



**Report of Technical Board**  
(Tomas Norton, Chair Technical Board)

**Technical Board Meeting 10/5/2021**

**Participants:** Jose Manuel (Chair TS1), Tomas Norton (Chair TSII), Francisco Rovira-Mas (Chair TSIII), Cengiz Akdeniz (Chair TSIV), Dionysis Bochtis (Chair TSV), Oliver Schluter (Chair TSVI)

**Excused** Patrizia Busato (Chair TSVII)

**Agenda**

1. Activities of individual sections
2. Report on previous discussions (ANNEX)
3. Social media

**Notes**

1. Update on activities was given.
2. Section chairs agreed and made some small additions to the report
3. Technical Board Meeting to be held every 6 months
4. Agreed to assist on social media.

**Actions**

1. Tomas to send out 6 monthly invite
2. Tomas to set up a shared on Teams and protocol on how to share news
3. Tomas to set up common template for Expression of Interests.
4. Francisco to contact Patrizia about synergies between the 2 sections



## Updates from Sections

### 1. Activities of CIGR I Section – Land and Water

Section I organized in 2019: The 5th Inter-Regional Conference was co-organized with the 2nd Conference of the Pan African Society for Agricultural Engineering (PASAE - AfroAgEng) on Role of Agricultural Engineering in Meeting the Challenge of Global Food Security, in Morocco. The program included 40 oral presentations. The next Inter-regional conference: 6th Inter-Regional Conference on Land and Water Challenges in Albacete, Spain, September 2022.

### 2. Activities of CIGR II Section – Structures and Environment

CIGR Section II Board Meeting

April 22, 2021

1	Lname	Role (Chair, vChair, Sec, Member, Hon	Year term of service started	Year term of service ends	eMail	Affiliation	Country
2	Norton	Chair	4/22/2018	4/22/2025	<a href="mailto:tomas.norton@kuleuven.be">tomas.norton@kuleuven.be</a>	Tenure-Track Assistant Professor,	BE
3	Bartzanas	Vice Chair	1/1/2021	1/1/2027	<a href="mailto:t.bartzanas@aaua.gr">t.bartzanas@aaua.gr</a>	Lab of Farm Structures, Director	
4	Brown-Brandl	Secretary	1/1/2015	12/31/2022	<a href="mailto:brandl@email.marc.usda.gov">brandl@email.marc.usda.gov</a>	USDA-ARS-MARC, Box 166, Clay C	US
5	Adamsen	Member	1/1/2015	12/31/2022	<a href="mailto:apa@seges.dk">apa@seges.dk</a>	SEGES Danish Pig Research Centre	DK
6	André	Member	1/1/2015	12/31/2022	<a href="mailto:andre.aarnink@wur.nl">andre.aarnink@wur.nl</a>	Wageningen Livestock Research.	DK
7	Baptista	Member	1/1/2015	12/31/2022	<a href="mailto:fb@uevora.pt">fb@uevora.pt</a>	University of Evora. Department c	PT
8	Barbari	Member	1/1/2015	12/31/2022	<a href="mailto:matteo.barbari@unifi.it">matteo.barbari@unifi.it</a>	Dipartimento GESAAF. Gestione	IT
9	Lee	Member	1/1/2015	12/31/2022	<a href="mailto:iblee@snu.ac.kr">iblee@snu.ac.kr</a>	Laboratory of Aero-Environmenta	KR
10	Panagiotis	Member	1/1/2015	12/31/2022	<a href="mailto:ppap@aaua.gr">ppap@aaua.gr</a>	Agricultural University of Athens Department of Natural Resources Iera Odos 75, 11855 Athens, Gree	GR
11	Pedersen	Hon. Chair	N/A	N/A	<a href="mailto:soeren.pedersen@agrsci.dk">soeren.pedersen@agrsci.dk</a>	Aarhus Universitet. Faculty of Agr	DK
12	Berckmans	Hon. Chair	N/A	N/A	<a href="mailto:daniel.berckmans@biw.kuleuven.be">daniel.berckmans@biw.kuleuven.be</a>	KU Leuven. Division Animal and H	BE
13	Banhazi	Hon. Chair	N/A	N/A	<a href="mailto:Thomas.Banhazi@usq.edu.au">Thomas.Banhazi@usq.edu.au</a>	University of Southern Queenslan	AU
14	Meneses	Hon. Member	N/A	N/A	<a href="mailto:jmeneses@isa.utl.pt">jmeneses@isa.utl.pt</a>	Departamento de Engenharia Rur	PT
15	de Alencar Nääs	Hon. Member	N/A	N/A	<a href="mailto:irenilza@feagri.unicamp.br">irenilza@feagri.unicamp.br</a>	Agricultural Engineering College, S	BR
16	Cascone	Hon. Member	N/A	N/A	<a href="mailto:gcascone@unict.it">gcascone@unict.it</a>	Building and Land Engineering Sec	IT
17	Ramírez-Gómez	Hon. Chair	N/A	N/A	<a href="mailto:alvaro.ramirez@upm.es">alvaro.ramirez@upm.es</a>	Universidad Politécnica de Madric	ES

Attendees: Tomas Norton, Matteo Barbi, Anders Peter Adamsen, Andre, Panagiotis Panagakakis, Vasco, Thomas Bartzanas, Tami Brown-Brandl

Our Mission - Optimizing the interaction of living organisms with their individual micro-environment by using structures and guaranteeing the long-term sustainability (product quality and safety, human/animal health and welfare), of these biological systems in their surrounding environment.

Questions to answer: Do members need to be a member of a national society? Can we have two members from the same countries?

New Members – We need to make sure we are covering all research areas.

Areas to be covered: Greenhouses, Plant Factories (Hydroponics?), Waste Management – Waste Utilization, Silos/Grain storage, Energy efficiency of buildings (zero energy/zero waste), Livestock Buildings, Emissions,

**Action:** Send Tomas Norton – 2 or 3 names and emails of potential section members



Vasco update on the Hot Climate working group. Sent a document. We need to update the document on current practices in the world and need to develop some workshops. Conference is virtual.

Virtual Meetings for working groups. 1 meeting with several breakout rooms for different working groups.

The Working Group “Rural Landscape Protection and Valorisation” of the International Commission of Agricultural and Biosystems Engineering (CIGR) focuses on rural landscape analysis, monitoring, planning and design, also in relation to climate change, regeneration, ecosystem services, green systems, urban-rural connections, rural metabolism (click here for a short presentation of the working group: [https://cigr.org/view\\_wg5](https://cigr.org/view_wg5)). Next meeting scheduled on May 13, 11.45 Quebec time, within the CIGR online conference.

Agreed fields to consider in the section (these should be considered when suggesting new people):

- Plant Factories/Vertical farming (new)
- Zero energy/zero waste buildings (new)
- Traditional/natural building materials (new)
- Rural and historic buildings
- Emissions
- Structures
- Livestock buildings and technology
- Greenhouses and technology

New working groups (to be announced at EuroAgeng):

1. Precision Livestock Farming (Tomas, Tami, Panos)
2. Emission monitoring and modelling (Salvador?, Andre, Matteo, Thomas, In-Bok, Anders)
3. Greenhouse and plant factories (Thomas, In-Bok, Fatima)
4. Use of traditional materials (Jairo, Chepete?...)
5. Rural buildings? (Matteo asks Patricia)

#### **Actions**

- The model for running the working groups will be proposed to the executive board
- Vasco will discuss with Fatima how we will bring the announcement of the working groups into the virtual meeting.
- Section II will sponsor the final conference of LivAge (COST Action on emissions of Thomas Bartzanas)

### **3. Activities of CIGR III Section – Plant production**



Last event in 2019 at LandTechnik. We had planned the section meeting and a special tour for Section III within the Quebec Conference to be held in June 2020. As it was cancelled, all activities were suspended. We are planning now for the next congress, which will take place in Kyoto, Japan, next year.

#### **4. Activities of CIGR IV Section – Energy in Agriculture**

Not possible to arrange meetings in 2020 and 2021. Possible meeting at end of 21 or beginning 22 in Poland. Pandemic prevented live meeting. Conferences will be organized under CIGR Section IV.

#### **5. Activities of CIGR V Section – System Management**

Section V organized last CIOSTA meeting 38. 24-26 June 2019 Rhodes Island, Greece. Organising 2 conference currently: 39 CIOSTA CIGR 5 conference in Krakov Poland 21-22 June. Virtual format.

#### **6. Activities of CIGR VI Section – Bioprocesses**

Last symposium in Japan in 2019. Next symposium is under discussion (postponed due to COVID). Virtual or live conference is not yet decided. Live is preferred. Working group meeting on Food Safety in Japan 2019, now in 2021 virtual. Looking for new members of Technical Board. In process of pre-selecting potential members and motivate female members to join.

#### **7. Activities of CIGR VII Section – Information Technology**

The activity of CIGR VII Section since January 2019 could be summarized in these activities:

##### **Organization of EFITA 2019 – WCCA - CIGR VII Conference**

Co-organization and sponsorship of the EFITA CIGRVII Congress in Rhodes Island, Greece , “Digitizing Agriculture”, that took place from June 27 to June 29, 2019.

EFITA is the European Federation for Information Technology in Agriculture, Food and the Environment. The conference is a biennial event that facilitates participants from over 25 countries focusing on knowledge sharing and thinking on the future of ICT technologies within the agri-food and bio-resource sectors. CIGR VII section already sponsored the one I organised in Turin, in 2013.

The 2019 edition focused on Digitizing Agriculture and will have the following major themes,

1. Topic group 1: Sensors
2. Topic group 2: Data
3. Topic group 3: Decision
4. Topic group 4: Action
5. Topic group 5: Cross cutting themes

FOR this Conference a 4-BOOKS Series is on the way to be published by SPRINGER  
We had about 150 participants, with 70 papers



### **Organization of EFITA 2021 – WCCA - CIGR VII Conference**

The 2021 EFITA CIGR VII edition is titled “digital agriculture web conference and we kept the same themes of 2019 which are still actual. (website: [www.efita2021.com](http://www.efita2021.com) )

The conference will be completely online, from 25 to 26 of May. Beside registration is closed, it is still possible to send abstracts to to Maria Lampridi ( [m.lampridi@certh.gr](mailto:m.lampridi@certh.gr)) or to me ([patrizia.busato@unito.it](mailto:patrizia.busato@unito.it)).

The proceedings will be uploaded at Proceedings Journal MDPI (each paper will receive individual DOI number), and they will be all cited with Scopus.

So far there are 140 registration, and 102 abstracts.



## ANNEX I

### Meeting with Section Board Chairs during December 2020

#### **Agenda points that were discussed:**

1. New website for CIGR
2. Updated description of the Section
3. Membership
4. New working groups
5. New Events
6. Funding from CIGR
7. Industry involvement

Definitions: EB → Executive board, TS → Technical Section, SC → section chairs

#### **Outcomes**

1. **New website for CIGR:** The CIGR have now published the new website, which indeed looks very nice and modern. The only thing that is lacking is current information on members and as a Section we should ensure that our information there is up to date. Please can I ask everyone to look to the website and send the information to update your profile. I have more information in the attached document about the website of CIGR Section II and the information that you need to send. Please send this information to Alessandro Sopegno <[alessandro.sopegno@unito.it](mailto:alessandro.sopegno@unito.it)> with me in copy.

Discussion: everyone agreed to do this but some discussion that the communication between the EB and Section Chairs's seems to have distanced, .e.g. not all the chairs knew about the website.

Actions: Agreed with everyone to update the website.

2. **Updated description of the Section:** If you have additions to your description of the Section then please suggest so that I can incorporate and we finally submit to the next Executive Board meeting. Let me know if you agree or have changes.

Discussion: most are happy with the current descriptions of their TS. If further changes are needed then this will be made obvious to the TC so that it can be presented at the EB. SC of TS3 noted a concern in the overlap with TS7 because digital ag has been adopted by machinery. Electrification of tractors. Merits discussion with TS7. Maybe renaming is enough. Agronomy is not covered in TS3, it is more technology, robotics, sensing. However, equipment is a bigger part of TS3 than TS7. Many of people in TS3 are from agricultural engineering, precision ag, farm equipment. Suggestion from Chair of TS5 was that each TS should have there own identity and



that this could be started simply with a symbol for each TS that connects with the overall CIGR symbol.

Actions: The chairs agreed to look to the make up of the current Sections and whether there is a need to refresh them. Further meetings between TS3 and TS7 are needed. Francisco will contact Chair of TS5 (Patrizia Busato)

3. **Membership:** both the Section and Section board need new members. According to the Statutes the following criteria apply for membership:

**Technical Sections:** "Each individual member of CIGR (Every member of a regional or national society that is member of CIGR is member of CIGR) can join one or possibly no more than two Technical Sections following his/her own field of interest, without any extra fee payment."

**Technical Section Board:** "It is aimed that every Regional Society is represented by at least one member in all Section Boards." "Normally no more than one representative per each member Organization can be member of each Section Board."

Discussion: general consensus that more active members in the TS's would be welcome. Starting professors and younger researchers should be more involved. The difference between the TS and its board, e.g. 16 members only applies to Section Board not TS. Section Chair of TS3 renewed all the members in 2018 due to seniority of TS3 and programme of new leaders in 2018. Many challenge is the desert between the congresses. There is competing objectives as young people haven't the funding but senior people have. Small number (e.g. 10 people) can usually attend the meetings at the conferences: in the technical sessions. Future leaders activities. . See expanding the membership as being difficult as input is not regular. Would like to have more people from industry. Suggestion to send out a call for Expressions of Interest to regional societies. General template should be available to all the chairs. These can be screened by Technical Boards.

Actions: All TCs would like to attract more members to the TS. Find answers to the following questions: do members need to be a member of a national society? Can there be two members from the same society on the Section Board? Ask if an advertising campaign for the TS would be useful and if it could started from the EB of CIGR. E.g. starting point could be sending out Expressions of Interest to regional societies, starting from a common template regarding CIGR conditions (how to become member, requirements).

4. **New working groups:** Working groups can emerge from TS (likely starting point). Associated with TS2 are 2 active working groups. Would you agree to the proposal that each WG has a defined assignment for 1 year and at the end of the year a decision is made to dissolve the WG or continue. Please give your ideas on this.

Discussion: Some WGs are not really active and a new way to motivate and manage them is welcome. Maybe a year assignment would be good if it can fit within the work of the TS members. Mission driven is a good approach but should have the pool of people to choose from. Workshops or dissemination events can help focus.



Action: Proposal on yearly WG missions to be sent to the EB to see if it could work. While idea is supported by the Section Chairs a doubt surrounding having enough active people.

5. **New Events:** We need to get sponsoring events again in 2021 and onwards – please think of some suggestions.

Discussion: most TS are active at the conferences every 2 years but also interested in doing a virtual conference every other year. The presumption is that this needs a lot of effort so support to make this professional would be appreciated. Can CIGR help in “hybrid” TS conferences which can include Working groups dissemination? Main challenges seen: send a list a schedule and attendees and follow-up. Virtual meetings can be a big step forward. Budgets to organize this would be very interesting. Needs organization and support from CIGR to help realise. Chair of TS5 has experience in organizing EFITA and WCCA conferences. The company used and procedures followed could be shared. The costs to set-up websites on the conferences are not high. This is not too expensive.

Action: TC to discuss the possibility of CIGR supporting a virtual or “hybrid” conference/event every other year and determine what is the level of support available.

6. **Funding from CIGR:** We might be able to get some budget to improve our dissemination activities. What would we use the budget for in Section? Please give ideas.

Discussion: funding for online conferences would be the most useful (see above point)

Action: TC to ask about the EB about the funding to support video conferencing (service of CIGR?)

7. **Industry involvement:** how can we involve more industry/get them interested in our activities? Please give ideas.

Discussion: In general Section Chair welcomed involvement of more industry. Response of Chair TS3. Industry don't see a value in what they get. Conferences are ok but not heavy inclusion of industry. ASABE focusses on standards, CIGR not... therefore industry involvement is a big challenge... big players should be involved perhaps members of the Section Boards. Companies can steer the focus of the Section conference/events. Have interviews with companies to ask them? What about farmers and societies like FAO?

Action: TC to ask to EB is we can also direct calls for EOIs to industry.