ANALYSIS OF THE AGRICULTURAL MACHINERY MARKET IN THE EUROPEAN UNION

Dr. Luis Márquez
&
Mr. Ignacio Ruiz

Data source: Agrievolution 2008 & Eurostat
SUMMARY OF CEMA REPORT

EU 27

AGRICULTURE  MACHINERY

MARKET TRENDS

¿WHAT’S NEXT?

LEGISLATIVE FRAMEWORK  RESEARCH INNOVATION

Mandatory requirements  Technical progress
AGRICULTURE

LIVESTOCK + FRUITS + VEGETABLES

EXTENSIVE INTEGRATION WITH FOOD INDUSTRY
### AGRICULTURE

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>494,800,000</td>
<td>172,000,000 hectares (40 %)</td>
<td>12,1 hectares</td>
<td>2.2 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agricultural holdings</th>
<th>2003*</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EU-25</td>
<td>EU-27</td>
</tr>
<tr>
<td>Total number (1000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By legal personality of the holder (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sole holder</td>
<td>96.1</td>
<td>96.5</td>
</tr>
<tr>
<td>legal person</td>
<td>2.9</td>
<td>2.6</td>
</tr>
<tr>
<td>group holders</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>By utilised agricultural area (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5 ha</td>
<td>45.4</td>
<td>51.6</td>
</tr>
<tr>
<td>5 - &lt; 20 ha</td>
<td>32.2</td>
<td>29.5</td>
</tr>
<tr>
<td>20 - &lt; 50 ha</td>
<td>12.4</td>
<td>10.4</td>
</tr>
<tr>
<td>50 - &lt; 100 ha</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>100 &gt;= ha</td>
<td>4.1</td>
<td>3.6</td>
</tr>
<tr>
<td>By machinery (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>using a tractor</td>
<td>:</td>
<td>:</td>
</tr>
<tr>
<td>with their own tractor</td>
<td>:</td>
<td>:</td>
</tr>
<tr>
<td>using a combined harvester</td>
<td>:</td>
<td>:</td>
</tr>
</tbody>
</table>
AGRICULTURE

AGE OF AGRICULTURAL HOLDERS

LOW BIRTH RATE + AGEING + ABANDONMENT

AGRICULTURAL CONTRACTORS = KEY PLAYERS
AGRICULTURE

AGRICULTURAL HOLDINGS BY MAIN TYPE OF FARMING, EU-27, 2005

- Other farmtypes: 54%
- Mixed cropping: 11%
- Specialist cereals, oil seed and protein crops: 11%
- General field cropping: 9%
- Specialist olives: 8%
- Field crops – grazing livestock combined: 7%
UTILISED AGRICULTURAL AREA BY TYPE OF TENURE, EU-27, 2005

The diagram below illustrates the utilised agricultural area by type of tenure in the EU-27 countries for the year 2005. The area is divided into owners-farmed land and tenant-farmed land along with others. The percentage of utilised agricultural area decreases as the size of the farm increases, with a majority of farms being owner-farmed and a smaller portion being tenant-farmed or other types of tenure.
AGRICULTURE

UTILISED AGRICULTURAL AREA USED BY THE HOLDINGS, 2005

Greece (27%), Spain (18%), Italy (18%) and Portugal (17%)
AGRICULTURE

STRUCTURE OF TYPE OF CROPS, 2005

ARABLE LAND

PERMANENT CROPS
AGRICULTURE

AREA BY MEMBER STATE, 2005

ARABLE LAND

PERMANENT CROPS

EL 10%
ES 40%
FR 11%
IT 21%
other MS 18%
PL 10%
FR 18%
ES 12%
DE 12%
other MS 48%
AGRICULTURE

PRODUCTION OF CEREALS AND SUGAR BEET, UE-27

![Graph showing production of cereals and sugar beet from 2001 to 2007. The graph indicates a general trend of production, with cereals and sugar beet showing fluctuations over the years.](image-url)
AGRICULTURE

PRODUCTION OF PEAS, RAPE AND SUNFLOWER, UE-27

- Field peas
- Rape
- Sunflower

Million tonnes

2001 2002 2003 2004 2005 2006 2007
AGRICULTURE

SHARE OF MAIN CROPS, UE-27, 2007
AGRICULTURE

PRODUCTION OF MAIN VEGETABLE CROPS, UE-27

The chart shows the production of main vegetable crops (Tomatoes, Carrots, Onions) in million tonnes from 2001 to 2007. The production of Tomatoes remains relatively stable with a slight increase from 2001 to 2003, followed by a decrease in 2007. Carrots and Onions show a slight increase over the years.
## Share of Main Vegetable Crops, UE-27, 2007

### Tomatoes
- **Others**: 30%
- **IT**: 40%
- **ES**: 20%
- **PT**: 10%

### Carrots
- **Others**: 40%
- **IT**: 20%
- **FR**: 20%
- **PL**: 20%

### Onions
- **Others**: 50%
- **UK**: 25%
- **NL**: 20%
- **ES**: 5%
AGRICULTURE

AREA BY MEMBER STATE, UE-27, 2007

VINEYARD

OLIVE TREES
# MACHINERY

## MECHANIZATION INDUSTRY

<table>
<thead>
<tr>
<th>Agricultural Machinery - EU-27</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>% 2006/2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU-15*</td>
<td>18091,4</td>
<td>18774,4</td>
<td>19764,1</td>
<td>5%</td>
</tr>
<tr>
<td>EU-12*</td>
<td>1155,4</td>
<td>1331,9</td>
<td>1568,5</td>
<td>18%</td>
</tr>
<tr>
<td>EU-27*</td>
<td>19246,8</td>
<td>20106,2</td>
<td>21332,6</td>
<td>6%</td>
</tr>
<tr>
<td>Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU-15*</td>
<td>4637,5</td>
<td>5115</td>
<td>5797,2</td>
<td>13%</td>
</tr>
<tr>
<td>EU-12*</td>
<td>727,6</td>
<td>887,1</td>
<td>1089,1</td>
<td>23%</td>
</tr>
<tr>
<td>EU-27*</td>
<td>3793,4</td>
<td>4027,9</td>
<td>4491,6</td>
<td>12%</td>
</tr>
<tr>
<td>Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU-15*</td>
<td>2130,5</td>
<td>2413,5</td>
<td>2565,7</td>
<td>6%</td>
</tr>
<tr>
<td>EU-12*</td>
<td>1261,9</td>
<td>1624,1</td>
<td>2004,9</td>
<td>23%</td>
</tr>
<tr>
<td>EU-27*</td>
<td>1720,1</td>
<td>2038</td>
<td>2119,9</td>
<td>4%</td>
</tr>
<tr>
<td>Market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU-15*</td>
<td>15364,5</td>
<td>15699,8</td>
<td>16601,9</td>
<td>6%</td>
</tr>
<tr>
<td>EU-12*</td>
<td>1728,3</td>
<td>2124,4</td>
<td>2536,2</td>
<td>19%</td>
</tr>
<tr>
<td>EU-27*</td>
<td>17092,7</td>
<td>17824,2</td>
<td>19138,0</td>
<td>7%</td>
</tr>
</tbody>
</table>

* Excluding intra-trade
EU-12 Entry 2004 and 2007
Sources: Eurostat, VDMA, CEMA
### TRACTOR REGISTRATIONS IN 2007 AND 2006

<table>
<thead>
<tr>
<th>Country</th>
<th>2007</th>
<th>2006</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>7558</td>
<td>7926</td>
<td>-4.64%</td>
</tr>
<tr>
<td>Belgium</td>
<td>3472</td>
<td>3738</td>
<td>-7.12%</td>
</tr>
<tr>
<td>Denmark</td>
<td>3961</td>
<td>3447</td>
<td>14.91%</td>
</tr>
<tr>
<td>Finland</td>
<td>4245</td>
<td>4171</td>
<td>1.77%</td>
</tr>
<tr>
<td>France</td>
<td>37778</td>
<td>36024</td>
<td>4.87%</td>
</tr>
<tr>
<td>Germany</td>
<td>28470</td>
<td>29011</td>
<td>-1.86%</td>
</tr>
<tr>
<td>Greece</td>
<td>2999</td>
<td>2757</td>
<td>8.78%</td>
</tr>
<tr>
<td>Iceland</td>
<td>368</td>
<td>361</td>
<td>1.94%</td>
</tr>
<tr>
<td>Ireland</td>
<td>5029</td>
<td>4221</td>
<td>19.14%</td>
</tr>
<tr>
<td>Italy</td>
<td>26836</td>
<td>29665</td>
<td>-9.54%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>224</td>
<td>180</td>
<td>24.44%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4678</td>
<td>4119</td>
<td>13.57%</td>
</tr>
<tr>
<td>Norway</td>
<td>4187</td>
<td>4371</td>
<td>-4.21%</td>
</tr>
<tr>
<td>Portugal</td>
<td>4199</td>
<td>3885</td>
<td>8.08%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2084</td>
<td>2100</td>
<td>-0.76%</td>
</tr>
<tr>
<td>Spain</td>
<td>17261</td>
<td>16668</td>
<td>3.56%</td>
</tr>
<tr>
<td>Sweden</td>
<td>4634</td>
<td>4408</td>
<td>5.13%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1974</td>
<td>2362</td>
<td>-16.43%</td>
</tr>
<tr>
<td>UK</td>
<td>17089</td>
<td>14941</td>
<td>14.38%</td>
</tr>
</tbody>
</table>
MACHINERY

TIV EVOLUTION AND MEDIUM TERM PROJECTION

155700 143300 157000 154800 159450 149700 158200 167600 186000 182000 179100 177200 17500 173500

EU-27
EU-25
EU-15
- Multifunctionality of agriculture
- Rural development
- Reduction in the financial resources destined for the CAP through 2013.

The single farm payment independent of production level (decoupling):
The main instrument to make farmers more competitive and market-oriented
The respect of environmental and food safety,
Animal and plant health and animal welfare standards,
The requirement to maintain farmland in good agricultural and environmental condition.

NEW ADJUSTMENTS PROPOSED IN 2008
- Abolishing set-aside rules
- Simplifying the link between subsidies and environmental, animal welfare and food quality standards
- More flexible support for sectors with special problems
- Moving some direct aid into rural development
- Ending market intervention in certain areas
- To exempt some categories of specialized tractors from the application of the next Tier levels;
- To have adequate flexibility levels to ease the production launch process at the new emission stage introduction.
LEGISLATIVE FRAMEWORK

OPERATOR SAFETY

- A stringent demand coming from all the involved bodies;
- Frame Directive about tractors;

ROAD TRAFFIC

- Higher road speed;
- New braking requirements.
**Innovation**

- Specialized high technology equipment
- Specific usages and cultivations optimization
- Greater dimensions and more power
- New machines for niche production and multifunctional activities

**Research**

- High level of safety
- High level of efficiency
- High level of comfort
- High level of versatility
RESEARCH AND INNOVATION

COMFORT

- Even lower noise levels
- Vibrations level reduction
- Auto-guidance systems (GPS)
- More servo-assisted controls
- Continuously variable transmissions (CVT)
- Standard ISOBUS for tractor-implement communication

EFFICIENCY

- Precision farming
- Wireless vehicle-to-vehicle communication
- Field and road functions programming
- Fuel consumption reduction
FARMER: a man over 35 years old as a sole owner
HOLDING: surface < 20 ha and mainly < 5 ha
TYPE OF FARMING: not defined
LAND TENURE: Owner rather than tenant
AGRICULTURAL AREA: Arable land + Mediterranean crops
   ARABLE: Cereals
   PERMANENT CROPS: Vineyard + Olive trees+ Fruit trees
MEMBER STATES: Two areas broadly known so far
   Southern Europe – Mediterranean areas
   Rest of Europe
PRODUCTIONS: Crops for food stable, certain crops for energy increasing
TRADE OF AGRICULTURAL PRODUCTS: Importer and exporter
AGRICULTURE SUMMARY

TREND

FARMER AGEING AND LAND ABANDONMENT

INCREASE OF ARABLE LAND DUE TO NEW MS AND DECREASE OF SET ASIDE

HOLDING SIZE INCREASING WHILE NUMBER DECREASING

AGRICULTURAL INCOME INCREASING IN NEW MS

CEREALS: INCREASING PRODUCTION BUT YIELD SLOW DOWN

EVEN IMPORTS AND INCREASED EXPORTS

FOOD INDUSTRY

OUTSTANDING LIVESTOCK AND PERMANENT CROPS

ENVIRONMENTAL ISSUES AFFECTING AGRICULTURAL HOLDINGS

RURAL DEVELOPMENT
AGRICULTURE SUMMARY

MAIN UNCERTAINTIES

POTENTIAL IMPLICATIONS OF A MULTILATERAL TRADE AGREEMENT

FUTURE DEVELOPMENT OF WORLD MARKETS

ECONOMIC AND POLICY ENVIRONMENT

CLIMATE CHANGE, TECHNOLOGICAL DEVELOPMENTS, BIOFUELS, SANITARY CONDITIONS
MACHINERY SUMMARY

ADAPTATION TO AGRICULTURAL TRENDS

AGEING OF MACHINERY IN USE

STATE OF THE ART SPECIALIZED EQUIPMENT

INCREASING HORSE-POWER

HIGHER VERSATILITY

REGIONAL DIFFERENCES

INTRODUCING EVEN BETTER ENVIRONMENTAL SOLUTIONS

TECHNICAL PROGRESS AND PERFORMANCE DEMAND
### Legislative Framework Summary

#### Mandatory Regulations Applied to Machinery

<table>
<thead>
<tr>
<th>Safety Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour Safety</td>
</tr>
<tr>
<td>Machines</td>
</tr>
<tr>
<td>Exclusion of Tractors</td>
</tr>
<tr>
<td>Self Certification</td>
</tr>
<tr>
<td>Road Traffic</td>
</tr>
<tr>
<td>Vehicles</td>
</tr>
<tr>
<td>Exclusion of Suspended</td>
</tr>
<tr>
<td>Type Approval</td>
</tr>
</tbody>
</table>

**Drafted Regulations Aimed to Customer Safety**

To be implemented by all companies.
LEGISLATIVE FRAMEWORK SUMMARY

MAIN PARTIES INVOLVED IN REGULATIONS

MANUFACTURERS AND LEGAL REPRESENTATIVES

EUROPEAN COMMISSION

NATIONAL AUTHORITIES

STANDARDIZATION BODIES

TEST STATIONS

INDUSTRY ASSOCIATIONS

OTHER PARTIES
LEGISLATIVE FRAMEWORK SUMMARY

REGULATIONS IMPLEMENTED

MANDATORY REQUIREMENTS

DIRECTIVES

COMPREHENSIVE PROCESS CONTINUOUSLY UPDATED

VOLUNTARY REQUIREMENTS

STANDARDS

GUIDES TO THE IMPLEMENTATION OF REGULATIONS
LEGISLATIVE FRAMEWORK SUMMARY

DIFFICULTIES

- Non agreed specifications
- Increasing production costs
- Technical progress affected by regulations
- No consultation among customers
- Individual decision makers
- Different regional requirements
LEGISLATIVE FRAMEWORK SUMMARY

ACTUAL PROBLEMS

- SMALL MANUFACTURERS FORCED TO STOP PRODUCTION
- NO CONTROL OF EQUIPMENT IN USE
- NO INSPECTION OF IMPORTED EQUIPMENT
- FORESEEABLE USE NOT CONSIDERED
- DELAY IN PUBLISHING STANDARDS AND REGULATIONS
- DIFFICULT TO REACH CONSENSUS
CONCLUSIONS

MACHINERY SHOULD CHANGE ACCORDING TO AGRICULTURE BUT NO TO REGULATIONS

SAFETY ISSUES SHOULD BE AGREED UNDER COMMON SENSE

AGRICULTURAL MACHINERY SHOULD BE CONSIDERED SPECIAL

SPECIAL FARMING REQUIRES SPECIAL MACHINERY
SAME REQUIREMENTS SHOULD NOT BE APPLIED

LABOUR SAFETY SHOULD NOT BE MODIFIED DUE TO NON PROFESSIONAL UNPROPER USE

THE EUROPEAN UNION SHOULD PROTECT THE EUROPEAN INDUSTRY TOO