Antibacterial drug discovery has declined in most large pharmaceutical companies and has shifted to small companies usually having their background in an academic setting.

Where is the innovation coming from?

The red arrows indicate the origin of a R&D program in a university/small company and/or the current late clinical development stage pursued by a small company.

In Europe, more than 60 small companies engage in antibacterial R&D. More than half of them focus entirely on antibiotics and about 30% are active in diverse fields. The antibacterial approaches range from classical antibiotics and peptides to antibodies, vaccines, adjunctive approaches, phages and potentiating strategies.

Though most European antibacterial/small and medium sized enterprises (SMEs) are engaged in the discovery and early research stages of new antibacterial drugs, increasingly more companies are transitioning from discovery to clinical stage companies.

The European "antibacterial" SMEs are located across Europe with most companies in the UK.

DRIVE-AB (Driving reinvestment in R&D and responsible antibiotic use) is a collaborative project funded by the European Innovative Medicines Initiative (IMI). DRIVE-AB has been launched to find ways policymakers can stimulate innovation, responsible use and global access to antibiotics to meet public health needs. DRIVE-AB engages with all interested stakeholders during the three year project to develop and test new economic models for antibiotic development and use. SMEs are critical stakeholders with a wide range of innovative approaches to treat or prevent bacterial infections. Though small companies face considerable financial barriers and challenges inherent to small organisations "antibacterial" SMEs – powered by academic research – provide critical basic discovery efforts that are transformed into antibacterial drug R&D programmes.