



Annual Report 2016
Innovators & Developers
of Agricultural Machinery
in Europe



Richard Markwell
President



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2017 will be a busy & exciting year for CEMA. We have defined the following five pillars for our activities:

- A more suitable & coherent regulatory framework from the EU*
- Thought-leadership on Digital Farming*
- A strong voice in the upcoming CAP reform*
- Active involvement in EU-funded research*
- Devising new tools to support mechanization in Africa*

Driving innovation and aiming for the digital revolution to take off

In terms of **EU regulation and industrial policy**, we are deeply concerned about the rising regulatory compliance costs for farm machines. Recent EU policy has added massive compliance costs for farm machines over a very short period of time with little – or no – benefits for our customers: farmers and agricultural contractors. This trend needs to stop.

Plans from the European Commission to make ABS braking systems mandatory even for tractors driving less than 60km/h are not the way forward, as they would bring virtually no safety benefits at high cost. CEMA will work closely with the EU Commission to ensure forthcoming regulation will be more supportive of our industry's innovative power and competitiveness.



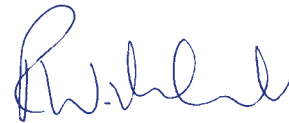
In **digital technology**, the pace of innovation is breathtakingly fast. And smart, connected farm machines are at the heart of the digital transformation in agriculture. Only when farm machines can seamlessly talk to each other and to related systems can the vision of a truly connected agriculture be achieved. CEMA will therefore put a strong emphasis on getting the technical standards and EU's legal/political framework right for the digital revolution in farming to take off.

In 2017, the debate on the reform of the **Common Agricultural Policy (CAP)** after 2020 has started. The CAP is of utmost importance for European agriculture and also for CEMA. Supporting innovation and the digital transformation must be key elements in the next CAP. CEMA believes it is time to develop a digital greening scheme. This should contain targeted support measures for farmers to invest in technologies like precision or digital farming with their proven environmental benefits.

2017 will also be a busy year to work on the **EU-funded research projects** that CEMA is involved in – and further projects might follow later in the year!

In addition, we want to deepen our fruitful cooperation with our international partners such as the OECD, the World Bank and the FAO to advance new policy initiatives and funding mechanisms to support sustainable and inclusive mechanization efforts in Africa.

The last years have shown that – whenever we stand strongly together and speak with one voice in CEMA – we can make a real difference on the topics we work on. With this positive experience in mind, I look forward to working with all of you in 2017!



Richard Markwell
CEMA President

Ulrich Adam
Secretary General



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CEMA's work has grown tremendously in the past four years: more members now work in a greater number of Working Groups on a broader scope of issues than ever before. The growing reach and impact of CEMA can also be seen from the rapidly growing popularity of our website and CEMA's increasing presence in social and traditional media channels.

Higher visibility, stronger advocacy, greater impact

Defending the interests and common positions of the industry towards the EU Institutions is, and will always be, the core mission of CEMA. Here, we have had, and continue to have, a truly heavy agenda at our feet: a whole set of new EU rules regarding the type approval of farm machines and diesel exhaust emissions has been adopted in the last years. CEMA's role has been to explain to decision-makers in which areas these rules were insufficiently tailored to the specific characteristics and needs of the industry. Last year, we were pleased to see that some of the new EU rules, such as the ones on engine emissions Stage V, better reflected our concerns, providing, for instance, for an additional transition period for SME manufacturers as well as tailor-made arrangements for narrow track tractors.

2016 was once again a very successful year which showed significant progress in:

- 1 Advocating for a better EU regulatory framework for the industry;**
- 2 Demonstrating thought-leadership in the emerging debate on Digital Farming; and in**
- 3 Building a more dynamic and inclusive association.**

The EU's activities on Digital Farming – also coined Agriculture 4.0 – are of critical importance to the farm machinery industry. Here, we have demonstrated to our various EU audiences – decision-makers in the EU Institutions, farmers and partner organisations in the agri-food value chain – the central role that smart, connected farm machines play in unleashing the full potential of the digital technology revolution in agriculture. We have done so by organizing dedicated events – farm visits for EU representatives in June, an interactive debate and exhibition on Digital Farming in September – as well as through CEMA's involvement in the EU's new Working Group on Smart Farming and the EU-funded large-scale pilot project on *Internet of Food and Farm 2020*.

CEMA has further evolved in becoming a more dynamic and inclusive association: to make the association's work relevant to a greater number of decision-makers and experts in the industry, we have launched several new initiatives last year such as the new Working Group for Small and Medium-sized Enterprises (SMEs).

Looking at the progress made and the strong commitment of the members and the Secretariat team, CEMA is ready for making a positive contribution and impact on the key tasks that lie ahead: shaping farm machinery-specific regulation, the EU framework for Digital Farming and the CAP reform.



Ulrich Adam
Secretary General

The agricultural machinery market & industry in Europe

Farmers – a declining customer base

Farmers, the final customers and ultimate users of agricultural equipment, are the most important factor determining the future of the agricultural machinery market and the industry servicing it. The European agricultural machinery industry has dealt for decades with the challenge of a dramatically declining customer base. Between 2005 and 2013, the

- average rate of decline was 3.7% per year
- total number of farm holdings decreased by 1.2 million
- average farm-holding area rose from 14.4 to 16.1 hectares
- overall area of agricultural land fell by 0.7% due to urbanization and growing forestry areas.

Consequences of farm consolidation

- tractors have become more powerful as needed by bigger farms
- all logistical chains have changed and costs associated to distribution increased dramatically
- competition between brands and their dealers has become far more intense. Only those able to invest into reaching ever more-distant customers and satisfy their needs can remain in the market.

Number of tractors sold per year and per farmer per 100 km²



Need for U-turn in EU regulation and industrial policy

A veritable U-turn in EU regulation and industrial policy is needed, that

- recognizes and understands the structural specificities & drivers of the sector
- abandons the distorted and harmful logic of using an automotive-based regulatory approach for tractors and farm machines
- adopts a forward-looking regulatory approach that allows the European farm machinery industry to define its own technical standards and move towards more self-certification



Need for U-turn in EU regulation

Abandon the distorted and harmful logic of using an automotive-based regulatory approach for tractors and farm machines

Tractors aren't cars!

In 2005, a sudden paradigm shift in the EU's regulatory approach towards the agricultural machinery industry occurred: a switch to treat tractors as automobiles. EU regulations for automobiles should, by and large, also apply to tractors. However,

- the farm machinery industry is a low-volume industry, characterized by a great variety of different vehicle types and models. Tractors have a much higher complexity than cars and incorporate 1.5 up to 3 times more parts
- economies of scale in both industries are entirely different and many of the EU's recent regulatory requirements which are coming from the automotive industry cannot be economically amortized in the agricultural machinery sector
- EU regulatory compliance costs have in recent years by far exceeded the benefits. Regulation on e.g. diesel engine emissions has forced the industry to devote up to 80% of R&D investments during the last 5 years to the reduction of PM and NOx emissions
- the obligation to provide non-discriminatory and standardized access to vehicle Repair and Maintenance Information to independent operators will deeply alter the market's structure. It will impact the farm machinery's dealership viability and the manufacturers' spare parts.

This framework had a negative effect on new purchases, slowing down replacement rates and triggering demand for second-hand equipment. It puts Europe's agricultural machinery industry at risk in the wake of fiercer global competition (US, Brazil, China).



Priorities

1

Precision Farming

Precision Farming is about managing variations in the field accurately to grow more food using fewer resources and reducing production costs.

More with less

All aspects of the environment – soil, weather, vegetation, water – vary from place to place. And all these factors determine crop growth and farming success. Modern agricultural equipment is a central solution in helping farmers to meet the challenge. From ploughing to harvesting, advanced farm equipment with integrated Precision Farming technologies (satellite-based driving systems, sensors, increasing automation, drones) offer promising solutions for farmers at any scale.

CEMA promotes the development and adoption of innovative machine technologies in European agriculture.



Greater sustainability and environmental protection



Higher productivity



Economic benefits

2

Digital Farming & Agriculture 4.0

After mechanization, the introduction of mineral fertilizer and the industrialization of production processes, connectivity and data management are now set to unleash the next – fourth – revolution in the history of farming.

Thanks to digital connectivity, intelligent agricultural machines can connect the different data 'dots' in a working process and put them into a smart and optimized order by consulting, for instance, weather data, ordering spare parts or accessing field-specific information from a central, cloud-based farm management software.

For Agriculture 4.0 to become a reality in the EU, we need

- EU decision-makers and national governments to ensure that the fundamental digital infrastructure is put in place in rural areas
- a Common Agricultural Policy (CAP) that boosts farmers' ability to invest in digital technologies
- communication and interface standards that facilitate vertical and horizontal communications
- re-assurances to farmers about the security, ownership, and control of their data



Fuse image © AGCO Corporation, used by permission

3

EU-type approval

The new “Mother” Regulation 167/2013 sets forth two highly ambitious objectives; one is covering many more machinery types and the other is to regulate type-approval to keep it in step with technological progress which is, fortunately, ongoing.

Tractors are the core business of the Regulation. Significant new features are related to brakes, including trailer braking systems and the use of electronics like ABS and EBS. Also, driver and control locations are addressed by defining requisites for ergonomics and the safety for operators. New logic and safeguards have been introduced, especially for starting the engine and leaving or parking the vehicle.

Towed interchangeable agricultural equipment is given coverage and harmonization for brakes, lights, towing devices, and mass and size.

4

Engine emissions

The agricultural machinery industry is committed to improving air quality in Europe by adapting its machines to the upcoming ‘Stage V’ diesel engine emission requirements from 2019 onwards. To make the necessary investments, the industry needs balanced rules to ensure the costs are spread over a reasonable period. In shaping the regulation, CEMA achieved

- a 24 months’ transition period for manufacturers to build their machines in compliance with the new technical requirements
- an extra 12 months for Small and Medium Enterprises producing specialized machines
- the possibility to replace broken engines by new previous-Stage engines
- a compromise for narrow tractors allowing manufacturers to make a direct step from Stage IIIB to Stage V limits avoiding high investments for intermediate steps

5

Harmonized road safety rules

Non-Road Mobile Machines (NRMMs) such as combine harvesters need to be authorized in each EU Member State and found to be compliant with the applicable national legislation. Across the EU, manufacturers are therefore faced with a great variety of different national laws and approval requirements to ensure their machines can travel on public roads.

CEMA supports the development of a harmonized regulatory instrument that considers existing EU legislation and the specificities of the industry with machines produced in low volumes for specialized use). Benefits of European harmonization would include

- a consistent high level of safety on the road for NRMM
- increased uniformity for operators when using NRMM
- creating a level-playing field for all manufacturers
- facilitating the design, testing, manufacturing, purchasing, operating and reselling of machines.

This EU framework legislation should enable manufacturers to provide a ‘Declaration of Conformity’ without a mandatory third party certification.



Major achievements

2015

EU Regulation & Industrial Policy



- EU adopts **amendments to new type approval Regulation for farm machinery** (167/2013), reflecting key concerns by CEMA
- CEMA & European Commission organize joint **1-day conference at EXPO Milan** on “promoting sustainable agriculture & food security”
- **2015 CECE-CEMA Summit** “Smart EU Regulation for Smart Machines” focuses on the digital transformation of the farm machinery industry

EU policies on Digital Farming & Precision Agriculture



- **1st demo farm visits** organized on a farm nearby Brussels (with Bayer CropScience) to showcase Precision Farming equipment in practice
- CEMA joins **Working Group “Smart Farming”** of the EU’s Alliance of the Internet of Things Initiative (AIOTI)

EU-funded research projects



- **Smart-AKIS** project (Precision Farming) wins EU funding

Mechanization in Africa



- **Strategic partnership signed with the FAO** to promote sustainable farm mechanization in Africa

2016

- EU adopts **new diesel engine emission limits** (“Stage V” Regulation 2016/1628). Key concerns of CEMA reflected (additional transition period for SME manufacturers, tailor-made arrangements for narrow track tractors)
- **High-level Conference at EIMA International fair in Bologna** to discuss “a new European agenda for industrial competitiveness & innovation in farming”
- CEMA publishes **structural analysis of “The Agricultural Machinery Market & Industry in Europe”**, underlining the need for EU regulation to change

- **2nd demo farm visits** showcase “Digital Farming in practice”
- CEMA provides input to two **European Parliament reports** which underline the potential of Precision Farming
- CEMA contributes to European Parliament foresight study: **“Precision agriculture and the future of farming in Europe”**
- CEMA organizes lunch debate on **“Agriculture 4.0 & Smart Farming in the cloud”**

- **Large-scale pilot project on Smart Farming (IoF2020)** wins EU funding
- **AGROCYCLE** project (Circular Economy) wins EU funding
- CEMA establishes a **High-Level Group (HLG) Research**

- CEMA co-organizes **international conference on “New Models for Sustainable Mechanization in Sub-Saharan Africa”** in Nairobi (Kenya)

Media exposure & website analysis



Press coverage increased by

40%

No Articles



Type of press



82

Trade press

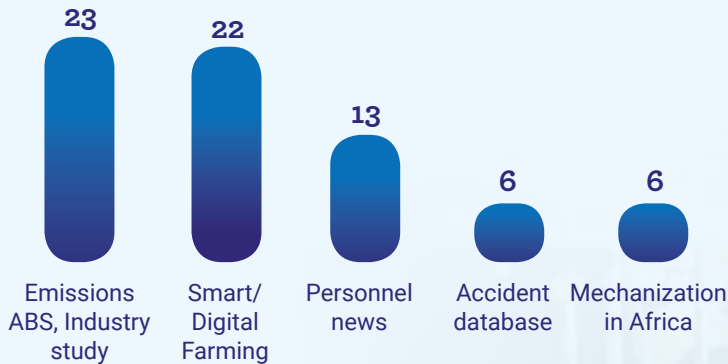
2016






39

EU press

Top 5 topics



Website visits keep growing sharply

	2015	2016	% change
 Sessions	58k	79k	+36%
 Users	40k	54k	+34%
 Pageviews	341k	412k	+21%

Website's Top Landing pages in 2016

- 1** Precision Farming/ Key Technologies
- 2** Precision Farming/ What's all about?
- 3** Business Barometer

CEMA Team



Ulrich Adam
Secretary General



Ivo Hostens
Technical Director



Tim Hamers
Technical Adviser



Beatriz Arribas
Communications Manager

Organization 2016

CEMA Secretariat

- Secretary General
- Technical Director
- Technical Adviser
- Communications Manager

Coordinates
+
Supports

General Assembly
(10 National Associations)

Board of Directors
(14 Members)

**Public
Policy Group**

**Economic
Experts Group**

**European
Products Group**

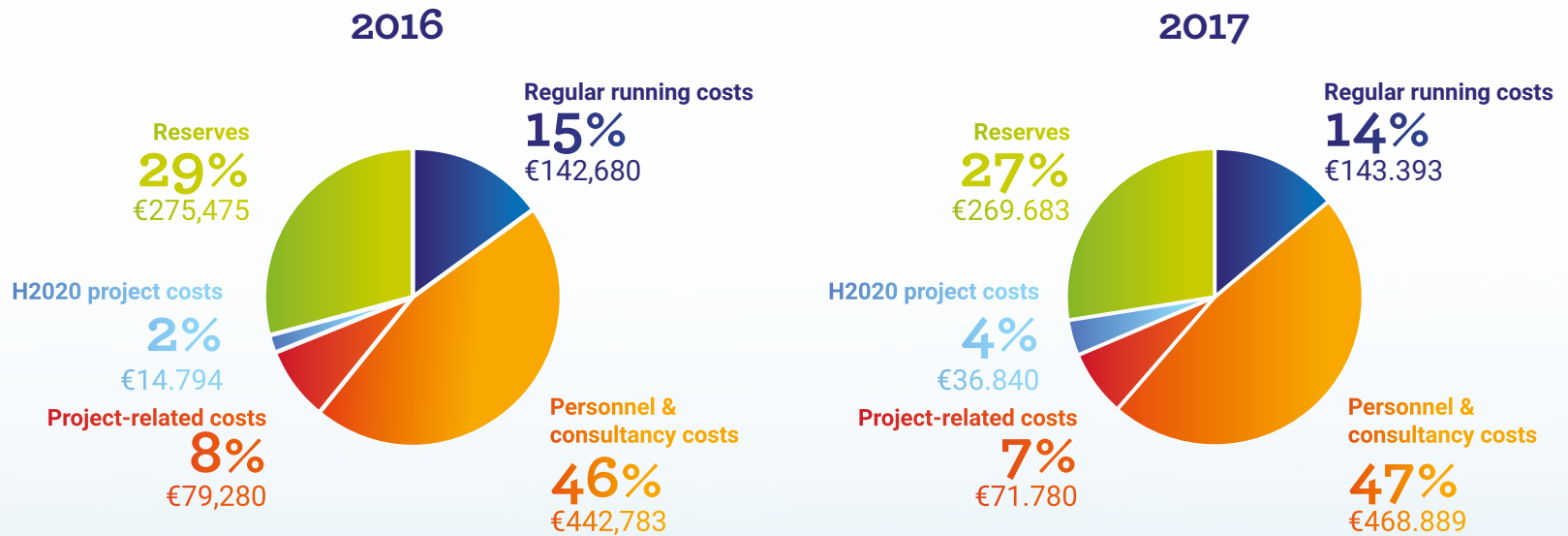
**Technical
Board**

**CO₂
High Level Group**

**High Level
Group Research**

**SME
High Level Group**

Financials - actual and planned



	2016	2017
Income	€685.714	€715.110
Membership fees	€610.640	€605.490
Project-based contributions & other operating income	€60.280	€72.780
H2020 research funding	€14.794	€36.840
Cost	€679.537	€720.902
Reserves	€275.475	€269.683



EU Policies of major relevance to CEMA



	Agriculture & Rural Development	Connect	Growth	Trade	Development
EU type approval of farm machines			●		
Diesel engine emissions			●		
Precision Agriculture, Digital/Smart Farming <ul style="list-style-type: none"> • European Data Economy • AIOTI – Alliance for Internet of Things Innovation • Agricultural research (Horizon 2020) 	● ●	● ●			
Common Agricultural Policy (CAP)	●				
Trade policy				●	
Mechanization in Africa					●

The European Agricultural Machinery Industry with 4,500 manufacturers & 250,000 jobs provides:

- Tailored technology solutions for 12 million farmers
- Who ensure healthy & quality food for 500 million consumers in the EU

R&D investments will be the key driving force to achieve:

- a more sustainable agriculture
- the creation of tomorrow's jobs for the farming sector.

To keep the pace of innovation and secure a solid R&D funding, CEMA proposes a shifting of 15% of total CAP resources into agricultural research after 2020.

Supportive & aligned EU industrial policies:

Europe's producers of farm machinery need an ambitious, forward-looking EU industrial policy that boosts the innovative power & competitiveness of the industry on the supply-side, and that is fully aligned with a forward-looking EU agricultural policy which supports farmers in accessing and using innovative machines on the demand-side.

Greater and freer cross-border trade in agricultural machinery will deliver growth, jobs, and innovation in industrial manufacturing and farming both in Europe and beyond. The EU needs to defend and promote this goal internationally.

If we want sustainable agriculture and farm mechanization to succeed in Africa, all concerned – be they farmers, supporters, planners or policy-makers – need to work together. The EU can and should play a stronger role in this task.

Agriculture - CAP



Research & Digital Farming



Growth



Trade



Development



CEMA Board of Directors

The European agricultural machinery industry is determined to work towards a balanced legislative and regulatory framework in the EU that:

- supports the competitiveness of the industry in Europe and
- enables the industry to provide smart solutions to help farmers worldwide to grow food affordably and sustainably.

Recent new EU regulations on type approval and exhaust emission are reflecting the contributions of CEMA and the diversity of our industry members.

Digital farming is one of the key pillars of our work. Digital infrastructure in rural areas and a forward looking Common Agricultural Policy must support the farmers to invest in digital technologies, thereby increasing farm efficiency and harvest results.

We are confident that the excellent team in Brussels and the highly competent experts in the working groups promote a deeper understanding of the farm machinery industry and strongly represent our interests in the dialogue with EU institutions.



Richard Markwell
President
(AGCO)



Massimo Goldoni
Vice-President
(FEDERUNACOMA)



François F. Piffard
Vice-President
(Manitou)



Stefan Top
Vice-President
(AVR)



Anthony van der Ley
(LEMKEN)



Maurizio Bandini
(Argo Tractors)



Massimo Ribaldone
(SDF Group)



Pascual Galindo
(AG GROUP)



Max Jeffery
(JCB)



Thomas Böck
(CLAAS)



Paul Snauwaert
(CNH Industrial)



Christoph Wigger
(John Deere)



Gijs Scholman
(Lely Industries)



Heinz Pöttinger
(PÖTTINGER)

Our Members



.AGORIA



Danish Agro Industry
Member of Danish Agriculture & Food Council



METALTECHNOLOGY AUSTRIA



Our Partners

agri-food chain coalition



copa*cogeca
european farmers european agri-cooperatives



ELO European Landowners' Organization



"In these recent years, CEMA has rightly profiled the European ag machinery industry as a high-tech sector providing smart solutions for EU farmers at all scales. Precision farming, digital tools, or intelligent farm machines are common terms decision-makers use to describe our industry. Today, the technology developed by the farm machinery industry acts as an innovation driver to bring European agriculture a step forward."



Francesco Carozza, Vice-Chairman Supervisory Board, SDF Group



"CEMA has proven to be a reliable partner for FAO in supporting sustainable mechanization strategies for African countries. Working hand in hand, CEMA & FAO explore realistic options that could help African farmers including smallholders to boost the development of their agricultural activities. Certainly, this collaboration has shown that public-private partnerships can turn a challenge into a success, reverting positive results to farmers of all scales, the private sector machinery suppliers and related service providers."



Josef Kienzle, Agricultural engineer, Plant Production and Protection Division, The Food and Agriculture Organization of the United Nations

CEMA aisbl - European Agricultural Machinery Industry Association

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