

- ▶ COST Action Networking Tools
- ▶ All Actions



[Home](#) | [COST Actions](#) | [Earth System Science and Environmental Management \(ESSEM\)](#) | [ES1102](#)

### ESSEM COST Action ES1102

## VALUE - Validating and Integrating Downscaling Methods for Climate Change Research

Our understanding of global climate change is mainly based on General Circulation Models (GCMs) with a relatively coarse resolution. Since climate change impacts are mainly experienced on regional scales, high-resolution climate change scenarios need to be derived from GCM simulations by downscaling. Validation of downscaling methods is crucial, but several aspects have not been systematically assessed: variability on sub-daily, decadal and longer time-scales, extreme events, spatial variability and inter-variable relationships. Different downscaling approaches such as dynamical downscaling, perfect prog statistical downscaling and model output statistics have not been systematically compared. Furthermore, collaboration between different communities, in particular regional climate modellers, statistical downscalers and statisticians has been limited. VALUE will provide a European network to validate and develop downscaling methods and improve the collaboration between the dispersed research communities and with stakeholders. The Action will systematically compare the different downscaling approaches and assess the aspects listed above. VALUE will deliver an assessment of end-user needs, a benchmark data set and pseudo reality for the validation, a set of validation measures, the validation of state-of-the-art methods and guidelines for stakeholders. It will guide the development of improved regional climate change scenarios for Europe and thereby be relevant for European societies and politics.

(Descriptions are provided by the Actions directly via e-COST.)

### Earth System Science and Environmental Management COST Action ES1102

- ▶ [Description](#)
- ▶ [Parties](#)
- ▶ [Management Committee](#)

### General Information\*

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### Downloads\*

**Action Fact Sheet**  
[Download AFS as .RTF](#)

**Memorandum of Understanding**  
[Download MoU as PDF](#)

**Progress Report**  
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### Websites\*

**Action website:**  
<http://www.value-cost.eu>

\* content provided by e-COST.  
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