

DRIVE-AB – DRIVING RE-INVESTMENT IN R&D AND RESPONSIBLE ANTIBIOTIC USE

Vision – Aims – Achievements

Pr Stephan Harbarth (Unige) for the DRIVE-AB consortium

What is DRIVE-AB?

- **DRIVE-AB** is a public-private consortium funded by IMI composed of **16 public and 7 private partners from 12 countries.**



Astellas Pharma Europe
AstraZeneca
Merck
F. Hoffmann-La Roche
GlaxoSmithKline R&D
Pfizer
Sanofi-Aventis R&D

DRIVE-AB

**Developing new economic models to stimulate
innovation + sustainable use and equitable access
of novel antibiotics to meet unmet public health
needs.**



October 2014 – September 2017

DRIVE-AB's Vision

- Transforming the way policymakers stimulate **innovation, sustainable use** and **equitable availability** of novel antibacterial products to meet public health needs
- **Sustainable use** = measures to ensure the preservation of novel antibacterial products
- **Equitable availability** = measures to ensure that novel antibacterial products are registered widely and priced affordably

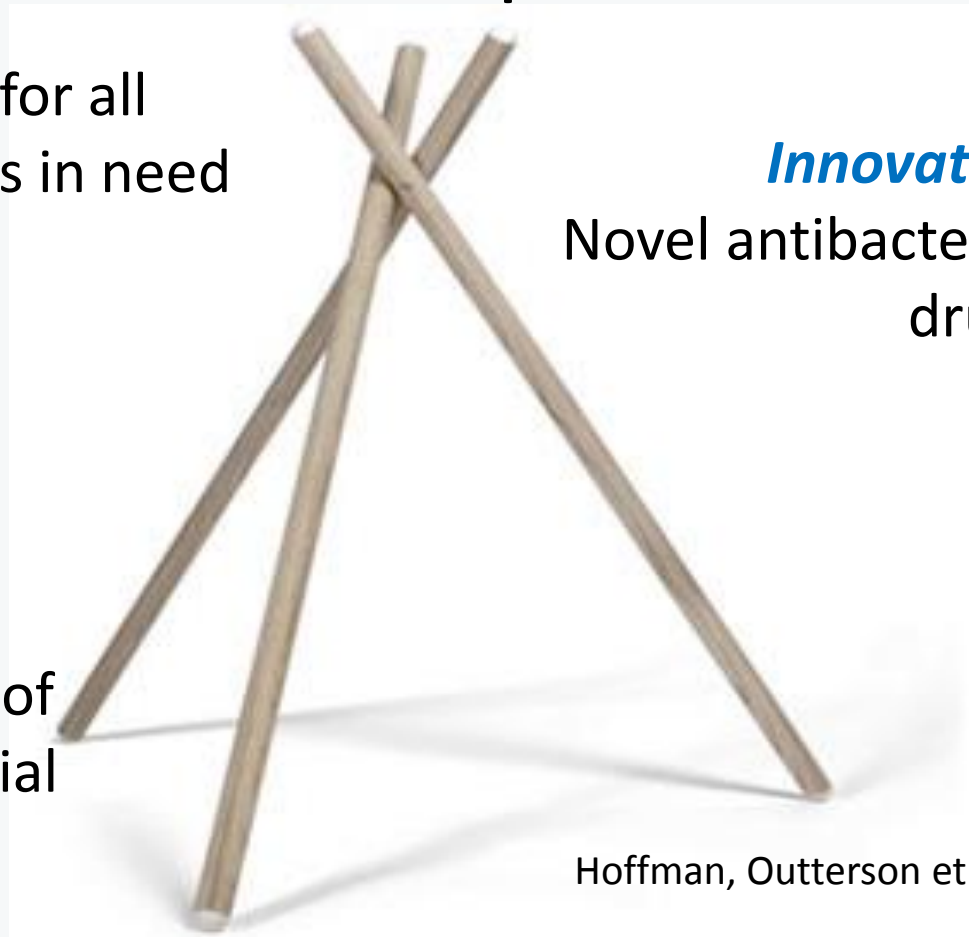
DRIVE-ABs principles

The Antibiotic Tripod

Access for all patients in need

Innovation
Novel antibacterial drugs

Sustainable use of novel antibacterial drugs



Hoffman, Outterson et al. (2015)

Additional pillars to innovation

- (1) improving equitable and responsible **access** to antibacterial therapies
(→ access without excess)
- (2) ensuring that antibacterial therapies are used in a **sustainable** manner
- (3) increasing **infection control** measures to prevent infections
- (4) implementing and maintaining effective **surveillance** systems

High-level parameters

- Focus only on **antibacterial products**, not all antimicrobials
- Innovation for **human** use only
- Focus on how to strengthen **innovation**, consistent with surveillance, infection control, and responsible use
- Build in **sustainable use** and **availability** for novel antibacterial products
- Innovation for both **hospital** and **community** settings
- Increased investments from **public and private** sectors

DRIVE-AB objectives

- Create the building blocks for new economic models
 - Define “responsible” use of antibiotics (WP1A)
 - Set public health priorities and evaluate AMR burden (WP1B)
 - Develop antibiotic valuation models (WP1C)
- Create, test and validate new economic models that incentivize the discovery and development of new antibiotics, while ensuring both sustainable antibiotic use and equitable access (WP2)
- WP3A: coordination and management of the project
WP3B: Stakeholder platform and external communication
- Present the most promising schemes to policymakers and other stakeholders with implementation strategies

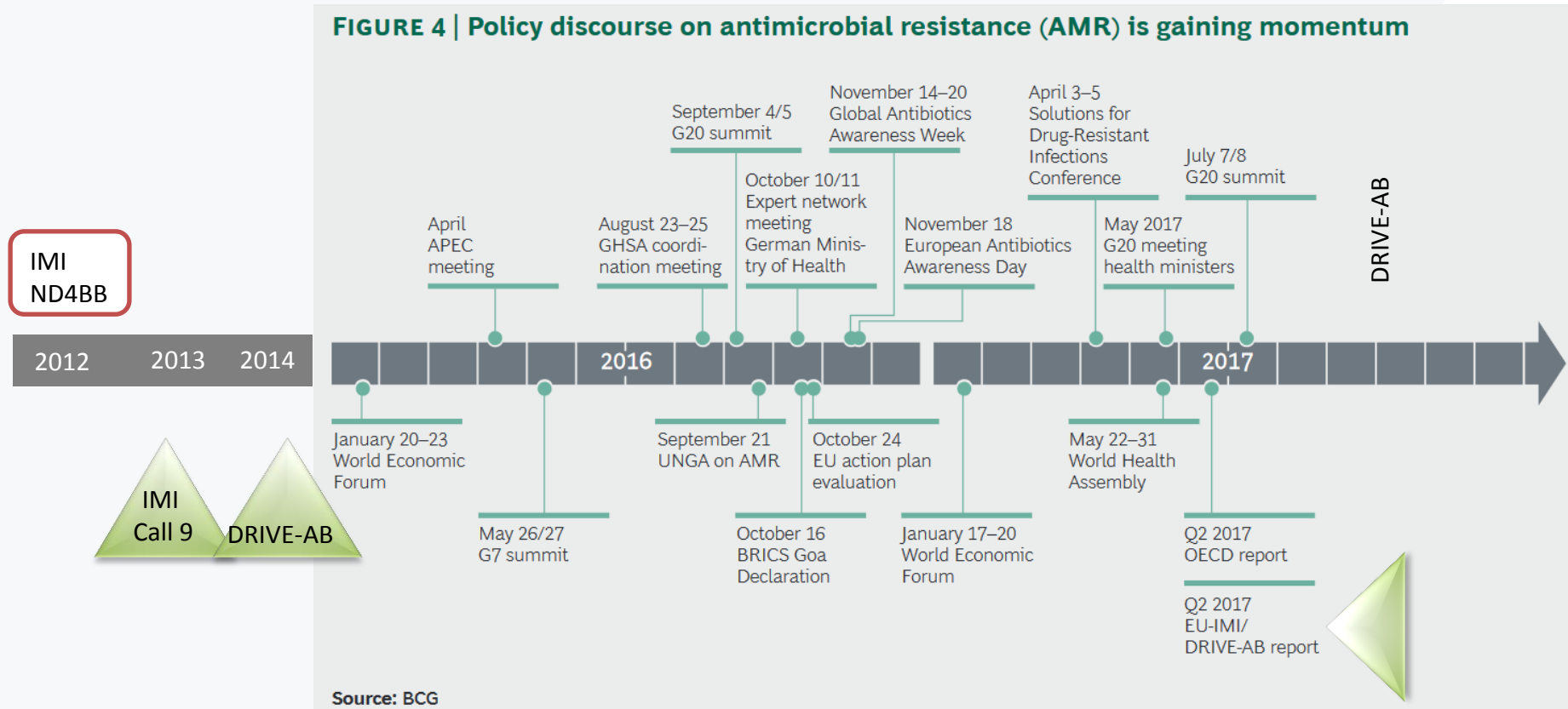
DRIVE-AB's challenges

- Tight timelines with high expectations
- Consensus/convergence building for a wide range of partners and stakeholders
- Impact of international AMR activities/initiatives on DRIVE-AB:
 - Stakeholder exhaustion due to other AMR activities across the international agenda
 - Interference with other initiatives

Political momentum

DRIVE-AB's environment

FIGURE 4 | Policy discourse on antimicrobial resistance (AMR) is gaining momentum



Achievements

- **WP1A** provided a common terminology and framework for shared understanding of responsible and sustainable antibiotic use. It also delivered broadly accepted metrics to monitor responsible use which could be used to inform stewardship programs, improve use of existing antibiotics, and prevent inappropriate use of newly developed molecules

Achievements (2)

- **WP1B** used a novel approach to describe early signals for new emerging AMR, developed novel methodology to predict the spread of resistant organisms, and validated and calibrated these predictions based on updated data and preventive measures

ND4BB

Achievements (3)

- **WP1C** provided novel approaches to evaluating antibiotics that capture their value to patients, society and the health care system. Among more immediate applications, these methods will inform health technology assessment agencies in determining the value of new antibiotics from the payer perspective.

Achievements (4)

- **WP2** developed granularity around incentive models and quantitatively tested new models through the development of a modelling simulator. The clear guidance given for implementing this evidence will provide a persuasive argument to undertake the necessary system changes at the national or supranational level. The long-term impact should be increased financing to re-ignite and maintain the necessary levels of antibiotic R&D over time while ensuring rational use.

Achievements (5)

- **WP3A** provided the scientific and administrative leadership and integrated programme management essential to the larger project's success including setting up and managing the steering committee and project management office (PMO).
- **WP3B** set up and managed a multi-disciplinary stakeholder platform to engage with all stages of the DRIVE-AB project and support the implementation of new models.

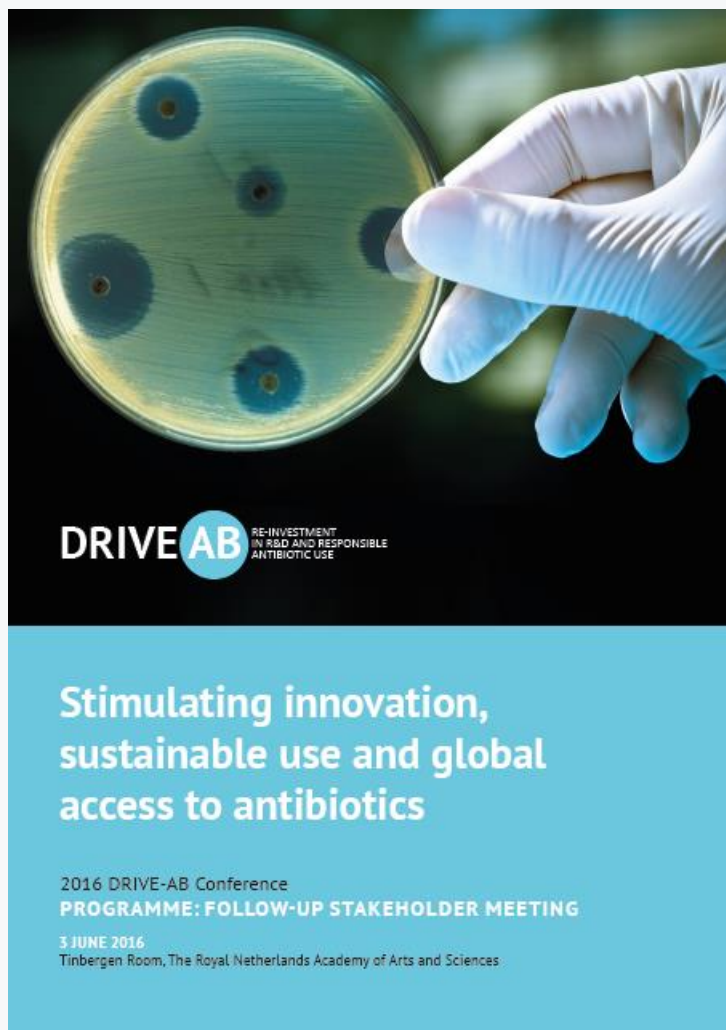
“No miracle ever marketed itself more miserably than the European Union.”

Roger Cohen, New York Times, 12 May 2017



Back-up

DRIVE-AB Midterm Conference



Royal Netherlands Academy of Arts and Sciences

June 2nd plenary meeting

- 180 policy- and decision makers from EU, USA, Canada, Africa, Asia, Australia
- 4 sessions with keynote speakers and panel discussion
- Extensive briefing

June 3rd 2016 – Invitation-only session

- 40 policy- and decision makers
- Discuss and get feedback on DRIVE-AB's shortlist of incentives