Establishment of Clustering Activities

IMPETUS 4CHANGE

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Contents

Summary for Publication

This deliverable confirms the establishment of various clustering activities between I4C and other initiatives and projects. This is a living document and will be updated to reflect on the evolution of these activities, their status, and the establishment of new ones. As such, the deliverable will be updated twice in the project's lifetime (M24 and M45)

Contribution to the top-level objectives of Impetus4Change

The clustering activities in I4C contribute mainly to Specific Objectives 7 and 8, where clustering is mentioned explicitly. Clustering crucial to ensuring the project's legacy as well as achieving its CDE goals.

Detailed Report

Introduction

The most efficient way to illustrate our established clustering activities is to use a table format. This will allow for regular updates as well as a recording of what has been done.

Work Carried Out

Table 1. Description of clustering activities established or in the process of being established as of 05.2023.

Clustering Project/ Activity	Description	Aim of clustering	Contacts (I4C, Clustering)	Clustering established (yes/no)	Actions to-date (person(s) responsible)
ASPECT	Horizon Europe (I4C sister project)	1) S2D (WP2) 2) Regionalization (WP3) 3) Co-production aspects (WP6) 4) CDE (WP7)	1) Daniela Matei (I4C), Veronica Torralba (ASPECT) 2) Stefan Sobolowski (I4C), WP3 (ASPECT) 3) Dragana Bojovic (I4C), Marta Terrado (ASPECT) 4) Anya Gregory (I4C), Andria Nicodemou (ASPECT)	Yes, at project coordinator level. At individual WP and Task level contacts need to be established.	01.2023 – Presented at each other's Kick offs. 06.2023 – Coordinators (Bojovic and Sobolowski) connect key WPs and tasks.
Destination Earth (DestinE) – General	Large EU initiative to develop digital twins for climate adaptation and extremes	Help benchmark DestinE digital twins; Share emulator downscaling strategies	Stefan Sobolowski (I4C), Jörn Hoffmann (DestinE)	Yes	03.2023 – Participated at first DestinE user exchange (online) 11.2023 – I4C to participate in 2nd DestinE UserExchange (online)

DestinE – Vito	A use case project in DestinE investigating extreme heat in urban centers	Link to the Prague demonstrator to analyze effects of extreme heat and explore solutions.	Tomas Halenka (I4C), Dirk Lauwaet (VITO), Mária Kazmuková (City of Prague)	Yes	03.04.2023 mediation, arrangement and discussion of City of Prague involvement into the activity, coordination the tasks with I4C aims
ClimateEurope2	Horizon Europe project to standardize climate services	Links to I4C Co-production activities	t.b.d. (I4C), Francisco Doblas-Reyes (ClimateEurope2)	Yes	Concrete activities t.b.d. later 2023
XAIDA	Horizon Europe project using AI to detect and attribute extreme precipitation convective events	To further develop the machine learning algorithms used in XAIDA for the CP emulators construction in WP3	Erika Coppola (I4C), Davide Faranda (XAIDA)	Yes	01.2023 I4C kick-off Presentation of the embryonal machine learning method developed in XAIDA
EU Mission: Adaptation to climate change	Europe's mission to establish climate resilient cities by 2030	Linking I4C scientific and co-production outcomes to the mission objectives	Stefan Sobolowski (I4C), Phillipe Tulkens (Mission)	Yes	03.2023 – Participated in Missions Science2Policy online event 05.2023 – Participate in Mission events as I4C results come in.
CORDEX-FPS-URB		Extend I4C results to other urban areas in Europe; Direct links with Demonstrator cities Prague and Paris	Tomas Halenka (I4C & FPS-URB)	Yes	02.2023 ongoing – coordination and planning the FPS simulations (domains, experiments, resolution) with respect to I4C aims
TRACCS	A 10-year long French research project targeting to transform climate	Links for some I4C scientific challenges such as Convection permitting climate modelling and Model emultaors	Samuel Somot (I4C), Samuel Morin (TRACCS)	Yes	03.2023: presentation of the potential links between TRACCS-PC10

	modelling for climate services				and I4C at the TRACCS KO, Paris 04.2023: contact between S. Sobolowski and M. Kagayema, one of the TRACCS leader at EGU
Climate Futures	A Norwegian Research Council funded center for research-based innovation focused on climate predictions and services for the private sector	Linking I4C advances to the private sector; sharing co-production success stories	Stefan Sobolowski (I4C), Erik Kolstad (Climate Futures)	Yes.	01.2023 – Climate Futures presented at I4C kick-off
nextGEMS	EC H2020 project developing two storm-resolving ESMs. The data is openly available for testing in the regular nextGEMS hackathons while the knowledge is co-designed with stakeholders.	Sharing experience from the global high-resolution modelling and co-production success stories	Noel Keenlyside and Dragana Bojovic (I4C), Noel Keenlyside and Eulalia Baulenas (nextGEMS)	No	To be established later in 2023
FOCI	EC Horizon Europe project on non-CO2 forcers and their climate, weather, air quality and health impacts	To enable some comparison and assessment of chemistry impacts on climate, with emphasis on cities as well	Tomas Halenka (I4C&FOCI)	Yes	03.2023 ongoing – to coordinate the domain selection, experiments

Discussion and Next Steps

Critical next steps are to make the links to our sister project, ASPECT, more concrete. This will occur over the remainder of 2023 as key contacts in various I4C WPs and tasks are linked to their counterparts in ASPECT. In the updates to the clustering activities deliverable a table will be established below to detail the status and next steps of the clustering activity

Impact

A robust set of clustering activities from those centered on fundamental science to CDE are critical for ensuring that the project impacts as wide an audience as possible. It also helps ensure that we are working efficiently with other communities of practice.

Links Built

Links built are described in the table above.

Communication, Dissemination and Exploitation

As I4C progresses joint activities under clustering are envisioned (e.g., ClimateEurope2 webstivals and EC Science2Policy events) and will appear in the next update, when I4C project results begin to be realized.

IMPETUS4CHANGE (I4C)

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