1. Conclusions and recommendations

1.1 The European construction equipment and agricultural machinery industries have been hit extremely hard by the crisis at a time when there is a major change in global demand. The sector is nevertheless part of a very competitive technologically advanced industry.

However, there are a number of actions needed at EU level to ensure the sustainability and competitiveness of the sector avoiding in the longer term the overcapacity of the EU production:

— a legal framework that does not limit the ability of manufacturers to innovate and develop equipment to reflect customers’ requirements;
— a level playing field within Europe, through effective market supervision: Market surveillance and customs authorities should effectively enforce Regulation 765/2008 and tighten controls on the European market;
— product legislation and trade policy that ensures free access to global markets;
— European legislation that takes account of the relatively diminishing role of the European markets. The centre of the world market is increasingly shifting to South America and Asia, thus all necessary measures, including a reduction of red tape and the promotion of voluntary measures by the industry, should be envisaged to keep European manufacturers’ factory sites in the EU;
— harmonisation - within Europe and globally - of the road safety requirements and environmental protection;
— improved working conditions and implementing measures throughout the EU to avoid future overcapacities and to drive forward the development of new products and new ideas on work organisation based on the knowledge of all stakeholders;
— a programme of funding and incentives to support SMEs’ competitiveness.

1.2 Following the hearing held on 11 November 2010 in Bologna as part of the EIMA (International Agricultural Machinery Exhibition) attended by many stakeholders, further and more detailed recommendations are addressed in the subsequent chapters.

2. Background to the opinion

2.1 The European agricultural machinery and construction equipment industry provides technical solutions to efficiently satisfy such basic human needs as feeding the growing world population, providing housing and ensuring the necessary infrastructure.

2.2 High costs for land in Europe result in European demand for highly efficient and innovative solutions for farming and construction, making the European industry global technology leaders.

2.3 While demand in Europe is stagnating, the markets in Asia, Latin-America, Africa and CIS countries have been growing and will continue to grow quickly. Other global players have therefore emerged and are becoming competitive, even outside their home markets.

2.4 The global financial crisis has hit both sectors considerably. When the housing bubble burst, it led to a sharp downturn in the construction equipment sector in the second half of 2008. A drastic cut in investments in the construction sector ensued, with a 42% drop in turnover in 2009. This cut was mainly due to a lack of financing possibilities for customers and decreased construction activity.
2.5 The effects of the crisis were felt later in the agricultural machinery sector and although the fall in 2009 was less pronounced (−22%), the recovery did not start in 2010 as it did in other sectors of industry, and the drop in turnover for the whole of 2010 is estimated to be 9%. The main driver was once more the lack of finance possibilities for customers, together with uncertainty.

2.6 There is a growing shift in product demand. While markets outside Europe with far less stringent legal requirements are growing there is a decreasing demand for EU products that fulfill ever tougher safety and environmental legislation. This increases the already complex product portfolio. It also leads to a shift in production sites, with products aimed at non-EU markets being produced closer to the source of demand, resulting in EU job losses.

3. Agricultural and construction machinery: strategic importance of the sector, upcoming challenges, structure of the market

3.1 Small quantities, high product diversity – strong dependence on suppliers

There are many similarities between the two sectors in terms of the scale and production range of their manufacturers.

There are large multinational companies producing wide ranges of products covering the most widely-used types of equipment such as agricultural tractors, excavators or wheeled loaders.

At the same time, there are manufacturers ranging from sizeable regional manufacturers right down to SMEs that cover the most common-place types of equipment but find a way to survive by supplying the market with highly specialised niche products.

The range of specialisation and variety of products offered on the market is often disproportionate to the actual size of the manufacturer. It is quite usual to find manufacturers with up to 200 different models, offering equipment designed for very specific purposes and selling less than 1 000 items a year; many others survive selling series of less than 100 items a year for each model.

3.2 Employment and production

3.2.1 The agricultural machinery market closely mirrors the trends in the agricultural sector.

Without the latest machines, the modern, efficient and competitive agricultural sector would not exist. Today more than 10 million people work in agriculture. While the number of workers in this sector is decreasing, it is still possible to identify major differences between the EU 15 and the ‘new’ Member States which joined the EU after 2004.

Within the EU 15, ‘only’ 4% of the workers are employed in this sector, whereas they represent 13.4% of the total work force in the 12 new Member States.

This is why in the EESC opinion a strong CAP is necessary for farmers but also for industry to keep on with investments in R&D meeting at once legislations constraints and buyers demand.

In the agricultural machinery sector, there are some 4 500 manufacturers that generated a turnover of around EUR 28 billion in 2008. 135 000 people work in this sector and a further 125 000 people work in distribution and maintenance.

Two-thirds of the EU 27 production is concentrated in Germany, Italy, France, Spain and the UK, whereas the ‘new’ 12 as a whole account for only 7% of EU machinery production.

3.2.2 The construction sector in the EU employs 7.1% of the active population.

Production of construction equipment follows the same pattern as agricultural machinery with Italy, Germany, France, Spain and the UK accounting for almost three quarters of total European production. In all, there are approximately 1 200 companies in Europe with an overall turnover of EUR 31 billion in 2008, which fell to 18 billion in 2009. This represents a 42% decrease.

This industry employed 160 000 workers directly. Indirectly it is estimated that in the supply chain, distribution and maintenance network another 450 000 jobs depended on the sector. In 2010, according to industry estimates, direct jobs dropped by 35% and the indirect ones by 20%.

However, there is a clear lack of skilled and young personnel. A labour survey of Technology Industries of Finland evidences that the difficulties to recruit qualified staff have increased. The shortage concerns professions that have topped the list for over ten years: welders, metal processors, mechanics and engineers.

3.3 Dependency on suppliers of components and engines

The European manufacturers in both sectors have always been leading in the global context with regard to advanced technology and quality of the equipment offered. Advanced technology, ranging from highly automated functions and high resolution GPS for precision farming, to continuous variable transmissions and electronics needs to be state of the art in these sectors.

On the other hand, the need to perform under extreme conditions (dust, mud, ice, extreme heat and cold) means that off-the-shelf components will not meet the requirements or provide the specific further development needed.

There is a growing concern in the industry that the necessary European partners in the component sector could be not available in the future, to ensure via common development the technology leadership.
Engines are the key component for product development and compliance with legislation but, unlike in the car sector, only the large multinational companies have the facilities to produce engines.

The number of independent engine manufacturers is decreasing and they occupy a marginal position on the market; the majority of equipment manufacturers frequently face the challenge of depending on engine suppliers that are controlled by their competitors.

3.4 Importance of distribution and maintenance network

The dealer and maintenance network is one of the decisive factors for a manufacturer’s success. Machines of such high complexity carry risks for safety and health if not properly used and maintained. They require a well-trained distribution system to assist in the selection of the most appropriate technology and provide high-quality maintenance and repair to ensure fast and reliable service needed for the complex equipment, the high performance expectations of the customers and for sectors where climate conditions, seasonal peaks and strict deadlines are factors.

3.5 The effect of economic crisis on growth and production

The economic crisis has hit both sectors very hard and at a moment when the global demand was on a very high level. For construction equipment the demand broke down globally in the 4th quarter of 2008. In 2009 the total sales of European manufacturers decreased by 42%, leading to drastic stocks and a very low usage of capacities. For the full year 2010, as said before, a further decrease of 9% was registered, while at the end of 2010 demand in Asia picked up again.

In the agricultural machinery sector the effects of the crisis started later with farming being less dependent from the general economic climate. 2009 however sales dropped by 22% and by another 9% in 2010.

In both sectors a single digit increase in 2011 is expected, far less than needed to return to pre-crisis times.

The main limiting factor during the crisis has been the lack of credit availability – mainly for customers in order to finance new machines, but also for manufacturers. Additionally of course also the lack of activity especially in the construction sector has limited demand for new equipment. Demand in both sectors showed to be very volatile.

4. Difficulties and challenges to face after the crisis

The economic crisis has evidenced some peculiarities of both sectors and led to a very difficult situation for which an intervention is needed at political level.

4.1 Insufficiency of suppliers and know how

It is important to emphasise that the construction equipment industry is currently facing substantial and fundamental changes.

The focus of the world market has been shifting increasingly to South America and Asia.

Whereas 20% of the world’s overall demand for construction equipment was coming from Europe in 2005, the latter will only account for 14% of the total worldwide demand in 2014 (1).

The most spectacular change involves China and India. It is expected that Chinese demand for construction equipment will represent 34% of global demand in 2014, compared with only 18% in 2005, which means demand will have doubled over 9 years.

The consequences of such a change are of paramount importance, since demand from the USA and EU together will represent only 29% of global demand.

As an effect of the crisis, the trend to massively move production closer to the new markets outside Europe has significantly accelerated. As a result, the number of key component suppliers in Europe has also dramatically decreased. This concerns not only a shift in the production sites but also on the necessary know how.

As the needs and specifications of the foreign markets differ from the European ones, there is a growing concern about a lack of affordable European key component suppliers that, in the future, could deliver according to the European needs.

Another issue is the availability of steel in a recovering global economy where price increases and protectionist measures would have a negative effect on this sector as pre-crisis figures demonstrate.

4.2 Effects on the employment: aging labour forces, lack of skilled personnel and brain drain

The mechanical engineering industry employs 3.6 million people in Europe (2).

Of these, 10% work in the agricultural machinery and construction equipment industries. In general it has an aging workforce - only 20.1% of the workers are less than 30 years old, while the average in the other non financial goods sectors is around 1 in 4 workers.

On the user side, farmers are also facing the same problems: only 7% of all European farmers are less than 35 years old, while the average in the other non financial goods sectors is around 1 in 4 workers.

(1) Data from Off Highway Research: www.offhighway.co.uk.
The poor public image of the industry, which results in people not recognising its importance for the whole community, the shortage of skilled workers and engineers, the mismatch of skills needs and available skills on labour market; the diversity and disparity of qualifications nomenclatures and national certificates for various degrees; the absence of elite education in natural and engineering sciences … all these features the sector presented were worsened by economic crisis.

The industry has tried to limit job cuts as far as possible. However, as said before, the workforce employed by the construction equipment industry has been reduced by 35% compared to 2008 (1).

The crisis has also resulted in a brain drain directed to the Far East and South America, where markets are more flourishing and where the crisis had less dramatic effects.

5. Actions necessary at EU level

5.1 Ensure that measures to combat unfair competition are enforced

Importing non-compliant construction equipment into the EU and its sale and use, remains a major problem for the European construction equipment industry. Equipment placed on the EU market for the first time must comply with all valid safety and environmental requirements. Machinery which does not fulfill these requirements is non-compliant and Member States should prevent it from being placed on the EU market.

It is a source of unfair competition and compromises bona fide suppliers’ ability to undertake R&D activities. This, in turn, threatens the competitiveness of the European construction equipment industry and the jobs it provides. Non-compliant machines are more likely to cause accidents and they frequently fail to meet the environmental standards demanded by the UE.

Manufacturers complying with the EU legislation are currently confronted with and challenged by the products placed on the EU market under unfair conditions at a fraction of the market price for compliant products. Authorities lack the means and resources to tackle this situation, while legislation is not always clear in its defence of legal products.

More and more non-compliant machines are illegally placed on the EU market without any effective action by market surveillance and customs authorities, although stricter legislation entered into force on 1st January 2010 (Regulation 765/2008).

Recommendation: The EESC calls on the European Commission and Member States authorities to take all the necessary steps to ensure fair competition within the EU market and to guarantee a level playing field for manufacturers who need to compete at international level.

5.2 The right decisions must be taken to improve the environment

As with the situation in the automotive sector, one of the greatest challenges for both sectors is the legislation governing emissions from mobile machines. Compared with the automotive sector, the unit compliance costs of mobile machines are extremely high, as production and sales are much lower and the number of different models is much higher.

With the next emission stage that starts in 2011 (III B) and the following stage already planned for 2014 (Stage IV), the key pollutants will be reduced by more than 90% compared to existing levels. The modifications will affect the engines, but also impose a fundamental re-design for the whole machine.

The technologies imposed by these emission levels require the use of ultra-low sulphur fuels which are difficult to obtain in Europe for the off-road sector and definitely not available outside Europe. This will prevent sales outside Europe for both new and used equipment.

As a crisis relief measure, the industry has requested a legislative instrument allowing an increase of the engine quantities already foreseen under the flexibility scheme of the existing directives. The consequent cost-saving for the sector would be considerable at the cost of a one-off increase in emissions of around 0.5% The European Commission has supported the request and presented two proposals amending the relevant directives. These proposals are under consideration in the Council and Parliament. However, progress on this subject is too slow and could reduce its planned positive economic effect.

The EESC recommends that the additional flexibility provisions for the next stage of the legislation on non-road mobile machine emissions and a similar proposal for agricultural tractors are adopted as quickly as possible.

Reduction in soot and NOx emissions in the future will require special technologies resulting in increased fuel consumption and thus CO2 emissions. Efforts by manufacturers have prevented a real increase in fuel consumption by improving the efficiency of the whole machine. Any new legislation on carbon limits/reduction should be in accordance with the current emissions legislation and should leave enough lead time after the end of the current emission stages before it is introduced.

Recommendation: Before considering developing more stringent or new legislation applying to the same products, an impact assessment should be undertaken at EU level, taking account of the possible negative consequences for the industry’s competitiveness on a global market and the possible marginal improvements in practice for these machines.

(1) Data from CECE (Committee for European Construction Equipment).
The machinery used in agriculture and construction has a long life expectancy. The average lifetime of tractors is more than 15 years. The constant improvement to the environmental performance of new equipment therefore has only a limited and slow effect on the overall environmental performance of the equipment in use. Faster progress could best be achieved by incentives to remove very old and polluting equipment from the market. This approach also has clear advantages compared with retrofitting old equipment with after-treatment systems. The adaptation of the old equipment with filters creates many additional challenges and inefficiencies as regards safety and performance.

The EESC recommends a scrapping scheme which would be a suitable solution for tackling the problem of old and polluting machines that will contribute to a cleaner environment and safer working conditions.

The EESC considers any exhaust retrofit scheme to be an incorrect solution to the problem of polluting equipment used in built-up areas. Far from solving the problem, these systems keep noisy and unsafe machines in operation and possibly even increase the risks as a result of incompetent installation.

The EESC also recommends developing harmonised requirements for retrofitting after treatment systems, not only because of their exhaust reduction potential but also for dealing with the risks they create by being fitted on agricultural and construction equipment.

5.4 The CO₂ challenge can be up taken by the industry

Similar to the situation in the on-road sector, the main contributor to the sector’s CO₂ emissions is fuel consumption. The possibilities for reducing greenhouse gas emissions need to be assessed in terms of the equipment's specific work-performance and not simply the fuel consumption per km, as is the case in the car sector.

Considerable improvements have been achieved already in the past years with more efficient machines. More and more the life-time costs, of which fuel costs are a large portion, have become an important factor for customers making the buying-decision.

However, to achieve the optimal reduction of CO₂ optimisation should not only focus on the engine as the power source but on the whole machine, the applications and the process, besides the operational efficiency and the possible use of alternative low-carbon energy sources.

The EESC calls on the EU institutions and Member State representatives to support a market-driven and comprehensive approach to reduce CO₂ emissions from mobile machines. As one size does not fit all, the development of appropriate solutions for the most emitting types of machines (tractors, combines etc.) measuring the overall machine efficiency (i.e. fuel consumption per ton of grain harvested or km of road paved) would be a pragmatic and sound solution.

5.5 Harmonisation is the key – within Europe and globally- both for road safety and environment

With the markets shifting away from Europe, the importance of globally harmonised product legislation and standardisation is increasing rapidly. This also applies to the harmonisation of road safety requirements, which is currently missing in construction equipments and some agricultural vehicles.

In addition, European industry faces the challenge of European requirements becoming ever stricter compared to the rest of the world, making the European versions of the machines either too expensive or not compatible.

When it comes to environmental protection, for instance, the impact of each decision at EU level should be carefully considered before any legislation is adopted and implemented in the EU.

The agricultural and construction machinery sector has been helping to safeguard the environment by reducing the emissions of its machines, as required by Directive 97/68/EC for NRMM (non road mobile machinery) and by directive 2000/25/EC for tractors. This will lead to a considerable reduction of particulates (97 %), NOx (96 %) and CO (85 %).

The same efforts have been made by the industry on noise emissions: the industry has worked for 10 years to comply with the relevant legislation on noise emissions for 22 construction machines.

Moreover, international standards applying to the life cycle of machines are already in place and standards on recycling schemes for earth moving equipment have been promoted by the industry itself.

To ensure the future competitiveness of European products, it is therefore of the utmost importance that laws and regulations be made consistent at global level.

The EESC calls upon the EU institutions and Member State representatives to support, participate and act on the development of global standards. For this purpose the UNECE (4) seems the right laboratory where to develop such standards.

5.6 Working conditions and social dialogue in the sector

Both the agricultural machinery and construction machinery sectors have many small and medium sized players and therefore require special arrangements regarding social dialogue. Staff representation is less important and possibilities for the transnational exchange of information are fewer than in sectors where European Works Councils exist. Nevertheless, the various companies of the sector show certain unity and need

organised coordination and exchange in the same manner. Thus, an upgrading of the dialogue between companies and workers is to be achieved.

Precarious work is emerging in the metalworking sectors as well as in others. Consequences of this are, among others, poor ongoing professional training, and a permanent threat of losing experienced and skilled workers to other sectors. Working conditions are also adversely affected by this type of employment.

Recommendation: The EC should promote the launch of a sector analysis specifically focusing on the level of working conditions. We do also recommend implementing actions for improving working conditions throughout the EU. Finally, it would be of paramount importance to set up measures for avoiding future overcapacities, as those which occurred during the economic crisis, and give new impetus to the development of new products and new ideas on work organisation based on the knowledge of all stakeholders.

5.7 Young and skilled labour forces should be maintained in Europe

The lack of skilled personnel, ageing labour force, brain drain directed to other continents … those are some of the problems affecting the agricultural machinery and construction equipment sector when it comes to employment. It is more and more difficult to attract young and skilled people to this sector. Industry and institutions should continue making the necessary investments in training, educations, lifelong learning, as this is a core sector for the European industry.

Without top class education and young skills there is no future, and technical innovation needs highly educated and creative engineers. Programmes should be implemented at different levels targeting workers promoting education and training and their utility to them, but also specifying the added-value and benefits employers reap when investing in workers’ and their competences. Wider acceptance of such programmes will be achieved through the stakeholders in the social dialogue.

Recommendation: Member States should further support the industry in relation to education and training, lifelong learning and skills development relating to mechanical engineering. Supported programmes for reconversion of workers in excess, before the situation is occurred, is crucial for the future.

5.8 SMEs should remain at the core of innovation

As the recently issued DG Enterprise Communication on ‘An industrial policy for the globalisation era’ duly pointed out, one of the main Challenges and Policy Responses for stimulating SMEs in the different sectors (including the Construction and Agricultural machinery sectors) is access to finance, which is still a bottleneck.

While SMEs are often those introducing innovation to the market, the possibility of investing in innovation has been undermined by cuts in access to finance. In all the Member States, access to finance became more difficult during the financial and economic crisis. In particular, SMEs of this sector experienced tightening credit conditions. Most governments have therefore introduced or expanded public guarantee schemes or provided direct state aid. However this is not sufficient.

We therefore recommend Member States and the European Commission to support SMEs of the agricultural and construction machinery sectors with projects and funds addressing their needs.

Brussels, 4 May 2011.

The President
of the European Economic and Social Committee
Staffan NILSSON