



# **Questioning assumptions – exploring alternative business futures**

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**Ged Davis** is Vice President, Global Business Environment in Shell International Limited and head of Shell's Scenarios Team. He has been a scenario practitioner for over 20 years, engaged in the building and use of scenarios at the country, industry and global level. From 1997 to 2000 he was facilitator and lead author of the Intergovernmental Panel on Climate Change's Emissions scenarios 2000-2100 and in 1996/97 was Director of the World Business Council for Sustainable Development's Global Scenarios 2000 - 2050.

Prior positions in Shell International include Head, Scenario Processes and Applications and Head, Socio-Politics and Technology, with special responsibility for regional scenarios. From November 1990 to the middle of September 1994 he was Head of Group Investor Relations for the Royal Dutch/Shell Group. From 1986 to 1990 he was Head of Energy in Group Planning responsible for world-wide energy analysis, including global energy scenarios.

He has postgraduate degrees in economics/engineering from the London School of Economics and Stanford University, California and graduated in Mining Engineering at Imperial College, London.

Shell companies use scenarios to help them think about the future – challenging our assumptions, developing strategies, testing plans. Scenarios are not projections, predictions or preferences but coherent and credible alternative stories about the future, focusing on issues important for business decisions today. The latest Shell global scenarios – looking out to 2020 – explore the social consequences of globalisation, liberalisation and advancing technology. They contrast a world focused on efficiency and individual choice – driven by an interconnected global elite influenced by US values and ideas – with one shaped by the interplay of our differences, where countries find their own development paths to suit their particular circumstances. In one, business success depends on focusing on the value-creating ‘core’ of the enterprise. The need to find and sustain elusive competitive advantage drives a relentless search for efficiency and innovation. In the other, multinational companies must be ‘local’ in many different environments. Access depends on relationships and reputation. Developing relationships and building trust are vital in both scenarios – with staff, customers, partners, suppliers, society and, of course, shareholders.

Albert Einstein was quoted as saying: “I never think of the future. It comes soon enough.”

Unfortunately business people – without his particular cosmic perspective – can’t be so unconcerned. We need to make choices for the future. Choices, which will affect our employees, our customers, our communities, our shareholders. Choices such as where to invest, what skills to develop, what innovation to pursue, what new choices to offer our customers?

### Alternative futures

We need to do this for a future that is essentially unknowable – but not unthinkable. We all think about our future. What is important is to do so in a way that is most productive.

Some elements of the future are already pre-determined – the consequences of things that have already taken place. Pierre Wack – one of the founders of Shell scenario planning in the early 1970s – wrote about the impact of monsoon rain on the upper Ganges valley in India. The impact of the water downstream in Calcutta can be forecast days before it happens.

But these predetermined elements are surrounded by countless uncertainties. We need to understand not just what we can forecast but also the critical future uncertainties that must be taken into

account in our present decision-making.

We have used scenarios for years in Shell for thinking about our future. The first real use of scenarios in 1972 was notable for suggesting that disruptions to oil supply could result in a sharp rise in prices – contrary to prevailing expectations in a period of continuing expansion and a long history of stable prices. A year later it was more than a scenario – the oil shocks were the most significant discontinuity our industry has faced.

That is old history for most people. So let me give a more recent example of why we use scenarios.

Our *Sustainable World* scenario in 1989 explored possible ecological limits to growth with special reference to climate change. This certainly wasn’t the first time environmental factors had been explored. Concerns about pollution were discussed in those original 1972 scenarios. But the scenario has been decisive in informing our strategies about a continuing and fundamental challenge.

What are scenarios?

For a start they are not projections, predictions or preferences. Rather they are coherent and credible alternative stories about the future, incorporating a spectrum of ideas and focusing on issues that are important for our business decisions today.

They are designed to help us challenge our assumptions, develop our

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strategies, and test our plans. They provide a common language to help us explore future possibilities, with others as well as among ourselves.

The process of producing and using them is more important than the scenarios themselves.

They are about asking questions and putting new considerations on the agenda, rather than providing answers.

The end point of the scenarios is always seductive, particularly for work such as our recent long-term energy scenarios, looking out 50 years. Taking the long view is very important, particularly in an industry such as ours. But scenarios are designed to help us make decisions and take action today.

They are about setting course on a voyage – knowing that conditions will change, new opportunities will emerge, and knowledge will develop – rather than making landfall at some distant destination.

### End of history?

A decade ago at the end of the Cold War, Francis Fukuyama's much quoted – and misquoted – book *The End of History and the Last Man* explored whether liberal democracy might be the ultimate form of human society. He wrote about the “increasing homogenisation of all human societies, regardless of their historical origins or cultural inheritances” with countries linked “through global markets and the spread of a universal consumer culture.”

The vision for the 1990s was of a world driven by powerful forces for change and integration – globalisation, liberalisation, and accelerating technological advance. (*figure 1*) Shell three-yearly global scenarios reflected this.

In 1992 the question was whether those forces would be embraced – as in the *New Frontiers* scenario – or resisted – as in *Barricades*. Two important themes emerged. The necessity of being able to learn and adapt in open markets. And that companies would be expected to assume wider responsibilities to society as they achieved increasing market freedom.

By 1995 the question was not

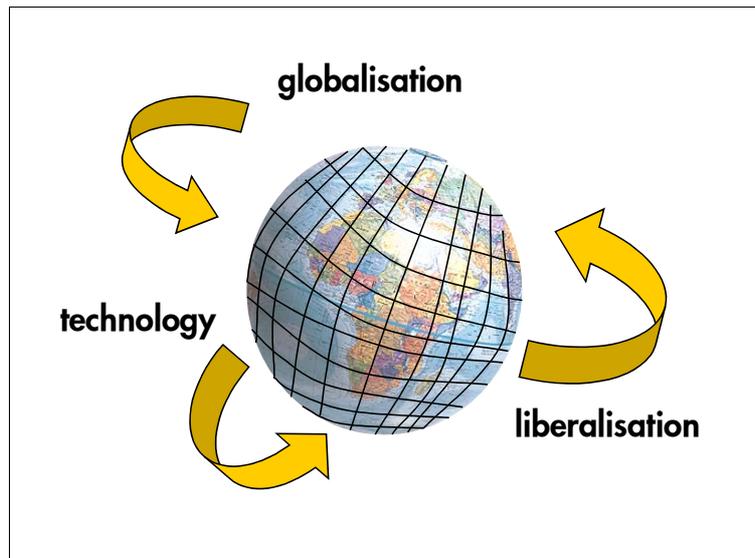


Figure 1: Powerful global forces

whether these forces would be embraced, but which way of doing so would be most successful. Would it be US style individualism and hyper-competition – as in *Just Do It!* – or the government led cohesion practiced in parts of Europe and Asia – as in *Da Wo*.

By 1998 the focus was on the institutions driving this new world. *The New Game* stressed the development of international institutions and rules for the global economy. *People Power* explored the flowering of diversity, institutional decay and greater volatility in an increasingly open and connected world.

### Reactions matter

Our latest global scenarios – completed in mid 2001 and looking out to 2020 – explore the social consequences of globalisation, liberalisation and advancing technology. These forces seem bound to remain powerful. But how will they shape – and be shaped by – the reactions of people, with their diverse perspectives and motivations?

Soon after we had finished them the shocking events of September 11 illustrated both the reality of global integration and the reaction it can provoke.

The attacks were perpetrated by a multinational terrorist organisation led by technically educated people able to harness modern systems. They attacked a symbol of US economic power from a deep-rooted – and historically

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expressed – cultural and religious opposition to Western dominance. This opposition clearly strikes a chord with many other people, of their faith and beyond.

It must be seen in the context of much wider reaction against globalisation, market liberalisation and new technologies. Thousands of people have been mobilised to protest against globalisation. Books on the subject have topped the bestseller lists.

The World Economic Forum ‘Davos’ meeting – held this year in New York – has been mythologised as the high spot of the annual globalisation calendar. Not only does it attract protest, but a competing World Social Forum in the Brazilian city of Porto Alegre provides an alternative venue for decision makers as well as activists.

Indeed, an article by Naomi Klein on this Forum – in the British *Guardian* newspaper – captures how modern communications drives globalisation. She described news of the New York protests being relayed from a cellphone in the crowd to be broadcast by a micro radio station at the camp in Porto Alegre. When the New York server went down, it was immediately replaced by one in Italy.

One of the main perceptions driving protest is that globalisation is creating a more unequal world. These are complex arguments. Some measures of international income inequality do suggest a growing gap.

But a recent major study *Globalisation, Growth and Poverty* by the World Bank has concluded that: ‘Between countries, globalisation is now mostly reducing inequality – within countries, globalisation has not, on average, affected inequality, although behind the average there is much variation.’ Inequality has tended to increase in China and Latin America.

However, the number of people in absolute poverty has fallen over the past two decades. And wider indicators such as the UNDP’s Human Development Indicator show a narrowing gap between developing and developed countries.

But perceptions matter – and none of

us are surely content with a world of plenty in which a fifth of our fellow human beings still live on less than \$1 a day.

Protestors increasingly emphasise the problems of ‘corporate-driven globalisation’. Multinational corporations are targeted partly because they are perceived as increasingly powerful – influencing the political process for their own ends – and partly because they are believed to have the ability to deliver solutions.

What is important for all business people is that people seem to trust protestors more than companies. An opinion survey in G20 countries showed that 65% of respondents trusted NGOs ‘to operate in the best interests of society’ while only 40% trusted global companies – who ranked just below national governments.

This goes together with increasing concerns about the impact of market liberalisation – seen graphically last week in the decision of the US administration to protect the US steel industry.

These concerns have been exacerbated by the impact of capital flows and financial shocks on emerging economies – in Asia in 1998 and more recently in Argentina. And failures of deregulation and privatisation in New Zealand, California and Britain.

The role of Enron in liberalised energy markets and its subsequent collapse has done nothing to diminish concerns.

Of course, there is liberalisation and liberalisation. Contrast the paths of Russia and China. When Mikhail Gorbachev and Deng Xiaoping met in Beijing in 1989 Russia’s GDP was reckoned to be more than twice the size of China’s – a decade later it was half.

Of course, the Russian economy is now growing strongly. And we should always remember Zhou Enlai’s advice on taking the long view when he said that it was too soon to know the impact of the French Revolution.

Finally, there has also been a loss of faith in science and technology – seen in resistance to such things as GM crops and cloning. The collapse of the high-tech bubble has also made some people

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**Figure 2:** Which connections and values will be most influential?

question the power of modern communications technology.

**Seeing connections**

Our scenarios – called *People and Connections* – focus on the patterns of connection which drive people’s responses and give them power.

Perhaps the most significant change in human society is the rapidly expanding possibilities for human interconnectedness. Bill Clinton recently remarked that when he became President in 1993 there were just 50 sites on the world wide web compared with 350 million when he left office eight years later. Far from receding, the impact of this communications revolution is only starting – not least on businesses.

The scenarios focus on the interplay of the different ways people connect through four interlinked ‘geographies of connection’:

- the diverse circles of association, influence and loyalty – local as well as increasingly global – in which people find identity,
- the changing role of nations, which have been the most important shapers of the world but which some argue are now becoming less important,
- the relationship between the ‘heartlands’ of societies – with their attachment to cultural roots and traditional values – and their outward-looking ‘edges’, and
- our shared interdependence on



**Figure 3:** *Business Class* scenario

the earth’s systems.

Which connections and values will be most influential in shaping the regulations behind liberalisation, the restraints on technology, and the rules of globalisation? (*figure 2*)

I only have time to give you a flavour of these two scenarios which are very rich, particularly in their internal versions – including much more detailed analysis on different regions and issues affecting our businesses. Public summaries are available and can be found on our website.

**Freedom drives**

The first scenario, *Business Class*, describes a world that operates like a business, focusing on efficiency and individual freedom of choice. (*figure 3*)

It is shaped by an expanding elite – a global meritocracy in business, government, entertainment, international NGOs – which is interconnected, mobile and at home almost everywhere. (*figure 4 over*)

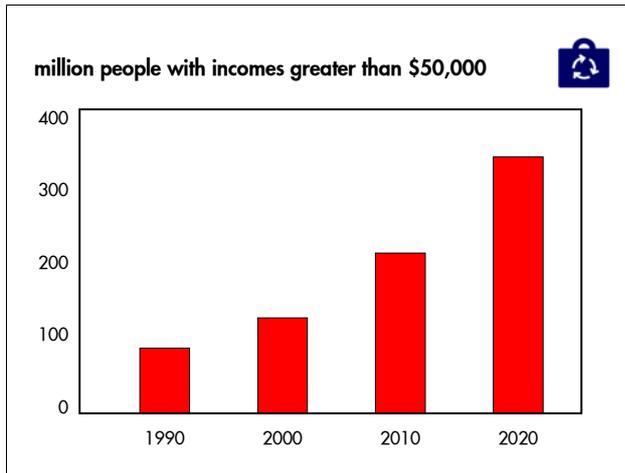
As the American journalist and writer, Robert Kaplan, has pointed out: ‘A new global community is taking root, but is doing so at the top’. However, it would be wrong to see integration being driven purely by a wealthy and established elite. Many other people are excited by the expanding opportunities – for connection, travel, learning, employment, and entry into the elite. It is the American dream.

The elite shares a common view on the economic policies that are best for

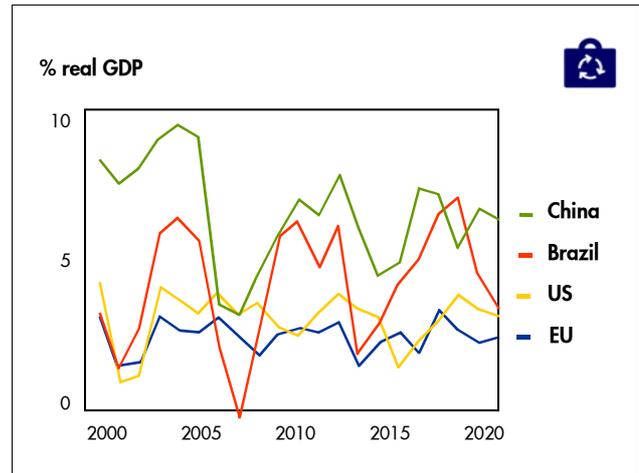
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***“Perhaps the most significant change in human society is the rapidly expanding possibilities for human interconnectedness.”***

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**Figure 4: Business Class – the growth of the global elite**



**Figure 5: Business Class – volatile growth**

the world, and for all countries. The ‘Washington Consensus’ ranges from openness to foreign investment and deregulation, to privatisation and secure property rights. Global institutions such as the World Bank, the IMF, and the WTO follow this agenda.

And this prescription brings wide-spread benefits. People accept growing income inequality as long as they see opportunities to improve their lives.

Power diffuses from states to other institutions – markets, the media, NGOs. Business deals increasingly require clearance not just by central governments but by diverse authorities – local authorities and communities, international institutions and NGOs.

Integration brings volatility – an economic landscape of sharp peaks and valleys, prone to speculation, bubbles and herd-like capital flows. Weaker and less adaptable economies suffer in this increasingly open global economic system. (figure 5)

Focusing briefly on Europe, the EU expands rapidly to over 24 states in this scenario – but at the expense of cohesion. Integration is increasingly variable. Large and powerful cities are a focus for development and there is an increasing urban-rural divide. People are concerned for their individual quality of life.

States cede power to regions and cities. Decentralisation allows diverse economic models and cultural patterns – and stimulates innovation and experimentation. Ties within the EU weaken as

arrangements such as the Common Agricultural Policy wither. The benefits of high growth are unevenly spread.

Is *Business Class* good for business?

Well it’s certainly no picnic. Grinding competition in open, transparent, global markets – aided by new communications technology – brings commoditisation and universal benchmarking. There’s no room for mediocre performance and rents are under constant pressure.

Business success depends on the relationship between the value-creating ‘core’ and the rest – more and more of which can be, and is, outsourced. (figure 6 over)

The need to find and sustain elusive competitive advantage drives a relentless search for efficiency and innovation. Speed is essential for seizing fleeting opportunities. In increasingly volatile markets, this has to be combined with resilience and superior risk management.

Good people are one of those elusive sources of advantage. Elusive because they are aware of their market value and concerned for their life-style. And in a world of mobility they don’t easily commit themselves to one company. Many able leaders choose to lead global NGOs rather than businesses.

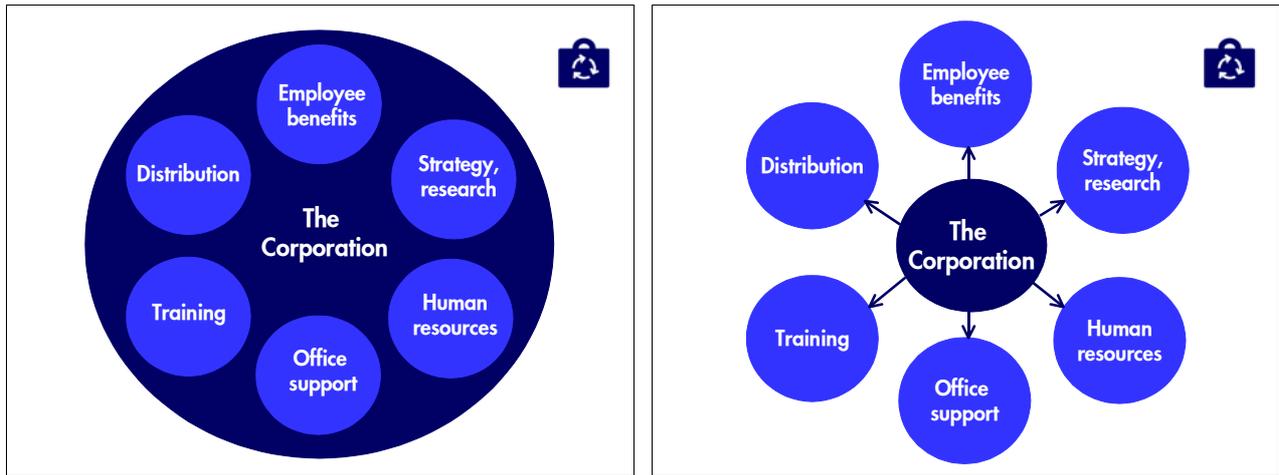
I mentioned the increasing protest action against multinational companies, and the need for wide-ranging approvals of many business deals. Engaging with the wide range of interests and competing NGOs taxes corporate resources.

Like the fictional Gulliver – tied

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**Figure 6: Business Class – the corporation**

**The core-poration 2020**

down by the tiny Lilliputians – they lose their freedom to manoeuvre in the face of more agile, smaller competitors.

The larger NGOs find themselves in a similar predicament. Engagement with companies is equally time consuming for them. And they too face continual competition – from smaller organisations of the angry fringes that reject all engagement.

**Valuing difference**

The second scenario, *Prism*, describes a world shaped not by what we have in common but by the interplay of our differences. (figure 7)

People find their values in roots, heritage and families. They are still interested in economic well being and growth – this is not a world in which people turn their back on markets or the benefits of global integration – but also in social cohesion, religious faith and national pride. Many value their quality of life

over the single-minded pursuit of their careers.

Rather than prioritising efficiency, functionality, and global homogeneity, they pursue their own versions of modernity reflecting their cultural values and practices.

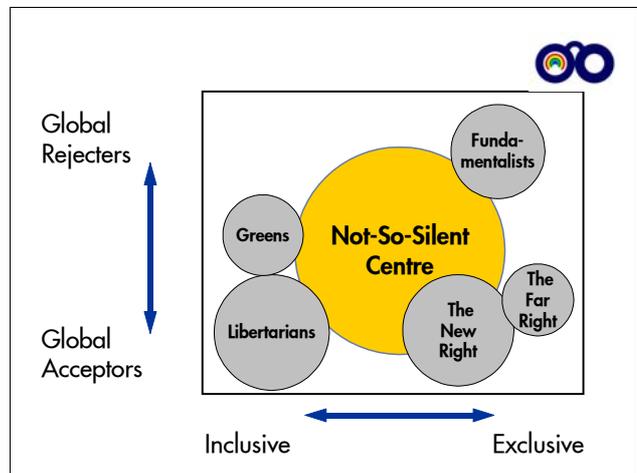
Again this is not a matter of rejecting modern technology. Indeed new communications make it easier for development to be dispersed beyond the ‘edges’. For example, China is planning to avoid excessive economic and population concentration in the major coastal cities by expanding inland ‘secondary cities’.

Emphasising the community and its cultural heritage can, of course, be both inclusive and exclusive, risking prejudice against those deemed outsiders. The heartland is neither unified nor silent. And the internet helps fringe groups gain political voice. (figure 8)

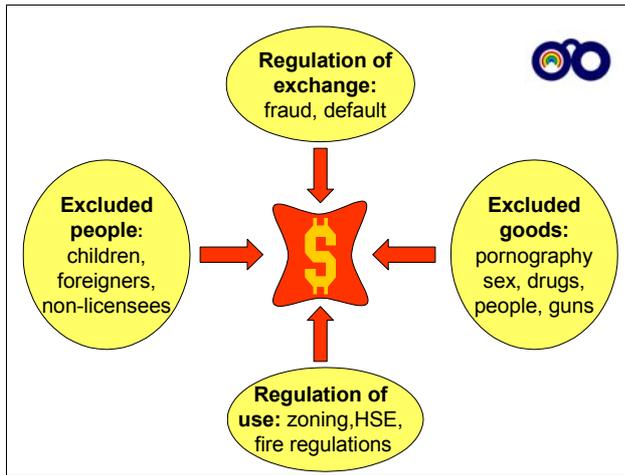
There is concern about the conse-



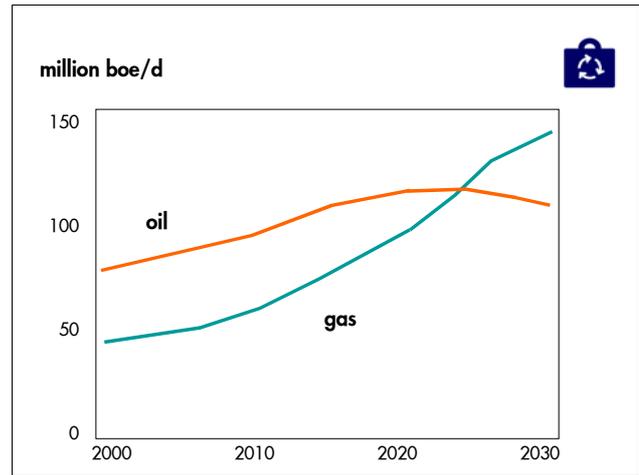
**Figure 7: Prism scenario**



**Figure 8: Prism – the new politics**



**Figure 9:** Prism – the limits of the market



**Figure 10:** Business Class – ‘The Great Game of Gas’

quences of overly liberalised markets and globalisation. Markets are, of course, social constructs—we decide who can or cannot participate, what can or cannot be traded, and set the regulations that bind the market. (figure 9)

Governments are expected to deliver universal welfare and maintain social cohesion, as well delivering economic progress.

Countries successfully pursue their own development paths that suit their particular economic, political, and social circumstances. If there was a theme song it would be ‘We did it our way’.

This may strike a chord with you – in a medium sized European country, which has pursued a distinctive path. I think Sweden is also a country where people maintain a close attachment to their local community.

Countries develop regional ties to increase their power in international markets. Agreements on trade and environmental standards are also regional rather than global.

In *Prism*, the European Union is deeply cohesive and expansion is gradual. A new vision of European culture, liberty, and democracy leads to a much stronger sense of European identity – although the EU remains a union of nations, not a supranational state. Germany wields dominant economic and political influence.

A new ‘European Way’ responds to the demands of globalisation by seeking an economic rationale for welfare. For

example, social protection is seen as important for stimulating the search for employment.

The free flows of people across internal boundaries knit members closer together. But external frontiers are tightened and there is concern over a rapid rise in immigration. In these condition there is always the possibility of the rise of populist politicians on the ‘far right’.

Turning to business, is *Prism* bad for international companies?

It is clearly a world in which being ‘local’ matters. Multinationals must compete in many different markets, each with their own values, rules and requirements. Customers favour ‘local’ suppliers.

Access depends on relationships and reputation. Choosing the right partners and recruiting and developing good local staff are vital skills.

But it is not just a matter of responding to local conditions and meeting local needs. Multinationals must add value – delivering global best practice and cutting-edge technologies. And doing so in a way that suits the local conditions.

### Energy choices

Our scenarios obviously explore in some detail the prospects for energy. Let me say something about energy choices.

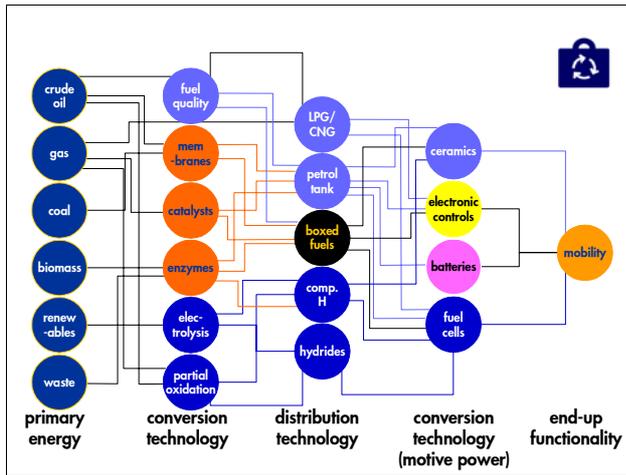
The energy story in *Business Class* is one of consumer choice in increasingly liberalised markets, with traders managing the risks.

Because of its cleanliness and effi-

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**“Multinationals must add value – delivering global best practice and cutting-edge technologies. And doing so in a way that suits the local conditions.”**

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**Figure 11: Business Class – spot the critical enabling technology**

ciency, gas is seen as the fuel of the new century. New gas reserves are developed and consumption grows rapidly, overtaking oil.

This is spurred by the success of industrial CO<sub>2</sub> trading systems which encourages governments to auction emission rights – eventually leading to the establishment of international agreements on CO<sub>2</sub> management. (figure 10)

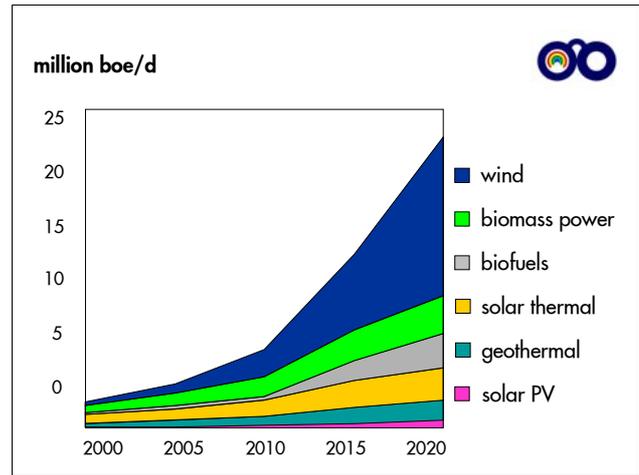
Gas provides the backbone for the distributed and individual energy services and technologies that consumers demand. The increasing availability of low-cost combined heat and power services drives the rapid growth of distributed fuel-cell power.

There are new commercial opportunities in creating the gas infrastructure – particularly major pipelines and LNG terminals – and from managing customers’ energy services.

There are also major opportunities to be had by making the right bets on the technologies that will transform energy markets. But which ones? At a time of rampant innovation it is very difficult to pick the eventual winners – just as it was when the internal combustion engine emerged a century ago. (figure 11)

The energy story in *Prism* is one of national energy policies to produce secure, stable and clean energy. Governments promote energy efficiency and the use of indigenous resources, including renewables.

There is new life for the internal



**Figure 12: Prism – renewables break through**

combustion engine, as technological advance and hybrids increase efficiency. The 60 miles per gallon gasoline-electric Toyota Prius is already selling around the world.

Renewables grow rapidly after 2010, providing 8% of primary energy by 2020. Wind is the biggest winner followed by biomass power and biofuels. However, oil remains the dominant fuel and consumption continues growing – albeit slowly. (figures 12 and 13 over)

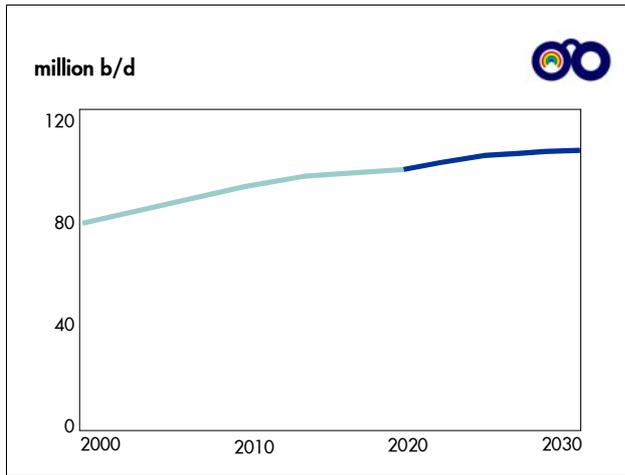
Companies that have succeeded in establishing access and partnerships at the local level have an opportunity to build energy infrastructures in the developing world. There are new business opportunities in partnerships between private enterprise and governments.

Looking further ahead, we also produced longer-term energy scenarios last year – exploring how energy systems may develop over the first half of this century.

The two scenarios contrast an evolutionary progression from coal to gas, to renewables – or possibly nuclear – with the potential for a revolutionary switch to a hydrogen economy from developments in fuel cells, advanced hydrocarbon technologies and carbon dioxide sequestration.

In both scenarios carbon dioxide emissions turn down by 2040. Atmospheric concentrations appear on track to stabilise below the 550 parts per million level often cited as safe maximum. (figure 14)

**“At a time of rampant innovation it is very difficult to pick the eventual winners – just as it was when the internal combustion engine emerged a century ago.”**



**Figure 13:** Prism – ‘The Long Oil Game’

**Looking forward**

The events of September 11 and their aftermath remind us just how unpredictable the future is for which we have to plan and prepare.

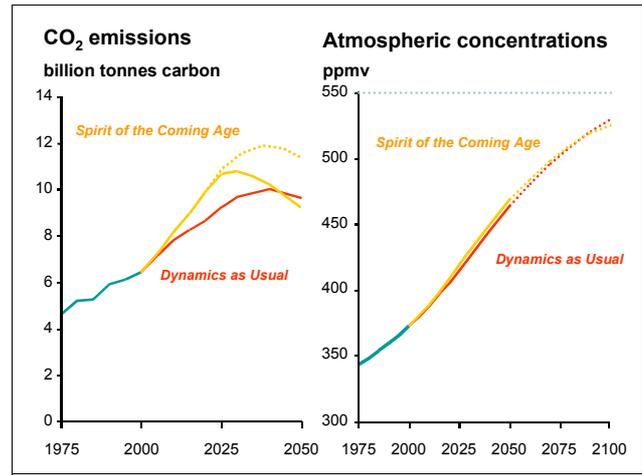
Scenarios provide a way of thinking about that future – questioning assumptions, exploring alternatives, recognising uncertainties. But they don’t avoid the need for making choices, developing plans and taking action.

As I stressed earlier, the real value of scenarios lies in the process – the shared thinking that goes into creating them and then using them to develop business strategies and test plans. They don’t offer simple, universal prescriptions.

But let me offer some concluding thoughts.

Firstly, these scenarios are about the response to continuing globalisation, market liberalisation and technological advance. These powerful forces will continue to shape our world. But they have been – and will certainly continue to be – controlled by regulations, restraints and rules.

The question is who will shape those controls and the extent to which they will be driven by our desire to reap the economic benefits of change, or by concerns about the impact of it on cultural values and social cohesion. I’m sure that



**Figure 14:** Long-term energy scenarios – carbon emissions reduction

is a tension we all recognise.

For businesses it is the ‘people’ and ‘connections’ of the title of these scenarios that will really matter. In an increasingly interconnected world, relationships matter – with staff, customers, partners, suppliers, society and, of course, shareholders.

I mentioned Francis Fukuyama and the ‘end of history’. I don’t think it is any accident that his next book was on the subject of ‘trust’. In open markets with increasing choice, being trusted is what counts.

In Shell, we think that building trust – which is always much slower than losing it – requires three things

- having clear business principles and working to ensure we meet them in all our operations,
- demonstrating that we contribute to sustainable development, taking account of social and environmental considerations as well as economic, and
- being transparent, so that people can see we do what we say.

We think that scenarios play a valuable role in this too – helping us to understand how people’s expectations may develop, the new choices our customers might value, and the challenges for which we can contribute solutions.

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*“... helping us to understand how people’s expectations may develop, the new choices our customers might value, and the challenges for which we can contribute solutions.”*

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Ged Davis



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