



THE PARTNERES FROM THE ACADEMIA AND INDUSTRY IN A GROUP PHOTO

# FoodQA Newsletter

## December 2017

IN THIS ISSUE

## The 2<sup>nd</sup> Academia-Industry Council Meeting Held in the Dead Sea

Under the patronage of his highness Senator Rida Khawaldeh, the second meeting of the Academic Industrial Council was held in the Dead Sea on the 24<sup>th</sup> of November, 2017, as part of the activities of the Erasmus+ project "Enhancing Academic-Industrial Cooperation in Food Safety and Quality (FOODQA)", sponsored by the European Union.

### Building Trust and Legislation

During his speech, Senator Khawaldeh stressed the importance of building bridges of trust between the main actors in the food security in Jordan, namely; legislative and supervisory institutions, the private sector, and academia. Senator Khawaldeh called on the private and academic sectors to submit their legislative proposals on ethical aspects of new technologies in the field of agriculture and food industries, particularly in the field of genetically modified food. He also promised to provide the necessary support and cooperation in this field.

At the end of the meeting, the participants elected Senator Khawaldeh as Honorary President of the Council, for his capacity as an expert in this field and one of the most

prominent researchers in this field at the local and Arab levels.

### Diverse Audience

The attendees, including many food companies, emphasized the importance of enhancing cooperation between universities and industry.

### Good Aims and Sharp Objectives

The FOODQA project aims to strengthen academic-industrial cooperation regarding food safety and quality. The Project is managed by the Jordan University of Science and Technology, in cooperation with universities and research centers and companies from Jordan and Europe.

The project also aims to establish five training and capacity building centers for workers in the Jordanian food industry. It currently provides more than 100 training grants in Europe for employees in Jordanian universities, and twenty training grants in Europe for students of nutrition departments in Jordanian universities.



### HTWK Hosted the 2<sup>nd</sup> Project Meeting

Leipzig University of Applied Sciences (HTWK Leipzig) hosted the 2<sup>nd</sup> management meeting, where the partners discussed and planned the activities in the next important phase.

Page 2



### The Academia-Industry Council

Trust is built through cooperation and discussion of mutual concerns in uncluttered and honest settings on a round council table.

Page 5

## HTWK Leipzig Hosted the 2<sup>nd</sup> Project Meeting

Despite the early cold weather, Leipzig University of Applied Sciences (HTWK Leipzig) hosted the heated discussions of the 2<sup>nd</sup> management meeting of the FoodQA project. The four-day meeting that took place from the 10<sup>th</sup> -13<sup>th</sup> of September.

On the first day, Prof. Abu Al-Rub, the project coordinator, and JUST team met with HTWK team to arrange for meetings, activities, and make the necessary changes to the agenda. They met with Mr. Martin Kraetke from le-tex publishing services, one of the leading companies in Germany in e-materials publications, and agreed that Mr. Kraetke would give a workshop on the 11<sup>th</sup> of September, 2017, to all FoodQA participants.

Mr. Martin Kraetke started his workshop by introducing the concept of Content Engineering; the highly varied range of tasks involved in producing publications for scientific products, schoolbooks, loose-leaf publications, extensive math typesetting, and printed and digital applications. Mr. Kraetke workshop gave excellent advice on how to make the scientific material highly consistent



In the third day, Professor Abu Al-Rub presented the work packages of the projects and outlined the project progress. Then, the partners discussed the status of the activities, the most important part was the development of the training materials including the E-learning courses, videos, posters, e-books and technical workshops. Another important part of the day was the finalization of the dates and the schedule of the training of staff and students in Europe, more than 120 training opportunities will be awarded as part of the capacity building objective. On the last day, the Department of

Media at HTWK organized a visit to facilities of publishing and media production companies in Leipzig.

**NEXT MEETING IN PORTO ON THE 22<sup>ND</sup> OF JANUARY, 2018**

The meeting activities scheduled over 3 days: Project WPs status and next steps, workshop on food quality and management system, and meetings with the coordinator.

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with high quality, and have the necessary flexibility.



*According to Dr. Luay; it is not only the diet and level of activity that control your weight, it might be something much smaller.*

## Diet and Microbiome - Future of Food Science and Technology

As part of the activities of the 2<sup>nd</sup> Academia-Industry council, three technical workshops were held. The first workshop was about the National Food Control Law and Regulations, which was presented by Eng. Safa Al-Samadi of the Jordan Food and Drug Administration (JFDA). The second workshop was on the Halal test and certificate in Jordan, presented by Dr. Khalid Khreisat from MonoJo Biotech Company. And finally, Dr. Luay Abu-Qatouseh from MonoJo Biotech presented the research trends in the field of The Human Microbiome or the individual microbial fingerprint.

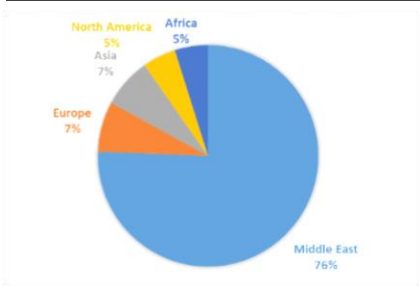
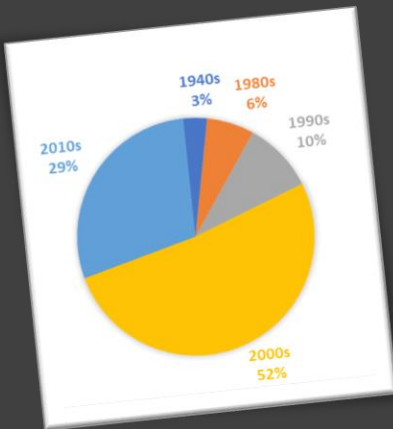
As a matter of fact, microbes in your gut have about 100 times as many genes as in the human genome, besides, your bacterial community is a fingerprint of yours.

As Diet affects the gut's microbial community, the gut's microbiome also affects components of diet through the biochemical reactions that can carry out, human gut enzymes cannot carry out most of these reactions, such as; fermentation, denitrification, sulfate reduction, aromatic fission, hydrolysis and deconjugation.

Dietary exposures and cellular processes can be linked to diseases, and, the microbiome is one of these links. For example, Functional changes in gut microbiota were accompanied by colorectal cancer.

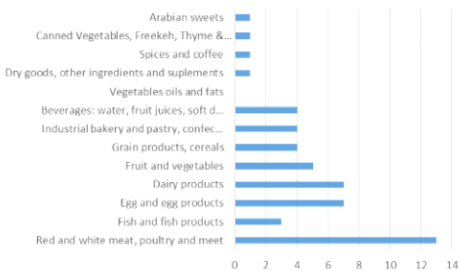
Dr. Luay ended the presentation with a briefing about MonoJo's international relations and state of art technical support, regarding food safety and security.

**MORE THAN HALF OF THE SURVEYED COMPANIES ARE LESS THAN 20 YEARS OLD**



### Who is the customer of our customers?

Knowing the export regions of the Jordanian food industry would give us better understanding of the quality system that they need to develop. On the other hand, it may also tell us what the quality systems we need to apply to widen the export markets are.



### It is important to define the subsector of the participating companies

*and define the priorities when preparing the training material and courses, another important aspect of this question is knowing how diverse the respondents are to make sure that their responses can be considered representative of the Food Sector.*

#### QUICK FACTS

**44%**

of the surveyed companies do not apply a standardized quality system.

**32%**

of the surveyed companies apply ISO9001 quality system

## TRAINING NEEDS OF FOOD INDUSTRY IN JORDAN

The need for training material tailored for food quality and safety is an essential part of the project objectives, and to achieve that; a survey was designed to explore the training priorities of the Food Industry in Jordan in regards to the field.

The participants in this survey are the food industry companies that are working in Jordan. 41 responses were received electronically through google forms, the link to the form was distributed through emails. All the responses from the target population were considered.

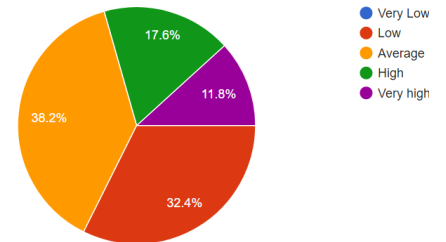
The Survey was divided into two main parts; the first concerning the company itself and the second concerning the priorities and importance of the different training subjects. In the last question, the respondents were asked to provide their comments and recommendations that might be considered important to FoodQA's project development.

### Training Needs Assessment

The surveyed companies shared their self-assessment of their training needs and priorities.

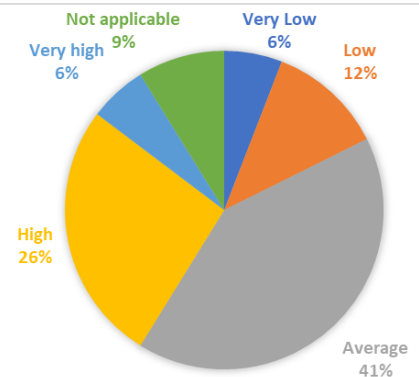
### Perception of the level of qualification of the general workers per subject

Most of the companies surveyed stated that the perception of the training of general workers are average or below. 30% stated that it is high or very high.



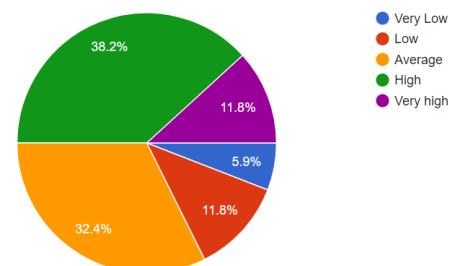
### Perception of the level of qualification of the qualified technical staff per subject

This question is related to the previous one and it shows that about 2/3 of the surveyed companies think that perception of the level of qualification of the qualified technical staff are average or below.



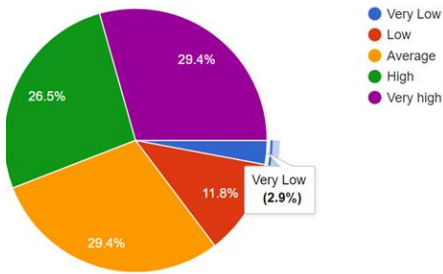
### Training needs of general workers per subject

Half of the surveyed companies stated that there is high or very high need for training of the general workers by subject. About one third of them stated that it is of rare importance.



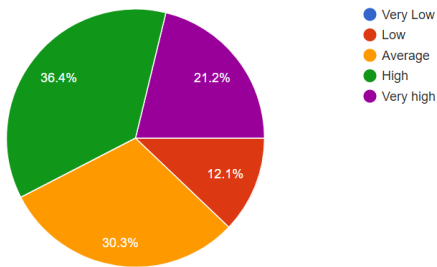
### Training needs of qualified technical staff per subject

The responses show that there is a higher need for training of qualified staff compared to the general workers because general workers can be trained by their team leaders and supervisors, therefore, focusing on leaders and higher staff training would be more efficient.



### Importance of the subjects in the training of the general workers

This question shows that the general workers training should not be general and that there are some subjects that are more important than others. More than half of the respondents agree with this.

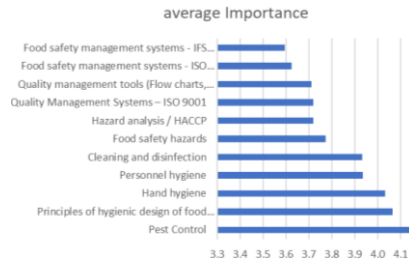


### Importance of the subjects in the training of the qualified technical staff

The results of this question represent the priorities and relative importance of the different subjects as Identified by the surveyed companies. The companies stated that all the subjects have above average importance; which shows that the subjects identified by the FoodQA Project are relevant and accurate.

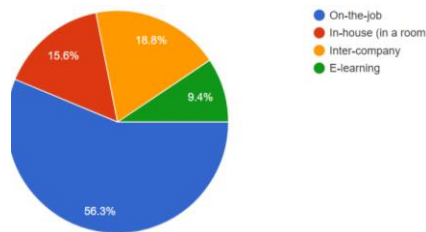
The following figure shows the average importance of the subjects on a scale of 1 to 5 estimated from the next figure, it shows that the basic subjects like pest control and

hygiene have the highest priorities. Followed by the subjects related to hazard analysis.



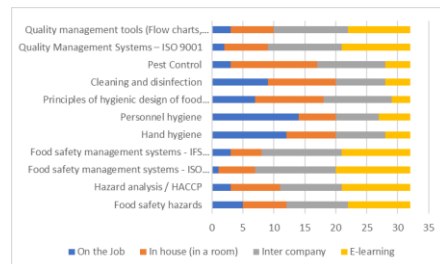
### Q: What type of training do you think is more recommended to the general workers?

Most of the companies wanted their general workers to be trained in-house and about 56% of them wanted their general workers to be trained on the job. Only 9% wanted E-learning for their general workers.



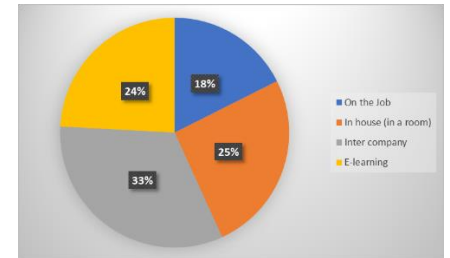
### Q: What type of training do you think is more recommended to the qualified technical staff in the following subjects?

In this question, the respondents chose the venue that they think is most suitable for the different subjects. The following figure shows the cumulative percentage of the answers. There is no definite venue for all the subjects, rather, each subject has its suitable venue. For example, the respondents want their personnel to be trained on hygiene related subjects on the Job, and chose Intra-company or E-learning for the administrative and more complicated subjects.



The cumulated results show that although Intra-company training is the most preferred

type, E-learning has high acceptance among respondents.



FOR MORE INFORMATION

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# Academia-Industry Council (AIC)

The importance of the cooperation between the industrial and academic sectors comes from the need to establish a credible role in-between the scientific and industrial parties, AIC will be in a unique position to guide and coordinate the efforts of its diverse scientific unions to work together with industry toward solutions to food safety and quality. The Jordanian Company for Antibodies, MonoJo Biotech, will help to establish and be a member of the council since it is a spin-off research project and the company has solid connections with the industry.

The council will focus on assuring the future sustainability of the FoodQA Centers and supporting the initial

development of the FoodQA Centers. This Council will include representatives both from Academia and Industry. The representative from the Academia will be nominated by the universities among the professors of the faculties more directly related with the

activities of the FoodQA Centers, while representatives of the Industry will be invited from the most important food associations and companies in the country. This Council will have a counselling role to FoodQA Centers and to the Project Management Board during the duration of the project. It is

expected that the Academia-Industry Council would meet twice a year. The academia-industry council will also have a key role in the validation of the training materials developed within the project activities. The validation of each one of the training materials will be done previous to its final delivery or production to allow the introduction of potential corrections identified as needed.

While the involvement of the companies in project activities might represent a risk, the creation and involvement of the academia-industry council would limit this risk significantly. The companies' involvement is expected to be enhanced by the seminars and



training actions arranged during AIC meetings.

The AIC is also important in the dissemination and sustainability of the project activities since the AIC is establishing a relationship between the academic and industrial sectors that will extend beyond the life time of the project.

Professor Kamel Zuhdi, the Dean of the Agriculture faculty in JUST, specified that the council should build trust between the major players in the field of food quality and safety. Academia can provide part of the solutions to the challenges that face industries. He also proposed building a data base for researchers to facilitate the collaboration to building a relation based on trust with the industry. So far 2 AIC meetings were held, and the discussion in both meetings was always

honest and sometimes intense. The next meeting is scheduled in April and to be hosted by one of the industrial partners.

## A PHOTO FROM THE FIRST AIC MEETING



## AIC first meeting held in Amman

The meeting was held on the 17<sup>th</sup> of May, 2017 and was preceded by an introductory workshop about the expected role and benefits of the council to the members.



## JFDA presents a workshop about Jordan's Food Law in AIC meeting

The workshop was led by Eng. Safa' Al Smadi and Dr. Amjad Hymour who outlined the laws and regulations and defined a clear line for the jurisdictions of the different institutions. The AIC meeting represents an opportunity for the industry to meet the governmental administration who oversees their activities. The workshop was followed by a heated discussion between the members.



## Halal Food Certification and Tests Workshop Presented by MonoJO

Dr. Khaled Khreisat gave an introduction for the Halal food business and industry, the history of Halal food, and the need for testing and certification. He also gave a briefing about Halal products, other than foods and food additives, like: Hormones, Enzymes, Cosmetics and pharmaceuticals, in addition to cases of best practices; examples from Malaysia, and the UAE. As a conclusion, he outlines the requirements of Jordan's Halal Certificate; how to obtain it, conditions and procedures, applications, requirements and auditing.



# Training Material Development

The training content is developed to support the development of training courses by the FoodQA Centers and to provide the industry with training material that can be used or accessed to provide internal training to their staff.

The training material developed includes 8 e-Books that address the following:

1. Food safety hazards, 2. Food safety management systems, 3. Personnel Hygiene, 4. Design and construction of food premises, 5. Cleaning and disinfection, 6. Pest control, 7. Quality management; and 8. Quality management tools.

The project partners will also prepare 5 videos and posters about: 1. Hand washing, 2. Cleaning and disinfection, 3. Pest control, 4. Temperature control, 5. Control of reception of raw materials. Three more posters are under development: 1. Food spoilage; 2. Food preservation; 3 - Hazard analysis.

## Development of Training Courses

Two types of training courses will be considered: in-room training courses and e-learning training. The objective is to establish a base of courses in food safety and quality,

and quality management systems in the FoodQA Centers that can support training needs of the industry in these areas. The idea is, in the future, to provide all the in-room training courses, in an e-learning model that allows the industry to have training courses available at any time that can support the development of the competence of their workers at the same moment that those needs are identified.

## Training in Europe

The project will provide more than 100 training grants in Europe for employees in Jordanian universities, and twenty training

grant for students of nutrition departments in Jordanian universities. This training is part of the capacity building process of the FoodQA Centers. Following the courses, the trainees should train other colleagues, students and partners from the academic or industrial sectors.

The topic leaders and training organizers will define the selection criteria and the minimum requirement for the trainees to assure quality of training.

Working Module/ Course	Contact hours	Task Leader	Training place	Date
Food and safety hazards	16	UNiTE	Teramo	January
Food safety management system	32	P&B	Portugal	February
Personal hygiene	4	AUA	SPLIT	March
Design and controlling of food premises	16	SPLIT	SPLIT	March
Cleaning and disinfection	16	SPLIT/UNiTE	Teramo	January
Pest control	12	BAU/SPLIT	SPLIT	March
Quality management systems	32	AUA	Athens	April
Quality management tools	32	CREATIVE	Athens	April

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