



# State of play Commission Action plan: Research

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**State of play of the 5 year action plan, Brussels 11 December 2013**



## A brief history of EU Research actions on Antimicrobial resistance (AMR)

1998 – "The Microbial Threat" - conf. in Copenhagen

*The eye opener!*

1999 - **First EU research projects on AMR** funded under the EU Framework Programme for Research and Development

2001 - First EU Strategy on AMR

2009 - EU-US Trans-Atlantic Task Force on AMR decided at the EU-US Summit

2009 - Council Conclusions on innovative incentives for effective antibiotics

*Charged the Commission with the task to present an Action Plan within 18 months*

2011 - **EU Action Plan against the rising threats from antimicrobial resistance – jointly developed by DG SANCO and DG RTD**

2011- Launch of the Joint Programming Initiative on AMR between EU Member States

# EU research funding – state of play

**€ 800 million for projects on antimicrobial resistance FP5 – FP7 (1999-2013)**



## Priorities:



- **developing new strategies for prudent/rational antibiotics use in medicine and agriculture**
- **understanding how antimicrobial resistance develops**
- **testing new antimicrobial drugs and alternatives to antibiotics**
- **developing diagnostic tests to determine whether and which antimicrobials to prescribe**



# EU Action Plan against the rising threats from antimicrobial resistance of 17 November 2011

*12 concrete actions:*

- 1-3. Secure prudent use of antimicrobials in humans and animals*
- 4-5. Prevent microbial infection and their spread*
- 6. **Develop new effective antimicrobials or alternatives***
- 7. Analyse the needs for new antibiotics for animals*
- 8. Cooperate with international partners to contain the risks of AMR*
- 9-10. Improve monitoring and surveillance in human and animal medicine*
- 11. **Reinforce research and innovation***
- 12. Improve communication, education and training*

# Research to combat antimicrobial resistance

**Action plan against the rising threats from antimicrobial resistance, launched on 17 November 2011**

- **Action 6:** to promote unprecedented **public-private collaborative research** and development to bring new antibiotics to patients

Rapid response



Innovative Medicines Initiative

**New Drugs  
4 Bad Bugs**

- **Boost the development of new drugs**
- **New business model for antibiotics.**



# Research to combat antimicrobial resistance

**Action plan against the rising threats from antimicrobial resistance, launched on 17 November 2011**



- **Action 11:** reinforcing and co-ordinating research efforts

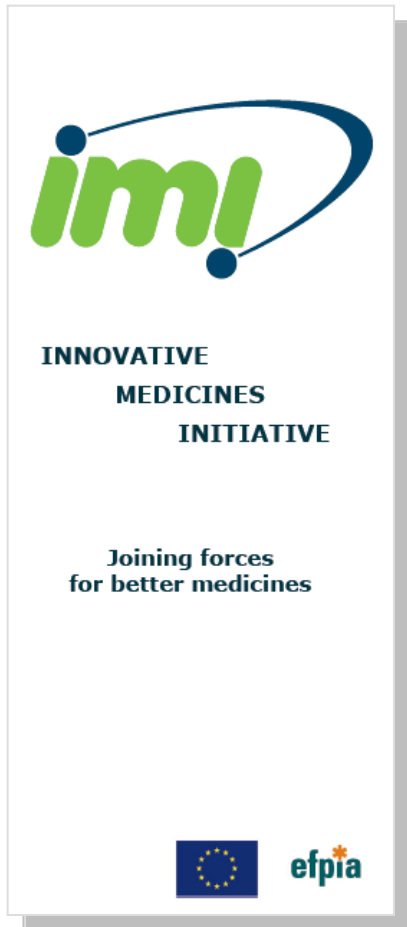


- **Coordinate and promote EU-funded research**
  - ~€90M new projects from last FP7 calls
- **Support JPIAMR aiming at a coordination of national research activities**



- **Contribute to a global mapping of drug resistance – discussions with WHO on-going**

## Co-operation with the industry: Innovative Medicines Initiative (IMI)

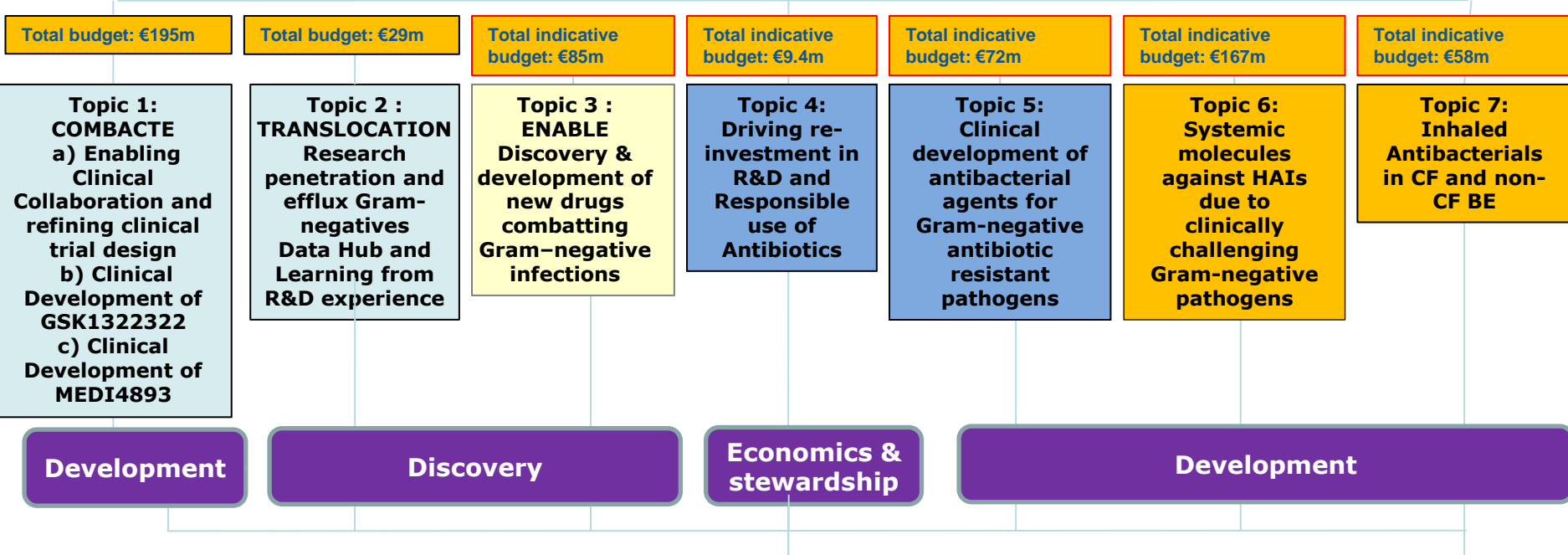


- An opportunity to combine public and private resources for new antimicrobials
- 2011 funding of a €14.5 million project to improve rapid point-of-care tests for appropriate use of antibiotics ([www.rapp-id.eu](http://www.rapp-id.eu))
- May 2012: Launched the programme **New Drugs for Bad Bugs (ND4BB)** to develop and speed up the delivery of new antibiotics
- 2013 start of the first two ND4BB projects and launch several additional calls



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## ND4BB cross topic collaboration and dissemination



## ND4BB Information Centre – All data generated is submitted and is accessible to all consortium partners

**Total indicative budget: €615m**

- 6<sup>th</sup> Call (Projects started Jan 2013)**
- 8<sup>th</sup> Call (Project starts Feb 2014)**
- 9<sup>th</sup> Call (Call launched Jul 2013)**
- 11<sup>th</sup> Call (Call launched Dec 2013)**





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# ND4BB-EFPIA participants

- **GlaxoSmithKline, AstraZeneca, Sanofi, Janssen R&D, Basilea, Pfizer, Merck MSD, Cubist, Astellas**



# AMR research in the last FP 7 work programmes – Health, Food, Agriculture & Biotechnology and Nanotechnologies

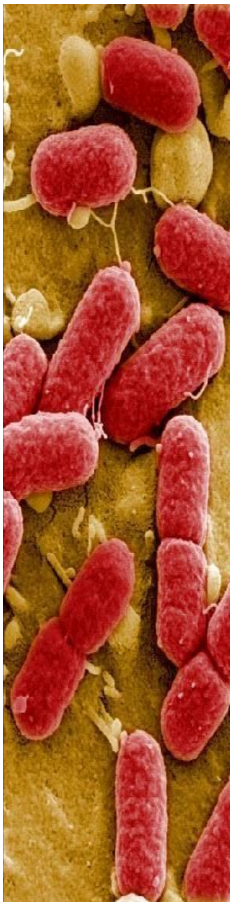
## Budget of around €90 million

- mobilising a total of 44 SMEs and funding 15 projects in the cross thematic collaboration between the 3 themes
- in HEALTH theme a specific SME call with at least 50% of budget going to SMEs
- in HEALTH theme 24 SMEs funded in 11 new projects



2013

## AMR research in the last FP 7 work programmes Health, Food & Agriculture and Nanotechnologies



### HEALTH theme

- Research on the use of antimicrobials via personalised approaches (4 new projects)
- Mobilise small and medium enterprise (SME) to develop new antimicrobials and vaccines (7 new projects)

### NMP theme

- Developing novel nanotechnology enabled therapies for bacterial infectious diseases (3 new projects)

### KBBE theme

- AMR in animals, food chain and environment (1 new project)



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# Co-operation between EU Member States: Joint programming on AMR



- Pulls together national research efforts, uses public resources better, and tackles key common challenges
- Initiative lead by Sweden
- 19 Countries BE, CH, CZ, DE, DK, ES, FI, FR, GR, IL, IT, NL, NO, PL, RO, SE ,TK, UK and Canada involved
- Only 2 countries (DE and NL) have earmarked programmes for AMR research funding – the others fund AMR research as a result of bottom-up competition.
- **Launch of 1<sup>st</sup> transnational call on 27 January 2014**
- **Launch of the strategic research agenda on 3 April 2014**



**(2014-2020)**



**Societal challenges 1 and 2**

**The AMR  
research  
landscape**





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# The EU Framework Programme for Research and Innovation 2014-2020

**Societal challenge "Health ,demographic change and wellbeing"**

- support for rapid identification and control of new or emerging pathogens including resistance, in humans, animals and food based on a shared information system

**IMI-2 continued support for AMR research**

- develop at least 2 new medicines that could be antibiotics

HORIZON 2020

**Joint programming initiative on AMR**

- support for the launch of transnational research call on AMR

# Research challenges

- **Optimize the use of currently available antimicrobials**
- **Boost science to feed the pipeline for antimicrobials**
- **Improve regulatory mechanisms for approval of new antimicrobials or alternatives**
- **Develop and implement the use of rapid diagnostics**
- **Develop new business models that attract greater investments in research**
- **Get a global picture of drug resistance**

# Thank you!

## MORE INFORMATION



[http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

**1<sup>st</sup> call of Horizon2020 launched today!**

**More information via the participant portal**

<http://www.jpiaamr.eu/>

<http://www.imi.europa.eu/>