

Ladies and Gentlemen,

Thank you for the opportunity to bring an outsider's perspective to this automotive conference on sustainability. Sustainability is a word that currently means different things to different people, but from the perspective of UNEP, we see several signposts on this daunting, yet exciting road.

“Things can always be done better than they are being done”

- *Henry Ford (circa 1900)*

“Sustainability is the most important issue facing the automotive industry and industry in general in the 21st century”

- *William Clay Ford Jr. (Oct 5, 2000)*

These are two comments of two Ford chairmen one hundred years apart – “things can always be done better than they are being done” and “sustainability is the most important issue for industry”. They lead us to the first signpost on the road to sustainability for the automotive industry.



The Automotive Industry is at a **crossroad**. But not just the automotive industry - the entire way we produce and consume the US\$ 35 Trillion of goods and services each year must be remade.

There are many benefits from the automotive industry. This industry is linked in some way to almost one-quarter of world GNP. You, the engineers of this industry, have given EXACTLY what people wanted – undreamed levels of personal mobility. The French economist, Alfred Sauvy, calls the automobile “the four wheels of wealth”. It says it all.

Butyou have not made this happen without a tremendous cost:

In 100 years, the automobile in the US has been responsible for:

- paving an area equal to all the arable land in the states of Ohio, Indiana, and Pennsylvania, requiring maintenance costing more than \$200 million per day;
- reshaping American urbanization patterns in a way that restricts the mobility of most citizens who do not choose or are not able to own and operate a car;
- maiming or injuring 250 million people;
- combusting 8 million barrels of oil every day (450 gallons per person annually);

- making the United States increasingly dependent on foreign oil at a cost of \$60 billion a year;
- killing a million wild animals per week;
- creating noise and air pollution in all metropolitan areas, affecting sleep, concentration, and intelligence, making the air in some cities so unbreathable that children and the elderly cannot venture outside on certain days;
- causing spectacular increases in asthma, emphysema, heart disease, and bronchial infections;
- emitting one-fourth of U.S. greenhouse gases so as to threaten global climatic stability and agriculture.

Regardless of the benefits, imagine if the car didn't exist today and a group of business leaders approached governments to create an industry that would have these impacts? How successful do you think they would be?

By the way, I have chosen these US statistics only in deference to the location of this conference. The positive and negative impacts of the automobile are evident in other countries. My home city of Paris suffers from air pollution and congestion as does many US cities. I was recently in Bangkok and Manila where the situation is even worse.

So, there is no doubt the current automotive industry is NOT sustainable.

One thing is for sure: if we continue as we are – so called 'business as usual' - the present road to our future leads to ...



A dead-end.

This is literal. Globally, car accidents are the fifth- and will soon be the third-largest cause of death. They currently kill a half million people and injure 15 million more every year.

To these killing fields, we are adding more and more cars. Consider that global car registrations are growing more than twice as fast as the population —50 million cars in 1954, 350 million in 1989, 500 million in 1997 and, if present trends continue, 1 billion in 2025.

Transport now accounts for one quarter of world energy use and about one-half of oil production. Motor vehicles account for 80 percent of all transport related energy.

Business as usual projections suggest that global travel (person-miles per year) will more than double from 1990 to 2020, then redouble by 2050, with world car travel tripling from 1990 to 2050.

In part this is because travel is the most subsidized and centrally planned sector of the majority of the world's economies —at least for such favored modes as road transport and aviation. It has the least true competition among available modes, and the most untruthful prices. Cars cause extensive pollution-induced illness and social problems but these environmental and social costs are not reflected in drivers' direct costs. Effectively, everyone subsidizes these expenses. Mr. Ford in his speech in London a few weeks ago said that change would happen "through a combination of aggressive corporations, enlightened consumers and properly aligned market forces". Clearly market forces are not properly aligned and we in UNEP count on aggressive companies such as Ford to work constructively with government and help design the proper economic incentives and fiscal reform.



Take the road to sustainability. **It is a winding and difficult road.**

On this road, the desire for environmental performance is precariously balanced against a market that seems to want otherwise. Ford is not alone when its chairman admitted this year in a corporate environmental report that:

"There are very real conflicts between Ford's current business practices, consumer choices and emerging views of sustainability". He was referring to the sales of inefficient 4-wheel drive sport utility vehicles, the most profitable group of vehicles Ford sells. But consumer demand might change quickly.

In this winding road, there are a few positive signals of notable improvements. The momentum of new technology, environmental awareness and the Internet has made the industry seek new alternatives that are leading to improved environmental performance. Two weeks ago the tire company Michelin organized a 800 km rally from Clermont-Ferrand to Paris demonstrating that many technologies are already available to improve car's energy efficiency and environmental performance.



There is **No U Turn**, no turning back.

Toyota and Honda have taken the lead in developing and putting on the market hybrid cars. Today, consumers can buy a hybrid car that gets 70 mpg. It is interesting to wonder what the industry – and our economies - would be like if this fuel efficiency were the standard. According to the US Energy Secretary, Bill Richardson, an improvement of the average efficiency by just 3 miles per gallon would save a million barrels of petroleum a day – about 10 percent of US imports.

And I hear some engineers saying that fuel cells cars with zero emissions will be on the road within the next 3 years.



In order to choose the right road to sustainability, we need to remember a favourite saying of engineers: garbage in = garbage out. GIGO. In other words, we must **STOP** asking the wrong questions.

In a recent article, Peter Schwartz, the president of the Global Business Network and former executive of Shell, said “too many strategic decisions are still based on corporate prejudices”. In other words, industry managers and engineers fail to see signs of change; they fail to look at the broad picture. They dismiss proper alternatives. Just because of short sight, they do not evaluate the real risks involved in their choices.

Bill McDonough gave the example of the carpet: Yes, you can improve the carpet, but is the carpet the only alternative to soil coverage to consider?

We need to **STOP** asking the question “how do we better design cars” and ask instead “How do we move people and goods in the most effective manner? What are the alternatives to improve mobility? not just the alternatives to improve cars”.

A gridlock of ultralight and recyclable cars running on fuel cells with renewably produced hydrogen is still gridlock. These cars could even worsen traffic and road congestion by making driving even cheaper and more attractive.



To reach sustainability, we must be willing to **MERGE** our ideas of mobility with ideas of development. Basic transport and land-use reform must evolve in parallel and in step with the ultra clean car.

Governments need to give strong and correct signals to the market that environmental costs must be paid. The race to a fuel cell hybrid is a good example of competition among automakers, but the real market is to provide competition among mobility modes and services.

Perhaps British Petroleum's new slogan "Beyond Petroleum" may even be matched by General Motors, who could become "General Mobility". To achieve sustainability, we need partnership, we need dialogue between all stakeholders. In particular your industry might wish to cooperate with UNEP. Already we have developed partnerships with the financial sector, the tourism industry, the mining, and the telecommunication sectors.

UNEP's Three Roles:

- Understanding Environmental Challenges
- Identifying Solutions
 - ⇨ international agreements
 - ⇨ voluntary initiatives
- Empowering Change

As the World Environment Agency, UNEP operates under three themes: understanding environmental challenges, identifying solutions, and empowering change.

Contrary to what is sometimes reported about UN agencies, UNEP is a lean organisation of 600 professional staff operating on a \$50 million budget of voluntary contributions. We are working strategically as a catalyst for change, and if any of you are chemical engineers, you will understand the power of a catalyst - only a few grams of the right catalyst can transform tons of materials.

We have already initiated an automotive industry forum to address mobility issues. Together with John Elkington from SustainAbility, we are preparing in the "Engaging Stakeholders" series, a report on accountability and transparency in the automotive sector. Accountability and transparency mean "reporting"... and this is why UNEP is developing, together with the Coalition for Environmentally Responsible Economics (CERES), the Global Reporting Initiative.



Finally, as surely as fuel cells are on the technical horizon, there will for sure be many surprises – many **DETOURS** – in the next decade. It must be an exciting time to be an engineer in this time of change, this time of “business unusual”.

“There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things.

For he (or she) who innovates will have as enemies all who are well-off under the existing order of things, and only lukewarm support from those who may be better off under the new”

- Niccolo Machiavelli

I have started with two quotes of the Ford family – Let me conclude with two quotes on the wall of my office in Paris: The first one, that you can read on the screen, is from Nicolo Machiavelli, an Italian philosopher of the 25th century. The message is clear!

The second quote is from Voltaire, a French philosopher of the 18th century: “Nothing can be done without a little bit of enthusiasm”.

I wish you a lot of enthusiasm to take the lead in the introduction of a new order of things.

Thank you.