the Italian Think Tank

Energy and Democracy

the future is……now

Options for Europe[1]

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Sala del Refettorio

– Position paper –
– DRAFT AND CONFIDENTIAL –

Vision's upcoming event on "Energy and Democracy" is set to launch a cycle of forward-thinking seminars entitled Visions for Europe

The question of energy is probably the most central of all political problems as it connects several, different concerns:

- the fear that the world is simply running out of the energy necessary for the industrial and consumption processes to continue;
- the most mundane prospect of energy prices generating inflation and stopping economic growth;
- the vulnerability of developed countries to the concentration of available reserves in few unstable countries;
- the impact from further pressure on the demand side produced by the fast developing Asian giants;
- the planet's change of temperature and the consequences that this may have on the life of billions of people;
- the other consequences of pollution that may generate all sorts of events leading to dramatic environmental and health hazards;
- the conflicts developing around oil wells that not only are capable to destroy the careers of the most powerful head of governments but also to continuously creating a world disorder that that nobody seems to control.

It is therefore also metaphorically true that oil is making the world go round. In fact, energy and energy related issues have been recently dominating the international political debate

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The group is open to further contributions and whoever is interested to join should contact info@vision-forum.org.

And yet when it comes to energy still many things are not clear, whereas media are often contributing to generate even more confusion:

- far from certain is the forecast that fossil energy is close to the end of its availability; it is true, however, that the energy that we have been used for decades tend to be concentrated in very few countries;
- part of the problem is, in fact, due to the fact that not only that these countries are few but also that they display the sort of unreliability of not democratic regimes tend to have; and yet the very idea of exporting democracies to oil exporting regions has certainly failed in a dramatic way;
- to find alternatives to fossil energy is more difficult than many enthusiasts of the "beyond petroleum" mantra seem to recognize; however, it is not clear whether the competitive disadvantages of "new" energies is a question of scientific/ technological advancement to be completed or of economies of scale and therefore of the legacy (fixed costs, distribution layout) that makes difficult to replace the fossil ones;
- the same equations of the climate change theory do still display uncertainties both in the intensity and the direction (heating or on the contrary cooling) of the change; and yet nobody can doubt that decades of emissions and emitting activities have profoundly changed the geography of the planet and that the planet will have to find some new equilibrium.

We know the scale of the problem. We still do not know which could be the solutions.
Within this context Vision is asking itself a question from a slightly different angle. What are the implications of energy on democracy and more specifically what should change into the processes of collective decision making at international level so that a problem like thins becomes manageable? Which are the options for Europe?

The paper does start from the idea that "energy" and "climate change" are not only huge problems *per se*, but also asserts that they reflect failures of democracy, of global governance, of the very idea of justice and fair redistribution of the costs of individual behaviours that is essential for a social contract to develop and for a community to exist.

The fossil energy problem does expose problems of **democracy**:

1. in **fossil energy exporting countries**, because statistics and economics seem to demonstrate that oil and gas appear to prevent democracy from developing in those areas. Conversely, low levels of democracy in fossil energy exporting countries tend to have a negative effect on the energy markets performance in the areas of efficiency and innovation;
2. as political agendas in **energy consuming countries** set by political elites are incapable of properly integrating environmental concerns as the latter has a longer timespan than political cycles and implications so broad that it is hard to address the topic in large but unorganized citizen constituencies;

of **global governance**:

3. because member states are obviously not able to respond to questions like this, but also because the **super national, member states based organizations now seem inadequate**. This is at least what transpires from difficult negotiations such as the Kyoto agreement. The adjustments required from the member states are not enough, the strategy seems to be too incremental, the ratification process is too slow, and the enforcement mechanisms are too weak;

and finally of justice amongst individuals and communities, of a **social contract** necessary for the development of democracy:

4. because of huge **problems of redistribution** of energy consumption costs, of energy production amongst states or amongst individuals/ organizations. The issues pertaining to redistribution are not addressed by the compensation mechanisms, and most importantly they are both a challenge for nation based communities and an opportunity for new forms of citizenship to arise.

Energy and Democracy

GLOBAL GOVERNANCE

DEMOCRACY IN FOSSIL ENERGY EXPORTING COUNTRIES

DEMOCRACY IN FOSSIL ENERGY IMPORTING COUNTRIES

SOCIAL CONTRACT (JUSTICE, INDIVUAL – ORGANIZATION – STATES COMPENSATION AND REDISTRIBUTION)

This is most certainly a question that Europe is in fact well placed to tackle, when one considers both its potential influence on markets and political systems and its serf-like relationship with oil. Changing the structure of energy supply chains but also that of the political and industrial systems based on oil constitutes Europe's enduring challenge.

What is the cost difference between renewable energies production and distribution costs generated by oil and gas? Which part of this gap is due to state of the art of scientific development and which to economies of scale that work in favour of older forms of energy?

What are the limits to innovation? Are there market failures when it comes to accelerating the development of alternatives to fossil energy? To which extent do public investments fund research and development, and how much more is needed? What are the main incentives necessary to induce the much needed changes in individual and organizations behaviours? What are the best practices? Can nation states correct market failures and what should be the democratic mechanisms for realigning the politicians' objectives with the demand of current and future generations? What would be the effect of democratizing oil exporting countries? What does it take to implement more effective and less time-consuming political actions than the ones currently set up by the UN? How could we create the necessary leverage for greater awareness of the environment agenda and how can we establish a green friendly movement on an international scale?

What kind of compensations should be devised in order to restore justice and a sense of belonging to the same international community? Is it true that between environment and economic growth there is a trade off and is it possible for China and India to follow a growth and energy policy approach that would allow them avoid some of the most polluting phases of 20th century development pattern?

The position paper is structured as follows:

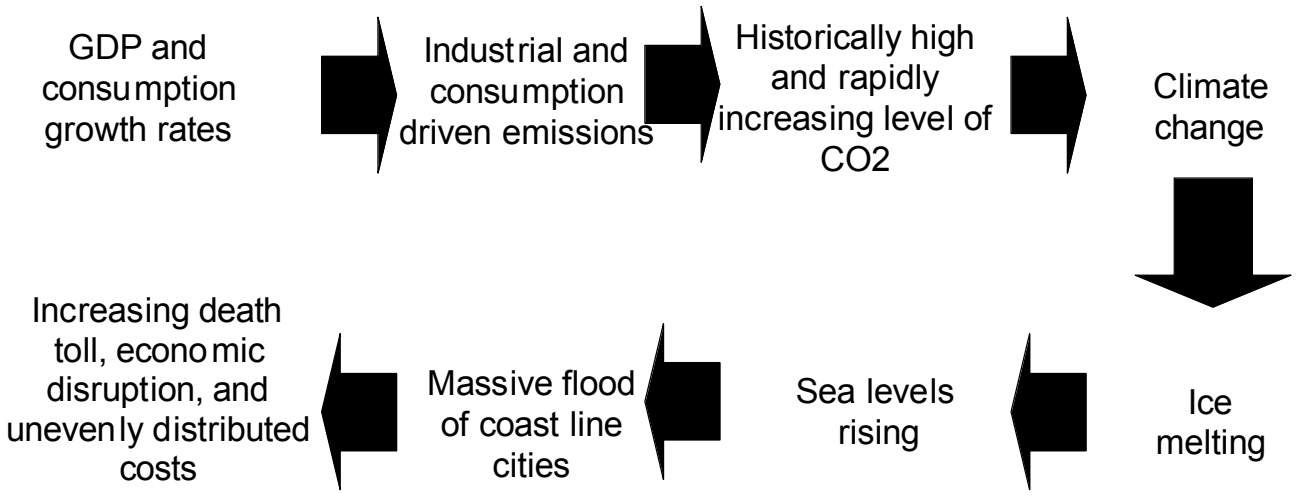
1. we will attempt to quickly summarize the climate change and energy question and separate the known facts from the prevailing fears;
2. in the following four points we will articulate the challenges imposed on democracy by the issue of climate change;
3. in the last one we will attempt some preliminary ideas that will be developed in the follow up of the event

REALITY AND MITH IN THE CLIMATE CHANGE/ ENERGY DEBATE

The popularity of movies and books describing various types of apocalypses (either on worldwide scale as in the "Deep Impact" or limited to the northern hemisphere as in "The day after tomorrow") indicate beyond any doubts that movie goers and probably more generally western consumers of media seem to like the idea of the destruction of their own civilization.
Could this be the reason for the growing attention that the climate change issue is getting? How much hype is being created and how much real cause for concern should we have when it comes to the latest version of the doomsday scenario?

The hypothesis that is normally associated to climate change proposition rests on a number of causes and effects that can be depicted in the following way.

The climate change causal chain



The chain reaction triggered by industrial activity and consumption seems to start with economic growth and overpopulation and to finish with a big toll on human lives and important decrease in gross domestic product. The process seems to almost work as a self re-equilibrating tragic mechanism meant to correct an excess of economic growth.

In fact, the power of each of the above described causalities is far from certain. For instance,

- emissions are not only function of the quantity of GDP and of consumption; variables like the internal composition of the GDP (the more the share of industry against services the bigger the impact) and the quality of consumption (European cars have, for instance, been

progressively equipped by less polluting engines that have made possible much lower emission produced for the same kilometres travelled) can significantly change the impact;
- concentration of CO2 in the atmosphere does not necessarily induce climate change and the correlation between CO2 concentration and climate change has not been clearly established yet
- the extent of the damage produced by sea level increase depends also on various factors such as the weaknesses of the infrastructure, or a country's technological and logistical capacity to take action in the face of natural disasters.

In any case, as it is shown by the number of scientists endorsing the latest IPCC report, the consensus is that at least some of the effects of the climate change process are already visible:

1. in 2004 the CO2 concentration in the atmosphere (374 ppm) was much higher than the maximum value (300) observed over the last 650,000 years;
2. some of the hottest years in history and 11 of the latest twelve years are amongst the twelve hottest years recorded since temperature has started to be systematically measured and recorded;
3. the total area covered by the arctic ice has shrunk since 1978 by 7.4% per decade which is equivalent to the melting per year of an area big as France;
4. the ocean sea level that used to increase between the 1961 and 2003 of 1.8 mm has increased almost twice as much (3.1 mm) if we limit the observation to the 1993 – 2003 period.

The evidence is still scattered. And more importantly there is still no computer capable of reproducing the functioning of climate and understanding what happens if we do change the value of variable (like the presence of greenhouses gases in the atmosphere). Therefore the estimations of the losses we are facing are still not clear. What is clear from an intuitive point of view is that we can no longer consider as neutral the activity (scientists call it "anthropogenic contribution") that humans have developed, with an ever accelerated pace since the industrial revolution.
We changed the geography of the planet. If an observer could travel through time, it would be clear to him that the world does not even remotely resemble the one it used to be only ten thousand years ago. We invented cities, we diverted the course of the river, we populated the sky of flying machines. Since the human industrial revolution we almost even liberated ourselves from the slavery of the hard work and we have machines producing goods for us. It is rather obvious that changing the geography of the planet must have an effect on the state of the planet itself. This is probably why humans find the climate theory so appealing: it clearly identifies the fear that we all share. The fear that some disaster may be about to happen and that we, as individuals, even rich individuals, will not be able to do anything when this happens.

This is probably why climate change is a very interesting case. Are we collectively capable to respond to collective threat?

The climate change is – as we said before – connected to a different, yet no less important area of political and popular concern.
Oil seems to be both too much and too scarce. Too much of it ended up at CO2, to the extent that we have become afraid about the atmosphere being now poisoned. At the same time, what is left of the oil reserves does not seem enough compared to our needs.

Is it really so? A few authors have been declaring that oil reserves have passed the "peak", the peak representing the point where half of the available resources have been exploited. But how much of the resources are actually left? How much of them are at our reach? In fact, the estimation of oil reserves tend to include only the reserves that are less costly to extract[2].

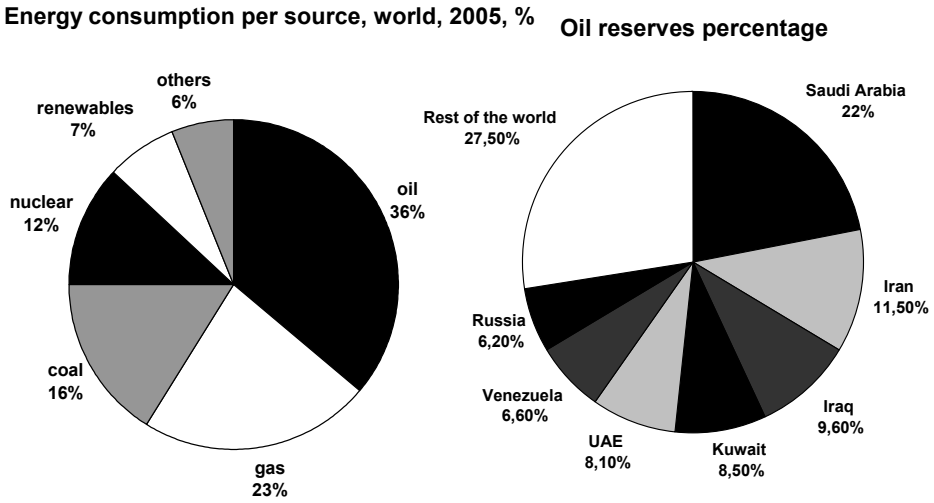
[2] Including the political/ bureaucratic/ authorization cost that in a not democratic countries may be smaller.

In fact, the problem we have now is a problem of concentration and it has got two different dimensions:

1. energy sources are not – if not minimally – differentiated and oil and gas make up for 60% of energy consumption;
2. oil and gas, in turn, tend to arrive from a very limited number of countries, of which five of them own 60% of oil reserves (and similar numbers apply for gas).

Such concentration puts a country like Saudi Arabia in the position of having to provide roughly 10% of the entire energy consumption of the world: it is a huge demand that corresponds to a very large annual cash flow and gives way to important economic and political power.
Saudi Arabia's cash flow, based on the market price of a barrel of oil, was said to amount to a 100 billion dollar in 2004, and figures for the 2005 cash flow increased by 50%.
Ten per cent of the total energy provision means, in fact, that due to the smallest political tension, an even smaller increase in oil price can produce huge a increase in money flow.

ENERGY CONCENTRATION



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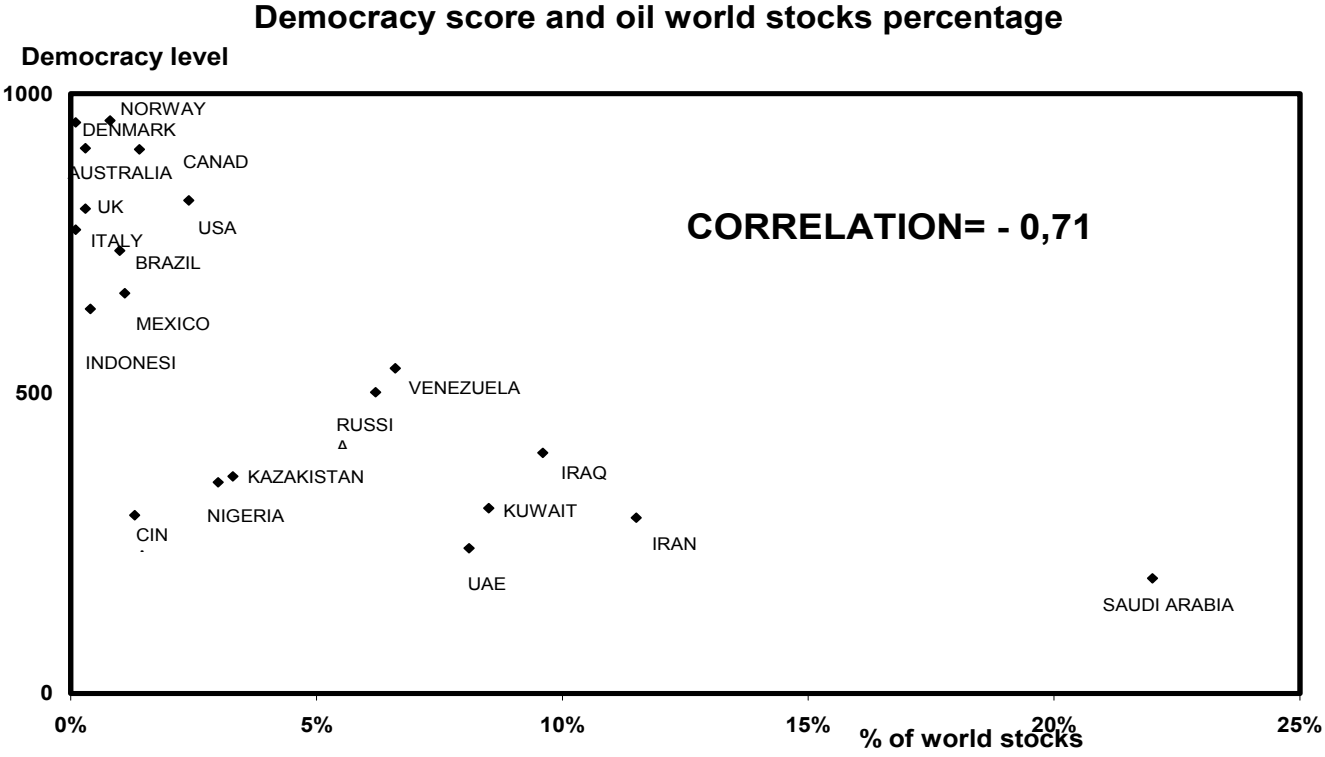
Source: Vision on BP data

We will come back to this point. In any case, it is evident that "concentration" is something that has an immediate impact on political democracy, as well as on market democracies.

DEMOCRACY IN FOSSIL ENERGY EXPORTING STATES

Why did the idea to "export democracy" fail so miserably? Was it a problem of execution (if in the concept of execution we can also include such a dramatic choice like the one to move war to some dictatorial state) or of strategy (or even of the very assumption that democracy can be exported)? Notwithstanding the enduring disaster that we have witnessed in the last three years, the question is still looming on most of analyses geo politics and oil resources.

The problem is



Vision on Economist Intelligence Unit, democracy Index

The picture is rather clear. And, in fact, two clusters appear on the map, distinguishing countries with **either a democratic regime without oil resources; or a oil producing country with a democratic regime.**
The negative correlation between the two does, in fact, appear rather strong.

Several explanations for such a trade off have been proposed and probably the most convincing (the so called theory of "rentier" state) is about the peculiar impact that oil as well as other less indispensable natural resources have on political regimes.
The most unequivocal of them considers that **governments of countries with important oil reserves** tend to have a stream of revenues guaranteed by the state's ownership of the production sites. Thus, these countries **are less dependent on taxation to finance themselves and less obliged to give away to citizens the representation normally associated with taxation**. In other words states of oil and gas gifted countries can act as "rentiers" of some natural inheritance that save them from the hassle of dealing with economic growth and the people's willingness to pay taxes, which in turn would make way for regulations and a social contract.

Such access to exploitable natural resources provide oil exporting countries with a head start in the growth race, which most statistics tend to ignore when evaluating **economic growth**[3] and absolute level of GPD per capita. Paradoxically, statistical studies tend to show **lower growth rates for countries endowed with natural resources**.
Part of the explanation of this paradox is provided by the sometimes uncomfortable situations democracies face: politicians in these imperfect regimes are bound to be concerned by the creation of economic value and its fair distribution amongst the people[4].

There are other consequences stemming from this situation. Acquiring political power in oil-laden countries is a short term cost strategy with a pratically guaranteed outcome of high revenues.
The reward of power is, in a sense, the ownership of a treasure, which also explains why **oil rich regions tend to experience much more wars among states and internal fights for the control of oil wells**.

Less democracy, less economic growth, less peace: oil (as well as other natural resources) tends therefore to act as some kind of poisoned pill for those resource rich countries. Furthermore, crucial correlations between oil resources and democracy levels, in other words, between economy and instability for most oil exporting countries are unfortunately overlooked.
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If it is true that oil makes democracy less likely in energy rich countries, it could also be that concentration isn't, unlike what most people make of it, an entirely natural outcome.
One may in fact argue that it has been worthwhile for the interests of so called industrial societies that oil was concentrated in few countries and that, thus, its devastating – not from only an environmental point of view – effects were limited to some geographic area. It practically seems like a geological coincidence that oil reserves are concentrated in countries with the least modern regimes. From feudal-like absolute monarchies to theocracies rejecting secularization processes or countries with parochialism fueled identities, these countries represents a striking paradox in our modern world. The economical, political and cultural consequences their presence and positions entail have become unavoidable to whomever wants to define the world we live in.

But there is something more. If oil seems to make democracy more difficult to achieve, one may even ask what does less democracy mean for the energy markets. In other words, it is about asking: what would happen tomorrow to oil/ gas price and production if Saudi Arabia, Iran, Kuwait, Iraq, and Russia would suddenly become democracies like Norway? What would happen to the level and the results of innovation and research of alternative energy sources? What would happen to the picture that we currently have of oil and gas reserves distribution? And would there be effects in the wider field of production and consumption "models"?
Obviously it is a theoretical question, because Saudi Arabia cannot become Norway. And probably Saudi Arabian, as well as Iranian citizens would not even agree. And yet the question is an important one, because we may find out that somehow the climate change and energy problem starts where democracy failed.

In fact, **less democratic practices seem to give way to more cartel style behaviours in fossil energy exporting countries**.
At similar level of oil reserves endowment, if we confront a group of relatively more democratic countries and a group of less democratic states, there is a higher likelihood that less democratic countries belong to the oil countries cartel (OPEC).
This is most probably due to the fact that if democracies as we said before are "forced" to take care of their citizens' welfare, they tend to be associated with a much more articulated economy structure than the one of oil dependant countries (in fact, oil industries as such tend to be very

[3] A recent exception to this are the ex soviet union, central Asia countries. The middle east instead continues to be substantially alien to the great leap forward that Asia is experiencing.
[4] See Vision paper on "the democracy of the future" (on www.visionwebsite.eu) on the evidence and reasons for democracy's historical competitive advantages as well as their recent deterioration.

capital intensive and to employ few people; thus the only way for monarchs and dictators to give back benefits to their subjects is through public administration salaries and various form of subsidies). A more articulated economy tends to have more industries that may be hurt by oil driven, aggressive state policies and such behaviour would be, in fact, punished in democratic countries. Logic and numbers do seem then to reveal that not only exporting energy makes dictatorship easier, but dictatorship in those countries tend, also, to damage consumers in importing countries.

The thesis we would then like to put forward and develop is that victims of the present state of politics in importing countries are both citizens from oil importing and exporting countries.
If this is true, the "democracy promoting" concept becomes a proposition that can be justified on moral grounds. Furthermore, it also becomes a goal that may correspond to the interest of many and may yield the necessary political consensus for such a difficult achievement.

DEMOCRACY IN FOSSIL ENERGY IMPORTING COUNTRIES

The neo-conservative idea of "exporting democracy" has been strongly criticized for several reasons: it does not appear to be working in the country that wishes to export it; nor does it appear to be working in place where it has already been exported. Nor is it conceivable that one could export democracy when one blatantly betrays its basic principles in the home country.
As previous Vision researches show[5], the advantages of democracy that we described (in terms of more economic growth, better distribution of it, more peace/ security) in the previous chapter have recently become more of a hindrance. Some might even argue that have become comparative disadvantages.
The present position paper argues that this outcome provides insight into parliamentary democracies. It is becoming increasingly difficult for these political structures to incorporate "individual preferences into collective choices", even though citizens continue to contribute according to the "no taxation without representation" principle.

This argument is best illustrated by the impact oil industry has on democracy, as the phenomenon can be explained by:

1. the **very large energy related companies** that are capable of influencing political decisions through a small yet very influencial circle of people (directors or shareholders of these multinationals);
2. the disproportionatly **small power that hundreds of millions of consumers hold**, compared to their rights (most of them are citizens), and their contribution (most of them are the younger or future generations). **Traditional means of political participations** (political parties, trade unions) **do no longer seem to be able to represent their interests**.

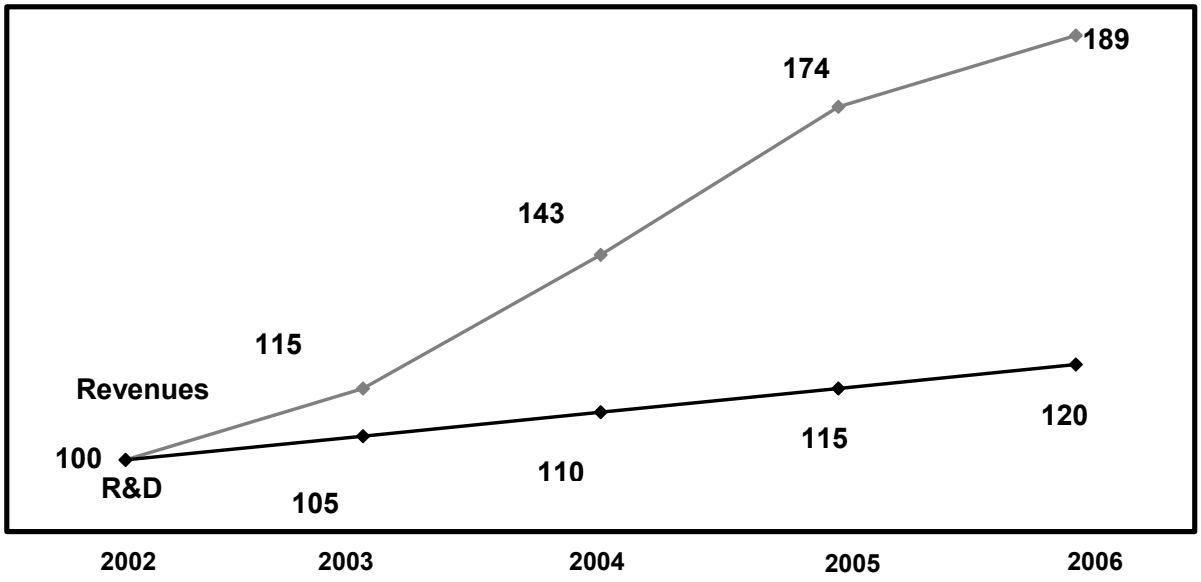
The former few appear to be much more influential than the latter. This paradox shows the formidable importance of knowing how to organize the lobbying of your interests. Energy companies have a long, established tradition in doing so. Unfortunately, citizens and consumer attempts at lobbying are still far from becoming as influential as corporate lobbying actions.

The biggest oil companies are currently the biggest companies in absolute terms. They are bigger than the main corporation of any other industry, or "new economy" champions. Even multinational pharmaceutical companies, and automotive companies, who have been dominating the industrial civilization for decades, cannot compete with oil companies.
Corporations like Shell and BP are directly responsible for climate change and energy exhaustion. Their reaction in terms of marketing is one of the greatest advertising story of the last five to six years. One of these firms has even changed its name (from British Petroleum to Beyond

[5] See for instance… specific link to Vision paper www.visionwebsite.eu

Petroleum), in order to demonstrate its willingness to convert its activities to urgently replacing fossil energy.
But does this communication effort reflect reality?
The following table shows that the variation of oil companies' R&D investments over the last few years is clearly not following the increase in total revenues.

Total revenues and R&D investments variation comparison
(Exxon Mobil, TOTAL, Royal Dutch Shell, BP, Chevron)
R&D: 100= 1400 m£; Revenues: 100= 734 billion $



Vision on data from Uk Department of Trade and Industry and annual reports

Furthermore, a large part of the R&D does go into finding and experimenting new and expensive drilling technologies, which means that a rather small amount of investments are truly dedicated to going "beyond petroleum". Yet the investment allocation decisions of these firms are entirely legitimate. They are private concerns and even if they were public this would not by itself solve the problem[6].
It seems that **big oil companies are not investing, as much as they could, into R&D.**
But if this is the case, one should also admit that this is a perfectly legitimate, even economically rational behavior. If one studies corporate strategy, one would position oil related business into the cash cow quadrant of a BCG matrix and such incoming revenue requires yielding as much money as possible in a short span time.
It would be naive to think that huge conglomerates, with huge fixed costs to be recovered may like disruptive technologies that could theoretically replace oil and gas. Energy switching strategies may force them to radically change production lines and force them to compete with new entrants and different business models.

[6] In fact, as Vision pointed out in its liberalization paper on rebooting the Lisbon Strategy public ownership can – within current democratic arrangements – make things worse. The chances that public firms may respond to public interests - that traditional means of democracy seem not able to represent any more - may stay the same. With the additional bad consequence that managers may not even respond to shareholders any more, but to politicians and to their personal or parties' short term interests: with further deterioration of the fairness of the democratic game.

While the oil industry is acting according to economic rationale, the real problem lies in understanding if democracy is also performing as expected. Do democratic regimes still represent the people, are they still defending equal importance and dignity for all?
The answer is: probably not. According to some, the very recent political history of the most powerful country of the world demonstrates such failure.

The problem is not so much the power of lobbies as democracies have always up until now been able to put up with such activities. The problem resides rather in trying to represent and defend diffuse and largely shared interests. These interests range from consumer interests in avoiding disruption and lowering prices, to citizen interests such as improving environment and health, to the not energy related companies to affordable energy.

THE QUESTION OF GLOBAL GOVERNANCE

Was Kyoto enough? Are Kyoto achievements worth the lengthy negotiations that they required?
If we compare Kyoto with the magnitude of the climate change challenge, we can not avoid the following conclusion: not only was it too little, too late, but probably also too small and too weak.

Kyoto's geographical reach appears to be too small as the agreement does not apply to the United States (that like Australia did not ratify) as well to China (that like India is not a so called "annex 1"/ developed countries and therefore is exempt from reduction. This considerably affects the agreement's goals, as the United States alone is responsible for 40% of the emissions cumulatively produced since World War Two; and China is expected to generate 60% of the predicted emissions for the next 25 years. We are, in other words, talking about a treaty that **does not include practically more than two thirds of the problem and that apply to slightly more than ten per cent of the world population.**

But even if we only consider the countries that ratified the protocol, the improvements required by the agreement are too little – as the European Union has acknowledged - even for reducing the emissions of the (small) part of the world to which the treaty applies.

It is also too weak: in spite of its limited geographical span, the reinforcement mechanisms are not clear and punishing agreement breaches remains theoretical.

But more importantly it is the mechanism itself through which agreement like Kyoto are reached to be too slow and the result, if any, to arrive too late: it may seem strange but the first UN sponsored "Intergovernmental Panel on Climate Change" convened in Montreal in 1988; the Kyoto Protocol was open for signatures in 1997; countries like Italy completed the ratification making the treaty effective five years later. Fifteen years of studies and negotiation, fifteen years during which we have recorded twelve of the thirteen hottest years of the last two centuries and have accumulated more than half of the emissions that mankind has produced in half a million years.

If climate change and energy replacement is a worldwide emergency, Kyoto is inadequate.

THE NEED FOR A GLOBAL SOCIAL CONTRACT

Local communities fighting their national politicians on projects to develop sites to collect waste; fast developing countries disputing the strategies put forward by developed countries for sharing the burden to reverse the climate change process; Muslim fundamentalists declaring wars to the west and their allies on the exploitation of oil wells: **The questions connected to how to share**

the revenues of energy and the costs produced by their use increasingly seem like a Pandora Box.
This is not as surprise considering that historically the very rise and fall of empires has always been based on the solutions to the energy problem that those empires succeeded in providing.
The difference is that today globalization of media and information communication technologies make the process faster. By disseminating information, people are able to respond faster, and are able to understand the differences, and sometimes the contradictory conflicts that explode at all levels.
Moreover, there is a growing feeling of profound injustice on how costs and benefits of energy production and consumption are shared. This is magnified by the acknowledgment that the resources we are sharing are natural resources and that as such, they should be more fairly distributed.

Injustice is not only a fact, a failure that is physiologic to markets and especially to globalised markets. It is also a failure that states seem incapable of tackling. Achieving peace is further challenged by the absence of a shared legal system that could provide a shelter against this injustice.

Kyoto is undoubtedly the best possible deal that current multilateral agreement can achieve.
Yet the current emission trading and compensation scenarios set up by the Kyoto Agreement **cannot effectively compensate the real damage** done by excess emissions..

The compensation provided by Kyoto through payment from country to country hardly qualify as a compensation.
Payments could in fact theoretically be based on at least four different typologies of parameters:

1. the failure to reach some percentage of reduction of the emissions that each signing party is supposed to achieve against a previous period:
2. the absolute levels of future emissions;
3. the past absolute cumulative quantity of emissions insofar as they are going to produce damages to other countries in the future;
4. the past absolute cumulative quantity of emissions insofar as they have produced damage to other countries in the past.

A full compensating mechanism should sum up liabilities for each polluting party based on the second, third and fourth type, but a system that imposes “payment” for past, though indefinitely detrimental emissions, is unrealistic and probably illegal.
Yet compensation mechanism should at least compel countries to contribute for absolute levels of pollution created after the treaty was signed, and not only for percentage changes. Otherwise, technically and practically speaking, there is simply no real compensation, but rather a display of incentives instead of an international trade of pollution rights.

Furthermore, most poor countries will end up on the receiving side of the payments, whereas in fact they should have been able to collaborate with a financial institution in charge of cofunding environment related projects.
Yet this is the logic of Kyoto.
A “logic” reasonably resisted by India and China who see in considering only future emissions and percentage change legally unjustifiable strategies that suit best developed countries. This kind of scenario can lead to the idea that Kyoto could become a protectionist measure justified by environmental protection.

But this is the logic of Kyoto style agreement that are the only ones possible given the institutional context, and yet do not even attempt compensation, that technically speaking acknowledge injustice and does accept that it is something we should live with.
It is the best that diplomacies, international bureaucracies, and multilateralism can produce. And yet it is evidently not enough. It does not correct injustice, whereas injustice make even slimmer the chances of having a worldwide community feeling to share the same problems and to bear fairly the responsibilities of them. Of having at least some forms of global demos without which the

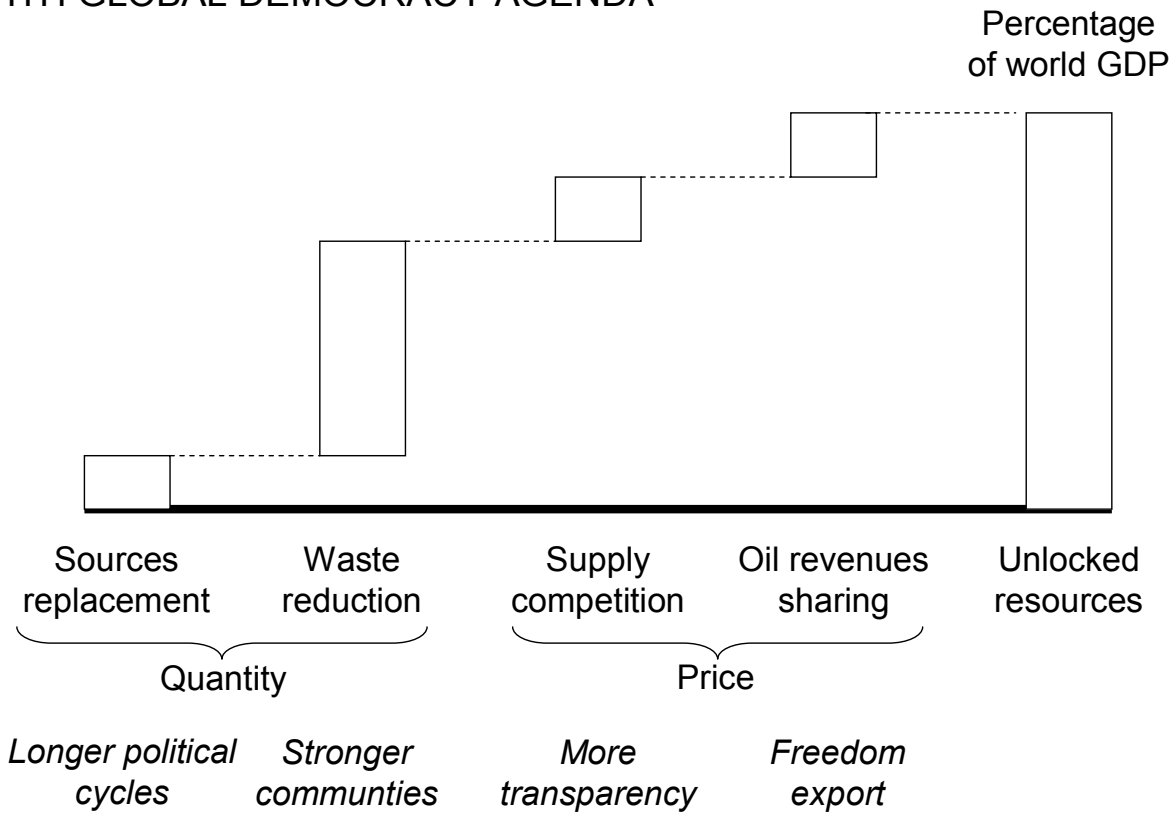
dream of a global democracy is doomed to continue to be a dream and, as in a vicious circle, weak international organizations risk to continue to be without any viable alternative.

THE OPPORTUNITY FOR EUROPE AND THE ERA OF THE NET CITIZENS

It is then a question of democracy. The graph highlights the economic and technological levers that we can associate to each progresses in the democracy agenda we have exposed so far.

DEVELOP A NOT FOSSIL BASED ECONOMY

THE FOUR LEVERS OF OIL ECONOMICS AND THE CONNECTIONS WITH GLOBAL DEMOCRACY AGENDA



The transition to an economy not based on fossil fuels does in fact require: replacement of traditional sources of energy with alternative ones, reduction of waste and inefficiency, competition amongst energy related corporations as well as among oil exporting countries.
Cartels between countries and companies, inefficiencies and resistance to remove them, obstacles to innovation both in terms of lack of investments into research and diseconomies of scale for breakthrough technologies to happen do make the transition much slower.

The framework that Vision is developing envisages as indispensable:

1. institutional mechanisms capable of orientating politicians' objectives towards the long run and the interest of future generations (our current bulimic oil consumption has been equated by some to a form of "taxation without representation" on people still unborn),
2. new energy related social contracts amongst people so that they adopt the altruistic and cooperative behaviour needed to reduce inefficiencies at individual levels,

3. greater transparency and stronger institutions, better equipped to resist national and corporate lobbying and to peruse competition,
4. instruments to promote a political base that seriously peruses democracy in oil exporting countries as necessary for the magnitude of a transformation that is, in fact, not only technological or productive, but about the very relationship between people and institutions.

Linking democracy on global scale and energy may sum up to an over complication of an already complicated matter.
Kyoto and the other UN led instruments may be acknowledged as inadequate and yet the only ones we have to attempt a solution.
But is it realistic to continue to govern modernity (and problems like climate change seem to be the dark side of modernity) with political instruments drafted for a world that does not exist any more?
One argument that has been advanced is that insufficient efforts like Kyoto may even have the counterproductive effect to occupy the already limited space for political initiatives and to make less easy for alternative solutions to become mainstream.

On questions like climate change we risk to being left with the capability to tell the scale of the disaster we are facing, and yet not having any possibility to attempt some serious solution.
Are we then doomed to wait for some Third World War, for some worldwide disaster of the mankind fighting itself, its past abuses and its future incapability to take decisions?

We probably should find creative ways to reduce the complexity to find new possibilities.
There are, in fact, a number of options and they belong to two typologies of approaches.

The first is about to use the European Union model as the only super national experiment that has been attempted on a macro region scale. EU does in fact have an advantage – as opposed to both UN led initiatives and Nation States – both in terms of delivery (its decisions are automatically applied to Member States) - and representation of citizens (that can, in theory, make their voice be heard through the parliament).
The possibility could be to disentangle the problem of having almost 200 countries to agree into one where you have seven – eight macro regions that will be meant to agree policies. The reduction in the number of actors or, more precisely, the break down of the process into two bits (one at macro regional and the one at world wide level), would make actors more responsible against public opinions.

The other possibility is leverage on public opinions that seem to be the driving force making climate change and environment friendly strategies so popular. People could voluntarily join low or zero emission groups that would be given some financial (for instance discount) and even more importantly recognition driven rewards.
Peers evaluation and control would safe guard the respect of the self accepted rules.
Citizens would also become the platform for energy related single or few issues campaign.

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The energy question does, in this sense, become both a challenge to the traditional means of democracy and the opportunity to experiment its renovation.

This is perhaps a question that Europe is in fact well placed to tackle, when one considers both its potential to influence markets and political systems crucial to such an arrangement tempered by its serf-like relationship with oil.