

**Input from universities and research  
and technology organizations (RTO's)**

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# **WORLD-CLASS FOOD INNOVATION TOWARDS 2030**

**Bringing Danish Research Solutions to the Global,  
Sustainable Food Production**



## Force Technology, Alexandra Institute and Danish Technological Institute reply on “World-class food innovation towards 2030”

As an introduction, we would like to thank the Danish Drink and Food Federation and the Danish Agriculture & Food Council for taking the initiative to describe the food industry’s need for new knowledge and technology at a strategic level. We have read the comprehensive document with great interest and find the strategy both ambitious and realistic. We, at GTS – Advanced

Technology Group – find that the food strategy addresses the important strategic challenges towards further development of a successful Danish food sector, which meets the demands from the future global market. Further, we find that the strategy describes well how the industry in the future will be able to improve the competitive performance within safe, healthy, innovative

and sustainable food products in the whole food value chain.

We, at the concerned GTS institutes, are in close cooperation with the food industry – with both large and small companies – as we support the industry with innovation as consultants and advisors, and we develop new R&D projects. The GTS institutes are major partners for the Danish food locomotives in relation to driving, developing and implementing new knowledge and new processes. The food industry also encompasses a very large group of small and medium-sized enterprises which are a prerequisite for creating growth and new jobs. The Danish GTS system has an important role in knowledge dissemination and technology transfer including available infrastructure, e.g. lab and pilot scale equipment to SMEs. Therefore, we see the motto “stronger together” and the figure with the role of distribution in the Danish food innovation landscape as a central and powerful engine in implementing the strategy and developing the Danish food cluster.

The strategy document describes six key challenges with associated innovation enablers, where we, as mentioned above, can contribute with new knowledge and technology to new solutions. Below we emphasize where we find the document could strengthen the strategic efforts.

Many of the challenges address the continuous need for developing safer food products, and we would like to point out that the strong cooperation in the whole value chain, e.g. between producers of process equipment and the food industry, is important to further develop new sustainable strategies to improve food safety.

The strategic development of the food industry is fundamentally linked to the development of the bio-economy, and as mentioned in the strategy (challenge # 1), it is a great advantage to exploit all resources optimally and reduce the pressure on the climate. In addition to the mentioned green biomass, more examples of challenges and opportunities for applying other biomasses could strengthen the strategy, for example, developing new protein value chains based on insects, algae and developing products from locally produced plant proteins such as peas, beans, etc.

Digitization is one of the most important drivers for growth and welfare in most domains, and we agree that digitization is important for challenges #5 and #6. We do, however, recommend, that the strategy should also consider the potential of digitization in the other challenges (we do note that big data and data mining is shortly mentioned in challenge #2). Regarding research and infrastructure enablers we would like to point

to the partnership DABAI – dabai.dk – as a potential enabler like MADE. Food supply data is one of the application areas of DABAI.

We give the strategy our full support and look forward to continuing to contribute to the industry's need for innovation in the future.

September 8, 2017

Force Technology, Alexandra Institute,  
Danish Technological Institute



## AAU, AU, DTU, UCPH and SDU want to make the following comments to the industry strategy

The five universities welcome this ambitious strategy on World-Class Food Innovation published by the The Danish Drink and Food Federation and the Danish Agriculture & Food Council.

We find that the strategy is an excellent starting point for the future dialog between the industry,

public authorities and knowledge institutions in strengthening the competitive position of Denmark, the primary agricultural sector, the food industry and Danish universities in our common pursuit to further the Danish society to prosper.

We also recognize and agree that the challenges presented do match the competences and high research qualities of the Danish universities. The chosen enablers are all very relevant and with the core competences and research areas at the Danish universities, we see ourselves as strong and willing contributors within all the enablers.

### **The challenges**

The outlined research and innovation have the potential for both the food industry and society to prosper many years ahead. We fully endorse that the strategy recognizes the importance of fundamental research and the need for a long-term perspective within all the prioritized Key Challenges and enablers.

Nevertheless, the universities also stress that each university has specific suggestions on improvement of some of the key challenges, and we therefore strongly recommend that the industry and relevant funding agencies invite key stakeholders, including the universities, to participate in the planning and implementation of new research, educational and innovation initiatives.

The investments needed to face the challenges are huge. In prioritization of the investments

in education, research and innovation, we welcome the identification of present and future challenges facing the sector as a whole as seen from both a primary agricultural and industry perspective. We are certain that the proper way to drive Denmark forward is to combine our efforts in private companies with the ones at the universities and within the government; especially in terms of expanded cooperation and collaboration across disciplines and organizations.

We find that there could be a clearer link between existing and future infrastructure and the individual innovation enablers. This link should be explored in the planning, implementation and operationalization of new initiatives and investments in infrastructures, research and innovation projects, etc.

Denmark is already in the forefront, but can do much more to benefit the Danish food export. In order to keep and extend the Danish position, each individual university sees a number of issues that are so important that they need to be addressed under both key challenges and innovation enablers. These issues are of importance for the future and are not addressed directly in the strategy. The universities recommend discussions on how to include areas that we find are missing in the presented strategy.

We welcome the inclusion of education as an enabler in the strategy. There are already strong bonds between universities and industry but we look forward to an even stronger collaboration.

The industry would like to see more life-long learning on all levels. As universities, we welcome this and look forward to having the industry proactively involved and investing in development of this area.

## Implementation

We have a common interest in implementing this strategy in close cooperation and dialog with the industry and the relevant government bodies. We therefore recommend that the implementation actions focus on inclusion and collaboration across the many stakeholders, by e.g. establishing workshops, match-making events, etc. The purpose of the actions should be to secure a wider ownership of the research agenda and to facilitate the initiation of common projects within the research and innovation enabler areas.

In order to reach our common goals, we would like to welcome initiatives from the industry on the talent development focusing on this sector. The sector could benefit from increasing the possibilities for internships during the education at

the companies, for guest lecturers by company staff at universities, for sitting at our advisory groups for each education or for support of industrial PhDs and postdocs. The universities have measures in place to help the industry in getting the best talents and being able to influence the development of the normal university educations as well as the scientific educations.

Finally, the universities warmly welcome a common effort regarding life-long learning.

We look forward to the collaboration to the benefit of both private companies and universities.

Best regards,

September 7, 2017

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