

# DART

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**22. Oktober 2014**

# DART

## DART Deutsche Antibiotika-Resistenzstrategie

Strategie von BMG, BMELV, BMBF verabschiedet am 12.11.2008

### 10 nationale Ziele in vier Komponenten:

- Surveillance-Systeme zur Antibiotika-Resistenz und zum Antibiotika-Verbrauch
- Präventions- und Kontrollmaßnahmen zur Reduzierung von Antibiotika-Resistenzen
- Zusammenarbeit und Koordination
- Forschung und Evaluierung



# DART

- **Zwischenbericht April 2011**

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**DART**  
**Deutsche Antibiotika-Resistenzstrategie**

Zwischenbericht

Bundesministerium für Gesundheit  
11055 Berlin

gemeinsam mit:  
Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz  
Bundesministerium für Bildung und Forschung

Berlin, April 2011

# DART

- **Neuer Entwurf Ende 2013**
- **Kommentierungsphase**
  
- **erster Plan:**
- **DART 2. Phase Veröffentlichung  
November 2014**
- **aber Verschiebung**

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Deutsche

Antibiotika-

Resistenzstrategie

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Bundesministerium für Bildung und Forschung

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit

Berlin, November 2013

# COMMENT

**MEDICINE** Microbial genome sequencing brings precision prescribing p.557

**ASTROPHYSICS** Exhilarating account of the hunt for dark matter p.560



**TELEVISION** Neil deGrasse Tyson reflects on impact of *Cosmos* series p.562

**OBITUARY** Douglas Coleman, obesity biochemist, remembered p.564



ISSUE: SANDOZIA RIVALETTI

Unregulated sales of medicines in developing countries contribute to the rise in antimicrobial resistance.

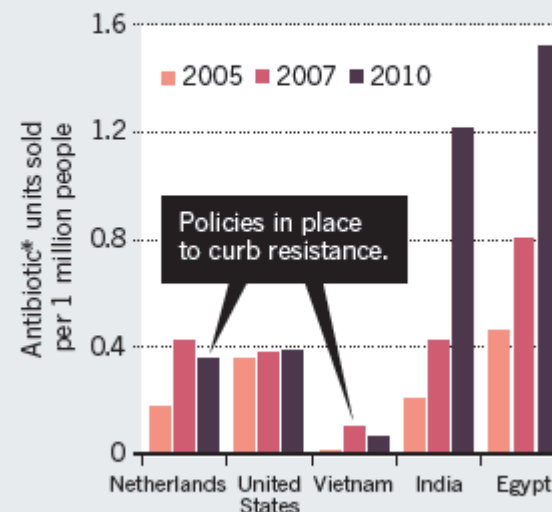
## An intergovernmental panel on antimicrobial resistance

Drug-resistant microbes are spreading. A coordinated, global effort is needed to keep drugs working and develop alternatives, say **Mark Woolhouse** and **Jeremy Farrar**.

29 MAY 2014 | VOL 509 | NATURE | 555

### A MARKET FOR FUTILITY

Antibiotic use is surging worldwide, especially in the developing world, where unregulated sales are soaring.



\*Carbapenem antibiotics

Better surveillance is essential. But it will not provide solutions; many calls to action on antimicrobial resistance have been made over the past 20 years, but there has been too little progress. The WHO missed the opportunity to provide leadership on what is urgently needed to really make a difference.

We call for the creation of an organization similar to the Intergovernmental Panel on Climate Change (IPCC) to marshal evidence and catalyse policy across governments and stakeholders. (IPAMR)

29 MAY 2014 | VOL 509 | NATURE | 555

Der **Weltklimarat** wurde im November 1988 vom Umweltprogramm der Vereinten Nationen (UNEP) und der Weltorganisation für Meteorologie (WMO) als zwischenstaatliche Institution ins Leben gerufen, um für politische Entscheidungsträger den Stand der wissenschaftlichen Forschung zusammenzufassen. Hauptaufgabe des der Klimarahmenkonvention (UNFCCC) beigeordneten Ausschusses ist es, Risiken der globalen Erwärmung zu beurteilen sowie Vermeidungs- und Anpassungsstrategien zusammenzutragen.

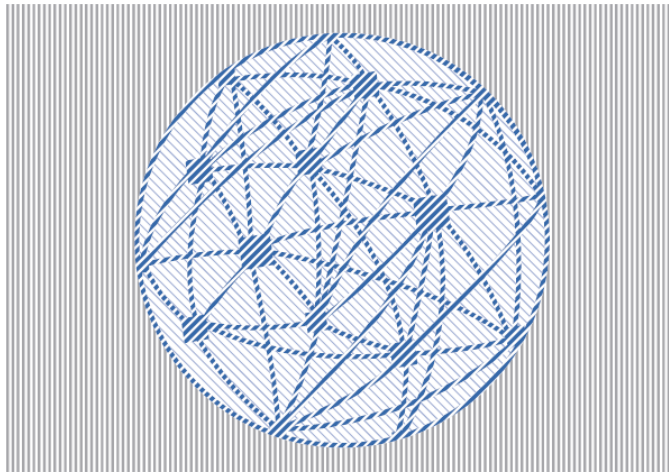


COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

Insight Report

# Global Risks 2013 Eighth Edition

An Initiative of the Risk Response Network



COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

Insight Report

# Global Risks 2014 Ninth Edition

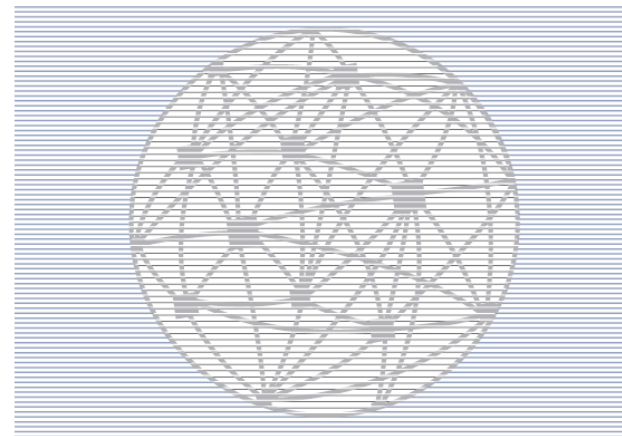
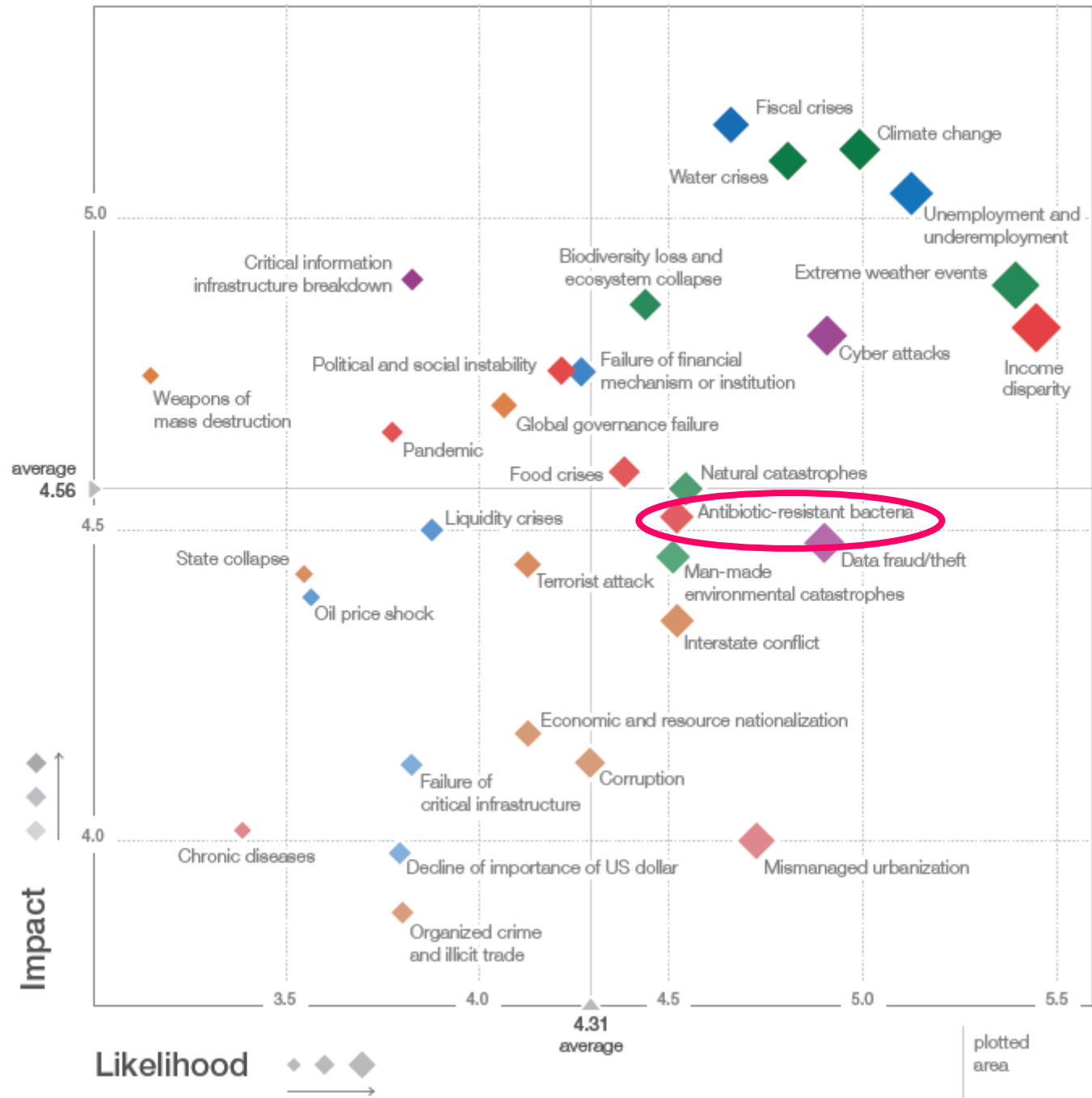


Figure 1.1: The Global Risks Landscape 2014





# REPORT TO THE PRESIDENT ON COMBATING ANTIBIOTIC RESISTANCE

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Executive Office of the President  
President's Council of Advisors on  
Science and Technology

September 2014



## About the President's Council of Advisors on Science and Technology

The President's Council of Advisors on Science and Technology (PCAST) is an advisory group of the Nation's leading scientists and engineers, appointed by the President to augment the science and technology advice available to him from inside the White House and from cabinet departments and other Federal agencies. PCAST is consulted about, and often makes policy recommendations concerning, the full range of issues where understandings from the domains of science, technology, and innovation bear potentially on the policy choices before the President.

For more information about PCAST, see [www.whitehouse.gov/ostp/pcast](http://www.whitehouse.gov/ostp/pcast)

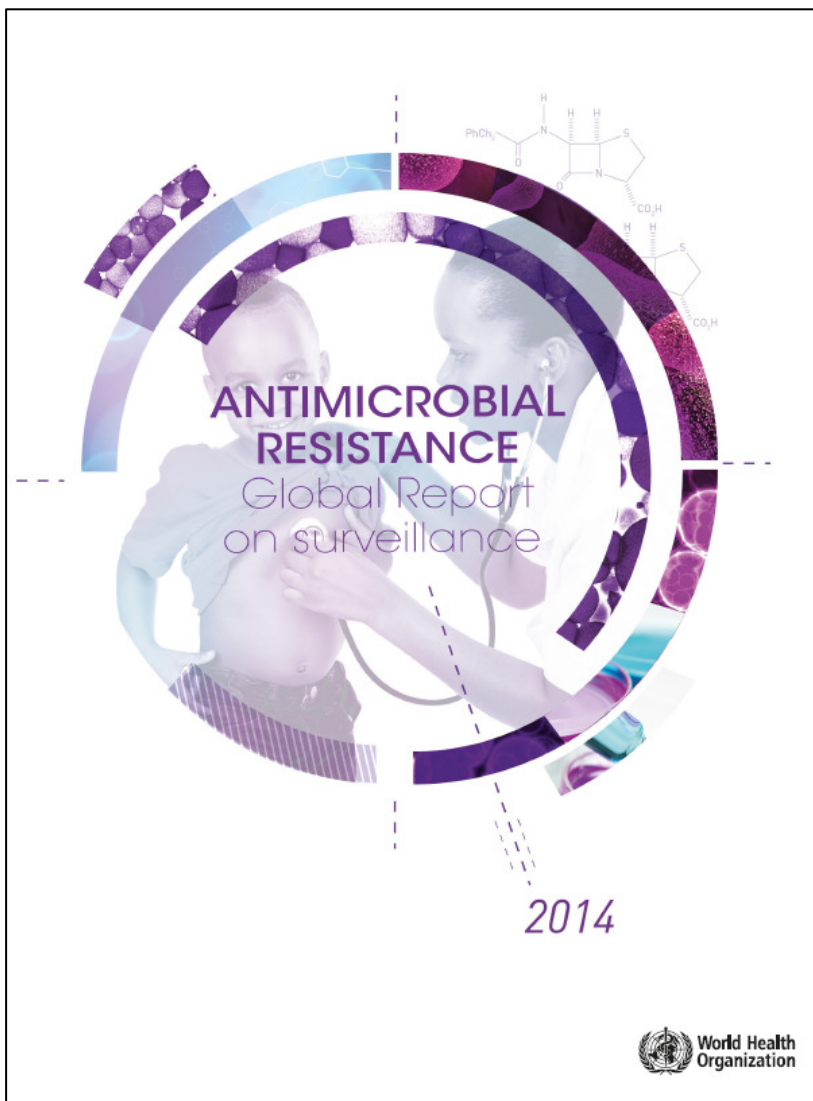
Sec. 2. Oversight and Coordination. Combating antibiotic-resistant bacteria is a national security priority. The National Security Council staff, in collaboration with the Office of Science and Technology Policy, the Domestic Policy Council, and the Office of Management and Budget, shall coordinate the development and implementation of Federal Government policies to combat antibiotic-resistant bacteria, including the activities, reports, and recommendations of the Task Force for Combating Antibiotic-Resistant Bacteria established in section 3 of this order.

Sec. 3. Task Force for Combating Antibiotic-Resistant Bacteria. There is hereby established the Task Force for Combating Antibiotic-Resistant Bacteria (Task Force), to be co-chaired by the Secretaries of Defense, Agriculture, and HHS.

(a) Membership. In addition to the Co-Chairs, the Task Force shall consist of representatives from:

- (i) the Department of State;
- (ii) the Department of Justice;
- (iii) the Department of Veterans Affairs;
- (iv) the Department of Homeland Security;
- (v) the Environmental Protection Agency;
- (vi) the United States Agency for International Development;
- (vii) the Office of Management and Budget;
- (viii) the Domestic Policy Council;
- (ix) the National Security Council staff;
- (x) the Office of Science and Technology Policy;
- (xi) the National Science Foundation; and
- (xii) such executive departments, agencies, or offices as the Co-Chairs may designate.

Each executive department, agency, or office represented on the Task Force (Task Force agency) shall designate an employee of the Federal Government to perform the functions of the Task Force. In performing its functions, the Task Force may make use of existing interagency task forces on antibiotic



### Bacteria commonly causing infections in hospitals and in the community

Name of bacterium/ resistance	Examples of typical diseases	No. out of 194 Member States providing data
<i>Escherichia coli</i> - vs 3 <sup>rd</sup> gen. cephalosporins - vs fluoroquinolones	Urinary tract infections, blood stream infections	86 92
<i>Klebsiella pneumoniae</i> - vs 3 <sup>rd</sup> gen. cephalosporins - vs 3 <sup>rd</sup> carbapenems	Pneumonia, blood stream infections, urinary tract infections	87 71
<i>Staphylococcus aureus</i> - vs methicillin "MRSA"	Wound infections, blood stream infections	85

### Bacteria mainly causing infections in the community

Name of bacterium/ resistance	Examples of typical diseases	No. out of 194 Member States providing data
<i>Streptococcus pneumoniae</i> - non-susceptible or resistant to penicillin	Pneumonia, meningitis, otitis	67
<i>Nontyphoidal Salmonella</i> - vs fluoroquinolones	Foodborne diarrhoea, blood stream infections	68
<i>Shigella species</i> - vs fluoroquinolones	Diarrhoea ("bacillary dysentery")	35
<i>Neisseria gonorrhoeae</i> - vs 3 <sup>rd</sup> gen. cephalosporins	Gonorrhoea	42

**Table A2.1 *Escherichia coli*: Resistance to third-generation cephalosporins<sup>a</sup>  
African Region**

Countries, territories and other areas or groupings	Data source <sup>b, c, d</sup>	Resistance (%)	No. tested isolates	Type of surveillance, population or samples <sup>c</sup>	Period for data collection	Year of publication or report
Algeria	National data from international publication (1)	17	236	Invasive isolates	(2003)–2005	2008
Angola	No information obtained for this report					
Benin	National data	34	44	Invasive isolates	2012	2013
Botswana	National data	28.4	67	Invasive isolates	2012	2013
Burkina Faso	National data	36	220	Invasive isolates	2008–2009	2013
Burundi	National data	7.2	1645	Targeted	2012	2013
Cameroon	No information obtained for this report					
Cabo Verde	No information obtained for this report					
Central African Republic	National data	30	183	Comprehensive	2012	2013
Chad	No information obtained for this report					
Comoros	No information obtained for this report					
Congo	National data	31	71	Invasive isolates	2012	2013
Côte d'Ivoire	No information obtained for this report					
Democratic Republic of the Congo	No information obtained for this report					
Equatorial Guinea	No information obtained for this report					
Eritrea	No information obtained for this report					
Ethiopia	National data	53 (caz); 70 (cro)	138 (caz); 154 (cro)	Comprehensive	2011–2012	2013
Gabon	No information obtained for this report					
Gambia	National data not available					2013
Ghana	National data	23.5 (cro); 41 (ctx)	88 (cro); 32 (ctx)	Comprehensive	2013	2008
Guinea	National data	100	1	Comprehensive	2012	2013
Guinea-Bissau	National data	25 (ctx); 33.3 (cro)	35	Comprehensive	2013	2013
Kenya	National data, incomplete	60		Targeted	2012	2013
Kenya	National network <sup>e</sup>	20	15	Targeted	2013	2013
Kenya	Publication (2)	87.2	109	Private hospital	2007–2009	2012
Lesotho	National data	2	107	Comprehensive	2012	2013
Liberia	National data not available					2010
Madagascar	Publication (3)	18.2	88	Hospital isolates	(2006)–2008 <sup>f</sup>	2010

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# Antimicrobial Resistance Global Action Plan

## *Going Forward*

Strategic Technical Advisory Group  
Geneva  
14 April 2014  
Keiji Fukuda



### Overview of 2014-15 road map

- Multi-stakeholder process to establish **core elements** for GAP
  - STAG meeting(s)
  - Web & other consultations
- Member state review & input
  - Specific consultation
  - Governing bodies process (EB, RCs, WHA)
- Supporting initiatives & actions

### (Inter)National Plans and Strategies

#### Current actions, plans

- Clearly documented national plans
  - 29/120 Member States surveyed 2012-2013
- Countries with active strategies or policies
  - Another 12/120 member States report national policies to address AMR
- Regional plans (EU, EURO)

#### Enabling mechanisms, networks, resources

- Coordination: TATFAR, EU, WHO (through regional and country offices)
- Cross sectoral: WHO/FAO/OIE tripartite, plus World Bank
- Development agencies and foundations (resources)

Global action plan on antimicrobial resistance  
Draft for consultation with Member States October 2014

[Antimicrobial resistance](#)[Surveillance of resistance](#)[Antimicrobial use](#)[Surveillance of use](#)[Infection prevention](#)[Activities](#)[Document centre](#)

## Draft global action plan on antimicrobial resistance

### Draft for consultation with Member States October 2014

In May 2014 the Sixty-seventh World Health Assembly adopted resolution WHA67.25 on antimicrobial resistance, requesting the Director-General to develop a draft global action plan to combat antimicrobial resistance, including antibiotic resistance, and to submit the draft to the Sixty-eighth Health Assembly in May 2015, through the Executive Board at its 136<sup>th</sup> session.

**Antibiotic** resistance is the ability of bacteria to overcome the effect of antibiotic medicines. Bacteria adapt to grow in the presence of antibiotics, so the rate and prevalence of resistance are linked to the frequency of use of antibiotics. Many antibiotics belong to the same class of medicine so resistance to one can mean resistance to the whole class, and resistance that develops in one context can spread rapidly to affect treatment of a wide range of infections and diseases. Some of these features are also true for medicines used to treat viral, parasitic and fungal diseases, leading to the broader concept of **antimicrobial** resistance (AMR).

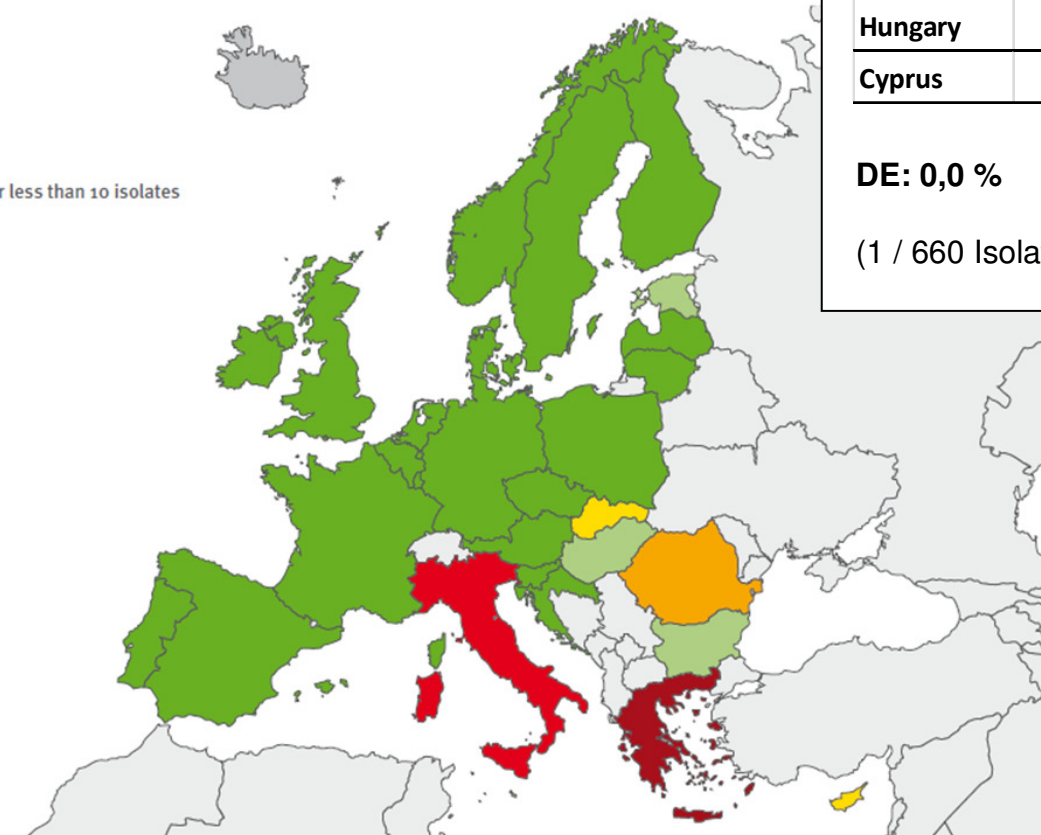
# EARS-Net

## *K. pneumoniae* - Carbapenems

Figure 3.13. *Klebsiella pneumoniae*. Percentage (%) of invasive isolates with resistance to carbapenems in EU/EEA countries, 2012



Non-visible countries  
■ Liechtenstein  
■ Luxembourg  
■ Malta



	2008	2009	2010	2011	2012
<b>Greece</b>	36,5	43,5	49,1	68,2	60,5
<b>Italy</b>	1,9	1,3	15,2	26,7	28,8
<b>Hungary</b>	0	0,6	5,5	1,9	2,9
<b>Cyprus</b>	9,7	17	16,4	15,7	9,2

**DE: 0,0 %**

(1 / 660 Isolaten Imipenem intermediär)