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A GROWTH STRATEGY FOR GERMANY

New jobs through investments in energy and environment

GREEN RECOVERY

A new policy for growth,
employment, sustainability

Strategy paper on the occasion of the
IVth Innovation Conference on 22 June 2009 in Berlin

CONTENTS

THE NEW DECADE - AN OPPORTUNITY FOR EMPLOYMENT AND ENVIRONMENT: ONE MILLION NEW JOBS BY 2020	2
I. THE CHALLENGES	3
<ul style="list-style-type: none">- Dual structural challenge- Both crises are global- Markets are short-sighted- A lack of responsibility, transparency and clear rules- Inaction is costly	
II. MODERNIZING OUR ECONOMY ESTABLISHING NEW GROWTH SECTORS, RESTRUCTURING TRADITIONAL SECTORS	6
<ul style="list-style-type: none">- Green impetus for growth: spending for the future- Global green recovery – a comparison- Establishing and strengthening economic sectors of the future- Environmental sector is an economic stability factor- Green services are a driving force for innovation and growth- Economic modernization: Strengthening competitiveness and providing domestic economy impetus- Good work	
III. OUR POLICY FOR GROWTH, EMPLOYMENT AND SUSTAINABILITY	10
<ul style="list-style-type: none">- Action: for employment, environment and innovation- New public and private investments- New qualifications- New infrastructures- New financing instruments- New public procurement policy- New focal areas for research and development	
IV. A NEW ERA OF COOPERATION	12
<ul style="list-style-type: none">- Closer coordination of sustainable European industrial policy- Strengthening bilateral strategic partnerships in the field of energy and climate- Intensifying multilateral cooperation	

THE NEW DECADE – AN OPPORTUNITY FOR EMPLOYMENT AND ENVIRONMENT: ONE MILLION NEW JOBS BY 2020

1. The financial and economic crisis did not just happen accidentally. It marks the beginning of a new era. Continuing with business as usual is not economically, financially or socially justifiable.
2. Economic stimulus and investment measures must be future-oriented and ensure intergenerational fairness. They must have dual benefits: the creation and securing of jobs, and ecological modernization. Investments must make our countries more competitive and more sustainable as industrial locations than before the crisis.
3. The environmental sector has a key role to play. Green tech is an anchor of stability for the German economy and crucial to a new economic upturn. Green tech and green services are driving forces for growth. In the coming years we will create more than one million new jobs in this area.
4. The world needs new, socially and environmentally sound growth. It needs a growth strategy linked to energy-efficiency and resource-efficiency technologies. Energy and resource efficiency will be the deciding factors for the competitiveness of a modern economy.
5. We have to transform our economy, in other words strengthen new growth sectors and modernize traditional sectors. To achieve this we need a new industrial policy that strengthens traditional industry, supports new industry and promotes lead markets and lead industries.
6. Modernizing the German economy must generate lasting impetus for the domestic economy, create new scope for secure employment and facilitate fair wages. Germany needs a socio-ecological New Deal.
7. German industry – innovation and green tech sectors – is in an excellent position. There is huge potential for innovation, new markets and new jobs. Integrated industrial policy sets a regulatory framework for harnessing technological, structural, innovation, research and sustainability policies. These are the foundations for a future-oriented competition policy.
8. Companies must make their conventional business models viable for the future. Sustainable business is a clear business case. Industrial policy must support this transformation.
9. Holding on to outdated technologies such as nuclear power preserves structures and prevents the modernization of the German economy. Advocates of nuclear power pose a threat to the future of renewables, blocking innovation, investments and thus lead markets and technologies of the 21st century.
10. We need a new phase of cooperation: nationally, and at European and international level. To achieve this, strong multilateralism that establishes agreement for a global solidarity pact is required. This applies to a common approach to rules for the financial markets, international economic stimulus measures, global agreements on limiting CO₂ emissions and securing biological diversity.

I. THE CHALLENGES

We are currently experiencing the worst global crisis of the past 80 years; and at the moment we cannot even predict its scale. What began as a financial crisis has become an economic crisis. It is impacting on the real economy. Unemployment is growing and threatening individual prosperity and prospects. Jobs are being lost in Germany too, but by introducing short-time work we have found a way to effectively limit job cuts, to secure livelihoods and to preserve potential for growth. In October 2008 there were around 71,000 people working short time; in March 2009 more than 1.2 million employees were drawing short-time allowance.

One thing is clear: unbridled, liberal market concepts for the economy and growth have proven to be the wrong path. But anyone who believes that the solution merely involves monetary measures, state spending programmes and gradual adaptation of the financial architecture, is wrong.

The financial and economic crisis is not some accident for which there is a short-term solution. Joseph Stiglitz, winner of the Nobel Prize in Economics, considers the crisis to be as significant as the fall of the Berlin Wall and calls for the beginning of a new era for the global economy.

We have to consider whether our model for growth and the economy as we knew it is viable for the future. Both economic and environmental reasons speak against returning to business as usual.

Germany has proved to be vulnerable to crisis due to its integration in the global economy. However, the consequence cannot be to turn away from the global economy and to retreat to the domestic economy. Instead, we need to find a new balance between intelligent global economic participation and a healthy domestic market development. The key question is what direction do we want growth to take in the years ahead? Which sectors are growth sectors to secure employment, growth, innovation and new products?

Exceptional times call for exceptional measures: While spur-of-the-moment action and decisions are required, we must still think beyond the moment. Financial and economic crisis, climate change and resource shortages are putting us to the test and necessitating conceptual action. The ecological and economic challenges require new answers and a new concept for progress, not business as usual.

The national and international economic stimulus programmes that have been launched in recent months move in the right direction. Greater investments need to be made in the development of new, and particularly, of green technologies.

The goal of a strategy for new growth must be the modernization of our economy. This means establishing and enhancing new, future-oriented branches of industry with which Germany can bring its strengths to bear in the international division of labour, while at the same time contributing to tackling global challenges. However, this also means modernizing the existing industrial core. We also need long-term impetus for the domestic economy and new scope for employment and wage policy – which we can generate through a resource-oriented renewal of our economy.

It is essential to strengthen the industrial core during this modernization process. The industrial base that we lose during the crisis in Germany is not likely to be rebuilt in the future. For the modernization of our economy, the interplay between industry and services is crucial.

New growth sectors and traditional sectors are important. We must not allow ourselves to be confronted with false alternatives. It is crucial to establish new sectors with strong growth and to modernize traditional branches of industry. The world needs highly efficient electric motors and pumps that combine high performance with lower energy consumption. It needs processor-friendly software to aid companies save energy in their data centres. It needs new insulation materials to improve energy efficiency in buildings even further. It needs technologies for carbon capture and storage to make coal-fired power plants and other CO₂-intensive sectors (such as steel) significantly more environmentally friendly. With our policies we want to contribute to German companies manufacturing these products. To achieve this we need an efficiency transformation of the entire economy.

This brings with it considerable opportunities. Studies show that the global market volume for green technologies currently stands at 1,400 billion euro, and that this will more than double to 3,300 billion euro by 2020

(including green services). In Germany alone the market volume will rise from 220 billion to over 500 billion euro. This shows the enormous potential that these technologies hold.

2.3 million people are currently employed worldwide in the renewables sector, and this figure is set to triple or quadruple over the coming years. In Germany there are already 280,000 jobs in the renewables sector alone.

This is why we can rightly say that one answer to the question of sustainable business models is increased investments, increased research and development and increased structural policy measures in the field of green technologies in the coming years.

Even though some staunch market advocates may like to think differently: the largest market failure in history and the market excesses we have experienced recently show that the market alone is not able to achieve the necessary modernization.

In other words, more is needed to lead the global economy and Germany to a sustainable growth path as quickly as possible. We need an intelligent regulatory framework for the future: a new growth policy strategy.

DUAL STRUCTURAL CHALLENGE

Faced with the problems of the financial and economic crisis, we must not forget the challenges ahead that are no less serious or deep-seated and that necessitate structural change: climate change, resource shortages and the loss of biodiversity show that we have pushed our planet to its limits. We are facing a dual structural challenge that affects the foundations of our economic and social system and that calls for renewal and modernization.

We are currently confronted with the massive impacts of the crisis and a worldwide recession that has brought economies to the verge of collapse. Resolute monetary and financial countermeasures were necessary, but this burdens future generations with increased debt. The only way we can justify this burden is by investing in the future and limiting future debt.

Climate change, resource shortages and loss of biodiversity are all threatening the natural foundations of life for mankind and necessitate major efforts in all economic areas. Price fluctuations and the growing energy demand, which are leading to continuously rising prices on the international energy and commodities markets, mean that greater energy and resource efficiency is becoming pivotal for securing prosperity and will be the key factor for industrial location for highly developed national economies.

BOTH CRISES ARE GLOBAL

At first glance the two crises appear to have very little in common. However, on closer inspection the parallels become clear.

MARKETS ARE SHORT-SIGHTED

Markets do not work in a textbook fashion. Concentrations of power, market abuse and information problems are known. However, short-term considerations, fed by false incentive systems, often dominate. The short-sightedness of the market is clearly illustrated by climate change, the greatest market failure in history (Lord Nicholas Stern). Responses to the challenges of environmental pollution, climate change and resources come too late, if at all. Major megatrends are being ignored by many companies and market participants for too long. Instead, short-term speculative bubbles emerge again and again, which was demonstrated most recently by the real estate crisis and all its impacts.

The philosophy of “more, quicker and further” has reached its limits – but the answer cannot be “less, slower and shorter”. We need to strengthen the creative power of our economy. Being “better, more sustainable and fairer” is crucial to our future! In practical terms this means that we need progress through environmentally and socially sound growth.

A LACK OF RESPONSIBILITY, TRANSPARENCY AND CLEAR RULES

These crises have in part emerged because the risks in companies and on the financial markets were not properly identified or evaluated, whether economic risks in the classic sense or ecological risks with increasing economic significance. One thing is clear: returns and risk are intrinsically linked. We therefore need greater clarity about products offered on the financial markets, we need some kind of quality check for financial products. We need greater transparency on the markets, we have to curb excessive risk and regulate intelligently. The principle must apply that those who take a risk must also take responsibility.

What is important now is that the current crises do not become a fundamental crisis of trust and leadership. We need leadership and clear values like fairness, equal opportunities, social equity, integrity and determination to overcome the challenges ahead. We need a clear vision of how we want our society to develop to make it less vulnerable to crisis, more stable and stronger than before: we need a blueprint for the future!

In the face of globalization, people are looking for role models, credibility and sustainability, especially from company bosses. We need to return to the real economy, to our industrial base, to respect for strategic and long-term corporate governance, to a renaissance in the “honourable merchant” philosophy. These principles must apply in the financial markets too, in keeping with the principle of “property entails obligation”.

INACTION IS COSTLY

Inaction is much more costly than action in both crises. This applies to intelligent monetary and financial policy measures to counteract the financial and economic crises, which prevent a downward spiral and limit economic and social impacts. But it also applies to our political options in the climate and resource crisis: the costs of taking climate protection measures in time of around one percent of the global GDP are considerably lower than the enormous burdens and risks connected to an unchecked rise in greenhouse gas emissions. If nothing is done, the global economy will suffer huge losses.

The global financial and economic crisis provides an opportunity for a sustainable restructuring of the economy and society: investments are being triggered, business models are coming under scrutiny. Companies, investors, employees and consumers recognise that we cannot carry on with business as usual. Viability, environmental compatibility and social cohesion must be at the centre of our joint action.

II. MODERNIZING OUR ECONOMY: ESTABLISHING NEW GROWTH SECTORS, RESTRUCTURING TRADITIONAL SECTORS

We need to modernize our economy and our society, guided by the following principles and goals:

- the creative power of politics and democracy
- social and ecological modernization of the market
- creation of future-oriented, fairly paid jobs ("good work")
- equitable burden sharing, both nationally and internationally
- a new solidarity pact: European and international cooperation.

GREEN IMPETUS FOR GROWTH: SPENDING FOR THE FUTURE

Stimulation and standards are needed to combat the financial and economic crisis and to prevent a repeat of events. It is not a case of 'either or', but of 'both and'. These standards must contribute to providing a clear, international framework for the financial markets, connecting them to the real economy and generating sustainable growth. However, future-oriented spending is also crucial. The state has to engage in further spending in times of crisis. With Gerhard Schröder's reform policy we created the political scope for this: without it we would not have had the budgetary options, our social systems would not be crisis-proof and the labour market would not be as stable as it currently is. However, this additional state spending has to be carried out responsibly. It is not enough to simply dig holes and then fill them in again.

In April the G20 agreed to advance this process and aim to present preliminary results at the upcoming G20 summit. The green share of global economic stimulus packages currently totals 15%. Worldwide there are around 20 stimulus programmes with a total volume of US\$ 2.8 trillion. Around US\$ 430 billion are earmarked for green investments, including measures in the fields of:

- renewable energies
- energy efficiency and energy management
- limiting water consumption/pollution
- waste volumes and pollutant emissions
- emissions trading, certificate solutions.

According to calculations by the International Monetary Fund, every dollar invested in green technologies and sectors will generate additional investments of 1 dollar in the subsequent two years. In other words, the impact of 'green' measures will total around US\$ 860 billion. Asian countries – especially South Korea and China – have recognized the sign of the times. With a green share of 13%, Germany is in fourth place among the G20. If the promotion of renewables, which several countries have factored into their economic stimulus packages, is taken into account and uniform benchmarks are applied, Germany is at the forefront: green investments are being made in Germany beyond the framework of the stimulus package, for example by amending the Renewable Energy Sources Act (EEG) and the Combined Heat and Power Act (KWKG).

These figures show that an increasing number of experts, governments, and most significantly an increasing number of companies, are recognizing the importance of green technologies for growth and employment in the years to come.

GLOBAL GREEN RECOVERY - A COMPARISON

These investments are a start. Short-term economic stimulus measures must, however, be part of a global green recovery: part of long-term, low carbon, resource-efficient economic growth. We not only need the green elements of our stimulus packages, but also a strategy for lasting, sustainable growth. Times of econom-

ic change create the opportunity for sustainable restructuring. Future-oriented investments open up the option of targeted support for innovation and of developing processes and products of the future.

Germany is integrated in the global economy. The alternative cannot be to retreat to the domestic economy. Instead, we need to find a new balance between intelligent global economic participation and domestic market development. We also need long-term impetus for the domestic economy and broader scope regarding employment and wages – which we can generate through a resource-oriented restructuring of our economy.

The goal of a strategy for new growth must be to modernize our economy. This means, firstly, the establishment and strengthening of new, future-oriented branches of industry with which Germany can bring its strengths to bear in the international division of labour, while at the same time contributing to tackling global challenges. However, this also means modernizing the existing industrial core.

ESTABLISHING AND STRENGTHENING ECONOMIC SECTORS OF THE FUTURE

The current economic distortions have changed nothing as far as the megatrends and the associated environmental and economic challenges are concerned. These challenges are climate change, population growth, the finiteness of fossil fuels and high global demand for energy, price explosions on the commodities markets and the loss of biological diversity.

Environmental technologies are an indispensable component of the solution to the challenges posed by these megatrends: without green tech our economic system will reach its limits. Natural resources will become increasingly scarce and thus increasingly expensive, environmental destruction as a result of reckless cultivation and exploration methods will become increasingly drastic, global energy consumption will rise continuously, climate change will accelerate as a result of constantly rising greenhouse gas emissions – with all the consequences for mankind and international policies.

ENVIRONMENTAL SECTOR IS AN ECONOMIC STABILITY FACTOR

The environmental sector has proven to be a stability factor in the economic crisis. SMEs are a firm pillar in times of crisis in terms of turnover, personnel and business relations. And SMEs are particularly active in the environmental technology sector:

- The majority of environmental technology companies have not carried out any job cuts
- There has been only very moderate cancellation of orders placed in this sector
- As far as a fall in orders is concerned, green tech remains stable – especially in comparison with other German industries such as mechanical engineering.

Environmental technologies combine ecological orientation with economic success. Not least because of this, the global market is growing rapidly: in 2008 it already had a volume of 1,500 billion euro, and this figure will rise to around 3,300 billion euro, including green services, by 2020.

Today we can already identify at least six lead markets of the future in which ecological and economic challenges have become closely interlinked: environmentally friendly energy generation, energy efficiency, resource and material efficiency, closed cycle management, sustainable water management and sustainable mobility. These are the six green markets of the future.

Germany is ideally positioned by international comparison. It has the best preconditions for these markets of the future:

- a strong industrial base
- a tremendous level of competitiveness: according to the latest figures, Germany was once again in first place in 2006 with a world trade share of 16% and an export volume of 56 billion euro, ahead of the USA (15%) and Japan (9%)
- environmental goods accounted for more than 5% of industrial goods production in Germany in 2007

- the largest market shares are in the largest lead market, energy efficiency, but also sustainable mobility and closed cycle management
- patents: 23% of all patent applications submitted to the European Patent Office in 2007 came from Germany.

GREEN SERVICES ARE A DRIVING FORCE FOR INNOVATION AND GROWTH

The green services sector in particular is an important pillar. Green services are essential to the modernization of our economy. They are a driving force for the market, innovation and professionalisation. Service providers in the environmental sector are active at the interface between technology suppliers and users. They thus substantially support demand for environmental technology products and other services.

In 2008 the green services sector in Germany achieved a turnover of 123 billion euro. Industry-related services account for the largest share of the market volume with 104 billion euro. This is followed by company-related services with 10 billion euro, while original services represent the smallest share with 9 billion euro. The total market volume of environmental technology services in Germany will grow by an average of around 7.7% per year, rising to 300 billion euro by 2020. The services sector of the environmental technology branch currently employs around 1 million people. In 2020 the services sector will employ almost 2 million people. Green services are therefore a significant driving force for employment in the environmental technologies sector.

ECONOMIC MODERNIZATION: STRENGTHENING COMPETITIVENESS AND PROVIDING DOMESTIC ECONOMY IMPETUS

It is not just a question of establishing a flourishing environmental technologies sector. It is above all a question of modernizing the entire economy and achieving a sustainable transformation of conventional business models. Companies must be at the fore of this change, rather than being driven by developments. Companies that strengthen their innovative power and systematically establish sustainability competence are successful as first movers. They make the most of competitive advantages, reduce economic and ecological risks and secure the future of their company.

Energy and resource efficiency have become strategic factors of corporate governance. If we use energy and resources efficiently we can increase competitiveness, pay high wages and create new and secure jobs.

By modernizing our economy we can create new scope for wage policy and jobs. Today, considerably more than 40% of costs in the manufacturing industry in Germany are material and energy costs. Labour costs account for around 22%. In current public debate we pretend that labour and non-wage labour costs, employees and social benefits are the only parameters for global competition concerning price and industrial location. In truth there are other, more significant factors that can increase the efficiency of industrial production in Germany: the way we use resources and energy.

German industry could save around 100 billion euro per year by applying resource-efficient production processes (Source: demea). We have to realize these productivity reserves – by doing this we create a lasting, green economic stimulus programme and greater scope for wages and employment.

There are considerable opportunities for companies, particularly those that can offer technologies and services for the transformation into a low-carbon society:

- new potential for products and (green) services
- new consumption segments
- a shifted focus of financial investors towards sustainability.

Such an efficiency strategy strengthens attractiveness as an industrial location, increases competitiveness, reduces dependence and improves innovative potential.

GOOD WORK

The modernization of our economy can create secure jobs, both directly and indirectly. Today there are already more than 1.8 million green jobs in Germany. And the pace of growth is impressive: companies in the renewables sector predict growth in employee numbers of almost 27% in the next two years. The environmental technology sector's share in the GDP could almost double by 2020. The lead market renewable energies alone already employed half as many people as the chemicals sector in 2007. The number of green jobs in Germany could increase in double figures over the next two years. 1 million new jobs are possible over the years to come. Furthermore, employment in green tech companies is secure for the future. Even the globalization of the environmental technology sector will not lead to the offshoring of German jobs.

The resource-oriented modernization of our economy through the use of environmental and efficiency technologies creates new jobs: model calculations for Germany show that a 20% increase in energy and material efficiency in German industry can be achieved in the short term. With a normal wage level development, this increased efficiency will generate up to 760,000 jobs, as calculated by the Kathy Beys Stiftung.

On the whole, all available studies conclude that we can create more than 1 million new green jobs in Germany by 2020 if we create an appropriate political framework:

- McKinsey estimates the potential for new jobs in Germany to be around 850,000 by 2020. They emerge, for example, through increased demand for technologies and products providing innovative solutions for energy consumption or transformation.
- In the renewables sector in Germany alone a further increase in jobs from 280,000 to at least 400,000 by 2020 can be expected (study on employment through renewable energies by the DLR in collaboration with the DIW, ZSW and GWS).
- Roland Berger predicts rapid growth in green services. The large majority of employees in the environmental technology sector already work in the field of services. This figure is set to increase by around 800,000 by 2020.

However, the competitive advantage of German environmental technology companies can only be maintained through innovation. This is why it is one of the most research-intensive branches of industry. In order to lay the foundations for sustainable growth policy we need technological advances. Product and process innovations, and accompanying social innovations, create secure jobs. This restructuring process therefore not only requires innovative entrepreneurs and the state as trailblazer. The modernization of our country also needs employees that do and have good work. We therefore call for an alliance for work, environment and innovation.

III. OUR POLICY FOR GROWTH, EMPLOYMENT AND SUSTAINABILITY

We need an intelligent regulatory framework for the years to come: markets need impetus, incentives and orientation. Innovative companies that strategically address megatrends and offer products and services of the future are crucial to success. Inventive minds, the innovative potential of companies and ambitious environmental policy are essential for the markets of the future. Environmental policy was and is a driving force for innovation, which has made the environmental technologies sector in Germany strong.

Our international partners have also recognized the potential of green tech – the high green share in the Asian economic stimulus programmes clearly reflects this. We will only be able to keep our position, the value-added potential and productivity growth, if we remain at the forefront of technological development. Promoting innovation, especially environmental innovation, is a key strategic goal. Ecological industrial policy therefore places innovations at the heart of its considerations. In future it will be even more important to link technological progress to ambitious climate policy targets and concrete political measures – at national European and global level.

ACTION: FOR EMPLOYMENT, ENVIRONMENT AND INNOVATION

In order to structure this change and to move towards resource-efficient, low carbon growth, we need a new understanding of progress. The economic and development model of traditional industrial societies is not a good role model for the 21st century. The answer to these challenges cannot be to turn away from global development and economic growth. We have to adjust our economic model and place innovation at the centre. The growth that we need internationally and in Germany must be possible at appropriate economic, ecological and social costs.

Our concept of ecological industrial policy is the compass for modernizing our economy. It includes

- climate protection policy that lives up to its name
- an ambitious energy strategy in all areas
- the further expansion of renewable energies
- sustainable use of bioenergy
- innovation in the mobility sector
- resolute measures in the fields of environment, qualification, education and training.

Employment, environment and innovation are at the heart of our modern and sustainable economic policy. Companies support this: more than 80% of environmental technology companies are aware of our ecological industrial policy, three quarters of them consider the concept to be important.

If we want to modernize our economy and society to make it socially and environmentally sound, there are various fields of action:

NEW PUBLIC AND PRIVATE INVESTMENTS

We must boost public and private investments. A large share of the capital stock of the German economy will have to be renewed in the course of the next 10 to 15 years. The share in the gross national product of net investments has been falling in Germany for decades. It is – as an international comparison shows – currently weaker than in many other countries. Noticeably in sync with the falling German net investment quota, the overall economic growth rates of the past decades have also declined. The decrease in the net investment quota is linked to an increased obsolescence of Germany's capital stock. This offers the opportunity to swiftly build up a new, resource-efficient capital stock. This requires intelligent interplay between public and private investments using a range of instruments, from regulatory provisions to increased use of economic instruments. A prerequisite for well-functioning markets is that ecological costs are also priced in.

NEW QUALIFICATIONS

We need different qualifications and more experts over the years to come. For example, if we want to make progress in the offshore sector, we need special ships that are suitable for installing wind turbines. We need people that are able to build and operate these ships. Ecological industrial policy supports the job growth triggered by the environmental technology sector. In order to secure the technological edge of German companies for the future, we must also counter the lack of expert workers and engineers on the labour market. A lack of qualified staff must not hinder sustainable growth and the modernization of our economy.

NEW INFRASTRUCTURES

Our investments must also encompass the development of offshore wind farms. The German government's target of achieving a 30 percent renewables' share in electricity production in Germany by 2020 can only be reached if we create 10,000-15,000 MW of offshore wind energy capacities. 15,000 MW means 3000 wind turbines in the Baltic or North Sea. We are building the first test site 45km off the German coast. We need to invest now in grids – not only those transporting the electricity from 45km off the coast to onshore, but also those connected to industrial conurbations where the electricity is needed. This is why we want a “German Grid Inc.” – a single, national grid company. We also have to speed up planning and licensing procedures, which generally take around 10-12 years.

NEW FINANCING INSTRUMENTS

For a long time we have invested too little money in our industry and the infrastructure of our country. Economists estimate that additional investments of around 400 billion euro will be needed up to 2020, both private and public, with a maximum of up to 35 billion euro per year. This means we need new funding instruments. We want to establish climate and innovation funds from public and private financing that support SMEs and promote efficiency technologies.

NEW PUBLIC PROCUREMENT POLICY

We need a new kind of procurement policy. The federal government, the Länder and municipalities have a procurement volume of 260 billion euro per year. McKinsey has analysed what would be available per year from the federal government, the Länder and municipalities for a different form of procurement policy. The answer was almost 60 billion euro. If the federal government, the Länder and municipalities were to agree on certain procurement standards, for example for efficient vehicles or for energy-efficient products, it would trigger additional demand for innovative and energy-efficient products, opening up new markets.

NEW FOCAL AREAS FOR RESEARCH AND DEVELOPMENT

High state spending on research and development strengthens the innovative potential of German companies – for example to secure a sustainable energy supply. And research and development are crucial to Germany's economic success. This is why we have to work with industry to realize the 3% target for research and development by 2010. The market creates considerable impetus for innovations. However, in view of the ecological and economic challenges we need an active innovation and technological policy, focussing and coordinating our deployment of resources. More than ever, resource efficiency and intelligent use of energy must be the centre of any technology and research policy. Our efforts in the field of research and development must concentrate on the lead markets:

- environmentally friendly energy generation
- energy efficiency
- resource and material efficiency
- closed cycle management
- sustainable water management
- sustainable mobility.

IV. A NEW ERA OF COOPERATION

This process of modernization and restructuring necessitates the interplay of many policy areas – environmental, economic and research policy. International cooperation and foreign policy play a key role in achieving our global goals. Modernization and restructuring is an international task for the whole of society. We need a new era of cooperation – at European and international level:

CLOSER COORDINATION OF SUSTAINABLE EUROPEAN INDUSTRIAL POLICY

National impetus for greater innovation must be supported at European level. There is a need to catch up in the case of European industrial, competition and research policy. We will advocate our concept of ecological industrial policy becoming the guiding principle of the Lisbon Strategy after 2010 and of the EU Sustainability Strategy. We need closer economic policy coordination in order to interlink all existing EU instruments at our disposal to support innovation and sustainability.

STRENGTHENING BILATERAL STRATEGIC PARTNERSHIPS IN THE FIELD OF ENERGY AND CLIMATE

The principle of ecological restructuring of our economies with the goal of new growth and jobs must be a central element of our bilateral relations with our key partners. From industrialized countries such as the US and countries in transition such as Russia to developing countries like Nigeria: everywhere we have to place the focus on the development of clean and sustainable energy technologies, and energy efficiency.

This is why we want to further enhance the strategic exchange with key partners launched in recent years on the topics of energy and climate. This includes the EU-US partnership on climate and energy technologies we proposed and the German-US climate bridge. If 80% of energy worldwide is being consumed and 80% of greenhouse gases are being emitted in towns and cities, we have to find approaches in the framework of the climate bridge concept to build networks between towns, Länder, provinces, industry, non-governmental organizations, parliamentarians and civil society groups. With the climate bridge we have launched this process in German-US relations.

We will advocate building such climate bridges with China, India and other countries as well. The strategic energy and climate dialogues we conduct with countries in West Africa, in the Gulf, with India, Norway and other partners offer a suitable framework. Examples such as the recently founded Russian-German Energy Agency (RUDEA), which aims to promote energy efficiency, can serve as models.

We also support the realization of the solar bridge between Europe and Africa, which Germany has made a key project of the Union for the Mediterranean. We need such beacons to show us the way towards new technologies, new growth and a sustainable energy supply.

INTENSIFYING MULTILATERAL COOPERATION

We want to help the approach of green recovery achieve a breakthrough in all relevant international organizations. We ensured that the G20 stated their support for investment programmes for sustainable growth in their London Declaration. We will also advocate the G20 and the G8 pursuing this goal further. Economic policy measures to overcome the crisis should also serve to reduce CO₂ emissions and promote green technologies.

To bring about a global reduction in greenhouse gases and ensure fair competition we urgently need a global emissions trading scheme. We will further strengthen initiatives such as the International Carbon Action Partnership, which we launched with the aim of harmonizing existing and emerging emissions trading schemes. We need progress in this area to facilitate a decision in Copenhagen.

The trade side must also be involved: trade restrictions and customs duties need to be reduced for certain environmental goods and services. Open markets for the use of green technologies and corresponding know-how benefit all sides. They create additional prosperity and support our efforts in the battle against global warming.

