Enterprise Europe.

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EUROPEAN ENTERPRISE INSTITUTE

Contents

Dear reader,

by the editors

We welcome you to the first edition of Enterprise Europe (EE). This journal is an initiative by the European Enterprise Institute and was established in order to provide Europe with a platform to discuss and analyse questions related to entrepreneurship, market solutions and economic reform. The EE aims to provide you in-depth understanding and perspectives to current policy issues. In each issue Enterprise Europe will focus on two central themes. We start off with two hot topics: Regulation and Energy policy.

In this spirit we invite distinguished contributors from all fields of expertise and political parties to express their views. Enterprise Europe brings together entrepreneurs, politicians, civil servants and analysts in order to debate and reach common ground.

There are several reasons why this project is a priority. We limit ourselves to mention but a few of the most pertinent:

First, looking beyond official speeches promoting the Lisbon targets, it is evident that this process is stalled. Trapped in its own rhetoric, it sadly has come to symbolise the failure of the European political class to shape and encourage an entrepreneurial Europe. Are we serious about defending our European way of life, Europe needs to grow, companies need to be created, and we must realise the full potential of the Single Market. Without reform Europe can not deliver on its promises.

Secondly, the enlargement of the European Union to embrace ten new member states with different structures, assets and problems puts a strain on traditional European policy. Emphasis should be given to competition and innovation as sources of growth and welfare. What are the limits to effective regulation and in which areas can the EU add significant value?

Finally, the European Union should go further in promoting free trade at a global level. Being a major player the EU should work to open up markets and engaging the world in a multilateral trading system. The key to competitiveness lies in embracing globalization rather than subsidies and barriers to trade.

Thank you for taking your time. We hope that you will enjoy this first edition.

Sincerely,
The Editors

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A word from the President

by Peter Jungen

***Peter Jungen** is President of the European Enterprise Institute. He is an entrepreneur and the Co-President of the SME UNION.*

As President of the European Enterprise Institute it gives me great pleasure to add my voice to that of the Editors in welcoming you to this first edition of Enterprise Europe.

And what an Enterprise it is! The EEI was founded in 2003 by a group of likeminded entrepreneurs, politicians and academics. Together we decided to embark on this venture into uncharted territory. Creating something new can be difficult in a political environment all too often resistant to change and innovation.

Already now, the achievements of EEI are tangible: We have hosted events in and outside of the European capital on topics ranging all the way from taxation, the 3rd Railway Package, youth entrepreneurship to the rise to power of NGOs in the European decision-making process.

We have entered into a fruitful dialogue with our partners in the European institutions, and have initiated partnerships with likeminded institutions throughout the present including the new member states. We are in the process of creating strong links with our friends from across the Atlantic.

Alongside Enterprise Europe we aim to publish a series of policy papers, briefs and opinion. The purpose is to deliver food for thought, inspiration or provocation to decision-makers, entrepreneurs, academics and media by providing the relevant, timely and trustworthy information and analysis.

The EEI website is in the process of being re-vamped, adding much more content and focus. We hope to provide an efficient and readable platform for information and be your access point to many other sources of information.

We will continue our efforts to host exciting and relevant events on topics of current priorities. One of the most important priorities is the danger of failure of the Lisbon goals. It is vital for us to help set the agenda, among them the need for more competition between institutions like tax competition.

Last but not least, we aim to be a place where ideas are debated and competition is valued, or perhaps as Joseph Schumpeter might have put it; “where those daring spirits, entrepreneurs, created technical and financial innovations in the face of competition and falling profits – it is in these spurts of activity growth is generated”. It is certainly true that the competition of ideas is the true essence of Entrepreneurship. This philosophy certainly deserves a wider audience both in Brussels and across the European continent.

I hope and trust that you will find it worthwhile to join us in our venture.

Yours sincerely,
Peter Jungen

New Member States Key to Protecting SMEs

Pending Commission Proposal Threatens Competitiveness

by Christopher C. Horner

Christopher C. Horner *serves as Director of Research for the European Enterprise Institute. Mr. Horner also provides political and legal commentary for television and radio in the U.S. and has frequently written in the Washington Times opinion pages, covered numerous international conferences for the Times and is a guest columnist for National Review Online, United Press International, TechCentralStation.com and OpinionEditorials.com.*

In February 2001, the European Commission released a white paper on Strategy for a future Chemicals Policy, describing a desire to protect human health and the environment from the toxic effects of chemicals by creating a new testing and regulation system called REACH (Registration, Evaluation and Authorisation of Chemicals).

Then, in November 2001, the European Parliament passed a resolution to expand the scope of the strategy to include all chemicals and consumer products that use chemicals. Parliament published draft implementing legislation in May 2003, on which the Commission seeks public comment until July 10, 2003. Parliament must carefully consider this measure for its necessity and impact prior to proceeding.

The policy's stated objective is protection of human health and the environment, while maintaining market competitiveness. Both objectives are of course compatible. The reality of the proposal, however, is actually a prescription for commercial disaster. The reason is that the white paper states that the "precautionary principle" is fundamental to achieving these objectives. This principle requires that before a product can be employed its advocates must prove no harm will come from it. If in place previously, such a standard would have impeded not only modern chemistry but innovations from the mobile phone and central electric generation to the airplane and even the bicycle. The requirement that an innovator, or simple commercial entity, prove a negative simply when confronted with alleged uncertainty sets the table for paralysis by analysis.

Clearly, this proposal poses potentially serious economic consequences, not merely to the chemical industry but all downstream users and those dependent upon modern chemistry. In short, no one is exempt from these consequences and those least prepared to absorb expensive testing programs – for example SMEs and economies in transition – are most greatly exposed. For these reasons, new member states must pay particular attention to this proposal upon accession.

The EU's present system for testing chemicals currently distinguishes between "existing substances", 30,000 substances chemicals placed on the market before September 1981 (99% of all substances on the market) and "new substances". REACH would require that all existing and new substances and products that use them be subjected to the testing and registration criteria.

The key problem is that under REACH "uncertainty" is a sufficient basis to prohibit a product's use. This is established simply by alleging it, triggering a requirement that a merchant prove a negative.

To sell in the EU manufacturers and importers must first comply with a three-step process – Registration, Evaluation and Authorization. This is a departure from the present system placing the burden on the government to show a given substance poses a risk. The REACH system assumes a risk if alleged and places the burden on manufacturers and importers to prove that their substances are safe.

Another change from the present system is that REACH requires every manufacturer or importer of a substance greater than one ton to submit a registration. That is, the registration is manufacturer-based, not substance-based. This includes all new and existing substances regardless of whether another manufacturer has already submitted a registration for a particular substance, thus creating duplication of registrations for the same substance.

REACH also sets requirements for downstream users who make products that use chemicals. This extends to manufacturers of toys, textiles and other consumer products.

Like all manifestations of the "precautionary principle", REACH focuses on speculative risks. As the Mercatus Center at George Mason University (America) points out regarding REACH, the precautionary principle cannot maximize benefits because it seeks to eliminate unspecified risks, which are inherently un-testable and unmanageable.

When a party undertaking an activity or producing a substance cannot prove with absolute certainty that a risk is acceptable or that no risk exists, the party making the claim bears authority whether to curtail, limit, or ban the activity, technology, or substance.

When this causes a new technology or substance to be banned, the precautionary principle forces the public to forgo all of the associated benefits, as well, in addition to the lost economic activity all on the basis of hypothesis with little to no standard of proof.

Under REACH, uncertainty is sufficient to initiate government regulation and block innovation. Yet both innovation and regulations carry risk of some sort (as do government regulations). The precautionary principle and REACH are therefore simply anti-innovative and anti-technology.

Under their guise, anyone may therefore interfere with the free flow of technology in commerce, for reasons having little or nothing to do with risk:

"Reliability" of suspicion is the threshold.
It is difficult to cite an allegation of possible harm to the environment or human health that has not been accepted as "reliable", at least sufficiently reliable to claim "uncertainty".

The Precautionary Principle, in REACH or other context, may therefore also be characterised as the Rejection of Scientific Assessment.

Risk assessment is the process used to quantitatively or qualitatively estimate and characterise risk, including the probabilities of various outcomes. REACH does not assess risk but rather assumes hazard where scientific evidence is lacking.

Further REACH does not set any criteria for what constitutes an acceptable level of risk, nor for comparing the relative risks associated with alternative policies.

Barrier to Innovation

As conceived, REACH will have a devastating economic impact on chemical companies worldwide, particularly small and medium-sized manufacturers. As companies try to absorb the testing costs, many will be faced with cutting back on research and development, or simply going out of business. This will have the effect of denying the public access to new chemicals technology. Rather than promote innovation, older chemicals will remain on the market and thus provide the public with fewer alternatives and promote reliance on less effective substitutes.

Higher Costs

The EU estimates that testing 30,000 substances over the suggested timeframe of 11 years will amount to 2.1 billion euros ($2.37 billion US). Independent analyses estimate the cost to be much higher. The UK-based Institute for Environment and Health estimates REACH will cost 8.68 billion euros ($9.83 billion US).

Also according to Mercatus: testing costs range between 85,000 euros ($96,271 US) to 250,000 euros ($238,150 US) per substance.

SMEs will be disproportionately affected by the testing costs. For chemicals produced in one ton/year, testing costs will amount to 85,000 euros, ($96,271 US) representing 42.5 percent of the selling price of that substance.

Eighty percent of chemical SMEs in France will experience a 10 percent or greater drop in production. Further, it is projected that in certain chemicals manufacturing segments, 10 to 40 percent of products will not be able to recoup the cost of registration and will stop production by 2012.

These costs are not only passed on to the consumer through higher prices, but in many cases will not be recouped, cutting into companies' ability to innovate and engage in research and development.

US chemical imports totalling $20 billion (17.52 billion euros) annually will also be affected. The US chemicals industry estimates the total cost of REACH at between $5.5 billion (4.85 billion euros) and $9.6 billion (8.48 billion euros). This does not include the impact on downstream users of chemicals.

Though REACH will not lead to a ban of all chemical substances, it has the potential to arbitrarily ban substances in the absence of proof. The benefits of banning a given substance on suspicion of, e.g., carcinogenicity, are not likely to approach the costs of removing a chemical from usage. It will promote reliance on potentially more toxic substances, or none at all.

The Commission paper states that the current risk assessment process is not adequate:

"The risk assessment process is slow and resource-intensive and does not allow the system to work efficiently and effectively. The allocation of responsibilities is inappropriate because authorities are responsible for the assessment instead of enterprises that produce, import or use the substances."

It is certainly possible to remedy these inadequacies without REACH's breathtaking approach. Responsibility for the actual conduct of chemical testing and risk assessment can be assigned to the appropriate enterprises, rather than government authorities. Responsibility for paying the associated costs can be allocated appropriately to the private sector as well. None of this, however, requires that the principles of scientific risk assessment be rejected.

In the course of shifting the responsibility, and the burden of cost, from the public sector to the private sector, the proposed legislation goes too far in that it seeks to shift the burden of proof. But proof should not be required from either party. It is unreasonable to require regulatory authorities to support every action with absolute proof that a serious hazard will be thereby prevented; it would be impossible to require that private enterprises prove that every substance is completely safe. Regardless of who conducts the risk assessment, the objective should be to elicit an accurate and unbiased estimate of risk. Neither an "innocent until proven guilty" rule, nor a "guilty until proven innocent" rule will advance that objective.

Conclusion

The EU laudably wants to protect its citizenry and environment from ill chemical effects. However, a sound policy should be based on scientific risk assessment and a balanced approach to risk management. The effects of the proposed policy and legislation will be to deny the public access to new and improved chemicals technology.

The risk-based approach is rooted in assessment of risks, and the management of those risks to maximize public benefit. The REACH approach cannot maximize public benefit because it manages unspecified or unproven risk. It fails to consider the negative outcome of its application. To improve EU chemicals policy while protecting competitiveness, new member states should require the Commission consider the following points:

- Regulation of substances should be based on scientific risk assessment rather than the precautionary principle.
- Risk management should be kept apart from risk assessment, and should take account of the risks and benefits of alternative policy.

Fortunately, for now, it appears that the combination of the Parliament's three committee referral and the recognition that the new member states must have a chance to comment on such a sweeping governmental intrusion into commerce has led to consideration of REACH being postponed until October. This is very good news indeed, though caution must still be taken to not accept certain "compromises" being floated by REACH advocates. For example, NGOs are circulating among MEPs the idea of limiting the universe from a potential 30,000 substances to, say, 150.

This is of course a red herring as the real peril of REACH lies not in its breadth, but the standard it creates. By shifting from a burden of persuasion upon one alleging a problem to a burden of proof for one producing a product – to prove "no conceivable risk" – can effectively paralyze innovation even by selecting the right dozen or so compounds (such as chlorine). Less inspiring is a response frequently heard from policymakers that, now that the Commission has proposed REACH, it is inevitable.

This is not accurate. The Parliament has a crucial, and growing, policy role to play. With the entry of the new member states, it is critical that sweeping proposals such as REACH are subject to the full scrutiny and authority of the legislature.

With thanks to the Mercatus Center at George Mason University

"Walking A Fine Line Between Regulation and Competitiveness"

by Russell Patten

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At the height of the New Economy boom, an optimistic European Council adopted in March 2000 the Lisbon Agenda with the goal "to transform the European Union into the most dynamic and competitive knowledge-based economy in the world by 2010".

The simple rationale behind this goal was that a stronger economy accompanied by the right social and environmental policies would lead to more and better jobs, ensuring sustainable development and greater social inclusion. And in times of accelerating globalisation and European de-industrialisation, it was clear from the start that the goals of the Lisbon Agenda would require much effort to be realised.

Little progress to date...

Four years on, there has unfortunately been little progress. There is a general consensus that the EU needs to re-prioritise and give itself a kick-start if it is to reach the objectives of the Lisbon Agenda.

The March 2004 Spring Summit identified four priorities to enhance competitiveness: completing the Internal Market; "Better Regulation"; higher rates of R&D investment; and more effective institutional arrangements. In short, the Summit launced a strategy to make the EU more effective, simpler, more innovative and quicker. However, identifying the targets is not sufficient: the actual problems must be identified and specific solutions must be transformed into concrete measures.

With the Lisbon Agenda's mid-term review coming up next year, the central question is whether the EU will be able to find a way to boost the EU's competitiveness.

Regulating, regulating, regulating...

From the business point of view, certain dynamics at Community level clearly undermine the efforts towards increasing competitiveness. From 1985 to 1992/5, the focus was on the establishment of the Internal Market, to the great advantage of industry competitiveness, but since then environmental protection and, more recently, consumer protection have started to take precedence over the Internal Market. Whilst it is difficult to argue politically against this shift, it is nevertheless worth pointing out that it works to the detriment of the Internal Market, which leads to a negative impact on European competitiveness.

The growing number of environmental and consumer protection rules which have introduced strict, though important, standards in the EU has led to an expanding array of regulations that are increasingly difficult to observe.

Increased burdens on companies

Companies are often left alone to assess the impact of new legislation. They have to establish, with the help of specialists, how the new legislation fits into the existing legal framework, and then waste time and money observing the bureaucratic requirements imposed on them. Finally, if they operate in several Member States they have to be aware of the differences in the interpretation of Directives by the Member States. All this increases the regulatory burden on companies and hampers their competitiveness.

The lack of economic impact assessments, the slow progress in simplifying existing legislation, and the unpredictability of implementation of new legislation make it hard for companies to comply and still remain competitive.

The field of food safety offers a clear example of how legislation is sometimes hindering the EU's competitiveness rather than boosting it. Since BSE, the EU legislator is primarily driven by public paranoia generated by food scares and the pressure exerted by consumer lobbies.

Today, EU food legislation aims both at making food products safer and at informing the consumer with regard to health risks associated with certain products. Judging by the results of BSE-inspired legislation, and following the application of the Precautionary Principle, the burden imposed on food companies, retailers and producers has increased to such an extent that it endangers their competitiveness and leads to sometimes ridiculous results.

Believe it or not but industry does not control the flying zones of bees

As an example, during the drafting of legislation on genetically modified products (GMOs), beekeepers expressed fears that they could be obliged to label honey products as containing GMOs should genetically modified residues be traced in the final product. Beekeepers explained that they could not be made responsible for the presence of GMOs, as they could not control bees' "flying zones".

Innovation – the way out of the trap?

Investment in R&D is often considered to be the main factor to ensure sustainable economic development. The 2002 Barcelona European Council took the first steps by establishing the objective of increasing investment in R&D within the EU to 3% of GDP by 2010, compared to 1.9% in 2000. A June 2003 Communication from the Commission entitled "Investing in Research: An Action Plan for Europe" has taken this political declaration a step further by outlining concrete steps towards achieving this goal.

Among other initiatives, the Plan calls for the establishment of technology platforms, for a number of selected technologies, as well as for more research programmes to be orientated towards the constitution of poles and networks of excellence. It also recognises the importance of increasing industry's participation in the determination of public research priorities and the need to develop European guidelines for the management of intellectual property rights, both on public research institutions and public-private partnerships.

Again, few of these steps have been put into action so far. The Community Patent System, for example, is an essential measure but has been blocked in Council for years. It would give European inventors the option of obtaining a single patent valid throughout the EU. It has been called for by different stakeholders so as to avoid problems, for instance translating costs or transnational court costs, which make patenting in the EU much more expensive than in the US or Japan.

Such issues constitute a significant barrier for innovation and ultimately decrease competitiveness. Most recently, at the Competitiveness Council of 17-18 May, Ministers still failed to reach an agreement on this vital piece of legislation.

SMEs – one of the driving forces behind Europe's innovation

In addition, SMEs, generally identified as one of the driving forces behind innovation, still tend to be insufficiently represented in task forces dealing with the implementation of the Lisbon Agenda. This adds to their already existing problems to secure R&D funding vis-à-vis the big multinationals.

However, the EU cannot alone be blamed for the lack of innovation; the Member States also have their share of responsibility and are also in charge of allocating the necessary funds and network.

Implementation Issues

The quick, fair, and standarised implementation of EU laws is not to be taken for granted; indeed, three dinstict problems detract from the efficacy of the legislative process at the European level. The first is the failure of Member States to meet implementation deadlines, creating a two-speed implementation process, which can often create a limbo. This is still a serious issue, which the Commission needs to rectify. The second problem is the ambiguity of EU Directives, which leaves room for divergent interpretations, creating potential trade barriers for companies. The procedures established to rectify the problem (infringements proceedings and Court action) are long-winded, often ineffective and further burdens industry.

The third, which is much more difficult to discern, is the wriggle room within which Member States can interpret EU Directives differently. In the environmental field, the Commission is proposing so-called Framework Directives, which are less prescriptive, leaving the details to the Member States when they are transposing the Directive into national law, presumably to the advantage of industry.

However, herein lies the problem: industry is finding itself supporting a harmonising Directive which is supposed to establish clear rules/standards across the EU but falls short of that goal. When the Member States transpose Directives, they do it their own way, thereby creating different rules. Whilst it cannot be said that the Member States are interpreting/transposing the Directives incorrectly, they are de facto creating 25 individual national rules.

A good example is the End of Life Vehicles Directive, which left the Member States to decide exactly how cars are to be recycled in their respective countries and who would incur the financial burden. The automotive industry is effectively faced with different regimes with the consequence of increasing costs, as they need to establish different systems for different countries.

Governance

In 2001, stakeholders rallied around a plan by Commission President Romano Prodi to improve the way in which European legislation was prepared and applied. The Commission's initial ideas were set out in a White Paper on Governance, which was followed in 2002 by an Action Plan on Better Lawmaking that rested on three pillars: the systematic use of impact assessments; consultation of stakeholders; and simplification of the regulatory environment.

Two years down the road, it can only be said that progress has been slow. Consultation is the only area where concrete steps have been taken, and there seems to have been a lack of political will on the part of the three institutions to move ahead.

The Spring Council may have helped to reverse this trend by tying better regulation to competitiveness. The Competitiveness Council committed itself to simplify legislation, and has put pressure on the Commission to come up with a method for impact assessment by the end of the year. The recent Communication by the Commission on industrial policy also identified better regulation as a necessary response to the difficulties faced by European industry.

The concept of "better regulation" has to be understood as an instrument to optimise law making in the EU. It is far from implying the need to deregulate or to stop regulating certain areas. It suggests instead the need to seriously assess and find the least burdensome way of taking forward EU policy goals. The employment of a wider range of policy tools is another important aspect of this new approach to regulate; for example, some Voluntary Agreements have proved successful in environmental regulatory initiatives. Full respect of the principle of subsidiarity is key if the EU is to achieve effective law making.

However, there is little evidence that the current Commission is actually planning the broad range of reforms that are required. The question is whether the new Commission to be up and running from 1st November 2004, with the political backing of the new Parliament and upcoming the upcoming Presidencies, will go for it. The case of the New Chemicals Policy might serve as the classic test to highlight a turn towards better governance in the EU.

CASE STUDY:

REACH - a turning point towards more competitiveness?

Probably no other recent legislative initiative will affect the whole breadth of European industry as the EU's new Chemicals Policy, better known as the REACH proposal.

Combining competitiveness and environmental concerns... or does it?

According to the Commission, the content of the proposal aims to combine competitiveness targets with environmental ones. Existing legislation on Chemicals should be harmonised and simplified, replacing a dozen Directives. In this way, it should become easier for companies to comply with the EU's chemicals legislation. At the same time, however, REACH should provide a comprehensive risk assessment for all chemicals on the European market.

Although these two objectives are not diametrically opposed per se, the balancing act between competitiveness and environmental concerns is a fragile process. Every new category of chemicals that has to be included into the testing procedures under REACH adds to the burden on industry. Environmentalists, however, fear that a minimum of additional testing of chemicals would lead to hardly any better identification of dangerous substances. The European Commission, with DG Enterprise and DG Environment both in the driving seat on REACH, claims that its proposal meets the combined needs of competitiveness, consumer and environment protection.

Indeed, the drafting of REACH may be presented as a pilot project for the Commission's new approach for better law making. Between the publication of the White Paper in 2001 and the publication of the final proposal in October 2003, the Commission tried to take the interests of stakeholders into account. Apart from conducting a number of economic impact assessments, the Internet consultation of Spring 2003 led to 6,400 contributions from public and private stakeholders.

However, it is plainly clear that the current text will have major consequences for the competitiveness of EU business. While the provisions of the White Paper strongly emphasised environmental protection and elicited an outcry from the business community, the Commission's actual proposal was somewhat more industry-friendly, though it is still highly controversial form the industry's point of view.

The burden on industry is still omnipresent

Industry points rightly at the regulatory burden that REACH will levy on companies, not only on the manufacturers of chemicals, but also on "downstream" users. SMEs and importers in particular, would lack the expertise and the staff to comply with the bureaucratic requirements under REACH. In its economic impact assessment, the Commission did not explore all the dimensions of the impact of REACH and had to agree in February 2004 - after strong protests from industry - to conduct new assessments in cooperation with industry stakeholders.

In addition to the regulatory burden on industry, there is also the issue of its future implementation. This is highlighted by the unsolved role of the new Chemical Safety Agency: a strong centralised institution would guarantee the implementation of REACH in all 25 Member States. This would require extensive funding and recruitment of competent staff from the Member States' institutions. However, several Member States would prefer to remain in control of national chemicals policy, which would pose the problem of different speeds and coherent implementation in the Member States in the treatment of individual chemicals.

The decision-making process in both Parliament and the Council over the next two years will be a crucial test of the ability of the EU of 25 to simplify regulation and to find a balance between environmental and competitiveness priorities. Even though the Commission is vocal about its progress over the last years, we still need to see real proof.

So what can be done?

Undoubtedly the Internal Market has to be brought back into the limelight, not only rendering it compatible with environmental and consumer

protection concerns, but also preventing the distorting implementation of Directives in the 25 Member States.

The Commission's plans concerning better regulation and governance provide important ideas that now have to be realised. The Commission alone will not be able to put its plans into action. The European Parliament and the Council of Ministers must support its agenda. Member States have to link up with the EU again, assuming their own share of responsibility, to ensure a proper functioning of the Internal Market.

It will be up to industry to increase pressure on the EU institutions and on the Member States to ensure that in 2010 the European Union will not face the embarrassment of looking back on a decade of wasted opportunities. In the meantime, the EU and the Member States must widen the fine line between regulation and competitiveness in order to bridge the gap between today's economy and the targets of the Lisbon Agenda. ◆

* *The author would like to thank Ana Baptista, Oana Uiorean and Martin Mulheck for their valuable constribution.*

The new European Parliament must re-focus on the economy

by Dr. Christoph Leitl

***Dr. Christoph Leitl** is President of EUROCHAMBRES, the European Association of Chambers of Commerce and Industry. Dr. Christoph Leitl is also president of the Austrian Federal Economic Chamber and the Austrian SME Union. In 2003 he was awarded the Mérite Européen in gold.*

It is vital to the interests of European business that the newly enlarged European Union succeeds as a competitive and growing economy, responding with flexibility to the challenges of globalisation. Business wants to see a European Parliament acting to deliver a more competitive economy, creating jobs and wealth and grounded in security and stability across the continent.

Europe's new MEPs can make a real contribution to this goal. The new Parliament should –

- Put the Lisbon goal of making the EU the most competitive, knowledge-based and dynamic economy by 2010 at the top of the new Parliament's agenda.
- Think small first – recognising that SMEs are the lifeblood of the European economy.
- Focus on improving the quality of legislation and reducing the regulatory burdens on business.
- Encourage entrepreneurship, innovation and investment within the EU.
- Insist on the appointment of a European Commission that is focused on the need for enhanced competitiveness and better governance across all its activities.
- Insist on effective consultation of the business community on all matters affecting the economy.

Economic reform is vital

The Lisbon process is central to the future competitiveness of the EU and its ability to influence world affairs. Yet progress has been too slow, deadlines for Government decisions missed and businesses have felt little effect of these reforms on the ground. With many Member States reluctant to embark on painful structural reforms that are urgently needed to get Europe growing again, meeting the ambitious deadline of 2010 looks all but impossible.

However, for as long as Europe stagnates in terms of economic and social reform, businesses' ability to create wealth and jobs will be impaired and Europe's voice on the world stage will get smaller. There will be other important issues to address, constitutional and otherwise, but these must be dealt with in tandem with serious economic reform. The new European Parliament should therefore -

- Exert greater pressure on the European Council to deliver on the promises of Lisbon. The Parliament should have a much greater 'oversight' on the performance of Member States. The ineffective 'Open Method of Co-ordination' can be strengthened through greater Parliament involvement.
- Vet all proposals for legislation by posing a simple question: Will this legislation make European business more or less competitive vis a vis our competitors abroad? Turn down bad proposals.
- Promote labour market flexibility and better regulation and insist on the completion of the single market - this will result in more business, more enterprises and more jobs.
- Initiate more 'own initiative' actions – do not wait for the Commission or others to lead...
- Exert maximum pressure on Member States to respect and uphold the Stability and Growth Pact.
- Exert pressure on the national tax administrations to accept the Home State Taxation project proposed by the Commission – the potential beneficial impact on SMEs is significant.

Improving the quality of regulation

Complicated and costly regulations are one of the main barriers to business growth, especially for smaller companies. In theory, the benefits of regulation should be greater than the costs. Yet it often seems to businesses that the cumulative burden is discounted, the dynamic effects on their competitiveness are ignored and the benefits that are claimed to justify the regulations are seldom quantified.

Recent figures from the IMF demonstrate the potential boost to the economy that a genuine reform of the regulatory regime could bring in Europe, in terms of both GDP and productivity gains. And the European Commission has pointed out in its review of the European economy that regulatory reform is key to achieving the Lisbon goals.

In a competitive Europe, legislation needs to be as simple and as light as possible and it must be consistently and fairly applied across the expanded EU.

The priority actions for the new Parliament ought to be–

- Use regulation only if there is no better alternative, and when used, it should be at a minimum cost and offer a degree of flexibility to companies. Self regulation; co-regulation; information; education; awards and other incentives can be more effective.

- Simplify old regulations and use sunset clauses as the norm in all new ones.
- Support and encourage the Dutch, Luxembourg and British Council Presidencies to make their proposals on better regulation more concrete, and to ensure a genuine commitment by the other 22 Member States.
- Demand that the business community is consulted widely on legislative proposals that will affect the European economy.

Europe needs a flexibile, responsive labour market

One of the key barriers to Europe's competitiveness, as identified by European leaders meeting in Lisbon in 2000, is the relative lack of flexibility of Europe's labour markets compared with its competitors. This has contributed to poor growth and low employment seen in many of the Member States in the past few years, contributing to the 'brain-drain' of scientists and researchers to the US and elsewhere.

Some European governments have been reluctant to embark on the sometimes painful reforms that are necessary. Yet, the reforms identified by Lisbon, and by the Wim Kok Employment Task Force in 2003 are a continuous process and there will be no sustainable improvement in Europe's growth and employment prospects until they are complete.

There has, however, been progress in the less politically sensitive areas of mobility and employability, either through common solutions or through a process of benchmarking and exchange of best practice.

Once engaged in a process of reform, however slow, it would be unwise to agree or approve measures that will check or undo any progress made. In this regard, the new Parliament must use its co-decision powers to push for labour market flexibility and responsiveness that meet the needs of both employees and enterprises.

The most important action for Parliament over the coming 5 years will be to ensure the implementation of the reforms proposed in the Wim Kok Employment Task Force report 'Jobs Jobs Jobs'

Environment — a fine balance

In a global market place where economic competitiveness is the key to securing business growth and development, the correct balance must be struck between environmental concerns and economic development. We must recognise the importance of economies developing in a sustainable manner and the crucial role that business has to play in the 'sustainability agenda'.

In the past, the EU and its Member States have tended to focus on developing environmental legislation, the most politically visible method of environmental improvement. It should however, be recognised that environmental improvement can be achieved through a variety of methods including the development of new technology and voluntary initiatives.

In order to maximise net environmental benefit, a balance needs to be struck. There is a point at which environmental legislation actually brings very limited environmental improvement but adds a far greater administrative burden on business. This in turn absorbs investment which could have been spent on developing new technology and business development. Parliament should -

- Ensure that Net Environmental Benefit is the driving premise of any new environmental legislation. The net environmental benefit of any legislation should be overwhelming since it diverts investment that could otherwise be spent on developing new technology.
- Significantly alter the proposed Chemicals Directive (REACH). The current proposals are unworkable, will place business in the EU at a competitive disadvantage and will have a disproportionate impact on smaller businesses with no clear benefit to human health or the environment. Parliament must rectify this when giving its decision.

Europe must grasp the opportunity of enlargement

The business community has fully supported the historic enlargement process. Business opportunities are enormous in a single market of half a billion consumers, with open borders to trade across 25 countries.

The new Member States bring with them a culture of economic liberalisation and reform that the EU desperately needs - enlargement is projected to create 300,000 jobs through the boost it gives to output.

However, enlargement also poses major challenges, not least to EU institutions and policies. Business should urge the incoming Parliament to -

- Quickly implement – with other EU leaders - a durable and efficient constitution for 25 or 30 members, served by credible and legitimate institutions, and underpinned by sustainable and fair financial perspectives.
- Push for a sustainable approach towards cohesion and development through regional aid; in particular it should adopt a regional policy that aims both to raise standards in the most deprived regions of the enlarged Union and to enhance competitiveness throughout the European Union.
- Support the development of a cohesive, progressive development of the 'Wider Europe' concept.

Conclusion

EU legislation now affects virtually all aspects of employment and economic activity. An essential aspect of e.g. EUROCHAMBRES' work on behalf of its members is to influence the direction of European policies and ensure that the business agenda is at the forefront of the legislators' minds.

Business can help get Europe growing and working again but it must be backed up by governments and politicians who understand the problems and wish to solve them – and who are prepared to consult with, and listen to, the business community.

The political focus over the past five years has been on institutional affairs, on international security, on the environment and on ensuring social equality. All valid, all necessary. However, the new European Parliament must re-focus on the economy. It must champion growth and competitiveness.

A stronger economy will provide jobs for the huge number of Europeans now unemployed. A stronger economy will support the enlargement process for the benefit of all. A stronger economy will underpin security and foreign policy.

I call on the European Parliament to provide this leadership and focus.

How European VAT law can ruin SMEs and endanger the Internal Market

by Michael Tscherny

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Mr. Tscherny has over 20 years of experience in European affairs - as a journalist, an EU official, Spokesman at the Council of Ministers and Spokesman for European Competition Commissioner Mario Monti.

The European economy relies on the success of big European and multinational companies. But its dynamism and growth also depend a great deal on SMEs and small individual traders. Indeed, consumers across the 25 country bloc depend on this vital link in the economy for competition and lower prices.

The recently published Commission Action plan for European Entrepreneurship stresses that "Entrepreneurship is a major driver of innovation, competitiveness and growth. Due to their strong presence in key sectors such as services and knowledge-based activities, smaller enterprises and entrepreneurs today play a central role in the EU economy. [...] The European Union (EU) is committed to boosting entrepreneurship as part of its strategy to transform its economy and build its future economic and competitive strength".

And yet, legitimate individual traders, and SMEs without large distribution networks, are in danger because of the misapplication of European VAT (value added tax) law.

How does European VAT law work?

European VAT law normally grants tax freedom to an exporter delivering from their country of origin to a trader or company established in another Member State of the EU. The buyer is responsible for paying the VAT once the goods have arrived in the destination country.

Therefore the seller and the buyer have to obtain a VAT identification number from their national fiscal authorities. An entrepreneur is thus registered and qualified for VAT intra-community trade.

In order to be sure that their purchaser exists and transfers the VAT correctly to his national authorities, the exporter has to check with their local tax office if the trading partner has provided him with a correct number, is still in business and also if the company is correctly fulfilling its VAT obligations.

These are provisions, which every taxable enterprise within the EU internal market is obliged to meet and it goes some way to guaranteeing the free movement of goods within the EU and encourages cross-border commerce without tax obstacles.

Some national laws go even further. The German VAT law grants exporters "good faith protection" if they have taken reasonable care to make sure that their purchasers provided them with the correct information. This provision is meant to protect a bona fide exporter from liability for a failing or fraudulent buyer.

Member States take measures to combat tax evasion

Unfortunately, some unscrupulous people have abused the system in recent years. They take advantage of the fast moving nature of certain high-tech goods – mobiles and computer chips – but also cars. The amount of money lost by the tax authorities through this kind of abuse is soaring. According to a spokesperson from the German Court of Auditors, Germany alone loses €11.8 billion per year in tax revenue from this practice.

The abuse involves the carrying out of repeated (cross border) purchase and sales transactions within a rapidly changing group of companies. The cross-border dimension means that VAT is not due in the country of origin, and then the company in the country of destination disappears without paying VAT. Usually an extensive and complicated chain of transactions in several countries is used to cover up what is actually happening. Essentially this involves abuse of the exemption mechanism of the VAT system.

It is understandable that Member States do not tolerate such abuse and huge losses in tax revenue. The response of some EU countries, such as Germany and the United Kingdom, as well as Denmark and the Netherlands, has been to adapt theirs laws or issue decrees to address this growing problem. But some of these provisions have called into question certain principles of European VAT law. And it is legitimate traders who get caught in the cross-fire.

According to a German decree, for example, the fiscal authorities can request unpaid VAT from German exporters if the purchaser in another Member State fails to pay the due VAT. It is the purchaser who commits tax evasion but the exporter is made to account for it. Such measures can lead to the insolvency of companies who cannot bear the additional and unexpected tax burden. However, the tax authorities' reaction has been to merely qualify this as higher "entrepreneurial risk" – as if businesses needed additional risk placed on them by the authorities.

The German decree also does not take into account the principle of neutrality, an important characteristic of the EU VAT system, which is designed to afford equal treatment to both domestic and cross-border transactions.

Another measure introduced in Germany in 2001 is the "Steuerverkürzungsbekämpfungsgesetz" ("law to fight tax evasion"). It established the principle of 'joint and several liability' for traders

in cases of unpaid VAT. Moreover, the reform of German VAT law, planned for 2006, foresees stricter measures to fight fraud. The German Ministry of Finance plans to reimburse input tax only after VAT has been paid and transferred to the authorities and not, like common practice nowadays, against presentation of invoice.

In its 2003 Budget, the British government also introduced new measures, imposing 'joint and several liability' on a trader for every company in the supply chain. If one of the traders' suppliers or purchasers fails to pay the VAT or goes missing the former can be held accountable for the amount due. This is valid for any company which is aware, or has reasonable grounds for believing that VAT will go unpaid in a supply chain.

HM Customs and Excise deny a recovery of input VAT where the supplier fails to produce a valid VAT invoice and is unable to demonstrate that they took reasonable steps to ensure that the supply and the supplier were bona fide. For example, an invoice could be invalid if it fails to provide full details of the goods supplied. The measure is clearly aimed at preventing the practice of repeatedly circulating the same goods within a chain many times, but is not restricted to this. It applies only to the supplies of mobile phones, computer components, alcohol and road fuel oils. It also requires businesses repeatedly involved in a supply chain to post a bond where there is evidence of actual or potential fraud or invasion.

But bona fide traders pay the consequences

Nick Wood, a Partner with Grant Thornton's Recovery & Reorganisation practice, warned recently that "the measures are [...] likely to impose an increasing administrative burden on UK businesses already weighed down with red tape as they will need to check the integrity of every supplier and customer in the supply chain to avoid being caught up in a costly spiral of illegal activity". Some of the most common signs of a company being involved in illegal activity may include very high growth, very high value transactions, overseas payments and receipts and a small number of key customers and suppliers. "Unfortunately, any of these signs could easily apply to a large number of completely legitimate companies, making it very difficult for companies to spot whether a supplier could be a carousel fraudster or not", concluded Wood.

Practice already shows that these measures can threaten the existence of innocent companies. In two legal cases English courts have refused to reimburse the input tax, which traders have paid for their products. The stated reason for this was that within their supply chain unknown traders had evaded VAT. It is interesting to note that the courts stressed the innocence of the applicant in the fraud. But these two companies naturally went bankrupt.

In Germany too these measures are endangering innocent SMEs, as well as the smooth functioning of the Internal Market in goods. They were meant to curb VAT fraud but increasingly drive medium-sized traders bankrupt. One example is the case of a German mobile phone trader who sold goods to companies in the UK. The exporter verified the VAT identification number with the German tax authorities and obtained written confirmation that the purchaser was legally registered in the UK and therefore did exist. Such a confirmation gives the exporter so-called 'good faith protection' according to German law.

However, in the eyes of the German tax authorities this 'good faith protection' does not seem to hold, when the purchaser goes missing. Their argumentation rests on a rather speculative conclusion: an importer who evades VAT after resale and then goes missing is not the real purchaser of the good but the final customer. Therefore the name on the invoice is wrong and VAT exemption is not possible. Suddenly the tax authorities asked for unpaid VAT, threatening the existence of a medium-sized successful company. The owner was forced to file for bankruptcy.

Ulrich Bauschulte, a lawyer specialised in VAT from Cologne, Germany, believes that "these practices are making German companies liable for foreign enterprises, an impossible situation for a small or medium-sized exporter. It adds red tape to exporters and endangers cross-border trade in Europe as a whole".

All the German Ministry of Finance has said in response is that it is their opinion that bona fide traders are not subject to these new measures, which only affect fraudulent companies. They have no plans to change their current practice, despite protests from industry federations and formal complaints.

When combined, the measures of the German and British governments could lead to a situation where the German tax authorities would request VAT from a bona fide German trader and shortly afterwards the British tax authorities would try to reclaim the same.

Of course, governments need to un-cover genuinely fraudulent companies and reclaim unpaid VAT. But is making the other traders in the supply chain liable a fair way to proceed? If the tax evader disappears the innocent are penalised.

How can legitimate companies be protected?

It is naturally legitimate to fight VAT fraud, which exists in certain areas. However, the path, which fiscal authorities have chosen, not only creates a higher 'entrepreneurial risk' but also the danger that intra-community trade will be adversely affected.

Moreover, Member States' action must not endanger the common VAT system. Only the European Institutions have the authority to introduce such measures, no Member States should be allowed to do it on its own. A 'beggar thy neighbour' policy by certain national fiscal authorities will lead to chaos and the break-down of the Internal Market.

The European Institutions have done little so far to clarify the legal situation and protect bona fide exporters and VAT law remains regulated by unanimity in Council, which renders decision making difficult.

The European Commission has already received two complaints against measures taken by Germany and the UK. Normally the European Commission has one year to investigate such complaints. It is expected to come up with a ruling in both cases this year.

Unfortunately this is too slow. SMEs are threatened now and could be ruined by the time the Commission comes to a position on this topic.

SMEs and small traders glue the EU internal market together and create wealth, yet they are not protected against the arbitrariness of national fiscal authorities.

The Commission must act quickly to protect the common system, by developing a Community solution for the problems at the root of these national VAT measures.

Challenges for a European Energy Policy

by Peter-Michael Mombaur

***Mr. Mombaur** is a former MEP and Member of the Bureau of the EPP-ED. Mr. Mombaur has played an instrumental role in the work of the Committee on Industry, External Trade, Research and Energy in the European Parliament.*

The backbone of economic activities in an industrialised world is energy supply. As recent crises have shown, without energy, literally, all wheels stand still. Ideally, supply should be cheap, secure and environmentally friendly. Traditionally, member states have seen it as their prerogative to assure those targets are met. As a "strategic sector", energy policy has unfortunately at times been misused by national governments for objectives of foreign policy, state capitalism or simply ideological zeal. This, it has to be said, has often been to the detriment of energy users and SMEs in particular.

The single market for electricity and gas - a contribution to the "Lisbon goals"

It is thus good news for European businesses that the energy sector will finally be submitted to the logic of market opening and competition. This has been a remarkable achievement against the massive vested interests within a sector that was organised as a state-guaranteed monopoly for over a hundred years. It has been possible through a legislative process on EU level that has taken about ten years. From the beginning the EPP has been the driving force behind this. The directives creating an internal market for electricity and gas (2003/54/EC and 2003/55/EC) that were passed last year are the result of this work. Fundamentally, they grant all commercial customers the right to freely choose their supplier through the whole of Europe from 1 July 2004 on. All residential customers will follow at the latest in 2007. By choosing their supplier Europe-wide, SMEs in particular will be able to benefit from competitive energy prices at last.

Of course, bringing real competition into a network-bound sector is not all that simple. It has to be assured that all market participants have non-discriminatory access to the pipelines, which remain a natural monopoly in most cases. In the past, integrated supply companies have been inventive in how to keep competing producers, traders or retailers out of their networks. Access conditions and tariffs thus need some sort of public oversight, which will have to be performed by a national regulator in all EU member states from 1 July on. Just how deep this regulation goes, i.e. if actual prices for network use have to be approved ex-ante or just principles for their calculation, will be up to national legislators to decide. Leaving some discretion to adopt the system to national circumstances should help to bring about regulatory efficiency.

Commercial energy users lobbied explicitly against obligatory ex-ante price regulation as they feared this would result in an inflated bureaucracy given the structure of the German market. If, however, regulators are charged with actual price-setting, as is already the case in a number of countries, they will have to strike a delicate balance: if network use is too expensive, there is no competition, if it is too cheap, there will be no more investment in infrastructure. Whether all national regulators have the resources and competence to take the right decisions remains to be seen.

Their tasks will be made easier by the requirements for vertically integrated companies to unbundle, i.e. to separate their network business from the other parts of the company. Until now European law only asks for separate accounting for generation, transmission, distribution and retail, which has proved insufficient to prevent - illegal - cross-subsidies from network revenues up- and downstream. With the new directives legal separation of networks for all except small distribution companies will be obligatory. This should be a major boost to transparency within the sector and should reduce the scope for anti-competitive practices.

However, real competition in the energy sector also presupposes that the national markets finally merge into a common EU market. This is because in most countries the former monopolists still dominate the scene and hold significant market power. For electricity and gas the creation of a single market still remains to be accomplished.

A difficult element here is how to price cross-border transports. With the adoption of the regulation EC/1228/2003 the old practice of simply adding up national network tariffs is abolished, which has previously stifled trade between the member states. Extra costs for TSOs hosting transits will now be recompensed out of a common fund according to cost-reflective mechanisms. This will make it much easier for a company in, say, Cologne to purchase power from a producer in France if it thinks its local provider is too expensive.

Finally, to prepare a really level playing-field among member states it would also be necessary to harmonize national tariff structures. This concerns especially the question whether it should be generators or users who are charged with transmission fees. As long as member states have different practices in this respect, market distortions will persist.

A battle we had to fight hard with members of the left-wing parties was to ensure that market opening cannot be circumvented by member states under the guise of so-called "public service obligations". This rather vague concept gives public authorities the right to entrust companies with tasks of public policy and grant them special privileges in return. Many attempts were made to use this as a pretext to limit the free choice of supplier for all customers, fortunately with no success. While we could accept that a public guarantee for all citizens and companies to be supplied with electricity should be given, we steadfastly refused the wording that this should be at "affordable" prices. After all, the consequences of a half-hearted market opening that is combined with publicly imposed price caps had been exposed during the California energy crisis.

The next big issue: securing energy supply

Overall, there has thus been significant progress in changing the energy sector from a state-guaranteed monopoly structure to market economy. This has been a real contribution to the famous Lisbon goal of making Europe the most competitive knowledge based economic area in the world. The next big issue will be how to guarantee a continuous and secure supply of energy under the new conditions. The real challenge here will be to reconcile the aims of having a competitive market and attracting the necessary amount of investment. Although both objectives don't exclude each other, striking the right balance is by no means trivial.

One of the reasons why security of energy supply has reappeared high on the political agenda have been the spectacular power cuts in North America, Scandinavia and Italy. They have triggered a series of legislative proposals from the side of the European Commission, to which, for a number of reasons, we have adopted a rather cautious approach in the European Parliament.

First there is the question, how competence in the field of energy policy are distributed between member states and the European level. Without a doubt, the creation of a single market and of a level-playing field for all economic actors have to be achieved via EU legislation. This should, by the way, also entail a common regime for the promotion of renewable energy sources, as the present patchwork of support schemes in Europe brings about windmills in the wrong places and gives a competitive disadvantage to energy users e.g. in Germany.

For security of supply policies, however, competences are divided between the European and the national level. Of course the EU has an important part to play in the preparation of the geopolitical framework for concluding international treaties with exporting countries. Furthermore, the EU contributes to a secure supply by facilitating cross-border exchanges in electricity between member states and with third countries.

Also, it promotes energy-related R&D to assure a more efficient use of resources. However, there is - as yet - no specific EU-competence for legislating in the area of security of supply (the Convention's Constitutional Treaty has proposed to change this). And member states keep full control over the fuel mix they want to employ for electricity generation, which crucially determines how secure a country's supply really is.

Then, it is also doubtful how urgent we need new legislation already before the transposition period of the internal market package has expired. If the Commission has tried to instil a sense of urgency by referring to the recent power cuts mentioned above, we should take a closer look at what really caused them. For this, it is useful to look at the classification that the Council of European Energy Regulators has established, which distinguishes between short-term and long-term factors of security of supply. According to the Regulators' analysis, all recent power cuts (possibly excluding the California crisis) were due to problems with operational security and congestion management within the networks, i.e. the short-term factors. Improvement here can be achieved relatively easily and at low costs. The principle element is to improve transparency of grid data and information exchange between network operators. An immediate answer in response to the black-outs should lie here.

The principle long-term factors are the physical state of the grid infrastructure and an adequate capacity for electricity generation. These also need to be looked at, but this discussion should be decoupled from the sense of imminent crisis that has led to the somewhat pre-mature proposals by the Commission. The problem with both network infrastructure and generation capacity, i.e. power plants, is that they are extremely capital intensive and that amortisation periods are extremely long. In the era of state-owned monopolies, that was surely no problem. In a mature market, the needed investment should also flow, but this requires above all a stable regulatory regime.

Of the recent Commission proposals, especially the one for a directive on securing gas supply and for a directive on securing electricity supply and infrastructure investment have contained elements that could reduce the investors' faith in regulatory stability. It was planned e.g. to give the Commission the right to tell the gas import companies what kind of treaties they were supposed to conclude with the exporters. In the Parliament we eliminated these and other elements that would have been incompatible with market principles and would probably have deterred investment in infrastructure.

The bulk of the investment that will be needed in the next 30 years will be in electricity generation capacity. According to an IEA estimate this will be in the order of 525 billion US$ (that is 750 power plants). Due to the need to replace old plants plus an increase in demand, we will need to build more new capacity until 2030 than the total amount that is currently installed. If total numbers are staggering, politicians will also have to make choices in which fuels this investment is supposed to go. Currently, electricity production in the EU-15 is divided between nuclear (33.6%), solid fuels (27.1%), gas (17.3%), hydropower (12.7%), oil (6.4%), biomass (2.2%) and wind (0.9%) (European Commission, fig. for 2000). Given that hydropower is currently running close to its physical limit, this clearly shows that an energy system based entirely on renewable sources is going to remain a dream for any envisageable timeframe. Also, windmills always need to be backed up by conventional power plants for reasons of network stability.

The figures above also show that we cannot afford to renounce on nuclear energy - for ideological reasons - and on coal/lignite - for reasons of climate protection - at the same time as they constitute 60% of our power base. With a view to the investment needs stated above, national governments should adopt a realistic and steady approach to primary fuel choice.

The Costs of Kyoto

by Carlo Stagnaro

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About 80% of the carbon dioxide created by man comes from the combustion of oil, coal, and natural gas, while the remaining 20% is attributed to deforestation. However, over half of this gas is absorbed by oceans and plants. The CO2 concentration in the atmosphere has increased by 31% from the times of pre-industrialisation – but this does not mean that such phenomenon is due uniquely, or even mostly, to human activities.

During the 1990s, the term "greenhouse effect" became a sinister phrase associated with global warming. Without the greenhouse effect, life as we know it on planet Earth would be impossible. The Earth's atmosphere behaves similarly to the glass of a greenhouse for growing plants: it reflects part of the sun's radiation (especially ultraviolet rays), while retaining some of those that our sphere emits (especially low frequency, high wave length rays – i.e., infrared rays). In so doing, the natural greenhouse effect elevates the average temperature of the planet to about 15˚C, while making thermal excursions milder. Without the greenhouse effect, the average surface temperature would be about -8˚C. Among the gases contributing to the greenhouse effect, the most known and important are unquestionably carbon dioxide (CO2), water vapour, and ozone.

The Earth's climate is not simple. The reality is that many of its components can heat or cool, depending on the circumstance. Sometimes they contribute to warming the atmosphere, and sometimes to cooling it. For example, ozone shields the Earth (thus making it cooler) in the stratosphere, while in the troposphere ozone works the other way around. Water vapour is a greenhouse gas, but when its concentrations exceed a certain limit, clouds are formed, and they act as if they were a mirror pointed upwards, reflecting solar radiation. In short "water vapour's contribution to the contest is patchy, erratic and probably totally unpredictable."

Climatologists and other scientists are not yet able to fully explain either the behaviour of the atmosphere, or to evaluate how individual components affect the atmosphere as a whole.

Scientists have observed an increase in average temperature of about 0.8˚C starting from the middle of the 19th century. Their measurements show that almost all the warming which has taken place in the 20th century is concentrated in two well-defined time periods: from 1920 to 1945, and from 1975 onwards.

Humanity's carbon emissions have been rising since the Industrial Revolution, and proponents of catastrophic global warming believe that these emissions are causing global warming. But the discontinuity in observed warming in the 20th century shows that this explanation is wrong.

In this article I will assume that we know what we don't know. Indeed, I'll assume that Earth is really warming, that warming is largely caused by human activities, and that warming is a potential threat to humanity and the environment. So, from my assumptions it follows that we should do something to combat warming.

The question I will try to deal with is: *What strategy should we pursue?* A first answer is mitigation – and I will put in balance the costs and benefits of the mitigation strategies, especially the Kyoto Protocol. The second answer, in my view the right one, is adaptation.

Kyoto is not enough

The Kyoto Protocol will do little to help the Earth's climate. Under Kyoto, the temperature would be only 0.15˚C lower than if nothing at all were done. This means, in other words, that in 2100 we would have the same temperature doing something as we would have had in 2094 doing nothing.

So the Kyoto Protocol is not enough to stave off climate change. If we want to act seriously against man-made global warming, Kyoto is only a first step towards a crackdown that would have to be much more severe, and would have to involve every country in the world.

While the Kyoto Protocol requires that greenhouse gas emissions be reduced by 5% below what they were in 1990, Super-Kyoto would demand a 60-80% reduction.

For example, Grazia Francescato, former President of the Italian WWF and honorary president of the Italian Green Party, believes it is necessary to "reduce the infamous greenhouse gases [...] not by 5.2% [...] but by 60%" to deal with the problem of global warming (See Grazia Francescato, "Dal concetto di limite al principio di precauzione", in Grazia Francescato and Alfonso Pecoraro Scanio, Il principio di precauzione, Milan, Jaca Book, 2002 p.43.).

Therefore, the costs of the Kyoto Protocol are a mere fraction of the cost of Super-Kyoto

A Super-Kyoto regime implies at least two consequences of great importance, none of which have been highlighted by interest groups in Europe.

First, the use of energy for food production, refrigeration, transportation, heating, manufacturing and air conditioning would be greatly curtailed. Affordable, reliable energy has enabled human beings to live longer, healthier, happier lives. People, especially Europeans, would be forced to greatly curtail or give up its use of energy, leading to a drastic reduction in quality of life.

Second, a "Super-Kyoto" would entail a global enforcement mechanism, through central planning by global agencies such as the United Nations, a prospect viewed with suspicion by many people. Poor countries would likely see this as a kind of "ecological imperialism" against their desire to obtain a better quality of life through economic growth, which relies on more intensive energy use.

The Costs of Kyoto

The interest groups driving the Kyoto Protocol in Europe have failed to illustrate to the public that pursuing a mitigation policy is not without cost. Mostly, the debate has focused on the urgent need to react to climate change, without a careful consideration of the costs and benefits of various strategies.

The Kyoto Protocol is an agreement which forms part of the United Nations Framework Convention on Climate Change (UN-FCCC). It mandates that countries which have ratified the treaty will reduce their carbon dioxide emissions by precise and significant amounts. The Protocol focuses on limiting greenhouse gas emissions, but it doesn't address what is considered to be the actual problem, which is atmospheric concentrations of greenhouse gases.

Under Kyoto, European Union countries committed to reducing their emissions by 8% under their emissions in 1990, and some committed to even stricter targets. Poor countries are excluded from Kyoto, although they contribute to about 50% of worldwide emissions. By 2050, that number may rise to 75% of global emissions. On the other hand, asking poor countries to adopt reductions similar to wealthy countries would have devastating effects on their economies and economic growth.

The Intergovernmental Panel on Climate Change (a body created under the UN-FCCC) elaborated climatic and economic models to forecast future trends and impacts of global warming. We are told that such models would show that we must "do something" in order to mitigate global warming.

As a recent study by the International Council for Capital Formation (ICCF) illustrates, an accurate portrayal of the costs of complying with GHG emissions reduction targets depends largely on choosing an economic model that captures all the short- and medium-term costs of adjusting to higher energy prices or regulatory mandates on the economy as a whole.

ICCF performed studies on the economic impacts of Kyoto on the major EU economies. Such studies developed macroeconomic models which are able to capture all the short- and medium-term costs of adjusting to higher energy prices or regulatory mandates on the economy as a whole (See www.iccfglobal.org, especially "Economic Modeling of Climate Change Policy.")

In Germany emissions need to be reduced by 10% by 2010 and 14% by 2020. Industrial energy prices would increase, with natural gas rising by 27% and electricity by 60%. Overall effects on the economy would be greater. GDP would fall by 2.7% below the baseline for the first period, and would continue 2.5% below 2020. Unemployment would increase by about 1 million in 2008-2012, reducing by only 20% of this 2020.

The effects on Spain would be dramatic, since emission reductions of 25% and 27% would be needed by 2010 and 2020 respectively. This would lead to industrial gas and electricity prices increasing by 63% and 70%, and petrol by 18%. The GDP would link shrink by 4.8% and by 2010, unemployment would rise by 850,000.

In Italy greenhouse gas emissions are projected to raise to 579.7 million tonnes of CO2 equivalent by 2010, while Kyoto target is 487.0 million tonnes of CO2 equivalent. Accomplishing this would require an actual reduction of 16%.

Adaptation

Global warming is a problem only if it presents a danger to the wellbeing or survival of humanity. However, global changes in the Earth's climate will most certainly happen, but these will occur over the long run, and we do have time to rationally consider any number of potential responses. It is of utmost importance to focus on the effects that climate change would have on poor and rich countries alike, and how we can adapt to such changes.

Humanity has adapted to change (climatic or otherwise) through technology, and through markets. During our evolution as a species and as civilisations, humans have modified the environment, first with agriculture, and developed more efficient technologies to feed, clothe and shelter ourselves, to be transported from place to place, and to improve the wellbeing of many people.

Economist Julian Simon emphasised that our "ultimate resource" is human intelligence, which is expressed through our minds, our creativity, and our ability to address and solve problems in an original manner, thus creating a better world for future generations. Without the need to warm themselves, our ancestors would have not discovered fire; and if that had not happened, we might still live in caves.

Conclusion

Individual efforts to solve particular problems, in the form of new technologies, are harnessed by markets, which leave humanity better off in the long run. New technologies supply the means to obtain better goods and services with fewer resources, fewer negative environmental consequences, and at a lower economic cost. For example, today's car engines cost, burn, and pollute far less than those of past decades. By the same token, energy sources such as carbon-intensive fuels will be gradually replaced with cleaner and more efficient alternatives.

In the long run, economic growth results in a cleaner environment, because wealthier societies generally can afford to shift their priorities from mere day-to-day survival, to aesthetic concerns.

Free markets, unhindered by subsidies or trade barriers, are fundamental to creating economic growth. Markets harness new technologies, stimulate the circulation of ideas, information, goods, and services. They create a closed loop of economic interdependence and labour skills which, in turn produces wealth and welfare.

A framework for adaptation may entail eliminating some of the rent-seeking ability of interest groups, for instance, removing subsidies for all forms of energy (including renewables), encouraging technological innovations and adopting those technologies, and eliminating regulatory barriers which stifle economic activity and distort prices. While this might be a difficult short-run strategy, in the long run it would yield greater benefits.

Present EU energy policy is leading us into possibly the worst of all possible worlds: a strategy which is unnecessary, because the science of climate change is uncertain; ineffective, because the EU's reductions in emissions will not significantly affect climate change; and negative for nearly everyone in society.

Certainly, risks presented by global warming should not be underestimated – but shouldn't be overestimated, either. Global warming is a problem, not a tragedy, and we must unleash human creativity to adapt to it.

To summarize and conclude, the costs of Kyoto are really high, while the benefits are negligible.

You may say that we should consider a cap to GHGs emissions, if we could find a more cost-effective treaty. But I tend to be more radical: we do not know if global warming will have adverse effects to humanity and the environment. We could consider Kyoto if we knew it, but I tend to be more radical: we don't know how and how much anthropogenic emissions contribute to warming. We could consider Kyoto if we knew it, but I tend to be more radical: we don't know the causes and the dynamics of warming. We could consider Kyoto if we understood it, but I tend to be more radical: we do not even know if the Earth is warming, because satellite measurements don't show any trend towards increased temperature.

The challenge Europeans will have to face is not global warming, that is, "bad weather" one hundred years from now. I tend to be more radical: the challenge is tax warming, regulation growth, and bureaucratic pollution. ◆

Strategic Planning of the Future European Hydrogen Economy

by Stratos Pistikopoulos

Stratos Pistikopoulos *is a Professor of Chemical Engineering and Director of the Queens Award Centre for Process Systems Engineering at Imperial College London. He is founder and Director of Paros Ltd and founder and Senior Consultant of PSE Ltd. He is also Consultant for APCI, BP and Shell. Dr. Pistikopoulos has published over 200 journal publications, chapters in books and refereed conference proceedings. He studied for his Diploma in Chemical Engineering at the Aristotle University of Thessalonica and did his PhD in Chemical Engineering at Carnegie Mellon University, Pittsburgh, USA.*

There is an unprecedented interest in including alternative forms of fuel as an part of the global energy vector, driven by the moves towards low-carbon energy in general, and by concerns over air-quality, green house gas emissions and security of energy supplies in particular. Especially European policy-makers are confronted with the challenges resulting from poor urban area quality found in their densely populated cities.

Hydrogen as an alternative energy carrier can effectively address these concerns by revolutionising the future energy economy. Many argue that its use as a transportation fuel offers a number of attractive advantages over existing energy sources such as low-carbon intensity, reduced greenhouse gas emissions and improved urban air quality. Following this interest, several of the leading energy companies have introduced dedicated business development units investigating its viability as an alternative investment option.

The Next Great Economic and Social Revolution?

It is true to say that hydrogen could make obsolete our big-scale, polluting oil network through a locally based system. With the introduction of hydrogen fuel cells a "revolution" will begin. With distributed generation, every family, business, neighborhood and community is potentially consumer, producer and vendor of hydrogen and electricity. Because fuel cells are located physically at the sites where the hydrogen and electricity are going to be produced and partially consumed, with surplus hydrogen sold as fuel and surplus electricity sent back onto the energy network, the ability to aggregate large numbers of producer/users into associations is critical to energy empowerment and the advancing of the vision of democratic energy.

A futuristic (but not utopic) scenario regarding energy decentralization argues that the end users' combined generating power via the energy web will exceed the power generated by the utility companies at their own central plants. If that happens, it will constitute a "revolution" in the way energy is produced and distributed. Once the end user, becomes the producer and supplier of energy, power companies around the world will be forced to redefine their role if they are to survive. A few power companies are already beginning to explore a new role as bundler of energy services and coordinator of energy activity on the energy web that will be forming. In that sense hydrogen will be assisting end users by connecting them with one another and helping them share their energy surplus profitably and efficiently. Therefore we are going to a complete scenario overturn, as we know it.

Hydrogen for portable and distributed power

Signs of an emerging hydrogen economy are appearing both in laboratories and in the field. There has been many years of research and development in fuel cells with particular emphasis in batteries, power plants and internal combustion engines. Invented in 1839 but given its first 'real world' applications in the US space shuttle programme in the 1950s, the fuel cell's down-to-earth costs have been significantly lowered by reductions in platinum requirements (catalyst) and gains in efficiency. Distinct advantages of fuel cells include higher energy efficiency through cogeneration, greater reliability, a reduced need for transmission upgrades and capacity additions, and lower air pollution.

In small-scale applications fuel cells are developed for use in mobile phones and laptop computers, where researchers believe that this will be the first area that fuel cells will take off. At larger scales, fuel cells are also being developed for use as on-site power plants. More than two hundred fuel cell units have been installed in fifteen countries, in applications ranging from a New York City police station to an Alaskan postal facility to a Japanese science centre. While natural gas is the fuel of choice for these early models, many of the fuel cells will be able to run directly on hydrogen.

Hydrogen from renewable forms of energy

A recent study at Princeton University, concentrated on hydrogen production via renewable electrolysis. The study reveals that in terms of carbon emitted per kilometer driven, fuel cells using hydrogen from natural gas were twice as clean as those using gasoline and methanol. Those using hydrogen from biomass were twice as clean again. And fuel cells using hydrogen from solar or wind power achieved virtually zero life-cycle emissions. This suggests that the social and

environmental benefits of direct hydrogen fuel cell cars, especially those using hydrogen from renewable forms of energy, will be significant.

Currently the overall cost to the user of direct hydrogen vehicles is higher than that of other fuel options. In order to lower the prices market forces alone cannot accomplish this shift, therefore there is a need for zero-emissions mandates such as the one adopted in California. California's 'ZEV (zero-emissions vehicle) mandate' in 1990 required that 10% of vehicles sold in the state in 2003 be zero-emission. Only 4%, however, needed to be purely zero-emission, which allows both direct hydrogen and methanol fuel cell vehicles to qualify. Under the new amendment passed on the 25th January 2001, the state kept its requirement that at least 10% of the new cars produced for California will be virtually non-polluting or zero-mission but the types of cars are more diverse and will produce more pollution than the original rule envisioned when it was enacted.

Under the new rules, the board's action changed the number of ZEV's required to 2% zero emissions, 2% hybrids and fuel cells and 6% extremely clean gas and other vehicles. The changes also offered automakers generous incentives to pursue such technologies in lieu of battery cars. This regulation also required about 100,000 other highly clean vehicles in 2003 with this number increasing to more than 400,000 by 2006.

The current problems

- **Hydrogen Production**
  Hydrogen is an energy carrier — the two primary sources of hydrogen are water and hydrocarbons. Though many fuel-cell systems include reformers that convert natural gas or other fuels to hydrogen at the site, cost-effective hydrogen production and distribution technologies will enable a wider range of fuel-cell systems to operate.

- **Delivery of Hydrogen**
  One other challenge is how hydrogen would be distributed in a decentralized manner. Governmental and International bodies as well as Corporate Organisations and Technical Institutes around the world are currently conducting research on that.

- **Hydrogen Storage**
  Hydrogen storage is a critical part of the infrastructure development. Distribution of fuels for commercial use must provide for hydrogen storage. The major objective is to provide safe, reliable products capable of meeting a wide range of applications, including small portable, automotive and bulk-storage applications.

Europe's Hydrogen Investment

Romano Prodi, the president of the European Commission (EU), has unveiled in November 2003 the Commission's European Initiative for Growth to accelerate the EU economic recovery. The Growth Initiative includes a "Quick Start Programme" of projects of public and private investment in infrastructure, networks and knowledge. The aim is to encourage the creation of public-private partnerships, in co-operation with the European Investment Bank, to leverage finance.

This programme foresees a major ten-year initiative for hydrogen-related research, production and use, with an indicative total budget of €2.8 billion of public and private funding. The technology platform can help shape this initiative, which has already received the political backing of Member States at the highest level.

The aim, Prodi said is to bring industry, the research community and government together to map out the hydrogen future. President Prodi said that the EU's scientific effort will be as important for Europe as the space program was for the United States in the 1960s and 1970s. The EU has already committed itself to producing 22 percent of its electricity from renewable sources by 2010.

U.S. power companies are reluctant to make large financial investments in capital expansion because, under the new utility restructuring laws, they can no longer pass the costs of new capacity investment onto their customers. And because the field is now very competitive, power companies are reluctant to take funds from their reserves to finance new capacities. The result is that they put stress on existing plants beyond their ability to keep up with demand, leading to more frequent breakdowns and power outages - as has been increasingly experienced recently across Europe. That is why a number of power companies are looking to distributed generation as a way to meet the growing commercial and consumer demand for electricity while limiting their financial exposure.

Policy Recommendations

We believe that there are several areas that are critical to the development of this technology. We recommend the following:

- **Support Technology Development and Validation for Hydrogen Infrastructure**
  There should be more funds allocated for Research and Development in this sector as well as further EU directives should be put in place in order to further lower the prices.

- **Educate the Public**
  As the hydrogen market evolves over the next few decades, technology breakthroughs will change the way hydrogen is made and supplied to the consumer. It is important that the public understand the market drivers, environmental benefits, costs and challenges associated with each stage of the transition.

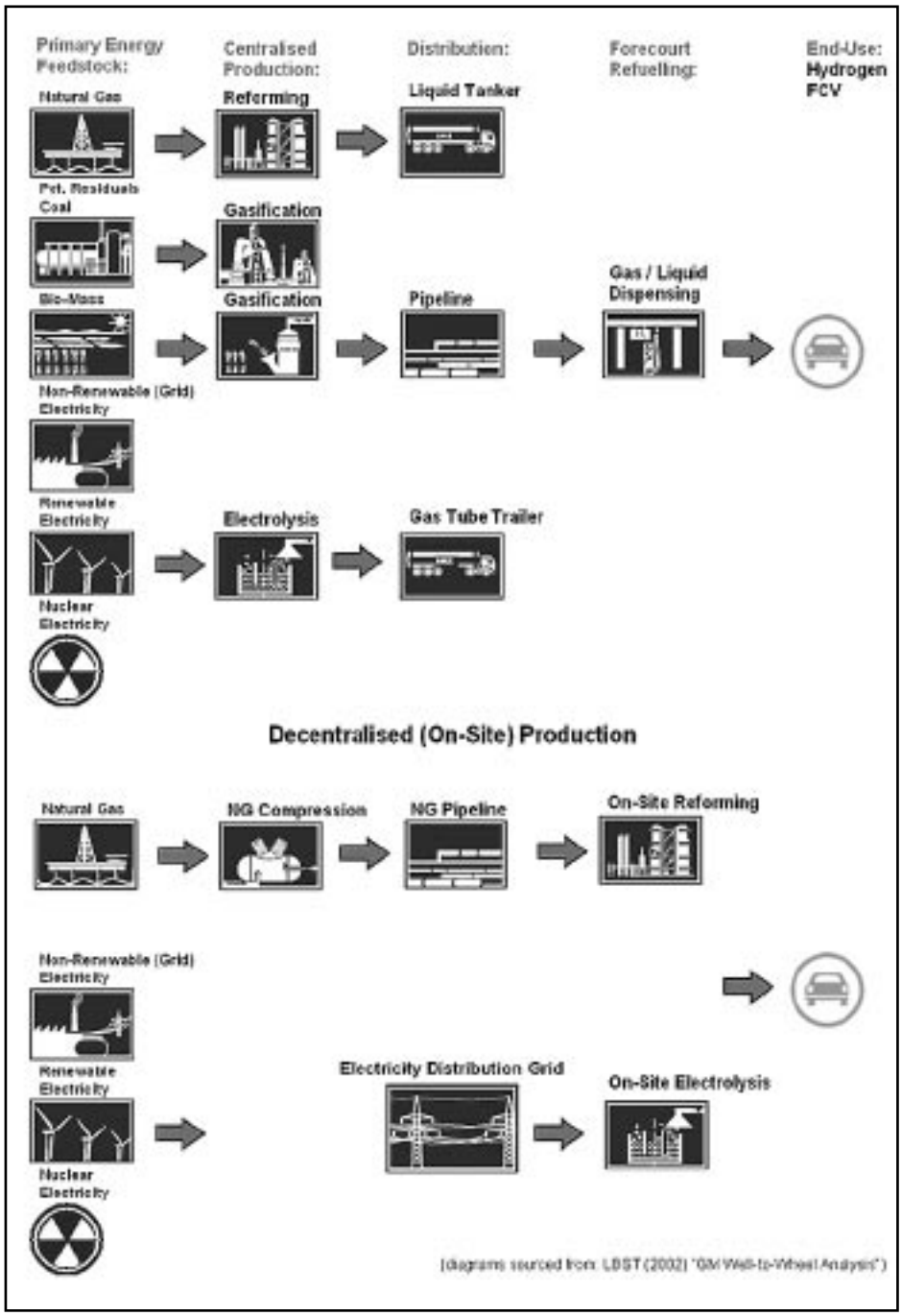
- **Leverage Private Industry Stakeholders**
  Extra incentives should be put in place in order to sustain and enlarge the financial contribution of private companies, such as taxation benefits and grants. The only way to accelerate efforts towards commercialization of this market is for private industry and government to share the development costs.

- **Monitor Market Signals**
  Often we see that factors can change the need for a particular technology - either increasing or decreasing demand. Some of these factors may include competing technologies, availability of resources and public opinion.

Research Study in Planning the Future European Hydrogen Economy

Despite the growing awareness that hydrogen is receiving, remarkably little quantitative support has been provided to assist the policy decisions related its supply chain design, technology

Figure 1 **Selecting the best option from the various pathways for delivering hydrogen**



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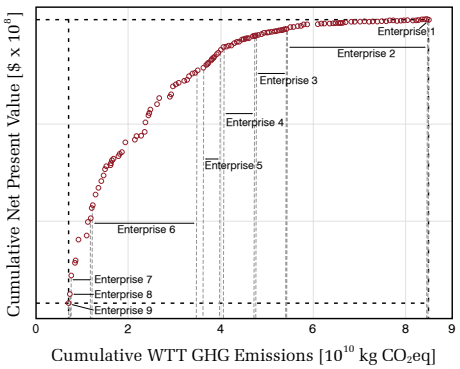

Figure 2 **Greenhouse Gas (GHG) emissions versus financial returns – not just one optimal, but several compromises instead**

selection and infrastructure investment. This is partly due to the difficulty in establishing what the optimal pathway is for delivering hydrogen, given that a large number of technological options exist for its manufacturing, storage, distribution and dispensing (see Figure 1). In order to aid these decisions, Andre Hugo at the Centre for Process Systems Engineering, Imperial College is focused on developing an holistic systems-based approach to model the entire hydrogen infrastructure from source-to-service.

The goal of the research is to develop a generic mathematical model of the future hydrogen supply chain that can assist the strategic policy decision-making process. The model assesses the performance of different infrastructure scenarios involving various production and distribution technologies, and raw material feedstock. Realizing that multiple performance criteria are of interest, assessment is conducted in terms of both investment and environmental criteria, with the ultimate goal being to identify optimal infrastructure pathways. The multi-criteria decision-making model therefore provides a comprehensive basis for investigating the trade-offs between increasing financial returns and decreasing environmental damage (see Figure 2). As such, the results from the research can guide informed policymaking concerning carbon management, infrastructure investment and government research spending.

The case for tax competition

by Richard Vedder

***Dr. Richard Vedder** is Professor of Economics at Ohio University in Athens, Ohio. He has written extensively on labor issues, and has written over 100 papers published in academic journals and books. The work of Dr. Vedder has appeared in newspapers such as the Wall Street Journal, Washington Post, Investor's Business Daily and USA Today.*

For four consecutive decades, the rate of economic growth in Western Europe has been lower than in the previous decade. This growth slowdown coincides with a large growth in the welfare state, and with taxes used to finance it. As the European Union expands and considers its future, an issue arises: should the tax systems of the various members be "harmonised" to a large extent or not? Or, should the rules permit vigorous tax competition between the member nations? The experience of the 50 states in the United States and also in Europe itself suggests that tax competition should be strongly encouraged - and that harmonisation will intensify Europe's relative economic stagnation.

In the American federal system, each state determines the taxes and rates needed to finance various services not provided by the federal government in Washington, including highways, schools, police and fire protection, some programs to assist the poor, etc. Tax burdens vary considerably, from about eight percent of personal income in a few states, to 13 percent or more in others. Nine states do not comprehensively tax incomes at all, including such large states as Texas and Florida. Five states have no general sales tax, the closest American equivalent to the value-added tax.

The evidence is very clear – high tax states have had a lower growth in incomes, population growth, employment expansion, or new business start-ups. The no-income tax states like Texas, Florida and Washington (home of Bill Gates) have grown dramatically faster than states with high such taxes, such as New York or California. One result of all of this is that the high tax states have been forced by economic circumstances to moderate their tax burden.

The variation in tax rates between the American states has declined, not because of federally enforced harmonization, but because of the economic consequences that high taxes have – resources move to lower tax states. Thus, in the 1990s, more Americans moved (2.8 million) into the no-income tax states from those states with such taxes than moved from East to West Germany in the decade before the building of the Berlin Wall. As productive citizens (and also capital) have moved away from high tax states to the lower tax ones, the high tax states have been forced to moderate their tax burden.

Thus tax competition has worked to prevent governments from imposing oppressive tax burdens that work to lower the incentives to save, invest and work. To some extent, it has been going on in Europe as well.

The EU directed Ireland to stop having a lower rate for Irish firms than foreign enterprises on the corporation income tax. Much to the EU's surprise, Ireland harmonised the rates at a very low 12.5 percent – leading to massive inflows of capital and, along with other business-friendly reforms, unleashing the Celtic Tiger, with Ireland easily having the highest growth rate of Western European nations in recent years. An innovative young Estonian prime minister, Mart Laar, presided over that nation's introduction of a 26 percent flat rate tax, followed shortly after by an even lower 20 percent rate adopted in Russia and most recently with the Slovakian tax reform. As other nations in East Europe (e.g., Latvia, Ukraine) follow, the pressure is growing on Western European nations to reduce taxes. Mr. Laar tells me that prominent Finns are moving from Helsinki to Tallin, and then commuting to work in Helsinki daily by helicopter to avoid high Finnish taxes. This, in turn, is forcing Finland to consider reducing levies, which, in turn, puts pressure on Sweden and other nations to do the same. Economic growth has consequently accelerated sharply in Eastern Europe, including an annual compounded rate of real GDP growth of over five percent a year in Russia over the 1999-2003 period. Seeing this, Slovakia, the Czech Republic and Poland have all been talking about a low flat rate income tax, bringing tax cut fever closer to the Franco-German heart of western Europe.

The EU and other international organizations (OECD, even the UN) are alarmed by this trend, because it threatens the continuance of government-dominated welfare states. Already, all EU nations must have a minimum VAT of 15 percent, and Germany, France and some other nations of the European Union would like to reduce the ability of nations to lower taxes even further. Fortunately, most of the 10 new members of the EU see the gains from lower taxes (as many have already implemented flat rate income taxes), and will fight this move. Attempts to use the introduction of a EU constitution as a means of ending individual nation vetoes of EU initiatives are similarly being resisted as some of the faster growing lower tax nations become aware of the stifling impact that EU directives can have on their economic destiny.

The American lesson and that arising from modern European experience is simple: tax competition serves as an effective means of forcing government to operate on fewer resources, giving the private sector more funds to expand productive activities. Tax competition, in short, raises the standard of living and enhances the lives of people benefiting from it.

Towards an Innovation Policy for SMEs

by Gerhard Huemer

Gerhard Huemer *is an Austrian economist with over 17 years experience as Lobbyist for Enterprises in the European arena. Mr. Huemer serves as the Director for Economic and Fiscal Policy of UEAPME (Union Européenne de l'Artisanat et des Moyennes et Petites Entreprises) and the European Employers Association for SMEs, which represents about 11 Million Enterprises all over Europe.*

Innovation is the precondition and the motor for any economic development in all economies. It can be defined in a broader sense as: development of new products and services, introduction of new production processes for goods and services and acquisition of new markets.

In developed economies the growth of output, productivity and welfare is not possible without innovation. Structural change and catching-up processes have to be driven by innovation. Furthermore, in a market economy competitiveness can not be gained or secured without permanent innovative processes. By definition, innovation cannot happen without knowledge about market needs and technical opportunities. Innovation is based on a very wide range of different types of what we normally label knowledge, ranging from R&D, the classical form of codified knowledge (patents, licences, etc.) to all forms of non-codified (tacit) knowledge, like vocational competencies, market information, costumers and suppliers and so forth.

The growth capacity of an economy depends therefore not only on the results of R&D, but also – and even more so – on access to technology, qualified economic actors, an economic and regulatory framework that promotes innovation (subsidies, taxation, intellectual property rights, standards, etc) and supports innovative networks and clusters.

Innovation in SMEs:
Too much focus on High-Tech and R&D

The discussion on innovation policies in Europe is supported by big industry and some parts of the European Commission and is mainly focused on the development of R&D and the "High-Tech sector". The Low-Tech sector is often regarded as less important and as an obsolete model or sector that is in danger. Notwithstanding the value of the "High-Tech" and R&D, which is an important part of the innovative capacity in an economy, we must not ignore other aspects of innovation.

Innovation happens mainly outside the "High-Tech Sector" and is often not based on R&D

According to the OECD, the "High-Tech Sector" is defined as industries with an R&D share in turnover of more than 4%. In highly developed economies R&D accounts for 3% of total GDP. This implies that 97% of all economic activities, and therefore the major part of innovative processes in Europe and the US, come from sectors which are defined as "Mid-Tech" or "Low-Tech".

In the majority of enterprises, innovation is not based directly on R&D, even though already existing R&D results may be used for innovation. This is especially true for Small and Medium Sized Enterprises, which very often can not carry out their own R&D.

The innovation process of SMEs is based on available technologies, which are developed in a new and sophisticated way. It is based on previous experiences and the competence of the people in and around the company; supported by high qualified employees and the entrepreneurial spirit of the business owner or it is based on highly flexible, but long lasting, costomer and supplier relations who are supported by existing networks and clusters. What all of these transmission mechanisms of innovation have in common, is that knowledge is not used in an explicit – codified - way and therefore it does not count as "High-Tech" or R&D.

SMEs need therefore a new approach to Innovation Policy. Increasing the innovative capacity of enterprises is a decisive precondition for bringing Europe's economy back on a growth-path and to achieving the Lisbon Targets. A policy which supports such a development may not only focus on "High-Tech" and R&D, but has also to improve the framework conditions for innovation, which is driven by "non-codified knowledge" and not directly based on "R&D".

SMEs need a bottom-up approach in R&D policy and a wider definition of R&D. Small enterprises does not have the capacity to participate in huge programmes with a specific thematic approach, but need SME targeted programmes that are open to a wide range of areas and easily can be handled by the limited resources of the company.

Within the 6th Framework Programme on Research Technological Development, we'll need therefore a redistribution of unused money toward SMEs. We'll need to go from the "Priority Thematic Areas" towards SME specific measures where the budgets are too limited. Moreover, we must get a stronger focus for bottom-up approach (SME Specific Measures) in the upcoming Framework Programme for SMEs and work to facilitate the administration of such programmes for SMEs.

Qualified entrepreneurs and employees are another important precondition for innovation in SMEs. Non-codified knowledge (tacit knowledge) which comes through experience, knowledge about the market, creative costomer and supplier relations all plays a decisive role in a SME typical innovative process. European SMEs needs therefore a European statute for apprentices which recognises foreign vocational training for young people, increased support for young people to be trained in technical skills and that vocational training becomes equally valued compared to university education. It should also receive an adequate share of the budget.

Business clusters and networks encourage innovation in SMEs. The development of business clusters and networks creates positive spill-over effects and are vital to encourage innovation. The development of such clusters and networks has therefore to be managed by regional institutions and they should be supported by related training facilities. The European Action Plan for Entrepreneurship should therefore focus on the development of such clusters and networks trough technology oriented measures (Centre of Excellence, Incubators, Technology Transfer Centres, etc.) and technology related training institutes.

Finally SMEs also needs more flexible qualification systems. Systems like ISO 9000 and EMAS were mainly developed for large companies with standardised production procedures and are therefore based on codified knowledge. In many smaller companies, where innovation is a permanent process and needs to react to the needs of costumers, standardised procedures are a barrier for innovation. Therefore, SMEs needs an adaptation of existing qualification systems so that they become more SME friendly and in this work the involvement of SME experts (NORMAPME) has to be ensured.

Women entrepreneurship in the enlarged Europe

by Ildiko Szenci

***Ildiko Szenci** is the Director of SME Women which is the sub-group of the SME Union of the EPP. Ms. Szenci is also working for the Brussels based business representation "EU Consulting, Hungary".*

Can European business society expect women entrepreneurs to contribute to the economic recovery in the enlarged Europe?

According to the Action Plan[1]: The European Agenda for Entrepreneurship which has been recently released by the DG Enterprise, one of the key actions to boost entrepreneurship in Europe is to promote women entrepreneurship by providing them tailor-made top-class support, and management training coming from all backgrounds. By translating this objective blueprint into fact, the European Commission believes that women can definitely make a difference in the present economic situation.

In the European Union where demands are high and thus competition is even higher, where open market economy with free competition does exist, and where quality, creativity, individuality and moreover sustainable development are key words, to perform in this world with style and with success is a great challenge for everybody. Especially if we acknowledge the fact that there has been a structural evolution in our world economy which not only has changed patterns in economic growth, but also has changed our life styles.

During the last years an obvious political change could have been seen in the European Union, as economic growth has slowed down, unemployment rate has increased, and the public has become aware of the fact that their expenses must be retrenched to make use of the full potential of the European entrepreneurial assets. One of these can be found in the development of women entrepreneurship which is still an under-estimated and definitely under-represented activity in the European continent.

Today every human being is desperately looking for his security. Security within his workplace, security in his private life, etc. Many studies on women's entrepreneurship state that women are willing to take up challenges and are more interested in coming up with a solution in a world where up-to-date decisions have to be made instantly. They are excellent team players, intuitive and artistic as being more sensitive. Still unemployment is quite high amongst them, especially in the new Member States[2]. Women are often seen as "too shy", "insecure", and "unreliable" compared to men, and they still have definitely more social engagements/ burdens then men.

The skilled, educated, experienced and hard working female entrepreneurs however face a number of difficulties in establishing and maintaining their businesses. According to latest statistics, the image of companies led by women is still more unfavourable then those which are managed by men. On the other hand according to the data those enterprises which are conducted by women are productive, too.

In the present the entrepreneurial world where aims and targets need to be clearly identified, where decisions need to be quickly taken, where the level of tension is quite high, where managing the challenges and risks always roll over the certainty, it is high time to cut down the number of those factors which make the entrepreneur life for women difficult. These factors such as conditioned and inflexible time schedule, inconvenient supply of childcare facilities, payment gaps, difficult access to networking, complicated access to financial support, in certain sectors and after certain levels of conduct, the negligence of women workforce, etc. do not help women entrepreneurs and do not help to the European economy to rise after all particularly as Europe aims to be the winning competitor in today's world economy[3].

Although there is a great diversity how to support women in the enlarged Europe, before coming to details it is necessary to say that it is the individuality which must stand out and for that there is no general recipes be presented, thus positive discrimination and equal opportunity' politics do not necessarily help female managers; it is herself who must do the managing of her life as Mrs. Schwager-Jebbenik commented in 1991[4].

Of course women tend to do their business differently than their counterparts. They

tend to work more in teams, they are less self-centred and their personal ego is less important than the success of the organisation or business they are working for[5], they favour less ambitious projects, smaller investments and smaller loans. Overall women are less confident about their abilities, less interested in starting a business, they have less market connections and less informational backing to start their business. Very often they have less past experience in managing business. However, when they get connected to the right network, to the right consultant or adviser, when educational programmes and special training are offered for them, when they receive the right information about possibilities, they gain confidence and besides of the difficulties they create their own business, although many times they try to start their enterprise after a break in their activity (parenthood).

The potential of women entrepreneurship needs to be recognised in effect which has already proven to be a great source of economic growth, however as being part of the European economic policy and not as an individual entity. Of course a strong and particular support is needed for women especially when they start business after a longer break, but as the structural economic changes effect the whole of Europe, special attention is required for the survival of all SMEs, too. Setting up a business in an in-stable economic environment where black market and corruption are more popular then following the labyrinth of legal, administrative and banking procedures, it is a difficulty for all of us, who owns an SME. Clear rules, transparent systems, simplified taxation system could definitely add to a favourable business environment. After all it is sure that women who sets their own goals and work with their own pace will produce something useful in the end.

The dynamic growth of women enterprises thus mainly depends on the changing of the current European business climate. Stereotypes, gender discrimination, informational and salary gaps, all double standards will slowly fade out and the potential of women entrepreneurs will take full part in the economic growth of Europe.

1 Action Plan: The European Agenda for Entrepreneurship, COM(2004) 70 final see http://europa.eu.int/ comm/enterprise/entrepreneurship/promoting_entrepreneurship/doc/com_70_en.pdf

2 OECD: Women Entrepreneurship: Exchanging experiences between OECD and Transitional economy countries, www.oecd.org and http://www.unece.org/operact/enterp/documents/wmp.pdf

3 See the Lisbon's targets by 2010

4 Schwager-Jebbink, J. (1991), Views From the Top, Management Education and Development for Women Conference, Henley Management College, 5 October. http://www.fao.org/DOCREP/W6882e/w6882e02.htm

5 www.fao.org - Women entrepreneurs

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