SUMMER SCHOOL

MASTERING THE DEVELOPMENT OF A CLIMATE SERVICE FROM START TO END

Welcome to the online SECLI-FIRM summer school. In this course, you will learn about the importance of climate services for the energy and water sectors, understanding the operational and regulatory context. You will acquire theoretical knowledge and practical tools to design and deliver your own climate service, working in small teams. Hearing from leading experts, you will learn about real-world applications of climate services and best practice approaches.

Prof Alberto Troccoli
Project Coordinator

HOW WILL YOU LEARN

The course is delivered online and designed as an interactive learning and exchange, with group work to design your own mini-climate service.
Each four-hour online session will consist of lectures, content presentations, discussions and break out sessions from a variety of speakers, all experts in their fields, including consortium and Advisory Board members from the SECLI-FIRM Project.

THE COURSE IS DIVIDED INTO THREE INTERLINKED MODULES:

Module 1 – Why we need climate services and how we can exploit them

Module 2 – What is needed for the successful design of climate services

Module 3 – From theory to practice – how to deliver a climate service

PARTNERS

WORLD METEOROLOGICAL ORGANIZATION · ECMWF EUROPEAN CENTRE FOR MEDIUM RANGE WEATHER FORECASTS · Climate Change Service · University of Reading · UEA University of East Anglia

SECLI FIRM

ANY QUESTIONS ABOUT THE SUMMER SCHOOL ? PLEASE GET IN TOUCH AT: summer_school@secli-firm.eu

PROGRAMME WEEK 1

TUESDAY 21TH SEPT SESSION 1: SETTING THE SCENE

Moderators: Alberto Troccoli (UEA/WEMC) & Emily Wallace (Met Office)

In this session, you will get acquainted with course participants, understand what climate services are, the process of developing a climate service and their application in the energy and water sectors.

11:30-12:00 UTC	Introduction & school of objectives	**Alberto Troccoli (UEA/WEMC)** **Roberta Boscolo (WMO)**	Present course outline and objectives
12:00-12:15	Welcome & EU perspective on climate services	**Alessia Pietrosanti (EU Commission, CINEA)**	
12:15-13:00	Climate services for the energy and water sectors	**Alberto Troccoli (UEA/WEMC)**	Explain what climate services are. Discuss their value for the energy and water sectors. Explore SECLI-FIRM results and lessons learnt.
13:00 - 13:30 BREAK			
13:30-14:30	Understanding the climate service value chain: best practice approaches	**Roberta Boscolo (WMO)** **Carlo Buontempo (ECMWF)**	Outline the process of delivering a climate service, with best practice examples.
14:30-15:30	Panel: The importance of climate services for energy systems and the water sector	**Laurent Dubus (RTE/WEMC)** **Antonio Nicolosi (ENEL)** **Leo Kiernan (Thames Water)** **Sue Haupt (NCAR)**	Explore the journey around the use of climate information for business users in the energy and water sectors.

THURSDAY 23TH SEPT SESSION 2: HOW TO BUILD A CLIMATE SERVICE

Moderator: Juan Anel (University of Vigo)

This session delves into different aspects of climate service design, from data and information needed to power a climate service, to collaborative approaches to climate service design. Introduce team projects, groups working on specific climate service aspects.

11:30-12:30 UTC	Data and information production for climate services	**David Brayshaw (U of Reading)**	Provide an overview of the science behind climate services and processes of observations, modelling and seasonal forecasting.
12:30-13:30	Collaborative approaches: Co-design, co-development and co-production of climate services	**Clare Goodess (UEA)**	Understand the steps of assembling a successful climate service, exploiting collaborative approaches.
13:30 - 14:00 BREAK			
14:00-15:30	Introducing practicals: Co-develop your own climate service component, including introduction of different platforms.	**Juan Anel (University of Vigo)** **Alberto Troccoli (WEMC)** **Eddie Comyn-Platt (ECMWF)** **Hannah Bloomfield (U Reading)** **Penny Boorman (WEMC)**	Introduce the topics of the teamwork that will be undertaken throughout the course, with an introduction from C3S, and SECLI-FIRM Teal, and other sources.

PROGRAMME WEEK 2

TUESDAY 28TH SEPT SESSION 3: SEASONAL FORECASTING AND DECISION-MAKING PROCESSES Moderator: Roberta Boscolo (WMO)

In this session, we will shed light on the development of seasonal forecasts using multi model combinations and other approaches. Participants will then learn more on climate service users' decisions and actions, with some practical experience.

11:30-12:30 UTC	Skill of seasonal forecasting and multi-model combinations	**Andrea Alessandri (CNR)** **Kristian Nielsen (WEMC)** **Franco Catalano (ENEA)**	Understand how seasonal forecasts are derived, using outputs from different models.
12:30-13:30	Users' decisions and actions	**Nicholas Vasilakos (UEA)**	Gain practical knowledge into the factors affecting users' decisions and actions and how these can be mapped.
13:30 - 14:00 BREAK			
14:00-15:30	Tutorial and teamwork – Co-develop your own climate service component.		

THURSDAY 30 SEPT SESSION 4: THE BUSINESS OF CLIMATE SERVICES

Moderator: Jan Dutton (Prescient Weather Ltd) organised by InterMET.digital

This session will be dedicated to understanding how climate services can be monetised through successful business developments.

11:30-13:30 UTC	Masterclass: how to set up climate service business	**Panelists: Alan Richards (West Hill Capital)** **Simon Hombersley (Xampla)** **Karl Gutbrod (Meteoblue AG)** **Carlos Gaitan (Benchmark Labs)**	Showcase how climate services can be turned into a successful business
13:30 - 14:00 BREAK			
14:00-15:30	Tutorial and teamwork – Co-develop your own climate service component		

PROGRAMME WEEK 3

TUESDAY 05TH OCT SESSION 5: CLIMATE SERVICE CASE STUDIES AND THEIR EVALUATION Moderator: Clare Goodess (UEA)

This session begins with an overview of approaches to evaluate climate services, providing a framework that participants can then apply when hearing about case studies in the water and energy sector.

11:30-12:30 UTC	Evaluation of climate services	**Joe Osborne**	Discuss frameworks for evaluating climate services
12:30-14:00	Applying climate services: case studies in the energy and water sector	**Marco Formenton (ENEL)** **Jon Upton (Shell)** **Leo Kiernan (Thames Water)** **Daniel Drew (National Grid)** **Valentina Cavedon (Alperia)**	Showcase best practice case studies in the energy and water sectors, allowing participants to evaluate these against best practice benchmarks introduced above.
14:00 - 14:30 BREAK & NETWORKING			
14:00-15:30	Tutorial and teamwork – Co-develop your own climate service component		

THURSDAY 07TH OCT SESSION 6: CAREER OPPORTUNITIES, CONCLUSIONS AND LOOKING FORWARD

Moderators: Kit Rackley (Geogramblings) & Alberto Troccoli (UEA/WEMC)

The session begins with a panel on career and business opportunities. Teams will then present their teamwork to a selected panel of specialists, before concluding the course and farewells.

11:30-13:00	Panel: Career opportunities in climate services	**Organised by Faten Bahar** **Moderator: Kit Rackley** **Panellists:** **Melodie Trolliet (AXA)** **Foster Nicholas Ofosu (ADB)** **Kristin Larson (S&P)** **Faten Bahar (Future Earth, LASMAP)** **Marcello Petitta (ENEA)**	Explore, with selected stakeholders, possible career opportunities.
13:00 - 13:30 BREAK & NETWORKING			
13:30-14:30	Elevator pitch of team projects		Pitch team projects to panel of experts.
14:30-15:00	Concluding thoughts and farewell	**Alberto Troccoli (UEA/WEMC)**	

This programme is indicative to illustrate course content but is subject to changes.