



openDBL

Improving Buildings is Improving EU

D4.6

Knowledge Sharing Plan M6

Disclaimer and acknowledgements



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Responsible author	[Mario Caputi (in2it)]		
Additional authors and contributors	[Tommaso Bortoli (in2it)] [Cristina Chirea (ASRO)]		
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1 Contents

1	Introduction	8
1.1	openDBL Project summary	8
1.2	Mapping openDBL outputs	8
1.3	Deliverable Overview and Report Structure	9
2	Knowledge Sharing Plan.....	11
2.1	KS Methodology and Approach	11
2.2	Learning goals and topics.....	12
2.3	Channels.....	13
2.3.1	Business conferences and trade fairs	13
2.3.2	Events (demos, exhibitions, pilot spotlight sessions).....	14
2.3.3	Publications (Non-scientific)	14
2.3.4	Publications (Peer-reviewed).....	14
2.3.5	Platform building blocks	14
2.3.6	Project reports and deliverables.....	15
2.4	Target Groups	16
2.5	Coverage Matrix	17
2.6	Evaluation and Impact assessment.....	18
3	Calendar	19
4	Conclusions	20
5	Disclaimer.....	20

List of Tables

Table 1: Glossary of terms and acronyms used.....	6
Table 2: openDBL work description	9

List of Figures

Figure 1: Workflow of the KSP methodology.....	11
Figure 2: Channels Categories	13
Figure 3: Channels types	15
Figure 4: Stakeholders groups of openDBL.....	16
Figure 5: Channels Target Matrix	17
Figure 6: Coverage Matrix (status 30.06.2023).....	18
Figure 7: KPI for monitoring and control	18
Figure 8: Target KPIs (status 30.06.2023).....	19
Figure 9: KSP Calendar (status 30.06.2023).....	20

Glossary of terms and acronyms used

Table 1: Glossary of terms and acronyms used

Acronym/Term	Description
BIM	Building Information Modeling
KS	Knowledge Sharing
KSP	Knowledge Sharing Plan
KSP Methodology	The methodology designed to orientate, facilitate and monitor the KS activities of our Partners
Project	openDBL

Executive summary

Subject of the deliverable: Describe the methodology to effectively share the knowledge gained during the Project, aligning the Consortium Partners on the KSP activities to be undertaken and agree on a timetable for their delivery.

Purpose of the deliverable: This report describes the typology of activities that the Consortium Partners will undertake during the three years of the Project and their occurrences until the end of it. As a result, this deliverable will align the Partners to the required work to share the results of openDBL.

Summary of the work carried out. To produce this deliverable, we have:

- Analysed several similar KSPs and defined the best approach for our goals to be achieved
- Conducted a planning and alignment session with DIGI, the partner responsible for Dissemination
- Cooperated with ASRO as quality reviewer of the content
- Defined the content, approach, activities and their timing
- Validated with each Consortium partner their tasks and role
- Agreed on the next steps
- Submitted to CETMA

Main Conclusions:

We have defined:

- the content to be shared
- the channels (media) to be created or utilized to share knowledge
- the target audiences to whom the Project results shall be communicated
- the KPIs to monitor and control the effectiveness of our KSP

1 Introduction

1.1 openDBL Project summary

openDBL intends to integrate multidisciplinary know-how to cover the requirements of the Call and solve the issues of the current situation in the area. The challenge of the Project is to allow, through the development of openAPI, the disposal of openDBL in a unique standardized platform and create useful content, to simplify the workload of the AECO industry.

The Project pursues 3 objectives: 1) create a DBL with useful content and functionalities, 2) ensure openDBL is simple to use, reducing the time spent to upload, search and process the information and data to facilitate usage and gain wide adoption, 3) ensure attractive economics, through value propositions and convenient pricing.

The Project will provide any users with an integrated platform for their digitization needs; ensure that information and data comply with the latest trends and needs of our target clients and support the EU's circular economy and green policies; develop automatic classification systems and data standards; facilitate the operation and maintenance activities of the buildings. This will be achieved through the creation of an Information Delivery Manual and a Data Model. openDBL will support data matching with external databases and will integrate state of-the art technologies (AI, Blockchain, IoT and VR).

Our ambition is to make openDBL the platform of reference for the monitoring of building consumption, transparencies of transactions and official documents, and the positive impact on maintenance and environment. We will define an appropriate business model for the users to subscribe and for the consortium partners to make it economically viable.

1.2 Mapping openDBL outputs

To reach its goals openDBL is divided into 6 WPs with different tasks and deliverables.

The main objective of WP4 is to conduct targeted, effective and high-impact communication, and outreach activities of Project results. Main objective is the dissemination and sharing of the Project's results, information and findings with end-users, stakeholders and other relevant parties.

As specific objectives, WP4 aims to:

- Delivering tailored communication & awareness actions to specifically targeted audiences.
- Promoting the Project and its outputs to the largest possible audience, maximizing the expected impacts of openDBL.
- Iterative assessment and improvement of communication activities during the Project implementation through the periodic monitoring and analysis of this KSP.
- Implementing and following a dedicated stakeholder engagement strategy.
- Defining the Dissemination Plan.
- Implementing dissemination actions, including networking & clustering.
- Defining the transferability of the Project's results and its further use by all Partners.

1.3 Deliverable Overview and Report Structure

The objective of Task 4.3 and Deliverable 4.6 is to define the KSP of openDBL and actively monitoring the performance of the Consortium Partners.

In this document we present the methodology to guide our Consortium Partners defining and carrying on the KSP activities as best they can, sharing current and future expertise and making a commitment to actively participate in the completion of the KSP.

The KSP of openDBL, (Deliverable 4.6) is designed to:

- streamline, monitor and better manage the production of the Consortium Partners' proprietary content
- match those contents with relevant Channels (ie. media, publications, events, etc)
- choose the best Channels to share knowledge
- make the right Partners responsible for the delivery on the chosen Channel.
- monitor the results of the KSP.

In particular, D4.6 provides a framework with which each partner must share the knowledge acquired within the Project. The publication of the relevant contents of this knowledge will be conveyed to appropriate Channels, such as the openDBL website, social media or organizations such as buildingSMART international.

The table below describes the activities required to complete D 4.6.

Table 2: openDBL work description

openDBL GA Component Title	openDBL GA Component Outline	Respective Document Chapter(s)	Justification
DELIVERABLE			
D[4.6] [Introduction Chapters]	In the reference paragraphs we defined the objectives of the D 4.6, the methodology to follow and its timetable.	1 Knowledge Sharing Plan 2 KS Methodology 2.1 Approach 2.2 Schedule of Work	Deliverable 4.6 indicates how each Partner will act to share the knowledge acquired during the Project.
ACTIVITIES			
T[4.3] [Knowledge Sharing Plan]	In the appropriate paragraphs of this document we describe the: • contents of different publications and events, • channels to be used to share the results obtained from the Project, • target groups for disseminating knowledge, • coverage of all identified activities, • deadlines for the publication • tolos and monitoring activities to check the progress of the KSP.	3 Topics addressed and learning objectives 4 KS Channels 5 Target groups 6 Coverage matrix 7 Evaluation and impact assessment 8 Scheduling of KS channels	Ultimate goal of KSP is to be the reference Guide for the Consortium Partners and a “living” document to organize their work with the goals described herein.

2 Knowledge Sharing Plan

openDBL KSP is divided into the following six paragraphs.

2.1 KS Methodology and Approach

The methodology chosen to share the knowledge and results of the openDBL Project, during the different phases, comprehends four steps:

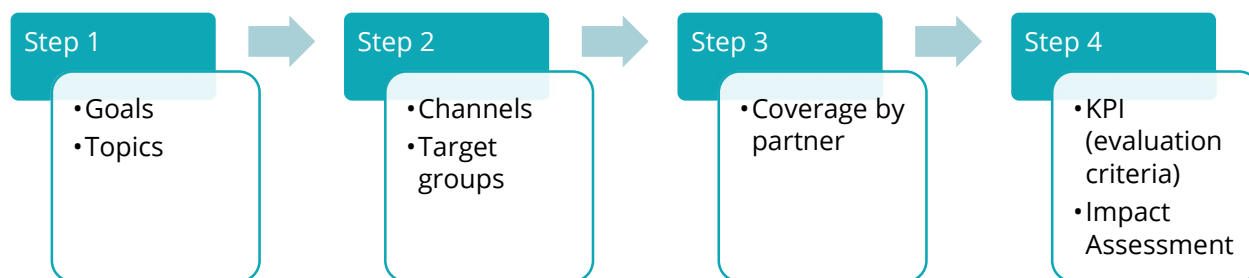


Figure 1: Workflow of the KSP methodology

The first step deals with the **learning goals** pursued by users and stakeholders when related to the Project and the subsequent identification of the topics to be addressed by this KSP.

The second step deals with the selection of the **Channels** the Consortium Partners will use to share the Project results (media to be activated, events to attend, articles to publish, etc) and the **Target groups** to be activated.

The third step deals with the **Coverage** responsibility of each Consortium partner. In periodic sessions (ie. Plenary meetings, monthly jour fix, etc) we will come back to this methodology and decide how to best match topics, channels and targeted audience so to assume clear responsibilities towards the delivery (ie. shared Knowledge).

The last step deals with the definition of the **KPI** we will use to monitor and evaluate the effectiveness of this KSP, taking into account frequency, content and audience response.

2.2 Learning goals and topics

To share the knowledge acquired and the results of the Project, it is necessary to identify and agree on the topics and the type of content to be shared.

Some of the topics have already been shared in previous deliverables, such as D1.1 (Goals, KPIs and application requirements) and D1.2 (IDM and data requirements approach).

Other topics that should be included in our KSP are:

1. The **system specifications for the cloud environment**. How to interface and collect data from new technologies aligned to the Project deliverables (i.e.. sensors, VR, etc.) or from existing or upcoming applications connected to the Project results, including considerations of privacy and security (WP1, Task 1.4).
2. The **analysis and the implementation of an AI-based mapping** concept/service for relevant classification systems, to find relations of objects and attributes, for the suitability to translate terms in different languages (WP1, Task 1.5).
3. **Innovative features for collecting data on site** on the installed hardware in the building, to speed up the process of data entry even for unexperienced people (WP2, Task 2.1).
4. The enhancement and **integration of a smart quality control and data verification tools** (WP2, Task 2.3).
5. The **development of an IoT platform** for the collection of big data (ie. energy consumptions, external and internal temperature, # people, etc.) from the building with the ultimate target to derive behaviors, patterns and provide suggestions on how to reduce energy impacts (WP2, Task 2.4).
6. The **production of a real-time 3D model** by processing and translating the data generated from the point clouds and the BIM models and have it linked to openDBL and reachable on any web browser. (WP3, Task 3.2).
7. The **testing and the demonstration of the openDBL solution** developed in WP2 on the buildings (WP3, Task 3.3).
8. The **feedback of users and stakeholders** on the results of the pilot and resulting operative recommendations on how to improve and systemize our methodology, our tools and further development areas of openBIM (WP3, Task 3.4).

2.3 Channels

To share the identified topics, we will use different media Channels:

1. Project reports and deliverables
2. Peer-reviewed publications
3. Non-scientific publications
4. Platform building blocks
5. Pilot spotlight sessions, demos and exhibitions
6. Business conferences and trade fairs



Figure 2: Channels Categories

Each Consortium partner will use and promote the acquired knowledge on the KS channels, as described below:

2.3.1 Business conferences and trade fairs

SMEs and industrial Partners normally prioritise participation in European business conferences and trade fairs as a strategic opportunity to interact actively with multiple stakeholders simultaneously.

The openDBL Consortium Partners will showcase the achieved results in the form of presentations, talks, exhibition spaces, and business engagement choosing

and attending as speaker or guests appropriate business conferences and trade fairs. This action will include any opportunity strongly related to BIM, data economy, data spaces, and use case domains.

In accordance with CETMA and DIGI the Consortium Partners will choose which conferences to participate in, such as International Semantic Web Conference, IEEE WF-IoT, IEEE Pervasive Computing Magazine, IEEE Internet Computing Magazine, Elsevier Journal of Systems and Software, ACM Transactions on Internet of Things, ACM International Conference on Big Data technologies.

2.3.2 Events (demos, exhibitions, pilot spotlight sessions)

The Consortium Partners will organize and participate in workshops, webinars, focus groups, pilot spotlight sessions, hackathons, and co-creation sessions during and after the Project's lifetime. These will have both a technical and a more business related character.

CETMA will also plan, with the collaboration of all partners, further engagement activity at European and regional level by organising three summer/winter schools (at the site of academic Partners).

2.3.3 Publications (Non-scientific)

To create a wider impact in the European data economy the Consortium Partners will publish and contribute to economic, social, and technical blog posts, articles, brochures, book chapters, other reference from technology providers (bottom-up), as well as references related to the use case domains under consideration (top-down).

2.3.4 Publications (Peer-reviewed)

To ensure open access of the technical achievements, the Consortium Partners will publish in primary and renowned journals and magazines relevant to digital transformation, data management tools, security, blockchain, energy efficiency, smart buildings, circular cities etc.

2.3.5 Platform building blocks

One of the Partners' goals is to support replicability and open-source software initiatives to facilitate and encourage adoption, reuse and further extension of the openDBL platform's building blocks. The Partners will make those building blocks accessible through a well-known, distributed, version control, and source code management platform (i.e., GitHub).

2.3.6 Project reports and deliverables

The Partners will publish through the Project website and similar public repositories deliverables.

The Project website is already active at this URL: <https://www.opendbl.eu/>.

On the Project website or on their own websites, the Consortium Partners will share information about their specific role, contribution and achievements from the openDBL Project. This may include technical ambition eventually acquired through other related EU initiatives.

Also the results of the four openDBL use cases (dormakaba, Kifissia, Mislata and Ruvo) will be shared on those website and through specific events to be organized by the use-case hosting Partners.

The following picture summarizes the Channels we will utilize.



Figure 3: Channels types

2.4 Target Groups

The knowledge generated by openDBL is of interest to several stakeholders. We have identified the most relevant categories as pictured below:

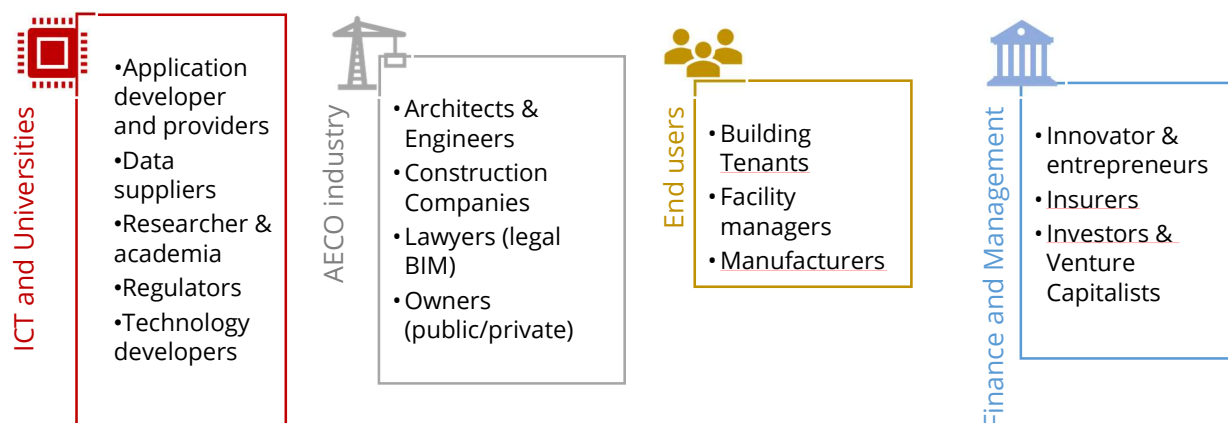


Figure 4: Stakeholders groups of openDBL

Based on these grouping, each Channel will target specific stakeholders.

1. Technology content will be directed to **ICT and Universities** (i.e., application developers and providers). In addition, researchers and other academic staff might be interested in reviewing the overall results of the Project. **Regulators** are also among our targets, since they can learn more about the possible implications of using the platform and anticipate regulations and legislation in this regard.
2. The **AECO industry** (ie. owners, designers, constructors etc) are among our potential clients and shall be made aware of the benefits of openDBL and how it will be used.
3. Workshops, demos and especially pilot spotlights will be the ideal channel for the **end-users** of the four pilot Projects. We will show how to use the openDBL platform, and each stakeholder related to the pilot will have to engage in organizing demos for the final users.
4. The **finance and management community** will be targeted to activate their interest in bringing financial strengths to the AECO digitalization players (such as openDBL). Insurers for example may be interested in creating new insurance policies for buildings using openDBL and venture capitalists may fund start-ups interested in using our platform for new apps and data monetization solutions.

The matrix below shows the targeted group by Channel (“target matrix”).

KS Channels (categories and types)		ICT and Universities	AECO Industry	End Users	Finance & Management
Business Conferences and Trade Fairs	European business conferences				x
	Trade fairs				x
	Presentations and talks				x
Events (Demos, Exhibitions, Pilot Spotlight Sessions)	Workshops			x	
	Demos/webinars			x	
	Exhibitions/focus groups			x	
	Hackathons	x	x	x	
	Summer/Winter schools			x	
Platform Building Blocks	Access to code management platform (e.g. GitHub)	x			
Project Reports and Deliverables	Project website	x		x	
	Public repositories	x			x
Publications (Non-Scientific)	Technical blog posts	x	x		x
	Articles		x		x
	Brochures		x	x	x
	Book chapters		x	x	x
	Reference from technology providers (bottom-up)	x	x		x
	Reference related to the use case domains (top-down)		x		x
Publications (Peer-Reviewed)	Journals/Magazines	x			
	Conferences relevant to digital transformation	x			

Figure 5: Channels Target Matrix

2.5 Coverage Matrix

The implementation of this KSP is based and will be based on the free choice of the Consortium Partners on the content and channels to be run. Each partner is responsible for sharing the topics chosen (as described in the previous paragraphs) to their target audience.

As a monitor tool each partner will use an excel-based “coverage matrix”. The matrix has two sheets: one to plan the occurrences and the other to record those occurrences which have been carried over.

The initial “planning coverage matrix” is pictured below. It shows the utilization of a specific Channel as chosen by one or more Partners so that an overall picture can be gained, and the progress monitored in the future months.

Partners	KS Channels (planned)																				TOTAL
	Project Reports and Deliverables	Publications (Peer reviewed)			Publications (Non-Scientific)						Events (Demos, Exhibitions and Pilot Spotlight Sessions)						Business Conferences and Trade Fairs				
	Public Repositories	Journals	Magazines	Conferences	Technical blog posts	Articles	Brochures	Book chapters	Reference from technology providers (bottom-up)	Reference on use case domains (top-down)	Workshops	Demos	Webinars	Exhibitions	Focus groups	Hackathons	Summer school	European business conference	Trade fairs	Presentations and Talks	
CETMA		2	2	2		1						1	1	1			1			3	14
AMTP						2					2		1	1			1			3	10
ASRO						2														6	8
CEM											1		2	2			2			2	9
DIGI																					0
DOR						1					1	1		1					1		5
EDI		3									1	1	1					2		6	14
EM					2	4					1	5					1			1	14
IABI		3											6		3					4	16
IN						1	1	1									1			1	5
KIF																					0
MIS											1		2							1	4
RUV						1	1				1	1									4
Total	0	8	2	2	2	12	2	1	0	0	8	9	13	5	3	0	6	2	1	27	103

Figure 6: Coverage Matrix (status 30.06.2023)

We will continuously update the Coverage Matrix and also record the occurrences as carried over by the Consortium Partners. At the following link any partner will find the most updated version: [KS Coverage Matrix.xlsx](#)

2.6 Evaluation and Impact assessment

To check the progress and effectiveness of our KSP, we have defined several KPIs by Channel. These KPIs will be periodically assessed to monitor and control the activities performed by each Consortium Partner until the end of the Project (31.12.2023)

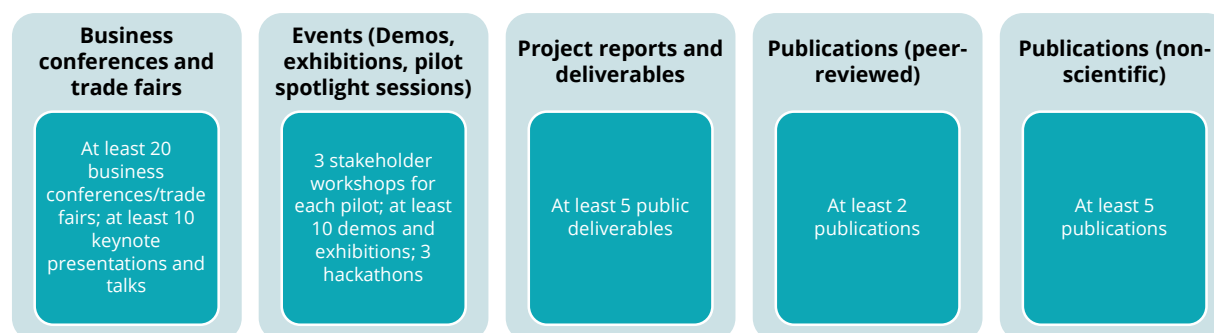


Figure 7: KPI for monitoring and control

We have defined a set of deadlines to schedule the activities to be carried out. This facilitates the monitoring of the KSP.

The table below shows the current schedule.

Channels	Target KPI	KS Channel	Frequency	Dependencies
Business Conferences and Trade Fairs	at least 20 business conference/trade fair demos	European business conferences	Once per month	-
		Trade fairs		
Events (Demos, Exhibitions and Pilot Spotlight Sessions)	at least 10 keynote	Presentations and talks	Three per year	-
	3 stakeholder wk for each pilot	Workshops	Three each year	after the creation of the point cloud
	at least 10	Demos/webinars	Three per year	-
		Exhibitions/focus groups		-
	at least 3	Hackathons	Once per year	-
Platform Building Blocks	3 at the site of academic partners	Summer/Winter schools	Once per year	-
Project Reports and Deliverables	Number of access to the platform?	Access to code management platform (e.g. GitHub)	Every four months?	after the first year
Publications (non-scientific)	5 public deliverables	Project website	Twice per year	-
		Public repositories		
Publications (non-scientific)	5 publications and factsheets	Technical blog posts	Twice per year	-
		Articles		
		Brochures		
		Book chapters		
		Reference from technology providers (bottom-up)		
		Reference related to the use case domains (top-down)		
Publications (peer-reviewed)	2 publications	Journals/Magazines	Once per year	after the first year
		Conferences relevant to digital transformation		

Figure 8: Target KPIs (status 30.06.2023)

We will continuously update the schedule of the KPIs and also record the occurrences performed by the Consortium Partners. At the following link any partner will find the most updated version: [KS Target KPIs.xlsx](#)

3 Calendar

(planned KS activities until 31.12.2023)

A calendar of events for the next six months has been produced and validated with the Consortium Partners. We have indicated the name of the events, the type of Channel covered by each Partner, and the date of the event. The table below shows the calendar that will be periodically updated at the link: [KS Coverage Matrix.xlsx](#)

Partners	Channel category	Channel type	Event Name	Date	Comments
CETMA	Presentation	Conference	CETMA-DIHSME - Innovative services for Sme's	June	Networking and discussions around the latest technologies such as BIM, Cyber Security and Artificial Intelligence
CEM	Presentation	summer school	ODBL summer school Polimi	July	
CETMA	Presentation	summer school	ODBL summer school Polimi	July	
IN	Presentation	summer school	ODBL summer school Polimi	July	
AMTP	Discussion/Presentation	Pilot Demos Exhib	Artificial Intelligence for Intelligent Specialisation	September	Intelligent Specialisation Regional Forum - advisory body for Regional Management PL / Wielkopolska
ASRO	Presentation		Eurocodes standardization community meeting	October	
IABI	Discussion/Presentation	Trade fairs	Linked Building Data Group W3C	October	
CETMA	Discussion/Presentation	Tech International Summit	World Immersive Experience Summit	October	Networking and discussions around the latest technologies such as VR/AR, NFTs, Web3
ASRO	Presentation		BIM standardization community meeting	November	
DOR	Presentation	Trade fairs	BIM World 2023 Munich	November	
EDI	Journal publication	Peer-reviewed publication	TBD	TBD	
IABI	Journal publication	Peer-reviewed publication	TBD	TBD	
EM	Articles	Non scientific Publications	TDB	TBD	
DIGI					
KIF					
MIS					
RUV					

Figure 9: KSP Calendar (status 30.06.2023)

4 Conclusions

By 30.11.2023 we will produce an updated version of the Calendar to update KS activities to be done in 2024.

The KSP monitoring and the performance of KSP will be checked every three months.

5 Disclaimer

The sole responsibility of this publication lies within the author. The European Union is not responsible for any use that may be made of the information contained therein.