

# The Added Value of Seasonal Climate Forecasts for Integrated Risk Management Decisions (SECLI-FIRM)

**EU H2020 Project (ref. n. 776868)** 

D5.14: Third Stakeholder Engagement and Dissemination Report

[Dissemination level: Public]







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# 1 Executive Summary

This report (Deliverable 5.14) summarises the stakeholder engagement and dissemination activities for the EU H2020 project, The Added Value of Seasonal Climate Forecasts for Integrated Risk Management Decisions (SECLI-FIRM), which commenced in February 2018 and concludes in October 2021 (Month 45). The report covers activities since the previous, Second Stakeholder Engagement and Dissemination Report (D5.9) submitted in November 2019. The tasks included in this report were originally set out in the Communications and Dissemination Plan (D5.3) and subsequent versions, D5.7 (v1 Month 18 and v2 Month 24) and most recently D5.11(Month 30).

The SECLI-FIRM project has a broad range of stakeholders drawn from sectors including academia, research, industry (energy and water sectors, with broadening consideration to agriculture, insurance and transportation at the latter stages of the project), climate service providers and government. Engagement and dissemination activities must meet the needs of these groups. In order to achieve this, the SECLI-FIRM project team has set up a number of channels to communicate and disseminate information in the most effective, informative way for the different stakeholder groups. These include social media, website, videos, organisation and attendance to conferences, workshops, webinars, emails, newsletters, blogs and articles. As the project progresses to the final stages this will maximise the opportunity to publicise and share the project results and findings with stakeholders who can learn and make good use of them.

While considering each channel, this report focuses on the stakeholder workshops, which are the key medium for stakeholder engagement, allowing maximum interaction amongst, and input from, participants. All five originally planned stakeholder Workshops (WS) have now been delivered. WS1 and WS2 in June 2018 and January 2019 respectively, WS3 in September 2019, WS4 in June 2020 and the WS5 (the final planned stakeholder workshop) was held in May 2021. The last two were both delivered online due to Covid restrictions although this meant we could broaden the attendance and achieve higher participant involvement than at Workshops held earlier in the project at physical locations. The content and delivery of this event is detailed in this report, including a summary of the workshop, links to presentations and how we will further disseminate the shared learning and outcomes. Details on Workshop 4 were provided in D5.11, Communications and Dissemination Plan and Milestone 5.6 <a href="https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:b331850b-c6dc-4798-9a6f-c51c2b42b5bb">https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:b331850b-c6dc-4798-9a6f-c51c2b42b5bb</a>

The remainder of the report looks at the latest developments of the SECLI-FIRM website, the case study flyers updates and related short videos – since the last report two more short case study videos have been produced to show the added value for external industry stakeholders.



This report documents the successful trio of free one-hour webinars produced in this time period and the collaboration with experts from a range of EU initiatives to dissemination preliminary findings and project learnings. It also provides an overview of the communities we have grown on our social media platforms and engagement with them.

This report shows the progress we have made in achieving the targets set out in the Second Stakeholder and Engagement Report to:

- Increase attendance at stakeholder activities;
- Continue to build engagement via Twitter and LinkedIn
- Create more interaction with stakeholders, via networking and events;
- Drive more website traffic and increase the number of repeat visitors to the site;
- Grow the SECLI-FIRM mailing list to increase opportunities to engage via email;
- Engage with other EU H2020 projects and their audiences.

## 1.1 Project Objectives

The aim of SECLI-FIRM is to demonstrate how the use of improved climate forecasts, out to several months ahead, can add practical and economic value to decision-making processes and outcomes, primarily in the energy sector, but also in the water sector. This objective is being addressed through nine case studies for Europe and South America (especially Colombia), focusing on recent seasons with anomalous/extreme climate conditions leading to problematic and quantifiable impacts for the energy and/or water industry. The case studies have been co-designed by industrial and research partners. Further information is available on the project website: www.secli-firm.eu

# 2 Stakeholder Engagement and Dissemination

Stakeholder engagement, communication and dissemination activity for the SECLI-FIRM project is covered under Work Package (WP) 5, specifically:

**Task 5.2** – Plan and execute focused stakeholder roundtables and workshops as well as organising other interactions with experts.

**Task 5.3** – Dissemination, Exploitation, Web portal and communication material.

**Task 5.4** – Co-ordination and synergies with other relevant EU projects and other initiatives.

This activity directly relates to, and is guided by, the detailed and structured Communication and Dissemination Plan (D5.3, and its updated versions, D5.7 and D5.11) which sets out how the objectives of the SECLI-FIRM project will be communicated to the target audiences. The plan defines the key messages and communications channels to be used for each target audience and how the success of these will be evaluated.



## 2.1 Communication Plan Objectives

The objectives of the communication plan have been refined since the D5.9 report. These are:

- Raise the profile of the SECLI-FIRM project among key stakeholders, including:
  - o potential-users in the energy and water industries
  - o the climate modelling and climate service communities
- Facilitate active engagement with the project by offering stakeholders opportunities to influence project direction and contribute to its outputs (as appropriate), to ensure those outputs are relevant and valuable for potential users
- Maintain engagement by sharing news and updates throughout the term of the project, to keep stakeholders informed of project progress
- Raise awareness amongst users of the benefits of seasonal climate forecasting and how it can be applied to real-life decision-making and risk management in the energy and water industries
- Build relationships which will flourish after the end of the project.

## 2.2 Target Audiences

Stakeholder analysis has been carried out to identify the project's target audiences, to ensure communications and dissemination activities are tailored to:

- · Deliver the project's communication aims
- Meet the needs of each specific group, making project information meaningful and usable and via a suitable communication channel

The stakeholder engagement matrix in Table 1 shows these key audiences.

#### 2.3 Dissemination Objectives

As set out in the Communication and Dissemination Plan (D5.11) the dissemination objectives for the SECLI-FIRM project are to:

- Share research results with users, via relevant, user-driven and scientifically robust, end-to-end trial climate services:
- Instigate and maintain relationships between the climate and energy/water sectors;
- Contribute to the progress of seasonal forecasting sciences in general;
- Contribute to the progress of climate services, particularly through methodologies for assessing the added value of these services;
- Ensure that the project objectives, activities and outcomes reach the relevant target groups, especially (potential) users, in and beyond the demonstration site countries;
- Ensure transparency and visibility of the project activities to acquire the needed support from crucial stakeholders, whilst recognising commercial sensitivities.

The objectives outlined govern the way the SECLI-FIRM project's outcomes are disseminated.



**Table 1: Stakeholder Engagement Matrix** 

		eholder Engagement Ma	
Stakeholder	Example of stakeholder	Communication aim	Communication channel
Project partners (Main Stakeholder group - those directly involved in work packages)	UEA, ENEL, ENEA, KNMI, UL, EURAC, Met Office, Alperia, Météo France	Share progress from the project tasks and work packages     Ensure all team members are aware of communication opportunities both within the project and externally	<ul> <li>Full access to all Channels:</li> <li>Website (content to include best practices, lessons learned, project news and updates)</li> <li>File archiving system (one drive) containing all key project documents (reports, presentations, etc).</li> <li>Workshops and training sessions</li> <li>Webinars via platforms such as GoToWebinars, WebEx etc.</li> <li>Social media platforms (initially LinkedIn and Twitter)</li> <li>Meetings and 1:1 communication e.g., email, phone</li> <li>Industry events</li> <li>And all other publicly available communications</li> </ul>
Industry stakeholders (Main user group - those involved in individual case studies, but without project partner status)	Shell, National Grid, Thames Water, TenneT, Celsia,	<ul> <li>Share progress from relevant project tasks and work packages</li> <li>Ensure all industry stakeholders can contribute to the project case studies they are involved in as well as to the resulting outcomes for other potential users</li> </ul>	<ul> <li>Full access to following Channels:</li> <li>Website (content to include best practices, lessons learned, project news and updates)</li> <li>Selected relevant project reports via project file archiving system (One Drive – password protected, and permission granted with confidentiality agreement)</li> <li>Workshops and training sessions</li> <li>Webinars via platforms such as GoToWebinars, WebEx etc.</li> <li>Social media platforms (initially LinkedIn and Twitter)</li> <li>Meetings and 1:1 communication e.g., email, phone</li> <li>Industry events</li> <li>And all other publicly available communications</li> </ul>
EU	EU Project Officer	Ensure the project officer is up to date on progress	Full access to following Channels:



		Maximise opportunities for collaboration with other projects and initiatives through EU contacts	<ul> <li>Website (content to include best practices, lessons learned, project news and updates)</li> <li>Workshops and training sessions</li> <li>Social media platforms (initially LinkedIn and Twitter)</li> <li>Meetings and 1:1 communication e.g., email, phone</li> <li>Industry events</li> <li>Submitted deliverables</li> <li>And all other publicly available communications</li> <li>CORDIS media</li> </ul>
Energy producing companies, TSOs, Energy Market Operators (Potential users)	Transmission System Operators (TSOs) and Distribution System Operators (DSOs): Alstom, Statkraft, Eon, ENEL  Energy producing companies: RTE, ERDF, Amprion, including ENTSO-E the European group of TSOs	<ul> <li>Ensure future developments are directly relevant</li> <li>Share experience</li> <li>Motivate early adopters</li> </ul>	Access to all publicly available communications only including  • Specialist workshops and training sessions  • Conference presentations (e.g. International Conference on Climate Services, EGU, EMS/ECAC and Offshore Energy 2020)  • Meetings and 1:1 communication  • Trade press articles
National, regional and international organisations (Well-known industry-leading organizations, policymakers and decision-makers)	National and Regional: Agence De l'Environnement et de la Maitrise de l'Energie (ADEME) DGEnergy, DGClima, European Environment Agency (EEA)  International: International Energy Agency (IEA), World Business Council for Sustainable Development (WBCSD), Global	Share experience     To promote project results as potential guidance to policy making	Access to all publicly available communications as above



	Framework for Climate Services (GFCS)		
Climate modelling research community (Technical and climate research industry professionals)	World Climate Research Programme (WCRP), seasonal forecasting producing centres (e.g. ECMWF, NCEP)	<ul> <li>Raise awareness of the SECLI-FIRM project</li> <li>Provide feedback on system performance including identification of issues where further model/system development is needed</li> </ul>	Access to all publicly available communications as above
(Commercial) Climate service providers for the energy sector (Technical and climate industry professionals)	Transvalor, MeteoGroup, Climate Service Center Germany (GERICS), Ouranos	<ul> <li>Raise awareness and mobilise sector interest in complete solutions and demonstrations of the value of seasonal forecasts</li> </ul>	Access to all publicly available communications as above
Specialist media, wider media and general public (Industry press and publications)	Horizon magazine, JRC SETIS, etc.	<ul> <li>Raise awareness of the SECLI-FIRM project</li> <li>Share research findings and outputs</li> <li>Create greater understanding of the wider issues around seasonal forecasting and the benefits to the energy and water sectors</li> </ul>	Access to all publicly available communications as above



In the latter half of the project we have focused on dissemination of preliminary results and learnings across our target audiences through collaborative webinars, contributions at events from across the consortium, blogs sharing real-time applications of the trial climate services and Workshops.

## 2.4 Stakeholder Engagement Workshops

The stakeholder engagement workshops form a key communication and dissemination channel for SECLI-FIRM, also supporting exploitation in the final stages of the project, working to reach those that can make good use of the results e.g. water and energy sectors with broader considerations given to agriculture, insurance and transportation, climate service providers and other (EU) projects. Throughout the duration of the project five workshops have been delivered, targeting relevant stakeholders from the energy and water sectors and for the final workshop agriculture and insurance to explore transferrable learning from the implementation of the nine SECLI-FIRM case studies.

Workshops have taken place approximately every eight months. To date (end of June 2021), all five planned stakeholder engagement workshops have been held. The process involved in organising the most recent workshop, plus the content and output from the event are documented in this report. For instance, as for all the SECLI-FIRM workshops, a series of Workshop Organising Committee meetings were held. The whole of the project team were invited to contribute fully to the organisation and to agree on workshop objectives, outcomes, agenda, etc. and including which aspects of the project would be covered. Meetings were held on a three-to-five-weekly basis and covered objectives, overarching theme, specific content, speakers, logistics, etc. With the switch to virtual delivery from March 2020, due to Covid restrictions, additional focus was given on the delivery platform and engaging online delivery methods.

# 3 Stakeholder Workshop 5

The fifth SECLI-FIRM stakeholder workshop (Milestone MS5.7 of the project's stakeholder engagement commitment) was arranged in accordance with Task 5.2 (Plan and execute focused stakeholder roundtables and workshops and organise other interactions with experts) of WP5. Milestone 5.7 specified that the workshop include a presentation of preliminary results from cross sectoral learning, Task 1.5, which was incorporated in our final session of three delivered on the day.

To improve the delivery of our online workshop we engaged the services of a professional facilitator, Gary Austin from CircleIndigo.



The fifth workshop had a mixed structure comprising of a demonstration of the TEAL tool, presentations from industry partners using the project trial climate services across the energy, water and offshore industries and from climate services experts working within the water, energy and agriculture sectors; a mix of contributors working within the SECLI-FIRM project and external to it. Mixed stakeholder group breakout discussions took place and a Q&A expert panel session was also convened.

The workshop was held online using Zoom and supported by a Mural digital whiteboard to capture outputs, thinking and ideas. Mentimeter was also used to create word clouds and run live polls. The content was structured across three sessions.

The objectives of the stakeholder workshop, as agreed by the Organising Committee, were to:

- Showcase real-world application of climate services for business use, identifying where business can use climate data and what information they may require
- To demonstrate how climate services can inform sector-specific decision-making processes.

The stakeholder workshop was preceded by an extended project meeting over two days on the 14 and 15 April 2021. The first day included a discussion session on the use of decision trees (WP1/WP4), a summary of the main results from WP2, WP3 presentation on the messages/lessons learned for each case study, summary of the value added and further discussion.

The second day included an update on each of the case study trial climate services, and a discussion on Task 1.5, exploring 'What are the key scientific messages and lessons learned for cross-sectoral learning?' – an element of Workshop 5 was to concentrate on this. There was also a summary of dissemination activities and opportunities for exploitation from WP5.

An Advisory Board Meeting was held online on 20 April 2021, four weeks prior to the final Stakeholder Workshop. This meeting included presentations from WPs1-5 and an overview from project leader, Alberto Troccoli, sharing the breadth of the output being produced by SECLI-FIRM. There was time built in for discussion. A separate Advisory Board Report, D5.13, is being submitted at the same time as this Report.

This schedule meant that both the project team and board members were arriving at Stakeholder Workshop 5 already engaged and updated on the project with fresh opinions to share with stakeholders. We also involved two members of the Advisory Board in the industry presentations at the final Workshop.

#### 3.1 Communications

Along with the SECLI-FIRM Advisory Board, which includes several industry experts and stakeholders, this workshop was promoted to the industry sectors who could most benefit from



the project, predominantly the water and energy sectors but also others such as the agriculture and insurance sectors.

We reached energy stakeholders by sending direct targeted invitations, tweaked for each receiver, (see Figure 1) including to Wise Energy, Volatalia, WPD, Woodmac, ENSTO-E and contributed to event listings on industry sites including Energy Central, a news site for energy industry professions (see Figure 2), which achieved over 450 views.

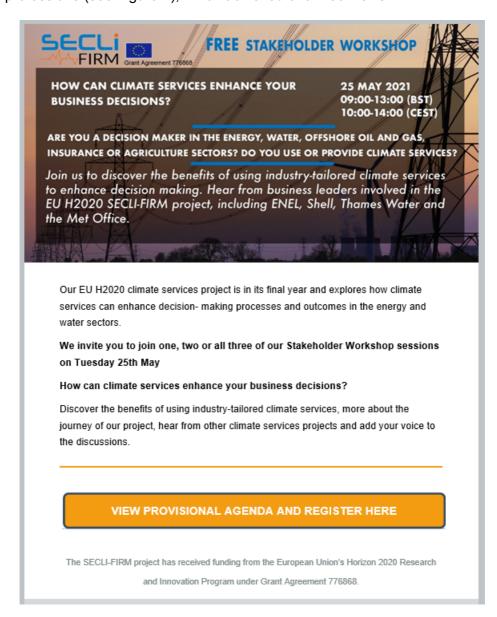


Figure 1 – Workshop 5 Email invitation



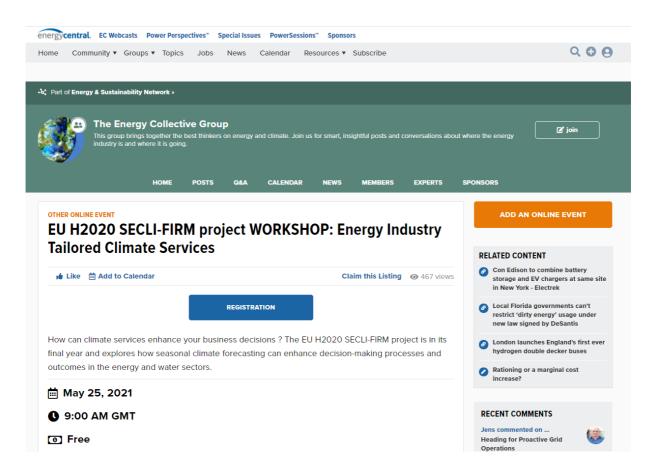


Figure 2 - Workshop 5 listing on Energy Central news site

We invited the members of the Water Demand Group, as recommended by project Advisory Board member, Ian Savage from Thames Water. This has representation from over 70% of the UK water companies.

By inviting external speakers from across our target industries of agriculture and water from MED-GOLD and WATExR we benefitted from exposure to their networks, particularly on social media through retweets to their audiences (Figure 3).

Our project newsletter subscriber numbers have increased by 56% since November 2019, mainly due to the trio of free webinars and data collected from previous Stakeholder Workshops. Through this channel we were able to reach over 280 potential participants from across our target industries, from the climate services community and academia for Workshop 5. Our email campaign achieved the highest click through rate of any of our campaigns across the four-year duration of the programme (see Figure 4).





Figure 3 – Project tweet promoting Workshop 5 using our guest speakers accounts as multipliers of the opportunity to participate.

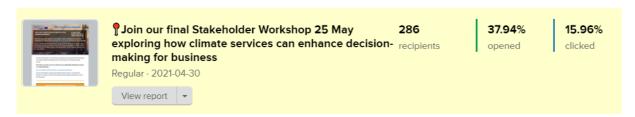


Figure 4 – Analytics from email campaign promoting Workshop 5 sent to all SECLI-FIRM newsletter subscribers.

We also promoted the Workshop on the UEA Environmental bulletin particularly as it featured three UEA presenters.

All communications were SECLI-FIRM branded, in line with the project brand guidelines and designed for multi-channel distribution. Examples of the visual communications produced for Workshop 5 are shown below, including visuals used on social media and a Zoom background for our speakers on the day.





Figure 5 – Workshop 5 online visual



Figure 6 – Visual used to promote final session of Workshop 5 online.





Figure 7 – Teal tool, one of the SECLI-FIRM trial climate services, visual posted on Twitter during Workshop 5 icebreaker.

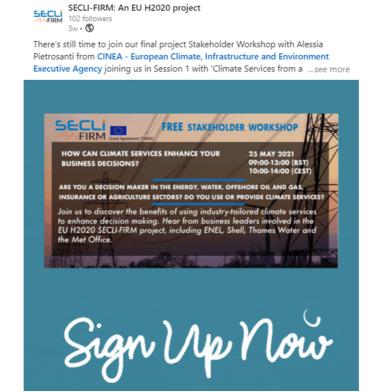


Figure 8 – Animated visual posted on SECLI-FIRM LinkedIn account to promote Workshop 5.





Figure 9 – Zoom background designed for and used by SECLI-FIRM presenters during Workshop 5.

## 3.2 Registration and Attendance

We used Eventbrite as our registration platform which also acts as an event promotion tool and we achieved 663 page views of our event and 126 registrations from an audience spread across the globe (Figure 10), showing how our project is pushing out from the locations of our case studies in Europe and South America (Columbia). The project KPI for registrations is 90.

The registration figures are not just a vanity metric as all registrants receive a link to the Workshop recording and access to the presentations. 45 of those who registered also joined our mailing list for future information. Registrations were from across a wide variety of sectors (Figure 11).

The workshop attendees included the SECLI-FIRM Advisory Board, project team members from each of the partner organisations and representatives from the water, agriculture, energy operating systems and energy sector. For this fifth workshop, 56 delegates attended in total across the three sessions delivered including sister EU H2020 projects including MED-GOLD and WATERX. The project KPI for attendees is 30. A list of project participants is provided in Appendix 1.

Our post Workshop promotions via social media, newsletters and direct email include links to the videos on our YouTube playlist within the WEMC Channel will further boost engagement figures.





Figure 10 – Eventbrite registration for Workshop 5 by location.

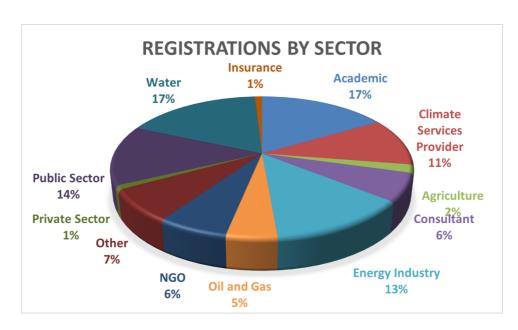


Figure 11 – Eventbrite registrations by sector for Workshop 5.



## 3.3 Stakeholder Workshop Programme

The Stakeholder Workshop was held over 4 hours from 09:00 to 13:00. The workshop was structured to showcase the TEAL tool, within a presentation and as an engaging icebreaker (Figure 7). These sessions demonstrated latest uses of climate services for business decisions in the water, energy and agriculture sectors, and mixed stakeholder group discussions by exploring opportunities to use climate services for business decision-making. The full Workshop programme is shown in Table 2.

**Table 2: Workshop 5 Programme** 

Time	Title	Speaker
9:00-9:10	Welcome	Prof. Alberto Troccoli (UEA)
<b>Session 1</b> 9:10-9:20	Climate Services from an EU Perspective	Alessia Pietrosanti (EU, European Climate, Infrastructure and Environment Executive Agency)
9:20-9:25	Climate Services for Business Decisions – an Introduction	Prof. Alberto Troccoli (UEA)
9:25-9:40	Using Climate Services for Business Decisions – Industry Experience  ENEL TEAL Tool and Energy Management  Thames Water Demand Management: Freeze-thaw in Lockdown  Shell North Sea Rig Move	Marco Formenton (ENEL) Leo Kiernan (Thames Water) Jon Upton (Shell)
9:40-9:50	Question & Answer Session	All
09:50-10:00	Break	All
Session 2 10:00-11:00	*Participant Discussion: How Can My Business Benefit from Climate Services?  Introduction to the session Stakeholder Group Discussions Plenary and Summary	All
11:00-11:30	Break	All
Session 3 11:30-12:40	<ul> <li>Connecting Climate Services and Sector-Specific Decision-Making</li> <li>Introduction to SECLI-FIRM and Seasonal Forecasting and Decision-Making</li> <li>Climate Services and decision-Making for the Energy Sector – Case Study Example from SECLI-FIRM: Offshore Maintenance and Logistics</li> <li>Climate Services and Decision-Making for the Water Sector – The WATEXR Case Studies</li> <li>Climate Services and Decision-Making for the Agriculture Sector – Case Study Example from MED-GOLD</li> <li>The Process of Elaborating a Decision Tree</li> </ul>	Clare Goodess (UEA)  Gertie Geertsema (KNMI)  Leah Jackson-Blake (NIVA Norway)  Antonio Graca (Sogrape)  Steve Dorling (UEA)
	The Frodess of Elaborating a Decision free	Steve Donling (UEA)
12:40-13.00	Discussion and Wrap-up	Prof. Alberto Troccoli (UEA)



#### 3.4 Stakeholder Workshop Presentations

The expert speaker presentations are summarised below, along with links to each presentation. We welcomed a balance of male and female speakers to the Workshop on a ratio of four men to six women.

Climate Services from an EU Perspective – Alessia Pietrosanti (European Commission, European Climate, Infrastructure and Environment Executive Agency) presentation

https://wemcouncil-

<u>my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/EXVATTyCZTNPmBNOhBZ</u> 2KUEBS\_puLWd0oTefhmfjGkxHFA?e=f4Qerp

Climate Services for Business Decisions – Alberto Troccoli (UEA)' presentation.

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/EWfgMUFWzSNHiGa4bPD SsloBBd7sjYV-MCR9rUosfg\_ZxQ?e=0hbvax

**ENEL Teal Tool and Energy Management** - Dr Marco Formenton (ENEL) presentation

https://wemcouncil-

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**Thames Water Demand Management: Freeze-Thaw in Lockdown** – Leo Kiernan (Thames Water) presentation

https://wemcouncil-

<u>my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/EXup9hCGAZZNkwolUd6ZBIBu7N2xZcZkGdLCsCl39Yx7A?e=x0uARp</u>

Shell North Sea Rig Move – Jon Upton (Shell) presentation

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/EU3eFLFGWANJmNIP4Jz Q zQBoDxCAdx1WxGkaa gCIAOew?e=eANcN5

Introduction to SECLI-FIRM Project and Session: Seasonal Forecasting and Decision-Making – Clare Goodess (UEA) presentation

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership wemcouncil org/EdyLlFd7tTtMhyWtnpTpUY oBbg9kpUktirlxkakTNupCKA?e=qgfTlc



Climate Services and Decision-Making for the Energy Sector: Case Study Example from SECLI-FIRM: North Sea Wind and Wave Conditions Suitable for Maintenance, Planning and Logistics – Gertie Geertsema (KNMI) presentation

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/Ed4agLXeOplNq11ahFqb6JcBVU0Eu\_49rvaWfyFMGCcCAw?e=rsQCLJ

Climate Services and Decision-Making for the Water Sector: Summary of results across WATExR Case Studies – Leah Jackson-Blake (NIVA, Norway) presentation

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/EWLDE8SbLPhCsfX-LSSVOwwB-1U08oBKmf8UusF5sArcAg?e=2mgJrS

Climate Services and Decision-Making for the Agriculture Sector: Case Study Example from MED-GOLD – Antonio Graca (Sogrape) presentation

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/EandMNjgt2dGr-YlaEw2JG0BKL4Rx73MNHHXll2D5XrG1Q?e=7hDfOY

The Process of Elaborating a Decision Tree – Steve Dorling (UEA) presentation

https://wemcouncil-

my.sharepoint.com/:b:/g/personal/membership\_wemcouncil\_org/Eeod2MIRxCBJICCAByI\_cFsBkBxuHvyS-jk5e8vq58sLCA?e=pIGARQ



Figure 12 – Expert speakers from across water, energy and agriculture joined the final session of Workshop 5.



#### 3.5 Multi-Stakeholder Group Breakout Discussions

An important component of this workshop was a multi-stakeholder group breakout discussion on 'How can my business benefit from climate services?' This session addressed three questions:

- How do you think climate services such as those developed by SECLI-FIRM can benefit your industry?
- What additional information would you need to make climate services useful for your business?
- 1. What is stopping you from using a seasonal forecast climate service?

Participants used a pre-prepared Mural digital board to aid discussions. The project plans to share the collated outputs for each of the three questions above, particularly to our peers and projects working in Climate Services.

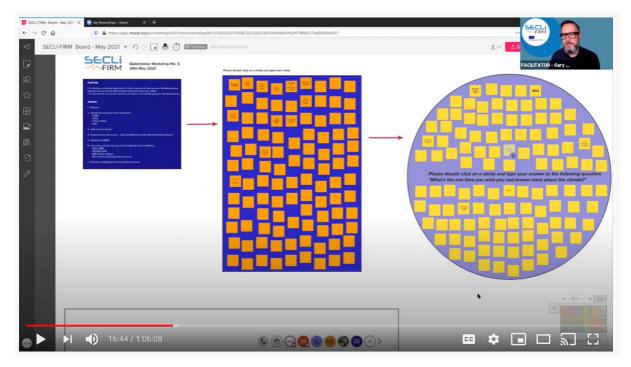


Figure 13 – The Workshop 5 facilitator, Gary Austin, introduced the MURAL board to be used in the group breakout rooms.

#### 3.6 Cross-sectoral Focus

The final Workshop 5 session welcomed speakers from energy, water and agriculture highlighting to our participants how the decision-making context and process depend on the



particular sector and the particular end user. This was demonstrated by the range of sectoral case studies shared by our speakers, pictured in Figure 12.

## 3.7 Dissemination of output

Further workshop output, e.g. Steve Dorling's presentation, which included interactive elements collating feedback from participants on the best characteristic to explain their favourite climate service provider or climate client user, can be disseminated further in future too (see Figure 14 visual captured at the Workshop).

1) What is the one characteristic which best explains your choice of favourite climate service provider?





Figure 14 – Live feedback was collected using Mentimeter during Workshop 5 by SECLI-FIRM presenter, Steve Dorling.

The videos for each of the three sessions from the Workshop 5 programme have been uploaded to the SECLI-FIRM project playlist on the WEMC YouTube channel ready for further dissemination:

Session 1: <a href="https://youtu.be/MvfVoy0gJj8">https://youtu.be/MvfVoy0gJj8</a>
Session 2: <a href="https://youtu.be/jqXwXDqLttA">https://youtu.be/jqXwXDqLttA</a>
Session 3: <a href="https://youtu.be/gbkC7dLiOE8">https://youtu.be/gbkC7dLiOE8</a>



## 3.8 Summary of Main Points

Some of the key points and specific learnings raised across the sessions by stakeholders attending Workshop 5 addressed the following:

- The importance of having 'translation' between the climate scientists and users. The value of a 'translator' someone that makes sense of things that both parties are saying to avoid misunderstandings. This is a crucial role for future projects. These conversations continue to be needed with new actors joining the climate service community, from both the user and provider sides, also using climate service visualisation tools. By sharing the experiences of our project, we can accelerate the need for these understandings and especially covering the specific hurdles that are common to all projects.
- The usefulness of decision trees at the start of projects across different sectors, also as a way to *break the ice* between climate service providers and users, and accelerating the mutual understanding of what needs to be achieved.
- The importance of trust in the relationship between climate services provider and user.
   The provider needs to trust that the user is able to use their tool in the proper way in the way that it was conceived to be to be used. But on the other hand, the user also needs to trust that the provision that is being offered him brings any value.
- The dashboard, or a climate service visualization tool, concept is becoming an
  interesting proposition for interaction with users. It is something that could be more
  developed as a concept and some guidelines for standardisation of dashboards
  created, so they can be understood easily also by a wider public.

## 4 Website

The content on the official SECLI-FIRM website (www.secli-firm.eu) has been expanded. The website provides a high-level description of the project and its objectives, introduces the consortium partners, nine project case studies, including three videos. It is also a repository for public reports, general information, news, blogs and dissemination material.

The website hosts the updated and revamped case study factsheets (March 2020) with ongoing final update currently focusing on the project highlights and future plans, including exploitation. A further two case study videos have been created and added to the site (Figure 16).

The flyers and presentations from, and links to, our project webinars have been added to the website (Figure 17).





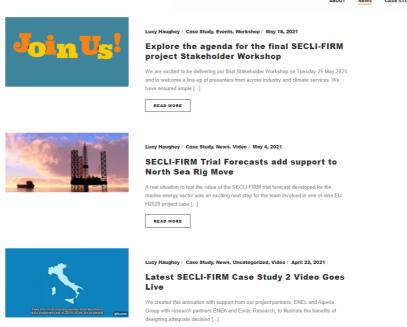


Figure 15 – The SECLI-FIRM website news page.

READ MORE

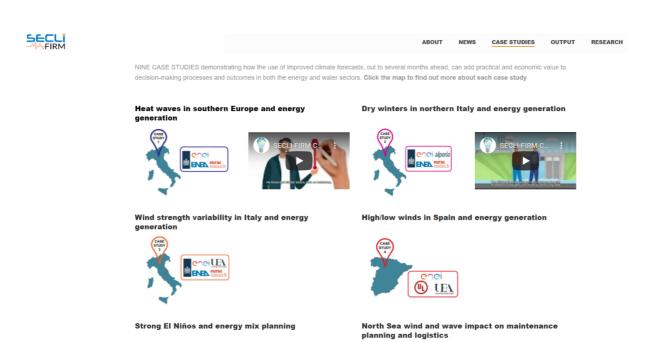


Figure 16 – The SECLI-FIRM case studies page with links to the animated case study videos.



#### PRESENTATIONS & COMMUNICATIONS

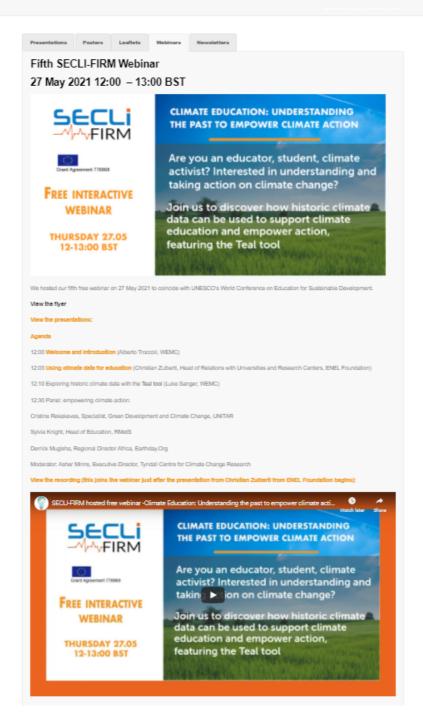


Figure 17 – This example shows the website links to our 5<sup>th</sup> project webinar.



## 4.1 Website Analytics

The following analytics describe website activity from November 2019 to the end of May 2021, covering the period since the previous D5.9 report.

Visitor numbers have quadrupled since our D5.9 Report e.g. Users have increased from 817 to 3036. Growth in web traffic coincide with events, particularly our series of free webinars e.g. in September 2020.

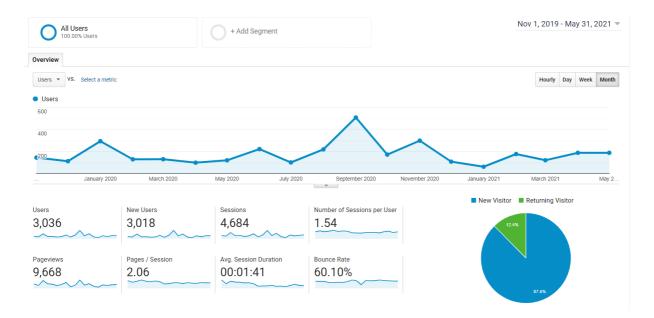


Figure 18 - Report showing SECLI-FIRM website visitors between Nov 2019 and May 2021.

Visitor demographic has increased from China, with Brazil and Australia new additions since report D5.9 (Figure 19).



Country	Users % Users
1. 🏭 United Kingdom	624 20.39%
2. Multiple States	492 16.07%
3. Italy	295 9.64%
4. China	150 4.90%
5. France	139 4.54%
6. Netherlands	114 3.72%
7. Germany	94 3.07%
8. Spain	94 3.07%
9. Brazil	81 2.65%
10. Australia	66   2.16%

Figure 19 – Report showing SECLI-FIRM website visitors by country up to May 2021.

The majority of traffic reaches the site via a direct link (57.9%) and the most popular social network (see Figure 20) for referrals is twitter.

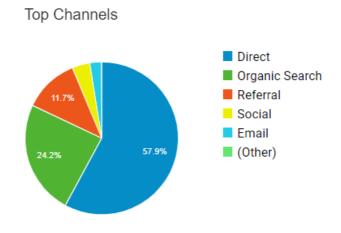


Figure 20 – Chart showing SECLI-FIRM website visitors by channel up to May 2021.

The site received triple the amount of page views in this period, compared with the last report, almost 10,000 views, with visitors spending more than 1 minute 30 seconds on the page (Figure 21).





Figure 21 – Report showing unique page views and time spent on site by website visitors between Nov 2019 and May 2021.

The popularity of our events page with website visitors has almost doubled from 4% to over 8% since the last report showing the contribution our webinars and workshops have made in driving audiences to our website (Figure 22).

Pa	age ?		Pageviews ? ↓	Unique Pageviews ?	Avg. Time on Page ?
			<b>9,668</b> % of Total: 100.00% (9,668)	<b>7,616</b> % of Total: 100.00% (7,616)	00:01:35 Avg for View: 00:01:35 (0.00%)
1.	/	æ	3,369 (34.85%)	2,705 (35.52%)	00:01:26
2.	/case-studies/	æ	961 (9.94%)	773 (10.15%)	00:02:11
3.	/events/	P	<b>751</b> (7.77%)	620 (8.14%)	00:02:44
4.	/project/	P	703 (7.27%)	607 (7.97%)	00:01:33
5.	/news/	P	<b>510</b> (5.28%)	394 (5.17%)	00:00:55
6.	/presentations/	P	<b>370</b> (3.83%)	247 (3.24%)	00:03:01
7.	/information-observatory/	P	230 (2.38%)	160 (2.10%)	00:00:46
8.	/project-partners/	(F)	223 (2.31%)	194 (2.55%)	00:01:26
9.	/research/	P	207 (2.14%)	179 (2.35%)	00:00:46
10.	/team-members/	P	204 (2.11%)	153 (2.01%)	00:00:49

Figure 22 – Report showing most popular pages on SECLI-FIRM website visitors.



## 5 Additional Dissemination Channels

**Webinars:** Other methods of sharing project learnings and developments have been progressed including a series of public, free webinars where we also linked up with other EU H2020 projects and invited sector experts from outside the project to collaborate and share their learnings.

Three have been delivered in the 12 months:

- September 2020 SECLI-FIRM collaborated with Climateurope to deliver a free Climate Services for Energy webinar that featured speakers from S2S4E and the CLARA project as well as featuring the SMHI service. The opportunity to hear from several projects in one forum attracted over 50 participants and the recording has been viewed over 200 times.
- November 2020 Climate Services for the Hydropower Sector featured two project case studies, joined by 55 participants (the project KPI is 30 participants).
- February 2021 Sharing Climate Services Experiences featured the Thames Water Case Study (Number 9) and we broadened our geographical reach outside Europe involving two presenters from the USA.

We have also created webinar analytics to disseminate the results and outcomes of webinars to the project team in a simple infographic (example in Figure 23).

In May 2021 we hosted a climate education webinar featuring the Teal tool, developed within the SECLI-FIRM project. It was an opportunity to promote the free version of the tool to a wider audience, including students, educators and climate activists.

**Events:** The SECLI-FIRM consortium have participated in several industry events at national, EU and international levels, including conferences, exhibitions, workshops and seminars aimed at scientists, policy makers and industry professionals promoting the SECLI-FIRM project and the benefits of seasonal forecasting to the energy and water industries.

The sharing of preliminary results and project learnings has intensified in the latter stages of the project and will continue to do so. Most recently the SECLI-FIRM project, including the National Grid Case Study (number 8) and project leader Alberto Troccoli, featured on an RMetS virtual meeting in April 2021 focused on Seasonal Climate Services for the Energy Industry (see Figure 24).



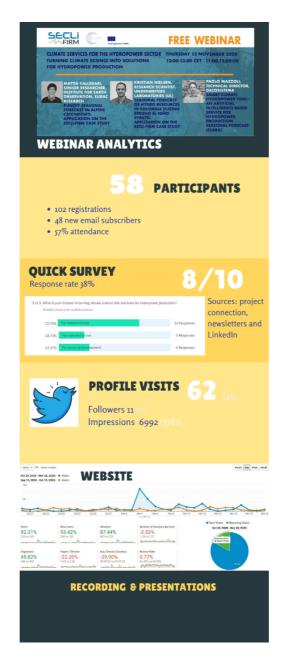


Figure 23 – Analytics infographic to share success attracting stakeholders and engagement following November 2020 webinar.





Figure 24 – RMetS website promoting Virtual Meeting featuring the SECLI-FIRM project to their visitors, April 2021.

Further events where SECLI-FIRM consortium members participated between November 2019 and May 2021 include:

#### **C3S General Assembly**

28 Oct-1 Nov 2019

Attended by Alberto Troccoli, UEA and two presentations given including examples from SECLI-FIRM.

## Int. Conf on Sustainable Energy-Water-Environment Nexus in Desert Climates

3-5 Dec 2019

Attended by Alberto Troccoli, UEA. Keynote Speech: "From Resource Assessment to Climate Projections: The Key Role of Meteorology in Planning and Operations of Solar Power"

#### **AGU Fall Meeting 2019**

9-13 Dec 2019

KNMI contribution



#### **EGU General Assembly 2020**

3-8 May 2020

- Catalano F., Alessandri A., Nielsen K., Cionni I., De Felice M.: A novel model independence methodology to improve multi-model seasonal forecasts combination. EGU General Assembly 2020, Vienna (Austria), 03-08 May 2020. Geophysical Research Abstracts, EGU2020-18283.
- Cionni I., Llorenc L., Catalano F., Dell'Aquila A.: Seasonal predictions of energy-relevant Essential Climate Variables through Euro-Atlantic Teleconnections. EGU General Assembly 2020, Vienna (Austria), 03-08 May 2020. Geophysical Research Abstracts, EGU2020-21184.
- Alessandri A., Catalano F., et al.: Grand Multi-Model Seasonal Forecasts in the SECLI-FIRM project. EGU General Assembly 2020, Vienna (Austria), 03-08 May 2020. Geophysical Research Abstracts, EGU2020-19803.
- Mattia Callegari, EURAC Research, sharing preliminary results from the SECLI-FIRM project 'Predicting water discharge on alpine catchments with downscaled seasonal forecasts, D3423 EGU2020-8869.

#### 5th teleconference of the Climateurope Climate Services projects' network

4 June 2020

Attended by Alberto Troccoli, UEA

#### 3rd Climateurope Festival

16-18 June 2020

Attended by Alberto Troccoli, UEA

#### **Australian Meteorological and Oceanographical Association (AMOS)**

June 2020

Energy webinar with Alberto Troccoli, UEA and featuring SECLI-FIRM (see below tweet)

#### Climate Services for Energy, free SECLI-FIRM webinar

3 September 2020

Antonio Maria Nicolosi from the SECLI-FIRM project partner ENEL presented 'Climate Service for energy management: a practical example from SECLI-FIRM.

#### **AEIT International Conference**

23-25 Sept 2020

Due to the virtual nature of the AEIT (The Italian Association of Electrotechnics, Electronics, Automation, Information Technology and Telecommunications) 2020 Conference, a presentation was pre-recorded by ENEL (SECLI-FIRM Consortium partner) Meteorologist,



Marco Formenton and included an introduction to the SECLI-FIRM project and explanation of how seasonal forecasts can support Enel's decision-making process. Enel also shared their preliminary results on project Case Studies 1-3. A news item on this event was also added to the project website.

## Italian Society for Climate Sciences (SISC) 8th Annual Conference

21-23 Oct 2020

- -Dell'Aquila A., Calmanti S., Catalano F., Cionni I., Petitta M., Ponti L.: Turning climate data into value for productive activities in the user's perspective. ClimRisk2019-9<sup>^</sup> SISC Annual Conference 23-25/10/2019
- -Palma M., F. Catalano, I. Cionni, M. Petitta., Climate Services for the Energy Sector: current state and future development" ClimRisk2020-8^ SISC Annual Conference 21-23/10/2020

#### **SECLI-FIRM** hosted Climate Services for the Hydropower Sector free webinar

12 Nov 2020

Featured Kristian Nielsen, Research Scientist, UL (SECLI-FIRM consortium) and Mattia Callegari, Senior Researcher, EURAC (SECLI-FIRM consortium)

## **Climateurope Webstival**

19 Nov 2020

Attended by Alberto Troccoli (UEA), Lucy Haughey (WEMC), Kristian Nielsen (UL) and Mattia Callegari (all from SECLI-FIRM consortium)

#### Climate Services for a climate-resilient Europe Workshop

2 Dec 2020

Attended by Alberto Troccoli, UEA (agenda shown below)

#### S2S4E WS - Climate Forecasting for Energy

4 Dec 2020

Alberto Troccoli, UEA was panel member

**Networking:** The SECLI-FIRM consortium is continually building their network of contacts, through collaboration with other projects in similar sectors, such as CLARA, S2S4E, CLIM2POWER and MED-GOLD, to share knowledge and key learnings as demonstrated in our webinars and workshops.



Email campaigns/newsletters: The SECLI-FIRM newsletter has achieved considerable growth through sign-ups during our webinar promotions, totalling over 280, with steadily increasing open rates. Then project KPI was 200+ subscribers. We benefit from inclusion in WEMC newsletters too with 1100 subscribers.

Videos: Animations showcasing the potential applications of case studies 1 and 2 have been produced in this time. These have been shared on both our website and YouTube channel, attracting over 300 views.

Social media: The project has its own Twitter and LinkedIn accounts for dissemination of project updates, events, commentary and relevant industry updates from stakeholders and partner organisations. Project twitter posts have promoted content created across our other channels, given us an opportunity to engage with other EU projects and to look for opportunities e.g. Climateurope Bellhouse opportunity (see Something Different). We shared live tweets during Workshop 5.

We have exceeded all our Twitter KPIs during this period (see Table 3) and also on LinkedIn (where we could collect analytics from the previous 12 months only but these were still in excess of our 6-monthly KPIs).

Table 3: Key Performance Indicators for Social Media, figures Nov 2019 to May 2021 (18 months period) for Twitter and previous 12 months for LinkedIn

ŀ	KPI	KPI Title	Performance Target and Unit of Measure (6- monthly)	Total Achieved	Frequency	Explanations / Comments
		Social media followers	Twitter Followers: 40+ Twitter Profile Visits: 130+ Twitter Mentions: 20+ LinkedIn Followers: 10+ LinkedIn Visitors: 60+	143 2538 98 58 207	18 months 18 months 18 months 12 months 12 months	Exceeds KPI Exceeds KPI Exceeds KPI Exceeds KPI Exceeds KPI Exceeds KPI

Articles: A project article featured in Open Access Government in January 2021 introducing the SECLI-FIRM project and sharing findings with a readership from private and public sectors across Europe, local government and central government (Figure 25).

Project reports: all relevant project deliverables in report format and defined as public are published on the SECLI-FIRM website for open access, that includes the previous version of this report.

Official EU communication channels: we regularly share our events on Cordis Wire (<a href="http://cordis.europa.eu/wire/">http://cordis.europa.eu/wire/</a>) (see example, Figure 26).





Figure 25 – Open Access article sharing SECLI-FIRM project learnings, Jan 2021.



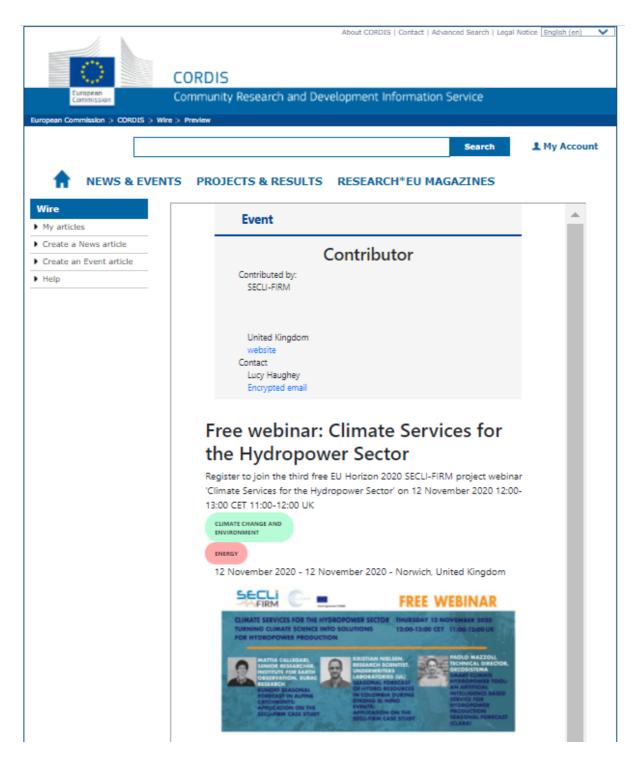


Figure 26 - Event article promoting a SECLI-FIRM webinar on Cordis, Nov 2020.



**Something different:** SECLI-FIRM collaborated with Climateurope on BellHouse, a playable interactive sound sculpture that 'plays' climate data. A dataset from the project's Teal tool, <a href="https://tealtool.earth">https://tealtool.earth</a>, was played during the November 2020 Webstival (Figure 27), joined by over 70 participants from across their climate networks. This opportunity was originally spotted on social media.

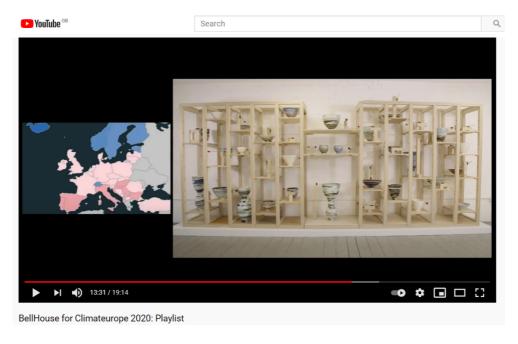


Figure 27 – Still of Teal dataset featured in Climateurope Webstival, October 2020.

**Summer School:** Preparation for a SECLI-FIRM Summer School started in May 2021. Started as a SECLI-FIRM activity, this has broadened to include experts from the WMO, C3S, University of Vigo, Reading University, and others in the organising committee. It will be a free learning opportunity for up to 30 students with a programme that will reflect the development stages of the SECLI-FIRM project within its content – from science to co-development of climate services to business development. Save the date promotions have started (Figure 28).





Figure 28 - Save the date visual promoting the SECLI-FIRM Summer School on social media.

# 6 Summary

During the middle and latter period of the project stakeholder engagement activity has focused initially on dissemination, making project findings public and reaching others who can learn from our findings achieving this through attendance at events, workshops, webinars and by sharing project news.

Latterly this is moving towards the exploitation of results, reaching those who can make good use of them, for example using the Summer School in September 2021 to share the journey of a project like SECLI-FIRM with a wide audience; practitioners, early career researchers, planners, entrepreneurs and anyone interested in climate services will be invited to apply.

The cross-sectoral focus of Workshop 5 assisted the project in reaching out further and broader to industry sectors, including agriculture and raised some useful issues and discussions particularly around the need for 'translators' between climate service providers and users. 'Translation' can also be facilitated through the use of visualisation tools, such as the Teal tool.

The reviewers in our recent EU Technical Review, June 2021, encouraged more sharing of 'what didn't work' within the project too and stressed the importance of sharing these findings with the climate services community, particularly as the SECLI-FIRM project comes to an end. This is something we aim to do more of.

More than 10 scientific papers are currently planned within the consortium and are an integral part of the project exploitation plans that are also being revisited and updated at the end of June 2021.



# Appendix 1 – list of Workshop 5 attendees

Below are the attendees who joined Stakeholder Workshop 5 on Zoom on 25 May 2021. They self-name when they join the call.

Aaron Wu

Alberto Troccoli (UEA/WEMC)

Alessia Pietrosanti (EC - CINEA)

Alexandra

Anastasia Lobanova (PIK Potsdam)

Anca Brookshaw (ECMWF C3S)

Andrea Alessandri

Antonio GRAÇA (MED-GOLD)

Antonio M. Nicolosi (ENEL)

Bastani Hamid (WMO)

Bojana Mihic TenneT

Charles G. Pewee

Chris

Clare Goodess (University of East Anglia)

Daniel Mercado-Bettín

Dr. Elvis Zornic

**DTEIXEIR** 

Ed Steele (MO)

**Elah Matt** 

Emma Dyer (MO)

Enrique Rebolledo

Fabiola Alvarado

Fabrizio Sanguinetti

Facilitator - Gary Austin

Folmer Krikken

Franco Catalano

Fr-Topo Aimé -Ivory Coast

Gertie Geertsema (KNMI)

Hannah Brown (Met Office)

Ian Savage Thames Water

Janice Ogonji (WEMC)

Joe Osborne (MO)

Jon Upton (SHELL)

Joppe Cramwinckel

José Vidal Pérez (UL)



Juan Antonio Añel

**Justine Marchant** 

Kalpana Majithia

Karen Stocker (Alperia)

Kristian Nielsen (UL)

Laurent Dubus (RTE & WEMC)

Leah Jackson-Blake (WATExR)

Leo Kiernan (Thames Water)

Lesley Penny (UEA)

Lucy Haughey (WEMC)

Marcello Petitta (ENEA)

Marco Formenton (ENEL)

Marco Venturini

Maria D. Frias (WATExR)

Marion Chelle Michou

Mattia Callegari

Mélodie Trolliet - AXA Climate

Miguel Nogueira

**NAKOULMA Guillaume** 

Nicholas Vasilakos (UEA)

Nicola Di Marco (DET)

Nicolas Fournier

Noel Banda (Malawi Met. Services)

Olivia Muza (steamwomen)

Pascal Mailier

Peer Nowack

Penny Boorman WEMC

Rafa Marcé WATExR

Roberta Boscolo WMO

Robo Igbu

Shanti Majithia

Steve Dorling (UEA)

Susan Shrestha (University of Padova)

Valentina Cavedon

Vasilis Pappas

Victor Estella

# The Added Value of Seasonal Climate Forecasting for Integrated Risk Management (SECLI-FIRM)

For more information visit www.secli-firm.eu or contact the SECLI-FIRM team at info@secli-firm.eu





















