

Subject 1

Information on measures for the implementation of the Sustainable Development Strategy in the transport sector

Catching up with the Western European countries with respect to the civilisation development level and life standard is one of the most urgent tasks within the implementation of Poland's sustainable development policy.

Within our transport policy, the essential objective for the next years will be to ensure high quality of transport services, first of all by the expansion and upgrade of the main transport network, so that transport has its adequate contribution to Poland's economic development. An efficient and modern transport system is one of the essential aspects of the improvement in living conditions for the public, the increase of transport safety and improvement of area accessibility and a condition for the growth of foreign and domestic investments in Poland. This, however, does not mean that the idea of controlling the transport intensity of the economy, according to the principle of sustainable development and a necessity to reduce negative impacts of transport on the natural environment and living conditions, will be abandoned.

When implementing the chief objective of the reviewed EU strategy concerning steady development with respect to sustainable transport on *the fulfilment of economic, social and environmental needs of the public while at the same time minimising their adverse impacts on the economy, society and natural environment* in Poland, the following activities are under way in the context of the implementation of necessary actions as specified in the *Strategy* ...:

Improving economic, social and environmental performance of all branches of transport, developing the trans-European networks and combining various types of transport in the shipment of goods

The improvement of economic and environmental performance and development of the trans-European networks, including intermodality, is currently being implemented in Poland first of all by:

- modernisation and development of linear transport infrastructure,
- modernisation and development of point infrastructure in passenger transport (railway and bus stations and stops, airports, car parks etc.) and freight transport (warehouses, terminals, logistic centres, sea ports etc.),
- purchase of modern transport vehicles for passenger mass public transport,
- introduction of solutions related to intelligent transport systems,
- organisational and legal transformations in respective branches of transport.

Within the first four items, measures are being implemented first of all within the Infrastructure and Environment Operational Programme, as a result of which the following objectives will be achieved:

- improved transport accessibility of Poland and inter-regional connections within the TEN-T network through the development of the road and air TEN-T network, including priority

investments as indicated in Decision No 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network, including linking chief economic centres in Poland by a network of motorways and expressways,

- linking the municipal centres of Eastern Poland with the capital city and using their growth potential due to the location at the Eastern border of the whole EU,
- development of the rail TEN-T network, including priority projects as indicated in Decision No 1692/96/EC of the European Parliament and of the Council and also modernisation and purchase of passenger rolling stock, revitalisation of railway stations and completion of projects related to intermodal transport,
- supporting the development of sea port infrastructure,
- increasing the share of public transport in serving metropolitan area residents through supporting environmentally friendly public transport systems,
- developing branches of transport being alternative to road transport by increasing the share of inland water transport and sea motorways,
- improving transport safety and improving the condition of inter-regional connections by investments which increase safety and smoothness of traffic (in particular intelligent transport systems) and development of road networks which complete investments implemented within the TEN-T.

The funds earmarked for respective branches of transport are listed in the table below:

Branches of transport	EU funds (EUR mln)
road transport	11,104.4
railway transport	4,863.0
municipal transport	2,014.0
marine transport	606.8
air transport	403.5
other	432.2
Total	19,423.9

Explanations to the table: sea transport, including sea ports and motorways of the sea,

other: including inland water transport

The measures related to organisational and legal transformations related to **rail transport** promoted in the Community included the Government approval of certain strategic documents ("*Master Plan for Rail Transport in Poland until 2030*", "*Strategy for Rail Transport until 2013*", "*Programme for the development and launch of transport using high-speed rail in Poland*") which address the issues of elements conducive to sustainable development, such as transport optimisation, aiming to develop rail passenger transport of certain categories (especially within and between agglomerations) and ensuring stable funding for passenger transport provided within public services

(regional, provincial and international). The plans in question also focus on the development of a framework for the growth of railway freight transport, especially intermodal transport, with the achievement of interoperability of respective elements of railway transport in Poland. Financial support for such initiatives has been ensured first of all in the Infrastructure and Environment Operational Programme, the Marco Polo Programme and the National Programme of Reforms. With respect to railway transport, the 2007-2013 Infrastructure and Environment Operational Programme to a significant extent continues investment projects initiated in the previous period of scheduling European Union funds, that is, in 2004-2006. Therefore, investment efforts related to the modernisation of railways were focused first of all on sections which link Poland's largest agglomerations or ensure connections in international rail traffic, which will provide improvement of Poland's internal cohesion and enhancement of its external links, especially with other European Union Member States. In addition, the railway network is planned to be completed in urban agglomerations by the construction of connections with airports (Warsaw, Kraków, Katowice) and sea ports (Gdynia, Gdańsk, Szczecin, Świnoujście, Kołobrzeg). Despite the large funds earmarked in the Infrastructure and Environment Operational Programme for the development of railway transport in Poland, it is impossible to implement in Poland all railway network modernisation projects most welcome and expected by the public. It results from the wear and tear of railway infrastructure whose technical performance prevents efficient competition with other branches of transport. Therefore, it was necessary to reduce the scope of projects to railway lines of strategic importance for the country. What is more, the investments in the area in question are performed while complying with the highest standards with respect to environmental protection and take into consideration the needs of disabled persons.

Within **marine transport**, we need to note the Government's approval of strategic documents titled *Principles of the marine policy of the Republic of Poland* and *Strategy of the development of sea ports until 2015*. Measures are undertaken to create a Baltic network of motorways of the sea. Projects aimed to launch navigation connections of the sea motorway type are being prepared by marine transport consortia. Two motorways of the sea were launched in June 2009, Gdynia – Helsinki and Gdynia – Travenmuende. An application to launch the Rotterdam – Gdańsk sea motorway will be filed in the fourth quarter of 2009. Furthermore, intense activities are under way to reduce emissions of exhaust gases from ships. According to international requirements measures are being undertaken in sea ports to ensure electricity supply to and waste collection from ships in docks. Within inland water transport, it is noted that pursuant to the Act of October 28, 2002 on the Inland Water Transport Fund and the Reserve Fund, inland carriers may obtain preferential loans for the modernisation of their fleet, among others (e.g. engine replacement). Owing to the financial support from the Fund, 178 vessels were modernised or refurbished and 11 vessels were purchased in 2005-2007. ~~PLN 547,000 was paid to inland carriers for scrapping. PLN 26,850,000 was paid from the Fund in preferential loans. An amount of PLN 4,559,000 in preferential loans was granted in 2008 and PLN 11 million was scheduled in 2009 for such loans.~~ Within inland water transport tasks funded by the Infrastructure and Environment Operational Programme are performed, that is, modernisation of seven hydrotechnical facilities in order to restore class 3 navigability in the middle section of the Odra River Waterway.

As concerns sea ports, tasks are performed within the Infrastructure and Environment Operational Programme which relate to the improvement of access to ports from land and sea.

With respect to **passenger transport**, initiatives are under way to develop mass public passenger transport; in particular, a bill has been prepared to specify the principles of the organisation, management and funding of public transport within communes, districts, provinces and the whole country, including, among others: principles of operators' access to transport service markets and concluding public service contracts with operators. Public transport should be developed according to the transport plan prepared by competent public administration entities. Local plans should be consistent with provincial plans and with respect to railway transport, provincial plans should be consistent with the state plan. An integral element of the plan will be to indicate funding sources while taking into consideration own funds of operators and organisers and possible additional funding from the state budget or EU funds. The experience of both Poland and other EU Member States shows that controlled competition provides the most efficient strategy of public transport development. Thus, the efficiency of public transport can be improved and services can be commissioned in the form of contracts for servicing lines economically unfeasible but vital for the public. On the basis of controlled competition the new public transport system will operate in Poland; its aim will be to improve performance and increase the efficiency of spending public funds. Subsidies from public funds are widespread in public transport, because a considerable part of transport services are profitable only with aid granted for providing public services. It is also possible to determine special tariffs at the national or local level for certain groups of the public and reimburse lost revenues to carriers due to the application of the tariffs.

With respect to the promotion of alternative, non-motorised road transport, efforts are under way within the work team consisting of representatives of the ministry, the parliament and the public which represent cyclists' community. The aim of the initiative is to improve the conditions of cyclists' participation in road traffic by changes in regulations, such as term definitions and principles of bicycle traffic and obligatory bicycle equipment. The initiative is constant in its nature.

Rationalisation of energy use

A number of measures listed below were undertaken which resulted in improved energy aspects of transport:

legal and financial

- **imposing electronically collected fees for using road infrastructure depending on the distance covered:** The Act of November 7, 2008 on the amendment of the act on public roads and certain other acts entered into force on December 24, 2008 which cancels lump-sum fees and imposes an electronically collected fee for using state roads in an amount depending on the distance (in kilometres) covered; it will contribute to more rational use by heavy road transport and thus reduced energy consumption (the electronic fee will enter into force on July 1, 2011),
- **promoting "environmentally clean" vehicles:** A system of environmental fees is in force in Poland which promotes vehicles having lower emission levels or fuel consumption. Furthermore, a reporting system concerning fuel consumption and CO₂ emissions in the marketing of new passenger vehicles was introduced as implementation of Directive 1999/94/EC. Moreover, efforts made to implement Directive 2009/33 which provides for systemic promotion of the purchase of road vehicles with lower emissions and higher energy efficiency, both within public tender procedures and acquisition of vehicles by public passenger transport operators. Furthermore, the requirements of Directive 2005/33/EC which restricts sulphur content in marine fuels have been

implemented. Moreover, the amended Annex VI to the MARPOL convention comes into force in July 2010 which imposes further reduction of atmospheric pollutant emissions from ships,

- **improving the quality of waterway transport:** Inland waterway carriers may apply for funds for undertakings which promote inland waterway transport as an environmentally friendly branch of transport and in particular for activities aimed to protect the environment (overhauls or replacement of used engines with new ones, conforming to environmental requirements),
- **international road transport within the EKMT permit system** (using vehicles with lower external noise and exhaust gas emissions): Polish carriers can apply for 1143 annual EKMT permits for EURO III and EURO IV vehicles, including 857 permits for EURO IV vehicles in 2009. When using the permits, entrepreneurs are required to obtain certificates which confirm the compliance with relevant environmental standards. It is noted that the higher number of permits for EURO IV vehicles to be distributed by Poland results from the request for such permits submitted by Poland to the EKMT secretariat which took into consideration the need to promote vehicles with lower exhaust gas emissions. It was also consistent with the expectations of Polish transport companies which now use many EURO IV or even EURO V vehicles. The Ministry of Infrastructure considers submitting a request for EKMT permits also for EURO V vehicles. Due to the lack of a requirement to hold permits for freight transport within the Community and permit quota for freight transport outside the EU which are in practice used for vehicles conforming to no more than the EURO II standard (in the case of permits for transport to and from third party countries, vehicles must comply with the EURO III standard), EKMT permits are currently the only instrument available for the promotion of vehicles with improved efficiency and emission performance parameters. Due to their popular character, transport services performed based on the permits in question have a significant influence on the environmental impact level.

technical

- **construction of motorways, ring roads and expressways:** 230 km of motorways, 210 km of expressways and 38 ring roads were opened in 2005-2008. In the next three-year period (2009-2012) heavy work on Poland's road network will also be performed. The objective is to develop a comprehensive network of motorways and expressways along the main trans-European transport corridors and to link Poland's main economic centres by 2012. This will contribute to increased transport efficiency and traffic smoothness and will lead to reduced energy losses due to traffic congestion,
- **technical undertakings related to vehicle construction:** the efficiency of fuel consumption in new passenger vehicles and trucks, buses, rolling stock and aircraft put into operation in Poland has been improving. The average CO₂ emissions from a new vehicle went down in Poland from 177 gCO₂/km in 1998 to slightly more than 152 gCO₂/km in 2008,
- **imposing road traffic speed limits within cities:** as of May 1, 2004 a statutory requirement to reduce speed limits in built-up areas during the day to 50 km/h (to 60 km/h between 11 pm and 5 am) was applied.

legal and administrative

- **improved infrastructure for cyclists and pedestrians:** the initiatives focused on the promotion of bicycles as a means of transport and construction of bicycle paths. The promotion of bicycle transport is supported by the widespread possession of bicycles and construction or designation of bicycle paths and traffic-free roads for daily local and tourist transport, both within and outside built-up areas. The use of bicycles is popularised through campaigns of non-governmental organisations which promote the bicycle as a means of transport and leisure and moderate prices of bicycles which encourage people to buy and use one. Furthermore, efforts started to implement the concept of multimodal transport through the development of bicycle parks located where a means of transport can be changed and through a possibility to carry bicycles using public transport,
- **initiatives in air transport:** air space has been divided into two types: so-called A and G, which will enable flights from point to point using the shortest route possible. The expected fuel consumption saving effect is estimated at 6-8%. Owing to the implementation of the most advanced systems for managing air traffic, the aircraft waiting time for landing and also energy consumption is reduced

educational

- **information and educational initiatives concerning the necessity for drivers to change their behaviour:** such initiatives are related to information and education activities with respect to defensive driving which promotes significant reduction of fuel consumption and exhaust gas emissions (so-called Eco-driving),
- **promotion of public passenger transport:** a number of social actions are also undertaken (serial or periodic), such as "Change your ride for a bus", European Sustainable Transport Week and European Car-free Day. Public Transport Days are organised each September. During Public Transport Days a fleet exhibition and associated events are organised, such as shows, games and competitions. The Public Transport Days (PTD) are part of the European Sustainable Transport Week and are related to the European Car-free Day. The aim of PTD is to promote public transport by showing it in a way which is normally unavailable for an ordinary passenger. The objective of the Public Transport Days (PTD) is to convince drivers to more often not to use their cars and switch to increasingly more modern and faster public transport.
- **marine education:** for example establishing the European Centre of Marine Education based on the Marine Academy in Gdynia and Szczecin, secondary and post-secondary schools and training centres. The Centre should play a role of a coordinating centre for the condition, use and modernisation of the existing educational framework and a coordinating centre of teaching based on the three-level education system, so-called Bologna system: first degree vocational studies (baccalaureate, engineering), second degree studies (master) intended mainly for the regeneration of own staff and providing personnel to public administration and institutions and third degree studies intended first of all for the development of science by providing young scientists (doctorate in technical science).

Achieving progress on the way to efficient and global solutions in order to reduce negative impacts of international sea and air transport.

Together with the activities in the field of sea and air transport specified below, measures related to water and air transport fuels, with improved quality standards and conforming to the latest EU

standards, are also noted which aim to reduce negative impacts of these branches of transport on the environment.

Tightening emission standards for internal combustion engines used on ships results from the provisions of Annex VI to the International Convention for the Prevention of Pollution from Ships 1973/1978 MARPOL in force since July 29, 2005. The provisions concern sulphur oxide (SOx) and nitrogen oxide (NOx) emissions. The Annex also concerns ozone layer-depleting substances, halocarbons and gases used in refrigerating systems. Amendments to Annex VI and the related NOx Technical Code approved in 2008 imposed stricter requirements with respect to NOx, SOx, and dust (solid particles) emissions, especially in so-called Emission Control Areas (ECAs), with one of them being the Baltic Sea.

Activities related to CO2 emission reduction from water transport are currently not yet included in the provisions of the Convention in question. However, intense efforts are now under way at the international forum to control this issue. Discussions and attempts to develop a formula for legal regulations related to greenhouse gas emissions from water transport are managed by the International Maritime Organisation (IMO) within which the initiatives of the Marine Environment Protection Committee (MEPC) and the Intersessional Working Group on Greenhouse Gas Emissions from Ships (ISWG GHG) established by the Committee aim to develop a system for the efficient control of CO2 emissions from ships. The efforts focus on the development of the Energy Efficiency Design Index for newly constructed vessels, including a calculation method; completion of the temporary guidelines for the Energy Efficiency Operational Indicator, including factors for the conversion of carbon into carbon dioxide for marine fuels; preparation of tools for efficient ship management, including the Ship Performance Management Plan, and development of guidelines for best practices.

Among the instruments considered at the international forum in the context of reduction of greenhouse gas emissions from water transport, there are also proposals for establishing a global Emission Trading System (ETS) in Marine Transport and an International Fund for Greenhouse Gas Emissions from Marine Transport. It is, however, firmly noted that the specificity of marine transport owing to which it is distinct from all the other forms of transport justifies the necessity to do everything possible so that the marine transport sector remains outside the emission trading system. Inclusion of marine transport into the system, which would surely fail to include all countries in the world, would lead to ships being transferred to flags of countries not being parties to the Convention and thus not participating in the emission trading system. Apart from the proposal in question to include marine transport in the emission trading system, Poland's policy related to counteracting climate change is consistent with the direction of activities undertaken at the international forum and aims to establish an instrument package by 2012, including obligatory instruments, whose effect would be to reduce greenhouse gas emissions from marine transport.

Furthermore, popularisation of rational and environmentally friendly waste management in marine transport are important elements of the development of sustainable transport.

With respect to air transport, a number of initiatives have been under way aiming to improve sustainability of this transport industry.

In 2005 collaboration with EUROCONTROL was continued concerning the modelling of pollutant distribution around the Warsaw Okęcie Airport with particular consideration of aviation emissions.

In 2006, the air route system was reorganised with 28 routes removed and courses of 54 air routes modified. New Terminal Control Areas (TMAs) were established, namely: TMA Gdańsk, TMA Poznań and TMA Rzeszów. New division of TMA Warsaw was completed and borders of TMAs for Szczecin, Wrocław and Kraków were changed. Furthermore, borders of airport Control Zones (CTR) for Bydgoszcz EPBY, Łódź EPLL, Poznań EPPO, Rzeszów EPRZ and Zielona Góra EPZG were modified.

Borders of six Aerodrome Traffic Zones (ATZ) were modified. The existing air space structures were modified and new ones were established to ensure flexible management, namely: Temporary Segregated Areas (TSA), Temporary Feeding Routes (TFR), Temporary Reserved Airspaces (TRA) and Military Routes (MRT).

Furthermore, the Military Aerodrome Traffic Zone (MATZ) was reorganised, which included changes of horizontal and vertical borders. A database of the airspace management support system (CAT, Common Airspace Tools) was developed and launched in 2006.

In 2007, the implementation of the Environmental Management System according to the PN-EN-ISO 14000:2004 standard started. As a result, in July 2008, following an audit performed by Lloyd's Register Quality Assurance Limited (LRQA) a Certificate of Approval of the Environmental Management System was obtained. Furthermore, approach control service for TMA Poznań was established and the maximum sector configuration (CONFIG) was extended to between 10 am and 6 pm, which corresponds to the maximum demand for area control sector capacity. At the line of two Area Control Centres (ACC) for Minsk and Vilnius the On-Line Interchange (OLDI) system was implemented with sector capacity increased by 5%. The scope of work related to programme deployment included operational implementation of instrumental flight procedures based on precise area navigation in the terminal airspace of the Warsaw-Okęcie airport.

In 2008 a programme was started to implement Precision Area Navigation (P-RNAV) and Continuous Descent Approach (CDA) for TMA Warsaw. The objective of the programme with respect to P-RNAV is first of all to increase the capacity of TMA Warsaw by increasing the efficiency of air traffic flow management, decreasing conflicts between Standard Instrument Departures (SID) and Standard Arrival Departure (STAR) procedures and shortening flight trajectories. Owing to the implementation of CDA, an aircraft operator can follow a more economical flight profile which leads to reduced fuel consumption. Three flight carriers currently participate in the programme for CDA implementation in TMA Warsaw. It is planned that in Autumn 2009 CDA will be published in AIP Polska (Aeronautical Information Publication) as a technique mandatory during the night for TMA Warsaw. Furthermore, CDA is planned to be implemented in the other major airports.

In March 2009, an agreement was signed between the Polish Air Navigation Services Agency, Państwowe Przedsiębiorstwo Porty Lotnicze, PLL LOT Polish Airlines and handling agents to implement the Collaborative Decision Making (CDM) system at the Warsaw-Okęcie airport. The CDM system is based on a uniform comprehensive information flow system between respective partners concerning aircraft management within the airport (landing, ground services, takeoff). The CDM is anticipated to have a positive effect on reduced airport environmental impacts (for example

lower atmospheric pollutant emissions), to reduce costs of ground traffic at the airport and to enable optimum use of airport infrastructure and more efficient use of handling company resources.

Furthermore, the Polish Air Navigation Services Agency makes modifications of declared air traffic control sector capacities on a regular basis. Furthermore, ongoing works are performed in order to optimise the air route network in the Polish air traffic information area. DCT (direct flight) is also employed in FIR Warsaw as a standard to be followed during the night, which shortens flight trajectory.

Certain airlines, such as for example PLL "LOT" Polish Airlines, undertake initiatives, necessitated by the adaptation to increasing fuel prices, in order to replace their fleet gradually with more economical aircraft with more efficient engines. As of 2004, PLL LOT started to include in its fleet the Embraer 170 aircraft in the intention to replace with them the Boeing 737 aircraft on shorter routes with lower occupancy. In late April 2006 the larger but lighter Embraer 175 aircraft, with fuel-saving engines, started to be put into operation. In September 2005, PLL LOT entered into a contract with Boeing for the supply of seven Boeing 787-8 Dreamliner aircraft to replace the Boeing 767 aircraft currently operated by PLL LOT; according to the manufacturer, this will lead to approx. 20% lower fuel consumption.

The following activities within initiatives for the reduction of greenhouse gas emissions in the air transport sector in Poland are noted:

- implementation of Directive 2008/101/EC amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community (managed by the Ministry of the Environment),
- implementation of the SES II package (legislative and operational initiatives: Ministry of Infrastructure, Polish Air Navigation Services Agency).

Increasing road traffic safety

A number of measures listed below were undertaken which resulted in improved road traffic safety. These included the following measures:

technical

Together with the aforementioned construction and modernisation of the road network in Poland, the Ministry of Infrastructure and the Secretariat of the National Road Traffic Safety Council in cooperation with local government authorities, within the GAMBIT National Road Traffic Safety Programme, operates a Programme for the Removal of Dangerous Spots on Roads Between 2005 and the end of 2008, ~~357 dangerous spots were rebuilt (out of 376 planned to be completed by the~~ end of 2009). Investment expenses amounted to almost PLN 373 million.

As a consequence of the efforts since the start of the Programme for the Removal of Dangerous Spots, the number of accidents was reduced by 66%, number of fatalities by 91%, number of people injured by 68% and number of collisions by 48%.

Furthermore, the Programme has a number of other positive outcomes in respective regions, such as:

- activation of local government authorities, mobilisation of funds and channelling efforts to specific activities to reduce road traffic-related risks for residents,

- improvement of the image of authorities by care about the safety of local communities,
- enhancement and development of collaboration between state and local government authorities at various levels,
- increased awareness, promotion of good practices and adequate approach to road traffic safety among local authorities, road administration and contractors,
- development of an additional market opportunity for small enterprises in regions, because large companies are not interested in low value contracts,
- recognition by local communities of measures aimed to improve road traffic safety and proving residents that the solutions used lead to saving the health and life of the residents and their families.

Furthermore, within the Dutch Town pilot project in Puławy, operated based on the Collaboration Agreement with the Ministry of Transport of the Netherlands, the road system of part of the city is being rebuilt. The aim of the project is to create a model solution for the rest of the country with a view to the future programme for traffic reduction in built-up areas. The outcome of the project is the reconstruction of the road system in the Włostowice district with an adjoining section of the provincial road in order to use comprehensively physical measures for traffic reduction, whose efficiency was proved over a course of many years in Dutch cities.

While aiming to intensify the development of road infrastructure at the local level with respect to communal and district roads, the Ministry of Internal Affairs and Administration has implemented a Long-Term Programme titled "2008-2011 National Local Road Reconstruction Programme" which is meant to be an instrument of governmental assistance to local governments in solving difficult problems related to the reconstruction, construction or repairs of the local road network, an important aspect of the improvement of road traffic safety.

According to the programme, when completed between 2009 and 2011, about 6,000 kilometres of communal and district roads will be built or rebuilt. Total outlays will amount to PLN 6 billion in 2008-2011, of which PLN 3 billion will be from the state budget and the rest from the budgets of local government authorities.

Within the Programme, several sections of district and communal roads have already been repaired, for example in Ciechów, Nysa, Świdrygały and Wabienice. The following road investments, among others, will be subsidised in 2009: in Lublin, Lubartów, Przysiółek, Tomaszów Lubelski, Parczew, Królewski Dwór, Włodawa and Zwierzyniec.

educational

The Polish Council for Road Traffic Safety and the Ministry of Infrastructure are involved in a number of education and information actions aimed to change the behaviour of road traffic participants. In 2008, a cycle of pilot campaigns titled "Drunk? Don't drive! Switch on your brain" was organised with successive stages in Lublin (spring), Trójmiasto (summer holiday period), Olsztyn (autumn) and just before Christmas in December throughout Poland.

The aim of the social campaign titled “Drunk? Don’t drive!” was to reduce the number of “post-disco” accidents caused by young people driving under the influence of alcohol by increasing the awareness of consequences of accidents.

In Spring 2009, the Olsztyn Police performed another sobriety control operation at the end of the “Drunk? Don’t drive!” pilot project and summarised the effect of the educational and preventive initiatives supported by strengthened law enforcement on drivers’ behaviour

A Poland-wide radio campaign titled “Holiday without BAC” organised by the National Road Traffic Safety Council started in August 2009 and in autumn and winter the next stage of the “Drunk? Don’t drive!” campaign is planned. At the same time other preventive measures are undertaken in collaboration with non-governmental organisations, such as “I’m driving sober” and “European night without accident”.

The second stage of a social campaign titled “Use your imagination” started in August 2009, aimed to improve safety and increase the awareness of road users being at the highest risk. The campaign started in April 2009 with messages related to safe driving by motorcyclists. Currently, the initiators and partners of the programme address young drivers to encourage them to eliminate dangerous behaviour while driving and “use their imagination” when driving vehicles.

Within the celebration of the European Road Traffic Safety Day, a social campaign titled “Speed limits save lives” was inaugurated on October 13, 2008. The objective of the campaign was to improve public approval for new solutions concerning the enforcement of regulations in force in Poland and throughout the European Union and principles of respecting speed limits and understanding the importance of speed differences for accidents.

Due to the large number of accidents involving pedestrians, the campaign titled “Speed limits save pedestrians” was continued in December 2008 with particular attention paid to speed when a pedestrian is involved.

In June 2009, another edition of the campaign titled “Bike – safely to destination” started; its aim is to improve the awareness of cyclists with respect to hazards which may be encountered on the road and to strengthen the habit to comply with road traffic regulations. Similar are also the objectives of the “Safe driving. Bicycle riding permit – my first driving licence” campaign.

Furthermore a programme is under way in Warsaw and Kraków titled “Taxi with a child car seat”. The campaign is planned to include all major cities in Poland. Within the programme, its organiser bought 144 car seats for children aged 0.5 to 12 years. The seats were donated to selected taxi corporations. Before the start of the programme, the car seat manufacturer organised training for drivers in the safety of transporting children in vehicles and car seat setup. The aim of the programme is to promote safe travelling with children in public transport and education of caregivers about how to carry children safely also when short distances are covered, for example in a taxi.

Another stage of the campaign titled “Safe Car Academy – Don’t wait for breakdown – have your car controlled just for safety” was conducted in 2008. The aim of the “Safe Car Academy” campaign is to make road traffic participants realise the relationship between the running order of vehicles and safety.

Furthermore, with respect to the improvement of road traffic safety, a number of initiatives are undertaken with the aim of teaching how to use bicycles safely (training of teachers and schoolchildren, bicycle driving permits for students and schoolchildren, campaigns which promote reflective parts and vests, helmets, etc.) and encouraging the public to use a bicycle (for example investments in bicycle paths and parks, promotional campaigns, information materials, such as "Safety on the road", "Remember, you have only one life", "Transport Education", "Safe Road" inserts in local press, etc.).

legal and administrative

Moreover, legislative efforts are under way to improve road traffic safety. The examples of draft legislative acts which will influence road traffic safety include:

- the Government's bill on the amendment of the Penal Code Act, the Act on Criminal Procedure Code, the Act on Executory Penal Code, the Act on the Fiscal Penal Code and certain other acts (parliamentary publication no. 1394). The draft provides for the increased maximum limit of fines from 360 (currently) to 540 daily rates (Art. 33(1) of the Penal Code). The amendment, to be applicable to all offences which carry a penalty of a fine without the maximum limit being defined will lead to the increase of the potential number of people whom the court will be able to fine as a penalty corresponding to the social danger of the criminal act and degree of fault, thus applying the directive of Art. 58(1) of the Penal Code to treat the imprisonment sentence as the *ultima ratio*. The draft also contains amendments related to restriction of liberty sentences. For the penalty as currently applied was found not to fulfil its rehabilitation functions as required and it may not be a real alternative to the imprisonment penalty in a sufficiently broad scope. The draft provides for amendments to legal regulations by removing barriers due to which the restriction of liberty penalty is currently executed inefficiently. Changes related to both types of penalty will be obviously applicable to perpetrators involved in offences against traffic safety, including driving in a state of intoxication;
- the Government's bill on the amendment of the Act on Misdemeanour Code and certain other acts (consultations between ministries are currently under way). The draft increases the maximum limit of fine to PLN 10,000; therefore, the maximum amount of fine for driving a vehicle in a state of intoxication will be doubled;
- the Government's bill on vehicle drivers (consultations between ministries are completed). The bill on vehicle drivers was prepared as a response to negative occurrences related to the process of obtaining licenses to drive motor vehicles and as one of the elements of measures aimed to reduce the number of road accidents as specified in the GAMBIT 2005 National Road Traffic Safety Programme. The main objective of the act will be to:
 - improve road traffic safety by increasing qualifications of vehicle drivers,
 - minimise negative occurrences related to the process of obtaining licenses to drive vehicles, such as frauds, dishonest performance of services related to driver training and corruption.

The significant reduction of the number of road accidents and the number of casualties will be achieved following the entry into force of the Act on the amendment of the Road Traffic Act and the amendment of certain acts passed by the Parliament of the Republic of Poland on April 2, 2009. The act provides authorisation to develop an automatic speed surveillance system for road vehicles. We

are currently expecting a ruling from the Constitutional Tribunal as the President of the Republic of Poland questioned the consistence of the Act with the Polish Constitution.

Furthermore, measures have been initiated to introduce a requirement for every child to obtain a bicycle driving permit on the graduation from the primary school.

Development and implementation of municipal transport plans and systems

It is noted to complete the aforementioned information on passenger public transport that work on the bill on public mass transport is coming to an end. The draft provides for an obligation to prepare a so-called Integrated public transport development plan. The requirement will be applicable to communal local government authorities, among others, with at least 50.000 residents.

Subject 2

CHEMICALS

Assessment of chemical risks

1. Mechanisms for systematic evaluation, classification, and labeling of chemicals, including initiatives towards a harmonized system of classification and labeling of chemicals

The European Community has adopted recently law implementing GHS – the CLP Regulations (*Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006*). This regulation contains complex provisions regarding classification and labeling of chemicals.

2. Initiatives for assessment of toxic chemicals, hazard and risk assessment, and participation in various international and regional initiatives

The REACH Regulation (*Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC*) provides several measures regarding assessment of toxic chemicals, hazard and risk assessment.

Moreover, European Chemicals Agency, a special European institution, has been established for the purposes of managing and in some cases carrying out the technical, scientific and administrative aspects of this Regulation and to ensure consistency at Community level in relation to these aspects. Poland actively participates in the work of the European Chemicals Agency, as well as its committees and bodies, like the Committee for Risk Assessment or the Committee for Socio-economic Analysis.

We would like to underline that answers provided above regard the chemicals manufactured and introduced to the market in the European Union

On the international/global level, Poland actively participates in the work of the relevant OECD bodies in the area of chemicals management.

Poland has accessed to Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Poland is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and Stockholm Convention on Persistent Organic Pollutants. Poland has ratified ILO Convention 170 on Safety in the Use of Chemicals at Work.

3. Strategies for exposure assessment and environmental monitoring and improvement in procedures for using toxicological and epidemiological data to predict and estimate the effects of chemicals on human health and the environment

The State Environmental Monitoring (SEM) covers measurements, assessments and outlooks of the environmental state as well as collecting, processing and disseminating information on the environment. IEP provides reliable information on the state of the environment via the SEM system. The scope of surveys and assessments are specified in multiannual Programmes for State Environmental Monitoring and Programmes for Voivodship Environmental Monitoring.

In 2007, we implemented the SEM tasks in the system of mutually linked thematic blocks: STATE, PRESSURES and ASSESSMENTS AND OUTLOOKS. A considerable part of the tasks was connected with the compliance of Poland's obligations towards the European Union, as well as the European Environmental Agency or resulted from environmental conventions and international agreements ratified by Poland. Some pieces of the outputs are using by Polish National Institute of Hygiene in researches on impact of hazardous substances and other factors (e.g. energies) on human health also via environment.

The basic block of SEM is the block STATE, under which we produce primary data on levels of substances and other indicators specifying the state of natural elements. The Chief Inspector of Environmental Protection coordinates surveys and observations conducted by voivodship inspectors of environmental protection and scientific and research institutes as well as universities and colleges. We collect the results of measurements and observations in thematic databases and prepare quality assessments on their basis, related to particular components of the environment as well as voivodship and national reports on the state of the environment.

It is worth to mention about the researches of Polish scientific institutes on the subjects connected with using toxicological and epidemiological data when analyzing effects of chemicals on human health and the environment.

For instance, The Nofer Institute of Occupational Medicine (NIOM), Lodz, Poland, is an independent complex research and development centre with activities covering various areas of occupational and environmental health. It provides background research and expertise to the Ministry of Health and serves as an advisory body to the Ministry of Environmental Protection and numerous governmental agencies, including State Sanitary Inspectorate and State Labour Inspectorate, and also to local administration, trade unions and industry.

The primary task of the Institute is to conduct research and development activities and provide expertise on health hazards arising from occupational and environmental exposure to noxious agents. The multidisciplinary nature of the research performed makes it possible to solve complex problems of the work environment and workers health. Here are some example of projects performed by the staff of the Institute:

- Genotoxic hazards from high level exposure to heavy metals in the countries of Central Europe, Prof. dr hab. med. Konrad Rydzyński, 1997-2000
- Assessment of early effects of urban air pollutants on the respiratory tract. an approach based on peripheral markers and molecular biology techniques, Prof. dr hab. med. Konrad Rydzyński, 1999-2002
- Novel approaches to define and assess environmental health issues, particularly issues relating to release hazardous substances from waste landfills and human exposure, Prof. dr hab. Stanisław Tarkowski, 2002-2003

4. Information exchange and cooperation, data-quality assurance, application of assessment criteria, and linkages to risk management activities

Poland actively cooperates within the framework of the European Union and OECD regarding these issues. Thorough information exchange is guaranteed, inter alia, under the provisions of REACH Regulation

Poland actively participates in the OECD Good Laboratory Practice scheme.

Poland has co-operated with European Commission, international bodies, local authorities, non-governmental organizations in developing chemical safety issues, for example under various Phare and Transition Facility projects, co-financed by the European Union

Information exchange network for enforcement authorities is operating. Several trainings have been performed under various EU-funded projects. Moreover, the publicly available website where all interested can gain access to chemical information sources is in place.

Poland has translated into Polish the SAICM text comprising the Dubai Declaration on International Chemicals Management, the Overarching Policy Strategy and the Global Plan of Action. The translation has been forwarded to the OECD.

Sound management of toxic chemicals

5. Progress within the larger framework of Strategic Approach to International Chemicals Management (SAICM)

The vast majority of the SAICM objectives is realized, or will be realized in the near future, within the European Union legislative framework, mainly through REACH Regulation. The recently adopted EU law implementing GHS will allow achieving several other SAICM goals. Implementation of other European legislative acts, e.g. concerning the export and import of dangerous chemicals or European environmental legislation, is also of great importance for achieving relevant SAICM goals.

Please note that Poland currently performs the tasks of the Regional Focal Point on SAICM for Central and Eastern Europe region (from the Second Session of the International Conference on Chemicals Management, May 2009, until the Third Session, first half of 2012).

The internal coordination on SAICM issues within the Government utilize existing channels. The Government implements various elements of SAICM through already existing processes and legislation, as well as due to the international commitments, mainly connected with the membership in the European Union

6. Initiatives and innovations for risk reduction, particularly taking in to account the life cycle of the chemicals

All actions on the European Union level are undertaken within the REACH system. On the global level Poland participates in activities within Multilateral Environment Agreements indicated above

7. Precautionary measures derived from broad-based life cycle analysis

REACH Regulation contains several provisions in relation to precautionary measures derived from broad-based life cycle analysis - under compulsory chemical safety assessment performed by industry and within authorization, restriction procedures and substance assessment requirements under REACH Regulation

8. Policy measures to phase out chemicals that pose unreasonable and unmanageable risk to human health and human environment, such as, for example, ozone-depleting substances

EU REACH Regulation contains several provisions that will assure that the risks from substances of very high concern are properly controlled and that these substances are progressively replaced by suitable alternative substances or technologies where these are economically and technically viable (authorisation procedure)

What is more, REACH imposes restrictions on the manufacturing, placing on the market and use of certain dangerous substances, preparations and articles (restriction procedure). Basically, a substance on its own, in a preparation or in an article covered by the given restriction shall not be manufactured, placed on the market or used unless it complies with the conditions of that restriction.

Main legal regulations connected with ozone-depleting substances (ODS) control by CIEP:

The Montreal Protocol on Substances That Deplete the Ozone Layer (a protocol to the *Vienna Convention for the Protection of the Ozone Layer*) is an international treaty designed to protect the ozone layer by phasing out the production of a number of substances responsible for ozone depletion. The treaty was opened for signature on September 16, 1987, and entered into force on January 1, 1989, followed by a first meeting in Helsinki, May 1989. Since then, it has undergone seven revisions, in 1990 (London), 1991 (Nairobi), 1992 (Copenhagen), 1993 (Bangkok), 1995 (Vienna), 1997 (Montreal), and 1999 (Beijing)

In the EU, the rules of dealing with ODS are specified in the Regulation (EC) No 2037/2000 of the European Parliament and of the Council *on substances that deplete the ozone layer*. It was revised several times and now the new *Regulation (EC) No 1005/2009* of European Parliament and of the Council *on substances that deplete the ozone layer* is being under legislative process. The European Parliament has adopted this piece of law so far

According to the Polish legislation (Act on Substances depleting the ozone layer of 20 April 2004, OJ 2004.121.1263 further amended) dealing with the ODS these substances are controlled by the Inspection for Environmental Protection (Chief Inspectorate for Environmental Protection and 16 Voivodship Inspectorates for Environmental Protection with their field offices) and Customs Services. Terms of provisions for the industry are specified in 12 executive regulations to the act

Management strategy of ozone depleting substances - CFCs, including the strategy of phasing out CFCs in Metered Dose Inhalers

The document was adopted by the Council of Ministers of the Republic of Poland on 14 April 2004

This document contains recommendations of the Montreal Protocol in relation to CFCs, represents the state of the issues associated with the use of these substances in Poland and proposes steps necessary to implement the recommendation. Moreover, the strategy contains a reference to the possibility of applying the recommendations of the European Union, defined in Regulation (EC) No 2037/2000 of the European Parliament and Council of 29 June 2000 on substances that deplete the ozone layer

Management Strategy of Halons

The document was adopted by the Council of Ministers of the Republic of Poland on 30 November 2004. The Strategy includes:

- a) restrictions on the use of halons in new installations and extinguisher equipment;
- b) introduction to the use of alternative measures and technologies for fire protection and fire fighting, acceptable because of their impact on the environment and human rights;
- c) providing halon for critical uses and terms of dismantling installations and equipment used in areas not obeying the criteria for critical uses;
- d) promoting appropriate actions to ensure effective and safe environmental reclamation of halons, their storage and recycling.

9. Policies and frameworks for prevention of accidents, preparedness and response

One of the institutions dealing with major accidents in Poland is Major Accident Prevention Department (in Chief Inspectorate for Environmental Protection). The main goals of this Department are:

- Initiating activities for major accident prevention,
- Identifying possible sources of major accidents,
- Supervision of removal and limitation of negative consequences of major accidents to the people and the environment
- Keeping of register of major accidents and establishments that may cause major accidents (including upper tier-, lower tier establishments),
- Cooperation with other competent authorities in major accidents (National State Fire Service, Sanitary Inspectorate, Labour Inspectorate)
- Cooperation on Seveso II Directive with General Directorate Environment,
- Cooperation with the UNECE authorities in transboundary effects of industrial accidents,
- Realization of bilateral agreements on major accident prevention (on transboundary waters) with neighboring countries,
- Participation in rescue exercises on removal of negative consequences of major accidents with competent authorities (including information exchange on risk and accidents),
- Training for administration units and operators of the establishments.

When potential environmental emergency occurs (i. e. accident with toxic chemicals) Major Accident Prevention Department is carrying out inspection (parallel to the activities of National State Fire Service, Sanitary Inspectorate, Labour Inspectorate and sometimes other competent authorities) which includes analyzing the following:

- documentation of the unit (administrative decisions, internal instructions etc),
 - state of organization of rescue actions,
 - technical condition of the equipment for dealing with dangerous substances, and for protection in the event of a breakdown (production, storing and reloading). The attention should be drawn to the required documents issued by the Office of Technical Inspection,
 - register of environmental emergencies and chemical breakdowns (identification, causes, effects and their removal)
-

10. Policies aimed at reducing the risks posed by lead, mercury and cadmium and other harmful heavy metals, including through a review of relevant studies, such as, for example, the United Nations Environment Programme global assessment of mercury and its compounds

Main activities performed in Poland with the aim to reduce risks caused by lead and cadmium

- a) *Exposure assessments and use and environmental release inventories*

Monitoring of gaseous and particulate air emissions and of waste water discharges into waters or land is managed in Poland by the Chief Inspectorate for Environmental Protection (GIOŚ) under the National Environmental Monitoring Scheme. The Voivodship (i.e. Provincial) Inspectorate for Environmental Protection and the Voivodship Marshall Office both deal with collection of data on the quantity and types of gases or particulate matter released into the air and on the quantity of waste water discharged into waters or land in the area of given Voivodship. For waste water discharges, the relevant data is provided by the business entities in relation to the charges they are obliged to incur for use of the environment. Moreover, data sets on cadmium and lead emissions are prepared by the National Administrator of the Emission Allowance Trading (KASHUE) and then forwarded to the European Monitoring Emission Program (EMEP) and the European Pollutants Emission Register (EPER) of the European Commission for the annual reporting purpose.

b) Levels in various media

Data collected by the GIOŚ under the National Environmental Monitoring Scheme are only available on lead and cadmium concentrations in PM10 particulate matter in atmospheric precipitation and in surface waters. The preliminary air quality assessment with view of the cadmium content in PM10 particulate matter, as structured into zones per each Voivodship, is carried out in the framework of the preparatory work aimed at implementation of *Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air*.

c) Level of contamination of drinking water

Data on concentrations in drinking water, including lead and cadmium content, is collected in the framework of drinking water quality monitoring system being managed since 2005 by the National Sanitary Inspectorate.

d) Global flow in products

When implementing its commitments in relation to implementation of the relevant Community legislation, Poland has introduced into its legal framework a number of legal acts regulation of restriction or total prohibition on use of lead and cadmium in products. Thus, the major legal regulations introduced into the Polish legal framework cover the products types as discussed below:

– *Electrical and electronic equipment*

Regulation of Minister of Economy of 27 March 2007 r. on the specific requirements on use of certain substances in electrical and electronic equipment that could have negative environmental impact (Official Journal No. 69, Item 457, further amendments), is the act mandatory in this scope that implements the provisions in *Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment* (so called RoHS Directive)

– *Batteries and accumulators*

Regulation Minister of Economy of 17 October 2002 on specific requirements to be met by batteries and accumulators manufactured and placed on the market (Official Journal No. 182, Item 1519) is the act mandatory in this scope that implements the provisions in the *Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances*. At present, the work is under way to implement the provisions in *Directive of the European Parliament and of the Council 2006/66/EC of 6 September 2006*

on batteries and accumulators and waste batteries and accumulators and repealing on 26 September 2006 Directive 91/157/EEC.

– *Vehicles*

Regulation of Minister of Economy and Labour of 4 October 2005 on the list of materials, equipment items and vehicle parts permitted to contain lead, mercury, cadmium and hexavalent chromium (Official Journal No. 200, Item 1653) is the act mandatory in this scope that transposes the *Commission Decision of 27 June 2002 amending Annex II of Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles*,

– *Crystal glass*

Regulation Minister of Economy of 4 August 2006 on the specific requirements on the crystal glass products (Official Journal No. 148, Item 1070) is the act mandatory in this scope that implements the provisions in *the Council Directive 69/493/EEC of 15 December 1969 on the approximation of the laws of the Member States relating to crystal glass*. The Regulation sets forth specific requirements on the crystal glass products, the method for identification and labelling of the crystal glass products and the conditions and procedure for carrying out tests on the crystal glass products.

– *Packaging*

The Act of 11 May 2001 on packaging and packaging waste (Official Journal No. 63, Item 638) is the act mandatory in this scope that implements the provisions in *Directive 94/62/EC of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste*. The method to determine this content is set forth in the provisions of Regulation Minister of Environment of 8 April 2003 on the method to determine the total content of lead, cadmium, mercury and hexavalent chromium in packaging (Official Journal No. 66, Item 619)

Moreover, since 1 January 2003, Regulation of Minister of Environment of 30 December 2002 on the lead, cadmium, mercury and hexavalent chromium content in packaging (Official Journal No. 241, Item 2095) is in force

Main activities performed in Poland with the aim to reduce risks caused by mercury

a) *Requirements on application of mercury in products and production processes*

The requirements on application of mercury in products and production processes are set forth under Polish legal framework by the following legal acts that have resulted from transposition of the relevant Community provisions:

- *Packaging*

Act of 11 May 2001 on *packaging and packaging waste* (Official Journal No. 63, Item 638, further amended) and Regulation of Minister of Environment of 30 December 2002 on *the contents of lead, cadmium, mercury and hexavalent chromium in packaging* (Official Journal No. 241, Item 2095, further amended).

- *Batteries and accumulators*

Act of 24 April 2009 on *batteries and accumulators* (Official Journal No. 79, Item 666).

- *End of life vehicles*

Act of 20 January 2005 on *the recycling of the end of live vehicles* (Official Journal No. 25, Item 202, further amended) and Regulation of Minister of Economy and Labour of 4 October 2005 on *the list of materials, equipment and parts of vehicles which could contain lead, mercury, cadmium, and hexavalent chromium* (Official Journal No. 200, Item 1653).

- *Electrical and electronic equipment*

Regulation of Minister of Economy of 27 March 2002 *on the specific requirements on the use in electrical and electronic equipment of the substances which could adversely impact the environment* (Official Journal No. 69, Item 457)

- *Labour safety*

Regulation of Minister of Economy of 19 March 2007 *on the labour safety and hygiene when handling mercury and its compounds* (Official Journal No. 69, Item 455)

- *Manufacturing conditions*

Regulation of Minister of Economy of 5 July 2007 *on the restrictions, bans or conditions to manufacture, marketing or use of hazardous substances and preparations and the products containing them* (Official Journal No. 168, Item 1762, further amended)

Moreover the Act of 26 April 2007 on amendments in the Act on Environmental Protection Law (Official Journal No. 88, Item 587) transposes into the Polish law the Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

As far as mercury emissions from industrial installations are concerned, they are covered by the reporting obligations under the Polish National Pollutant Release and Transfer Register being a part of the European Pollutant Release and Transfer Register. The Chief Inspector of Environmental Protection will manage the Register. Information on pollutant releases into the air, water and soil, on transfers of pollutants contained in waste water beyond the site where they were originated, and on transfer of waste, will be submitted by the installation operators (i.e. the installations which require integrated permit and the relevant activities as set out in Annex 1 of the IPPC Directive) in their annual reports, while 2007 is the first reporting year.



Subject 3

Information about initiatives for the implementation of the Sustainable Development Strategy in waste management

The major document which specifies measures to be completed and objectives to be achieved in waste management is the 2010 National Waste Management Plan (Kpgo2010) approved by the Council of Ministers on December 29, 2006 by way of Resolution no 233 (Official Journal of the Republic of Poland, No. 90, Item 946). The Plan includes the scope of tasks necessary to ensure integrated waste management in Poland, in compliance with the National Environmental Policy in a manner which ensures environmental protection and considering the current and future possibilities and economic conditions and the technological level of the existing infrastructure.

Kpgo2010 defines the following objectives to be achieved in hazardous waste management:

- maintaining the recovery of waste oil at the level of 50% and recycling at the level of at least 35%,
- achieving required recovery and recycling levels of batteries, used electrical and electronic equipment, waste oil, end-of-life vehicles, used tyres,
- increasing the efficiency of selective collection of hazardous waste,
- extending and ensuring full performance of recovery and recycling facilities for various types of dangerous waste,
- eliminating totally PCBs from the environment by controlled treatment of PCBs and decontamination or neutralisation of equipment containing PCBs,
- removing dumping grounds and warehouses with plant protection products past their expiry date,
- extending the explosive waste management system.

Furthermore, the aim assumed is the achievement of required packaging waste recovery and recycling levels and increasing the quantity of municipal sludge processed before being discharged to the environment and also maximisation of the utilisation of biogenic substances contained in the sludge.

With respect to the development of the sustainable development policy in waste management, the hierarchy of waste management is most important, according to which priority is given to preventing the formation and minimising the generation of waste. Furthermore, environmental education which promotes appropriate waste management is under way.

With respect to the reduction of waste generation, innovative integrated solutions are supported which ensure prevention of the generation and reduction of pollution of various environmental compartments; in particular by the implementation of advanced, low- or non-

waste technologies which may contribute to the production and consumption of goods so as to ensure the achievement of high profitability and environmental protection.

The national legislation also promotes the introduction of the EMAS environmental management system which encourages entrepreneurs to identify environmental issues and to plan relevant measures in order to reduce negative environmental impacts. Certain incentives are introduced for companies which participate in the environmental management system. For example, in the case of the Register of Entrepreneurs who trade in batteries a registration fee is paid for the entry into the register. However, entrepreneurs who have implemented an Environmental Management System consistent with the European Eco-Management and Audit System (EMAS) and obtained the entry into the register referred to in the Act of March 12, 2004 on the national eco-management and audit system (EMAS) (Journal of Laws No. 90, Item 631 as amended) are exempt from paying the fee.

Moreover, a system of product and deposit fees has been introduced, which imposes a requirement on manufacturers and importers to recover and recycle packaging and after-use waste. Product fees already include:

- packaging,
- electrical and electronic equipment,
- batteries,
- lubricating oils,
- tyres.

The product fee creates an incentive system for the reduction of the generation of environmentally troublesome waste and promotes waste recycling. Furthermore, other financial instruments, such as increased fees for waste storage, are also applied. Moreover, research of and launching new, more durable products with lower content of hazardous substances is supported to ensure their easier recycling.

Efforts are also made to execute the provisions of the *2009-2032 National Asbestos Removal Programme*¹. The chief activities are of education and information nature and aim to increase public awareness of the harmfulness of asbestos. Approx. PLN 5.75 million from the state budget was spent for the project in 2007-2008.

¹Approved by way of Resolution of the Council of Ministers no. 122/2009 as continuation of the *Programme for the removal of asbestos and asbestos-containing products in Poland*

Subject 4

Information regarding measures taken for implementation of sustainable development policy within the mining area

Policy and legal regulations

When specifying the Polish legislation with reference to meeting the sustainable development rule it should not be forgotten that the tradition of mining law in Poland has a history of several centuries, same as in case of mining itself on Polish land. At first the rules for mining of mineral resources were determined by unwritten common law, whose codification gradually started in the medieval period.

On this account the foundations (beginnings) of the future sustainable development rule can be found already in the post-war mining law (a decree dated 6 May 1953 – Mining Law; Journal of Laws dated 1978 No. 4, item 12, as amended). For example in Art. 4 of the decree that is not binding any longer we read that mining of mineral resources is performed in such a way as to provide: a reasonable management of the mineral resource deposit, appropriate utilization of this deposit's resources and limitation of possibilities to cause damage of and changes in the natural environment and historic assets. This was not the only legal act referring to management of mineral resources deposits, which introduced ecological regulations that were – for those times – progressive. As an example we may name, say, *the Act dated 26 October 1971 on protection of agricultural and forest lands* (Journal of Laws No. 27, item 249, as amended) as well as *the Act dated 31 January 1980 on protection and shaping of the environment* (Journal of Laws dated 1983 No. 3, item 6, as amended).

As a result of political transformations that took place in Poland after 1989, legal regulations were reformed and adapted to market economy. The Act dated 23 December 1988 on business activity (Journal of Laws No. 41, item 324) repealed the provisions on state monopoly on mining of mineral resources. New mining law was adopted in the form of the Act dated 4 February 1994 – Geological and Mining Law (Journal of Laws No. 27, item 96) that remains in force until present days after being amended several dozens times. This Act constitutes a kind of a “mining code” and forms a basis for issuing of over 30 secondary legislation acts that regulate a whole spectrum of detailed issues such as:

- occupational health and safety, management of operation and specialist fire protection in underground mining facilities (Regulation of the Minister of Economy dated 28 June 2002; Journal of Laws No. 139, item 1169, as amended),
- ~~occupational health and safety, management of operation and specialist fire protection in strip mining facilities that extract basic mineral resources (Regulation of the Minister of Economy dated 17 June 2002; Journal of Laws No. 96, item 858, as amended),~~
- occupational health and safety, management of operation and specialist fire protection in mining facilities extracting mineral resources via boreholes (Regulation of the Minister of Economy dated 28 June 2002; Journal of Laws No. 109, item 961, as amended),
- occupational health and safety, management of operation and specialist fire protection in strip mining facilities that extract common mineral resources

(Regulation of the Minister of Economy dated 28 June 2002; Journal of Laws No 109, item 962, as amended),

- the register of mining areas (Regulation of the Minister of Environment dated 21 May 2005; Journal of Laws No. 135, item 1131),
- mine rescue services (Regulation of the Minister of Economy dated 12 June 2002; Journal of Laws No. 94, item 838, as amended),
- deposits of deep ground waters classified as brines, medicinal and thermal waters and deposits of other medicinal mineral resources, as well as classification of common mineral resources of specific deposits or geological units into basic mineral resources (Regulation of the Council of Ministers dated 14 February 2006; Journal of Laws No. 32, item 220, as amended),
- underground landfills (Regulation of the Minister of Environment dated 16 June 2005; Journal of Laws No. 110, item 935),
- criteria and procedures for allowing waste into underground dumps (Regulation of the Minister of Economy dated 22 August 2007; Journal of Laws No. 163, item 1156),
- types of waste that can be non-selectively stored in underground landfills (Regulation of the Minister of Economy dated 26 October 2007; Journal of Laws No. 209, item 1514),
- detailed requirements that should be met by projects for deposits development (Regulation of the Minister of Environment dated 27 June 2005; Journal of Laws No. 128, item 1075),
- covering specific underground works performed with the use of mining technique with the provisions of Geological and Mining Law (Regulation of the Council of Ministers dated 23 April 2002; Journal of Laws No. 62, item 561, as amended),
- operating plans for mining facilities (Regulation of the Minister of Interior and Administration dated 14 June 2002; Journal of Laws No. 94, item 840, as amended),
- natural hazards in mining facilities (Regulation of the Minister of Interior and Administration dated 30 April 2004; Journal of Laws No. 99, item 1003, as amended),
- storage and use of blasting materials and equipment in mining facilities (Regulation of the Minister of Economy, Labour and Social Policy and Administration dated 1 April 2003; Journal of Laws No. 72, item 655),
- detailed rules for creation and functioning of mining plant liquidation fund (Regulation of the Minister of Economy dated 24 June 2002; Journal of Laws No. 108, item 951),
- gathering and making available geological samples and records (Regulation of the Minister of Environment dated 19 December 2001; Journal of Laws No. 153, item 1780),
- method and scope of performing the duty by the contractor operating geological works to make available and to transfer information and samples to geological administration authorities (Regulation of the Minister of Environment dated 19 December 2001; Journal of Laws No. 153, item 1781),
- geological works projects (Regulation of the Minister of Environment dated 19 December 2001; Journal of Laws No. 153, item 1777),
- cut-off parameters criteria for mineral resources deposits (Regulation of the Minister of Environment dated 18 December 2001; Journal of Laws No. 153, item 1774, as amended),

- specific requirements that should be met by geological records of mineral resources deposits (Regulation of the Minister of Environment dated 6 July 2005; Journal of Laws No. 136, item 1151, as amended),
- specific requirements that should be met by hydro-geological and geological-engineering records (Regulation of the Minister of Environment dated 3 October 2005; Journal of Laws No. 201, item 1673),
- specification of cases, in which it is required to prepare other geological records (Regulation of the Minister of Environment dated 23 June 2005; Journal of Laws No. 116, item 983),
- specific requirements that should be met by register surveys of mineral resources deposits (Regulation of the Minister of Environment dated 20 June 2005; Journal of Laws No. 116, item 979),
- disposing of a right to geological information against remuneration and making available geological information used free of charge (Regulation of the Minister of Environment dated 19 June 2006; Journal of Laws No. 124, item 865),
- measurement and geological records (Regulation of the Minister of Economy dated 19 June 2002; Journal of Laws No. 92, item 819),
- qualifications required of managers and supervisors of mining facilities operation, mine surveyor and mine geologist and list of positions in mining plant operation that require specific qualifications (Regulation of the Minister of Economy dated 11 June 2002; Journal of Laws No. 84, item 755, as amended),
- qualifications required of managers and experts performing activities within the scope of mining rescue services (Regulation of the Minister of Economy dated 15 December 2005; Journal of Laws No. 261, item 2186, as amended),
- royalty rates (Regulation of the Council of Ministers dated 17 November 2008; Journal of Laws No. 215, item 1357),
- sample forms of information regarding royalty for extracted mineral resources (Regulation of the Minister of Environment dated 3 December 2001; Journal of Laws No. 153, item 1773),
- sample forms of information regarding tankless warehousing of substances and storage of waste (Regulation of the Minister of Environment dated 20 June 2005; Journal of Laws No. 116, item 980, as amended),

Apart from the indicated Act – Geological and Mining Law and regulations issued on its basis a large number of other legal acts exist that regulate directly or indirectly the detailed rules of environmental protection in relation with management of mineral resources. These include above all: Act dated 27 April 2001 – Environmental Protection Law (Journal of Laws of 2008 No. 25, item 150, as amended), Act dated 27 April 2001 regarding Waste (Journal of Laws of 2007 No. 39, item 251, as amended), Act dated 10 July 2008 on extraction waste (Journal of Laws No. 138, item 865), Act dated 18 July 2001 – Law on Use and Conservation of inland waters (Journal of Laws of 2005 No. 239, item 2019, as amended), Act dated 7 July 1994 – Construction Law (Journal of Laws of 2006 No. 156, item 1118, as amended), Act dated 27 March 2003 on area planning and development (Journal of Laws No. 80, item 717, as amended), Act dated 16 April 2004 on environmental protection (Journal of Laws No. 92, item 880, as amended), Act dated 3 October 2008 on access to environmental information and protection, participation of general public in environmental protection and environmental impact evaluations (Journal of Laws No. 199, item 1227, as amended), Act dated 3 February 1995 on protection of agricultural and forest land (Journal of Laws of 2004 No. 121, item 1266, as amended), Act dated 13 April 2007 on prevention of environmental loss and its remediation (Journal of Laws No. 75, item 493, as amended). The indicated regulations form

an extensive legal system referring to mining and geology. It is consistent with Community Law and thus mostly with the acts that recognize the sustainable development rule as one of their priorities, i.e.: Treaty Establishing the European Community and the Treaty on European Union (consolidated versions; EU Official Journal C 321 E dated 29.12.2006, page 1) and with the Constitution of the Republic of Poland dated 2 April 1997 (Journal of Laws No. 78, item 483, as amended).

The character of sustainable development rule in Community Law is very broad. This rule conditions the whole of economic and social development, which is clearly visible in art. 2 of the Treaty Establishing the European Community that recognized as one of its basic tasks the support in the entire European Union of sustainable and continuous development of economic activity as well as of high level of environmental protection and natural environment quality improvement. Likewise, in art. 2 of the Treaty on European Union it is stated that Union sets as one of its major goals the support of economic and social development as well as high employment level and reaching a sustainable and continuous development.

A somewhat smaller scope that refers mainly to environmental protection is presented by the sustainable development rule in art. 5 of the Constitution of the Republic of Poland, which states what follows:

The Republic of Poland guards the independence and inviolability of its territory, provides freedom, human rights and citizens' safety, guards the national heritage and provides environmental protection being guided by the sustainable development rule. "On the other hand, it arises from art. 74 of the Constitution that Public authorities shall pursue policies ensuring the ecological security of current and future generations. Moreover, everyone has the right to obtain information regarding environmental conditions and protection. Public authorities must support the actions that citizens undertake in order to protect and improve the condition of the environment. Pursuant to the provisions of art. 86 of the Constitution – everyone shall care for the quality of the environment and shall be held responsible for causing its degradation.

The term of environmental protection was defined in the Environmental Protection Law Act. It stands for an act of undertaking or abandoning actions that allows to keep or restore environmental balance, and that consists in particular in: efficient shaping and management of environmental resources in accordance with the sustainable development rule, preventing pollution and restoring proper condition of environmental elements.

Art. 71 of the Environmental Protection Law Act has major significance for efficient management of mineral resources deposits. The mentioned article provides that rules of sustainable development and environmental protection are the basis for development and updating of the country area development concept, regional development strategy, regional area development plans, studies of district area development conditioning and directions and local area development plans. These documents identify the solutions required for prevention of pollutants generation, provision of protection against pollutants already being generated and restoration of proper environmental condition. The article also establishes performance conditions for undertakings that allow achieving optimal results within the scope of environmental protection

Efficient management of environmental resources is provided in –pursuant to the provisions of art. 72 of the Environmental Protection Law Act – the phase of district area development conditioning and directions and in local area development plans, by e.g. establishing

programs for efficient use of the land surface, including areas where mineral resources deposits are exploited, as well as consideration of mineral resources areas and current and future exploitation requirements for these deposits.

The Environmental Protection Law Act emphasizes however that detailed rules for management of a mineral resource deposit and environmental protection in connection with the deposit's exploitation are determined by the provisions of the already mentioned Geological and Mining Law Act that constitutes the "mining code."

Considerable part of the activity regulated by the Act (searching for or recognition of mineral resources deposits, extraction of mineral resources from deposits, tankless storage of substances and storage of waste in rock mass including underground mining workings) is subject to getting a concession. It should be added by the way that granting a concession must be preceded by the investor getting decisions regarding environmental conditioning, based on *the Act on information about the environment and its protection, participation of public in environmental protection and evaluations of environmental impact*. In most of the mining enterprises (excluding e.g. extraction of common mineral resources on an area lesser than 2 ha and yield lesser than 20,000 sq. m annually, without the use of explosives and outside areas covered by environmental protection forms) evaluation of environmental impact is conducted within the proceedings regarding issuing decisions on environmental conditioning. It is worth adding that participation of general public in such proceedings is ensured.

Returning however to the specifications of the Geological and Mining Law Act, the participation of local governments in undertaking concession decisions should be considered as a symptom of the sustainable development rule. A proper commune head, mayor or town president give their opinion or agree with the concessionary authority on opinions regarding granting concession in terms of investment's compliance with the local area development plan.

It is also significant in terms of environmental protection that the Act provides for the possibility to establish securities of claims that may arise due to operation of activities under concession, if a particularly important social goal connected in particular with environmental protection weighs in favor of it. Such protection is obligatory in case of storage of waste in the rock body.

Another important instrument of environmental protection is the project for deposit development that should be attached to the application for concession and for extraction of mineral resources deposits. The project for deposit development specifies the intensions referring to protection of mineral resources deposits and exploitation technology providing limitation of its detrimental impact on the environment. The project must cover an optimal variant of the deposit's resources use including geological conditions for its occurrence, requirements in connection with environmental protection, public safety, safety of human life and health, technical abilities and economic conditions for extraction of the mineral resource. Development and extraction of the deposit should be designed in such a way as to enable the future development of the undeveloped deposit section and the development of mineral resources from adjacent deposits.

The concession decision itself specifies among others requirements regarding activity under concession, in particular in terms of public safety and environmental protection. Concessions for extraction of mineral resources from deposits determine also the boundaries of the mining

area and terrain, and the mining area is the space within which the entrepreneur may operate his/her activity and the mining terrain is the range of the mining plant's predicted harmful impact. Moreover, such concessions specify the resources of the mineral resource deposit that can be extracted as well as their minimal use degree.

The concessionary authority refuses to grant a concession if the intended activity infringes the environmental protection requirements, including those connected with rational management of mineral resource deposits and with reference to the extraction of accompanying mineral resources, or render impossible the use of the property in accordance with their intended use. Refusal to grant a concession for operation consisting in storage of waste within rock body may also take place if there is a technically, environmentally or economically substantiated possibility to recycle or neutralize waste by means other than storage.

In terms of the sustainable development rule of extreme importance is the obligation to create a mining plant liquidation fund, which is imposed on the entrepreneur that was granted a concession for mineral resource extraction, tankless storage or storage of waste in the rock body. The amount of deductions for the fund is calculated by entrepreneur separately for each mining plant and constitutes an equivalent of the part of depreciation deductions from the mining plant's fixed assets determined in accordance with the income tax regulations. The entrepreneur gathers funds on a separate bank account by making payments during the period from the day the activity is started until the moment the liquidation of mining plant begins. The funds can be used exclusively to cover the cost of liquidating the mining plant or its marked part, also in case the entrepreneur goes bankrupt.

Another important legal instrument that puts the sustainable development rule into practice is the plan of mining plant operation that the entrepreneur must prepare before starting to operate his/her activity. The entrepreneur attaches to the plan any decisions regarding environmental use. Operation plan that is subject to approval by appropriate mining supervisory authority determines the detailed undertakings required for e.g. for ensuring safety, deposit management, environmental protection and damage prevention. Opinion on the operation plan must be expressed by proper local-government agency that refers to compliance of the entrepreneur's intentions with environmental impact among other things.

Occupational safety of mining plant workers is also an important aspect of the sustainable development rule. The Geological and Mining Law Act provides for a number of regulations that guarantee protection of workers, such as e.g. requirement to operate mining plant only under management and supervision of persons having proper qualifications, which is confirmed by proper mining supervisory authorities. On the other hand, secondary legislation determines positions in mining plant operations that can be occupied exclusively by persons of specific vocational qualifications and health conditions, which is also confirmed by proper mining supervisory authorities. Moreover, a vast number of obligations in terms of occupational health and safety is imposed on entrepreneur, e.g.: recognition of hazards connected with the operation of a mining plant, prevention and elimination of such hazards, evaluation and providing documentation of occupational risk present at a mining plant, employing properly organized operating personnel, training of employees in safe work procedures, operating properly organized mining-rescue services

In contrast, among obligations referring to the protection of mineral resources deposits is the requirement for an entrepreneur to run records of deposit resources. This obligation consists in determination of changes in those resources. Entrepreneur must also keep measurement and

geological records including measurement, calculation and cartographic documents that present the mining and geological situation as well as surface situation within the boundaries of the mining terrain.

The obligation to pay royalties by the entrepreneur is also very important for putting the sustainable development rule into practice. In case of concession for extraction of mineral resources from deposits, the royalty is a product of the fee rate for a given mineral resource type and the quantity of extracted mineral resource. In case of concessions for other types of mining activity, the royalty is a product of the fee rate and the number of square kilometres of terrain, on which the activity is operated. If a mineral resource is extracted without the required concession or with gross infringement of extraction conditions, the proper authorities settle an increased fee. It is very important for the sustainable development rule that 60% of the fees constitute the income of the commune within whose area the activity is operated and 40% of the fees constitute the income of the National Environmental Protection and Water Fund. It is worth adding that in accordance with the Environmental Protection Law Act, the moneys of the National Environmental Protection and Water Fund are allotted for performance of tasks that serve environmental protection and water management, which result from the sustainable development rule.

The entrepreneur is responsible for damage caused by the mining plant operation. In case of the lack of entrepreneur or successor to his/her rights, the claims for reparation of damage caused by the plant operation are vested against the National Treasury represented by a competent mining supervisory authority.

The Geological and Mining Law Act regulates also entrepreneur's obligations connected with the last stage of mining activity – liquidation of a mining plant. The entrepreneur must secure or liquidate mining workings and mining plant structures and equipment; secure the unexploited part of mineral resource deposit; secure adjacent mineral resources deposits; take measures required for protection of adjacent facilities' workings; take measures required for environmental protection, land remediation and development of areas of previous mining activity. Mining plant liquidation is conducted based on the operating plan of the liquidated mining plant that is approved by a mining supervisory authority. It should be mentioned that after submission by the entrepreneur of the final decision of the proper mining supervisory authority that approves the operating plan of the liquidated mining plant, bank starts making payments from the mentioned mining plant liquidation fund. Entrepreneur may use the fund moneys exclusively to cover the cost of mining plant liquidation. When the mining plant liquidation is completed the mining supervisory authority gives consent to liquidate the fund after asking the opinion of a competent commune head or city mayor.

Regulations of the Geological and Mining Law Act provide for some exceptions in case of smallest entrepreneurs. For example, in case of searching, identification and extraction of common mineral resources (e.g sand, gravel) on an area not exceeding 2 ha, if annual extraction of mineral resource is lesser than 20,000 cubic meters and activity is operated without the use of explosives, investor must only get a concession from the starost, without the requirement to prepare a deposit development plan and a mining plant operating plan.

During operation of mining activity and liquidation of a mining plant, mining supervisory authorities conduct inspections regarding rational management of deposit and protection of respective environmental elements. When supervising and controlling the mineral resources

deposits' management during their exploitation the mining supervisory authorities enforce the following:

- identification of the deposit and conditions of its occurrence made in advance, which includes hydro-geological, geological and engineering conditions, natural hazards, as well as their proper documentation,
- adjusting the scope of exploitation predicted in deposit development projects to mining and geological conditions, and rules of rational deposit management,
- compliance of exploitation intentions included in the operating plans submitted for approval with conditions specified in concession decisions and projects for deposit development,
- compliance of the deposit's resources use with the approved operating plans,
- correctness of keeping deposits' resources records, including in particular proper documentation of losses and justification for resources reclassification,
- formal settlement of resources and protection of unused deposits parts in liquidated mining plants.

Among the tasks of mining supervisory authorities are also supervision and inspection of mining plants in terms of occupational health and safety and fire safety. One of the aims of the actions performed in that respect is limitation and consequently elimination of technical hazards connected with operation of machines and equipment by employees at the workplace. In accordance with legal regulations included in article 111 of the Geological and Mining Law Act this goal is accomplished with reference to products meeting the requirements of compliance evaluation specified in the regulations that implement EC directives (so-called harmonized regulations) as well as with reference to products approved for use in mining plants by administrative decision of the State Mining Authority President (so-called area of unharmonised law). The President of the State Mining Authority issues a decision on approval of a given product for use in mining plants after determining that the product meets technical requirements, which is confirmed by tests results and assessment issued by authorized units based on the conducted tests. If during use it turns out that a product does not meet technical requirements influencing its safety level, the President of the State Mining Authority may cancel or modify approval of such a product for use in mining plants. These actions aim at guaranteeing high level of products safety in order to maximally limit the hazards that such products may pose to their users.

The second activity area of the President of the State Mining Authority as a market supervisory authority is carrying out tasks within the national system of products' control. There are two kinds of such tasks. First of all – checking whether products meet fundamental requirements. Secondly, conducting procedures regarding products that are marketed or put into use and that do not comply with fundamental requirements. Market supervision guarantees that products covered by EC harmonizing legislation that pose a threat to users' health and safety (if used in accordance with their purpose, in predictable conditions and properly installed and maintained) or do not comply with the appropriate requirements established in EC harmonizing legislation will be withdrawn from circulation or marketing them shall be prohibited or limited.

During inspections of mining plants the mining supervisory authorities check compliance of proceedings with procedures included in the document of safety and health protection of workers employed in a mining plant. This document is prepared for each mining plant by the entrepreneur, which allows for identification and updating of present hazards as well as for

undertaking prevention actions aiming at elimination or limitation of these hazards' occurrence.

Best practices in the mining industry

Supervision and inspections regarding environmental protection

Employees of the State Mining Authority conduct annually several dozens of inspections regarding deposit management and several dozens inspections connected with environmental protection issues in mining plants.

The State Mining Authority prepares each year a "Report regarding extraction of common mineral resources" that deals with completion of tasks resulting from conducted supervision over and control of operation of strip mining plants that extract common mineral resources. For example, in the last report of 2008 it was observed that the number of granted concessions and registered mining plants of that type increased (4921 plants as of 31 December 2008). Plants employing up to 5 people and extracting less than 35 thousand tones per annum are prevalent. Inspections conducted in those plants by mining supervisory authorities in 2008 (3824 inspections in 51% of supervised mining plants) showed that the most frequent irregularities are deficiencies in records referring to plant operation (required instructions, manuals, projects), non-observation of parameters for: slopes, edges, protection zones and safety zones and improper marking and protection of plant area.

Apart from mining activity regulated by the Geological and Mining Law Act a phenomenon of the so-called illegal exploitation. In 2008, 112 cases of illegal exploitation of mineral resources were recorded, whereas since 2005 a slight drop in registered cases regarding illegal exploitation is observed.

Environmentally-friendly investments

In order to minimize adverse transformations of respective environmental elements, based on art. 411 section 2 of the Environmental Protection Law Act, the President of the State Mining Authority gives opinions regarding applications of entrepreneurs for subsidizing environment-friendly mining tasks from the funds of the National Environmental Protection and Water Management Fund. Opinions regarding 7 such applications were given in 2008. For example the Kompania Węglowa S.A., "Ziemowit" Hard Coal Mine Division applied for subsidizing of construction of a transfer system for mine water purified of radium, from the level of 650 metres on the section from "Ziemowit" Hard Coal Mine to salt water pump station of "Piast" Hard Coal Mine – Ruch I. Spółka Restrukturyzacji Kopalń S.A. applied on the other hand for subsidizing of the project: "Limitation of negative environmental impact of CZOK Plant resulting from the change of the terrestrial water drainage system into an abyssal system in the "Saturn" Region". Application of the Katowicki Holding Węglowy S.A. regarded modernization of the water – sludge circulation system in the Mechanical Coal Processing Facility of the "Staszic" Hard Coal Mine.

Cooperation with local government bodies

Mining supervisory authorities co-operate with authorities of local government whereas the dominating form of this cooperation is activity of liaison teams and coordination commissions. The task of these committees is to form a basis for putting into practice the

conditions for sustainable development of mining communes, allow the entrepreneur to exercise his rights resulting from the concession to extract the mineral resource, aiming at minimization and timely remediation of damage caused by the operation of mining plants. An example may be the Liaison Team for coordination of activity within the influence area of impact of mines' exploitation on A-1 toll motorway, on the section from Świerklany interchange to the country border in Gorzyczki. In 2008 the subjects discussed during Teams' sessions regarded e.g. the planned scope of mining exploitation of mines and forecasts for this exploitation impact on aboveground structures; issues connected with non-continuous deformations, buildings that lean over for more than 15mm/m, surface fens and inundated areas as well as remediation of damage in structures, sewage system and traffic routes. Other subjects of works were also issues connected with mining exploitation in cities' safety pillars, recording of mining tremors, deformations on surface of the area within the safety pillars, e.g. for PKP route Trzebinia – Kraków, post-flotation water tank and for the area of village Luszowice. Other discussed issues were exploitation aims of the respective mines and connected forecast hazards for the surface of the area. In 2008, in all District Mining Offices, there were a total of 19 sessions of Liaison Teams and Coordinating Commissions.

Protection of structures

The essence of structures' protection mining and post-mining areas is proper prevention in terms of mining and construction. Mining exploitation is conducted in protected areas retaining specified discipline, based on long-term exploitation programs. Commission for Surface Protection at the President of the State Mining Authority expresses opinions Technical solutions planned by entrepreneurs.

In 2008 the Commission gave opinions on:

- "Program of protection of buildings in the Nowy Bytom district of Ruda Śląska and of main shafts and structures of the mining plant "Pokój" Hard Coal Mine in terms of mining exploitation in coalfields: 502wg, 502wd and 504 during the period 2008 – 2013";
- "Mining exploitation and surface protection program of for the years 2009 – 2011 and up to 2014 of Kompania Węglowa S.A., "Bobrek – Centrum" Hard Coal Mine Division".

In each of the examined cases the scope of undertakings planned by entrepreneurs were analyzed and evaluated, within the context of forecast mining exploitation impacts. A consequence of programs' performance is e.g. determination of nuisance connected with structures' use and even their temporary shutting off, which requires social approval. Social dialogue is essential and is realized by participation in Commission sessions of local self-governments and area users representatives and by functioning of Liaison Teams.

Area planning and development

Mining supervisory authorities agree each year on several hundreds of area development plans (there were 251 plan drafts agreed upon in 2008) During these procedures attention is given particularly to ensuring that proposed planning solutions allow the mining entrepreneur to exercise the rights under concession for extraction of mineral resource from the deposit and provide keeping conditions for health, human safety and property protection on areas covered by the impacts of mining exploitation. In 2008 the mining supervisory authorities agreed on 16 local area development plans for mining areas, considering the necessity to

integrate the actions of mining entrepreneurs with the interest of mining communes and local communities.

The mining supervisory authorities participate also in the development of studies regarding area development conditions and trends in communes that include mining areas within their preparation scope. In 2008 the mining supervisory authorities expressed their opinion in 253 such cases. By virtue of the Area Planning and Development Act the preparation of study is obligatory for area situated within the commune administrative limits and the study is not an act of local law. The study should include in particular hazards to people and property safety and occurrence of: natural geological hazard areas, documented mineral resource deposits, ground water resources and mining areas. They specify the following: areas exposed to hazard of flooding and sliding of rock masses, structures or areas for which a safety pillar is determined within the mineral resource deposit and areas requiring transformation, revitalization or remediation. Moreover, directors of the district mining offices and the State Mining Authority Director for Inspection of Powered Mechanical Equipment function as construction supervision authorities. Annually they issue several hundred of decisions regarding construction permit, several dozens of decisions regarding demolition permits for mining plant structures of and decisions regarding permit for use of mining plant structures. They also receive several hundreds of notifications regarding construction works.

Access to information

The President of the State Mining Authority gathers and archives measurement and geological records of liquidated mining plants in the Measurement and Geological Records Archive of the State Mining Authority. In this archive the measurement and geological records of liquidated mining plants are made available on conditions and by way specified in the Act regarding making available information on environment and environmental protection, participation of general public in environmental protection and evaluations of environmental impact. In 2008 measurement and geological records of as well as other documents of 34 mining plants (marked parts of liquidated plants) were accepted into the archive. As of the end of 2008 there were 14,234 items (that were document collections – map sets) registered in the documents base.

Written information regarding mining and geological conditions of building lots situated on post-mining areas was provided to town and commune offices and investors on an ongoing basis. 568 such sets of information were prepared in 2008. Appropriate division of national archives and appropriate town and commune offices were informed about taking over of measurement and geological records of a liquidated mining plant as well as of possibility to issue information based on such records.

Remediation and revitalization of post-mining areas

Operation of mining activity is connected with the necessity to occupy land and change the method of its development for the time the mineral resources are exploited. The amount of occupied area is closely connected with the exploitation method. The total area of land on which mining operation was ceased in 2008 and which required remediation amounted to 8,552.0 ha which is 22.4% of the total area used by the mining industry. The final result of remediation of land that was degraded by mining is completion of works on land of area amounting to 474.4 ha, which is 12.4% of the total area requiring remediation, on which operation of mining activity was ceased. Largest land areas were remediated within the brown

coal mining industry – 300.6 ha and rock resources mining industry – 78.8 ha. In 2008 the mining industry transferred a total of 635 6 ha of remediated land to other users for target development, out of which the most came from the brown coal mining industry – 483.4 ha.

A good example of completion of a complex post-mining area remediation program is the sulphur mining industry. Agricultural use was the predominant type of land use prior to start of sulphur deposits' exploitation. Sulphur deposits' exploitation was performed by strip mining ("Piaseczno" mine and later "Machów" mine) and caused a total devastation of soil in the area of strip mine workings, overlay dumping grounds and under ore processing structures and industrial infrastructure structures. To portray the scope of transformations: exploitation of "Piaseczno" Mine caused formation of a strip mine workings of about 160 ha of area and depth of up to 42 m as well as an overlay dumping ground of about 120 ha of area. Exploitation of sulphur deposit conducted by "Machów" Mine led to formation of a strip mine workings of about 560 ha of area and depth of up to 110 m. Restoring the original type of use on such considerable land areas was impossible, especially within the area of strip mine workings. Restoring use value to post-mining land required completion of particularly complex remediation programs and development of the land into land of forest-meadow-water character. As a result, the area originally used as agricultural area will be used after the completion of the remediation mostly as forest, water and recreation and meadow areas.

Revitalization of post-mining activity areas that are situated in urban development areas is an even more complex undertaking. Within this scope the following examples can be given:

- regeneration of post-industrial grounds of the liquidated "Gliwice" Hard Coal Mine conducted within the "Nowe Gliwice" project that assumed transformation of post-industrial grounds into enterprise zone including enterprise incubator, economic activity zone and regional education center that will incorporate a high school of enterprise and vocational school of arts.
- Development of the grounds of previous "Katowice-Kleofas" Mine (grounds of former "Gottwald" mine) in connection with performance of the project named "Silesia City Centre", as a result of which the post-mining area was developed with a shopping and entertainment centre, a housing estate and office and multifunctional buildings.

Protection of surface water from salinity

Other examples of undertakings aimed to reduce the negative impact of the mining industry on the natural environment, the completion of which allowed to significantly reduce this scale, are undertakings consisting in protection of surface water from salinity:

- "Olza" collector that forms the hydro-technical protection system for the Górna Odra river against saline water coming from the mines of the Rybnicki Coal District. This system was used in 2008 to drain 153.7 thousand tones of salt in beneficial periods of increased absorbing capacity of the Odra river;
- "Dębieńsko" Sp. z o.o. Mine Water Desalination Plant that desalinates the water coming from JSW S.A. "Budryk" Hard Coal Mine. In 2008 30.2 tones of salt load was managed, which stopped it from entering ground water. Desalination plant is situated outside the competence area of the mining supervisory authorities.
- Start of implementation of the concept of hydro-technical protection of the Vistula river for saline mine water of "Piaśt" Hard Coal Mine and "Ziemowit" Hard Coal Mine with the use of mine workings of Ruch II of "Piaśt" Hard Coal Mine as a

retention and dosing tank allowed to lower the load of chlorines and sulphates released to the environment by about 240 thousand tones when compared to 2007.

Utilization of former mine plants' structures

In the former Salt Mine "Wieliczka" a tourist route, a museum and a sanatorium were opened. Similarly, in the former Salt Mine "Bochnia" there is a sanatorium and a tourist route. Tourists can also visit the Monumental Mine – Museum in Tarnowskie Góry and soon a tourist route will also be available in the Monumental Mine of Ore Mining in Olkusz and in "Bolesław" S.A. Mining and Metallurgy Plant in Bukowno. In the former Experimental Hard Coal Mine "M-300" in Zabrze "Guido" Monumental Hard Coal Mine was created with a tourist route and in which it is possible to operate cultural activity. In the "Kłodawa" Salt Mine that is still working but is earmarked for liquidation a tourist route was opened. An Underground Oil and Fuels Storage Facility was created in the exploited chambers of the "Góra" Borehole Salt Mine. An Underground Natural Gas Storage Facility is being developed in the exploited "Wierzchowiec" Natural Gas Mine. Within the area of "Katowice" Ruch "Gotwald" Hard Coal Mine an enormous shopping centre "Silesia City Centre" was established.

Safe liquidation of mining plants

Control of the natural hazards level (methane, crumping and hydrogen sulphide hazards – in borehole mining of oil and natural gas) happens during and after liquidation of a mining plant. Scientific research is financed from the central budget, budgets of high schools and mining enterprises. This research is aimed at protection of surface in case of shallow exploitations (regeneration of mining areas).

In the period from 1990 to 2008 52 mining plants out of 101 underground mining plants were liquidated (restructured), including 31 out of 70 plants that extracted hard coal.

Safety conditions in liquidated mining plants in Poland

Natural hazards, in particular water, methane and fire hazards have fundamental influence on occupational health and safety and general safety in the process of mines' liquidation. Another significant hazards source is usage of physically worn out casing elements and of antiquated mining machines and equipment in the liquidated mines. During mines liquidation generically new hazards are formed that are caused by demolition of structures. In the period from 1990 to 2009 in the liquidated mines there occurred:

- 20 fatalities including 2 on surface,
- 27 severe accidents including 5 on surface,

and the following incidents:

- 10 fires,
- 2 methane ignitions,
- 2 other incidents, i.e. escape of backfilling material and backfill congestion during the liquidation of a shaft.

As the liquidation process continued, a change in the accidents' nature, causes and places of occurrence was visible. It was connected to a large degree with transfer of the liquidation works from underground mining workings to the surface. At the same time the nature of the performed works changed from typically mining and liquidation (liquidation of casing in

mechanized walls, liquidation of equipment for delivery of output and transport of materials, shaft equipment liquidation) to demolition and disassembly works on surface that required construction experience and knowledge from the contractors.

Another aspect was mining entrepreneurs employing service companies on surface that do not have equipment appropriate for such works as well as employing people that are young, inexperienced and lack specialist preparation.

Water management in connection with the liquidation of mining activity

In order to integrate the water drainage systems and seeking to complete the goals included in the correction of the Government Program "Hard Coal Mining Industry Reform in Poland in the years 1998 – 2002" the Management of the Spółka Restrukturyzacji Kopalń S.A. opened on 22 August 2000 the "Central Mines Drainage Plant". The scope of plant's activity is e.g. the protection of mines from the water hazard by performing underground works with the use of mining technique that are performed in order to construct or sustain the drainage system in former mining plants of hard coal mines. Among its tasks there are also management of mines' property required for functioning of drainage, constant monitoring within the scope of changes in the level of rock mass hydration, hydraulic connections between mines of the Górnosląskie Coal Basin and environmental impact of the water drainage process. Pump stations of liquidated mines are connected to the Central Plant of Mines Dehydration (CZOK). When water hazard to adjacent mines are eliminated CZOK liquidates the pump stations and redundant infrastructure. It also undertakes initiatives aiming at increase in the sale of potable and industrial water and at use of heat from the pumped water. Creation of the Central Plant of Mines Dehydration that operated water drainage of the liquidated mines with the use of borehole pumps allowed reducing the cost of the process by about 20%.

Changes in the water conditions in the rock body and on the surface are of utmost importance among the processes connected with mines liquidation that can be initiated within the region of the liquidated mine. Liquidation of water drainage in an isolated mine causes restoring of the natural hydrodynamic conditions in the rock body. In special cases increase in the hydration of the area surface may occur. Stationary water drainage in liquidated hard coal mines is conducted in the following regions: Saturn, Siemianowice (Siemianowice System and Chorzów System), Jan Kanty, Pstrowski, Szombierki, Powstańców Śląskich – Bytom, Dębieńsko.

Protection of infrastructure outside of the mining plant area

Plant-owned flats were transformed into a separate dwelling apartments ownership and on the basis of mine-owned holiday centres companies operating recreation and tourist activity were created. Sport and recreation objects were made available to the general public by transferring these objects to field authorities (local self-governments) Hotels were transformed into Houses for the Elderly or other objects of social use.

Examples of using the mining plant liquidation fund

Within the area of the local District Mining Authority in Rybnik, in the operating "Rydultowy – Anna" Hard Coal Mine the following shafts were liquidated in 2006: "Głowacki" and "Kościuszko". The liquidation costs were covered from the mining plant liquidation fund

Within the area of local competence of the District Mining Authority in Katowice in the operating:

- “Staszic” Hard Coal Mine, Shaft III – 100% of the liquidation costs covered from the mining plant liquidation funds of KHW S.A.,
- “Murecki” Hard Coal Mine, “Stanisław” Shaft – 70% of the liquidation costs covered from the mining plant liquidation funds of KHW S.A., 30% covered from own moneys.

Costs of shafts’ liquidation in “Katowice – Kleofas” Hard Coal Mine were covered from a budget subsidy.

Within the area of the local District Mining Authority in Gliwice, in the operating “Pokój” Hard Coal Mine the following shafts were liquidated: “Anna”, “Maria” and “Klara”. In case of KGHM Polska Miedź S.A., “Polkowice-Sieroszowice” Mining Plant Division, the liquidation of P-III and P-IV shafts was covered from the mining plant liquidation fund of KGHM Polska Miedź S.A. Liquidation of shafts was included in the operating plan for the years 2003 – 2006. The born liquidation costs were covered from own moneys.

Preparation for catastrophes and hazardous incidents

A mining rescue plan is prepared for each mining plant. Such plan specifies the methods of rescue operation performance in case people safety or mining plant operation are endangered by: fire, crimp, explosion of gas or coal dust, breakout of gases and rocks, caving of mining workings, inrush of water into mining workings, opening of isolated mining workings, penetration of idle mining workings, eruption of reservoir liquid, release of sulfane, rock slides in strip mining plants and energy-mechanical emergency. Mining rescue plan specifies a. o. organization of rescue and ambulance services within a mining plant, services obliged to cooperate with the mining plant rescue service with specification of the determined cooperation scope, ability for professional specialist rescue services of rescue units to constantly participate in the rescue operation, required rescue equipment with specification of the following: place of storage, means of transport and persons responsible for timely equipping the people with this equipment and for organizing medical help during the rescue operation. Mining rescue plans are approved by the mining plant operation director and are updated on an ongoing basis.

Safety of mining industry workers

In connection with the large number of natural deaths in hard coal mines, in some of them obligatory additional medical examination was introduced in order to detect cardiac and coronary disorders in workers of the age that is characterized with biggest hazard of developing such disorders (e.g. in “Bobrek-Centrum” Hard Coal Mine in Bytom.)

In order to limit the number of eyes injuries in some hard coal mining plants an obligation to use personal eye protection during the period from driving down into the mine to the return to surface was introduced. One of the first mines to introduce this obligation was “Wujek” Hard Coal Mine in Katowice. Similar practices are employed in the Oil and Gas Searching and Exploitation Enterprise Petrobaltic S.A.

In 2003 29 hard coal mines introduced the obligation to use P-3 dust masks on the work stations in walls that were exposed to the highest degree. Aim of this action was to counteract the anthracosis more efficiently.

A central air conditioning system was introduced in "Budryk" Hard Coal Mine in Orontowice and in "Pniówek" Hard Coal Mine in Pawłowice in order to improve the conditions with connection to occurrence of high temperatures on workstations within the mine.

Introduction of a zone sprinkling system at harvester mining operations in "Budryk" Hard Coal Mine significantly reduced dusting and increased work safety and comfort. Additional sprinkling system is installed on roof bars of the mechanized casing and is activated by means of zoning – the harvest operator activates sprinkling when entering the zone and the second worker behind the harvester deactivates it. As measurements show, this solution decreased dusting by 10%.

Entrepreneurs (Kompania Węglowa S.A., Katowicki Holding Węglowy S.A., Jastrzębska Spółka Węglowa S.A., Południowy Koncern Węglowy S.A. and independent hard coal mining plants) organize contests of occupational health and safety knowledge year by year. Due to attractive prizes these contests draw major attention from workers and supervisors. The main aim of the organizers is to increase the occupational health and safety knowledge of workers and supervisors, which significantly influences the safety conditions.

In 2005 in "Szczygłowice" Hard Coal Mine in Knurów a program of registration of employees' exposure to factors harmful to health in working environment was introduced. This program is a useful working tool of the employer and the occupational health and safety service that fully evidences the occupational health and safety conditions, allows to fully record the work progress and exposure of a given employee to factors harmful to health in working environment. The program is also used when preparing and implementing preventive actions.

A method of mine water purification was introduced in "Piaś" and "Ziemowit" mining plants that drained the most of radium bearing water. This method was devised in the Central Mining Institute in Katowice and consists in use of sorbing agents containing mostly barium chloride. RA 1 sorbing agent works by adsorption of radium compounds on the surface of barium sulfide crystals. Its merit is non-toxicity and its flaw is small effectiveness and necessity to use large doses of sorbing agent. On the other hand RA2 sorbing agent dissolves in the water that undergoes purification and reacts with the sulfide and radium ions present in it.

Occupational health and safety management systems based on the requirements of Polish Standards of series PN-N-18000 were introduced mainly in underground mining plants since 2002, during the period of several years. Requirements of these standards are compliant with the requirements of ILO-OSH 2001 guidance for occupational health and safety management systems of the International Labour Organization. The above system helps to start voluntary undertakings for improvement of regulations' and standards' observance aiming at providing continuous improvement of occupational health and safety actions. In 2008, within the evaluation of introduced system the necessity was pointed out to introduce corrective actions as far as creating conditions aiming at gradual improvement of safety culture level was concerned. Surveys regarding safety culture level of mining teams were conducted in a dozen

of hard coal mines within the improvement of the occupational health and safety management system. Surveys conducted with cooperation of scientific and research background was based on the concept that safety culture in enterprise is a collection of individual and group values, positions, competence and behaviour patterns. Results were presented during the Polish Mining Convention in 2007.

Entrepreneurs (Kompania Węglowa S.A., Katowicki Holding Węglowy S.A., Jastrzębska Spółka Węglowa S.A., Południowy Koncern Węglowy S.A. and independent hard coal mining plants) implemented standardized programs of initial occupational health and safety trainings that considered occupational risk assessment on workstations and introduced periods of professional adaptation for the newly employed workers that last from three to six months inclusive of the initial training period.

Activity in the EU forum

A Regular Extraction Industry Workgroup works within the Occupational Health and Safety Commission of the European Union Advisory Committee. A representative of the State Mining Authority participates in its work. One of current tasks of group members is a. o to prepare a "Code of good practices for performance of blasting works."

Subject 5

10 year framework of Programmes on Sustainable Consumption and Production Patterns

Transport

Clean fuels and vehicles

A system of environmental fees is in force in Poland which promotes vehicles with lower emission levels or fuel consumption. Furthermore, a reporting system about fuel consumption and CO₂ emissions in the marketing of new passenger vehicles was introduced (along with the implementation of Directive 1999/94/EC).

Moreover, efforts made to implement Directive 2009/33 which provides for systemic promotion of the purchase of road transport vehicles with lower emissions and higher energy efficiency, both within public procurement procedures and acquisition of vehicles by public passenger transport operators.

The promotion of biofuels and other environmentally friendly fuels is part of the "2008-2014 long-term programme for the promotion of biofuels and other renewable fuels"¹

Furthermore, the requirements of Directive 2005/35/EC which restricts sulphur content in marine fuels have been implemented. Moreover, the amended Annex VI to the MARPOL Convention comes into force in July 2010 which imposes further reduction of atmospheric pollutant emissions from ships.

With respect to air transport, a number of initiatives are under way aiming to reduce the environmental impact of this transport industry, such as: PLL "LOT" Polish Airlines takes measures in order to replace its fleet gradually with more economical aircraft with more efficient engines. The Warszawa Okęcie Airport obtained a Certificate of Approval of the Environmental Management System which complies with the requirements of standard ISO 14000 in July 2008. Due to the vital importance of the method of exploitation of aircraft for environmental protection, a number of new technologies for air traffic and operation management have been introduced, such as precise area navigation technology (P-RNAV), continuous descent approach (CDA), optimised approach trajectory (DCT) or the airspace management support database (CAT).

Public and alternative transport

The aims and measures related to the promotion of public and alternative transport are specified in the ~~2006-2025 National Transport Policy~~. At the city level, intense efforts are under way aiming to develop public transport. They relate in particular to fleet upgrades, introduction of new solutions (underground, fast tram routes, water tram routes) and development of new routes serviced by public transport. The inclusion of railway operators for the servicing of local public transport is a major factor for the development of public transport.

With respect to the promotion of the alternative transport system, the Ministry of Infrastructure is working on the improvement of conditions of cyclists' participation in road

¹Approved by the Resolution of the Council of Ministers No. 134/2007 dated July 24, 2007

traffic by changes in regulations, such as term definitions and principles of bicycle traffic and obligatory bicycle equipment. Furthermore, leaving vehicles at city outskirts is becoming increasingly more popular. In Warsaw, in order to reduce vehicle traffic in the city centre and reduce pollutant quantities emitted by vehicles five Park & Ride car parks have been constructed.

Within the *Infrastructure and Environment Operational Programme* funds are available for the promotion of the environmentally friendly public transport system, increase of the public transport share in serving metropolitan area residents and development of transport branches alternative to road transport, including the increase of the inland water and sea transport share and improvement of transport safety.

Urban planning and regional transport

Efforts are under way to prepare a bill concerning the operation of mass public transport, including a requirement of the preparation of the so-called **Sustainable development plans for mass public transport**. The requirement is to apply to cities, among others, with at least 50.000 residents.

Miscellaneous

Furthermore, legislative initiatives have been undertaken in order to improve road traffic safety, including measures to increase penalty strictness (fines, custodial sentences), measures responding to negative effects related to the process of acquiring licenses to drive motor vehicles and measures to develop an automatic speed surveillance system for road vehicles. Furthermore, measures have been initiated to introduce a requirement for every child to obtain a bicycle riding permit on the graduation from the primary school.

Moreover, information and educational initiatives are under way concerning the necessity for drivers to change their behaviour, such as with respect to defensive driving which promotes significant reduction of fuel consumption and exhaust gas emissions (so-called Eco-driving). A number of social actions are also undertaken (serial or periodic), such as "Change your ride for a bus", European Sustainable Transport Week and European Car-free Day. Public Transport Days are organised each September whose aim is to promote public transport.

Cleaner production

Efficiency of the consumption of resources

Pollution prevention

Poland participates in the implementation of the international project *Sustainable Production through Innovation in Small and Medium Sized Enterprises in the Baltic Sea Region, SPIN* according to which SMEs will be supported in 2009-2012 in their efforts to optimise both manufacturing and management processes. The SPIN project aims to reduce the disproportion in the relation of demand to supply within the measures related to the increase of SME innovativeness in the Baltic Sea region by the combination of the involvement of respective institutions both on the public administration level and independent organisations active in this area. The project's website, <http://www.spin-project.eu>, will soon be expanded with the innovation database containing examples of novel environmental technologies.

Technology-related strategies

The aims and tasks related to the promotion of environmental technologies are included in the "Roadmap of the Implementation of the Action Plan for Environmental Technologies in

Poland” (ETAP) and the Executive Programme². In addition, in order to define and monitor the directions of the development of environmental technologies, a *Polish System for the Monitoring of Environmental Technologies* is being developed, as part of the European Environmental Technology Verification System (ETV). Furthermore, the Polish Environmental Technology Platform has been established which includes more than 100 organisations, representatives of businesses and other interested parties involved in the eco-innovation development process in Poland. On the European level, the operation of the Platform aims to support Polish research and business institutions active in the area of environmental technologies in the implementation of European Union Programmes related to the environment and eco-innovativeness, such as EU FP7, CIP, LIFE+. For more information, please visit the website at: <http://www.ppts.pl>

What is more, technology loans are now available in Poland which can be used for the acquisition and implementation of new production technologies and start-up of the manufacture of new products or upgrades of products based on the technologies. Technological loans are provided by banks and paid off from public funds by Bank Gospodarstwa Krajowego.

Energy efficiency

The aims and activities related to energy efficiency improvement have been specified in the draft “Polish Energy Policy until 2030”. A bill on *energy efficiency* has also been prepared. The Act provides for objectives related to energy saving, including the leading role of the public sector, and establishes a white certificate system as a market mechanism which promotes the growth of energy efficiency in the energy generation, transmission and consumption chain. The mechanism will support enterprises which reduced energy consumption by investing in modern technologies.

Furthermore, initiatives are under way aiming to increase public awareness by education and information campaigns and the promotion of rational energy utilisation in industry and households. The scope of the campaign includes presentation of issues related to the principles and profitability of the use of energy-saving solutions and informing the public in Poland about matters related to increasing energy efficiency of Poland’s economy and resulting from the sustainable development policy pursued by the EU.

A number of projects are implemented in order to promote energy efficiency, such as for example:

- “Energy Bus” national educational campaign operated by the Krajowa Agencja Poszanowania Energii S.A. (KAPE). The main objective of the project was to provide information and consulting related to issues concerning energy efficiency and environmental protection through a mobile information and education centre.
- Polish Programme for the Efficient Use of Energy in Electric Motors (PEMP) implemented by KAPE in cooperation with the Foundation for Efficient Energy Utilisation (EWE)³, within which external funding which covers most incremental costs related to the manufacture of energy-saving engines will be available to manufacturers who place energy-saving engines on the Polish market.

² Executive Programme for the 2007-2009 National Action Plan for Environmental Technologies with the consideration of perspectives for 2010-2012

³ Global Environment Facility, Foundation for Efficient Energy Utilisation

- The Polish and Japanese Centre for Energy Efficiency has operated since 2005 whose aim is to support Poland's industry in the implementation of the principles of rational energy consumption.

Co-generation

As of July 1, 2007 a support system for power and heat generation in co-generation processes has been in place, based on the requirement for enterprises involved in the generation or distribution of electric power and sale of energy to end customers of CHP certificates. The scope of the requirement has been specified in the *Regulation of the Minister of Economy of September 26, 2007*. According to the Regulation, the share of electricity from co-generation in total sales to end customers should increase from 17.3% in the second half of 2007 to 26.7% in 2012. According to initial data available to the Energy Regulatory Office for the second half of 2007, CHP certificates were issued which corresponded to more than 8.6 TWh of electricity, while the total for 2008 was more than 21.6 TWh.

Energy efficiency of households

Since 2007, the Ministry of Economy has been involved in an information campaign for the rational energy use. The aim of the campaign is to present issues related to the principles and profitability of the use of energy-saving solutions. Materials have been prepared which promote knowledge about energy-saving technologies and aim to create social attitudes and behaviours for the rational and economical use of energy in daily life. According to the EU regulation, traditional 100 and 200 watt light bulbs have been withdrawn from the market in Poland since September 2009; it is planned that also lower-power light bulbs will be withdrawn to be replaced by modern energy-saving compact fluorescent lamps.

RES market

The expression of the priority for issues related to renewable energy industry was the prepared draft of "*Poland's energy Policy until 2030*" in which the development of the use of RES is one of the six major principles of Poland's energy policy. The main objectives in the field include: increase of the share of renewable energy sources in final energy to 15% by 2020 and achievement of the 10% share of biofuels in the transport fuel market by 2020, increase of the use of second-generation biofuels, protection of forests against excessive exploitation and sustainable use of agricultural areas for RES purposes, so as to prevent competition between renewable energy industry and agriculture. The most important part of the initiatives aiming to increase the renewable energy share in Poland for the upcoming years will be to implement Directive 2009/28/EC of the European Parliament and of the Council of April 23, 2009 *on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC* which is part of the 3x20 Climate and Energy Package. Currently, efforts have started to prepare a document titled *National action plan with respect to energy from renewable sources* which provides a pathway for the achievement of the 15% RES share in final energy divided into electricity, heat and cold and renewable energy in transport by 2020. This will be the fundamental priority document for the RES development directions in Poland. Furthermore, support mechanisms for the generation of electricity from RES will be sustained, additional support mechanisms for heat and cold will be provided, a programme of the construction of agricultural biogas works will be implemented and the growth of RES equipment manufacturing industry will be stimulated.

Construction industry and household policy

Thermal efficiency improvement

The Act on the support of thermal efficiency improvement and redecoration of November 21, 2008 has been in force since March 19, 2009. The objective of the Act is to support energy-saving solutions in residential and public buildings. Furthermore, a requirement has been introduced to have statements of energy performance of buildings⁴ which will lead to more rational energy use in buildings and, in consequence, will impose relevant measures and technology improvement aimed to reduce energy consumption and funds devoted to such measures.

Food and clothing

Within the *2007-2012 Rural Area Development Programme* initiatives are implemented to develop the market for products manufactured within food quality systems and to promote systems in which food is manufactured using methods whose impact on the environment is positive.

Voluntary initiatives are available in Poland whose aim is to encourage manufacturers to use food production methods favourable for environmental protection:

- Awarding products with Protected Designation of Origin, Protected Geographical Indication and Traditional Speciality Guaranteed signs⁵.
- Implementation of the Know Good Food Programme whose main objective is to provide information about the high quality of foodstuffs.
- Keeping the List of Traditional Products, a guide on traditional and regional products and Polish cuisine dishes.

Since 2006, the Chief Sanitary Inspectorate has been involved in health promotion programmes and public campaigns whose aim is to model long-lasting health habits of young people by the promotion of active lifestyle and balanced diet. The programme is operated in cooperation with local government authorities and non-governmental organisations. Furthermore, the Institute of Food and Nutrition, which is responsible for the implementation of the WHO Global strategy on diet, physical activity and health in Poland, promotes adequate attitudes among consumers by training schemes, publications and the provision of the “Food, Nutrition and Health” Information Site. In 2007, the Institute initiated the long-term “National Programme for the Prevention of Overweight and Obesity and Chronic Non-Infectious Diseases by the Improvement of Nutrition and Physical Activity”, an instrument for the implementation of the WHO Strategy which also includes the guidelines of the European Charter on Counteracting Obesity.

Polish Humanitarian Organisation operates a project “In fashion and ethically” which promotes responsible consumption. The main objectives of the project include increasing public awareness of poverty and the issue of rights of employees from developing countries and in particular increasing the awareness of the impact of enterprise policy (within the supply chain) on life and work conditions of workers in clothing factories. Within the project, conferences, training schemes, photo exhibitions and meetings with people who advocate

⁴ According to the provisions of the Act of September 19, 2007 on the amendment of the Construction Law Act (Journal of Laws of 2007, No 191, Item 1373)

⁵ Community marks established in 1992 by way of Regulations EC 2081/92 and 2082/92 (amended by way of Regulations no 509/2006 and no 510/2006)

employee rights are organised. For more information, please visit the website at: <http://modnieietycznie.pl/>

Management of chemicals

Hazardous waste

General policy instruments, activities and future priorities

Taxes and subsidies

Analytical work has been under way in the Ministry of Economy since 2007 on environmentally harmful subsidies. Potentially environmentally harmful forms of support have been identified and a proposal has been prepared for the methodology of environmentally harmful subsidies identification.

Trade policy

Since 2004, Poland, being an EU Member State, has been implementing the EU trade policy instruments based on uniform principles throughout the Community. The directions of the common trade policy are the product of trade interests of all the 27 EU Member States. Poland's accession to the EU also resulted in our inclusion in the Common EU Internal Market. This means that custom duties for the intra-Community exchange and all other trade policy measures which restrict mutual trade exchange between Poland and the other EU Member States have been lifted.

Tax reform

The so-called **green tax reform** to be prepared and implemented by 2011 is provided for in the *2008-2009 National Reform Programme Implementation Document*. Within the execution of the action in 2008 training schemes were organised for ministry representatives related to the economic framework of environmental protection policy.

Changes in consumer behaviour

Education and information

In order to honour organisations which undertake initiatives for environmental protection and sustainable development and to exchange good practice and increase awareness of corporate social responsibility (CSR), the following contests are organised:

- **Environmentally Friendly** National Environmental Contest established in 2001 under the Honorary Patronage of the President of the Republic of Poland and the Minister of Economy, among others, whose aim is to promote environmentally friendly civic attitudes and to implement environmentally friendly technologies.
- **Clean Business** Awards granted since 1998 by the Foundation for Environmental Partnership for the promotion of enterprises which undertake innovative environmental protection initiatives
- **Polish Product of the Future** Contest organised since 1998 by the Polish Agency for Enterprise Development under the honorary patronage of the President of the Council of Ministers
- **Poland without Asbestos** announced by the Minister of Economy in 2006 whose aim was to award the communes most active in the protection against and removal of asbestos

A campaign titled “My Consumer ABC”⁶ was under way in 2005-2006 and its aim was to increase the knowledge of rights of the youngest consumers, education in the adequate use of advertising as a source of information about products and services and to enhance assertive attitudes of young people with respect to advertising information and marketing practices.

The Office of Competition and Consumer Protection and the European Commission provided financial support for the development and operation of the Consumer Hotline and the Infoteka Consumer Information System. The Consumer Hotline is a nationwide consulting service provided by phone⁷ which delivers information and legal advice to consumers free of charge. Due to the wide acceptance of the Hotline by market users, the project was extended and it currently goes on owing to the financial support from the Office of Competition and Consumer Protection according to the provisions of the Act on public benefit activities and voluntary service. Furthermore, the Federation of Consumers has prepared a web-based system of information supply on market offer which includes information about household, electronic and computer equipment.

The Polish Council for Road Traffic Safety and the Ministry of Infrastructure are involved in a number of education and information actions aimed to change the behaviour of road traffic participants and increase the awareness of accident consequences. **Campaigns and preventive actions** were undertaken in 2008-2009, such as; “Drunk? Don’t drive! Switch on your brain”, “Holiday without BAC”, “I’m driving sober”, “European night without accident”, “Use your imagination”, “Speed limits save your life”, “Speed limits save pedestrians”, “By bike – safely to destination”, “Safe driving”, “Bicycle driving permit – my first driving licence”, “Safety on the road”, “Remember, you have only one life”, “Transport Education” and “Safe Car Academy – Don’t wait for breakdown – have your car controlled just for safety”.

Furthermore a programme titled **Taxi with a child car seat** is under way in Warsaw and Kraków. The campaign is planned to include all major cities in Poland. Within the programme, its organiser bought 144 car seats for children aged 0.5 to 12 years. The seats were donated to selected taxi corporations. Before the start of the programme, the car seat manufacturer organised training for drivers in the safety of transporting children in vehicles and car seat setup.

Eco-signs

The Regulation of the Ministry of Economy and Labour of May 20, 2005 *concerning the requirements related to technical documentation, use of labels and technical characteristics and label templates for appliances*⁸ provides for **energy labelling** which contains information about energy consumption. Thus, consumers can choose products with higher energy efficiency. The provisions of relevant directives have been implemented in the Polish legislation.

A **Green Signs** campaign was initiated in 2004 and its aim includes the promotion of the so-called care labels, or brands whose owners decided to organise employment, manufacturing and distribution so as to reduce negative impact on the environment and contribute to the improvement of the life standard of communities living in the neighbourhood of the company.

⁶ The Office of Competition and Consumer Protection and public partners organised the action

⁷ Phone number: 0 800 800 008

⁸ Journal of Laws 2005 No 98, Item 825

Consumer advocacy organisations

A number of consumer advocacy organisations operate in Poland, such as Federation of Consumers, Association of Polish Consumers, Polish Society for Household Economy. Pursuant to the Act of February 16, 2007 on the protection of competition and consumers (Journal of Laws No. 50, Item 331 dated March 21, 2007) consumer organisations may:

- express their opinions on draft legal regulations and other documents related to the rights and interests of consumers,
- prepare and distribute consumer education programmes,
- perform tests of products and services and publish their results,
- publish magazines, study reports, brochures and leaflets,
- conduct consumer advisory services free of charge and provide support to consumers in the satisfaction of their claims free of charge,
- participate in the preparation of standards,
- perform the tasks of the state related to consumer protection, commissioned by the government and local administration authorities.

Public procurement policy

The measures aiming to promote green public procurement, tools for their implementation and indicators to monitor changes have been specified in the *2007-2009 National Action Plan for Green Public Procurement*. The main objectives of the Plan include increase of the level of consideration of environmental aspects in public procurement, development of the market for environmentally friendly products and expansion of the market for technologies for environmental protection industry and the environment-related sector and promotion of sustainable manufacturing and consumption models.

The development of a modern system to ensure that public funds are spent so as to contribute to the stimulation of the development of innovative economy focused on the growth of entrepreneurship and sustainable development is proposed in the *New Approach to Public Procurement Procurement versus small and medium size enterprises, innovation and sustainable development*⁹.

Change of manufacturing models

Voluntary initiatives

The Minister of Economy chairs the **Chapter of the Polish Register of Cleaner Production and Responsible Entrepreneurship** operated by the Polish Movement for Cleaner Production. The Register is a Poland-wide, publicly available list of organisational units with outstanding performance related to the implementation of the preventive Cleaner Production strategy. The Register includes all organisational units, both production and service enterprises and local government institutions.

Organisational units may apply to be included in the Register if they:

- have implemented and have in place the Cleaner Production strategy in their operation,

⁹ Approved by the Council of Ministers on April 8, 2008

- prove consistent reduction of environmentally unfavourable impacts resulting from their activities and/or products manufactured and provide plans for further environmental activities,
- conduct their activity according to the Polish Environmental Protection Law Act,
- submitted required environmental reports in a timely manner,
- signed the International CP UNEP Declaration,
- submitted a declaration on the support of the “Global Compact” programme.

A company is entered into the Register following positive evaluation by the Chapter of the Register, chaired by the Minister of Economy. The other members of the Chapter include for example: the Chief Inspector for Environmental Protection and President of the National Fund for Environmental Protection and Water Management. The Chapter of the Register publishes a document updated annually with Environmental Reports of the organisational units included in the Register. Environmental Report Sheets prepared for respective enterprises which include general information on environmental achievements of an organisational unit are the main part of the Register

Furthermore, the Ministry of Economy signed a cooperation agreement with the Responsible Business Forum within the World Business Council for Sustainable Development (WBCSD), an organisation established in the early 1990s with about 200 members from 35 countries representing 20 industry sectors.

Cleaner Production Programmes

The **Polish Movement for Cleaner Production** develops and promotes initiatives aimed at the implementation of sustainable development principles, in particular by the application of CP principles. The society implements an annual programme whose aim is to promote EMS's and the best available technique (BAT) which limit the generation of pollutants in the production process and to promote the introduction of CP certificates.

The **National Centre for Cleaner Production Implementation** has been in operation within the Main Mining Institute since 1996; it executes annual “Cleaner Production in Poland Programmes” co-financed by the National Fund for Environmental Protection and Water Management. Since 2007, the Centre also organises “Cleaner Production and environmental protection management” postgraduate studies partially financed by Polish Agency for Enterprise Development¹⁰.

The **Partnership for the Environment Foundation** operates a project titled “Promotion of Clean Business in Poland”, a part of the “Clean Business in Poland” programme. Its objective is to promote and implement the principles of sustainable development among Polish entrepreneurs and to show enterprises how to better use and manage natural resources and, thus, reduce negative environmental impacts.

The “**Responsible Care**” Programme has been under way, being a voluntary commitment of chemical industry entrepreneurs to improve their activity related to environmental protection, process safety and employee health protection.

¹⁰ Within the funds of the European Social Fund (ESF)

Sustainable production programmes in agriculture

An *Agricultural Environmental Programme* is being implemented in Poland and its aim is, among others, to promote sustainable farming among farmers by encouraging agricultural production based on methods consistent with the environmental and nature protection requirements. The activities have been under way in Poland since 2004 within the *2004-2006 Rural Area Development Programme* and the *2007-2013 Rural Area Development Programme (PROW 2007-2013)*. Together with the promotion of sustainable farming in rural areas, the Programme also contains a package for the support of organic farming.

One of the major acts in the area of agriculture whose aim is to change the heretofore environmentally unfavourable agricultural production models is the Act of July 10, 2007 on fertilisers and fertilisation (Journal of Laws No. 147, Item 1033). By considering the requirements imposed on agriculture related to environmental protection in agricultural production and regulations related to water protection, the Act contributes to improving environmental conditions.

Furthermore, the number of farms operated in line with the requirements for organic farming has been increasing steadily in Poland. The number of organic farming producers was 15,206 in 2008, of which 236 organic processing plants.

REACH

A REACH Consultation Point funded by the Ministry of Economy has been available since June 2007, and a separate website is available within the Ministry of Economy portal dedicated to the REACH system¹¹. The Consultation Point is involved in advisory activity, provides consultation by phone or e-mail, organises training schemes and workshops and conducts information activity. In December 2008, the Ministry of Economy published a book version of Regulation (EC) no. 1907/2006 (REACH). The publication is available free of charge.

Initial registration was conducted in 2008 within REACH in which more than 2,500 companies in Poland participated and registered more than 173,000 substances in a period of less than six months (June 1 to December 1, 2008). The Programme was accompanied by a press and information campaign (including the "REACH Overture – initial registration started" conference) which led to the ultimate 10-fold increase in the number of companies performing initial registration of manufactured or imported substances.

Furthermore, a conference titled "*Dear Entrepreneur, December 1 is the last day of registration of chemicals within REACH*" was held in November 2008 and its aim was to draw entrepreneurs' attention to the possible consequences of failure to comply with the requirement of initial registration by entrepreneurs who already manufacture or import chemicals into the Community.

As a result of the REACH programme, manufacturers or importers of chemicals and products containing chemicals who placed them on the market before June 1, 2008 and failed to perform initial registration cannot continue their activity. Furthermore, due to the fact that, among others, the *Act of January 9, 2009 on the amendment of the act on chemical substances and preparations* came into force, companies which failed to complete registration according to REACH can be controlled. The Act also provides for a system of penalties and sanctions for incompliance with REACH.

¹¹ <http://www.mg.gov.pl/REACH/>

Corporate Social Responsibility

The President of the Council of Ministers signed a Regulation on the establishment of the Corporate Social Responsibility Team on May 8, 2009.

The tasks of the Team include, among others:

- proposing solutions related to the coordination of activities of respective public administration authorities with respect to the promotion and implementation of CSR principles,
- analysing and using other countries' experience and promoting their good practice related to CSR, in particular the tools developed within the European Alliance for the Development and Implementation of CSR Policy,
- creating conditions for better communication and dialogue between administration, business, public partners and non-governmental organisations in matters related to CSR.

Environmental management, quality and occupational health and safety systems

The Polish Quality Forum Club operates in Poland and its members include product and service providers interested in the implementation and development of management systems consistent with ISO 9000, ISO 14000 and PN-N-18000. The Club promotes and supports the implementation of quality and environmental management systems by educational and publishing activity and organisation of conferences and seminars.

Polish enterprises implement environmental management systems in line with the requirements of the ISO 14001 standard or registered in the Community Eco-Management and Audit Scheme (EMAS) or non-formalised, such as within cleaner production and quality management systems in line with the requirements of the ISO 9001 standard. 9184 quality management system certificates for the compliance with ISO 9001¹², 1089 environmental management system certificates for the compliance with ISO 14000¹³ and 16 EMAS certificates were issued by 2007 (as of March 31, 2009)¹⁴.

Integrated management systems have been implemented more and more frequently, such as the Environmental, Health and Safety Management System, EHS. The EHS extends the entrepreneur's obligations by ensuring strategic planning process management and combining environmental protection and occupational health and safety issues with corporate business plans.

Registering and reporting pollutants

Analytical tools

When preparing draft legislative acts, the Evaluation of Regulation Impacts¹⁵ is conducted with the following factors taken into consideration: impact of the regulation on the public finance sector, regional situation and development, competitiveness of the economy and entrepreneurship, including enterprise operation, and human health and the environment.

Indicators of sustainability

¹² <http://www.iso.org/iso/survey2007.pdf>

¹³ <http://www.iso.org/iso/survey2007.pdf>

¹⁴ http://ec.europa.eu/environment/emas/pdf/5_Articles_en.pdf, <http://www.emas.mos.gov.pl/>

¹⁵ Regulation reform. Guidelines for the Evaluation of Regulation Impacts, a document approved by the Council of Ministers on October 10, 2006.

In cooperation with Forbes Monthly and Kulczyk Investments, the Warsaw Stock Exchange initiated the *Respect Index* whose aim is to select companies which follow the principles of social responsibility in their activity. Economic, social and environmental issues of corporate activity will be evaluated. Much attention will also be paid to the general aspects of corporate management, including corporate governance and investor relations. The assessment criteria and questions were prepared based on international reporting standards (Global Reporting Initiative, GRI), and adapted to Polish reality and extended with matters particularly important in the context of the economic slowdown. Companies listed in the Warsaw Stock Exchange have been included in the analysis, except for the NewConnect market, overseas and dual-listed companies.

Investment incentives

Compliance of a project with horizontal policies specified in Art. 16 and Art. 17 of the Regulation of the Council (EC) no. 1083/2006, that is, with the sustainable development policy, among others, is one of the conditions of material assessment of applications for subsidising projects submitted by entrepreneurs (also within the SME sector) within the activities of the Polish Agency for Enterprise Development (Innovative Economy Operational Programme, IEOP).

In order to promote entrepreneurs who take into consideration sustainable development principles in their operation, additional points can be awarded to applicants for the compliance with optional criteria within the evaluation of projects co-funded within the IEOP¹⁶.

Within project evaluation¹⁷, an applicant may obtain additional points if the project submitted has a neutral or positive impact on environmental protection by the implementation of technological solutions leading to the elimination of negative environmental impacts in the following areas:

- protection of atmosphere and climate,
- sewage management,
- waste management.

Furthermore, additional points are awarded to applicants holding accredited quality certificates for the compliance with the ISO 9001 standard or another industry certificate which includes such requirements or accredited environmental management system certificates for the compliance with ISO 14001 or EMAS regulation requirements.

Within the optional material criteria for the evaluation of IEOP Action 4.4, a project submitted may receive additional points if the applicant's activity contributes to changing production and consumption models to those favourable for the implementation of sustainable development principles.

¹⁶ Guidebook of the criteria of the selection of funded operations within the Innovative Economy Operational Programme, 2007-2013, Ministry of Regional Development, Warsaw, July 30, 2008.

¹⁷ Projects submitted for actions: 1 4 , 4 1, 4 2 , 6 1