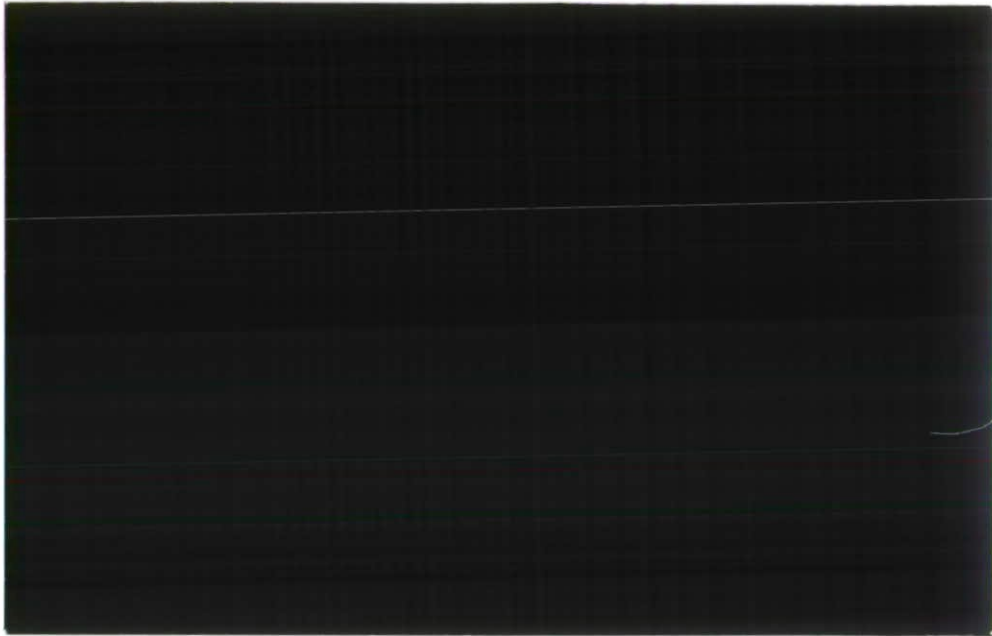




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Institute of Virology & Environmental Microbiology

Natural Environment Research Council

HYDRA II DISSEMINATION

**A proposal to the
European Small Hydropower Association
(ESHA)**

by the

Institute of Hydrology, Wallingford, UK.

December 1998

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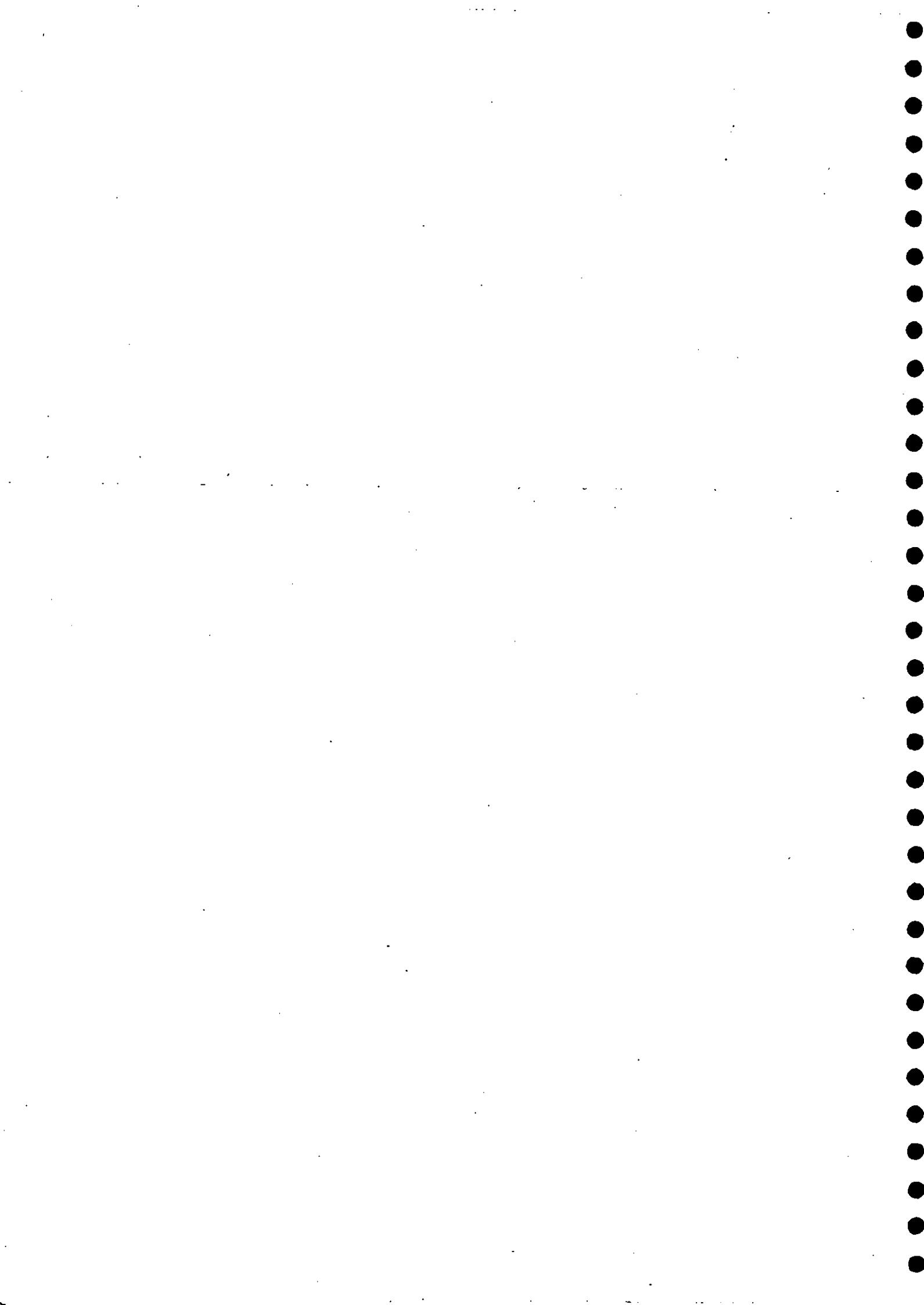
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Preface

This document presents a technical and financial proposal for the dissemination of the new version of the HydrA software, which will result from Phase III of the project European Atlas of Small-scale Hydropower Resources in March 1999. The document includes details for the launch and promotion of the product and a policy for software support and maintenance and is submitted to the European Small Hydropower Association (ESHA) for funding during the period March 1999 to February 2002.

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1 Introduction

For the past 30 months, the Institute of Hydrology (IH) has been extending the coverage of the European Atlas of Small-Scale Hydropower Resources to include Austria, Belgium, Ireland, Italy, Luxembourg and Portugal. The Atlas has been developed as an easy-to-use menu-driven software package called HydrA. The software enables developers to rapidly assess the potential of any proposed small-scale hydropower site in any of the countries listed. The development of HydrA has been conducted in phases, under three separately commissioned projects. The present project (Phase III) is a three year project, which is due for completion at the end of March 1999. The Atlas was commissioned by the European Small Hydropower Association and has been jointly funded by the European Union's ALTENER and THERMIE programmes. The current project follows on from Phase II, in which the software was developed for Spain and the United Kingdom, and Phase I, which was a Feasibility Study.

At the end of Phase II, in the Autumn of 1996, a separate contract was signed between ALTENER, ESHA and IH specifically for the dissemination of Version 1.0 of HydrA in Spain and the UK. This "dissemination" contract has now come to an end. With six months remaining of the Phase III development, there is a need to consider the dissemination programme for HydrA in Austria, Belgium, Ireland, Italy, Luxembourg and Portugal. The dissemination programme is required to promote the HydrA software and its practical application in the eight countries mentioned. By providing a reliable method for estimating hydropower potential, HydrA will help increase the uptake of small-scale hydropower schemes in Europe and, hence, it will help the European Union achieve its objective of a 12% contribution from renewable energy sources to the gross inland energy consumption by the year 2010. The Institute of Hydrology herein proposes a dissemination programme for this second version of the software, HydrA II, in Austria, Belgium, Ireland, Italy, Luxembourg and Portugal. Some further dissemination activity is also proposed in Spain and the UK for the new version of the software.

This document presents details of a distribution system for the HydrA software, the launch and promotion of the product and a policy for product support and maintenance.

2 Relevant IH expertise

The Institute of Hydrology (IH) is the UK's leading centre for hydrological research and one of the most prestigious hydrological research organisations in the world. The Institute is committed to developing and supporting a number of hydrological software products, providing a full sales, support and help-desk service covering all aspects from sales promotion right through to post-installation technical and scientific support. As a result of this expertise, IH was sub-contracted by ESHA to undertake the dissemination of the HydrA software in the UK and Spain. It is therefore recommended that, as a result of the infrastructure, operational procedures, experience and close working relationship with the developers of the software that are already in place, IH be selected to undertake the dissemination of the new HydrA II software.

3 The HydrA II product

HydrA II will be capable of running under Microsoft Windows '95 (or above) on any IBM-compatible computer. The required minimum configuration of the computer will be limited by the system requirements of Windows '95, as indicated below, rather than operating requirements of HydrA II:

Memory:	8 Mb, but 16 Mb preferred
Processor:	80486SX chip @ 66 MHz
Hard disk:	40-50 Mb for Windows '95 plus 5-20 Mb for HydrA II depending on selected region
Graphics card:	VGA, EGA or compatible
Operating System:	Microsoft Windows '95 or above
Floppy disk drive:	3.5" DD
Output device:	Industry standard output devices should be supported

The new software will benefit from modifications, improvements and bug fixes suggested and implemented through the operational use of Version 1.0 in the UK and Spain, which experience has shown is now very stable. HydrA II will feature new facilities (e.g. multiple turbines, editable turbine efficiencies), thus increasing the functionality of the product.

4 Distribution mechanism

In contrast to Version 1.0, which was supplied on 3.5" diskettes at a price of ECU 400, it is proposed that the HydrA II software will be freely available for downloading via the Internet World Wide Web (WWW). The "Technical Reference and User Guide", the manual that accompanies the software, will also be available via the WWW in Spanish, Italian, French, German, Portuguese and English. "Check-boxes" will provide a means to select which country version of the software and guides are to be downloaded. The ability to download the software would be conditional on the "customer" registering his/her details (name, address, phone/fax/e-mail) and affiliation. This mode of dissemination will not only help reduce the costs of distribution, but will make the product more readily available to those involved in the development of small-scale hydropower in Europe. For potential users who do not have access to the WWW, versions of the software and manual will be available on floppy disk or CD-ROM. A nominal fee of 100 ECU (+ VAT) would be charged to cover the cost of the media, postage and packaging. The staff time to service the request will also be covered within this charge.

5 Product support and maintenance

It is recommended that Product Support, including telephone support for technical queries and software maintenance, will only be provided to those who choose the option (on the WWW site) to enter an annual renewable service agreement with IH, which will be available at an annual fee of ECU 500 (£345).

The co-ordination of software support and maintenance shall be the responsibility of the IH Software and Support Section (subsequently referred to as the Software Section). An e-mail, fax and telephone line will be available for support, including an answer-phone for out of office hours use. The Software Section will receive and record all queries from the subscribers, all error reports and any suggestions from customers. There will be a member of staff within IH identified as scientific support who will supply the technical input required to identify errors and answer users' scientific (hydrological and hydropower) queries. There will also be a nominated individual who will be responsible for providing program support, including locating and fixing bugs and providing minor enhancements as required.

The Software Section, through liaison with the scientific support and the programming support staff, shall gauge the severity of all reports of errors in the software. Catastrophic bugs, which inhibit the operation of the software, should be fixed as soon as possible. Errors causing incorrect results should be confirmed with the customer immediately and fixed within 3 months. Minor bugs (titles, wording etc.) which do not affect the results should be part of the next upgrade exercise. Upgrades and bug-fixes can only be provided to customers who have purchased annual maintenance.

6 Marketing and Promotion

A review of the potential market, conducted on behalf of IH (Tyler, 1996)¹, shows there to be considerable scope for the exploitation of small-hydropower, and hence HydrA, in Europe. The potential market for HydrA II is expected to be energy producers, local authorities, private investors, consultants (both private and corporate), regulatory authorities and academic institutions.

During the first dissemination contract, it was assumed that HydrA would be actively marketed by members of the EU's OPET network. However, this did not prove at all successful. In order to ensure that the software received appropriate levels of publicity and so that it should reach its target audience, IH undertook a number of activities outside those originally anticipated, incurring costs significantly above those forecasted. Despite the considerable promotional activity in Spain and the UK, sales of HydrA have remained relatively low; approximately 30 in the UK and 10 in Spain.

¹ Tyler, D J., 1996. "An Assessment of the Commercial Potential for the HydrA Software Package in the European Markets of Belgium, Greece, Portugal, Spain & the UK", Dissertation to Oxford Brookes University for the degree of M.Sc. in International Marketing, September 1996.

The experience that IH has gained through disseminating Version 1.0 of the software leads it to recommend the following activities be undertaken for HydrA II:

- IH will promote HydrA II as one of the range of software products which it distributes. These general promotional activities will include:
 - attendance at hydrological conferences/exhibitions
 - annual software newsletter
 - brochure display at the Institute
- Additional specific activities related to HydrA II will include:
 - dedicated WWW pages with full product description and featuring facilities for the free download of: demonstration software (for a restricted area); fully functional software; user guides in Spanish, Italian, French, German, Portuguese and English; service agreement subscription forms
 - production of publicity brochures for HydrA II in Spanish, Italian, French, German, Portuguese and English
 - appointment of a local representative (or "stake-holder") in Austria, Belgium (incl. Luxembourg), Ireland, Italy, Portugal and Spain to provide translation, local marketing, promotion and running of a local launch workshop,
 - provision of a launch workshop in each country (UK excluded), to be given by the local representative, with IH staff in attendance as back-up for technical queries and demonstration of the software
 - demonstrations to potential customers
 - submission of articles to relevant scientific journals and trade press
 - attendance at hydropower-related conferences/exhibitions.

Implicit in the work activities and costs, the following assumptions have been made:

1. the implementation of HydrA for Belgium also includes coverage of Luxembourg. These two countries will be considered as a single region;
2. within the proposed time scales and costs, the translation of all documentation will be for the principal language in each country, therefore manuals will not be provided in Flemish or Gaelic;
3. although the software will be freely available, a demonstration version of the software will still be made available so that it will not be necessary for users to download the whole database in each country (e.g in Spain the databases are provided for three UTM zones);
4. there is no provision for a launch workshop in the UK, since this activity was undertaken in March 1997 as part of the Phase II dissemination contract.

7 Costs

The significant efforts put into the launch of Version 1.0 in Spain and the UK will be beneficial to the proposed dissemination activity by reducing the start-up costs for HydrA II in Austria, Belgium, Ireland, Italy and Portugal. The dissemination costs are categorised as follows:

- start-up costs (activities required before the product can be launched)
- launch costs (the cost of initial launch/promotional activities)
- on-going costs (overheads to promote sales over next 3 years)
- support costs (zero, as these will be funded exclusively by the annual service subscription)

The start-up and launch costs are presented in Table 1 and the on-going running costs are presented in Table 2.

8 Workplan

Assuming the HydrA II Dissemination contract to be in place by 1 April 1999, it is estimated that the "Set-up" activity will have a duration of 6 months. The series of 6 Launch Workshops will then commence in October 1999 and will be staggered over the following six months. "On-going" activity will have a duration of 3 years, from 1 April 1999 to 31 March 2002.

9 Reporting

IH will provide periodic reports at six monthly intervals with contributions from each local representative. Specific "launch" reports will be presented 1 month after each launch workshop by the respective local representative.

Table 1 Initial costs

HYDRA II DISSEMINATION - COST BREAKDOWN			
Activity	Breakdown	Total (ECU)	Responsibility of
Set-up costs			
Design and development of a dedicated WWW site for HydrA II	40 days' software development @ 400 ECU/day	16,000	IH
WWW dialogue translation	5 languages (ES, FR, DE, PT, IT)	1,000	Rep
Adaptation of User Guides for WWW application	10 days @ 400 ECU/day	4,000	IH
Brochure design	5 days @ 500 ECU/day	2,500	IH
Brochure translation	5 languages (ES, FR, DE, PT, IT)	1,000	Rep
Brochure printing	4,000 colour on good quality paper	4,800	IH
Sub-total 1 (Set-up costs)		29,300	
Launch Costs			
Negotiation with, and appointment of, local rep in 6 countries (AU, BE, ES, IR, IT, PT)	2 days x 6 countries @ 500 ECU/day	6,000	IH
Advertising of launch and workshops in each country	Nominal budget 2000 ECU per country (x6)	12,000	Rep
Local organisation (by local representative)	10 days x 6 countries @ 700 ECU/day	42,000	Rep
Preparation and translation of materials for launch workshop	1000 ECU per country (x6)	6,000	Rep
Workshop organisation (by IH)	5 days x 6 countries @ 400 ECU/day	12,000	IH
IH travel and subsistence (T&S) to attend workshops in each country	1500 ECU per mission (x6)	9,000	IH
IH staff time at workshops in each country	3 days per country @ 400 ECU/day	7,200	IH
Hire of venue (2 days)	Nominal budget 500 ECU/day per country (x6)	6,000	Rep
Sub-total 2 (Launch costs)		100,200	
Total (1+2)		129,500	

Rep = Local representative

Table 2 *Running costs*

HYDRA II DISSEMINATION - COST BREAKDOWN			
Activity	Breakdown	Total (ECU)	Responsibility of
On-going costs (annual recurrent for 3 years)			
IH attendance at 2 international conferences / exhibitions	Staff: 2x5 days @ 400 ECU/day	4,000 p.a	IH
	T&S: 2000 ECU per mission (x2)	4,000 p.a	
	Stand rental: 1000 ECU (x2)	2,000 p.a	
Local representative attendance at 3 national events per country	Staff: 3x3 days @ 700 ECU/day (x6)	37,800 p.a	Rep
	T&S: 600 ECU per mission (x3 x6)	10,800 p.a	
	Stand: 1000 ECU nominal (x3 x6)	18,000 p.a	
Local representative retainer to support queries from local users	5 days @ 700 ECU/day/country	21,000 p.a	Rep
Retainer to support customer queries and maintenance of software	10 days @ 400 ECU/day	4,000 p.a	IH
Software demonstrations and general marketing activity	10 days @ 400 ECU/day	4,000 p.a	IH
Maintenance of WWW site	10 days @ 400 ECU/day	4,000 p.a	IH
Submission of articles and papers to scientific/trade journals	10 days @ 400 ECU/day	4,000 p.a	IH
Total (On-going)		113,600 p.a	

Rep = local representative
p.a = per annum