Programme

MACS-G20 Workshop

Linked Open Data in Agriculture

Berlin, September 27–28, 2017

Federal Ministry
of Food
and Agriculture

GODAN
Global Open Data
for Agriculture & Nutrition

KTBL

Linked Open Data in Agriculture

MACS-G20 Workshop in Berlin, September 27th–28th, 2017

Linked Open Data (LOD) combines the technology of globally linked data with the philosophy of free access to information. In the agricultural sector, this approach is being tested in support of global food security, site-adapted agriculture and international research collaboration. This workshop aims at promoting the application of Linked Open Data in agriculture by addressing obstacles to implementation and by strengthening networks among existing initiatives.

The event takes place during the German G20 presidency 2017 and is linked to activities of the G20 Meeting of Agricultural Chief Scientists (MACS) on information and communication technology (ICT) initiated by China during its G20 presidency in 2016.

Goals of the workshop

- Survey the current state of Linked Open Data
- Assess the supply and demand for data
- Exchange failure and success stories
- Compare applications and uses (both potential and real)
- Define further actions (both political and technical)

Organisation committee

The initiators of this workshop are the German Federal Ministry for Food and Agriculture (BMEL), the Global Open Data for Agriculture and Nutrition Initiative (GODAN) and the Association for Technology and Structures in Agriculture (KTBL). The Federal Office of Agriculture and Food (BLE) is responsible for managing the event.

Programme committee

- Ajit Maru (GODAN)
- Andres Ferreyra (agGateway initiative, United States)
- Annerose Heuer (BLE, Germany)
- Arno Ruckelshausen (University of Applied Sciences Osnabrück, Germany)
- Caterina Caracciolo (FAO)
- Catherine Roussey (IRSTEA, France)
- Christopher Brewster (TNO, The Netherlands)
- Daniel Martini (KTBL, Germany, Co-Chair)
- Elizabeth Arnaud (CGIAR, France)
- Jerzy Weres (University of Poznan, Poland)
- Johannes Keizer (GODAN, Chair)
- Medha Devaere (CGIAR, France)
- Nikos Manouselis (eROSA project, Greece)
- Odile Hologne (INRA, France)
- Olaf Hering (JKI, Germany)
- Patricia Rocha (Embrapa, Brazil)
- Reiner Doluschitz (University of Hohenheim, Germany)
- Sander Janssen (University of Wageningen, The Netherlands)
- Tom Tomich (University of California Davis, United States)
- Ulrich Adam (CEMA, Belgium)
- Valeria Pesce (GFAR, Italy)
- Wang Zhong (GKAH-ERI, Guangzhou, China)
- Zhang Xue Fu (CAAS, China)

© www.fotolia.com | pro500

Contact

Global Open Data for Agriculture and Nutrition Initiative (GODAN)

Johannes Keizer (Dr. rer. nat.)
fone: +39 366 5010 443
email: johannes.keizer@godan.info

Association for Technology and Structures in Agriculture (KTBL)

Daniel Martini
fone: +49 6151 7001 126
email: lodworkshop@ktbl.de

https://www.ktbl.de/inhalte/themen/ueber-uns/projekte/macs-g20-loda/lod/

Federal Ministry
of Food
and Agriculture

goDAN
Global Open Data
for Agriculture & Nutrition

KTBL

Programme

9:00	**Registration**	
10:00	**Welcome (BMEL)**	
10:15	**Introduction (GODAN and KTBL)**	
10:30	**Keynote (Paul Groth)**	
11:15	**Coffee break**	
11:30	**Research data sharing**	**Visualisation, navigation and search**
	Publishing of agricultural research data as kind of data sharing – the publication process at Life Sciences Repository of ZB MED *Birte Lindstädt*	**Programming technologies supporting management of Linked Open Data in the domain of cereal grain drying and storage** *Jerzy Weres*
	REDIA – an approach to interoperability in a long tail of data scenario *Antonio Sánchez-Padial*	**Visualization of Linked Open Data – eye candy for VIVO** *John Fereira*
	Survey on the use of ICT for agricultural research in Ethiopian agricultural research institute *Tadesse Anberbir*	**Searching Linked Data Graphs with GraphScope** *Daniel M. Herzig*
	The Bonares Infrastructure for open soil and agricultural research data *Carsten Hoffmann*	**Linked Data architecture components** *Daniel Martini*
	Classifying content in the land sector – establishing a vocabulary in a highly political environment *Lisette Mey*	
13:15	**Lunch break**	

27th of September, 2017		
14:15	**Availability and security**	**Vocabularies, classifications and thesauri**
	Data ownership, legal issues, privacy and security *Michael Brobbey*	**Agrovoc – three ways** *John Fereira*
	Data ownership, legal issues, privacy and security *Vik Vandecaveye*	**Semantic challenges in sharing dataset metadata and creating federated catalogs: the example of the CIARD RING** *Valeria Pesce*
	Sustainability of Linked Open Data – a key challenge for agricultural applications *Ansgar Bernardi*	**Linking open statistical data – the role of statistical classifications** *Sangita Dubey*
	Available open datasets in agriculture technology and production *Ruthie Musker*	**Chinese Agricultural Thesaurus (CAT)** *Zhang Xuefu*
	Open Data – status quo, potential and challenges *Frank Termer*	**Agrisemantics, vision for an infrastructure for semantic-based interoperability of agricultural data** *Sophie Aubin*
16:00	**Coffee break**	

Programme

27th of September, 2017		
16:30	**Data models**	**Earth observation and remote sensing**
	Towards global soil data exchange *Hendrik van den Bosch*	**The Research Center for Agricultural Remote Sensing (FLF) – a data source for agricultural information based on Sentinel satellite data** *Holger Lilienthal*
	rmAgro, a reference model for data exchange in precision agriculture *Daan Goense*	**ESA's Food Security Thematic Exploitation Platform "Supporting sustainable food production from space"** *Silke Migdall*
	Towards data-driven agriculture – Linked Open Data to leverage the full potential of private and open data, increasing agronomic productivity, reduce environmental footprint and create new business models for all agricultural players *Wassilios Kazakos*	**Decision support for crop protection – Pest identification using UAV technology** *Bernd Hoffmann*
	Agrimetrics' Linked Data platform *Richard Tiffin*	**Using open data and artificial intelligence to digitise global agriculture** *Sebastian Fritsch*
		Linking and finding earth observation data on the Web *Uwe Voges*
18:15	**End of Day One**	
18:30	**Social event: Get-together and dinner at the hotel**	

28th of September, 2017	
9:00	**Towards an Agricultural Technology Sharing platform**
	Introduction of an Agricultural Technology Sharing (ATS) platform *Nie Fengying* and *Jieying Bi*
10:00	**Coffee break**

10:15	**Open Geodata**	**Applications in livestock farming**
	Publication of Inspire-based agricultural Linked Data *Raul Palma de Leon*	**Data integration and analysis in precision dairy farming: A semantic data warehousing approach** *Martin Wischenbart*
	Integration of open land use, smart point of interest and open transport maps using RDF *Karel Charvat*	**VirtualVet a business to map global animal disease** *Toby Mottram*
	Obstacles in standards and spatial thinking for Linked Data in agriculture *Rob Knapen*	**Making livestock farming smart and sustainable through accessing open information and using ICTs** *Paul Kasoma*
		Social networks in the pig barn – implications for the infection dynamics of MRSA *Thomas Selhorst*
		How many information systems does a pig hoggery need – and how-to make them useful *Wang Zhong*
12:00	**Lunch break**	

Programme

<table>
<tr><td colspan="3">28th of September, 2017</td></tr>
</table>

13:00	**Supply chain and traceability**	**Monitoring and documentation**
	Blockchains and Linked Data for agrifood value chains *Christopher Brewster*	**Implementing an open source database to monitor water related SGD (SGD-6) in Tunesia** *Raed Fehri*
	Employing the principles of My Data and blockchain to build trust in farm data sharing *Liisa Pesonen*	**The pesticide risk indicator model SYNOPS implemented in web-based applications to assess the risk to the environment and the impact of mitigation measures** *Jörn Strassemeyer*
	Construction and reuse of linked traceable agricultural product records *Dongpo Deng*	**VITIS – a Linked Data toolkit for a data-centric grape economy** *Antonis Koukourikos*
		Decision support for agricultural consultants with semantic data federation and Linked Data *Christopher Baker*
14:45	**Coffee break**	
15:15	**Plenary: wrap-up and conclusion**	
16:15	**End of Day Two**	

White: plenary activities, no simultaneous sessions
Grey: session title
Red: more policy oriented session
Blue: more technology oriented session