

A scientist in a white lab coat and gloves is using a pipette to transfer liquid into a test tube. The background shows a laboratory setting with various pieces of equipment, including a centrifuge and a rack of test tubes.

Global Antibiotic R&D Partnership

A Joint DNDi / WHO initiative

Dr Jean-Pierre Paccaud, PhD

Corporate Strategy and Business Development Director, GARDP

A Global Public Health Vision

The Global Antibiotic R&D Partnership (GARDP):

- A **not-for-profit** Product Development Partnership
- GARDP works in **partnership with the public and private sectors** to develop **new antibiotic treatments for important infections** where drug resistance is present or emerging, and are of **low priority** for the private sector
- It promotes **sustainable access** for antimicrobial treatments by balancing **responsible use** for optimal **conservation**, while ensuring equitable access for all, with a focus on **global health needs**.

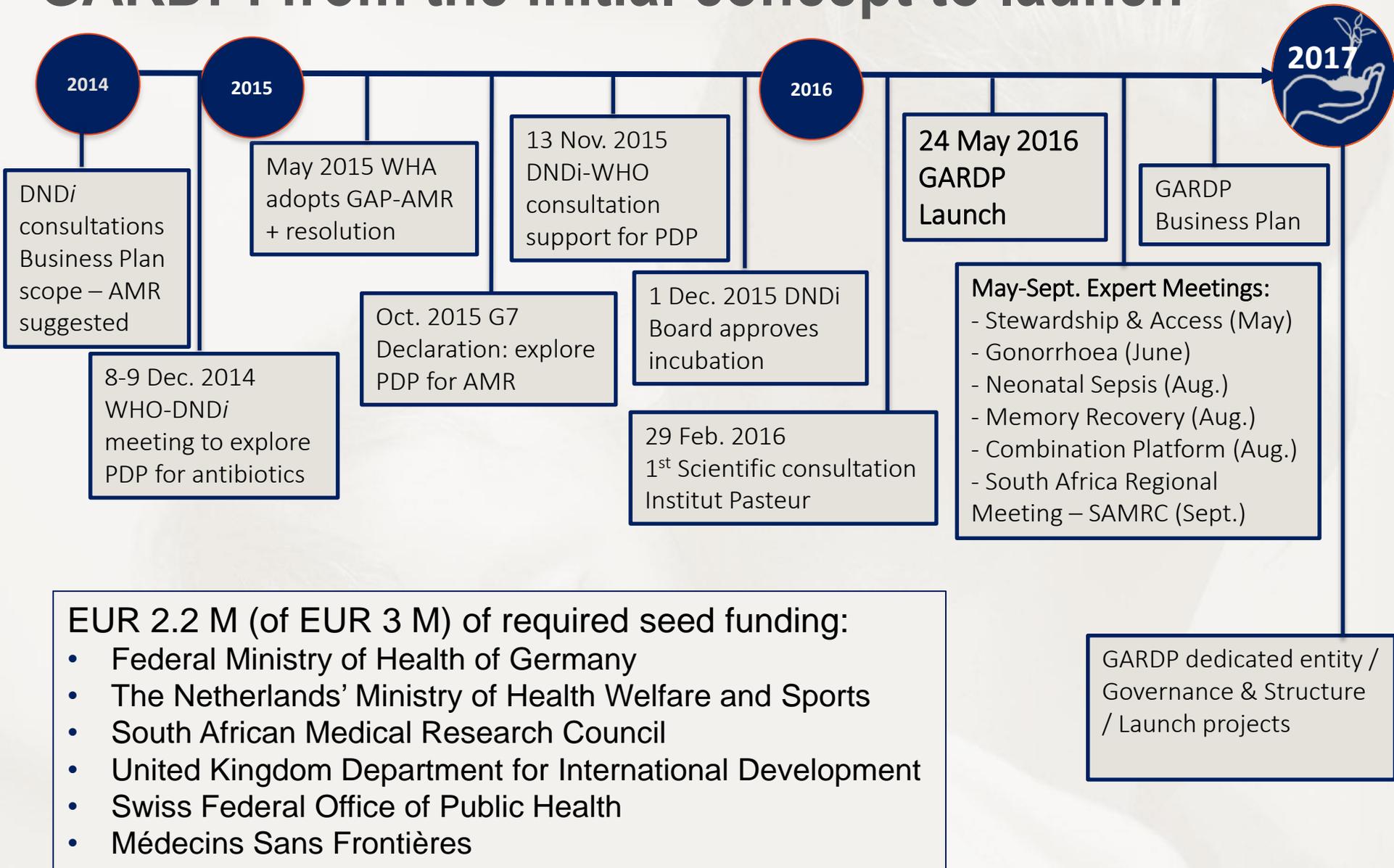
A comprehensive mission

Bridge R&D gaps & address priority medical needs: disease-specific and cross-cutting drug discovery and development approaches

Develop new antibiotic treatments for important and significant bacterial infections and syndromes that represent a public health problem and have a global impact

Sustainable access and conservation are ongoing embedded endeavours in all projects undertaken by GARDP

GARDP: from the initial concept to launch



Scientific Strategy Approaches

GARDP's strategy comprises **short and long-term approaches**, utilizing existing, forgotten, abandoned and new technologies such as:

- **Improving** dosing, duration, formulations, and drug repurposing to optimize existing antibiotics
- **Combining** old antibiotics, new antibiotics, and non-antibiotics to overcome drug-resistant bacteria
- Working with former antibiotic researchers to bridge generational knowledge gaps and **recover/redevelop abandoned and forgotten drug candidates** from previous decades
- Accelerating development of **new drug candidates**, targeting public health priorities and vulnerable populations (e.g. STIs, newborns), unpursued for commercial reasons
- Exploring **novel drug development approaches** leading to creative and durable solutions

Potential Pilot Projects

- **Neonatal sepsis**
 - *NeoAMR - A global consortium to conduct preclinical/clinical studies to develop two new treatments for neonatal sepsis (empiric use and highly drug-resistant infections) (2016)*
- **Memory Recovery**
 - *Antimicrobial Memory Recovery Initiative - An imaginative approach to rediscover the knowledge, contacts, data, and assets of 'forgotten' antibiotics to identify new drug candidates (2016)*
- **Sexually transmitted diseases**
 - *A portfolio with private and academic partners to develop two new treatments for STI syndromic management and confirmed drug-resistant cases of gonorrhoea (2017)*
- **Antibiotic Drug Combinations**
 - *Drug Combination Platform - Standardized platforms linking expertise for in vitro and in vivo studies to optimize combination regimens of existing/new antibiotics and non-antibiotics (2017)*

Sustainable Business Models for Public Health Returns

Key elements:

- **Diverse and sustainable** financial resources to enable development of innovative solutions **to address resistance to antibiotics at a global level**
- **Suitable economics** for products developed through GARDP to guarantee production and distribution, but also **affordability** for all patients
- Build strong **partnerships** with all public and private actors to **ensure access** and **promote optimal/appropriate** usage of new treatments)
- Interventions **complementary** to other actors, when economics does not provide enough financial incentives

Sustainable Business Models for Public Health Returns

Applicable models:

- **Push**: fully subsidized by GARDP => identify partner(s) for next steps
- **Push/Pull**: subsidized by GARDP + pull incentives for partner(s)
- **Joint-venture**: co-investment/development with GARDP
=> shared risks, responsibilities and benefits

Economics:

- Must insure **sustainability** but also **affordability** :
=> e.g. price commensurate to patient's financial capacity
- Explore **role of IP**: impact on access, sustainability of production and on over marketing
- **Fair pricing** to be developed based on Gross National Income (GNI)
- Commensurate to the level of GARDP investments, **revenue streams** can be considered for GARDP as long as compatible with affordability.

Sustainable access: what does it mean?

Sustainable Access = Innovation + access + conservation + stewardship

Key factors to consider:

- Need to navigate wide range of contexts: LIC – HIC (Global)
- Strategies require integration with other healthcare interventions (e.g. IPC)
- Dependent upon on TPP / Product(s): *New vs Old / Patented vs Off patent; where product will be deployed in the healthcare system*
- Approach will need to be different to conventional PDP approach: product development **and** product management
- Strategies must complement other broader interventions and policy frameworks (e.g. global/local public health campaigns; Development and Stewardship Framework)

Holistic approach to sustainable access

Training / Capacity building / Product packaging / Pilot implementation programmes / Monitoring studies

Registration / policy and guidelines / fair pricing / responsible licencing

Pull mechanisms with sustainable access embedded (e.g. facility to support country scale up with appropriate use and access, milestone prizes)

GARDP will
as
appropriate:

Conduct

Support

Drive

Promote

Finance

Objectives for 2023

GARDP aims to:

- develop **4-5 new treatments** targeting serious drug-resistant infections
- build a **robust pipeline** with a focus on gram-negative infections
- pilot **incentive mechanisms** that promote sustainable access
- test alternatives not-for-profit **business models**



Thank you