



D5.2 Report on the 7 nationally adapted Deep Renovation Network Platform concepts

QualDeEPC H2020 project

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ABBREVIATIONS

EPC: Energy Performance Certificate.

DHW: Domestic Hot Water.

NZEB: Near Zero Energy Buildings.

DRNP: Deep Renovation Network Platform.

Mockup or *maqueta*: digital design of a web or app.

Qualrenovate: name of DRNPs created for the QualdeEPC project for the countries where no national online renovation platform exists.

PROJECT PARTNERS

WI: Wuppertal Institut für KLIMA, UMWELT, ENERGIE gGMBH

CRES: Centre for renewable energy sources and saving

DENA: Deutsche Energie-Agentur GmbH (dena)

EAP: Energy agency of Plovdiv Association

EKODOMA

ENERGIACLUB: Energiaklub Szakpolitikai Intezet Modszertani Kozpont Egyesulet

E-P-C: EPC Project Corporation Climate. Sustainability. Communications. mbH

FEDARENE: Federation européennes des agences et des regions pour l'énergie et l'environnement

ESCAN: ESCAN, Energy Consulting

CIT ENERGY MANAGEMENT AB

BME: Budapest University of Technology and Economics



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PUBLISHABLE SUMMARY

The concept for the Deep Renovation Network Platforms (DRNPs) developed in the QualDeEPC project includes 1) the policy proposal and 2) the concept of the DRNPs.

This concept consists of the description of 2 main types with 5 subtypes that are options for organising a DRNP, and 15 types of services and their content that could be included in such platforms, as a tool to support market actors in deep energy renovation. The types of services offered vary with the sub-type of DRNP organisation.

Task 5.3 concerns the adaptation of the Deep Renovation Network Platforms (DRNPs) to country needs and implementation of consensus elements. This adaptation relates to both the policy proposal and the concept. As for the concept, it is first to adapt the concept and those tools that relate to it to country-specific needs and circumstances, and then to start implementing the consensus elements of the Deep Renovation Network Platforms to the extent possible by QualDeEPC partners or working with associated partners. The basic version of each platform is web based and provides a one-stop-shop service to all a country's relevant information. This will include the improved renovation recommendations for selected types of residential buildings, matching deep renovation standards that also were developed by QualDeEPC; and an online calculation tool for comparing these recommendations to EPC recommendations, for both building owners, and potential buyers and tenants.

This report presents the nationally adapted policy proposals and concepts of the Deep Renovation Network Platforms-DRNPs. These are based on the outcomes of the previous tasks, such as:

- ✓ first draft of the platform elaborated by ESCAN and presented in the Kick-off meeting,
- ✓ development Strategy Plan task 2.4 report, based on best practices and the assessment of success factors,
- ✓ concept for Deep Renovation Network Platforms included in QualDeEPC's Green Paper and White Paper on good practice in EPC assessment, certification, and use, from WP 3; and testing the applicability through pilot cases in WP 4.

The approach to implement the DRNPs in partners' countries varies according to the identified needs:

- **Improvement of an existing platform.** The partners from Germany, Greece, Hungary decided to enhance an existing platform related to buildings energy efficiency.
- **Creation of a new DRNPs.** In some partner countries, there are not yet national platforms focused on building renovation available; therefore, partners from Bulgaria, Latvia and Spain decided to build up **new Qualrenovate DRNP platforms**. The partners from Sweden will initially create an own platform based on their adapted concept, and then work for integrating this platform with a national governmental platform planned to be launched later this year.

ESCAN, the task Leader, has further elaborated the basic contents of DRNP platforms, as agreed in the White paper; support from CRES, Dena and WI for defining more deeply the contents has been received. Several software companies are subcontracted for the web platforms - IT developments.

The web design of the Qualrenovate DRNPs platforms started in June 2021 with the development of the mock-up in English, including relevant basic contents, and securing hosting and the domain qualrenovate.eu.

This report includes the **policy proposals** about DRNPs in the seven partner countries (chapter 2) and **how the partners will implement a national DRNP platform** with the consensus elements identified in previous tasks (chapter 3, and further detail in chapters 4 and 5). The actual implementation will



follow after this report. The policy proposals will be discussed with national policymakers and stakeholders.

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1 INTRODUCTION

The QualDeEPC project is aiming to both improve quality and cross-EU convergence of Energy Performance Certificate schemes, and the link between EPCs and deep renovation: High-quality Energy Performance Assessment and Certification in Europe Accelerating Deep Energy Renovation. The objective of the project is to improve the practical implementation of the assessment, issuance, design, and use of EPCs as well as their renovation recommendations, in the participating countries and beyond.

The objectives of Work package 5 *Roadmap to convergence and action towards deep renovation* of the QualDeEPC project are (1) adapting the enhanced EPC assessment and certification schemes and tools including the Deep Renovation Network Platforms to country needs, implementing feasible consensus elements and (2) organizing dialogue on further convergence, and a potential roadmap towards it, at national and EU level.

The concept for the Deep Renovation Network Platforms (DRNPs) developed in the QualDeEPC project includes 1) the policy proposal and 2) the concept of the DRNPs. This concept consists of the description of 2 main types with 5 subtypes that are options for organising a DRNP, and 15 types of services and their content that could be included in such platforms, as a tool to support market actors in deep energy renovation. The types of services offered may vary with the subtype of DRNP organisation (Veselá et al., 2021).

Task 5.3 concerns the adaptation of the Deep Renovation Network Platforms (DRNPs) to country needs and implementation of consensus elements. For the concept, it is first to Task 5.3 concerns the Adaptation of the Deep Renovation Network Platforms to country needs and implementation of consensus elements. This adaptation relates to both the policy proposal and the concept. As for the concept, project partners first adapted it to country-specific needs and circumstances for this report. They will then start implementing the consensus elements of the Deep Renovation Network Platforms to the extent possible by QualDeEPC partners or working with associated partners. The basic version of each platform is web based and provides a one-stop-shop service to all a country's relevant information. This will include the improved renovation recommendations for selected types of residential buildings, matching deep renovation standards, that also were developed by QualDeEPC; and an online calculation tool for comparing these recommendations to EPC recommendations, for both building owners, and potential buyers and tenants.

This report presents the nationally adapted policy proposals and concepts. Overall, these adapted DRNPs are based on the outcomes of the previous tasks, such as:

- First draft of the platform elaborated by ESCAN and presented in the Kick-off meeting,
- Development Strategy Plan (Task 2.4 report, Kostova et al., 2020), based on best practices and the assessment of success factors,
- concept for Deep Renovation Network Platforms included in QualDeEPC's Green Paper and White Paper (D3.2, Veselá et al., 2021) on good practice in EPC assessment, certification, and use; and testing the applicability through pilot cases in WP 4.

In order to develop the nationally adapted policy proposals and concrete basic DRNPs presented in this report, the task 5.3 performed the following main steps:

- developing a national policy proposal for DNRPs, based on the general policy proposal from the WP 3: discussing and concluding on which type(s) of DRNPs will be useful in the country,



which services they could provide, who would be most appropriate to operate them, and how the funding could be secured.

- deciding on whether to improve an existing online information platform to the basic web platform DRNP by adding additional content and features, or whether to create a new DRNP platform, which may be based on a joint concept of Qualrenovate DRNPs developed by the Task 5.3 leader.
- selection of the common minimum contents of the Qualrenovate and other adapted DRNPs from previous tasks,
- analysis of needs and system design (mockup) including the proposed "Qualrenovate" DRNP structure,
- meetings, mailings, telephone conferences for discussing, doubts resolutions related to the system design, and approval of it.

This report summarises the national adaptations of the Deep Renovation Network Platforms concept, both the national policy proposals (chapter 2) and how the partners will implement a national DRNP platform with the consensus elements identified in previous tasks (chapter 3, and further detail in chapters 4 and 5). Chapter 6 provides conclusions.



2 NATIONALLY ADAPTED POLICY PROPOSALS

This chapter presents proposals by the national implementation partners of QualDeEPC on which type(s) of DRNPs will be useful in the country, which services they could provide, who would be most appropriate to operate them, and how the funding could be secured based in the different types of services already identified in the White Paper (Veselá et al., 2021). The full implementation of the adapted policy proposals, particularly if they include a network of local or regional physical hubs or advanced services of the extended DRNP concept, will usually not be possible for the national implementation partners of QualDeEPC alone and with the resources of this project. They may require both decisions and funding from the respective policymakers and government budgets or other sources, including potential revenues for some of the services provided. Still, they can be the subject of the policy proposals presented in this chapter.

In addition, all national implementation partners of QualDeEPC will implement a basic online national Deep Renovation Network Platform for information services in each partner country, according to the adapted concepts presented in chapters 3 to 5.

2.1 Background: Typology of platforms and general QualDeEPC policy proposal

2.1.1 Typology of platforms

The [QualDeEPC White Paper on the enhanced EPC schemes](#) has presented a typology of DRNPs, which could include the following subtypes:

1. an online platform:

1a) an online platform including information only by a One-Stop-Shop (OSS) such as the Greek www.energyhubforall.eu.

1b) an online platform like the Danish BetterHome (including an OSS for information and implementation) <https://www.betterhome.today>

2. a local or regional physical hub

i.e. a network of partners providing a hub for active marketing and connecting stakeholders, professional training, or whatever is needed, and also a, physical' OSS with energy advisors. This could take the forms of

- **2a)** OSS hub for information only, or
- **2b)** OSS hub for information and coordination (guiding/coaching through implementation), e.g., proKlima in Hannover (<https://www.proklima-hannover.de>) or
- **2c)** OSS hub for information and implementation.

Subtypes could also be combined. For example, a combination of a 1a) national online platform and a network of several or many 2b) or even 2c) physical hubs may be best to advance deep renovation.

However, it should be noted that physical hubs involve higher costs than online-only solutions. Both types may need funding from the national or regional government to local/regional agencies implementing the hub, and support and coordination from the national or regional energy agency.

For each subtype and service/product, the potential service provider, description of services, and end-users addressed are shown in the White Paper. The services that could be offered are presented in more detail in Tables 7 and 8 of the White Paper.

2.1.2 QualDeEPC general policy recommendations

Based on the analysis and the detailed concepts presented in the White Paper, QualDeEPC recommends the following actions to national and/or regional governments competent for implementing energy efficiency policies for buildings and particularly EPC schemes.

Each EU Member State should operate a combination of two types of Deep Renovation Network Platforms:

1. **An online platform at the national level**, including a One-Stop Shop at least for information (subtype 1a), i.e., all information services 1. to 5. of the basic version. It should also be endowed with sufficient resources to perform the two further services of the basic version: 6. Active marketing of deep renovation and its benefits and costs and 7. Network (platform) for learning, exchange, and cooperation (local/regional/ national). The networking could also be expanded to inter-regional or international networking (service 8. of the extended platform concept). Out of the extended concept, services 9. Capacity building and training, 11. Monitoring the implementation of the renovation project(s), and 14. Carrying out a deep renovation demonstration project(s) could also be linked to this platform or be implemented by the operator of the platform, particularly if the operator is a national energy agency or similar.
2. **A network of local or regional physical hubs** with combined core funding from the national level and income from some of the services. These hubs could offer most of the services of an extended platform, including coordination of renovation projects (guiding/coaching through implementation, service 10.), which would be (subtype 2b), or even implementation (service 13.), which would be subtype 2c). They would be part of a national network within the central platform (see above) and receive technical and financial support from the national level for their information, active marketing, training, and other agreed activities.

For this report, the QualDeEPC national implementation partners have assessed the above options and the general policy proposal to derive an adapted policy proposal for their country. This may include new online platforms, networks, and funding programmes, or enhance existing platforms or networks and their respective organization and funding. Tables 4 to 10 below present the results of the analysis regarding which subtypes and services of DRNP the partners expect to be useful for their country.

2.2 Bulgaria

There are no existing OSS or Deep Renovation Network Platforms in Bulgaria. There are few examples like the Deep Renovation Network Platform, which represent online based platforms (subtype 1a) and one example similar of OSS concept which could be considered as subtype 2b.

The most suitable subtypes that are needed are subtype 1a and 2b. They will provide, in the first case online and in the second case physically, information on renovation actions, potential savings and costs, links to different tools, information on construction specialists, materials, and suppliers, on financing opportunities. In addition, the physical hub will provide services such as networking, capacity building, coaching and trainings. The most suitable entities to operate them are the Local or Regional Energy Agencies. They have the technical and administrative know-how and could provide the services.



Moreover, these entities could provide adequate networking and have the advantage of being situated at local/regional level, which is the best possible solution.

Another option for them is to be implemented by the National Energy Agency to support the Municipalities at local level as facilitators. The National Energy Agency has all the advantages of the Local/Regional Agencies except the local/regional situation, which will be implemented by the Municipalities. They are more familiar to the population, but still there should be very strong trainings and organization between them and the National Agency, so that the Municipalities could provide the technical support. This second option may be more suitable for smaller municipalities that don't have a local energy agency of their own.



Table 4 Policy Proposal for Bulgaria: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	YES	NO	NO	YES	NO
Reasons for which subtypes are needed	To provide easily accessible online information to the stakeholders			To provide information, coordination, trainings, coaching, technical support	
Potential subtype providers	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)
Who would be most appropriate to operate the needed services?	Local/regional energy agency			Local/regional energy agency; alternative option: Municipalities together with National energy agency	
Potential funding sources	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)
How could the funding be secured?	Public national or public-private			Public national, public local/regional, public-private	

Needs for services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	X			X	
1.3 Linking with Renovation tool	X			X	
Linking with 2.1 Energy Performance Certificates	X			X	
Linking with 2.2 Building deep renovation roadmap and possibly a passport	X			X	
3. Information on building contrac- tors/technicians;	X			X	
4. Information on material or product man- ufacturers/ suppliers	X			X	
5. Information on financing opportunities for deep renovation	X			X	
Help with applying for loan and grant pro- grammes or third-party financing				X	
6. Active marketing of deep renovation and its benefits and costs				X	
7. Network (platform) for learning, ex- change, and cooperation (local/regional/ national)				X	
8. Network (platform) for learning, ex- change, and cooperation (interregional/ transnational)				X	
9. Capacity building and training				X	
10. Step-by-step guidance for renovation project from start to end				X	

11. Monitoring the implementation of the renovation project(s)					
12. Operating a physical network hub and information centre				X	
13. Carrying out the renovation project(s)					
14. Initiation and coordinating deep renovation demonstration project(s)					
15. Aggregation of building renovation projects					



2.3 Germany

In Germany, several OSS or Deep Renovation Network Platforms already exist. There are a few platforms similar to the Deep Renovation Network Platform, which represent an online based platform (subtype 1a), and other platforms similar to an OSS concept, which could be considered as subtype 2b.

The existing platforms provide information via their websites on topics such as possible renovation measures, potential energy savings and comfort improvements, as well as links to various tools, information on subsidy programmes and financing options for total and partial renovations. Furthermore, information is provided on finding experts and building contractors/technicians as well as on network platforms for learning, exchange, and cooperation.

In most cases, the platforms are aimed at either final consumers or professionals in the field of building and renovation and cover the whole of Germany. The most efficient way to reach the intended target groups is to link to local and regional institutions, e.g., energy agencies.

The **general policy proposal to the national government** is, therefore, to

- 1) Strengthen and enhance at least one of the existing **nation-wide online information platforms**, with the aim to provide all the necessary information at least for building owners interested in energy renovation in one place,
- 2) Create a programme with financial and technical support for **a network of local or regional physical hubs of types 2a) or 2b)** operated e.g., by local and regional energy agencies, with the aim to cover the whole country by such hubs; the programme should endow the hubs with **sufficient resources** to actively reach out to at least 5 % of building owners each year.

The local and regional hubs/agencies could offer services based on their existing technical and administrative know-how and network, such as information on energy efficiency experts, construction companies, building and installation contractors, technicians and information on regional material or product manufacturers and suppliers. They are well networked with the local chambers of crafts.

Furthermore, an active marketing of the local and regional hubs/agencies on deep renovations would be much more effective, as it would reach the local people much better. Moreover, the hubs can use their existing networks more efficiently. As building costs in Germany differ regionally, e.g., depending on rural or urban location, information on possible renovation costs and building materials could be offered much more precisely. In coordination with nationwide platforms, platforms for training and further education could be expanded, regional, and local exchange and cooperation via specialist networks could be strengthened. In general, the national government or energy agency could provide technical support to the local and regional hubs/agencies.



Table 5 Policy Proposal for Germany: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	YES	NO	YES	YES	possibly
Reasons for which subtypes are needed	To provide easily accessible online information to the stakeholders		To provide information, coordination, trainings, coaching, technical support, active marketing	To provide information, coordination, trainings, coaching, technical support, active marketing	To provide an implementation one-stop shop in addition to subtype 2b services. However, this would be commercial and could compromise the perceived independence of the services of subtype 2b
Potential subtype providers	Department of social media, public relations at the BMWK* Local/regional energy agency private company private company with public support		Local/regional energy agency private company private company with public support	Local/regional energy agency private company private company with public support	private company
Who would be most appropriate to operate the needed services?	BMWK and Federal Ministry of Construction in cooperation with network of local/regional energy agencies		Local/regional energy agency	Local/regional energy agency	
Potential funding sources	Public national (for preferred option) Public local/regional Private Public-private		Public national (financial support to basic structure and specific services) Public local/regional Private Public-private	Public National (financial support to basic structure and specific services) Public local/regional Private Public-private	

How could the funding be secured?	Public national or public-private		Public national plus Public local/regional, public-private	Public national plus Public local/regional, public-private	
Needs for services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	X		X	X	
1.3 Linking with Renovation tool	X		X	X	
Linking with 2.1 Energy Performance Certificates	X		X	X	
Linking with 2.2 Building deep renovation roadmap and possibly a passport	X		X	X	
3. Information on building contractors/technicians;	X		X	X	
4. Information on material or product manufacturers/ suppliers			X	X	
5. Information on financing opportunities for deep renovation	X		X	X	
Help with applying for loan and grant programmes or third-party financing	X		X	X	
6. Active marketing of deep renovation and its benefits and costs	Possibly: general media, online. possibly with local partners		X	X	
7. Network (platform) for learning, exchange, and cooperation (local/regional/national)	Could take national co-ordinator role		X	X	
8. Network (platform) for learning, exchange, and cooperation (interregional/transnational)	X				
9. Capacity building and training	Could take national co-ordinator role		X	X	

10. Step-by-step guidance for renovation project from start to end				X	
11. Monitoring the implementation of the renovation project(s)	Could take national co-ordinator role			possibly	
12. Operating a physical network hub and information centre			X	X	
13. Carrying out the renovation project(s)					
14. Initiation and coordinating deep renovation demonstration project(s)	Could take national co-ordinator role		possibly	possibly	
15. Aggregation of building renovation projects				possibly	

*BMWK - Federal Ministry for Economic Affairs and Climate Protection



2.4 Greece

The existence of OSS focused on Energy Efficiency or Deep Renovation Platforms is rather limited in Greece. Currently, the only platform in operation is the “EnergyHUB forALL¹” developed and operated by CRES; it can be classified as 1a) subtype. The existing platform includes information and recent developments on:

- the issue of Building Energy Performance Statistical and other data on building stock,
- energy consumption in buildings,
- energy saving options and measures,
- National and European legislation on building energy performance and NZEB,
- statistical data on EPCs (residential),
- database of energy efficient products providers,
- existing financing tools and
- an online tool for estimating the potential improvements of residential buildings’ energy performance (HEC tool).

The target group addressed by this platform is mainly residential building owners and any other individuals interested in renovating or improving the energy performance of their buildings.

The existing online platform is well known in the country and has been considered a best practice example in the field. Although not funded for the time being, it is still in operation and visited by various market actors, almost daily.

Therefore, the existing platform will be upgraded towards deep renovation to meet the QualDeEPC project requirements.

A network of physical hubs could be created in order to further support the Deep Energy Renovation at regional level. The network could be developed supported by the Regional Authorities (technical departments), the regional branches of the Hellenic Technical Chamber and the National Energy Agency. This type of network could be categorized under the sub-type 2b and the services provided, described in detail, are provided in the following table.

¹ <http://www.energyhubforall.eu/> (only in Greek)



Table 6 Policy Proposal for Greece: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	YES	NO	NO	YES	NO
Reasons for which subtypes are needed	<p>Further exploitation and upgrade of an existing OSS aiming at “Deep Renovation”.</p> <p>The existing platform ‘EnergyHUB forALL²’ has been developed and operated by CRES.</p>			To provide information, co-ordination, trainings, coaching, technical support	

² <http://www.cres.gr/energyhubforall/> (available only in Greek)

Potential subtype providers	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)
Who would be most appropriate to operate the needed services?	National Energy Agency			Regional Authorities (technical department) with the support of National Energy Agency and regional branches of the Hellenic Technical Chamber	
Potential funding sources	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)
How could the funding be secured?	Public National and European funds could be utilized			Public National Public local/regional Private Public-private	
Needs for services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	Information on renovation typical costs and savings for: <ul style="list-style-type: none"> • building insulation • windows • ventilation • heating system • renewables. 			X	



	The existing content will be updated and oriented towards Deep energy renovation recommendations as identified by the QuaDeEPC project				
1.3 Linking with Renovation tool	The online tool developed by the QuaDeEPC project will be embedded/ linked with DRNP			X	
Linking with 2.1 Energy Performance Certificates	<p>Information will be provided for:</p> <ul style="list-style-type: none"> • EPC in general and purposes/uses/duties • EPC assessment procedure • EPC forms and types • issue energy certificates and where this is regulated <p>Links to</p> <ul style="list-style-type: none"> • The online renovation calculator tool (1.3) • The deep renovation recommendations (1.1) <p>Moreover, the platform will include link for the National Energy Inspectors Registry and EPC Registry (https://www.buildingcert.gr/).</p>			X	
Linking with 2.2 Building deep renovation roadmap and possibly a passport	<ul style="list-style-type: none"> • What is it? • How can the EPC be a starting point? 			X	



	<ul style="list-style-type: none"> Benefit of the renovation roadmap and passport: why is it useful? Links to further information about the roadmap/passport energy efficiency of buildings (link to 1.1). Links to <ul style="list-style-type: none"> subsidy programmes The online renovation calculator tool (1.3). 				
3. Information on building contractors/technicians;	General information on trained and /or certified contractors / technicians/ installers will be available by linking professional associations websites			X	
4. Information on material or product manufacturers/ suppliers	General information on material or product manufacturers/ suppliers will be provided by linking professional associations websites			X	
5. Information on financing opportunities for deep renovation	Information on existing support programs for energy-efficient buildings will be included by linking with the relevant official websites			X	
Help with applying for loan and grant programmes or third-party financing	n/a				



6. Active marketing of deep renovation and its benefits and costs	Promotion of deep renovation network platform through media releases and in own events (which may be organised anyway for other purposes)			X	
7. Network (platform) for learning, exchange, and cooperation (local/regional/national)	<ul style="list-style-type: none"> List of training providers for EPC assessors Link to lists of workshops and seminars 			X	
8. Network (platform) for learning, exchange, and cooperation (interregional/transnational)	n/a				
9. Capacity building and training	The platform will include information on capacity building and training courses/programme provided by the Technical Chamber of Greece as well as the Universities			X	
10. Step-by-step guidance for renovation project from start to end	n/a			X	
11. Monitoring the implementation of the renovation project(s)	n/a				
12. Operating a physical network hub and information centre	n/a			X	
13. Carrying out the renovation project(s)	n/a				
14. Initiation and coordinating deep renovation demonstration project(s)	n/a				
15. Aggregation of building renovation projects	n/a				



2.5 Hungary

There are two offices created as one stop shop by an EU project RenoHUB that provide information on deep renovation for two areas to the citizens who would like to do deep energy renovation in their homes. There are no deep renovation network platforms in Hungary at the moment, but a new platform will be launched in January 2022 (RenoPont). In general, Deep energy renovation is not well known.

Furthermore, the Hungarian Chamber of Engineers offers free consulting services to dwellers and SMEs on energy efficient renovation, covering technical issues and supporting programs. However, the service is limited, and the provided level of energy calculation details is less than that of an EPC. Advice is not specified to deep renovation.

The objective is to enhance the RenoPont platform to use the synergies of the two sister projects.

The DRNP will be managed by Energiaklub, but theoretically it could also be maintained by Hungarian Energy Efficiency Institute (MEHI). Lechner Tudásközpont, the Hungarian Chamber of Engineers the Hungarian Energy and Public Utility Regulatory Authority (HEA) or ÉMI Non-profit Ltd.

We also propose to create more one stop shops as physical hubs of type 2b) across the country, and that the government is providing financial and technical support to them; those offices will provide information and technical support as step-by-step guidance for renovation projects.



Table 7 Policy Proposal for Hungary: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	YES	NO	NO	YES	NO
Reasons for which subtypes are needed	To provide easily accessible online information to the stakeholders			To provide information, coordination, trainings, coaching, technical support.	
Potential subtype providers	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)
Who would be most appropriate to operate the needed services?	Energiaklub and Hungarian Energy Efficiency Institute (MEHI) (Alternatives: Lechner Tudásközpont, the Hungarian Chamber of Engineers, the Hungarian Energy and Public Utility Regulatory Authority (HEA), ÉMI Non-profit Ltd.)			Energiaklub and Hungarian Energy Efficiency Institute (MEHI) (Alternatives: Lechner Tudásközpont, the Hungarian Chamber of Engineers, the Hungarian Energy and Public Utility Regulatory Authority (HEA), ÉMI Non-profit Ltd.)	
Potential funding sources	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)



How could the funding be secured?	Public national or public-private			Public national or public-private	
Services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	X			X	
1.3 Linking with Renovation tool	X			X	
Linking with 2.1 Energy Performance Certificates	X			X	
Linking with 2.2 Building deep renovation roadmap and possibly a passport	X			X	
3. Information on building contractors/technicians;	X			X	
4. Information on material or product manufacturers/ suppliers	X			X	
5. Information on financing opportunities for deep renovation	X			X	
Help with applying for loan and grant programmes or third-party financing				X	
6. Active marketing of deep renovation and its benefits and costs	X			X	
7. Network (platform) for learning, exchange, and cooperation (local/regional/national)	X				
8. Network (platform) for learning, exchange, and cooperation (interregional/transnational)	X				
9. Capacity building and training	X				

10. Step-by-step guidance for renovation project from start to end	X			X	
11. Monitoring the implementation of the renovation project(s)				X	
12. Operating a physical network hub and information centre				X	
13. Carrying out the renovation project(s)					
14. Initiation and coordinating deep renovation demonstration project(s)					
15. Aggregation of building renovation projects					

2.6 Latvia

There are no existing OSS or Deep Renovation Network Platforms in Latvia. There are few examples similar to the Deep Renovation Platform, which represent online based platforms (subtype 1a: <https://www.em.gov.lv/lv/eku-energoefektivitate>; <http://www.energoefektivakaeka.lv/>; <https://www.elektrum.lv/lv/majai/energoefektivitate/energoefektivitate/>) and there also is a physical hub for energy efficiency (the hub is owned by a private company and can be seen as subtype 2a: <https://www.elektrum.lv/lv/majai/energoefektivitate/energoefektivitates-centru/energoefektivitates-centrs/>) .

The most suitable subtypes that are needed in Latvia are subtype 1a and subtype 2c. They will provide in the first case online and in the second case physically, information on renovation actions, potential savings and costs, links to different tools, information on construction specialists, materials, and suppliers, on financing opportunities. In addition, the physical hub would provide all necessary services needed for successful building renovation process. The most suitable entities to operate them would be the Ministry of Economics or local energy agencies. In the physical hub case, also private companies could be used, if the financing for non-commercial services were secured by national funding.



Table 8 Policy Proposal for Latvia: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	YES	NO	NO	NO	YES
Reasons for which subtypes are needed	Provide easy access to online information				This would be a real physical one stop shop enabling faster building renovation process
Potential subtype providers	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)
Who would be most appropriate to operate the needed services?	Ministry of Economics Local/regional energy agencies				Ministry of Economics Local/regional energy agencies Private companies
Potential funding sources	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)
How could the funding be secured?	National funding				National funding



Needs for services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	X				X
1.3 Linking with Renovation tool	X				X
Linking with 2.1 Energy Performance Certificates	X				X
Linking with 2.2 Building deep renovation roadmap and possibly a passport	X				X
3. Information on building contractors/technicians;	X				X
4. Information on material or product manufacturers/ suppliers	X				X
5. Information on financing opportunities for deep renovation	X				X
Help with applying for loan and grant programmes or third-party financing					X
6. Active marketing of deep renovation and its benefits and costs	X				X
7. Network (platform) for learning, exchange, and cooperation (local/regional/national)					X
8. Network (platform) for learning, exchange, and cooperation (interregional/transnational)					X
9. Capacity building and training	X				X
10. Step-by-step guidance for renovation project from start to end					X



11. Monitoring the implementation of the renovation project(s)	X				X
12. Operating a physical network hub and information centre					X
13. Carrying out the renovation project(s)					X
14. Initiation and coordinating deep renovation demonstration project(s)					X
15. Aggregation of building renovation projects					X



2.7 Spain

In Madrid, the Regional government has opened a one stop shop for professionals to provide services of information, permits, visa and grant processing. The Architects Professional Association COAM manages it and provides a link between the citizens and the architects who help for preparing the required documents -information, advising, taxes and required documents for getting financing support of the Regional Government.

Two offices have been created as one stop shops by an EU project Opengela that provide information on deep renovation at local level to the citizens, who would like to implement deep energy renovation in their homes.

And Deep energy renovation is not well known by professionals neither by citizens.

At this moment, several web sites of 18 Regional governments provide information about EPCs but no information about deep renovation. The website of the Ministry of Ecological Transition shows information about procedures of EPCs, the tools are available and the models of the building certificates; The National Energy Agency IDAE's website includes information about financial programmes for building renovation and technical guidebooks of specific technologies, such as photovoltaics, thermal energy, air conditioning etc. The energy bodies of the energy departments of the regional governments also inform about the financial programmes for replacement of boilers by efficient boilers, renewable energy sources incentives; the official registries of EPCs are managed by those bodies.

Therefore, an online platform at national level with comprehensive information focused on deep renovation is necessary.

The DRNP could be managed by PTEC association of buildings professional or by a public body, e.g., Ministry or National Energy Agency, Regional governments, or municipalities.

Another possibility is a network of physical regional hubs that will provide information and technical support on building insulation for walls, also different types of solutions for floors and covers, very interesting the replacement of boilers and air conditioners should be also included, as a subtype 2b.

Also the possibility of a National OSS with physical offices in all regional governments could be an option for regional physical presence to improve the impact.



Table 9 Policy Proposal for Spain: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	YES	NO	NO	YES	NO
Reasons for which subtypes are needed	To provide easily accessible online information to the stakeholders			To provide information and technical support	
Potential subtype providers	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)
Who would be most appropriate to operate the needed services?	National energy agency/regional energy governments			National government together with regional governments	
Potential funding sources	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)
How could the funding be secured?	Public national or public-private			Public national or public-private	



Needs for services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	X			X	
1.3 Linking with Renovation tool	X			X	
Linking with 2.1 Energy Performance Certificates	X			X	
Linking with 2.2 Building deep renovation roadmap and possibly a passport	X			X	
3. Information on building contrac- tors/technicians;	X			X	
4. Information on material or product manufacturers/ suppliers	X			X	
5. Information on financing opportunities for deep renovation	X			X	
Help with applying for loan and grant pro- grammes or third-party financing				X	
6. Active marketing of deep renovation and its benefits and costs	X			X	
7. Network (platform) for learning, ex- change, and cooperation (local/regional/ national)					
8. Network (platform) for learning, ex- change, and cooperation (interregional/ transnational)					
9. Capacity building and training	X				
10. Step-by-step guidance for renovation project from start to end				X	



11. Monitoring the implementation of the renovation project(s)	X				
12. Operating a physical network hub and information centre				X	
13. Carrying out the renovation project(s)					
14. Initiation and coordinating deep renovation demonstration project(s)					
15. Aggregation of building renovation projects					

2.8 Sweden

In Sweden, there are several platforms on national level focusing on energy efficient buildings.

- The Swedish National Board of Housing, Building and Planning together with the Swedish Energy Agency have been appointed by the government to introduce an online platform during 2022 with the aim to disseminate information on sustainable renovation as well as construction of new buildings.
- EEF (<https://eef.se/>) is an online platform facilitated by a non-profit trade organization and offers gathered information of measures and services regarding energy efficiency to building owners and service providers.
- BELOK (<https://belok.se/>), BeBo (<https://www.bebostad.se/>) and Besmå (<https://energieffektivasmahus.se>) are networks for building owners in the categories non-residential, residential multi-family buildings, and residential single-family buildings, respectively. These networks are initiated and financed by the Swedish Energy Agency. The activities in these networks focus on cooperation and experience exchange regarding development of energy efficiency measures, and dissemination of the results. Besmå has a webpage (Min husguide) with 50 detailed energy measures for one- family houses.
- LÅGAN (<https://www.laganbygg.se/>) is a cooperation between The Swedish Construction Federation, the Swedish Energy Agency, the National Board of Housing, Building and Planning, Region Västra Götaland, Formas (a government research council for sustainable development), contractors, building owners and consultants. LÅGAN initiates and coordinates dedicated projects, arranges workshops and seminars, facilitates experience exchange by gathering and presenting good examples and information etc.
- The Regional Energy Agencies offer information and webinars, as well as guidance for building owners. Online platforms and regional hubs with energy advisors.
- Nationellt Renoveringscentrum (<https://www.renoveringscentrum.lth.se/>) is a physical hub with dedicated workshops, seminars, experience exchange etc. The center cooperates with both academia and actors in the construction sector.
- Energilyftet (<https://energilyftet.learnways.com/>) is a free web course on low energy buildings and energy renovation offered by the Swedish Energy Agency. It aims to increase the knowledge level among property owners, architects, engineers, construction project leaders, real estate managers and operating technicians.
- The Society of Energy and Environmental Technology (EMTF) offers a training course on carrying out energy renovation projects according to the Total Concept method (<https://totalconcept.se/>). For participants fulfilling certain requirements regarding prior knowledge, there is also a possibility to become a certified total concept consultant after the course. EMTF is a non-profit organisation within the field of indoor air quality, indoor environmental quality, energy efficiency and building services.
- Kvarteret Klimatspararna (<https://www.klimatspararna.se/>) is a digital platform for tenant owners' associations where they can learn about and participate in joint procurements that promote energy efficient solutions in renovation. Several trade organisations stand behind this initiative.

There is no existing platform offering an OSS on deep energy renovation. Thus, an online information platform (subtype 1a) focusing specifically on deep energy renovation, covering the different aspects and services listed in the table below is suggested.

During discussions with Swedish stakeholders the need for a platform for interaction between EPC assessors were pointed out. This could increase the quality of suggested energy renovation measures. There is no such platform today.



As mentioned above, there is already a network of regional physical hubs in Sweden, which could be considered subtype 2a). The national government and the regions could provide more funding to them for a stronger dissemination of information focused on deep energy renovation (see table10).



Table 10 Policy Proposal for Sweden: Subtypes and needs for services

Subtype	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
Subtypes needed in your country (YES/NO)	Yes	No	Yes	No	No
Reasons for which subtypes are needed	Several information platforms already exist, but it would be useful with a platform with a compilation of information that fully covers different aspects of deep energy renovation.		Physical hubs with energy advisors are today facilitated by Regional Energy Agencies. These might be used as a platform for stronger dissemination of information, focusing more on deep energy renovation. This needs further investigation.		
Potential subtype providers	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)	National energy agency Local/regional energy agency private company private company with public support Other: (explain)
Who would be most appropriate to operate the needed services?	A national, impartial actor, e.g., the National Board of Housing, Building, and planning or the Swedish Energy Agency, or other organization on representing a broad participation of companies.		Regional Energy Agencies	Networks financed by the Swedish Energy Agency	Companies, non-profit organisations, trade organisations.

Potential funding sources	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)	Public National Public local/regional Private Public-private Other: (explain)
How could the funding be secured?	National funding.				
Needs for services	Subtype 1a.	Subtype 1b.	Subtype 2a.	Subtype 2b.	Subtype 2c.
General information on: 1.1 renovation actions 1.2 potential savings and costs	Yes		Yes		
1.3 Linking with Renovation tool	Yes				
Linking with 2.1 Energy Performance Certificates	Yes		Yes		
Linking with 2.2 Building deep renovation roadmap and possibly a passport	Yes		Yes		
3. Information on building contractors/technicians;	No, but general advice could be included				
4. Information on material or product manufacturers/ suppliers	No				
5. Information on financing opportunities for deep renovation	Yes				
Help with applying for loan and grant programmes or third-party financing	No				
6. Active marketing of deep renovation and its benefits and costs	Yes		Yes		
7. Network (platform) for learning, exchange, and cooperation (local/regional/national)	Yes		Yes		

8. Network (platform) for learning, exchange, and cooperation (interregional/transnational)	No				
9. Capacity building and training	Yes		Yes		
10. Step-by-step guidance for renovation project from start to end	No			No. However, a possible way to give guidance in individual projects could be to offer support in the form of group meetings between experts and several building owners, where questions may be asked and answered.	
11. Monitoring the implementation of the renovation project(s)	No			No. Only monitoring of <i>demonstration projects</i> and dissemination of results for increased knowledge	
12. Operating a physical network hub and information centre	N/A		Already exists.		
13. Carrying out the renovation project(s)	No				
14. Initiation and coordinating deep renovation demonstration project(s)	No				No. Only initiation, monitoring and evaluation of demonstration projects.
15. Aggregation of building renovation projects	No, but a compilation of good examples.				



3 HOW THE BASIC PLATFORM COULD BE IMPLEMENTED IN QUALDEEPC PARTNER COUNTRIES

This chapter presents the basic choice of the national implementation partners of QualDeEPC, how the basic online platform could be implemented by them or in cooperation with other partners, e.g., those who already operate a similar platform.

3.1 Bulgaria

In the case of Bulgaria, it was decided to create a new DRNP platform, together with partners, based on a joint concept of Qualrenovate DRNPs developed by the Task 5.3. leader.

A Spanish software company will undertake the software development and will include all the necessary and relevant information concerning the deep renovation process, taking into consideration the national requirements. The platform will be created in Bulgarian language, so that it will be an easy and user-friendly tool.

This new platform will include several services such as information on the deep energy renovation, the EPC, the available and recommended building professionals, and system suppliers as well as information on the possible financing and subsidiary programmes.

The DRNP of Bulgaria is operated by the Bulgarian partner with the support of the software developer.

3.2 Germany

As already mentioned in chapter 2.3, several OSS or Deep Renovation Network platforms exist in Germany, (www.co2online.de, www.febs.de, www.deutschland-machts-effizient.de , www.eza-all-gaeu.de/energietipps). There are a few such platforms similar to the Deep Renovation Platform that are online-based platforms. Since the platforms are aimed either at final consumers or at professionals in the field of energy-efficient construction and renovation, it will be most effective to retain these platforms for the individual target groups. The German partner Dena will therefore seek to collaborate with at least one of these platforms to enhance their content through targeted additions. This additional content would fill gaps to enhance the platforms towards the full content of the basic platform.

After agreement with the platform operators, the German partners intend to perform the following steps: Based on the concept developed with the seven basic services for the DRNP, the existing platforms can be compared with the QualDeEPC basic concept. Proposals will be developed for the existing platforms on how they could be expanded with the services that are still missing. The platform operators could then implement these.

3.3 Greece

CRES will build upon an existing platform, the platform ‘EnergyHUB forALL’. It is intended to be upgraded and enriched with content oriented towards deep energy renovation. The existing platform has been developed and operated by CRES, therefore, CRES can undertake the role of the ‘facilitator’ of a DRNP. The main contents are presented in the



chapter 2.4, adapted to country needs, and will be aligned with the DRNP concept presented in the QualDeEPC White Paper.

3.4 Hungary

BME analysed the state of art of DRNPs in the country, and we found that although currently no national information online platform is running, such a platform is being developed within the sister project RenoHUB (Horizon 2020) and shall be made available for the public early 2022 (the platform will be named as RenoPont). In order to make use of the synergies, it is an obvious solution to integrate the two platforms, which has been agreed with RenoHUB consortium. The minimum contents of the platform have been agreed upon by all partners and included in the White Paper.

The structure of the RenoPont platform is very similar to our planned one, however it is not focused on deep renovation. Therefore, the content part of the RenoPont platform needs to be revised significantly to achieve QualDeEPC objectives. The Reno Pont platform already includes an online tool, which needs to be adjusted to QualDeEPC needs, which means deep renovation should be put into focus.

After the necessary adjustments, the DRNP will thus include all the necessary and relevant information concerning the deep renovation process, taking into consideration the national requirements.

This new platform will include several services such as information on the deep renovation, the EPC and buildings passport, the available and recommended building professionals, and system suppliers as well as information on the possible financing and subsidy programmes, events, demonstration buildings, training opportunities and renovation platforms.

The services that do not yet exist in RenoPont and would be needed to stimulate deep renovation: information on deep renovation actions (e.g., information on e.g., renewable energy systems, heat recovery ventilation are very brief), linked potential savings and costs, update of the online calculation tool to support deep renovation.

The language of the platform is Hungarian. The platform will be maintained after the project end by Energiaklub, the coordinator of RenoHUB project and partner in QualDeEPC. The new contextual parts from QualDeEPC will be developed mainly by BME.

3.5 Latvia

In the case of Latvia, it was decided to create a new DRNP platform, together with partners, based on a joint concept of Qualrenovate DRNPs developed by the Task 5.3. leader.

A Spanish software company will be doing the software development and will include all the necessary and relevant information concerning the deep energy renovation process, taking into consideration the national requirements. The platform will be created in Latvian language, so that it will be an easy and user-friendly tool.

This new platform will include several services such as information on the deep renovation, the EPC, the available and recommended building professionals, and system suppliers as well as information on the possible financing and subsidiary programmes.

The DRNP of Latvia is operated by the Latvian partner with the support of the software developer.

3.6 Spain

ESCAN analysed the state of art of DRNPs in the country and we found that no national information online platform is running, therefore it is necessary to create a new DRNP platform. The minimum contents of the platform have been agreed upon by all partners and included in the White Paper.

The structure, the design etc. has been elaborated by ESCAN with support of project coordinator WI and WP leader CRES. The software development is carried out by the Spanish software company.

The DRNP will include all the necessary and relevant information concerning the deep renovation process, taking into consideration the national requirements.

This new platform will include several services, such as information on the deep energy renovation, the EPC and buildings passport, the available and recommended building professionals, and system suppliers as well as information on the possible financing and subsidy programmes, events, demonstration buildings, training opportunities and renovation platforms.

The services that do not yet exist and would be needed to stimulate deep renovation: information on renovation actions, potential savings and costs / Linking with Renovation tool; Linking with a) Energy Performance Certificate / b) Building deep renovation roadmap and possibly passport; associations of companies that provide deep renovation, main building contractors /technicians; information on material or product manufacturers/suppliers; information on financing opportunities for deep renovation; suggestion that a public platform managed by an institution that will provide active marketing of deep renovation and its benefits and costs; however, it will not be required to include a network (platform) of actors promoting links between enhanced EPCs and Deep renovation for learning exchange and cooperation (local/regional/national), because these services are carried out by some federations and associations.

The task leader is the Spanish partner who also has elaborated the design of the online DRNP's, considering an easy way of finding the information, searching the images, creating the main chapters and menus, texts for Spain, Bulgaria and Latvia. Other partners prefer to create their own platform or enhanced existing platform.

The platform has two functionalities, one is to inform about deep renovation, the second is that anybody can include information about: financing opportunities on deep renovation; trainings/courses; events/media on renovation; demonstration buildings.

3.7 Sweden

There are several ways for how the basic online platform could be implemented in Sweden, and by whom:

- The online information platform ICHB operated by a consultant on behalf of the National board of housing building and planning is currently closed. It will be reopened this year (2022) and operated by the National board of housing building and planning directly in cooperation with the Swedish Energy Agency. There might be a possibility to include additional content in line with the joint concept of the DRNPs developed within QualDeEPC. For example, more direct advice and guidelines for carrying out deep energy renovation could be included in this platform.

- While waiting for the national governmental platform to be established, a new DRNP platform is created by the project partner, based on the joint concept of DRNPs developed within QualDeEPC.
- Information on deep energy renovation could also be disseminated by the Regional Energy Agencies (and local hubs with energy advisors) and Energikontoren Sverige. These are well established platforms suitable for reaching a wide range of building owners.

The main content planned to be included in the Swedish DRNP is general information on deep renovation and different measures for improved energy efficiency.

3.8 Where does the partner wish to implement (host) their National DRNP?

Table 11 summarizes, which organisation or server will host the national DRNPs, and the planned domain names. *Hosting* is the storage space that each website needs to keep the files and database of the website of each country, so that it can be visible on internet. Meanwhile, the *domain* is the address that users type in the browser and serves to identify and access the Qualrenovate or other web DRNP of each country. Subcontractors engaged are also listed in table 11. The software IT company of Spain is subcontracted for the development of the mock-up and all the software in national language.

Table 11 National DRNP hosting

Country	DRNPs Hosting during the project	Subcontracting	DRNPs Hosting after end of project	Domain/subdomain during project
Bulgaria	ESCAN	Subcontracting provided by software company of Spain	EAP server	https://qualrenovate.eu/bg/home/
Greece	CRES will host the platform in its own IT infrastructure	Software services will be provided by a subcontractor in Greece	CRES will host the platform in its own IT infrastructure	http://www.energyhubforall.eu/
Germany	#Dena or BMWK?		www.gebaeudeforum.de	www.gebaeudeforum.de
Hungary	Energiaklub		Energiaklub server	Renopont.hu
Latvia	ESCAN	Subcontracting provided by software company of Spain	Ekodoma server	qualrenovate.eu/lv
Spain	ESCAN	Subcontracting provided by software company of Spain	PTEC, Plataforma Tecnológica Española de la Construcción	https://qualrenovate.eu/es/
Sweden	CIT Energy Management		National, impartial actor, e.g., the National Board of Housing, Building, and planning and the Swedish Energy Agency	To be decided

4 BACKGROUND FROM THE PREVIOUS TASKS TO THE MINIMUM CONTENTS FOR QUALRENOVATE DRNPS

The QualDeEPC project aims to develop a Deep Renovation Network Platform that includes the provision of one-stop shop services for deep energy renovation linked to EPCs. The Platform will be an online one-stop-shop for providing advice and information on energy, costs and benefits, administrative, financial matters related to building energy renovation and EPCs, as well as supply-side information to building owners.

The QualDeEPC project results before Task 5.3 have been used for the elaboration of the common minimum contents of DRNPs, Priority C, especially for the Qualrenovate DRNP structure. Those results derived from the following tasks:

Task 3.1 Green Paper (Veselá et al., 2021).

Task 3.5 White Paper (Veselá et al., 2021).

Task 3.5 and 5.2 Priority A: Improving the recommendations for renovation provided on the EPCs towards deep energy renovation.

Tasks 3.3 and 5.2 Priority B: Online tool for improved renovation recommendations.

Tasks 3.2/3.5 and 3.4 Priority C: Concept of DRNP.

Tasks 3.5 and 5.2 Priority D: Regular mandatory EPC assessor training.

Tasks 3.5 and 5.2 Priority E: High user-friendliness of the EPC.

Task 3.5 and 5.2 priorities F&G: Voluntary/mandatory advertisement guidelines for EPCs. Improving compliance with the mandatory use of EPCs in real estate advertisements.

The basic part of DRNP from the Green/White papers (Task 3.5) is the starting point for elaboration of the common minimum contents of Qualrenovate and other DRNPs by the QualDeEPC partners, that is: (i) Information on renovation actions; (ii) Linking with Energy Performance Certificates and linking with building deep renovation roadmap and possibly a passport; (iii) Information on building contractors/technicians and energy-efficient-experts and support with finding experts and building contractors/technicians; iv) Information on material or product manufacturers/ suppliers; (v) Information on financing opportunities for deep renovation; (vi) Active marketing of deep renovation and its benefits and costs; (vii) Network (platform) for learning, exchange and cooperation (local/regional/ national).

Secondly the Priority A: Improving the recommendations for renovation provided on the EPCs towards deep energy renovation (Task 5.2) contains valuable inputs for recommendations with indicative energy savings and indicative costs.

As third step the Priority B: Online tool for improved renovation recommendations (Tasks 3.3, Task 5.2) that considers the main groups of building envelope components and technical systems. Partners will aim to implement this tool in parallel to the DRNPs and embed it directly or as a link in the country specific online DRNPs.

The fourth step, the Priority D: Regular mandatory EPC assessor training (Tasks 3.5 and 5.2), is voluntary. If useful and feasible, it may also be included in or linked to the DRNPs, based on the current situation about trainings focused on EPCs; not all countries require mandatory training for issuing EPCs, but organization of training for EPCs /deep renovation are performed.



The fifth step, the Priority E: High user-friendliness of the EPC (Tasks 3.5 and 5.2) proposed enhanced EPC forms adapted to national contexts and contains the “energy rating” indicator for building envelope and technical systems. Even if the Member States may not adopt the project’s proposal for enhanced EPC forms, several examples of new EPCs are included.

The last step relates to Priorities F&G: Voluntary/mandatory advertisement guidelines for EPCs, and other measures for improving compliance with the mandatory use of EPCs in real estate advertisements (Tasks 3.5 and 5.2). The DRNPs should first include the current situation about advertisement regulations and guidelines for EPCs. The DRNP will then be an important channel to disseminate the Voluntary/mandatory advertisement guidelines for EPCs, and it would also explain consequences of not following the legal requirements for advertisements.

The [Table 12: Background](#): from the previous tasks to the minimum contents for the Qualrenovate DRNPs shows an overview that connects the previous results and the Qualrenovate DRNPs minimum contents. Partners not using the Qualrenovate DRNP structure will also aim to provide this content in the DRNPs they are building up themselves or improving together with operators of existing platforms.



Table 12 Background from the previous tasks to the minimum contents for the Qualrenovate DRNPs

Services/ products	Description of services	Minimum version	QualDeEPC Priorities that provide input for content	Priority C: qualrenovate DRNPs
1. Information on renovation actions 1.1 General information	<ul style="list-style-type: none"> Providing general information and other benefits due to renovation Providing information on principles of insulation, heating, cooling, and ventilation systems, renewable energies descriptive texts and graphics on the website with information text and graphic documents downloadable as pdf-documents 	General information on: <ul style="list-style-type: none"> building insulation windows ventilation heating system renewables deep renovation 	Priority B: Online tool Priority E: High user-friendliness of EPC Priority A: Improving the recommendations	1.3 Services & Products = 2. Services & Products 2.1 Deep Renovation General Info <i>★ 2.1.0 Building Energy Efficiency General Info</i> <i>★ 2.1.1 Principles (2.1.1)</i> Building envelope (2.1.1.1) Wall insulation (2.1.1.1.1) Roof insulation (2.1.1.1.2) Ground floor insulation (2.1.1.1.3) Windows (2.1.1.1.4) Doors (2.1.1.1.5) Heating systems (2.1.1.2). with EU energy label Cat. A or above H1-Condensing boilers (2.1.1.2.1) H2- Heat pumps (2.1.1.2.2) H3-District heating (2.1.1.2.3) DHW systems(2.1.1.3). with EU energy label Cat. A or above D1- Heat pumps(2.1.1.3.1) D2-District heating (2.1.1.3.2) Cooling systems(2.1.1.4). with EU energy label Cat. A or above C1-Air conditioning, cooling (2.1.1.4.1) Ventilation systems (2.1.1.5)with EU energy label Cat. A or above V1- Ventilation systems (2.1.1.5.1) Renewable energies (outside of other systems) (2.1.1.6) (building integrated) R1-SOLAR THERMAL(2.1.1.6.1) R2-SOLAR PHOTOVOLTAIC (2.1.1.6.2) R3-GEOTHERMAL (2.1.1.6.3) R4-AEROTHERMAL (2.1.1.6.4) R5-BIOMASS (2.1.1.6.5) Lighting (2.1.1.7) LED (2.1.1.7.1) Dimmers(2.1.1.7.2) <i>★ 2.1.2.Deep renovation (2.1.2)</i> Deep renovation recommendations (2.1.2.1) Deep renovation at EU level (2.1.2.2) <i>★ 2.1.3.Specific renovation tools and calculators (2.1.3)</i>
1.2 Information on potential savings and costs	Providing general information on costs of renovation for deep renovations, building components, building services, renewable energy, potential energy and cost savings	Information on renovation typical costs and savings for: <ul style="list-style-type: none"> building insulation windows ventilation heating system renewables 	Priority A: Improving the recommendations	
1.3 Linking with renovation tools	Links to specific renovation tools and calculators which clearly outline the costs of renovation, potential energy savings and other benefits due to renovation (QualDeEPC priority B)	Integration to renovation tools or linking of existing tools in QualDeEPC partner countries. This would be the online tool for comparing EPC recommendations to deep energy renovation recommendations developed in Task 3.3	Priority B: Online tool	

Services/ products	Description of services	Minimum version	QualDeEPC Priorities that provide input for content
2.1 Linking with Energy Performance Certificates	<ul style="list-style-type: none"> Providing detailed information on EPC assessment purposes/uses, procedure, tools and assessors Comprehensive information on EPCs, including EPC obligations, registry of EPC assessors (with a link), explaining EPCs in terms of nZEB and national energy targets 	<p>Detailed information on</p> <ul style="list-style-type: none"> EPC in general and purposes/uses/duties EPC assessment procedure EPC forms and types Renovation recommendations issue energy certificates and where this is regulated <p>Links to:</p> <ul style="list-style-type: none"> The online renovation calculator tool (1.3) The deep renovation recommendations (1.1) Advertising guidelines for EPCs 	<p>Priority A: Improving the recommendations</p> <p>Priority B: Online tool</p> <p>Priority F&G: Advertisement guidelines</p>
2.2 Linking with building deep renovation roadmap and possibly a passport	<ul style="list-style-type: none"> Linking EPC information to detailed analysis to upgrade it to a Building deep renovation roadmap Possibly development of the content and form of the "Building Passport" for bringing together the history of a building and the information tied to it (roadmap, energy audits, energy-saving works and/or restoration works) 	<ul style="list-style-type: none"> Information on building renovation roadmap and passport What is it? How can the EPC be a starting point? Benefit of the renovation roadmap and passport: why is it useful? Methodology of the building renovation roadmap and passport Links to further information about the roadmap/passport Energy efficiency of buildings (link to 1.1) <p>Links to</p> <ul style="list-style-type: none"> Links to subsidy programmes The online renovation calculator tool (1.3) 	<p>Priority B: Online tool</p> <p>Priority E: High user-friendliness of EPC</p>

Priority C: qualrenovate DRNPs

2.2 Energy Performance Certificates - EPCs- (2.2)

☆ 2.2.1. Energy Performance Certificates (2.2.1)

☆ 2.2.2. Roadmap/ Passport (2.2.2)

Services/ products	Description of services	Minimum version	Priorities
3. Information on building contractors/ technicians and energy-efficient-experts Support with finding experts and building contractors/ technicians	<ul style="list-style-type: none"> Providing information regarding energy-efficient-experts, building contractors/ technicians/ installers Providing a search engine or a databases of energy-efficient-experts/ contractors / technicians/ installers Requesting various renovation offers/quotes from contractors/ technicians and comparing them so that the end-user can make an informed choice 	<ul style="list-style-type: none"> Information regarding energy-efficient-experts, building contractors/ technicians/ installers Instructions on how to find and recognise reputable and well-qualified companies (contractors/ craftsman) and what to watch out for. 	
4. Information on material or product manufacturers/ suppliers	<ul style="list-style-type: none"> Provides information on product manufacturers /suppliers required for deep renovation 		
5. Information on financing opportunities for deep renovation	<ul style="list-style-type: none"> Provide information about financial incentives, loans, and subsidies or third-party financing 	Information on existing support programs for energy-efficient buildings <ul style="list-style-type: none"> Links to subsidy programmes 	
6. Active marketing of deep renovation and its benefits and costs	<ul style="list-style-type: none"> Using all kinds of media and events to promote deep renovation and its benefits and costs to building owners and investors, involving supply-side actors in the media work, events, funding Using demonstration projects to show enhanced quality of life through insulation and energy-saving by bringing together various stakeholders 	<ul style="list-style-type: none"> Showing advantages of energy renovation measures and co-benefits Promotion of deep renovation network platform through media releases and in own events (which may be organised anyway for other purposes) 	
7. Network (platform) for learning, exchange and cooperation (local/regional/ national)	<ul style="list-style-type: none"> Discussing active marketing activities and involving supply-side actors, city administration, energy companies, financial institutions etc, in the media work, events, and funding Discussing training needs and the organizing of training 	<ul style="list-style-type: none"> List of existing renovation platforms, involving supply-side actors, city administration, energy companies, financial institutions etc., List of training providers for EPC assessors Link to lists of workshops and seminars 	

Priority D: Training

Priority C: qualrenovate DRNPs
2.3 Building professionals & System suppliers
☆ 2.3.1 Building professionals (2.3.1)
☆ 2.3.2 System suppliers(2.3.2)
☆ 2.3.3 Instructions on how to find and recognise reputable and well-qualified companies. (2.3.3)
2.4 Financing / subsidy programmes
☆ 2.4.1 Financing / subsidy programmes (2.4.1)
☆ 2.4.2 Insert information on Financing / subsidy programmes(2.4.2)
2.5 Deep Renovation Promotion
☆ 2.5.1 Media and events that promote deep renovation (2.5.1)
2.6 Demonstration Buildings
☆ 2.6.1 Demonstration buildings. (2.6.1)
☆ 2.6.2 Insert information about Demonstration buildings. (2.6.2)
2.7 Training opportunities
☆ 2.7.1 Courses/ events /workshops/ seminars. (2.7.1)
☆ 2.7.2 Insert information about Courses/ events /workshops/ seminars. (2.7.2)
2.8 Renovation Platforms
☆ 2.8.1 Renovation Platforms. (2.8.1)
☆ 2.8.2 Insert information about Renovation Platforms. (2.8.2)

5 MOCKUP FROM THE CONCEPTS TO A CONCRETE DESIGN FOR THE QUALRENOVATE DRNP STRUCTURE

For the development of new Qualrenovate DRNPs, an **English mock-up** was elaborated based on the contents of DRNP platforms performed by ESCAN (see chapter 4). A mockup is a conceptual tool that is used especially in modern webs development. It is basically an early draft of a website or web application. Mockups are primarily used for conception to convert ideas and concepts into a concrete design. They typically include the final navigation structure and detailed design elements so that they often resemble the final design of the website.

The designer of DRNP mockup (in English) will be available, during software development, at the following link: qualrenovate.eu. The mockup allows to present the Qualrenovate system to partners for their decision on whether they intend to use it or another structure, to test as part of quality controls and demonstrations, allowing an intermediate evaluation of development work for those partners who decided to use the Qualrenovate structure. The design, the user interface, the structure, and the scope of features can be checked. Possible problems and inaccuracies in the design, functional scope, or contents structure of the website can be quickly and efficiently eliminated, before starting the prototype. After the final version of DRNPs, the mock up will be deleted.

The Qualrenovate DRNP system (qualrenovate.eu) will consist of:

Trunk pages

Information pages

Search Pages

Communication Pages

Database pages

Legal pages

The system to be developed has the following trunk structure (without the aesthetic layer): (i) Upper area with QualDeEPC logo, (ii) search lens; (iii) Top navigation menu; (iv) Contents; and (iv) Footer with Login.



Figure 1 . Mockup trunk structure: from the concepts to a design of qualrenovate DRNP system



The details of the common minimum contents of Qualrenovate DRNP system are shown in Table 13: Common minimum contents of Qualrenovate DRNP system; the numbered contents are common for all QualDeEPC country partners using the Qualrenovate DRNP structure, while the non-numbered contents should be adapted to National specific needs.

Annex 1 shows the translation of all the content to the other languages.



Table 13: Common minimum contents of Qualrenovate DRNP system

ENGLISH	SPANISH
1.1 HOME	1.1 INICIO
1.2 Welcome	1.2 Bienvenido
1.3 Services & Products	1.3 Servicios & Productos
1.4 Contact	1.4 Contacto
1.5 Search in the web	1.5 Buscar en la web
1.3 Services & Products. = 2. Services & Products	1.3 Servicios & Productos. = 2. Servicios & Productos
2.1 Deep Renovation General Info	2.1 Renovación Profunda. General Info
☆2.1.0 Building Energy Efficiency General Info	☆2.1.0 Eficiencia energética en edificios General Info
☆2.1.1 Principles	☆2.1.1 Principios
Building envelope (2.1.1.1)	Envolvente del Edificio (2.1.1.1)
Wall insulation (2.1.1.1.1)	Aislamiento de fachada (2.1.1.1.1)
Roof insulation (2.1.1.1.2)	Aislamiento de cubierta (2.1.1.1.2)
Ground floor insulation (2.1.1.1.3)	Aislamiento de solera (2.1.1.1.3)
Windows (2.1.1.1.4)	Ventanas (2.1.1.1.4)
Doors (2.1.1.1.5)	Puertas (2.1.1.1.5)
Heating systems (2.1.1.2). with EU energy label Cat. A or above	Sistemas de calefacción (2.1.1.2).
H1-Condensing boilers (2.1.1.2.1)	H1-Calderas de condensación (2.1.1.2.1)



Condensing oil boiler (Heating)	Caldera condensación gasóleo (calor)
Condensing NG/LPG boiler (Heating)	Caldera condensación GN/GLP (calor)
Condensing mixed NG/LPG boiler (Heating & DHW)	Caldera condensación mixta GN/GLP (calor & ACS)
H2- Heat pumps (2.1.1.2.2)	H2- Bombas de calor (2.1.1.2.2)
Inverter air-to-air heat pump (Heating & Cooling)	Bomba de calor inverter aire-aire (calor & frío)
Inverter air-to-water heat pump (Heating & Cooling)	Bomba de calor inverter aire-agua (calor & frío)
Inverter GHP air-to-water heat pump, (Heating & V Cooling & V DHW)	Bomba de calor inverter geotermia aire-agua, (calor&V frío&V ACS)
Inverter air-to-water heat pump (Heating & Cooling& DHW)	Bomba de calor inverter aire-agua (calor& frío&ACS)
H3-District heating (2.1.1.2.3)	H3-District heating (2.1.1.2.3)
District heating (Heating&DHW)	District heating (calor&ACS)
DHW systems (2.1.1.3). with EU energy label Cat. A or above	Sistemas ACS (2.1.1.3).
D1- Heat pumps (2.1.1.3.1)	D1- Bombas de calor (2.1.1.3.1)
Heat pump individual heater, with storage (DHW)	Bomba de calor con acumulador integrado (ACS)
D2-District heating (DHW) (2.1.1.3.2)	D2-District heating (ACS) (2.1.1.3.2))
Note: Other DHW systems can be found in the section "Heating systems (2.1.1.2)".	Otros sistemas ACS se encuentran en la sección "Heating systems (2.1.1.2)".
Cooling systems (2.1.1.4). with EU energy label Cat. A or above	Sistemas de A.A. Frio (2.1.1.4).
C1-Air conditioning, cooling (2.1.1.4.1)	C1-Aire Acondicionado, frío (2.1.1.4.1)
Air conditioning SPLIT (cooling)	Aire Acondicionado SPLIT (frío)
Conventional air conditioning unit (cooling)	Aire Acondicionado convencional (frío)
Note: Other cooling systems can be found in the section "Heating systems (2.1.1.2)".	NOTA: Otros sistemas de frío se encuentran en la sección "Heating systems (2.1.1.2)".

Ventilation systems (2.1.1.5).; with EU energy label Cat. A or above	Sistemas de ventilación (2.1.1.5).;
V1- Ventilation systems (2.1.1.5.1).	V1-Ventilación mecánica (2.1.1.5.1).
Intake mechanical ventilation system	Ventilación mecánica en admisión
Exhaust mechanical ventilation systems	Ventilación mecánica en extracción
Intake and exhaust mechanical ventilation systems (or double flow systems, with/without heat recovery)	Ventilación mecánica en admisión y extracción (doble flujo, con y sin recuperación de calor)
Renewable energies (outside of other systems) (2.1.1.6) (building integrated)	Energías Renovables (adicionales a los sistemas anteriores) (2.1.1.6)
R1-SOLAR THERMAL (2.1.1.6.1).	R1-SOLAR TERMICA (2.1.1.6.1).
Solar thermal: principles	Solar térmica: principios
Solar thermal: solar collector & condensing boiler; (Heating & DHW) link to H2-Condensing boilers (2.1.1.2.1)	Solar térmica: colector solar& caldera condensación; (calor & ACS) link a H2-Calderas de Condensación (2.1.1.2.1)
Solar thermal: solar collector & Electrical resistance storage heated (DHW)	Solar térmica: colector solar &Calentador eléctrico-termo eléctrico (ACS)
R2-SOLAR PHOTOVOLTAIC (2.1.1.6.2).	R2-SOLAR FOTOVOLTAICA (2.1.1.6.2).
Solar photovoltaic: principles	Solar fotovoltaica: principios
PV connected to the commercial electricity grid: solar collector, solar inverter, inter-connection panel with the grid, electric meters	FV conectada a la red eléctrica comercial: colector solar, inversor solar, panel de interconexión con la red, contadores eléctricos
PV isolated: solar collector, solar inverter, battery	PV aislado: colector solar, inversor solar, batería
R3-GEOTHERMAL (2.1.1.6.3).	R3-GEOTERMIA (2.1.1.6.3).
Geothermal: principles	Geotermia: principios
Geothermal heat pumps link to H2- Heat pumps (2.1.1.2.2)	Bombas de calor geotérmicas link a H2- Bombas de calor (2.1.1.2.2)
R4-AEROTHERMAL (2.1.1.6.4).	R4-AEROTERMIA (2.1.1.6.4).



Aerothermal: principles	Aeroterminia: principios
Aerothermal heat pumps link to H2- Heat pumps (2.1.1.2.2)	Bombas de calor aerotérmicas link to H2- Bombas de calor (2.1.1.2.2)
R5-BIOMASS (2.1.1.6.5).	R5-BIOMASA (2.1.1.6.5).
Biomass: principles	Biomasa: principios
Biomass: condensing boilers link to H1-Condensing boilers (2.1.1.2.1)	Biomasa: Calderas de condensación link a H1-Calderas de condensación (2.1.1.2.1)
Biomass: stoves	Biomasa: estufas
Lighting (2.1.1.7);	Iluminación (2.1.1.7);
LED (2.1.1.7.1).	LED (2.1.1.7.1).
Dimmers (2.1.1.7.2)	Dimmers (2.1.1.7.2)
★ 2.1.2. Deep renovation	★ 2.1.2. Rehabilitación profunda
Deep renovation recommendations (2.1.2.1);	Recomendaciones para la rehabilitación profunda (2.1.2.1);
Deep renovation at EU level (2.1.2.2);	Renovación profunda a nivel europeo (2.1.2.2);
★ 2.1.3. Specific renovation tools and calculators	★ 2.1.3. Herramientas y calculadoras para rehabilitación
Link to available tools or T3.3 tool	Link a las tools disponibles o T3.3 tool
2.2 Energy Performance Certificates - EPCs-	2.2 Certificados Energéticos Edificios - EPCs-
★ 2.2.1. Energy Performance Certificates	★ 2.2.1. Certificados Energéticos Edificios
★ 2.2.2. Roadmap/ Passport	★ 2.2.2. Hoja de ruta/ Pasaporte



2.3 Building professionals & System suppliers	2.3 Profesionales & Suministradores (rehabilitación de edificios)
☆ 2.3.1 <i>Building professionals</i>	☆ 2.3.1 <i>Profesionales (rehabilitación de edificios)</i>
☆ 2.3.2 <i>System suppliers</i>	☆ 2.3.2 <i>Suministradores (rehabilitación de edificios)</i>
☆ 2.3.3 <i>Instructions on how to find and recognise reputable and well-qualified companies.</i>	☆ 2.3.3 <i>Instrucciones para encontrar y reconocer empresas acreditadas y bien cualificadas.</i>
2.4 Financing / subsidy programmes	2.4 Programas de financiación / subvención
☆ 2.4.1 <i>Financing / subsidy programmes</i>	☆ 2.4.1 <i>Programas de financiación / subvención</i>
☆ 2.4.2 <i>Insert information on Financing / subsidy programmes</i>	☆ 2.4.2 <i>Inserte información sobre Programas de financiación / subvención</i>
2.5 Deep Renovation Promotion	2.5 Promoción de la renovación profunda
☆ 2.5.1 <i>Media and events that promote deep renovation</i>	☆ 2.5.1 <i>Media y eventos que promueven la rehabilitación profunda ej: "artículos" en periódicos, revistas e Internet (especialmente blogs), y "eventos".</i>
2.6 Demonstration Buildings	2.6 Edificios demostrativos
☆ 2.6.1 <i>Demonstration buildings.</i>	☆ 2.6.1 <i>Edificios Demostrativos</i>
☆ 2.6.2 <i>Insert information about Demonstration buildings.</i>	☆ 2.6.2 <i>Inserte información sobre Edificios Demostrativos</i>
2.7 Training opportunities	2.7 Oportunidades de formación
☆ 2.7.1 <i>Courses/ events /workshops/ seminars.</i>	☆ 2.7.1 <i>Cursos / eventos / talleres / seminarios</i>
☆ 2.7.2 <i>Insert information about Courses/ events /workshops/ seminars.</i>	☆ 2.7.2 <i>Inserte información sobre Cursos / eventos / talleres / seminarios.</i>
2.8 Renovation Platforms	2.8 Plataformas para rehabilitación
☆ 2.8.1 <i>Renovation Platforms.</i>	☆ 2.8.1 <i>Plataformas para rehabilitación</i>
☆ 2.8.2 <i>Insert information about Renovation Platforms.</i>	☆ 2.8.2 <i>Inserte información sobre Plataformas para rehabilitación.</i>



6 CONCLUSIONS

This report aims to support the implementation approach of the deep renovation network platforms at national level. The report, therefore, includes

- 1) the policy proposals for wider implementation directed to the governments of the seven EU Member States covered by QualDeEPC; and
- 2) the adapted concepts for implementation of the minimum online DRNP concept in each of these Member States by project partners themselves, or in cooperation with operators of similar platforms that already exist but can be improved to the full content developed by QualDeEPC.

Adapted concepts for implementation of the minimum online DRNP concept

In order to implement the concept, three main elements are necessary

- 1 Contents
- 2 Structure
- 3 Functionalities

The White Paper of QualDeEPC includes the proposed contents for the national DRNP's. After several meetings, partners decided which contents of the White Paper will be included in those platforms.

The structure has been designed by ESCAN and agreed, after several meetings with all the partners.

The functionalities were proposed by ESCAN and agreed.

For these tasks, partners require IT software subcontractings.

The workflow was as follows:

- Task leader ESCAN elaborated a first draft design of the new DRNP, with subcontract of IT company, oriented to those partners without DRNP in their countries. This new platform is called Qualrenovate.
- ESCAN invited all country partners to use Qualrenovate and waited for partners' decision of using Qualrenovate or not.
- During September -November 2021, the Task leader and partners held several meetings (2 with all partners and more than 12 bilateral meetings) to present the Qualrenovate, understand the scope of its use, explain the subcontracting need and clarifications.

The project partners analysed the current situation as regards the existing deep renovation platforms at national level, and the main outcome was that in most partners countries, the information for deep renovation is either not existing or not centralised in a One- Stop-Shop. This means that is it necessary to create new Deep Renovation Network Platforms or to enhance existing ones.

Therefore, 3 approaches are considered:

- (i)- enhance existing renovations platforms.
- (ii)- build up a new national deep renovation platform called Qualrenovate at national level.
- (iii)- Create a new platform adapted to the required necessities based on own concept.

(i) Enhanced existing platforms at national level.

- In Greece, the partner CRES developed several years ago one platform for buildings www.en-ergyhubforall.eu. This platform will be updated and aligned with the QualDeEPC policy proposal.



- Several OSS or Deep Renovation Network platforms exist in Germany, (www.co2online.de, www.gebaeudeforum.de, www.febs.de, www.deutschland-machts-effizient.de, www.eza-all-gaeu.de/energietipps). The approach is to enhance at least one of them.
- The Hungarian partners will enhance an existing DRNP renopont.hu

(ii) New national Deep Renovation Platforms based on the Qualrenovate structure.

A totally new set of Deep Renovation Platforms based on the contents and functionalities of the White Paper is created by the Task leader ESCAN; First the mock-up in English supported by the software developer.

The partners of Bulgaria, Latvia and Spain are preparing all the contents (text, images, videos...) and will upload it in their national Qualrenovate platforms.

(iii) New national DRNP

The partners from Sweden will initially create an own platform based on their adapted concept, and then work for integrating this platform with a national governmental platform planned to be launched later this year..

Policy proposals

The online Deep Renovation Platforms (subtype 1a, as presented in chapter 2.1) are going to be developed in the framework of QualDeEPC project.

For their sustainability, it is proposed that organisations with permanent funding or professional tasks, such as the National Energy Agencies, Ministries dealing with energy and environment, Architects' Professional Bodies, the Associations of construction companies, could host them.

For the other subtypes, most partners also propose to public authorities to create mainly physical One-Stop-Shops of subtypes 2 a, b, or c (included in White Paper) and provide permanent financial and technical support to them.

This combination of DRNPs will provide in the first case (1a) online and in the second case (2c) physically, information on renovation actions, potential savings and costs, links to different tools, information on construction specialists, materials, and suppliers, on financing opportunities. In addition, the physical hubs would provide all necessary services needed at regional or local level for a successful building renovation process. The table provides an overview of the national policy proposals.

Table 14: Overview of subtypes of DRNPs proposed to national policymakers

Country	1a) Online information DRNPs	2a) physical One-Stop Shop for information	2b) physical One-Stop Shop with support	2c) physical One-Stop Shop with implementation
Bulgaria	Creating Qualrenovate https://qualrenovate.eu/bg/home/		Policy proposal	
Greece	Enhancing http://www.energyhubforall.eu/		Policy proposal	
Germany	Enhancing platform by Dena or BMWK	Policy proposal	Policy proposal	May be
Hungary	Enhancing Renopont.hu		Policy proposal	
Latvia	Creating qualrenovate https://qualrenovate.eu/lv/home/			Policy proposal
Spain	Creating qualrenovate https://qualrenovate.eu/es/		Policy proposal	



Sweden	Creating new platform	Policy proposal		
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For implementing consensus elements of the DRNPs, Task 5.3 will proceed with the following steps as far as possible:

- implementation of the system involving software subcontracting services,
- information collection, elaboration and uploading into the system,
- results and conclusions, to also inform the dialogue and policy recommendations (Task 5.5 and WP7); elaboration of Key Performance Indicators KPIs, to inform Task 5.6 monitoring of project results.
- The policy proposals will be discussed with national policymakers and stakeholders.

D5.2 will contribute to 'D5.3 Guidebook for improved EPCs presenting the project's proposal for an enhanced and converging EPC assessment and certification scheme'.



7 REFERENCES

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- Platform for buildings renovation <https://www.betterhome.today>
- Platform for buildings renovation <https://www.proklima-hannover.de>
- Platform for buildings renovation <https://www.em.gov.lv/lv/eku-energoefektivitate>;
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- Platform for buildings renovation <https://www.elektrum.lv/lv/majai/energoefektivitate/energoefektivitates-centru/energoefektivitates-centrs/>).
- Platform for buildings renovation www.co2online.de,
<https://conceptual-consultores.com/>
- Platform for buildings renovation www.febs.de,
- Platform for buildings renovation www.deutschland-machts-effizient.de ,
- Platform for buildings renovation www.eza-allgaeu.de/energietipps).
- Platform for buildings renovation Renopont.hu



8 ANNEXES

ANNEX 1.- PROPOSED STRUCTURE ADAPTED TO NATIONAL LANGUAGES (1)

	BULGARIA	GREECE	GERMANY	HUNGARY	LATVIA	SPAIN	SWEDEN
PROPOSED STRUCTURE	ADAPTATION IN COUNTRY LANGUAGE	ADAPTATION IN COUNTRY LANGUAGE	ADAPTATION IN COUNTRY LANGUAGE	ADAPTATION IN COUNTRY LANGUAGE	ADAPTATION IN COUNTRY LANGUAGE	ADAPTATION IN COUNTRY LANGUAGE	ADAPTATION IN COUNTRY LANGUAGE
1.1 HOME	1.1 Начало	1.1 Αρχική		1.1 Kezdőlap	1.1 Sākums	1.1 INICIO	1.1 HEM
1.2 Welcome	1.2 Добре дошли	1.2 Εισαγωγή		1.2 Köszöntő	1.2 Laipni lūdzam	1.2 Bienvenido	1.2 Välkommen
1.3 Services & Products	1.3 услуги и продукти	1.3 υπηρεσίες & προϊόντα		1.3 Termékek és szolgáltatások	1.3 Pakalpojumi un produkti	1.3 Servicios & Productos	1.3 Tjänster & produkter
1.4 Contact	1.4 Контакты	1.4 Επικοινωνία		1.4 Kapcsolat	1.4 Kontakti	1.4 Contacto	1.4 Kontakt
1.5 Search in the web	1.5 търси в Интернет	1.5 Αναζήτηση		1.5 Keresés az interneten	1.5 Meklēt tīmeklī	1.5 Buscar en la web	1.5 Sök
1.3 Services & Products. = 2. Services & Products	1.3 услуги и продукти. = 2. Услуги и Продукти	1.3 υπηρεσίες & προϊόντα = 2. υπηρεσίες & προϊόντα		1.3 Termékek és szolgáltatások = 2. Termékek és szolgáltatások	1.3 Pakalpojumi un produkti = 2. Pakalpojumi un produkti	1.3 Servicios & Productos. = 2. Servicios & Productos	1.3 Tjänster & produkter. = 2. Tjänster & produkter
2.1 Deep Renovation General Info	2.1 основно обновяване	2.1 γενικές πληροφορίες για τη Ριζική Ενεργειακή Ανακαίνιση		2.1 Mélyfelújítás	2.1 Visaptveroša renovācija	2.1 Rehabilitación Información general.	2.1 Omfattande energirenovering
☆2.1.0 Building Energy Efficiency General Info (2.1.0) General information on building energy efficiency at EU and national level i) general info about building stock and building energy consumption? ii) national energy policy about renovation? iii) Providing general information and other benefits due to renovation iv) nZEB: general info & definition ?	☆ 2.1.0 Ενεργειακή ефективност на сградата Основна информация (2.1.0)	☆ 2.1.0 γενικές πληροφορίες για τη Ριζική Ενεργειακή Ανακαίνιση (2.1.0)		☆ 2.1.0 Épületek energiahatékonysága – Általános információk (2.1.0)	☆ 2.1.0 Ēku energoefektivitāte. Vispārīga informācija (2.1.0)	☆ 2.1.0 Eficiencia energética (2.1.0)	☆ 2.1.0 Byggnadens energirestanda - generell information (2.1.0)
☆2.1.1 Principles (2.1.1) • Link to table Priority E: High user-friendliness of the EPC (☆ 2.1.1 Принципи (2.1.1)	☆ 2.1.1 Βασικές Αρχές (2.1.1)		☆ 2.1.1 Alapelvek (2.1.1)	☆ 2.1.1 Principi (2.1.1)	☆ 2.1.1 Principios (2.1.1)	☆ 2.1.1 Principer (2.1.1)
Building envelope (2.1.1.1);	Ограждени елементи (2.1.1.1);	Κτιριακό Κέλυφος (2.1.1.1);		Épületszerkezetek (2.1.1.1)	Ēku norobejošās konstrukcijas	Envolvente del Edificio (2.1.1.1);	Klimatskārm (2.1.1.1);
Wall insulation (2.1.1.1.1)	изолация на стени (2.1.1.1.1)	θερμομόνωση τοιχοποιίας (2.1.1.1.1)		Hésszigetelés: falak (2.1.1.1.1)	Sienveizolācija (2.1.1.1.1)	Aislamiento de fachada (2.1.1.1.1)	Fasadisolerieng (2.1.1.1.1)
Roof insulation (2.1.1.1.2)	изолация на покрив (2.1.1.1.2)	θερμομόνωση οροφής (2.1.1.1.2)		Hésszigetelés: tetőszervezetek / fődélm (2.1.1.1.2)	Jumtu izolācija (2.1.1.1.2)	Aislamiento de cubierta (2.1.1.1.2)	Takisolering (2.1.1.1.2)
Ground floor insulation (2.1.1.1.3)	изолация на под (2.1.1.1.3)	θερμομόνωση δαπέδου (2.1.1.1.3)		Hésszigetelés: talajjal érintkező szerkezetek (2.1.1.1.3)	Grūdas uz grūntis / pagrābu izolācija (2.1.1.1.3)	Aislamiento de solera (2.1.1.1.3)	Grundkonstruktion isolering (2.1.1.1.3)
Windows (2.1.1.1.4)	прозорци (2.1.1.1.4)	παράθυρα (2.1.1.1.4)		Ablakok (2.1.1.1.4)	Logi (2.1.1.1.4)	Ventanas (2.1.1.1.4)	Fönster (2.1.1.1.4)
Doors (2.1.1.1.5)	врати (2.1.1.1.5)	πόρτες (2.1.1.1.5)		Ajárak (2.1.1.1.5)	Durvis (2.1.1.1.5)	Puertas (2.1.1.1.5)	Dörrar (2.1.1.1.5)
Heating systems (2.1.1.2). with EU energy label Cat. A or above	Системи за отопление (2.1.1.2) с енергичен етикет клас А или по-висок	Συστήματα θέρμανσης (2.1.1.2). με ενεργειακή σήμανση Α ή καλύτερη		Fűtési rendszerek (2.1.1.2) – legalább "A" energiasztályú berendezések	Ārkures sistēmas (2.1.1.2). Ar A klases energoefektivitātes	Sistemas de calefacción (2.1.1.2).	Värmsystem (2.1.1.2). Med EU energimärkning A eller bättre
H1-Condensing boilers (2.1.1.2.1)	Н1-кондензационен котел (2.1.1.2.1)	Н1-λέβητες συμπύκνωσης (2.1.1.2.1)		F1-Kondenzációs kazánok (2.1.1.2.1)	H1-Kondenzācijas katli (2.1.1.2.1)	H1-Calderas de Condensación (2.1.1.2.1)	H1-Värmepannor (2.1.1.2.1)
Condensing oil boiler(Heating)							Biobränslepanna
Condensing NG/LPG boiler (Heating)						Caldera condensación GNL/GLP (calor)	Elpanna
Condensing mixed NG/LPG boiler (Heating & DHW)						Caldera condensación mixta GNL/GLP (calor & A	Oljepanna
H2- Heat pumps (2.1.1.2.2)	Н2 – Термо помпи (2.1.1.2.2)	Н2- Αντλίες θερμότητας (2.1.1.2.2)		F2-Hésszivattyúk (2.1.1.2.2)	H2- Siltumsūkļi (2.1.1.2.2)	H2- Bombas de calor (2.1.1.2.2)	H2- Värmepumpar (2.1.1.2.2)
Inverter air-to-air heat pump (Heating & Cooling)						Bomba de calor inverter aire-aire (calor & frío)	
Inverter air-to-water heat pump (Heating & Cooling)						Bomba de calor inverter aire-agua (calor & frío)	
Inverter GHP air-to-water heat pump, (Heating & V Cooling & V DHW)						Bomba de calor inverter geotermia aire-agua, (calor&V frío&V ACS)	
Inverter air-to-water heat pump (Heating & Cooling& DHW)						Bomba de calor inverter aire-agua (calor& frío&ACS)	
H3-District heating (2.1.1.2.3)	Н3 – Централизирано топлоснабдяване (2.1.1.2.3)	Н3-Τηλεθέρμανση (2.1.1.2.3)		F3-Távlatítás (2.1.1.2.3)	H3-Centralizēti siltumapgāde (2.1.1.2.3)	H3-District heating (2.1.1.2.3)	H3-Fjärrvärme (2.1.1.2.3)
District heating (Heating&DHW)						District heating (calor&ACS)	
DHW systems(2.1.1.3). with EU energy label Cat. A or above	Системи за бТВ (2.1.1.3). с енергичен етикет клас А или по-висок	Συστήματα ζεστού νερού χρήσης (2.1.1.3). με ενεργειακή σήμανση Α ή καλύτερη		Használati melegvíz rendszerek (2.1.1.3) – legalább "A" energiasztályú berendezések	Karstā ūdens sistēmas (2.1.1.3). ar A klases energoefektivitātes	Sistemas ACS (2.1.1.3).	Tappvarmvattensystem (2.1.1.3). Med EU energimärkning A eller bättre
D1- Heat pumps(2.1.1.3.1)	Д1 – Термо помпи (2.1.1.3.1)	Д1- Αντλίες θερμότητας(2.1.1.3.1)		HMV1-Hésszivattyúk (2.1.1.3.1)	D1- Siltumsūkļi (2.1.1.3.1)	D1- Bombas de calor (2.1.1.3.1)	D1- Värmepumpar (2.1.1.3.1)
D2-District heating (DHW)(2.1.1.3.2)	Д2 – Централизирано топлоснабдяване (бТВ)(2.1.1.3.2)	Д2-Τηλεθέρμανση (βλκ)(2.1.1.3.2)		HMV2-Távlatítás (2.1.1.3.2)	D2-Centralizēti siltumapgāde karstā ūdens sagatavošanai (2.1.1.3.2)	D2-District heating (ACS)(2.1.1.3.2)	D2- Biobränslepanna (2.1.1.3.3)
Cooling systems(2.1.1.4). with EU energy label Cat. A or above	Системи за охладняне (2.1.1.4)	Συστήματα ψύξης (2.1.1.4).		Hűtési rendszerek (2.1.1.4)	Dzesēšanas sistēmas (2.1.1.4).	Sistemas de A.A. Frio(2.1.1.4).	Kylsystem (2.1.1.4). Med EU energimärkning A eller bättre
C1-Air conditioning, cooling (2.1.1.4.1)	С1- κλιματισμός, охладняне (2.1.1.4.1)	С1-κλιματισμός (2.1.1.4.1)		H1-Hűtési rendszer (2.1.1.4.1)	C1-Gaisa kondicionēšana, dzesēšana	C1-Aire Acondicionado, frío (2.1.1.4.1)	C1-Kylmaskiner (2.1.1.4.1)
Air conditioning SPLIT(cooling)						Aire Acondicionado SPLIT (frío)	C2-Fjärrkyla (2.1.1.4.2)

ANNEX 1.- PROPOSED STRUCTURE ADAPTED TO NATIONAL LANGUAGES (2)

Ventilation systems (2.1.1.5); with EU energy label Cat. A or above	Системи за вентилация (2.1.1.5)	Συστήματα Εξαερισμού (2.1.1.5);	Légtechnikai rendszerek (2.1.1.5)	Ventilācijas sistēmas (2.1.1.5);	Sistemas de ventilación (2.1.1.5);	Ventilationssystem (2.1.1.5);
V1- Ventilation systems (2.1.1.5.1).	V1- Системи за вентилация (2.1.1.5.1)	V1- Συστήματα Αερισμού (2.1.1.5.1).	L1-Légtechnikai rendszerek (2.1.1.5.1)	V1- Ventilācijas sistēmas (2.1.1.5.1)	V1-Ventilación mecánica (2.1.1.5.1).	V1- Frånluftsystem (2.1.1.5.1).
Intake mechanical ventilation system					Ventilación mecánica en admisión	V2- Till- och frånluftsystem med eller utan värmeåtervinning (2.1.1.5.2)
Exhaust mechanical ventilation systems					Ventilación mecánica en extracción	V3- Styr- och regler-system (VAV, DCV) (2.1.1.5.3)
Intake and exhaust mechanical ventilation systems (or double flow systems, with/without heat recovery)					Ventilación mecánica en admisión y extracción (doble flujo, con y sin recuperación de calor)	
Renewable energies (outside of other systems) (2.1.1.6) (building integrated)	Възобновяема енергия (извън останалите системи) (2.1.1.6) (интегрирани в сградите)	Ανανεώσιμες Πηγές Ενέργειας (2.1.1.6) (ενσωματωμένα συστήματα στο κτίριο ή εξωτερικά)	Megújuló energiaforrások (2.1.1.6) (épületintegrált rendszerek)	Atjaunojamā enerģija (ārpus citām sistēmām) (2.1.1.6) (ēkās integrētas)	Energías Renovables (adicionales a los sistemas anteriores) (2.1.1.6)	Förnybar energi (2.1.1.6) (lokal produktion)
R1-SOLAR THERMAL(2.1.1.6.1).	R1 - СЛЪНЧЕВА ТОПЛИННА (2.1.1.6.1)	R1-ΘΕΡΜΙΚΑ ΗΛΙΑΚΑ(2.1.1.6.1).	M1-Napkollektorek (2.1.1.6.1)	R1-Saules kolektori (2.1.1.6.1).	R1-SOLAR TERMICA(2.1.1.6.1).	R1-Solvärme (2.1.1.6.1).
Solar thermal: principles					Solar térmica: principios	
Solar thermal: solar collector & condensing boiler; (Heating & DHW) link to H2-Condensing boilers(2.1.1.2.2)					Solar térmica: colector solar & caldera condensación, (calor & ACS)	
Solar thermal: solar collector & Electrical resistance storage heated (DHW) link to D2-Electric devices (2.1.1.3.2)					Solar térmica: colector solar & Calentador eléctrico-termo eléctrico (ACS)	
R2-SOLAR PHOTOVOLTAIC (2.1.1.6.2).	R2- СЛЪНЧЕВА ФОΤΟΒΟΛΤΑΪΚΗ (2.1.1.6.2)	R2-ΦΩΤΟΒΟΛΤΑΪΚΑ (2.1.1.6.2).	M2-Napelemek (2.1.1.6.2)	R2-Saules fotoelementi (2.1.1.6.2).	R2-SOLAR FOTOVOLTAICA (2.1.1.6.2).	R2-Solel (2.1.1.6.2).
Solar photovoltaic: principles					Solar fotovoltaica: principios	
PV connected to the commercial electricity grid: solar collector, solar inverter, interconnection panel with the grid, electric meters					PV conectada a la red eléctrica comercial: colector solar, inversor solar, panel de interconexión con la red, contadores	
PV isolated: solar collector, solar inverter, battery					PV aislada: colector solar, inversor solar, batería	
R3-GEOTHERMAL (2.1.1.6.3).	R3- ΓΕΟΤΕΡΜΑΛΗ (2.1.1.6.3)	R3-ΓΕΘΘΕΡΜΙΚΑ (2.1.1.6.3).	M3-Talajhő hasznosítás (2.1.1.6.3)	R3-Zemes siltums (geotermais) (2.1.1.6.3)	R3-GEOTERMIA (2.1.1.6.3).	R3- Berg- och markvärme (2.1.1.6.3).
Geothermal : principles					Geotermia : principios	Berg- och markvärme: principer
Geothermal heat pumps link to H4- Heat pumps(2.1.1.2.4)					Bombas de calor geotermicas	Berg- och markvärmepumpar link to H2- Värmepumpar (2.1.1.2.2)
R4-AEROTHERMAL (2.1.1.6.4).	R4 -ΑΕΡΟΤΕΡΜΑΛΗ (2.1.1.6.4)	R4-AEROTHERMAL (2.1.1.6.4).	M4-Levegő hőhasznosítás (2.1.1.6.4)	R4-Gaisa siltums (aerotermais) (2.1.1.6.4)	R4-AEROTERMIA (2.1.1.6.4).	
Aerothermal : principles					Aerotermia : principios	
Aerothermal heat pumps link to H4- Heat pumps(2.1.1.2.4)					Bombas de calor aerotermicas	R4- Luftvärme
R5-BIOMASS (2.1.1.6.5).	R5 -ΒΙΟΜΑΣΑ (2.1.1.6.5)	R5-BIOMAZA (2.1.1.6.5).	M5-Biomassza (2.1.1.6.5)	R5-Biomasa (2.1.1.6.5).	R5-BIOMASA (2.1.1.6.5).	Luftvärmepumpar link to H2- Heat pumps(2.1.1.2.2)
Biomass : principles					Biomasa : principios	
Biomass: standard boilers link to H1-Standard boilers (2.1.1.2.1)					Biomasa : Calderas de condensación	
Biomass: condensing boilers link to H2-Condensing boilers(2.1.1.2.2)					Biomasa : estufas	
Lighting (2.1.1.7);	Осветление (2.1.1.7);	ΦΩΤΙΣΜΟΣ (2.1.1.7);	Világítás (2.1.1.7)	Apgaismojums (2.1.1.7);	Iluminación (2.1.1.7);	Byggnadsautomation och driftoptimering (2.1.1.7)
LED (2.1.1.7.1).	L1- Осветление- LED (2.1.1.7.1)	L1-Φωτισμός LED (2.1.1.7.1).	L1-Világítás, LED (2.1.1.7.1)	L1-Apgaismojums- LED (2.1.1.7.1).	LED (2.1.1.7.1).	Building automation and control systems (BAC)
Dimmers(2.1.1.7.2)	Димери (2.1.1.7.2)	Ροοστάτες(2.1.1.7.2)	L2-Fényerő-szabályozás (2.1.1.7.2)	Dimmeri(2.1.1.7.2)	Interruptores (2.1.1.7.2)	Driftoptimering och injustering
☆ 2.1.2.Deep renovation (2.1.2)	☆ 2.1.2.Основно обновяване (2.1.2)	☆ 2.1.2. Ριζική Ανακαίνιση (2.1.2)	☆ 2.1.2.Mélyfelújítás (2.1.2)	☆ 2.1.2.Visaptveroša renovācija (2.1.2)	☆ 2.1.2.Rehabilitación profunda (2.1.2)	☆ 2.1.2. Omfattande energirenovering (2.1.2)
Deep renovation recommendations (2.1.2.1);	Προпоръки за основно обновяване (2.1.2.1)	Συστάσεις ριζικής ανακαίνισης (2.1.2.1);	Mélyfelújítási javaslatok (2.1.2.1);	Priekšlikumi visaptverošai renovācijai (2.1.2.1);	Recomendaciones para la rehabilitación profunda (2.1.2.1);	Rekommendationer för omfattande energirenovering (2.1.2.1);
Table Priority A : Improving the recommendations for renovation provided on the EPCs towards deep energy renovation						
Deep renovation at EU level (2.1.2.2);	Основно обновяване на ниво ЕС (2.1.2.2)	Η Ριζική Ενεργειακή Ανακαίνιση σε ευρωπαϊκό επίπεδο (2.1.2.2);	Mélyfelújítási javaslatok EU (2.1.2.2)	Visaptveroša renovācija ES līmenī	Renovación profunda a nivel Europeo (2.1.2.2)	Omfattande energirenovering (deep renovation) på EU nivå (2.1.2.2)
☆ 2.1.3.Specific renovation tools and calculators (2.1.3)	☆ 2.1.3. Специфични инструменти	☆ 2.1.3. Εργαλεία για Ενεργειακή Ανακαίνιση και Υπολογισμών (2.1.3)	☆ 2.1.3.Energetikai kalkulátorok	☆ 2.1.3.Īpaši renovācijas rīki un kalkulatori (2.1.3)	☆ 2.1.3.Herramientas y calculadoras específicas (2.1.3)	☆ 2.1.3. Beräkningsverktyg för energirenovering (2.1.3)
Link to available tools or T3.3 tool	Link към съществуващи инструменти или	Σύνδεσμοι/διαθέσιμων εργαλείων ή εργαλείο T3.3		Link uz pieejamiem rīkiem vai T3.3 rīku	Link a las tools disponibles o T3.3 tool	Länkar till använda verktyg eller T3.3-verktyget

ANNEX 1.-PROPOSED STRUCTURE ADAPTED TO NATIONAL LANGUAGES (3)

Deep renovation at EU level (2.1.2.2);	Основно обновяване на ниво ЕС (2.1.2.2);	Η Ριζική Ενεργειακή Ανακαίνιση σε ευρωπαϊκό επίπεδο (2.1.2.2);	Mélgelújítási javaslatok EU (2.1.2.2);	Visaptveroša renovicija ES in	Renovación profunda a nivel Europeo	Omfattende energienovering (deep renovation) på EU nivå
☆ 2.1.3. Specific renovation tools and calculators (2.1.3)	☆ 2.1.3. Специфични инструменти и к	☆ 2.1.3. Εργαλεία για Ενεργειακή Ανακαίνιση και Υπολογισμών (2.1.3)	☆ 2.1.3. Energetikai kalkulátorok	☆ 2.1.3. Pasa renoavų įrankiai ir skaičiuotuvai	☆ 2.1.3. Herramientas y calculadoras específicas de renovación profunda a nivel europeo	☆ 2.1.3. Berækningsverktøyer for energienovering på EU-nivå
Link to available tools or T3.3 tool	Link към съществуващи инструменти или T3.3	Σύνδεσμοι σε διαθέσιμων εργαλείων ή εργαλεία T3.3	Säte uz pieejamien rīkiem vai T3.3-er	Link a las tools disponibles o T3.3 tool	Link a las tools disponibles o T3.3 tool	Länkar till använda verktyg eller T3.3-ver
2.2 Energy Performance Certificates - EPCs- (2.2)	2.2 Сертификат за енергийни характеристики	2.2 Πιστοποιητικά Ενεργειακής Απόδοσης -ΠΕΑ- (2.2)	2.2 Energiatanúsítványok - ET	2.2 Energosertifikāti (2.2)	2.2 Certificados Energéticos Edificios (2.2.1)	2.2 Energideklarationer (2.2)
☆ 2.2.1. Energy Performance Certificates (2.2.1)	☆ 2.2.1. Сертификат за енергийни хар	☆ 2.2.1. Πιστοποιητικά Ενεργειακής Απόδοσης (2.2.1)	☆ 2.2.1. Energiatanúsítványok	☆ 2.2.1. Energosertifikāti (2.2.1)	☆ 2.2.1. Certificados Energéticos Edificios (2.2.1)	☆ 2.2.1. Energideklarationer (2.2.1)
☆ 2.2.2. Roadmap/ Passport (2.2.2)	☆ 2.2.2. Пътна карта /Паспорт (2.2.2)	☆ 2.2.2. Οδός Χάρτης/ Διαβατήριο κτηρίου (2.2.2)	☆ 2.2.2. Felújítási úttervező / útlevél (2.2.2)	☆ 2.2.2. Ce vedis / pase (2.2.2)	☆ 2.2.2. Hoja de ruta/Pasaporte	☆ 2.2.2. Building Roadmap/ Passport (2.2.2)
2.3 Building professionals & System suppliers	2.3 Строители специалисти и доставчици	2.3 Τεχνίτες, Εγκαταστάτες & Προμηθευτές	2.3 Építési szakértők & beszállítók	2.3 Cēlnieciņas speciālisti un sistēmu piegādātāji	2.3 Profesionales & Suministradores (rehabilitación de edificios)	2.3 Energi- och byggtjänster och leverantörer
☆ 2.3.1 Building professionals (2.3.1)	☆ 2.3.1. Строители специалисти (2.3.1)	☆ 2.3.1. Τεχνίτες, Εγκαταστάτες Συστημάτων Κτηρίων (2.3.1)	☆ 2.3.1. Építési szakértők (2.3.1)	☆ 2.3.1. Cēlnieciņas speciālisti (2.3.1)	☆ 2.3.1. Profesionales (rehabilitación de edificios)	☆ 2.3.1. Building professionals (2.3.1)
☆ 2.3.2 System suppliers (2.3.2)	☆ 2.3.2. Доставкачи (2.3.2)	☆ 2.3.2. Προμηθευτές Συστημάτων (2.3.2)	☆ 2.3.2. Beszállítók (2.3.2)	☆ 2.3.2. Sistēmu piegādātāji (2.3.2)	☆ 2.3.2. Suministradores (rehabilitación de edificios)	☆ 2.3.2. Leverantörer (2.3.2)
☆ 2.3.3 Instructions on how to find and recognise reputable and well-qualified companies. (2.3.3)	☆ 2.3.3. Инструкции как да намерите и разпознаете уважавани и добре квалифицирани компании. (2.3.3)	☆ 2.3.3. Οδηγίες για το πώς να βρείτε και να αναγνωρίσετε αξιόπιστες και επαρκώς καταρτισμένες εταιρείες (2.3.3)	☆ 2.3.3. Tanácsok professzionális és megbízható cégek beazonosításához (2.3.3)	☆ 2.3.3. Norādījumi, kā atrast un atpazīt cienījamus un labi kvalificētus uzņēmumus. (2.3.3)	☆ 2.3.3. Instrucciones para encontrar y reconocer empresas acreditadas y bien cualificadas. (2.3.3)	☆ 2.3.3. Råd inför anlitande av konsult, entreprenör eller annan aktör. (2.3.3)
2.4 Financing / subsidy programmes	2.4. Финансови програми и схеми за субсидии	2.4 Χρηματοδοτικά Έργα/επ	2.4 Finanszírozási és támogat	2.4 Finansēšanas / subsīdiju p	2.4 Programas de financiación / subv	2.4 Finansiering och möjliga stödprogram
information about financial incentives, loans, and subsidies or third party financing at National/Regional/Local/ Others' level and Insert information on Financing / subsidy		Πληροφορίες σχετικά με οικονομικά κίνητρα, δάνεια και επιδοτήσεις ή χρηματοδότηση τρίτων σε εθνικό/	információk a pénzügyi ösztönzések, hitelekkel és támogatásokról vagy	információj par finanšu stimuliem, aizdevumiem un subsidijām vai trešo		
☆ 2.4.1 Financing / subsidy programmes (2.4.1)	☆ 2.4.1. Финансови програми /Схеми за субсидииране (2.4.1)	☆ 2.4.1 Χρηματοδότηση / Προγράμματα επιδότησης (2.4.1)	☆ 2.4.1 Finanszírozási és támogatási források (2.4.1)	☆ 2.4.1 Finansēšanas / subsīdiju programmas (2.4.1)	☆ 2.4.1 Programas de financiación / subvención (2.4.1)	☆ 2.4.1 Finansiering och möjliga stödprogram (2.4.1)
☆ 2.4.2 Insert information on Financing / subsidy prog	☆ 2.4.2. Внесете информация за финансови програми /Схеми за субсидииране (2.4.2)	☆ 2.4.2. Εισαγωγή πληροφοριών για προγράμματα χρηματοδότησης /Επιδότησης (2.4.2)	☆ 2.4.2 Finanszírozási és támogatási forrásokkal kapcsolatos információk megadása (2.4.2)	☆ 2.4.2 Ievietojiet informāciju par finansēšanas / subsīdiju programmu (2.4.2)	☆ 2.4.2 Inserte información sobre Programas de financiación / subvención (2.4.2)	☆ 2.4.2 Lågg till information om finansiering och möjliga stödprogram (2.4.2)
2.5 Deep Renovation Promotion	2.5 Промотиране на основното обновяване	2.5 Προώθηση της Ριζικής Ενεργειακής Ανακαίνισης	2.5 Mélgelújítás	2.5 Visaptverošas renovācijas	2.5 Promoción de la renovación profu	2.5 Marknadsföring av omfattande energienovering
benefits and costs to building owners and investors, involving supply-side actors in the media work, events, and funding, and organized/ participated by QualDeEPC partners						
☆ 2.5.1 Media and events that promote deep renovati	☆ 2.5.1. Μέσα и събития, които промотират основното обновяване (2.5.1)	☆ 2.5.1. Μέσα και εκδηλώσεις που προωθούν τη ριζική ανακαίνιση (2.5.1)	☆ 2.5.1 Mélgelújítást promótló rendezvények, fórumok (2.5.1)	☆ 2.5.1 Pasākumi, kas veicina visaptverošu renovāciju (2.5.1)	☆ 2.5.1 Medios y eventos que promueven la rehabilitación profunda (2.5.1) ej: "artículos" en	☆ 2.5.1 Media and evenemang som marknadsför omfattande
2.6 Demonstration Buildings	2.6 Демонстрационни сгради	2.6 Παραδείγματα	2.6 Mintapéldetek	2.6 Demonstrācijas ēkas	2.6 Edificios Demostrativos	2.6 Goda exempel
☆ 2.6.1 Demonstration buildings. (2.6.1)	☆ 2.6.1. Демонстрационни сгради. (2.6.1)	☆ 2.6.1. Κτίρια Παραδείγματα (2.6.1)	☆ 2.6.1. Mintapéldületek (2.6.1)	☆ 2.6.1. Demonstrācijas ēkas (2.6.1)	☆ 2.6.1. Edificios Demostrativos (2.6.1)	☆ 2.6.1. Goda exempel. (2.6.1)
☆ 2.6.2 Insert information about Demonstration buildi	☆ 2.6.2. Внесете информация за демонстрационни сгради. (2.6.2)	☆ 2.6.2. Εισαγωγή πληροφοριών για Κτίρια Παραδείγματα (2.6.2)	☆ 2.6.2. Mintapéldületekkel kapcsolatos információk (2.6.2)	☆ 2.6.2. Ievietojiet informāciju par demonstrācijas ēkām (2.6.2)	☆ 2.6.2. Inserte información sobre Edificios Demostrativos (2.6.2)	☆ 2.6.2. Lågg till goda exempel (2.6.2)
2.7 Training opportunities	2.7 Возможности за обучение	2.7 Ευκαιρίες Επιμόρφωσης & Κατάρτισης	2.7 Képzési lehetőségek	2.7 Apmcības iespējas	2.7 Oportunidades de formación	2.7 Utbildning
2.7.1 Courses/ events /workshops/ seminars (2.7.1)	☆ 2.7.1. Курсы и события /Формативы /Семинары. (2.7.1)	☆ 2.7.1. Εκδηλώσεις /Μαθήματα /Σεμινάρια (2.7.1)	☆ 2.7.1. Kurzusok / események / workshops / szemináriumok (2.7.1)	☆ 2.7.1. Kursiņi / pasākumi /darbnāci / semināri (2.7.1)	☆ 2.7.1. Cursos / eventos / talleres / seminarios (2.7.1)	☆ 2.7.1. Kurser /evenemang/ workshops/ seminarier (2.7.1)
☆ 2.7.2 Insert information about Courses/events/work	☆ 2.7.2. Внесете информация за курсове /События /Формативы /Семинары. (2.7.2)	☆ 2.7.2. Εισαγωγή Πληροφοριών για Εκδηλώσεις / Ημερίδες /Σεμινάρια (2.7.2)	☆ 2.7.2. Kurzusokkal / eseményekkel / workshopokkal / szemináriumokkal kapcsolatos információk megadása (2.7.2)	☆ 2.7.2. Ievietojiet informāciju par kursiem /pasākumiem/darbnācēm/ semināriem (2.7.2)	☆ 2.7.2. Inserte información sobre Cursos / eventos / talleres / seminarios (2.7.2)	☆ 2.7.2. Lågg till information om kurser/eventemang/workshop /seminarier (2.7.2)
2.8 Renovation Platforms	2.8 Платформи за обновяване	2.8 Άλλες Πλατφόρμες Ριζικής Ενεργειακής Ανακαίνισης	2.8 Felújítási platformok	2.8 Renovācijas platformas	2.8 Plataformas para rehabilitación	2.8 Plattformar för energienovering
you can find list of existing renovation platforms, for exchange and cooperation, involving supply-side actors, city administration, energy companies, financial institutions etc, and Insert						
☆ 2.8.1 Renovation Platforms. (2.8.1)	☆ 2.8.1. Платформи за обновяване. (2.8.1)	☆ 2.8.1. Πλατφόρμες Ριζικής Ανακαίνισης (2.8.1)	☆ 2.8.1. Felújítási platformok (2.8.1)	☆ 2.8.1. Renovācijas platformas (2.8.1)	☆ 2.8.1. Plataformas para rehabilitación (2.8.1)	☆ 2.8.1. Plattformar för energienovering (2.8.1)
☆ 2.8.2 Insert information about Renovation Platforms	☆ 2.8.2. Внесете информация за платформи за обновяване. (2.8.2)	☆ 2.8.2. Εισαγωγή Πληροφοριών για Πλατφόρμες Ριζικής Ανακαίνισης (2.8.2)	☆ 2.8.2. Felújítási platformokkal kapcsolatos információk megadása (2.8.2)	☆ 2.8.2. Ievietojiet informāciju par renovācijas platformām (2.8.2)	☆ 2.8.2. Inserte información sobre Plataformas para rehabilitación (2.8.2)	☆ 2.8.2. Lågg till information om plattformar för energienovering (2.8.2)
Footer:	Footer:	Footer:	Footer:	Footer:	Footer:	Footer:
5.1 This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 847100.	5.1. Този проект е получил финансиране от програмата за научни изследвания и иновации на Европейския съюз "Оρίζонт 2020" съгласно споразумение за	5.1. Αυτό το έργο έχει λάβει χρηματοδότηση από το πρόγραμμα έρευνας και καινοτομίας της Ευρωπαϊκής Ένωσης "Ορίζων 2020" σύμφωνα με τη συμφωνία επιχορήγησης με αριθμό 847100.	5.1. A projektet az Európai Unió Horizont 2020 Kutatási és Innovációs Programja támogatja. Támogatási szerződés száma: N°	5.1. Šis projekts ir saņēmis finansējumu no Eiropas Savienības pētniecības un inovācijas programmas "Apzīmējums 2020"	5.1. Este proyecto ha recibido financiación del programa de investigación e innovación Horizonte 2020 de la Unión Europea en virtud del Acuerdo de subvención NP 847100.	5.1. Det här projektet är finansierat genom EUs forsknings- och innovationsprogram Horizon 2020 under Grant Agreement No 847100.
5.2 LOGIN (*)	5.2. ВПИСВАНЕ (*)	5.2. ΕΓΓΡΑΦΗ (*)	5.2. BEJELENTEKÉZÉS (*)	5.2. Pielietojums (*)	5.2. LOGIN (*)	5.2. LOGIN (*)
User	Потребител	Χρήστης	Felhasználónév	Lietotājs	Användare	User
Password	Парола	Κωδικός	Jelző	Parole	Password	Lösenord
5.3	5.3	5.3	5.3	5.3	5.3	5.3
5.4 FAQs	5.4 Часто задавани въпроси	5.4 Συχνές Ερωτήσεις	5.4 GYIK	5.4 BUJ	5.4 FAQs	5.4 FAQs
5.5 GLOSSARY	5.5 Речник	5.5 ΛΟΓΩΝΑΡΙΟ	5.5 SZÓJELENTKEZÉS	5.5 Glossarijs	5.5	5.5 Ordlista
5.6 LEGAL Cookies policy (EU); Terms and conditions	5.6. Всички права запазени. Политика за бисквитките (ЕС); Правила и условия	5.6. Νομικά, πολιτικά Cookies (ΕΥ); Όροι και Προνοηθείς	5.6. JOGI NYILATKOZATOK Sukkie vonatkozó feltételek (EU); Felhasználási feltételek	5.6. JURIDISKĀ Sīkdatņu politika (ES); Noteikumi un nosauījumi	5.6.	5.6. LEGAL Cookies policy (EU); Allmänna villkor

ANNEX 2.- Hungarian platform and its adaptation to QualDeEPC content for DRNPs

QualDeEPC platform	QualDPC	RenoPont	Comments
Deep Renovation General Info	https://qualrenovate.eu/services-products/deep-renovation-general-info/	https://renopont.hu/felujitanek	The RenoPont website is very brief, it should be significantly extended to fulfill the aim of the QualDeEPC project. Similar to "☆ 2.1.2. Deep renovation (2.1.2)".
Deep Renovation General Info	https://qualrenovate.eu/services-products/deep-renovation-general-info/building-energy-efficiency-general-info/	https://renopont.hu/felujitanek/alapok-miert-erdemes-felujitanom	The RenoPont website is very brief, it should be significantly extended to fulfill the aim of the QualDeEPC project. Similar to "☆ 2.1.2. Deep renovation (2.1.2)".
Principles	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/	https://renopont.hu/felujitanek/cikk/hogyan-erdemes-felujitanom	The RenoPont website is very brief, it should be significantly extended to fulfill the aim of the QualDeEPC project.
Recommendations	https://qualrenovate.eu/services-products/deep-renovation-general-info/deep-renovation-recommendations/	https://renopont.hu/tudasbazis/termekvalaszitasi-segedanyagok	The RenoPont website is very brief, it should be significantly extended to fulfill the aim of the QualDeEPC project.

Tools and calculator	https://qualrenovate.eu/services-products/deep-renovation-general-info/specific-renovation-tools-and-calculators/	https://renopont.hu/tudasbazis/kalkulator	This module will be available for the RenoHUB project after the 15th of February 2022. It shall be improved for the QualDeEPC project aims. (Deep renovation is not a priority in the RenoHUB tool, so it should be improved)
Building envelope	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/building-envelope/	https://renopont.hu/tudasbazis/termekvalasztsi-segedanyagok	Equivalent to the " <i>Building envelope (2.1.1.1)</i> ;" chapter of the QualDeEPC plan, however it can be improved to emphasise deep renovation.
Heating system	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/heating-systems/	https://renopont.hu/tudasbazis/termekvalasztsi-segedanyagok	Equivalent to the " <i>Heating systems (2.1.1.2) with EU energy label Cat. A or above</i> " chapter of the QualDeEPC plan, however it can be improved to emphasise deep renovation.

DHW system	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/dhw-systems/	https://renopont.hu/tudasbazis/termekvalasztsi-segedanyagok	Similar to the " <i>DHW systems (2.1.1.3).</i> with <i>EU energy label Cat. A or above</i> " chapter of the QualDeEPC plan, however it is very brief and also should be improved to emphasise deep renovation.
Cooling system	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/cooling-systems/	-	It is not present on the RenoHUB platform, it shall be developed with a focus on passive cooling solutions.
Ventilation	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/ventilation-systems/	https://renopont.hu/tudasbazis/termekvalasztsi-segedanyagok	Similar to the " <i>Ventilation systems (2.1.1.5).</i> ;" chapter of the QualDeEPC plan, however it is very brief and also should be improved to emphasise deep renovation.



Renewables	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/renewable-energies/	https://renopont.hu/tudasbazis/termekvalasztasi-segedanyagok	Similar to the " <i>Renewable energies (outside of other systems) (2.1.1.6) (building integrated)</i> " chapter of the QualDeEPC plan, however it is very brief and also should be improved to emphasise deep renovation.
Lighting	https://qualrenovate.eu/services-products/deep-renovation-general-info/principles/lighting/	https://renopont.hu/tudasbazis/termekvalasztasi-segedanyagok	Equivalent to the " <i>Lighting (2.1.1.7)</i> "; " chapter of the QualDeEPC plan, however it can be slightly improved.
Energy Performance certificate	https://qualrenovate.eu/services-products/energy-performance-certificates/	https://renopont.hu/felujitanek/cikk/energiaszakertok-energiatanusitvany	Equivalent to the " <i>2.2 Energy Performance Certificates - EPCs- (2.2)</i> " chapter of the QualDeEPC plan, however it can be improved.

Building professionals	https://qualrenovate.eu/services-products/building-professionals-system-suppliers/	https://renopont.hu/szakemberek	Equivalent to the "☆ 2.3.1 Building professionals (2.3.1)" chapter of the QualDeEPC plan. This is a dynamically improved part of the website, which is in accordance with the aim of the platform for the QualDeEPC project.
Financing programmes	https://qualrenovate.eu/services-products/financing-subsidy-programmes/	https://renopont.hu/tudasbazis/penzugyi-lehetosegek	Equivalent to the "2.4 Financing / subsidy programmes" chapter of the QualDeEPC plan. This is a dynamically improved part of the website, which is in accordance with the aim of the platform for the QualDeEPC project.



Deep renovation promotion	https://qualrenovate.eu/services-products/deep-renovation-promotion/	https://renopont.hu/tudasbazis/hirek	Equivalent to the "☆ 2.5.1 Media and events that promote deep renovation (2.5.1)" chapter of the QualDeEPC plan. This is a dynamically improved part of the website, which is in accordance with the aim of the platform for the QualDeEPC project.
Demonstration buildings	https://qualrenovate.eu/services-products/demonstration-buildings/	https://renopont.hu/felujitanek/cikk/jo-peldak-elotte-utana	Equivalent to the "2.6 Demonstration Buildings" chapter of the QualDeEPC plan. This is a dynamically improved part of the website, which is in accordance with the aim of the platform for the QualDeEPC project.
Training opportunities	https://qualrenovate.eu/services-products/training-opportunities/	-	It is not present on the RenoHUB platform at the moment, we would recommend to add such opportunities in the news feed.



Renovation platforms	https://qualrenovate.eu/services-products/renovation-platforms/	-	It is not present on the RenoHUB platform at the moment, we would recommend to add such opportunities.
Contact	https://qualrenovate.eu/contact/	https://renopont.hu/kapcsolat	

RenoPont > Szakemberek

Szakemberek



Keress ajánlott szakembereink között!

Szakterület
 Település
 Név
 Ház típusa

50 találat (összesen: 350)