



**Conference for the dissemination of
the outcomes of the 2nd round of OECD
reviews of higher education in regional
and city development:**

**“Higher education and Regional and
City Development: For Stronger,
Cleaner and Fairer Regions”**

**Speech by Aart de Geus,
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- Mr. Màrius Rubiraltas i Alcaniz, General Secretary for Universities, Ministry of Education,
 - Mr. Antonio Ávila Cano, Regional Minister of Economy, Innovation and Science, Regional Government of Andalusia,
 - Mr. Joaquin Luque Rodriguez, Rector of the University of Seville,
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- Honoured guests, Ladies and Gentlemen,

In the name of the OECD I would like to add my own thanks to the Regional Government of Andalusia, to the Spanish Ministry of Education and to the University of Seville for taking the initiative of hosting and sponsoring this meeting, and for giving us the opportunity to speak to you today.

For the OECD, to focus attention on the role of higher education institutions in local and regional development, this region is the ideal place. Not only because it is a wonderful place to be, but also because the Regional Government of Andalusia has launched a number of initiatives to reform education, enhance learning and employment outcomes of students and foster innovation.

We have been living through a global crisis. We may be seeing signs of recovery, but the price that we are paying in terms of unemployment- especially youth unemployment – is very high. You don't need me to tell you that. Unemployment in Spain rose to close to five million people at the end of 2010, one-fifth of the workforce. In Andalusia it is estimated that 28% of the workforce and 52% of the youth population are currently unemployed. The Regional Government of Andalusia, like many other governments in OECD countries and beyond, understands that universities need to be mobilised to combat this situation and to provide better support for economic recovery and job creation.

All of you in this room have been involved in some way in addressing how this can be done, and in my remarks this morning, I want to set this work in the broader context of economic growth and what OECD countries are doing about it.

The OECD celebrates 50 years of service to governments and to society this year. That may be paltry when measured against the more than 2000 year history of Seville, but we should not underestimate the changes that have taken place in that time. 50 years ago higher education was the preserve of the elite, and the importance of local and regional policies for innovation and growth was poorly understood.

In the era of globalisation, physical proximity still plays an important role. The exchange of tacit knowledge takes place in cities and regions.

OECD work on 'How regions grow' teaches us that a combination of factors is required:

- investment in human capital;
- an emphasis on innovation and R&D;
- the provision of infrastructure; and
- an integrated policy focus.

But globalisation and the emergence of new players in the world economy have intensified competition. There are winners and losers as growth and innovation continue to cluster around those cities and regions which have invested in human capital development, innovation infrastructure and networks, and bleed away from those that do not.

Let me give you some examples: the expansion of higher education has been a key factor in the recovery of the Jyväskylä region in Finland from the recession of the early 1990s when unemployment reached 25%. Investment in a science park, university masters'

programmes, high technology companies and a multi-disciplinary polytechnic – supported by European structural funds – has turned the region round.

In Spain we could consider Navarra, a hub of renewable energy, and one of the wealthiest 10% of European regions. It is no coincidence that its investment of 2.13% of GDP in R&D is more than any other Region of Spain.

But I said that there have been some regions which have lost out. In Piedmont in Italy the past 30 years have seen the erosion of its economic advantage as the manufacturing sector has declined. Closer by, the Region of Murcia is suffering the social and economic consequences of its dependence on sectors with low knowledge intensity, especially construction.

As technological innovation continues apace, many OECD countries are turning production towards high value-added, knowledge-intensive products and services. Almost half of the knowledge and technology hubs in the OECD are located in the US, while other knowledge-intensive countries like Germany, Sweden, Finland and the UK also account for a significant share of them.

At the same time however, gaps between regions are widening. We know from OECD data that the variation in regional economic performance is wider than the variation across countries. During 2008–09, unemployment rates rose more in regions where they were already relatively high, suggesting that the crisis aggravated the problems of already vulnerable regions.

If we turn our attention outside OECD we see that the emerging world is enjoying the most spectacular growth in history. Its share of global GDP (at purchasing-power parity) increased from 36% in 1980 to 45% in 2008 and is set to grow to 51% in 2014. Emerging-market consumers have been outspending Americans since 2007. Many economists expect

growth in emerging markets to be four percentage points higher than growth in the rich world for at least the next five years. Emerging-market companies are learning how to compete on productivity, not just low cost. Innovation is the key here, and it requires access to new technologies, knowledge and skills.

To meet the needs of some of the world's poorest people, redesigning not just products but entire production processes is necessary and here universities can play an important role. Frugal innovation strips products down to their bare essentials. It means cutting costs to the bone and eliminating all but the most essential features of a product or service.

Let us take two examples from India. A hand-held electrocardiogram, which instead of the multiple buttons on conventional ECGs, has only four. It is small enough to fit into a small backpack and can run on batteries as well as on the mains. It sells for USD 800, instead of USD 2 000 for a conventional ECG, and in the past three years has reduced the cost of an ECG test to just USD 1 per patient. .

Or water filter that uses rice husks (which are among the most common waste products in India). It is robust, portable and cheap, giving a large family an abundant supply of bacteria-free water for an initial investment of about USD 24 and a recurring expense of about USD 4 for a new filter every few months. These innovations are aimed at two of India's most pressing health problems: heart disease and contaminated water.

We know that growth is driven by tertiary education. Universities and other higher education institutions are fundamental to human capital development and innovation and can do much to help their cities and regions become more innovative and globally competitive. However to do this they need to change, and in some cases change dramatically.

Universities and other HEIs need to come out of their ivory towers. They need to become more active in order to play a meaningful role in the local and global setting. They

must do more than simply provide education and research – they must engage with a wide range of stakeholders including business and industry, they need to provide opportunities for lifelong learning and contribute to the development of knowledge-intensive jobs which enable graduates to find local employment and attract talent not only from the region but also elsewhere. The capacity to compete in the global knowledge economy depends on how well countries and regions can meet the demand for high-level skills. Human capital development, that is to say education at all levels, the re-skilling and up-skilling of the population, is a major factor in this process. But it has to be relevant. A recent OECD study shows that on average 40% of the workforce is either under- or over-qualified for the jobs they do. In Spain that figure is 32% under-qualified; 32% over-qualified, almost two out of three of the workforce.

In many countries the expansion of higher education has not sufficiently contributed to achieving equity in terms of access, study progress and learning outcomes. Inequity means that some people are not being given the opportunity to fulfil their potential. It means that talent is wasted. Countries and regions cannot afford to overlook the potential of significant parts of their population, whether from remote communities, lower socio-economic background or immigrants. Many OECD regions, including Andalusia, or Rotterdam in my own country, face a particular challenge of integrating immigrant population into the labour market and to higher education. In most countries, higher education institutions account for the largest share of public research and development. While industry still funds only a fraction of research in higher education, more firms are now drawing on academic knowledge and research. Universities can create science parks or technology transfer offices to stimulate spin-offs and encourage synergies with innovative businesses. But this is not all universities can and should do. They can mobilise “knowledge transfer on legs”: that is to say, students – whether as trainees, interns or full-time employees for regional development and innovation. They should develop education for entrepreneurship. International

experience shows that while university technology transfer offices may lead to saleable intellectual property and start-ups, they seldom on their own produce enterprises that grow in the region and contribute to regional economic development. A well functioning regional knowledge transfer model is based on an ongoing relationship between the university and industry to determine what innovations have the best opportunities for adoption and commercialisation. It supports the human capital development required to adopt and apply process and product innovations and works with SMEs as well as large corporations.

The evidence is that in many countries higher education institutions are not responsive to the needs of regions. Here in Spain, more than 80% of Spanish companies have never sought the help of universities to carry out research projects nor have they hired scientific-technical services or even just requested analysis and reports. Spain is not alone here. In the UK, only 10% of businesses currently interact with universities.

Why is this so? Are universities not offering the right knowledge and skills to companies? Are companies feeling that higher education has nothing to offer for their business? OECD has found three key reasons why higher education institutions fail to be responsive partners in regional development.

First, national higher education systems often impose regulations which limit the ability of institutions to engage regionally, leaving limited room for institutional autonomy and flexibility. Higher education policy does not yet have a regional dimension.

Second, incentive structures are often inadequate to mobilise HEIs or their staff for regional development. Higher education institutions today are faced with global competition, new tasks and cost-cutting. International university rankings increase the pressure on universities to become national and international players in education rather than local and regional champions.

And third, there are specific barriers to co-operation between higher education institutions and firms in R&D. Higher education institutions and firms, particularly small and medium-sized enterprises, have divergent priorities as well as difficulties in identifying partners. Often, universities show only limited interest in the research topics proposed by businesses, and firms find academia insufficiently business-like. Companies' restrictions on publishing research results can also turn away researchers whose academic career depends on publishing.

But the outlook is not as bleak as it seems. There is much that governments at different levels and HEIs themselves can and should do to remove the obstacles. Since 2005, OECD has examined the role of higher education in 29 cities and regions. Four of these regions were in Spain, including the Autonomous Region of Andalusia, which is why we are here today in Seville, the capital of Andalusia.

A number of clear policy measures have been recommended by the OECD in our review reports.

A first set of policy recommendations concerns reforms of higher education institutions.

The very basic approach is to make sure that higher education policy has a regional dimension. A more ambitious approach requires changing the culture and direction of universities and higher education institutions in line with entrepreneurial activities and regional engagement. This means legal and regulatory changes to reform the university governance and strengthen the autonomy of higher education institutions.

But increased autonomy will not be enough, if there are no incentives to mobilise higher education for regional engagement. Performance-based funding schemes in this area could be used more efficiently. Long-term core funding for universities tied to regional engagement could thus provide a strong incentive; the same applies to competition-based strategic

funding streams. But putting the money forward is not enough either if there is no monitoring of results. Policy measures will require close monitoring of outcomes and stronger accountability schemes for higher education institutions. Data, indicators and benchmarking remain a weakness in most countries and regions. Moreover, many universities do not follow up the progress of their students or track the career of their graduates. Regional engagement policies will not be improved without sound evaluation processes.

Another key policy message calls for regions to look beyond high-technology. Too many regions try to emulate Silicon Valley and do not build on their existing assets. Too many higher education institutions focus on few fields: biotech, nanotech and ICT, regardless of the limitations in their critical mass. Still evidence shows that innovation takes place in many fields. For example, in the United States, more than half of all patents and trademarks granted are in low-tech areas. Biotechnology, a favourite for investment in research, actually creates fewer jobs than upgrading existing industries would do.

Far too little attention is given to services, which account for 70% of the workforce in the OECD countries. Employment-intensive sectors such as tourism, health, finance, and non-high technology activities, including retail, transport, construction, are often the driving forces in their regional economy. A region like Andalusia should take a close look at the opportunities of creative economy and bringing added value to tourism.

There is also need to establish permanent networks of local and regional authorities, business – including SMEs - and higher education institutions. Getting different organisations and agencies to work together well is not easy, but it is worthwhile. Cooperation breeds trust and understanding and will help to foster innovation.

I want to close by thanking each and every one of the many people who have contributed to this important work. I believe that citizens and authorities from the 29 regions involved can be proud of what they have achieved as they continue to build on the results of

the review. And we at the OECD are proud to be contributing to your efforts, over the next days, and in the future.