IS-ENES2 DELIVERABLE (D -N°: 2.7)
Final version of ENES portal

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Revision table			
Version	**Date**	**Name**	**Comments**
V1	25/04/2017	KR,JB, FG	Full version for internal use only
V2	29/05/2017	FG, SJ	Final version, few remarks agreed upon in a dedicated telephone conference on 02/05/2017

Abstract

This document describes the final version of the ENES portal. It summarizes function, objectives and main features of the ENES portal at end of IS-ENES2. The portal was developed in the frame of IS-ENES1 and refined and optimized during IS-ENES2 to improve its usability. The portal is used as a vehicle of information and as a platform to provide support services to the European Earth's climate modelling community.

IS-ENES2 - Contract Number: 312979

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Executive Summary

The ENES portal (https://portal.enes.org) was one of the central outcomes of the IS-ENES1 project. On the one hand it acted as a communication platform and a central entry point to information for the European Earth System Modelling (ESM) community; on the other hand it reflected and represented the results achieved in the IS-ENES project.

During the IS-ENES2 project the portal has been further established as the central information gateway for the European ESM community and as unique access point to the IS-ENES services. Major restructuring during the course of the project has optimized the structure as to make the access of information and services most effective.

To ensure the persistence of the ENES portal beyond the IS-ENES2 project, future updates of the content are distributed, where possible, among community members, whereas large parts of the technical infrastructure are integrated into the standard system and maintenance procedures of DKRZ.

1. Introduction

The ENES portal has a central role in integrating and serving the European community on Earth System modeling. The portal was developed in IS-ENES1 and refined and optimized during IS-ENES2. This document accompanies and documents the portal release as of the end of this second phase of the project. It summarizes function, objectives and main features of the portal and indicates the portal maintenance strategy.

2. The ENES Portal: objectives and requirements

The ENES portal was set up to gather relevant information for the European ESM community and to combine and present them in a way most efficient for the community. Furthermore the portal is the entry point to the services set up and offered by the IS-ENES projects.

Thus, the prevailing criteria underlying the design and concept of the portal are:

- *Keep it clear and simple*: The structure should quickly lead to the desired information; IS-ENES services should be clearly described and directly available.
- *Avoid duplication; minimize maintenance*: The added value of the portal lies in the collection and aggregation of information given elsewhere; own original content is mostly added to unite and coherently present collected information or should the information not available elsewhere in concise and useful presentation for the Earth system modelling community.
- *Foster community involvement:* The portal should in any case offer the community the possibility to create and maintain own content or to provide topics to be added by appointed portal editors.

According to these criteria and to the feedback received on the occasion of the midterm review, the structure of the portal was revised and further optimized in July 2015.

3.   The ENES portal: structure

The portal's main structure is organized along the main aspects of Earth System Modelling: model & tools, data, and computing and hosts furthermore a section informing on community activities and initiatives. A service section proposes an integrated catalogue of IS-ENES support services thoroughly describing and providing direct access to them by pointing to corresponding pages in the model & tools and data sections. A contact form for community feedback is moreover integrated in the top navigation bar (see Figure1).

Figure 1: The main page of the ENES portal. The top navigation bar grants access to the different sections: community, services, models & tools, data, and computing, and to the contact form. On the right hand side portlets show community news and give notice of upcoming events (details are given upon clicking).

The **community section** (Figure 2) offers detailed information on ENES (rationale, aims, strategy etc.), collects community announcements (on news and events), hosts a collection of newsletters), has a separate section on schools and education initiatives (see Figure 3), a comprehensive collection of community projects, organization and programmes at different geographical scale, and, last but not least, indicates guidelines as on how to participate in ENES or contribute content to the portal.

Figure 2: Entry page to the community section.

Site Map | Contact | Log in

COMMUNITY | **SERVICES** | **MODELS & TOOLS** | **DATA** | **COMPUTING** | **CONTACT**

enes
EUROPEAN NETWORK
FOR EARTH SYSTEM MODELLING

COMMUNITY
- About ENES
- Announcements
- ■ Schools & Education
- 3rd E2SCMS
- 2nd E2SCMS
- 1st E2SCMS
- Projects and Initiatives
- Participate

is-enes

You are here: Home » Community » Schools & Education

Earth System Modeling Schools

Summer schools and similar events in Europe related to Earth System Modeling

Educational initiatives are valuable instruments to form and inform the community on the latest technical and scientific developments, and therefore of fundamental relevance among ENES activities.

ENES Schools E2SCMS

ENES European Earth System and Climate Modelling Schools, E2SCMS, supported by the European FP7 project **IS-ENES phase 1 and 2:**

3rd E2SCMS (Helsinki, June 2016)

2nd E2SCMS (Barcelona, June 2014)

1st E2SCMS (Kos, June 2012)

Other Schools

Other upcoming schools, courses, workshops and educational initiatives in Europe related to Earth system and climate modeling are listed below.

You can browse through past initiatives here.

Title	Description	Start Date	End Date
Regional Climate Modelling workshop	The Met Office invites to attend its annual Regional Climate Modelling workshop at Met Office Headquarters.	May 02, 2017	May 05, 2017
4th ICOS summer school	ICOS (Integrated observation system) Research infrastructure organises a summer school on "Challenges in measurements of greenhouse gases and their interpretation"	May 24, 2017	Jun 02, 2017
Scientific Visualisation	A course in the frame of the HLRS training events.	May 31, 2017	Jun 01, 2017

Search Site OK

■ **NEWS**

21/02/2017 Climateurope 5th webinar in a series on the integration of Earth System Modelling with Climate Services
Feb 10, 2017

IS-ENES2 Final General Assembly
Jan 25, 2017

Call for abstract EGU 2017 session CL5.13: Research Infrastructures and CMIP6
Jan 05, 2017

More...

■ **UPCOMING EVENTS**

PDEs on the Sphere 2017
Apr 03, 2017 - Apr 07, 2017 — Paris (France)

Research Data Alliance 9th Plenary Meeting
Apr 05, 2017 - Apr 07, 2017 — Barcelona (Spain)

Climateurope Festival 2017 - explore challenges and opportunities of climate services for your activity
Apr 05, 2017 - Apr 07, 2017 — Valencia (Spain)

Previous events...

Upcoming events...

Figure 3: The community section hosts a page on schools and educational initiatives in Earth system modelling in Europe (listing in first place the ENES E2SCMS schools), also accessible under https://schools.enes.org.

The **model & tools section** concentrates on software used by the European ESM community (see Figure 4), in particular on the 7 European models contributing to the internationally coordinated experiments CMIP5 and related shared environment tools. Information on modelling groups and related models (including CIM documentation) and on tools is presented in a standardized way (see Figure 5) as well as the IS-ENES support services provided on those all.

Figure 4: Entry page of the models & tools section.

Figure 5 Example of a standardized ESM description in the model & tools section.

The **data section** (Figure 6) informs on nature and structure of the ENES data infrastructure and documents the available data and metadata (see Figure 7). Furthermore, it offers thorough (and partly unique) support services on finding, retrieving and exploring the data, *de facto* easing their access to users, and provides the interface with the *climate4impact* portal. Data providers and managers as well find useful information in the service pages of the data section.

Figure 6: Entry page of the data section.

Figure 1: Description of CMIP5 data in the data section.

The **computing section** (Figure 8) describes the collaborations, fostered by the HPC task force, among institutions dealing with climate modeling and actors of the European HPC infrastructure; it documents the ENES benchmark suite, developed in WP10 (Figure 9), introduces the Multi-Model Multi-Member High-Resolution experiment (M4HR) conducted in WP9 and outlines Workflow tools and solutions that were discussed in the frame of dedicated IS-ENES workshops (organized in WP4). Furthermore, it links to the on-going H2020 ESIWACE project focusing on HPC applications in Weather and Climate.

Figure 2: Entry page of the computing section.

Figure 3: Description of the ENES benchmark suite in the computing section.

The **service section** offers overview and direct access to the IS-ENES support services by linking to the support services described within the models & tools and data sections (see Figure 10).

Figure 4: Entry page to the service section.

4. The ENES portal in the future

To maintain the ENES portal beyond the IS-ENES2 project, regular updates of the content as well as of the technical infrastructure have to be guaranteed. For the content, the frequency of and effort involved in these updates depend on the type of content and on its integration in the general information flow in the community; for the technical infrastructure, they depend on the nature of the intervention and on its integration into an existing update procedure.

4.1 Contents

Concerning the contents, there is some commitment in the modeling community to contribute to regular updates of the descriptions of models and modeling groups; main updates of the computing section are planned to go along with the work of the ESiWACE[1] project; main information related to the data service will mostly remain valid for CMIP6; regular publication of community news and events could be taken care of by the ENES scientific officer. Thus, a good part of the portal content could maintain the current level of quality. Information in other sections will be reformulated so as to stay consistent and require lower maintenance in the absence of common resources. A system to attribute a date-stamp to any content or at least to the information likely to undergo short-term changes is being finalized.

4.2 Technical aspects

In order to minimize the effort of technical maintenance, large parts of the technical infrastructure of the ENES portal are integrated in the existing systems and update procedures of DKRZ. In view of the foreseen evolution of the portal into a somehow less dynamical structure of affordable maintenance in a period where funding is limited, it might be useful to restrict to a minimum, if not completely avoid, the creation of IS-ENES customized content hosting structures, i.e. transforming existing special *IS-ENES contenttypes*, (such as the case of the "Modeling Groups" or "Projects" pages) into standard *Plone contenttypes* (as Plone *Pages* and *Collections*).

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[1] https://www.esiwace.eu/