

Austria's "Information Portal Climate Change" Getting well-founded climate science across

Johann Hiebl*, Johanna Nemec, Michael Hofstätter, Klaus Haslinger, and Ingeborg Auer

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1. Background

The need to prepare complex, scattered and sometimes conflicting climate science results in a comprehensible, standardised and consistent way in order to reach and be useful for a broader public has been recognised at Austria's national meteorological service during 2010.

Therefore, by the end of last year a comprehensive new part of *Central Institute for Meteorology and Geodynamics'* (ZAMG) website has been activated in terms of a climate service application focusing on Austria and the Alps: At www.zamg.ac.at/klimawandel the German-speaking "Informationsportal Klimawandel" (Information Portal Climate Change) is accessible.

2. Working phase I – Information

In the first working phase of 2010, the focus was on the information aspect. The staff of the *Department Climate Research* compiled about 90 articles in six sections (fig. 1): (a) The introductory section "Standpoint" holds general comments on climate science's contribution and role in the climate change debate. (b) Section "Climate Research" presents reconstruction, observation and modelling methods as well as glaciological techniques. (c) Section "Climate System" identifies the mechanisms driving climate change on different time scales. (d) Section "Climate Past" traces the development of paleoclimate in geological times as well as recent changes during the instrumental period. (e) Section "Climate Future" discusses model results on global, continental and national scales. (f) Finally, section "Climate Impact" demonstrates the consequences of climate change on environment and society as basis for mitigation and adaption strategies.

All articles underwent an internal cross-checking by the colleagues within the department. The articles are featured by figures, strongly linked among each other and completed by external links, references and contact details. Additionally, current climatological, media and editorial issues are commented in terms of a news ticker (g).

4. Outlook

The information portal aims to support a broad public with independent, easily understandable and well-founded climate research facts. Objectification of the climate change discussion will make irrational argumentations by both alarmists and sceptics more difficult and is the sole basis for all reasonable decision making. After its launch, the portal's homepage received around 170,000 accesses per month. Completing existing text and map contents of the portal and extending it by downloadable data are activities planned for the future.

References

- Chimani B. et al. (in review): A new high resolution absolute temperature grid for the greater Alpine region back to 1780. *Int. J. Climatol.*
- Efthymiadis D. et al. (2006): Construction of a 10-min-gridded precipitation data set for the Greater Alpine Region for 1800–2003. *J. Geophys. Res.* 111, D01105
- Jurković A. et al. (2010): SON-ALP. *Interpolationen der Sonnenscheindauer sowie Globalstrahlung in Hinblick auf Klimaänderungen im Alpenraum.* [SON-ALP. *Interpolation of sunshine duration and global radiation with regard to climate change in the Alpine region.*] Internal project report. Vienna: Central Institute for Meteorology and Geodynamics, 33 pp.
- Hiebl J. et al. (2011): Multi-methodical realisation of Austrian climate maps for 1971–2000. *Adv. Sci. Res.* 6: 19–26
- Böhm U. et al. (2006): CLM – the climate version of LM: Brief description and long-term applications. *COSMO Newsletter* 6: 225–235

www.zamg.ac.at/klimawandel

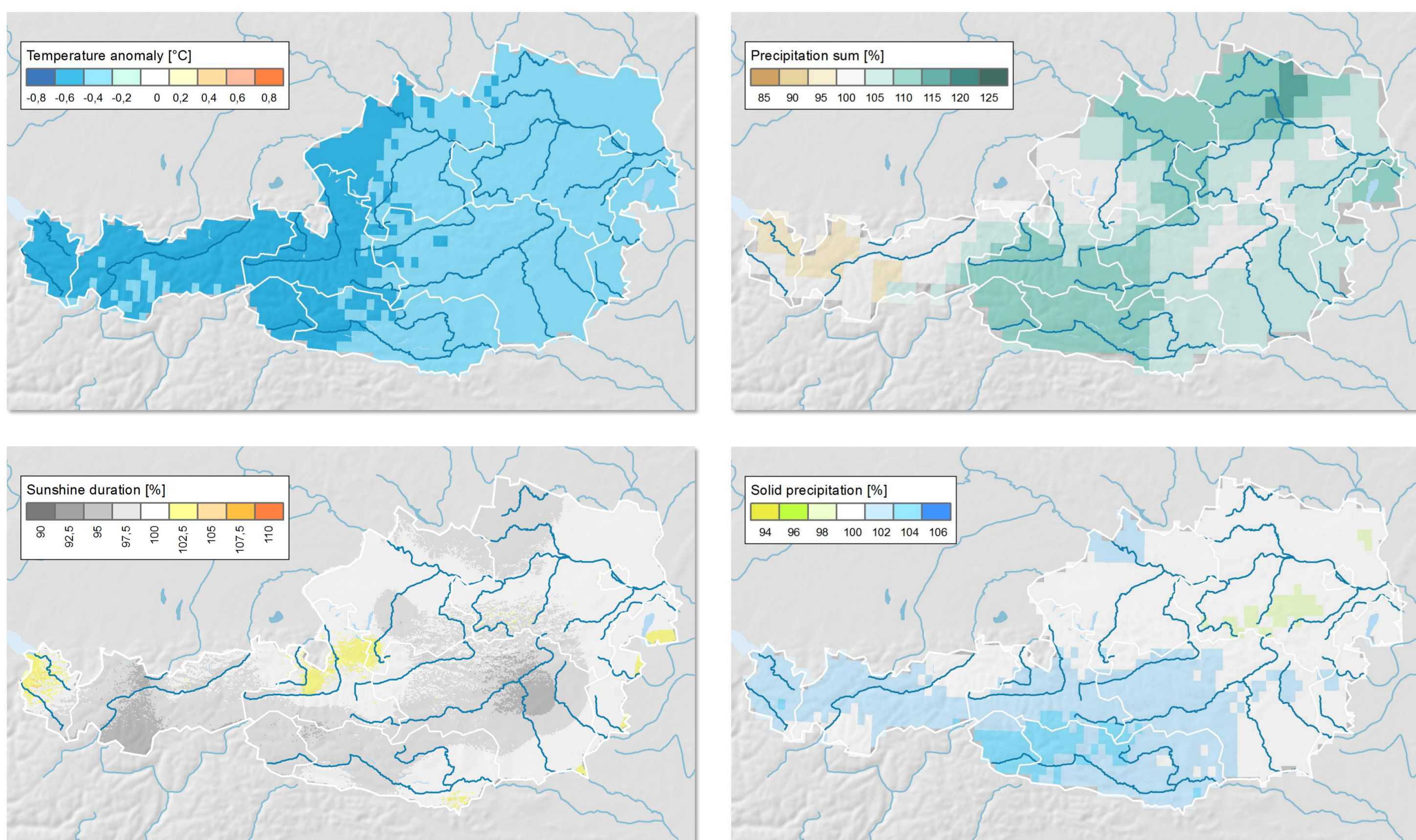


Fig. 2: Bringing together spatial climate data from different sources is the core of working phase II. As an example, decadal anomalies for the 1950s w.r.t. the period 1971–2000 are shown.^{1,2,3}

3. Working phase II – Spatial data

In the ongoing second phase of 2011, the information portal is supplemented by the presentation of spatial data. Research results from different reanalysis^{1,2,3}, gridding⁴ and modelling⁵ projects are integrated and visualised in a web map tool. By doing so, the development of climatological means of air temperature, precipitation sum, sunshine duration and percentage of solid precipitation across Austria from 1781/1931 to 2090 is traceable (fig. 2). Supporting details on data generation, preparation and interpretability are provided.

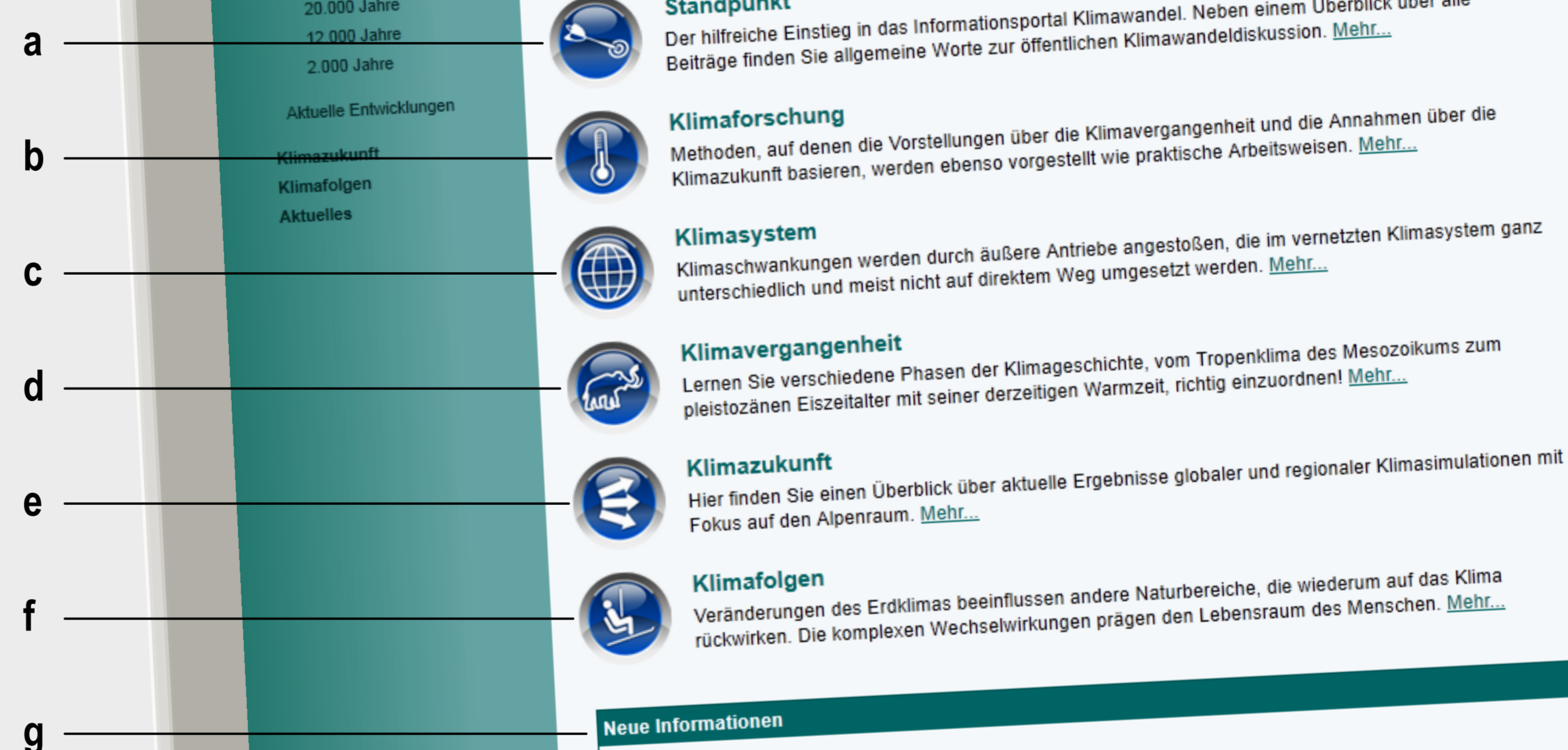


Fig. 1: The construction of the web portal with its textual components (a–g, see text) has been completed in working phase I. The screenshot shows the portal's homepage in August 2011.