

**Ciemat**



# PLATAFORMA SOLAR DE ALMERÍA


## ANNUAL TECHNICAL REPORT


### 1997

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## PREFACE

This is the 12<sup>th</sup> annual report of the Plataforma Solar de Almería since the initiation of bilateral Spanish-German co-operation under the Convenio Hispano-Alemán (CHA) in 1987. In all these years our joint labor has been most successful and the bilateral partnership has proven fruitful and harmonious. This excellent example of combined effort and its many synergetic effects in Europe was at all times based on the common conviction that solar thermal power and some other solar thermal applications are necessary for the sustainable development of mankind.

Almost all the projects carried out at the PSA since 1987 have focussed on better cost-effectiveness and the search for new applications of solar thermal technology. This is again reflected in this yearbook, in running projects as well as in projects now in their starting phase.

But the participants in this challenging endeavor – CIEMAT and DLR jointly operating this unique test center as well as the industrial and scientific partners from so many countries all over the world – know that a completely successful dynamic marketplace for these technologies has not yet been achieved.

Cost reduction alone will not be enough to get the market going again after the first triumph of the erection of 354 MW power capacity in California 10 years ago. Therefore, the Spanish and German managers and engineers at the PSA are heavily engaged in the world-wide process of establishing a new alliance for the erection of further, more advanced solar power plants.

The conditions for success are not too bad: the technology is technically mature. Economically speaking, solar thermal power needs grants and other favorable financing conditions that seem to be available. We still lack the perfect combination of powerful manufacturing consortia with such operating and investor groups; and, of course, solar thermal power also needs good emplacement in interested helpful countries in the solar belt. Last, but not least, European governments, including the Commission of the EU, must help catalyze the assembly of the necessary players. The PSA is one of the centers of competence and commitment that works hard to bring the loose ends that exist together.

Unfortunately, this annual report is the second to the last one for which Spanish and German teams will be jointly responsible. Due to budget reductions in the German ministry of research, DLR as the German partner is no longer in a position to maintain its full presence and contribution to the PSA as it has done for so many years.



Gerd Eisenbeiß

But DLR will not give up the ground gained or the joint vision of successful solar electricity production. There are several projects under way that include DLR engineers on the PSA until 2000, and we will do our best to continue jointly this challenging and promising work even beyond that date.

Gerd Eisenbeiß  
Chairman of the SC of the PSA.

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the PSA staff who have made the PSA what it is today,

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