What is AMR?
Antimicrobial Resistance (AMR) is the ability of microorganisms to resist antimicrobial treatments, especially antibiotics. Excessive and inappropriate use of antimicrobial medicines and poor infection control practices have transformed AMR into a serious threat to public health worldwide.
If trends continue we would revert to a world where simple infections are no longer treatable.

What is the economic cost of AMR?
- EUR 1.5 billion each year - Extra healthcare costs and productivity losses due to multidrug-resistant bacteria in the EU.
- USD 2.9 trillion by 2050 – Expected cumulative losses in OECD countries due to AMR.
- USD 10 000 to 40 000 – Additional hospital costs per patient in OECD countries. The associated impact of lost economic outputs due to increased mortality, prolonged sickness and reduced labour efficiency are likely to double this figure.
- Losses to Trade and Agriculture - For example, in 2015 chicken sales in Norway dropped by 20% (for some distributors) following the news that a resistant strain of Escherichia coli (E. coli) was found in chicken meat.

How much Antibiotics are we consuming?
- The consumption of specific antibiotics used for treatment of multidrug-resistant bacterial infections has almost doubled in Europe between 2010-2014.
- Some good news - There has been a significant decrease in antibiotic consumption in the community (outside hospitals) in 6 countries (Denmark, Estonia, Finland, Luxembourg, Spain, Sweden).
- Although consumption of antibiotics by animals has decreased by 12% in 24 EU countries between 2011 and 2014, there are notable differences between countries (decrease in 9 countries, increase in 5).

Why is AMR a serious threat to public health?
- 25 000 patients die annually in the EU alone as a result of infections caused by resistant bacteria.
- Globally this number could be as high as 700 000.
- 10 million deaths per year are projected between 2015 and 2050 if current infection and resistance trends are not reversed. Only 0.7 million of these additional deaths would occur in North America or Europe, with the largest numbers in Africa and Asia.

Worldwide
- The bulk of antimicrobials are not consumed by humans, but by animals. In the US the livestock sector accounts for about 80% of total annual consumption. Between 2010 and 2030, global consumption of antimicrobials in the livestock sector is projected to increase by about 67%.
- Only 25% of countries have implemented a national policy to tackle AMR.
- Less than 40% of countries have put in place infection prevention and control programmes for AMR.
- Globally it is estimated that only half of antibiotics are used correctly.

Number of deaths per year attributable to AMR by 2050 if current resistance rates increased by 40%
What is the EU doing?

The EU was quick to recognise the importance of tackling AMR, as the 2001 Community strategy against AMR shows. This policy was reinforced with the 2011 Commission action plan, notable for its One Health approach, addressing AMR in both humans and animals. A new and comprehensive EU action plan on AMR was adopted on 29 June 2017, which builds on the previous plan, its evaluation, the feedback received on a European Commission roadmap on AMR and an open public consultation.

This new One Health action plan against AMR will support the EU and its Member States in delivering innovative, effective and sustainable responses to AMR; strategically reinforce the research agenda on AMR and enable the EU to actively promote global action and play a leading role in the fight against AMR. Its overarching goal is to preserve the possibility of effective treatment of infections in humans and animals. It provides a framework for continued, more extensive action to reduce the emergence and spread of AMR and to increase the development and availability of new effective antimicrobials inside and outside the EU.

The key objectives of this new plan are built on three main pillars:

- Making the EU a best practice region
- Boosting research, development and innovation
- Shaping the global agenda

The new plan contains more than 75 concrete actions with EU added value that the Commission will develop and strengthen as appropriate in the coming years for a more integrated, comprehensive and effective approach to combating AMR.

The global fight against AMR

The EU is not alone in recognising the threat of AMR and in addressing this issue at the highest political level. Many countries outside of the EU, as well as international organisations, are tackling this issue. International cooperation is a key element of the AMR action plan.