1. Introduction

Full Title: A Traceability and Early warning system for supply chain of Agricultural Product: Complementarities between EU and China (2013.11-2017.10). Coordinator: Prof. Fernando Bienvenido, UAL and Prof. Xinting Yang, NERCITA.

2. Task

To obtain a better mutual understanding of the state and the possible roadways of agricultural product quality and safety in both the European Union and China.

Focuses in four areas:
1. Good Agricultural Practices and Quality Standards in application;
2. Alert programs in the production and disease warning models;
3. HACCP software in the logistics;
4. Traceability systems for the supply chain of agricultural products “seed-to-plate”.

4. Photos

Staff exchange
• Support longer time visit than normal conferences
• Provide average cost for international living and transportation

Intellectual right exchange
• standards • models • patents • papers • data sets • system • equipment

Seed new cooperation project
• Creation of enduring networks of expertise and international research partnerships.
• Seed new research projects

3. Structure

<table>
<thead>
<tr>
<th>Partner Organization Name</th>
<th>Short Name</th>
<th>Country</th>
<th>Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Athens</td>
<td>AUA</td>
<td>Greece</td>
<td>Prof. Nick Sgoutras</td>
</tr>
<tr>
<td>National Engineering Research Center for Information Technology in Agriculture (Co-leader)</td>
<td>NERCITA</td>
<td>China</td>
<td>Prof. Chunjing Zhao; Prof. Xiating Ying; Dr. Ming Li; Dr. Jianping Jun</td>
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<tr>
<td>University of Munich</td>
<td>LMU</td>
<td>Germany</td>
<td>Prof. Marlo W. Dohle</td>
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<tr>
<td>University of Pisa</td>
<td>UNIP</td>
<td>Italy</td>
<td>Prof. Alberto Paredes</td>
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<td>Polytechnic University of Madrid</td>
<td>UPM</td>
<td>Spain</td>
<td>Prof. Luis Ruiz Garcia</td>
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<td>China Agricultural University</td>
<td>CAU</td>
<td>China</td>
<td>Prof. Shuchen Wang</td>
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<td>Shandong Agricultural University</td>
<td>SDU</td>
<td>China</td>
<td>Prof. Yanling Sun; Prof. Luning Dong</td>
</tr>
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<td>Tianjin Institute for Agricultural Engineering</td>
<td>TIA</td>
<td>China</td>
<td>Prof. Zhirui Li</td>
</tr>
<tr>
<td>Tianjin Pollution-Free Agriculture Products Crop Planting Management Center</td>
<td>TPPAMC</td>
<td>China</td>
<td>Ms. Xiaohong Wang; Ms. Yuqun Li</td>
</tr>
<tr>
<td>Guangdong Agricultural Products Quality and Safety Supervisory Institute</td>
<td>GAQSSI</td>
<td>China</td>
<td>Prof. Xiaomin Li; Prof. Hua Zhang</td>
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4. Approved cooperation research project

<table>
<thead>
<tr>
<th>Period</th>
<th>Type</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017.1-2018.12</td>
<td>China–Germany Agricultural Science and Technology Cooperation Project</td>
<td>High-throughput phenotypic information acquisition and analysis for drought tolerant crops</td>
</tr>
<tr>
<td>2017.1-2020.12</td>
<td>General Project of National Natural Science Fund of China</td>
<td>Intelligent flexibility traceability model construction and system validation in continuous and closed-up processing: Taking wheat flour production as an example</td>
</tr>
</tbody>
</table>

6. Introduction to the special section

We have published over 10 journal articles with co-authors between EU and China. The special section of IJABE for TEAP project includes three good papers, with the active editing service of Dr. Ming Li from NERCITA: Cynthia Giagnocavo’s paper proposed a new intelligent traceability system using net-chain analysis with the implementation of Big Data for traceability in the Almeria fruits and vegetable, plus potential use in China. This paper could be a general framework for upgrading the TEAP project and possible extension of IoT 2020. Xiaolong Li’s paper describes a novel and automatic counting system for urediospores of wheat stripe rust pathogen based on image processing; José Antonio Alvarez-Bermejo and Ming Li proposed a mobile system to analyze the incoming products at the head the processing line using CCD cameras to detect low quality and/or dirty products, both of them showed the progress of phenotyping in production and post-harvest stage in our consortium.
1. Positioning
Realizing the systematization, engineering and industrialization of agricultural product traceability technology
In the overall level of technology, to become Agricultural Products Traceability Technology and application engineering laboratory with the position of national leading and international first-class.

2. Affiliation
Coordinator:
Beijing Research Center for Information Technology in Agriculture (NERCITA), Beijing Agriculture and Forestry Sciences (BAAFS)
Partners:
Beijing Technology and Business University (BTBU), Beijing Research Center for Agricultural Standards and Testing (BCAST)
China International Electronic Commerce Center (CIECC)
Datang Software Technology Co. Ltd (CATTSoft)

3. Technical R&D Management Committee
Prof. Li Chenggui, Board Chairman of NELTA, President of BAAFS
Prof. Sun Baoguo, Director of Technical Committee of NELTA, President of BTBU
Prof. Zhao Chunjiang, Director of NELTA, Director of NERCITA
Prof. Yang Xinting, Executive Deputy Director of NELTA, Vice-Director of NERCITA
Prof. Zuo Min, Deputy Director of NELTA, Dean of Studies Department of BTBU
Prof. Wang Jihua, Deputy Director of NELTA, Director of BCRAFT
Prof. Chen Bin, Deputy Director of NELTA, Vice General Manager of CATTSoft
Prof. Zheng Xiaojun, Deputy Director of NELTA, Vice General Manager of Domestic Trade Information Center, CIECC

4. R&D products

5. Representative Achievements
- One national award, Second prize of National Science and Technology Progress Award: Rapid detection of plant environment information and IoT real-time monitoring technology and equipment.
- Five provincial and ministerial level awards;
- Ten standards, including a national standard, 3 industry standards;
- 96 patents, including 18 invention patents;
- 151 software copyrights;
- 175 papers, including 83 SCI/EI/SCIE indexed journal papers, some representative papers;
- An adaptive image enhancement method for a recirculating aquaculture system, Scientific Reports, 2017. doi:10.1038/s41598-017-06538-9
- A risk management system for meteorological disasters of solar greenhouse vegetables, Precision Agriculture, 2017. doi:10.1007/s11119-017-9514-9

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Monograph :
“Quality Safety Management and Traceability of Agri-Products - Theory, Technology and Practice”
Written by Xinting Yang, Jianping Qian, Chuanhong Sun.
Published by Science Press Ltd. in 2016.
It includes 15 chapters about 48 million words and embodies the Lab’s 10 years of agri-product quality traceability technology research and the application of the results.