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For twenty years, the Organisation for Economic Co-operation and Development has hosted a committee of science policy officials. The committee began as the Megascience Forum in 1992. Its creation was based on necessity: increasingly, big research projects needed to be discussed internationally to ensure a timely, globally coherent response to recognised scientific priorities, to avoid unnecessary duplication and, when appropriate, to bring together funding and expertise for implementing joint research facilities, networks and programmes.

In 1999, a new mandate was adopted. The newly designated Global Science Forum shifted its focus away from the biggest research projects, to concrete challenges and opportunities in well-defined scientific domains, and also to generic cross-cutting issues that concern the planning, funding and managing of basic research. The Forum has become a general-purpose science policy committee, able to address issues across the entire spectrum of physical, life, earth and social sciences.

The work of the Forum has been based on two principles:

- Transparency and outreach to scientific communities. The member countries recognise that scientists initiate specific research projects via a “bottom-up” process, and while the Forum has always been an essentially inter-governmental body, scientists, scientific organisations, and major research institutions have routinely been invited to fully participate in the subsidiary activities, including the formulation of final findings and action recommendations. All Forum reports have always been made available to the public.

- Efficiency and responsiveness. The secretariat of the Forum consists of four international civil servants, who play an facilitating and enabling role, so that most of the substantive work is performed by experts designated by national delegations – chiefly senior programme managers of science funding agencies, and prominent scientists invited by the Forum. Operating this way, six to eight activities are typically ongoing in parallel, each one lasting approximately two to three years. Between two to three years new activities are authorised each year, with the same number of reports being published. The Forum does not fund or manage any actual research projects. Governments can use the committee to accomplish a significant amount of work in a cost-effective way.

Twenty-nine activities of the Forum, undertaken and completed from 2001 to 2012, are described in the pages of this brochure. Eleven of these pertain to specific scientific domains. In each case, the important scientific challenges were described, the international policy challenges were enumerated, and recommendations were provided for actions by governments and the scientific community. Fourteen activities were focussed on a wide range of generic policy issues, from science education to mitigating the effects of misconduct in research. Here, too, the emphasis was on identifying concrete steps that could be taken in response to policy challenges. Finally, and despite the fact that it has never been the Forum’s primary mission, four cases are described in which work of the Forum led to the establishment of new independent international scientific collaborations. The reports may be downloaded from www.oecd.org/sti/gsf.
The Megascience Forum (MSF) began in 1992 with a mandate that was adopted by OECD science ministers. It was created as a “Part 2” activity, funded by annual voluntary contributions from all but two OECD member countries, based on a formula that takes into account the size of each participating country’s economy. Within the OECD structure, the Forum was established as a Working Party of the Committee on Scientific and Technological Policy (CSTP) and remains so to this day. The members of the Forum’s secretariat are international civil servants, dedicated to representing the interests of all member countries equally. During its first three years, the MSF convened a series of international conferences, each focussed on the role of very large projects and programmes in a particular scientific domain (Astronomy, Particle Physics, Deep Drilling, etc). An extended proceedings of each event was published, usually incorporating expert analyses. In addition, several studies of generic megascience policy issues were commissioned, for example, clarifying the principles and policies that govern access by scientists to large research facilities. The mandate was extensively revised beginning in 1994, on the initiative of the Delegation of the United States. Under the revised mandate, the MSF was directed to identify specific opportunities, challenges and obstacles in large-scale international scientific collaborations, and to develop recommendations for actions by governments. This operating mode was retained when the committee adopted the name Global Science Forum (GSF) in 1999.

- The Global Human Genome Project
- Global Change of Planet Earth
- Megascience and its Background
- Unique Research Facilities in Russia
- Costs and Benefits of Seawatch Europe
- Costs/Benefit Analysis of Large-Scale S&T Projects
- Legal Texts of Very Large Scientific Facilities in Europe
- Megascience Policy Issues
- Proton Accelerators
- Particle Physics
- Synchrotron Radiation And Neutron Beams
- Oceanography
- Deep Drilling
- Bioinformatics
- Nuclear Physics
- Neutron Sources: a 20-Year Forward Look
- Radio Astronomy
- Access to Large-Scale Research Facilities
- Removing Obstacles to International Megascience Co-Operation
- Global Scale Issues
- Deep Sea Neutrinos
- Genomics
- Astronomy
Astroparticle physics is the study of particles and radiation from outer space, and of rare, cosmologically significant elementary particle reactions. The scales of distance examined range from the microscopic realm of elementary particles to the outer reaches of the observable universe, placing the field at the intersection of cosmology, astrophysics, particle physics and nuclear physics.

Today, astroparticle physics stands on the threshold of an era of discovery, with a new generation of proposed instruments that are likely to deliver scientific breakthroughs based on enhanced sensitivity and resolution. While the scientific prospects for the future are exciting, it is important to ensure that this potential is fully realised via a corresponding effort in the domain of science policy. A globally coherent approach is needed, using an optimal set of national, regional, and international projects and facilities.

To address these policy challenges, the GSF established the Working Group on Astroparticle Physics. The Working Group’s final report contains a strategic vision of needed large research infrastructures. A follow-on activity that brings together representatives of funding agencies is carrying forward the results achieved by the Working Group.
To maintain strong nuclear physics programmes, funding agency officials face difficult decisions about the best use of existing facilities (and their associated instruments), new facilities under construction, and new facilities in the planning and R&D phases. Progress in nuclear physics should be a globally coherent response to recognised scientific challenges, using an optimal set of national and regional projects. To achieve this goal, senior funding agency programme managers, laboratory officials, representatives of national advisory bodies, and members of the organised scientific community met under the aegis of the GSF to discuss the future of the field, with emphasis on the role of large programmes and projects. The working group report contains a description of the major scientific challenges in the field, and describes a global-scale consensus roadmap of major national and regional facilities that reflect an optimal strategy for realising the scientific goals. Specific recommendations for concerted follow-on actions are addressed to the funding agencies and to the International Union of Pure and Applied Physics.
High-energy physics seeks to answer basic questions: what is our world made of and how does it work? Efforts to date have culminated in the Standard Model, which identifies a small number of fundamental constituents of matter (quarks and leptons) and two forces (strong and electroweak) with their accompanying particles (gauge bosons). But this cannot be the “Final Answer” and scientists are eager to explore new realms using a new generation of large experimental facilities. Their most important tool is the accelerator (with its associated detectors), which can cost several billion dollars. To date, these have been built by individual countries or regions, but the next ones will have to be designed, built, and operated on a global basis. Accordingly, the Global Science Forum Consultative Group brought together officials of funding agencies and representatives of scientific organisations to explore the priorities, modalities and time scales of the new facilities. Their report, which clearly identifies a linear electron-positron collider as the next big international facility, analyses the main challenges and proposes actions for interested governments. The report was endorsed by OECD science ministers in 2004.
Astronomers have made enormous progress in the past few decades. They have developed a convincing model of the origin, evolution, and distribution of the visible matter in the Universe, from asteroids and planets to the large-scale structure of clusters of galaxies. But this model fails to explain the composition or origin of some 96% of the contents of the Universe - the enigmatic “dark matter” and “dark energy” - and does not explain the distribution or origin of life. These and other big mysteries remain. They define the need for major new projects, such as giant optical and radio telescopes, some of which will need to be organised and financed on a multi-national basis. Prominent scientists and funding agency officials attended two OECD workshops, where they discussed the challenges and opportunities of the new international era of astronomy. Among their conclusions are: the need for a globally co-ordinated scientific vision of the most important projects for the next 20 years, greater international co-operation in the development of key technologies (such as large arrays of sensors), and the establishment of closer links between planning processes for space- and ground-based facilities.
Radio astronomers are planning a new generation of large, ultra-sensitive, costly radio telescopes to explore exciting questions about the history and structure of the Universe. But they face a serious practical problem: signals from powerful non-geo-stationary orbiting satellites that provide extremely useful telecommunication, navigation, and earth observation services, can overwhelm those from astronomical sources. Radio astronomers wish to conduct observations across the entire radio spectrum, not just within the confines of the narrow frequency bands allocated to them by the International Telecommunication Union (ITU).

How best to share the spectrum—a finite resource—without harming radio astronomy or the growth of commercial satellite-based services is a major issue addressed by the Global Science Forum. The Task Force brought together senior representatives of the three relevant communities—astronomers, regulators, and satellite manufacturers/operators. In January 2004, the Task Force published its findings and practical recommendations. One of them was an in-depth study of the technical and regulatory feasibility of “controlled emission zones” around future observatory sites.
Every day, thousands of centimetre-size objects from outer space burn up harmlessly as meteors in the atmosphere. Impacts of very large Near Earth Objects (NEOs) – multi-kilometre size asteroids or comets – have in the past been overwhelmingly catastrophic but are, fortunately, extremely rare. Objects of intermediate size can cause significant damage when they hit at random intervals of tens, hundreds, or thousands of years. Some researchers believe that the threat, when averaged over long time periods, is comparable to that from more familiar natural hazards such as earthquakes and floods. A great deal can be done to prevent future large impacts, or to reduce the damage, but early detection is required.

The OECD workshop brought together scientists and public officials to discuss the NEO hazard not as a scientific matter, but as it relates to public safety. Workshop participants agreed that OECD governments should qualitatively assess the probability of loss of life and property damage in each country. Scientists need to provide additional data and methodologies to make this possible. In addition, OECD governments were encouraged to support scientific efforts to study the properties of NEOs and exploratory R&D for NEO deflection or destruction.
Condensed matter includes solids, liquids, and living materials. This can be studied and manipulated at the level of atoms and molecules, using neutrons, electrons or photons as probes. The practical objective is to create innovative materials that can lead to further progress in areas such as medicine, aerospace, or energy generation. Ironically, investigations on the tiniest scales often require the use of giant facilities that cost hundreds of millions of dollars to build and operate. In view of the broad range of uses they can be put to, these facilities often operate in “user mode” as service providers. That is, scientists do not need to work in these labs full-time and can “rent” limited amounts of time and resources to carry out specific projects. A GSF workshop held in September 2001 discussed matching facilities to researchers’ current and anticipated goals, and analysed the relative strengths and weaknesses of various techniques and facilities. The workshop was instrumental in helping governments and funding agencies make fully informed investment decisions regarding the construction of new facilities such as spallation neutron sources, synchrotron radiation sources, magnetic resonance spectrometers, and X-ray free electron lasers.
Since the invention of lasers in the early 1960s, scientists have worked hard to increase their intensity, thus opening up new applications in basic and applied research. The quest was stalled for some 15 years, because the highest intensities damaged the lasers themselves.

A breakthrough occurred in 1985, when a series of optical manipulations known as “chirped-pulse amplification” eliminated the problem for pulsed beams. These new lasers are relatively small and affordable. The combination of very high power and very short pulse duration opens up a vast range of exciting applications in biology, materials science, fusion, accelerator technology, and medical imaging. Research has continued apace, generating great enthusiasm in the scientific world and numerous technical conferences. But a venue was needed where international scientists could meet funding agency and laboratory administrators. The OECD workshop drew up an inventory of challenges, opportunities, facilities, and advanced applications. It led to the establishment of an interim Committee of Laboratory Directors and, ultimately, to that of the International Committee on Ultrahigh-Intensity Lasers under the aegis of the International Union of Pure and Applied Physics. Detailed information is available at www.icuil.org.
During the next two decades, the impact of computing grids on the scientific enterprise is likely to be comparable to that of the World Wide Web. Grids utilise highly sophisticated, flexible network architectures, and they involve the sharing of all computing resources, including data and computing power. To analyse the science policy implications of this new development, the GSF workshop brought together scientists, grid developers and programme managers. The findings in their report concern: (1) the incorporation of grids into national plans, priorities and procedures; (2) ensuring optimal development and quality of grids; (3) anticipating long-term requirements for hardware and software resources; (4) understanding cost and payment issues; (5) guaranteeing data and resource security; (6) providing metadata for advanced grid applications; (7) acknowledging grid computing as a research area in itself; and (8) global sharing of the benefits of grids (notably with developing countries). The report contains recommendations regarding the prioritisation, organisation, and funding of grid projects worldwide.
Data-driven, evidence-based research is essential for understanding and responding effectively to global challenges related to the health and well-being of populations around the world. Spurred by the rapid growth in new forms of data collected in commercial transactions, internet searches, networking, and the like, and by advances in the capacity to access and link existing survey, census, and administrative data sets, the potential pay-off for international and multidisciplinary collaboration of scientific groups is increasing rapidly. The GSF established an expert group to review developments in international data availability, to consider their suitability for comparative research, to enumerate obstacles and challenges, and to make recommendations for responding to new opportunities. The report prepared by the group includes a set of inter-related recommendations to promote the sharing of social, economic and behavioural micro data between scientific groups working across national boundaries. It addresses issues such as the potential research value of new forms of data, data discovery, access and reuse, the implementation of international standards and protocols for data and metadata, data curation. The report describes incentives that are needed to advance the recommendations at the international level.
Global issues (e.g., environmental protection, energy security, natural disaster mitigation, preventing and curing infectious diseases, ensuring food security) are increasingly the subject of policy-level deliberations, both nationally and internationally. It is recognised that international cooperation in science and technology is needed to deal with these issues. Co-operation between developed countries and developing countries is of special importance, because developing countries are often the most severely affected by global threats, and because they possess much of the expertise, data and resources that are needed for finding effective solutions. This GSF project, which included a data-gathering and analysis phase, culminated in a workshop held in Pretoria, South Africa, in September 2010. The report from the workshop describes issues and options that deserve the attention of scientists and administrators in developed and developing countries, as they seek to design, initiate and manage collaborative research programmes and projects that include both scientific and development goals. The report provides information and advice concerning all stages of cooperative efforts, from designing joint programmes, through proposal solicitation and review, to funding, execution, and assessment.
Establishing, funding and conducting large-scale international research collaborations are complex tasks, involving scientists, universities, research institutes, funding bodies, and various governmental and intergovernmental organisations. Experience has shown that lessons learned are rarely shared. This has resulted in a lack of guidelines for policy makers planning and implementing new multinational scientific research projects. The workshop aimed to identify principles of best practice in creating and sustaining research co-operation. Participants studied the launch and management of co-ordinated programmes based in more than one country; the design, construction and operation of large-scale centralised facilities; and the creation, linking and maintenance of large databases.

Given the enormous diversity of international projects, workshop participants did not aim to enumerate universal principles of co-operation. But their report does identify a number of important issues that need to be considered when embarking on a new large project. The report from the workshop is one of several GSF documents that should be useful during the early stages of international collaborations.
Strategic planning exercises ("roadmaps") play an increasingly important role in the formulation of science policy. Roadmapping can be particularly valuable for deciding about the implementation of large-scale research infrastructures, since it allows the projects to be considered in a broad context that includes national and global priorities, multiple scientific disciplines, alternative and competing projects, and the possible involvement of international partners. Given the diversity and multiplicity of national and regional roadmaps, the GSF delegates agreed to conduct a systematic study of approximately twenty-five completed roadmaps, focussing on the process rather than the outcomes of these exercises. A workshop was convened in Bologna in June 2008. The resulting report addresses the following aspects of infrastructure roadmaps: rationale (including both scientific and non-scientific considerations); solicitation and assessment of infrastructure proposals; use of cost estimates; transparency and inclusiveness of the roadmapping process; participation by the scientific community; significance and impact for decision-making; international dimensions; pitfalls and potential disadvantages.
The establishment of large international research facilities is a difficult, complex and lengthy process. The GSF report examines the issues and options in some detail, based on an empirical study involving extended, confidential interviews with thirty experienced individuals in a variety of scientific domains. The report is intended for scientists and research administrators who are contemplating a major new international project. Every large research project is *sui generis*, so this report is no more than a guide, a checklist, a non-exhaustive compendium of useful information, not all of which will be relevant to any particular undertaking. The project was led by the GSF Chairman, was supervised by an International Experts Group, and was carried out by the secretariat of the Forum. The report addresses a wide spectrum of practical matters: legal/administrative structures and instruments; governance; creating a new structure/organisation versus using an existing one; convening and conducting international negotiations; defining a science case; site/host selection, funding and contributions (including the pros and cons of cash versus in-kind); access issues (to the site, to the scientific resources, to data); *juste retour*; operating costs; project management; equipment; personnel.

**ESTABLISHING LARGE INTERNATIONAL RESEARCH INFRASTRUCTURES**
Government officials and other decision makers increasingly encounter a daunting class of problems that involve systems composed of very large numbers of diverse interacting parts. These systems are prone to surprising, large-scale, seemingly uncontrollable, behaviours. These traits are the hallmarks of what scientists call complex systems. An exciting, interdisciplinary field called complexity science has emerged and evolved over the past several decades, devoted to understanding, predicting, and influencing the behaviours of complex systems. Using new methods, scientists are gaining insight into thorny complexities that characterise human and social entities such as brains, crowds, cities, communities and economies.

The GSF activity was devoted to the proposition that the insights and results achieved through scientific analysis can be used to design and implement better governmental policies, programmes, regulations, treaties and infrastructures. The report from the workshop discusses how the insights and methods of complexity science can be applied to problems in areas such as health, environmental protection, economics, energy security, or public safety.
Misconduct in research (for example, fabrication, falsification, and plagiarism) damages the scientific enterprise, is a misuse of public funds, and undermines the trust of citizens in science and in government. At a time when scientific advances are critically important in areas such as economic competitiveness, health, national security, and environmental protection, public officials are obligated to ensure the highest levels of integrity in research. The GSF organised a workshop that brought together researchers and science administrators with the goal of improving the understanding of the causes and prevalence of misconduct, and identifying the pros and cons of various principles and practices. The findings and recommendations, summarised in the report, focus on the practical and administrative aspects of dealing with allegations of misconduct in a speedy, fair and confidential manner. A follow-on project focused on facilitating research misconduct investigations that concern international collaborations. The report from this activity contains pertinent “boilerplate” text that can be inserted into international research agreements (e.g., MoUs).
Clinical trials, testing new discoveries by carrying out carefully controlled investigations on patients, increasingly involve international studies and collaborations to deal with rare diseases, pathologies in developing countries, etc. Tight national regulations have been introduced over time to ensure patient safety and methodological quality. However, these regulatory mechanisms remain very diverse, creating a disincentive to international multi-centre trials, particularly for academic structures that may not have well-developed administrative support capabilities.

To address this challenge, the GSF created a working group whose final report identifies the existing obstacles, and enumerates policy recommendations. These include establishing mechanisms to increase knowledge about (and understanding of) the national rules and legislation, progressive harmonisation of regulations, and the introduction of global core competencies for investigators and other members of clinical research teams. The report proposes the introduction of risk categories of clinical trials in national legislation or regulation, based upon the actual risk of the study, which could entail the potential benefit of streamlining and reducing the administrative/regulatory requirements for low risk studies.
Urban systems are facing an increasing number of challenges that are linked to major policy issues, for example, impact on the local environment and, more globally, on the Earth’s climate. The development of sustainable urban systems involves complex and interdependent social and physical factors, which can only be understood through the use of increasingly sophisticated models. Despite recent advances in computer capacities, a number of difficulties still prevent the development of efficient and user-friendly urban modelling tools.

To address this issue, the GSF launched an activity on “Effective Modelling of Urban Systems to Address the Challenges of Climate Change and Sustainability”. The Expert Group’s policy report describes existing tools and strategies for urban modelling and their current limitations, and proposes a series of policy recommendations aimed at improving the effectiveness and use of urban models. For instance, to develop the capacity of urban systems modelling as an integrated interdisciplinary field of study, and a set of internationally recognised standards and practices, which would improve the effectiveness of urban systems models among model commissioners, model makers and model users.
Today’s patterns of energy production, utilisation, transportation and storage are unsustainable due to resource availability constraints, environmental effects and national security concerns. Government policy makers (and other energy stakeholders) must consider numerous factors when planning a new energy future, including scientific and technological feasibility. That is, it is important to know whether a potential advanced energy solution can actually be achieved in practice, independently of whether it is desirable for political, economic (or other) reasons.

Researchers from basic and applied fields, officials of funding agencies, and other stakeholders attended a GSF conference aimed at strengthening ties between basic research priorities and the potential returns in the energy domain, and at revealing opportunities for enhanced international scientific co-operation. Among the findings in the policy-level report from the workshop is that proposed solutions (for example, renewable energy sources) differ widely in their potential to contribute to the “energy mix” in the latter half of this century. Among the recommendations is the need to better harmonise and co-ordinate research policy and energy policy in order to ensure that national research systems are functioning at a level that truly reflects future needs.
Modern societies are exposed to numerous natural and man-made hazards, and governments are keenly motivated to reduce the resulting harm to the lowest practical levels. In every hazard category (for example, floods, earthquakes, epidemics, releases of nuclear radiation, industrial and transportation accidents) there is a long history of applying S&T to reduce the likelihood of harm, and to mitigate the consequences of incidents that do occur. To date, however, S&T applications have usually been pursued within individual S&T domains, and have not had to take into account the societal (sociological or psychological, i.e., human) dimensions of the technology and its applications. Only recently have the social and behavioural sciences begun to play a greater role. Advanced S&T-based solutions — where the human element is an integral part of the system — were the subject of the GSF workshop. The final report contains findings and conclusions about the potential benefits of a strategic approach to the application of science and technology for enhanced social safety.
Scientific collections are the essential infrastructure of many research disciplines but, unlike large centralised infrastructure facilities such as telescopes or synchrotrons, collections are distributed geographically and managed independently. No one country can provide all the collections and trained collection management staff needed by a research community, but collectively they can support the needs of many disciplines. International co-ordination is required to ensure that the collections in each country and discipline are accessible and well-managed, so that researchers in all disciplines and countries will have the research infrastructure they need.

To address this issue the GSF organised two workshops in 2008, which led to an implementation plan for a proposed co-ordinating mechanism. A steering committee developed a strategic plan, a governance model, a business plan, and an outreach campaign for Scientific Collections International (SciColl). Two international conferences led to the preparation of a programme of work for the first three years of the future organisation. An interim Executive Board was created, composed of representatives from ten countries and institutions, and preparations for the launch and full implementation of SciColl are underway. Detailed information is available at www.scicoll.org.
The principal recommendation of the GSF activity on earthquake science was the creation of an international global earthquake risk analysis information resource, using internationally agreed standards. An international Steering Committee was set up to prepare detailed documents for establishing the Global Earthquake Model (GEM) as an international public/private partnership. GEM opened in March 2009 in Pavia, Italy. This non-profit foundation is currently comprised of ten private and twelve public participants. GEM is a unique global collaborative effort that brings together state-of-the-art science, national, regional and international organisations and individuals aimed at the design, development and deployment of the best possible models and tools for earthquake risk assessment worldwide. Hundreds of organisations and individuals on global and local scales are now working together on the open platform, which will provide stakeholders access to standardised methods and models in order to calculate hazard and risk, view maps and plots, analyse those, and use decision-making support tools to explore what can be done to mitigate earthquake risk. Detailed information is available at www.globalquakemodel.org.
Biodiversity is a useful umbrella term for all the species on Earth, their genetic variety, and the ecological systems they belong to. Millions of species have yet to be studied. Future research will depend on the efforts made today to develop methods for the discovery, study, and preservation of biodiversity. A key challenge is to compile and distribute data about biodiversity to everyone in the global community using digital technologies. When the OECD convened a group of international scientists and administrators to its first Working Group on Biological Informatics back in 1996, the need to access that data was already universally recognised. A great deal of information was available, but scattered in databases all over the world and in a wide variety of formats, not readily accessible. A new international organisation was needed to remedy the situation, an idea that OECD Member country ministers endorsed. In March 2001, the Global Biodiversity Information Facility (GBIF) was established on the strength of GSF groundwork. Now based in Copenhagen, this independent organisation is supported by its members – countries, economies and international organisations – and works in co-operation with programmes that compile and maintain information resources accessible worldwide. Detailed information is available at www.gbif.org.
The human brain is by far the most complex system known to man, and understanding it is a major scientific challenge for the 21st century. This fascinating task is made urgent by the potential for practical applications. Advances in our knowledge of the human brain will lead to breakthroughs in the prevention and cure of nervous system disorders and to improvements in the quality of life of millions of people. They will also shed light on the interactions between mind and matter.

The GSF Working Group on Neuroinformatics – a field combining neuroscience and the information sciences – met seven times over a period of two years, developing findings and recommendations for international co-operation in this exciting new discipline. Studying the brain requires immense quantities of data at very different levels — from genomics to functional imaging — and the objective lies, above all, in sharing and linking those data. The Group recommended setting up an International Neuroinformatics Co-ordinating Facility (INCF) to develop standards, interoperability among scientists and funding agencies, and data access formatting. Endorsed by OECD science ministers at their meeting in January 2004, and following extensive international discussions, the INCF was officially inaugurated in February 2007. Its headquarters are at the Karolinska Institute in Stockholm. Detailed information is available at www.incf.org.
2011 – present Hiroshi Nagano has held senior positions in Japan’s Science and Technology Agency (STA), and at the Ministry for Education, Culture, Sports, Science and Technology (MEXT). He is Executive Director of the Japan Science and Technology Agency (JST). He is a professor at the Japanese National Graduate Institute for Policy Studies.

1999 – 2004 John P. Boright is a former physicist. He is Executive Director, International Affairs, US National Academies. He manages co-operation with academy counterparts to build capacity of science, engineering, and medical communities to help meet local, national and global needs and inform policy making. He has served in US governmental positions including the State Department, NSF, and OSTP.

2004 – 2011 Hermann-Friedrich Wagner, a former physicist, retired in spring 2005 as Deputy Director General in the German Federal Ministry for Education and Research (BMBF). He chaired numerous governing boards of national and international research centres, as well as many committees in Brussels, the International Atomic Energy Agency, the International Energy Agency, and OECD Nuclear Energy Agency.

1992 – 1999 Peter Tindemans, a former physicist, had overall responsibility for Dutch Research and Science Policy from 1991 to 1998. Since 1999 his clients have included the World Bank, UNESCO and (regional) governments in Africa, Latin and Central America, Europe and Asia. He chaired the European Spallation Neutron Source. He was member of Euroscience’s Governing Board (and Secretary-General since February 1st, 2012) and is member of the ESOF Supervisory Board.

Dr. Stefan Michalowski is the Forum’s Executive Secretary. He has overall responsibility for the implementation of the work programme. He is a former elementary particle physicist.

Dr. Frédéric Sgard manages selected Forum activities. His scientific background is in molecular biology, with experience in the pharmaceutical industry.

Ms. Mika Shozaki is on assignment from the Japanese Ministry for Education, Culture, Sports, Science and Technology (MEXT), where she has worked for 11 years, chiefly on science and technology policy.

Ms. Adèle Renaud is the Forum’s administrative assistant. She has worked for the OECD since 2008 and started her new role in the Forum in June 2012.

Dr. Frédéric Sgard manages selected Forum activities. His scientific background is in molecular biology, with experience in the pharmaceutical industry.
GSF MEMBER COUNTRIES & OBSERVERS

Australia  France  Mexico  Sweden Observers:  Argentina  Brazil  China  Russia  South Africa
Austria  Germany  Netherlands  Switzerland
Belgium  Hungary  New Zealand  Turkey
Canada  Ireland  Norway  United Kingdom
Chile  Israel  Poland  United States
Czech Republic  Italy  Portugal  European Union
Denmark  Japan  Slovak Republic  Spain
Germany  Austria  Belgium  Canada  Chile  Czech Republic  Denmark  Finland  France  Germany  Hungary  Ireland  Israel  Italy  Japan  Korea  Mexico  Netherlands  New Zealand  Norway  Poland  Portugal  Slovak Republic  Spain  Sweden  Switzerland  Turkey  United Kingdom  United States  European Union Observers:  Argentina  Brazil  China  Russia  South Africa

IMAGE CREDITS

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to coordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.