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Deliverable D8.2

PROTOCOLS TO COOPERATE WITH RMIS AND EURMKB

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Deliverable report

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2.0	2021-10-26	Second Draft

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List of Abbreviations

ABBREVIATION	DESCRIPTION
CA	Consortium Agreement
CFS	Certificate on the Financial Statements
DoA	Description of Action
EB	Exploitation Board
EC	European Commission
GA	Grant Agreement
IFS	Individual Financial Statement
KPI	Key Performance Indicator
MoM	Minutes of Meetings
PFSIGN	Project Financial Statement
PRC	Project Research Committee
RP	Reporting Period
WP	Work Package
RMIS	Raw Materials Information System
EURMKB	European Union Raw Materials Knowledge Base

1 Executive Summary

This document constitutes the Deliverable 8.2 "Protocols to cooperate with RMIS and EURMKB" of the DIGIECOQUARRY project. This deliverable corresponds to the Task 8.2 (Cooperation with RMIS and EURMKB databases) of Work Package (WP) 8 'Clustering activities for a solid EU knowledge base on raw materials'. The Protocols to cooperate with RMIS and EURMKB will be revised yearly. In this regard, reports on interactions with other organizations, projects, RMIS and EURMKB will be published by the end of 2023 and 2025, within Deliverables 8.3 and 8.4.

The Project INNOVATIVE DIGITAL SUSTAINABLE AGGREGATES SYSTEMS (H2020-SC5-2020-2) will exploit the aggregates industry´s great potential through a coordinated approach towards construction materials management with the final goal of reducing EU external supply dependency as well as leading to an efficient use of resources. DIGIECOQUARRY will develop systems, technology and processes for integrated digitization and automation real-time process control, to be piloted in 5 EU quarries with the target of improving health and safety conditions for workers. The pilot campaigns will lead to improved efficiency of processes maximizing quarry resources and sustainable management of water, energy emissions, minimized environmental impact and expanding the EU aggregates and construction business. Coupling Artificial Intelligence approaches with cyber-physical systems and the Internet of Things concept, make Industry 4.0 approach possible and the smart sustainable extractive site a reality. All phases of the process, from extraction to the end user are covered by DIGIECOQUARRY, ensuring communication with policy makers, social acceptance activities and international cooperation with the Colombia and South Africa partners to share knowledge and best practices. The development of an innovative Intelligent Quarrying System (IQS) will increase the sustainable supply of minerals for the construction sector as well as enabling the sustainable extraction of EU´s mineral resources in existing and new quarries.

This Project includes 25 partners and will last for 48 months, starting on 1st June 2021. It is divided into 11 Work Packages. One of them is Work Package 8 (WP8), named Clustering activities for a solid EU knowledge base on raw materials, which will cover the complete duration of the Project.

The main objective of WP8 is to conduct clustering activities to **ensure transfer of knowledge and cooperation** among the relevant stakeholders, also feeding results from the pilots into the Raw Materials Information System (RMIS) and European Raw Materials Knowledge Base (EURMKB) databases.

WP8 will work to establish a powerful and solid network of key stakeholders and end users with potential interest in the project's successful execution and results that will expand the project's scope towards new market opportunities to maximize its impact. Specifically, WP8 will: (1) Define a Clustering plan to progressively build a collaborative network, consolidating the presence of the consortium partners in clusters and other relevant platforms; (2) **Ensure transfer of knowledge and cooperation among the relevant stakeholders, also feeding results and findings from the pilots into the RMIS and EURMKB databases**; and (3) Organize an International Advisory Board (IAB) composed of relevant stakeholders of the aggregates value chain to provide external input, advice and feedback when the project is experiencing difficulties during its execution.

2 Introduction and scope

DIGIECOQUARRY is totally aligned with the objectives and targets of the European Innovation Partnership on Raw Materials (provide high-level guidance to the European Commission, EU countries and private actors on innovative approaches to the challenges related to raw materials develop innovative technologies, offer environmentally-friendly, clean-technology applications, accelerate market take-up of innovations that address key challenges for Europe, raise industry's contribution to the EU GDP). Replicability and transferability are overarching in order to reach numerous quarries in the future. The consortium is fully committed to data sharing and clustering to strengthen the EU mining & quarrying goals. In this regard, the project will develop a full Dissemination strategy in WP9. Nevertheless, due to the special importance of clustering, a dedicated WP (WP8) will contribute to the EU knowledge base, with a specific task (Task 8.2) aimed at feeding RMIS and EURMKB databases.

This report, titled '**D8.2: Protocols to cooperate with RMIS and EURMKB**' aims to design the strategy, plan and activities to be implemented under the DIGIECOQUARRY project to provide and share information with these European Databases, in order to consolidate the presence of the consortium in relevant platforms and to explore synergies with international organizations and other interested stakeholders to provide wider dissemination, and establish potential cooperation with other partners/projects.

In this regard, the consortium intends to build up a solid and self-sufficient **International contact network** around the project, which is planned to be enhanced with the cooperation with RMIS and EURMKB.

Thus, DIGIECOQUARRY partners are committed to ensure the transfer of knowledge**,** contributing to feed:

(1) the EC RM Information System (RMIS) by: a) Clustering with some of the participants in the Raw Materials Knowledge Gateway: International Network of RM Training Centres, Joint Research Center, EuroGeoSurveys; b) Providing/sharing information (conclusions, guidance documents, other deliverables, etc.) to complete raw material profile for aggregates, the environmental & social sustainability and the Raw Materials scoreboard & monitoring;

(2) and (2) the EU RM Knowledge Base (EURMKB) by: a) Providing/sharing the outcomes of the Project (conclusions, guidance documents other deliverables, etc.), related with resource efficiency, extraction, processing, recycling, sustainability, social acceptance, development, skills.

Thus, T8.2 will contribute to improve the awareness of relevant external stakeholders and the general public across the EU about the importance of Raw Materials for society, the challenges related to their supply within the EU and about proposed solutions which could help to improve society's acceptance of and trust in sustainable Raw Materials production in the EU, duly taking into account the applicable EU environmental legislation.

2.1 Relation to other activities and deliverables

Cooperation with RMIS and EURMKB is part of the Clustering activities, included within both Dissemination Strategy and Communication Strategy, which are led by WP9 (DISSEMINATION, COMMUNICATION AND EXPLOITATION). Thus, the protocols to **cooperate with RMIS and EURMKB** will serve as the basis for activities foreseen in Tasks 8.1 and 8.2 and to complement the dissemination, communication, exploitation and engagement in WP7 and WP9. Thus, WP8 will work very close to both WPs (WP7 and WP9) to establish a

powerful and solid network of key stakeholders and end users with potential interest in the project's successful execution and results that will expand the project's scope towards new market opportunities to maximize its impact. This deliverable will follow the guidelines for the participation in external events of relevant initiatives described in D9.1.

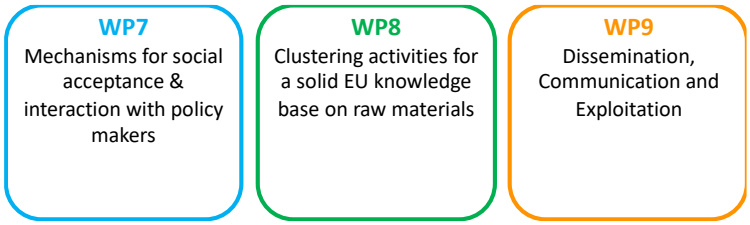

Figure 1. Relationship between WPs 7, 8 and 9.

2.2 Structure of the deliverable

With the above in mind, the "Protocols to cooperate with the RMIS and EURMKB" is structured as follows:

Section 1 - Executive summary: Contains a brief statement of the project.

Section 2 – Introduction and scope: Provides introductory information with respect to the Protocols to cooperate with the RMIS and EURMKB and its structure as well as its scope and its relation to other tasks, activities and deliverables.

Section 3 – Plan for Protocols to cooperate with RMIS and EURMKB: Presents the main project's activities of interaction with the RIMS and EURMKB.

Section 4 - Conclusions: Pertains the conclusions of the Protocols to cooperate with the RMIS and EURMKB as well as the way forward.

3 Plan for Protocols to cooperate with the RMIS and EURMKB

3.1 Cooperation with the Raw Materials Information System and European Raw Materials Knowledge Base

To disseminate international public information about DIGIECOQUARRY Project, it is planned to provide the required data (general characteristics, objectives, new technologies, results,…) to Raw Materials Information System and European Raw Materials Knowledge Base (Annex II).

To disseminate international public information about DIGIECOQUARRY Project, it is planned to provide the required data (general characteristics, objectives, new technologies, results,…) to Raw Materials Information System and European Raw Materials Knowledge Base.

The Raw Materials Information System (RMIS) aims to be a central European Union gateway of knowledge on primary and secondary raw materials. RMIS 2.0 was officially launched in November 2017, its structure supports the collection, organization, storage and communication of information on raw materials and, to a certain degree, on products derived from them.

RMIS 2.0 is organized in thematic sections, one of which being the "Raw Materials Knowledge Gateway" (RMKG). The RMKG constitutes a key part of the RMIS because it provides a unified access point to knowledge on raw materials from different providers at national, European and international level. Through the RMKG, it is intended to engage a broad range of knowledge providers into the development of the RMIS (Fig. 2). In turn, this gateway allows knowledge providers to promote and increase the visibility of their data, information and knowledge on raw materials, among various stakeholders. The RMIS 2.0 also facilitates knowledge coordination and harmonization, as well as other joint activities. In this way, DIGIECOQUARRY will be able to actively contribute to consolidate and expand EU knowledge on raw materials.

The Joint Research Centre (JRC) developed a detailed guideline for exchanging various types of project information for inclusion in the RMIS – Raw Materials Gateway (http://rmis.jrc.ec.europa.eu/).

By now, we provided a first input of information to the RMKG (Annex II), including a supporting link to our website. In the RMIS we already have a dedicated webpage space (Figs. 3, 4) to show the type of raw materials' related knowledge that our Project has available and that we want to include into the RMKG. We can freely structure that content and propose the way of presenting it. We have included a visual identifier of the Project (e.g. logo, picture) and a short description with different thematic sections. The future updates will then be coordinated together with the RMKG. Knowledge is divided in "National level", and "European level". The RMIS team will interact closely with us.

It is also planned to participate in the annual RMIS workshops (see section 3.1.1), the next one will be held on 3rd December 2021.

Figure 2. RMIS webpage with the RMKG marked in red.

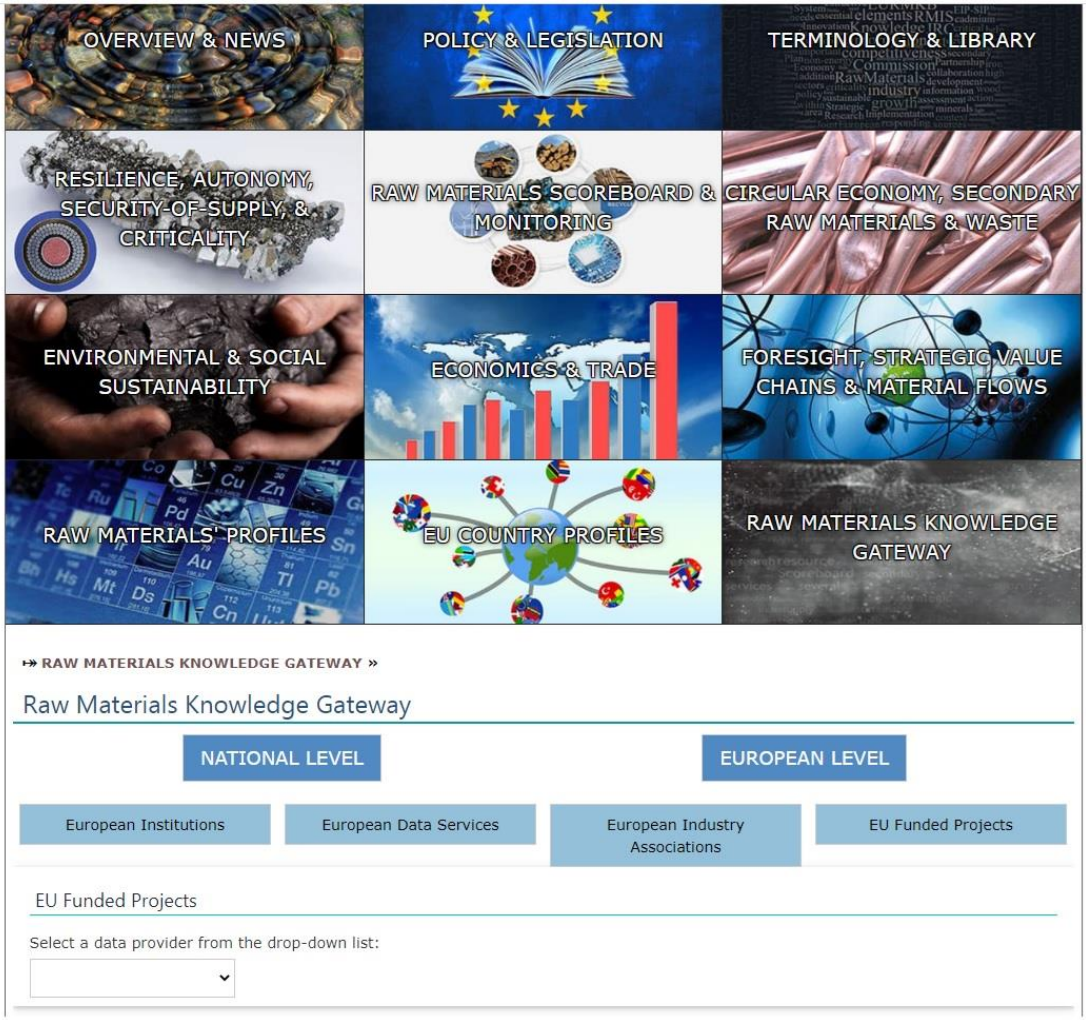

Figure 3. RMKG with the two main divisions in which EU funded Projects can have a webpage space.

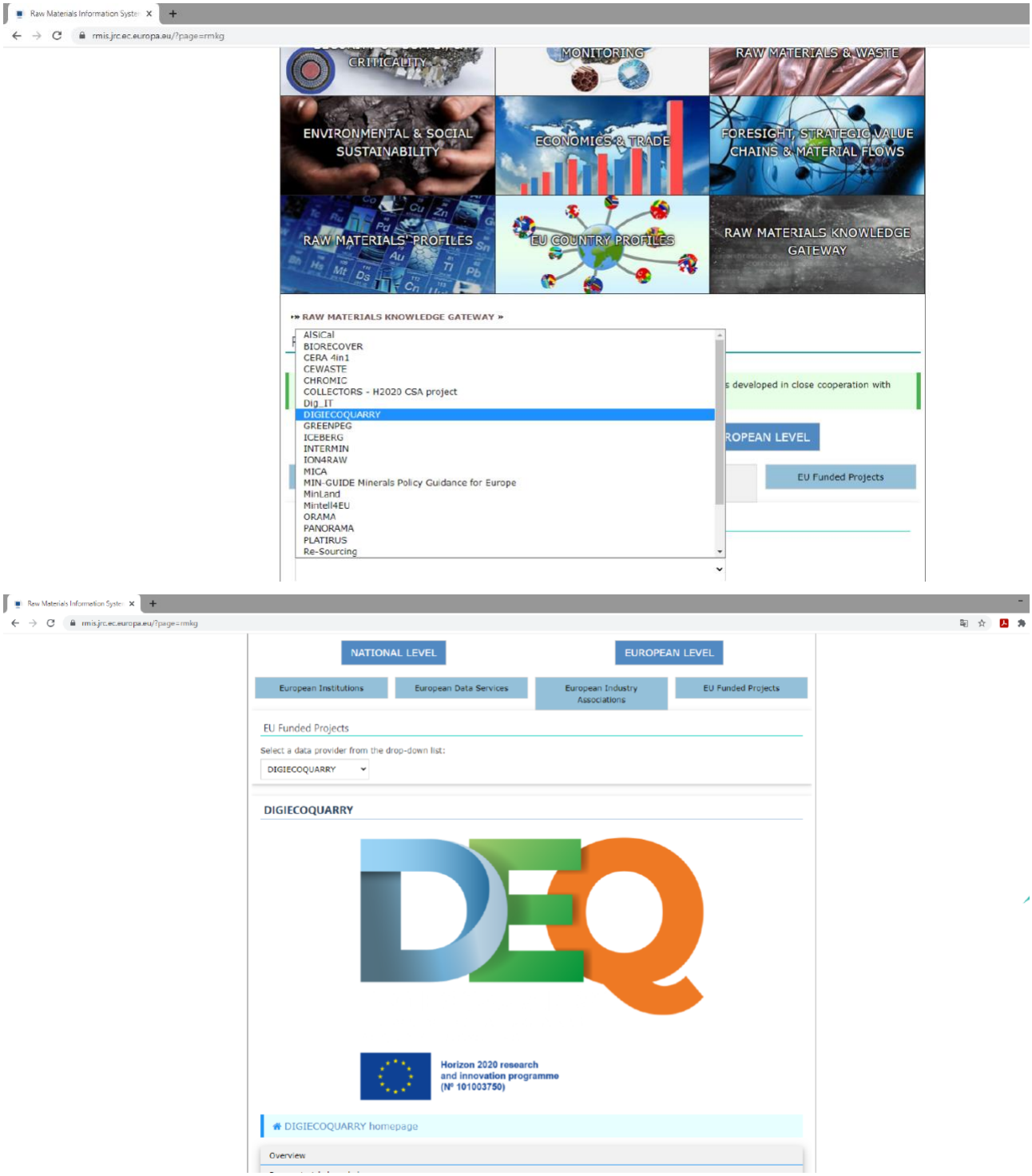

Figure 4. RMKG with the webspace for DIGIECOQUARRY Project.

The **European Union Raw Materials Knowledge Base** (EURMKB) is a part of the European Innovation Partnership's Strategic Implementation Plan (http://ec.europa.eu/growth/sectors/raw-materials/specific-interest/knowledge-base_en). Its aim is to be a one-stop-shop for all information on raw materials in the EU. With the help of EU countries, the service will collect, store, maintain, upgrade, analyse, and disseminate

information on the raw materials. This knowledge base will serve industry and policy makers as a valuable source of data (Fig. 4).

The information on primary and secondary sources of raw materials, together with expertise, will form the three main blocks of the EURMKB. One of them is the Data collection: data and information will be collected from different sources, such as EUROSTAT, the Joint Research Centre, agencies (such as geological surveys) in EU countries, other national and international organizations, European projects and programmes, and industry. By now we have contacted the EURMKB and the Joint Research Centre.

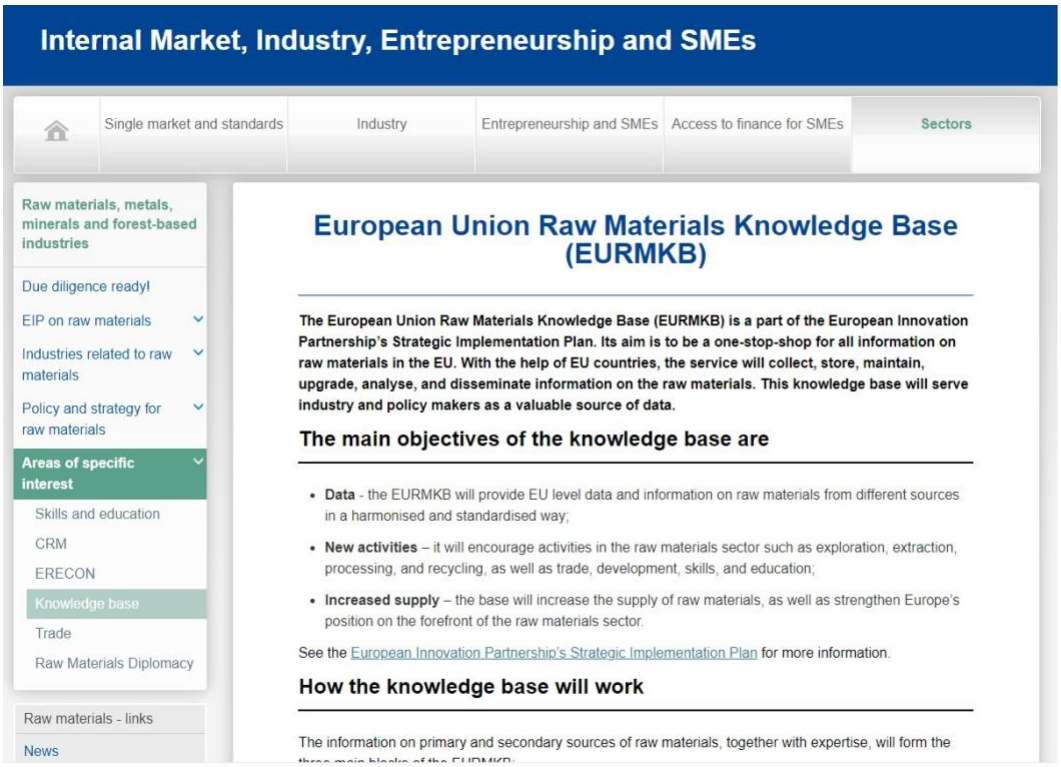

Figure 5. EU Raw Materials Knowledge Base.

3.1.1 Clustering events with RMIS

These type of clustering events are planned to take place yearly in the frame of the RMIS Workshop. The first event will be held on December 3rd 2021 and DIGIECOQUARRY Consortium has been invited to participate and present the characteristics and objectives of the project. This workshop is organized in co-operation with the Executive Agency for Small and Medium-sized Enterprises (EASME) and the European Health and Digital Executive Agency (HaDEA). The RMIS Workshop is aimed at professionals involved in designing and developing policies, projects and programmes around primary and secondary raw materials, in accordance with the Strategic Implementation Plan designed by the European Innovation Partnership on Raw Materials, chaired by the European Commission. This Workshop will again focus on the links and knowledge exchanges between the RMIS and most relevant EU funded projects on raw materials. The aim is to provide an overview, improve the interactions between various H2020 projects and streamline the information flow and availability of these

projects to the European Commission's RMIS. In this regard, this event will be used to understand the synergies, gaps, overlaps and future research needs in relation to raw material (aggregates) projects.

It is worth noting that one of the goals of DIGIECOQUARRY is to establish links and synergies with international organizations and other interested stakeholders to provide wider dissemination. Synergies with other relevant EU-funded or international research projects and initiatives will be examined after the attendance to these workshops to facilitate knowledge interchange, gain mutual dissemination benefits and to exploit potential cooperation.

Therefore, DEQ will explore possible cooperation with other similar projects and initiatives which also participate in RMIS events (Annex II). As mentioned in D8.1, individual meetings are planned to be held with other Raw Materials European projects, and DIGIECOQUARRY will explore a possible consortium including partners of these projects. Thus, the information obtained in these events/workshops will allow WP8 to organize meetings (virtual or some face-to-face), with partners of other projects to explore their synergies with DIGIECOQUARRY. Additionally, it was agreed that the DIGIECOQUARRY progress meetings and workshops may be combined with the presentation of other funded projects, and that DIGIECOQUARRY could participate in workshops organized by the other projects.

All these contacts will allow WP7, WP8 and WP9 partners to monitor the efficiency of the dissemination and clustering activities. This will be achieved in coordination with WP7 leader ZABALA, and WP9 leader ANEFA.

4 Conclusions

WP8 identified clustering possibilities during the whole life of DIGIECOQUARRY Project, including different aspects related to the RMIS and EURMKB, such as:

- Cooperation with the Raw Materials Information System and European Raw Materials Knowledge Base.
- Clustering events with RMIS

with the following goals:

- promote and increase the visibility of our project (dissemination), among various stakeholders.
- identify European and other international projects, initiatives and organizations that may have synergies and may be relevant both for DIGIECOQUARRY project, in order to improve the interactions between various projects, especially those funded within H2020.

In this regard, it is aimed to establish the following actions (described in section 3):

- Create a webspace of DIGIECOQUARRY in the RMIS webpage (Raw Materials Knowledge Gateway) including all the information that we want about our Project.
- Maintain regular contact to follow up on potential synergies.
- Participate in the annual RMIS workshops.
- Organize meetings (virtual/ face to face) with other projects and organizations included within these European Databases.
- Participate in Project events and workshops with other H2020.

At the middle and end of the DIGIECOQUARRY project (2023 & 2025), WP8 will produce “Deliverable 8.3: Report on interactions with other organizations, projects and the IAB (1|2)”, and “Deliverable 8.4: Report on interactions with other organizations, projects and the IAB (2|2)”. These Deliverables will compile the results of the cooperation activities with RMIS and EURMKB carried out during the entire life of the Project and a summary of the clustering events and activities organized derived from them.

5 References

DIGIECOQUARRY Project Description of Action Annex A.

DIGIECOQUARRY Project Description of Action Annex B.

6 Annex II. Information provided to the RMKG for the dedicated webpage space in the RMIS

INNOVATIVE DIGITAL SUSTAINABLE AGGREGATES SYSTEMS
(DIGIECOQUARRY)- (H2020-SC5-2020-2)

DIGIECOQUARRY
INNOVATIVE DIGITAL SUSTAINABLE
AGGREGATES SYSTEMS

Horizon 2020 research
and innovation programme
(N° 101003750)

Web page: http://digiecoquarry.eu/

Overview

DIGIECOQUARRY is a H2020 Project addressing the topic C5-10-2019-2020, which will exploit the aggregates industry´s great potential through a coordinated approach towards construction materials management with the final goal of reducing EU external supply dependency as well as leading an efficient use of resources. The project will develop systems, technology and processes for integrated digitisation and automation real-time process control, to be piloted in 5 EU quarries. The development of innovative an Intelligent Quarrying System will increase the sustainable supply of minerals for the construction sector as well as enabling the sustainable extraction of EU´s mineral resources in existing and new quarries.

Activities on raw materials

DIGIECOQUARRY aims to **design, develop and validate in 5 pilot environments an Innovative Quarrying System (IQS)** comprising sensors, processes, tools and methods for data capture, processing and sharing to **provide integrated digitalised, automatic and real-time process control for aggregates quarries.** This will translate into:
1. Improved Health, Safety and Security conditions for workers, avoiding their exposure to dangerous operations through automated and controlled processes.
2. Improved Selectivity and Efficiency of the aggregates extractive sites, thus increasing the **profitability** of the quarrying processes, ensuring long-term operational sustainability.
3. **Maximised Sustainability and Resource Efficiency in the quarry operations** by reducing emissions, improving the management of water and fostering a sustainable supply of raw materials to feed new and existing value chains closing minerals loops and ensuring a long-lasting production.
4. Improved social acceptance through the communication with policy makers, citizens and relevant actors to get them involved in the value chain. DIGIECOQUARRY will seek for international cooperation within the EU but also beyond, to share knowledge and best practices and improve the general perception of the quarrying industry.
The novel technologies will be piloted in 5 EU quarries with different characteristics to demonstrate ensure representative and transferable results, with a market-oriented approach.

Raw materials of interest

The cases investigated comprise a range of aggregates, including primary extraction of different types of materials (limestones, sands and gravels, andesites,...), and recycling processes in treatment plants.

Statutory, IPR issues

This project receives funding from the European Union's Horizon 2020 program, delivered by the European Health and Digital Executive Agency addressing the topic "Raw materials innovation actions: exploration and Earth observations in support of sustainable mining (C5-10-2019-2020)".

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Most results and documents will be public, while few will be confidential (only avalilable for members of the consortium, including the Commission Services).

Public data and documents will be hosted in the web page of the project (http://digiecoquarry.eu/). Use of the data constitutes citation to the original source

The following IPR components have been identified:

- Data from participants: Collected data will be treated with the highest confidentiality. Procedures for data collection, storage, protection, retention and destruction will comply with national and the EU General Data Protection Regulation (GDPR, Regulation (EU) 2016/679).

- Technical reports for project monitoring and reporting: Technical reports shall be elaborated considering a fluent workflow. Therefore, the Project Management Handbook will include the procedures required to guarantee that project documents are produced, updated, distributed and stored correctly and efficiently

- Data from the pilots: This information will reflect the impacts that the proposed concepts/solutions have had under real operation. Key results will be disseminated among all the involved stakeholders. A particular effort will be made towards policy makers to highlight the benefits of adopting such strategies. All the results generated during the course of the project will be subject to the decision of the Partners with the supervision of the PC and the EB if they will be disseminated/shared or exploited/protected.

- Scientific Publications in International Journals, Scientific Conferences, EU Events, Trade Fairs and Workshops: Results on scientific achievements in field test site validations will be disseminated among the scientific community, industry, and further stakeholders in specific events. The publications shall include acknowledgements to the project and shall be communicated to the technical coordination.

- Partners will have to provide open access to peer-reviewed scientific publications, relating to its results scientific, that can be read online according to H2020 Guidelines on OA to Scientific Publications. Peer-reviewed publications will be stored in an open access repository (i.e. green open access), during and after the project.

Raw materials knowledge

Raw materials value chain

DIGIECOQUARRY covers all key processes of a standard aggregates quarry in the 5 pilots, from Site preparation to Business management (Fig. 1), preserving the circular economy and social innovation approaches as cross-cutting innovations.

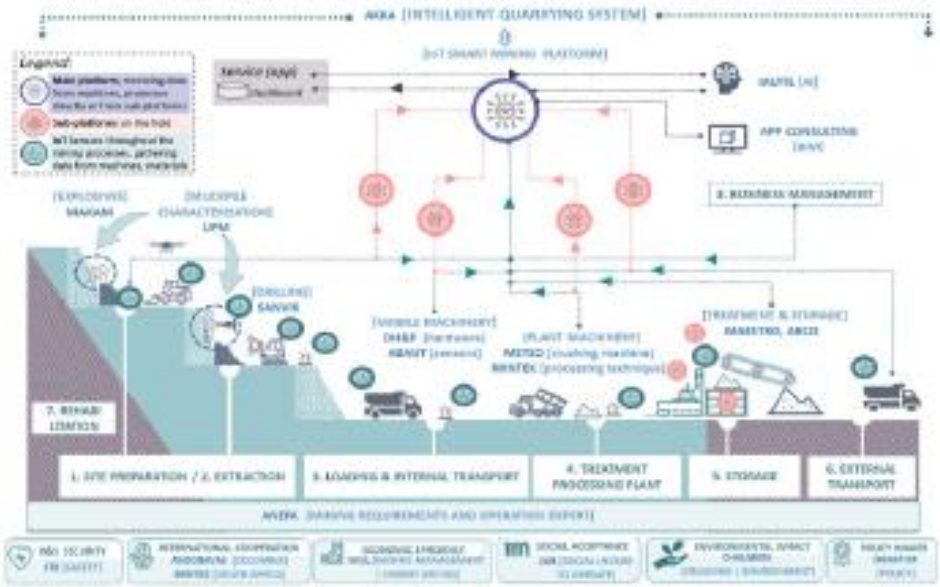

Figure 1. DIGIECOQUARRY's concept quarrying processes and main roles.

Environmental and social sustainability

One of the aims of DIGIECOQUARRY is to lead improved efficiency of processes maximizing quarry resources and sustainable management of water, energy emissions, minimised environmental impact and expanding the EU aggregates and construction business.
Moreover, action is taken on a pre-existing mining process that has been duly authorized by the competent administrations, based on a mining project that takes into account the intrinsic safety of operations and the prevention of occupational accidents as well as the environmental impacts. In most cases, sites have even been subjected to environmental impact assessments. In addition, they are subject to periodic (annual) inspections by the mining and environmental authorities. In all cases, the sites have very strict security protocols that are applicable to workers and visitors. In the case of this project, it is planned to establish a special work protocol with each of the pilot sites that guarantees safety in all works.

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Economics and trade

This project will demonstrate a market potential and the competitive technology advantage that will be gained through the pilot leading to expanding the EU business and to be implemented across the EU after the project is finished.
DIGIECOQUARRY will revolutionise the aggregates industry with a set of products and services with proven market potential to be up-taken across the EU and beyond, as detailed in the Exploitation strategy Specifically, with clear economic impacts, including a rise of total incomes, cost reduction, more investment in research and development, reduce of consumables, etc.

The exploitation methodology created in the project is fully aligned with the structure suggested in the Raw Materials Work Programme. DIGIECOQUARRY already satisfies all exploitation requirements listed below:
- Improved product robustness and reliability.
- Matching European value chains.
- Standardisation.
- IPR and technology transfer.
- Sustainability of financing.
- Improving the social acceptance of the quarrying industry.

It is planned to provide patent/utility models applications and new/enhanced products and services as DIGIECOQUARRY portfolio.

Secondary raw materials & circular economy

The EU Green Deal presents a roadmap with several actions aiming to boost the efficient use of resources by moving to a clean and circular economy; and restoring biodiversity and cut pollution. DIGIECOQUARRY will run within 6/9 EU Green Deal's policy areas: [1] Biodiversity, protecting existing fragile ecosystems and creating new biodiversity rich habitats; [2] Sustainable industry, ensuring more sustainable and environmentally friendly production cycles including circular economy; [3] Building and renovating, supplying huge amounts of local aggregates needed for renovation and improving the energy performance, [4] Sustainable mobility and [5] Climate action by climate change prevention and adaptation; and [6] Eliminating pollution, reducing impacts to enhance air quality, clean water, and prevent soil contamination from the quarry installations/equipment.
Aiming to meet the 2030 climate goals this project envisages a significant cut in the greenhouse gas emissions and improvement of energy efficiency in the production process. The following achievements are expected in the long term: [1] Expected achievements by 2030: a quarry operation based on the DIGIECOQUARRY concept will have its deposit digitalised (converted by AI planning procedures into operational activities) based on the principles of responsible production. The whole machinery of a production site will operate autonomously and run on efficient, environmental and safety-based principles. Production control and material flow management will be based on maximising the RM use. These step change technologies are designed to work in both big and SME-fit operations, helping the huge amount of small to medium

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sized operations to work under sustainable principles; [2] Expected achievements by 2050: the next improvement step will involve operational site control by satellite technologies (Copernicus), realising operations on the principles of zero-impact in terms of water, wastes and carbon emissions, lowering energy consumption. Thus, every Quarry operation will contribute to increase biodiversity and create new attractive living areas of enriched status, both for people, animals and plants.

Monitoring raw materials sectors

One of the aims is to lead improved efficiency of processes maximizing quarry resources and sustainable management of water, energy emissions, minimised environmental impact and expanding the EU aggregates and construction business. Coupling Artificial Intelligence approaches with cyber-physical systems and the Internet of Things concept, make Industry 4.0 approach possible and the smart sustainable extractive site a reality. All phases of the process, from extraction to the end user are covered by DIGIECOQUARRY, ensuring communication with policy makers, social acceptance activities and international cooperation to share knowledge and best practices. The development of innovative an Intelligent Quarrying System (IQS) will increase the sustainable supply of minerals for the construction sector as well as enabling the sustainable extraction of EU's mineral resources in existing and new quarries.
Artificial Intelligence will be used to close the circle around the optimisation of a digital quarry, it allows the information to be an asset in economic, environmental or human terms since it will automatically evolve and improve over time. Aartifical Intelligence will be divided into six essential phases comprising: 1) Information analysis and filtering; 2) Design of the algorithm; 3) Algorithm training; 4) Industrial architecture design; 5) Testing of the algorithm; 6) Coordination and iteration.

Data accessibility

Data will be reported in the project deliveries and relevant extracts will be linked to the project website (http://digiecoquarry.eu/) most of them will be public, while few of them confidential.
Research will be published in scientific and professional journals, and presented in international congresses and technical conferences.
The Project will also contribute to improve the awareness of relevant external stakeholders and the general public across the EU about the importance of Raw Materials for society, the challenges related to their supply within the EU and about proposed solutions which could help to improve society's acceptance of and trust in sustainable Raw Material production in the EU, duly taking into account the applicable EU environmental legislation.
DIGIECOQUARRY will ensure transfer of knowledge and cooperation among the relevant stakeholders, also feeding results from the pilots into the Raw Materials Information System (RMIS) and European Raw Materials Knowledge Base (EURAMKB) databases. Workshops will be organized involving stakeholders, users, potential clients.
All data information security management will follow the guidelines of ISO (IEC 27002).
The project will define specific business models and exploitation plans for the new products and services implemented in the project in order to ensure their future market uptake.

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Research and Innovation

Results of this project are planned to be published in several scientific journals and presented in numerous scientific conferences. Moreover, partners will participate in diverse events (technical conferenecs/fairs) and 3 guidance roadmaps for the extractive industry will be developed.

Links and contacts

The partners of the Consortium are listed below:

Asociación Nacional de Empresarios Fabricantes de Áridos (ANEFA)
GRANULATS VICAT (VICAT)
HANSON HISPANIA SA (HANSON)
Holcim Aggregati Calcestruzzi SRL(HOLCIM)
CRONENBERGER STEININDUSTRIE FRANZ TRICHES GMBH & CO KG (CSI)
AGREPOR AGREGADOS –EXTRACCAO DE INERTES, SA (CIMPOR)
SANDVIK MINING AND CONSTRUCTION OY (SANDVIK)
METSO OUTOTEC FINLAND OY (Metso Minerals)
MAXAMCORP INTERNATIONAL SL (Maxam corp)
ITK ENGINEERING GMBH (ITK)
MONTANUNIVERSITAET LEOBEN (MUL)
CHALMERS TEKNISKA HOEGSKOLA AB (CHALMERS)
UNIVERSIDAD POLITÉCNICA DE MADRID (UPM)
AKKA HIGH TECH (AKKA)
ARCO ELECTRONICA SOCIEDAD ANONIMA (ARCO)
MA ESTRO SRL (Ma-estro SRL)
DOHMEN HERZOG & PARTNER GMBH (DH&P) /
ABAUT GMBH (Abaut GmbH)
APP CONSULTORIA DE GESTION DE PROYECTOS S.L. (APP Consultoria)
SIGMA TECHNOLOGIES SLU (SIGMA)
CONSEJERIA DE INDUSTRIA, EMPLEO Y PROMOCION ECONOMICA (DGASTUR)
ASOCIACION COLOMBIANA DE PRODUCTORES DE AGREGADOS PETREOS (Asogravas)
MINTEK (MINTEK)
ZABALA INNOVATION CONSULTING, S.A. (ZABALA)
ROCTIM AB (ROCTIM)

7

7 Annex II. List of active projects and initiatives related to Raw Materials with a dedicated webspace in RIMS webpage

Projects with a dedicated webpage space in RMIS webpage:

ACRONYM	TITLE	CALL
C2CA	Advanced Technologies for the Production of Cement and Clean Aggregates from Construction and Demolition Waste	FP7-ENV-2010
ECO-SANDWICH	Energy efficient, recycled concrete sandwich facade panel	CIP-EIP-Eco-Innovation 2011 Programme
FuRIC	Future Recycled Inert Concrete Made of Steelworks Residues	H2020-SMEINST-1-2016-2017
MULSEDRO	Multi-sensor drones for geology mapping	EIT-KIC raw
SARMa	Sustainable Approach to Aggregates	Programme 2007 - 2013 South East Europe
SNAP-SEE	Planning Aggregates Supply in South East Europe	H2020-4-2014
STOICISM	Sustainable Technologies for Calcined Industrial Minerals in Europe	FP7-NMP-2012-LARGE-6
STORM	Industrial Symbiosis for the Sustainable Management of Raw Materials	EIT-KIC raw
STRADE	Strategic Dialogue on Sustainable Raw Materials for Europe	H2020-SC5-2015-one-stage
SUPRIM	SUstainable management of PRIMary raw materials through a better approach in Life Cycle Sustainability Assessment	EIT-KIC raw
SUS-CON	Sustainable, innovative and energy-efficient concrete, based on the integration of all-waste materials	FP7-2011-NMP-ENV-ENERGY-ICT-EeB
VEEP	Cost-effective recycling of CDW in high added value energy efficient prefabricated concrete components for massive retrofitting of our built environment	H2020-EU.2.1.5.2

8 Annex IV. List of Figures