EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND TECHNOLOGY

CNECT.G – Data
G.01 – Data Policy and Innovation

GENERAL PROJECT REVIEW CONSOLIDATED REPORT

Grant agreement (GA) number:	780247
Project[1] Acronym:	TheyBuyForYou
Project title:	Enabling procurement data value chains for economic development, demand management, competitive markets and vendor intelligence
Type of action:	IA
Start date of the project:	01/01/2018
Duration of the project:	36
Name of primary coordinator contact and organisation:	Till Christopher LECH (SINTEF)
Period covered by the report:	from 01/07/2019 to 31/12/2020
Periodic report/Reporting period number:	Final
Date of first submission of the periodic report (if applicable):	11/03/2021
Amendments (latest AMD concerning description of the action)[2]	05/11/2020 (AMD-780247-72)
Date of meeting with consortium (if applicable):	09/02/2021
Name of project officer:	Johan BODENKAMP
Name(s) of monitors:	– JOSE*LUIS MARIN DE LA IGLESIA • Madison MK • University of Valladolid, University of Burgos y University of León • Fundación Civio – Pinar Wennerberg • Accenture Digital Analytics • ThoughtWorks • Microsoft

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[1] 'Project' means the same thing as 'action'.

[2] Only amendments to the description of the action (DoA; AT21) are relevant for general project reviews since they always have to be carried out against the latest version of the DoA

1. Overall assessment

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Project has achieved most of its objectives and milestones for the period with relatively minor deviations.

2. Significant results linked to dissemination, exploitation and impact potential
Project will likely provide results with significant immediate or potential impact in the next reporting period (even if not all objectives mentioned in the Annex 1 to the GA were achieved). The project has achieved most of the objectives and the partners have delivered fair quality assets. Overall the outcomes are acceptable. There are several useful outcomes that the project has deliverable, which are tangible and operational. The results are not game-changing nor groundbreaking, however, the project made an impact (Slovenia and Zaragoza use cases are two good examples). Europe level integrated impact remains unclear as of now. Comparing to first period, the final deliverables show an important improvement so the consortium has done a good job catching up and following recommendations from the first review. It is clear that the project has used the feedback from the first review meeting to improve the work delivered as a final output of the project. It is also valuable the prospects for exploiting the outputs beyond the project for some of the partners. There is clearly a very good collaboration among the consortium with good project coordination.

3. General comments
This report covers the final review of the TheyBuyForYou ("Enabling procurement data value chains for economic development, demand management, competitive markets and vendor intelligence") H2020-ICT-2016-2017/H2020-ICT-2017-1 project, which started in January 2018. The project aims at delivering tools, alongside enabling technologies and data to make procurement across the EU more efficient, competitive, accountable, and fair. The project aims on both public sector buyers as well as the suppliers. It gives opportunities for the buyers to avoid single bid situations and "brands award contracts" through the easier access for market investigation of possible suppliers. This review report is based on assessment of 17 deliverables, the technical periodic report for period 2, the project website, the code repositories, the scientific publications, the dissemination material, the business case demos and the additional clarifications provided by the consortium during the review meeting. ∘ main scientific and/or technological achievements of the project The actions of the project in the reporting period have been focused in the final release of the TBFY platform and online tools, as well as the business cases as main outcomes of the project. More precisely, the main achievements can be summarized in: 1) the development of final version of the TBFY knowledge graph and TBFY platform, which is demonstrably used to some extent by all the partners of the consortium across the pilots. 2) the development of the project's business cases and initial market validation. 3) the development of dissemination materials ∘ main innovation outputs (if applicable) The project proposed several innovations, however, since this is an innovation action, those that are claimed are considered as rather weak. Knowledge graph, anomaly detection, linked entity resolution tools and technologies have been in research and business with a substantial history by now. ∘ contribution to the state of the art The work done in the project has resulted in 10 publications advancing the state of the art through the academic community. A number of procurement datasets, not available to date, have been released to the community, though licensing limitations will limit its impact and outreach. The main contributions to the state of the art delivered in the project are: An ontology for Public Procurement based on

the Open Contracting Data Standard, the description of the TBFY Knowledge Graph for Public Procurement and the use of Machine Learning for anomaly detection in public procurement.

◦ scientific and/or technological quality of the results

Overall the quality of the results of the project is acceptable and this is verified by acceptance of the project ideas published in peer-reviewed publications and the release of a set of business cases along with the core API catalogue of the TBFY platform.

The business cases differ widely in quality and matureness. Some of them have not gone beyond the beta phase while others have demonstrated real value.

◦ impact on technology and/or society

The public administration business cases (Spain and Slovenia) are already running and making a difference, which is very positive. The consortium has also plans, as they explained, to export the assets to other EU locations with the help of the KG. Both of them are likely to have impact in society beyond the scope of the project.

Substantial Impacts in technology have not been detected.

The project has secured resources to maintain the outputs updated during 2021, which is valuable. However, the TBFY project has not proved during the project that the knowledge graph will be adopted by the community and the proposed model is sustainable from the socio-technical-economic-legal perspective. The concerns related to the fact that there is a big dependency on third party data and the sustainability issues that could come from changes in data availability policies from these members of the consortium are still valid.

◦ dissemination activities and results: publications, users involved, etc.

Scientific & technical dissemination towards academia and related communities have successful through scientific publications, conferences and workshops.

The quality of dissemination materials is good and a big effort has been done during the second period to rebuild strategy and materials. In particular, the release of Jupyter notebooks for developers is a good practice to lower the barrier for newcomers potentially interested in the results of the project.

However main dissemination metrics have not been achieved and show that real outreach of the project to developers (github activity) and society at large (website, social media) are weak and do currently not demonstrate to be in the path for a satisfactory take up of the results by the community.

◦ protection of the acquired intellectual property (patents applications, etc.)

The project has not taken specific measures for the protection of the acquired intellectual property further than software licensing in both proprietary and open source schemes.

Some core components of the software developed during the project have not been released. APIs for service consumption from those components have been made available as open source. The licensing schemes for the open source components and datasets have been clarified.

The separation of background and foreground intellectual property rights of the software components has also been clarified.

The licensing of released datasets is restricted to non-commercial use.

◦ achievement of the objectives, compliance with the work plan, any deviations (whether justified) and corrective actions (whether acceptable).

Both the overall and specific objectives for the project have been achieved, though with different levels of success.

The workplan has been developed according to the DoA as modified by the Amendment reference

Deliverables have been submitted as planned.

◦ milestones for the period and submission and acceptance of deliverables (if applicable).

The TBFY Project has achieved all nine planned milestones (MS1 to MS9) according to the work plan approved in the DoA.

The overall quality of the deliverables is good and has improved from earlier versions according to the recommendations given in first review.

◦ take-up of the recommendations from the previous review or check (if applicable)

The project has demonstrated a serious commitment to put in place the recommendations received in the previous review to improve the performance of the project.

◦ use of resources (are they in line with the DoA, do they represent good value for money?) (if applicable).

Resources have been efficient and clearly explained and most work packages have delivered the acceptable results. In general, resources have been judiciously used according to DoA

In terms of innovation and value for money, the project has not delivered in line with expectations, in part because the assessment of some of the challenges of project was probably not realistic.

4. Recommendations concerning the period covered by the report

• work done and possible required corrective actions (e.g., resubmission of reports or deliverables)
All deliverables submitted during the reviewed period have been approved. However they lack of global consistency and a revision to align their contents with the dissemination strategy and frequently information is repeated in more than one report. The deliverables are comprehensive and clean, however, they would have benefited from a more concise reporting. In general what is important is: what has been achieved, what not, what are the conclusions and future plan. Most of the deliverables are very comprehensive however they do not answer the previous questions clearly.

The consortium has laid out a set of very meaningful KPIs and also reported on them consistently. Their assessments are rather on the optimistic side, nevertheless, there is a logical approach behind them. The research KPIs (i.e. metrics) were less transparent, it is not fully clear the numbers behind the algorithms e.g. simple metrics such as accuracy, precision, recall as well as web analytics results (e.g. a number of unique users). The latter could have been more clearly and systematically measured and reported.

Innovation aspects could have been more clearly planned, implemented and communicated given that this is an innovation action.

Incorporating explainability and transparency aspects to the tools wherever possible (e.g. CERVED tool) will help with user adoption promising higher impact.

Specific recommendations resulting from Innovation Radar:

1- Please reach out to other EU countries to increase impact and understand how these tools can be adapted to solve their (business) need (for example how can the anomaly detection tool be also successfully deployed in Spain?)

2- Please consult with citizens and include end-users wherever possible to collect their feedback and understand the potential of adoption (for example by conducting anonymous user tests, A/B tests)

3- Please provide transparent human-machine interaction wherever possible to increase the potential of adoption." (for example by leveraging explainable AI (xAI) concept for the algorithms, e.g. in Italy)

• dissemination and communication activities
Dissemination and communication activities have adjusted well to the challenging conditions of 2020. Market research of potential competitors similar to the TBFY project business cases is weak.

The analysis of government procurement practices in light of Covid19 was a good idea to gain traction for the project. However as it is based only with TED dataset it was not useful as a demonstration of the value of the results of the project.

The website should not only link to the videos of the tools but to the tools themselves.

• data management plan
The restriction of commercial use for released datasets is not in line with European Commission open data policy and a revision is recommended.

5. Recommendations concerning future work, if applicable
N/A

2. Objectives and workplan

1. Is the progress reported in line with objectives and work plan as specified in the DoA? If there are significant deviations, please comment.	Yes

The TheyBuyForYou project has 3 specific objectives and all of them can be considered as achieved:

• Objective 1: "To build a technology platform, consisting of a set of modular, web-based services and APIs to publish, curate, integrate, analyse, and visualise a comprehensive, cross border and cross-language procurement knowledge graph, including spending and corporate data from multiple sources across the EU"

Assessment: This objective can be considered as achieved. All the components of the platform, including APIs have been released and the a significant effort has been done to pack them all as a fully-fledged well-documented platform that can be used by third parties.

• Objective 2: "to support the realisation of the four innovation scenarios, through a series of 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"

Assessment: This objective can be considered as achieved, despite different levels of quality of the components, services and tools that have been developed. A cross-language document comparison service, an anomaly detection component and data visualisation tools have been developed in order to support the business cases of the innovation scenarios. However some business cases reached only beta stage and others are effectively using only some parts of the platform components.

• Objective 3: "To implement the project's technical vision in three business cases, targeting the main customer segments in procurement."

Assessment: This objective can be considered as achieved although some of the business cases are weaker than expected. Overall, two public sector business cases have reached a more advanced stage than the private sector ones, which in some cases can be considered as private prototypes by the end of the period of the project.

The project is organised in 8 work packages, and all of them have developed tasks during period 1:

WP1: Knowledge graph creation and management

Assessment: The work presented in the three deliverables of WP1 represents a good improvement from period 1 and is in line with DoA. The raw dataset for TBFY platform has been released in Zenodo once a month which is a good solution and solves an important issue from period 1. However the issues with the catalogue of data sources and its audits have not been completely solved.

Deliverables: see deliverables section

Delays: not detected

WP2: Knowledge graph enrichment and publication

Assessment: The work presented in deliverables of WP2 (D2.3 and D2.4) presents a good improvement from period 1, when results where rather weak. The approaches regarding categorisations with Bayesian classifiers that where not state-of-art in period 1 have been successfully replaced by ML techniques. However little information is delivered about the approaches taken and metrics for the classifiers have been provided only at a high level.

Deliverables: see deliverables section

Delays: not detected

WP3: Cross-lingual real-time monitoring and analytics

Assessment: The work presented in deliverables of WP3 (D3.4 and D3.5) is coherent with the specifications of the work plan and also presents improvements when compared to previous period. The Public spending real-time monitoring and analytics framework is a very interesting piece of work that would be very interesting to see linked to the Knowledge Graph instead of to single source (Slovenian procurement)

Deliverables: see deliverables section

Delays: not detected

WP4: Interaction design and storytelling

Assessment: The work presented in deliverables of WP4 (D4.5 and D4.6) is overall coherent with the specifications of the work plan. However the presented tools are rather weak when comparing to state-of-art industrial solutions.

Deliverables: see deliverables section

Delays: not detected

WP5: Standards, best practices, and integration

Assessment: The work presented in deliverables of WP5 (D5.4 and D5.5) have addressed the most important issues raised in period 1. The API-Gateway concept provides coherence to the architecture of the platform which was a major concern in previous period. The documentation and the organisation of the github repositories present a big improvement.
Deliverables: see deliverables section
Delays: not detected

WP6: Business planning: Generic tools and business cases
Assessment: The work presented in deliverables of WP6 (D6.2 and D6.3) is overall coherent with the specifications of the work plan. The 7 business cases present different levels of quality but overall most of them contribute to the objectives of the project. However some business cases have not been fully released in the time frame of the project.
Deliverables: see deliverables section
Delays: not detected

WP7: Dissemination and Exploitation
Assessment: The work presented in deliverables of WP7 (D7.3, D7.4 and D7.5) is good regarding the materials produced. However, the dissemination metrics provided regarding the outreach of the project are overall modest and uptake of results is not fully demonstrated.
Deliverables: see deliverables section
Delays: not detected

WP8: Project Management:
Assessment: The work done in this WP is high quality and it has contributed to the great improvement demonstrated in the second halve of the project despite the very challenging conditions.
Deliverables: see deliverables section
Delays: not detected

2. Are the objectives of the project still scientifically and /or technologically relevant?	Yes

All the objectives of the project can still be considered to be scientifically and /or technologically relevant even beyond the project time frame. There is still room to provide technological breakthrough beyond the results provided by this project. The consortium is encouraged to continue leveraging their outcomes in the future in other relevant formats of collaboration.

All milestones have been achieved on time according to the project plan.

3. Are the critical implementation risks and mitigation actions described in the DoA still relevant?	Yes

Given that this was the final review, the project has completed successfully and has therefore mitigated its risks when needed making use of the critical implementation risks and mitigation actions described in the DoA, Major progress was demonstrated over the last reporting period and no additional risks have been identified in the periodic report.

4. Have the pilots/case studies started to showcase innovative results as described in the DoA?	Partially

The business cases have been developed according to DoA. However this is a rather weak part of the project, considering the fact that it is an innovation action. Four pertinent innovations are coming out of the project, however, they are not game-changing nor groundbreaking. Rather they are either successful business cases (Slovenia and Zaragoza) or successful applications of technology to another application domain (KG and linked entity resolution). These innovations are:
1- Knowledge Graph and related tools
2- Business cases Slovenia and Zaragoza
3- Anomaly detection tool of Slovenia
4- Potentially, legal linked entity resolution tool

These are clearly a signal of success and they are useful. However, they will no change how research or business is done in the EU.

5. Have the ethics deliverables due for the current period been adequately addressed and approved?	Not applicable

N/A

6. Have the comments and recommendations from previous project reviews been taken into account?	Yes

Yes this is a strong part of the project. The consortium has improved its work over the last period significantly and has taken the previous feedback very seriously. As a result, part of the work changed course (e.g. linked entity resolution) the website as fully refurbished pilots and demonstrations were completed and they were successfully integrated into the Knowledge Graph and the platform. All these results were achieved despite the changing circumstances caused by Covid-19. The efforts and outcomes are very much appreciated.

3. Impact

1. Does the work carried out contribute to the expected impacts detailed in the DoA?	Yes

The communication activities have been strong with intensive and good publications and other events, as well as a professional website and helpful videos. It is particularly positive that the consortium has redesigned its website based on the negative feedback it received during the previous meeting. In general, the reviewers also observed a major uptake in terms of progress compared to last year, which was very appreciated.

However most of the targets for the metrics of success have not been fully achieved or some have not been measured with convincing methodologies

2. Does the work carried out follow the plan detailed in the DoA to enhance innovation capacity, create new markets opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, address industrial and/or societal needs at regional level or bring other important benefits for society? Give information on the relevant innovation activities carried out (prototypes, testing activities, standards, clinical trials) and/or new product, service, reference materials, process or method (to be) launched to the market, if any.	Partially

The knowledge graph is the most important innovation as this is the backbone of the project and is used, at least partly, in all business cases.

The main benefit of the project will be to society at large in terms of better transparency.

The open data vision, the related efforts behind the vision and the dedication of the consortium and its related partners are appreciated even though the results are modest. The open data initiative hence has the potential to create an uptake in the European market that promises to be transparent and reliable which are important.

The overall results otherwise have an impact on a country level and are not pan-European. For more effective impact country-silos need to be broken.

3. Does the work carried out contribute towards European policy objectives and strategies and have an impact on policy making?	Partially

The project is likely to contribute to better usage of taxpayers money, increase competition and amount of bids from SMEs in some local markets where some of the partners operate.

However the potential to contribute at a pan-european level has not been achieved.

4. Does (or will) the work carried out have an impact on SMEs?	Partially

SME consortium partners are using the tools they have produced during the project but a substantial impact on SMEs at large is not demonstrated.

Some tools presents some potential like the legal linked entity resolution tool that could be integrated into more SMEs business cases.

The work carried out can have a modest contribution to improve SMEs' access to public procurement as some of the most interesting results in this area are weak, like the improvement of multilingual information about tenders as well as the possibility of matching tenders' requirements with own products, regardless the language.

5. Have the beneficiaries reached gender balance at all levels of personnel assigned to the action? If not, have the reasons been explained in the periodic report?	No

The consortium as a whole has not reached gender balance at any levels of personnel assigned to the action. Total number of female personnel assigned to the action is 39% (36 out of 92) with a 29,4% (15 out of 51) of female researchers.

Although 39% might seem to be not far from gender balance, it must be noted that when we break down figures by participant, there is one partner (INSTITUT JOZEF STEFAN) that employs 84% of female personnel.

Only two beneficiaries have reached or are near gender balance considering total personnel assigned to the action: AYUNTAMIENTO DE ZARAGOZA (50%) and OESIA NETWORKS SL (40%).

If we consider only researchers, INSTITUT JOZEF STEFAN employs 60% of females (3 out of 5), TICON UK LIMITED employs 50% (2 out of 4) and OESIA NETWORKS SL declares a 40% of female researchers (4 out of 10).

If we consider the review meeting as an indicator, few women were representing their organizations.

The periodic report does not provide a specific assessment on the gender balance situation.

4. Implementation

1. Has the project been efficiently and effectively managed?	Yes

The project management has been high quality and the project finished on track according to the amended DoA. The project manager has mastered his tasks professionally and diligently.

The atmosphere of mutual understanding and communication between the different partners in the project during the meeting also indicates well functioning management.

The issues regarding technical coordination a quality assurance have been effectively solved.

2. Is the management of the project in line with the obligations of beneficiaries (including ethics and security requirements, risk and innovation management if applicable)?	Yes

The management of the project is in line with the obligations of the beneficiaries.

3. Is the contribution of each beneficiary in line with the work committed in the DoA? (applicable only to multibeneficiary projects)	Yes

All partners show good progress and performance. All beneficiaries have a visible contribution to the project according to the DoA. All partners' contributions are evident in deliverables, software and publications.

Strong commitment is demonstrated by all members.

No evidence of underperforming beneficiaries has been identified. Neither lack of commitment/performance nor change of interest of any beneficiaries.

University of Southhampton left the consortium due to the fact that the relevant consortium member moved to King's College London. As a result, the latter entered the consortium. The process war entirely transparent to the EC and was managed well.

4. Have the beneficiaries disseminated project results (foreground) in scientific publications as planned in the DoA (including the deposition of publications in open access repositories)? Do they include a reference to EU funding?	Yes

The consortium has been very active and successful on this end.

The final report declares that scientific publication activity has produced 10 references to peer reviewed articles. However the continuous monitoring tool registers only 7. All 7 publications are Green Open Access.

The 5 publications that could be checked, had evidence of reference to EU funding by the project. However in some cases, funding contribution was acknowledged with some other sources or projects.

5. Have the beneficiaries disseminated and communicated project activities and results by other means than scientific publications (social media, press-release, the project web site, video/film, etc) as planned in the DoA? Do they include a reference to EU funding?	Yes

The beneficiaries have disseminated and communicated project activities in social media, press-releases, the project web site, videos and they include a reference to EU funding.

Good quality materials have been produced, but results are modest in term of outreach metrics (e.g. the traffic on social media is modest)

6. Has the plan for the exploitation and dissemination of the results (if required) been updated and implemented as described in the DoA, in particular as regards intellectual property rights? Is it appropriate?	Yes

An appropriate plan for the exploitation and dissemination of the results has been delivered as it was planned (M24).

The business cases and the exploitation plans have been well documented with relevant quantified KPIs, which were explained and substantiated during the review meeting.

7. Has the data management plan (DMP) (if required) been updated and implemented? Is it appropriate?	Yes

The data management plan is implemented and overall is appropriate

Relevant datasets have been published in Zenodo. The release of Knowledge Graph data under the Creative Commons BY-NC-SA 4.0 should be discussed as it is questionable that can be fully considered as open data.

8. Have the proposed institutional changes been appropriately promoted?	Yes

The institutional changes have been appropriately promoted.

University of Southhampton moved out, King's College London joined. The process has been transparent and smooth.

5. Resources

1. Were the resources used as described in the DoA and were they necessary to achieve its objectives? If there are deviations from planned budget, have they been satisfactorily explained? Have they been used in a manner consistent with the principle of sound financial management (in particular economy, efficiency and effectiveness)?	Yes
Resources have been managed well, no significant issues were observed. Expenses are reasonable and consistent with the principle of economy. Minor deviations from the amended DoA have been reported in progress report but all of them have been justified.	

Expert opinion on deliverables

Deliverable number	Deliverable name	Status	Comments
D1.5	Data gathering, extraction, pre-processing and normalisation components v3	Accepted	D1.5 Data gathering, extraction, pre-processing and normalisation components v3 is accepted. As mentioned in the general comments, concise reporting is encouraged. The work related to catalogue of data sources and its audits is weak, though acceptable
D1.6	Ingested data v2	Accepted	D1.6 Ingested data v2 is accepted. As mentioned in the general comments, concise reporting is encouraged. The work related to data ingestion is weak and not fully transparent, though acceptable
D1.7	Data provider engagement report	Accepted	D1.7 Data provider engagement report is accepted. More concise reporting is encouraged.
D2.3	Data comparison components	Accepted	D2.3 Data comparison components is accepted. More concise reporting is encouraged.
D2.4	Knowledge graph publication and consumer engagement report	Accepted	D2.4 Knowledge graph publication and consumer engagement report is accepted. More concise reporting is encouraged.
D3.4	Common spending templates framework v2	Accepted	D3.4 Common spending templates framework v2 is accepted. More concise reporting is encouraged.
D3.5	Public spending real-time monitoring and analytics demo v2	Accepted	D3.5 Public spending real-time monitoring and analytics demo v2 is accepted. More concise reporting is encouraged.
D4.5	Open-domain, cross-lingual automatic storytelling methods	Accepted	D4.5 Open-domain, cross-lingual automatic storytelling methods. More concise reporting is encouraged.
D4.6	Visualization and interaction components v3	Accepted	D4.6 Visualization and interaction components v3 is accepted. More concise reporting is encouraged. The results are acceptable though they do not present relevant contributions to state-of-art.
D5.4	Procurement APIs and platform release v3	Accepted	D5.4 Procurement APIs and platform release v3 is accepted. More concise reporting is encouraged. The work does not present relevant advances in the area.
D5.5	White paper on the publication and governance of open procurement data	Accepted	D5.5 White paper on the publication and governance of open procurement data is accepted. The project shows strong publication record. More concise reporting in terms of deliverables is encouraged.
D6.2	Development & evaluation report of tools & business cases v1	Accepted	D6.2 Development & evaluation report of tools & business cases v1. The numbers behind the reported business KPIs were not fully clear until the review meeting. It is not self-explanatory how the calculations were done (.e.g. the quantification of impact). During the meeting, these were explained and accepted. However, a more transparent

Deliverable number	Deliverable name	Status	Comments
			description in the deliverable would have been helpful. User impact of the platform is unclear (e.g. how many user etc.) More concise reporting terms of deliverables is encouraged.
D6.3	Development & evaluation report of tools & business cases v2	Accepted	D6.3 Development & evaluation report of tools & business cases v2. More concise deliverable reporting is encouraged.
D7.2	Interim impact report	Accepted	D7.2. Interim impact report is accepted. Dissemination is a strong part of this project. More concise deliverable reporting is encouraged.
D7.3	Innovation and Exploitation plan	Accepted	D7.3 Innovation and exploitation plan is accepted. More concise deliverable reporting is encouraged.
D7.4	Final impact report	Accepted	D7.4 is accepted. The project, even though not at being pan-European, has made an impact. Especially the two successful business cases in Spain and Slovenia are significant. The consortium is encouraged to continue collaborations. More concise deliverable reporting is encouraged.
D7.5	Innovation and Exploitation report	Accepted	D7.5 Innovation and Exploitation report is accepted. More concise reporting is encouraged.
D8.3	Data management plan	Accepted	D8.3 Data management plan is accepted. A discussion on Knowledge Graph data licensing and sustainability is encouraged.

Expert opinion on milestones

Milestone number	Milestone name	Achieved	Comments
MS1	First version of core technology	Yes	Milestone is achieved.
MS2	First version of online tools	Yes	Milestone is achieved.
MS3	Business cases released v1	Yes	Milestone is achieved.
MS4	Second version of core technology	Yes	Milestone is achieved.
MS5	Second version of online tools	Yes	Milestone is achieved.
MS6	Business cases released v2	Yes	Milestone is achieved.
MS7	Final version of core technology	Yes	Milestone is achieved.
MS8	Final online tools	Yes	Milestone is achieved.
MS9	Business cases released v3	Yes	Milestone is achieved.