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I. Competences Organisations

German Aerospace Centre (DLR)

Division of System Analysis and Technology Assessment, Stuttgart (STB)

The Division of System Analysis and Technology Assessment (STB) provides practice-oriented knowledge for the preparation of strategic and political decisions in the field of energy systems. Its scientific work combines top-down analysis of the overall energy system at the regional, national and super-national level as part of the overall economy with technology-oriented bottom-up studies in areas such as life-cycle assessment or the assessment of resource potentials. Conceptual work on sustainability issues, on technological education, and on market introduction mechanisms are an integral part of STB's activities. Results have been actively disseminated through close links to public institutions, politicians, and industry.

STB has broad experience and participates intensively in international networks which mainly focus on Europe, North Africa and Middle East. Among other activities in these regions, STB has assembled extensive data stocks, developed country-specific models and scenarios and prepared case studies such as for the emerging megacity of Sana'a (Yemen). In the research field of sustainability and energy supply, STB was involved in the development of the integrative sustainability concept of the Helmholtz Association. STB forms part of the Institute of Technical Thermodynamics (ITT) in the German Aerospace Centre and benefits from ITT's broad network of cooperation with other institutes, industry and universities and from its experience in application-oriented research and development as well as design and operation of laboratories and demonstration plants.

Institute of Transport Research, Berlin (IVF)

In 1999 the German Aerospace Centre initiated transport as the forth exploratory focus among aeronautics, astronautics and energy. The construction of the new focus was supported by the establishment of three new institutes, including the foundation of the Institute of Transport Research (IVF) in March 2001 at Berlin-Adlershof. Following the idea of an integrative transport systems research aiming at contributions to a sustainable mobility, the relationships and interactions between transport, economy, society and environment are analysed beyond the borders of single transport modes. The excellence of IVF is due to the connection of empirical analyses of transport demand and the application of microscopic modelling tools for analytic purposes. Accordingly, the know-how of an interdisciplinary composed scientists group is organised within the two divisions of passenger transport and commercial transport.

The research activities at IVF aim at the analysis of influences on transport demand including modelling and scenario drawing for future developments of the transportation system. One particular focus is attributed to assess the impacts of innovative technologies and mobility concepts on travel and transport. Besides the programme-oriented funding of the Helmholtz Association, projects are funded particularly by regional and national governmental public entities.

The Institute of Transport Research is integrated into national and international networks and has established strong links to competent research partners. Within Germany the IVF is embedded for instance in the German Logistics Association (BVL) and the German Association for Transport Sciences (DVWG). Furthermore, there exist connections to the French National Institute for Transport and Safety Research (INRETS) or the AVV Research Centre at the Dutch Ministry of Transport, Public Works and Water Management. In addition, the IVF participated in previous as well as in the actual 6th European framework programme

of the European Commission. IVF is member of the European Conference of Transport Research Institutes (ECTRI) and the European Rail Research Network of Excellence (EURNEX).

"Applied Remote Sensing" Cluster, Oberpfaffenhofen/Cologne/Berlin (C-AF)

The "Applied Remote Sensing" cluster (C-AF) of the German Aerospace Centre (DLR) develops and operates systems for observation of the land surface and atmosphere by means of remote sensing from satellites and aircraft. The cluster is formed by two institutes: the German Remote Sensing Data Centre (DFD) and the Remote Sensing Technology Institute (IMF). The technical expertise of DFD is concentrated on the following areas: reception and processing of remote sensing data; information technology and remote sensing library; development of innovative methods and information products for environmental protection, planning, climate and atmospheric research. DFD operates the World Data Centre "Remote Sensing of the Atmosphere" on behalf of the International Council of Scientific Unions and the WMO. The IMF carries out research and development of remote sensing technologies with an emphasis on methodologies, techniques and processing systems for retrieval of geo-relevant information from remote sensing data.

Specific expertise for the observation of urban areas is available for the following atmospheric and surface related topics: monitoring and forecasting of harmful air pollutants, assimilation of space-based observations into air-quality models, detection and monitoring of major fires, dust storms and volcanic eruptions. DFD coordinates the PROMOTE-II project for ESA's GMES service element atmosphere and has a leading role in several working groups related to air quality.

In support of the emerging solar energy economy, DFD helps in mapping solar radiation for the planning and optimisation of power plants. To foster the collaboration with the industry, it coordinates the ESA EO market development project ENVISOLAR.

Surface related activities also cover the following fields: mapping of land use, vegetation, sealing, building density, surface temperature; derivation of digital topographic models and three-dimensional city models from remote sensing data; traffic monitoring; evaluation and monitoring of urban dangers due to subsidence using satellite based SAR interferometric techniques; vulnerability analyses and rapid mapping based on very high resolution satellite data.

Forschungszentrum Karlsruhe (FZK)

Institute of Technology Assessment and Systems Analysis (ITAS)

At the heart of ITAS' research work is the comprehensive analysis and evaluation of the development and application of technology and its inter-relationship with processes of societal change in a problem-oriented and interdisciplinary way. Work is being performed on environment-related, economic and political-institutional issues and results in the development and assessment of alternative options for action and design. It is an integral component of ITAS' scientific practice to communicate its results to science, politics and the general public, in this way contributing to the societal discourse on goals, framework conditions and options for the development of science and technology. In the field of institutional policy advice ITAS operates the Office of Technology Assessment at the German Parliament (TAB) and is the head of group of scientific consultants for the Panel of Science and Technology Options Assessment (STOA) at the European Parliament.

ITAS has broad and long-standing experience in studies on the application of the sustainable development paradigm, including the coordination of the "Global Sustainable Development – Perspectives for Germany" project, the leadership in the development of the integrative sustainability concept of the Helmholtz Association, and the application of the concept in areas such as energy, waste management, housing and construction, leisure and tourism, Integrated Water Resources Management, etc. Furthermore, broad research experience and competencies exist in several specific fields: material flows analysis; environmental and resource management; technical and organisational aspects of water supply, water use and waste water; sustainable housing and construction; strategies for managing land use patterns (e.g. in Venezuela) and to reduce urban sprawl; environmental city management (local Agenda 21-process); environmental impact assessment; capacity building of stakeholders from Latin America.

Institute of Meteorology and Climate Research Atmospheric Environmental Research (IMK-IFU)

IMK-IFU has a long tradition in atmospheric environmental research, with its main emphasis on studying the impact of anthropogenic activities on the interactions between atmosphere and biosphere, hydrology, regional climate, and air quality. Studies in these research fields are characterised by an interdisciplinary and integrated approach involving field measurements, process studies and numerical modelling. Results obtained in these research fields are used for defining reliable and efficient mitigation and adaptation strategies. Most of the research at IMK is carried out at international level.

In the area of air quality, IMK-IFU has established close collaborations in Latin America, particularly in Mexico City and Santiago de Chile. The emphasis of these collaborations has been on the generation of emission inventories, numerical simulations of air quality and the definition of abatement strategies taking into account the expected demographic and economic development of the respective country or city. Due to the applied character of these research projects, close collaborations with local scientists, authorities and national and international stakeholders have been established. Scientists from IMK-IFU have been working for more than eight years in Chile (Universidad de Chile) and Mexico (Universidad Nacional de México) where they are involved in research and lecturing. The continuous and fruitful exchange between these universities and IMK-IFU has resulted in the recent establishment of the "Competence Centre for Sustainable Development in Metropolitan Areas" (ISUD) in cooperation with the Universidad de Chile in Santiago de Chile.

Institute for Technical Chemistry, Water Technology and Geotechnology Division (ITC-WGT)

ITC-WGT focuses on technological topics in environmental and nanostructural research. Two of four departments are also involved in water technology and research, specialised in sorption processes, magnetic technology, and technical microbiology. Research projects are mainly performed in developing and establishing innovative water cleaning technologies and in microbiological and molecular biological biofilm characterising. A speciality are combinations of technical and nature-adapted processes.

In the area of water technology, ITC-WGT has strong connections and cooperations with German stakeholders and water institutions as well as a vivid scientific exchange with several universities, esp. Technical University Karlsruhe. Moreover e cooperations with Asian and Latin American countries such as China, Taiwan, Indonesia, Brazil, and others have a long tradition.

ITC-WGT has the competence and experience in monitoring and evaluating water quality and related conditioning technologies and is focused to low-cost and innovative technologies for Non-European countries.

Institute for Technical Chemistry – Division of Thermal Waste Treatment (ITC-TAB)

ITC-TAB has a long tradition in research and development in the field of thermal waste treatment. Today, its scientific work aims for the development of eco-efficiency with optimized material and especially also energetic utilization. Beside the classic incineration on the grate different test facilities for combustion of special wastes in a rotary kiln, for pyrolysis of electronic wastes and biomasses by the Haloclean[®]-process (1-screw-rotary kiln reactor) and for gasification of slurries from biomass have been developed. These activities are supplemented by research programs on gas cleaning with special focus on minimization of fine particles.

Two further topics concern the energy recovery of waste: First of all, the utilization of solid recovered fuel (SRF) in high temperature processes like power plants and basic material industry and second, the combination of waste incineration with coal fired power plants. Hereby, the main benefit is the energetic utilization of the biogenic waste fraction. But ITC-TAB is also active in the field of public health. In this area it follows health aspects of aerosols / nano particles. The experimental research activities comprise basic analysis in laboratory and practicable tests in semi technical scale up to full scale plants.

The application orientation of the research is given by the operation of pilot plants for combustion on the grate (TAMARA), in the rotary kiln and in a combustion chamber for variable fuels (THERESA), for pyrolysis in a rotary kiln (Haloclean-Reactor) and for aerosol research (AEOLA).

One of the most important membership of ITC-TAB is the EU Network of Excellence (NoE) “Bioenergy”, where the institute coordinates the area “Biogenic Waste to Energy”.

GeoForschungsZentrum Potsdam (GFZ)

GeoForschungsZentrum Potsdam is the national research institution for geosciences in Germany. GFZ is a member institution of the Helmholtz Association of National Research Centres and was founded in 1992. With more than 670 staff the centre combines all solid Earth science fields including geodesy, geology, geophysics, mineralogy, palaeontology and geochemistry, in a multidisciplinary scientific and technical environment. Research is accomplished using a broad spectrum of methods and techniques, such as satellite geodesy and remote sensing, geophysical deep sounding, scientific drilling, experiments under in-situ conditions, and modelling of geo-processes. By means of large scale monitoring and sounding infrastructures, e.g. satellite missions, seismological and GPS networks, magnetic observatories, as well as unique active experiments GFZ is providing the empirical basement and the information infrastructure with core data services for large scale and supra-national geoscientific projects e.g. the ongoing satellite missions CHAMP and GRACE, the International Continental Scientific Drilling Program (ICDP), the Network of Natural Disaster Research (DFNK) and for CEDIM, the Center for Disaster Management and Risk Reduction Technology. The GFZ Data and Computing Centre (DRZ) has the essential task of enhancing and supporting geoscientific projects through allocation of sophisticated solutions for appropriate data and information management on a world wide scale. Together with regional, national and world wide partners GFZ is fostering the development of spatial data infrastructures (SDI), starting from Brandenburg and other European and Mediterranean regions. Immediately after the Sumatra tsunami disaster the German government entrusted GFZ to develop and implement an advanced real time tsunami early warning system for the Indian Ocean, in particular for the Indonesian archipelago (GITEWS). The swift integration of complex sensor systems on satellites, ground and ocean bottom constitutes an extremely great challenge.

For the Third International Conference on Early Warning in Bonn (EWC III, March 27-29, 2006) GFZ has been appointed executive organiser of the scientific and technical sessions. Key person for this task is Prof. Dr. J. Zschau, Head of Department 2, which organised also EWC'98 in September 1998 at the GFZ in Potsdam. The participating GFZ scientists of the proposed project belong to Department 2 'Physics of the Earth', Section 2.1 'Earthquake Risk and Early warning' which provides excellent experience and back ground knowledge for the suggested research activities. Among the major research fields of Section 2.1 are investigations of aftershock sequences, study of soil and site conditions for engineering purposes, contributions to seismic risk studies and hazard assessment, investigations of deformational processes along active plate margins, numerical modelling of co- and postseismic deformation, interactions of volcano eruptions and seismicity. To foster these research activities Department 2 runs an automated seismological system delivering fast hypocenter determinations for large earthquakes (GEOFON), short period networks (SABONET, Turkey, planned network in North Chile) and broad band as well as strong motion stations to solve local geoscientific problems and manages an instrumental pool of more than 120 stations for seismic sounding. Section 2.1 also hosts the German Task Force for Earthquakes, a multidisciplinary group of scientists whose aim is to monitor parameters in the disaster area right after a large earthquake occurred. 20 short period and 10 strong motion instruments are at permanent disposal for this task. Furthermore Section 5.3 'Engineering Seismology' of Department 5 'Geoengineering' provides expertise in global seismic hazard assessment (GSHAP).

Helmholtz Center for Infection Research (HZI)

The mission of the HZI is to conduct innovative, interdisciplinary research in the field of health and infection biology and to discover and develop new processes and products that lead to significant advances in the prevention, diagnosis and treatment of human diseases. To achieve its goals, the HZI established disciplinary Research Divisions, supported by a range of key technology platforms, and organizes its activities in integrated transdisciplinary research projects. Its structure and organization of research enable a seamless progression from molecule to process.

The strong groups in microbial pathogenesis, environmental microbiology and microbial genomics constitute a unique constellation of expertise to address environmental aspects of infections, such as the emerging issues of environmental reservoirs of pathogenic microorganisms and the evolution of new pathogens. The interface between ecology and infection is a particularly relevant research field because we know much about pathogen-host interactions, but we have little knowledge of pathogen-environment interactions. The latter however influence the survival and growth rate of infectious microorganisms in environmental reservoirs, and thereby determine the exposure of humans to pathogens.

The Chemical Microbiology maintains and exploits several platforms (DNA sequencing and profiling; chemical analysis; electron microscopy; confocal microscopy). The group is involved in several projects in Latin America (Santiago de Chile, São Paulo, Porto Alegre, Antofagasta). Its interdisciplinarity facilitates the development of new ideas, hypotheses and paradigms, and the exploitation of new approaches and technologies.

Helmholtz Centre for Environmental Research - UFZ

The mission of UFZ is to provide orientation and implementation knowledge for the promotion of sustainable land use and for securing the livelihood of future generations. Research on urban regions is one of the key competences at the UFZ and involves the analysis of essential problems of urban development and urban life from an international perspective. Research integrates theoretical and methodological approaches from natural and social sciences. Specific fields of research are: monitoring of land use dynamics and analysis of underlying causes of land use change, demographic change, quality of life and housing, environmental health, urban water management and health, urban governance and institutions.

The UFZ has a long record of cooperation with partners from Latin America in studying processes of socio-spatial differentiation with particular reference to land use patterns. The cooperation with the Universidad Nacional de Cuyo, Argentina, and the Universidad Concepción, Chile, have led to the preparation of a socio-economic atlas for Gran Mendoza, Argentina, and a social and environmental atlas for Gran Concepción, Chile. The documents contain the analysis and spatial presentation of land use change, various environmental parameters and socio-demographic transformation and their consequences. Both atlases have become part of local planning processes in the two regions. Furthermore, UFZ has long-standing contacts to partners from Latin America in the research field of health (Universidad Mendoza and Universidad La Plata, Argentina).

The following Departments at UFZ are currently involved in the initiative on megacities: Economics; Urban and Environmental Sociology; Urban Ecology, Environmental Planning and Transport; Human Exposure Research and Epidemiology; Hydrogeology.

Universidad de Chile

The Faculty of Mathematical and Physical Engineering

The Faculty of Mathematical and Physical Sciences is one of the ten faculties of the University of Chile. It was founded in 1842. Today, with its 13 Departments, it represents the largest and most important center of engineering and science of the country. It has a 6,000 sq. mt. Central Library with 150,000 volumes and a collection of 3,000 updated journals. Four of its Departments have recently agreed upon the creation of the International Center for Sustainable Urban Development (ISUD) in collaboration with the Forschungszentrum Karlsruhe from Germany. These Departments, represented by their academics collaboration with the initiative 'Risk Habitat Megacity' are:

The Department of Civil Engineering

The Department of Civil Engineering was created in 1853 and has produced 6,000 engineers since then. It is currently organized into three divisions: Structures-Construction-Geotechnics, Transport and Hydraulics Resources and Environment. The staff counts 24 full time professors and 170 part time professors, teaching 480 students and 26 technicians and administrative staff. The main teaching program is the six years Engineering Title, with two years mayors in Structures, Hydraulics and Transport, including a one year thesis. Additionally, there are two years Master programs in Seismic, Geotechnic, Transport and Hydraulic Resources and Environmental Engineering. This department also participates in two Doctorate programs: Fluid Dynamics and Complex Engineering Systems. Since 2003, the new 5,350 squared meters building, which is shared with Geophysics Department, accommodates the three divisions, the specialized Civil Engineering Library, computing rooms for students, and three research laboratories: Structures Dynamics, Hydraulics and Water Quality, in addition to the Fluids Dynamics teaching lab; the Solid Mechanics teaching lab and the Land Use and Transport (Labtus) projects lab, are located in nearby buildings.

The Department of Geophysics

The Department of Geophysics is currently organized into two divisions: Seismology and Meteorology. Furthermore, the Seismological Service is included within the Department. The staff counts ten full time and the same amount of part time professors. Apart from its undergraduate course in geophysics, the Department offers two Master programs in Seismology and Meteorology and also participates in the Doctorate programs of Fluid Dynamics and Geology. Since 2003, the Department shares a new building with the Department of Civil Engineering which accommodates a specialized Geophysics library and a state of the art computer lab. It also counts with powerful computation facilities for computer demanding research projects within the field of climate change, meteorology and air quality.

The Department of Industrial Engineering

The Department of Industrial Engineering (DII) was founded in the mid 1950's and has produced over 4,000 engineers and is currently the largest Department of the Engineering School and the main training center of industrial engineers in the country. There are currently approximately 700 undergraduate students. For research and graduate teaching the DII is organized into three Centers: Applied Economics, Management and Operations Management. The staff considers 22 full time professors, 8 adjunct professors and over 100 part time professors. The Department offers 5 masters programs, in management (MBA),

applied economics, operations research, business engineering and management and public policies, to over 200 students per year. There are also two PhD programs, in economics and complex engineering systems (the latter with other departments). The DII also offers Executive Education programs to more the 1,200 students each year. It is the most productive academic research unit in economics and management in Chile, publishing in the last ten years 19 books, 80 book chapters and more than 200 scientific articles in international journals. The Department also has strong ties with the productive sector, undertaking each year close to 40 applied projects of significant size.

The Department of Electrical Engineering

The Department of Electrical Engineering, of the Faculty of Physical Sciences and Mathematics, Universidad de Chile, was created in 1957 and has produced over 1.000 engineers since then. It is currently organized into three Areas: Automatic and Intelligent Systems, Energy and, Telecommunications and Electronics. The staff counts 16 full time and 50 part time professors, teaching 500 students and 6 technicians and administrative staff. The main teaching program is the six years Engineering Title, with two years mayors. Additionally, there is a two-year Master program with 40 students, and a PhD program with nearly 25 students. This department also participates in a multidisciplinary PhD program called Complex Engineering Systems, in collaboration with the Civil Engineering and the Industrial Engineering. Since 2004, a new building accommodates the Electrical Engineering department, which has a library, computing rooms for students, undergraduate and research laboratories.

Pontificia Universidad Católica de Chile

Instituto de Estudios Urbanos y Territoriales

The Institute of Urban and Territorial Studies is an academic unit dedicated to graduate studies, scientific research, and academic extension in areas related to human settlements in general, and to cities and metropolitan regions in particular, with an emphasis on:

- the relationships between society and space, and the forms of public and private intervention in urban development.
- the characteristics of human settlements and their environmental and regional interactions.

The Institute was founded forty years ago and was the first multidisciplinary academic unit in the university, supported by the Ford Foundation in its early phases. Currently the Institute offers Masters programmes in: Urban Development; and in Human Settlements and the Environment. It also manages the PhD programme in Architecture and Urban Studies (jointly with the School of Architecture); undergraduate courses to other schools and institutes are also provided. The Research Network on European and Latin American Metropolitan Areas (RIDEAL) is coordinated from the Institute. There are 16 faculty members: 8 hold a doctorate, 6 a masters, while 2 have other postgraduate qualifications.

The main research areas are local urban development, human settlements and the environment, regional development, housing, segregation and real estate development. Research results have been published in specialized international journals such as *Revista Interamericana de Planificación (SIAP)*, *Habitat International*, *Land Use Policy*, *International Journal of Urban and Regional Research*, *Regional Development Dialogue*, and the *Revista Latinoamericana de Estudios Urbano-Regionales (EURE)*. EURE is edited in the Institute and is ISI-indexed. Recent books published by the Institute by EURE-libros include:

Santiago en EURE: huellas de una metamorfosis metropolitana (2006), Gobernanza, Redes y Competitividad y Redes: la gestión de las ciudades del siglo XXI (2005), Perspectivas del Medio Ambiente Urbano: GEO Santiago (2005), Santiago en la Globalización (2005), and Santiago ¿Ciudad de Clase Mundial? (2004). These books are written or edited by Institute researchers.

To realize the proposed initiative, the Instituto de Estudios Urbanos y Territoriales (IEU+T) will provide (i) office space and equipment for the researchers and support personnel, (ii) computer hardware and standard and specific software for spatial and statistical analysis, (iii) databases, plans and aerial photographs, (iv) secretariat staff, (v) telecommunication and e-mail facilities, meeting and function rooms and access to the national and international research networks of the institute, such as the División de Desarrollo Sostenible y Asentamientos Humanos of ECLAC/CEPAL (which is likewise partner in the research initiative 'Risk Habitat Megacity') and other academic units of the university, (vi) the network of libraries which is known as the best at national level, (vi) access to existing cooperation agreements with public entities in the sphere of urban sustainability and spatial development, as well as international organizations such as the United Nations Environmental Programme (UNEP).

The Instituto de Estudios Urbanos y Territoriales uses several instruments to transfer knowledge and results from the research initiative.

1. Teaching: The colleagues from the institute who participate in the initiative are involved in teaching programmes as the PhD programme in Architecture and Urban Studies and the Master programmes in Urban Development; and in Human Settlements and the Environment. Transfer will take place through PhD and Master theses that will relate to the topics of the initiative. As part of these programmes students participate in workshops where they apply their knowledge in real situations as part of cooperation agreements with local government units in Santiago de Chile. In addition, undergraduate courses lead to an academic certificate in Urban and Regional Studies. Young scientists working in the research initiative may participate in the courses offered by the professors who cooperate in Risk Habitat Megacity.

2. Extension: The Instituto de Estudios Urbanos y Territoriales realizes extension through Diploma Courses and seminars for professional who work in the public and private sphere. Such type of activities serves to transfer the results of the initiative. Upcoming courses can be related directly to the topics of the initiative, such as: environmental assessment of projects, strategic environmental assessment, urban management and governance, strategic governance of cities, real estate management.

3. External Services: The Facultad de Arquitectura, Diseño y Estudios Urbanos, to which the Instituto de Estudios Urbanos y Territoriales belongs, offers consultancy services in the urban sphere, in principle to public sector institutions. Professors from the institutes and there students participate in providing these services. They can directly transfer the results of the initiative.

In addition, the participating academic staff of the Instituto de Estudios Urbanos y Territoriales expects to strengthen its own investigation and to develop synergies between different topics. In the same manner we expect to generate joint publications with the German colleagues in the different topics of the initiative.

Pontificia Universidad Católica de Valparaíso

The Pontificia Universidad Católica de Valparaíso counts nine faculties with a total of more than 50 programs and careers and about 13.000 students. One of these faculties is the Faculty of Engineering with about 100 full-time and the same number of part-time professors for about 4200 students. The faculty counts with various Master courses and a Ph.D. programme. Within the School of Civil Engineering, which counts with nine full time and 24 part time professors, is the Group of Solid Waste. This group is unique in its form in Chile was founded by Marcel Szanto, who is also its actual director. The Group itself consists four scientists and of two Ph.D. students. Apart from its responsibilities of being in charge of the education and research in environmental engineering at the University, it holds also the UNESCO Chair in Environmental Engineering together with the University of Cantabria, Spain, (responsible: Dr. Szanto and Dr.Tejero). With respect to its research the groups focuses on solid waste management and land fills. For this purpose the group has also established a laboratory for the analysis of urban solid waste. The group disposes of a lot of experience and information, which can be used as an input for the empirical topic "Waste management". On the other side research within the different work packages will support the work of the group and open up new fields of research.

Whereas most of its research projects have been located in Chile, the group also has had numerous projects with the governments form Bolivia, Switzerland, Paraguay, Brazil, Argentina and Spain.

Economic Commission for Latin America and the Caribbean in the United Nations (ECLAC/CEPAL)

ECLAC/CEPAL is one of five Regional Economic Commissions established by the United Nations (in Europe, Africa, Asia and the Pacific, Western Asia and Latin America and the Caribbean) with a mandate to conduct regional analyses, elaborate proposals and provide technical cooperation to the governments of the Region in the spheres of economic and social development.

Mandate and Mission:

- Undertakes studies, research and other support activities within the terms of reference of the Commission;
- Promotes economic and social development through regional and subregional cooperation and integration;
- Gathers, organizes, interprets and disseminates information and data relating to the economic and social development of the region;
- Provides advisory services to Governments at their request and plans, organizes and executes programmes of technical cooperation;
- Formulates and promotes development cooperation activities and projects of regional and subregional scope commensurate with the needs and priorities of the region and acts as an executing agency for such projects;
- Organizes conferences and intergovernmental and expert group meetings and sponsors training workshops, symposia and seminars;
- Assists in bringing a regional perspective to global problems and forums and introduces global concerns at the regional and subregional levels;
- Coordinates ECLAC/CEPAL activities with those of the major departments and offices at United Nations Headquarters, specialized agencies and intergovernmental organizations

with a view to avoiding duplication and ensuring complementarity in the exchange of information.

Division of Sustainable Development and Human Settlements

- The Division of Sustainable Development and Human Settlements executes among other activities and projects, initiatives to support sustainable economic development of cities and sub national territories.
- Currently the main work areas of the Division are: Economy and Environment; Assessment of the Sustainability in the Region; Public Policy and Monitoring of the Global Environmental Agenda and Human Settlements.
- This mission carries out it through activities of technical cooperation, research and training oriented mainly toward decision makers and professionals of the public sector (national, subnational and of the local level)

Activities with special relevance to Risk Habitat Megacity

- Focal point for Latin America and Caribbean in the follow up activities for the implementation of Agenda 21, the Habitat Agenda and the Johannesburg Plan of Implementation for Sustainable Development Involvement of ECLAC/CEPAL in the work of the UN Commission on Sustainable Development (CSD) is remarkable (for example CSD 12 – 13 – Water sanitation and human settlements; CSD 14 - 15 – Energy for sustainable development, air pollution / atmosphere, industrial development and climate change)
- Technical Secretariat to the Forum of Ministries of Housing and Urban Development (MINURVI), the ECLAC/CEPAL's Division of Sustainable Development and Human Settlements developed an integrated approach for the decision making process at local / urban level of LAC: the "Sustainable Urbana Agenda". Includes five priority urban intervention areas: a) urban services and infrastructure, b) income and employment, c) housing management, d) urban land use management and f) public spaces. The Division has contributed together to the United Nations Human Settlements Programme (UN HABITAT ROLAC) to develop a yearly "Regional Report on human settlements" from a qualitative and a quantitative perspective.
- Technical Secretariat for the Latin America and the Caribbean Organization of Intermediate Governments (OLAGI): the Division has prepared an executive document entitled the "Urban and Regional Action Plan" that points the priority thematic areas, instrumental schemes and policy options related to the governmental roles in the sub national levels. The Division has contributed to articulate effort between other international regional institutions that collaborate with OLAGI, as the United Nations Development Program (UNEP), Inter American Development Bank (IADB), Andean Community (CAN), Food and Agriculture Organization (FAO), Latin-American Faculty of Social Sciences (FLACSO)
- Technical Secretariat for the Latin American and the Caribbean Organization of Historical Centers (OLACHI); the Division coordinate a technical group on "Social and Economics Policies within urban centralities in LAC"
- The design and the implementation of "Urban Laboratories" and "Urban Observatories" in different countries in LAC: Manizales, Sao Paulo, Pereira, Bogotá and San Andres as part of technical cooperation activities. Currently measuring progress and performance.
- Three years Projects on: "Urban Management for Sustainable Development in LAC" (GUDS) and "Urban Management for Intermediate Cities in LAC"(GUCI). "Urban Poverty and Precariousness: Strategies for the LAC Municipal Government" with the financial support of the United Nations Development Fund

Currently research and technical cooperation on the following themes:

- Promotion of the economic development through the integration of social and environmental politics in Latin America and the Caribbean
- Measurement of Urban Externalities for policy design and urban mega projects in Santiago de Chile
- Technical support to the Master on Regional and Urban Projects and Human Security (UNCRD - Milan Municipality – University of Viña del Mar, Chile – University Blas Pascal, Córdoba, Argentina – Ministry of Housing and Urban Development. Chile.
- Technical cooperation Municipality of Río Cuarto. Argentine
- Technical cooperation Ministry of Housing and Urban Development. Chile: Bases for National Policy of Urban and Territorial Development
- Climate change mitigations in cities. Programmatic approach for cities for Clean Development Mechanism.

Courses of the Training Program carried out by the Division undertook themes as:

- "Access to the information, Social Participation and Justice"
- "Trade and Environment"
- "Sustainable Environmental Urban Management"
- "Indicators of Sustainable Development"
- "Poverty and Urban Precariousness"
- "Environmental Economy and Development Policies"
- "Management and Valuation of the Environment and the Natural Resources"

Some Courses, Seminars and Workshops carried ahead by the Division in specific themes are:

- "Fiscal policy and environmental sustainability"
- "Shelter and urban land"
- "Global change, sustainable development and vulnerability"
- "Hydrographic basins integral management"

II. Involved Scientists

German Aerospace Centre (DLR)

Frank Baier	
CV	<p>Degrees: Dipl. Physics/ University of Cologne; PhD/ University of Cologne, Institute for Meteorology and Geophysics</p> <p>Prev. Appointments: Atmospheric scientist at University of Cologne, Institute for Geophysics; Collaboration in the German ozone research program OFP; Coordinator of DLR contributions for the BMBF projects INVERT (model based ozone profile retrieval) and SACADA (4Dvar chemical state analysis)</p> <p>Curr. Position: Senior scientist at the German Remote Sensing Data Center in the German Aerospace Centre (Team leader for data assimilation at the department for climate and atmospheric products, project leader for regional air quality forecasts within ESA GMES PROMOTE-II)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Synergistic retrieval of tropospheric and stratospheric constituents - Atmospheric chemical state analyses by sequential and variational assimilation - Derivation of background and model error statistics - Development of adjoint general circulation and chemical models
Selected Publications	<p>Baier, F.; Erbertseder, T.; Morgenstern, O.; Bittner, M.; Brasseur, G. (2005) Assimilation of MIPAS observations using a three-dimensional global chemistry-transport model. In: Q.J.R. Met. Soc. 131 (613), DOI 10.1256/qj.05.92, 3529 – 3542</p> <p>Elbern, H.; Baier, F.; Bittner, M.; Bochorishvili, R.; Bovensmann, H.; Hoffmann, L.; Joppich, W.; Meyer, J.; Riese, M.; Schwinger, J.; Stiller, G.; Von Clarmann, Th. (2005) SACADA, a new chemical data assimilation system for earth observation, AFO2000 Newsletter 10/08/2005, 7-10</p> <p>Bittner, M.; Zimmermann, A.; Hildenbrand, B.; Baier, F.; Brasseur, G. (2004) Quiet layers in stratospheric ozone variability: First preliminary results from the AFO-2000 project INVERT. AFO2000 Newsletter 07/07/2004, 11-14</p> <p>Thomas, W.; Baier, F.; Erbertseder, T.; Kästner, M. (2003): The Algeria severe weather event of November 1999 and its impact on ozone and NO₂ distributions. In: Tellus B 55 (5), 993-1006</p> <p>Hendricks, J.; Baier, F.; Ebel, A.; Günther, G.; Krüger, B.C. (2001) Stratospheric ozone depletion during the 1995-1996 Arctic winter: 3D simulations on the potential role of different PSC types. In: Annales Geophysicae 19, 1163 – 1181</p>
Andreas Justen	
CV	<p>Degrees: Dipl. Geography/ Technical University Berlin</p> <p>Prev. Activities: Assistant researcher at Technical University Berlin, Department of Transportation; Internship at Interministerial Secretary of Transport Planning (Sectra), Santiago de Chile</p> <p>Curr. Position: Researcher at the Institute of Transport Research in the German Aerospace Center (DLR-IVF)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Survey analysis in the transportation sector - Transport modeling - Demand management in megacities
Selected Publications	<p>Justen, A. (2006) Aufbau eines Personenverkehrsmodells für Berlin unter Berücksichtigung aktueller Tendenzen im Mobilitätsverhalten. Diploma Thesis, Technical University of Berlin</p> <p>Beuck, U.; Nagel, K.; Justen, A. (2006) Application of the VISEVA demand generation software to Berlin using publicly available behavioral data. Paper presented at the Annual Conference of the Transportation Research Board, Washington</p>

Wolfram Krewitt	
CV	<p>Degrees: Dipl.-Ing. Mechanical Engineering/ RWTH Aachen; Ph.D./ University of Stuttgart</p> <p>Prev. Appointments: Researcher at RWTH Aachen, Institute for Reactor Development; Consultant to international organisations; Project assistant with Gesellschaft für Technische Zusammenarbeit (GTZ) in Barranquilla, Colombia; Researcher and doctoral fellow at University of Stuttgart, Institute of Energy Economics and Rational Use of Energy; Head of Department of Material Flows and Sustainable Development at University of Stuttgart, Institute of Energy Economics and Rational Use of Energy;</p> <p>Curr. Position: Head of Department of Systems Analysis and Technology Assessment at the Institute of Technical Thermodynamics in the German Aerospace Center (DLR-STB)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Long term energy scenarios - Assessment of emerging energy technologies - Energy and environment - Energy system modelling
Selected Publications	<p>Krewitt, W.; Nitsch, J.; Fishedick, M.; Pehnt, M.; Temming, H. (2006) Market perspectives of stationary fuel cells in a sustainable energy supply system – long term scenarios for Germany. In: Energy Policy 34, 793-803</p> <p>Krewitt, W.; Nitsch, J.; Reinhardt, G. (2005) Renewable energies – between climate protection and nature conservation? In: Int. J. Global Energy Issues 23 (1), 29-42</p> <p>Krewitt, W.; Nitsch, J. (2003) The German Renewable Energy Sources Act – an investment into the future pays off already today. In: Renewable Energy 28, 533-542</p>

Barbara Lenz	
CV	<p>Degrees: State Examination/ University of Stuttgart; PhD/ University of Stuttgart</p> <p>Prev. Appointments: Teacher in public and private schools; Journalist with a Stuttgart newspaper; Researcher at University of Stuttgart; Assistant Professor of Geography at University of Stuttgart</p> <p>Curr. Position: Head of the Institute of Transport Research in the German Aerospace Center (DLR-IVF); Professor for Transport Geography at Humboldt University Berlin</p>
Recent Research Topics	<ul style="list-style-type: none"> - Interactions, reorganisation of production and transport demand - Mobility and communication behaviour - Analysis of land use change and infrastructure
Selected Publications	<p>Lenz, B.; Nobis, C. (forthcoming) The Changing Allocation of Activities in Space and Time by the Use of ICT – "Fragmentation" as a New Concept and Empirical Results. In: Transportation Research A</p> <p>Nobis, C.; Lenz, B.; Vance, C. (2005) Communication and Travel Behavior: Two Facets of Human Activity Patterns. In: Timmermans, Harry (Ed.) Progress in Activity-based Analysis. EIRASS Conference, Maastricht, 471-488</p> <p>Nobis, C.; Lenz, B. (2005) Gender Differences in Travel Patterns: Role of Employment Status and Household Structure. In: Research on Women's Issues in Transportation, Transportation Research Board Conference Proceedings 35, Volume 2: Technical papers, (Chicago), 114-123</p>

Markus Mehlin	
CV	<p>Degrees: Dipl. Ing. Transport Planning/ University of Stuttgart</p> <p>Curr. Position: Scientist and project manager at the Institute of Transport Research in the German Aerospace Center (DLR-IVF)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Long-term development of passenger transport demand and scenario design - Reduction of fuel consumption of passenger cars (technical, market, fiscal aspects)
Selected Publications	<p>Mehlin, M. et al. (2006) Die Energie- und Emissionsbilanz des Verkehrs – Bisherige Entwicklung und künftige technische Reduktionspotentiale. Study on behalf of the German Transport Forum, Berlin: Institute of Transport Research in the German Aerospace Center (DLR-IVF)</p> <p>Mehlin, M.; Gühnemann, A. (2004) Preparation of the 2003 review of the commitment of the car manufacturers to reduce CO2 emissions from M1 vehicles: Assessing the possibilities for further CO2 reductions after the target years 2008/9. Study on behalf of the European Commission, DG Environment, Berlin: Institute of Transport Research in the German Aerospace Center (DLR-IVF)</p> <p>Mehlin, M.; Wacker, M.; Reichmuth, M. (2003) Renewable Fuels for Cross Border Transportation. Study on behalf of the European Commission, DG Environment, Berlin: Institute of Transport Research in the German Aerospace Center (DLR-IVF)</p>

Sonja Simon	
CV	<p>Degrees: Dipl.-Ing. agricultural sciences/ Technical University Munich</p> <p>Prev. Appointments: Researcher and Doctoral Fellow at Technical University Munich, Institute of Agricultural Economics and Farm Management</p> <p>Curr. Position: Researcher and project manager at Institute of Technical Thermodynamics in the German Aerospace Center (DLR-STB), Department of Systems Analysis and Technology Assessment</p>
Recent Research Topics	<ul style="list-style-type: none"> - Assessment renewable energy potentials - Renewable energies for sustainability and sustainable land use - Energy scenarios and energy system modelling
Selected Publications	<p>Simon, S.; Berenz, S.; Heissenhuber, A. (2005) Potential of agricultural biomass for energy production in Germany and selected new EU-member states. Proceedings of the 14th European Conference and Technology Exhibition on Biomass for Energy, Industry and Climate Protection, Paris, 17-21/10/2005</p> <p>Fritsche, U.; Simon, S. et al. (2004): Stoffstromanalyse zur nachhaltigen energetischen Nutzung von Biomasse. Freiburg/ Darmstadt/ Berlin: Öko-Institut</p>

Forschungszentrum Karlsruhe (FZK)

Gotthard Bechmann	
CV	<p>Degrees: Dipl./ University of Frankfurt</p> <p>Prev. Appointments: Research scientist at University of Frankfurt/M; Researcher with Studiengruppe für Systemforschung, Heidelberg; Guest professorships at the universities of Bremen (Germany), Moscow (Russia), Tampere (Finland), San Sebastian (Spain); Member of the Board of the International Academy for Sustainable Development and Technology at the University of Karlsruhe; Vice-director of the International Institute of Global Problems and Sustainable Development at the Lomonossov State University Moscow</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Risk research - Science and technology studies - Knowledge politics
Selected Publications	<p>Bechmann, G. (2005) Risk and Rationality in a Future-oriented Society. In: Banse, G.; Hronszky, I.; Neldon, G. (Eds.) Rationality in an uncertain world. Berlin: Sigma, 59-74</p> <p>Bechmann, G. (2004) Niklas Luhmann: A new paradigm of systemtheory. In: Liseer, I.; Sadoviski, V. (Eds.) Systemapproach in the modern society. Moscow, 142-156</p> <p>Bechmann, G. (2003) Sustainability. In: Mazour, I.; Chumakov, A.N.; Gay, W.C. (Eds.) Global Studies: Encyclopedia Moscow, 471-474</p> <p>Bechmann, G. (1993) Risiko: ein neues Forschungsfeld? In: Bechmann, G. (Ed.) Risiko und Gesellschaft: Grundlagen und Ergebnisse interdisziplinärer Risikoforschung. Opladen: Westdeutscher Verlag, 7-29.</p>
Klaus-Rainer Bräutigam	
CV	<p>Degrees: Dipl. Physics/ Technical University Hannover</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Material flow analyses, - Technology assessment, - Research in resource and waste management, - Research in the field of new materials and innovation
Selected Publications	<p>Achternbosch, M.; Bräutigam, K.-R.; Hartlieb, N.; Kupsch, C.; Richers, U.; Stemmermann, P. (2005) Impact of the use of waste on trace element concentrations in cement and concrete. In: Waste Management and Research 23, 328-337</p> <p>Kopfmüller, J.; Sardemann, G.; Achternbosch, M.; Kupsch, C.; Bräutigam, K.-R.; Hartlieb, N. (2005) Ressourcen- und Abfallmanagement für eine nachhaltige Entwicklung dargestellt am Beispiel von Cadmium. In: Österreichische Wasser- und Abfallwirtschaft 57 (7/8), 119-128</p> <p>Bräutigam, K.-R.; Achternbosch, M.; Hartlieb, N.; Kupsch, Chr.; Sardemann, G. (2005) Material-flow-analysis of Cadmium giving special consideration to waste arising and waste management. Proceedings of the 20th International Conference on Solid Waste Technology and Management, Philadelphia (USA), 03-06/04/2005 (CD-ROM)</p> <p>Hartlieb, N.; Bräutigam, K.-R.; Achternbosch, M.; Kupsch, Chr.; Sardemann, G. (2005) Use of material flow analysis for assessing the solid waste management in Germany regarding sustainable solutions. In: Tiezzi, E.; Brebbia, C. A.; Jorgensen, S.; Almorza Gomar, D. (Eds.) Ecosystems and sustainable development V. Southampton: WIT Press, 723-733</p>

Christian Büscher	
CV	<p>Degrees: Dipl. Sociology/ Univ. Bielefeld; PhD/ Technical Univ. Darmstadt</p> <p>Prev. Appointments: Senior researcher at alpS – Centre of Natural Hazard Management, Innsbruck (Austria); Consultant with VDI Technologiezentrum (Association of German Engineers), Düsseldorf</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Risk research - Science and technology studies - Megacities
Selected Publications	<p>Büscher, C. (2006) Risiko und Gefahr. In: Bayerisches Landesamt für Umwelt (Ed.) Chemikalien in der Umwelt – Vorkommen, Belastungspfade, Regelungen. Augsburg: Bayerisches Landesamt für Umwelt, 51-58</p> <p>Büscher, C. (2004) Handeln oder abwarten? Der organisatorische Umgang mit Unsicherheit im Fall der Jahr-2000-Problematik in der IT. Wiesbaden: Deutscher Universitäts Verlag</p>

Renate Forkel	
CV	<p>Degrees: Dipl. Meteorology/ University of Mainz; PhD Meteorology/ University of Mainz</p> <p>Prev. Appointments: Research scientist at University of Mainz, Meteorological Institute; Research scientist at University of Munich (LMU), Meteorological Institute; Visiting scientist at University of Wisconsin, Madison, Soil Science Department</p> <p>Curr. Position: Senior scientist at the Institute for Meteorology and Climate Research in the Forschungszentrum Karlsruhe (FZK IMK-IFU), Garmisch-Partenkirchen.</p>
Recent Research Topics	<ul style="list-style-type: none"> - Regional modeling of the transport and chemical transformation of atmospheric compounds; regional climate chemistry simulations - Regional climate chemistry simulations; numerical modeling of physical processes and chemistry within forest canopies - Air quality studies and air quality modelling for México City
Selected Publications	<p>Forkel, R.; Klemm, O.; Graus, M.; Rappenglück, B.; Stockwell, W.R.; Grabmer, W.; Held, A.; Hansel, A. ; Steinbrecher, R. (2006) Trace gas exchange and gas phase chemistry in a Norway spruce forest. A study with a coupled 1-dimensional canopy atmospheric chemistry emission model. In: Atmos. Environ. 40, S1, 28-42</p> <p>Forkel, R.; Knoche, R. (2006) Regional climate change and its impacts on photooxidant concentrations in southern Germany. Simulations with a coupled regional climate-chemistry model. In: J. Geophys. Res. 111 (D12), D12302, doi: 10.1029/2005JD006748</p> <p>Kunstmann, H.; Schneider, K.; Forkel, R.; Knoche, R. (2004) Impact analysis of climate change for an Alpine catchment using high resolution dynamic downscaling of ECHAM4 time slices. In: Hydrology and Earth System Sciences 8, 1030-1044</p> <p>Grell, G.; Emeis, S.; Stockwell, W.R.; Schoenemeyer, T.; Forkel, R.; Michalakes, J.; Knoche, R.; Seidl W. (2000) Application of a Multiscale. Coupled MM5/Chemistry Model to the Complex Terrain of the VOTALP Valley Campaign. In: Atmospheric Environment 34, 1435-1453</p>

Armin Grunwald	
CV	<p>Degrees: Dipl. Physics/ University of Cologne; State examination (Mathematics and Philosophy)/ University of Cologne; PhD/ University of Cologne; Habilitation/ University of Marburg</p> <p>Prev. Appointments: Researcher at the German Aerospace Centre (DLR); Vice director of the European Academy, Bad Neuenahr-Ahrweiler (Germany)</p> <p>Curr. Position: Director of the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS); Director of the Office of Technology Assessment at the German Parliament; Professor at University of Freiburg</p>
Recent Research Topics	<ul style="list-style-type: none"> - Theory and concepts of technology Assessment - Theory and operationalisation of sustainable development - Ethical aspects of new technologies
Selected Publications	<p>Grunwald, A. (2005) Conflicts and Conflict-solving as Chances to Make the Concept of Sustainable Development Work. In: Wilderer, P. A.; Schroeder, E. D.; Kopp, H. (Eds.) Global Sustainability. The Impact of Local Cultures. A New Perspective for Science and Engineering, Economics and Politics. Weinheim: Wiley-VCH, 107-122</p> <p>Grunwald, A. (2005) Rationality in an Uncertain World. The Vision of Sustainable Development as an Adequate Answer? In: Banse, G.; Hronszky, I.; Nelson, G. (Eds.) Rationality in an Uncertain World. Berlin: Sigma, 11-35</p> <p>Grunwald, A. (2004) Strategic knowledge for sustainable development: the need for reflexivity and learning at the interface between science and society. In: International Journal of Foresight and Innovation Policy 1 (1/2), 150-167</p> <p>Grunwald, A. (2003) Relevanz und Risiko. Zum Qualitätsmanagement integrativer Forschung. In: Gottschalk-Mazouz, N.; Mazouz, N. (Eds.) Nachhaltigkeit und globaler Wandel. Integrative Forschung zwischen Normativität und Unsicherheit. Frankfurt/ New York: Campus, 257-276</p> <p>Grunwald, A. (2003) Sustentabilidad, aceptación y aceptabilidad. Orientación de política tecnológica entre aceptación transitoria y necesidad de planificación a largo plazo. In: Briceño Gil, M. A. (Ed.) Universidad, Sector Productivo y Sustentabilidad. Caracas: Universidad Central de Venezuela, Consejo de Desarrollo Científico y Humanístico, 149-162</p>

Nicola Hartlieb	
CV	<p>Degrees: MSc Environmental and Ecological Sciences/ University of Lancaster; Dipl. Geo-ecologist/ Technical University Karlsruhe; PhD/ University of Duisburg</p> <p>Prev. Appointments: Researcher and doctoral fellow at Fraunhofer Institute for Molecular Biology and Applied Ecology (IME); PostDoc at Landwirtschaftliche Untersuchungs- und Forschungsanstalt (LUFA)</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Material flow analyses, - Technology assessment, - Research in resource and waste management
Selected Publications	<p>Achternbosch, M.; Bräutigam, K.-R.; Hartlieb, N.; Kupsch, C.; Richers, U.; Stemmermann, P. (2005) Impact of the use of waste on trace element concentrations in cement and concrete. In: Waste Management and Research 23, 328-337</p> <p>Kopfmüller, J.; Sardemann, G.; Achternbosch, M.; Kupsch, C.; Bräutigam, K.-R.; Hartlieb, N. (2005) Ressourcen- und Abfallmanagement für eine nachhaltige Entwicklung dargestellt am Beispiel von Cadmium. In: Österreichische Wasser- und Abfallwirtschaft 57(7/8), 119-128</p> <p>Bräutigam, K.-R.; Achternbosch, M.; Hartlieb, N.; Kupsch, Chr.; Sardemann, G. (2005) Material-flow-analysis of Cadmium giving special consideration to waste arising and waste management. Proceedings of the 20th International Conference on Solid Waste Technology and Management, Philadelphia (USA), 03-06/04/2005 (CD-ROM)</p> <p>Hartlieb, N.; Bräutigam, K.-R.; Achternbosch, M.; Kupsch, Chr.; Sardemann, G. (2005) Use of material flow analysis for assessing the solid waste management in Germany regarding sustainable solutions. In: Tiezzi, E.; Brebbia, C. A.; Jorgensen, S.; Almorza Gomar, D. (Eds.) Ecosystems and sustainable development V. Southampton: WIT Press, 723-733</p>

Wolfgang H. Höll	
CV	<p>Degrees: Dipl.-Ing. (Chemical Engineering)/ Technical University Karlsruhe; PhD (Dr.-Ing.)/ Technical University Karlsruhe; Habilitation/ Technical University Karlsruhe</p> <p>Prev. Appointments: Research assistant and assistant professor at Technical University Karlsruhe, chair for water chemistry</p> <p>Curr. Position: Acting head of the Section for Water and Geotechnology, Institute of Technical Chemistry in the Forschungszentrum Karlsruhe (FZK ITAS); Professor at Technical University Karlsruhe</p>
Recent Research Topics	<ul style="list-style-type: none"> - Selective removal of trace impurities from drinking and waste water - Development of magnetic micro sorbents - Development of technology for application of magnetic sorbents
Selected Publications	<p>Höll, W. H. (2006) Methoden zur Nitratentfernung – Stand der Technik. In: bbr (1), 8-17</p> <p>Höll, W. H.; Hagen, K. (2005) CARX – 20 years of non-polluting ion exchange technology. In: Proceedings of the International Water Conference 2005, Orlando, Florida</p> <p>Dahlke, T.; Franzreb, M.; Höll, W. H. (2003) Development and application of magnetic microsorbents for the elimination of hazardous inorganic contaminants from natural waters. In: J. Ion Exchange 14(Supplement), (Japan), 241 – 244</p> <p>Höll, W. H.; Bartosch, C.; Zhao, X.; He, S. (2002) Elimination of trace heavy metals from drinking water by means of weakly basic anion exchangers. In: Journal of Water Supply: Research and Technology – AQUA 51.3, 165 – 172</p> <p>Zhao, X.; Höll, W. H.; Yun, G. C. (2002) Elimination of Cadmium Trace Contaminations From Drinking Water. In: Water Research 36, 851 – 858</p>

Juliane Jörissen	
CV	<p>Degrees: Dipl.-Ing. Urban Planning/ University of Dortmund</p> <p>Prev. Appointments: Researcher at Studiengruppe für Systemforschung, Heidelberg; Freelancer with Rat von Sachverständigen für Umweltfragen</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Operationalisation of the overall concept “sustainable development” - Synopsis of different interpretations of the sustainability concept - Application of the sustainability concept to the housing and construction sector - Legal, administrative and economic instruments to reduce urban sprawl
Selected Publications	<p>Jörissen, J.; Coenen, R. (2006) Reduzierung der Flächeninanspruchnahme: Ziele, Maßnahmen, Wirkungen. TAB-Bericht Nr. 98, Berlin</p> <p>Jörissen, J. (2005) Konzepte von Nachhaltigkeit im Vergleich: Grundlinien, Konfliktpunkte, Weichenstellungen. In: Rink, D.; Hartmuth, G.; Huber, K. (Eds.) Raum für Nachhaltigkeit: Zur Kontextualisierung des Leitbild. Berlin: Sigma, 11-35</p> <p>Jörissen, J.; Coenen, R.; Stelzer, V. (2005) Zukunftsfähiges Wohnen und Bauen – Herausforderungen, Defizite, Strategien. Berlin: Sigma</p> <p>Jörissen, J.; Coenen, R. (2005) Instrumente zur Steuerung der Flächennutzung: Eine Befragung interessierter und betroffener Akteure. In: DISP 160 (1), 103-105</p> <p>Kopfmüller, J.; Brandl, V.; Jörissen, J.; Banse, G.; Coenen, R.; Grunwald, A. (2001) Nachhaltige Entwicklung integrativ betrachtet. Berlin: Sigma</p>

Jürgen Kopfmüller	
CV	<p>Degrees: Dipl. Economics/ University of Heidelberg</p> <p>Prev. Appointments: Researcher at the University Heidelberg, Institute for Comparative Educational Science; Researcher at the Institute for Energy and Environmental Research, Department of Transportation, Heidelberg</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Definition and operationalization of the sustainability guiding principle in national and international application contexts - Particular issues of economic, environmental, climate, energy, and transportation policy
Selected Publications	<p>Kopfmüller, J. (Ed.) (2006) Ein Konzept auf dem Prüfstand. Das integrative Nachhaltigkeitskonzept in der Forschungspraxis. Berlin: Sigma</p> <p>Grunwald, G.; Kopfmüller, J. (2006) Nachhaltigkeit. Eine Einführung. Frankfurt/ New York: Campus</p> <p>Kopfmüller, J.; Luks, F. (2005): Die deutsche Nachhaltigkeitsstrategie. Eine Kritik aus integrativer Perspektive. In: Zeitschrift für angewandte Umweltforschung 15/16 (1), 16-43</p> <p>Kopfmüller, J. (2004) An integrative sustainable development approach and its application for Germany. In: Conference Proceedings of the International Sustainable Development Research Conference. Manchester, 29.-30.3., 360-369</p> <p>Kopfmüller, J. Brandl, V.; Jörissen, J.; Paetau, M.; Banse, G.; Coenen, R.; Grunwald, A. (2001) Nachhaltige Entwicklung integrativ betrachtet. Konstitutive Elemente, Regeln, Indikatoren. Berlin: Sigma</p>

Helmut Lehn	
CV	<p>Degrees: State examination (Biology and Chemistry)/ University of Heidelberg; PhD/ University of Heidelberg</p> <p>Prev. Appointments: Researcher and doctoral fellow at University of Heidelberg, Institute for Phytology; Head of analytical laboratory, Oberursel (German); Instructor for environmental chemistry with the municipality of Offenbach; Senior scientist at Center for Technology Assessment, Stuttgart</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Sustainable use of natural resources - Water supply and waste water treatment in rural and urban areas - Appropriate technologies
Selected Publications	<p>Lehn, H.; Schildt, A.; Kopfmüller, J (2005) Secure water supply as a central element of sustainable water management - systems analytical approach for Gunung Sewu (Central Java, Indonesia). Proceedings of the Workshop "Supply of Water to Cities in Emergency Situations", Tel-Aviv, 05-07/06/2005 (in press)</p> <p>Lehn, H. (2004) Sustainable Sanitation Systems – dissolving the antagonism between urban comfort and hygienic pollution of urban environs. In: Wilding, P. (Ed.) International Summer Academy on Technology Studies – Urban Infrastructure in Transition: What can we learn from history? Graz: IFF/IFZ</p> <p>Lehn, H. (2004) Mit Vielfalt zum Erfolg – Globale Veränderungen erfordern angepasste Technologien. In: Zeitung für kommunale Wirtschaft (10/2004), 17</p> <p>Mödinger, J.; Kobus, H.; Schnitzler, S.; Lehn, H. (2004) Ansätze für eine nachhaltige Grundwasserbewirtschaftung und -nutzung im Rhein-Neckar-Raum bei konkurrierenden Interessen. In: Wasserwirtschaft (12), 40-45</p> <p>Lehn, H.; Steiner, M.; Mohr, H. (1996) Wasser, die elementare Ressource – Leitlinien einer nachhaltigen Nutzung. Berlin/ Heidelberg/ New York: Springer</p>

Ursula Obst	
CV	<p>Degrees: Dipl. Biology/ University of Heidelberg; PhD/ University of Heidelberg; Habilitation/ Technical University Karlsruhe</p> <p>Prev. Appointments: Senior scientist in the food and pharmaceutical industry; Head of laboratory at municipal water works; Scientific and managing director of municipal water research institute</p> <p>Curr. Position: Head of Department of Microbiology of Natural and Technical Interfaces and deputy director of the Institute for Technical Chemistry in the Forschungszentrum Karlsruhe (FZK ITC-WGT)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Environmental microbiology - Water supply - Microbial biofilms in environment and medicine - Biofilms and materials
Selected Publications	<p>Obst, U.; Schwartz, T. (2007, in press) Microbial Characteristics of Water Distribution – Compiled Investigations in a German Drinking Water Distribution System. In: Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management</p> <p>Zimmermann, S.; Wagner, C.; Müller, W.; Brenner-Weiss, G.; Hug, F.; Prior, B.; Obst, U.; Hänsch, G.M. (2007, in press) Induction of neutrophil chemotaxis by the quorum-sensing molecule N-3-oxododecanoyl homoserine lactone (3OC12-HSL). In: Infect. Immun. (accepted)</p> <p>Schwartz, T.; Volkmann, H.; Kirchen, S.; Kohnen, W.; Jansen, B.; Obst, U. (2006) Real-time PCR detection of <i>Pseudomonas aeruginosa</i> in clinical and municipal wastewater and genotyping of the ciprofloxacin-resistant isolates. In: FEMS Microbiology Ecology 57, 158-167</p> <p>Obst, U.; Schwartz, T.; Volkmann, H. (2006) Antibiotic resistant pathogenic bacteria and their resistance genes in bacterial biofilms. In: Int. J. Art. Org. 29, 387-394</p> <p>Wagner, C.; Obst, U.; Hänsch, G.M. (2005) Implant-associated posttraumatic osteomyelitis: Collateral damage by local host defense? In: Int. J. Art. Org. 28, 1172-1180</p>

Klaus Schäfer	
CV	<p>Degrees: Dipl. Physics/ University of Rostock; PhD/ Academy of Sciences; Dr. sc. Nat. and Professor Atmospheric Physics/ Academy of Sciences</p> <p>Prev. Appointments: Leader of the branch Atmospheric Research at the Heinrich-Hertz-Institute for Atmospheric Research and Geomagnetism of the Academy of Sciences, Berlin; Senior scientist, project leader and group leader at the Fraunhofer Institute for Atmospheric Environmental Research, Garmisch-Partenkirchen</p> <p>Curr. Position: Senior scientist at the Institute for Meteorology and Climate Research in the Forschungszentrum Karlsruhe (FZK IMK)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Air quality studies and improvement of emission inventories - Development of non-intrusive measurement methods (FTIR emission spectrometry) for passive remote sensing - Application and evaluation of methodologies to determine particulate matter - Concentrations near surface by high spatial resolution satellite images
Selected Publications	<p>Schäfer, K.; Harbusch, A.; Peicu, G., Emeis, S.; Hoffmann, H.; Jahn, C. (2005) Bestimmung der räumlichen Verteilung von Schwebstaub-Konzentrationen mittels Satellitenbildern. In: Gefahrstoffe – Reinhaltung der Luft 65 (6), 239-246</p> <p>Schäfer, K.; Emeis, S.; Hoffmann, H.; Jahn, C.; Müller, W.; Heits, B.; Haase, D.; Drunkenmölle, W.-D.; Bächlin, W.; Schlünzen, H.; Leitl, B.; Pascheke, F.; Schatzmann, M. (2005) Field measurements within a quarter of a city including a street canyon to produce a validation data set. In: Int. J. Environment and Pollution 25 (1/2/3/4), 201-216</p> <p>Wiegner, M.; Emeis, S.; Freudenthaler, V.; Heese, B.; Junkermann, W.; Münkel, C.; Schäfer, K.; Seefeldner, M.; Vogt, S. (2006) Mixing Layer Height over Munich, Germany: Variability and comparisons of different methodologies. In: Journal of Geophysical Research – Atmospheres 111 (D13201), doi:10.1029/2005JD006593</p> <p>Schürmann, G.; Schäfer, K.; Jahn, C.; Hoffmann, H.; Bauerfeind, M.; Fleuti, E.; Rappenglück, B. (2007) The impact of Nox, CO and VOC emissions on the air quality of the airport Zurich. In: Atmospheric Environment 41, 103-118, doi:10.1016/j.atmosenv.2006.07.030</p>

Helmut Seifert	
CV	<p>Degrees: PhD (Dr.-Ing.) Combustion science</p> <p>Prev. Appointments: Head of High Temperature Technology R&D group with BASF company</p> <p>Curr. Position: Head of the Institute for Technical Chemistry –Thermal Waste Treatment Department in the Forschungszentrum Karlsruhe (FZK ITC-TAB) and Professor for Thermal Waste Treatment at University of Stuttgart</p>
Recent Research Topics	<ul style="list-style-type: none"> - Pyrolysis gasification and combustion of solid fuels, i. e. waste and biomass - Gas cleaning systems, formation and measurement of nano particles - Characterization and recycling of combustion residues, i. e. slags and ashes - Energy Recovery from waste and biomass
Selected Publications	<p>Seifert, H. (2006) Thermal conversion of biogenic waste to liquid fuels. 5th International Symposium on Waste Treatment Technologies (CIWM 2006), Paignton (UK), 12-16/06/2006</p> <p>Seifert, H. (2006) Energy recovery from waste. A contribution to climate protection. 7th European Conference on Industrial Furnaces and Boilers (INFUB), Porto (Portugal), 18-21/04/2006</p> <p>Seifert, H.(2005) Introduction into the UPSWING-concept of thermal utilization of wastes. Workshop “Wastes and Biomass Thermal Treatment: combustion and Co-Combustion”, Wroclaw (Poland), 16-18/11/2005</p> <p>Seifert, H. ; Weiland, P. (2005) Thermische und biotechnische Konversion biogener Energieträger. In: Chemie Ingenieur Technik 77, (8), 1153</p> <p>Seifert, H. (2004) Energy recovery from waste in Europe. Proceedings of the 23rd Annual International Conference on Incineration and Thermal Treatment Technologies, Phoenix, Arizona, 10-14(05/2004</p>

Volker Stelzer	
CV	<p>Degrees: Dipl. Geography/ University of Bonn; PhD/ University of Bonn</p> <p>Prev. Appointments: Clerk at Sankt Augustin local authority, Environmental Office; Consultant with FRASER Gesellschaft für Projektmanagement, Essen; Scientist at the International Council for Local Environmental Initiatives (ICLEI), Freiburg (Germany)</p> <p>Curr. Position: Senior scientist at the Institute for Technology Assessment and Systems Analysis in the Forschungszentrum Karlsruhe (FZK ITAS)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Sustainability - Energy - Environmental protection - Housing and construction
Selected Publications	<p>Stelzer, V.; Rösch, C.; Raab, K. (2006) Regionalstudie zur Nachhaltigkeit der Energiegewinnung aus dem Grünland – erste Ergebnisse. In: Kopfmüller, J. (Ed.) Ein Konzept auf dem Prüfstand. Das integrative Nachhaltigkeitskonzept in der Forschungspraxis. Berlin: Sigma, 235-249</p> <p>Jörissen, J.; Coenen, R.; Stelzer, V. (2005) Zukunftsfähiges Wohnen und Bauen – Herausforderungen, Defizite, Strategien. Berlin: Sigma</p> <p>Stelzer, V. (2004) City and environment – Visions for 2030. In: planum – the European journal of planning, 1-5 (http://www.planum.net/topics/cityfuture_discussion.htm)</p> <p>Stelzer, V. (2001) Stadt und Umwelt – Visionen 2030. In: Berichte zur deutschen Landeskunde 75 (2/3), 315-319</p> <p>Enderle, M.; Stelzer, V. (2000) ecoBudget – local authority spending within natural limits. In: Industry and Environment (UNEP) (1-2/00), 84-88</p>

Peter Suppan	
CV	<p>Degrees: Dipl. Meteorology/ Technical University Karlsruhe; PhD/ University of Munich (LMU)</p> <p>Prev. Appointments: Scientific officer and Air Quality Assessment project manager at the Joint Research Centre (JRC) of the European Commission, Ispra (Italy); Scientific assistant at University of Munich (LMU), Institute of Bioclimatology and Air Quality Research; Scientific assistant at Yale University, New Haven, Connecticut (USA), John B. Pierce Foundation Laboratory</p> <p>Curr. Position: Senior scientist at the Institute for Meteorology and Climate Research in the Forschungszentrum Karlsruhe (FZK IMK-IFU), group leader "Air Quality in Metropolitan Areas and Sensitive Regions"</p>
Recent Research Topics	<ul style="list-style-type: none"> - Air quality in metropolitan and sensitive areas - Air quality and regional climate change modeling - Impact assessment and source receptor analysis
Selected Publications	<p>Suppan, P.; Schädler, G. (2004) The impact of highway emissions on ozone and nitrogen oxide levels during specific meteorological conditions. In: Science of the Total Environment (334-335), 215-222</p> <p>Suppan, P.; Skouloudis, N. A. (2002) Validation of Urban Air-Quality Modelling in the European Union. In: C. Borrego, C.; Schayes, G. (Eds.) Air Pollution Modelling and its Application VX. Proceedings of the 25th NATO/CCMS International Technical Meeting on Air Pollution Modelling and its Application, Louvain-la-Neuve, Belgium. Kluwer</p> <p>Skouloudis, A. N.; Suppan, P. (2000) Methodology for Urban – Impact Assessments Modelling in the Frame of AUTO-OIL II. EUR Report No 19556EN</p>

Jürgen Vehlow	
CV	<p>Degrees: Dipl. Chemistry; PhD Radiochemistry, Physical Chemistry</p> <p>Prev. Appointments: Deputy Head of the Institute for Technical Chemistry – Material Flows Department in the Forschungszentrum Karlsruhe</p> <p>Curr. Position: Senior scientist at the Institute for Technical Chemistry – Thermal Waste Treatment Department in the Forschungszentrum Karlsruhe (FZK ITC-TAB)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Chemical aspects of waste combustion - Waste management systems - Energy recovery from biogenic waste - Emissions and residues from thermal waste treatment
Selected Publications	<p>Vehlow J.; Bergfeldt B.; Hunsinger H. (2006) PCDD/F and related compounds in solid residues from municipal solid waste incineration – a literature review. In: Waste Management & Research 24, 404</p> <p>Vehlow J. (2006) Waste-to-Energy Initiatives in the European Union: Mandated Energy Recovery from Wastes. NAWTEC 14, Tampa, Florida, 01-03/05/2006</p> <p>Vehlow J. (2005) Biogenic Waste to Energy – an Overview. Proceedings of Bioenergy Australia 2005, Melbourne, 12-13/12/2005 (CD-ROM)</p>

GeoForschungsZentrum Potsdam (GFZ)

Stefano Parolai	
CV	<p>Degrees: PhD Geophysicist</p> <p>Prev. Appointments: Scientist at the Osservatorio Geofisico di Macerata (Italy)</p> <p>Curr. Position: Senior scientist at GeoForschungsZentrum (GFZ), Physics of the Earth Department, Section "Earthquake Risk and Early warning"</p>
Recent Research Topics	<ul style="list-style-type: none"> - Seismology - Engineering seismology - Source parameters - Attenuation studies
Selected Publications	<p>Parolai, S.; Grünthal, G.; Wahlström, R. (2007) Site-specific response spectra from the combination of microzonation with probabilistic seismic hazard assessment – an example for the Cologne (Germany) area. In: Soil Dynamic and Earthquake Engineering 27, 49-50</p> <p>Richwalski, S.M.; Fäcke, A.; Parolai, S.; Stempniewski, L. (2006) Influence of site and source dependent ground motion scenarios on the seismic safety of long-span bridges in Cologne, Germany. In: Natural Hazards 38 (1-2), 237-246</p> <p>Parolai, S., Fäcke, A.; Richwalski, S. M.; Stempniewski, L. (2005) Assessing the vibrational frequencies of the Holweide Hospital in the city of Cologne (Germany) by means of ambient seismic noise analysis and fe-modelling. In: Natural Hazards 34, 217-230</p> <p>Parolai, S.; Picozzi, M.; Richwalski, S.M.; Milkereit, C. (2005) Joint inversion of phase velocity dispersion and H/V ratio curves from seismic noise recordings using a genetic algorithm, considering higher modes. In: Geophysical Research Letters 32 (L01303), doi:10.1029/2004GL021115</p> <p>Parolai S.; Bormann, P.; Milkereit, C. (2001) Assessment of the natural frequency of the sedimentary cover in the Cologne area (Germany) using noise measurements. In: Journal of Earthquake Engineering 5 (4) 541-564</p>
Monika Sobiesiak	
CV	<p>Degrees: PhD Geophysicist</p> <p>Prev. Appointments: Researcher at FUNVISIS (Fundacion Venezolana de Investigaciones Sismologicas), Caracas (Venezuela)</p> <p>Curr. Position: Senior scientist at GeoForschungsZentrum (GFZ)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Earthquake processes and their relation to tectonics, geodesy etc. - Disaster research
Selected Publications	<p>Sobiesiak, M.; Meyer, U.; Schmidt, S.; Götze, H.-J.; Krawczyk, C.M. (nd) Asperity generating upper crustal sources revealed by b-value and isostatic anomaly grids in the area of Antofagasta, Chile. Paper, submitted to JGR</p> <p>Sobiesiak, M.; Alvarado, L.; Vasquez, R. (2006) Recent Seismicity in Northeastern Venezuela and Tectonic Implications. In: Boletin de la Sociedad Venezolana de Geologos</p> <p>Sobiesiak, M. (2005) Fault Plane Structure of the 1995 Antofagasta Earthquake (Chile) Derived from Local Seismological Parameters. PhD thesis, Potsdam: University of Potsdam (urn:ubn:de:kobv:517-opus-2430)</p>

Jochen Zschau	
CV	<p>Degrees: PhD Geophysicist</p> <p>Prev. Appointments: Professor and Director at Christian-Albrechts University Kiel, Department of Geophysics</p> <p>Curr. Position: Director of the Physics of the Earth Department at the GeoForschungsZentrum (GFZ); Professor at University of Potsdam</p>
Recent Research Topics	<ul style="list-style-type: none"> - Earthquakes and volcanism - Natural disasters
Selected Publications	<p>Wyss, M.; Wang, R.; Zschau, J.; Xia, Y. (2006) InSAR use for Loss Estimates After Earthquakes: Bam, 26 December 2003. In: EOS of the American Geophysical Union (accepted)</p> <p>Zschau, J., (2005) Earthquake Hazard Assessment. InWEnt Afghanistan Projekt. Potsdam</p> <p>Zschau, J.; Küppers, A.N. (Eds.) (2002) Early Warning Systems for Natural Disaster Reduction. Heidelberg/ New York: Springer</p>

Helmholtz Centre for Infection Research (HZI)

Wolf-Rainer Abraham	
CV	<p>Degrees: Dipl. Chemistry/ Technical University Berlin; PhD/ Technical University Berlin</p> <p>Prev. Appointments: PostDoc fellow at Fermentation Research Institute, Tsukuba, Japan</p> <p>Curr. Position: Head of Chemical Microbiology Research Group at Helmholtz Centre for Infection Research (HZI), Microbiology Division</p>
Recent Research Topics	<ul style="list-style-type: none"> - Structure and activity of biofilm communities - Functional diversity of microbial communities - Human pathogens in the environment
Selected Publications	<p>Macedo, A. J.; Kuhlicke, U.; Neu, T.; Timmis, K. N.; Abraham, W.-R. (2005) Three stages of a biofilm community developing at the liquid-liquid interface between polychlorinated biphenyls and water. In: Appl. Environ. Microbiol. 71, 7301-7309</p> <p>Abraham, W.-R.; Wenderoth, D. F. (2005) Fate of facultative pathogenic microorganisms during and after the flood of the Elbe and Mulde rivers in August 2002. In: Acta Hydrochimica et Hydrobiologica 33, 449-454</p> <p>Witte, U.; Wenzhöfer, F.; Sommer, S.; Boetius, A.; Heinz, P.; Aberle, N.; Sand, M.; Cremer, A.; Abraham, W.-R.; Jörgensen, B. B.; Pfannkuche, O. (2003): In situ experimental evidence of the fate of a phytodetritus pulse at the abyssal sea floor. In: Nature 424, 763-766</p> <p>Pelz, O.; Chatzinotas, A.; Zarda-Hess, A.; Abraham, W.-R.; Zeyer, J. (2001): Tracing toluene-assimilating sulfate-reducing bacteria using ¹³C-labeling of fatty acids and whole-cell hybridization. In: FEMS Microbiol. Ecol. 38, 123-131</p> <p>Lünsdorf, H.; Erb, R. W.; Abraham, W.-R.; Timmis, K. N. (2000) "Clay hutchies": a novel interaction between bacteria and clay minerals. In: Environ. Microbiol. 2, 161-168</p>

Helmholtz Centre for Environmental Research - UFZ

Ellen Banzhaf	
CV	<p>Degrees: MA Geography/ University of Freiburg; PhD Geography/ University of Freiburg</p> <p>Prev. Appointments: Scientist at University of Freiburg (Germany), Institute for Physical Geography</p> <p>Curr. Position: Senior scientist at Helmholtz Centre for Environmental Research – UFZ, Department of Urban Ecology, Environmental Planning and Transport</p>
Recent Research Topics	<ul style="list-style-type: none"> - Applied remote sensing for the urban environment - Land use and land cover changes - Testing methodological approaches and satellite data for best fitting implementations
Selected Publications	<p>Banzhaf, E.; Grescho, V. (2006) Analysing a reverse development of open spaces and densification in the (sub)urban gradient – a GIS tool with remote sensing and vector data. First Workshop of the EARSeL Special Interest Group on Urban Remote Sensing "Challenges and Solutions, 01-03/03/2006, Berlin: The European Association of Remote Sensing Laboratories/ Humboldt-University Berlin</p> <p>Banzhaf, E.; Kindler, A.; Haase, D. (2005) Research on Negative Urban Growth by Means of Remote Sensing and GIS Methods. In: International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences Proceedings XXXVI-8/W27. (Proceedings of the ISPRS WG VII/1 "Human Settlements and Impact Analysis". 3rd int. Symp. Remote Sensing and Data Fusion over Urban Areas (URBAN 2005); 5th int. Symp. Remote Sensing of Urban Areas (URS 2005), Tempe, Arizona (USA), 14-16/03/2005) (CD Rom)</p> <p>Banzhaf, E.; Netzband, M. (2004) Detecting urban brownfields by means of high resolution satellite imagery. In: International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences. Proceedings XXXV, Part B, Comm. VII (WG VII/ 4), 460-466 (Proceedings of the 20th Congress, Istanbul, 14-23/07/2004)</p> <p>Banzhaf, E. (2001) Researching State and Dynamics in Landscape using Remote Sensing. In: Krönert, R.; Steinhardt, U.; Volk, M. (Ed.) Landscape Balance and Landscape Assessment. Heidelberg/ New York: Springer, 87-112</p>

Matthias Bernt	
CV	<p>Degrees: Dipl. Political Sciences/ Freie Universität Berlin; PhD/ Freie Universität Berlin</p> <p>Prev. Appointments: Researcher at Universität Rostock; Lecturer Freie Universität Berlin</p> <p>Curr. Position: Senior scientist at Helmholtz Centre for Environmental Research – UFZ, Department of Urban and Environmental Sociology; Lecturer at Universität Leipzig</p>
Recent Research Topics	<ul style="list-style-type: none"> - Urban regeneration in shrinking cities - Governance and urban planning - Sociospatial differentiation - Housing research
Selected Publications	<p>Bernt, M. (2005) Stadtumbau im Gefangenendilemma. In: Weiske, C.; Kabisch, S.; Hannemann, C. (Eds) Kommunikative Steuerung des Stadtumbaus. Wiesbaden: VS-Verlag, 109-131</p> <p>Bernt, M. (2005) Gentrification of a particular type. The case of Prenzlauer Berg. In: Atkinson, R.; Bridge, G. (Eds) Gentrification in a Global Perspective. London: Blackwell, 106-125</p> <p>Kabisch, S.; Bernt, M.; Peter, A. (2004) Stadtumbau unter Schrumpfungsbedingungen. Eine sozialwissenschaftliche Fallstudie. VS-Verlag, Wiesbaden</p> <p>Bernt, M. (2003): Rübergeklappt. Die „behutsame Stadterneuerung“ im Berlin der 90er Jahre. Berlin: Schelzky & Jeep</p>

Ulrich Franck	
CV	<p>Degrees: Dipl., Ph.D. Physics/ Universität Leipzig</p> <p>Prev. Appointments: Researcher and Doctoral Fellow / Institute for Regional Development and Structural Planning (IRS); Post-Doc / Europe-University Viadrina, Frankfurt (Oder); Visiting Professor for Comprehensive Planning / Technical University Berlin</p> <p>Curr. Position: Senior Scientist, Department of Human Exposure Research and Epidemiology; Head of the group “airborne exposure and health effects (particles)”; Speaker of Research Cluster “Urban Environment and Health” in Programme Oriented Funding (POF) of the Helmholtz Association</p>
Recent Research Topics	<ul style="list-style-type: none"> - Exposure by urban air pollution - Health effects of airborne particulates - Epidemiology of environment associated diseases
Selected Publications	<p>Franck, U.; Tuch, Th.; Manjarrez, M.; Wiedensohler, A.; Herbarth, O. (2006) Indoor and Outdoor Sub-Micrometer Particles: Exposure and Epidemiologic Relevance (“The 3 Indoor Ls”). Environmental Toxicology 21(6), 606-613</p> <p>Rolle-Kampczyk, U.; Rehwagen, M.; Franck, U.; Weiß, H.; Krumbiegel, P.; Herbarth, O. (2006) Bioeffect monitoring with [¹⁵N]methacetin as diagnostic tool to control remediation success in a formerly high loaded industrial area. Toxicology letters 162, 234-238</p> <p>Franck, U.; Herbarth, O.; Wehner, B.; Wiedensohler, A.; Manjarrez, M. (2003) How do the Indoor Size Distributions of Airborne Submicron and Ultrafine Particles in the Absence of Significant Indoor Sources Depend on Outdoor Distributions? Indoor Air 13, 174 -181</p>

Bernd Hansjürgens	
CV	<p>Degrees: Dipl. Economics/ University of Marburg; PhD/ University of Marburg; Habilitation/ University of Marburg</p> <p>Prev. Appointments: Research assistant and assistant professor at University of Marburg; Research fellow at Centre for Study of Public Choice, Fairfax, Virginia (USA); Research fellow at University of Bielefeld, Centre for Interdisciplinary Research</p> <p>Curr. Position: Professor for Economics, especially environmental economics at University Halle-Wittenberg; Head of the Department of Economics at the Helmholtz Centre for Environmental Research – UFZ; Programme speaker of the Helmholtz Programme “Sustainable Use of Landscapes”</p>
Recent Research Topics	<ul style="list-style-type: none"> - Environmental economics - New institutional economics - Public finance
Selected Publications	<p>Hansjürgens, B. (Ed.) (2005) Emissions trading for climate policy – US and European perspectives. Cambridge: Cambridge University Press</p> <p>Frohwein, T.; Hansjürgens, B. (2005) Chemicals Regulation and the Porter Hypothesis – A Critical Review of the New European Chemicals Regulation. In: Journal of Business Chemistry 2 (1), 19-36</p> <p>Hansjürgens, B. (2004) Economic valuation through cost-benefit-analysis: possibilities and limitations. In: Toxicology 205 (3), 241-252</p>

Dirk Heinrichs	
CV	<p>Degrees: Dipl. Landscape Planning/ University of Applied Science Osnabrück; MA Urban and Regional Planning for Developing Countries/ University of Nottingham; PhD (Dr.-Ing.)/ University of Dortmund</p> <p>Prev. Appointments: Advisor/consultant with Gesellschaft für Technische Zusammenarbeit (GTZ / CIM), Integrated Expert programme, Philippines; Senior lecturer at University of Dortmund, Faculty of Spatial Planning, GEO/SPRING programme</p> <p>Current. Position: Senior scientist at Helmholtz Centre for Environmental Research – UFZ, Department of Urban and Environmental Sociology</p>
Recent Research Topics	<ul style="list-style-type: none"> - Land use policy and urban sprawl - Urban governance and planning practice - Informal urban economies
Selected Publications	<p>Hansjürgens, B.; Heinrichs, D.(2007) Mega-Urbanisierung: Chancen und Risiken für Nachhaltige Entwicklung in Megastädten. In: Bundeszentrale für Politische Bildung: Online Dossier Megastädte (www.bpb.de/megastaedte)</p> <p>Heinrichs, D. (2007) Megaurbanization and Sustainable Development. Why Research Matters? In: Dialog (1) (forthcoming)</p> <p>Nuissl, H.; Heinrichs, D. (2006) Zwischen Paradigma und heißer Luft: Der Begriff der Governance als Anregung für die räumliche Planung. In: Altrock, U. et al. (Eds.) Sparsamer Staat – Schwache Stadt? Planungsrundschau 13, Berlin: Verlag Uwe Altrock, 51-72</p> <p>Heinrichs, D.; Kabisch, S. (2006) Risikolebensraum Megacity. Strategien für eine nachhaltige Entwicklung in Megastädten und Ballungszentren. In: GAiA (2/2006), 157-160</p> <p>Heinrichs, D. (2005): How Decentralisation and Governance Shape Local Planning Practice: Rhetoric, Reality and the Lessons from the Philippines. SPRING Research Series 46, Dortmund: Universität Dortmund</p>

Olf Herbarth	
CV	<p>Degrees: Dipl./ University of Leipzig; PhD Physics/ University of Leipzig</p> <p>Prev. Appointments: Head of Air Pollution Control and Health Effects Department at the State Institute of Hygiene, Leipzig (Germany)</p> <p>Curr. Position: Professor for Environmental Medicine and Epidemiology at University of Leipzig, Medical Faculty; Member of the advisory board of the Centre for Environmental Medicine (UMZ) at University of Leipzig; Head of the Department of Human Exposure Research and Epidemiology at the Helmholtz Centre for Environmental Research – UFZ</p>
Recent Research Topics	<ul style="list-style-type: none"> - Environmental medicine - Health effects studies - Epidemiological models - Effect research / mode of action - Methods for non-invasive investigation for clinical diagnostic
Selected Publications	<p>Herbarth, O.; Fritz, G. J.; Rehwagen, M.; Richter, M.; Röder, S.; Schlink, U. (2006) Association between indoor renovation activities and eczema in early childhood. In: <i>Int. J. Hyg. Env. Health</i> 209 (3), 241-247</p> <p>Tuch, T.; Herbarth, O.; Franck, U.; Peters, A.; Wehner, B.; Wiedensohler, A.; Heintzenberg, J. (2006) Weak correlation of ultrafine aerosol particle concentrations <800 nm between two sites within one city. In: <i>Journal of Exposure Science and Environmental Epidemiology advance</i>, online publication 25/01/ 2006, doi: 10.1038 / sj.jes. 7500469</p> <p>Herbarth, O.; Fritz, G.; Krumbiegel, P.; Diez, U.; Franck, U.; Richter, M. (2001) Is sulfur dioxide or TSP the more dominant risk factor of bronchitis in children? In: <i>Environmental Toxicology</i> 16 (3), 269-276</p>

Sigrun Kabisch	
CV	<p>Degrees: Dipl. Economics and Sociology/ University of Halle; PhD/ University of Leipzig; Habilitation/ University of Leipzig</p> <p>Prev. Appointments: PostDoc at University of Leipzig</p> <p>Curr. Position: Head of the Department of Urban and Environmental Sociology at the Helmholtz Centre for Environmental Research – UFZ; Speaker of Helmholtz-Research Theme 5.1.1 “Sustainable urban development and quality of life”; Lecturer at University of Leipzig</p>
Recent Research Topics	<ul style="list-style-type: none"> - Sustainable urban restructuring - Re-urbanisation and demographic change in European context - Socio-spatial differentiation in Megacities - Revitalisation of communities in post- mining areas
Selected Publications	<p>Buzar, St.; Ogden, Ph.; Hall, R; Haase, A.; Kabisch, S.; Steinführer, A. (2007) Splintering urban populations: emergent landscapes of reurbanisation in four European cities. In: <i>Urban Studies</i> 44 (5/6) (in press)</p> <p>Bernt, M.; Kabisch, S. (2006) Ostdeutsche Großwohnsiedlungen zwischen Stabilisierung und Niedergang. In: <i>DISP</i> (164), 5-15</p> <p>Heinrichs, D.; Kabisch, S. (2006) Risikolebensraum Megacity. In: <i>GAIA</i> (2), 157-160</p> <p>Kabisch, S. (2005) Empirical analyses on housing vacancy and urban shrinkage. In: Hurol, Y.; Vestbro Dick, U.; Wilkinson, N.: <i>Methodologies in Housing Research</i>. In: The urban international press, Gateshead (UK), 188-205</p> <p>Haase, A.; Kabisch, S.; Steinführer, A. (2005) Reurbanisation of Inner-City Areas in European Cities. Scrutinizing a Concept of Urban Development with Reference to Demographic and Household Change. In: Sagan, I.; Smith, D. (Eds.) <i>Society, economy, environment – towards the sustainable city</i>. Gdansk/ Poznan: Bogucki Wydawnictwo Naukowe, 75-91</p>

Annegret Kindler	
CV	<p>Degrees: Dipl. Cartography/ Dresden University of Technology; PhD Cartography/ Academy of Sciences of the GDR</p> <p>Prev. Appointments: Scientist at the Institute for Geography and Geoecology of the Academy of Sciences of the GDR</p> <p>Curr. Position: Senior scientist at Helmholtz Centre for Environmental Research – UFZ, Department of Urban Ecology, Environmental Planning and Transport</p>
Recent Research Topics	<ul style="list-style-type: none"> - Monitoring, GIS analysis and cartographic modeling of sociodemographic transformation processes in urban regions - Developing a social and environmental atlas for Gran Concepción (Chile) - Interrelations between land use changes and social-spatial differentiation - Landscape typologies
Selected Publications	<p>Hernández, J.R.; Azócar, G.; Muñoz, M. D.; Vega, C.; Kindler, A.; Kabisch, S. (2006) Atlas social y ambiental del area Metropolitana de Concepción, Región del Bío-Bío, Chile. Transformaciones sociodemográficas y ambientales 1992-2002. Concepción: Universidad de Concepción</p> <p>Banzhaf, E.; Kindler, A. (2005) Land use changes and population development in shrinking urban regions – exemplified on the City of Leipzig, Germany. In: Himiyama, Y.; Mather, A.; Bicik, I.; Milanova, E. V. (Eds.) Land use/Cover Changes in Selected Regions in the World. Vol. IV. International Geographical Union Commission on Land Use / Cover Change (IGU-LUCC) Research Reports IL-2005-01, 43-48</p> <p>Kindler, A. (2005) Geo-spatial cross-analysis of LANMAP2 and national approaches. In: Wascher, D. M. (Ed.) European Landscape Character Areas – Typologies, Cartography and Indicators for the Assessment of Sustainable Landscapes. Final project report European Landscape Character Assessment Initiative (ELCAI), 46-87</p> <p>Wascher, D.M.; Groom, G.; Mücher, S.; Kindler, A. (2005) Recent developments in mapping Europe's landscapes. In: Wascher, D. M. (Ed.) European Landscape Character Areas – Typologies, Cartography and Indicators for the Assessment of Sustainable Landscapes. Final project report European Landscape Character Assessment Initiative (ELCAI), 5-31</p>

Henning Nuissl	
CV	<p>Degrees: Dipl. Sociology/ University of Hamburg; Dipl.-Ing. Urban Planning/ Technical University Hamburg-Harburg; PhD/ Brandenburg Technical University Cottbus; Habilitation/ Technical University Berlin</p> <p>Prev. Appointments: Research scientist and doctoral fellow at the Institute for Regional Development and Structural Planning (IRS), Erkner (Germany); PostDoc at the Europe-University Viadrina, Frankfurt (Oder) (Germany); Professor for Comprehensive Planning/ Technical University Berlin</p> <p>Curr. Position: Senior scientist at Helmholtz Centre for Environmental Research – UFZ, Department of Urban and Environmental Sociology; Lecturer at Technical University Berlin</p>
Recent Research Topics	<ul style="list-style-type: none"> - Land use policy and urban sprawl - Megacity governance - Milieu, social capital and trust - Regional development
Selected Publications	<p>Haase, D.; Nuissl, H. (2006) Spatial consequences and environmental impacts of long-term land-use change: A case study for Leipzig (Germany). In: Landscape and Urban Planning. (in press)</p> <p>Nuissl, H.; Heinrichs, D. (2006) Zwischen Paradigma und heißer Luft: Der Begriff der Governance als Anregung für die räumliche Planung. In: Altrock, U. et al. (Eds.) Sparsamer Staat – Schwache Stadt? Planungsrundschau 13, Berlin: Verlag Uwe Altrock, 51-72</p> <p>Nuissl, H.; Rink, D. (2005) The ‚production‘ of urban sprawl in eastern Germany as a phenomenon of post-socialist transformation. In: Cities 22 (2), 123-134</p> <p>Nuissl, H. (2005) Trust in a ‚Post-socialist Region‘: A Study of East German ICT Entrepreneurs‘ Willingness to Trust Each Other. In: European Urban and Regional Studies 12 (1), 65-81</p>

Gerhard Strauch	
CV	<p>Degree: Dipl. Chemical Technology/ Chemical Institute of Technology Merseburg; PhD Physical Chemistry/ Chemical Institute of Technology Merseburg</p> <p>Curr. Position: Deputy head of the Department of Hydrogeology at Helmholtz Centre for Environmental Research – UFZ; Member of advisory board of „Terra nova“ (EGS journal); Co-editor of „Isotopes in Environm. Health Studies“; Chairman of the German Association for Stable Isotope Research</p>
Recent Research Topics	<ul style="list-style-type: none"> - Urban hydrogeology - Application of stable isotopes in different catchment areas - Hydro- and isotope geochemistry of acid mine waters
Selected Publications	<p>Strauch, G.; Oyarzun, J.; Fiebig-Wittmack, M.; Gonzales, E.; Weise, S. M. (2006) Contributions of the different water sources to the Elqui river (Northern Chile) runoff evaluated by h/O isotopes. In: Isotopes Environm. Health Studies 42 (3), 303-322</p> <p>Bräuer K.; Kämpf H.; Faber E.; Koch U.; Nitzsche H-M.; Strauch G. (2005) Seismically triggered microbial methane production relating to the Vogtland – NW Bohemia earthquake swarm period 2000. Central Europe. In: Geochem. J. 39, 441-450</p> <p>Strauch, G.; Bittkau, A.; Schlosser, D.; Petzoldt, H.; Sbjeschni. A. (2005) Assessing the pollution of water protection areas and river banks along the Elbe and Mulde river after the flood event in August 2002. In: Acta Hydrobiol. Hydrochim. 33 (5), 418-429</p> <p>Knöller, K.; Fauville, A.; Mayer, B.; Strauch, G.; Friese, K.; Veizer, J. (2004) Sulfur cycling in an acid mining lake and its vicinity in Lusatia, Germany. In: Chem. Geology 204, 303-323</p>

Ulrike Weiland	
CV	<p>Degrees: State examination (Biology, Geography)/ University of Mainz; Dipl. Ecology/ University of Essen; PhD/ Technical University Berlin; Habilitation/ Technical University Berlin</p> <p>Prev. Appointments: Employee at several environmental planning consultancies; Assistant professor at Technical University Hamburg-Harburg; Associate professor at Technical University Berlin</p> <p>Curr. Position: Head of the Department of Urban Ecology, Environmental Planning and Transport at the Helmholtz Centre for Environmental Research – UFZ; Professor for Geography at University of Leipzig</p>
Recent Research Topics	<ul style="list-style-type: none"> - Management towards environmentally sustainable urban development - Methodical demands on sustainability indicators - Green space strategies for European cities - Methodology of Strategic Environmental Assessments (SEA)
Selected Publications	<p>Netzband, M.; Banzhaf, E.; U. Weiland (2006) Remote sensing for megacities research. First Workshop of the EARSeL Special Interest Group on Urban Remote Sensing “Challenges and Solutions, 01-03/03/2006, Berlin: The European Association of Remote Sensing Laboratories/ Humboldt-University Berlin</p> <p>Weiland, U.; Richter, M.; Kasperidus, H.-D. (2005) Environmental management and planning in urban regions – are there differences between growth and shrinkage? In: Kungolos, A.; Brebbia, C.A.; Beriatos, E. (Eds.) Sustainable Development and Planning II. Southampton (UK), Volume 1, 441–450</p> <p>Weiland, U. (2002) Environmentally Sustainable Development of Cities and Urban Regions – Challenges for Spatial and Environmental Planning. In: Bastian, O.; Steinhardt, U. (Eds.) Development and Perspectives in Landscape Ecology – Conceptions, Methods, Application. Dordrecht/ Boston/ London: Kluwer, 397-405</p> <p>Weiland, U. (1998) Environmental Impact Assessment (EIA) for Types of Land Use. In: Breuste, J.; Feldmann, H.; Uhlmann, O. (Eds.) Urban Ecology. Berlin/ Heidelberg: Springer, 438-441</p> <p>Weiland, U.; Hilty, L. M. (1998) Sustainable Urban Management: Opportunities and Risks of Information Technology. In: Hamm, B.; Muttagi, P.K. (Eds.) Sustainable Development and the Future of Cities. New Delhi/ Calcutta: Oxford & IBH Publishing, 197-202</p>

Heidi Wittmer	
CV	<p>Degree: MSc International Agricultural Development/ University of Giessen and Technical University Berlin; PhD/ University of Göttingen</p> <p>Prev. Appointments: German Academic Exchange Service-lecturer (DAAD) at Universidad Pedagógica y Tecnológica de Colombia; Guest lecturer at Pontificia Universidad Javeriana, Bogotá; Economist at FAO, Rome; PostDoc, University of Göttingen</p> <p>Curr. Position: Senior scientist at Helmholtz Centre for Environmental Research – UFZ, Department of Economics, head of Governance and Institutions working group</p>
Recent Research Topics	<ul style="list-style-type: none"> - Science policy - Institutional economics - Multi-level governance - Stakeholder participation
Selected Publications	<p>Wittmer, H.; Rauschmayer, F.; Klauer, B. (2006) How to select instruments for the resolution of environmental conflicts? In: Land Use Policy 23 (1), 1-9</p> <p>Birner, R.; Wittmer, H. (2006) Better Public Sector Governance through Partnership with the Private Sector and Civil Society: The Case of Guatemala's Forest Administration. In: International Review of Administrative Sciences 72 (4), 481-494</p> <p>Birner, R.; Wittmer, H. (2004) On the 'efficient boundaries of the state': the contribution of transaction-costs economics to the analysis of decentralization and devolution in natural resource management. In: Environ.Plann.C 22 (5), 667-685</p>

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Christian Cortés	
Selected Publications	<p>Sáez, D.; Cortés, C. E.; Núñez, A. (2007) Hybrid Adaptive Predictive Control for the Multi-vehicle Dynamic Pickup and Delivery Problem based on Genetic Algorithms and Fuzzy Clustering. In: Computers and Operations Research, Special Issue (forthcoming)</p> <p>Cortés, C. E.; Pagès, L.; Jayakrishnan, R. (2005) Microsimulation of Flexible Transit System Designs in Realistic Urban Networks. In: Transportation Research Record 1923, 153-163</p> <p>Oh, Jun-Seok; Cortés, C. E.; Recker, W. (2003) Effects of Less-Equilibrated Data on Travel Choice Model Estimation. In: Transportation Research Record 1831, 131-140</p> <p>Cortés, C. E.; Jayakrishnan, R. (2002) Design and Operational Concepts of a High Coverage Point-to-Point Transit System. In: Transportation Research Record 1783, 178-187</p> <p>Jara-Díaz, S. R.; Cortés, C. E.; Ponce, F. (2001) Number of Points Served and Economies of Spatial Scope in Transportation Cost Functions. In: Journal of Transport Economics and Policy 35 (2), 327-341</p>

Francisco Martínez	
CV	<p>Degrees: Civil Engineer/ Universidad de Chile; MA Transport Economics/ University of Leeds; Ph.D. Transport Economics/ University of Leeds</p> <p>Curr. Position: Professor at Universidad de Chile</p>
Recent Research Topics	<ul style="list-style-type: none"> - Land use modelling - Transport modelling and economics - Urban economics
Selected Publications	<p>Martínez, F.; Roy, J. (2004) A Model for Residential Supply. In: Annals of Regional Science 38 (3), 531-550</p> <p>Martínez, F. (2003) Location Externalities: Effects on Modelling, Infrastructure Provision and Optimal Planning. In: Hensher, D. A.; Button, K. (Eds.) Handbooks in Transport – Handbook 4: Transport and the Environment. Oxford: Elsevier, 463-480</p> <p>Pérez, P.; Martínez, F.; Ortúzar, J. (2003) Microeconomic Formulation and Estimation of a Residential Location Choice Model: Implications for the Value of Time. In: Journal of Regional Science 43 (4), 771-789</p> <p>Martínez, F.; Araya, C. (2000) Transport and Land-Use Benefits under Location Externalities. In: Environment and Planning A 32 (9), 1521-1709</p> <p>Martínez, F. (1992) The Bid Choice Land-Use Model – An Integrated Economic Framework. In: Environment and Planning A 24, 871-885</p>

Raul O’Ryan	
CV	<p>Degrees: Electrical Engineer; MA Industrial Engineering; PhD Economics</p> <p>Prev. Appointments: Director Industrial Engineering Department at Universidad de Chile; Member of the Consultative Board of Chile’s National Environmental Commission (CONAMA)</p> <p>Curr. Position: Professor at Universidad de Chile, Department of Industrial Engineering, Center for Applied Economics</p>
Recent Research Topics	<ul style="list-style-type: none"> - General Equilibrium Analysis to evaluate policies and shocks - Cost Benefit analysis of environmental and energy policies - Clean Development Mechanism
Selected Publications	<p>O’Ryan, R. (2006) Factors that determine the cost-effectiveness ranking of second-best instruments for Environmental Regulation. In: Journal of Regulatory Economics 30 (2), 179-198</p> <p>O’Ryan, R.; Ulloa, A.; Asencio, G. (2006) Choosing Policy Instruments for Controlling Ozone Depleting Substances in a Developing Context: the Case of Chile. In: Journal of Environmental Management 80, 347–362</p> <p>O’Ryan, R.; de Miguel, C.; Miller, S.; Munasinghe, M. (2005) Computable General Equilibrium Model Analysis of Economywide Cross Effects of Social and Environmental Policies in Chile. In: Ecological Economics 54 (4), 447-472</p>

Ana María Sancha	
CV	<p>Degrees: Chemist/ Pontificia Universidad Católica de Chile</p> <p>Curr. Position: Professor at Universidad de Chile, Civil Engineering Department; Consultant to various organisations (World Health Organization, World Bank, Superintendencia de Servicios Sanitarios, CONAMA and others)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Arsenic contamination - Removal of chemical and biological contaminants - Water reuse and environmental impacts. - Water quality regulations
Selected Publications	<p>Sancha, A. M. (2006) Review of coagulation technology for removal of arsenic: the case of Chile. In: Journal of Health, Population and Nutrition 24 (3), 267-272</p> <p>Ferreccio C.; Sancha A. M. (2006) Exposure to Arsenic and its Impact on Health in Chile. Journal of Health, Population and Nutrition 24 (2), 164-175</p> <p>Ferreccio, C.; Gonzalez, C.; Milosajlevic, U.; Marshall, G.; Sancha, A. M.; Smith, A. (2000) Living cancer and arsenic concentrations in drinking water in Chile. In: Epidemiology 11 (6), 673-679</p> <p>Sancha, A. M. (2000) Removal of arsenic from drinking water supplies: Chilean Experience. In: Water Supply 18 (1-2), 621-625</p>

Rainer Schmitz	
CV	<p>Degrees: Dipl.-Ing./ RWTH Aachen; Ph.D./ University of Birmingham, Department of Chemical Engineering</p> <p>Prev. Appointments: PostDoc at Pontificia Universidad Católica, Department of Chemical Engineering; Senior scientist at Universidad de Chile, Department of Geophysics; Senior scientist and group leader "Air Quality" at Forschungszentrum Karlsruhe (FZK), Institute for Meteorology and Climate Research</p> <p>Curr. Position: Professor and group leader "Air Quality" at Universidad de Chile, Department of Geophysics (part time). Professor at the Pontificia Universidad Católica de Chile (part time)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Air quality modelling - Tropospheric ozone - Urban boundary layer
Selected Publications	<p>Schmitz, R.; Falvey, M. (2006) Numerical air quality forecast in Santiago de Chile. Paper presented at the 8th International Conference on Southern Hemisphere Meteorology, Foz de Iguazu, Brazil</p> <p>Schmitz, R. (2005) Modelling of air pollution dispersion in Santiago de Chile. In: Atmospheric Environment 39, 2035-2047</p> <p>Grell, G. A.; Peckham, S. E.; Schmitz, R.; McKeen, S. A.; Frost, G.; Eder, B. (2005) Fully coupled "online" chemistry within the WRF model. In: Atmospheric Environment 39, 6957-6975</p> <p>Rappenglück, B.; Schmitz, R.; Bauerfeind, M.; Cereceda-Balic, F.; von Baer, D; Silva, Y.; Oyola, P. (2004) An urban photochemistry study in Santiago de Chile. In: Atmospheric Environment 39, 2913-2931</p>

Luis Vargas	
CV	<p>Degrees: BSc Electrical Engineering/ Universidad de Chile; MSc Electrical Engineering/ Universidad de Chile; PhD Electrical Engineering/ University of Waterloo, Canada.</p> <p>Prev. Appointments: Assistant Professor at Universidad de Chile, Department of Electrical Engineering; Visiting Professor at University of Waterloo, Department of Electrical and Computer Engineering; Senior Scientist at Asia Pacific Energy Research Center</p> <p>Curr. Position: Professor at Universidad de Chile, Department of Electrical Engineering</p>
Recent Research Topics	<ul style="list-style-type: none"> - New and renewable electricity - Stability of power systems - Operation and analysis of electricity markets
Selected Publications	<p>Sáez, D.; Milla, F.; Vargas, L. (2006) Fuzzy Predictive Supervisory Control Based on Genetic Algorithms for Gas Turbines of Combined Cycle Power Plants. In: IEEE Transactions on Energy Conversion (in print)</p> <p>Palma, R.; Cerda, J. L.; Vargas, L.; Jofre, A. (2005) A Distribution Company Energy Acquisition Market Model with Integration of Distributed Generation and Load Curtailment Options. In: IEEE Transactions on Power Systems 20 (4), 1718-1727</p> <p>Palma, R.; Vargas, L.; Pérez, J.; Núñez, J. D.; Torres, R. (2004) OPF with SVC and UPFC Modeling for Longitudinal Systems. In: IEEE Transactions on Power Systems 19 (4), 1742-1753</p> <p>Vargas, L.; Palma, R.; Moya, O.; Torres, R. (2003) A Scenario Simulation Approach for Market Power Analysis in Hydrothermal Systems. In: IEEE Transactions on Power Systems 18 (3), 1046-1053</p>

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Jonathan Barton	
CV	<p>Degrees: BA(Hons) Geography/ University of Wales; MA Latin American Studies/ Liverpool University; PhD Economic History/ Liverpool University</p> <p>Prev. Appointments: Lecturer in Geography at the London School of Economics (LSE); Senior Research Associate at the University of East Anglia; Lecturer in Development Studies at the University of East Anglia</p> <p>Curr. Position: Professor and Researcher at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales</p>
Recent Research Topics	<ul style="list-style-type: none"> - Urban and regional sustainability: public policy and planning - Production, trade and environment - Environmental politics, governance and conflicts
Selected Publications	<p>Barton, J. R. (2006) Sustentabilidad Urbana como Planificación Estratégica. In: EURE (Revista Latinoamericana de Estudios Urbano Regionales) 32 (96), 27-45</p> <p>Barton, J. R. (2006) Eco-Dependency in Latin America. In: Singapore Journal of Tropical Geography 27 (2), 134-149</p> <p>Barton, J. R.; Mercado, A. (2005) ¿Apertura Limpia en América Latina? El caso del acer. In: Comercio Exterior 55 (8), (Mexico), 656-661</p> <p>Barton, J. R.; Tedesco, L. (2004) The State of Democracy in Latin America: post-transitional conflicts in Argentina and Chile. London: Routledge</p>

Maria Elena Ducci	
CV	<p>Degrees: BA Architecture/ Pontificia Universidad Católica de Chile; MA Architecture (Urban Studies)/ Universidad Nacional Autónoma de México (UNAM); PhD Urban Studies/ Universidad Nacional Autónoma de México (UNAM)</p> <p>Prev. Appointments: Professor and Researcher at the Universidad Nacional Autónoma de México (UNAM), Facultad Nacional de Arquitectura; Executive Secretary to the Vice Rector of the Environmental Studies Programme at Pontificia Universidad Católica de Chile; Fulbright scholarship, University of Chicago; Visiting scientist at the Latin American Studies programme of the Woodrow Wilson International Center for Scholars, Smithsonian Institute, Washington, D.C.</p> <p>Curr. Position: Vice Academic Director, Professor and Researcher at the Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos; Editorial board member of EURE (Revista Latinoamericana de Estudios Urbano-Regionales)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Poverty and migration - Social housing - Participatory planning
Selected Publications	<p>Ducci, M. E. (2006) Santiago: territorio, anhelos y temores. In : De Mattos et al. (Eds.) Santiago en EURE. Huellas de una metamorfosis metropolitana. Santiago: Colección EURE libros</p> <p>Ducci, M. E. (2006) Anatomía de la expansión de Santiago 1990-2000. In: Galetovic, A. (Ed.) Santiago: Dónde estamos y hacia dónde vamos. Santiago: Centro de Estudios Públicos</p> <p>Atkinson, S.; Cohn, A.; Gideon, J.; Ducci, M. E. (2005) Implementation of promotion and prevention activities in decentralized health systems: comparative case studies from Chile and Brazil. In: Health Promotion International 20, 167-175</p> <p>De Mattos, C.; Ducci, M. E.; Rodríguez, A.; Yáñez, G. (2004) (Eds.) Santiago en la globalización, ¿una nueva ciudad? Santiago: Colección EURE Libros/Ediciones SUR</p> <p>Ducci, M. E. (2004) Participación ciudadana, pobreza y políticas sociales: cuando la población se toma la iniciativa. Programas sociales manejados por la comunidad en Chile. In: Ziccardi, A. (Ed.) Participación ciudadana y políticas sociales en el ámbito local. México City: Universidad Nacional Autónoma de México (UNAM), Instituto de Investigaciones Sociales</p>

 Lorena Farias	
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Recent Research Topics	<ul style="list-style-type: none"> - Regional sciences, territorial innovation systems, regional clusters - Urban sustainability - Governance and social capital
Selected Publications	<p>Farias, L. (in press) Competitividad, financiamiento urbano y equidad en America Latina. En Sustentabilidad Urbana en America Latina. Santiago: ECLAC/CEPAL</p> <p>Farias, L. (2005) El bio@-polo de Santiago. Competitividad, innovación y territorio. Los parques tecnológicos como mecanismos de fomento de la capacidad de innovación de los territorios. La biotecnología en Av. Marathon. Thesis, Santiago: Pontificia Universidad Católica de Chile</p> <p>Farias, L. (2004) Innovación y Territorio. Clusters Productivos, instrumentos para mejorar la competitividad de Santiago. In: De Mattos, C. et al. (Eds.): Santiago ¿Ciudad de clase Mundial? Santiago: Colección EURE libros</p> <p>Farias, L. (2004) Competitividad de Santiago. Experiencia Internacional y Lecciones por aprender. In: Gobierno Regional Metropolitano (GORE)...</p>

 Oscar Monsalve Figueroa	
CV	<p>Degrees: BA Economics/ Universidad de Chile; Commercial Engineering/ Universidad de Chile; PhD Urban Studies/ University of Paris XII</p> <p>Prev. Appointments: Lecturer in the fields of urban studies and urban economics (several courses and programmes); Visiting professor at Universidad Politécnica de Catalunya; Technical University of Delft, Universidad de Sao Paulo, and Institute d'Urbanisme in Paris</p> <p>Curr. Position: Professor and Director of MA Programme in Urban Development at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales</p>
Recent Research Topics	<ul style="list-style-type: none"> - Sustainable Urban Development - Local Development - Networks and services
Selected Publications	<p>De Mattos, C.; Figueroa, O.; Bannen, P.; Campos, D. (Eds.) (2006) Santiago en EURE. Huellas de una metamorfosis metropolitana. Santiago: Colección EURE libros</p> <p>Figueroa, O. (2006) Conectividad, ámbitos de impacto y desarrollo territorial: la experiencia internacional. Serie Recursos Naturales e Infraestructura 113, Santiago: ECLAC/CEPAL</p> <p>De Mattos, C.; Figueroa, O.; Orellana, A.; Yáñez, G. (Eds.) (2005) Gobernanza, Competitividad y Redes: La Gestión en las Ciudades del Siglo XXI. Santiago: Colección EURE libros</p> <p>Figueroa, O. (2005) El transporte urbano latinoamericano en la globalización. Políticas y efectos. In: Carmona, M. (Ed.) Globalización y grandes proyectos urbanos. La respuesta de 25 ciudades. Buenos Aires: Ediciones Infinito</p>

Rodrigo Alejandro Hidalgo	
CV	<p>Degrees: Geographer/ Pontificia Universidad Católica de Chile; PhD Human Geography/ Universidad de Barcelona</p> <p>Prev. Appointments: Lecturer at Pontificia Universidad Católica de Chile; Head of several third-funded research projects</p> <p>Curr. Position: Professor at Pontificia Universidad Católica de Chile, Institute for Geography; Editorial board member of several journals</p>
Recent Research Topics	<ul style="list-style-type: none"> - Urban development - Mega-projects - Segregation
Selected Publications	<p>Hidalgo, R. (2006) La ciudad con ojos de autoridad. El plan de reforma de Santiago del intendente José Miguel de la Barra. In: Scripta Nova. Revista electrónica de geografía y ciencias sociales 10 (218) (31) http://www.ub.es/geocrit/sn/sn-218-31.htm</p> <p>Hidalgo, R.; Tomic, P.; Trumper, R. (2006) Manufacturing Modernity: Cleaning, Dirt, and Neoliberalism in Chile. In: Antipode 38 (3), 508-529</p> <p>Hidalgo, R.; Trumper, R.; Borsdorf, A. (2005) Transformaciones urbanas y procesos territoriales. Lecturas del nuevo dibujo de la ciudad latinoamericana. Santiago: GEOLibros</p> <p>Borsdorf, A.; Hidalgo, R. (2005) La exclusión residencial y el desarrollo de la ciudad moderna en América Latina: de la polarización a la fragmentación. El caso de Santiago de Chile. In: Geographicalia 48, 5-30</p> <p>Hidalgo, R. (2005) Post-suburbia ou post-urbia? Les mégaprojets résidentiels dans la périphérie de Santiago du Chili. In: Revue Géographique de l'Est 35 (3-4), 209-217</p>

Carlos A. de Mattos	
CV	<p>Degrees: Architect/ Universidad de la República (Uruguay); Dipl. Economic Development and Planning/ Instituto Latinoamericano de Planificación Económica y Social (ILPES, UN, ECLAC/CEPAL), Santiago de Chile</p> <p>Prev. Appointments: Academic director of Instituto de Estudios Urbanos y Territoriales at Pontificia Universidad Católica de Chile; Executive coordinator of Red Iberoamericana de Investigación sobre Impactos Territoriales de la Reestructuración (Latin American network on restructuration research); Scientific consultant to the Regional Development Institute at the University of Seville, Spain</p> <p>Curr. Position: Professor at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales; Director of international MA programme on territorial development (partners: Pontificia Universidad Católica de Chile; Universidad Nacional de Rosario, Argentina; Universidad Nacional de Río Cuarto, Argentina; Universidad Nacional del Sur (Bahía Blanca), Argentina); President of the Scientific Board of the Red Iberoamericana de Investigación sobre Impactos Territoriales de la Reestructuración; Editorial board member of EURE (Revista Latinoamericana de Estudios Urbano-Regionales)</p>
Recent Research Topics	<ul style="list-style-type: none"> - National and regional planning - Economic policy - Globalisation, decentralisation and territorial organisation - Urban and regional development
Selected Publications	<p>De Mattos, C. (2005) Santiago de Chile: modernización capitalista y transformación metropolitana. In: Carmona, M. (Ed.) Globalización y grandes proyectos urbanos. La respuesta de 25 ciudades. Buenos Aires: Ediciones Infinito</p> <p>De Mattos, C.; Figueroa, O.; Orellana, A.; Yáñez, G. (Eds.) (2005) Gobernanza, Competitividad y Redes: La Gestión en las Ciudades del Siglo XXI. Santiago: Colección EURE libros</p> <p>De Mattos, C. (2004) De la planificación a la governance. Implicancias para la gestión territorial y urbana. In: Revista Paranaense de Desenvolvimento (107)</p> <p>De Mattos, C. (2004) Redes, nodos e cidades: transformação da metrópole latinoamericana. In: de Queiroz Ribeiro, L. C. (Ed.) Metrópoles. Entre a coesão e a fragmentação, a cooperação e o conflito. Rio de Janeiro: Editora Fundação Perseo Abramo</p> <p>De Mattos, C.; Ducci, M.E.; Rodríguez, A.; Yáñez, G. (Eds.) (2004) Santiago en la Globalización: ¿Una nueva Ciudad? Santiago: Colección EURE libros y Ediciones SUR</p>

Arturo Orellana	
CV	<p>Degrees: Economics/ Universidad de Chile; MA Urban Development/ Pontificia Universidad Católica de Chile; PhD/ Human Geography/ Universidad de Barcelona</p> <p>Prev. Appointments: Researcher at Institut d'Estudis Territoriales de Barcelona; Advisor to the National Ministry of Planning and Cooperation (MIDEPLAN); Head of Studies group at Transantiago</p> <p>Curr. Position: Professor and Researcher at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales</p>
Recent Research Topics	<ul style="list-style-type: none"> - Land strategic planning - Urban governance - Local and regional development
Selected Publications	<p>De Mattos, C.; Figueroa, O.; Orellana, A.; Yáñez, G. (Eds.) (2005) Gobernanza, Competitividad y Redes: La Gestión en las Ciudades del Siglo XXI. Santiago: Colección EURE libros</p> <p>Orellana, A. (2003): Las dos caras del éxito de la política de vivienda en Chile: ¿Una cuestión de gobernabilidad metropolitana? V. Coloquio Internacional de Geocrítica, La vivienda y la construcción del espacio social de la ciudad, Barcelona http://www.ub.es/geocrit/7-col.htm.</p> <p>Orellana, A. (2003): Gobernabilidad de las áreas metropolitanas de Europa y América Latina: ¿respuestas democráticas o eficaces? IV. Jornadas de Arquitectura y Urbanismo, ICCI, Barcelona</p>

Sonia Reyes	
CV	<p>Degrees: BSC/ Universidad de Chile; Dipl. Urban Economics/ Pontificia Universidad Católica de Chile; MSc Human Settlements and Environment/ Pontificia Universidad Católica de Chile</p> <p>Curr. Position: Professor at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales and Vice director of Department of External Services of the Faculty of Architecture, Design and Urban Studies</p>
Recent Research Topics	<ul style="list-style-type: none"> - Biodiversity conservation in urban areas - Land use planning - Sustainability
Selected Publications	<p>Reyes, S.; Gudiño, M. E. (2006) Estrategias de integración y transformaciones metropolitanas. Mendoza: Editorial Universidad Nacional de Cuyo</p> <p>Reyes, S. (2005) Santiago o la difícil sustentabilidad de la ciudad neoliberal. In: De Mattos et al. (Eds.) Santiago en la Globalización: ¿Una nueva Ciudad? Santiago: Colección EURE libros y Ediciones SUR, 189-218</p> <p>Reyes, S. (2004) Perspectivas del Medio Ambiente Urbano: GEO Santiago. Programa de Naciones Unidas para el Medio Ambiente (PNUMA), Santiago</p> <p>De Mattos, C.; Riffo, L.; Reyes, S. (2000) Reestructuración, Crecimiento y Concentración Territorial de la Industria: El Caso de la Región Metropolitana de Santiago. In: Estadística y Economía 20, 121-157</p> <p>Figueroa, O.; Reyes, S. (1997) Transporte y calidad de vida en las ciudades latinoamericanas: sus relaciones con los usos de suelo y la contaminación urbana. In: EURE 22 (67), 29-44</p>

Claudia Rodríguez Seeger	
CV	<p>Degrees: Geography/ Pontifica Universidad Católica de Chile; MA Human Settlements and the Environment/ Pontifica Universidad Católica de Chile; PhD Geography/ Christian-Albrechts-University Kiel</p> <p>Prev. Appointments: Chief of Environment Area and project coordinator in the consulting firm Tecnologías y Servicios Ambientales, Santiago; Associate director for graduate programs and vicepresidency for academic affairs at Pontifica Universidad Católica de Chile</p> <p>Curr. Position: Professor at Pontifica Universidad Católica de Chile and Director of Instituto de Estudios Urbanos y Territoriales</p>
Recent Research Topics	<ul style="list-style-type: none"> - Decentralisation and governance - Public policies - Human capital and international migration
Selected Publications	<p>Rodríguez Seeger, C.; Ducci, M. E. (in press) La Descentralización en Chile. El peso de las tradiciones centralistas y autoritarias. In: Descentralización. Transformación des Régimen Político y Cambio en el Modelo de Desarrollo. Bogotá: Universidad Nacional de Colombia</p> <p>Rodríguez Seeger, C.; Ducci, M. E. (2006) Ausländische weiterbildende Studierende in Santiago de Chile: `brain gain´ in einer Weltklassestadt? In: Gans, P.; Prieb, A.; Wehrhahn, R. (Eds.) Kulturgeographie der Stadt. Kiel: Christian-Albrechts-University Kiel</p> <p>Rodríguez Seeger, C.; Munita, M. I. (2005) Capital humano avanzado y desarrollo: un desafío de política pública para Chile en el tercer milenio. In: Políticas Públicas para la Educación Superior 22, 79-96</p>

Francisco Sabatini	
CV	<p>Degrees: Sociologist/ Pontificia Universidad Católica de Chile; MA Urban and regional planning and development/ Pontificia Universidad Católica de Chile; PhD Urban Planning/ University of California, Los Angeles</p> <p>Prev. Appointments: Advisor at the Ministro de la Vivienda de Chile; Member of the national advisory board on environmental policy, Chile; Member of the advisory board on Chilean-Canadian cooperation agreement on environmental policies</p> <p>Curr. Position: Professor and researcher at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales and director of the programme "Apoyo a las Políticas Urbanas y de Suelo en Chile – PROURBANA"; Advisor to the Ministra de Vivienda y Urbanismo, Chile, on land use policy</p>
Recent Research Topics	<ul style="list-style-type: none"> - Segregation - Urban development - Environmental studies
Selected Publications	<p>Sabatini, F.; Campos, D.; Cáceres, G.; Blonda, L. (2006) Nuevas formas de pobreza y movilización popular en Santiago de Chile. In: Gonzalo, A. (Ed.) De la pobreza a la exclusión. Continuidades y Rupturas de la Cuestión Social en América Latina. México City: CIESAS</p> <p>Sabatini, F.; Wormald, G. (2005) Santiago de Chile bajo la nueva economía (1980-2000). Crecimiento, modernización y oportunidades de integración social. In: Portes, A.; Roberts, B.; Grimson, A. (Eds.) Ciudades Latinoamericanas. Un Análisis Comparativo en el Umbral del Nuevo Siglo. Buenos Aires: Prometeo</p> <p>Cáceres, G.; Sabatini, F. (Eds.) (2004) Los Barrios Cerrados en Santiago de Chile: Entre la Exclusión y la Integración Social. Santiago: Pontificia Universidad Católica de Chile, Instituto de Geografía</p> <p>Sabatini, F.; Wormald, G. (2004) La Guerra de la Basura de Santiago: Desde el derecho a la vivienda al derecho a la ciudad. In: EURE 30 (91)</p> <p>Sabatini, F. (2004) Segregacao residencial na cidade latino-americana. In: Vergara, P. (Ed.) Desenvolvimento Endogeno. Um Novo Paradigma para a Gsetao Local e Regional. Fortaleza: Instituto de Assessoria para o Desenvolvimento Humano</p>

Carmen Schlotfeldt	
CV	<p>Degrees: BA Economics/ Pontificia Universidad Católica de Sao Paulo; MA Human Settlements and Environment Studies/ Pontificia Universidad Católica de Chile; Dipl. Advanced Studies on Environmental Management and Geography/ Universidad de Barcelona; Dipl. Cultural Landscapes/ Universidad Politécnica de Cataluña; PhD Landscape and Geography/ Universidad de Barcelona (pending)</p> <p>Prev. Appointments: Head of MA programme at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales</p> <p>Curr. Position: Senior scientist at Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales</p>
Recent Research Topics	<ul style="list-style-type: none"> - Integrated coastal management - Governance for sustainable development
Selected Publications	<p>Schlotfeld, C. (nd) Project FONDECYT1030580/2003-2004). Las Formas de Ocupación del Territorio en Tierra del Fuego. (www.tierradelfuegochile.com)</p> <p>Schlotfeld, C. (2005) Función, Valoración y Gestión del Borde Costero. In: Chile País Oceánico. Santiago: Ocho Libros</p> <p>Schlotfeld, C. (2005) Gestión Sustentable del Borde Costero. Un Desafío de Gobernabilidad. In: Gestión Ambiental a Nivel Local. Santiago: Ediciones SUR</p> <p>Schlotfeld, C. (2001) Consideraciones Metodológicas y Conceptuales para el Ordenamiento Costero. In: Ordenamiento del Territorio en Chile – Los Desafíos y las Urgencias para el Tercer Milenio. Santiago: Pontificia Universidad Católica de Chile</p>

The Pontificia Universidad Católica de Valparaíso

Marcel Szanto Narea	
CV	Curr. Position: Profesor at Pontificia Universidad Católica de Valparaíso; Director of GRS (Grupo de Investigación Residuos Sólidos); UNESCO-chair for Sanitation and Environmental Engineering
Selected Publications	<p>Szanto Narea, M. (1998) Situación del manejo de residuos sólidos urbanos en América Latina y El Caribe. In: Revista Residuos 43</p> <p>Szanto Narea, M.; Calvo R., F.; Moreno, B.; Zamorano, M. () Environmental Diagnosis Methodology for Municipal Waste Landfills. In: Waste Management 25 (8), 768-779</p> <p>Szanto Narea, M. (2005) Guía de Fiscalización de sitios de disposición final de residuos sólidos urbanos. In: Gobierno de Chile, Comisión Nacional de Medio Ambiente (CONAMA), Ministerio de Salud</p> <p>Szanto Narea, M. (2005) Una estrategia Regional de residuos. In: Revista Hacer Región 1 (2), (Centro de Estudios de la región Valparaíso Chile), 75-90</p> <p>Szanto Narea, M.; Grupo Residuos Sólidos PUCV (2006) Caracterización de residuos sólidos domiciliarios Región Metropolitana Santiago de Chile. Santiago: Comisión Nacional de Medio Ambiente (CONAMA)/ Región Metropolitana</p>

Economic Commission for Latin America and the Caribbean in the United Nations (ECLAC/CEPAL)

Ricardo Jordan	
CV	<p>Degree: Geography/ Pontificia Universidad Católica de Chile; MA Urban and Regional Planning/ Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos; Dipl. Economics and Regional Development/ Instituto Latinoamericano de Planificación Económica y Social (ILPES, UN, ECLAC/CEPAL), Santiago de Chile MA Regional and Urban Development/Institute of Social Studies, Netherlands</p> <p>Curr. Position: Senior scientist and project leader at ECLAC/CEPAL</p>
Recent Research Topics	<ul style="list-style-type: none"> - Urban sustainability - Urban economics - Regional development
Selected Publications	<p>Jordán Fuchs, R.; Plaut, J. (2006) Experiences and programs for the implementation of the urban agenda in Latin American Cities. Serie manuals, Santiago: ECLAC/CEPAL</p> <p>Jordán Fuchs, R.; Segovia, O. (2006) Public spaces: strategic approach in urban management. Serie Medio Ambiente y Desarrollo, Santiago: ECLAC/CEPAL</p> <p>Plaut, J.; Jordán Fuchs, R. (2006) Urban and Housing Management and Sustainable Development in Latin America and the Caribbean. Manual for the Seminar of 100 Years of Chilean Housing Policy, Santiago: ECLAC/CEPAL</p> <p>Plaut, J.; Jordán Fuchs, R.; Magnoli, G. C. (2006) The Sustainable City IV: Urban Regeneration and Sustainability, Section 2 – Cultural Heritage: Historical Centers, Sustainable Economic Spaces, Management for Sustainable Projects. Southampton/ Boston: Witt Press</p> <p>Jordán Fuchs, Ricardo (2003) Urban Management and Sustainable Development in Latin America and the Caribbean. Santiago: ECLAC/CEPAL</p>
Andrei Jouravlev	
CV	<p>Degree: Dipl. Economics/ Moscow Financial Institute</p> <p>Prev. Appointments: Ministry of Foreign Affairs</p> <p>Curr. Position: Economic Affairs Officer at ECLAC/CEPAL, Natural Resources and Infrastructure Division</p>
Recent Research Topics	<ul style="list-style-type: none"> - Sustainability in the provision of water supply and sewerage services - Administrative systems for water resources management - River basin management - Water allocation, water rights and water markets - Water pollution control and economic instruments
Selected Publications	<p>Solanes, M.; Jouravlev, A. (2006) Water governance for development and sustainability. LC/L.2556-P, Serie Recursos Naturales e Infraestructura 111, Santiago: ECLAC/CEPAL</p> <p>Jouravlev, A. (2004) Drinking water supply and sanitation services on the threshold of the XXI century. LC/L.2169-P, Serie Recursos Naturales e Infraestructura 74, Santiago: ECLAC/CEPAL</p> <p>Jouravlev, A. (2003) Acceso a la información: una tarea pendiente para la regulación latinoamericana. LC/L.1954-P, Serie Recursos Naturales e Infraestructura 59, Santiago: ECLAC/CEPAL</p> <p>Jouravlev, A. (2000) Water utility regulation: issues and options for Latin America and the Caribbean. LC/R.2032, Serie Recursos Naturales e Infraestructura 59, Santiago: ECLAC/CEPAL</p> <p>Dourojeanni, A.; Jouravlev, A.; Chávez, G. (2000) Gestión del agua a nivel de cuencas: teoría y práctica. LC/L.1777-P, Serie Recursos Naturales e Infraestructura 47, Santiago: ECLAC/CEPAL</p>

Jeannette Plaut	
CV	<p>Degree: Architect/ Universidad de Chile</p> <p>Prev. Appointments: University Teacher in Architecture Theory; Director of the National Exhibition "XV Architecture Biennial 2006" Co-Editor of the journal "Ambientes Magazine"; Latin American Correspondent for the journals "Architecture Magazine", "Escala", "Metropolis"</p> <p>Curr. Position: Research Consultant at ECLAC/CEPAL</p>
Recent Research Topics	<ul style="list-style-type: none"> - Architecture and urban sustainability - Implementation of sustainable materials in architecture and social housing - Urban economics and regional development - Development of social housing and segregation in Latin American Cities
Selected Publications	<p>Jordán Fuchs, R.; Plaut, J. (2006) Experiences and programs for the implementation of the urban agenda in Latin American Cities. Serie manuals, Santiago: ECLAC/CEPAL</p> <p>Plaut, J.; Jordán Fuchs, R. (2006) Urban and Housing Management and Sustainable Development in Latin America and the Caribbean. Manual for the Seminar of 100 Years of Chilean Housing Policy, Santiago: ECLAC/CEPAL</p> <p>Plaut, J.; Jordán Fuchs, R.; Magnoli, G. C. (2006) The Sustainable City IV: Urban Regeneration and Sustainability, Section 2 – Cultural Heritage: Historical Centers, Sustainable Economic Spaces, Management for Sustainable Projects. Southampton/ Boston: Witt Press</p>

Jorge Andrés Rodríguez	
CV	<p>Degrees: Sociologist/ Universidad de Chile; PhD/ Universidad de Santiago de Chile (pending)</p> <p>Prev. Appointments: Professor for Sociology at Universidad de Santiago de Chile; Professor for Demography at Universidad Academia de Humanismo Cristiano; Professor for quantitative methods in social science at Universidad de Chile; Visiting professor at various universities in Latin America</p> <p>Curr. Position: Senior researcher and lecturer in various training programmes at ECLAC/CEPAL, Population Division (CELADE)</p>
Recent Research Topics	<ul style="list-style-type: none"> - Demography - Methodology of the social sciences - Segregation
Selected Publications	<p>Di Cesare, M.; Rodríguez, J. A. (2006) Análisis micro de los determinantes de la fecundidad adolescente en Brasil y Colombia. In: Papeles de Población 12 (48), 107-140</p> <p>González, D.; Rodríguez, J. A. (2006) Redistribución espacial y migración interna de la población en Chile en los últimos 35 años (1965-2002): una síntesis de las hipótesis y la evidencia. In: Estudios Demográficos y Urbanos (Colegio de México) 21 (2), 369-406</p> <p>Rodríguez, J. A. (2006) Vulnerabilidade sociodemográfica: antigos e novos riscos para a América Latina e o Caribe. In: Pinto da Cunha, J. M. (Ed.) Novas Metrôpoles Paulistas – População, vulnerabilidade e segregação. Campinas: NEPO</p> <p>Rodríguez, J. A. (2005) La fecundidad alta en el istmo centroamericano: un riesgo en transición. In: Chinchilla, R. (Ed.) Población y salud en Mesoamérica. San José: Universidad de Costa Rica, Centro Centroamericano de Población, 399-429</p>

Joseluis Samaniego	
CV	<p>Degrees: BA Economics; MA International Political Economy; LEAD Fellow</p> <p>Prev. Appointments: Director of the Center for Sustainable Transport in México City; Chief of Unit of International Affairs at the Ministry of the Environment, Mexico.</p> <p>Curr. Position: Chief of Division of Sustainable Development and Human Settlements at ECLAC/CEPAL</p>
Recent Research Topics	<ul style="list-style-type: none"> - Clean development mechanism of the Kioto Protocol - Determinants of motorization in Latin American cities. - Bus rapid transit system and non motorized transport in Mexico City
Selected Publications	<p>Samaniego, J. (2006) Cities in global climate change mitigation. Ayllu (1), Santiago: Pontificia Universidad Católica de Chile, Instituto de Estudios Urbanos y Territoriales</p> <p>Samaniego, J.; Figueres, C. (2002) Evolving to a Sector-Based Clean Development Mechanism in Options for Protecting the Climate. World Resources Institute</p>

Other collaborating scientists

Alfredo Rodríguez	
CV	<p>Degrees: Architect/ Pontificia Universidad Católica de Valparaíso; MA Urban Planning/ Yale University</p> <p>Prev. Appointments: Lecturer at Pontificia Universidad Católica de Chile; Coordinator of various national and international programmes (amongst others: Global Urban Research Initiative – GURI [University of Toronto, Ford Foundation, World Bank, IDRC]; El rol de los municipios en ciudades medianas [IDRC, Comisión de Desarrollo Urbano y Regional del Consejo Latinoamericano de Ciencias Sociales – Clacso]; Consultant to various organisations in the field of urban planning and management (National Ministry of Public Building; OEA; UN Habitat; PNUD)</p> <p>Curr. Position: Executive Director of SUR – Corporación de Estudios Sociales y Educación, Santiago; Coordinator of RIADEL, an international network of local development initiatives in Latin America; Vice-president Colegio de Arquitectos de Chile</p>
Recent Research Topics	<ul style="list-style-type: none"> - Land use policy and planning - Urban and regional development - Social Policy
Selected Publications	<p>Rodríguez, A.; Sugranyes, A. (Eds.) (2005) Los con techo. Un desafío para la política de vivienda social. Santiago: EdicionesSUR</p> <p>De Mattos, C.; Ducci, M.E.; Rodríguez, A.; Yáñez, G. (Eds.) (2004) Santiago en la Globalización: ¿Una nueva Ciudad? Santiago: Colección EURE libros y Ediciones SUR</p> <p>McCarney, P.; Halfani, M.; Rodríguez, A. (1998) Hacia una definición de gobernanza. In: Propositiones (28) (Santiago: Ediciones SUR)</p> <p>Rodríguez, A.; Winchester, L.: (1997) Ciudades, gobernanza y democracia en América Latina. In: Propositiones (28) (Santiago: Ediciones SUR)</p>
Michael Hagen	
CV	<p>Degrees: Dipl. Computer Science/ University of Bonn</p> <p>Prev. Appointments: Freelancer with the School for Economics, Cologne (trainings in programming and computer science); Project director MIS (IKARUS-Control); Team leader at the Federal Association of the Local Social Health Insurance Fund (Germany), Department for Controlling; Project leader at the Fondo Nacional de Salud (FONASA) (Construction of a Management-Information-System based on a DWH)</p> <p>Curr. Position: Project-leader at the Fondo Nacional de Salud (FONASA) in the construction of a common management-information-system based on a DWH with datas of Chilean health-system</p>
Recent Research Topics	<ul style="list-style-type: none"> - Analysis of data structures - Analysis of work - Information system issues - Health insurance systems - Cost management of insurance systems - Project leadership/project management

III. Cooperation Agreements

MEMORANDUM OF UNDERSTANDING

between

the **UFZ-Umweltforschungszentrum Leipzig-Halle GmbH**,
Permoserstr, 15, 04318 Leipzig, Germany
represented by the management

Helmholtz-Zentrum für
Umweltforschung GmbH - UFZ
Permoserstraße 15
D - 04318 Leipzig

- hereinafter referred to as UFZ - ,

representing

the consortium 'Risk Habitat Megacity' of research centres within the Helmholtz-Association, namely the Forschungszentrum Karlsruhe (FZK), German Aerospace Centre (DLR), German Research Centre for Biotechnology (GBF), GeoForschungszentrum Potsdam (GFZ) and UFZ

and

the **Pontificia Universidad Católica de Chile**,
Avenida Libertador Bernardo O' Higgins 340, Santiago de Chile, Chile
represented by the the Rector, Prof. Dr. Pedro Pablo Rosso,

- hereinafter referred to as PUC-

1. The Parties

The research centres within the Helmholtz-Association are internationally recognized organizations that engage in scientific-technical research. They perform research which contributes significantly to solve grand challenges which face science, society and economy.

PUC, represented by the Instituto de Estudios Urbanos y Territoriales, belongs to the leading research and teaching institutions in Chile with wide experience and international recognition in social sciences, environmental and urban research.

2. Objectives and scope of cooperation

The parties intend to strengthen their co-operation in research and teaching and application of results with a focus on Urban Sustainable Development as their common multidisciplinary field of interest. The scope for co-operation covers activities under the framework of the research initiative 'Risk Habitat Megacity'. This includes, but is not necessarily limited to, research fields of sustainability, governance, risk, land use management, transport, air pollution and health, waste management, energy, socio-spatial differentiation, water and health and urban economics.

Co-operation between the Parties shall be on the basis of mutual benefit, equality and reciprocity.

3. Forms of Co-operation

Under the framework of the research initiative, co-operation shall cover the following forms:

- joint research projects;
- exchange of scientific and technical information;
- participation in seminars and academic meetings;
- visits and exchanges of professionals;
- joint organisation of seminars and academic meetings;
- exchange of research students and young scientists.

Where appropriate, the execution of any specific co-operation decided upon by the Parties shall be subject to separate prior written specific agreement. Each Specific Agreement shall contain all major details of the execution of the co-operation. These shall include provisions concerning:

- Sharing of costs;
- Delegation/exchange of staff;
- Warranty and liability;
- User rights and patentable and non-patentable results of work;
- Confidentiality and use of information;
- Publication rights

4. Coordination

The Parties will form a coordination committee. The committee has the role to share information on the various forms of co-operation executed under this Agreement and to implement measures to promote their integration. Each Party nominates one member to the coordinating committee. The committee extends its membership to:

- A representative of the Universidad de Chile (UCH), Santiago, Beaucheff 850, Santiago, Chile. The UCH, represented by the Facultad de Ciencias Físicas y Matemáticas, belongs to the leading research and teaching institutions in Chile with wide experience and international recognition in environmental research and engineering;
- A representative of the Economic Commission for Latin America and the Caribbean (ECLAC), Av. Dag Hammarskjöld 3477 Vitacura, Santiago de Chile, Chile. The ECLAC, represented by the Sustainable Development and Human Settlements Division, is one of five Regional Economic Commissions established by the United Nations with a mandate to conduct regional analyses, elaborate proposals and provide technical cooperation to the governments of the Region in the Spheres of Economic and social development.

The committee meets annually.

5. Costs

Except when otherwise specifically agreed in writing, all costs resulting from co-operation shall be borne by the Party that incurs them.

6. General Provisions

This Memorandum shall enter into force upon signature of both parties and shall be effective for three years. The Memorandum may be extended by written agreement between both Parties. The same will apply to Amendments or Supplements.

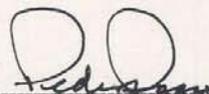
Each Party may, at any time, terminate this Memorandum by giving the other Parties a 6 (six) month's advance notice in writing. In the event of termination, or the expiration of this Memorandum, obligations and commitments already agreed upon shall be honoured and continued by the Parties until full completion.

IN WITNESS THEREOF, the Parties hereto have signed this Memorandum in two originals by their duly authorised officers. Each Party receives one original.

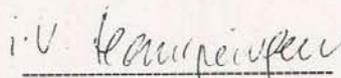
FOR AND ON BEHALF OF
the Pontificia Universidad Católica de Chile

FOR AND OF BEHALF OF
the UFZ-Umweltforschungszentrum
Leipzig-Halle GmbH

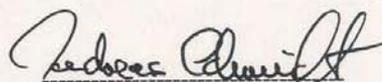
Helmholtz-Zentrum für
Umweltforschung GmbH - UFZ
Permoserstraße 15
D - 04318 Leipzig



Prof. Dr. Pedro Pablo Rosso
Rector



Prof. Dr. Georg Teutsch
Scientific Director



Dr. Andreas Schmidt
Administrative Director

Date: Jan. 15, 2007

Date: Jan. 31, 2007

V 2344 A PERA 06.11.06

→ Prof. Hanzjürgens

Dr. Heunig

Fr. Großer Berl.



MEMORANDUM OF UNDERSTANDING

between

the **UFZ-Umweltforschungszentrum Leipzig-Halle GmbH**,

Permoserstr, 15, 04318 Leipzig, Germany

represented by its Scientific Director, Prof. Dr. Georg Teutsch and its Administrative Director, Dr. Andreas Schmidt

- hereinafter referred to as UFZ - ,

representing

the consortium 'Risk Habitat Megacity' of research centres within the Helmholtz-Association, namely the Forschungszentrum Karlsruhe (FZK), German Aerospace Centre (DLR), German Research Centre for Biotechnology (GBF), GeoForschungszentrum Potsdam (GFZ) and UFZ

and

the **Universidad de Chile** (Facultad de Ciencias Físicas y Matemáticas),

Beaucheff 850, Santiago de Chile, Chile

represented by its Dean Dr. Francisco Brieva Rodríguez

- hereinafter referred to as UCH -

1. The Parties

The research centres within the Helmholtz-Association are internationally recognized organizations that engage in scientific-technical research. They perform research which contributes significantly to solve grand challenges which face science, society and economy.

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2. Objectives and scope of cooperation

The parties intend to strengthen their co-operation in research and teaching and application of results with a focus on Urban Sustainable Development as their common multidisciplinary field of interest. The scope for co-operation covers activities under the framework of the research initiative 'Risk Habitat Megacity'. This includes, but is not necessarily limited to, research fields of sustainability, governance, risk, land use management, transport, air pollution and health, waste management, energy, socio-spatial differentiation, water and health and urban economics.

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- participation in seminars and academic meetings;
- visits and exchanges of professionals;
- joint organisation of seminars and academic meetings;
- exchange of research students and young scientists.

Where appropriate, the execution of any specific co-operation decided upon by the Parties shall be subject to separate prior written specific agreement. Each Specific Agreement shall contain all major details of the execution of the co-operation. These shall include provisions concerning:

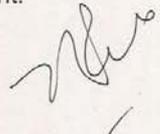
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- Delegation/exchange of staff;
- Warranty and liability;
- User rights and patentable and non-patentable results of work;
- Confidentiality and use of information;
- Publication rights

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The Parties will form a coordination committee. The committee has the role to share information on the various forms of co-operation executed under this Agreement and to implement measures to promote their integration. Each Party nominates one member to the coordinating committee. The committee extends its membership to:

- A representative of the Pontificia Universidad Católica de Chile (PUC), Avenida Libertador Bernardo O' Higgins 340, Santiago, Chile. The PUC, represented by the Instituto de Estudios Urbanos y Territoriales, belongs to the leading research and teaching institutions in Chile with wide experience and international recognition in social sciences, environmental and urban research.
- A representative of the Economic Commission for Latin America and the Caribbean (ECLAC), Av. Dag Hammarskjöld 3477 Vitacura, Santiago de Chile, Chile. The ECLAC, represented by the Sustainable Development and Human Settlements Division, is one of five Regional Economic Commissions established by the United Nations with a mandate to conduct regional analyses, elaborate proposals and provide technical cooperation to the governments of the Region in the Spheres of Economic and social development.

The committee meets annually.



5. Costs

Except when otherwise specifically agreed in writing, all costs resulting from co-operation shall be borne by the Party that incurs them.

6. General Provisions

This Memorandum shall enter into force upon signature of both parties and shall be effective for three years. The Memorandum may be extended by written agreement between both Parties. The same will apply to Amendments or Supplements.

Each Party may, at any time, terminate this Memorandum by giving the other Parties a 6 (six) month's advance notice in writing. In the event of termination, or the expiration of this Memorandum, obligations and commitments already agreed upon shall be honoured and continued by the Parties until full completion.

IN WITNESS THEREOF, the Parties hereto have signed this Memorandum in two originals by their duly authorised officers. Each Party receives one original.

FOR AND ON BEHALF OF
the Universidad de Chile



F. S. Brieva

Dr. Francisco Brieva Rodríguez
Dean
Facultad de Ciencias Físicas y Matemáticas

to

Date: *October 19, 2006*

[Signature]

FOR AND OF BEHALF OF
the UFZ-Umweltforschungszentrum
Leipzig-Halle GmbH

i.V. Georg Teutsch

Prof. Dr. Georg Teutsch
Scientific Director

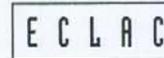
Andreas Schmidt

Dr. Andreas Schmidt
Administrative Director

Date: *10. 11. 2006*
November 10, 2006

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V2358



MEMORANDUM OF UNDERSTANDING

between

the **UFZ-Umweltforschungszentrum Leipzig-Halle GmbH**,
Permoserstr, 15, 04318 Leipzig, Germany
represented by the management

- hereinafter referred to as UFZ - ,

representing

the consortium 'Risk Habitat Megacity' of research centres within the Helmholtz-Association, namely the Forschungszentrum Karlsruhe (FZK), German Aerospace Centre (DLR), German Research Centre for Biotechnology (GBF), GeoForschungszentrum Potsdam (GFZ) and UFZ

and

the **Economic Commission for Latin America and the Caribbean**,
Av. Dag Hammarskjöld 3477 Vitacura, Santiago de Chile, Chile
represented by Mr. José Luis Machinea, Executive Secretary,

- hereinafter referred to as ECLAC -

1. The Parties

The research centres within the Helmholtz-Association are internationally recognized organizations that engage in scientific-technical research. They perform research which contributes significantly to solve grand challenges which face science, society and economy.

ECLAC, represented by the Sustainable Development and Human Settlements Division, is one of five Regional Economic Commissions established by the United Nations with a mandate to conduct regional analyses, elaborate proposals and provide technical co-operation to the governments of the Region in the spheres of economic and social development.

2. Objectives and scope of cooperation

The parties intend to strengthen their co-operation in research and teaching and application of results with a focus on Urban Sustainable Development as their common multidisciplinary field of interest. The scope for co-operation covers activities under the framework of the research initiative 'Risk Habitat Megacity'. This includes, but is not necessarily limited to, research fields of sustainability, governance, risk, land use management, transport, air pollution and health, waste management, energy, socio-spatial differentiation, water and health and urban economics.

Co-operation between the Parties shall be on the basis of mutual benefit, equality and reciprocity.

3. Forms of Co-operation

Under the framework of the research initiative, co-operation shall cover the following forms:

- joint research projects;
- exchange of scientific and technical information;
- participation in seminars and academic meetings;
- visits and exchanges of professionals;
- joint organisation of seminars and academic meetings;
- exchange of research students and young scientists.

Where appropriate, the execution of any specific co-operation decided upon by the Parties shall be subject to separate prior written specific agreement. Each Specific Agreement shall contain all major details of the execution of the co-operation. These shall include provisions concerning:

- Sharing of costs;
- Delegation/exchange of staff;
- Warranty and liability;
- User rights and patentable and non-patentable results of work;
- Confidentiality and use of information;
- Publication rights

4. Coordination

The Parties will form a coordination committee. The committee has the role to share information on the various forms of co-operation executed under this Memorandum of Understanding and to implement measures to promote their integration. Each Party nominates one member to the coordinating committee. The committee extends its membership to:

- A representative of the Universidad de Chile (UCH), Santiago, Beaucheff 850, Santiago, Chile. The UCH, represented by the Facultad de Ciencias Físicas y Matemáticas, belongs to the leading research and teaching institutions in Chile with wide experience and international recognition in environmental research and engineering;
- A representative of the Pontificia Universidad Católica de Chile (PUC), Avenida Libertador Bernardo O' Higgins 340, Santiago, Chile. The PUC, represented by the Instituto de Estudios Urbanos y Territoriales, belongs to the leading research and teaching institutions in Chile with wide experience and international recognition in social sciences, environmental and urban research.

The committee meets annually.

5. Costs

Except when otherwise specifically agreed in writing, all costs resulting from co-operation shall be borne by the Party that incurs them.

This clause does not exclude the possibility of contributions from third parties. In case that ECLAC receives funds from third parties, they shall be administered in accordance with the United Nations Financial Regulations and Rules.

6. General Provisions

This Memorandum shall enter into force upon signature of both parties and shall be effective for three years. The Memorandum may be extended by written agreement between both Parties. The same will apply to Amendments or Supplements.

Each Party may, at any time, terminate this Memorandum by giving the other Party a 6 (six) month's advance notice in writing. In the event of termination, or the expiration of this Memorandum, obligations and commitments already agreed upon shall be honoured and continued by the Parties until full completion.

In the case of any dispute, controversy or claim, the Parties will attempt to reach agreement amicably by direct negotiations.

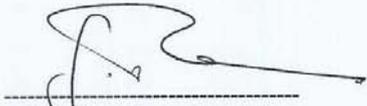
IN WITNESS THEREOF, the Parties hereto have signed this Memorandum in two originals by their duly authorised officers. Each Party receives one original.

FOR AND ON BEHALF OF
the Economic Commission for Latin
America and the Caribbean

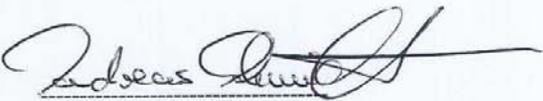


Dr. José Luis Machinea
Executive Secretary

FOR AND OF BEHALF OF
the UFZ-Umweltforschungszentrum
Leipzig-Halle GmbH



Prof. Dr. Georg Teutsch
Scientific Director



Dr. Andreas Schmidt
Administrative Director

Date: 26 October 2006

Date:



GOBIERNO DE CHILE



GOBIERNO REGIONAL
METROPOLITANO DE
SANTIAGO

Santiago, 11 de diciembre de 2006

Señor
PROFESOR DR. BERND HANSJÜRGENS
Director – Departamento de Economía
Helmholtz – Centro de Ciencias Ambientales UFZ
ALEMANIA

Estimado Dr. Hansjürgens,

Según lo conversado en la visita realizada recientemente a Chile, en el marco de la iniciativa de la Asociación Helmholtz de Alemania, titulada 'Risk Habitat Megacity: Strategies for Sustainable Development in Megacities and Urban Agglomerations', la Intendencia y el Gobierno Regional de la Región Metropolitana de Santiago manifiesta su interés en colaborar y apoyar a través de:

- El aporte de información al proyecto.
- El aporte de experiencia en reuniones de consultoría, discusión de resultados, y sus implicaciones en política.
- Cuando sea apropiado, examinar el potencial para adoptar conceptos y consulta política en el trabajo del Gobierno Regional.

Sin otro particular, le saluda cordialmente.



VICTOR JEIME BARRUETO
INTENDENTE
REGIÓN METROPOLITANA DE SANTIAGO



Collaborating for megacity research in Latin America

An initiative of the projects funded by HGF (Santiago de Chile and other) and BMBF (Guadalajara, Lima, Recife)

1. Introduction

This is a joint statement by the four Latin American projects funded within the Megacity Initiative of the German funding agencies – Risk Habitat Megacity/Santiago de Chile and other /HGF, PlaceMeg/Guadalajara/BMBF, LiWa/Lima/BMBF, and Open Spaces/Recife/BMBF – setting out their planned collaborative activities for the main funding phases. It is the product of two workshops attended by representatives of all four projects held on 4 May 2006 in Leipzig and on 27 July 2006 in Karlsruhe. The purpose of this document is to explain why this collaboration is important for the research of megacity development in Latin America, how the four research projects can complement one another and what activities they plan to conduct jointly over the next six years.

2. Rationale for collaboration

While the booming megacities of Asia today grab the attention of researchers and policy-makers alike, it is important to reflect on the special challenges facing emergent and mature megacities in other global regions. We argue that research into megacity development in Latin America is more timely and significant than ever. Firstly, Latin America boasts the highest concentration of urban population of any global region. Its major urban centres are pivotal to socio-economic development and environmental quality nationally and trans-nationally. Secondly, megacity development in Latin America is entering a new phase, with clear distinctions to the past and important lessons for megacities elsewhere. The emergent challenges today revolve around urban sprawl, rather than population growth and density alone, increasingly sharp socio-spatial disparities, critical environmental limits to growth and governance issues emerging from institutional decentralisation, ineffective government and political inequities.

We see the German Megacity Initiative as a unique opportunity to collaborate in the interest of raising the profile and quality of research on emergent and mature megacities in Latin America. Through a process of exchange over research methods, data, issues and results throughout the course of the main funding phases (rather than by direct comparison of the four cities under investigation) we expect to generate knowledge on some new trends in megacity development in Latin America of considerable value to academic and policy-making communities worldwide.

3. Short description of each project

Risk Habitat Megacity/Santiago de Chile and others

The research initiative analyses mature megacities in Latin America, the most urbanized region in the world. The first case study is the Metropolitan Region of Santiago de Chile, the centre of one of the most urbanized countries in Latin America. This agglomeration suffers from megacity-typical problems and offers the scope to uncover emerging trends. Here, the conceptual framework will be developed. Santiago de Chile offers an excellent research infrastructure and research partners with international recognition. From Santiago, the project will be extended to other megacities in Latin America.

The initiative will:

- contribute to the specification of sustainability objectives for the future development of megacities;
- assess characteristic risks for sustainable development of megacities;
- design strategies and instruments for risk management as key tools for sustainable urban development;
- develop implementation solutions that take the ecological, economic, social, institutional and political aspects into account;
- build a platform for continuous learning and application in order to integrate academic research and practice.

The analytical framework allows scientists and policy makers to deepen the understanding of megacities as a system. The *sustainable development* concept serves to formulate the target dimension of the project. The *risk* concept assists in identifying problems and evaluating their relevance. The *governance* concept focuses on the actors and options for managing megacities. The project applies the three analytical concepts to various megacity-typical problem fields. Among these are land use conflicts, socio-spatial differentiation, inefficient transport systems, air pollution, deficits in energy-, water supply- or sewerage systems and waste management.

PlaceMeg/Guadalajara

The PlaceMeg project generates knowledge, contexts for action and strategic guidance with which to promote more sustainable water and sanitation systems against the backdrop of the rapid urbanisation of the urban region of Guadalajara, in the state of Jalisco (Mexico). It uses the issue of water – of critical importance to the future development of the region – as a window through which to explore the structures, processes and dynamics of an emergent megacity region. The point of departure is a comprehensive investigation of the ‘systems of provision’ of water, covering institutional, social, financial, technical and environmental aspects and their interrelationships. The geographical focus is primarily on areas not, or not adequately, served by the mains networks of water supply and sewage treatment/disposal (so-called ‘technological recesses’). It is the local circumstances and opportunities of such technologically marginalised communities that is central to the research, which nevertheless sets local issues in the broader spatial context of water management in the urban region and the Chapala/Lerma river basin. Conceptually, the research is guided by the innovative concepts of ‘place-making’ from the field of urban studies and ‘technological recesses’ from the field of science and technology studies. These are used to reveal and pursue opportunities for context-sensitive, user-oriented and place-based solutions to water supply and wastewater disposal problems in this emergent megacity, in particular in marginalized urban neighbourhoods, building on and enhancing existing capacities to act. The project is directed in the first instance not at assessing the applicability of specific technical solutions but on exploring and promoting socio-spatial strategies, institutional arrangements and modes of (self-)organisation capable of generating social and technical innovations beneficial to water supply, sanitation and rainwater management.

LiWa/Lima

The overall objective of the LiWa project is to provide improved capacity and sufficient capabilities for an effective, efficient and socially acceptable water management for Lima Metropolitana. This will be achieved by developing and implementing integrated and multidisciplinary procedures for sustainable management of water resources. Managing the different water fluxes (drinking water and wastewater) in an appropriate way, considering the

ecological, economic and social aspects, is of crucial importance, in particularly for fast growing megacities in arid regions such as Lima. Hence, one of the core elements of LiWa consists in implementing model-based participative methods for designing scenarios and technical-organisational solutions in order to support the decision-making process. Modelling allows for a better understanding of the complex interrelationships within the system, the analysis of its sensitive parts, the development of appropriate strategies to manage the system and a prediction of the system's future development. Participation of stakeholders, citizens and representatives of the civil society – supported by modelling - increases public awareness, acceptance and the accountability of decision making. LiWa considers the complex interrelationships between the different technical, social, financial and institutional components of the system constituting the metropolitan region as crucial for its analysis. Hence, the development, implementation and validation of technological concepts integrates aspects of costs, tariffs and financing options within the prevailing social framework as well as the implementation of the generated solutions in cooperation with the local water authorities. Pilot projects in various parts of the city, developed and adapted to megacity conditions in close cooperation with industrial partners and with support of the local water company and participation of the population will allow the implementation of technologies taking into account the local requirements. Finally, methodologies and modelling tools developed in this project will inform a manual document which compiles the project experiences and may well serve as a base for capacity building and as a strategic guide to the transfer of the results of LiWa to other megacities in other parts of the world.

Open Spaces/Recife

Open spaces have a strategic importance in the development process of growing megacities. As areas with potential for use and occupation they are facing a lot of formal and informal pressures. As green and public spaces they are crucial for the quality of life of the inhabitants and the conservation of natural resources. Therefore a well organized, sustainable and provident urban development, actually lacking in most megacities of less developed countries, requires strategies and instruments for the planning, monitoring and management of intra- end periurban open spaces. This needs to be based in the understanding of their functions and dynamics, considering their social-cultural, ecological and economical values, risks and potentials as well as their interdependencies.

Based on this background the Open Space Project, located in the metropolitan area of Recife, Brazil, aims to create interdisciplinary and integrated methodologies for the analysis and valuation of development-, vulnerability-, risk-, resilience- and conflict-potentials of open spaces on different spatial scales, which allows to elaborate scenarios, models and finally tools for the use in planning processes in emerging megacities. This will be done in a comprehensive applied approach in close cooperation with the local decision makers and further stakeholders, considering their interest and experiences to ensure the acceptance and applicability of the project products. Through this cooperation and by the means of capacity building activities, including education and participation processes, the project expects to improve the functionality and governance structures during the planning process.

Recife, capital of the Brazilian Federal State Pernambuco, shows typical problems related to open spaces found in Megacities in Brazil and Latin America and disposes of an innovative tradition in urban development.

This offers good opportunities for the transferability of the methodologies and instruments resulting from the project to other cities, if existing intercultural differences of perceptions and attitudes towards open spaces and their functions are considered.

4. Areas of complementarity

Looking across the issues addressed by the four projects, we have identified two generic concepts of common interest which will frame our collaborative work:

- a) the **sustainable development** of megacities, in particular the interrelationship of environmental, social and economic factors under conditions of rapid and uncontrolled growth. This will be realised e. g. by selection of common sustainability indicators.
- b) the **governance** of megacities, particularly the analysis of certain approaches and current deficits, taking into account the difficulties of pursuing collective interests with multiple stakeholders in the context of severe political inequalities and uncertainties.

The meanings and value of these concepts will be explored with a focus on two sectors of central importance to all four projects, to a greater or lesser degree:

- i. **water management**, covering both water supply / sanitation services and water resource planning,
- ii. **land use development**, addressing in particular issues of urban sprawl and open space.

The value of collaboration will lie in drawing out and exploiting the complementarity of the four projects. This will entail, as a first step, identifying commonalities and differences in terms of the megacities and sectors studied, the objectives and issues pursued and the methods and concepts applied.

5. Planned joint activities

The following joint events and products are planned in order to raise the quality of research in all four projects, to avoid duplication and exploit complementarity, to test the transferability of methods and results between the four megacities and to disseminate the experiences and findings to practitioners and researchers of megacities in Latin America and beyond:

Year 1	Workshop on the concept of sustainability: how it is understood and used in each of the projects
Year 2	Workshop on the concepts of governance and risk: (as above)
Year 3	Workshop on transferability: how the research methods and preliminary findings from each project can be applied in the other megacities (in preparation for the second funding phases)
Years 4-6	Meetings in Santiago de Chile, Guadalajara, Lima, Recife: excursions; discussions on transferability with local stakeholders; research workshops on data, methods, instruments, results, dissemination activities etc.
<u>Note:</u>	Each workshop will also be used to discuss issues of intercultural cooperation emerging from the research experiences

In addition, the four projects plan to publish subsequently an edited volume on megacities in Latin America, presenting the principal research findings on common problems and strategic options regarding the four projects to a global audience.

Bernd Hansjürgens (Risk Habitat Megacity)

Ulrich Jumar (LiWa)

Wilfried Morawetz (Open Spaces)

Timothy Moss (PlaceMeg)

IV. Matrix of Cooperation between Fields of Application

V. Allocation of funds

V. Allocation of resources from the Helmholtz president fund

Annual distribution; Basis of calculation: 1 Million € /year

Topic	Helmholtz Centre / Institute (organization with speaker function in bold)	Amount (€/year)
Energy	DLR STB , FZK ITAS	70.000
Transportation	DLR IVF	90.000
Air Quality and health	FZK IMK-IFU , DLR DFD KA, UFZ	80.000
Waste	FZK ITC-TAB , FZK ITAS	60.000
Water	FZK ITAS , FZK ITC-WGT, HZI, UFZ	100.000
Land Use	GFZ , UFZ	110.000
Socio-spatial Differentiation	UFZ	70.000
Governance	UFZ	60.000
Sustainable Develop.	FZK ITAS	60.000
Risk	FZK ITAS	60.000
Integration	FZK ITAS , UFZ	90.000
Coordination*	UFZ	150.000
<i>Total</i>		1.000.000

Note:

1. Funding allocation covers, among others, 12 PhD candidates at the Helmholtz centres in Germany
2. Approx. 10 % of the resources will be allocated for co-funding of PhD candidates at the partner organizations in Chile

* Includes costs of status conferences and data acquisition and management

VI. Members of Advisory Board

VI. Members of the Scientific Advisory Board

Name	Position, Organization
Prof. Dr. Adisa Azapagic	Professor of Sustainable Chemical Engineering and Head of Research, School of Chemical Engineering and Analytical Science at the University of Manchester
Prof. Dr. Axel Borsdorf	Head of the „Research Centre for Mountain Research: Man and Environment of the Austrian Academy of Sciences Professor at the Institute of Geography at the University of Innsbruck
Prof. Dipl. Ing. Dr. Paul H. Brunner	Head of the Institute for Water Quality, Resources and Wastes Management Vienna University of Technology, Institute for Water Quality, Resources and Waste Management
Dr. Tamara Grummt	Federal Environment Agency, Division II – Environmental Health and Protection of Ecosystems
Dr. Veronika Fuest	Max Planck Institute for Social Anthropology, Halle/Saale
PD Dr. Marco Keiner	Senior researcher, Lecturer and Head of the „Sustainability Research Group” at the Institute for Spatial and Landscape Planning (IRL-Institute), Swiss Federal Institute of Technology (ETH Zürich), Division for Landscape and Environmental Planning
Joseph Leitmann	Environment Coordinator, The World Bank
Prof. Dr. Ben Wisner	Research Affiliate, Environmental Studies Program, Oberlin College, Oberlin OH, USA, Research Coordinator, United Nations University
Wolfgang von Eckartsberg	Deutsche Bank AG, Berlin