

ENTAM/ENAMA THE EUROPEAN EXPERIENCE  
ANTAM THE ASIAN FUTURE

Qingdao, 27<sup>th</sup> of October 2013



# Governments adopt development agenda for inclusive and resilient growth (may 2013)

Key priorities

Sustaining inclusive growth

Sustainable development & resilience

Regional cooperation & connectivity

Agriculture

## World Agriculture

One of the most hazardous occupations

Wide use of chemicals

Close relation to the environment

Primary sector of the economy

Agricultural output in 2011  
4.249.237 billions of US\$  
6.2% of GDP

Agriculture

## 3 Pillars of safety

G20 at OECD - 2011 S. Liberatori

Human

Environment

Food  
production

Region wide standards and guidelines

The creation of an Asia-Pacific Network for Testing of Agricultural machinery has the Organization for Economic and Development (OECD) and the European Network for Testing of Agricultural Machines (ENTAM) as examples currently in operation. Both institutions have offered strong support for the establishment of such a network in the region.



Taking up this challenge, the Centre for Sustainable Agriculture Mechanization (UN-CSAM), one of five regional institutes under the umbrella of the United Nation Economic and Social Commission for Asia and the Pacific (ESCAP), has promoted the establishment of an Asia-Pacific network for testing agricultural machinery and farm implements, more commonly referred to as ANTAM.

**ANTAM will facilitate the trade and use of agricultural machines and implements fulfilling common requirements of safety (operator, environment, food production) and performance.**

In this frame a system based on:

STANDARDISATION  
+  
TESTING/VERIFICATION  
+  
CERTIFICATION

is the frame for development and trade offering benefits to all

STAKEHOLDERS

# ANTAM: The Asian future

To make ANTAM more affective the following items must be discussed/solved:

- Common basis for standards and guidelines
- Enama has provided two crop protection testing methodologies as a first step.
- Common policies for agricultural mechanization
- Step by step policy/ deadlines until ANTAM = ENTAM

# EXISTING NETWORKS:

**OECD Tractor Codes Certification**

**ENTAM European Network for Testing  
Agricultural Machines**



# OECD TRACTOR CODES CERTIFICATION

# The OECD Certification

(The Organisation for Economic Co-operation and Development)

Agricultural mechanization

34 Member Countries

32 Testing Stations

OECD tractor Codes

# OECD CODES

## Code 2

Testing of agricultural and forestry tractor performance.

## Code 3

Testing of the strength of **protective structures** for agricultural and forestry tractors (**dynamic test**).

## Code 4

Testing of the strength of **protective structures** for agricultural and forestry tractors (**static test**).

## Code 5

**Noise measurement** at the driver's position(s).

## Code 6

Testing of **front-mounted protective structures on narrow-track wheeled** agricultural and forestry tractors.

## Code 7

Testing of the **rear-mounted protective structures on narrow-track wheeled** agricultural and forestry tractors.

## Code 8

Testing of **protective structures on tracklaying tractors**.

## Code 9

**Protective structures for telehandlers** (testing of falling-object and roll-over protective structures fitted to self-propelled variable reach all-terrain trucks for agricultural use).

## Code 10

Testing of **Falling object protective structures**

# OECD Reports

**LABORATORIO DI MECCANICA AGRARIA**  
 DIPARTIMENTO DI SCIENZE E TECNOLOGIE AGRICOLE - ALIMENTARI



**MINISTERO DELLE POLITICHE AGRICOLE E COMUNITARIE**  
 O.E.C.D. approval number: 2/2 751

Report on test in accordance with the O.E.C.D. Standard Code for the Official Testing of Agricultural and Forestry Tractor Performance  
 O.E.C.D. Code 2 - July 2012

Report DISTAL - sez. I.A. n° 6291



Agricultural tractor Make: **NEW HOLLAND**; Model: **T 4.75**  
 Type: **2WD** (Two wheel drive tractor 30 km/h version)  
 CNH EUROPE HOLDING S.A., 24, Boulevard Royal, L - 2449 LUXEMBOURG  
 September - October 2012  
 22 February 2013

Tractor manufacturer:  
 Date of test:  
 Date of approval:  
 This report has been approved by the O.E.C.D. Co-ordinating Centre (ENAMA - Italy) as being in accordance with the O.E.C.D. Tractors Test Code

**ALMA MATER STUDIUM • UNIVERSITA' DI BOLOGNA**  
 VIA GANDOLFI, 19 • 40137 CADRIANO • BOLOGNA - ITALIA • TEL. 051-766372 • FAX 051-765318

*Consiglio Nazionale delle Ricerche*

**IMMOTER**  
 Istituto per le Macchine Agricole e Movimento Terra

Report No. 3310\*2\*DEUTZ\*TTV630\*0\*2012  
 OECD Approval No. 2/2 741 on 17<sup>th</sup> January 2013

TEST IN ACCORDANCE WITH THE OECD STANDARD CODE FOR THE OFFICIAL TESTING OF AGRICULTURAL AND FORESTRY TRACTOR PERFORMANCE

Make: **DEUTZ-FAHR**  
 Trade Name: **AGROTRON TTV 630**  
 : **4 WD, continuously variable transmission, 50 km/h**




IME DEUTZ-FAHR DEUTSCHLAND GmbH  
 Deutz-Fahr Strasse, 1  
 42699 Lauringen  
 Germany  
 17 December 2012, TORINO (Italy)  
 17 January 2013

Consiglio Nazionale delle Ricerche - Istituto per le Macchine Agricole e Movimento Terra  
 Via Zuccherato, 10 - 40138 Bologna - Italy  
 Tel. +39 011 34 89 218 Fax +39 011 34 89 218  
[izickimomaggio@immoter.cnr.it](mailto:izickimomaggio@immoter.cnr.it)  
[www.immoter.cnr.it](http://www.immoter.cnr.it)

**Nebraska Tractor Test Laboratory**  
 Department of Biological Systems Engineering  
 University of Nebraska - East Campus  
 Lincoln, Nebraska 68583-0832, USA

Report on test in accordance with the OECD STANDARD CODE 2  
 Testing of Tractor performance for the Official Testing of Agricultural and Forestry Tractors

OECD Approval No: 2/2 781  
 Date of approval: 9 September 2013



and TS6.120 AP / Case IH Farmall A120 AP  
 Nebraska Test Number: 2052  
 Test Dates: December 2012

Approved by the O.E.C.D. Co-ordinating Centre (ENAMA, Rome) in accordance with the O.E.C.D. Tractor Test Code

# OECD CODES

A GOOD EXAMPLE OF:

**STANDARDISATION**

+

**TESTING**

+

**CERTIFICATION**

**UNDER THE UMBRELLA OF AN  
INTER GOVERNMENTAL ORGANISATION**

# ENTAM

Is an agreement among different countries:



## Observer Members



## Honorary Witness



Food and Agriculture Organization  
of the United Nations

## ENTAM Agreement art. 2

- ▣ develop common activities in the field of agricultural and forestry engineering;
- ▣ develop common activities and documents with the aim to develop testing activities for the mutual recognition of test and test reports in the field of agricultural and forestry engineering;
- ▣ develop common research projects;
- ▣ promote the exchange of information among the Institutions;
- ▣ keep contacts with other National, International, public and private Institutions.

# ENTAM REPORT



## ENTAM - Test Report



Sprayer type: Trailed tunnel sprayer  
 Trade mark: Agricolmeccanica Srl  
 Model: DRIFT RECOVERY 2000

**Manufacturer:**  
 AGRICOLMECCANICA Srl  
 Stradone Zuino Nord, 4050  
 33050 Torviscosa (UD) - ITALY

**Test report: 05.179**  
 January 2013

### Responsibility and recognition



**Performing competent authority:**

Crop Protection Technology  
 DISAFA – University of Torino  
 Via Leonardo da Vinci, 44  
 I - 10095 Grugliasco (TO) - ITALY

**This test is recognized by the ENTAM members:**

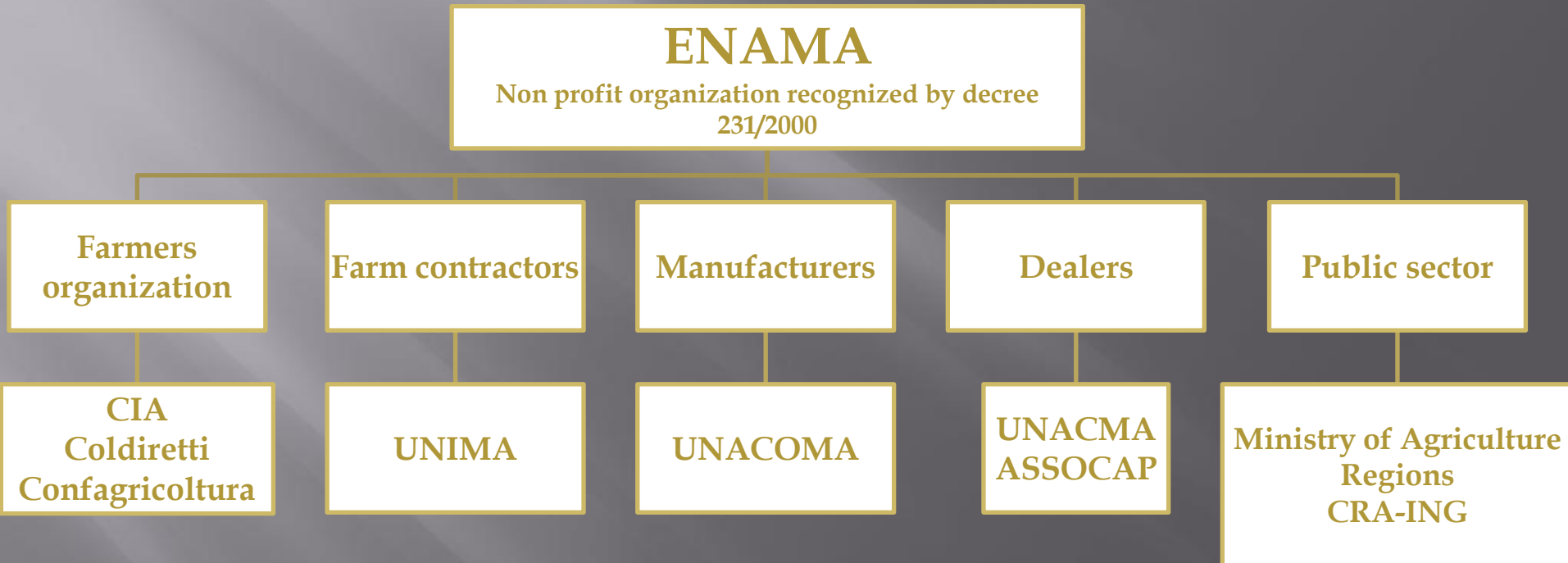
	<b>CMA</b> - Administració de la Generalitat de Catalunya, Centre de Mecanització Agrària – SPAIN	<b>EPH002/13</b>
	<b>FJ-BLT HBLFA</b> Francisco Josephinum Wieselburg - Biomass, Logistics, Technology – AUSTRIA	<b>062/13</b>
	<b>IRSTEA</b> - Institut National de Recherche en Sciences et Technologies pour l'Environnement et l'Agriculture (formerly CEMAGREF) – FRANCE	<b>IRSTEA/CEMAGREF/ENTAM/13/002</b>
	<b>JKI</b> - Julius Kühn-Institut (formerly BBA) – GERMANY	<b>ENT-I-01/13</b>
	<b>MGI</b> - MEZOGAZDASÁGI GÉPESÍTÉSI INTÉZET – HUNGARY	<b>I-68/2013</b>
	<b>PIMR</b> - Przemyslowy Instytut Maszyn Rolniczych – POLAND	<b>PIMR-88/ENTAM/13</b>



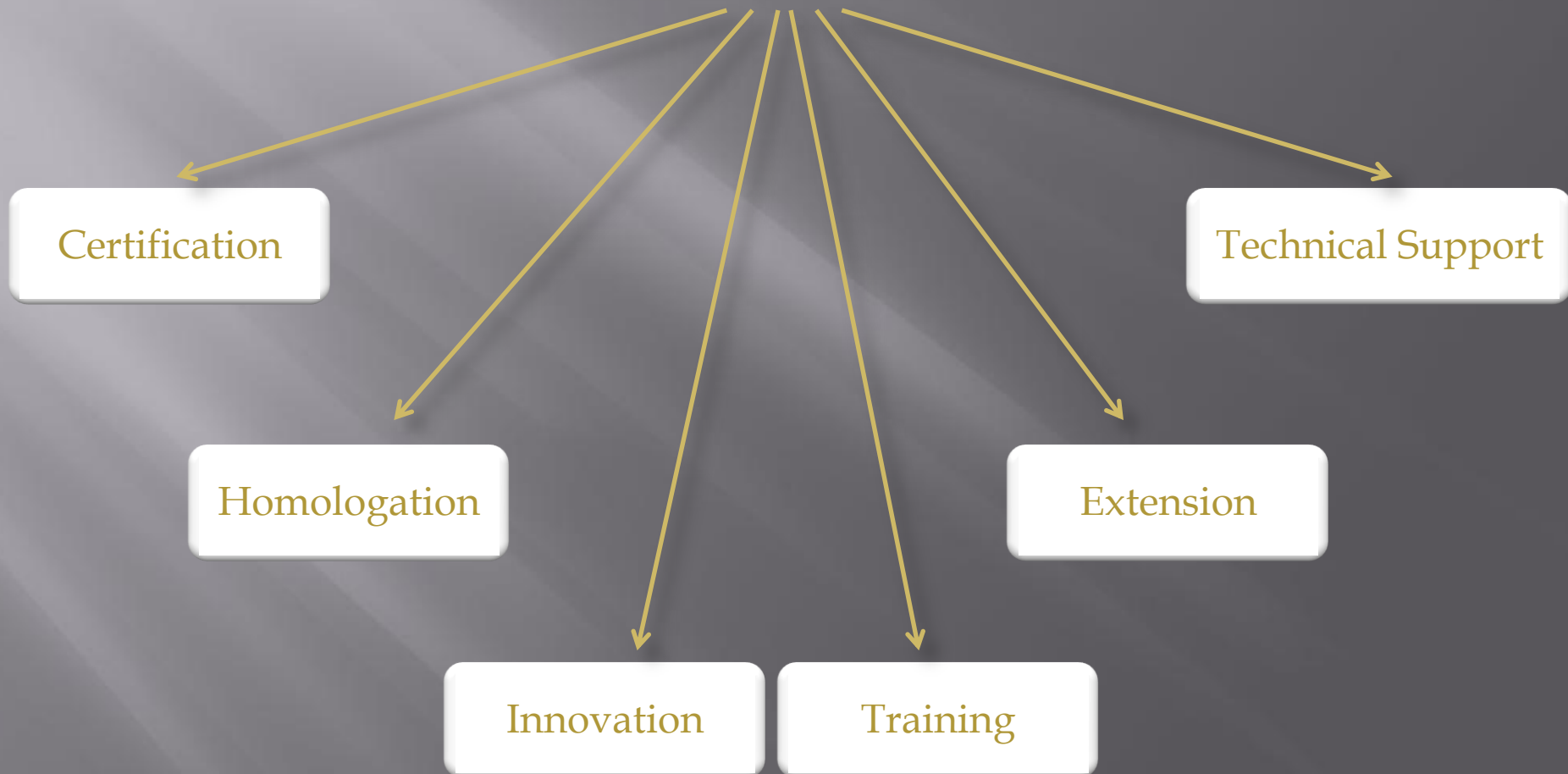
# ENAMA

National Agency for Agricultural Engineering:

# Members of ENAMA



# ENAMA's main activities



# The ENAMA Certification

ENAMA's Certification



Safety  
certification



performances

## ENAMA's Certification

Safety

performances

Testing centers:

- CRA-ING Monterotondo
- CRA-ING Treviglio
- DEIAFA Torino

Using test protocols

Accreditation

Trained inspectors

Using check lists



N.	Quanto	SI	NO	Non previsto	Esempio di soluzione
3.1	Stato macchina e presenza il programma che indica di leggere il manuale di istruzioni e di seguire tutti gli avvertimenti e le istruzioni di sicurezza?	SI	NO	Non previsto	
3.2	Stato macchina e presenza il programma che indica che in caso di intervento la macchina deve essere portata presso di qualified personale e che occorre disattivare l'arresto completo degli azionamenti?	SI	NO	Non previsto	
3.3	Stato macchine come previsto dal programma che indica le parti in movimento che rappresentano un rischio durante il uso?	SI	NO	Non previsto	
3.4	... omesso ...				



Positive Result

Positive result



ENAMA's Mark on the machine

ENAMA's Certificate

Safety Certification



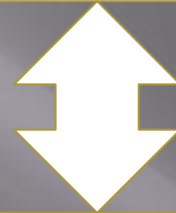
ENAMA's certificate



ENAMA's Mark on the machine

# Homologation

MANUFACTURER



Type Approval for road  
circulation

ENAMA



EEC and ITALIAN MINISTRY OF TRANSPORT

# Innovation

More than 140 new machines or components have been developed by the industry with ENAMA's support







GASFORUM

# Extension



Agrilinea

EIMA 2012

Qingdao, 27th of October 2013

# Technical Support



Coordination of the activity for the definition of the National methodology for the inspection of the agricultural sprayers (in accordance with the Directive for the Sustainable Use of Pesticides - 2009/128/CE)

High value consultancy to all stakeholders and national as well as international organizations

# International activities

- ▣ International projects → UE  
→ other
- ▣ Bilateral agreements → ABMAQ / Brazil
- ▣ ENTAM (*European Network for Testing Agricultural Machines*)
- ▣ OECD
- ▣ EU
- ▣ FAO, UNIDO
- ▣ UN-ESCAP / UN-CSAM

ANTAM

ESCAP

ANTAM

No System



Good Gov.



Bad Gov.

# Thank You

For more info:

[www.enama.it](http://www.enama.it)

[www.oecd.org](http://www.oecd.org)

[www.entam.com](http://www.entam.com)