

Research and Training in Support of Agriculture and Horticulture: the Need for Partnerships

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Pigs



Horticulture



Beef & Lamb

“To provide cost-effective, relevant services which support long-term sustainability”



Cereals & Oilseeds

This includes:

- Research
- Knowledge Transfer
- Training



Potatoes

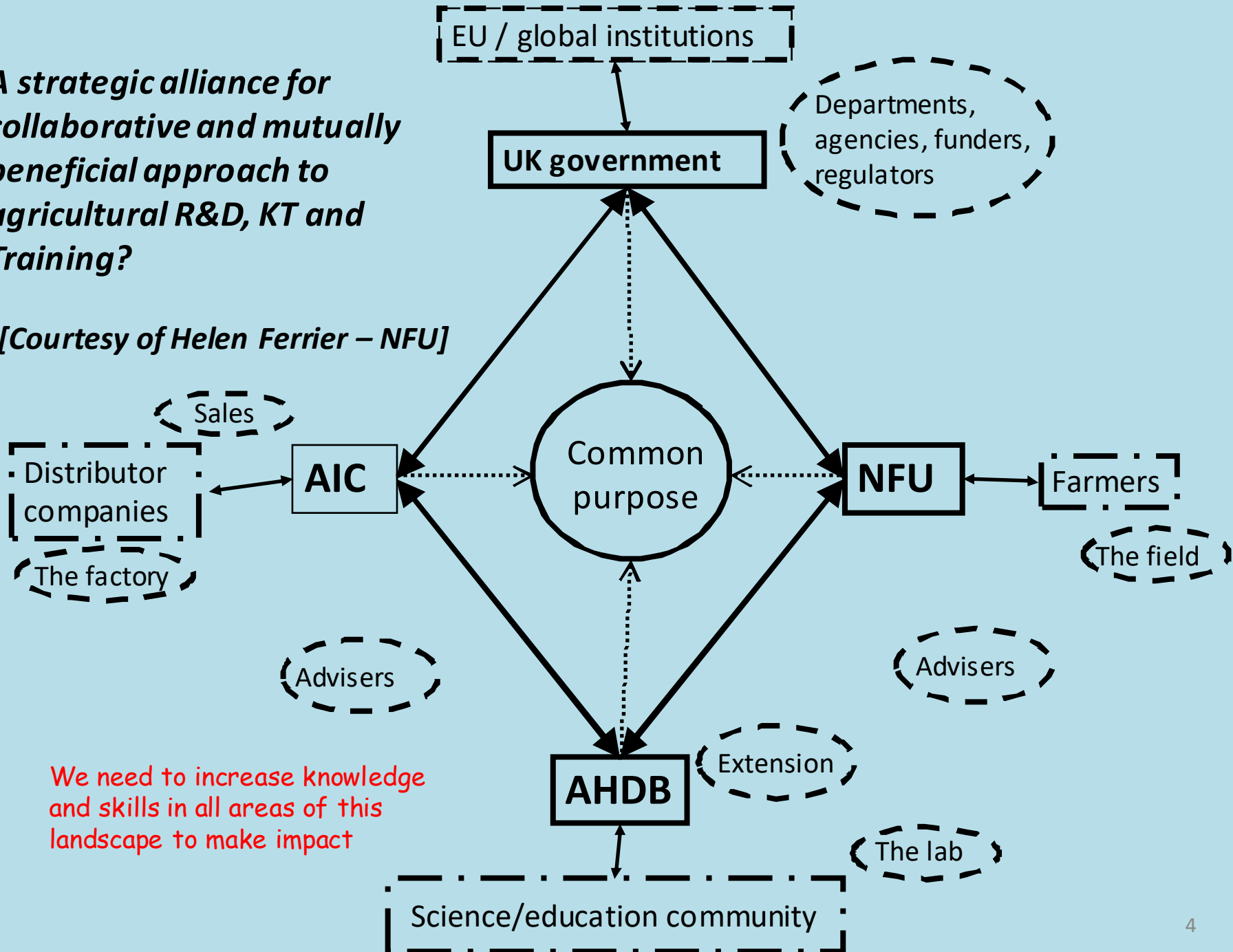
AHDB – Scale and outreach

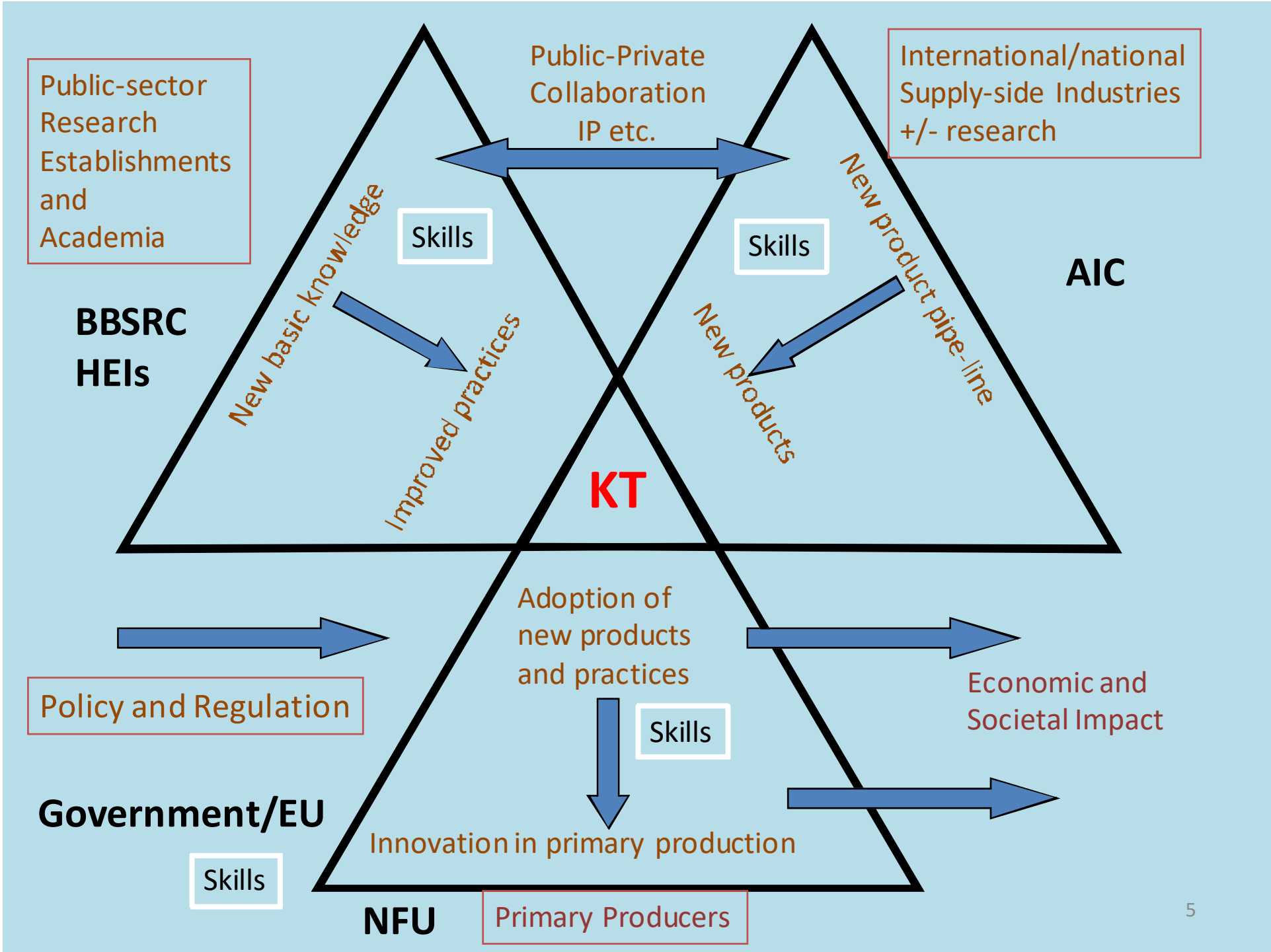
- EBLEX – beef & lamb: £13.5 m
- HGCA – cereals & oilseeds: £10.1 m
- BPEX – pigs: £6.9 m
- DairyCo – milk: £6.7 m
- PCL – potatoes: £6.1 m
- HDC – horticulture: £5.3 m

AHDB is an independent, evidence-based organisation with the duty to improve the efficiency and competitiveness of various agriculture and horticulture sectors in parts of the UK representing about 75% of total UK agricultural output.

A strategic alliance for collaborative and mutually beneficial approach to agricultural R&D, KT and Training?

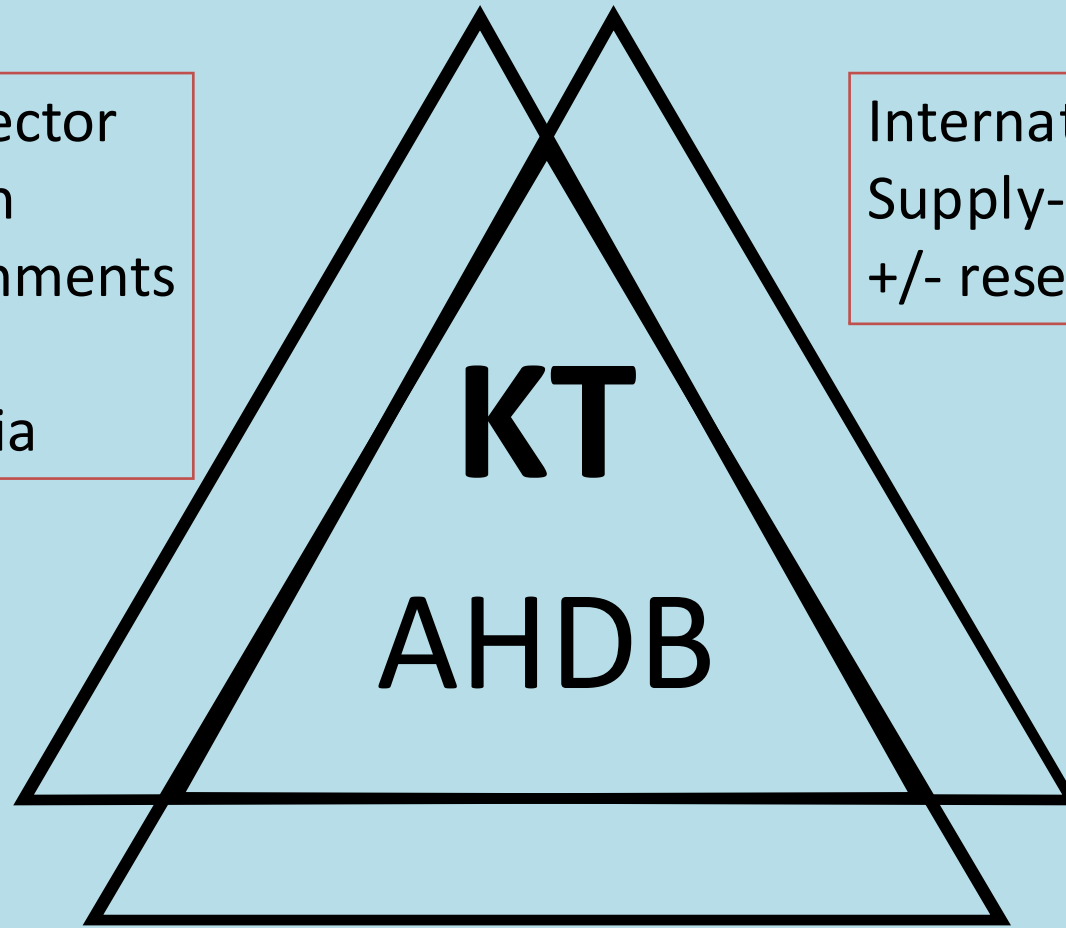
[Courtesy of Helen Ferrier – NFU]





Public-sector
Research
Establishments
and
Academia

International/national
Supply-side Industries
+/- research



Primary Producers

AHDB has the ambition to become the “hub” to broker and orchestrate industry-led integration and coordination of research, KT and training

Future priorities all boil down to:

- more output (yield/production)
- from less land
- with less water
- with less energy
- with less emissions
- with less waste

*To meet the challenge,
science is necessary but
will not be sufficient*

Policy, regulation, investment, market intelligence, training, skills, knowledge transfer and innovation all need to be joined-up.

***This requires partnerships and a shared ambition/vision
(fewer players – better equipped?)***

Some Key Cross-Sector Targets for Research &KT - 1

- Rigorous life-cycle accounting of agricultural systems
(passing problems elsewhere is no solution – be prepared for C trading)
 - distinguish fact from fiction
 - least loss/cost for largest gains
- Drive for highest output in terms of yield and quality per area of land
(and non-renewable input)
 - leaves options for other uses of land (energy, wildlife, amenity, C sinks etc.)
- “Breeds and seeds” – genomics-led genetic improvement for resource-use efficiency
 - nutrition, water, waste (disease etc.), energy (N use); emissions (methane, N₂O)
 - national programmes in key species (crops and livestock)

Some Key Cross-Sector Targets for Research &KT - 2

- All “below-potential” production (e.g. due to disease) equates to “waste” (water, fossil fuel etc.) – innovations required for:
 - predictable long-standing intractable problems (soil, endemic, weeds)
 - early detection/forecasts for unpredictable occurrences (resistance, exotics)
- Distinguish functional from aesthetic biodiversity and impacts on valuable ecological function(s) vs. “cosmetics” - focus on function
- Define and quantify required “environmental services” with trade-offs, -costs and benefits (ensure “right” services are correctly valued and paid for)
- System optimisation (economics vs. GHG – understanding trade-offs)
 - inputs (energy, feed, fertiliser etc.)
 - primary output
 - bi-products
 - emissions
 - soil function/quality
 - land-use / rotations etc.....