

THE VIENNA COMMUNIQUE 2015: “GLOBAL UNIVERSITIES AND THEIR REGIONAL IMPACT”

Report of the International Conference UVIECON 2015
marking the 650th Anniversary of the University of Vienna



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For the sake of authenticity the texts of native English speakers were not edited and are presented in American or British English, respectively.

THE VIENNA COMMUNIQUE 2015: “Global Universities and their Regional Impact”

What makes a university “global” is that

- it strives to hire the best researchers and academic teachers from a global market
- it attracts talented students from all over the world, equipping them with the skills and analytical abilities to make a difference throughout global society
- it enables its students, graduates and researchers to be competitive globally
- it contributes to the global pool of human knowledge through its educational programmes and research activities, especially through the publications of its members
- it fosters and is committed to the exchange of students and the dissemination of innovative new ideas, across both academic communities and national borders by establishing networks of global collaboration

A global university adds value to its region by

- transferring the knowledge gained from globally competitive research to the region, thereby enhancing regional society, commerce, trade and industry and supporting innovation and entrepreneurship
- driving economic expansion in the region through the skills of its alumni and its on-going research activities, leading to new know-ledge and innovations
- contributing to the region’s “brain gain” and to its open social climate through its international exchange programmes and global staff recruitment policy
- feeding questions from the region into the global research discourse and sharing the knowledge acquired

To secure its positive impact on society and to remain competitive, a global university should

- enable and support investigator-driven basic research from which real innovations eventually originate in usually unexpected ways
- be open to new developments and respond to these by establishing fresh fields of research along with corresponding curricula
- respond to global, societal and economic challenges, contributing to the development of a know-ledge-based society and the competitiveness of regional economies
- build upon its basic research and research-led education to establish links to industry as attractive and responsible partners; such partnerships should be for mutual benefit, both contributing to the competitiveness of industry and triggering challenging questions for basic research
- assume its responsibility towards society also via outreach activities and science communication in order to conduct a mutually advantageous conversation with society and to enable a knowledge-based development of the future
- recognise the diversity of faculty, staff, and students as a key strength and rich source of creativity and productivity, for itself and the region
- use its global network to strengthen its voice internationally and contribute to resolving problems where the resources of a single field, a single institution or a single state may not be sufficient
- insist on its autonomy to make long-term plans and its freedom to form partnerships across boundaries and disciplines in order to create prosperity and wellbeing.

Final conclusions

- Universities educate the next generations of responsible citizens who are able to adapt to rapid change and formulate new approaches that are vital in a world in which knowledge becomes rapidly outdated and where unforeseen new challenges appear. High-quality research and research-led education at universities are among the best assets that a society can invest in.
- In a time of crises, universities have a key role to play in Europe’s revival – and they must be listened to in the debate about Europe’s future. Europe needs strong universities, which are economically and politically autonomous to make sustainable contributions for Europe to remain strong and competitive. In order to achieve this, they have to be active on the global scale.

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Vienna, 13 March 2015



Heinz W. Engl

Rector of the
University of Vienna



Address of the Rector

2015 is the year of the 650th anniversary of the foundation of the University of Vienna by Duke Rudolph IV on 12 March 1365.

The celebration of the jubilee commenced in March with the Opening Ceremony, followed by a multitude of events of different formats and content, among which the Campus Festival was one of the highlights. During the celebrations we threw open our doors to the public, providing informative insights into the university's life dominated by its major mission: teaching and research. The anniversary concluded with a festive banquet in the great ceremonial chamber of the Vienna City Hall. An important event of the jubilee was the **Anniversary Conference „Global Universities and their Regional Impact“**.

Let me explain our motivation and our aims for the conference: the invited speakers, rectors and presidents of renowned universities had to investigate and debate the role of global universities (GUs) both in a global and regional context. The social, cultural and economic impact of GUs had to be

explored. The role of GUs as a driving force of innovation was another thematic priority. Strategies for maintaining universities as sites of world-class teaching and research in an ever-changing world were also discussed along with, most importantly, the contribution of European universities to the development of Europe.

I should like to thank all those who contributed to the programme and who helped make the conference such a success.

This booklet, which contains the lively speeches and informative lectures given at the Conference, is intended for participants who would like a historical record of what was said and done during this special event of the jubilee, and also for a wider public interested in the different facets of university life and politics.

The final result of the Anniversary Conference of the University of Vienna was the jointly formulated **Vienna Communiqué 2015**. We consider this as a reference and mandate of GUs in the years to come.

The University of Vienna – a Profile

Heinz W. Engl

The Alma Mater Rudolphina, founded by Rudolph IV 650 years ago, is the oldest university in the German-speaking countries. Only the universities of Prague (1348) and Krakow (1364) are older. The foundation of these three universities guaranteed Central Europe an independent position within the European academic landscape that, by then, had been dominated by the universities in Western and Southern Europe, including Paris and Bologna.

Only two decades after its foundation by Rudolph IV, Vienna's university obtained the status of a comprehensive university during the reign of Albrecht III. Chair appointments of famous scholars especially from Paris – including Heinrich von Langenstein who came to Vienna as Chair of Theology and Astronomy in 1384 – helped the University quickly gain international reputation. Only three generations after the University's foundation, leading scholars such as Johann von Gmunden (1380/84-1442) and Georg von Peurbach (1423-1461) worked at the University of Vienna.

Its distinct internationality and legally granted autonomy are not only the characteristics of the medieval University but also that of today's University of Vienna. These characteristics were and still are the prerequisites for promising research and teaching. In addition, the Viennese University of the Middle Ages already maintained its openness to society and attracted a high number of students (there were no female students then). Between 1451 and 1460

when Regiomontanus worked at the University of Vienna, 5,306 students were enrolled at the University. 2,000 members of the student population actually also lived in Vienna in this period. At this time Vienna was already an important university city. The University of Vienna was by far the largest university in the Holy Roman Empire of the German Nation. In 1452, 103 Magister graduates were allowed to hold lectures. The lectures focused on mathematics and natural sciences. In the 15th and early 16th centuries the Alma Mater Vindobonensis attracted scholars and students from all over Europe. Vienna extended its reputation as a European academic centre. The work performed by the scholars in the University's first heyday significantly contributed to the history of Austria during the transition from the medieval to the modern era.

In the 16th century the incipient Reformation plunged the universities of the Holy Roman Empire into a grave crisis. In particular, the University of Vienna severely suffered from this crisis. Shifts in the sovereigns' support for Protestantism, followed by Counter-Reformation decrees and the long-lasting conflict between the University and the Jesuits that finally resulted in a 150-year long incorporation of the Viennese Jesuit colleges into the University, caused ups and downs in the University's history.

During the reign of Empress Maria Theresa the dominant position of the Jesuits was gradually diminished at the Viennese University and replaced



by state supervision and control over professors and the material taught. Around 1800 the philosophy of German idealism and the university reform by Humboldt also had a decisive influence on the University of Vienna. In the middle of the 19th century a period of new beginnings, economic growth and prosperity commenced that was extremely beneficial to the development of thriving disciplines at the University of Vienna. The Viennese University flourished in the second half of the 19th century due to the educational reform by Thun-Hohenstein. Research was integrated into the universities' activities, as had already been occasionally the case in the Middle Ages. When the University had its second heyday, very important academic schools emerged in various disciplines, such as physics, chemistry, medicine, law and government studies. Today, the

international audience still associates the University of Vienna with these schools. However, this important era lasted only for a short period of time.

Towards the end of the monarchy the atmosphere at the University of Vienna was strained due to political turmoil and conflicting ideologies and world views in Austria. Not only among the lecturers but also among the students, there were followers of a racist ideology and advocates of anti-democratic governments. A far-reaching rupture for the University was the two world wars in 1914/18 and 1939/45. The inter-war period was a period of severe political and social upheavals. It led to a period of hardship and injustice in which lecturers and students were among the perpetrators and victims alike.



In today's Europe, the University of Vienna is the largest university in the German-speaking countries. After the initial years of continuous expansion following the revolutions of 1848, the University has recently experienced a period of strong growth. This growth is illustrated by the following figures:

In 1848 the University of Vienna employed about 46 chairs. About 50 years later, in 1898, there were already about 162 chairs at the four "traditional" faculties: (Catholic) theology, law, medicine and philosophy. Especially medicine and subjects of philosophy, including the then natural sciences subsumed under philosophy experienced a massive upsurge.

The University of Vienna is no longer subdivided into four faculties, but into 15 faculties and four centres. Almost 10,000 people are employed in research, teaching and administration at the Uni-

versity of Vienna. There are about 420 professors (excluding medicine nowadays) and about 320 associate professors. By now, 55 scholars have been appointed to tenure track positions in competitive, internationally oriented selection procedures.

The number of students rose, too, from only 929 degree programme students in the academic year 1848/49 to a hundredfold, to about 92,000 students today, including one-fourth of international students. Women make up about 65 % of all students and about 70 % of all graduates, though women have only been permitted to study at the University of Vienna since 1897, and in some disciplines only since 1945. About 28 % of all professors are women, but this percentage is constantly increasing. Last year there was an even gender split among the newly appointed professors for the first time.

Today the University of Vienna regards itself as an internationally competitive "global university". Distinguishing features of the University are its broad range of disciplines and the related option of interdisciplinary research and teaching. In addition, it is characterised by its attractive courses and research achievements that meet highest international standards despite non-sufficient funding. This is also demonstrated by a total number of 31 ERC grants awarded to the University's researchers.

The University of Vienna is an important economic factor in the Vienna area and a driver of innovation for the region and beyond. On the occasion of the 650th Anniversary of the University in 2015, we seized the opportunity to demonstrate to the public the value and significance of basic research open to application and research-led teaching for the future academic, economic, social and cultural development of our country. The "Global Universities and their Regional Impact" anniversary conference, including its lectures, discussions and results that are compiled in the present brochure are a contribution to this end.



Barbara Weitgruber

**Director General for
Scientific Research and
International Relations**

Address on behalf of the Federal Ministry of Science, Research and Economy

*Your Excellencies,
Distinguished Guests,*

*It is an honour and a pleasure for me to address you
on behalf of the Austrian Federal Ministry of Science,
Research and Economy.*

When Vienna's Ringstrasse, the boulevard around the city centre, was built in the second half of the 19th century, there was a discussion where the new building of the University of Vienna should be situated. At first it was planned for the second row of Ringstrasse, at the location where the Votive Church is situated today. However, after a debate,

it was decided that the University of Vienna had to be located in the front row – at the very place where the main university building has been ever since – a symbolic decision for the essential understanding of the relevance and role of science and research in modern societies. The industrial era of founders and entrepreneurs of the *Gründerzeit* and its optimistic mind-set created an ideal academic habitat that attracted brilliant minds to Vienna. Many schools of thought with global impact originated from the University of Vienna at that time. More than 140 years later, it is as important as ever to ensure that universities are situated in the front row in our societies.

Faced with global and societal grand challenges – such as ensuring the quality of life in the midst of demographic change, or dealing with scarcities in energy, natural resources and strategic raw materials, or tackling climate change – and confronted by financial, economic and political crises and the ensuing consequences for nations, societies and individuals, public systems in Europe do not seem able to cope or find the right answers.

In times of budgetary constraints, fiscal consolidation, and a recession in Europe – not only of the economy but also of hearts and courage – we should recall some of the virtues of the 1870s. We need to focus much more on investing in the future: investing in education, science and research and innovation. In the light of ongoing global competition and the urge to reinvest in Europe's strengths, we need to discover new scopes for public and private investment by questioning old habits while daring to implement structural change and redefining our social agenda. When looking at the Austrian research landscape, Austria already has a remarkable number of fields with research excellence. Still, we need to continue to foster excellence, to enhance internationalisation and to enable universities to cooperate better and compete on a global scale – from being a welcoming place for an international community of students and faculty to being an intellectual and academic hub as well as an attractive partner in research and teaching, but also in cooperation with civil society and business and industry worldwide. Global universities create their identities in close interaction with the place and society they are embedded in. The combination of being globally connected and competitive and regionally rooted is vital for their success. And this is what the concept of smart specialisation – the place-based innovation concept of the European Union – is all about. It is impossible to be excellent in all areas and in all places, but it should be possible to develop and foster excellence where existing strengths suggest that there is the chance to play in the 'champions league' if we pool resources and collaborate to create areas with a distinct profile.

Universities have to fulfil a multiplicity of objectives as teaching, research and the so-called third mission encompass many aspects. These include: preparing students for active and responsible citizenship and democracy as well as for labour markets, carrying out excellent basic research including arts-based research and applied research, cooperating with business and industry, nurturing entrepreneurship,

start-ups and spin-offs, demonstrating concern for ethics and values, defining objectives and adapting policies to meet them, providing society with intellectuals as well as with specialists, promoting equality and diversity, offering continuing education and knowledge transfer to society and its economy, and fostering community involvement to promote the advancement and appreciation of science, research and the arts. Universities and higher education institutions are key players as far as the smart specialisation of regions is concerned and they are key players in supporting an entrepreneurial mind-set. 30 % of Austria's researchers work at universities. Around 50 % of government spending in science and research is allocated directly to Austrian universities. Universities are one of the backbones of our innovation system: be it in the field of new technologies or in the field of social innovation, be it in the knowledge transfer to economy or to society.

I therefore count on universities' expertise as intellectual lead institutions in their respective cities and regions to join forces with national and local governments in rebranding places for the knowledge, innovation and creativity they assemble.

The University of Vienna is a natural leader in that process, being Austria's largest university, shaping the city of Vienna together with other Viennese universities and other higher education institutions as the largest student city of German-speaking countries; but also for being among Europe's oldest universities. I count on the University of Vienna to make use of its history, as a supporter and promoter of an entrepreneurial dynamism in science, research and innovation, as it has been before in its long history! And I look forward to the conclusions which will be presented in the "Vienna Communique 2015" at the end of the conference.

Let me end by wishing you a stimulating and successful conference on global universities and their regional impact and – one day after the official celebration of the 650th birthday – let me also convey my best wishes to the University of Vienna:
Ad multos saeculos!



Andreas Mailath-Pokorny

Executive City Councillor
for Cultural Affairs and
Science in Vienna

Welcome Address on behalf of the City Government of Vienna

*Dear Commissioner,
Dear Rector,
Ladies and Gentlemen,*

I bid you a cordial welcome on behalf of the City of Vienna and, specifically, on behalf of Mayor Michael Häupl, for whom Vienna's universities and their positive development are a prime concern. 2015 is a year dedicated to notable anniversaries: we celebrate the 650th anniversary of the University of Vienna, the 250th anniversary of the University of Veterinary Medicine and the 200th anniversary of the Vienna University of Technology. These anniversaries offer a good opportunity to look more closely at the relations between the universities and the City of Vienna, and to present them to a broad audience, in particular noting how these relations

have grown significantly over the past decades. Knowledge is the key resource of the future. The universities play a central role in generating and communicating knowledge and innovation. For Vienna as a knowledge hub, this fact is clearly illustrated by the following figures:

Vienna is the largest university city in the German-speaking region. More than 190,000 students enrich our city in every sense of the word and make it the biggest university city in Central Europe. Since 2000, the number of universities and universities of applied sciences based in Vienna has increased from twelve to twenty. One out of two people aged between 19 and 26 years is enrolled at a university. After the Vienna City Administration and the Vienna Board of Education, the University of Vienna is the third largest employer in the region with

6,700 scientific and 2,700 administrative employees. The University of Vienna alone boasts a purchasing power of 1.13 billion euro. Moreover, Vienna is an international hub with 42,000 foreign students; 35% of these come from Germany and 35 % from Eastern Europe. Vienna's universities employ over 32,000 people. 40,398 people in Vienna work in the field of research and development, which equals 37 % of Austria's R&D workers in total. Furthermore, Vienna reaches a research ratio of 3.5% and hence already outperforms the Barcelona objective and the EU average of 2 %.

Ladies and gentlemen, these data are clear indicators of Vienna's importance as a centre of science and research. But what do these facts and figures truly tell us? The answer is quite evident and also forms part of the topic of this conference: knowledge is not only a central resource of society but contributes significantly to economic prosperity in the competition between regions. In general, places that attract talent will be places of higher living standards.

Today, Vienna is not only winner of Mercer's quality of living ranking for the sixth time, it also ranks number one in the UN-Habitat State of the World's Cities, leads the Best Students Cities quality of living survey and was named Best City for Young People to Live in.

This positive development is also the result of improved cooperation between the City Administration and universities. A good example of this is the

City Administration's commitment to provide the universities with land and infrastructure. The City of Vienna has sustainably and substantially supported Viennese institutions in the fields of research, development and academic learning. Examples include the donation of the Old General Hospital complex to the University of Vienna – resulting in the establishment of a new humanities campus in the heart of the city – and the provision of key support in the construction of the new campus of the University of Economics and Business – the “WU Campus” – in the 2nd municipal district, but also the “TU University” project in its current location in the 4th and 5th municipal districts. However, in recent years, Vienna has also invested significantly in technology facilities, such as the Vienna Biocenter or the Center for Molecular Medicine – CeMM – in what is often referred to as the “Medical Hill” zone in the 9th municipal district.

A good example of the regional impact of a global university therefore is the interaction between the public health sector and public and private life sciences institutions.

More than a third of the city's general budget is spent on health and social expenditure, the General Hospital being the largest recipient with over a billion euro a year. Thus it is understandable that the main objective of science promotion activities undertaken by the city of Vienna lies in strengthening the innovative culture of various institutions of the life sciences.

Having said this, Vienna is headed in the right direction towards being a “Smart City,” in the spirit of a future-oriented metropolis that attracts people and attaches great importance to creativity and knowledge, curiosity and innovation.

Vienna's wealth therefore is rooted in its universities. They constitute a decisive location factor, given that knowledge – in Schumpeter's understanding – advances innovation and thus creates values for societies that in only a few years will be almost exclusively composed of “urbanites.” Education and innovation are of key importance for Vienna's future as a knowledge hub: the city's future as home to its inhabitants, destination of interested tourists and a business location depends on research and innovation.

In this spirit, I would like to wish you a very productive conference.



Keynote Lecture

*Your Excellencies,
Ladies and Gentlemen,*

I am very honoured to give the opening lecture on this special and exceptional occasion. First of all, I would like to congratulate the University of Vienna and its representatives on its 650th anniversary. 650 years is an impressive time. It makes the Alma Mater Rudolphina not only the oldest university in the German-speaking area, but also the richest in terms of experience. This rich history shows that the university had to reinvent itself several times to adapt to varying political, socio-economic and cultural changes, with all the ups and downs linked to them. Seeing that track record today I am proud of the development of this institution. It is a business card for Vienna and for Austria, accommodating over 90,000 students, 180 study programmes and 6,900 researchers at over 60 locations. All this, not to mention producing nine Nobel Prize winners, makes the Alma Mater Rudolphina one of the most renowned universities in Europe. Taking today's title “*Global Universities and their Regional Impact*”, there is no doubt that the impact of the University of Vienna is manifold on the region of Vienna as well as on all of Austria and – I would add – Europe.

Throughout my professional career I have dealt with universities from many different angles, whether as an employer in the private sector, as a local and regional representative, as the responsible minister or as European Commissioner. The main



conclusion is: a region cannot prosper without the influence of a well-performing university pushing its socio-economic and cultural activities and unlocking its potential. However, I would also like to put today's topic in a broader context. What is expected of universities today? What does Europe expect of its universities?

What is the role of universities in a globalising environment?

As you all know, universities, in principle, fulfil two main tasks: teaching and research. As regards teaching, there are obviously also other institutions in charge of this task. However, universities are at the top of the academic pyramid and have an outstanding role to play.

The goal of universities in this regard is to attract as many people as possible and help them succeed on their tertiary education path, as laid down as a European goal in the Europe 2020 strategy. The goal is also to equip graduates with the right knowledge and tools to contribute to the development of society. And taking into account that people do not stay in one job throughout their career, but may need to

adapt or even change qualifications and skills several times in their lives, universities are more and more taking on the responsibility to meet this need. The key phrase is 'life-long learning.'

The contribution of universities to society can be impressive. For example, survey data from the MIT shows that MIT alumni founded 25,800 currently active companies that employ 3.3 million people and generate annual world sales of \$2 trillion, producing the equivalent of the eleventh-largest economy in the world. I do not know whether someone has already had the idea to calculate a similar thing for the University of Vienna. I could imagine that alumni of this university have topped this during its venerable history.

However, I would like to emphasise that this contribution should not be expressed purely in terms of economic input and output. The socio-political relevance and responsibility is at least equally – if not more – important. Just think of progressive thinkers and pioneers like Karl Kraus, Hugo von Hofmannsthal, Viktor Frankl, and Carl Auer von Welsbach and many others who influenced our society today in a sustainable manner. Let me add that this

socio-political task will be of increasing importance when it comes to the challenges of a knowledge and information society where it is more and more difficult to verify the truth and accuracy of information. To put it in the words of John Naisbitt: "We are drowning in information but starving for knowledge."

As regards research, universities need to constantly specialise in order to become internationally renowned and to achieve excellence. In general, we see that in a more and more specialising world the specialisation of educational institutions is of particular importance. This influences not only the socio-economic development of a region but also spurs its attractiveness in general. Inversely, the smart specialisation of a region has an impact on universities and can help accelerate specialisation. As Commissioner for Regional Policy, I particularly focused on this smart specialisation approach and defined it as one of the pre-conditions for the disbursement of European structural funds.

Against this background, the concept of 'universitas' needs to be reinterpreted again and again and adapted to the economic, social and scientific conditions of the time. The concept needs to be outlined in a flexible manner. I think it is crucial to think outside the box, i.e. to think outside departments and faculties and aim for more interdisciplinary education – not least to serve the demand side of employment.

I can give you a concrete example. Wind energy is an important source of energy but at some point having wind turbines all over the landscape became more and more an obstacle rather than enrichment. This led to a demand for offshore wind turbines. However, building them required not only a combination of the know-how of ship engineers and construction engineers, but also environmental specialists, geologists, etc. Interdisciplinary and cross-professional capacities are vital. This example also shows how important it is to strengthen and further

enhance the 'triple helix models' in order to foster cooperation between *universities*, *government* and *industries*. It is particularly important to spur innovation and create jobs and growth in Europe. In this respect, too, I applaud the many academic institutions that have established close relations with different professions or even enriched their academic training with practice-oriented elements.

Ladies and gentlemen, this brings me to my second point: What does Europe expect from its universities?

What does Europe expect from its universities?

Current state of play: The European Union is facing several challenges.

Nearly 24 million men and women are unemployed in the European Union. Nearly 5 million young people under 25 are unemployed. We face the risk of persistent low growth rates, an ageing population and budgetary constraints that put our welfare state under pressure. In addition the 'brain drain' is increasingly a matter of concern within the European Union.

Despite this situation, I look confidently into the future and see the glass half full rather than half empty. I always say, Europe's problem is that Europe does not know Europe. I can assure you that in my last mandate I have seen regions turning geographical disadvantages into a competitive advantage (Azores), regions that reinvented themselves from an industrial zone to an innovation zone based on sustainable and renewable energies (Bottrop) or basic research results that translated into a concrete new, revolutionary material (graphene).

I am convinced that Europe's strength lies in its diversity. It is no coincidence that Europe, with only 7 % of the world population, still accounts for 23 % of world gross domestic product (GDP) and for al-

most 45 % of world social expenditure. It is especially the last figure that I see in a positive way as it expresses our high standard of living and, not least, our eco-social market model.

The main objective must be to further improve our living standards. The key word in all this is 'innovation.' And universities play a crucial role in this.

They often constitute the nucleus of a positive socio-economic development in a region and are the key to tackling the challenges we currently face. They produce highly educated people who are able to deal with the challenges of modern societies and economies. And it is therefore also important to ensure the necessary environment for these people to use the capabilities acquired to their best advantage.

Let me illustrate this for the brain drain challenge we are facing within the European Union and also in the Western Balkan countries. Latvia and Lithuania have lost 10% of their work force in the last few years. Two million people have emigrated from Romania. We see similar trends and worrisome figures in Bulgaria and the Western Balkan countries. Especially, youth emigration is causing the Balkan brain drain. Around 12,000 people aged between 25 and 35 leave Serbia every year, 10,000 leave Bosnia and 9,000 leave Croatia. We can assume that these people are not the most unskilled ones.

I think universities, in particular as research institutions, may be able to reverse this brain drain and transform it into a 'brain circulation.' In this regard, we have to be aware of one fact: similarly to the Eurozone and non-Eurozone we also have a research zone and a non-research zone. Therefore, it is particularly important to help upgrade the research infrastructure of Eastern and Southern members in order to increase the attractiveness of the regions as business locations and as places to live. This will help create jobs and growth and offer a concrete perspective for personal and career development.

However, we should not be under the illusion that these regions and countries can innovate and achieve excellence by themselves. Here, I count in particular on excellent and renowned universities like Vienna to seek and intensify cooperation.

In this regard I also would like to reiterate that the unification of Europe is not complete and the process that started in 1990 has not yet been finished. The role of universities as educational and research

centres can help complete the process and, in particular, further dispel the barriers lurking in the hearts and minds of people.

Instruments like Erasmus and other scholarship programmes are a success story of the European Union and should be intensified and broadened, in particular for professors, researchers and others. This will also constitute a priority in my capacity as Commissioner for European Neighbourhood Policy and Enlargement Negotiations. I particularly see the enlargement of the European Union as a process rather than as a matter of negotiation. The approximation of laws with the European Acquis is without any doubt very important. However, it is equally important to approximate the mind-set of people and society towards European standards. That is why it is so important to see this as a process. And you will agree with me that the educational and research power of European universities and their cooperation and network is key.

Conclusions

Ladies and Gentlemen, I would not have mentioned all this if I had not known that the University of Vienna is a role model and is living up to these expectations.

I just think of the vast network of cooperation and exchanges with other universities, the responsibility this university assumed after the fall of the Iron Curtain or the commitment and engagement of the University of Vienna in helping kick-start the Danube Rectors Conference. For the latter, I am particularly grateful as this effort helps further consolidate the European integration process within the European Union and also with our partners in our neighbourhood, which is an integral part of our courtyard.

I am convinced that the University of Vienna has a great opportunity in Europe today. The sheer size of the university in terms of its students, faculties, re-focused effort on interdisciplinary, excellent teaching personnel and researchers encompass all the ingredients needed to remain Europe's biggest innovation laboratory.

Heinz Fassmann

Vice-Rector for Human Resources Development and International Relations, University of Vienna

Introductory Address for SESSION I Innovation Impact of Global Universities

Modern universities are an important booster of economic and social development in their regional context. They are magnets for talented young people who come to the cities with new ideas, uncommon perspectives and an active life style. Young people reduce the aging process and make these cities more attractive for economic activities and enterprises. University cities are not shrinking cities, as it is the case especially in many medium-sized cities in Eastern and Central Europe where in most cases the opposite is true. Furthermore universities are important economic actors as well. Investments into buildings, equipment for research and the consumption expenditures of university employees and

students increase the demand for goods and services and stimulate the local economy. The positive social and economic effects are one of the reasons why regions and cities are keen to have universities within their limits and in most cases the cities and regions implement an active policy to attract universities and to support them. The relations between city and university will be presented in the following panel. It will provide a general overview and some astonishing details from Chicago, Cambridge and Hong Kong.



Maria Helena Nazaré

President of the European
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Global Universities as Driving Force of Innovations

*Dear Rector Magnificus, Professor Engl,
Councillor for Cultural Affairs Andreas
Mailath-Pokorny,
Commissioner Johannes Hahn,
Esteemed Colleagues,
Illustrious Guests,*

“Sehr geehrte Rektorinnen, Rektoren und Präsi-
denten, sehr geehrte Kolleginnen und Kollegen,
es ist mir eine große Ehre und Freude, an den
Feierlichkeiten anlässlich des 650. Gründungsjubi-
läums der Universität Wien teilzunehmen. Bitte er-
lauben Sie mir, der Universität zu diesem großen
Meilenstein auf das herzlichste zu gratulieren.”

The above words heartily congratulate the Univer-
sity of Vienna on its achievements spanning the last
six hundred and fifty years. It is appropriate to also
congratulate Rector Heinz Engl himself, expressing,
at the same time, the wish for many happy returns.
As President of the European Universities Associ-
ation I bring greetings from our sister universities
across Europe. These greetings are accompanied by
encouragement and support for Vienna University
in standing firm in defence of the universal values,
which are the distinctive characteristic of what a
university is about.

Universities have been, and still are, among the
most important institutions in Europe. They are
one of its most valuable assets. They have always

been global institutions! This is embedded in the meaning of what a university is about. They were active in 'globalisation' long before the term came into use.

Scholars travelled Europe in search of new ideas and learnings, constructing a community of knowledge by sharing them among their peers and colleagues. Erasmus' travels and the Lavoisier letters are good examples of this.

So what has changed that brings new challenges to universities? It is the scale and the breadth of the expectations! What is demanded of universities today goes beyond training the elites, debate with peers, philosophy and science (natural philosophy, as it was once described). The expectations have grown to encompass educating people to become global citizens, assets to their own community and to the world at large.

Indeed the greatest asset of any nation is, more than ever, the qualification of its human capital – qualification in terms of true and all-encompassing education, covering not just training in a specific area of knowledge and the capacity to look for solutions, but including respect for the universal values of equality, freedom of opinion and of cult. This spells University Education, for as many as can or want to pass through its doors.

The frontiers of poverty have moved to the northern shore of the Mediterranean and there are fears that intolerance might follow suit, with unpredictable consequences. It is frightening to see the engagement of youth in so many despicable actions. Hence we look to universities to play a central role in the development of a cohesive and inclusive society. They are expected to deliver high quality research, knowledge transfer, lifelong learning as well as teaching, economic development at global and regional levels and citizenship training. In addition, their contribution to the public understanding of science is paramount to support informed decision-making, not only at the level of the individual but also at a government level.

European needs for smart, sustainable and inclusive growth

The expectation is high indeed and European governments need to realise that nothing comes out of nothing! The prerequisites for good performance are a high degree of autonomy, good governance and adequate funding.

As long as universities remain underfunded and over-regulated it will be impossible for them to deliver the knowledge and graduates that Europe needs for smart, sustainable and inclusive growth. As long as Europe fails to address its demographic

and economic disparities it will continue to lose brains to emerging economies in other parts of the world. Universities have the duty of informing public policies, and governments should use the available information to model the necessary development instruments.

During the last decade, the European higher education landscape underwent tremendous changes, both at system and at institutional levels. Many of these were directly linked with, or driven by, the need for efficiently educating the workforce, within an appropriate span of time, and equipping it with the skills required in a global competitive world market. Hence the Bologna higher education reforms, which brought about the restructuring of HE degrees, new methodologies focusing on the learning process, increased mobility of students and staff, and the new importance of quality improvement and quality assurance within HE.

Building the knowledge society requires stronger links between the research and the teaching missions of the universities, and changes in doctoral education are taking place throughout universities in Europe. At the same time, novel ways of interrelation between university and business are being developed and proving fruitful.

Halfway through the first decade of this century, it became clear that meeting the goals of the "Europe of Knowledge" required more than just restructuring HE degrees. The modernisation of Europe's universities was, in 2006, acknowledged as a core condition for the success of the Lisbon Strategy. Consequently, many national reform agendas went beyond the structure of the higher education system and included new governance structures with increased stakeholder influence, different ways of choosing the leadership and greater proportions of performance-based funding.

However, ten years later, Europe continues to be confronted by one of the worst economic and financial crises since the great recession, together with a very adverse demography, unprecedented migratory flows and the need to guarantee the security of its citizens which is being threatened by reason of their religion, race or gender.

To respond adequately to such a challenging environment the Europe 2020 Strategy has developed plans addressing job creation and boosting the economy through investment in innovation. It has also recently acknowledged the need to act together on increasing security.

But there are severe limitations to the success of the 2020 Strategy, namely, those related to the disparity of demographic trends within Europe and the way governments are dealing with the economic crisis which is impacting very negatively on European universities. These issues constitute a severe threat to the achievement of a harmonious European Research Area and even to the European Higher Education Area, undermining the overall objective of the realisation of a cohesive, inclusive and economically strong Europe. A strong inclusive Europe requires strong inclusive universities.

Europe is a very diverse region, namely, as pointed out already, in demographic terms, and big differences can be observed which are likely to add to the problem. Eastern Europe faces ageing as well as a huge decrease in overall population figures. Countries like Bulgaria, Estonia, Latvia, Lithuania, and Romania are likely to see a population decline of the order of 50 %.

The pool of school leavers from which universities traditionally recruit is shrinking across Europe, hence the danger of increased mobility flows from East and South to West and North. This will aggravate the social and economic problems of the 'sending' regions with increased internalisation of costs and externalisation of benefits.

At the same time a new and invaluable cohort is emerging, the 65+ citizens. Up to now the major concern of governments has been linking the retirement age to life expectancy. This is obviously correct and necessary but now a more creative approach is required, an approach that does not look only to the economic sustainability of the pension schemes but stimulates the sharing of knowledge and experience between generations.

Smart, sustainable and inclusive growth in Europe depends on a better and more effective relationship





between governments, policies and HE institutions, promoted and supported by visionary leadership at all levels.

The increase in the qualification of Europe's workforce is a must

Going back to the question of the necessary increase in the qualification of human capital in Europe: it has been stated that the increase in the qualification of Europe's workforce is a must and the 2020 objective in this area is to have 40% of young people (30 to 34 year-olds) qualified at HE level. Achieving this objective entails, in institutional terms, abandoning the paradigm of only educating (18 year-old) secondary school leavers. It means not only recruiting mature students but having in place different learning paths, ways of recognising competences acquired via formal and non-formal prior education and training, and especially using learning methodologies in a manner that is appropriate to the new cohort so that the probability of success is high. It is more harmful to welcome mature students without having in place adequate tools to train them than not admitting them at all. Universities need to be able to reward success by equipping graduates for the labour market.

All this requires institutions to have autonomy in terms of curriculum, staff recruitment, salaries and incentives. Here is a case where institutions cannot do MORE with LESS; at best, they could do MORE

with more AUTONOMY and LESS micromanagement.

Partnerships with business and industry are crucial to ensure the relevance of the qualifications and opportunities for the active workforce. However the danger that this group of students may be looked at as the cash provider to balance the shortcomings of the public funding is very real. AGAIN, obviously, leadership matters!

Attract and retain the best

'Europe needs more researchers' is one of the hot topics in relation to constructing a global university. This topic has been addressed several times in different communications from the European Commission and diverse forums held on the theme. Indeed, Europe does need more researchers but also a wiser view of the importance of interdisciplinarity and the role that the social sciences and humanities can play in a world where food per capita is diminishing, the number of displaced people is increasing, the natural supplies of water are under threat, fears of nuclear energy conspire to deepen the energy crisis and religious intolerance threatens peace and takes human lives.

Europe has an enormous advantage in its universities, at the heart of which is research and research-based education. In fact, the link between higher education and research is a central feature of

European universities and this interaction is seen as essential for strengthening the research capacity, and improving the quality and attractiveness of European institutions. The universities recognise that graduates at all levels must have been exposed to a research environment and to research-based training in order to meet the requirements and challenges of Europe as a knowledge society.

Doctoral education is being restructured across Europe. European universities have recognised that doctoral training must increasingly meet the needs of the employment market, which is wider than academia. Consequently, doctoral programmes have changed a great deal in recent years, becoming more geared to employment outside academia, including interdisciplinary training, focusing on the development of transferable skills and operating within an appropriate time period – three to four years full-time as a rule. Nowadays, most of them offer geographical as well as intersectoral mobility and international collaboration within an integrated framework of cooperation.

All over Europe doctoral schools are being created as a result of joint ventures involving international partnerships among universities, other research organisations, industry and business. Changes are needed and are occurring, however it is also reaffirmed that the core component of doctoral training is the advance of knowledge through original research.

The need for restructuring doctoral education within universities is perhaps one of the more challenging issues that university leaderships face today. The apprenticeship model of doctoral education lies at the very heart and foundation of European universities and so it is one of the issues that faculty members resist and are reluctant to change.

In order to strengthen research and research-based education, universities have to develop research strategies that define institutional priorities and identify areas of specialisation, leading to excellence and sustainability in research. Of course, this calls for enlightened leadership backed by appropriate governance and management structures and the availability of budgets for strategic areas.

Doctoral programmes are a key component of the discussion about European university education in a global context. At an institutional level, they are central to the development of universities' internationalisation strategy, attracting the best doctoral candidates from all over the world, encouraging mobility within doctoral programmes and supporting European and international joint doctoral programmes and cotutelle arrangements.

Research is a prerequisite for innovation. Without research the pipeline to innovation – and so to any new ideas that could attract investment and result in growth and job creation – is cut off.

It is said that when Faraday was experimenting with electricity he was asked to explain what was the purpose and worth of such experiments, to which it is said he replied, “I do not know yet the uses of it, but I am sure, Minister, that you will be able to tax it some day!” This is most certainly an anecdote but it is well to remember that, for instance, mobile phones and the digital era were founded on mathematical concepts and research into algorithms. Without Ludwig Boltzmann, Volta and Pedro Nunes, to name just a few, our knowledge and the world itself would be poorer.

Research must be funded in an appropriate way and it was with the utmost perplexity and almost disbelief that universities across Europe learned about the cuts to Horizon 2020, proposed by the European Commission. These cuts will result not only in a performance loss for the European research and innovation system but also for Europe’s long-term competitiveness.

Europe needs long-term, reliable and adequate funding of excellent research by the EU to deliver sustainable growth and jobs and improve our living conditions. In response to the European Commission’s proposal for a European Fund for Strategic Investment (EFSI), we are urging MEPs and governments to swiftly and assertively take steps to protect investment in Horizon 2020 and to realign EFSI objectives so that they can be delivered without detriment to Europe’s research competitiveness. Horizon 2020 is an established and well-functioning growth programme for Europe with a considerable international profile and should not be degraded.

Universities are about research-based education. They share and spread knowledge on a global level, contributing most definitively to the improvement in living conditions and economic growth.

Conclusions

The EU 2020 targets of having at least 40 % of 30 to 34 year-olds completing tertiary education, of reducing school drop-out rates to below 10 %, and of having 3 % of the EU’s GDP invested in R&D&I, which translates into having another million jobs in research, can only be achieved if universities are able to respond on different fronts: as excellent knowledge producers, as educational institutions (learning/teaching and behaviour role models), as part of the innovation chain and as public policy watchers, promoters and drivers.

Nevertheless, the huge difference in the pools of potential higher education student populations across Europe is in itself a strong threat to the attainment of those targets and constitutes the most serious problem, which nowadays undermines the economic development of Europe as a whole and threatens its future.

Addressing these issues requires a modernised idea of the university as an organisation with a segmented mission and clear vision; an institution that recognises the need for knowledge creation through interaction among the different disciplines, from the hard sciences and technologies to humanities and social sciences, not with the ambition of solving all the problems but to start addressing them in a more adequate way by pooling resources and drawing together expertise from different fields.

Above all, it requires institutional autonomy and appropriate incentives enabling universities to organise themselves internally and address successfully the need for reconfiguration of the HE&R&D network, to increase the quality and performance that Europe, again as a whole, needs.

Markets are also extending their influence on the way universities govern themselves. The current governance model has undeniably been influenced by private enterprise. While universities must take this opportunity to modernise and become more responsive to society’s needs, it is important not to forget that business management methods are not appropriate for universities.

Universities must remain a source of independent reflection and play the role of society’s critical conscience.

No longer being ivory towers, they should, perhaps, become lighthouses, carefully avoiding being turned into oil wells in the process of change.

Greetings, once again to this great University in Vienna.

Thank you!



The Role and Responsibilities of Universities in Europe’s Revival

Ladies and gentlemen, it is a real pleasure to be able to speak to you today, and to join with friends and colleagues in celebrating the 650th anniversary of this great university. Six years ago, in Cambridge, we celebrated our 800th year, so I understand the pride that staff and students here in Vienna feel on reaching such an impressive milestone. It is a privilege and a personal pleasure to join you at such a special time.

I am delighted to be in Vienna as the history of this great city was held in high regard throughout my childhood. Although I was born in the UK to Polish parents, a single date is inscribed in my memory – the 12th September 1683. This date marked the end of the Siege of Vienna, relieved under the leadership of the Polish King Jan III Sobieski. It is when Vienna took her place at the heart of Europe, and is a cornerstone in the history of your University. At a more personal level, my grandfather was born in the Austro-Hungarian region of Poland, and served in the Hussars during the First World War.

Like Cambridge, the University of Vienna has played a key role in academic enlightenment from the 19th century to today. Our ancient institutions share academic leadership and core values exemplified by our amazing alumni, from Newton to Hawking in Cambridge, and Landsteiner to Lorenz in Vienna. Few organisations today have both the

history and the foresight to be able to look back over centuries of progress and simultaneously make bold plans for a long-term future.

Anniversaries are a time for celebrating achievements. They are a time for remembering challenges and threats that have been overcome – and for renewing the values that have sustained us. But they are also a time for looking forward; we must ask ourselves as universities committed to a long-term view: what does the future look like – in a year, in five years, yes, but most importantly in twenty years' time? What are the challenges and opportunities we can predict and how do we remain fit for purpose to deal with the unpredictable?

And it is the question of the future of universities such as Vienna and Cambridge – and our role in creating a prosperous Europe for the 21st century – that I want to focus on today.

The health of Europe and the health of our universities are strongly connected. In fact, I firmly believe that we cannot have one without the other. A strong Europe, benefiting from economic partnership, freedom of movement, and a deep respect for the individual – while respecting national and regional cultures – creates the conditions that univer-

sities need to thrive. Given those conditions, universities will continue to do what they have been doing for centuries: contribute to society through research and learning. New medicines will be developed. Tomorrow's leaders nurtured. Jobs created. But without the right support, and without political leaders who are willing to take a long-term view, I fear universities – and countries – will suffer.

A little under four months' ago, His Holiness Pope Francis described Europe as “elderly and haggard”. I can understand why he chose those words. We are still grappling with the effects of the deepest financial crisis in over eighty years. That pain has led to startling inequalities in employment, health and basic services across the European Union.

Europe and innovation

But we need to be optimistic. Europe is also a continent with huge potential: a region packed with many of the world's best minds, boldest entrepreneurs and most dedicated teachers. All over Europe, and often located close to and associated with major universities, committed men and women are building new economies based on knowledge, discovery and innovation. They must be supported for the sake of our future.

Innovation – and specifically innovation driven by academic collaboration, technology clusters and exciting relationships between universities and businesses – will play an increasingly important role in driving forward growth and prosperity. This is something the European Commission has been rightly vocal about, and through Horizon 2020, it has committed to investing 3% of the EU's GDP in research and innovation.

I see on a daily basis what commitment to innovation can do. In Cambridge, our innovation cluster began in 1960 with the simple idea of putting “the brains of Cambridge University at the disposal of industry”. One of its leading protagonists is a son of this city – Hermann Hauser whose outstanding contribution is recognised by the Hauser Forum: a striking building on our West Cambridge campus that has become a focal point for entrepreneurship and knowledge exchange in our region.

Today, the result is the Cambridge cluster. In a city with a population of just over 120,000, more than 1,500 technology-based firms, employing some 57,000 people and generating more than £13bn in revenue have been created. This results in a local unemployment rate of 1.4 % and we do not need to always look to the USA as Cambridge is rated alongside MIT and Stanford as the top 3 world leaders in the University Innovation Ecosystem Benchmark Study 2012-2014 well ahead of the other 200 universities studied. Who did this study - MIT! It is not just the Greater Cambridge Region that benefits from this. Two years ago, the global pharmaceutical firm AstraZeneca announced it would establish a new €400m R&D headquarters in the city. Without the university and its track record in world-leading science and medicine, together with the close proximity of two large hospitals and the environment of the cluster, the company could easily have gone to the US – to the detriment of the UK and European life sciences community, and of our economies.

We at Cambridge are very successful and we already demonstrate that this success can be achieved in Europe. Similar university-led innovation is evident across Europe. Vienna is known for its contribution to the life sciences cluster. Other examples range from Munich's high-tech, medical cluster, Estonia's health-tech cluster in Tallinn, to Nice's technology park at Sophia Antipolis.

Investing in knowledge

This wealth of intellectual and entrepreneurial capital makes the EU, in the Commission's own words, the “knowledge production centre of the world... accounting for almost a third of the world's science and technology production”.

That sounds impressive, and it is. But it also has a genuine impact on the quality of people's lives in countries all across Europe. Let's remember that in the financial crisis of 2008, European countries that invested most heavily in research and innovation were the countries that recovered more quickly.

But standing still means falling behind. The potent, catalytic power that research and innovation play in creating prosperity for regions, countries and citizens is one of the fought-over commodities of the early 21st century. And the global competition is fierce from America, and the developed Asian economies, such as China and South Korea.

Unfortunately, the indicators of power and influence in the knowledge economy do not look promising for Europe. China is investing far more in research and innovation, fast catching up with the US, and more researchers from Europe head for America than the other way round.

In a few moments, I want to make the case for a more significant and autonomous commitment to research funding – both within the EU and nationally – and to outline my own view that the EU is still the body best positioned to support universities in their role as creators of economic growth.

But before I do, let us look at some of the unique attributes of universities that make us such effective innovators and contributors to growth and social wellbeing.

Universities – four key attributes

First, we are very good at taking the long-term view. Today's leading European universities – including Vienna – have long and rich histories suggesting that they have a resilience that can deal with uncertainty. We pre-date and have survived many economic and political upheavals. How? The value we place on autonomy. Autonomy at the level of individual researchers, who have the freedom to follow their intellectual curiosity, but also autonomy at the institutional level itself.





At Cambridge, this dates to the 16th century – the right granted to us by Queen Elizabeth 1 to govern ourselves. We prize this greatly and never take it for granted. It gives us the advantage of a strong focus, and an ability to take bold decisions that support our mission.

Let me give you an example. Two years ago, the University of Cambridge committed to the largest expansion of our campus in our 800-year history – a project that will ultimately cost us £1bn. Why? Because we are committed to ensuring that the Cambridge of 2040 carries forward our mission in a new and different yet still uncertain world. A world that we do not understand, but need to meet head on and adapt to. We as a University are concerned in overspecialisation as this restricts flexibility and who here can predict where the next major discovery such as DNA will occur. Therefore this needs new, adaptable research and teaching strategies and facilities, as well as homes for both staff and students to be found on this campus.

Second, we are focused on excellence in everything we do. At Cambridge – as is the case at nearly all British universities, this starts when we select 17-18 year-olds to study for their undergraduate degrees. We seek to encourage the very brightest students to apply for what are fiercely contested places. It doesn't matter what their backgrounds are, where

they go to school, whether their parents have been to university. We want the brightest students, and those with the most potential. And we work with schools in every part of the country to encourage children to put themselves forward to study at Cambridge – including some of whom may not have the confidence to do so. Our pursuit of talent extends to our PhD students, our research staff and to our most senior professorial positions.

Third, we value diversity – diversity of opinion as well as in our staff and student body is vital to our success.

Around 60 % of our postgraduate staff come from overseas and we recruit 25 % of our research staff from within the EU. And without the EU's support in creating mobility for international students and early career researchers, our contribution to the world would be severely compromised.

Finally, we are excellent at creating partnerships. We build alliances – with businesses, hospitals, local authorities, governments and other institutions.

In December last year the InnoLife Knowledge and Innovation Community, a €2.1bn project was initiated supported by the European Institute of Innovation and Technology, to address the impact of age-

ing populations and dependence. The scale of the project, not just its funding, is truly impressive. It brings together 144 European companies, research institutes and universities across nine EU countries, including the University of Cambridge, to tackle one of the major challenges that will affect us all. But that scale is exactly what is needed if we are to overcome society's grand challenges. Put simply, we cannot access the talent, develop the infrastructure or provide the funding at a national level. We need to leverage expertise across multiple geographies and sectors; to develop networks, learning opportunities, new products and services.

These attributes make it clear that universities are at the heart of efforts to create growth, economic stability and wellbeing. Equally, Europe can and should be the region to exert influence on the global stage in the interests of our nation states, institutions and especially individual citizens. It is clear that the interests of Europe and universities are mutually aligned.

However, a perfect storm of fiscal short-sightedness, a political debate on immigration that is based on fear and emotion – in my own country at least – and a slow erosion of universities' autonomy, threaten our future. A threat to Europe is a threat to our universities – and vice versa. What are those threats?

Threats to universities, threats to Europe Funding under pressure

First of all, funding. This is always a complex area with multiple priorities, but let me focus on one much publicised issue: the plan to divert €2.7bn out of the Horizon 2020 budget to a new European Fund for Strategic Investment. While I certainly agree that investment in growth and jobs is crucial at a time when the threat of EU disintegration has never been so great, but cutting the research budget is not the solution: protecting it is.

The European Fund for Strategic Investment has been created to address the challenging economic situation we find ourselves in. Yet its impact on Europe's long-term competitiveness could be very damaging. To understand the potential ramifications, just rewind the logic of the argument that economic growth is dependent on research and innovation. Less investment, less innovation. Less innovation, fewer jobs. Fewer jobs, more hardship for people and communities. Not to mention that Europe as a region will be weakened – right at the moment when its competitors are increasing their investment in knowledge production.

We have, in Horizon 2020, an excellent, evidence-based framework that was born out of widespread consultation. It is the latest instalment in a long



line of research programmes that have, until now, demonstrated a commitment by the European Commission to research and innovation. And yet, a year on from its inception, it has been weakened considerably – a victim of political expediency and false logic. Diverting money from a proven funding model – the success of which stretches back more than thirty years – makes no sense. Be in no doubt: the cuts to research and innovation will damage Europe's economic future.

UK membership of the EU

Second, we must have a sensible debate about the UK's contribution to, and membership of, the European Union. There are so many reasons why this is important, but let me give you some that are close to my heart: the positive effects of mutual security and cross-European mobility. My parents were victims of European conflict, captured in Eastern Poland at the outbreak of the Second World War and incarcerated in Siberia. Since the EU was formed we have avoided such previously common conflagrations, something the University of Vienna and everyone here must be glad of.

After release and journeys across Asia and fighting in Italy, my parents chose to settle in the United Kingdom in 1947, as to return to their native Poland was fraught with peril. It is true to say that, without the UK's open and positive attitude to immigrants then, I would not be standing here in front of you today.

So it equally alarms and disappoints me, to hear the manner in which immigration is discussed in the UK: in the media and across the political spectrum. It is the language of the 'other' – fearful, emotional and reactionary. Migration and freedom of movement have always played a revitalising role in 'receiving' economies. It is something that university vice-chancellors know only too well. Nearly a third of our academic workforce is made up of postdoctoral researchers. Highly mobile and ambitious, they are the engine of our research output. Make it difficult or unattractive for them to work with us, and they will take their talents elsewhere. The same is true for international students – the brightest of whom we want to stay in our countries, and in Europe, where they can make positive and long-lasting contributions.

We cannot let political short-sightedness stand in the way of our continued economic recovery. The UK's future, as a member of the EU, cannot be decided by an intemperate, ill-defined and ill-informed debate on immigration.

Let me be clear: I believe the UK's future lies at the heart of the EU, and that many people in the UK support that too. EU funding to individuals and institutions alone is too important to be sacrificed for short-term electoral success. Much European funding is collaborative and trans-national by nature, and the same projects could not be pursued, or the same level of impact achieved, were the UK contribution to the EU research or higher education budgets invested at a national level. In an era of globalization, research and higher education is international and externally facing.

Therefore an exit from the EU would be highly damaging to the UK higher education sector.

No, the European Union is not perfect and there is always room for improvement. But without membership of the Council of the European Union or the European Parliament, the UK would lose out on the power to influence the future direction of the EU including its hugely important research, innovation and higher education directions.

For an idea of what this might look like, we need look no further than Switzerland. Following their referendum last year on immigration quotas – carried by the narrowest of margins – the country is no longer able to participate in the Erasmus student exchange programme. Despite the Swiss government and the EU bridging gaps recently, some areas of Horizon 2020 are still off-limits, meaning that the Swiss government has to put in place – and fund – transitional arrangements for those academics unable to access EU research money. This, I must remind you, in a country that was incredibly successful in attracting EU funding for research.

The current agreement takes Switzerland up to 2016. Beyond that lies uncertainty. And as all academics will tell you, two years is not a sensible timeframe to plan and conduct any significant research project.

I sympathise with colleagues in Switzerland but I hope that they will understand when I say that I don't want the UK to be in that position. A position that we are certain to be in if we sleepwalk our way through a UK withdrawal from the EU.

A UK exit from the EU would also be detrimental to our European partners. The UK has much to offer and in the university context it will damage much collaborative research. It would hit particularly 'grand challenge' programmes, that seek to tackle global issues such as ageing, energy, climate change to name a few. And Europe would be with-

out one of its most influential voices and partners at a time when it needs unity of purpose and vision.

Autonomy

The third threat to universities involves the erosion of our autonomy – at both the individual and institutional level.

When you look at the contribution academic work has made to the progress of humanity, whether in the sciences, or in the arts and humanities, the importance of academic freedom is clear. I am not talking about freedom without accountability. Accountability – in various forms – is important if universities are to retain the trust they need in continuing their work as autonomous, self-governing institutions. I am talking about the freedom of thought and of fundamental, investigator-led inquiry.

In Cambridge fundamental research led to the discovery of monoclonal antibodies in the 1970s followed by basic research to adapt them to human therapeutic use. In the past two years, two new drugs, developed at Cambridge, have received regulatory approval. The first, Alectuzumab, is a new treatment for multiple sclerosis. The second, Lynparza, is an anti-cancer medicine.

I make two key points. The first is that those time-scales don't fit in to short-term, purely government-backed or commercial priorities – but nobody can seriously claim that the investment of time, money and trust placed in the individuals and groups involved has not contributed to society.

The second is that it is often the cumulative effect of fundamental research; the ongoing development of new knowledge and insight, which is not easily quantifiable, and does not fit in to funding cycles, or research themes, that leads to breakthroughs.

Universities create the environments where this can happen – but only if their autonomy is valued and

protected. Yes, we enjoy significant levels of autonomy already. But there are many manifestations of autonomy, and many ways in which it can be compromised. Governments, funders and policymakers must listen to universities, and support them in supporting society in this most challenging and yet opportunity-filled of centuries.

Conclusion

So there are important choices to be made by all of those who can shape the future of higher education. Support universities, or put at risk the things that matter most to ordinary people. Jobs. Prosperity. Freedom. Health. Opportunities.

Put in place strong funding streams that support autonomous intellectual inquiry and grand challenge projects. These, not top-down, government-backed strategies, are the root of innovation.

Understand that universities such as Vienna and Cambridge are unique institutions, and respect their space and way of working in the 21st century. We value the past, just as we value our long-term future. We do not fit easily into election cycles, or participate willingly in reactionary politics. But we have a great track record, longevity that is the envy of many, and a clear and tested plan for success.

This is a critical time for Europe. We need to have the confidence in the excellence of our institutions, to think globally, and gain strength from the power of collective endeavour. Partnerships, whether between nations, institutions or individuals, are not easy. They require effort, commitment and compromise. But the rewards far exceed our ability to act alone.

So while we celebrate this important milestone in the University of Vienna's illustrious history, let us also commit to making our future something the next generation can look back on in fifty years' time and say: "The right choices were made."

Universities and Cities: from Local to Global

We are here this morning to celebrate the 650th anniversary of the University of Vienna, and to do so through consideration of both the local impact of universities and their global reach. It is impossible to think about the University of Vienna without thinking about the City of Vienna itself and the way in which the City and the University evolved together. While in this case both the University and the City have extraordinary histories that reflect their particular roles in intellectual and cultural history – from science to economics to literature to music – and global geo-political history, the phenomenon of the co-evolution of cities and universities within them is very widespread.

I would like to begin with some general observations about cities and universities, and indicate why I believe that their co-evolution will not only continue, but inevitably become more tightly intertwined. Then I would like to be more concrete and use my own university as an example, and describe how some of these considerations are realized in our particular case. I do this not as an advertisement for the University of Chicago (although if you leave with a positive reaction about the UChicago I will not be displeased), but rather because the University of Chicago and the City of Chicago provide



Robert J. Zimmer

President of the University of Chicago

salient examples of the features I am about to describe. And finally, I will connect these local considerations to the emerging concepts about global universities.

As we all know, cities are playing an ever-increasing role in the life of the world's population. In 1800, 3 % of the world's population lived in urban areas, in 1900 it was about 13 %, and by 1950 33 %. Today it is over 50 %. By 2050 it is projected that over 67 % of the world's population will live in urban areas, adding over 2.5 billion more people in urban areas than we have today. In China alone in the past 25 years, the number of people moving from rural to urban areas is about equal to the total population of the United States. In other words, the past 100 years have seen a total transformation in the role of cities and this will surely continue through the next 100 years. It represents an enormous transformation in the way people around the world live and the nature of experience of human life.

This massive urbanization comes with good news and challenging news. In many countries around the world, cities are the loci of the most creative and engaging energy in society, whether economic, cultural, or intellectual, and are likewise the source of well-known difficult and vexing social problems. Almost every conversation about cities reflects this duality, of each city producing within itself its own tale of two cities.

Chicago and Vienna are two salient examples with quite different histories but certain structural simi-

larities. Both are major cosmopolitan urban centers that have been and continue to be centers of global learning and culture, that have seen the enormous benefits and as well as challenges of major immigrations, and that have faced and continue to face the challenges of governing large multi-class and multi-ethnic populations in times of rapid economic change.

The duality of cities is captured nicely in the following quote by the American writer Neil Shusterman, at the beginning of a book he wrote for young adults:

"A city is nothing more than a solution to a problem that in turn creates more problems that need more solutions, until towers rise, roads widen, bridges are built, and millions of people are caught up in a mad race to feed the problem-solving, problem-creating frenzy."

There are three key features of cities that I want to highlight:

First, cities are societies' greatest potential source of economic growth, creativity, innovation, diversity, and social support.

Second, the most successful cities are going to be competing for talent, economic activity, and key relationships in a global context, not simply a national or regional one.

Third, the fundamental social problems one sees crystallized in cities – disparities in education and

health, energy consumption and sustainability, transportation, crime, poverty, and of course others – will require solutions that will increasingly be data-driven and multi-disciplinary.

For cities, success and competitive position depend on success in all of these features. The first two are essentially dependent upon human capital. I.e., cities need to attract and develop talent, human capacity, and relationships that are necessary for enabling economic growth, creativity and innovation, and they need to do this on a global stage. Education and its creative application, openness to diversity and people from around the world, lie at the heart of this success. And this is precisely what universities do – they attract, educate, train, and retain creative and capable people from around the world. It is important to recognize that the business of cities is increasingly human capital, rather than manufacturing or pure physical assets. This increased emphasis on human capital, both local and global, is one reason why the fate of cities is increasingly tied to that of universities.

On the other hand, one sees a similar growing importance of universities regarding the problems cities face. With the opportunity for a much more data-driven approach, and the need for a much more multi-disciplinary approach, universities almost uniquely have the capacity to generate the skills and perspectives that will be needed to address these problems.

It is interesting to do a small *Gedankenexperiment*. Take one of the world's great cities and imagine it with all its universities removed. What would the city be and what would it become? I often ask this question in Chicago, where the overwhelming view is that the prospects for such a city would be grim. But I believe one reaches a similar conclusion in most of the great cities around the world.

What I have said so far essentially points to why cities increasingly need universities for their success, but the converse is also true. Universities, particularly the world's leading universities, are themselves in a global competition for talent on which their success explicitly depends. As we all know, the nature of the ambient city itself, whether it is a magnet for creative and innovative people, culture, and businesses, has a significant impact on a university's competitive position for recruiting. But there is another key reason why the relationship between university and city plays a key role for our institutions. To attract and support the work of faculty and students, a university needs to be the best place for them to do their work. For many faculty and students an important part of this question is whether they have opportunities for impact – to engage the world's most fundamental challenges and contribute to them, locally or around the world. As many of these problems relate to cities, locally and globally, a university that is deeply engaged in these fundamental problems has a comparative advantage in attracting and retaining talent, and supporting their work at the highest level. As the desire for impact increases, as increased urbanization makes



cities and their issues the focus of many questions in many disciplines, and as the potential of data-driven and multi-disciplinary work to address these problems evolves, deep engagement of a university with the city around it becomes a multi-faceted advantage.

In sum, cities and universities will continue to co-evolve, and both the need and opportunities for an engaged co-evolution are even greater than they have been in the past.

All this is quite abstract but I would now like to give you some examples of how these perspectives are being realized in the relationship of the University of Chicago to the City of Chicago.

The early history of this relationship is itself quite interesting. That history began 125 years ago, and



I trust you will forgive me if here in Vienna I must refer to such recent times as “early history”. But the founding of the University of Chicago in 1890 and the nature of the city at that time are strikingly intertwined. The University was founded through the energetic leadership of its first president, William Rainey Harper, and that of key philanthropists, John D. Rockefeller the most prominent among them. Harper wanted to create a full-scale research university from the beginning, along the lines of the German model established at the University of Berlin, but in addition with a particularly American emphasis on meritocracy and openness. He managed to do this with amazing speed. After just 20 years, the University of Chicago was already a leading model within the United States and one of its most important universities. At the same time, the City of Chicago was in the process of going from a small town of 24,000 in 1850 to a booming metropolis of 2 million by 1900. The city leaders were focused on bringing this new metropolis to the world stage, not just the Midwest or even American stage. Thus, a tone of ambition, speed, risk, growth and global engagement was common to city and university. This commonality of tone was so important, that when asked about his ongoing achievements, Harper attributed it in part to the City of Chicago, saying he couldn’t have done it anywhere else.

Conversely, Harper was very clear in his belief that the University needed to be there for the city – to help educate as widely as it could, as education was going to determine the future of the city, as indeed it has. In 1894, he said: “The University is here to help the people of Chicago, and especially those in position to receive the more definite character of aid we are able to render. We are here to assist teachers, students, businessmen and women, and particularly those whom circumstances have deprived of educational opportunities once eagerly sought.”

And what about now? In all three of the key features for cities that I described earlier – the development of human capital, the global reach, and addressing the city’s challenges through data-driven multidisciplinary work – the University of Chicago is taking an active role, as a research and educational institution and in partnership with policy makers and implementers in evidence-based direct impact. In fact, we have undertaken the explicit task of becoming a model – and I emphasize a model because there does not have to be a unique such model of how a great research university in-

teracts with its ambient city. I will avoid launching into a detailed description of the many specific components of our efforts, or even an outline of them, but I would like to offer a concrete example about which we made an announcement with Chicago Mayor Rahm Emanuel earlier this week. Namely, we announced the establishment of UChicago Urban Labs, an interwoven collection of 5 laboratories – in education; crime; poverty; health; and energy and environment – each led by a distinguished University of Chicago faculty member. The goal of each one of these labs is to rigorously test, by controlled experiments, explicit policy actions or proposals in conjunction with policy makers and policy implementers who can act on these results. In this way, we intend to create vehicles for evidence-based direct impact on these key urban issues.

The Urban Labs were not started with a blank slate. In fact, two of them, the Education Lab and the Crime Lab, already exist, and it was their marked success that gave us the basis for establishing this fuller set of labs, with possibly more to come. As an example, the Crime Lab tested a program entitled “Becoming a Man”, a training program for those at risk of participating in violent activity, which focuses on empathetic cognition and how to respond to signals. The rigorous testing of this program and a demonstration that it was highly effective in reducing violent behavior, led to its broad adoption by the City of Chicago, and in a modified form it was promoted nationwide by President Obama. The Crime Lab’s work on this program led to further work in Chicago, but also to the Crime Lab opening in New York City in partnership with leaders there. There has been similar success for the Education Lab, whose results are now being utilized in states across the US. It is this type of engaged direct impact that is just one component of our engagement with the city of Chicago, but it is a recent and important example.

I began by discussing the phenomenon of global urbanization, and it would be easy to simply say apply the results of the Urban Labs in a global setting. But in reality, the specifics of issues and their resolution in cities around the world depend greatly on local history, culture, political structure, economics, and more. Thus actual results may well not translate simply. But the nature of inquiry and methodology can in many cases translate, but to do so effectively requires a significant set of local relationships and understanding of these various issues



of culture and political structure around the world. Thus for working in cities worldwide, which we certainly hope to do at least as partners, it is necessary to be focused not only on local urban issues, but also to have relationships and understanding across national boundaries. In this way, the University of Chicago’s global efforts, with University Centers now in London, Paris, Beijing, Delhi, and Hong Kong, and our thinking carefully about next steps in Latin America and Africa, become key resources for our urban work and its potential global impact.

At the same time, our urban work in Chicago and elsewhere in the US becomes a clear example of how a global presence, engagement, and set of relationships enhance both the impact of our work, and the meaning of our work on our main campus. It is an example of how we are viewing our role as a global university – with our global efforts not an add-on or appendage, but intrinsic to the nature of work we do and the impact we aspire to have.

I would like to close by connecting these comments about evidence-based direct impact with the liberal arts tradition that has been such an important feature of the University of Vienna and the University of Chicago alike. A common feature of discussions about universities is the supposed dichotomy between education for impact in the world and an education in the liberal arts tradition. I have spoken often about why I believe this is a false dichotomy,

and without reproducing a long argument to that effect, let me use the Urban Labs and its global aspirations as an example. One of the critical features that one should take away from a liberal arts education is the understanding of context – cultural, historical, political, religious, economic and more. Context enables you to put yourself in someone else's position, to understand their environment, needs, challenges, and perspectives which may be very different from your own. And it likewise challenges your own assumptions and puts them in perspective. This habit of mind is critical to faculty and students working with the complex and varied populations in urban centers, and likewise critical for engaging in partnerships that can have impact around the globe. Thus, when I look at the Urban Labs model, I see both the capacity of a university

to participate directly in urban issues and have an impact on them, but I likewise see its full potential only being realized through the understanding of context and its multiple global forms. It is this melding of the local and the global, of impact and context, of directed education and liberal arts education, that makes these efforts both a challenge and an opportunity for universities, one I believe we will learn a great deal from.

I am very grateful to have had the opportunity to address you on this subject, on this very auspicious occasion, and I offer my appreciation and congratulations to the University of Vienna, for all it has accomplished and all we know it will accomplish in the future.



Eva Nowotny

Chair of the University Board
of the University of Vienna
and President of the Committee
of the Austrian Commission for
UNESCO



Introductory Address for SESSION II Cultural Impact of Global Universities

For 650 years the University of Vienna has been – throughout the different configurations of its history – an intrinsic and irreplaceable part of the cultural development of both Vienna and Austria. Everything that has been thought, developed, investigated and written at our University has left its mark on cultural development, has shaped and expanded it. This holds true for all great universities. The cultural, social and regional significance of universities will now be discussed from two different angles. President Jan-Hendrik Olbertz from the Humboldt University Berlin will analyse Humboldt's vision of a university in the context of the rapidly changing demands on a university in the globalised world of the 21st century, based on the governing principles of “education through learn-

ing and research”, “unity of research and teaching” and “academic freedom in research, teaching and studying”. Rector Tomas Zima from the Charles University in Prague will emphasise the responsibility of universities for the development of society as a whole, based on the special challenges and demands made on universities in Central and Eastern Europe after the fall of the communist regimes.



How alive is Humboldt today?

*Ladies and Gentlemen,
Dear Colleagues,*

In the first place, I would like to thank my Austrian colleague, Rector Engl, for inviting me to today's conference. I am still very much impressed by yesterday's ceremony, and I am very happy to have the opportunity to discuss global universities and their impact with you – actually, I am even happier to discuss the *cultural* impact of global universities, as the title of our session suggests.

This cultural impact is very evident to me. Why? Because I am President of a university named after Wilhelm and Alexander von Humboldt. The Humboldt University is the only university able to claim an ideal that not only reformed the German university system at the beginning of the 19th century, but which also laid the basis of the modern university we know today.

I like to say that Humboldt did not just create an institution – he created a way of thinking, a cultural understanding of us as academics.

Before getting further into this, let me just briefly mention some interesting connections between Humboldt and the University of Vienna. The Humboldt University is only (compared to Vienna, I mean) a little more than 200 years old. Can you imagine that when it was founded, Wilhelm von



Jan-Hendrik Olbertz

President of the Humboldt
University Berlin

Humboldt was not in Berlin? And, even better: he was actually in Vienna!

On a more serious side of history, I am very happy about another connection between Humboldt and the University of Vienna: we know that it was founded on 12 March 1365 by Rudolf IV, Duke of Austria, and his two brothers, and was modelled on the University of Paris.

But – here it comes – the Vienna revolution of 1848 led to comprehensive educational reforms in the following year, 1849. These reforms are connected to the names of Count Leo Thun-Hohenstein, Professors Franz Exner and Hermann Bonitz. On the basis of a relationship between research and teaching, the University of Vienna was reorganised in accordance with the Humboldtian model. The academic standard in all disciplines increased significantly, the Philosophical Faculty gave up its old role as a simple place of preparation for the “higher faculties” and was finally elevated to the rank of an institution for scholarly teaching and research. In the following decades up to World War I, the Alma Mater Rudolphina experienced the greatest single advance in its history. In many disciplines, the “Vienna School” achieved a reputation throughout the world. This was particularly true of medicine, but also of other subjects such as economics, physics, psychology, art history, musicology and so on, whose representatives gained worldwide recognition.

With this in mind, let us see in which ways Humboldt is still – nowadays, not only in 1848 – able to provide answers to the questions of today’s globalised and innovation-driven world.

In the original idea of Humboldt there are three conceptual pillars which form his ideal of a university:

- education through learning and research (*Bildung durch Wissenschaft*)
- unity of research and teaching (*Einheit von Forschung und Lehre*)
- inalienable academic freedom of research, teaching and learning (*unabdingbare akademische Forschungs-, Lehr- und Lernfreiheit*)

What does it mean today? Before I try to answer this question I just want to briefly mention the very productive relationship between the two Humboldt brothers, Wilhelm and Alexander. Wilhelm was the

philosopher, the thinker, the statesman. Alexander, however, went to discover the world, especially Latin America. By reporting to each other in numerous letters, they stimulated each other. Drawing on Alexander’s experience, Wilhelm’s ideas and theories became more pragmatic, connected to reality – and, also, more relevant. On the other hand, Alexander, through his brother’s eyes, discovered the world with a philosophical impetus.

That is why it is important for me to say that the idea of the modern university is based on the ideas of Wilhelm *and* Alexander – precisely in their very deep interconnection.

But now back to the question of what we can learn from Humboldt today. At the nucleus of the unity of research and teaching, for example, lies the problem of the appropriate balance between education and qualification, which today – in a knowledge-based society – is very important. Especially in times such as ours, the demands of universal education should be met by universities.

However, getting prepared for professional life must be taken just as seriously. This contradiction can only be resolved if specialisation still goes with a universal claim. To put it more clearly, the quest for universality in science must take place in the individual disciplines, which can then offer exemplary and representative answers. Only with this approach can qualification and education form a harmonious combination.

Therefore, the university must ask – and, of course, answer – universal questions in an exemplary manner. In this way, the tension between the demands of universality and the need for specialisation can be resolved. This applies especially to interdisciplinary research. If we look closely, we note that in the past decades hardly any scientific discovery or invention has sprung from one single discipline. Usually, we can find innovation at the crossing point of various fields and disciplines. In consequence, science today no longer dwells on specific topics merely within only one academic discipline. Rather, different disciplines form around one question. These research groups come together depending on the topic – and can re-form accordingly.

But it would be a grave mistake to deduce the end of traditional disciplines from this. Quite the contrary! Overstepping borders always implies clearly drawn lines. For teaching with its division into dis-

ciplines, this means a key insight. Interdisciplinary research can only happen with open-minded experts – who nevertheless think strongly within the framework of their discipline.

So if we want to define the present role of a modern university we have to look to the following aspects. They can show us – on the basis of Humboldt’s principles – how the university can provide answers to the questions of today’s globalised and innovation-driven world.

First, the university is entrusted with the education and training of future generations. Second, it is a place for self-reflection and self-observation. And third, it provides space for the development of new visions and ideas, but also warns of dangerous tendencies in society.

To fulfil these aspects, the university needs to balance its claims with the autonomy of research and its social responsibility. Once it achieves that balance, the university can act as a powerful agent in the renewal of our system of knowledge and of society as a whole.

How can universities reach this goal? I suggest by adopting Wilhelm von Humboldt’s guiding princi-

ples and applying them to the present day. In Humboldt’s times, more than 200 years ago, universities did not resemble the institutions we work in now. The challenges were very different. For Humboldt, the demands of an open, democratic “mass” university, with its demands for excellent research and practical application and especially scientific academic qualification, which could match a variety of professions, did not yet apply.

The same affects the differentiation of scientific disciplines, which at present must deal with new requirements such as interdisciplinarity, cooperation and the public sphere.

If the modern university declares Humboldt’s ideals as its premise, it must amend and broaden its agenda. To put it more clearly: a “Humboldtian” concept in the sense of a concrete original that can directly be implemented does not exist and has never existed. To take Humboldt’s ideals seriously means to re-discover and re-invent them. In this way, one follows a way of thinking instead of only applying the results of a past time.

Now let me show how we at the Humboldt University tried – and, I think, managed quite well – to apply Humboldt’s ideals to the present time. In





other words, what do his theories mean for the university and the education system today?

From our modern perspective, we can say that these ideals are: individuality, openness and guidance.

Let me first take the example of *individuality*. I hold that the university has to attract the best brains, accept their individual personalities and provide optimal support for the full realisation of their potential. In order to do so, the university needs to welcome diversity and creativity. It needs to be a place that is equally open to men and women, old and young, people from different cultural backgrounds and nationalities, and people with unusual biographies. The university also needs to encourage imagination and curiosity. Of course, diversity and creativity are difficult qualities; they require flexibility and open-mindedness, they carry greater potential for conflicts, and the search for different and new solutions is risky and may lead to nothing. But flexibility and open-mindedness, the ability to productively resolve conflicts and the willingness to learn from mistakes are, I think, the essence of scholarship.

Let me now turn to *openness*. In order to allow innovation and renewal, a university has to be open in different ways. On the one hand, the university should be open to society and the general public. The academic ivory tower does not produce enlight-

enment. Scholars have to engage in discussions and critical debates. On the other hand, the disciplines should remain open towards each other. In this respect, the past decades were marked by a paradigm shift. While the traditional disciplines still provide the organisational structure for research, the most exciting work today – especially in the natural sciences – is not centred on the disciplines, but more and more on specific questions or problems.

Universities therefore have to encourage an interdisciplinary dialogue and, at the same time, protect the existing, wide spectrum of disciplines from mounting economic pressure. This is very important, especially for teaching. It means not only to pass on information to students, but to teach them how to integrate information and to organise a parallel way of teaching with introductory and interdisciplinary courses from the beginning. Those who want to transcend the limits between disciplines, first must learn how to set such limits. Most of all, this means being open with our colleagues and our students. The constant exchange of ideas with peers and the dynamic interaction between teaching researchers and keen students is the essence of the university. It is what keeps the institution alive.

Finally, the university needs to be open to change, be able to react to a changing world by asking new questions, by finding new forms of interaction and by adopting new structures. But this passive role is

not enough. I attribute a much more active part to the university. In fact, I hold that the university also acts as an early-warning system that draws attention to new developments, actively initiates change in response to new imperatives and develops solutions to new problems. The Humboldt University, for example, has not only seen, but also initiated fundamental change during the last decades. More so, the very vibrancy of Humboldt's concept of a university lies within the idea of constant change.

This brings me to the principle of *guidance*: this principle operates on two levels. The first is connected with organisation and management. In the reform spirit of Wilhelm von Humboldt, I think, the university needs to overcome established structures to achieve a new philosophy of governance and management, fully in step with the specific demands of teaching and research.

With a rising number of students and shrinking funds, universities have to organise themselves better to fulfil their education mandate and protect their autonomy. The notion of guidance always includes the aspect of support and encouragement and contains the ideal that all of the university's members should be enabled to realise their full potential. We call it a "culture of enablement."

Applied to teaching, this means that the university needs to identify and support young talents as early

as possible. Since teaching and research are complementary processes, the university has to develop new concepts of teaching that involve students in research from the very beginning. And, of course, the university also needs to encourage students to find their own answers, to follow their curiosity and go their own ways in research, in their professional life and in life in general. If we turn our attention to research guidance in the sense of support and encouragement, it goes along with the active promotion of young researchers and means funding and supporting all areas of research, including new fields and high-risk research. Finally, guidance extends to personnel management; this is the optimal development of the social and management competencies of all the university's members.

These three principles – individuality, openness and guidance – form the basis of the university's successful role in the present and its fruitful development in the future. They allow the university to fulfil its mission, namely to educate eager minds and to make the best use of the potential of science for the benefit of society as a whole.

But to bring this back to Humboldt's ideals and to initiate modernisation of the university system based on these ideas, we must put more emphasis on *teaching*. The balance between education and qualification (already mentioned before) should also be reflected in the students' timetables. The

acquisition of methodical, but also practical competencies must be put in the foreground of higher education because only then we can achieve this balance. Overarching scientific diversity, with all respect to specialised education, is the main idea here.

Achieving Humboldt's demands of educating through science cannot be squeezed into subject structures and degrees. Especially in the context of heavy debates about the structure of bachelor and master degrees, this should be discussed more critically. It must be understood that Humboldt's ideals are of an intellectual nature. Degree structures should always leave space and time for curiosity and contemplation, which will lead to new insight.

We can conclude from this that Humboldt's vision of a university system cannot be reconstructed in

its original form. But over the past 200 years, his ideal of a university has not lost any of its appeal. Maybe the secret to this lies in the principles that form the basis of his ideal. They remain valid in the modern, enlightened, pluralistic and competitive university. To this day, they stand in a continual field of conflict with academic reality.

So, Humboldt cannot be understood as a programme, but must be taken as a reference. There is no going back to an "original". But we can implement his ideal as a scale and reference for academic reform and development. In order to do so, Humboldt must be invented and re-invented, discovered and re-discovered all the time. And with this, Humboldt stays alive – in Berlin as much as in Vienna.



Tomáš Zima

Rector of the
Charles University
Prague

Position of the University in Central Europe

Dear Guests,

We meet here today in the hospitable surroundings of the University of Vienna to celebrate the 650th anniversary of its founding. The three oldest universities in Central Europe, linked by many past and contemporary bonds, are celebrating their round anniversaries in quick succession; not long after the universities in Prague and Krakow the alma mater of Vienna, too, is celebrating a respectable six hundred and fifty years of existence. It is not only a mediaeval past, however, that unites these revered guardians and propagators of education and wisdom; it is also more than half a century of the shared activity of all three universities within the Austrian system of higher education in the 19th and at the start of the 20th centuries, the era of modernisation and great scientific discoveries, as well as the growing nationalism that would eventually have such a catastrophic effect on this system.

I would like to take the opportunity provided by this rare occasion that allows us, at least for a moment, to slow down the tempo of everyday life and look beyond the horizon of the immediate present that so mercilessly absorbs us, to pose several, at first glance simple, questions. This meeting challenges us to ask where we came from, where we are going and whether this is where we wish to be; it challenges us, true to the tradition of critical research, to pose questions about the cultural, social and regional significance of our universities.

An important component of this significance lies before our eyes: the centuries of existence of the University of Vienna, similar to that of other Central European universities, provide us with experiences that no generation could, on its own, gather during a single human lifetime – experiences that we have been called to build on as expected by those who came before us. These experiences do



not concern only the acquisition and handing-down of wisdom and knowledge, they also direct us towards the integral concept of the *culture of an institution*.

In the quarter-century since 1989, the development of a number of countries in Central Europe has again, like many other periods in the past, shown us the importance of this *culture of an institution*, not only for the university itself, but also for society as a whole, as it is these institutions who produce this or that type of person through their cultures. University environments in themselves incorporate not only a critical spirit preventing institutions themselves from becoming idols, but also essential prerequisites for true society: for example, openness, autonomy, cooperation, togetherness, selflessness and responsibility.

In Central Europe, in countries such as Poland, Hungary, Slovakia and the Czech Republic, universities now find themselves more on the periphery of events in Europe. However, it is this *culture of an institution* that helps them integrate into the network of central European universities. Amongst other matters, thanks are also due to the University of Vienna and Austria for opening themselves up, immediately after the societal changes that occurred twenty-five years ago, to cooperation with

institutions in Central Europe with whom mutual bonds had been broken for several decades.

Not only would an absence of this cooperation weaken the institutional culture of universities, but the significance of the concept of universities themselves would be weakened in Central Europe as the universities would, in such an event, not have a *worldview* or function as its medium in relation to the societies in which they are active (similarly, they would make no contribution to this view and would not be the mediators of what is specific to these societies).

The position of universities in Central Europe – though anchored in their own regions – is thus not primarily geographic, but consists of shared responsibility for the development of society, which, to a certain extent, lacks a favourable institutional environment. The international prestige of the leading professors and scientists of our universities, which is not limited to merely specialist circles, but also brings positive international attention for small Central European states such as the Czech Republic as well as, for example, our hosts and other colleagues present today, can be considered a substantial aspect of states' foreign policy. For countries like these which do not possess major mineral wealth or considerable military power, the position

of players on both the European and international stage can equally – and, I believe, very equally – determine the community of those who discuss apparently abstract topics that can, however, be decisive in the further development of our region, the continent or the world.

I believe that strong universities, open to the world, are precisely the kind of institutions that should raise their voices in situations where our society does not know where to turn. This voice will, however, be incomparably stronger if we can act as an interconnected, united whole.

It is precisely this relationship between the university and society, mutual communication, the fulfilment of the so-called 'third role' of the university, that is, today, more important than at any point in the past. It is in the interests of every university to elucidate and explain what is happening on its campus and its purpose for the given country and its inhabitants. Every university should therefore take a professional point of view with regard to a wide variety of processes occurring within society, be they economic development, social and scientific issues or social aspects of the development of society, not to mention the presentation of the latest results of work performed by members of the academic community from the fields of science, mathematics, biology, medicine and chemistry; the self-presentation of every university should also include the sporting achievements of its students and graduates. As you can see, I understand universities as major public corporations that contribute to important societal processes and as places for a free plurality of opinions and discussions resulting in the enrichment of society as a whole.

The unique unity of sciences in our institutions and the unique international networks that we have created through many years of cooperation give us not only massive potential, but also the direct obligation to start utilising them more to resolve problems for which the resources of a single field, a single institution or, more often than not, a single state are not sufficient. From this point of view, no region should lose itself within Europe, and Europe must not lose itself in a global environment that sometimes seems opaque, and not always developing in a favourable direction.

Universities, too, are exposed to a mercilessly competitive environment, intensified in our region by demographic decline, an ageing population, a pub-

lic funding crisis and a crisis of generally shared values. I would, at this point, like to pay homage to those countries in our region, and in particular Germany, whose investment in science, research and the democratisation of higher education has not ceased despite severe cuts and is marked by a rare concordance and solidarity not only at the federal level, but also at the level of individual *Länder*. I believe that this will allow that remarkable institutional university culture to pervade and shape society to an ever-greater degree, as well as to contribute to the future economic and social blossoming of the country.

I would like to take this rare opportunity to pose the question as to whether, in our notions of international cooperation and the internationalisation of our universities, we sometimes needlessly chase after higher numbers of international students, teachers and researchers whom we attract to our institutions, regarding them as a competitive advantage? Is this really how it is? Will we not be much stronger if we create a community in the region, in Europe, across continents, if we strive to become an international community founded on hard work, supported by the sharing of resources, these being our findings, scientists, teachers, and students, a community firmly bound by mutual understanding, trust and trustworthiness – if we create strategic alliances, strategic partnerships based on our existing bonds?

Current knowledge is expanding at a very fast rate and no-one can handle it by themselves. However, interconnected networks of scientists and joint teams are capable of considering and resolving problems in much broader contexts. All of this will require us to find suitable facilities for these processes. Here, too, we will be stronger not only through pooling our resources, but if we also support each other in acquiring the necessary finance and infrastructure from both the state and the leading industrial concerns in the country – the private sector – and do not waste, but increase, the support and prestige that we, the strong, traditional universities, still enjoy in society, at least in Central Europe. This, too, could, and should, be the legacy passed on by us, the strong, international universities, to the small, beautiful region of Central Europe, our continent and the world as a whole.

Following the fall of the totalitarian regimes there was, therefore, something to pick up on with regard to our rich, shared past. The start of the new

millennium further brought a number of entirely new, shared topics with regard to the profiling of our universities in, for example, project management, lifelong learning and knowledge and technology transfer. The so-called third role in particular is a further space used for communication with the public. Terms such as commercialisation, company start-up and spin-off and intellectual property protection have come into everyday use in both institutions. We are learning that, when the priorities of the functioning of universities, which remain primary research and teaching, are respected, technologic transfer is a welcome and, possibly, essential supplement to increase the competitiveness of our universities. We are opening up new education modules in response to increased interest in this issue and are learning to transfer to society the results of our work in the form of patents, licences and prototypes, too.

When continuing the famous university tradition of the Central European region, we must, however, be inspired by the best the world of science and university education has to offer. In the world of today, tradition is not sufficient in itself: "Tradition is a guide and not a jailer" (William Somerset

Maugham). In the context of scientific research we must create conditions for Central Europe, once a centre of education and the birthplace of modern genetics, mathematical logic and cellular biology, to once more become an incubator for bold theories and new discoveries. Great names of world science such as Johann Gregor Mendel, Ignác Semmelweis, Kurt Goedel and Sigmund Freud oblige us to strive for excellence in science and research. Without first-rate science, a university is merely a lyceum. This is not possible without considerable investment, nor is it possible without bold decisions to give a chance to young scientists and new directions for research. It is true in science, too, that we must change in order to maintain ourselves in the future. The participation of our universities in European scientific programmes and student and professor exchanges is a massive, and still inadequately used, opportunity for the cultivation of first-rate science in the international scientific environment of the 21st century.

Please, then, allow me to wish the alma mater of Vienna all the best for the years to come, in the words of the ancient university greeting: *Quod bonum, felix, faustum, fortunatumque eveniat!*



Susanne Weigelin-Schwiedrzik

Vice-Rector for
Research and Career
Development,
University of Vienna



Introductory Address for SESSION III Social and Political Impact of Global Universities

To combine globalisation with localisation is a convincing strategy for universities around the world. This is true for teaching and research. In their presentations, Prof. Sung, President of the Chinese University of Hong Kong, and Prof. Dreeks, President of the University College Dublin, focus on their universities' teaching efforts and show how their respective universities operationalise the strategy of combining globalisation and localisation. They underline the necessity to act institutionally in a responsible manner and give vivid examples of how to train students to take their place in a global soci-

ety. This implies that students should be trained to meet the requirements in the fields of intercultural competence and social responsibility. They come to the conclusion that universities should be forums for social education and laboratories for training intercultural competence. This is a new challenge for universities, a challenge which they should meet in order to show that they can have a major impact on their respective local societies as well as on the globalised world in which we live.



Joseph J.Y. Sung

Vice-Chancellor and
President of the
Chinese University of
Hong Kong (CUHK)

Globalisation and Localisation of Universities

“Internationalization of higher education is the process of integrating an international/ intercultural dimension into the teaching, research and service functions of the institutions. This definition understands internationalization as a process, as a response to globalization (not to be confused with the globalization process itself) and as including both international and local elements.”

Hans De Wit
Professor and Director of the Center for International Higher Education (CIHE)
The Lynch School of Education, Boston College, USA

Traits and features of a Global University

Let me first ask: what is a global university (GU)? A GU has a clear mission with a proposed international impact, namely: social, political, and economical. A GU has a lasting effect on global policy and global task formulation.

As indicated in the citation quoted above, global and local are NOT mutually exclusive. Global universities can still preserve their respective unique identities. A GU should not only act globally but also address local needs and requirements. GUs are not “standardised” throughout the global world. Yes, GUs act globally and their quality standard is to be among the top 10 % of global universities, but they should also exhibit and preserve their characteristic local flavour. Besides international programmes they have their own curricula and their own distinct profiles firmly rooted in their heritage.

GUs are characterised by their innovative (often multi-disciplinary) research having a global impact. The ongoing research takes on a central role in the respective area. Research highlights will be ground-breaking, sometimes leading to a paradigm shift. A GU claims and offers comprehensive excellence not only in research and teaching but also in the facilities and the infrastructure provided, as well with regard to its executive personnel and managerial staff. Prerequisites for these are leadership, governance and academic autonomy.

GUs offer international curricula (IC) distinguished by their global impact. These curricula are provided in a variety of disciplines both in the humanities and in the mathematical and natural sciences. IC comprise Massive Open Online Courses (MOOCs) and student mobility programmes. GUs are recognised by an ambitious international student and faculty demand. Arts and certain fields in the humanities are the best disciplines to be globalised respecting the concomitant observation of the sovereignty of culture, ethnic and religious values.

Global and local are not mutually exclusive

Internationalisation is NOT equivalent to standardisation. It is not about learning and adopting values and ways of living from other cultures. Naturally, we encourage students to learn other languages and global issues, but also to maintain their own iden-

tity and uniqueness. We should learn to understand and respect other cultures and, at the same time, share our culture with others.

Let me illustrate this point with the following citation:

“Today, to be a cosmopolitan, to see oneself as a citizen of the world, is to maintain one’s sense of place, country, ethnicity, religion and culture, while respecting, learning from, adapting to, and embracing global diversity; the emergence of this global civil society need not compromise the richness of distinct cultures.”

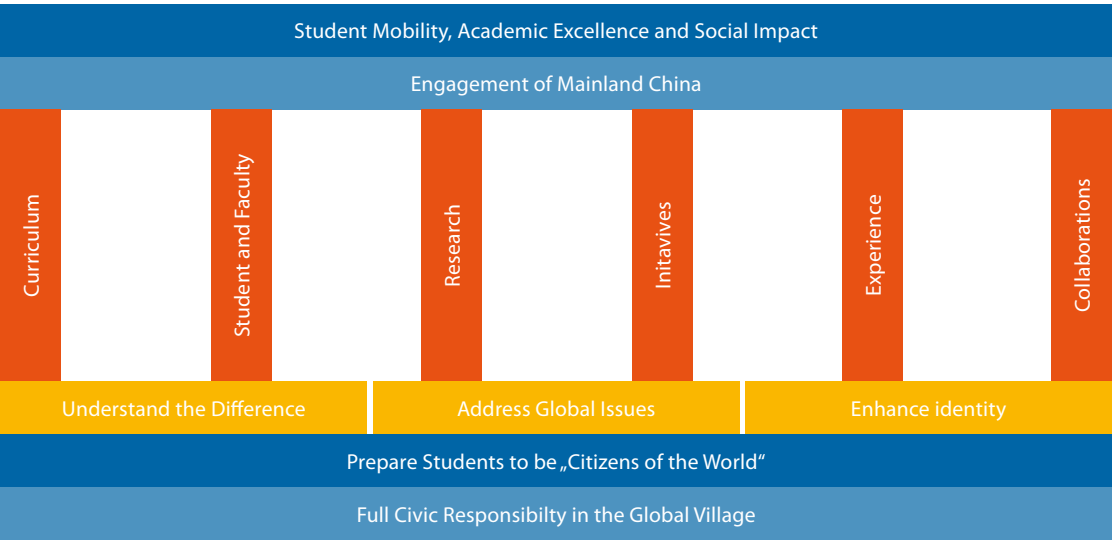
John Sexton
President of New York University

Mission of a global university

GUs are obliged to train the future citizens of the world – citizens who have both the right to claim responsibility and the strength to shoulder it. These citizens act both from a local perspective and from a global perspective.

Internationalisation at the Chinese University of Hong Kong

Let me elaborate on what was said above using my own university as an example. Internationalisation at the Chinese University of Hong Kong (CUHK)



means understanding the world and helping the world understand China. This includes the promotion of the Chinese language internationally and its culture.

The graphical representation shown above sums up and illustrates the “building” of our GU policy at CUHK.

The University as a forum for social education

How does CUHK fulfil its social responsibility? CUHK provides a forum to discuss and debate social issues. It provides experiential learning for students and it practices social responsibility in the campus (for example, addressing green issues and debating practical corporate social responsibility).

Let me conclude with a citation from a statement by Hakan Altınay which best illustrates our mission:

“If universities in the 21st century do not provide their students with the forums and tools to discuss and figure out what their responsibilities are to their fellow human beings, and to develop the requisite normative compass for navigating the treacherous water of global inter-dependence, then they would be failing in their mission.”

Hakan Altınay
President of the Global Civics Academy
The Brookings Institution, Washington DC

Summary and conclusions

In this era of rapid globalisation, universities around the world (from hundreds of years to a few years old) are facing the challenges of the paradigm shift.

What are the impacts of the globalisation of higher education? There are many. One is the introduction of global league tables, creating increased competition between universities. Another is funding being skewed towards certain fields of study, for example Science and Technology are favoured over the Arts and Humanities. This all has an impact on students, parents, employers and funding agencies. Certainly, the rapid creation and transfer of research knowledge through international collaboration has had a big impact on higher education, which perhaps now can be said to be ‘economy-driven’ in certain areas. Another impact has been a greater diversity of students, both undergraduate and postgraduate, all seeking the best academic environment in which to study. Other impacts include the language of instruction, increased faculty and staff mobility.

Yet, does it mean that universities should all go to the same direction, be developed using the same model, assessed by the same scale and rewarded by the same system? The answer is ‘no’. Global and local are NOT mutually exclusive. A GU can (and should) preserve its uniqueness. A GU should not ignore the local need. Arts and Humanities are the best disciplines to be globalised. They have both a global and a local impact in any field of knowledge and technology. Human and environmental values should be protected.





Andrew J. Deeks

President of the University
College Dublin



Developing Intercultural Competence through Global Universities

Our societies become increasingly multicultural as a result of the improvements in the ease of communication and transportation at reduced costs. Multinational companies extend their reach and market share in virtually every market sector. We observe the demise of broad-based domestic industries and increased specialization on a country or regional basis.

The need for our students to achieve a level of intercultural competence during their undergraduate studies becomes clearer and clearer. Our graduates must be prepared to take their place in this global society. Today's graduates must be able to work successfully across cultural, political and geographical borders. They must be able to exploit the op-

portunities that arise from organisations and teams which are culturally diverse.

Traditionally universities have functioned to inculcate their students into a particular culture, with certain ancient universities even being associated with particular accents. However, global universities have an opportunity to ensure that their graduates become sensitive to cultural difference, and learn to work with these differences to achieve successes beyond those which could be achieved in a mono-cultural setting.

Global universities will have to offer educational programs that help our students to acquire intercultural competence. Intercultural competence here is

defined as ‘the ability to communicate and interact effectively and appropriately with people of other cultures. Thereby exploiting the opportunities that diverse viewpoints and approaches can bring’.

Student mobility programs, in conjunction with global research connections between universities, help students in developing intercultural competence. These skills are mostly acquired by an individual’s own experiences while interacting with people from different cultures and while living in a different cultural environment.

Global universities are the excellent places in which to develop intercultural competence. Global universities are characterized by

- a high percentage of international students
- a high percentage of international faculty
- international partnerships which lead to the exchange of students and faculty

Global universities generate significant opportunities for students to have the experiences which develop intercultural competence. Ireland’s largest university, the University College Dublin (UCD), as Ireland’s truly Global University, is in the process of establishing the UCD Global Network, which will facilitate many activities contributing to this goal. This network will include UCD Global Centres at

key regional cities (so far these have been established in New York, Beijing, New Delhi and Kuala Lumpur). These Global Centres support UCD’s programs which send students out to spend time with partners abroad, our collaborative programs which bring students from around the world to Ireland, and our international student recruitment. They also support the building of our alumni communities in each region. In addition we have joint venture international colleges in Beijing and Penang, and teaching programs in Singapore, Hong Kong and Bangladesh. We have an extensive network of research partner universities across the world. All of these activities provide opportunities for intercultural interactions to take place and for our students to develop intercultural competence.

Conclusions

Our society is increasing global and increasingly connected. To fully benefit from and contribute to this global society our graduates should possess intercultural competence. Such competence is generated through intercultural interactions, and our Global Universities are ideally placed to provide these opportunities. Consideration should be given in the curricula offered at Global Universities to the inclusion of a component of formal instruction in cultural difference and intercultural skills.

CV of the Contributors

Sir Leszek Borysiewicz

Vice-Chancellor of the
University of Cambridge, UK

Borysiewicz’s research focuses on viral immunology, infectious disease, and viral-induced cancer. He has co-authored and co-edited a number of books on these subjects, including Vaccinations.

Sir Borysiewicz pursued a career in academic medicine at the University of Cambridge, where he was a fellow of Wolfson College, and then as a consultant at Hammersmith Hospital. He then headed the Department of Medicine at the University of Wales before joining Imperial College London, where he was promoted to Deputy Rector responsible “for the overall academic and scientific direction of the College.” In September 2007, it was reported he would succeed Colin Blakemore as the 9th head of the Medical Research Council, a national organisation that supports medical science with an annual budget of around £500 million.

In the 2001 New Year Honours list he was made a knight bachelor for services to vaccine research. In 2002 he was awarded the Moxon Trust Medal of the Royal College of Physicians. He is also a Governor of the Wellcome Trust, a council member of Cancer Research UK, a founding fellow of the Academy of Medical Sciences and co-chair of the MRC’s advisory group on stem cell research. He was awarded an honorary doctorate of medicine in 2010 at The University of Sheffield. He is also a Founding Fellow of the Learned Society of Wales.

Andrew J. Deeks

President of the University
College Dublin

On 1 January 2014, Professor Andrew J Deeks took up the presidency of University College Dublin, becoming the first Australian to lead an Irish university, and only the second person from outside Ireland to lead the University since its founding rector, John Henry Newman.

Growing up in Perth, Western Australia, he was educated at the University of Western Australia, where he received a first class honours degree in civil engineering in 1984. After completing his Masters degree he worked in industry briefly before returning to UWA to pursue his PhD and an academic career in 1988. He became a leading expert in computational mechanics; specifically in the scaled boundary finite element method, which is a semi-analytical approach for solving elastostatic, elastodynamic and allied problems in engineering.



He is also highly respected for his research work in structural mechanics, structural dynamics and dynamic soil structure interaction. He has published more than 160 papers in journals and refereed conference proceedings together with a book, and has held a number of significant research grants. His strong commitment to students is acknowledged in the prizes and awards he holds for teaching excellence and innovation in teaching.

In 2004 he was promoted to Winthrop Professor, Civil and Resource Engineering, and was Head of School from 2004 to 2009. As Head of School, Professor Deeks created a new model for industry involvement in the school, significantly improved the student experience and doubled student numbers. His successful development of partnerships with industry and government bodies led to his election as a Fellow of the Institution of Engineers Australia. He developed a range of international partnerships and joint programmes, notably with Chinese universities.

In 2009, Professor Deeks joined Durham University as Pro-Vice-Chancellor, Science, where he led the development of the university's global presence strategy and extensive international partnerships, particularly in China and Brazil. He also championed Durham University's strategic partnership with IBM and contributed to strategic partnerships with Procter & Gamble and BG Brasil. Professor Deeks was instrumental in the creation of Durham University's Institute of Advanced Research Computing (iARC), which uses computer-supported modelling and simulation as a third pillar of discovery, alongside theory and experimentation, across all domains of science as well as in social science and the arts and humanities.

Heinz W. Engl

Rector of the University of Vienna

He was Dean of the College of Science and Engineering at the Johannes Kepler Universität Linz (from 1996 until 2000) and is Full Professor for Industrial Mathematics in Linz since 1988 (currently on leave).

Heinz W. Engl was a Member of the Board of the Austrian Science Foundation FWF (from 1994-2003). Since 2003 he is full member of the Austrian Academy of Sciences and was founding director of the Institute for Computational and Applied Mathematics (RICAM). In 2013 he became a Member of the Academia Europea.

He is founder and owner of the Company MathConsult GmbH and has built up the field of studies "Industrial Mathematics" in Linz, Austria.

For his research in the fields of Applied and Industrial Mathematics, Heinz W. Engl has won several prizes (such as the Pioneer Prize of the International Council for the Industrial and Applied Mathematics).

He has held several guest professorships in Australia, Great Britain and the United States of America, where he spent several years.

Heinz Fassmann

Vice Rector for Human Resources Development and International Relations, University of Vienna

Professor Heinz Fassmann (born 1955 in Düsseldorf) is Full Professor of Applied Geography, Spatial Research and Spatial Planning at the University of Vienna, Vice Rector for Human Resources Development and International Relations. Heinz Fassmann is the author and co-author of more than

280 scientific articles and around 68 books, monographs or project reports. He is member of the Academia Europaea and Full Member of the Austrian Academy of Sciences.

Johannes Hahn

European Commissioner

1987: Graduated with a Doctorate in Philosophy (University of Vienna)

1975: Graduated from high school

1997-2003: Board Member, later CEO of Novomatic AG

1992-1997: Executive Director of the Austrian People's Party Vienna

1989-1992: Managerial functions in different areas of Austrian industry

1987-1989: Secretary General of the Austrian Managers Association (Wirtschaftsforum der Führungskräfte)

1985-1987: Employee of the Federation of Austrian Industries

Since November 2014: Member of the European Commission in charge of European Neighbourhood Policy and Enlargement Negotiations
February 2010 – October 2014: Member of the European Commission in charge of Regional Policy
January 2007-January 2010: Federal Minister for Science and Research

December 2008-January 2009: Acting Federal Minister for Justice

2003-2007: Member of the Regional Government of Vienna

1996-2003: Member of the Regional Parliament of Vienna

Andreas Mailath-Pokorny

Executive City Councillor for Cultural Affairs and Science in Vienna

Mr Mailath-Pokorny studied law and political science at Vienna University, as well as international relations at the Bologna Centre of the Johns Hopkins University School of Advanced International Studies. His professional career includes positions as Head of the Office of the Austrian Federal Chancellor (1988-1996), Head of the Arts Division in the Austrian Federal Chancellery (1996-2001) and, since April 27, 2001, Executive City Councillor for Cultural Affairs and Science in Vienna. President of the "Bund Sozialdemokratischer AkademikerInnen, Intellektueller und KünstlerInnen" (BSA) since 2010.

Maria Helena Nazaré

President of the European University Association and University of Aveiro, Portugal

Maria Helena Nazaré began her academic career in Mozambique, lecturing at the University Eduardo Mondlane in 1973. Before her special interest in Physics was to take her to the University of Aveiro in Portugal, where she served as Rector, she spent three years working on her PhD at King's College London, graduating in 1978. In 1986, she took up the leadership of the research group in Spectroscopy of Semiconductors in the Department of Physics at the University of Aveiro, working with nationally and internationally funded research projects, and publishing over 70 articles in scientific journals.

She has participated actively in decision-making, whether as President of the departmental scientific and pedagogical commissions (positions she held on various occasions between 1978 and 1988) or as Head of Department between 1978 and 1980 and again between 1988 and 1990. In 1990 she was made Vice-President of the University of Aveiro Scientific Commission and in 1991, Vice-Rector of

the University, a position she held until 1998. She was elected Rector of the University of Aveiro from 2002–2010 and became an EUA Board member in March 2009.

Eva Nowotny

Chair of the University Board of the University of Vienna and President of the Committee of the Austrian Commission for UNESCO

17. Februar 1944: geboren in Wiener Neustadt
1962: Matura am Realgymnasium Wien IV Wiedner Gürtel
Studium Geschichte und Germanistik an der Universität Wien
1968: Promotion Dr.phil.
1968-1972: Universitätsassistentin an der Universität Wien
März 1973: Aufnahme in den Diplomatischen Dienst
1975-1978: Österreichisches Kulturinstitut in Kairo
1978-1983: Österreichische Vertretung bei den Vereinten Nationen in New York
1983-1992: Außenpolitische Beraterin im Büro des Bundeskanzlers
11/1992-1/1997: Österreichische Botschafterin in Frankreich
1/1997-12/1999: Österreichische Botschafterin in Großbritannien
12/1999-9/2003: Leitung der Sektion für Europäische Integration und wirtschaftliche Angelegenheiten des Außenministeriums
9/2003-Herbst 2008: Österreichische Botschafterin in den USA
2/2009-2012: Präsidentin der Österreichischen UNESCO-Kommission
3/2013: Vorsitzende des Universitätsrats der Universität Wien

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Österreichisches Institut für Internationale Politik, Vizepräsidentin
Institut für Höhere Studien, Vizpräsidentin
Europäisches Forum Alpbach, Mitglied des Kuratoriums
Marshall Stiftung, Mitglied des Stiftungsrats
CARE Österreich, Vorstandsmitglied

Jan-Hendrik Olbertz

President of the Humboldt University Berlin

Jan-Hendrik Olbertz is President of Humboldt-Universität zu Berlin since 2010 and Chairman of the Association of Berlin universities since 2014. From 2002 to 2010, he was Minister of Education in the Federal State of Saxony-Anhalt; from 2000 to 2002, he was director of the Franckesche Stiftungen zu Halle. Olbertz was a member of the Saxony-Anhalt School Board for the State Rector's Conference (1993 – 2002), founding director of the Institute for Higher Education Research Wittenberg (1996 – 2000), and a member of the Enquête-Commission "Schools for the Future" of the Parliament of Saxony-Anhalt (1995 – 1997). Olbertz became a full professor for educational science at the Martin-Luther-Universität Halle-Wittenberg in 1992, with particular focus on adult education, further education and advanced training. Since 2010, he has been the Professor for Educational Science at Humboldt-Universität.

Joseph J.Y. Sung

Vice-Chancellor and President of the Chinese University of Hong Kong (CUHK)

Professor Joseph Jao-yiu Sung, SBS is the Vice-Chancellor of the Chinese University of Hong Kong (CUHK). He was the Associate Dean of the Faculty of Medicine, the Chair Professor of the Department of Medicine and Therapeutics of the Chinese University of Hong Kong, and the Head of the Shaw College.

Professor Sung received his MBBS from the University of Hong Kong in 1983, and obtained Doctor of Philosophy from the University of Calgary and Doctor of Medicine from the Chinese University of Hong Kong in 1992 and 1997 respectively. He joined the Faculty of Medicine of CUHK in 1992 and was promoted to the rank of Professor of Medicine and Therapeutics in 1998. He was appointed to the Head of the Shaw College in 2007.

Professor Sung has published over 500 full scientific articles in the foremost journals and also has reviewed more than 15 prestigious journals. His contributions during the fight against the SARS outbreak were particularly impressive to the Hong Kong community.

Susanne Weigelin-Schwiedrzik

Vice-Rector for Research and Career Development, University of Vienna

Since 2002 Professor of Sinology at the Department for East Asian Studies of the University of Vienna, Austria. Dean of the Faculty for Philological and Cultural Studies, University of Vienna (2010-2011). Vice Rector for Research and Career Development of the University of Vienna (2011-2015).

PhD at Ruhr-University, Bochum 1983, habilitation at Ruhr-University, Bochum 1989. Studies at Bonn University (1973-1975), Beijing University (1976-

1977) and Ruhr-University (1977-1978), Professor for Modern Sinology at the Center for Chinese Studies, University of Heidelberg, Germany (1989-2002), Vice-President of the University of Heidelberg (1999-2001).

Research affiliations with the University of California, Berkeley (1984-1985, 1999), Qinghua University (1987, 1992), Kyoto University (1992), Hong Kong University of Science and Technology (1997), visiting professor at Brandeis University (2005).

Main research areas: modern and contemporary Chinese history and historiography, governance in the PRC, East Asia in the 19th and 20th centuries, memory of the Cultural Revolution and the Great Famine, Chinese international migration, Mao biography.

Barbara Weitgruber

Director General for Scientific Research and International Relations, Federal Ministry of Science, Research and Economy, Vienna

Barbara Weitgruber was founding staff member and Director of the Office for International Relations and lecturer at Karl-Franzens-Universität Graz, Austria and then Director of the Office for European Educational Co-operation of the Austrian Academic Exchange Service in Vienna, Austria. In December 1994 she joined the Austrian Ministry in charge of higher education and research as Director and later became Deputy Director General for Higher Education and Director General for Scientific Research and International Relations.

Weitgruber holds a "Master" degree in English/American and Interdisciplinary Studies, a Certifi-

cate in Mass Media and a Translator's Diploma in English from Karl-Franzens-Universität Graz, Austria and a M.A. in Communications from the University of Illinois at Chicago, US, where she started her professional career as a Fulbright Scholarship Holder and Teaching Assistant.

She represents Austria and the Ministry of Science, Research and Economy in a number of national and European boards and committees. She is among others member of the Task Force for Research, Technology and Innovation of the Austrian Federal Government and the Austrian Fulbright Commission and the Austrian Marshall Plan Foundation and Chair of the Scholarship Foundation of the Republic of Austria.

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 1990: Graduate the First Faculty of Medicine Charles University in Prague
 1993: CSc. degree of biochemistry Charles University
 1996: Associate Professor of Medical Chemistry and Biochemistry,
 2000: DrSc. degree of medicine Charles University
 2001: Professor of Medical Chemistry and Biochemistry
 2003: Master of Business Administration – PIBS Prague
 2007: Profesor Honoris Causa – State Medical University J.Y.Horbachevski in Ternopil, Ukraine
 2009: Visiting professor Faculty of Medicine, University of Zagreb
 1990-1998: 1st Dept. Biochemistry First Faculty of Medicine Charles University in Prague
 1999: Head of Institute of Clinical Chemistry and Laboratory Diagnostics 1st Medical Faculty, Charles Univ. General University Hospital Prague; Head of Reference Laboratory for Clinical Chemistry of Ministry of Health Czech Republic
 2005: Dean of the First Faculty of Medicine, Charles University
 2011: Federation of European Biochemical Societies (FEBS) –Chair of Executive Committee
 2001-2013 EFCC: European Federation of Clinical

Chemistry – member of Executive Board
 2008: Corresponding member – Committee on Conferences and Congresses IFCC
 1997-2009: ESBRA (European Society for Biomedical Research of Alcoholism)
 2006-2010: ISBRA (International Society for Biomedical Research of Alcoholism) Member of the Board of Directors
 1997, 2004, 2006, 2010: Prize of Czech Society of Clinical Chemistry
 2003: Prize of Presidium of Czech Medical Association – monography Laboratory diagnostics
 2008: Award of the Rector of Charles University for the best publication in 2007 in medical sciences – Zima et al. Laboratory diagnostics
 2009: Pamětní medaile Josefa Hlávky za významný přínos k uctění osobnosti a díly Josefa Hlávky
 2010: Cena presidenta České lékařské komory za přínos v oblasti celoživotního vzdělávání
 2011: Ocenění České manažerské asociace (4. místo v TOP 10 manažer roku)

Robert J. Zimmer

President of the University of Chicago

Robert J. Zimmer is President of the University of Chicago, a position he assumed in 2006. A member of the University's mathematics faculty, he has served as chair of the Mathematics Department, Deputy Provost, and Vice President for Research. He is currently Chair of the Boards of Argonne National Laboratory, Fermi Research Alliance LLC (operator of Fermi National Accelerator Laboratory), and the Marine Biological Laboratory. He is a Fellow of the American Academy of Arts and Sciences. He earned a BA from Brandeis and PhD from Harvard, and has honorary degrees from Tsinghua University and Colby College.



Imprint

Publisher

University of Vienna
Universitätsring 1
1010 Vienna
Austria
www.univie.ac.at

Responsible for the content

Anniversary Office, University of Vienna

Editor

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Supported by

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Graphic design

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Layout concept

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