2nd Conference of the Pan African Society for Agricultural Engineering (PASAE - AfroAgEng)
10-13 September - Rabat (Morocco)

«Role of agricultural engineering in meeting the challenge of global food security»

11 September 2019 - Session 3 Side Event “Club of Bologna”

Agriculture mechanization for sustainability in Africa

THE CLUB OF BOLOGNA: A LANDMARK FOR THE WORLDWIDE AGRICULTURAL MECHANIZATION SINCE 1989

by Paolo Balsari, Marco Fiala and Houssine Bartali

Club of Bologna President, Secretary General and Management Committee Member
The idea to create the Club of Bologna arose from Prof. Giuseppe Pellizzi (Milan University, Italy) on the wave of the high interest inspired in the ‘70s by the Club of Rome’s report “The Limits to Growth” (1972).

He was deeply convinced that the agricultural machinery and mechanization sector was so central for human development that it had to benefit from a free and open exchange of ideas among leading personalities in all the Countries of the world.

Pellizzi launched the proposal of the first Club - exclusively dedicated to Agricultural Mechanization - at the end of the international symposium on “Research and Information-Spreading on Innovations for Agriculture and Industry in the Year 2000”, organized at the EIMA (International Exhibition of Agricultural Machinery Industries) in 1987 under the auspices of the Italian Agricultural Machinery Manufacturers Federation (UNACOMA at that time).
The idea was studied in depth by a small group of Directors of the leading international Research Centres and received a very favorable reaction from UNACOMA, which – thanks to Loretta Brega, a brilliant journalist of UNACOMA Press Office who understood the enormous potential of the Club - offered to sponsor the organization and the management costs of this ambitious project.

**Club of Bologna** – “an independent, non-profit, scientific and cultural organization intended to provide a permanent centre for the study and analysis of the evolution and characteristics of agricultural mechanization at international level” - officially started in November 1988.

An organizing committee was appointed; its members provided the first Management Committee, comprising: G. Pellizzi (Milan University, Italy) – President; C. Ambrogi (UNACOMA, Italy); R. Hegg (Clemenson University, USA); O. Kitani (Tokyo University, Japan); L. Lisa (National Research Council, Italy); J. Lucas (CEMAGREF, France); E. Manfredi (Bologna University, Italy); J. Matthews (AFRC Silsoe Research Institute, UK); K. Renius (Munich Technical University, Germany).
The Club of Bologna defines its mission as “the study and definition of strategies for the development of agricultural mechanization worldwide, taking into consideration technical, economic and social advances and changes in agriculture on an international level” (Internal Rules; Art. 1).

The 1st Members’ Meeting was held on November 8 and 9, 1989, at Bologna (Italy), in occasion of the celebration of the 20th EIMA edition.

EIMA AND AGRITECHNICA
Since 1989 Club of Bologna has met annually on a regular basis, mainly at Bologna (Italy) during EIMAs until this became a biennial event alternating with AGRITECHNICA, Hanover (Germany). After this change in 2008, an agreement was reached with the DLG (German Agricultural Society) to organize the Members’ Meeting in the odd years, making Germany the Club’s second key centre of reference.
From its foundation the Club of Bologna organized in total:

- n.28 Members’ Meeting
- n.1 Open Meeting (in occasion of Expo 2015, Milan)

THE 2018 MEETING

Participants: n.72, representing:

- n.23 Countries,
- n.6 Ag-Machinery Manufacturer Associations,
- n.5 National and International Organizations

Club of Bologna Members: n.54 (76%)

Pellizzi Prize Winners: n.4

External Key Note Speakers: n.11

Invited Guest: n.3

RECORD OF PARTICIPANTS

- 40 (2009);
- 53 (2010);
- 49 (2011);
- 63 (2012);
- 60 (2013);
- 65 (2014);
- 63 (2016);
- 57 (2017)
During important scenarios for the agricultural machinery manufactures, (EIMA and AGRITECHNICA) emphasizes the strong commitment of the Italian industry and of FEDERUNACOMA for the promotion and development of research and innovation.

A think-tank - sponsored by FEDERUNACOMA (Italiana Agricultural Machinery Manufacturers Federation) and under auspices of FAO, UNIDO and CIGR - gathering the most qualified experts in the world on agricultural machines and mechanization to offer, both manufacturers and public decision makers, a technical-economic support and a contribution of ideas and innovative proposals.
MEMBERS WITH DIFFERENT SKILLS AND EXPERTISE
Ag-Machinery manufacturers; Researchers (Universities, Research Centres); Ag-Mech. Experts and Consultants; Editors

TYPE OF AGENCY
- Universities/Research Centres: 48
- Ag. machinery manufacturers: 10
- Consultants/Experts: 14
- Federations and Associations: 7
- International Organizations: 6
- Editors/Journalists: 1
THE GROUP ORGANIZATION
Management Committee: 13
Past-Presidents: 2
Full Members: 71
TOTAL MEMBERS: 86

2016 Pellizzi Prize winners: 3
2018 Pellizzi Prize winners: 4
THE MANAGEMENT COMMITTEE (2017-2021)

PRESIDENT
Paolo Balsari (Italy)

n.10 MEMBERS
El Houssine Bartali (Morocco)
Yoshisuke Kishida (Japan)
Emilio Gil (Spain)
Danilo Monarca (Italy)
Axel Munack (Germany)
Peter Pickel (John Deere Delegate)
John Schueller (USA)
Bassam Snobar (Jordan)
Karl Renius (Germany)
Gajendra Singh (India)

n.2 PAST PRESIDENTS
Ettore Gasparetto 2003-2007 (Italy)
Luigi Bodria 2008-2016 (Italy)

SECRETARY GENERAL
Marco Fiala (Italy)

FEDERUNACOMA DELEGATE
Marco Pezzini (Italy)

ADMINISTRATIVE SECRETARIAT
Patrizia Menicucci (FederUnacoma)
WIDE REPRESENTATIVENESS
n.4 Continents and 27 Countries: n.27
TOTAL MEMBERS: 86 from
Countries: 73
Associations & Federations: 7
Internat. Organizations: 6

MEMBERS’ AREA OF ORIGIN

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CLUB OF BOLOGNA AROUND THE WORLD (Sep 2019)
CLUB OF BOLOGNA: TOPICS DISCUSSED DURING THE MEMBERS' MEETINGS (Sep 2019)

HIGH AND WIDE ANALITICAL CAPACITY
12 main Subjects → 188 Key Note Reports

SUBJECTS (up to 2019)
- QUALITY & ETHICAL ASPECTS IN AG. MACHINERY PROD.; 3
- ENERGY IN AGRICULTURE; 5
- MECHANIZATION TO FEED THE PLANET; 4
- SUSTAINABLE AGRICULTURE, FOOD QUALITY; 12
- TECHNOLOGY TRANSFER IN DEVELOPING COUNTRIES; 10
- MACHINERY CERTIFICATION & STANDARDIZATION; 3
- ECONOMY & LEGISLATION; 3
- AG. MECHANIZATION IN THE WORLD; 17
- OTHERS; 3

FREE DOWNLOAD
www.clubofbologna.org

FREE DOWNLOAD
www.clubofbologna.org
28th MEMBERS’ MEETING

“New technologies and services for agricultural machinery: challenges and limits”
11-12 September 2018, Bologna (Italy) – EIMA 2018

Session 1 - Remote machinery repair, maintenance and assistance
Chairman: Peter Pickel (John Deere)

1.1 Product Services in the digital age (Industrie 4.0)
1.2 The Farm Data Ecosystem
1.3 Innovative Service Products for individual and availability-oriented business models in capital goods industry
1.4 T&Trac: the agriculture become 4.0

Session 2 - Agricultural machinery new technologies: challenges and limits for users
Chairman: Hermann Auernhammer

2.1 Trends and new technologies for agricultural machinery
2.2 New technologies for agricultural machinery: the contractors’ point of view
2.3 New technologies for agricultural machinery: the farmers’ point of view

Session 3 - Specific mechanization: Machines for horticulture
Chairman: Paolo Balsari (Univ. Turin – Italy)

3.1 The future of horticultural mechanization
3.2 Horticulture mechanization and automation in open-field: state of the art and future perspectives
3.3 Automation and robotics in the protected environment, current developments and challenges for the future
3.4 Equipment innovations in postharvest handling and minimally processing of fresh fruit and vegetables

Study Groups Activities
CLUB OF BOLOGNA: THE WEBSITE

MENU
HOME-PRESENTATION-MEMBERS-MEETING PROCEEDINGS-DOCUMENTS-PELLIZZI PRIZE-NEWS-DOWNLOAD-CONTACTS

www.clubofbologna.org

CHECK PERIOD
1 Jan 2018 – 31 Jan 2019
1800 Total Users
≈ 140 users/month
CLUB OF BOLOGNA: THE DISSEMINATION ACTIVITIES

28 ONLINE PROCEEDINGS (1989-2018)
(Regional & Annual Members’ meetings)

LOCAL DISSEMINATION
(National & International specialized reviews)

2 VOLUMES

FREE DOWNLOAD
www.clubofbologna.org
On 2017 n.3 Study Groups were established

SG1 “SUSTAINABLE AGRICULTURAL MECHANIZATION IN AFRICA”
Coordinated by Josse De Bardeamaeker has the aim to offer a tangible support to the local development of agriculture mechanization in African countries and smart specific suggestions to agricultural machinery manufacturers. A first Report has been discussed and uploaded on Club of Bologna website (https://www.clubofbologna.org/ew/ew_proceedings/2018_CoB_SG1_Report.pdf).

SG2 “DISSEMINATION”
Coordinated by Danilo Monarca has the main aim to increase the visibility of the CoB activities and, particularly, the contact between agricultural machinery manufacturers and research organizations.

SG3 “ETHICS OF THE FUTURE AGRICULTURAL MECHANIZATION DEVELOPMENT”
Coordinated by Peter Pickel has the main aim to evaluate the “risk” and possible consequences related to the application of the artificial intelligence to the agriculture mechanization as well as of a more and more sophisticated I.T. A first Report has been discussed and uploaded on Club of Bologna website (https://www.clubofbologna.org/ew/ew_proceedings/2018%20CoB_SG3_Report.pdf).
GIUSEPPE PELLIZZI PRIZE
n. 3 editions (EIMA 2012, EIMA 2016, EIMA 2018)

«G. Pellizzi Prize»: 1st edition EIMA 2012

International competition reserved to PhD Theses related to the topic of Agricultural Machinery and Mechanization. Winners: CoB Members for 5 years.


Winners: CoB Members for 5 years.

The four winners (up) and the first classified (down)
Saturday 11 (9.45 am – 3.45 pm)

**Session 1 - Agricultural machines - sustainability assessment and circular economy**

Chairman: Peter Pickel (John Deere)

1.1 Importance of sustainability assessment and circular economy in agricultural machinery production
1.2 CO₂ savings of agricultural machinery until 2030
1.3 Ag-Mach. and smart agriculture: which contribute to achieve “Sustainable Development Goals”

**Session 2 - Potential for electrification in agricultural machinery**

Chairman: Paolo Gay (Univ. Turin – Italy)

2.1 Electricity for tractors and tractor-implement systems
2.2 Electric tractor perspectives
2.3 Visions on electric drive components for implements and trailers

Sunday 12 (9.45 am – 12.00 am)

**Session 3 - Specific mechanization: Machines for forage production and distribution**

Chairman: Peter Schulze Lammers (Univ. Bonn – Germany)

3.1 Improvement and future prospective for forage production
3.2 Machines for forage production
3.3 Machines for forage distribution

Study Groups Activities
1989-2020
THE "CLUB OF BOLOGNA" CELEBRATES THE GOAL OF 30th MEMBERS’ MEETINGS!

and

4th EDITION OF “GIUSEPPE PELLIZZI PRIZE”
Art 2 - The Club of Bologna is an independent, non-profit association with the aim to promote scientific and cultural goals.

Art 3 - The Club will work towards its objectives through exchanges, discussions and sharing of experience and knowledge of scientists, researchers, technicians, managers, agricultural machinery manufacturers and farmers who are concerned with the fundamental problems in this field, on the basis of collected pertinent information, specific and general studies and analyses, and on the refinement and development of logical concepts of a scientific and political nature.