



Federal Ministry
of Food
and Agriculture

GLOBAL
FORUM FOR FOOD AND
AGRICULTURE

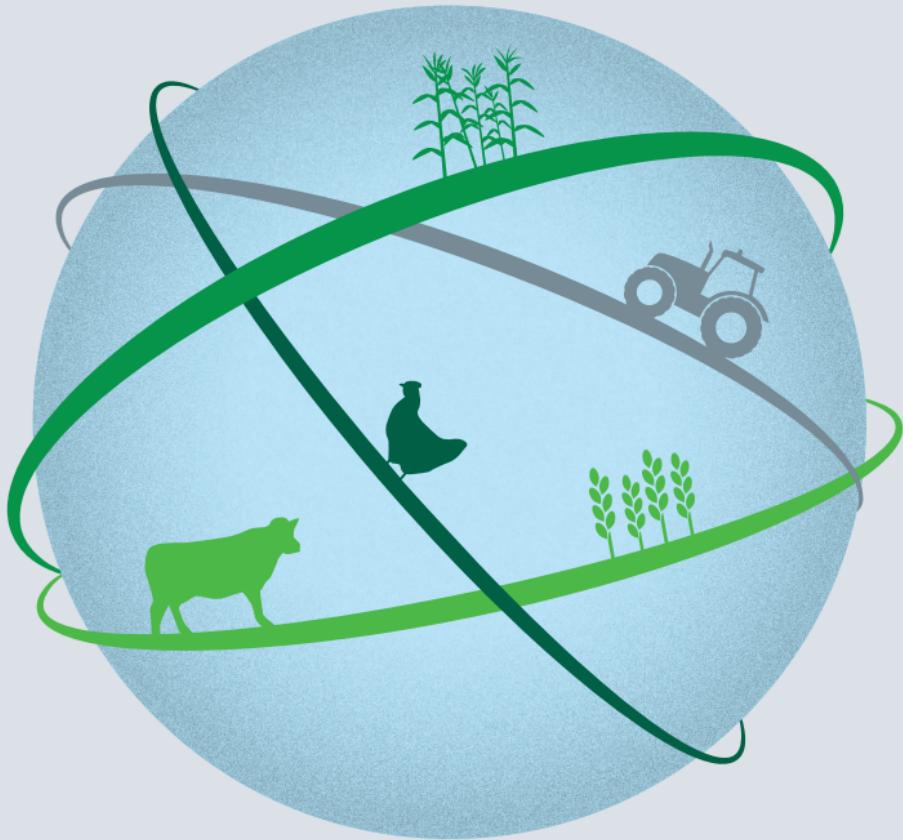
PROGRAMME

Global Forum for Food and Agriculture 2019

Agriculture Goes Digital – Smart Solutions
for Future Farming

17 – 19 January 2019

#GFFA



bmel.de

The Global Forum for Food and Agriculture (GFFA)

The GFFA is an international conference that focuses on crucial questions concerning the future of the global agri-food industry. This year, the GFFA will be held for the eleventh time during the International Green Week in Berlin. The conference gives representatives from the worlds of politics, business and civil society an opportunity to share ideas and enhance political understanding on topics of current agricultural policy within the context of food security. The Forum will be organised and hosted by the Federal Ministry of Food and Agriculture (BMEL) in cooperation with the Berlin Senate, Messe Berlin GmbH and the GFFA Berlin e.V.

Under the title „Agriculture Goes Digital – Smart Solutions for Future Farming“, different expert meetings will discuss questions such as how the potential of digital technologies can be better harnessed for agriculture and how farmers‘ access to digital technologies can be expanded and safeguarded. Aspects of data security and data sovereignty also play a pivotal role when it comes to establishing open data in the agricultural sector.

The multifaceted events organised under the umbrella of GFFA 2019 are intended to provide fresh impetus to the future shaping and development of „Agriculture and Digital Transformation“ at international level.



Participants at the Berlin Agriculture Ministers' Conference 2018

Programme Outline

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Friday, 18 January 2019

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Preface



Dear GFFA guests,

The Global Forum for Food and Agriculture is one of the world's largest international conferences on the future of international agricultural and food policies. One of GFFA's key achievements lies in bringing together many guests from business, science, society and politics. They will be meeting in Berlin for the eleventh time in a row and while their discussions are not free from controversy they are always constructive.

This international exchange is a core element in the GFFA's success. It is our goal to work together to find solutions. Joint solutions on how we can safeguard global food supplies and be more successful in our struggle to eradicate hunger and poverty.

The agricultural sector is faced with huge challenges due to the significant rise in the world population and the corresponding increase in demand for food. The global food situation is compounded by the implications of climate change and the on-going competition over ever scarcer resources such as soil, water, energy and biodiversity. We therefore need to shape agriculture more efficiently and sustainably, and we need to do so in every corner of the globe.



This is the focus of this year's GFFA subject: the spread of digital technology in the agri-food sector harbours huge potential, both for safeguarding global food security and for farmers and consumers. The digital transformation is therefore not an end in itself but is instead a means to help us make our farming sector and food production more sustainable, targeted and transparent. In many countries, farming industries are already highly modern and digital. The digital transformation of the agri-food industry is a specific form of information technology; information technologies are now all around us and find expression in the further development of drones, robots and artificial intelligence. Digital animal housing, satellite-based navigation by tractors and weather forecasts on smartphones are but a few examples of the ever growing scope of application. Our goal is to continue sowing this seed, sound out opportunities and foster beneficial developments.

It is our joint mission to tap the potential of digital technologies. However, we also need to identify the social and socio-political tasks that arise from the progressive digital transformation and give them political backing.

The GFFA is the ideal political platform for having the best possible debates on these processes in an international context. I would like to invite you very warmly to participate in the diverse range of GFFA events, to play an active part there and to benefit from an exchange of views and ideas.

With kind regards,



Julia Klöckner

Federal Minister of Food and Agriculture

Preface GFFA e.V.

The German agricultural and food industries established the GFFA Berlin e.V. association with the aim of joining forces with policy-makers, academia and civil society to address current issues and future challenges relating to agri-food policies and to work together to find solutions.

Thus, the theme of this year's Global Forum for Food and Agriculture (GFFA 2019) is "Agriculture Goes Digital – Smart Solutions for Future Farming". A number of expert panels will look at the diverse aspects of the subject.

The digital revolution is bringing about far-reaching and lasting changes in the way we work. Advances made in digital technologies have long since arrived in the agri-food industry as well. Milking robots have, for instance, been in common use in dairy cattle husbandry for some time now. Key elements of precision farming are rapidly gaining in importance in plant production. For example, it will increasingly become possible to apply fertilizers and pesticides in a highly needs-based and crop-friendly manner. In addition, agricultural robots will in future be able to replace or complement conventional tractors. The processing industry is today in a position to trace back manufactured products precisely to the company that produced them and thus contribute significantly to the safety of end users. Intelligent dovetailing and integration of data will, in the future, provide the value-added chain with great potential to better and more efficiently coordinate production processes all the way from fields and stables to supermarket shelves.

This doubtlessly carries with it significant opportunities, but we are, of course, also facing numerous challenges: How can we make optimum use of the potential of Big Data for the entire food chain and consumers? What form could digitalisation partnerships in the agri-food industry take? What new qualification requirements does the digital transformation impose on farmers? Will it be possible to further expand the digital infrastructure in our countries, especially in rural areas too?

At the same time, questions naturally also arise over how to handle data protection and data sovereignty. Who owns the data and who may use it?

This year's GFFA 2019 is dedicated to an issue of vital importance for the future of the agri-food industry. We hope that the GFFA participants will enjoy some stimulating debates. We are eager to hear their views and suggestions.

These are the founding members of GFFA Berlin e.V.:

- the Federation of German Food and Drink Industries (BVE)
- the German Farmers' Association (DBV)
- the German Agricultural Society (DLG)
- the Committee on Eastern European Economic Relations in the German Eastern Business Association (OAOEV)
- and the German Agency for International Cooperation (GIZ)



Dr. Wolfgang Ingold
BVE Chairman



Hubertus Paetow
DLG President



Joachim Rukwied
DBV President



Torsten Spill
Chairman of the Working Group on Agriculture in the
Committee on Eastern European Economic Relations



Tanja Gönner
GIZ Board Spokeswoman



Welcoming address by the Berlin Senate



Dear Visitors,

It is a pleasure for me to be able to welcome you to the Global Forum for Food and Agriculture during the International Green Week here in Berlin. This year's discussion will focus on the digital transformation of farming and the potential associated with this.

Urban areas play only a minor role in agricultural production compared with rural regions. However, when it comes to the demand for agricultural produce, metropolises such as Berlin are a decisive factor. A factor which can significantly impact developments in the agricultural sector. This also relates to the digital revolution.

In recent years, consumer interest in production conditions has increased significantly. Agricultural production methods will only have a future if they are accepted by customers. Production conditions which run counter to consumer expectations will not endure in the long run.

Transparency is needed to create such acceptance. The digital revolution of farming can play a considerable role in this regard by providing customers with a quick supply of valid information. By doing so, the introduction of digital technologies can be instrumental in making agricultural production methods transparent and thus increasing acceptance among consumers.

On that note, I would like to wish the participants at the Global Forum for Food and Agriculture many interesting debates that may possibly yield new solutions.

Kind regards,

Dr. Dirk Behrendt

Senator for Justice, Consumer Protection and Anti-Discrimination in Berlin

GFFA Workshop GASL, ILRI, FAO & OIE for the consolidation of GFFA 2018

Thursday, 17 January 2019

Sustainable Livestock Goes Digital

12:30 pm – 1:45 pm

room M2/M3

en

The GFFA Workshop, an international panel of experts, will be hosted by the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), the International Livestock Research Institute (ILRI) and the Global Agenda for Sustainable Livestock (GASL).

The workshop will link the results of GFFA 2018 („Shaping the future of livestock – sustainably, responsibly, efficiently“) with the topic of GFFA 2019 „Agriculture Goes Digital – Smart Solutions for Future Farming“ and analyse how GFFA 2019 can build on last year's work. There will also be presentations on what progress has been achieved at international level. The focus will chiefly be placed on the following four priority areas:

Food and
nutrition security



Climate and
natural resource use



Livelihoods and
economic growth



Animal health
and welfare



Kick-off Event

Thursday, 17 January 2019

Agriculture Goes Digital – Smart Solutions for Future Farming

2:00 pm – 3:15 pm CityCube Berlin, room A1 de/en/fr/ch

The kick-off event marks the official start of the GFFA events that will take place from 17 to 19 January 2019. Under the title „Agriculture Goes Digital – Smart Solutions for Future Farming“, the manifold facets of this year's subject will be highlighted and an introduction will be given to the issues to be discussed at the GFFA.

The following participants will address this year's topic at a panel discussion.

Welcoming addresses **Michael Stübgen**

Parliamentary State Secretary, at the Federal Ministry of Food and Agriculture (BMEL)

Margit Gottstein

State Secretary for Consumer Protection and Anti-Discrimination in the Senate of Berlin

Panel

Qu Dongyu

Vice-Minister for Agriculture and Rural Affairs, People's Republic of China

Andrew Mushita

Director of the Community Technology Development Organization (CTDO)

Michael Hailu

Director of the Technical Centre for Agriculture and Rural Cooperation (CTA)

Liam Condon

(Bayer AG, Member of the Board of Management and Head of the Crop Science Division)

Facilitator

Wolf-Christian Ulrich

Expert Panels

Thursday, 17 January 2019

12:30 pm – 1:45 pm room M6/M7

Digital solutions for farming today - How does technological innovation meet young farmers' needs?

Organiser: FarmFacts GmbH, World Farmers' Organisation (WFO)

12:30 pm – 1:45 pm room M1

Blockchain: The digital revolution in agriculture

Organiser: Federal Ministry for Economic Cooperation and Development

12:30 pm – 1:45 pm room M8

Agriculture Goes Digital – Together in cooperatives

Organiser: German Raiffeisen Association (DRV), cooperative companies

12:30 pm – 1:45 pm room M4/M5

How can digital agriculture foster resource-efficient and environmentally-friendly food production?

Organiser: National Research Institute of Science and Technology for Environment and Agriculture (IRSTEA), Brazilian Trade and Investment Promotion Agency (Apex-Brasil), Brazilian Agriculture Research Cooperation (EMBRAPA), Ministry of Foreign Affairs – Brazil



Expert Panels

Thursday, 17 January 2019

4:00 pm – 5:15 pm room M6/M7

Blue skies for green farms: a 21st century research agenda

Organiser: *Global Research Alliance on Agricultural Greenhouse Gases*

4:00 pm – 5:15 pm room M2/M3

Digital Agriculture: Challenges and Opportunities for Farmers towards more Sustainable Food Systems

Organiser: *Swiss Federal Office for Agriculture (FOAG)*

4:00 pm – 5:15 pm room M4/M5

Technology, Tracking and Traceability in Animal Health: How digitalisation improves our ability to protect against disease, advance the well-being of farm animals and support livestock production

Organiser: *HealthforAnimals – Global Animal Medicines Association, German Animal Health Industry Association (BfT), AnimalhealthEurope – European Animal Health Industry Association*

4:00 pm – 5:15 pm room M1

Big Data for Smallholder Agriculture Transformation

Organiser: *The Technical Centre for Agricultural and Rural Cooperation (CTA), The Food and Agriculture Organization of the United Nations (FAO)*

4:00 pm – 5:15 pm room M8

From digital farms to digital consumers – Digital transformation in the global agri and food business

Organiser: *GFFA e.V.*



Expert Panels

Friday, 18 January 2019

10:30 am – 11:45 am room M6/M7

Going digital against the drought – New technologies and the challenges of their implementation

Organiser: German Agribusiness Alliance at German Eastern Business Association, Leibniz Institute of Agricultural Development in Transition Economies (IAMO), German-Sino Agricultural Center

10:30 am – 11:45 am room M4/M5

Digital technologies for agri-food chains: High potential – critical gaps

Organiser: Leibniz Research Alliance “Sustainable Food Production and Healthy Nutrition”, Organisation for Economic Co-operation and Development (OECD)

10:30 am – 11:45 am room M8

Digitalization: Utopia or dystopia? The end of the resource crisis or unlimited corporate power over our food?

Organiser: INKOTA-Network, Bread for the World, Forum on Environment and Development

10:30 am – 11:45 am room M2/M3

Digitalisation and Finance: Creating Opportunities for African Farmers

Organiser: The German-African Business Association, German Agribusiness Alliance

10:30 am – 11:45 am room M1

What is cooking: Re-thinking farm and food policy in the digital age

Organiser: The World Bank Group



High-Level Panel of the FAO

Friday, 18 January 2019



Food and Agriculture
Organization of the
United Nations

12:15 pm – 1:30 pm CityCube Berlin, room A1 de/en/es/fr/arab/ch/sl

Utilizing the Power of Digital Innovations for youth, smallholders and family farmers

Organiser: *Food and Agriculture Organization of the United Nations (FAO)*

Digital technologies and innovations have the potential to revolutionize our food systems. If used properly, they can enhance the production of nutritious and safe food, create employment and income opportunities for rural populations, including youth and women.

ICTs can help smallholders and family farmers coordinate production planning and improve their access to advisory, financial, insurance, and market services. While digital technologies and innovations can play a crucial role in supporting smallholders and family farmers around the world, those who need these technologies most are confronted by a large number of challenges that prevent them from accessing and using the technologies. The panel will:

- Identify challenges and barriers that smallholders and family farmers face in accessing and utilising data and innovative technologies;
- Identify the role of governments, civil society, private sector, academia, and farmers in this regard and the measures they can take to tackle these challenges and barriers;
- Identify governmental strategies and policy options for creating an enabling environment to bridge the rural digital divide and create opportunities for rural youth, smallholders and family farmers.

The panel will have the format of a fishbowl discussion with five ministers of agriculture from countries in Africa, Asia, Middle East, Latin America and Europe and a representative of young farmers.

High Level Panel of the European Commission



Friday, 18 January 2019

2:00 pm – 3:15 pm

CityCube Berlin, room A1

de/en/es

Sowing the seeds of Digitalisation: What's in it for food security and market transparency?

Organiser: European Commission

The digital transformation in agriculture provides new opportunities in the fight against hunger and food insecurity and in the sustainable use of agricultural resources. It can thus make a key contribution to achieving the United Nations' Sustainable Development Goals (SDG), in particular SDG 2 “end hunger, achieve food security and improved nutrition and promote sustainable agriculture” – and SDG 12 – “ensure sustainable consumption and production patterns”. The conclusions of this panel will feed into the GFFA Communiqué.

A significant amount of the difference in performance in agriculture between regions and countries is due to differences in the dissemination and use of technologies. At the same time, digital applications are an important source for farmers to access education, training, information, and consultancy relating to their own agricultural production.

Digital technologies can give farmers access to regional and international markets, increase market transparency and can make important contributions in the area of animal health, animal welfare and animal disease control.

The aim of the High Level Panel is to engage key political players and trendsetters in a debate centred around 3 key topics:

- What role should digitalisation play in meeting UN Sustainable Development Goals SDG2 and 12?
- What have you done in your country to make better use of digital technologies in the agricultural sector?
- What still needs to be done? What role is played by research & innovation, vocational training and extension services in improving market transparency?

The exchange will have the format of a “town-hall” debate led by selected agriculture ministers and experts. Questions and comments will be taken from the floor.

Side Event – WTO

Friday, 18 January 2019



WORLD TRADE
ORGANIZATION

12:15 pm – 1:30 pm CityCube Berlin, room M2/M3 de/en

Out of the deadlock – new visions for Agricultural Trade

Organiser: Federal Ministry of Food and Agriculture

Facing the global challenges of food security and zero hunger (e.g. as defined by SDG 2), inclusive trade and competitiveness are identified as fundamental pillars of a sustainable and resilient agricultural sector. Local conditions differ among countries and regions leading to differing specializations in agricultural production and opportunities for trade.

The long-term objective of WTO agricultural negotiations is a fair and market-oriented agricultural trading system. Fewer restrictions and distortions in agricultural trade lead to competitive, healthy and sustainable development in the sector and allow for the most economic and eco-efficient supply of food to all consumers. This view seems to be questioned by more and more countries. What are the concerns behind this criticism and how to address them? What might be the solutions for the stalled multilateral negotiations? Is protectionism helping or harming the sustainable development and food security in developing countries? Which economy wide policy combinations are needed to support agricultural and trade policies in effectively boosting rural development worldwide?

Think Aloud! – GFFA Science Slam

Friday, 18 January 2019

2:00 pm – 3:15 pm

Exhibition Hall 23a

de/en

Think Aloud! – GFFA Science Slam

During the 11th GFFA a „Science Slam” will be organised for the first time, thus linking the GFFA on “Agriculture Goes Digital – Smart Solutions for Future Farming” with the BMEL Special Show at the International Green Week 2019.

Following a short welcome and introduction by a facilitator, a maximum of five slam presentations related to the GFFA focus issue of “digital revolution” of no more than 10 minutes each will be presented on the BMEL stage by various scientists from BMEL departmental research facilities and relevant universities at this entertaining event. The audience in the BMEL exhibition hall 23a will be the jury and decide who will be awarded a special BMEL prize as the winner.

Dr. Anna Kicherer

JKI, Institute for Grapevine Breeding

Subject: Digital transformation and phenotyping in grapevine research

Jobst Gödeke

JKI, Institute for Application Techniques in Plant Protection

Subject: Developing a robotics solution to control snails and mice in farming

Dr. Manuela Zude-Sasse

Leibniz Institute for Agricultural Engineering and Bioeconomy

Subject: Making fruit trees speak

Falk Böttcher

German Meteorological Service

Subject: From country lore to big data – How does a weather forecast come about?

Dr. Jorge Numata Jimenez

Federal Institute for Risk Assessment

Subject: Modelling farm animals on the computer: how do undesirable chemicals end up on our plates?

Future Forum

**Thursday/Friday,
17 and 18 January 2019**

Thu, 12:30 pm – 5:00 pm

Fri, 09:00 am – 4:00 pm CityCube Berlin, level 2 de/en

Future Forum

The Future Forum is a new GFFA format and, combining a contemporary exhibition area and an open stage, it is meant to offer a lively space for an interactive exchange between established and new stakeholders within the GFFA 2019. The multimedia presentation of start-ups showcasing their innovative and practice-oriented ideas of the agri-food sector plays a central role in this context.

Emerging start-ups have the opportunity to provide information on their digital products and services, to exchange experiences and to establish new contacts with potential partners and investors.

At the same time, international GFFA visitors are provided with new ideas and information on concrete projects or digital concepts for various challenging areas of agricultural practice at home and abroad by engaging in talks with a range of different players and sharing their brief presentations on an open stage.

Overview of exhibitors at the Future Forum

- Eiwa
- *gaipa / EAT global e. V.*
- Marktschwärmer
- Trecker.com / Yara Digital Farming
- Monitorfish GmbH

Berlin Agriculture Ministers' Conference 2019

Saturday, 19 January 2019

9:00 am – 1:30 pm Federal Foreign Office
(by personal invitation only)

Agriculture Goes Digital – Smart Solutions for Future Farming
Organiser: *Federal Ministry of Food and Agriculture*

The Berlin Agriculture Ministers' Summit (not public) will once again take place in the Weltsaal of the Federal Foreign Office in 2019. It will unite policy-makers from all around the globe in order to discuss the issue „Agriculture Goes Digital – Smart Solutions for Future Farming”. A final communiqué of the summit will formulate the common position of the agriculture ministers and feed into the international discourse on agricultural policy.



Ex-Federal Minister Schmidt handed over the final communiqué of GFFA 2018 to Dr Monique Eloït, Director-General of the OIE, and Prof Dr José Graziano da Silva, Director-General of the FAO

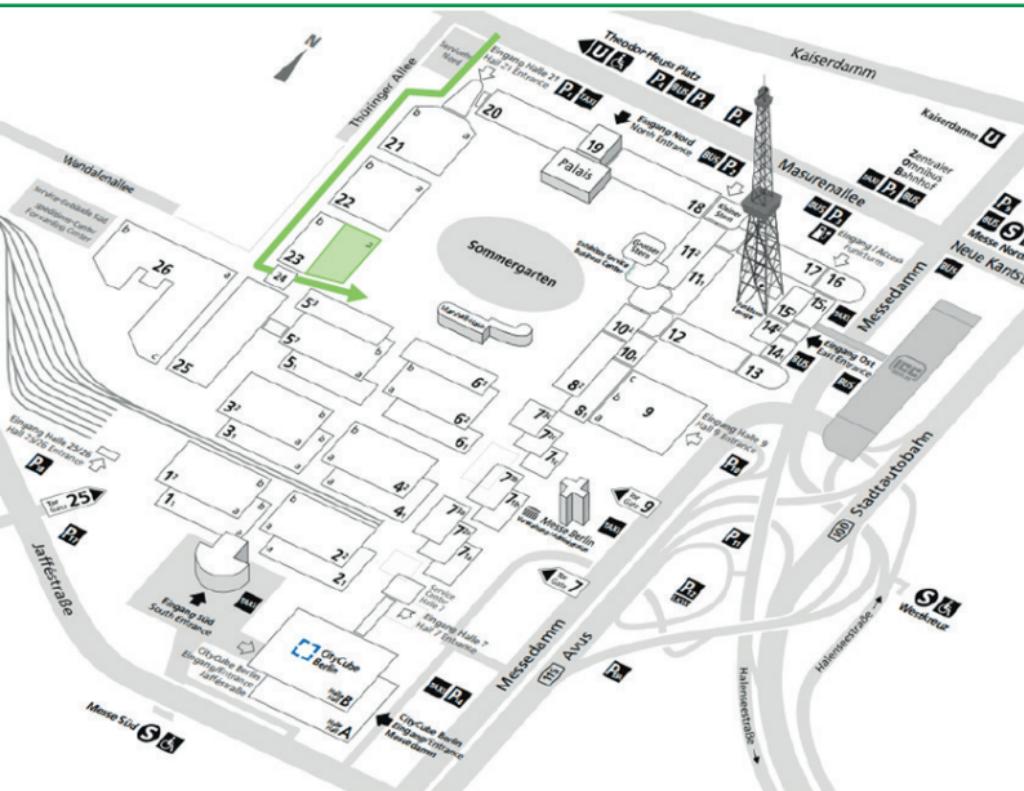
Impressions Agriculture Ministers' Conference 2018



For further information please see:
www.gffa-berlin.de

Hall layout plan - Hall 23a BMEL

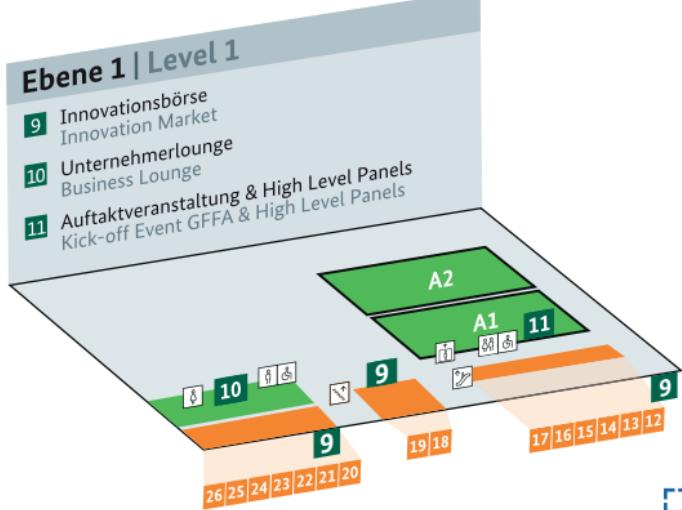
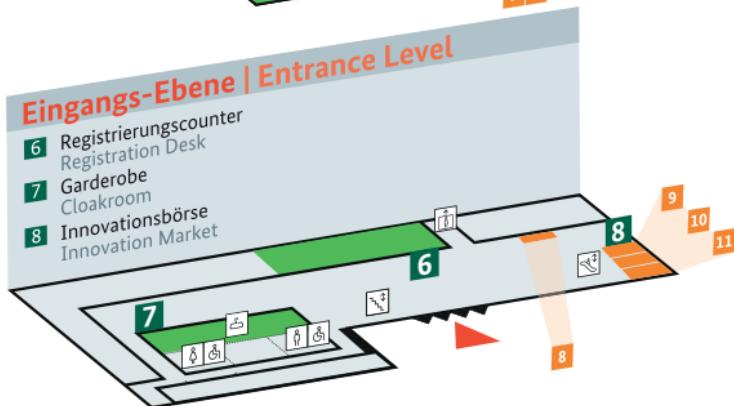
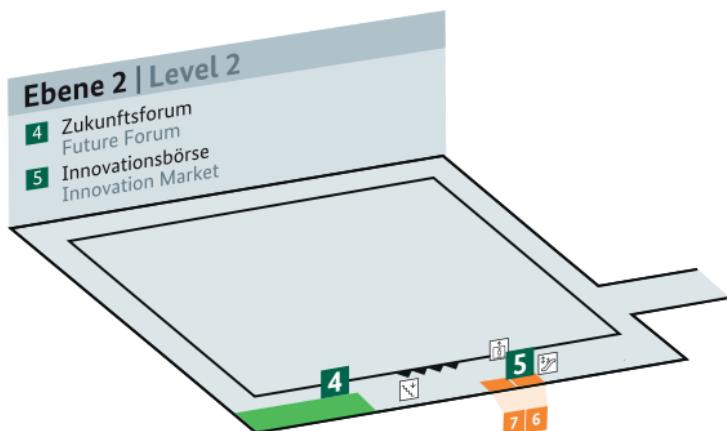
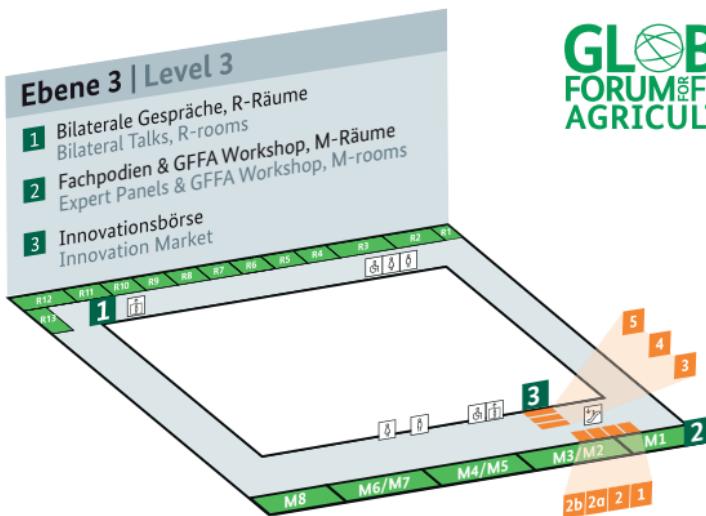
During the International Green Week, the BMEL will present many aspects of the Ministry's work in hall 23a. In addition, both the „Think Aloud! – GFFA Science Slam 2019!“ and the Evening Reception for foreign Guests of Honour will take place in hall 23a.



#IGW19

Overview CityCube Berlin

GLOBAL
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AGRICULTURE



Overview of exhibitors at the innovation market

Stand number	Name of the exhibitor
1	CTA (Technical Centre for Agricultural and Rural Cooperation)
2	Agency for Business & Economic Development
2a	Federal Ministry of Labour and Social Affairs
2b	UN World Food Programme Innovation Accelerator
3	Federal Statistical Office
4	German-Russian Agricultural Policy Dialogue/ Ekosem-Agrar AG / Ekotechnika AG
5	PÖTTINGER Landtechnik GmbH
6	IAK Agrar Consulting GmbH
7	ADT Project Consulting GmbH
8	Apex-Brasil (Brazilian Trade and Investment Promotion Agency)
9	DEULA-Nienburg
10	Food and Agriculture Organization of the United Nations (FAO)
11	Bundesverband DEULA
12	SGS INSTITUT FRESENIUS GmbH
13	DKE-Data GmbH & Co. KG
14	Deutsche Gesellschaft für Internationale Zusammenarbeit (giz) GmbH
15	ICON-INSTITUTE GmbH & Co. KG
16	The Regional Rural Development Standing Working Group (SWG) in South East Europe
17	AHT GROUP AG
18	Federal Office for Agriculture and Food (BLE)
19	Federal Office for Food and Agriculture (Department 624)
20	GFA Consulting Group GmbH
21	Nuertingen-Geislingen University (HfWU)
22	DLG International GmbH
23	AFC Agriculture and Finance Consultants GmbH
24	BVVG German AgriForest Privatization Agency
25	RIELA Karl-Heinz Knoop e. k.
26	GRIMME Landmaschinenfabrik GmbH & Co. KG

PUBLISHER

Federal Ministry of Food and Agriculture (BMEL)
Division 626
Wilhelmstraße 54, 10117 Berlin

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AS OF

January 2019

LAYOUT

design.idee, büro_for_gestaltung, Erfurt

PRINTING

Federal Ministry of Food and Agriculture (BMEL)

PHOTOS

BPA_Steffen Kugler; BMEL/Photothek.net/
Michael Gottschalk and Thomas Trutschel;
GFFA e. V./Tobias Rücker

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