Defra’s approach to biosecurity
Government’s objective is to protect the nation’s biosecurity by responding to threats robustly where there is a case for doing so, and by putting effective mitigation or eradication measures in place where required. The focus is on managing risks: elimination is not feasible.

- **Animals**: Around 1-2 outbreaks every year; two new pathogens have emerged in UK over the last 6 years.
- **Aquatic animals**: About 1 emerging disease identified every year.
- **Bees**: One new risk emerging every 5 years.
- **Plants**: Around 94 outbreaks per year and around 5 risks added to the Plant Health Risk Register every month.
- **Invasive Non-Native Species**: On average 10 new INNS establishing in GB every year, of which 15% may have a significant negative impact.
What’s the nature of the challenge?

**Changes** in the environment, movement of people, trading, travel and consumption patterns affect the likelihood and impact of risks to biosecurity.

**Increasing globalisation** may result in previously unknown diseases/pests in the UK becoming credible risks, and there are other international challenges like antimicrobial resistance.

There are **over 35 broad pathways of introduction into the UK**, from ballast water to imported plant products to shipping containers.

Sometime we need to develop **long term mitigation** for pests and diseases which cannot be excluded or eradicated, like breeding for resistance or the development of vaccines.

The most beneficial activities to reduce risks need to cover a **broad spectrum**: at source via pre-border activities, at the border and within the country.

**Conflict** in parts of the world may result in disease and pests becoming credible risks to the UK.
Why is biosecurity important?

**Good for the economy.**
The UK’s £97bn food and drink sector is our largest manufacturing sector, bigger than car production and aerospace combined.

Food & drink exports, which rely on our disease-free plant and animal health status, are worth £7.7bn per year. Disease outbreaks lead to export trade bans, costing the economy billions. Invasive non-native species cost the economy £1.8bn per year and threaten native species.

**Good for health & wellbeing.**
Each year campylobacter – the UK’s most common cause of food poisoning - causes over 100 deaths and costs the economy over £900m.

About 75% of recently emerging infectious diseases affecting humans are diseases of animal origin.

Indirect impacts – value of tourism in countryside, loss of enjoyment. Etc.

**Good for the environment**
Pests, diseases and invasive non-native species can significantly alter ecosystems, changing the services that they provide and threatening species and habitats.

For example, the Zebra mussel strips nutrients from freshwater lakes and reservoirs, dramatically changing their composition.
## Complex system of responsibilities

<table>
<thead>
<tr>
<th>Pre-Border</th>
<th>Government</th>
<th>Industry</th>
<th>Public</th>
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<tr>
<td>Mitigating risks at source</td>
<td>EU/International – set regulatory environment &amp; standards &amp; certify products, interchange for knowledge/best practice. <strong>Defra</strong> - sets UK biosecurity policy and responsible for international activity (authorising imports, meeting EU &amp; international obligations, engaging with other countries on biosecurity &amp; promoting high health status, coordinating technical &amp; intelligence capability) <strong>Defra Network</strong> (Cefas, APHA, Natural England, Government Office for Science, Environment Agency &amp; Forestry Commission) - provide specialist expertise, monitors &amp; assesses threats <strong>Devolved Administrations</strong> – responsible for managing policy within their boundaries.</td>
<td><strong>Farmers</strong> - have a role in sourcing stock with health certification <strong>International trade bodies</strong> – raise awareness, best practice, advocate and lobby on industry’s behalf.</td>
<td><strong>Travellers</strong> – awareness of the rules around which plants/foods are allowed access into the UK. <strong>NGOs</strong> – use networks to horizon scan and publicise risks</td>
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<td>At the Border</td>
<td>UK Border Force - establish risk-based, proportionate border checks at UK borders <strong>Defra, Food Standards Agency + network</strong> – communicate responsibilities to delivery partners/industry/public &amp; awareness raising, specialist inspection and enforcement functions <strong>Local Authorities &amp; Port Health Authority</strong> - target their inspection, enforcement and surveillance on high risk groups according to FSA intelligence</td>
<td><strong>Commercial importers</strong> <strong>Ferry companies &amp; Eurotunnel</strong> - ensure biosecurity publicity material is properly displayed. <strong>Transport companies/ hauliers</strong> – know the rules about what cargo is legal and the certification required</td>
<td><strong>General public &amp; high-risk groups: (Plant enthusiasts, Anglers, specialist sports &amp; cultural groups)</strong> – desist from bringing risk material over the border.</td>
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<tr>
<td>In Country</td>
<td><strong>Defra &amp; network</strong> – plan and respond effectively to emergencies, work with industry to improve adoption of biosecurity best practice, advise the public, raise awareness of biosecurity and carry out specialist inspection and enforcement functions. <strong>Local Authorities</strong> - target their inspection, enforcement and surveillance on high risk groups according to FSA intelligence</td>
<td><strong>Aquaculture production businesses, farmers, landowners &amp; food business operators. industry bodies &amp; trade associations</strong> – manage risks through their own activity, building good biosecurity and risk assessment into their business plans.</td>
<td><strong>General public</strong> Identify and report risks to authorities, and monitor extent of spread. <strong>NGOs</strong> – surveillance, research &amp; alerting authorities</td>
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The Biosecurity Continuum

Pre-border activities. We want to mitigate biosecurity risks at source and reduce the factors that drive the emergence of risks. To do that we need to understand the full risk landscape so we carry out continuous horizon scanning and assessment of risks and threats.

Border activity. We want to prevent the entry of diseases or pests into the country. Border inspectors detect the presence of material that might bring in diseases or pests.

In-country activities reduce exposure to, or spread of biosecurity risks, and increase our resilience by detecting, responding and managing risks.
What improvements are we making?

Strengthening science, evidence and intelligence to help us identify and detect risks to biosecurity, to underpin our decision making and ensure we have the science capability to deal with outbreaks.

Creating a common approach to assessing and escalating risks across Defra and its network, their impact and how likely it is they will happen.

Increasing vigilance, prevention and enforcement to tackle risk of biosecurity threats entering the UK uncontrolled, particularly regarding trade flows, movements of people and other pathways for potential risks.

Growing our capability to respond to threats in country so we minimise the potential impact of disease and pest risks, including building good biosecurity practices on farm.

Increasing public and industry awareness of biosecurity, focusing on specific high-risk groups, and encouraging their active contribution to its maintenance.
How are we doing it?

Stronger science & evidence to help us identify and detect risks to biosecurity

- Government Chief Plant Health Officer appointed to increase prominence of plant/tree health.
- Continuing horizon-scanning and surveillance for risks, strengthening international monitoring, networks of experts across Government and industry, feedback from the field.
- Completed analysis by GO Science of our national animal & plant health science capabilities, including the establishment of new UK Partnership Board for Science Evidence.
- Delivering a long-term programme of strategic research combined with more applied responsive research.
- Investing in R&D (diagnostics & cures) & collaborating with our EU/ international partners.

Common approach to assessing risk across Defra and its network

- Common principles and risk assessment methodology established for the 1000s of risks we continuously monitor across our sectors (animal, plant, invasive non-natives & fish).
- This enables prioritised action based on risks to the economy, environment & society.
- Overhauled our approach to escalation and assessment of risk using Monthly Biosecurity Ministerials meetings to enable risks to be escalated quickly.
- Merged our plant inspectorates with animal inspectorates to make APHA.

Increased vigilance, prevention and enforcement around risk material entering the UK

- Strengthened relationship with UK Border Force to ensure prioritised, risk-based operations at the border focused on highest risk pathways.
- Fera & Forestry Commission have increased import inspections and inland surveillance, increasing our capability to intercept pests moving in trade and in production
- Enabled more EU trade & third country imports.
How are we doing it?

Growing our capability to respond to threats

- Reviewing our veterinary capability, and building stronger relationships with private sector veterinary/scientific expertise
- Preventing exotic/statutory diseases from entering the UK.
- Ensuring we are prepared to manage outbreaks, including through exercises to test our response.
- Ensuring legislation, contingency plans and control strategies are in place to deal with specific threats.
- Innovating to improve detection e.g. portable detection technologies

More industry & public awareness & engagement with biosecurity.

- Improving communication and enforcement of biosecurity rules at the Border to minimise risk material being brought into country.
- Using communications campaigns to outline the roles and responsibilities of all who have a role to play in biosecurity e.g. Check Clean Dry for watersport enthusiasts
- Piloting initiatives to change the behaviour of targeted passenger groups e.g. plant enthusiasts: 62% of visitors at Chelsea Flower Show said access to information meant they would change their behaviour

More industry & public awareness & engagement with biosecurity.
Four biosecurity messages for the public

• Protecting our country from pests and animal and plant disease is important for our economy, environment and health.

• Defra has the means and plans in place to protect us against threats to animal and plant health and the risk from invasive non-native species.

• Guarding the UK against pests and diseases is key to unlocking new export markets.

• We all have a part to play in protecting our native wildlife and environment from pests and diseases – because we’ve all got an interest in keeping our country safe from these threats.