World Organisation for Animal Health

Australian Government
Department of Agriculture, Fisheries and Forestry

The importance of cost-benefit analysis in decisions on zoning and compartmentalisation

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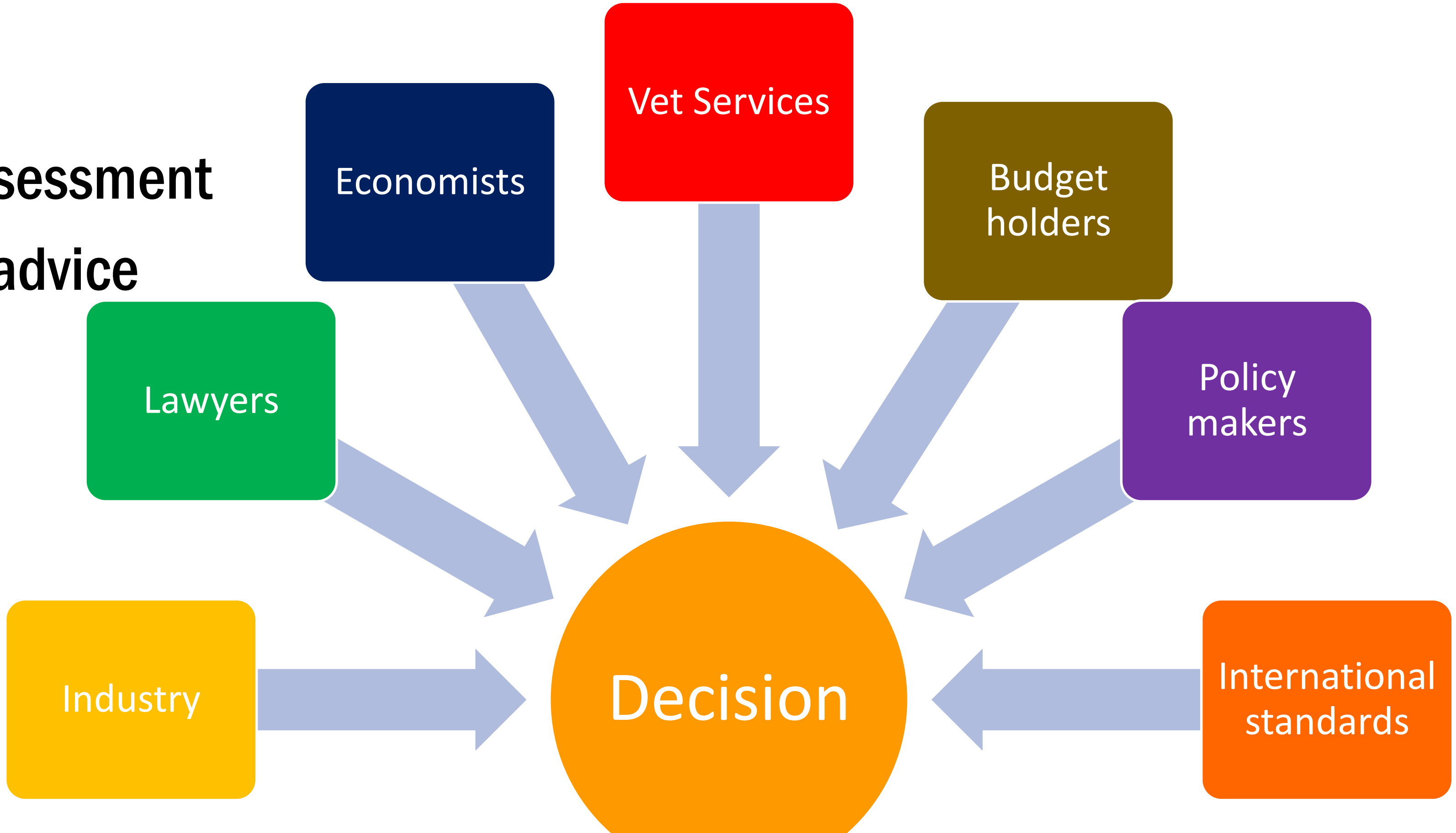
in the facilitation of safe trade, 28-30 April 2026

Introduction: What is a cost-benefit analysis?

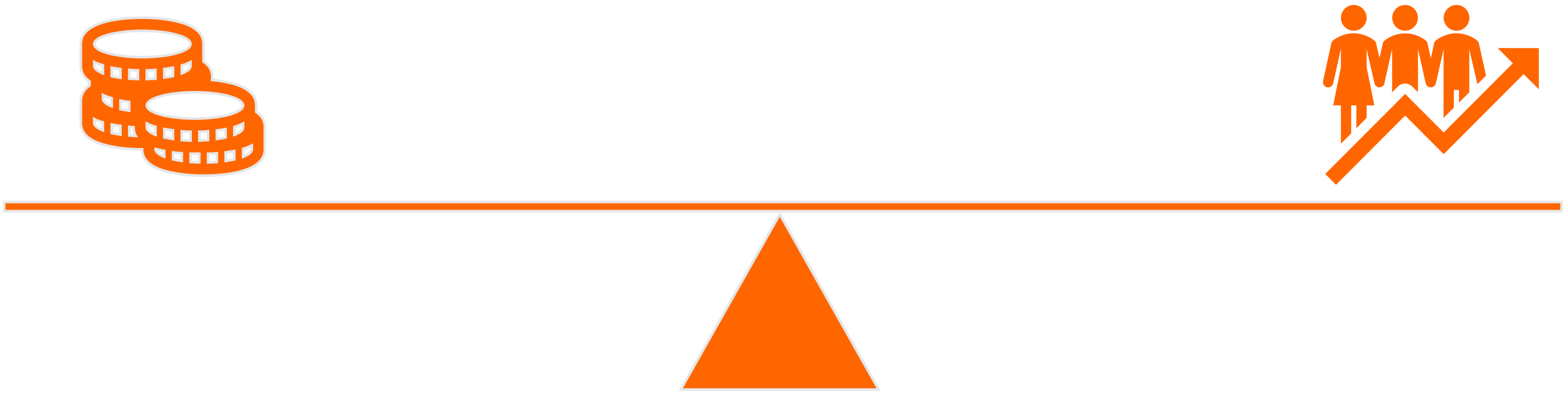
Competent authorities’ decisions on animal health are influenced by:

- Veterinary advice
- Epidemiology and risk assessment
- Legal opinion and policy advice
- International standards
- Economic assessment
- Resourcing
- Stakeholder consultation



Introduction: What is a cost-benefit analysis?

"A systematic process to evaluate the desirability of a decision by weighing its potential benefits and costs."



Importance of Cost/Benefit Analysis

Zoning and compartmentalisation can be resource intensive

Economic impact can influence support & success

Decision to implement will have a financial impact on Government and industry budgets

Technical feasibility balanced with economic sense!

Objectives

- Understand the role of cost-benefit analysis
- Identify key costs and benefits of disease outbreaks and trade mitigating measures
- Explore practical approaches
- Share UK perspective and lessons learned

Press release

Immediate measures to step up safeguards against African swine fever from Europe

The mitigation measures will help to prevent the spread of ASF across the border, protecting the pig sector worth over £8 billion to the UK economy

From: Department for Environment, Food & Rural Affairs and Baroness Hayman of Ullock

Published 26 September 2024

Immediate measures have been introduced to protect pig farmers and industry from an African swine fever (ASF) outbreak.

Why CBA is essential

- Decisions often taken under pressure
- Initial period of high degree of uncertainty
- Resources are always limited
- Disease priorities may compete with one another
- Political / Societal / Trade pressure

Cost-benefit analyses provide

- Structured decision-making process that enables decisions to be rational, consistent and process-based, balanced and defensible.

What is at stake

- Overregulation (measures too prescriptive)
- Creating additional burden without additional benefit (diminishing returns)
- Reduced of support by industry
- Risk to overwhelm Veterinary Services
- Underregulation (measures too relaxed)
- Outbreak gets out of control
- Measures may become ineffective: the expected outcome isn’t realised
- Trade guarantees are not met robustly, leading to reputational damage

Role of CBA for zoning decisions

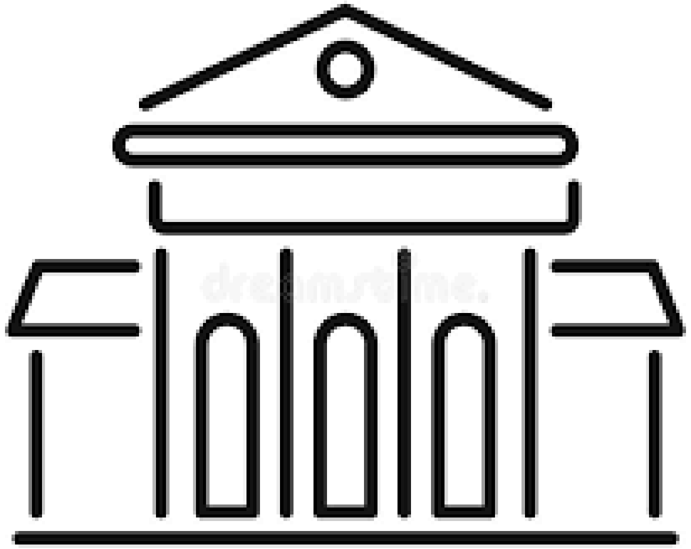
- Size and number of zones
- Measures to be applied to maintain distinct animal health status
- Duration of measures and exit strategy: conditions to lift zones
- Surveillance requirements: balancing minimum requirements with sensitivity to ensure early detection vs cost
- Movement controls
- Enforcement and derogations from rules
- Done usually by Governments

CBA for compartmentalisation

- Biosecurity requirements: cost vs protection
- Restrictive routine management practices and record keeping
- Intensified surveillance: demonstrating status
- Internal and external verification and audits
- "Insurance policy" with ongoing costs even if unused!
- Trade benefits require bilateral agreements with trading partners
- Done usually by industry

Elements of CBA: Government costs

- Clinical surveillance: farm visits, census and inspection
- Sampling and laboratory testing
- Surge capacity – extra staff
- Awareness and communication (domestic and to trading partners)
- Enforcement and oversight (inspections)
- Record keeping and data management



Costs to industry

- Additional surveillance
- Movement restrictions: delays and timing breakdown
- Animal welfare issues
- Financial losses due to suboptimal weight
- Change in practices costs money (biosecurity, labelling)
- Compliance and record keeping
- Reduced consumption

Direct economic benefits

- Improved disease control – may limit impact
- May reduce loss of production
- Improved animal welfare and less depopulation
- Mitigates impact on international trade - less (or shorter) restrictions
- Ideally trade disruptions are kept to a minimum

Secondary benefits

- Increased biosecurity standards across industry
- Improved resilience and risk management
- Improved international reputation
- Also controls endemic diseases!

Don’t forget about…

- Measures on and effects to backyards
- Effects on related sectors (feed / medicines / laboratories / disposal)
- Markets and domestic trade
- Who carries most of the burden and who benefits most?
- Additional administrative burden and cost

How to carry out CBA

Practical approach often preferred over elaborate modelling

Collaboration and realism over perfection

Early days of an outbreak = uncertainty!

Simple ways to produce CBA

- Keep it simple to start with
- Cost tables
- Compare different disease scenarios: involve epidemiologists and industry!
- Use trade data
- Updates required as situation evolves

Quantitative tools

- Trade impact modelling: quality of data impacts outputs
- Break-even calculations: how much trade to make measures worthwhile
- Cost-effectiveness analysis
- Typically applied by industry for compartment feasibility
- Caution on data quality – but anything is better than nothing!

Data sources available to Veterinary Services

- Business management information: Staff costs, laboratory costs, costs of measures applied (e.g. surveillance, C&D)
- Previous outbreak figures
- Compensation of farmers
- Trade volume and value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Department for Business & Trade

Official Statistics

UK trade in numbers (web version)

Updated 23 April 2026

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1. UK trade in numbers introduction

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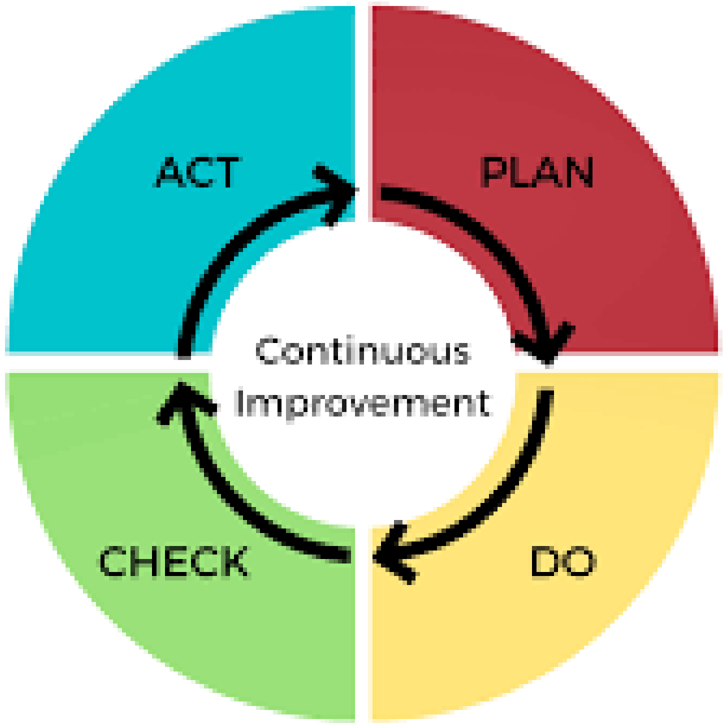
The UK trade in numbers contains the latest published UK trade and investment statistics. It draws on a number of statistical sources including the Office for National Statistics (ONS), the Department for Business and Trade (DBT), and the United Nations Conference on Trade and Development (UNCTAD).

These statistics set out the UK's economic relationship with other countries and illustrate the UK's bilateral trade on top exports and imports for goods and services. In addition, the UK trade in numbers depicts foreign direct investment (FDI), regional trade statistics, and the UK's position in global trade and investment rankings.

DBT publishes a range of trade and investment statistics compilations. For a more in-depth overview of UK trade and investment statistics, see the DBT trade and investment core statistics book. For a summary of the latest trade and investment statistics between the UK and each individual overseas partner, see the DBT trade and investment factsheets.

CBA as part of contingency planning

- Forms part of policy development in “peace time”
- Engagement with and consultation of industry
- Post outbreak: Lessons learned and policy reviews
- Continuous improvement



UK experiences and lessons learned

- CBA supports policy making and resource allocation
- Creates trust with industry
- Sometimes reactive instead of proactive
- Balance between benefits vs costs may not always be realised
- Transparency on data availability and assumptions

Summary

- Simplicity & collaboration between VS and industry are key
- Veterinary decisions on zoning and compartmentalisation should include economic assessment before making a decision
- CBA is likely to enable better decision making, transparency, consistency and responsibility sharing!

Thank you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