Indicators and standards used worldwide to achieve quality university performance

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"Jordan's development record, though impressive by many standards, was always hampered not only by the ongoing conflict, but also by the scarcity of resources. Our answer was to invest in our most precious asset, the individual citizen".

His Majesty the Late King Hussein Bin Talal, 1989

- Let us make each of our individual citizens an embassador to our countries and our cultures.
- ► The test of success of Arab Universities is by producing excellence from within the Arab universities. E.g., Can Arab universites produce Nobel prize winners, Fields medal winners, etc., from within Arab universities?
- ► This is a long way to go but it takes determination, confidence, and perserverance.

Summary: Universities = Higher Education and Research

- ► Common Sense Rules re Education/Research/Training
- Higher Education and Research in Europe/Japan/USA
- ► Higher Education Assessments in MENA
- ► How to create a Research culture in MENA?
- What holds for the future of Arab Education and Research?

Common Sense rules re Education/Research/Training

► There are the best, and there are the worst Everywhere, Higher Education Institutes are ordered from best to worst for teaching/research. Ordered lists exist within single countries, clusters of countries and worldwide.

http://www.topuniversities.com/university_rankings/ http://www.arwu.org/

http://www.guardian.co.uk/education/table/2008/oct/09/top200.universities.worldwide

- ▶ In the top 50 universities, one finds the USA, the UK, France, Switzerland, Australia, Singapore, Canada, Japan, South Korea, China, Hong Kong, Denmark and Ireland.
- ► In the next 50 places, one finds the Netherlands, Germany, Sweden, New Zealand, Belgium, Finland, Israel,
- ▶ India, Greece, Thailand, Spain, Brazil, Argentina, Mexico, Russia, Italy, etc., also figure in the top 200.
- ▶ No Arab university figures anywhere in the top 200. Not even in the top 300, nor in the 400, nor in the top 490.
- ► The first Arab university figures at the 495th position and it is the only university in the top 600 positions.

Common Sense rules re Education/Research/Training

- ▶ Best is better for the institute The higher the grade is, the easier it is for the institute to get national/international research funding and to attract the brightest students.
- ▶ Good reputation allows continuous rise to the top The better the institute is, the more able it is to find financial, political and strategic support in order to continue to expand, improve and upgrade its facilities.
- Worst is worse for the institute The lower the grade is, the more it means the institute has to put up with weak students who are not as motivated and not as able as those who secure places at the top institutes.

Common Sense rules re Education/Research/Training

- ▶ A Good institute, means better future for its graduate A graduate of a highly graded institute has a brighter future, and is better able to excel in research and academia and build an international reputation.
- ▶ Good talent needs to be nurtured Don't count on the formula: the bright student will survive anywhere. Despite being a genious, Mozart may have never become known had he not been trained since birth at the hands of his father and the best teachers available.
- ► *Training brings out talent* Many students, given the right training and opportunities, will excel and do their countries proud.
- ▶ Do not underestimate training, reputation, and being in touch with the right people and the right circle of ideas and research.
- ▶ Build excellence by always aiming for excellence If you have a brilliant student, give him/her as good a future as possible, by sending him/her to work on the hottest research ideas, with the most internationally renowned leaders in the field at the most reputable institutes of the world.
- ▶ Prepare your student well to become your ambassador in the world

Higher Education and Research in France

- In France, there are (yet) no official regular gradings/assessments of institutes But it is understood that l'école Polytechnique, ENS, INRIA and CNRS are prestigious institutes and there is a sort of informal ordering of universities.
- ▶ However, France is different from the UK and the USA in the sense that it does not charge fees (its fees are around 200 Euros per year compared to 11,000 GBP in the UK and more than 20,000 USD in the USA). This means that a student is never accepted in France because of the fees it brings the university.
- ► There are discussions in France to start some sort of charging fees, but most academics reject this stating that *education is for all*.
- ▶ It is believed that attracting *good* students from abroad to study for PhD is like getting free labour. The process is beneficial for the student and the supervisor and eventually, a good student will do research that will bring benefits to his team and university.

Higher Education and Research in France

- ▶ Although there are no official assessments of universities in France, staff at some universities but more especially at research centres like CNRS and INRIA, are requested to write yearly reports outlining their achievements. For universities this is small, but for directors of research at research centres, this can be rather extensive and addresses points of international visibility, productivity, supervision, success in securing grants and the likes.
- ► The lack of official assessments and gradings of universities in France means that some metrics that are used to measure quality (such as citation counts) have not taken centre stage as they do in the UK.
- ► France may well be moving towards the more official assessment of universities as has been followed by the UK for the past 20 years and more recently by other countries like Holland, Finland, etc.
- ▶ Note however that with the establishment of EUA (the European University Association http://www.eua.be/), the Bologna Process, and other formal procedures, universities all over Europe will be following more and more official assessments in the near future.

Higher Education and Research in France

- ▶ French education and research are worldwide reputable. France has produced amazing impressive research and researchers that have had worldwide influence. France has 12 Nobel prize winners in physics (UK has 21), 8 Field medals winners (UK has 8, USA has 12), 2 Abel prize winners (UK has 1), 5 Wolf prize winners in mathematics (UK has 1, USA has 14), etc.
- ▶ This is impressive considering that French education is free for all and is mainly funded by the taxes French people pay.
- ▶ However, France is starting to take a different stand on funding education. There will be many changes to the process soon.
- ▶ Nonetheless, if a lecturer or a professor in France can do such excellent research at a French university (with no funding and with no extra resources), I do not see why a lecturer or a professor in an Arab university cannot do the same.
- ▶ With minor changes to the education system in the Arab world, we can start to see eaxcellent research coming out.

Higher Education and Research in the UK

- ► The UK has been following official assessments of education and research for the past 20 years.
- ► The QAA (Quality Assessment Agency for Higher Education http://www.qaa.ac.uk/) founded in 1997 whose mission is to "safeguard the public interest in sound standards of higher education qualifications and to inform and encourage continuous improvement in the management of the quality of higher education."
- ► The RAE (Research Assessment Exercise http://www.rae.ac.uk/) first took place in 1986, then 1989, 1992, 1996, 2001 and 2008.
- ► The RAE is a big exercise where panels of academics review research work and pass judgments as to its quality. The findings are used:
 - by the national funding councils to help allocate the public money they have for research;
 - by industry and companies to decide where best to invest;
 - by the institutes to decide how to strategically manage research



Assessing Higher Education in the UK http://www.qaa.ac.uk/

- The QAA works with universities to define academic standards and quality.
- ▶ The QAA carries out and publishes reviews against these standards.
- The QAA visits UK universities at regular intervals, reviewing standards and quality.
- ► The QAA carries out comprehensive programmes of reviews at the subject level, managed by the institutions.
- ► The QAA provides reference points that help to define clear and explicit standards.

Higher Education in Scotland http://www.qaa.ac.uk/

- ▶ In Scotland: Enhancement-Led Institutional Review (ELIR).
- Equivalent but separate processes exist for Wales, England and Northern Ireland.
- ► There is also the international QAA process (numerous countries in the middle east and North Africa, as well as universities in China, Russia, etc., have taken part).
- ▶ The QAA focuses on learning as well as teaching.
- ► The QAA manages a national programme of enhancement themes, aimed at developing and sharing good practice in learning and teaching in HE
- ► ELIR focuses on the strategic management of enhancement; the effectiveness of student learning; and student, employer and international perspectives.

Scottish agreed reference points see http://www.qaa.ac.uk/

- ► The Scottish Credit and Qualifications Framework (SCQF)
- ► The QAA Code of practice for the assurance of academic quality and standards in higher education
- Subject specific benchmark statements
- Guidelines on preparing programme specifications and a descriptions of the content of individual programmes of study.
- ► There should be a description of the intended knowledge, skills, understanding and attributes of a student completing that programme.
- There should also be a description of teaching and assessment methods.
- ▶ The programme should be linked to the SCQF.

The ELIR process see http://www.qaa.ac.uk/

The ELIR process is carried out by teams of 3 academics, 1 student and 1 senior administrator, all from the Higher Education sector as follows:

- a preliminary visit by QAA to the institution in advance of the review visit
- a Reflective Analysis document submitted by the institution three months in advance of part 2 of the review visit
- a two-part review visit to the institution by the ELIR team;
 - Part 1 happens five weeks before Part 2,
 - ▶ Part 2 is between three and five days depending on need.
- ▶ the publication of a report, 20 weeks after the Part 2 visit, detailing the commentaries agreed by the ELIR team.

Conclusions and judgement within ELIR see http://www.qaa.ac.uk/

ELIR results in a set of commentaries about the reviewed institution:

- ► The ability of the institution's internal review systems to *monitor* and maintain quality and standards at the level of the programme.
- ► The judgement of the soundness of the institution's current and likely future management of the quality is one of: broad confidence, limited confidence or no confidence
- ► The institution's arrangements for ensuring that the *information* it gives about the quality of its provision *is complete, accurate and fair*
- ► The effectiveness of the institution at *promoting an effective* learning experience for students
- Policies and practices for ensuring improvement in the quality of teaching and learning
- ▶ The effective implementation of a *strategy for quality enhancement*

The evidence for the ELIR

The evidence for the commentaries is based on:

- ▶ Reviewing the institution's own internal procedures and documents, and the Reflective Analysis document prepared by the institution.
- ▶ Discussions with groups of relevant staff.
- ▶ Discussions with students about their experiences
- ▶ Exploring the institution use of the national reference points.
- ► To see review reports of UK universities (English, Scottish, Northern Irish and Welsh) written since 2002, go to: http://www.gaa.ac.uk/reviews/reports/instIndex.asp

Assessing Research in the UK http://www.rae.ac.uk/

- Recall that the Research Assessment Exercise (RAE) enables the higher education funding bodies to distribute public funds for research according to a formula based on the RAE results.
- ▶ The RAE outcomes also influence other external funding (by industry, commerce, funding bodies, charities, etc.), as well as guidance to institutions on how to startegically manage their research.
- As for QAA, the outcomes of the RAE are published as a public record on the quality of research in universities and colleges throughout the UK.
- An easy summary by Anthea Lipsett: http://www.guardian.co.uk/education/2007/oct/30/ highereducation.researchassessmentexercise1
- ► RAE 2001 assessed the research of around 50,000 researchers in 2.598 submissions from 173 institutions.
- ▶ Around 5 billion GBP of research funds were distributed in response to the results of the 2001 RAE.

More on Research Assessment in the UK

- ▶ RAE 2008: Results, will be published as graded profiles for research across all disciplines. Submissions from institutions are assessed by experts in around 70 units of assessment.
- ▶ The main body of the assessment took place in 2007-08, with outcomes to be published by the funding bodies in December 2008.
- Metrics are measurements of input (e.g., income from research councils, charities and industry) and output data (e.g., the number of PhDs completed, the number of research papers published, the impact they have and the citation index they attract).
- ▶ Metrics may be more suitable for some subjects (e.g., engineering?) than others (e.g., mathematics?).
- ► According to Anthea Lipsett: "Critics of the system say metrics tell little about a department, university or individual, other than how much money they have raised or how many research papers they have written."

More on Research Assessment in the UK

- ▶ When preparing RAE documents, universities had to decide which staff should be included as research active. Sometimes, some staff were not included because their research was going to be marked at a lower grade than what the university was aiming for.
- ▶ For example, in 2001, universities did calculations whether say they should list less staff as research active and get say 5 (B) or include almost all the staff but get a grade of 4 (A).
- ▶ The decisions had to be well thought over: a grade of 5 is an excellent reputation. But, if too many staff have to be removed for that purpose, the financial gains would be less than with a grade of 4 (A).

More on Research Assessment in the UK

- ▶ Read also Anthea Lipsett's article of 29 October 2008 in the Guardian. This article discusses how some staff are included as research active and others are hidden:

 http://www.guardian.co.uk/education/2008/oct/29/
 researchassessmentexcercise-hefce-hesa-abandonedleaguetables
- ► For further details, see The Higher Education and Research Organisations in the UK http://www.hero.ac.uk/
- ➤ To see previous RAE submissions and results, and all sorts of information related to UK research assessment, go to: http://www.hero.ac.uk/uk/research/

research_assessment_and_evaluation.cfm

Higher Education in Europe

- ► The European University Association (EUA) http://www.eua.be/ is a body of higher education institutions in 46 countries aiming to establish a unique form of cooperation and collaboration on the latest trends in higher education and research policies and techniques.
- ▶ At its web page http://www.eua.be/, EUA states that it:
 - Promotes policies to enable higher education institutions to respond to growing expectations regarding their contribution to the future development of a knowledge society for Europe
 - Advocates these policies to decision makers at different levels and ensures that the voice of universities is heard
 - ▶ Informs members of debates which will impact their development
 - Develops knowledge/expertise through projects that involve individual institutions while also underpinning policy development.
 - Strengthens the governance, leadership and management of institutions through a range of activities targeted at mutual learning, exchange of experience and the transfer of best practices
 - Develops partnerships in higher education/research between Europe/the world strengthening European universities globally.

Vision of the EUA: http://www.eua.be/about-eua/what-we-do/vision/

- ► EUA vision of European universities is that of academic institutions with highly diversified profiles, providing a wide spectrum of graduate qualifications and facilitating the mobility of staff and students.
- ▶ Key to achieving this is a good integration of teaching and research.
- ► EUA states that it "takes into account the political context in Europe that increasingly views universities as being an essential element in building Europe's future."
- As ever, EUA knows the value of funding for promoting quality education and research of international standards.
- Proposals are put forward to establishing public/private funding models.
- Proposals are also put forward for the establishment of a *European Forum for Quality Assurance* which aims to regularly develop and monitor a shared understanding of a European dimension for quality assurance.

Funding European Higher Education and Research

- ► The main objective of EUA as set out in the EUA Action Plan and Work Programme 2006/2007 is:

 advocate the importance of public and private investment in education, innovation and research for Europe
- ► The financing Working Group of the EUA aims at establishing good funding policies at the institutional, national and European levels.
- Recall the funding situation discussed in France, and the UK.
- ► EUA has been reviewing different national institutional funding systems and especially that of the UK.
- Universities plan to develop full economic cost models and to call on governments to allocate funds accordingly.
- ► Key issues:
 - transparency in everything especially funding;
 - universities must be key research actors for Europe;
 - ► European universities must provide good research training.



The Glasgow Declaration 2005 http://www.eua.be/eua/jsp/en/upload/Glasgow_Decl

- ▶ Over six hundred higher education representatives from forty-seven countries discussed the future of the European Knowledge society.
- According to President Barroso, "Securing the future of European universities is unquestionably one of Europe's top priorities. Adequate funding is a prerequisite for securing universities' future and, with it, their capacity for promoting cultural, social and technological innovation."
- Governments and universities need to cooperate: Governments give European universities the legal/administrative/financial autonomy they need to implement reforms; universities strengthen leadership at all levels.

The Glasgow Declaration 2005 http://www.eua.be/eua/jsp/en/upload/Glasgow_Decl

Once again, funding is the crucial point. At present, less than 2% of Europe's wealth (GDP) is devoted to research, which compares badly with 2.5% in the USA and more than 3% in Japan.

Its a two-way systems:

- ▶ Europe cannot compete with education systems in other parts of the world if higher education and research budgets are not viewed as an investment in the future and urgently increased.
- Universities need to improve their governing structures and leadership competence so as to increase their efficiency and innovative capacity and to achieve their multiple missions.

The Glasgow Declaration 2005, FUNDING FOR STRONG INSTITUTIONS

- Now you see why USA has more nobel prize winners, more wolf medals, etc.
- ▶ We cannot underestimate funding: the UK was always behind on olympic medals until it decided a few years ago that there should be a huge investment in sport.
- ▶ Lottery money, government money, etc. was pumped into sports.
- This year, UK olympic contestants had the best gears, the best training, even had psychiatrist and psychological training with them at the event.
- Britain came away with an impressive 5th position in the world (which was very unexpected and very surprising).
- ▶ Talent and abilities are to be found in every human race. It is training, resources , investment, commitment and discipline that are the key.

The Glasgow Declaration 2005, FUNDING FOR STRONG INSTITUTIONS

According to the Glasgow declaration review: "While Europe's Lisbon goals are ambitious, public funding for research and higher education is stagnating at best. Universities maintain that weakened public support erodes their role. Governments must ensure appropriate levels of funding to maintain and raise the quality of institutions."

Higher Education in Europe

- ► EUA is a new association but it is expected that the European Higher Education Area will formally come into being in 2010.
- ▶ So far, there are a minimum of 46 European countries, but it is expected this will grow.
- ► Some of the goals of the European Higher Education Area include:
 - Consolidating Europe's broad base of research-based education by connecting more closely the European Research Area and the European Higher Education Area;
 - Widening participation: providing more education to more young people:
 - ▶ Redefining public responsibility of higher education, particularly in relation to the autonomy of higher education institutions;
 - Enhancing the international attractiveness of European universities making sure that European universities are "fit to face" global competition.
- See http://www.eua.be/fileadmin/user_upload/files/ Newsletter_new/2008_C_4_EUA_Bologna_post_2010.pdf Publications/European_Universities__Charter_on_Lifelong_learning.pdf

EUA COUNCIL FOR DOCTORAL EDUCATION (EUA-CDE)

- ▶ An important mission of EUA is the development, advancement and improvement of doctoral education and research training in Europe.
- According to the EUA-CDE web site, this mission is addressed through:
 - The organisation of conferences, training seminars and other events on topics of interest to its members.
 - The commissioning of research and analyses, the provision of information, the fostering of debate, the promotion of exchange and the dissemination of good practice.
 - Identifying and monitoring emerging trends in doctoral education inside and outside Europe.
 - Building and developing a strong link between education and research policies and strategies within Europe
 - Strengthening the international dimension of doctoral programmes and research training through improved cooperation among its members and in particular by establishing dialogue with partner organisations in other world regions.

EUA COUNCIL FOR DOCTORAL EDUCATION (EUA-CDE)

According to Professor Georg Winckler - EUA President: "Doctoral education is a major priority for European universities and for EUA. It forms the first phase of young researchers careers and is thus central to the drive to create a Europe of knowledge, as more researchers need to be trained than ever before if the ambitious objectives concerning enhanced research capacity, innovation and economic growth are to be met."

Higher Education in Japan/USA

- Both Japan and the USA have highly funded universities and have excellent research/education records (this is also evidenced by the number of Nobel Prize winners and other reputable prizes).
- This is also the reason why there is no brain drain from the USA aborad.
- ► This is also the reason why European and other academics go to the USA but not usually the other way round.

Higher Education Assessment in MENA

- Since 2001, numerous Arab universities have gone through quality assessment of their education system.
- ► Some Arab countries and Arab universities have established good QA processes and regularly follow the process.
- ▶ One can see a lot of improvements in education in these universities in the past decade.
- However, issues discussed above (research, doctoral training, integrating research and education) still need a long way to go.
- Before any culture of research assessment gets established in the Arab world, Arab universities need to create research targets, and to develop strategic plans of how to launch a successful reserarch record within the Arab world.
- ► Already there are good stepping stones: international conferences and events in mid-eastern countries, international journals launched from Arab universities, submissions to international journals from within Arab universities.
- ▶ But, this progress remains small. Comparing with the ambitious plans currently made by the EU, and the way Arab universities are behind in leading research, we have a long way to go.

How to create a research culture in MENA

- ▶ We need startegic plans and commitment for research from the governments and the universities.
- ▶ In the UK there are tiers of universities in the Arab world:
 - Old universities where research is an important part of education and training
 - New universities which used to act in the past mostly like polytechnics but where research has become an essential part of the culture.
- As all current international higher education documents state, there is no quality higher education without research.
- Arab universities and governments need to start now a serious research culture: we need self-reflective documents and research strategic plans drawn by the universities, and the commitment of the governments, industry and commerce for a better research culture.
- We should be producers rather than simply consumers.
- ▶ I cannot see why newly established countries can build strong reputable universities and gain top prizes when we have brain and money and will in the Arab world.
- ► Can we not give research some attention at this workshop?

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How to create a research culture in MENA

- ▶ In any case, institutions need funding and need reputation. It is up to different countries to think of ways to fund their education. No country should turn away a student who has the potential of obtaining reputable prizes (Nobel, Wolf, Fields medal, Abel, etc.).
- ▶ Unfortunately, Arab universities do not cater for the training and retention of those students who might earn reputable prizes. Instead, these students need to go elsewhere to build their reputation.
- Going elsewhere has its advantages and disadvantages:
 - It is always important to build contacts, work in new environments and learn new skills. But, can we not invest in our people and reap the fruits of investments too? We all know that the brain drain is harmful to the country, the culture and the economy.
 - ▶ There is a vicious circle: we are not giving our individuals the necessary training and education to reach the very top in our countries. Do we think that by throwing them without preparation into other countries they can reach the top (no matter how able they are)? We need to also protect and guide our individuals in their education journey abroad.

How to get the most of our students abroad

- ▶ It is important to send our students to the most reputable institutes to work with the most reputable researchers.
- ▶ It is equally important to send our students to friendly environments and especially environments that are friends of the Arab world.
- ▶ We should not send our young, perhaps shy students who were very well protected and loved in their country, to an environment that may intimidate them. Our students can only reach their potential if they feel they work in an environment that treats them as equal rather than inferior.
- ▶ We should also teach our students how to fit in with other cultures. Our students should be prepared to face a new culture. Just like a King may take dance lessons before going to a certain ball so that he can join the event and not stand on the side, a foreign student need to take preparatory lessons into the culture he/she is planning to spend some years of his life. This does not interfere with the student's customs. It does however give the message that we appreciate and respect other cultures, especially the culture we are visiting.

How to get the most of our students abroad

- ▶ Most importantly, our student should be technically and academically prepared before going to the new country. If the student is not sufficiently trained, he/she will struggle, will make poor research, will publish insignificant results and will return with a degree that is simply a piece of paper and that cannot help him to continue to advance on the international scene.
- We want our students to publish meaningful research, to make an impact, to build their international reputation and to do their country proud.
- We need to train and prepare our students to the best possible way (academically, scientifically, professionally, socially, psychologically, etc.).

Finally, before closing, back to funding

- ▶ EU funding entitles some countries in MENA to take part as international co-operation partners. These countries are eligible for full funding and include: Algeria, Egypt, Iraq, Jordan, Lebanon, Libya, Morocco, Oman, Palestinian-administrated areas, Sudan, Syria, Tunisia, Yemen.
- ▶ Look at the EU FP7 framework where you find helpful information for the next call (Spring 2009).
- ▶ You also find there how the EU measures research quality.