

*Bringing plant potential to life*

**syngenta**

## **Growing a career in agricultural science**

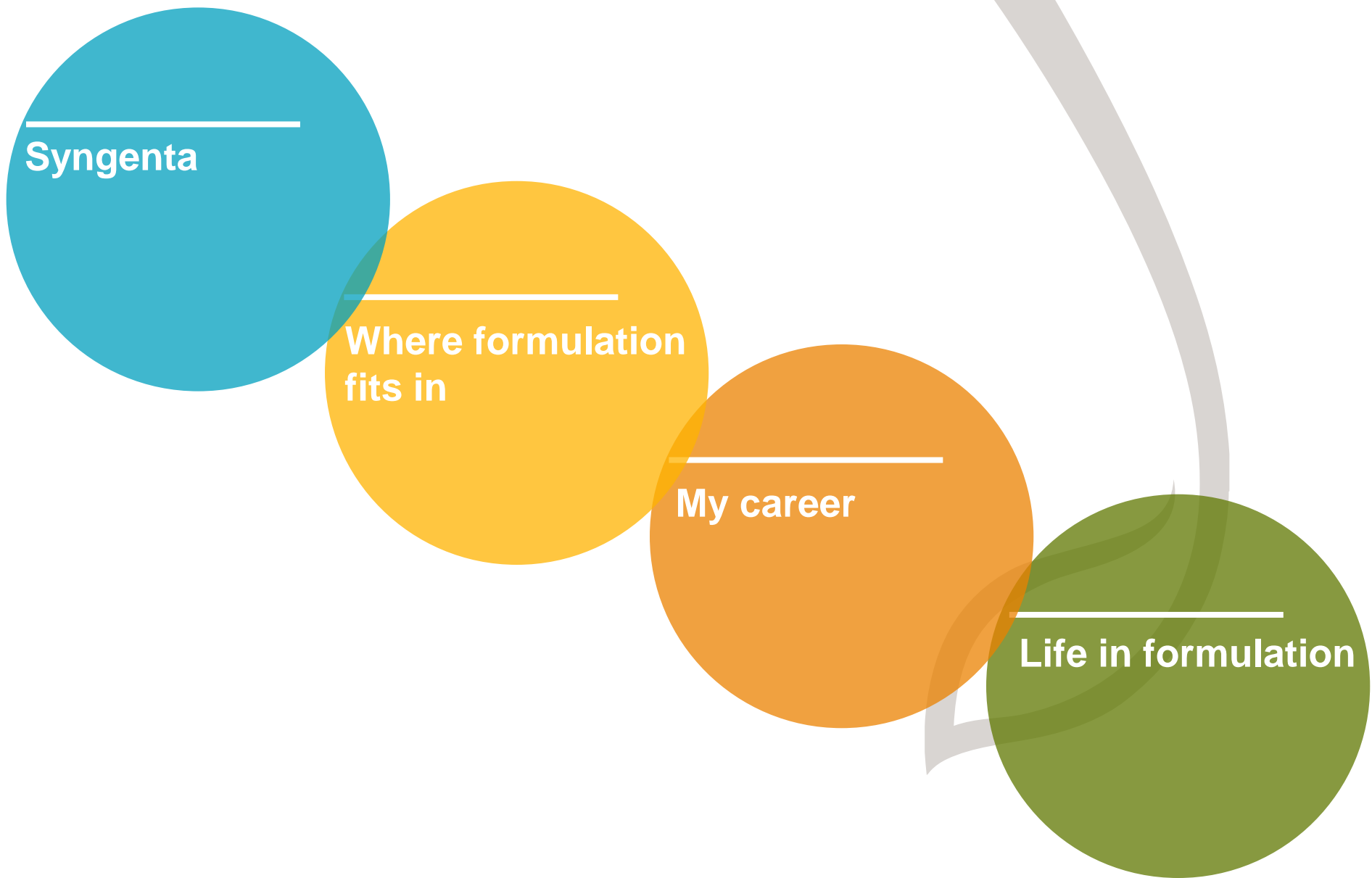
**Siân Moorhouse**

Formulation Technical Specialist, Syngenta

Jeallot's Hill International Research Centre, UK

Classification: PUBLIC

# Outline



## Our ambition

We play a vital role in the food chain to safely feed the world and take care of our planet.

We will be the most collaborative and trusted team in agriculture, providing leading seeds and crop protection innovations to enhance the prosperity of farmers, wherever they are.



**8M**  
large-scale  
farms  
>100 Ha



**450M**  
smallholder  
farms  
~2.0 Ha

## We need to find better ways to feed the world



Every day the world's population increases by **200'000**

## Who we are

A leading agriculture company helping to improve global food security by enabling millions of farmers to make better use of available resources.

- World-class science and innovative crop solutions.
- 28,000 people in over 90 countries working to transform how crops are grown.
- Committed to rescuing land from degradation, enhancing biodiversity and revitalizing rural communities.



**90**  
countries



**107**  
production and  
supply sites



**119**  
R&D sites



**27,810**  
employees

# Syngenta

## Two core businesses

### Crop Protection

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Selective herbicides  
Non-selective herbicides  
Fungicides  
Insecticides  
Seedcare

### Seeds

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Corn & Soybean  
Diverse Field Crops  
Vegetables and Flowers

# Where formulation fits in

## Two core businesses

### Crop Protection



Selective herbicides  
Non-selective herbicides  
Fungicides  
Insecticides  
Seedcare

### Seeds



Corn & Soybean  
Diverse Field Crops  
Vegetables and Flowers

# Where formulation fits in

## Global formulation presence



**Greensboro**  
US



**Jealott's Hill**  
UK



**Münchwilen**  
Switzerland



**Kendall Lab**  
Singapore



# Where formulation fits in

## What is a crop protection formulation?

A formulation is a 'vehicle' which safely delivers one or more active ingredient(s) (to control a disease, pest or weed) to a crop/target in an **efficient, effective and convenient way**

Active Ingredients

Anti-settling

Biocide

Anti-freeze



Solvent or Water

Surfactant

Anti-foam

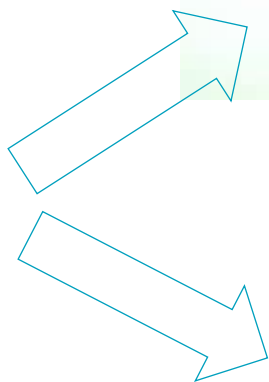
Adjuvants



# Where formulation fits in

## Why do we need to formulate?

### Active Ingredients



### Unformulated AI



### Formulated AI



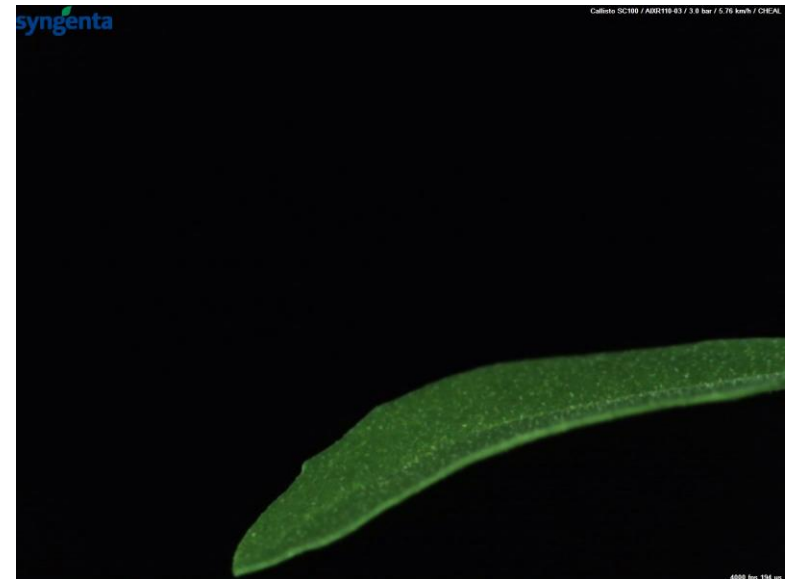
# Where formulation fits in

## Why do we need to formulate?

Poor retention of water on leaf



Good retention of optimised formulation on leaf



# My Career

**2006-2010**

**First class  
MChem**  
University of  
Oxford

**2010**

**Formulation  
Chemist**  
Formulation  
Technology,  
Syngenta

**2013**

**Senior  
Formulation  
Chemist**  
Formulation  
Technology,  
Syngenta

**2016**

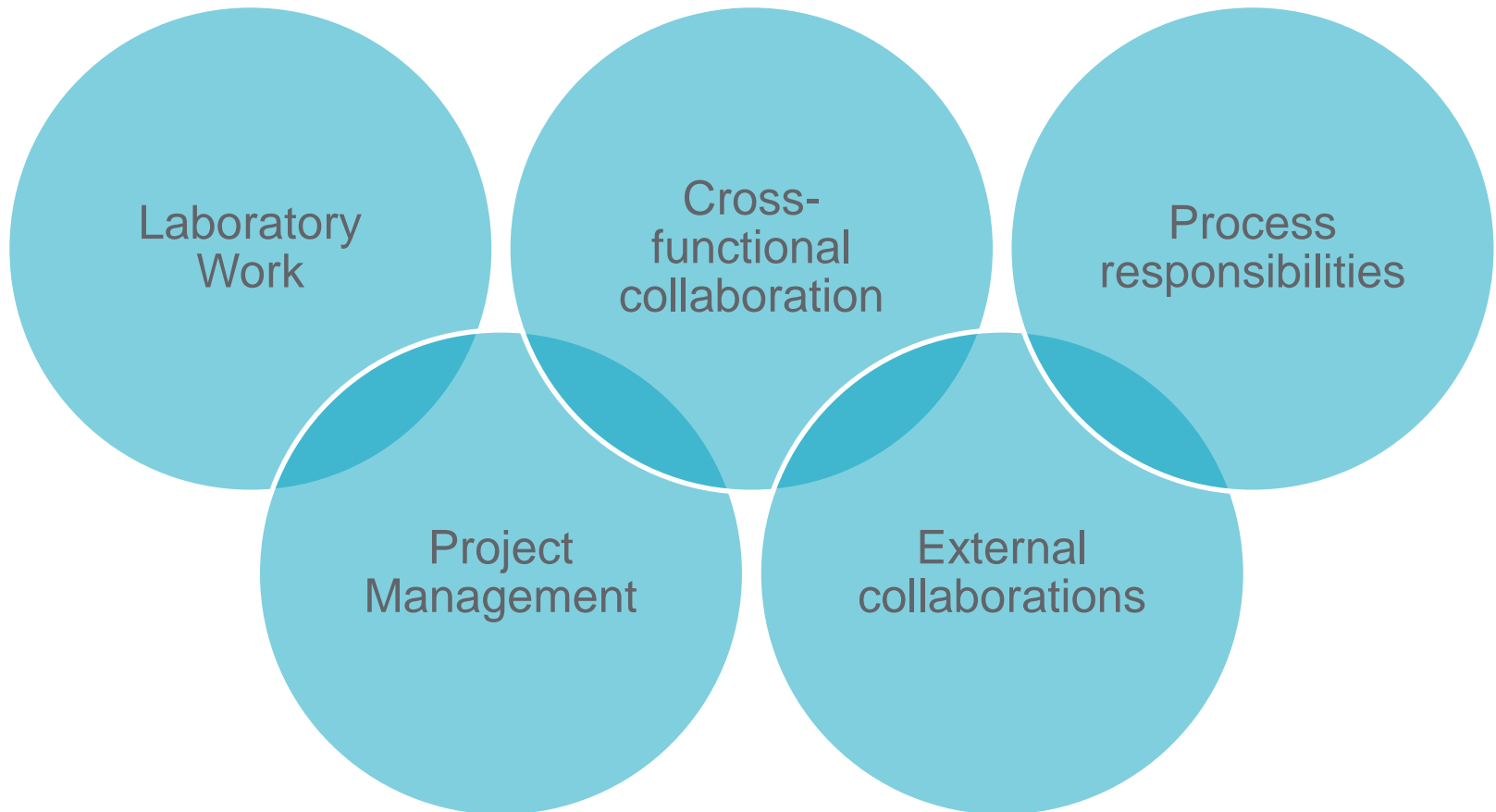
**Formulation  
Technical  
Specialist**  
Formulation  
Development,  
Syngenta



Jealott's Hill International  
Research Centre

## Life in formulation

- Herbicide formulation development team : 7 people
- 2-3 projects each
- Early research AIs (mg scale) → development of commercial products (pilot plant scale)



# Life in formulation

- Every project is different
- Close collaboration with many scientific functions
- Flexible working and progression opportunities
- Large global company



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