Deliverable 4.3

Update of timeline of research policy inputs

WP4 - RD&I Framework for the RHC sector

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From: December 2018 to November 2021

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ABBREVIATIONS

RHC ETIP: European Technology and Innovation Platform on Renewable Heating and Cooling

PARTNERS

EUREC: the Association of European Renewable Energy Research Centres
Bioenergy Europe/AEBIOM: Association Européenne pour la Biomasse
EGEC: European Geothermal Energy Council
EHP: Euroheat &Power
Solar Heat Europe/ESTIF: European Solar Industry Federation
EHPA: European Heat Pump Association
European Technology and Innovation Platform on Renewable Heating and Cooling

TABLE OF CONTENTS

DISCLAIMER OF WARRANTIES ........................................................................................................... 1
ABBREVIATIONS ................................................................................................................................... 2
PARTNERS ............................................................................................................................................... 2
INTRODUCTION ................................................................................................................................. 4
THE EUROPEAN GREEN DEAL AS KEY POLICY FRAMEWORK ......................................................... 5
THE EU’S RECOVERY STRATEGY ...................................................................................................... 6
KEY POLICY INSTRUMENTS. TIMELINE & ACTIONS ....................................................................... 6
1. Research and Innovation Programmes ......................................................................................... 6
   Horizon 2020 EU Green Deal Call ................................................................................................ 7
   Horizon Europe ............................................................................................................................... 7
   Cohesion Policy 2021 - 2027 .......................................................................................................... 9
   Innovation Fund ............................................................................................................................. 9
   Modernisation Fund ....................................................................................................................... 10
   The Just Transition Mechanism .................................................................................................. 10
   LIFE Programme .......................................................................................................................... 11
2. Regulatory Framework .................................................................................................................. 12
   Revised Renewable Energy Directive 2018 .................................................................................. 12
   Revised Energy Efficiency Directive 2018 ................................................................................... 13
   Governance of the Energy Union Regulation ............................................................................. 14
UPCOMING KEY LEGISLATIVE PROPOSALS RELEVANT TO RHC SECTOR ................................... 15
   Sustainable Finance Strategy ...................................................................................................... 15
   Renewable Energy Financing Mechanism .................................................................................. 15
   Next Generation EU - proposal for the new recovery instrument .............................................. 16
INTRODUCTION

This document is an updated timeline of research policy priorities for the RHC Platform. The aim of this deliverable is to provide guidance to the Policy Working Group of the Platform. It identifies relevant policy and regulatory issues of the heating and cooling sector and provides a list of actions to be undertaken.

The heating and cooling sector represents almost half of EU’s energy consumption, as represented in Figure 1. Moreover, the reality shows that heat consumption is even higher considering that part of electricity is used for heating (domestic hot water, direct heating, heat pumps). However, in 2017 renewable energy accounted for only 19.5 % of the total energy used for heating and cooling (H&C) in the European Union.¹ In order to fill this gap, the EU still needs to tackle the barriers and actively support the development of an adequate financing and regulatory framework that will take into account the particularities of the H&C sector.

THE EUROPEAN GREEN DEAL AS KEY POLICY FRAMEWORK

Over the last few years, the EU legislative framework has been updated with a series of relevant developments for the H&C sector. For example, one of the most relevant steps was the adoption of Art. 23 of the recast of the Renewable Energy Sources Directive that finally recognised the importance of setting well defined targets to develop and deploy renewable H&C solutions. Another important milestone is that Member States will have to comply with the Governance framework, according to which they will have to outline in their National Energy and Climate Plans (NECPs) their national contributions to achieving the EU climate and energy targets.

Considering the above-mentioned developments, the new European Commission has set even more ambitious policies that are impacting climate and energy sectors. The new mandate of the European Commission (2019 – 2024) started with the announcement of the European Green Deal – the key climate and energy policy framework that consists of policy proposals that have an overarching aim of making Europe the first climate neutral continent by 2050. It covers several policy areas, including clean energy, sustainable industry, building and renovating and climate action. All the new initiatives within these areas will have an impact on the H&C sector as well.

The key policy proposals for the energy sector that were prepared so far by the Commission within the new EU Green Deal framework are the following:
- January 2020: presentation of the EU Green Deal Investment Plan and the Just Transition Mechanism
- March 2020: proposal for a European climate law
- March 2020: European Industrial Strategy and proposal of a Circular Economy Action Plan

The EU Green Deal Roadmap and a full list of actions are available here.

With the launch of the European Green Deal, Europe started an ambitious policy framework that will transform industries, economies and services. To achieve the proposed climate and energy targets, EU policy makers will have to make significant progress in its legislative support for the H&C sector, as this sector still mostly relies on fossil fuels. Considering the fact that until 2030, the EU is aiming to achieve at least 32% share for renewable energy, much more initiatives are needed for supporting the uptake of H&C sector by renewable energy sources.

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THE EU’S RECOVERY STRATEGY

The COVID-19 crisis that started in early 2020 has produced major impacts on the EU economy. Significant financial instruments and legislative support are needed to relaunch EU economy, as well as to build and reinforce a prosperous recovery. In terms of financial assistance, the European Commission proposed a new recovery instrument – Next Generation EU. It will generate a total of €750 billion, that will be used to support the recovery strategy. More details can be found below in this document.

In this context on the policy side, the European Green Deal will serve as EU’s recovery strategy. All of the money raised through Next Generation EU will be channelled through EU programmes within the long-term EU budget 2021 – 2027. As part of its recovery strategy, the EU is bringing forward the following priorities:

- Renovation wave of buildings and infrastructure;
- Reinforcement of circular economy;
- Rolling out renewable energy projects;
- Cleaner transport and logistics, including the installation of one million charging points for electric vehicles and a boost for rail travel and clean mobility in our cities and regions;
- Reinforcement of the Just Transition Fund to support re-skilling, helping businesses create new economic opportunities.

KEY POLICY INSTRUMENTS. TIMELINE & ACTIONS

This part of deliverable outlines an overview of key policy instruments that directly affect investments in R&I in renewable H&C. These EU policy instruments can be categorised in two main areas:

- Financing research and innovation programmes
- Regulatory framework

1. Research and Innovation Programmes

Investments and financing are one of the key enabling factors for implementation of renewable H&C projects. Designing the right financing instruments are crucial to lower the costs and improve the competitiveness of the RHC sector.

The list below outlines key research and innovation policy priorities for RHC-ETIP. The Platform compiled an action plan to ensure that the RHC-sector is properly represented and receives support for research and deployment of innovative projects within the renewable H&C sector.
## Horizon 2020 EU Green Deal Call

### Overview

The Green Deal call will mobilise research and innovation to foster a just and sustainable societal transition aiming at ‘leaving nobody behind’. The proposed budget for this call is about 1 billion EUR. Projects are expected to deliver tangible and visible results relatively quickly and show how research and innovation can provide concrete solutions for the Green Deal main priorities.

### Relevance for RHC

This call will support:
- pilot applications, demonstration projects and innovative products
- innovation for better governance of the green and digital transition
- social and value chain innovation

In addition to technological development and demonstration, the call encourages experimentation and social innovation for new ways to engage civil society and empower citizens.

### Policy Actions

- Inform RHC ETIP Members about the launch of this call
- Mobilise members of industrial associations to provide its input to online consultation by 3 June 2020

### Timeline

- **3 June 2020** - Deadline for online consultation for the call
- **mid-September 2020** - Formal adoption of Green Deal call as amendment to Horizon 2020 work programme 2018-20
- **mid-September 2020** - Publication and opening of the call
- **end January 2021** - Deadline for submitting project proposals

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## Horizon Europe

### Overview

The EU’s next funding programme for research and innovation for the next seven years (2021-2027) with a proposed budget of €100 billion.

### Relevance for RHC

Committing at least 35% of its budget for climate priorities, Horizon Europe will be the main financing instrument for research and innovation at EU level. Projects focused on renewable H&C will also benefit from Horizon Europe financing.

The new Horizon Europe programme will have a new feature: research and innovation mission-oriented areas. **Mission on climate-neutral and smart cities** will be the most relevant for the H&C sector.
Moreover, European Partnerships are listed as new features of the Horizon Europe programme. These partnerships will bring together EU institutions, associated Member States, private sector, and other stakeholders in order to deliver on ongoing overarching European challenges.

The Horizon Europe proposal lays down the conditions and principles for establishing European Partnerships. Currently, from the full list of partnerships the following can be considered as of relevance to the RHC sector:

- **Clean Energy Transition Partnership**
  It aims to foster joint actions between Horizon Europe and national funding programmes on common R&I priorities, building on – and bringing forward – the work carried out in the SET-Plan.

- **Build4People**
  This partnership provides a cross-cluster structure, bringing together public and private sectors to create research pathways based on a holistic view of the built environment for sustainability and better living.

Clean energy technologies will be considered in both partnerships. These are planned to start in 2021.

<table>
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<tr>
<th>Policy Actions</th>
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<tbody>
<tr>
<td>➢ The RHC Platform has published its position towards the new Horizon Europe framework programme in 2019.</td>
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<tr>
<td>➢ Provide inputs/priority list of topics for WP2021-2023</td>
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<td>➢ The next step would be to provide inputs for the mission on climate-neutral and smart cities to ensure the visibility of RHC priorities</td>
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<tr>
<td>➢ Prepare a position document on HE Mission on Cities and share this with the Mission Board</td>
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<td>➢ Monitor the implementation of European Partnerships</td>
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<tr>
<th>Timeline</th>
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<tbody>
<tr>
<td>Mission on climate-neutral and smart cities:</td>
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<tr>
<td><strong>End of May 2020:</strong> The Mission Board produces a draft report proposing concrete targets and timelines</td>
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<tr>
<td><strong>September 2020:</strong> The final recommendations of the Mission Board are handed over to the Commission</td>
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<tr>
<td><strong>Q2 2020 - 2021</strong></td>
</tr>
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</table>
Cohesion Policy 2021 - 2027

| Overview | For the next long-term EU budget 2021-2027, the Commission proposes to modernise Cohesion Policy. Thematic Objectives (TOs) of the new Cohesion Policy will be reduced from 11 to 5 (Paragraph 5, Title II proposed CPR):
|          | • Smart Europe (innovation, digitalisation, support for SMEs);
|          | • Green Europe (carbon free economy, implementation of the Paris Agreement, promotion of renewable energy sources);
|          | • Connected Europe (strategic transports and digital networks);
|          | • Social Europe (social rights, quality employment, education, social inclusion etc);
|          | • Citizens’ Europe (supporting locally-led development strategies, urban development, etc).
| Relevance for RHC TO II: Greener Europe | implementing the Paris Agreement and investing in energy transition, renewables and the fight against climate change
| Policy Actions | Monitor the implementation process and ensure proper funding for RHC projects
| Timeline | 2020 - 2021

Innovation Fund

| Overview | Designed to support innovative low-carbon technologies. The Innovation Fund will focus on highly innovative and large-scale projects that can significantly reduce greenhouse gas emissions. The size of the fund is expected to be around EUR 10 billion (the final amount depends on the ETS carbon price)
| Relevance for RHC | The Innovation Fund will finance breakthrough technologies and projects that will contribute to EU’s energy transition. RHC projects are in line with this criterion.
| Policy Actions | Follow and provide input for designing calls for projects
| Timeline | First call for projects planned in June 2020
|          | Second most likely will take place in Q4 2020
Modernisation Fund

| Overview | The Modernisation Fund is a new fund introduced within the revised ETS Directive that will support projects in 10 eligible Member States that will help modernise their energy systems and improve energy efficiency. It will function as of 1st of January 2021. |
| Relevance for RHC | 70% of the funds must be spent on priority investments that will:  
• Improve energy efficiency (including in transport, buildings, agriculture and waste)  
• Modernise energy networks, including district heating pipelines, grids for electricity transmission, increase of interconnections between EU Member States  
• Just transition in carbon-dependent regions to support the re-skilling and up-skilling of workers |
| Policy Actions | ➢ Monitor call for projects  
➢ Advocacy meetings with the European Commission to highlight the potential and contribution of renewable H&C projects |
| Timeline | Q2 2020 – Q1 2021 |

The Just Transition Mechanism

| Overview | In January 2020, the European Commission presented its proposal for the establishment of the Just Transition Mechanism (JTM). The JTM is a key financial tool that will mobilise at least €100 billion (over the period 2021-2027) to support the targeted EU regions that are most affected by the transition towards the zero-carbon economy.  
At the time of writing this deliverable, the Commission proposed to strengthen the Just Transition Fund up to €40 billion, to assist Member States in accelerating the transition towards climate neutrality. It is part of the recovery package proposal elaborated by the Commission. |
| Relevance for RHC | This funding instrument will provide finances for projects that will help EU regions in energy transition. Renewable energy sources are key to deliver decarbonisation for these regions. |
| Policy Actions | ➢ Monitor Multiannual Financial Framework (MFF) negotiations;  
➢ Organise advocacy meetings with Energy Attaches of the EU Permanent Representations to ensure greater support for renewable heating & cooling projects |
| Timeline | Q2 2020 |
**LIFE Programme**

<table>
<thead>
<tr>
<th>Overview</th>
<th>LIFE is the only EU funding programme dedicated to environmental and climate objectives. The <strong>Clean Energy Transition sub-programme</strong> is a new feature of LIFE 2021-2027. It is the first time that the clean energy transition is specifically covered within LIFE programme.</th>
</tr>
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| Relevance for RHC | It will be a continuation of the market uptake activities that are currently funded under Horizon 2020.  
• The aim is to support the shift towards a clean energy, especially in regions that lag behind and have difficulty to absorb funding from the European structural and investment funds. It will encourage investments in projects focusing in particular on energy efficiency and small-scale renewables. |
| Policy Actions |  
• Monitor the implementation process of LIFE 2021 – 2027 to identify opportunities for renewable heating and cooling projects  
• Provide input to LIFE Work programmes to reinforce the potential of RHC projects |
| Timeline | Q2 2020 |
2. Regulatory Framework

Policies are contributing to developments within RHC R&I by creating regulatory frameworks, setting out targets, and providing opportunities for public funding for research and innovation projects. The following list outlines the main regulatory frameworks that the RHC-ETIP should focus on in order to ensure that ETIP’s priorities are embedded within the EU policy framework. The RHC-ETIP will mainly monitor these policy developments, while industrial associations will play a more pro-active role in the definition of lobbying actions.

Revised Renewable Energy Directive 2018

<table>
<thead>
<tr>
<th><strong>Overview</strong></th>
<th>The recast of Renewable Energy Directive (REDII) was finished in December 2018 and entered into force.</th>
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<tbody>
<tr>
<td>In RED II, the EU target for Renewable Energy Sources consumption has been raised to 32% by 2030. The Directive also defines conditions for supporting renewable energy projects, where financing should be provided as a premium on top of market price. Moreover, Member States can also choose to support specific technologies according to certain criteria. In addition, the text allows the provision of specific support for small-scale projects and to those demonstrating innovative renewable technologies. It also prevents retroactive changes to a support schemes and requires that upcoming support scheme changes are announced at least 3 years in advance.</td>
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<tr>
<th><strong>Relevant provisions for RHC</strong></th>
<th><strong>Art.23</strong> introduced new provisions for mainstreaming renewable heating and cooling:</th>
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<tr>
<td></td>
<td>• A national objective to increase by 1.3 percentage point annually the share of RES in the energy supplied for heating and cooling;</td>
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<td></td>
<td>• Local and regional administrative bodies must include renewable heating and cooling in the planning of city infrastructure;</td>
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<tr>
<td></td>
<td>• Member States must provide adequate information to consumers regarding the renewable alternatives for heating and cooling.</td>
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<tr>
<th><strong>Suggested Actions</strong></th>
<th>• Monitor implementation and ensure proper integration of RES-HC provisions in NECPs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timeline</strong></td>
<td><strong>Q2 2020 - 2021</strong>: Monitoring policy developments and drafting advocacy actions where needed in order to achieve the proposed 2030 RES targets</td>
</tr>
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</table>
Revised Energy Efficiency Directive 2018

Overview
In November 2016, the European Commission presented the ‘Clean Energy for All Europeans’ package of proposals, including a revised Energy Efficiency Directive amending the initial proposal of 2012 EED. The amended EED was approved and entered into force in 2018. The key element of the amended directive is a headline energy efficiency target for 2030 of at least 32.5%. This target has to be achieved collectively across the EU.

Relevant provisions for RHC
- Article 7, Annex VIII of EED 2012
- Under the amending directive, EU countries will have to achieve new energy savings of 0.8% each year of final energy consumption for the 2021-2030 period.
- The amended Directive also requires Member States to have in place transparent, publicly available national rules on the allocation of the cost of heating, cooling and hot water consumption in multi-apartment and multi-purpose buildings with collective systems for such services.

Suggested Actions
- Monitor and ensure consideration of RD&I in RES-H&C

Timeline
2020 – 2021

Revised Energy Performance in Buildings Directive 2018

Overview
The revised EPBD proposes new policy measures to achieve a highly energy efficient and decarbonised building stock by 2050.

Relevant provisions for RHC
The EPBD covers a broad range of policies and measures that are aiming to help national EU governments to boost energy performance of buildings and improve the existing building stock:
- Member States must establish strong long-term renovation strategies, aiming at decarbonising the national building stocks by 2050, with indicative milestones for 2030, 2040 and 2050. The strategies should contribute to achieving the national energy and climate plans (NECPs) energy efficiency targets.
- Member States must set cost-optimal minimum energy performance requirements for new buildings, for existing buildings undergoing major renovation, and for the replacement or retrofit of building elements like heating and cooling systems, roofs and walls.
• All new buildings must be nearly zero-energy buildings (NZEB) from 31 December 2020. Since 31 December 2018, all new public buildings already need to be NZEB
• Energy performance certificates must be issued when a building is sold or rented, and inspection schemes for heating and air conditioning systems must be established
• Smart technologies are promoted, including through requirements on the installation of building automation and control systems, and on devices that regulate temperature at room level

Suggested Actions

• Monitor the transposition of EPBD on the Member State level and react with advocacy measures when needed

Timeline

Q2 2020 - 2021

Governance of the Energy Union Regulation

Overview
In December 2018, the Governance of the Energy Union Regulation entered into force. The aims of this legislation is to simplify the process of monitoring and to address weaknesses in implementing the goals of Energy Union, in particular the 2030 EU targets on renewables, energy efficiency and greenhouse gas emissions.

Relevant provisions for RHC

• According to the Regulation, national energy and climate plans are to be prepared for the 2021-2030 period, followed by progress reports.
• Article 1-4. Article 32, 33.

Suggested Actions

➢ Monitor the implementation of NECPs and ensure an adequate consideration of RES-H&C in NECPs (notably compliance with REDII art 23).

Timeline

Q2 2020 - 2021
UPCOMING KEY LEGISLATIVE PROPOSALS RELEVANT TO RHC SECTOR

Sustainable Finance Strategy

Overview

In January 2020, the European Commission announced its intention to launch an overarching strategy on sustainable finance. According to its work programme, the strategy should be adopted in the third quarter of 2020.

The aim of this sustainable finance strategy will be to redirect private capital flows to green investments. Embedding a culture of sustainable corporate governance in private sector will be equally important.

Relevant provisions for RHC

The renewed sustainable finance strategy will provide a roadmap with new actions to increase private investment in sustainable projects and activities to support the different actions set out in the European Green Deal and to manage and integrate climate and environmental risks into EU financial system. The initiative will also provide additional enabling frameworks for the European Green Deal Investment Plan.

Suggested Actions

➢ On 8 April 2020, the European Commission has launched a Consultation on the renewed sustainable finance strategy.
➢ Provide input to the public consultation on Sustainable Finance Strategy and highlight the importance of funding for RHC projects
➢ Ensure consideration of RES-HC (and RD&I in RES-HC) as a sustainable investment under the proposed strategy
➢ Ensure that Sustainable Finance does not bring counter-productive impact on bioenergy sector by confusing investors with different methodology for sustainability criteria compared to RED II.

Timeline

15 July 2020 – end of 2020

Renewable Energy Financing Mechanism

Overview

The European Commission proposed a Regulation for establishing an EU Renewable Energy Financing Mechanism. The main objective of this mechanism is to enable Member States to work more closely together in order to achieve their individual and collective renewable energy targets. This new financing mechanism opens a new possibility: Member States can collectively benefit from renewables projects funded through tenders using this EU-wide financing mechanism.
The mechanism will support renewable energy projects and renewable energy deployment across the European Union. It will enter into force in 2021.

Suggested Actions

➢ On 6 May 2020, the European Commission has launched a public consultation.
➢ Mobilise industrial associations to provide feedback to the consultation and highlight the importance of funding for RHC projects
➢ Monitor the implementation process and react with advocacy meetings when needed

Timeline

May 2020 - 2021

The coronavirus crisis has a severe effect on EU economy. To support a successful recovery from crisis, the European Commission has proposed a new recovery instrument called the “Next Generation EU”. It will raise money by temporarily lifting the own resources ceiling to 2.00% of EU Gross National Income, allowing the Commission to use its credit rating to borrow €750 billion on the financial markets.

The money raised for Next Generation EU will be invested across three pillars. The most relevant instruments for RHC sector are the following:

1. Support to Member States with investments and reforms
   • A new Recovery and Resilience Facility of €560 billion will offer financial support for investments and reforms, including in relation to the green and digital transitions and the resilience of national economies, linking these to the EU priorities. This facility will be embedded in the European Semester. It will be equipped with a grant facility of up to €310 billion and will be able to make up to €250 billion available in loans. Support will be available to all Member States but concentrated on the most affected and where resilience needs are the greatest.
   • A proposal to strengthen the Just Transition Fund up to €40 billion, to assist Member States in accelerating the transition towards climate neutrality.

2. Kick-starting the EU economy by incentivising private investments
   • A new Solvency Support Instrument will mobilise private resources to urgently support viable European companies in the sectors, regions and countries most affected. It can be operational from 2020
and will have a budget of €31 billion, aiming to unlock €300 billion in solvency support for companies from all economic sectors and prepare them for a cleaner, digital and resilient future.

- A new Strategic Investment Facility built into InvestEU to generate investments of up to €150 billion in boosting the resilience of strategic sectors, notably those linked to the green and digital transition, and key value chains in the internal market, thanks to a contribution of €15 billion from Next Generation EU.

3. Addressing the lessons of the crisis

- An amount of EUR€94.4 billion for Horizon Europe, which will be reinforced to fund vital research in health, resilience and the green and digital transitions.

Other EU programmes will be strengthened to align the future financial framework fully with recovery needs and strategic priorities. Other instruments will be reinforced to make the EU budget more flexible and responsive.

| Suggested Actions | Monitor the political negotiations on the Next Generation EU and the overall EU budget for 2021-2027
| | Identify opportunities for investments in RHC projects |
| Timeline | June 2020 - 2021 |