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Identification of Lessons Learned and Suggestions for the Development of Regulatory Cooperation between California and the European Union

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CALIFORNIA-EU REGULATORY COOPERATION PROJECT

Identification of Lessons Learned and Suggestions for the Development of Regulatory Cooperation between California and the European Union

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Introduction

How to increase regulatory cooperation between California and the European Union – This has been the subject of a research project launched at UC Berkeley in 2006/07.

Both the EU at the global level and California at the national level have emerged as regulatory policy leaders in particular in the field of environment policy. Firms and policy-makers in both jurisdictions are increasingly aware of, are affecting and are being influenced by developments in the other political jurisdiction. Historically, California has been a regulatory first-mover at both the national and international levels. More recently, the EU has become a global regulatory leader in environment policy while California has become a vehicle for the dissemination of European regulatory policies within the US – now at the state level and possibly in the future at the federal level as well.

A central objective of this project is to promote opportunities for to expand regulatory cooperation, learning, and emulation between California and the EU as well as to foster mechanisms by which their approaches to regulatory policy innovation can be more broadly disseminated.

The project has created a California-EU task force to explore the relationship between the regulatory policies of California and the European Union. To this end it is drawing upon the expertise of faculty from American and European universities, including the University of California and the KUL (Catholic University of Leuven) as well as business

practitioners, non-government organizations, and policy-makers from both California and the EU.

Between January and May 2008 I spent five months as a Visiting Scholar at the Institute of Governmental Studies at UC Berkeley – working on this research project. In this paper I am summarizing my comments on the project so far and making a number of suggestions on areas where I believe cooperation in policy making and perhaps further research could be focused.

Following a call for papers to a number of UC Berkeley academics and private individuals in the fall of 2007 a number of working papers addressing general themes of cooperation and comparisons in specific policy areas have been prepared and discussed at workshop held in February 2008 in Berkeley California. The papers, agenda and report on the workshop can all be found here. (http://igov.berkeley.edu/)

This paper contains personal reflections on the project based on my experience of working for the EU, the draft papers presented at the workshop held in February and the discussions at this workshop as well as discussions with number of other Berkeley academics as well as business and NGO representatives in California. In particular the paper looks at where I believe cooperation can be enhanced both generally in relation to environment policy and also more specifically on the subjects that have been addressed in the project. The project continues with the finalization of the papers presented in February and will be supplemented by what could be called 'phase 2', which sees the geographical cooperation expanded to include EU-US cooperation, while the subject matter is somewhat narrower as the focus is on biodiversity (including the impact of climate change) and biotechnology (biosafety). This project ' Regulatory Policies in the EU, US and California: Comparative Perspectives in a Global World' is part of the European Commission's pilot programme of Transatlantic Methods for Handling Global Challenges is being undertaken together with KUL and is supported by an EU grant.

I. Cooperation possibilities between EU and US/California based on work of the California-EU Regulatory project

The following section covers two general subjects where I believe increased cooperation can help overcome some misunderstandings and defuse some tension that has arisen between US and EU in recent years and which was reflected prominently in a number of the papers and the discussions on the project. These are the use of precautionary principle combined with science in policy making and secondly the use of cost benefit analysis and impact assessments in environmental policy making. California's experience as a first mover in the USA assisted by UC Berkeley could help in the search for solutions to overcome the tensions. Another general subject that could merit more cooperation but which has not been addressed in detail in the project is the comparison of approaches to implementation and enforcement of environment policy.

Better mutual understanding of the use of the precautionary principle and science based policy making in the EU and USA;

The debate about the use of the precautionary principle in the EU is long running and is one of the sources of EU US disputes in areas such as GMOs, and Chemicals legislation (REACH). During the February workshop it was argued by several participants that the use of the precautionary principle was one of the reasons for the divergence between the EU and the USA in environmental and public health policy making. There is also a large literature on the subject. The debate in the literature (and also surprisingly at the Berkeley February workshop) often gives the impression that EU environment policy (and others) are based mainly on precautionary principle rather than science.

The EU has included the precautionary principle in the Treaty (article 174 2) and in 2000 explained its application in a Communication (European Commission 2000). Knoll and Liefferink (2007) indicate that the issue emerged in the course of the discussion around acidification and in particular due to the active role of Germany, the precautionary principle was established as a basis for EU environmental policy.

However it is not an alternative to risk assessment and Cost Benefit Analysis. Specifically the application of the principle requires the consideration of the available scientific and technical data as well as the costs and benefits of either action or inaction. It requires that actions be proportional to the level of protection. Weale points out that the

precautionary principle tips the burden of proof in favour of stringent environmental regulation where no clear cut decision could be made (Weale et al. 2000). Guidance has been given by the European Court of Justice on how to apply the Precautionary Principle (European Court of Justice 2002). The Court indicated that it is justified in appropriate circumstances but cannot abolish all risk. The authorities have a broad scope on how to interpret scientific risk assessments. Risk assessment is vital and must comprise both a scientific and political component. As indicated by Kannan (2007) 'the EU approach stresses science and requires judgments based on individual risks'.

However based on the precautionary principle EU environment policy action should not only be taken when concrete damage has been demonstrated, but should be directed at preventing dangers and risks.

A difference with the USA's cost benefit risk balancing is that the decision should be based on a high level of health and environmental protection. This is also an EU Treaty requirement.

Of course as was pointed out at the workshop and in the papers presented by Schapiro (CIG Working Paper 65) and Vogel (CIG Working Paper 67) the USA has applied precaution in the past in environment and health policy making at a time when the EU was taking the opposite view and trying to stop regulation. The international agreement on ozone depleting substances (Montreal protocol) is a good example of role reversal.

Even today there are numerous examples showing that the USA in some areas is more precautionary than the EU including regulating particulates from diesel fuels, NOx from vehicles, the handling of hazardous waste; rights to know mandates; the right to sue. The EU is more precautionary in other areas –hormones in beef and milk, GMOs in food, chemicals (REACH compared to the US 1976 Toxic Substances Control Act), and climate change (Wiener 2002).

There are also other comparisons of the approaches that show that perhaps there is not so great a divergence. For example the 2003 US paper on precaution is very similar to the Commission Communication of 2000 (European Commission 2003). Kannan (2007) presents examples showing that the precautionary principle has been applied in US

environmental laws, regulations and policies but cautions that 'it is premature and probably unrealistic to characterize this scattering of examples as a trend'.

There are also local examples in the USA of policies taking the precautionary principle into account such as that applied by San Francisco (City of San Francisco 2003) and the US Chemical industry has shown concern about a growing acceptance of the precautionary principle in California[1] (ChemSec 2004).

Therefore while there are differences in the EU and US formal approaches to the use of the precautionary principle which has perhaps led to some misunderstanding about the basis of policy making in the EU there are similarities in actual practice in a number of policy areas. Certainly it appears to be a subject meriting additional investigation for this cooperation project.

Use of CBA/Impact Assessments – Better Regulation –

This issue is closely related to the above discussion on the precautionary principle as there is an impression that cost benefit analysis is more widely applied to environmental policy proposals in the US compared to the EU. Again this not a new subject for transatlantic debate or cooperation. It is addressed formally in the Transatlantic Dialogue and there are initiatives to exchange practice between the USA and EU.

In the EU Impact Assessments has been an integral part of policy making since 2002. At the same time better regulation is not a new subject. It has been on the EU agenda since the 1992 Edinburgh summit which addressed the quality of legislation. The efforts received additional impetus when the European Commission under President Barroso linked better regulation to the renewed Jobs and Growth strategy (Lisbon) and the simplification and modernization of legislation and the cutting of red tape This included the withdrawal of a number of legislative proposals.

[1] In a leaked memo from the consultancy firm Nichols-Dezenhall to the American Chemistry Council2, the U.S. chemical industry's concern over the growing acceptance of the precautionary principle in California is evident. The memo warns that the state's embracing of the precautionary principle is a threat to the entire U.S. chemical industry because "California's political climate makes the state more susceptible to policy and thinking inspired by the PP [precautionary principle] than other geographical regions... California is a bellwether state, and any success enjoyed here could readily spill over to other parts of the country." The memo continues by listing three strategies and twelve tactics by which to stigmatize the precautionary principle. One of the tactics concerns cost estimates:

There have been fears that the Better Regulation initiative and Impact Assessments that would weaken environment policy and indeed there were claims that the intention of the Commission was to roll back some environmental legislation.

For example in a joint press statement in before the 2006 Spring European Council the European Trade Union Confederation (ETUC), the European Environmental Bureau (EEB) and the Platform of European Social NGOs (Social Platform) said: "Europe and its citizens and businesses need better regulation. But better regulation should not become synonymous for simple deregulation and a one-sided cost approach…The Commission and the Council [must] avoid giving ultimate priority to favouring limited cost savings for business, rather than safeguarding people's health and environmental or social protection."(EurActiv.com 2007).

Indeed in 2004 and 2005 the focus of the Commission was on the relaunch of the Lisbon strategy with its focus on growth. The need to balance costs and benefits and evaluate policy proposals against the economically focused Lisbon strategy and a broad sustainable development strategy and a broad SD strategy was required of all Commission initiatives. As announced by Commission Vice President Verheugen in March 2005 cutting excess EU legislation is a top priority for the Commission which announced that some 900 pieces of legislation in pipeline were to be reviewed – with waste and car legislation among the first priorities[2].

More than 320 Impact Assessments have been carried out on new Commission proposals since 2002. A 2006 assessment of the first four years highlighted many weaknesses in the system and that it was not being used as an effective aid to decision making. Improvements have been noted over the past year and a half as indicated in the 2008 report of the Commission's Impact Assessment Board (European Commission 2008 I).

Rather than leading to a weakening of environment policy the Better Regulation/Impact Assessment process is helping the Commission to make stronger environmental proposals

[2] At the same time according to a British study 80% of the red tape encumbering the European economy does not come from EU but from the Member States – EU legislation is implemented in a bureaucratic fashion

with more scientific input. At the same time Impact Assessments must look at the environmental, economic and social consequences of a potential proposal and therefore is helping to integrate the environmental dimension into other policy proposals. Assessing the health and environmental impacts supported by a stronger scientific input helps support the case for environmental policy proposals.

The climate and energy package 2007 and 2008 is highly ambitious[3] and leading the world and at the same time the proposals are supported by detailed scientific impact assessments. The recent new proposal on industrial emissions (European Commission 2007 I) will bring about a simplification of the legislation (7 directives merged into 1) and lead to some administrative savings but will still lead to stricter standards on emissions. The impact Assessment pointed to the need for more action to reduce the environmental and health impacts of industrial emissions.

Public support for EU environment policy remains as strong as ever as evidenced in the most recent Eurobarometer survey published in March 2008 – 96% of European consider environmental protection important for them personally and progressively position the state of the environment (80%) on a par with economic factors (84%) as issues which influence their quality of life (European Commission 2008 II).

Several analyses of the EU as the regulatory world leader in environment policy have appeared in recent years including Hare and Tortoise (Vogel CIG Working Paper 67) Raising Global Standards (Selin and VanDeveer 2007), Exposed (Schapiro 2008) and the EU seems set to continue to play this role for the foreseeable future as new environmental initiatives are planned in the coming years. For example in the first half of 2008 as called for by the European Council the Commission will propose a new strategy on Sustainable Consumption and Production both building on and strengthening existing policy measures such as eco-label and environmental management systems and proposing new action on eco-design of products as well as targets for greening procurement.

[3] *'The European Commission after enlargement – Does more add up to less (CEPS Special Report February 2007)' … argues that climate change is now the main challenge for Barroso commission one issue upon will be judged;*

The USA has used Benefit Cost Assessment (BCA) and Regulatory Impact Assessment (RIA) since the 1970s but it has not been not consistently applied across all institutions. President Clinton's Executive Order EO12866 reinforced the Administration's commitment to RIA using BCA but it is not applied to all regulatory policies. Federal Agencies appear to quantify some benefits or costs of regulatory proposals most of the time but to quantify and monetize both benefits and costs half of the time (Hahn and Muething 2003). However Benefit Cost Assessment is not required for Congressional legislation nor is it required for international treaties involving regulatory commitments as well as other areas such as federal spending decisions and is also missing from environmental impact assessments under the National Environmental Policy Act, where it could have strengthened environmental protection (Wiener 2006).

Schapiro (CIG Working Paper 65) also argues that the business influence on policy making in the USA and the dominant role of the US Office for Management and Budget in vetting regulatory proposals has meant that much greater weight is being given to 'costs' to industry of regulatory reform compared to 'benefits' to society. Indeed there has been increasing press coverage in recent months over claims that the scientific basis of some US environmental and health assessments is based only on the industry point of view and fails to fully quantify health and environmental benefits. For example the US House of Representatives Energy and Commerce Committee is currently investigating the widespread use of bisphenol A in baby food products' packaging and is questioning the scientific basis of an FDA approval of the plastics additive as it appears to be based only on studies paid for by the American Plastics Council (Energy and Commerce Committee 2008).

Wiener (2006) points out that the EU is "borrowing concepts of Better Regulation from US regulatory reform and from Member States". He argues that the EU can make Better Regulation 'better' by expanding the current rather narrow Impact Assessment and Benefit and Cost Analysis beyond the focus of risk regulation to embrace multiple countervailing risks and ancillary benefits to guide administrative simplification to consider benefits as well as costs. In turn he indicates that the USA could improve its own regulatory regime by monitoring and borrowing from Europe's successes. Vogel

(2007) also recommends that the Commission and the US Office of Management and Budget seek to coordinate the way cost benefit and risk assessments are carried out and share data.

Therefore there would appear to be an opportunity for California and the EU to develop some forward looking ideas on how to bring the precautionary principle and CBA/Impact Assessments together to support policy making.

Turning now to the specific subjects that have been part of the project and covered at the workshop I would like to make the following suggestions some of which have already been addressed by the authors of the draft papers. In these cases I am just endorsing what was suggested. Of course some of the suggestions go beyond what is possible in the short term either through the German Marshall Fund project or the EU funded 'phase 2' project but could be taken up as ideas for further work to follow up these projects.

Nanotechnology: environmental and safety aspects

CIG Working Paper No. 66

Margaret Taylor and Javiera Barandiaran

Muddling Through on the Cutting-Edge: How California and the European Union are Coping with the Risks of Nanotechnology

Both California and the EU are still developing policy and research into the potential environmental, health and safety impacts of nanotechnology. So far there is little transatlantic controversy but rather debates on safety and environmental consequences are going on both sides of the Atlantic. At the same time the draft paper identifies low levels of support for risk research in both the EU and California and the USA. A recent US based Project on Emerging Nanotechnologies (PEN) has estimated that in 2006 only $13 million was invested in projects highly relevant to potential nanotechnology risks through the National Nanotechnology Initiative, while European countries invested around $24 million in projects of similar nature (aZoNano.com 2008)

One important area of cooperation therefore could be a joint effort to increase R&D. This could build on the 2007 European Commission US EPA implementing arrangement on cooperation on environmental research including nanotechnology (uses and impacts) (http://www.eurunion.org/News/press/2007/2007010.htm).

Other subjects for cooperation could be 'Codes of conduct' or 'voluntary standards of care' to be adopted by business and research bodies – The European Commission recently adopted a code of conduct to govern research in nanotechnologies (European Commission 2008 III). It invites Member States to involve universities, research institutes and companies and follow seven principles – Meaning, Sustainability, Precaution, Inclusiveness, Excellence, Innovation, and Accountability. Could California adopt a similar code of conduct? The draft paper indicates that California has no mandate to assess risks and this may require a policy change before cooperation can be developed.

There are also a number of non-governmental and private sector initiatives on both sides of the Atlantic to address environmental and safety issues. Building on and expanding these could also be assessed. It would be worthwhile for EU actors to look at innovative NGO Private sector agreement in USA between Environment Defense and Dupont (Environmental Defense – DuPont Nano Partnership (2007)). In Europe the 'Responsible Nano Code' is being developed by a broad group of companies, academics, NGOs and trade unions together with the UK Royal Society, Nanotechnology Industries Association, Nanotechnology Knowledge Transfer Network. It could also be worth investigating how codes of conduct can be drafted so as to avoid problems with the US tort system.

As for regulation of the safety and environmental risks – the European Commission is about to complete an assessment of whether additional regulation or amendments of existing regulations is necessary to deal with nanotechnology. Possibly a similar assessment be undertaken in California.

A short term action would be to offer the Berkeley paper on nanotechnology as a contribution to the 'sister' project to the Phase 2 of the California-EU project and which is investigating transatlantic oversight of nanotechnology. This project being run by London School of Economics, Chatham House, Environmental Law Institute and the US Project on Emerging Nanotechnologies has also received an EU grant as part of the pilot-programme of Transatlantic Methods for Handling Global Challenges. (www.lse.ac.uk/nanoregulation)

Chemicals –

CIG Working Paper No. 68
Michael P. Wilson and Megan R. Schwarzman
California Chemicals Policy and the European Union

This seems to be the area where some form of cooperative agreement could be started almost immediately and where California and the EU seem to be converging in policy terms. There is a strong interest from CalEPA to set up some structured cooperation as their efforts to prepare a Green Chemistry policy develop from detailed consultation on options to the preparation of policy proposals. Informal contacts are already underway with the ECHA to find a way for Cal EPA to gain access to information generated under REACH and on general data sharing. As indicated in the CIG working paper 68 this will enable California to address several key issues that will need to be resolved, including the treatment of confidential business information (CBI) and the development of an appropriate information technology (IT) infrastructure to ensure full access to the information. This could be developed into a specific MOU. Indeed Cal EPA is keen to set up some form of structured relationship between government authorities before the end of 2008.

Other issues raised in the paper and discussions are joint research on the global impact of chemicals such as the effects on biodiversity in the Arctic and here cooperation could possibly be expanded to include Canada.

Human Biomonitoring is another possible area for cooperation and exchange of information. The current four year project underway in California will make available a vast amount of information that could be compared with the outcomes of the planned EU biomonitoring project that should start in 2009 supported by the EU Research Program.

The Cal EPA Green Chemistry initiative appears to go much beyond chemicals and addresses many of the issues developed in the EU recycling strategy and forthcoming Sustainable Production and Consumption Action Plan – waste prevention, recycling, alternatives to hazardous substances (ROHS), eco-design. Biotechnology and nanotechnologies are also covered. The aim is to move away from the end of pipe treatment of hazards that has been the practice up to now – bills to ban individual substances. There are dozen currently being considered. Other elements include promoting cleaner production processes – clean technologies as well as education and training to promote 'green jobs'. Therefore there is a close link to the 'product related legislation' addressed below and I suggest broadening the EU – California cooperation beyond REACH and the European Chemicals Agency to take in Sustainable Production and Consumption (SCP) from the EU side. Cooperation could also involve the private sector – there is much to learn in Europe from the US retail sector's initiatives to promote sustainable consumption. One of the likely actions under the SCP is a voluntary agreement with the retail sector on green procurement, which would be a good subject for exchange of experience. An additional topic could be the voluntary US green computer purchasing system EPEAT (Electronic Product Environmental Assessment Tool) which is proving to be highly successful with more than $60 billion in contracts by end 2007 and at Federal level there is a requirement that all governmental agencies purchase EPEAT registered electronic products.

<u>Pesticides</u>

CIG Working Paper No. 58
Chris Ansell
Pesticide Regulation in the EU and California

Both California and the EU have strict rules controlling pesticide pollution. California has had legislation since 1901 on beginning and end of life stages of Pesticides. The current draft EU legislation proposed in 2006 aims to fill the legislative gap regarding the use phase of pesticides through a framework directive. The draft directive also proposes that aerial spraying should be banned although some exceptions are planned: where aerial spraying can bring environmental or health benefits or where there are no viable alternatives (vineyards, rice crops or forests). In light of the current controversy in California over aerial spraying to deal with the light brown apple moth – the search for viable alternatives to aerial spraying could be a topic for California-EU cooperation. In addition another promising area of cooperation for the future would seem to be to focus on researching how to reduce pesticide use and the development of alternatives. There could be a link here to initiatives to be launched in the EU to promote sustainable consumption (part of the forthcoming Sustainable Production and Consumption Action Plan mentioned above). Also as suggested in the paper presented at the workshop California's programmes of risk reduction and integrated Pest control have interesting lessons for the EU. Furthermore cooperation could be linked to that on biotechnology (if the transatlantic differences can be overcome see below). If it can be shown that use of certain GMO crops can lead to lower pesticide use and therefore less pollution this could help reduce resistance in Europe.

<u>Agricultural Biotechnology</u> –

CIG Working Paper No. 64
Gal Hochman, Gordon Rausser, Steve Sexton and David Zilberman
Agricultural Biotechnology in California and the EU

This is probably the most problematic of the subject areas for regulatory cooperation. Transatlantic tensions have been around for several years and it is clear that the efforts over the years by the USA to get EU to accept more GMO crops are not working. Monsanto's campaigns in Europe and the US WTO complaint have made the population more opposed. It is unfortunate that the paper (CIG Working Paper 64) presented for the

California-EU cooperation project on this subject does not really help to take forward the debate on how to overcome the impasse and build cooperation. It would have been better if the paper could have analysed the pros and cons of both the EU and US regulatory systems in a more balanced way. As it stands the paper reads rather as a defence of GMO's contribution in feeding the world and of American biotechnology firms and the US Federal government line. There is no mention of other views showing doubts about economic and environmental benefits in some cases over the medium and long term (including on the Berkeley campus). Furthermore there is a specific focus on the WTO and on impacts on trade. Other research however argues that EU protectionism has not been demonstrated (Rosendal 2005).

The European industry through the Europbio industry association has been lobbying for deregulation on GMOs in the EU since 1997. There is also evidence of slowdown in R&D relocation of companies and research. In a 2003 survey of companies 61% said that R&D had been cancelled partly due to the restrictions of EU legislation. (European Commission 2007 II). Overall there is little evidence that the industry in the EU is trying to restrict imports.

Europbio itself has argued that the WTO case was not helpful. (Rosendal 2005). In addition Lieberman and Gray (2008) argue that the US victory in the GMO case at the WTO was pyrrhic and 'in practice does little to settle the underlying issues at stake in the conflict between the EU and the USA'.

Since the WTO ruling the EU Council of Ministers has not supported the Commission's proposals to comply with the WTO rulings. In a recent case over Austrian refusal to accept imports of MON 810 maize Austria has been supported by a majority of EU countries and has produced new research arguing that current EU legislation doesn't address the impact of GMOs on biodiversity and that there is a lack of transparency in decision making. (Council of the European Union 2007). In addition there is no consensus among scientists as was demonstrated again in February 2008. Five requests for new strains of GMO – maize and potato were not accepted by the Council of

Ministers. Although the European Food Safety Agency (EFSA) declared these strains to be risk free the Institut Pasteur in France declared that the EFSA is out of step with WHO findings (Council of the European Union 2008). The internal divisions show a continuing skepticism of science in some quarters, which was highlighted as one of the differences in approaches to policy making between the USA and Europe presented by Schapiro (CIG Working Paper 65).

A new Eurobarometer report of March 2008 included a specific question on the use of GMOs in Europe and showed still 58% to be opposed (and over 70% in some Member States. The survey also shows that in part the opposition is due to lack of information about GMOs. At the same time it showed that GMOs are an environmental subject of medium concern to citizens (European Commission 2008). It is also interesting to note that surveys in the USA also show a wish by consumers to be better informed about GMOs in food. As reported in a Innovest paper of 2005 'Monsanto & Genetic Engineering' since 1997 over twenty polls in the US have shown strong support for labeling of GMO food – many of these showing over 90% support. Furthermore 'several of these polls also found that a significant percentage of Americans would not eat GE foods if they were labeled as such' – 58% in a Time poll (Innovest 2005).

The challenge is how to find a consensual approach to overcome the transatlantic differences and this is an excellent chance for the California-EU project to contribute to finding such an approach. A point to be borne in mind here is the recent discussion Commissioner Potocnik had at the AAAS with staff (15 February 2008, Boston) on how to develop a dialogue to defuse issues such as GMOs that have become the subject of trade disputes.

In particular the opportunity is there in 'phase 2' of the project which as mentioned includes a focus on biosafety. It is important to learn from the mistakes of the past and try new methods of informing citizens. There could be a possible link back to reduced pesticide use. Examples could be shown where GMO crops reduce the use of pesticides and overall pollution and can help in combating climate change (For Example the BBC

report ‘One Planet’ on March 10 2008 reported on a company called Arcadia based in Davis, California developing GMO rice crops with a big potential for nitrogen pollution reductions). Certainly Life Cycle Assessments should be developed and here possibly Berkeley and Leuven could cooperate. In addition the work on phase 2 could help revive discussion in California and at UC Berkeley on the merits of GMO food. For example I have learned that although there is wide ranging discussion in California on a future strategy for a more sustainable agricultural policy in California involving farmers, NGOs, academics and government officials inspired by the work of the San Francisco based Roots of Change Council (Roots of Change 2005) it is impossible to bring GMOs into the debate on this strategy due to a polarization of views and therefore a reluctance to discuss.

Therefore there is a potential important role for phase 2 and it is important that the papers to be supported under phase 2 do make an effort to suggest ways out of the transatlantic impasse in particular as one the end goals of the project is to prepare policy suggestions that can be taken forward at the 2010 EU-US summit (meeting between the US President and President of the European Council).

Climate Change

CIG Working Paper No. 59
Peter Berck and Runar Brannlund
De-Carbonizing California and the EU

CIG Working Paper No. 62
Larry Karp and Jinhua Zhao
EU-California Environmental Agreements: the role of trade in emissions permits and escape clauses

EU cooperation with California on climate change has been ongoing for a number of years much of it informal but also through the International Carbon Action Partnership, the forthcoming Californian Low Carbon Fuel Standard and the 2006 statement of intent signed between the UK and California.

Based on the ongoing cooperation it seems that there are also a number of other areas where EU Californian cooperation could bring added value. This includes helping to ensure that sustainability criteria for biofuels are widely applied, strategies for adaptation to climate change and 'green' building/sustainable construction. Although some of these subjects notably adaptation and green building were not discussed in detail at the workshop nor in the papers presented, they do appear to be key topical issues based on the discussions I have had and debates I have followed after the workshop.

The situation for EU California cooperation on climate change could possibly change in 2009 if there is a major shift in Federal US policy on climate change which could lead to a major effort at transatlantic cooperation. The specific Californian-EU cooperation could then be adapted to fit within such a wider framework. An important contribution could be the research on emission permits and an 'escape clause' for inclusion in a future international agreement on climate change proposed by Karp (CIG Working Paper 62) and to be developed further in 'phase 2' of this project.

Sustainability criteria for biofuels

Major debates are underway in both US and EU on the future of biofuels in the academic and political arenas and were addressed in one of the papers presented at the workshop (Berck CIG Working Paper 59). There is also considerable press coverage especially related to the worldwide increase in food prices. The European Commission has proposed an EU target of 10% transport fuels to come from biofuels to be enshrined in legislation. This should include sustainability criteria, which are currently being debated between Member States. At the most recent European Council meeting in March doubts were expressed by some countries about the target and most recently the European Environment Agency's Scientific Committee stressed that the EU's mandatory biofuel quota of 10% is an "overambitious […] experiment, whose unintended effects are difficult to predict and difficult to control".

It therefore "recommends suspending the 10% goal" until a "new, comprehensive scientific study on the environmental risks and benefits of biofuels" is carried out, with the aim of setting "a new and more moderate long-term target". (EEA 2008)

Furthermore very recently the European Commission President (24 April 2008) has asked for a study on the impact of biofuels: the impact on food prices, on agriculture and development.

Currently the work in the Californian Air Resources Board to develop the Low Carbon Fuel Standard which is due to enter into force in 2010 includes life cycle assessments of biofuels and the 2008 projects launched under the contract at UC Berkeley with BP on Biosciences also contains a number of assessments of the sustainability of biofuels. There is also a multi-stakeholder non governmental effort, the Roundtable on Sustainable Biofuels**,** to develop international standards for sustainable biofuels production and processing.

Based on all this work much of which should report in 2008/2009 there would seem to be an opportunity for Californian – EU cooperation on how these criteria should be applied, joint action to ensure wide adoption of the criteria including by the US Federal government and other countries. Berck (CIG Working Paper 59) suggested that California and Sweden would probably be against widespread development of biofuels due to a potential negative environmental impact whereas the USA and EU as a whole would be more inclined to support the farming lobby and push ahead with support for biofuels. There are however signs that opinion seems to the changing in the EU as shown above and any legislation is almost certain to have strong sustainability criteria included.

Nevertheless globally there is no consensus on the environmental impact of biofuels and obtaining agreement of the USA and a number of Latin American countries could be a challenge. Also if at the end of the day the EU adopts strict sustainability criteria that would also apply to imports this could possibly lead to trade disputes. As recently reported by EurActiv "The lack of internationally-agreed criteria for sustainable biofuels production and the muddle of different government measures aimed at sheltering domestic markets are holding back growth in global biofuel trade and could stunt EU progress towards its goal of gradually replacing oil in transport." (EurActiv.com 2008)

Biofuels and biodiversity was one of the topics that could have been supported under phase 2 of the project but no proposals were forthcoming following the calls for papers.

Adaptation to climate change

This is a major priority for European Commission for 20008 and a White Paper is due before the end of the year. The objective will be to assist EU Member States in reducing their vulnerability and increasing resilience against the negative impacts of climate change. Secondly action will be needed to make Community policies and programmes climate proof. Research projects are also being supported.

California has adaptation measures within its overall Climate Change plan of 'Proposed Early Actions to Mitigate Climate change in California' including the water energy nexus, agriculture drainage water source reduction and the wildfire control programme (Cal EPA 2007).

The subject is moving up the political agenda and seems to be an excellent subject for widespread exchange of experience in policy measures, techniques, infrastructure measures. California would seem ideally placed to play a leading role together with a number of European countries (such as the Netherlands).

Cooperation could also be developed in providing support to developing countries.

Depending on the Federal policy in 2009 there could be an opportunity for the US and EU to search for an international agreement on adaptation.

Several papers related to climate change's impact on biodiversity have been presented for phase 2 of the project and therefore this subject can be addressed in detail during this phase in order to identify more specific areas of cooperation.

Green Building

The subject goes beyond climate change although the main existing policy initiatives relate essentially to controlling and reducing the energy use in buildings. Lessons California could learn from Nordic countries in the area of Green Building was one of the subjects discussed at the Nordic Green '08 Conference organized in Silicon Valley in

April 2008. (Nordic Green '08) Figures of 69% of US electricity consumption and 45% of energy use due to buildings were presented to the conference. In the EU buildings account for 42% of total energy consumption. In particular the efforts in a number of EU countries to build 'passive' houses (some 6000 now exist), which have not sofar been built in the USA is seen as a subject for technology cooperation with California.

Additional subjects could be the US experience with the industry led LEED rating system and the EU legislative approach. LEED developed by the US Green Building Council has become an accepted standard for rating buildings in the US and Canada (EurActiv.com – 2008 Green buildings) Furthermore as shown at a Green Buildings Symposium organized by the Haas Business School (Earthweek April 24 2008) LEED certified building is growing rapidly in the United States: 32.4 million square feet in 2007 – more than 12 times that in 2000 and 2001 combined (Nelson RREEF research 2007) and California is in the lead. Some cities including San Francisco and Los Angeles in California plan to make LEED certification mandatory for new buildings over a certain size and such requirements could follow for existing buildings. The EU has adopted legislation – the 2002 Energy Performance of Buildings Directive (European Union 2002) which provides a common methodology for calculating the energy performance of buildings and creating minimum standards of energy performance in individual Member States. The legislation applies to new buildings and major renovations of existing buildings and is due to be reviewed and could be strengthened with an extended scope.

Product related Environmental Legislation

CIG Working Paper No. 63
Michael Kirschner
Manufacturing industry challenges and responses to EU and California product-targeted environmental regulations

The paper presented at the workshop identified a number of problems facing business in trying to implement recent product related legislation: Lack of preparation by industry for new legislation; lack of knowledge and skills in companies on eco-design and in finding

alternatives to dangerous substances; skills in the universities seem to be lacking on eco-design;

On the questions of preparation by companies - The European Commission is currently preparing a review of the ROHS directive and a proposal to amend the legislation is due by the end of 2008. Two rounds of consultation have been held – the larger companies are involved this time and should not be caught unawares. (For responses from international companies see European Commission ROHS website). At the same time some companies seem to be anticipating restrictions on additional substances and are already introducing alternatives as was outlined in a recent paper prepared by European Environmental and Health NGOs response to the review of ROHS (European Environment Bureau et al. 2008). This NGO paper lists the actions already taken and additional plans to remove substances that may be regulated by ROHS in the future. Again these are the larger companies and many smaller companies are still in the dark. It is estimated there are 300 larger electronics companies worldwide with a turnover above $1 billion and in all close on 100000 smaller companies. More effort to target the smaller companies should now be taken up by EU and Californian/US public authorities together with business associations and NGOs.

At the same time cooperation through the EU-California project could focus on eco-design building on ongoing Life Cycle Assessment research and good practice. Currently there are plans in the Commission to propose strengthen existing policy on eco-design as part of a new strategy due in June 2008 on Sustainable Production and Consumption. This should lead to a broader scope to eco-design legislation (in terms of products to be covered) than the current Energy Using Products directive[4], which itself now needs to be implemented by business.

Practical actions that California and the EU could consider are:

Life cycle assessment and eco-design training for companies in particular directed at engineers and designers – A tool kit could be developed?

[4] Directive 2005/32/EC on the eco-design of Energy-using Products (OJ L 121 22.7.2005)

Action to increase skills could go through the universities – for example Berkeley and Leuven could prepare and run courses on eco-design tailored for different disciplines such as engineering, business, law.

How to incorporate standards requirements into the regulatory process to help streamline and improve efficiency of implementation

Biodiversity

Biodiversity is one of the main subjects to be addressed in 'phase 2' of this cooperation project and a number of papers have been proposed for inclusion some of which also address the potential impact of climate change on biodiversity.

Existing and forthcoming European Commission initiatives that could also interest California include a policy paper on reducing emissions and biodiversity loss from deforestation in developing countries including funding issues plus a paper on the economics of biodiversity loss. At the press conference after the informal Environment Council meeting in Brno, Slovenia 11-12 April 2008 Commissioner Dimas reported the preliminary findings to be "very, very sobering" . Thirdly EU environment ministers are looking at the possibility of recognizing the concepts of avoided deforestation and reforestation as eligible for carbon credits in the EU's emission trading scheme (ETS).

How to bring the US on board at the Convention for Biological Diversity could also be a subject for the project. The lack of commitment to international efforts by the USA remains a serious cause of concern for the EU, and other international partners, and risks unwarranted and unaffordable delay in concrete action at a global level to address environmental problems. (European Commission external relations website[5])

During the course of the project I have met with representatives of Biodiversity International. This is the world's largest international research organization dedicated to the use and conservation of agricultural biodiversity. It has existed for 35 years and was originally attached to the FAO. It is part of the alliance of the Consultative Group on International Agricultural Research (CGIAR). Its funding comes through governments,

[5] http://ec.europa.eu/external_relations/us/intro/environment.htm

development banks, UN agencies, foundations and the private sector. It works though partners to research biodiversity and how it can be used to boost livelihoods and itself acts as a think tank. Funding for research now totals $500 million.

A question that could be considered in the EU-California project is whether the EU and USA could jointly support some Biodiversity International activities related to Climate Change adaptation. Both the Commission and USA are already among the donors to Biodiversity International for general activities or specific projects.

The EU and USA could sign Biodiversity International's Establishment agreement and become members to show definitive political support – Currently only 10 EU Member States have signed – B, CY, DK, GR, H, I, PL, P, RO, SK. However others are donors: A, D, F, IRL, L, NL, ESP, S, UK

The Katholieke Universiteit Leuven (KUL) is also a donor as are other universities – UC Berkeley could also consider support.

Framework for Cooperation

In order for any cooperation to work it is necessary to find a legally water tight soft law way of cooperation for California and the EU. In particular it is vital to avoid any chance of litigation and this would bog cooperation down in court cases and bureaucracy as shown by Farber (CIG Working Paper 61). One option worth considering could be the MOU between the Californian EPA and Mexican Environment Minister signed on February 13 2008, which could possibly serve as a model. (Cal EPA 2008)

As mentioned above it is also important to take into account possible major changes in Federal attitudes as of 2009 which could lead to a stepping up of the transatlantic environmental dialogue (European Commission external relations website[6]). Could California find itself marginalized if the European Commission's efforts are concentrated

[6] At the 2006 EU-US summit in Vienna, the European Union and the United States have agreed to establish an EU-U.S. High Level Dialogue on Climate Change, Clean Energy and Sustainable Development to build on existing bilateral and multilateral initiatives and further advance implementation of the G-8 Gleneagles Plan of Action for Climate Change, Clean Energy and Sustainable Development.

on the Federal government? Limited resources on both sides could mean California is neglected and would need to focus more on cooperation with individual EU member states.

Conclusion

In this paper I have looked at the potential to deepen cooperation between California and the EU in environment policy based on the papers prepared for the UC Berkeley project on California-EU regulatory cooperation, the workshop held in February 2008 and my subsequent investigations. I show that there are numerous topics with potential for cooperation that would bring real value added for both sides and that should be taken forward. The length of time and resources available for the project has meant that it has only been possible to touch the surface of some of the issues. Some of the subjects can be addressed in more depth in the second phase ('Regulatory Policies in the EU, US and California: Comparative Perspectives in a Global World', part of the European Commission's pilot programme of Transatlantic Methods for Handling Global Challenges) that runs until the middle of 2009, while others and new subjects like implementation and enforcement would require an additional extension of the project.

In some cases I suggest that the cooperation could build on what already being done between California and the EU such as for climate change, where there is scope to address additional topics such as green buildings, adaptation to climate change and sustainability criteria for biofuels. Building on what is already being done in a wider EU-US context related to cost benefit analysis/impact assessment should also be developed. In the latter case it would be worth exploring whether a specific Californian approach encompassing the precautionary principle could also be brought into the cooperation.

In areas such as nanotechnologies and pesticides there does not seem to be any specific transatlantic disagreement on approaches rather there are debates on how to address their environmental impact on both sides of the Atlantic. For chemicals and product related environmental legislation California and the EU seem to be on the save wavelength (although this is not yet the case for the US Federal government) and there are specific requests from the California side for policy and technical cooperation to be developed.

This should cover support for a structured relationship between government authorities as well as academic research and will require dedicated financial resources.

Agricultural biotechnology remains the most challenging subject for cooperation and practical cooperation between public authorities and needs a new approach to defuse the dispute. Some ideas may be forthcoming in the papers planned for phase 2 of the project. However cooperation between government authorities is unlikely to advance much until some progress has been made at the EU-US level to solve the transatlantic dispute.

Based on the results from what I have called 'phase 2' of the California-EU cooperation project it will be important to broaden the scope of the subjects for cooperation and at the same time propose practical steps for the implementation of those selected.

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