



**Nottingham Trent  
University**

### **Integration of SDGs in**

- Institutional governance/strategic level
- SDGs in research
- SDGs in campus operations
- SDGs in curriculum development
- SDGs in student engagement activities
- SDGs into community activities
- SDGs at a whole-institution level

### **Focus on**

- Goal 1 - No poverty
- Goal 2 - Zero hunger
- Goal 3 - Good health and wellbeing
- Goal 4 - Quality education
- Goal 5 - Gender equality
- Goal 6 - Clean water and sanitation
- Goal 7 - Affordable and clean energy
- Goal 8 - Decent work and economic growth
- Goal 9 - Industry, innovation and infrastructure
- Goal 10 - Reduced inequalities
- Goal 11 - Sustainable cities and communities
- Goal 12 - Responsible consumption and production
- Goal 13 - Climate action
- Goal 14 - Life below water
- Goal 15 - Life on land
- Goal 16 - Peace, justice and strong institutions
- Goal 17 - Partnerships for the goals

## *SDG Accord Case Study*

### ***Summary: NTU Poultry Nutrition Research Unit***

NTU provide the UK and international poultry sector with evidence-based advice on using nutrition as a tool to reduce the environmental impact of poultry production. In 2016, NTU set out to create a broad vista of student opportunities to engage with industry innovation and responsible production through a new poultry nutrition research centre. The Nottingham Trent University Poultry Nutrition Research Centre was completed in autumn 2017 for an £850,000 build cost. Since opening, the unit has conducted more than 60 industry-sponsored research projects into how poultry feed can be improved to reduce the carbon cost of food production. We have also supported more than 3000 hours of student engagement activities within the new unit in opening.

Our expertise has supported SMEs to find new markets, such as Rushcliffe Environmental: *"The Nottingham Trent University Poultry Research Unit has produced research data that has allowed us to enter a new industry sector. The relationship has also given us expert consultancy, allowing insight into how we can market our new product."*, and we have also help sector leading multi-nationals such as AB Vista: *"Your group has given up greater understanding of the mode of action behind some of our feed supplements which is essential for our success in the market."*

Our research in developing and evaluating novel feed materials allowed us to optimize a co-product from bioethanol production for use in poultry diets. The research has changed the manufacturing process used by the company involved, so they are able to produce and sell a fermented protein as animal feed leading to **reduced reliance on imported soya**. The ABAgri Business Development Manager for Biofuels commented *"It is has made me realise just how much the biofuel co-product R&D program has relied on the original work that we started with you at the University of Nottingham Trent...."*

### ***Outline the 3 key benefits of integrating this theme:***

- 1.** Through our poultry research unit, we are providing a pipeline of skilled scientists directly into an industry with a pivotal role in ensuring we meet our global need for net zero agriculture without harming biodiversity or animal welfare.
- 2.** The NTU poultry research unit has initiated transdisciplinary research that draws upon expertise within the university to solve sustainable food production issues. This has created multidisciplinary networks that are now applied to sustainable production and consumption in a number of different sectors.
- 3.** Our poultry research centre was used an impact case study by Research Councils UK, which allowed our sustainable food production activities to reach the attention of more people and businesses.

## *SDG Accord Case Study*

### ***Outline the barriers or challenges encountered in integrating this theme and how you overcame these:***

- 1.** In conducting a cost benefit analysis before commitment the required investment, it was challenging to project how much industry demand there would be for our UK poultry nutrition R and D capacity: while the sector is growing year on year, there has been an established practice of UK companies conducting their research outside the UK. To help us predict demand, we asked a number of key animal feed companies whether they were likely to require our expertise in this field in future, and not only did we received the confirmation we needed before committing the funds, we also received advice on how to design the research unit for optimal function.
- 2.** Despite size of the poultry sector and therefore its huge impact on the environmental sustainability of global food production, the field does not naturally attract student interest. We have overcome this by positioning the research unit as a place where students can in crease their skills in a number of areas, such as nutrient analysis, life cycle assessment, and animal handling. Often students are attracted by the prospect of developing these skills but stay when they realise the opportunities to make a difference within the poultry sector.

### ***Conclusions and recommendations to others:***

Positioning ourselves as a critical friend of the poultry industry has had both mutual benefit and great impacts. We are better academic researchers because industry colleagues take the time to explain current industry practice and details of issues that they face. Because we listen to industry and adapt our activities based on industry feedback, we are respected by our sector and listen-to when we make suggestions on how they might improve their practice. This has made the outcome of our work highly applicable and large scale.



Nutrient analysis lab with NTU poultry research unit.