

# Cross-Border Higher Education Co-operation in Ireland and Europe

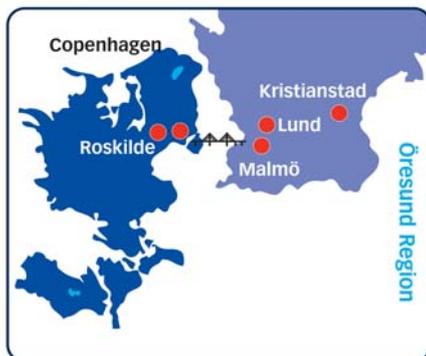
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## CONFERENCE BRIEFING PAPER

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### The Öresund Region and University

#### The Region



The Öresund region, named after the sound between the two countries, comprises the land area of Zealand (or Sjaelland) in Denmark (which includes Copenhagen, with a population of 1.9 million the largest city in Scandinavia) and adjoining islands, and Scania or Skåne in southern Sweden (including the country's third city, Malmö). More than 3.5 million people live in the region: over 2.4 million on the Danish side and 1.1 million on the Swedish side.

Since July 2000 the two areas have been linked by the Öresund bridge and tunnel, a 16 kilometre road and rail link linking Copenhagen and Malmö. An average of 9,500 cars use this toll-financed bridge daily, while the rail link carries some 14,800 passengers per day.

Zealand represents 48% of Danish GDP and Scania 11.6% of Swedish GDP. However until the bridge was built there was relatively little interchange between the two regions. According to the University of Copenhagen's Institute of Geography, of the 1.2 million people who commuted in the two areas in 1999, only 2,000 crossed the Öresund. As late as the mid-1990s the two areas had been characterised by high unemployment and weak economic growth.

The opening of the bridge gave a huge boost, both symbolic and practical, to cross-border co-operation between Denmark and Sweden. Since 1996 Copenhagen has had the fastest economic growth in Denmark and during 2001 Scania took over as the fastest growing region in Sweden.

The overall goal of the Öresund cross-border project is to create and consolidate a functional region that will be larger than either Stockholm or Helsinki, and will provide a gateway to the Baltic countries. According to a 2003 OECD report: "In the region there is a concentration of firms in adjacent sectors, research laboratories and universities. Zealand and Skåne are well-endowed with a wide spectrum of knowledge-based industries: the former is strong in a number of pharmaceuticals, as well as food processing, software, design and environmental technologies, and the latter shows good performances in IT, telecommunications, biotechnology and research."

The OECD emphasised that at the same time the Öresund region was providing a high-quality specialised labour force by hosting 14 universities, 10,000 researchers and 140,000 students.

The OECD argued that the region's emphasis on promoting business networks and links between business and the universities would further enhance innovation and specialisation. It noted that infrastructural investment of 8.5 billion euro has created a Scandinavian hub acting as a gateway to the Baltic (and its new entrants to the EU) with a population of 100 million. International investors are attracted to an Öresund region that is bringing in an increasing proportion of investment in Denmark and Sweden. In addition, the EU's cross-border INTERREG programme is contributing 30 million euro to the region during 2000-2006.

A 2003 report from the Öresund Institute found four factors indicating the growing integration of the region: the workforce commuting across the bridge had grown more than threefold since 1999; significant numbers of Danes were crossing to live in Scania because of cheaper housing; the number of students taking advantage of the Öresund University's wider selection of courses had risen by 400 per cent since 1999; and a significant number of cross-border organisations and institutions had emerged in local government, business, research, education and science.

Both the Danish and Swedish governments regard the Öresund project as consistent with their own regional development policies. However although they have a common vision for the region, they have not evaluated existing moves towards integration or provided an agreed way forward for how they would like to see the region develop. The 2003 OECD report concluded that further integration of the region would involve targeting: 1) infrastructure and spatial planning; 2) labour market; 3) networking and knowledge diffusion, and 4) taxation.

More specifically it identified the key policy challenges facing the region as:

1. Making the relatively high prices charged for crossing the Öresund bridge more competitive (plus improving its supporting infrastructure), and setting up a cross-border committee to allow integrated spatial planning.
2. Increasing labour mobility by removing bureaucratic and legislative obstacles;
3. Enhancing co-operation and networking between firms and educational institutions;

4. Tackling the asymmetries of the two fiscal systems through a new tax agreement.

As yet there is no single common body with the explicit legal or administrative authority to co-ordinate and implement joint development strategies in the region. The existing governance arrangements need to be developed to provide a “framework that improves the managerial efficiency of cross-border activities while complying with the principles of democratic accountability and transparency”, says the OECD. It calls for the development of forms of “light institutionalisation” across the region in order “to trigger a new dynamism in the integration process.”

### **Öresund University**

The Öresund University consortium was created in 1998 and now has 14 participating institutions: University of Lund, University of Copenhagen, Malmö University, Copenhagen Business School, Royal Veterinary and Agricultural University (Denmark), Technical University of Denmark, Danish University of Education, Danish University of Pharmaceutical Sciences, Swedish University of Agricultural Sciences/Alnarp, Roskilde University, Royal School of Library and Information Science (Denmark), Kristianstad University, Royal Academy of Fine Arts School of Architecture (Denmark), and IT University of Copenhagen.

Öresund University is a voluntary association of these institutions, who contribute a sum to the running of the joint enterprise proportionate to their size. The heads of the participating institutions form the governing body of the university, and there is an executive committee which takes day-to-day decisions. Its annual budget, which is largely allocated to the secretariat and its operating costs, is around five million Danish crowns (around 670,00 euros).

The current chairman is Professor Linda Nielsen, an international authority on family law, bio-law and bio-ethics, who is rector of the University of Copenhagen. A secretariat, based in Lund and Copenhagen under director Mr Bengt Streijffert, manages the day-to-day running of the university and co-ordinates all co-operation work. This takes place, mainly at faculty and departmental level, in the form of projects, networks or formalised agreements covering teaching and research. It also covers areas such as administration of some joint courses, contacts with the surrounding community, links with industry, international issues, information and ICT links, including the net-based Study Gateway which opened on 5 May.

According to its website, “this consortium of universities is based on geographical proximity and a long common history and culture. Aiming to become a significant science region, the consortium increases quality and efficiency among the participating institutions by opening up all courses, libraries and other facilities to all students, teachers and researchers. All involved in Öresund University are to have easy access to ‘the other side’ of the region. The education and research of both countries thus complement each other in making Öresund a scientific and educational stronghold.”

Öresund University is based to a large extent on the idea of utilising network technologies to create research and learning centres across geographical,

institutional and time barriers. In the OECD's words, IT communication creates a bridge between participating institutions across the Sound and "improves interactions between researchers, allows for distance learning ...and disseminates information to trade and industry."

This builds on the high international reputation the Öresund region already has for research. According to a study in the early 1990s, the region had the highest concentration of scientific output - as measured by the number of published research publications per capita - of any part of Scandinavia, and the fourth highest of any European region, after London, Paris and Moscow.

In **teaching and student mobility**, Öresund University is currently undertaking work in the following areas:

- **Öresund Summer University** provides more than 70 courses at BA, MA and PhD level in participating universities for local and international students, with nine offered jointly by two or more universities. These courses are credit-bearing
- **New bilateral programmes** have been developed, e.g. European Studies at postgraduate level jointly taught between Malmö and Roskilde Universities. Students move between the universities and the courses are taught in English.
- The participating universities are tackling the **structural differences** between university education in Zealand and Skåne. Some of these differences are those between two national university systems, while others are differences between individual universities of varying traditions, sizes and ages. The ECTS credit transfer system is proving useful in overcoming barriers in this area. Öresund University is becoming something of a regional model for the EU's Bologna process of moving towards a common European higher education area in that it is now working on four or five models of structural co-operation within higher education in the region.
- The university administrations are facilitating **independent student movement** between institutions by working together to remove specific barriers. These include credit transfer arrangements, access to information (via the new Study Gateway), access to libraries, student travel rebates and student counselling. There is no deliberate policy of student mobility other than through the attractions of specific courses. Currently more Swedish students go to Denmark, largely attracted by the availability of medicine, veterinary medicine, architecture and related courses.

In the area of **research**, Öresund University has been at the forefront of efforts to stimulate regional and cross-border collaboration between participating institutions and business. This has come through the development of 'platforms', which involve doctoral and post-doctoral research focussing on specific innovation and business-related issues. Four of these platforms between them constitute the **Öresund Science Region**, whose aims are to establish 'state of the art' scientific clusters, to brand Öresund globally as a high-tech region, and to stimulate new knowledge and knowledge products on a regional basis. It operates with an annual budget of around four million euros. The Öresund Science Region platforms are:

- **Medicon Valley Academy.** This involves co-operation between institutes of higher education, the hospital sector and the pharmaceutical industry (60% of Scandinavia's pharmaceutical industry is located in the region) to develop the region's health sector and biotechnology potential.
- **Öresund IT Academy.** The aim of this network is to create business, education and research links in the information technology sector between universities and companies in Denmark and Sweden, as well as with other regional partners including the Baltic States.
- **Öresund Food Network.** Öresund University leads this initiative, which aims to bring together research and education programmes from the food sector and the participating universities in order to establish a centre of international excellence for the food industry in the region.
- **Öresund Environment Academy.** This involves co-operation between researchers and industry in environmental education, economics, innovation and technology.
- **New platforms** are in preparation in the areas of design, logistics and culture.

Other Öresund regional projects and platforms include the following:

- **'Zealand and Scania - before, during and after the Bridge'**. An interdisciplinary research project aimed at charting the geographical, economic, legal and environmental consequences of the Öresund bridge. The two governments have allocated this project 4.5 million Swedish crowns and 4 million Danish crowns (a total of around one million euros) over three years.
- **Marketing and International Contacts.** Joint work to market and promote internationally the Öresund universities' joint research and teaching strengths, often in co-operation with regional and national marketing agencies.
- **Other platforms** are in nanoscience, humanities and Baltic Studies.

## Science Parks

There are also a large number of university-linked **Science Parks** in the region, some of them among the biggest in Europe. In Denmark and Sweden there is a long tradition of co-operation between companies and academic researchers. Since the science parks were started in the early 1980s, they have provided a fertile ground for developing successful innovations all the way from concept to finished product. Universities and companies have used them to conduct spearhead research and to produce innovative products and processes in a wide range of areas: from telecoms, IT, power electronics and forest technology to medicine, biomedicine and biotechnology. Perhaps the best example was the research project on mobile telephony, which was nurtured in Lund University in the early 1980s and became a technological experiment which led to a multibillion dollar industry.

In Denmark and Sweden academic researchers own the result of their work and are free to put their ideas and innovations into action wherever they please. The researchers may decide to start a company of their own or join established companies to refine and market new products. The minimal red tape involved in

this process has helped to make the two countries – and the Öresund region in particular – into a world class area of innovation in general, and new ‘spin off’ companies from university research in particular.

The science parks in the Öresund region are almost always located close to a university, college or institute of technology. Back-office and other administrative services, as well as assistance with access to the venture capital market and other forms of financial support, are readily available.

Among the foremost university-linked science parks in the region are:

- **CAT Science Park.** This was founded by Risö National Laboratory, the Technical University of Denmark and Roskilde University in 1989 to carry out science and technology-based economic development using research from the above institutions in co-operation with industry.
- **Danish Science Park in Hörsholm.** This brought together the Technical University of Denmark and the County of Frederiksborg in North Zealand to establish an Innovation Centre to assist new, high tech companies.
- **Ideon.** More than 120 high-tech companies have been set up in the Ideon Science and Technology Parks in Lund and Malmö since they were established in the early 1980s.
- **Symbion.** This was set up to strengthen co-operation between industry and the large number of higher education and research institutions in the Greater Copenhagen area. One of its functions is to act as an ‘incubator’ for the development of new knowledge and technology-based companies.

The Öresund Region website lists nine other similar Science Parks, plus 16 high-level science and research institutes outside the universities.

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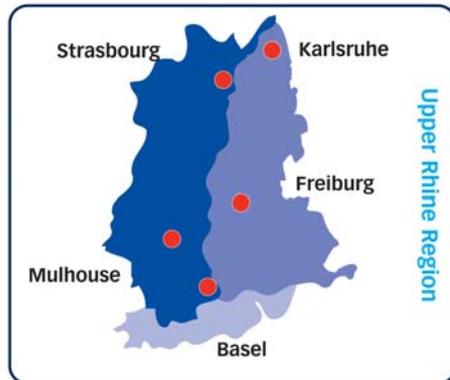
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# The Upper Rhine Region and the EUCOR university confederation

## The Region



The Upper Rhine region is made up of the regions, cantons and departements between the Jura Mountains on the Swiss-French border, the Vosges Mountains in France and the Black Forest in Germany. With the exception of Karlsruhe, the EUCOR confederation covers approximately the same area as the Upper Rhine region as defined by the EU's cross-border INTERREG programmes. Using the INTERREG definition, the region covers an area of 13,600 square kilometres with a population of

3.3 million, 1.33 million of whom live in the German part, 1.3 million in the French part and 0.58 million in the Swiss part.

The region was actually a single region until the Peace of Westphalia in 1648, and this partly accounts for the fact that cross-border ties are still strong. There are large numbers of cross-border commuters (around 70,000 people), although the levels of commuting vary widely from one region to another: large numbers of people from Alsace in France work in Germany and Switzerland although few travel for work in the other direction, and large numbers from Baden-Württemberg in Germany work in Switzerland, again with few moving in the opposite direction.

The region is considered to be economically dynamic in the European context, with unemployment being historically low, particularly on the Swiss side. In Alsace and north-west Switzerland services employ over 70% of the working population. Tourism plays a major role throughout the region, with good rail and air networks and airport facilities. It is also at the forefront in a number of fields of advanced technology. There is a high level of cultural exchange and a high density of institutions of higher education.

An Association of European Border Regions factsheet says the region “has well-trained human resources who are frequently multi-lingual, intact social structures in an environment which has no urban development problems, a balanced economic structure and a wealth of leisure opportunities.” However it also faces a number of constraints hindering its development: imbalances between the labour markets in the three different parts of the cross-border region; a huge burden being placed on the natural environment by tourist, recreational, industrial and agricultural over-use; and incompatibilities between national social welfare and educational systems.

## The Confederation of Upper Rhine Universities (EUCOR)

The EUCOR confederation emerged from meetings, starting in 1984, between the Rectors and Presidents of seven universities: the University of Basel in

Switzerland; the Universities of Freiburg and Karlsruhe in Germany; and the French Universities of Louis Pasteur, Marc Bloch and Robert Schuman in Strasbourg, and the University of Haute Alsace in Mulhouse and Colmar. Influenced by the European debate on “subsidiarity”, the rectors saw their institutions as laboratories for developing cross-border ways of doing things without hurting national sensibilities.

In 1989 the rectors signed a **formal convention** to set up the European Confederation of Upper Rhine Universities (EUCOR), making it one of the first transfrontier university confederations in modern Europe. Because of major differences in the three countries’ university legislations, this agreement consisted merely of a 12 article, 10 page document (five pages in each language). Legal language was kept to a minimum. There was little red tape and no common budget. This basic co-operation agreement brought together over 100,000 students and 10,000 academics and researchers.

One of the first steps towards co-operation was a simple but radical one: the seven universities opened their courses to the students of all the partner universities. A single student ID card was introduced, stating that students from partner universities had the same rights as host university students.

This has meant freedom of **student movement** with a minimum of bureaucracy. Courses taken at any of the EUCOR universities are recorded on and validated by a simple attestation form, covering course inscription, attendance and exam results. At some universities this form is also the basis for the refund of travel expenses, providing an incentive for students to look for courses around the seven universities. It helps that all the universities are situated on main railway lines, and thus the longest distance between EUCOR universities is 170 kilometres (or an hour and forty minutes by train).

It is estimated that 150-200 undergraduates per year obtain credits from other EUCOR universities. However this may be a significant under-estimate in terms of overall student mobility between the EUCOR universities since it does not measure students attending common lectures and seminars. Dr Beat Münch of the University of Basel (a founder member of the team which established EUCOR) has pointed out that one disadvantage of the lack of bureaucratic monitoring is that inter-university student movement is largely invisible. Few statistics are kept and journalists are regularly disappointed when it proves difficult to quantify the “impact” of EUCOR.

In the **teaching** area, there have been a number of examples of successful joint courses. One of the major success stories has been a joint undergraduate course in biotechnology run by Basel, Freiburg, Karlsruhe and Strasbourg (Louis Pasteur University). This involves around 60 students per year following a timetable in all four participating universities in order to benefit from their different centres of excellence. Most of the lectures are given in the respective national languages, as well as in English, with the result that at the end of the course the students not only have an excellent science qualification but they are also trilingual. Graduates of this course are accepted for PhD studies in all three countries.

There are also a number of courses run jointly by the medical faculties. These include the European Course in Pharmaceutical Medicine, a two year postgraduate course for people in the region's pharmaceutical industry which now attracts participants from over Europe.

**Research** co-operation includes work in neotectonics (the study of the earth's crustal movements), which brings together the Earth Sciences Institutes from Basel, Freiburg, Karlsruhe and Strasbourg (Louis Pasteur) with other European partner institutions. The NEUREX project brings together neurological science researchers from Basel, Freiburg and Strasbourg (Louis Pasteur).

A joint research group in European early history and archaeology from Basel, Freiburg, Mulhouse and Strasbourg (Marc Bloch) has undertaken a major excavation of a Roman town at Biesheim in Alsace.

All these projects are now part of the EUCOR Learning and Teaching Mobility project (ELTEM), set up in 2001 as an initiative by the University of Basel to raise new funding and provide new management structures for joint projects (*also see below*).

The REKLIP regional climate project, launched by the regional governments of Baden-Württemberg, Basel and Alsace, and led by the EUCOR universities, has attracted worldwide attention. The project was significant in providing a new common standard for meteorological data in Germany, Switzerland and France, and its regional climate atlas and huge database are now seen as a resource for transnational climate research throughout Europe.

EUCOR is also involved in **university-industry links** in the region. For example, the participating universities are partners in the BioValley Initiative which brings together major firms in the Upper Rhine – and particularly from the strong Swiss pharmaceutical sector – with regional universities and research institutes to promote commercial spin-offs from the biotechnological research being carried out there.

Joint conferences and seminars are regularly organised across a range of faculties, and there are numerous joint journals and other publications. There is regular collaboration between the university libraries, including on data banks and electronic newspapers. There is even 'Le Tour EUCOR', a five day, 600 kilometre cycling event which passes through the six cities where the universities are situated.

In a paper to the 1999 European Association for International Education conference, Dr Beat Münch identified EUCOR's "lean structures" as both its major strength and a significant weakness. On the one hand its lack of cumbersome administration structures made it easy to set up in 1989 (the agreement of both national and local education authorities was obtained within two months). It is led by a board of rectors and presidents of the member universities, which meets four times a year, and is managed by a small secretariat in Strasbourg.

However the main disadvantage of this sparse structure is that it has proved difficult to measure and validate – by making visible – EUCOR's considerable

achievements in the areas of student mobility and research co-operation. Large and successful regional research projects like REKLIP and URGENT (Upper Rhine Tectonics) tend to broaden out to involve other European partners and the initial regional emphasis is obscured. It is usually forgotten, for example, that the establishment of the International Space University in Strasbourg in the face of fierce international competition came out of a bid by the Louis Pasteur University with the active support of its EUCOR partners.

Secondly EUCOR has no significant **budget or financial resources** of its own, and therefore cannot be a major investor in education or research projects. It cannot even act as a 'stand alone' fund-raiser, but only as a go-between which can lend its prestigious name to cross-border university initiatives.

Dr Münch emphasises that for EUCOR's pioneering transfrontier higher education work to be consolidated, a balance must be found between flexible organisation and structures and finances solid enough to carry projects and programmes through into the longer term. He was involved in a major initiative in 2001 started by the University of Basel: a new funding and management network called ELTEM (EUCOR Learning and Teaching Mobility). The idea was to create an inter-university network which would be more attractive for funding agencies than individual projects. Five projects are now funded and managed through this mechanism: URGENT (Upper Rhine Tectonics), NEUREX (neurology), Biesheim (excavation of a Roman town), Nanotech (nanotechnology), and the common degree course in biotechnology.

This has led to the injection of significant new funding. The Swiss Government provided four million euros for the period 2001-2004. A project like NEUREX has been able to use the one million euros it received in this way to leverage another million euros from the EU's cross-border INTERREG programme.

Another new initiative has been in the area of e-learning. An early manifestation of this has been a common bachelors and masters programme between the different universities' departments of Scandinavian languages, up to half of it delivered by e-learning as a complement to traditional teaching methods.

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## Universities Ireland



In July 2003 the presidents of the nine universities in Northern Ireland and the Republic of Ireland launched Universities Ireland as an 'umbrella' body to promote co-operation and collaboration among universities on the island of Ireland. The new body is funded by an annual levy paid by the nine universities, and by grants from the Department of Education and Science in Dublin, the Department for Employment and Learning in Belfast and InterTradeIreland in Newry. Its first chairman is Professor Gerry McKenna, Vice-Chancellor of the University

of Ulster, and its secretariat is provided by the Centre for Cross Border Studies in Armagh.

Universities Ireland set itself a number of tasks. Among these were: undertaking research projects to improve inter-university and cross-border co-operation, including on the harmonisation of regulations and credit transfer arrangements within the EU's Bologna process; undertaking joint work to promote Irish universities overseas; the development of university-industry links on an 'island of Ireland' basis; supporting the regular North/South higher education conferences organised by the Centre for Cross Border Studies on behalf of the Department of Education and Science and the Department for Employment and Learning; and joint staff development and training.

Over the past nine months Universities Ireland has identified a number of other areas of work. Among these are organising annual meetings with the representative body of British universities, Universities UK; holding a high level seminar on e-learning as a strategic imperative for higher education on the island of Ireland; working on joint projects with the high level business association, the North/South Roundtable Group; and preparing proposals for acting as the vehicle for universities on the island to work together with higher education institutions in a poor region of Africa.

Universities Ireland's website is at [www.universitiesireland.ie](http://www.universitiesireland.ie)

## Some Discussion Questions

**What do the examples of cross-border higher education co-operation in the Öresund region and the Upper Rhine region suggest for those involved in universities on the island of Ireland?**

- **Cross-border economic development and higher education collaboration both benefit when undertaken together.** Research can be a major driver for economic development, and improving the human capital in cross-border regions is also a vital contribution offered by higher education to economic development. This is clearly an important lesson for future collaboration on the island of Ireland and for higher education in particular. InterTradeIreland might have a particular role in furthering this kind of cross-border higher education and research co-operation linked to economic development.
- **Geographical proximity and good physical communications are a vital ingredient to collaboration.** In the Öresund region geographical interconnectedness is symbolised by the new bridge, while the EUCOR region relies on short distances and a fast train service. This poses some problems for Ireland: while the Belfast-Dublin link is reasonably efficient, other destinations and movements are more problematic (although the Cork-Belfast air route is a bonus).  
Just how important are these physical geographical issues to collaboration? They are undoubtedly of great importance for student mobility, but perhaps less so for graduate students and even less so for research. But there may be a high cost (both in terms of time and expense) to collaboration here. Do we therefore include all higher education institutions in the cross-border collaboration scenario, or do we concentrate on those closer to the border (including institutes of technology and further education colleges)? Should we have an inner core of institutions close to the border where there could be more intensive collaboration and an outer group with less intensive collaboration?
- **Political and regional administrative support has been facilitative to collaboration in both examples from the European continent, although political sensibilities remain.** Major cross-border collaboration across the Irish border has proved problematic in the past for political reasons. In the event of devolved government being restored in Northern Ireland, there must be an opportunity for the higher education sector in both jurisdictions to take forward mutual collaboration with political support. However given the more controversial political context on the island of Ireland, would it be strategically more appropriate to concentrate on economic development issues (and the part higher education institutions can play in these) as the first stage of collaboration?
- **The EUCOR example seems to be a model of facilitating student choice and mobility. These issues have still to be fully resolved in Öresund.** Would it make sense on the island of Ireland to concentrate on research student mobility in the first instance?

- **There is the issue of the level of infrastructure to facilitate collaboration.** In EUCOR a 'lean' administration is seen as both a benefit and a hindrance. In Öresund there has been no evaluation of this issue but there too they have a lean administration. Is the lesson here that a 'lean' administrative structure needs to be created to drive collaboration on the island of Ireland forward? Do the Öresund and EUCOR models offer suitable examples of good practice? Who should fund these structures?