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# InterRidge

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**Steering Committee Meeting Report, 2002**

**Sestri Levante, Italy  
13 - 14 September 2002**

**Chair  
Kensaku Tamaki**

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**Javier Escartin**, *ad hoc* 2002 (France)  
**Françoise Gaill** *at hoc* 1988 (France)  
**S. Kim Juniper**, 1998 (Canada)  
**Sang-Mook Lee** 2001 (Korea)  
**Abhay V Mudholkar** 2002 (India)  
**Rolf Pedersen** 2001 (Norway)  
**Damon A.H. Teagle** 2002 (UK)  
**Spahr C. Webb** *at hoc* 2001 (USA)

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## **Introduction**

The Chair of InterRidge, Kensaku Tamaki welcomed all the members to Sestri Levante, Italy. The venue for the meeting, hotel “Vis a Vis”, was selected by Dr Riccardo Tribuzio from the University of Pavia, where he is actively involved in ophiolite research and was the local host and organiser of the first InterRidge Theoretical Institute.

The Chair of the meeting stressed the impact that the presence of the IR office in Tokyo has had on the development of international ridge research in Japan as well as other Asian nations. He was pleased with the progress of the formulation of the “Next Decade InterRidge Science Plan” and that significant amount of time during the meeting should be devoted to the discussion on what needs to be done to finish the ND Science Plan and to the movement of the office to the new location in January 2004.

## **Matters arising**

The current Chair and Coordinator agreed to host and run the IR office for a 4<sup>th</sup> year, in 2003. The office will thus move to a new location in January 2004. The logistics and details of a call for bids to host the next office will need to be discussed at this meeting and the bids evaluated before the next Steering Committee meeting. The final decision about the location of the next office will be made during the 2003 Steering Committee meeting. The new Chair and host nation will be responsible for implementing the new Next Decade Science Plan.



## **National updates**

### **China (J. Lin)**

The time spent in China promoting international Ridge research and InterRidge was very productive. While there is no tradition of open sea research, if some people become very interested in this field of research, upgrading IR status will not be a problem for China. The Chinese scientists do form a huge ophiolite community, with collaborations with Germany, and are very interested in the sub-seafloor biosphere and molecular biology.

- In June 2002, there was a theoretical institute on "Deep sea research" in Shanghai, with 70 participants
- In August 2002, there was a Workshop on the "Hydrothermal vents" in Tsingto.
- There is a ROV cruise planned to the Fiji Basin in late 2003 or early 2004 to study hydrothermal vents and there are plans for developing a submersible with maximum diving depth of 7000m.

The Chinese scientists are keen to increase their involvement in the international research arena and become a part of a larger research community. It would appear that it is only a matter of time before China joins IR as an active member nation. The scientists within China need to form a formal "national" program before they will become a part of a larger international community. ST COM has approved a proposal from Dr. John Chen to host an InterRidge workshop on "Opportunities and Contributions of Asian Countries to the InterRidge Next Decade Initiative" in Beijing on June 23-25, 2003. The InterRidge Steering Committee meeting will be held in Beijing on June 27-28, 2003.

### **France - (C. Mével)**

The Dorsales program ended last December, after 8 years of existence. 2002 is a year of transition, during which France remains a principal member of InterRidge. A meeting to discuss prospective in Earth Sciences is scheduled in September, organized by the CNRS-INSU (Institut National des Sciences de l'Univers). A new program for long term observation of active processes at mid-ocean ridges will be proposed by the French community. This meeting is focussed on Earth Sciences, however the proposed program is resolutely multidisciplinary and will be presented as such. Therefore, there will be a move to seek support from CNRS SDV (Sciences de la Vie) and from IFREMER.

For long term observation, the community has decided to focus on two targets, one on a slow, and one on a fast spreading ridge. The first target will be the Mid-Atlantic Ridge south of Azores (MOMAR area). This area has the advantage of including three major hydrothermal fields (Menez Gwen, Lucky Strike and Rainbow) which cover various depths and lithologies. French scientists have been very active in this area during the last decade, in the context of European programs. Moreover, this site has been selected by InterRidge. The selection of the second target is still under discussion. For the biologists, the best candidate is the East Pacific Rise at 13°N. French biologists want to benefit of their record of 20 years of observations. However, there is a strong interest on the southern EPR because the very fast spreading rates increases the chance to witness events. The problem there is the logistics. The plan is to have a phased approach, starting with MOMAR and then continuing with the EPR. The strategy is to start with the existing tools. The community is convinced that a real seafloor observatory is a long term goal which requires technological development, but that a number of measurements and repeated observations can start in the near future. Two cruises are actually scheduled on the MOMAR area next year.

The French Dorsales community is also involved in two LOI submitted to Europe last June. The first one is for a Network of Excellence (EURECO, European Ridge Ecosystems), the second for an Integrated Program on the MOMAR area (MOMAR).

A few projects on ridge hydrothermal systems have been funded by the new CNRS multidisciplinary program "*Geomicrobiology in extreme environments*".

The acquisition of 25 OBSs from Scripps for the French CNRS community is underway. They should be operational in 2003. (P.I. : *Satish Singh (IPGP)*). More funds are being sought to increase the number of instruments.

The design of the new ship which will replace the NADIR will start soon. This new ship, le "Pourquoi Pas ?", will carry the submersibles (NAUTILE and ROV). It should be finished at the end of 2004.

### *Upcoming "Dorsales" Cruises*

France, Germany and Great Britain are increasing the mechanism for exchanging ship time for a better handling of logistical problems. This is why some French cruises are now scheduled on either British or German ships. It is a very positive step because it increases the availability of ships.

In 2003, the following cruises are tentatively scheduled

- SIRENA/ROM, P.I. : J. Goslin ; R/V Discovery, Sept. 2003  
Recovery of the OBHs successfully deployed onto the M.A.R North of Azores to monitor the seismicity of the ridge. Funds are still sought to deploy the OBH for one more year after recovering the data.
- GRAVILUCK, P.I. : V. Ballu ; R/V Atalante + Nautille, July 2003  
Seabottom gravity survey around Lucky Strike ; initiation of a seafloor pressure measurement program to constrain vertical movements  
This cruise is part of the MOMAR project
- LUCKYFLUX, P.I. : A. Bonneville ; R/V Poseidon, August 2003  
Regional characterization of heat flux in the MOMAR area  
This cruise is also part of the MOMAR project
- PACANTARTIC II, P.I. : L. Dosso and H. Ondréas ; R/V Sonne, December 2003  
Mapping and sampling of the Pacific-Antarctic ridge between 52 and 41,5°S.
- MALABAR, P.I. : R. Cosson ; ; R/V Atalante + Nautille, March 2003  
Biological cruise, Logatchev hydrothermal field and cold seeps from the Barbados accretionary prism.
- EXOMAR, P.I. : G. Barbier, R/V Atalante + Nautille, April 2003  
Microbiological investigations at Lucky Strike and Lost City.

### **Germany – DeRIDGE (C. Devey)**

The De-Ridge project has been formally funded for next 6 years and an order has been placed for an ROV to 4500 m.

The German Ridge community, bundled now in the Concentrated Research Programme Number SPP1144 of the DFG (with the title "From mantle to ocean: material, energy and life cycles on spreading axes") has begun work on its focussed research areas, around 15°N and between 2-11°S on the Mid-Atlantic Ridge. This work has consisted of getting proposals ready for the special research programme (proposal deadline 1 March 2003, successful proposals to then start in Oct. 2003) and getting ship time in place.

Heroic efforts by some of the SPP1144 members lead to 3 cruise proposals for the German research vessel Meteor being accepted and scheduled in 2004. These include a 40+ day hydrothermal-biological cruise in July 2004 to 15°N lead by Peter Herzig, a 30+ day geophysical cruise to the Ascension Fracture zone region in October 2004 lead by Tim Reston and a 45 day oceanographic-volcanological cruise to 2-11°S in November/December 2004 lead by Colin Devey.

At the end of December 2002 the SPP1144 group will meet in Bremen at the request of the Meteor planning committee to discuss ship time needs up to the end of the 6-year lifetime of the SPP1144 programme.

### **Italy – (E. Bonatti)**

Till now had to rely on cooperating with the Russian scientists for ship time. No ship in Italy that can go outside the Mediterranean.

New Italian ship called explorer will be available from now on for open ocean research. Dependence on the cooperation with Russian for open ocean research will end.

Research is planned in the Equatorial Atlantic.

Cruise planned in March – on the Italian ship

### **India – InRidge (R.K. Drolia)**

#### **A: ST COM 2003**

Request for approval by the IR STCOM to host next STCOM meeting by INDIA at Hyderabad /Goa in 2003. The delegates and members would find their stay comfortable ( all Air-Conditioned leaving rooms and Conference rooms).

Cost is negligible. Return Air-fare (as to date) from Europe/USA / Japan to Hyderabad is approx. Rs 48000/- ( US\$950). Hotel would cost US\$20-30 per night but WE WOULD PROVIDE GUEST HOUSE ACCOMODATION AT NEGLIGIBLE COST. A visit to India and Stay at Hyderabad would be a memorable experience for STCOM members.

#### **B: Conference on Ridge processes**

The STCOM meeting could be preceded by Two-day Conference on Ridge processes covering all its aspects and in particular Hotspot-Ridge Interaction / Ultra Slow Spreading Ridges / Indian Ocean Ridge System.

We are happy to inform STCOM that India is going to launch a major research Initiative on CR-CIR to be completed during next FIVE Years (2002-2007). We very much wanted to discuss during the meeting but it was most unfortunate that a representative from India could not attend this time.

We would like to know whether we could get the Logistic support with kind support of IR and its members either as collaborative venture or on hire? How to interact?

Hope this time the decision at the ST COM meeting will bring good news for me which would boost our efforts further to get support from Indian Funding agencies.

### **Japan - InterRidge - Japan (T. Gamo and M. Kinoshita)**

Recent activity of the Japan InterRidge can be currently grouped under the following projects:

#### **1) Archaean Park Project**

Archaean Park project is an interdisciplinary research project on the interaction between the sub-vent biosphere and the geo-environment. It is funded by MEXT, Japan, as a five-year program (2000-2004) with a major evaluation in 2002.

In 2001 and 2002 we carried out intensive surveys in the Suiyo Seamount, a dacitic arc volcano in Izu-Ogasawara Arc, western Pacific, where there is high-temperature hydrothermal activity on the caldera floor. We drilled ten holes (average depth = 5.6m) using a tethered, submarine rock-drill system BMS (Benthic Multi-coring System) and used the holes for sampling and data acquisition/monitoring by utilizing a ROV and the manned submersible Shinkai 2000. We conducted long-term monitoring using geochemical/geophysical equipment lowered from a surface ship. The Suiyo Seamount hydrothermal system is characterized by a localised and shallow circulation combined with uniform, deep-seated and stable reservoir. Although the archaeal population was low, its microbial diversity in hydrothermal surface to sub-surface environment of Suiyo Seamount proved to be large.

The Archaea Park research community is now under a review process for the second phase (2003-2004), and has submitted ship-time proposals for the survey in Mariana Trough hydrothermal area.

**2) Mid oceanic ridge study (at Kairei Site, Rodriguez Triple Junction and Indian Ridge)**

The YK01-15 cruise of *R/V Yokosuka* with DSRV Shinkai 6500 (JAMSTEC) was successfully conducted from January to March 2002. The chief scientist was Dr. Ken Takai (JAMSTEC). They revisited the Kairei hydrothermal site to take hot fluid and microbiological samples. There is now, for the first time, evidence of the existence of HyperSLiME (Hyperthermophilic Subsurface Lithoautotrophic Microbial Ecosystem) beneath the active hydrothermal floor, which comes from cultivation experiments and isotope signatures of trace gases.

**3) Backarc basin study (at southern Okinawa Trough, southwest of Japan)**

Geological, geophysical and geochemical surveys were carried out during the KH-02-1 cruise of the *R/V Hakuho Maru* in the Yonaguni depression, southwestern Okinawa Trough, in June 2002 (PI: Prof. H. Tokuyama, Ocean Research Institute, Univ. Tokyo). The cruise participants included Dr. Jean-Claud Sibuet (IFREMER, France) and Prof. Chao-Shing Lee (National Taiwan Ocean Univ.). In order to acquire hydrothermal plume data during the WADATSUMI sidescan sonar tows, with self-contained sensors called MAPR, developed by NOAA (BSEVENTS Program, were attached to the WADATSUMI system to elucidate successfully two-dimensional plume distributions.

In addition, there are some other activities currently undergoing, that will impact the Japanese InterRidge community. The operation program of the submersible Shinkai 2000 (JAMSTEC) will close at the end of FY2002. Development of a new AUV, with a diving limit to about 4,000 m depth, is in progress (PI: Prof. T. Ura, Univ. Tokyo).

A symposium will be held at Ocean Research Institute in November in order to discuss research cruise plans using *R/V Hakuho Maru* during the forthcoming Fiscal Years 2004 to 2006.

**UK - (P. Dando)**

The U.K. expects to have its deep (6500 m) ROV, a *JASON-II* clone to be called *ISIS*, delivered in January 2003. A meeting of the marine science community will be held at SOC on September 19-20 2002 to discuss the funding for the vehicle and plans for its future use. At present the only U.K. research vessel definitely capable of handling the ROV is the Antarctic vessel James Clark Ross, which passes through the Atlantic twice a year. NERC is planning a replacement for the Charles Darwin and a consultation exercise for the requirements of the scientific community has just been completed. The facilities needed for use of the ROV will be one of the requirements for the new vessel.

A funding decision on B-DEOS, which will have a strong ridge component, is expected in February 2003. UK scientists have participated in the submission of expressions of interest to the EC on ridge-related programmes including MOMAR and EURECO (European Ridge Ecosystems).

Planned ridge-related cruises for the near future include:

- August 2003 *Charles Darwin* NW Indian Ridge - Bramley Murton
- August 2003 *Thalassa* Azores area ROV pilot training
- Proposed cruise 2004 South Atlantic - Chris German

**USA – Ridge 2000 program (C. Fisher)**

Ridge 2000 (R2K) is a new, US National Science Foundation (NSF) sponsored research initiative to understand Earth's spreading ridge system as an integrated whole, from its inception in the mantle to its manifestations in the biosphere and the water column. The R2K Program was conceived to promote an integrated approach towards the study of mid-ocean ridges. Emerging from community workshops over the past two years, R2K builds directly on the scientific and technological successes of the RIDGE Program. The scientific motivation for the R2K Program is encapsulated in the phrase "from mantle to microbes" that expresses the inextricable linkages between processes of planetary renewal in the deep ocean and the origin, evolution and sustenance of life in the absence of sunlight. R2K is at the beginning of an anticipated 12-year program.

The R2K Science Plan aims for a comprehensive understanding of the relationships among the geological processes of plate spreading at mid-ocean ridges and the seafloor and sub-surface ecosystems that they support. Research carried out under this new program will be structured within an integrated, whole-system approach that will encompass a wide range of disciplines. Specific geographic areas will be the focus of detailed studies to yield new insights into the linkages among the biological, chemical and geological processes that are involved in crustal accretion and subsequent ridge crest processes. The R2K Program will support two main research themes: Time-Critical Studies and Integrated Studies.

### **Time-Critical Studies**

The goal of the Time-Critical Studies element is to understand the nature, frequency, distribution and geobiological impacts of magmatic and tectonic events along the global mid-ocean ridge system. To this end, the theme focuses on the immediate biological, chemical and geological consequences of active processes on the seafloor. Such processes generally occur as transient events and include volcanic eruptions and intrusions of magma at the ridge axis and faulting related to seafloor spreading.

Since 1993, event detection and response efforts have focused on two short ridge systems (the Juan de Fuca and Gorda Ridges, northeastern Pacific Ocean) and have revolutionized our understanding of these active processes. The field response to events detected using the SOSUS array (the Navy's cabled hydrophone system in the northeastern Pacific Ocean) has provided fundamental new information about the linkages between volcanic events at the seafloor, the development of hydrothermal plumes in the ocean above the ridge crest, hydrothermal circulation and vent biota.

Under the R2K Program, Time-Critical Studies are dedicated to facilitating rapid-response missions that can observe, record and sample these critical transient phenomena in the ocean above the mid-ocean ridge as well as on the seafloor itself. In the initial phases of this element, the program will be restricted to the northeast Pacific where real time detection is possible through the SOSUS array and where the facilities are available for a rapid response.

### **Integrated Studies**

The Integrated Studies theme of R2K is intended as a program of focused, whole system research of global mid-ocean ridge processes. This component addresses the complex, interlinked array of processes that support life at and beneath the seafloor as a consequence of the flow of energy and material from Earth's deep mantle, through the volcanic and hydrothermal systems of the oceanic crust, to the overlying ocean. Moreover, this part of the program recognizes that the complex linkages between life and planetary processes at mid-ocean ridges can only be understood through coordinated studies that span a broad range of disciplines. Thus, Integrated Studies will consist of multidisciplinary research that is focused on a small number of pre-selected "type" areas that are designed to characterize segments of the mid-ocean ridge system. The objective of Integrated Studies is to develop quantitative, whole-system models through coordinated and interdisciplinary experiments. It will be necessary for R2K scientists to understand the interactions and linkages between the volcanic, tectonic, geochemical and biological systems to achieve this goal.

The Integrated Studies theme will initially focus on three sites that were chosen on the basis of a community vote and a review by a special R2K Integrated Site Selection Panel (<http://R2K.bio.psu.edu/ISPANELRPT.htm>). These sites will be centred on a portion of:

- 9-10°N segment of the East Pacific Rise;
- The Endeavour Segment of the Juan de Fuca Ridge;
- Either the East or Central Lau Basin Spreading Centre.

### **R2K Program Status**

The R2K Program officially began October 15, 2001, when the office opened at Penn State University. Charles Fisher, a professor of biology at Penn State University is chairing the Steering Committee for the program with guidance from an Executive Committee consisting of Deborah Smith from WHOI, James Cowen from the University of Hawaii, and David Christie from Oregon State University. In addition to Fisher, the R2K program office has three full time staff members. Deborah Hassler is the Ridge 2000 program coordinator. She is a graduate of the MIT/WHOI Joint Program in Oceanography, and joined the program following her NSF sponsored Postdoctoral Fellowship at Harvard University with Roberta Rudnick. Patty Nordstrom is the new program assistant. Patty has a MS degree in extension education and brings a wealth of organizational, web, and practical experience to the office. Liz Goehring is the education and outreach coordinator for the program. Liz had 10 years of experience as a systems engineer with IBM, before she obtained a MS degree in ecology, became involved in secondary education outreach activities and then taught for several years in the public school system.

Two workshops were conducted in early 2002, one for scientific background and one for planning. These workshops were designed to provide opportunities for a broad cross-section of scientists and engineers to share information about the Integrated Study sites and to participate in planning the implementation of the research program.

The Community Education Workshop was held in Long Beach, CA Feb. 25-27, 2002. Approximately 110 people attended. The primary purpose of this workshop was to provide a forum for community education and the sharing of data among all investigators wishing to write proposals for work at one of the Integrated Study sites. Each day was devoted to one Integrated Study site and featured several invited speakers, a discussion led by an interdisciplinary panel after each talk, and general poster sessions. Speaker notes and figures, white papers, available data sets, maps, publications, and bibliographies from the workshop can be found at the R2K website.

Implementation plans for each of the initial Integrated Study sites were developed at an open Implementation Plan Workshop on April 7-8, 2002 in Albuquerque, NM. The three Implementation Plans were polished by teams of writers from the workshop and by the Ridge 2000 Steering Committee and then posted for community comment on the R2k website. There were no serious concerns raised by the community during the comment period and the plans have been finalized and posted on the R2K website to guide proposal writers. These plans identify the geographic focus about which the nested components of each Integrated Study are centred and provide the guidelines for the components that will constitute the set of Integrated Studies necessary at each site.

The NSF Program Announcement for R2K is available on the NSF and R2K websites and proposals for funding work at the three Integrated Study sites will be considered beginning with the August 15, 2002 Ocean Sciences (OCE) target date. To further assist investigators with planning studies and preparing proposals, the presentations from the Community Education workshop and extensive bibliographies for each of the Integrated Study sites are also available on the R2K website. R2K proposals are subject to the normal National Science Foundation peer-review process and will be reviewed by the regular NSF Ocean Science Division Panels. Additionally, the R2K Steering Committee will perform a relevancy review of all R2K proposals.

An important component of the R2K program is a strong commitment to data management and the rapid dissemination of metadata and data. Sharing data will maximize technology transfer across the program, encourage integration of science, coordination of research, and the construction and testing of hypotheses. R2K is a time limited program, thus all data collected will be rapidly released for maximum benefit to all. The Ridge 2000 program Steering Committee, with input from other programs and the community, has prepared and adopted a Data Policy to guide the program. In addition, the Steering Committee has issued a Request for Proposals (RFP) to develop a Data Management System and to establish and administer a Data Management Office for the Program. Both the Data Policy and the RFP are also available on the R2K website.

Along with the program elements discussed above, R2K is sponsoring a postdoctoral fellowship program. The fellowship is intended to foster cross-disciplinary fertilization by providing opportunities for individuals to broaden their research expertise as well as to expand the breadth of ridge science.

#### **Contact Us**

To join the R2K mailing list, for timetables, data, upcoming meetings and workshops, contacts and other information about the R2K program, email us at [ridge2000@psu.edu](mailto:ridge2000@psu.edu), see the R2K website at <http://R2K.bio.psu.edu> or call +1-814-865-7434.

## **InterRidge Projects**

The three InterRidge themes: Global Studies, Meso - Scale Studies and Active Processes were subdivided into ten InterRidge projects during the first decade of InterRidge. Below are listed the current, or most recent, Chairs and working group members of these IR Working Groups. Most of these Working Groups already have or will finish their activities by the end of 2003 at the latest. New WG's have been proposed in the Next Decade Plan and these will start their activities in 2004. Relevant updates presented during the Steering Committee meeting are given below.

### **Global Studies**

#### **SWIR Working Group**

**SWIR (Southwest Indian Ridge):** Catherine Mével (France), Chair

*Miquel Canals (Spain)*

*Rajendra K. Drolia (India)*

*Chris German (UK)*

*Nancy Grindlay (USA)*

*Charlie Langmuir (USA)*

*Anton le Roex (South Africa)*

*Chris MacLeod (UK)*

*Jonathan Snow (Germany)*

*Kensaku Tamaki (Japan)*

*Cindy Lee Van Dover (USA)*

The success of this working group can be easily seen in the knowledge gained during the past 10 years. Now we have complete bathymetric coverage of the ridge from the RTJ to the BTJ. This is a major achievement, which has been facilitated by the InterRidge programme. In parallel to the mapping, a systematic sampling of the ridge axis has been conducted. It is now possible to evaluate the influence of the Marion and Bouvet hotspots on the ridge, both on the morphology and the chemistry. Seismic studies are still required to understand the deep structure of the ridge.

Hydrothermal activity along this ridge is still very poorly known. Several nephelometry signals have been documented with MAPRs mounted on the TOBI cable between 58° and 65°E. Moreover, dead chimneys have been collected at 64°E. Hydrothermal deposits associated with serpentinites have also been documented in the eastern portion of the ridge. However, no active field with associated biology has been observed. Further studies are required to get some idea about the distribution of hydrothermal activity on this ultra slow spreading ridge.

The first hydrothermal vents discovered on the Central Indian Ridge earlier this year have temporarily diverted interest from the search of hydrothermal vents along the SWIR for the biologists.

A workshop to synthesise the current knowledge collected and decide future research on the Indian Ridge was held 17 – 19 April, SOC, UK. A number of papers from the workshop will be published in the electronic journal "G-cubed" (<http://g-cubed.org>) under the theme "Accretionary processes at the ultra-slow spreading South West Indian Ridge".

At the workshop the WG produced a summary synthesis document –which has been utilised in the formation of the "Next Decade Plan".

## **Arctic Oceans Working Group**

**Arctic Oceans:** Colin W. Devey (Germany), Chair

*Georgy Cherkashov (Russia)*  
*Bernard J. Coakley (USA)*  
*Kathleen Crane (USA)*  
*Olivier Dauteuil (France)*  
*Vladimir Glebowsky (Russia)*

*Karl Gronvold (Iceland)*  
*H. Ruth Jackson (Canada)*  
*Keun Jin Young (Korea)*  
*Wilfried Jokat (Germany)*  
*Yngve Kristoffersen (Norway)*

*Peter J. Michael (USA)*  
*Hans A. Roseau (Germany)*  
*Hideki Shimamura (Japan)*  
*Kensaku Tamaki (Japan)*  
*Cindy Lee Van Dover (USA)*

**Global Digital Database Working Group:** Philippe Blondel (UK), Chair

*J.S. Cervantes (Spain)*  
*Christine Deplus (France)*  
*Martin Jakobsson (Sweden)*  
*William Ryan (USA)*

*Marco Ligi (Italy)*  
*Kyoko Okino (Japan)*  
*Ron McNab (Canada)*  
*T. Matsumoto (Japan)*

*K.A.K Raju (India)*  
*Wilhelm Weinrebe (Germany)*

Philippe Blondel writes:

Because of the shift in my activities in the last years (away from databasing and back to more research), and because I haven't been able to contribute much to the last two meetings, I think it might be good to ask someone else to chair the Working Group now. The end of my term as WG Chair was looming close anyway, after all these years. I am therefore ready to stand down from the Steering Committee and be replaced with someone more involved with the design and implementation of bathymetry databases.

The only name I can suggest as a possible replacement is Christine Deplus (IPG-Paris, France). She was the most active in the WG, and she has the broad scientific culture needed to conciliate the different aspects of the Global Ridge Database (in particular, she is a geophysicist, not a computer scientist, as we don't want someone just organising a meta-database with no understanding of the needs and the applications).

It has been a pleasure and an honour working with the InterRidge Steering Committee during all these years.

## **Active Processes**

### **Ridge-Hotspot Interactions Working Group**

**Ridge - Hotspot Interactions:** Jian Lin (USA) and Jerome Dymont (France) Co-chairs

*R.K. Drolia (India)*  
*Jérôme Dymont (France)*  
*Javier Escartín (France)*  
*J. Freire Luis (Portugal)*

*Eulália Grácia (Spain)*  
*David W. Graham (USA)*  
*Garrett T. Ito (USA)*  
*Bramley Murton (UK)*

*Kaj Hoernle (Germany)*  
*Nobukazu Seama (Japan)*  
*Freysteinn Sigmundsson (Iceland)*

Lucy MacGregor is moving into industry type of work and thus recommends Bramley Murton to be her replacement on the RHI working group from UK. ST COM has approved an InterRidge workshop on "Ridge-Hotspot Interaction: Recent Progress and Prospects for Enhanced International Collaboration" to be held in Brest, France, 8-10 September, 2003.

### **Monitoring and Observatories Working Group**

**Monitoring and Observatories:** Chairs: Javier Escartin and Ricardo Serrao Santos

*Chris Fox (USA)*  
*K. Mitsuzawa (Japan)*

*Pierre Sarradin (France)*  
*Adam Schultz (UK)*

*Paul Snelgrove (USA)*  
*Paul Tyler (UK)*

## **MOMAR**

The II MOMAR Workshop, convened by the Monitoring and Observatories Working Group, took place 15-17 June 2002 in LabHorta (Horta, Azores, Portugal). The goal of the meeting was to establish an implementation plan for long-term observations along the Mid-Atlantic Ridge in the MOMAR area (South of the



Azores), which includes the Lucky Strike, Menez Gwen, Rainbow and Menez Hom hydrothermal sites. The review of existing data and previous studies carried out in the area allow the installation of autonomous instruments to monitor key environmental parameters (*i.e.*, seismicity, temperature of venting fluids...) in the short term (<3 years). Development of technology (*e.g.*, chemical sensors) is required for more permanent, on-bottom instrumentation and infrastructure in the area, and requires longer-term efforts (>5 years). A MOMAR Committee will be nominated before the end of 2003 to implement the conclusions of the II MOMAR Workshop (see <http://www.ipgp.jussieu.fr/~escartin/MOMAR/index.html> for data, Workshop Reports and other related information).

The I MOMAR (Monitoring the Mid-Atlantic Ridge) Workshop (Lisbon, Portugal, 28-31 October 1998) established the scientific basis for long-term observations and monitoring of active processes at the crest of the slow-spreading Mid-Atlantic Ridge. The MOMAR area, located south of the Azores Islands, was identified as the preferred site for the concentration of multidisciplinary studies over a long period of time, as required to understand the active processes (magmatic, tectonic, hydrothermal, biological, biochemical, microbial...) and their casual links taking place at active mid-ocean ridge hydrothermal systems. The Lucky Strike vent field was also recognized as the favoured target for small-scale studies, as required for the study of biological and hydrothermal processes. In the years following the I MOMAR Workshop, scientific cruises and projects have been carried out in the MOMAR area, and additional projects are planned in the near future (see the Poster Abstracts Volume at:

<http://www.intrridge.org/momar2abs.pdf>). However, a few of the long-term or observatory-type experiments outlined in the I MOMAR Workshop have been implemented (*i.e.*, deployment of autonomous underwater hydrophones – see poster abstracts by Bazin *et al.*, Dziak *et al.*; Biological sampling and observation time-series at LabHorta – Colaço *et al.*). It has also been recognized, based both on recent technological developments and the better scientific knowledge of the different MOMAR sites, that a coordinated action to monitor the Mid-Atlantic Ridge is possible, requiring a more organized structure than previously available.

The goals of the II MOMAR Workshop were: 1) to establish a realistic short (<5 years) and long-term (> 5 years) plan of experiments to monitor the Mid-Atlantic Ridge at the MOMAR area; 2) Better definition of the geographical scope and targets of the MOMAR project; 3) Establish the basis for the data and site management associated with MOMAR projects, and 4) decide on the follow-up structure of MOMAR. This II Workshop was convened at the same time as two Letters of Intention for European projects were submitted to the VI European Framework Science Program for future consideration. In addition, a more specific Vent-Sites Management Workshop took place immediately after the II MOMAR Workshop.

The 1<sup>st</sup> day (15<sup>th</sup> June) of the Workshop was dedicated to summary talks on different scientific disciplines (biology, hydrothermalism, geology and geophysics) and on the planning and philosophy of the Ridge2000 Integrated Sites, followed by short discussions. These sessions were intended to provide a common basis of understanding of the needs, scientific goals, and limitations for each discipline, required to establish effective interdisciplinary projects. The 2<sup>nd</sup> day (16<sup>th</sup> June) was dedicated to three series of discussions by Working Groups. At the request of the biological community, two disciplinary groups (Biology and Earth Sciences Working Groups) were established to briefly outline their goals. These were followed by discussions on site projects and planning (Lucky Strike Working Group and Rainbow, Menez Gwen and larger MOMAR area Working Group). The afternoon was dedicated to more general discussions on management and future requirements for the implementation of MOMAR (Data Management Working Group, MOMAR site Management Working Group, and Technology Development Working Group). The morning of the last Workshop day (17<sup>th</sup> June) was dedicated to the presentation of the results of the different Working Groups, and the discussion of the follow-up structure for MOMAR. All reports, data and updates will be posted on the following web site: <http://www.ipgp.jussieu.fr/~escartin/MOMAR/index.html> as the information becomes available.

## **Actions List**

The Steering Committee has identified the following key issues that need to be addressed

### Next decade report

- Colin Devey to collect and incorporate the changes requested by the ST COM
  - The ST COM will endorse the final changes before releasing the report.

### IR office

- The IR office will send out a call for the IR Office transfer before the end of 2002
  - Time line:
  - Deadline for submissions of bids will be March 2003
  - IR ST COM evaluates the submitted bids during spring 2003
  - Final decision about new IR office Chair and host country will be made during the 2003 ST COM meeting (27-28 June, Beijing, China).
- New national representatives members for Italy, France, USA and Canada need to be selected at the beginning of 2003.
- Next STCOM meeting will be in China, Beijing, 27-28 June
- According to the outline of the ND report, a new WG structure will result in most of the current WGs being finalised by the end of 2003. New WG chairs for the proposed WG's will need to be nominated and elected according to the selection procedures specified in the IR program plan by the end of 2003.
- R.K. Drolia's proposal for a meeting in India was looked upon favourably but due to a number of circumstances has been postponed until the next ST COM.
- The unanimous consensus was that IR should assist India in promoting ridge research by sponsoring a meeting in India in the near future. ST COM suggested an "Indian Ocean Ridges" symposium in India with a tentative date for the meeting: January 2004, location: Goa.
- IR should become more active in IODP and a representative member should be chosen to represent IR at IODP meetings.

### BAB WG

- The Back-arc IRTI was approved to go ahead with joint IR/R2K sponsorship.
- Lead organizers; Sang-Mook and Dave Christie with an organising committee TBA in the near future

## **Coordinator Update**

### **InterRidge Membership**

Jian Lin and Kensaku Tamaki (IR Chair) have both visited China in the last year to encourage China to join IR as an active member nation. Jian Lin will provide the latest update on the status of Ridge science in China and the possibility of China joining IR and the international ridge community.

Germany was not able to raise sufficient funds to contribute the fees for a Principal member Nation in 2002 but hopes to be able to regain Principal member status shortly.

Italy has made only one payment within the last 3 years (in 2001) for its annual Associate Membership contribution. Persistent attempts on behalf of the coordinator at contacting the national correspondents and the administrative personnel about the status of Italy's outstanding payment and plans for future association with InterRidge did result in that one payment but no correspondence what so ever about their Plans for the future.

Austria and Mauritius both recently joined IR as corresponding members. Austria joined at the end of 2001 and the national correspondent for Austria is Monika Bright from the Marine Biology Zoological Institute, University of Vienna, Vienna, Austria. Mauritius joined IR at the beginning of this year and the national correspondent is Marie Daniel P. E. from the Mauritius Oceanography Institute, Mauritius.

The current status of InterRidge member nations is a total of 27 countries: 4 Principal members (France, Japan, UK and USA), 7 Associate members (Canada, Germany<sup>1</sup>, India, Italy, Korea, Portugal and Norway) and 17 Corresponding members (Australia, Austria, Brazil, China, Denmark, Iceland, Mauritius, Mexico, Morocco, New Zealand, Philippines, Russia, Spain, South Africa, Sweden, Switzerland and SOPAC).

<sup>1</sup>Germany's national program "De-Ridge" has just been officially approved and recieved funding for the next six years. Germany plans to regain Principal membership status with InterRidge as soon as possible.

## InterRidge Meetings and Workshops

### **Recent and Upcoming meetings**

- InterRidge Steering Committee Meeting  
*1 - 2 June, 2001, Kobe, Japan*
- The 2nd International Symposium on Deep-sea Hydrothermal Vent Biology  
*8-12 October 2001, Le Quartz, Brest, France*
- Biology Working Group Meeting  
*7 October 2001, Brest, France*
- SWIR Working Group Workshop  
*17 - 19 April, 2002 SOC, UK*
- InterRidge – The Next Decade Workshop  
*10 – 12 June 2002, Bremen, Germany*
- InterRidge MOMAR II Workshop  
*15-17 June 2002 Azores, Portugal*
- InterRidge Theoretical Institute: Thermal Regime of Ocean Ridges and the Dynamics of Hydrothermal Circulation  
*9 - 13 September, 2002, University of Pavia, Italy*
- InterRidge Steering Committee Meeting  
*13-14 September, 2002, Sestri Levante, Italy*

### **Meetings proposed for the future**

- InterRidge Theoretical Institute on back-arc basins and back-arc spreading systems,  
*May 24-28, 2004, Korea*
- InterRidge Workshop: "Opportunities and Contributions of Asian Countries to the InterRidge Next Decade Initiative"  
*Beijing, China, June 23-25, 2003*
- InterRidge Steering Committee Meeting,  
*June 27-28, 2003, Beijing, China*
- InterRidge Workshop: "Ridge-Hotspot Interaction: Recent Progress and Prospects for Enhanced International Collaboration",  
*September 8-10, 2003, Brest, France*
- Indian Ocean Ridges  
*January 2004, Goa, India.*

### **BAB IRTI Proposal: (Sang-Mook Lee)**

I recently attended the InterRidge Next Decade Planning Workshop in Bremen, Germany last June 10-12, 2002. I would like to summarise briefly what was discussed at this meeting regarding back-arc basin studies, including the role of Back-Arc Basin (BAB) Working Group of InterRidge.

A little less than ten years ago (October 1993), InterRidge held a "Back-Arc Basin Studies" workshop in Seattle, Washington (convenors: Julian Pearce and Kensaku Tamaki). The meeting was well attended and produced a nice report in the end summarizing the current state of knowledge and some of the questions that need to be addressed by international scientific community (see attached WORD document). However, since then very little was done by the InterRidge and BAB Working Group. This is probably reflects the fact that, unlike mid-ocean ridges, most of which lie in international open ocean, many back-arc basins are generally located within the exclusive economic zone (EEZ) of some country. Therefore, there is a greater influence by the local authorities and research results are not as widely publicized in the international community as mid-ocean ridges although intensive seagoing researches are ongoing by the coastal countries or by their bi-lateral collaborations.. The complexity of back-arc basins, though challenging and interesting, may also hindered quick comparison among back-arc basins.

During the Next Decade Planning Workshop in Bremen, we recognized the difficulty and special circumstances of back-arc basin research. However, the meeting was also an occasion for reorganizing the various Working Groups of InterRidge as we were trying to formulate our plan for the next decade. Obviously, some Working Groups (e.g., SWIR) were more successful than other groups. And naturally, the question was raised as to whether InterRidge should keep the BAB Working Group at all, considering its previous record. However, even to my surprise, a strong consensus among those who attended the meeting was that back-arc basins are key areas

where new advances will be made in the next decade and we need to play a more active role in the developing and advancing back-arc basin research. Well, one way to promote back-arc basin studies is obviously to foster communication among scientists, and to do so, we came to the conclusion that organization of InterRidge Theoretical Institute (IRTI) is the way to go, where accumulated knowledge on back-arc basin research can be summarized, followed by in-depth discussion on the set of important scientific questions and discussion on how these questions can be practically addressed. In other words, make people come to one place and change ideas. Well, I am sure most of you are aware of similar kind of meeting which will be held in September this year in Pavia, Italy (IRTI on Thermal Regime of Ocean Ridges and Dynamics of Hydrothermal Circulation). This one, thought similar in format, will be different and focus on back-arc basins and back-arc spreading systems.

As the newly appointed chair of InterRidge BAB Working Group, I have volunteered to host the next Theoretical Institute in Korea on back-arc basins and back-arc spreading systems. The most suitable time frame, considering that a lot of preparation has to be done, seems to be sometime at the end of May in 2004, perhaps May 24-28, 2004 (for 5 days). As for the venue, a good place in Korea would be either (1) Jeju (Cheju) Island at the southern end of Korean peninsula, a shield volcanic island, or (2) Gyeong-ju, the historic city of Shilla Dynasty, which is close to sedimentary outcrops related with the opening of East Sea (Japan Sea). IRTI normally consists of 2 days of invited lectures and short courses, a day of field excursion, and then 2 days of workshop discussions by subgroups.

As for funding, I think I can get some support from the Korea Ocean Research and Development Institute (KORDI) and Korea Science and Engineering Foundation (KOSEF) for hosting such international scientific meeting. IR will provide a small additional fund, but we need to look for additional sources of support as well.

A lot work has to go into an event like this, but most importantly it can not be done without the support and participation from people of back-arc basin research community like you. In the coming months, we need to define the general scope (including the official title of this second IRTI), and select science topics of discussion among various disciplines and those who will provide lectures and short courses, etc. These things can be done by smaller group of people, such as the members of BAB Working Group, but before that I think we may have to reshuffle the Working Group. Some new countries have joined InterRidge as associated member, and for some, their interest may have shifted to different area. So as the new chair of BAB Working Group, I will be contacting several of you shortly and will be asking for your service. In the meantime, I would very much appreciate your comments on what should be contained in the IRTI and who should be in the new Working Group. I already have a few people from US and Japan, but for other countries I will be asking for recommendations from National Correspondents.

Thank you for reading, and I look forward to receiving your ideas, thoughts and views on the BAB Working Group and IRTI 2004.

Sincerely,

Sang-Mook Lee  
BAB Working Group Chair, InterRidge

### **Proposal for ST COM meeting 2003/Ridge processes meeting (R.K. Drolia)**

A proposal to host the next ST COM, in 2003, as well as a "Conference on Ridge processes" was submitted to the ST COM by Dr R.K. Drolia from India. The details of these proposals are in the section on national updates for India.

## InterRidge WWW Pages

The maintenance of the InterRidge website continues to take a substantial amount of labour and our website is steadily growing. The statistics for the monthly visitation to the InterRidge web site are shown in Figures 1a & b and from the graphs. Public access of our Website continues to grow steadily. The updates and changes in the structure of the website that we continue to implement are aimed at improving access to the latest information and various other information items that are available.

During the past year the changes on the website largely involved streamlining the site to facilitate updating of the information and making it more user friendly. The decision to divide the home page into frames, with the left hand side providing direct access to the latest information, has worked very well and this frame is updated very regularly. There have been no new major alterations of the website recently.

All of the recent issues of IR news as well as other IR publications, such as meeting abstract volumes and meeting reports, are available as downloadable PDF files from our website using Acrobat Reader 4.0 or later versions. This makes them instantly available to anyone interested and at the same time eliminates extra printing and postage costs.

The usage of the IR website continues to increase. Web page requests have increased from an average of 5 000 - 6 000 in 2000 to approximately 14 000 in 2003. In Fig. 1b it is clear that the logging of the web statistics has not always been accurate nor reliable. For example, Apr. to Aug. 2002 the log is quite correct and corresponds to the time that a new web server was installed. But before that time reliable data are missing (Aug 2001, Jan-Feb 2002) or incomplete (Sep 2001, Dec 2001, Mar 2002) or are unreliable (Oct-Nov, 2001). Before March 2002, our previous server was becoming old had frequent trouble with the disk being full, which in turn suspended the "logging" process each time.

The "site map" of our web site has been recently updated and provides a structured list of sub-headings of the pages that are linked to one another on our website. Essentially it allows anyone to browse through the website in a linear fashion and find the information based on the heading of the individual pages.

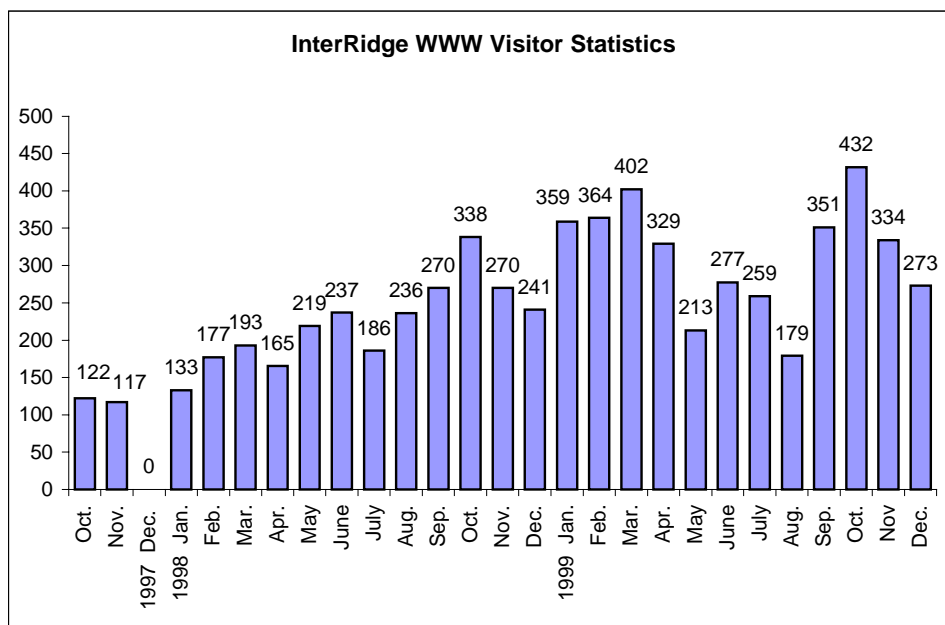
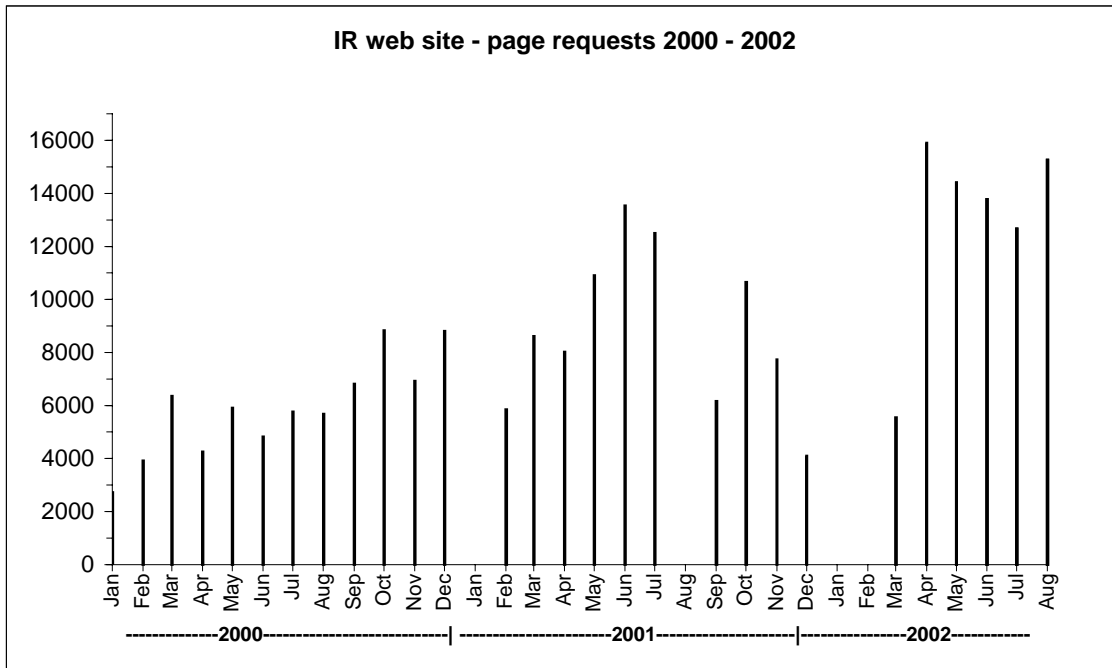


Figure 1a. InterRidge WWW home page Visitor Statistics, October 1997 - Dec. 1999



**Figure 1b.** InterRidge website Visitor Statistics, total number of requested pages – from January 2000

There hasn't been much progress with the portal page to world MB data, the prototype of the portal page has been created and is accessible at <http://www.intridge.org/sbsite.html>. Philippe Blondel has finished as the Chair of this WG and further progress of this project will greatly benefit from the input of somebody directly involved in this research.

A brief summary of the features found on the InterRidge website can be found in the 'News' section, accessible from the InterRidge homepage.

As usual, the National, Working Group and IR Office updates published in *InterRidge News* have been posted on the web site, as are all the InterRidge reports.

## InterRidge Publications

### Summary of 2001-2002 Publications

- InterRidge News, vol. 10, no.1 pp 72, April 2001
- Workshop report: "Management and Conservation of Hydrothermal Vent Ecosystems", pp. 34, May 2001
- InterRidge Steering Committee Report, August, 2001
- InterRidge News, vol. 10, no.2 pp 76, November 2001
- InterRidge News, vol. 11, no.1 pp 64, April 2002
- InterRidge Workshop: SWIR (South West Indian Ridge Workshop), pp. 79, April 2002
- InterRidge Theoretical Institute Abstracts Volume, pp84, September 2002
- InterRidge News, vol. 11, no. 2, pp. 68, November 2002

### Publications planned for 2003

- Extended abstracts volume from the 2nd International Symposium on Deep - sea Hydrothermal Vent Biology are expected to appear in the CBM - Cahiers de Biologie Marine
- InterRidge Steering Committee Report, February 2003
- New InterRidge Science plan for the next decade, February 2003
- InterRidge News, vol. 12, no.1 and 2

## InterRidge Budget

Below are the IR contributions for the year 2001. To date, not all of our member nations have finalised their membership. Income from member nations in the Year 2001 was \$130 000 US, (see table above), which is the same as in 2000, but lower than in 1999.

<b>InterRidge Income : National Contributions 2001</b>			
	<b>Yen</b>	<b>Dollars</b>	
<b>PRINCIPAL MEMBERS</b>			
Japan	4,800,000	40,000	21-Mar-01;29-Jan-02
France	2,400,000	20,000	21-Feb-02
UK	2,400,000	20,000	02-Aug-01
USA	2,400,000	20,000	06-Mar-01
<b>ASSOCIATE MEMBERS</b>			
Canada	600,000	5,000	08-Jul-02
Germany	600,000	5,000	01-Aug-01
Italy	0	0	Not yet
Norway	600,000	5,000	07-May-01
Portugal	600,000	5,000	01-Dec-02
India	600,000	5,000	20-Aug-01
Korea	600,000	5,000	21-Mar-01
<b>Total</b>	<b>15,600,000</b>	<b>130,000</b>	

**Figure 2a.** IR Office income - contributions from the Principal and Associate member Nations.

### IR Office Expenditure:

The most pronounced difference from the year 2000 budget expenditure occurred in salaries and travel expenses (see Fig. 2b). In 2001 a part time assistant was hired throughout the year and a post-doc was paid a salary throughout the year also. As a consequence, the annual salaries comprised 64% of the total IR budget in 2001, compared with only 60% in the year 2000. Thus, while the expenditure for salaries (~ 83 000 USD) was 36% greater than in 2000, but was still almost 10 000 USD lower than the salaries expense in 1999.

General office running costs totalled 34 500 USD, which is 8% higher in 2001 than in the year 2000 and the increase can largely be accounted for by an increase in IR news printing and postage costs (Fig. 2b). It is worth noting that total telecommunications and most of the 'other' postage costs (*i.e.* postage costs outside of the IR news) were covered by other funds, and not by the IR office.

The combined travel expenses, for the Chair and Coordinator were negligible (<1 000 USD). Almost all of the travel costs for the coordinator and the Chair were covered from other funds.

In conclusion, the overall spending during 2001 was 20% higher than the previous year. The IR budget was supplemented by other sources of funding which provided some buffer for various expenses. While the IR expenditure in 2001 was 10 000 USD lower than the income for that year, a number of nations did not pay their membership fee for the year 2001 until the second half of 2002, thus the Office expenditure was maintained within the actual national contribution income for that year. The IR expenses can be expected to increase in 2002 due to the increased number of IR meetings in that year.



	EXPENDITUR (Yen)	EXPENDITURE (Dollars)*
<b>Salaries</b>		
Coordinator	4,750,000	39,583
Assistants	1,693,085	14,109
Post-Doc	3,453,000	28,775
Insurance for employee	51,760	431
Subtotal	<b>9,947,845</b>	<b>82,899</b>
<b>Travel &amp; Expenses</b>		
Chair (Kobe, Brest)		
Travel	0	0
Expenses	104,378	870
Coordinator (Kobe, Brest)		
Travel	0	0
Expenses	0	0
Subtotal	<b>104,378</b>	<b>870</b>
<b>Meeting</b>		
Kobe Steering Committee	150,000	3,000
Subtotal	<b>150,000</b>	<b>3,000</b>
<b>IR Activities</b>		
IR Students awards (\$700 x 2)	168,000	1,400
Workshop Abstracts	0	0
Workshop Report	0	0
St. Committee Report	0	0
Subtotal	<b>168,000</b>	<b>1,400</b>
<b>Office Costs</b>		
Telecommunications	12,880	107
Printing IR News (2 issues)	1,000,640	8,339
Postage IR News (2 issues)	1,234,505	10,288
Postage non IR News	29,355	245
Supplies	100,458	837
Softwares	12,137	101
Equipment(PC, printer, HD)	222,435	1,854
Bank transfer charges	28,202	235
Overhead	1,500,000	12,500
Subtotal	<b>4,140,612</b>	<b>34,505</b>
<b>Total</b>	<b>14,510,835</b>	<b>120,924</b>

Figure 2b. InterRidge Office Expenditure January 2001 – December 2001. Prepared September, 2002.

## **InterRidge contacts with other programs**

IR has links with the following programs:

- ILP (International Lithosphere Program)
- SOPAC (South Pacific Geosciences Applied Commission)
- SCOR (Scientific Committee on Oceanic Research)
- ODP (Ocean Drilling Program)
- IODP (International Ocean Drilling Program)
- ISA (International Seabed Authority)

In the past year there has not been much activity between the IR office and the other programs. In October 2002 SCOR will hold it's general meeting and a report will be presented about IR activities. SCOR will review IR to decide if IR should remain an affiliate program. SCOR maintains links with affiliate programs for only 10 years. So chances are that with the continuation of IR into the next decade IR might not be eligible to remain as an affiliate program in the future.

## Meetings Calendar

11-15 Feb., 2002	<b>Ocean Sciences Meeting,</b> Honolulu, Hawaii
5-8 March, 2002	<b>Oceanology International 2002</b> London, UK
16-19 April, 2002	<b>Underwater Technology 2002 International Symposium,</b> Tokyo, Japan
17-20 April, 2002	<b>SWIR Workshop,</b> SOC, UK
20-25 April, 2002	<b>"Minerals Of The Ocean" - International Conference,</b> St.Petersburg, Russia
21-26 April, 2002	<b>European Geophysical Society,</b> Nice, France
28 May-1 June, 2002	<b>AGU Spring Meeting,</b> Washington, DC USA
10-12 June, 2002	<b>IR Next Decade Workshop,</b> Bremen, Germany
15-17 June, 2002	<b>II MOMAR Workshop,</b> Horta, Azores (Portugal)
9-12 July, 2002	<b>Western Pacific Geophysics Meeting,</b> Wellington, New Zealand
4 - 7 Sept., 2002	<b>Plume Magmatism,</b> Petrozavodsk, Russia
9-13 Sept., 2002	<b>InterRidge Theoretical Institute (IRTI): Thermal Regime of Ocean Ridges and Dynamics of Hydrothermal Circulation.,</b> University of Pavia, Italy
13-14 Sept., 2002	<b>Steering Committee Meeting,</b> Sestri Levante, Italy
25-26 Sept., 2002	<b>Unmanned Underwater Vehicle Showcase,</b> SOC, UK
4-6 Dec., 2002	<b>15th Annual Geological Convention of the Geological Society of the Philippines,</b> Manila, Philippines.
6-10 Dec., 2002	<b>AGU 2002 Fall Meeting,</b> San Francisco, USA
7-11 April, 2003	<b>EGS-AGU-EUG Joint Assembly,</b> Nice, France
24-27 June, 2003	<b>Scientific Submarine Cable workshop,</b> Tokyo, Japan
23-25 June, 2002	<b>Workshop on Opportunities and Contributions of Asian Countries to the InterRidge Next Decade Initiative,</b> Beijing, China
27-28 June, 2002	<b>InterRidge Steering Committee Meeting,</b> Beijing, China
30 Jun. - 11 Jul., 2003	<b>International Union of Geodesy and Geophysics (IUGG),</b> Sapporo, Japan
8-10 Sept., 2003	<b>Workshop on Ridge-Hotspot Interaction: Recent Progress and Prospects for Enhanced International Collaboration,</b> Brest, France
22-26 Sept., 2003	<b>7th International Conference on Gas Geochemistry,</b> Freiberg, Germany
14-16 Jan., 2004	<b>The fifth International Conference on Asian Marine Geology,</b> Bangkok, Thailand

## **InterRidge Steering Committee 2002**

1. Japan - Kensaku Tamaki (Chair, 2000)
2. Canada - S. Kim Juniper (1998)
3. France - Jérôme Dymont (2001)
4. France - Javier Escartin (*ad hoc*, 2002)
5. France - Françoise Gaill (*ad hoc*, 1998)
6. France - Catherine Mével (1997)
7. Germany - Colin Devey (1999)
8. India - Abhay V Mudholkar (2002)
9. Italy - Enrico Bonatti (1998)
10. Japan - Toshitaka Gamo (2001)
11. Japan - Masataka Kinoshita (2002)
12. Korea - Sang-Mook Lee (2001)
13. Norway - Rolf Pedersen (1996)
14. Portugal - Fernando Barriga (2001)
15. Portugal - Ricardo Santos (*ad hoc*, 2002)
16. UK - Philippe Blondel (*ad hoc*, 1997)
17. UK - Paul Dando (1999)
18. UK - Chris R. German (*ad hoc*, 1997)
19. UK - Damon Teagle (2002)
20. USA - Charles Fisher (2002)
21. USA - David Christie (1997)
22. USA - Jian Lin (*ad hoc*, 1999)
23. USA - Spahr C. Webb (*ad hoc*, 2001)

## **InterRidge National Correspondents**

### ***Principal Members:***

1. France - Catherine Mével
2. Japan - Nobuhiro Isezaki
3. UK - Damon Teagle
4. USA - Charles Fisher

### ***Associate Members:***

1. Canada - S. Kim Juniper, Kathryn M. Gillis
2. Germany - Colin Devey
3. India - Sridhar D Iyer, KA Kamesh Raju
4. Italy - Enrico Bonatti, Paola Tartarotti
5. Korea - Sang-Mook Lee
6. Norway - Rolf Pedersen
7. Portugal - Fernando Barriga

### ***Corresponding Members:***

1. Australia - Trevor J. Falloon
2. Austria - Monika Bright
3. Brazil - Suzanna Sichel
4. China - Wang Zhihong
5. Denmark - John R. Hopper
6. Iceland - Karl Grönvold
7. Mauritius - Daniel P. E. Marie
8. Mexico - J. Eduardo Aguayo-Camargo
9. Morocco - Jamal Auajjar
10. New Zealand - Ian Wright
11. Philippines - Graciano P. Yumul, Jr.
12. Russia - Sergei A. Silantyev
13. South Africa - Anton le Roex
14. Spain - Juan José Dañobeita
15. Sweden - Nils G. Holm
16. Switzerland - Gretchen Früh-Green
17. SOPAC - Russell Howorth

## InterRidge People, Past and Present

### Steering Committee Members

<b>Canada</b>			
S. Kim Juniper	1998 -		
<b>France</b>			
Javier Escartin, <i>ad hoc</i>	2002 -		
Jérôme Dymont	2001 -		
Françoise Gaill, <i>ad hoc</i>	1998 -		
Mathilde Cannat	1997 - 2000		
Catherine Mével	1997 -		
Daniel Desbruyères, <i>ad hoc</i>	1991 - 1997		
Jean Francheteau	1991 - 1998		
H. David Needham	1991 - 1994		
<b>Germany</b>			
Colin Devey	1999 -		
Peter M. Herzig	1996 - 2000		
Roland Rihm	1995 - 1998		
<b>India</b>			
Ranadhir Mukhopadhyay	2000 - 2001		
Abhay V Mudholkar	2002 -		
<b>Italy</b>			
Enrico Bonatti	1998 -		
<b>Japan</b>			
Masataka Kinoshita	2002 -		
Toshitaka Gamo	2001 -		
Kantaro Fujioka	1999 - 2001		
Hiromi Fujimoto	1997 - 2000		
Tetsuro Urabe	1995 - 1998		
Kensaku Tamaki	1992 - 1997		
Kensaku Tamaki	2000 -		
<b>Korea</b>			
Sang - Mook Lee	2001 -		
		<b>Norway</b>	
		Rolf Pedersen	2001 -
		Eirik Sundvor	1996 - 2000
		<b>Portugal</b>	
		Ricardo Santos, <i>ad hoc</i>	2002 -
		Fernando Barriga	2001 -
		Miguel Miranda	1996 - 2000
		<b>Spain</b>	
		Miquel Canals	1995 - 1998
		Juan José Dañobeita	1995 - 1998
		<b>UK</b>	
		Paul Dando	1999 -
		Christopher R. German	1997 -
		Philippe Blondel, <i>ad hoc</i>	1997 -
		Lindsay Parson, <i>ad hoc</i>	1996 - 1998
		Roger C. Searle	1994 - 1998
		Martin Sinha	1991 - 1996
		<b>USA</b>	
		Charles Fisher	2002 -
		Spahr C. Webb, <i>ad hoc</i>	2001 -
		Jian Lin, <i>ad hoc</i>	1999 -
		Christopher G. Fox, <i>ad hoc</i>	1998 - 2001
		David Kadko	1998 - 2001
		Alan Chave, <i>ad hoc</i>	1997 - 2001
		Dave Christie	1997 - 2002
		Karen Von Damm	1996 - 1998
		Lauren Mullineaux, <i>ad hoc</i>	1996 - 2000
		Robert S. Detrick	1992 - 1995
		John Delaney	1991 - 1994
		P. Jeff Fox	1991 - 1994
		Charles H. Langmuir	1991 - 1996

### InterRidge Chairs

Kensaku Tamaki (Japan)	2000 -
Mathilde Cannat (France)	1997 - 1999
Roger Searle (UK)	1994 - 1996
John Delaney, co - chair (USA)	1991 - 1993
H. David Needham, co - chair (France)	1991 - 1993

### InterRidge Coordinators

Agnieszka M. Adamczewska	December 1999 -
Cara Wilson	March 1997 - Nov. 1999
Ruth Williams (acting)	Oct. 1996 - March 1997
Heather Sloan	Oct. 1993 - Oct. 1996
Trileigh Stroh	1989 - Oct. 1993

## InterRidge Mailing List, August 2002

The InterRidge mailing list continues to grow. There are now over 2720 individuals and organisations worldwide that receive IR news twice a year. Approximately 68% of the mailings go to the Principal member nations. Individuals from Associate member nations make up another 17.4% of the total list. The remainder (~15%) are distributed amongst 40 different nations. The most pronounced deviation from the relationship between the number of individuals on the mailing list and national affiliation with InterRidge is shown by Russia, which is the 6<sup>th</sup> largest nation on the mailing list but is a corresponding member.

A pie chart, compiled in August 2002, showing the number of individuals on the IR mailing list from different countries is shown below (Fig. 3).

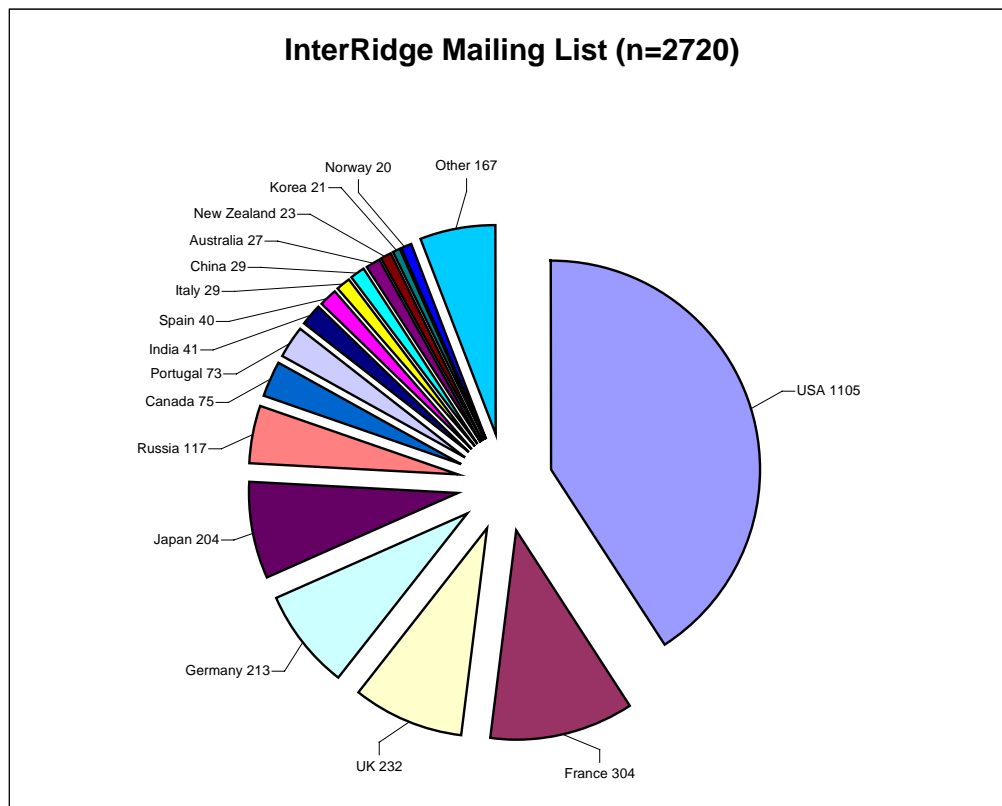


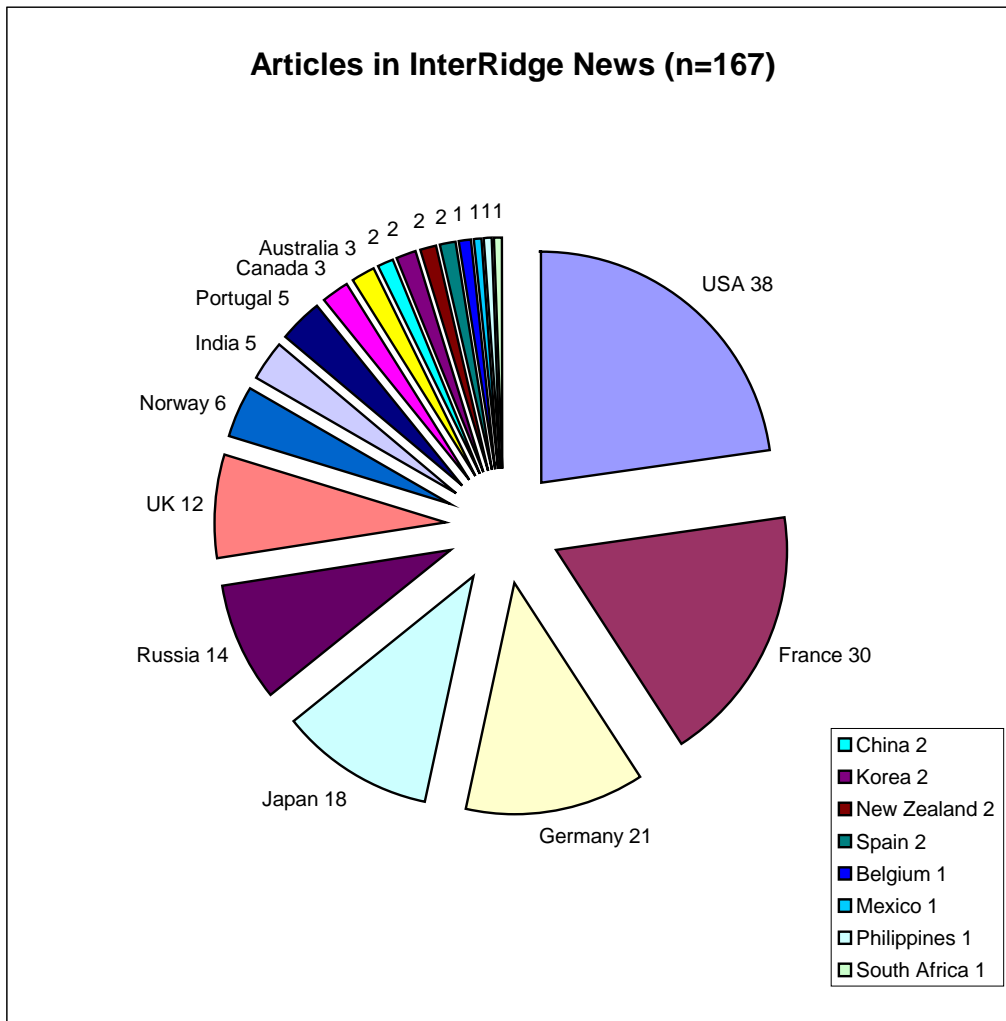
Figure 3. Breakdown of the InterRidge mailing list by nationality.

## Appendices

### Appendix A: Articles and updates published in *InterRidge News*

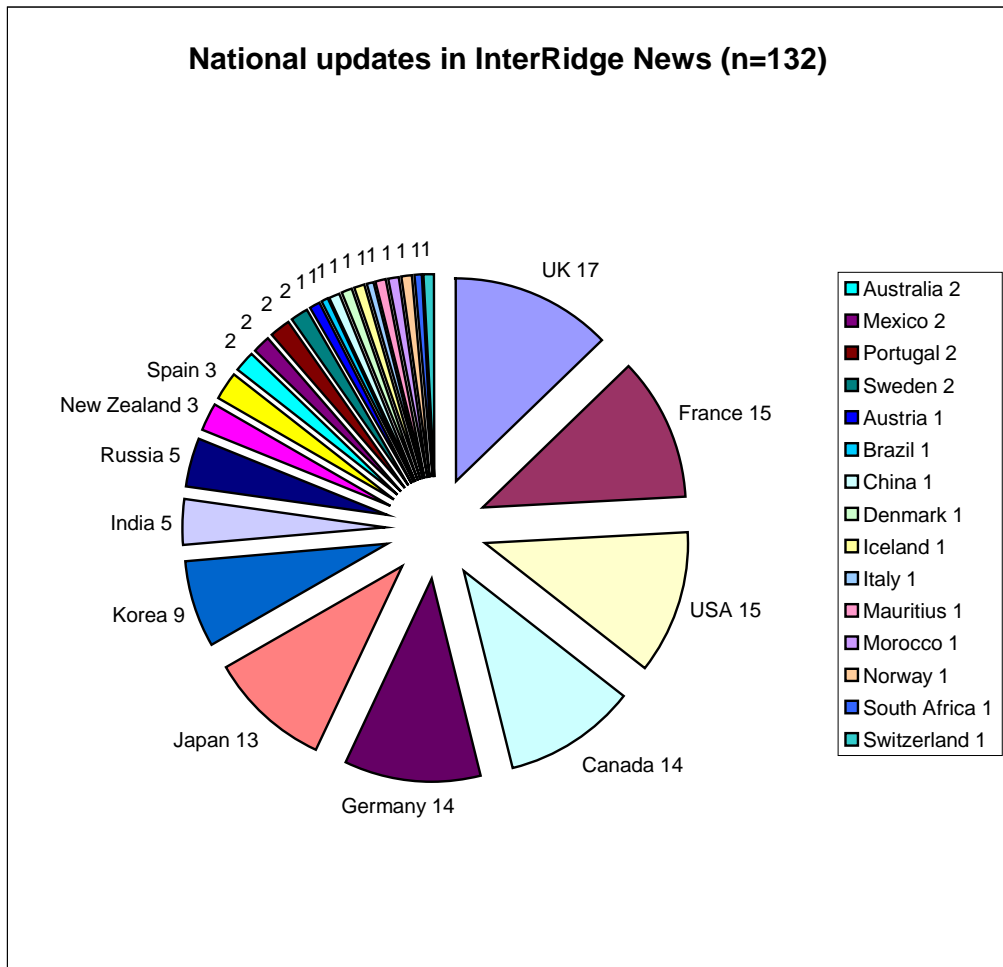
#### InterRidge News

A breakdown of the research articles that have appeared in *InterRidge News* is given in the figure below (Fig. 4). Classified by nation according to affiliation of the first author



**Figure 4.** National contribution of articles that have appeared in InterRidge news

A breakdown of the national updates that have appeared in *InterRidge News* is given in the figure below (Fig. 5). Classified by nation according to affiliation of the first author



**Figure 5.** Classification, by nationality, of all the updates published to - date in *InterRidge News*



## Appendix B: InterRidge Mailing List statistics

**Table 1.** The nationality of the InterRidge mailing list, classified first by membership (principal, associate, corresponding) and then alphabetically. Data compiled in September 2002.

Black: Principal Member, Dark Gray: Associate Member; Pale: Corresponding Member.

	Country	Mailing List		E-mail Addresses		% with E-mail
		Number	% of Total	Number	% of total	
1	France	304	11.2%	210	10.5%	69%
2	Japan	204	7.5%	122	6.1%	60%
3	UK	232	8.6%	186	9.3%	80%
4	USA	1105	40.8%	888	44.6%	80%
5	Canada	75	2.8%	60	3.0%	80%
6	Germany	213	7.9%	126	6.3%	59%
7	India	41	1.5%	33	1.7%	80%
8	Italy	29	1.1%	25	1.3%	86%
9	Korea	21	0.8%	17	0.9%	81%
10	Norway	20	0.7%	15	0.8%	75%
11	Portugal	73	2.7%	60	3.0%	82%
12	Argentina	3	0.1%	2	0.1%	67%
13	Australia	27	1.0%	24	1.2%	89%
14	Austria	2	0.1%	2	0.1%	100%
15	Belgium	13	0.5%	9	0.5%	69%
16	Brazil	4	0.1%	4	0.2%	100%
17	Chile	1	0.0%	0	0.0%	0%
18	China	29	1.1%	19	1.0%	66%
19	Czech Republic	1	0.0%	0	0.0%	0%
20	Denmark	11	0.4%	10	0.5%	91%
21	Ecuador	1	0.0%	0	0.0%	0%
22	Fiji	5	0.2%	4	0.2%	80%
23	French Polynesia	1	0.0%	0	0.0%	0%
24	Greece	3	0.1%	1	0.1%	33%
25	Iceland	14	0.5%	11	0.6%	79%
26	Iran	4	0.1%	1	0.1%	25%
27	Ireland	8	0.3%	6	0.3%	75%
28	Israel	5	0.2%	4	0.2%	80%
29	Mexico	6	0.2%	2	0.1%	33%
30	Monaco	2	0.1%	1	0.1%	50%
31	Morocco	1	0.0%	1	0.1%	100%
32	Netherlands	16	0.6%	9	0.5%	56%
33	New Caledonia	1	0.0%	0	0.0%	0%
34	New Zealand	23	0.8%	13	0.7%	57%
35	Papua New Guinea	2	0.1%	0	0.0%	0%
36	Philippines	3	0.1%	3	0.2%	100%
37	Poland	2	0.1%	1	0.1%	50%
38	Puerto Rico	1	0.0%	1	0.1%	100%
39	Russia	117	4.3%	59	3.0%	50%
40	Slovenia	1	0.0%	1	0.1%	100%
41	South Africa	3	0.1%	2	0.1%	67%
42	Spain	40	1.5%	26	1.3%	65%
43	Sweden	14	0.5%	10	0.5%	71%
44	Switzerland	17	0.6%	13	0.7%	76%
45	Taiwan	7	0.3%	7	0.4%	100%
46	Turkey	4	0.1%	3	0.2%	75%
47	Venezuela	2	0.1%	0	0.0%	0%
	Total	2711		1991		73%