ESF Network SEDIFLUX

Sedimentary Source-to-Sink-Fluxes in Cold Environments

SEDIFLUX NEWSLETTER

September 6th, 2004

- 2004 A -

Content

1. SHORT INFORMATION ON SEDIFLUX

Climate change will cause major changes in the Earth surface systems and the most dramatic changes are expected to occur in the cold climate environments of the Earth. Cold climate landscapes are some of the last wilderness areas containing specialized and diverse plants and animals as well as large stores of soil carbon. Geomorphological processes, operating at the Earth`s surface, transfering sediments and changing landforms are dependent on climate, vegetation cover and human impacts and will be significantly affected by climate change. In this context it is a major challenge to develop a better understanding of the complex ecosystems and the mechanisms and climatic controls of sedimentary transfer processes in cold environments. More reliable modelling of sediment transfer processes operating under present-day climatic settings is needed to determine the consequences of predicted climate change. It is necessary to collect and to compare data and knowledge from a wide range of different high latitude and high altitude environments and to develop more standardized methods and approaches for future research on sediment fluxes and relationships between climate and sedimentary transfer processes. In Europe the wide range of high latitude and high altitude environments provides great potential to investigate climate-process relationships and to model the effects of climate change by using space for time substitution. The highly relevant questions to be addressed need a multidisciplinary approach and the joining of forces and expertise from different scientific fields. Especially a closer co-operation between geoscientists and biologists / ecologists is needed. The ESF Network "Sedimentary Source-to-Sink-Fluxes in Cold Environments" (SEDIFLUX, 2004 – 2006), will bring together leading scientists, young scientists and research teams from different fields. The large number of projects run by the ESF Network participants demonstrates the high level of research activity of scientists working on sediment fluxes in different cold environments. The Network will form a framework for an integrated and multidisciplinary investigation of the research topic and will be a catalyst for strengthening and extending contacts and exchange.

The Steering Committee of SEDIFLUX consists of scientists from seven countries:

- Achim A. Beylich (Co-ordinator of SEDIFLUX), Trondheim, Norway;
- Samuel Etienne, Clermont-Ferrand, France;
- Bernd Etzelmüller, Oslo, Norway;
- Vyacheslav V. Gordeev, Moscow, Russia;

- Jukka Käyhkö, Turku, Finland;
- Volker Rachold, Potsdam, Germany;
- Andrew J. Russell, Newcastle, UK;
- Karl-Heinz Schmidt, Halle/S., Germany;
- Þorsteinn Sæmundsson, Sauðárkrókur, Iceland;
- Fiona S. Tweed, Staffordshire, UK;
- Jeff Warburton, Durham, UK.

Network activities include four Science Meetings in Sauðárkrókur, Iceland (June 18th-21st, 2004, see Report under 3.), Clermont-Ferrand, France (January 20th-22nd, 2005), Durham, UK (December of 2005) and Trondheim, Norway (October of 2006), Steering Committee Meetings attached to these Science Meetings, a SEDIFLUX Session at the 2nd European Permafrost Conference in Potsdam, Germany (June 12th-16th, 2005), Journal Publications (Special Issues), Publication of Abstract Volumes, Publication of a SEDIFLUX Handbook (Manual, Guidelines for Process Monitoring Programmes in selected cold climate catchments), development of a SEDIFLUX Database, and the diffusion and dissemination of Network activities and outputs by using electronic media (Webpages, Newsletters, Forum, etc.).

A strong monitoring and operational data collection and more standardized methods will provide a baseline for the development of reliable models and for future research in the changing cold environments. Apart from further collaborations and collaborative research activities project and programme proposals both at national and at the European level will be discussed and initiated. For further information see http://www.esf.org/SEDIFLUX and please contact the SEDIFLUX Co-ordinator: Achim A. Beylich (Achim.Beylich@ngu.no)

2. MORE DETAILED INFORMATION ON SEDIFLUX

Summary: Climate change will cause major changes in the Earth surface systems, especially in high-latitude and high-altitude cold environments. Geomorphological processes operating at the Earth`s surface, transfering sediments and changing landforms are dependent on climate and will be significantly affected by climate change. More reliable modelling of sediment transfer processes operating under present-day climatic settings is needed to determine the

consequences of climate change. It is necessary to collect and to compare data and knowledge from a wide range of different high-latitude and high-altitude cold environments and to develop more standardized methods and approaches for future research on sediment fluxes and relationships between climate and sedimentary transfer processes. In Europe the wide range of high-latitude and high-altitude cold environments provides great potential to investigate climate-process relationships and to model the effects of climate change by using space for time substitution. The European Science Foundation (ESF) Network (01.01.2004 - 31.12.2006) *"Sedimentary Source-to-Sink-Fluxes in Cold Environments" (SEDIFLUX)* will bring together leading scientists, young scientists and research teams from different fields. SEDIFLUX will form a strong framework for an integrated and multidisciplinary investigation of the addressed topic and will be a major catalyst for strengthening and extending contacts, collaborative research activities and mobility of scientists in Europe. It also points to areas within Europe that would benefit from wider research collaboration (e.g. Russia, Poland). The SEDIFLUX Steering Committee consists of scientists from seven European countries: ACHIM A. BEYLICH, Co-ordinator of SEDIFLUX (Trondheim, Norway), SAMUEL ETIENNE (Clermont-Ferrand, France), BERND ETZELMÜLLER (Oslo, Norway), VYACHESLAV V. GORDEEV (Moscow, Russia), JUKKA KÄYHKÖ (Turku, Finland), VOLKER RACHOLD (Potsdam, Germany), ANDREW J. RUSSELL (Newcastle, England, UK), KARL-HEINZ SCHMIDT (Halle/S., Germany), ÞORSTEINN SÆMUNDSSON (Sauðárkrókur, Iceland), FIONA S. TWEED (Staffordshire, England, UK) and JEFF WARBURTON (Durham, England, UK). SEDIFLUX activities include four Science Meetings in Sauðárkrókur, Iceland (June 18th – June 21st, 2004), Clermont-Ferrand, France (January 20th – 22nd, 2005), Durham, England, UK (December 2005) and Trondheim, Norway (October of 2006), Steering Committee Meetings attached to these Science Meeting, a SEDIFLUX session at the Second European Permafrost Conference, June 12th – 16th, 2005, in Potsdam, Germany, publication of Scientific Reports and Abstract Volumes, publication of Special Issues of Journals and of a SEDIFLUX Handbook, creation of a SEDIFLUX Database, an effective diffusion and dissemination of SEDIFLUX activities and outputs by using electronic media (Web-sites, Newsletters, Forum), invitations of leading experts from other parts of the world, policy makers and land managers to the Science Meetings. The ESF Network SEDIFLUX will be organized in different Working Groups. The major outputs from the Working Groups will be published in the SEDIFLUX Handbook, including guidelines for future monitoring programmes and a section which is particularly targeted at end-users. A strong monitoring and operational data collection and more standardized methods will provide a baseline for the development of

reliable models and for future research in the changing high-latitude and high-altitude cold environments. Apart from further collaborations and collaborative research activities project and programme applications at both the national and the European level following the three-year ESF Network will be discussed and initiated.

1 *Scientific background*

Climate change will cause major changes in Earth surface systems and the most dramatic changes are expected to occur in the high-latitude and high-altitude cold environments of the Earth. These cold climate landscapes are some of the last wilderness areas containing specialized and diverse plants and animals as well as large stores of soil carbon. Geomorphological processes, operating at the Earth`s surface, transfering sediments and changing landforms are highly dependent on climate, vegetation cover and human impacts and will be significantly affected by climate change. In this context it is a major challenge to develop a better understanding of the complex ecosystems and the mechanisms and climatic controls of sedimentary transfer processes in cold environments. A better knowledge and a more reliable modelling of sedimentary transfer processes operating in present climates at the Earth`s surface is needed to determine the consequences of predicted climate change. It is necessary to collect and to compare data and knowledge from a wide range of different high latitude and high altitude environments and to apply more standardized methods and approaches for future research on sediment fluxes and relationships between climate and sedimentary transfer processes. Geomorphological studies of the impacts of change over contemporary and historic timescales can make an important contribution to debates about wider issues of resource management in high latitude and high altitude environments. The Network`s output will benefit local communities, larger organisations like conservation, forest, hydro-power and tourist industries, international organisations (regional and global organisations seeking to assess, monitor and remotely sense environmental changes) and the scientific community. There is a great diversity in the intensity of human impact on the different high-latitude and high-altitude environments in Europe. SEDIFLUX will identify the main human drivers of changes at the investigated sites, the indicators of social and environmental change, and will undertake a risk assessment. The highly relevant issues to be addressed need a multidisciplinary approach and the joining of forces and expertise from different scientific fields. A strongly increased exchange between scientists and research teams within the European scientific community is essential; researchers may be working on

the same topic but have different scientific backgrounds. The unification and linking of methods and approaches as one major topic of discussion within the ESF Network *"Sedimentary Source-to-Sink-Fluxes in Cold Environments" (SEDIFLUX)* is necessary to achieve a comparability of data and knowledge from monitoring campaigns from different environments. A strong monitoring and operational data collection – including the analysis of extreme events - will provide a baseline for the development of reliable models and for future research in the changing cold environments. In Europe the wide range of cold environments at high latitudes and high altitudes – from high arctic and subarctic environments to alpine and upland environments - provides an ideal opportunity to investigate relationships between climate and sedimentary transfer processes and to model effects of climate change by using space for time substitution.

Quantitative investigations on sediment transfers in cold environments are still rare compared with the amount of such research in other climatic zones. An integrated study of source-to-sink sediment fluxes in cold environments includes the analysis of the processes of weathering, chemical denudation, erosion, mass movements, fluvial transfers/transportation and sedimentation in lakes and coastal areas. The combination of the different components of weathering, mass transfers and sedimentation requires collaboration of specialists working on these special topics. In spite of existing studies on single components, there is a clear lack of integrated approaches joining the different topics and linking the different methods and approaches applied.

2 *The need for a Network*

SEDIFLUX will bring together leading scientists, young scientists and research teams from different fields from a wide range of European countries, North America (observer), Japan (observer), New Zealand (observer), and South Africa (observer). It will form a strong framework for an integrated and multidisciplinary view on *"Sedimentary Source-to-Sink Fluxes in Cold Environments"*. Until today, no such European Network and no larger collaborative research programmes exist on this relevant topic. Several research teams have collaborations within Europe and also with scientists from Japan, North America, South Africa etc. but a larger framework for more intensive and more effective collaboration at the European level is completely missing. SEDIFLUX will provide an opportunity to strengthen the already existing contacts and to build up new collaborations between scientists and research teams in Europe, including significant links to other parts of the world. Apart from

leading scientists it will also give young scientists the possibility to present, discuss and exchange scientific results, to develop and strengthen a broad network of scientific contacts and to increase their mobility within Europe. In this way SEDIFLUX will also in the longer run be a major catalyst for scientific exchange and collaboration in Europe. A major strength of the Network is that it will bring together scientists from different scientific fields. Physical Geographers, Quaternary Geologists, Geologists, Oceanologists, Limnologists, Global Change researchers, Civil Engineers, Paleobiologist, Ecologists and Biologists will discuss and exchange scientific results and knowledge and will develop the addressed Network topics in an effective way by bringing in different scientific backgrounds, expertise, methods and approaches. The Network is highly related to the progressively relevant problems connected to "Climate Change". It will provide major contributions by focusing on and modelling relationships between climate and geomorphological processes in a wide range of environments at high latitudes and altitudes. By using the ergodic principle of space for time substitution it will be possible to model effects of climate change on the investigated Earth surface processes. The range of knowledge of different environments, all of which have experienced different climate regimes and different recovery rates from glaciation, can be related to change over time. In this way SEDIFLUX points to problems of high relevance for the European Community and will – also in the longer run – serve as framework and basis for joining forces to find solutions for these problems.

SEDIFLUX activities include four Science Meetings, Steering Committee Meetings attached to these Science Meetings, a SEDIFLUX session at the Second European Permafrost Conference, June 12th – 16th, 2005, in Potsdam, Germany, and an effective diffusion and dissemination of Network activities and outputs. Science Meetings will be organized in four different countries in Sauðárkrókur, Iceland (June 18th – 21st, 2004, see Report under 3.), Clermont-Ferrand, France (January 20th – 22nd, 2005), Durham, England, UK (December 2005) and Trondheim, Norway (October of 2006). All SEDIFLUX members are invited to these Science Meetings to present and discuss the latest scientific results from different high-latitude and high-altitude cold environments. Other scientists are also welcome to participate. In addition to scientific exchanges, the Science Meetings are also an excellent possibility to build up new contacts and to discuss new collaborations and collaborative research activities. In this way the Science Meetings form a major catalyst to build up a broad and effective network of contacts between leading scientists and young scientists from different fields working on the same scientific questions. Talks and posters will be presented to all Science Meeting participants. Abstract Volumes and Scientific Reports will be published and the

major scientific contributions at the Science Meetings will be published in Special Issues of relevant scientific journals. Additionally, there will be intensive discussions and more detailed exchanges in Working Groups. The main purpose of these Working Groups is to create a SEDIFLUX Database, to discuss methods and the unification of techniques, and to apply more standardized approaches to achieve a better comparability of data and knowledge from different environments. At the end of the Network period – after four meetings of the different Working Groups - each Working Group is invited to present summarizing contributions and guidelines for future investigations and monitoring programmes in selected test catchments which will be published in a SEDIFLUX Handbook. This Handbook will also contain a section which is particularly targeted at "end-users" like policy makers, land managers etc., who will also be invited to the workshops (see below). It will serve as a guide for a larger multinational and longer running monitoring programme which could follow the three-year ESF Network (see below).

Information on Science Meetings, Steering Committee Meetings and other SEDIFLUX activities will be disseminated by electronic media. A Web-site for each Science Meeting, containing all necessary information on organisation, programme, keynote speakers and participants, will be established by the Science Meeting organizers. The Network Co-ordinator will send around an electronic SEDIFLUX Newsletter two to three times each year to all SEDIFLUX members and linked groups, organisations, projects and programmes. A continuously up-dated central SEDIFLUX Web-site with detailed information on the Network, its background, aims, SEDIFLUX Database, Steering Committee, SEDIFLUX Members, SEDIFLUX activities, news/current status and major outputs will be established by the Network Co-ordinator with support from the other Steering Committee members.

SEDIFLUX will form a basis for the development of further and longer running collaboration at the European level. All Steering Committee members have a strong interest in further collaboration and collaborative research activities following the three-year ESF Network. The interests are mainly focused on the topics "Sediment fluxes", "Sediment budgets", "Source-to-sink fluxes/correlations" and – connected to that – "Climate change". Apart from the extension of contacts and collaboration project and programme applications at both the national and the European level will be discussed and initiated (for example multinational, longer running monitoring campaigns with process measurements in different high-latitude and high-altitude cold environments, see below).

3 *Diffusion and dissemination*

Diffusion and dissemination will be undertaken by using electronic media, inviting leading experts from other parts of the world to the SEDIFLUX Science Meetings, by the publication of Abstract Volumes and Scientific Reports on the Science Meetings, by significant Journal Publications (Special Issues) and by the Publication of a SEDIFLUX Handbook. Web-sites for the four Science Meetings and a central, continually up-dated SEDIFLUX Web-site will be established. A SEDIFLUX Newsletter will be sent electronically two to three times each year to all SEDIFLUX members and linked groups, organzations, programmes and projects by the Network Co-ordinator. The SEDIFLUX Newsletter will contain information on the different Working Groups, reports, outputs, news/current status, further SEDIFLUX activities and plans etc. A discussion forum will be established which will create a permanent link between members of the Network and will extend discussions of the Science Meetings. All SEDIFLUX members are invited to send contributions for the SEDIFLUX Newsletter, informing on relevant activities and plans of related groups, organizations, working groups, research teams and programmes etc.. In this way also a close contact and dissemination to national geomorphology groups (British Geomorphological Research Group (BGRG) and related Working Groups, German Working Group of Geomorphologists (DAK Geomorphologie), French Group of Geomorphology (GFG), etc.) will be possible. Dissemination of information to policy makers and land managers in the EC will be through the SEDIFLUX Newsletter and special invitations to the Science Meetings.

By inviting two key researchers/keynote speakers from other parts of the world (e.g. North America, Japan, New Zealand) to each Science Meeting diffusion and dissemination of SEDIFLUX activities and scientific outputs to other parts of the world will be strengthened. Relevant and accepted scientific contributions from the four Science Meetings in Sauðárkrókur, Clermont-Ferrand, Durham and Trondheim will be published in Special Issues of leading journals. The SEDIFLUX Handbook with contributions from all Working Groups will summarize the main scientific outputs of the ESF Network including guidelines for future research (see above). The SEDIFLUX Handbook will also contain recommendations for future actions, based on experiences gained during the Network period. One section of the Handbook will be particularly targeted at “end-users” like policy makers and land managers. The development of a guide is also planned for the uniform and standardized instrumentation of different high-latitude and high-altitude cold environments (meteorological stations, geomorphological process monitoring). The data from these longer term monitoring sites

(multinational and multidisciplinary projects, programmes following the three-year ESF Network, see above) would be comparable and could be used for space for time substitution and more reliable models.
For more information on SEDIFLUX see: http://www.esf.org/SEDIFLUX

References:

Beylich, A.A., Etienne, S., Etzelmüller, B., Gordeev, V.V., Käyhkö, J., Rachold, V., Russell, A.J., Schmidt, K.-H., Sæmundsson, Þ., Tweed, F.S. & J. Warburton (2004): Information on the European Science Foundation (ESF) Network: Sedimentary Source-to-Sink-Fluxes in Cold Environments (SEDIFLUX). – Geophysical Research Abstracts, **6**, 06798, 2004.

Beylich, A.A., Sæmundsson, Þ., Decaulne, A. & O. Sandberg (Eds.) (2004): First Science Meeting of the European Science Foundation ESF –Network SEDIFLUX. Sauðárkrókur, Iceland, June 18th – 21st, 2004. – Extended Abstracts of Science Meeting Contributions. Náttúrustofa Norðurlands vestra. **NNV-2004-003**. 103pp.

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3. REPORT ON THE FIRST SEDIFLUX SCIENCE MEETING IN SAUÐÁRKRÓKUR, ICELAND, JUNE 18th-21st, 2004:

The First Science Meeting and Steering Committee Meeting (Reykjavik, June 17th, 2004) of the European Science Foundation (ESF) Network SEDIFLUX (SEDImentary source-to-sink-FLUXes in cold environments) (http://www.esf.org/SEDIFLUX) took place at the Natural Research Centre of North-western Iceland in Sauðárkrókur, Iceland, from June 18th – June 21st, 2004. 38 participants from 12 different countries participated in the Science Meeting which consisted of two field excursions (June 18th: Reykjavik – Sauðárkrókur, June 21st: Reykjavik – Sauðárkrókur, highland road Kjölur) and a Workshop in Sauðárkrókur on June 19th and 20th. The Workshop included three invited keynote lectures given by Olav Slaymaker (Vancouver, "Towards the identification of scaling relations in drainage basin sediment

budgets"), Norikazu Matsuoka (Tsukuba, "Towards construction of a global network of monitoring periglacial processes") and Philip A. Wookey (Stirling, "Experiences with ITEX (the International Tundra Experiment): could SEDIFLUX benefit from lessons learned?"), 19 talks and 16 poster presentations. The workshop contributions covered a wide spectrum, including different topics on Sedimentary Source-to-Sink Fluxes in Cold Environments, Process Monitoring and Modelling, Analysis of Sediment Sinks/Storages, Source-to-Sink-Correlations, Sediment Budget Studies, Landscape Ecology, and information on related international research networks and programmes.
Accepted extended abstracts of workshop contributions are published in:

Beylich, A.A., Sæmundsson, Þ., Decaulne, A. & O. Sandberg (Eds.) (2004): First Science Meeting of the European Science Foundation ESF-Network SEDIFLUX. Sedimentary Source-to-Sink-Fluxes in Cold Environments, Sauðárkrókur, Iceland, June 18th-June 21st, 2004. Extended Abstracts of Science Meeting Contributions. Náttúrustofa Norðurlands vestra. NNV-2004-003. June 2004, 103pp.

For more information:
http://www.eld.geo.uu.se/swe/hemsidor/achim/esf.htm
http://www.nnv.is

Apart from six oral and two poster sessions, the Workshop included two Working Group meetings. Based on the discussions during these meetings the following activities are planned until the next SEDIFLUX Science Meeting in Clermont-Ferrand, January 20th-22nd, 2005: Further development of the SEDIFLUX Webpage, development of a SEDIFLUX Database (including information on ongoing and recently finished research projects of SEDIFLUX members, study sites of SEDIFLUX members, and detailed information (links to personal homepages) of SEDIFLUX members), and further linking of SEDIFLUX with other programmes and networks.
In Clermont-Ferrand (January 20th-22nd, 2005) the preparation of a SEDIFLUX Handbook containing guidelines, protocols etc. for future monitoring programmes in cold environment catchments (process monitoring and sediment budget studies) will be started. The third SEDIFLUX Science Meeting will be held in Durham, UK (December 2005) and the final SEDIFLUX Science Meeting will be held in Trondheim, Norway (October of 2006).
Achim A. Beylich (Achim.Beylich@ngu.no)

Scientific reports on the First SEDIFLUX SCIENCE MEETING will be published in:

- IAG Newsletter (by Olav Slaymaker)
- Frozen Ground (by Achim A. Beylich)
- Jökull (by Fiona S. Tweed)

4. INFORMATION FOR COMPETING THE SEDIFLUX DATABASE PROJECT, STUDY SITE AND MEMBER INFORMATION FORMS

Background:

The European Science Foundation (ESF) Network SEDIFLUX (Sedimentary Source-to-Sink-Fluxes in Cold Environments) was approved by the ESF Network Group in November 2003 for a three-year period (01.01.2004 – 31.12.2006).

The aim of this Network is to perform the quantitative analysis of sediment transfers in cold environments that has been lacking so far. Such an analysis clearly depends on the level of climate change expected. However the major focus of this Network is on the impact on sediment transfer processes of a variety of climate change scenarios and is therefore concentrating on the sediment flux processes from source to sink. To realize a sufficiently integrated study of source-to-sink sediment fluxes in cold environments, this Network is analysing the key processes of weathering, chemical denudation, erosion, mass movements, fluvial transport, and sedimentation in lakes and coastal areas. Bringing these different weathering, transfer and sedimentation processes within one broad field of study requires collaboration between a variety of specialists working in the respective subjects. This Network is bringing together both leading and young scientists in these fields, and creating a unified approach that will take research forward within the specific focus of climate change impact on the surface.
One of the strengths of this Network is the wide variety of scientific fields being harnessed, including physical geography, quaternary geology, oceanography, limnology, climatology, civil engineering, paleobiology, and ecology. The Network will also consider the impact of

human activity on the environmental sites being studied and how this might relate to climate change. Another important aspect to consider is the possible impact of climate change on the soil carbon budget. If global warming led to a net release of carbon into the atmosphere from the Earth`s surface, this could have a positive feedback accelerating in turn the warming process.

The Network is meant to build on existing or earlier work carried out both within Europe and elsewhere in different study areas. Indeed the large number of current related research projects, funded by a wide variety of agencies, highlights the interest already in this field. The Network shall take this opportunity both to strengthen the existing ties and build up new collaborations within Europe and reaching out to other parts of the world. It will also stimulate research in parts of Europe such as Poland and Russia where activity has been low in the recent past.

It is necessary to collect and to compare data and knowledge from a wide range of different high latitude and high altitude environments and to develop more standardized methods and approaches for future research on sediment fluxes and relationships between climate and sedimentary transfer processes. In Europe the wide range of high latitude and high altitude environments provides great potential to investigate climate-process relationships and to model effects of climate change by using space for time substitution.

A strong monitoring and operational data collection and more standardized methods will provide a baseline for the development of reliable models and for future research in the changing cold environments.

First steps to do:

As a first step within the ESF SEDIFLUX Network we would like to ask all SEDIFLUX members to spend some time and to provide some information on:

1) Their ongoing and recently completed projects which are scientifically related to SEDIFLUX (see Form A)
2) Their present study sites (see Form B)
3) Their contact addresses, web-addresses, research interests, research areas, etc. (see Form C)

Submissions will be used solely by the SEDIFLUX Steering Committee for compiling of a SEDIFLUX project, study site and member database which will be accessible from the SEDIFLUX webpage (to be installed, developed and up-dated by the SEDIFLUX Co-ordinator).

!!!A reply to these forms is required for each SEDIFLUX member!!!

Please use one separate copy of the forms A, B and C (see below) for each project, study site and SEDIFLUX member description and **send the completed forms electronically before**

November 1st, 2004,

to the SEDIFLUX Co-ordinator:

Achim.Beylich@ngu.no

Please keep descriptions short. Each completed form (A, B, and C) should not be longer than two A4 pages.

The members of the SEDIFLUX Steering Committee thank you very much for your co-operation.

Sincerely yours,

Achim A. Beylich (SEDIFLUX Co-ordinator, Trondheim, Norway)
Samuel Etienne (Clermont-Ferrand, France)
Bernd Etzelmüller (Oslo, Norway)
Vyacheslav V. Gordeev (Moscow, Russia)
Jukka Käyhkö (Turku, Finland)
Volker Rachold (Potsdam, Germany)
Andrew J. Russell (Newcastle, UK)
Karl-Heinz Schmidt (Halle/S., Germany)
Þorsteinn Sæmundsson (Sauðárkrókur, Iceland)
Fiona S. Tweed (Staffordshire, UK)
Jeff Warburton (Durham, UK)

Form A:
Information on ongoing and recently completed projects (please use one A form per project)

Project title:
Principal investigator Name:
Title: Postal address: Phone number: Fax number: Email:
Scientific personnel within the project:
Collaborators:
Start date of project: (Expected) completion date of project:
Funding agency:
Short summary, project description:
Main goals of the project:
Key words (5 – 10):
Study site:
Other comments:

Form B:
Information on study area/ study site (please use one B form per study site):

Name of researcher (SEDIFLUX member):
Title of ongoing or recently completed project: Duration of project (start and (expected) end dates):
Name of study site:
Description of study site Country: Area: Geographical coordinates: Elevation a.s.l.: Climate: Vegetation cover: Topography: Lithology: Other description:
Short description of data sets available from this site (meteorological data sets, data sets from longer term process monitoring etc.):
Short description of other material which is available from this site (aerial photographs, DEM, maps, etc.):
Short description of instrumentation and methods used at this study site:
Other comments:

Form C:
Information on SEDIFLUX members:

Name:
Title:
Position:
Postal address: Phone number: Fax number: Email:
Webpage:
Scientific field:
Research interests:
Research areas/study sites:
Title, duration (start and completion date) and funding agency of ongoing and recently completed projects which are scientifically related to SEDIFLUX:
Five key publications of the last 5 years:
Are you willing to send photo(s) of your study site(s): Yes: No: If yes please send photo(s) (one or two per study site) in digital form.

5. PUBLICATIONS RELATED TO SEDIFLUX

- **Beylich, A.A., Etienne, S., Etzelmüller, B. Gordeev, V.V., Käyhkö, J., Rachold, V., Russell, A.J., Schmidt, K.-H., Sæmundsson, Þ., Tweed, F.S. & J. Warburton (2004):** Information on the European Science Foundation (ESF) Network: Sedimentary Source-to-Sink-Fluxes in Cold Environments (SEDIFLUX). – *Geophysical Research Abstracts*, 6, 06798, 2004.
- **Beylich, A.A., Etienne, S., Etzelmüller, B., Gordeev, V.V., Käyhkö, J., Rachold, V., Russell, A.J., Schmidt, K.-H., Sæmundsson, Þ., Tweed, F. & J. Warburton (2004):** Sedimentary Source-to-Sink-Fluxes in Cold Environments – Information on the European Science Foundation (ESF) Network SEDIFLUX. – *Zeitschrift für Geomorphologie, Supplementband* (in press).
- **Beylich, A.A., Sæmundsson, Þ., Decaulne, A. & O. Sandberg (Eds.) (2004):** First Science Meeting of the European Science Foundation ESF-Network SEDIFLUX. Sauðárkrókur, Iceland, June 18th-21st, 2004. – Extended Abstracts of Science Meeting Contributions. *Náttúrustofa Norðurlands vestra*. NNV-2004-003. 103 pp.

Relevant Website:
http://www.esf.org/SEDIFLUX

6. FURTHER SEDIFLUX ACTIVITIES AND MEETINGS

- Publication of Accepted Papers from the First SEDIFLUX SCIENCE MEETING in Sauðárkrókur, Iceland, June 18th-21st, 2004: Submission of Papers before November 1st, 2004 (see below 7.).

- Further development of SEDIFLUX Webpage and SEDIFLUX Database: Please copy, fill in and send the Form Sheets A, B and C (see below 4.) electronically to achim.beylich@ngu.no before November 1st, 2004 (see below 7.). Following step: Development of Guidelines: Start during the Second SEDIFLUX SCIENCE MEETING in Clermont-Ferrand, France, January 20th-22nd, 2005.

- Further development of links to other groups, networks and programmes (IPA Working Groups, ESF Network PACE21, etc.) (see also point 9.).

- Further development of Proposals related to SEDIFLUX (Proposal for a Working Group on Sediment Budgets in Cold Environments; Marie Curie RTN DYNAFLUX; etc.)

- Second SEDIFLUX SCIENCE MEETING and STEERING COMMITTEE MEETING in Clermont-Ferrand, France, January 20th – 22nd, 2005. Scientific Organizer: Samuel Etienne (setienne@seteun.net).

- SEDIFLUX SESSION at the 2nd European Permafrost Conference in Potsdam, Germany, June 12th -16th, 2005: http://www.awi-potsdam.de/EUCOP/science.html (vrachold@awi-potsdam.de).

- Third SEDIFLUX SCIENCE MEETING and STEERING COMMITTEE MEETING in Durham, UK, December 2005. Scientific Organizer: Jeff Warburton (jeff.warburton@durham.ac.uk)

- Fourth SEDIFLUX SCIENCE MEETING and STEERING COMMITTEE MEETING in Trondheim, Norway, October of 2006. Scientific Organizer: Achim A. Beylich (achim.beylich@ngu.no).

7. RELEVANT DEADLINES

November 1st, 2004:

For the participants of the First SEDIFLUX Science Meeting:
Submission of Papers from the First SEDIFLUX Science Meeting in Sauðárkrókur, Iceland, June 18th-21st, 2004.
Accepted Papers shall be published in a Special Issue of "GEOMORPHOLOGY".

Please send four complete copies of manuscripts to:

Dr. Achim A. Beylich
Geological Survey of Norway (NGU)
N-7491 Trondheim
Norway
Email: achim.beylich@ngu.no

November 1st, 2004:

For ALL SEDIFLUX MEMBERS:
Submission of the Form Sheets A, B and C for the SEDIFLUX Database.
Please copy and fill in the three Forms A, B and C (see below 4.) and send the three Forms A, B and C electronically to the SEDIFLUX Co-ordinator:
achim.beylich@ngu.no (Achim A. Beylich)

8. NEXT SEDIFLUX NEWSLETTER

The next electronic SEDIFLUX Newsletter will be sent **in December 2004 (Newsletter 2004 B)** by the SEDIFLUX Co-ordinator.

9. CALL FOR CONTRIBUTIONS

PLEASE SEND CONTRIBUTIONS for the SEDIFLUX Newsletter and the SEDIFLUX Webpage to the SEDIFLUX Co-ordinator: Achim.Beylich@ngu.no (Achim A. Beylich).

Information on (Links to) relevant/SEDIFLUX related:

- Meetings,
- Workshops,
- Conferences,

Information on (Links to):

- Activities of other (SEDIFLUX related) Groups, Networks, Programmes etc.;

Information on:

- SEDIFLUX related Proposals

All kinds of Suggestions, Ideas etc.

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