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**Promoting alternative fuels and powertrain  
technologies –**

**The Federal Government's strategy**

Ladies and Gentlemen,

On behalf of the Federal Minister of Transport, Building and Housing, Dr. Manfred Stolpe, I would like to thank the hosts for taking the initiative to arrange this conference. Dr Stolpe sends his kind regards.

I would like to mention very briefly a few of the challenges we face.

I will then describe the work process of Germany's fuel strategy.

And to conclude, I will mention some of our wishes for joint European cooperation.

I.

## (Challenges)

Ladies and Gentlemen,

It is true that the energy policy objectives of individual states differ considerably. Nevertheless, we all face the same global challenge:

**First**, we have to secure our energy supply, to ensure that we remain competitive on the international market.

**Second**, it is imperative that we further reduce carbon dioxide emissions, to maintain a balance between economic growth and environmental protection.

Energy requirements are increasing throughout the world. The World Energy Council has forecast that the worldwide demand for energy is likely to grow at an average rate of 1.8 % per year in the period up to 2030.

The UN has forecast that the vehicle population of the world will double between 2000 and 2030, from 800 million to 1.6 billion.

It is obvious that this will also result in a considerable increase in fuel consumption worldwide.

However, we have to ensure mobility, because mobility is absolutely essential for all economic development, employment and prosperity. The concrete issues to be addressed in the transport sector are thus as follows:

**First**, we have to continue reducing pollution.

**Second**, we have to make more efficient use of energy resources.

**Third**, we have to tap new sources of energy for tomorrow's mobility.

## II.

### **(Our fuel strategy in Germany)**

If we take a look at the current situation, we will see that there are numerous technologically feasible methods for producing alternative liquid or gaseous fuels.

In addition, we will see that there are various innovative powertrain designs. The hybrid drive and fuel cell are just two examples.

Moreover, energy for different uses – electric power, heating and mobility – can be derived from a very wide range of raw material sources.

In this respect the crucial question that we have to answer before any others is:

What solutions will have lasting benefits, and which of these solutions can we actually afford?

It is all the more important to answer this question because I don't think any of us has "money to burn" when it comes to scarce and valuable investment or research funds.

In Germany, we try to focus on "promising alternatives".

What does this actually mean? It means that we are not trying to find the "ideal fuel or engine of the future". Rather, we want to identify those fuel options and powertrain technologies that are most likely to be useful in the future.

And it is here that we are focusing the scarce resources that the public and private sectors have at their disposal.

In this context, we consider the following three criteria as essential:

- **Climate change benefits** (the benchmark is the contribution that a fuel can make towards reducing emissions of greenhouse gases when used in suitable vehicles. A meaningful and valid comparison of different fuels is only possible by conducting well-to-wheels (WTW) analyses, i.e. following the route taken by the fuel from its source to its use in a vehicle)
- **Availability/security of supply** (i.e. will the fuel be available in realistic quantities?)
- **Economic efficiency**

Based on these criteria, a three-stage fuel strategy seems to be relevant:

## **Stage one:**

Fossil energy sources will continue to dominate the fuel market over the next two decades, accounting for a share of way over 80 %. Other fuel alternatives will not be available in sizeable quantities during this period.

This means that, between now and around 2020, efforts to **optimize conventional petrol and diesel engines** will make a substantial contribution towards reducing green house gases and ensuring the future security of supply.

Alternative fuels that are already on the market, such as natural gas or conventional biofuels such as bio-diesel and bio-ethanol, will play an important and useful role as ad-mixtures. However, their use will be mostly confined to niche applications.

## **Stage two:**

starting in 2010, **synthetic fuels manufactured from biomass** will have the greatest medium- to long-term potential.

This period will also witness the rise of **efficient, low-consumption combined powertrains (hybrid drives)**.

And finally, starting around 2020, hydrogen will assume crucial importance as a fuel. This is the **third stage**.

I would like to mention briefly the various players involved in this marathon of innovation:

The government is merely one player among several. It has to establish the right framework in the spheres of fiscal incentives, research and development programmes and legal standards (for instance safety and environmental protection).

But it is then up to industry and the scientific community to push ahead with the necessary research and development. The energy supply industry will construct new plants for the manufacture of alternative fuels. The automotive industry will progress the development of powertrain technologies.

We will not achieve the breakthrough we desire unless every player plays his part.

That is why one of the focal points of the work process of our fuel strategy involved bringing the different players together and getting them to agree on a common strategy.

Our fuel strategy, which is an important chapter of Germany's national sustainability strategy, will be presented to a broader public in mid November; then, accessible in greater detail to everybody e.g. on our internet homepage.

The intention of our strategy is as follows:

- Consumption of fossil fuels will be reduced, thereby reducing our dependency on oil (security of supply).
- Emissions of greenhouse gases from transport are to be reduced (action to tackle climate change).

- Fuels likely to be available in high quantities and powertrains with the potential to enhance energy efficiency will be identified (innovation).

A programme of measures will be derived from these elements and used to promote the alternatives that offer the best economic efficiency.

### III.

#### **Conclusions for European cooperation**

As far as our common activities in Europe are concerned, there are three things we would like to see happen:

##### **First:**

We should jointly review unrealistic targets and take a critical look at the potential of renewable energy sources.

Adopting such a critical but realistic approach will enable us to arrive at a common European strategy.

##### **Second:**

In Europe, we agree that hydrogen, preferably from renewable energy sources, is the long-term option, especially for the transport sector.

Against this background, I hope that the new European Commission will also enthusiastically embrace and support the excellent idea of large-

scale integrated hydrogen lighthouse projects.  
Here, Europe has achieved a technological edge  
that we should preserve and exploit.

**Third:**

The past few years have shown us that the  
“coalition” of “energy” and “transport” under one  
roof, namely the old DG TREN, was extremely  
productive and effective. I hope that this synergy  
will continue in the future, despite the planned  
separation of the two sectors.

If we take this to heart, I have no doubt that we will  
establish a firm foundation, providing investors with  
a sound basis for planning and creating incentives  
for innovation.

Thank you very much.