

# ***Review of possible funding/incentive mechanisms and opportunities***

TECHNICAL CONSULTATION JOINTLY HOSTED BY THE  
WORLD HEALTH ORGANIZATION AND THE DRUGS FOR  
NEGLECTED DISEASES *INITIATIVE*

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# Our understanding of the Partnership's Proposed Scope

- Address global public health and specific needs of developing countries, **targeting products that industry will not undertake due to lack of profitability**, for example:
  - Pediatric formulations
  - Combination therapies for Typhoid fever
  - New chemical entity for melioidosis
  - New chemical entity for gonorrhoea (for HIV-positive)
- Ensure that **new antibiotics are affordable to all and are subject to a global conservation agenda**
- **NOT** novel antibiotics targeted for high income markets

# Recent Challenges

FINANCIAL TIMES

Valeant and other riders of pharma must  
belt are

Jonathan Ford

September 24,

Pharm

Andrew War

Share

Outcry o  
opinion t

There is a role for  
**global public goods**,  
especially for  
incremental innovation

drugs...If

prescribed separately, the two drugs together would cost no more than \$20 or \$40 a month. By contrast...[the new combination pill]...costs about \$1,500 a month."

# Focus on antibiotic innovation



To produce analysis of the global problems of antimicrobial resistance (AMR), and to propose concrete actions to tackle these internationally



To explore novel economic strategies and reward models both to promote the development of new antibiotics and to bolster appropriate consumption of existing antibiotics

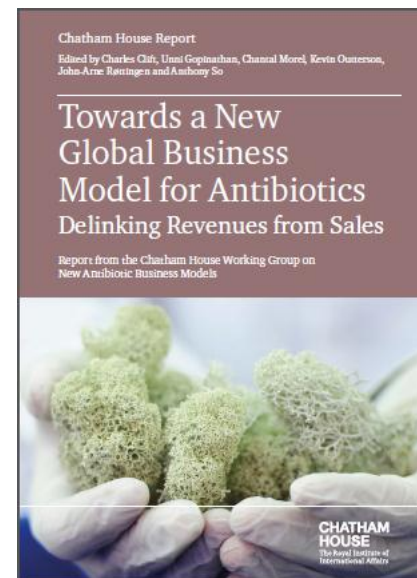
# Convergence of principles



G7 GERMANY 2015



- Need for both “push” and “pull” mechanisms
- Delinkage (i.e., revenues delinked from volumes sold) built in
- Access and responsible use are integral considerations for all mechanisms
- Global collaboration and financing necessary



# R&D allocation mechanisms

Discovery

Preclinical

Phase I

Phase II

Phase III

Licensure

Push mechanisms

Pull mechanisms

E  
X  
A  
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P  
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S

- Grants
- Milestone prizes
- Subsidies
- Tax breaks
- Open knowledge innovation

- Public-Private Partnerships
- Advance Market Commitment (AMC)
- Milestone and end prizes
- Volume guarantees

# Trends in antibiotic consumption

“Two trends are contributing to a global scale-up in antibiotic consumption. First, **rising incomes are increasing access to antibiotics**. That is saving lives but also increasing use—both appropriate and inappropriate—which in turn is driving resistance. Second, the **increased demand for animal protein** and resulting intensification of food animal production is leading to greater use of antibiotics in agriculture, again driving resistance.”

CDDEP's The State of the World's Antibiotics Report, 2015

## New paradigm in financing

- Existing health R&D financing mechanisms are either:
  - Financed through development aid
  - Focus on stimulating national/regional research with no agreed priority-setting and no linkages to responsible use and access
- Yet for this model:
  - Greatest need in middle-income countries
  - Advantages for all countries regardless of economic status (e.g., combination therapies, pediatric formulations, etc.)
  - Advantages across diseases (e.g., diagnostics for fever)



# Current financing environment

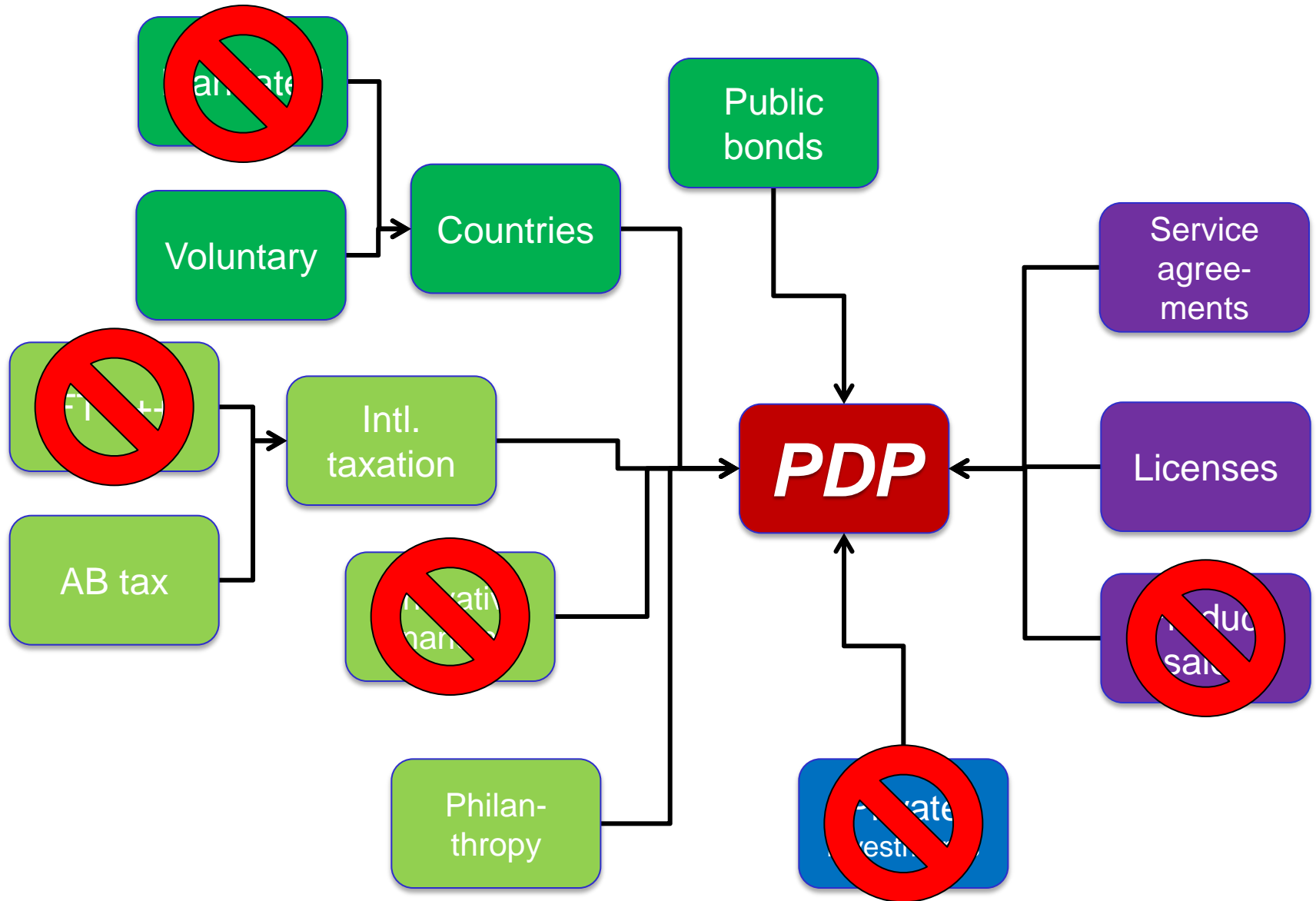
- Need to build on existing mechanisms and organizations
- DNDi has 10+ years experience developing drugs for neglected diseases.
- Landscape already contains BARDA, JPIAMR, IMI, UK-China Fund, Wellcome Trust
- None focus specifically on the needs of LMICs, where resistance is growing fastest.

# Financing – raising funds



# Potential financing

Payer	Mandatory	Voluntary
Individuals	Tax <ul style="list-style-type: none"> <li>• Direct</li> <li>• Indirect – Sales taxes, “Sin taxes”, Antibiotic consumption, Airline tax</li> </ul>	Gifts, donations, voluntary levies on tickets, phone bills etc.
Companies	Corporate tax  Financial transaction tax	<ul style="list-style-type: none"> <li>• Investment based upon expected ROI</li> <li>• Corporate social responsibility</li> </ul>
Countries	Legally binding agreements Membership fees	Political allocation



# Potential financing sources

## Base financing:

- Voluntary governmental and/or foundation financed

## Investor-based financing:

- Social impact bonds based upon revenues from patented technology contracts in high and middle income countries
- Licensing revenues from private companies (with stipulations regarding responsible use and access)
- Loans from EIB's IDFF

## Grant-based research funding:

- Apply for funds from BARDA, JPIAMR, IMI, UK-China Fund, UNITAID, Wellcome Trust