



THE UNIVERSITY of EDINBURGH
Global Academy of
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Priorities for AMR Research: A global perspective

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Background

- How to turn research into strategy and policy?
- How to structure a research program (both individual proposals and a group of proposals) to give the required policy outputs?
- Do societal impact/policy-led proposals align with high-impact journals.

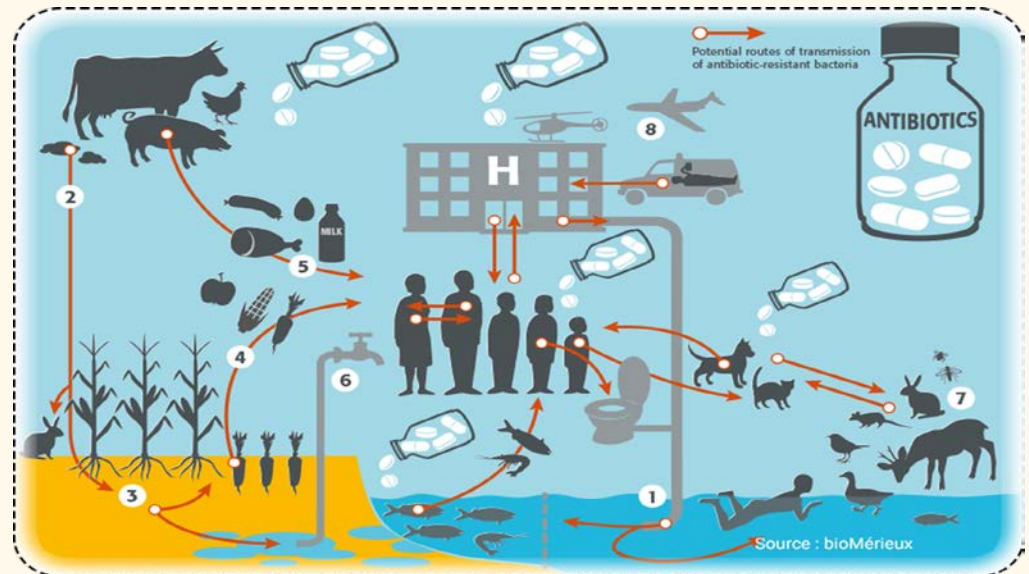
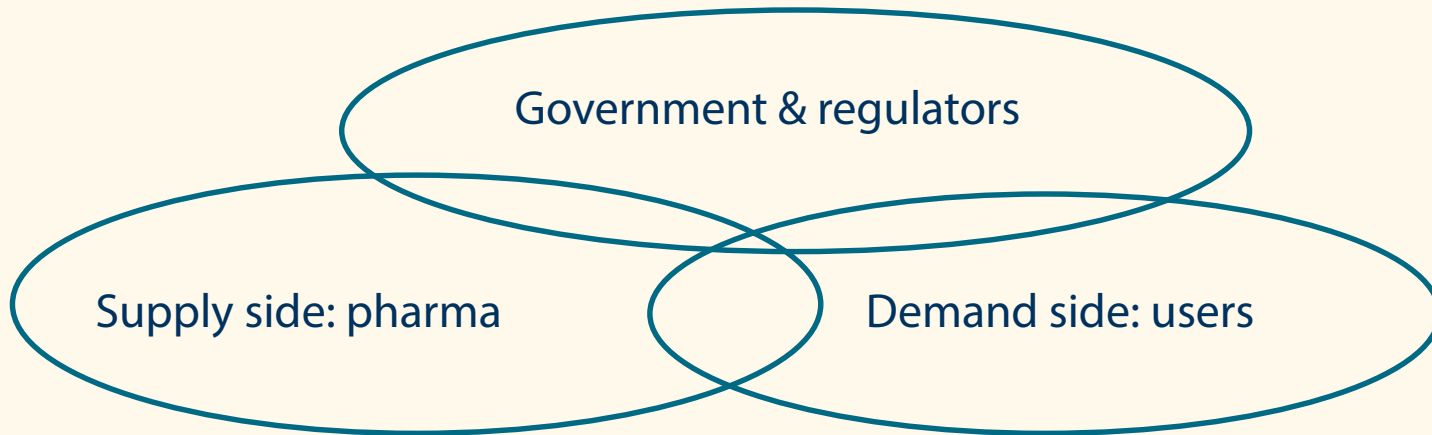


The AMR challenge

- Uncontrolled and indiscriminate use:-clinical and veterinary
- Around 40% of all antibiotics used in the UK and 75% in the US are given to livestock (prophylactic, therapeutic & growth promotion)
- Data and use in animal production very patchy
- 25,000 deaths and a loss of €1.5 billion in the EU every year (EU 2016) – scary forecasts
- A One Health approach



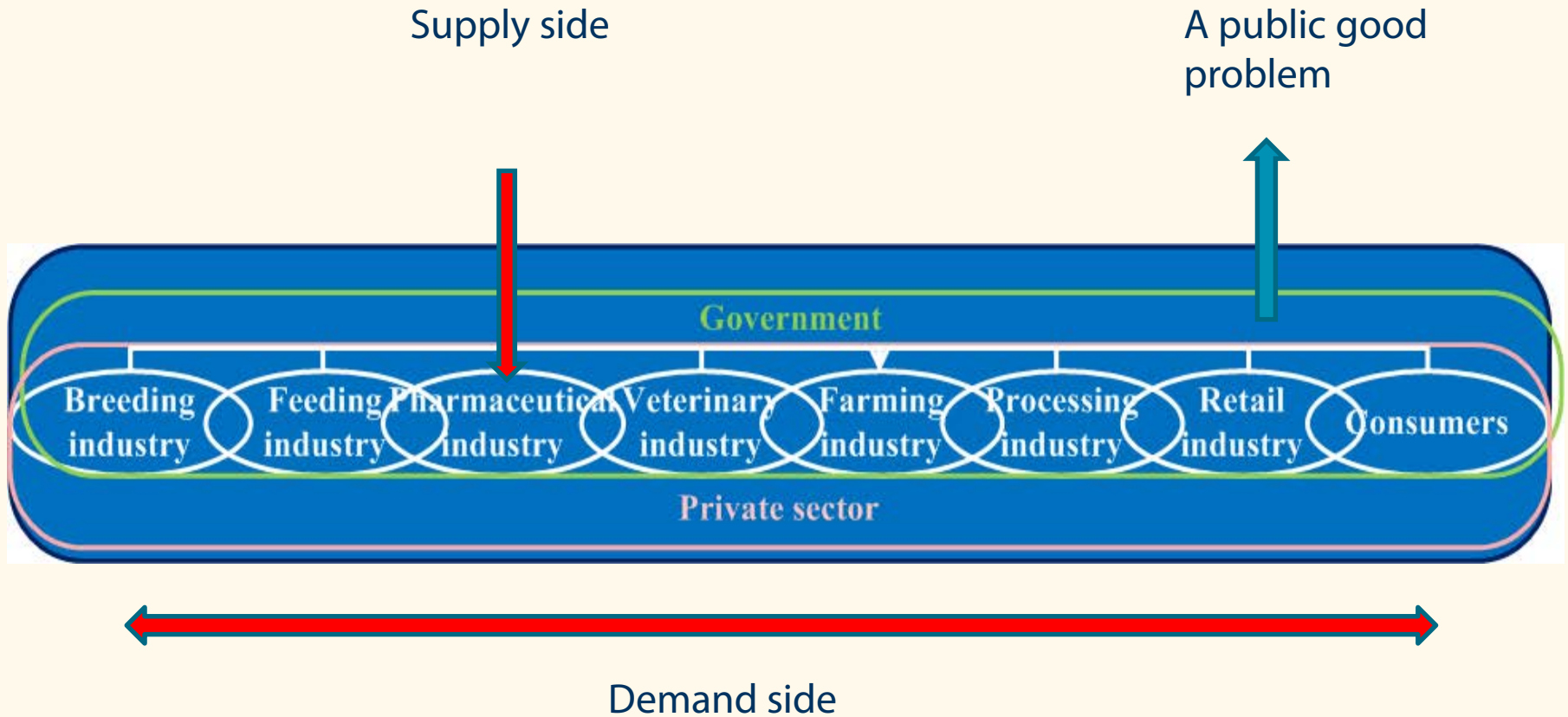
Policy perspectives



Where & how to intervene cost-effectively?



Where to intervene? The main actors



Supply side: Government & regulators

- Institutional configuration – regulatory policy
- Surveillance/ data/ support for diagnostics
- Vaccination policy
- Information to users (incl. certification/ prohibition)

Working with industry:

- Cost sharing for AM development
- Incentives for R&D
- Bans/prohibition or limitation on specific products
- Information to users

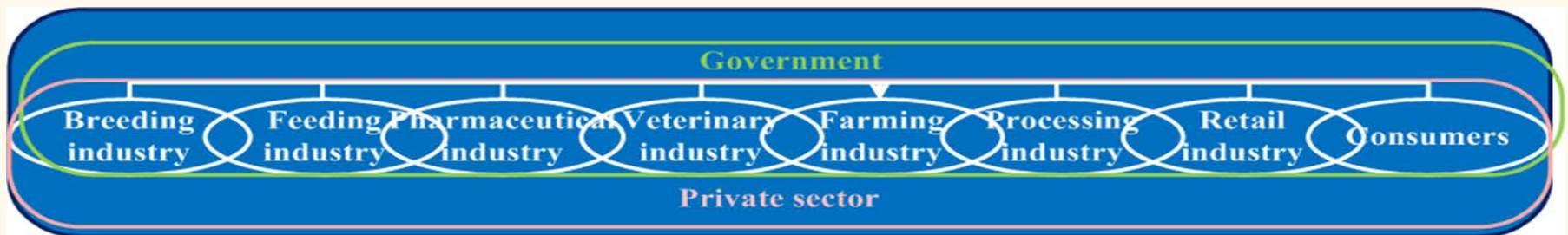
What works? What's cost-effective?



Demand side intervention

Treating AMR as a diffuse pollution problem

- Education and Information Initiatives
- Voluntary Instruments
- Economic Instruments
- Regulatory Instruments
- Planning Instruments
- Integrated methods (supply chain cooperation)



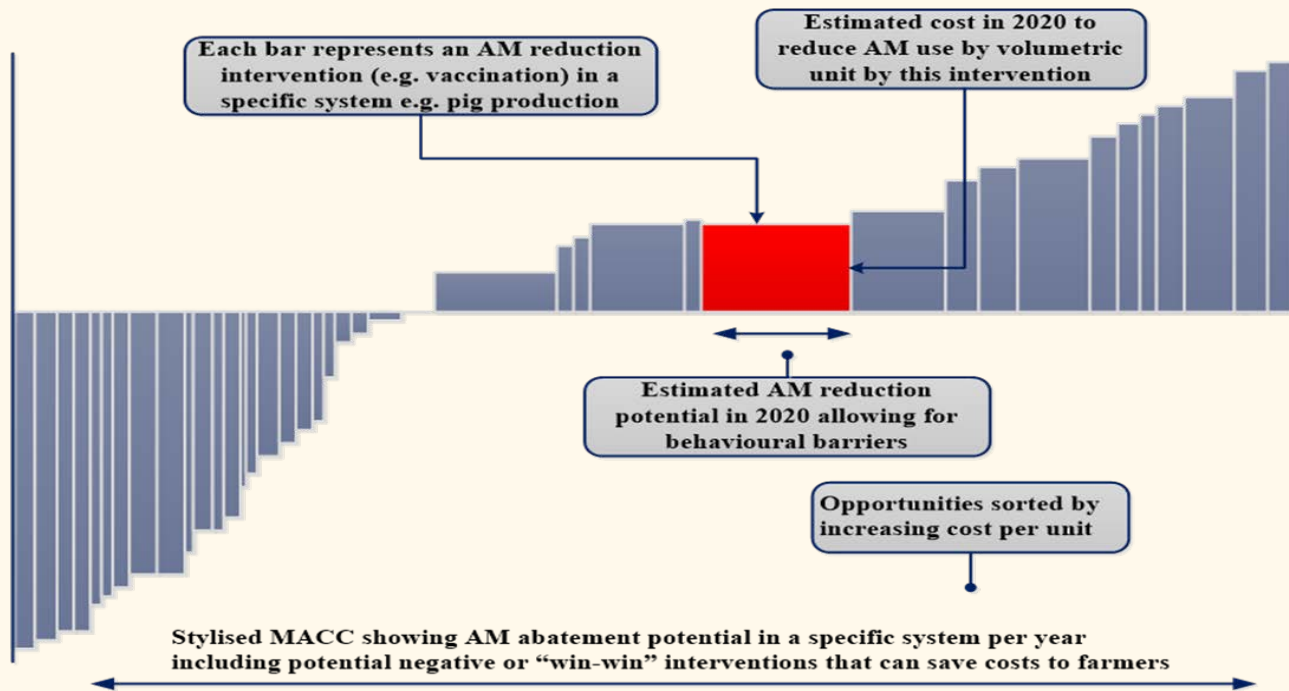
Public regulation versus private action

- Ideally, AM use reduction through behavioural change (e.g. farmers and veterinarians)
- Supply chain collaboration (industry-led & certified)
- Measures to reduce demand: Data & monitoring diagnostics, certification, good husbandry, biosecurity, vaccination, feed-related technologies, breeding strategies
- Consumer awareness, demand/ retail pressure
- Voluntary methods, behavioural economics and psychology



Overall

- How do measures compare...?
- What's the most cost-effective method of reducing use across the 'supply chain'?



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Policy led or relevant?

- Thinking clearly about costs and pathway to benefits (or impact?)
- Thinking about users and regulatory environment
- What policy is this relevant to and can we say anything about cost-effectiveness?
- How to collect data to answer the question?
- Integrated responses (joined-up projects)
- What do we learn from other policy areas?



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Journals & impact

- High impact journals do publish science-policy papers
- Novel area of interdisciplinary science
- Derivative is not necessarily bad
- Journals also attracted by big numbers & exotic locations
- Writing multi disciplinary papers is an art framing the problem and story.



The University of Edinburgh

- Global Academy of Agriculture and Food Security
<https://www.ed.ac.uk/global-agriculture-food-security>
- The Royal (Dick) School of Veterinary Studies
- The Edinburgh Antimicrobial Resistance Forum

