THE GLION COLLOQUIUM

1998 - 2012

general report

An independent think tank committed to the future and responsibilities of research universities
Committee

Luc Weber, Rector Emeritus University of Geneva
Howard Newby, Vice-Chancellor, University of Liverpool
Luc Weber, Rector Emeritus University of Geneva, Montreal

President Emeritus, University of Michigan

Co-president

Co-president

James J. Duderstadt, President Emeritus, University of Michigan

Co-president

Jacob Nuesch, President emeritus EPFZ, Zurich, Vice-president

Michel Bénard, University-Industry Manager, Google Europe

Association Glion Colloquium

Luc E. Weber, Rector emeritus University of Geneva, President
Jacob Nuesch, President emeritus EPFZ, Zurich, Vice-president
Michel Bénard, University-Industry Manager, Google Europe

Heather Munroe-Blum, Principal McGill University, Montreal
Howard Newby, Vice-Chancellor, University of Liverpool

www.glion.org

Eight Forums

8 Books

One hundred and sixty original contributions

Two Declarations

Eight Forums

Since 1998, a uniquely independent think tank committed to the future & responsibilities of research universities

All books posted on the website

glion.org

da year after publication

Timely endeavour to promote the role of research universities in a world which is losing its marks

Sponsored by major corporations, foundations, governmental agencies and Swiss universities

Exclusive grouping of selected leaders

(by invitation only)

15'000 Books

distributed worldwide to selected University leaders and policy makers

Eleven Guest Speakers

from major corporations or governmental organizations (Nestlé, Nokia, Red Cross Committee, NASA/ESA..),

Higher education and Research Policy and frontier Research

50% from major research universities or university organizations

20% from business, governmental and non-governmental organizations

15% female leaders

45% from Europe

43% from the USA, Canada and Latin America

12% from Asia, Oceania and the Middle East

15'000 books distributed worldwide to selected University leaders and policy makers

All books posted on the website glion.org a year after publication

200 Participants to analyse in depth a given topic and propose actions

Supported by a non-for-profit association registered in Geneva (Switzerland)
Every two years the Glion Colloquium provides a forum for research university leaders to join leaders from business and government to consider together the role that the world’s leading universities should play in addressing the great challenges and opportunities of our times. These activities, consisting of papers prepared by participants prior to several days of intense discussions in Glion, Switzerland, are captured in subsequent books given wide circulation throughout the world.

Over the past 14 years, almost 200 leaders of higher education, business, and government agencies have participated in the Glion activities to consider issues such as the challenges of the new millennium, the governance of universities, the increasingly interdisciplinary nature of teaching and research, the globalization of higher education, the relationship between universities and industry, the role of university research in driving innovation and ways to address the challenges of global sustainability. The publications resulting from the Glion activities are now regarded as an important resource for better aligning higher education with the needs of a rapidly changing world.

Leading companies, foundations, universities and government research and education agencies have provided generous support for these activities, while Economica in Paris and the Brookings Institution in the United States have printed and distributed the Glion publications. Thousands of complimentary copies of these books have also been distributed to leaders of higher education, business, foundations and government throughout the world.

The activities of the Glion Colloquium are steered by a committee composed of key figures of the University World and managed by the Association Glion Colloquium, a nonprofit association registered in Geneva, Switzerland, and are arranged under the auspices of the University of Geneva and the Graduate Institute of International Studies and Development in Geneva.
The activities hosted by the Glion Colloquium over the past decade have become an important resource for shaping the future of higher education and its responsibilities in addressing the needs of society. Every two years the Colloquium invites a group of leaders from major research universities to join influential figures from business and governments to consider together the responsibilities of research universities in addressing the challenges facing our world and to make concrete recommendations for action.

The quality of the participants, a meeting format that facilitates in-depth discussion and deliberation, and the unusually broad distribution of the resulting publications have enabled the findings and recommendations of the Glion Colloquium to have considerable impact on shaping the evolution of both universities and higher education policy worldwide.

The Glion Colloquium was launched in 1998 with the support of the Hewlett Foundation when Professor Werner Hirsch (University of California) and Professor Luc Weber (University of Geneva) assembled a group of university leaders to consider the challenges facing the university at the beginning of the new millennium. In addition to publishing the proceedings of the Colloquium itself, the participants prepared and endorsed a major statement “The Glion Declaration: the University at the Millennium”, for the UNESCO World Conference on Higher Education in the 21st Century, held in Paris in October 1998. This statement established the rationale for the decision to continue the activities hosted by the Glion Colloquium as a major resource for higher education:

"I found the Glion conference fascinating and refreshing. It’s always interesting to see the world through other people’s eyes – in this case both because of the broad geographic breadth and from the special viewpoint of university presidents and rectors. What concerns the presidents, what does not, what is happening, what is worrying. Of course, I come from an orthogonal background – deeply embedded in the research world, but not in the university world, as a producer of research and a consumer of students. So I had a delightful feeling of a ‘man from Mars’, which has caused me think a lot.”

(Stuart Feldman, Vice President engineering, Google, 2009)

"I feel truly blessed to have had the privilege of attending four events... it was the best investment I ever made in my time at HP."

(Wayne Johnson, Former Vice-President, Hewlett Packard University Relations Worldwide, 2009)

"It was a productive and inspiring meeting of great minds.”

(Nam-Pyo Suh, President, Korea Advanced Institute of Science and Technology (KAIST), 2009)
The new millennium, into which we move and which our children will inherit, confronts us with a bewildering mixture of promise and threat. On the one hand, we glimpse the promise of revolutionary advances in biomedicine, communications, information technology, alternative energy sources, new materials, automation and globalization; on the other hand, we contemplate the looming threats of balkanization, tribalism, terrorism, sectarianism, north-south inequalities, hunger, the intricate balance between population, resources and environment, the challenge of sustainable development and the relationship of all these to the future of traditional nation-states. And, if the balance between promise and threat is unclear, what is clear is that the essential key — though not the only key — to human well-being in this daunting new world is knowledge.

Now knowledge is not a free good; it is not a naturally-occurring resource. It is a personal discovery, an individual creation. It comes only to the prepared mind, coaxed into existence by personal reflection and inquiry, individual discovery, sophisticated research and costly exploration. And it can be received, understood, and applied only by the educated and informed individual. Those things on which the future of humankind will chiefly depend in the new millennium — education, personal skills, natural resources, effective capacities, sustainable communities, as well as wise leadership, informed choice, national discipline, sound policies, international agreements, the humane use of technology and the judicious and benevolent use of resources — will depend increasingly on knowledge: knowledge discovered, knowledge gained, knowledge tested, knowledge shared, knowledge applied.

And these things, in turn, will require wisdom: the way in which knowledge is weighed and used.

“Knowledge is the core-business of the university. In every aspect of its discovery, testing, dissemination and application, the universities of the world play a crucial role. In this role, they are not alone. They are part of a great network of tertiary education; they depend on the work of schools and colleges; they are partners with professional associations, non-government organizations, industry, business, research institutes, hospitals, government agencies and international organizations; they share the concerns and contribute to the needs of their communities, regions and nations. But, beyond all these alliances and dependencies, vital as they are, the universities play a unique and crucial role. They are the chief agents of discovery, the major providers of basic research that underlies new technology and improved health care, they are the engines of economic growth, the custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
custodians and transmitters of cultural heritage, the mentors of each new generation of entrants into every profession, the accreditors of competency and skills, the agents of
and one of the triumphs of the power of imagination. We, as members of its community of learning, challenge it to play a transforming role in society, and thus to transform itself.

“The university is one of the greatest inventions of the present millennium: although created more than nine centuries ago, it remains one of the glories of human aspiration and one of the triumphs of the power of imagination. We, as members of its community of learning, challenge it to play a transforming role in society, and thus to transform itself.

“In a society of shifting goals and uncertain values, the university must stand for something more than accurate data and reliable information; more, even than useful knowledge and dependable standards. The university is the custodian, not only of knowledge, but also of the values on which that knowledge depends; not only of professional skills, but of the ethical obligations that underlie those professional skills; not only of scholarly inquiry, disciplined learning and broad understanding, but also of the means that make inquiry, learning and understanding possible. In its institutional life and its professional activities, the university must reaffirm that integrity is the requirement, excellence the standard, rationality the means, community the context, civility the attitude, openness the relationship and responsibility the obligation upon which its own existence and knowledge itself depend.

“For 900 years of the present millennium, the university, as a community dedicated to those values has served society well. Its effectiveness in the new millennium will depend on its reaffirmation of those ancient values as it responds creatively to the new challenges and opportunities that confront it. This is the moment for both society and the university to reaffirm the social compact, on which the future of all our peoples will so largely depend, and for their leaders to work together towards the achievement of their common goals.”

(The Glion Declaration of 1998: The University at the Millennium)

Based on this premise and on the early success and influence of the first meeting in 1998, the Glion Colloquium has continued to address significant topics for the future and for the responsibilities of research universities, with the support from various sponsors from industry, foundations and universities, and government research and education agencies. Subsequent meetings and publications have focused on a broad array of topics, including university governance (2000), reinventing the university (2001), the increasing engagement of the university with society (2003), the relationship between universities and business (2005), the globalization of higher education (2007), the importance of universities as a source of innovation (2009), and, most recently, the responsibilities of universities in addressing the challenges of global sustainability (2011). (More details below, as well as on the Glion Colloquium website: www.glion.org)

The early meetings primarily involved participants from Europe and North America. From 2007 onwards, the Colloquium was broadened to achieve truly global representation with leaders from Asia, Australia and Latin America.

“Thank you so much for having convinced me to attend the Glion symposium. It was a great opportunity for me to meet leaders of top world universities and to learn from them.”

(Ralph Eichler, President ETHZ, 2009)

“...herzlichen Dank für die wunderbare Gasfreundschat in Glion.... für die anregenden Gespräche, Vorträge und informelle Kontakte.”

(Dieter Lenzen, President, Free University of Berlin, 2009)
Challenges of Our Times and Second Glion Declaration

In 2009, the participants in the Glion Colloquium concluded that it was time to issue a second Glion Declaration. This new Declaration, drafted by Frank Rhodes and endorsed by members of the Colloquium, makes a particularly strong case for the essential role played by the world’s research universities in addressing the challenges facing our world:

“The dawn of the new millennium was a time not only of celebration, but also of optimism and hope. Contemplating the remarkable transformation of the past millennium, and especially the extraordinary achievements of its last century, commentators throughout the world reflected a sense of satisfaction in the progress of the past, and high expectations for the future. A decade later, the mood is less euphoric, in part because of developments of the past decades. From the growing prosperity, traditional resources, and conventional approaches. But universities have the responsibility of the new millennium.

If we are to confront successfully the challenges of our times, we shall require not only all of our collective scientific and technical expertise in the environmental sphere, but also economic, social and political policies that nurture sustainable communities within the endlessly varied settings and ways in which we live. And, complex as these issues of physical and biological sustainability are, they are dwarfed by those of social sustainability. No challenge is more urgent or more difficult than developing, harmonizing and implementing these technological and social innovations. Navigating our collective way towards some new equilibrium will require new approaches, new thinking, new partnerships, and new technology. And this, in turn, will require a change in outlook and a degree of innovation whose very boldness will be disruptive of much conventional thinking and many established practices.

“The creative thinking behind such innovation will require the active participation of universities, for it is in these institutions that leaders of each new generation are nurtured; it is there, within each new class, within each new generation, that boundaries to our existing knowledge are explored and crossed; it is there that unfettered thinking can thrive and unconstrained intellectual partnerships can be created. It is there, within each new class, within each new generation, that the future is forged.”

“The daunting complexity of the challenges that confront us would be overwhelming if we were to depend only on existing knowledge, traditional resources, and conventional approaches. But universities have the capacity to remove that dependence by the innovations they create. Universities exist to liberate the unlimited creativity of the human species and to celebrate the unbounded resilience of the human spirit. In a world of foreboding problems and looming threats, it is the high privilege of universities to nurture that creativity, to rekindle that resilience, and so provide hope for all of Earth’s peoples.” (The Glion Declaration of 2009: Universities and the Innovative Spirit)

Organization, Financing, and Spirit of Glion Colloquium

Planning and Program committees

The activities of the Glion Colloquium are led by a small committee co-chaired by Professor Luc E. Weber (University of Geneva), Professor Werner Z. Hirsch (University of California, from 1998 to 2002), and, since 2003, Professor James D. M. Duderstadt (University of Michigan). Sir Howard Newby (Vice-chancellor, University of Liverpool and past Head of the Higher Education Funding Council for England) has been a member since 1998. They were joined in 2009 by Heather Munroe-Blum (Principal, McGill University).

The program for each colloquium is prepared by an evolving program committee composed of the members of the committee and other members, depending on the topic. The program committee for the VIII colloquium was composed of James Duderstadt and Luc Weber (co-chairs), Heather Munroe-Blum, Sir Howard Newby and Charles M. Vest (President, NAE). The program committee is responsible for drafting the program outline, inviting participants and for the Colloquium’s program.

Colloquium’s programs and the ‘Spirit of Glion’

The papers prepared in advance by all invited participants are disseminated prior to the meeting to enable all of them to prepare for the discussions.

The format of the meetings usually consists of five or six formal sessions, approximately three hours in length, organized in a round-table format, and led by three or four brief presentations from participants focusing on a particular subtopic. However since the papers have been distributed in advance, most of these roundtable sessions consist of broad-ranging discussions going deep into the exchange in a spirit of complete freedom and trust among the participants.

Experience also shows that many valuable discussions occur through informal meetings and activities such as meals, excursions or visits. The meetings in Glion are usually augmented by short excursions to nearby facilities of particular interest (e.g., the Large Hadron Collider at CERN in Geneva, leading Swiss institutions such as the Federal Institute of Technology (ETH), the University and IMD Business School in Lausanne). Participants are invited to bring spouses to the meeting to further enhance the informal gatherings, and a special program is arranged for these guests.

Moreover, well-known figures from the business world or the public sector also address the gatherings. In the past these have included Peter Brabeck, CEO and President of Nestlé, Daniel Borel, president of Logitech, Juhani Kukko, Senior Vice-President and Head of Research, Nokia Corporation, Jacob Kellenberger, president of the International Red Cross Committee (ICRC), Alexis Lautenberg, Swiss Ambassador to the European Union in Brussels, Claude Nicollier, ESA/NASA astronaut, Rajna Gibson, Professor of Finance and Michel Mayor, astrophysicist, first scientist to discover an exo-planet, both at University of Geneva, Charles Kleiber, Swiss Secretary of State for Education and Research, Jean-Marc Rapp, President of the European University Association (EUA) and Fritz Schiesser, President of the Board of the Federal Institute of Technology.

In addition, the pleasant atmosphere and the spectacular location in the village of Glion contribute greatly to the creation of the unique “Glion spirit” which is deeply appreciated by all participants.

A key objective of the founders and organisers of the Glion Colloquium is that it should provide leaders of major research universities around the world with opportunities to share ideas and agendas. They believe that it is – and they hope that it will remain – a powerful resource to harness the resources of the world’s universities to address the challenges, opportunities and responsibilities of the new millennium.

“The Glion Colloquium is a wonderful event, both intellectually stimulating and greatly enjoyable.”
(Bernd Huber, President, Ludwig Maximilian University of Munich, 2009)
Participants and Institutions

Glion participants include leaders of some of the world’s most distinguished higher education and research institutions, along with leaders from business, foundations, and government agencies. This has allowed the Colloquium and its publications to build, in a relatively short time, a reputation as a key source of thinking and innovation in higher education, university research and related issues. The institutions represented at past colloquia include:

In **Northern America**, MIT, CalTech, Harvard University, University of Michigan, Cornell University, Johns Hopkins, Carnegie Mellon, UC San Diego, University of Wisconsin System, UC Berkeley, UC Davis, UC System, McGill in Montreal, Tecnológico de Monterrey, National autonomous University of Mexico (UNAM),

In **Europe** Ludwig Maximilian University of Munich, Free University of Berlin, University of Strasbourg, University of Liverpool, of Lancaster, Open University, ESCP-Paris-Europe, Catholic Universities of Louvain-la-Neuve and of Leuven, Free University of Brussels, University of St-Petersburg and in Switzerland, EPFZ, EPFL, University of Geneva and of Lausanne, IMD Lausanne.

In **other parts of the world**, Shanghai Jiao Tong, Tohoku University in Japan, Nanyang Technological University in Singapore, United Nations University in Tokyo, University of New Delhi, ITT Madras, KAUST Saudi Arabia and KISTAR, Abu Dhabi, and the State of Sao Paulo Research Foundation.

Many governmental and non-governmental organizations have also been represented by high-ranked participants: The World Bank, OECD, National Science Foundation (NSF), Higher Education Founding Council for England, American Association of Universities (AAU), American Council on Education (ACE), National Academy of Engineering (NAE), League of European Research University (LERU), European University Association (EUA), the International Association of Universities (IAU), as well as the regional Government of Catalonia, the government of the Canton of Zurich, and the Bank of England.

Finally, several major corporations have been represented by a member of the board of directors or head of research, in particular Daimler-Chrysler, DuPont, Google, Hewlett-Packard, Hoffman-La Roche, Novartis Pharma, Nokia and Nestlé, (see full list of participants in the second part of the report).

**Dissemination**

To achieve maximum impact from each Colloquium, the papers provided by the participants and the summaries of the roundtable sessions are rapidly edited and assembled into a book for publication. In addition, the last session of each colloquium is focused on developing findings and recommendations for further activities from the participants. On two occasions (1998 and 2009), a further declaration has been prepared as a separate publication.

The publications containing the proceedings of the Glion Colloquium are made available for purchase through traditional commercial channels, and hundreds of additional courtesy copies are provided to leaders of major research universities, foundations, government agencies and global organizations throughout the world. A year afterwards, the publisher ECONOMICA also allows the Glion Colloquium to provide free access to the full text of each volume as a download from its website (www.glion.org). Experience has demonstrated that the unusually broad distribution of these publications has been important in establishing the Glion Colloquium as a highly respected resource in international higher-education policy.

**Administering Organization**

The colloquia are held by the Association Glion Colloquium under the auspices of the University of Geneva and the Graduate Institute of International Studies and Development in Geneva. The Association organizes the meetings and produces the publications. It is registered in the Canton of Geneva (Switzerland) and is recognized as not for profit, exempt from Swiss tax. It is managed by a Board of Directors composed of Prof. Luc E. Weber, Rector/President emeritus of the University of Geneva and Founding Board Member of the European University Association (chair), Prof. Jacob Nuesch, president emeritus of the Federal Institute of Technology in Zurich (ETHZ) (vice-chair) and Dr. Michel Bénard of Google Europe. All give their time on a voluntary basis. The Association has no permanent staff, but occasionally recruits Ph.D. students to help plan and organize the colloquia, the publications and dissemination of the book; the Association also purchases some services (in particular, book-editing and website maintenance). The annual accounts are verified by the audit firm Galper, in Yverdon-les Bains, Switzerland, and are approved by the General Assembly of the Association.

**Budgets and sponsors**

The costs for each Glion Colloquium are in the range of $200,000 – $250,000 over a two-year cycle of planning, organization and arrangements prior to the conference, then followed by publication, website maintenance and other means of disseminating the results of each conference. The costs have grown moderately over the years; however, currency fluctuations present challenges. Travel costs have proved the most difficult to predict, particularly now that the conference has participants from all parts of the globe. The costs of hosting and staffing the conference itself at the Hotel Victoria in Glion have been relatively constant. The last phase of editing and publishing proceedings and distributing publications is determined in part by the amount of funding available.

While each Glion Colloquium has been supported by numerous sponsors, the continuity of the organization for its first decade of activity was provided by the generous Hewlett-Packard Corporation sustaining grant. This not only provided support for the early planning and preparation for each conference, but it also assured that sufficient funding would be available to launch the early process for invitations and arrangements before final funding goals were achieved.

Unfortunately, this sustained core funding was not available for the eighth Colloquium cycle (2011-12), which caused considerable uncertainty in piecing together the ultimate sources of support. The committee has set as a very high priority the need to attract core sponsorship that will ensure the continuity of the Glion Colloquium over a significant period. The committee members believe that, in view of the success and achievements over the past 14 years, it should be possible to reach this goal.

“... cela a été pour moi un moment rare de ressourcement et de réflexion.”

(Alain Beretz, President University of Strasbourg, 2011)
The ability to bring together leaders of many of the world’s most prominent universities with colleagues from business, foundations and government in a sustained consideration of the roles that research universities can play in addressing the challenges facing our world has clearly had great impact. These discussions and the resulting publications — in print and on-line — have been quite broad, providing both findings and recommendations concerning higher education, curriculum development, new research paradigms, student experiences, financing and governance of universities, social engagement and international alliances. But it has also provided important perspectives for other sectors of our society as the imperatives of a knowledge-driven, global economy facing serious challenges of global sustainability have become apparent.

The international character of research universities, with international programs, collaboration and exchanges of students and faculty, provides them with a unique, global perspective. Furthermore, universities are also key to developing the academic programs and culture necessary to produce a new generation of thoughtful, interdependent and globally identified citizens. The goal of the Glion Colloquium is to raise the awareness and understanding of university leaders of the essential role their institutions must play in addressing global issues and to provide assistance in developing appropriate strategies. The unusually broad distribution of publications (papers, books and digital assets provided through the Glion website www.glion.org resulting from the papers, discussions and conclusions of this independent Colloquium) will convey to a global audience both the urgency and guidance in deploying the considerable intellectual assets of the world’s leading universities to address the greatest challenge facing humankind.

“I want to express my heartfelt appreciation for your extraordinary hosting of the 8th Colloquium. Luc, your shaping of the program and the organization of the conference itself are so greatly appreciated. I found the Colloquium rich, informative and engaging. Every presentation was thoughtful and important. The quality of the exchange for every session was absolutely terrific, and, of course, the location is perfection…”

Heather Munroe-Blum, Principal, McGill University, 2011

“...it was very rewarding every day that I spent in this event. I learned a lot from the discussions we had during the formal presentations, as well as during the informal discussions…”

Rafael Rangel Sostmann, Chancellor, Tecnologico de Monterrey System, 2011

“...we are back … with lots of memories of a great meeting in Glion…. We heard nothing but very positive comments from the participants.”

(Jim Duderstadt, President emeritus, University of Michigan, 2011)

“... let me quickly say what a fantastic job you did and what a wonderful Colloquium experience. We all owe you and your team a great debt of gratitude.”

(John Niland, President Emeritus, University of New South Wales, Australia, 2011)

Future

Launched in 1998 as a personal initiative by two colleagues, the Glion Colloquium has been organized since then on a very regular basis, attracting the leaders of prominent research universities and other figures from business and government. More than offering a respected forum for discussion about some of the most relevant challenges facing research universities, the Glion Colloquium has gained increasing recognition as an independent think tank proposing new and original analyses and solutions for actions for research universities thanks to the wide dissemination of the books published soon after the Colloquium.

Encouraged by their success, the Association Glion Colloquium and the committee have unanimously decided to pursue the initiative for another at least six years, including the preparation of three colloquia and the publication of three books (hard copies and on-line). Following the publication of the eighth book in January 2012, they are launching a fundraising campaign to raise at least $750,000 (the necessary financial means for six years) to secure the organization of the Colloquium and the dissemination of the book. Moreover, provided they can secure the necessary funding, they will launch additional activities in order to better disseminate the analysis and recommendations collected over the years. They plan in particular a new publication collecting the key papers from the first eight books as a source of inspiration for higher education institutions and organizations. They also wish to build on the community formed by all participants throughout the years to collect ideas and recommendations in the free and fruitful spirit of Glion on the future and responsibilities of higher education.

The Glion Colloquium’s complete independence is a strength on many counts. It enables Glion to tackle delicate topics, to freely express opinions and suggest actions. But it is also a weakness in the sense that no established organization is responsible for supporting it. Consequently, it’s only means of continuing and — even better — of progressing, is to receive support from donors who see the great value of a truly worldwide and independent grouping of leaders of major research universities.

“A source of pride for you: I saw Derek Bok, acting President Harvard University… he reiterated in stronger terms that he finds the output of most conferences on higher education mundane, but really liked the couple of Glion volumes he has read.”

Charles M. Vest, president emeritus MIT, president. US Academy of Engineers, 2006
A session in the 8th Glion Colloquium
Challenges facing Higher Education at the Millennium

1998-1999

The purpose of this first Glion Colloquium was to take stock of the current status of higher education in Western Europe and North America while exploring the challenges of the new millennium and evaluating promising initiatives to meet these challenges. Virtually all the presentations in this conference reflected a sense of urgency about the degree to which significant elements of higher education, particularly its educational paradigms, had been rather static in a rapidly changing world. While research in the physical and biological sciences in universities has made great strides, greater efforts could be made to connect the university to industry, without compromising the integrity of the university. Adjustments must be made; and it was in this spirit that the Glion Colloquium explored what promising initiatives higher education, and especially research universities, might creatively pursue.


Gion II:
Goverance in Higher Education: The University in a State of Flux


The structures, missions and challenges of Western European and American universities have much in common. But there also exist significant differences, particularly in the way that these institutions are governed. The 2000 Glion Colloquium addressed the defining issues of governance in research universities. Participants examined governance in a university as the formal and informal exercise of authority under laws, policies and rules that articulate the rights and responsibilities of various actors, including rules by which they interact to assist the university’s academic objectives.

To be effective, a powerful governance process must be embedded in an appropriate structure suited to the university’s purposes and consonant with its culture. Universities will be at risk if they do not adapt governance to align more rapidly to their changing environment and new challenges. The 14 contributions assembled in this book examine the contours and dimensions of university governance in research-intensive universities, seek to develop cogent governance principles and offer appropriate initiatives and recommendations.
The third Glion Colloquium drew together active university along with guests from industry with close ties to academia to compare perspectives of the future of the research university in America and Europe. Universities, particularly those with a strong research orientation, are being challenged by new circumstances. These include the information technology revolution and the ever greater complexity of societal and scientific problems. As a result, society is making novel demands on universities. In response, they lower their external walls so that they can collaborate with industry and government. The effects on education, research and regional economic growth deserve investigation. So do their effects on universities upholding their academic values once they have escaped the ivory tower.

In order to effectively address the multifaceted challenges of tomorrow, universities must also lower their internal walls and stimulate closer collaboration between disciplines in a variety of ways. This book examines the new world facing universities and offers a series of recommendations on how to meet the challenges.

The fourth Glion Colloquium focused on the increasing external permeability of the university, both complemented and made more complex by increasing permeability and interdependence of its internal academic programs. More research and teaching cross the boundaries of conventional disciplines, while creating and imparting knowledge at their intersection. Contributions examined the various ways in which universities, especially research universities, cooperate with industry and the commercial sector generally, including but not limited to sponsored research, intellectual property and new technologies as they affect traditional and non-traditional sectors generally, including but not limited to sponsored research, intellectual property and new technologies as they affect traditional and new types of learners.

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Participants From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN

Although there was considerable discussion about whether it would be more accurate to use other verbs such as “reforming”, “reefencing” or “refocusing”, there was general agreement that change would characterize the future of the research university, driven by powerful social, economic and technological forces driving change in our world.

Participating From Industry and Guests

- Dr. Michel BERNARD, HP University Relations, Europe
- Prof. Stefan CATSKAS, Vice-President for Research, Federal Institute of Technology Lausanne
- Dr. Paul HERRLING, Head of Research Novartis Pharma AG
- Prof. Johan KUSSL, Senior VP, Head of Research Centre, Nokia Corporation
- Prof. Andrea PFLEIDERER, Director Nestle Research Center

- Prof. Frank H.T. RHODES, President Emeritus, Cornell University
- Prof. Henry ROsovsky, Geyser University Professor Emeritus, Harvard University
- Prof. Lucy SMITH, Rector emeritus University of Oslo, Vice-president CRE
- Prof. Luc WEBER, Rector Emeritus University of Geneva
- Prof. Harold M. WILLIAMS, President Emeritus, The J. Paul Getty Trust
- Prof. Paolo ZANELLA, Professor Emeritus University of Geneva, Former Director Computer services CERN
Guest Speakers

Alexis Lautenberger
Swiss Ambassador to the European Union

Gaude Nicollier
Astronaut
with Jim Duderstadt

Daniel Borel
Founder and President Logitech

Frank Rhodes
President emeritus Cornell University

Fritz Schiesser
President ETH Board

Jakob Kellenberger
President International Committee of the Red Cross

Jean-Marc Rapp
President ESA

Juhani Kuusi
Senior VP, Nokia Corporation

Michel Mayor
Astrophysicist, University of Geneva

Peter Brabeck
CEO Nestlé (center)
with Patrick Aebischer (right) and Luc Weber (left)

Rajna Gibson
Professor of Finance, University of Geneva

The “Spirit of Glion”

David Ward (right) and Luc Weber

Tony Tan Keng Yam

Dieter Lenzen (left) and Luc Weber

Visit of the Rolex Learning Center EPFL

Carl Schramm (left) and Peter Lorange

Jared Cohon (left) and Jean Pavlovski (right)

Gururaj Deshpande (left) and Juan de la Fuente
The fifth Glion Colloquium concerned the key relationship between research universities and the business sector. Participants included university leaders from Europe and the United States, along with senior officers of several global corporations, including Hewlett Packard, Dupont, Nestle, Hoffman-La Roche, Daimler Chrysler, the Fraunhofer Institutes and the Bank of England.

The emergence of a global, knowledge-driven economy has created an ever-greater dependence of society, business and industry on research universities for advanced education, research and development, innovation and entrepreneurial activities. The papers contained in this book reflect both the consensus and differences in the perspectives of the participants on these issues.

**Participants from Industry**
- Dr. Thomas M. CONNELLY, Jr., Senior Vice-president and Chief Science and Technology Officer, DuPont Corporation
- Dr. Wayne JOHNSON, Vice-President HP University-Industry relations Worldwide, Palo Alto, CA
- Prof. Russel C. JONES, President Emeritus, University of Delaware, HP Consultant

**University leaders**
- Prof. James J. DUDERSTADT, President Emeritus University of Michigan, co-president, Ann Arbor
- Prof. Charles M. VEST, President Emeritus MIT, Cambridge, MA
- Prof. William BROOY, President Johns Hopkins University, Baltimore, MD
- Prof. Larry PULVER, President University of Texas, Austin, TX
- Prof. Marye Ann FOX, Chancellor, UC San Diego, La Jolla, CA
- Prof. Anita JONES, Past Vice-chair of the National Science Board and Past Director of R&D for the U.S. Department of Defense
- Prof. Bill WULF, President of the National (US) Academy of Engineering

**Participants from Industry**
- Dr. Michel BENARD, Director Technology Programs, HP University-Industry relations, Geneva, Switzerland
- Dr. Peter Van BLADEREN, Director Nestle Research Centre, Lausanne
- Prof. Richard LAMBERT, Bank of England, UK
- Prof. Klaus MUELLER, Head of Science and Technology Relations, Hoffmann-La Roche, Basel
- Dr. Horst SOBOLL, Director Research Policy Daimler Chrysler AG, Stuttgart and Vice-President EU Research Advisory Board
- Prof. Dennis TSICHRITZIS, Vice-President and CTO, Fraunhofer, Munich, Germany.

**University leaders**
- Prof. Patrick AEBISCHER, President Federal Institute of Technology in Lausanne (EPFL or ETHL), Switzerland
- Prof. Bertil ANDERSON, CEO European Science foundation (ESF), Strasbourg, France
- Prof. Ernst BUSCHOR, Vice-president ETH Board, Zurich, Switzerland
- Prof. Brenda GOURLEY, Vice-Chancellor, Open University, UK
- Prof. Peter LORANGE, President International Institute for Management Development (IMD), Lausanne, Switzerland
- Prof. Howard MENDY, Chief executive Higher Education Funding Council for England, Bristol, UK
- Prof. Carles SOLA, Rector emeritus, Autonomous University of Barcelona, Minister of Higher Education and Science, State of Catalonia, Spain
- Prof. Frans VAN VUGHT, Rector Emeritus University of Twente, The Netherlands
- Prof. Luc WEBER, Rector Emeritus University of Geneva, Geneva, Switzerland, co-president
- Prof. Paul WELLINGS, Vice-Chancellor, University of Lancaster, UK
- Prof. Georg WINICLER, Rector University of Vienna
The Glion VI Colloquium departed from its customary transatlantic dialogue by broadening participation, including university leaders from around the world representing 18 nations and five continents, to consider the globalization of higher education. The emergence of a global, knowledge-driven economy is driven by a radically new system for creating wealth that depends upon the creation and application of new knowledge and hence upon advanced education, research, innovation and entrepreneurial activities. Both mature and developing nations are making major investments in building the knowledge infrastructure — schools, universities, research institutes, high-tech industry, cyberinfrastructure, public policies and programmes — necessary to achieve prosperity and security in the knowledge economy.

In parallel with these trends, there is a strong sense that higher education is also in the early stages of globalization, both through the increasing mobility of students and faculty, and the rapid growth in international partnerships among universities. Some even conjecture that we will soon see the emergence of truly global universities, which not only intend to compete in the global marketplace for students, faculty and resources, but also are increasingly willing to define their public purpose in terms of global needs such as public health, political, economic and environmental sustainability, and international development.
The context for the seventh Glion Colloquium is an era in which educated people, the knowledge they produce, and the innovation and entrepreneurial skills they possess, have become the keys to economic prosperity, public health, national security and social well-being. In particular, leadership in innovation – the transformation of knowledge into products, processes and services – has become critical to economic competitiveness, long-term productivity growth, the generation of wealth and global sustainability.

Whether in the “old world” of Europe and North America or in rapidly developing nations, the message is clear: innovation has become the key to prosperity and social well-being. Today’s economy requires not only leadership in innovation, but also educated citizens capable of applying technology, talent and capital in new ways. Institutions of higher learning must collaborate with industry and government to create a climate that enables innovation to thrive. Part of the challenge is the changing nature of innovation itself — it is becoming far more open, spans virtually all disciplines and is increasingly global. And it arises not only in the laboratory and classroom, but also in the marketplace, workplace and community.
Global Sustainability and the Responsibilities of Research Universities

2011-2012

The VIII Glion Colloquium was held in June 2011 to consider the roles that could be played by the world’s research universities in addressing the various challenges of global sustainability in the broadest sense, e.g., climate, environmental, economic, health, poverty and geopolitical. Of particular interest was the degree to which the imperatives of global sustainability were driving change in higher education around the world. This included considerations not only of how research universities were adapting to the imperatives of global sustainability (e.g., social diversity, resource management, academic programs, research and scholarship), but also how they could develop new curricula, student experiences, research paradigms, social engagement and international alliances to better address the challenges of global sustainability, while producing globally identified citizens. The Colloquium also considered longer-term possibilities that might pose even greater threats to global sustainability and how universities could prepare their graduates for such eventualities.
Support Staff 1998-2012

Text editing: Edmund DOOGUE, Mary O’MAHONY
Website: Nicolas DURAND, Nicolas WEBER
Rapporteurs: Mary O’MAHONY, Gerry TAGGART
Support staff (two at each colloquium): Anne-Sophie BENTZ, Natacha DURAND, David MARADAN, Martina TRUCCO, Christophe WEBER, Nicolas WEBER, Manuela WULLSCHLEGER

Books:
The Glion books published by ECONOMICA in Paris and distributed by BROOKINGS in Washington can be ordered at:
1. Amazone (Amazone.fr or Amazone.com)
2. Brookings worldwide (except for U.K. and Europe): Email: hfscustserv@press.jhu.edu; Phone: +1 800 537 5487 or +1 410 516-6956; Fax: +1 410 516 6998
3. Brookings for U.K. and Europe: Phone: +44 1752 202 301; Fax: +44 1752 202 331
4. Economica in France: info@economica.fr; Phone: +33 1 45 78 12 92

Address:
Association Glion Colloquium, c/o Prof. Luc WEBER, Florissant 6, CH-1206 GENEVA, Switzerland
Mobile: +41 76 376 12 36 Phone: +41 22 347 39 06 Fax: +41 22 789 35 50
E-mail President: luc.weber@glion.org
E-mail Colloquium: colloquium@glion.org

All rights reserved © 2012 Association Glion Colloquium
Printed in Barcelona, Spain
Graphic Design: Vanessa d’Artigues