	Bilateral meeting with VISMA	Pitch Event	SINTEF
2018				
25 January 2018	London	Workshop at The Economist	Presentation	OCORP
2 February 2018	Oslo, NO	Colloquium on Industrial Ontology	Participant in colloquium	SINTEF
5 February 2018	Trento, IT	EIT Digital & ICT Days	Speaker in Conference	SDATI
6 February 2018	London	Workshop at HMRC	Presentation - use case	OCORP
8 February 2018	Brussels, BE	BDVe PPP Steering Committee	Participant in SC meeting	SINTEF, UNIMIB
9-11	Sofia	Datathon 2018	Presentation, Use Case	Ontotext

February 2018				
19 February 2018	Trento, IT	Bootstrap Demo Day	Speaker in Conference	SDATI
6 March 2018	New York, USA	Workshop at the New York Times	Presentation - use case	OCORP
6 March 2018	New York, USA	Workshop at the Wall St Journal	Presentation - use case	OCORP
7 March 2018	New York, USA	RegTech Data Summit	Speaker in Conference	OCORP
8 March 2018	Chicago, USA	NICAR Demo - Using OpenCorporates to Investigate Companies	Presentation - use case	OCORP
13 March 2018	Oslo, NO	OSLO BIG DATA DAY 2018	Speaker in Conference	SINTEF
24 March 2018	London	Workshop with Centre for Investigative Journalism	Presentation - use case	OCORP
12 April 2018	Oslo, NO	Blockchain & Distributed Ledger Innovations	Participant in Conference	SINTEF
19-22 April 2018	Florence	PyCon 9	Participant in conference, presentation	SDATI
21-29 April 2018	Lyon	WWW 2018	Participant in the Conference, project dissemination	JSI
25 April 2018	Oslo, NO	euBusinessGraph and Infotorg meeting	Presentations	SINTEF, EVRY
4 May 2018	Oslo, NO	euBusinessGraph and Infotorg meeting	Presentations	SINTEF, EVRY
14-16 May 2018	Sofia	BIG DATA PPP MEET-UP	Participant in Conference, Presentation	Ontotext, SINTEF
16 May 2018	Ljubljana, SLO	AiLab seminar	Presentation of euBusinessGraph project	JSI
18-19 May 2018	Rome	Data Driven Innovation 2018	Participant in Conference, stand , 500+ participants	Cerved
19 May 2018	Vimercate, IT	miniAgile Day	Presented Agile development also 4 euBG TDS (speaker Pierpaolo Cimirro)	Cerved
3-7 June 2018	Heraklion	ESWC 2018	Participant in Conference, Presentation	Unimib
5 June 2018	Milano, IT	Agile Venture Vimercate	Speaker	Cerved
11-13 June 2018	Bonn	Global Media Forum	Participant in Conference, Presentation	Deutsche Welle
13 June 2018	Milano, IT	TIBCO Innovation Day	Speaker in Conference	SDATI
19 June 2018	Milano, IT	Fintech District meets Cerved	Presented TDS in scope of innovation in Cerved to fintech companies in IT (speaker Stefano Gatti) , 40+ participants	Cerved
21 June 2018	Milano, IT	Gattai, Minoli, Agostinelli & Partners law firm round table	Presented, innovation in Cerved-Cerved's euBG business case, 40 + participants	Cerved
26 June 2018	London	Uncovering Patterns of Corporate Control	Presentation	OCORP
27 June 2018	Milano, IT	Quanyca - Change is the new normal	Presented project/TDS in scope of technology Polyglotism at Cerved, 50+ participants - IT companies	Cerved
5 Juli 2018	Milano, IT	Cerved Next	Speaker in Conference	SDATI
5 Juli 2018	Lazise, IT	Digital 360 awards	Speaker	Cerved
12 July 2018	London	Financial Times - Workshop	Presentation - use case	OCORP

18-20 July 2018	Berlin, DE	Workshop on Blockchain and Smart Contract Technologies (BSCT 2018)	Paper and presentation	SINTEF
20-31 August 2018	Predeal, RO	Data Science International Summer School	Organizer and speaker	SINTEF
23 August 2018	London	Investor Transparency in the Fashion Industry	Organizer and speaker	OCORP
10-12 September 2018	Vienna	Semantics 2018	Presentation, Use Case	Ontotext
12-14 September 2018	Como	ESOCC 2018	Organization of a Conference, Presentation	Unimib
8 October 2018	Ljubljana, SLO	siKDD conference	Organization of a Conference, Presentation	JSI
8-12 October 2018	Monterrey, USA	ISWC 2018	paper presentation	Unimib
18 October 2018	Oslo, NO	New services from Infotorg	Webinar presentation	EVERY
23-25 October 2018	Valletta, ML	OTM Conferences	ODBASE PC chair, Coopis paper	SINTEF
24 October 2018	Bergamo, IT	34th ACMI congress (Italian Credit manager association)	Presentations and participation in a panel	Cerved
31 October 2018	Manchester	OpenContracting Hack Day	Presentation - use case	OCORP
12-14 November 2018	Vienna, AT	EBDVF	Poster/stand and participation	SINTEF, UNIMIB
20 November 2018	London	ODI Summit 2018	Participant in Conference, Flyers	Ontotext
30 November 2019	Leuven, BE	Computation On Encrypted Data Industry Day	Participant in workshop	SINTEF
4 December 2018	Ljubljana, Slovenia	presentation in Hotel Mons - Go Digital conference by Chamber of Commerce and Industry of Slovenia	Presentation	JSI
4-6 December 2018	Vienna, AT	ICT days	Poster/stand and participation	SINTEF, CERVED
5-6 December 2018	Vienna	ICT 2018 - Innovation Radar Prize	Finalist. Pitch for SDATI's business case	SDATI
7 December 2018	Washington, DC, USA	Transparency Breakfast: Standard Business Reporting	Speaker	OCORP
17 December 2018	Oslo, NO	GEMINI Big Data Meeting	Presentations	SINTEF
2019				
January 2019	Oslo, NO	Secure Computing Workshop	Event organization	SINTEF
15 January 2019	Rome, IT	AI WorkLab, LUISS EnLabs	Speaker	Cerved
20 January 2019	Milano, IT	Meeting with ANOKI company about innovation, including reference to euBusinessGraph	Presentation to a company	UNIMIB
24 January 2019	Chicago, US	Research meeting at the University of Illinois at Chicago (UIC)	Presentation of ongoing research on semantic-related topics	UNIMIB
25 January 2019	Oslo, NO	Huawei meeting	Presentations	SINTEF
28 January 2019	Oslo, NO	SINTEF Seminar on Data Sharing Ecosystems	Event organization and presentations	SINTEF

28 January 2019	Oslo, NO	Data Sharing Ecosystem	Event participation	EVRY
28 Jan - 1 Feb 2019	Honolulu, US	AAAI 2019	Presentation of a paper	UNIMIB
4-5 February 2019	Oslo, NO	International Industrial Ontologies Workshops	Participation in workshop	SINTEF
5 February 2019	Slovenia	presentation for Club of IT managers	Presentation	JSI
22 - 23 February 2019	London	Coding for Journalists	Presentation / participation in workshop	OCORP
4 March 2019	Oslo, NO	What is the Data Economy	Webinar	EVRY
14 March 2019	Oslo, NO	What is the Data Economy	Webinar presentation	EVRY
9-11 April 2019	Trondheim	User event	Stand presentation	EVRY
5 Apr 2019	Oslo, NO	Debt Registration services	Webinar	EVRY
10 May 2019	Rome, IT	Data Driven Innovation	Desk presentation	Cerved
15 May 2019	Milano, IT	"Knowledge graph -based information extraction" @UniMIB	Speaker	SDATI
15 May 2019	Milano, IT	Data-driven competition by CERVED	Speaker/Judge/Data provider	SDATI
27-28 May 2019	Bonn	Global Media Forum	Participant in Conference, Presentation	Deutsche Welle
4 June 2019	Portorož, Slovenia	PROJECT NETWORKING SESSION @ ESWC2019	Poster and demo	UNIMIB
2 June 2019	Portoroz, SI	ESWC 2019	Tutorial on Semantic Enrichment	UNIMIB, SINTEF, JSI
6 June 2019	Milano, IT	Cerved NEXT	Stand	Cerved
6 June 2019	Milano, IT	Cerved NEXT	Stand	SDATI
6 June 2019	Oslo, NO	Partner event Infotorg Customers	Presentation of concepts	EVRY

6 Summary and Outlook

The communication objectives that the euBusinessGraph project set for itself from the start have been largely covered during these two and a half years of the duration of the project.

In accordance with the dissemination plan, euBusinessGraph has produced various communication means including poster and flyer and continuously communicated and published news, activities and achievements throughout the course of the project. Both in various online media channels as well as directly in face-to-face meetings and conferences.

A series of web videos describing the euBusinessGraph technologies and components, as well as the Marketplace have been introduced. They are available on the YouTube channel (<https://www.youtube.com/channel/UC8k05vFHp20w-24jEP2V0Ng>).

The Marketplace and its various data services are available under <http://ebg-marketplace.ontotext.com>. All code developed in the course of the project is well-documented and accessible via the central euBusinessGraph website <http://eubusinessgraph.eu> or for more immediate access via the corresponding GitHub (<https://github.com/euBusinessGraph>) account.

As the main conclusion, the euBusinessGraph project impact creation and dissemination activities have been numerous and covered all objectives set out in the dissemination and exploitation planning. Consequently, the project dissemination activities can be considered fully successful.

7 References

- [1] D5.2 - "Exploitation and Dissemination Strategy", euBusinessGraph Consortium, 2018.
- [2] D4.2 - "Evaluation Report of Business Cases Products and Services – v2", euBusinessGraph Consortium, 2019.
- [3] D5.4 - "Post-project Business Exploitation Strategy", euBusinessGraph Consortium, 2019.