



## 2011 Reader on Publicly Available CBMs

The exchange of information under the Biological Weapons Convention (BWC) in the form of the Confidence Building Measures (CBMs) celebrated a quarter-century of its existence this year. The CBMs remain the only permanent transparency building tool of the BWC. The Seventh BWC Review Conference in December 2011 provides the opportunity to assess the effectiveness of the CBMs in preventing and reducing ambiguities and suspicions of non-compliance, and to set in motion a detailed review of the CBMs' content and process with the aim to adapt this important mechanism to the changing political and scientific landscape.

This Reader, as its forerunners, presents information on CBM-related developments and the data provided in the openly available CBMs of the current year. The CBM Reader aims to underline the importance of participating in the CBM data exchange as the only established permanent transparency tool for the BWC and to highlight the particular efforts of an increasing number of states to foster transparency by making their CBM submissions available to the public. The CBM Reader series is prepared as part of our efforts to increase transparency around bioweapon relevant activities globally. Such transparency is indispensable for building confidence in compliance with the BWC and must extend to all stakeholders including civil society. For more information please visit [www.biological-arms-control.org/projects\\_improvingthecbms.html](http://www.biological-arms-control.org/projects_improvingthecbms.html).

### Development of the CBM regime in 2011

In preparation of the 2011 BWC Review Conference a number of international workshops were held that also addressed the CBMs: in Montreux, Switzerland, in April 2011; in Berlin, Germany, in June 2011, in Makati City, the Philippines, in June/July 2011; and in the Hague, Netherlands, in September 2011. More information is available at <http://www.unog.ch/80256EE600585943/%28httpPages%29/F1CD974A1FDE4794C125731A0037D96D?OpenDocument>.

#### **Facts about the BWC and its CBMs**

**BWC States Parties:** 165

**New BWC States Parties in 2011:** 2

**States Parties with national contact points:** 77

**CBMs submitted in 2011:** 68 as of 20 November 2011

**First-time CBM submissions in 2011:** 3

**Number of states having participated in the CBM data exchange in 25 years:** 112

The BioWeapons Prevention Project (BWPP) hosted a series of online discussions in preparation of the 2011 BWC Review Conference, available at <http://www.bwpp.org/revcon.html>. One of the topics under discussion was “What reporting requirements do we need for the BWC?”.

### **CBM-specific publications in 2011**

Belgium (2011) Confidence-building measures: proposal for modification of form D, BWC/CONF.VII/WP.6, 14 October 2011.

Canada (2011) Strengthening the existing confidence-building measure submission and review process, advance copy of document for the 7<sup>th</sup> BWC Review Conference.

Germany, Norway, Switzerland (2011) Review and update of the confidence-building measures, BWC/CONF.VII/WP.9, 14 October 2011.

Hunger I (2011) La transparence dans le contrôle des armes biologiques, *Sécurité globale* 17 (Autumn 2011), pp. 117-132.

Hunger I, Shen D (2011) Improving transparency: revisiting and revising the BWC’s confidence-building measures, *The Nonproliferation Review* 18(3), pp. 513-526.

Implementation Support Unit (2011) History and operation of the confidence-building measures, BWC/CONF.VII/INF.1, 28 September 2011.

Koblentz GD, Chevrier MI (2011) Modernizing confidence-building measures for the Biological Weapons Convention, *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 9(3), pp. 232-238.

Lentzos F (2011) Article V: confidence-building measures, in: Pearson GS, Sims NA, Dando MR (eds.) Strengthening the Biological Weapons Convention. Key points for the Seventh Review Conference, Division of Peace Studies. University of Bradford, pp. 157-178.

Lentzos F (2011) Strengthening the Biological Weapons Convention confidence-building measures: toward a cycle of engagement, *Bulletin of the Atomic Scientists* 67(3), pp. 26-33.

Norway, Switzerland, New Zealand (2011) Confidence-building measures, BWC/CONF.VII/WP.21, 1 November 2011.

South Africa (2011) Confidence-building measures, BWC/CONF.VII/WP.19, 25 October 2011.

### **Participation in the CBM regime in 2011**

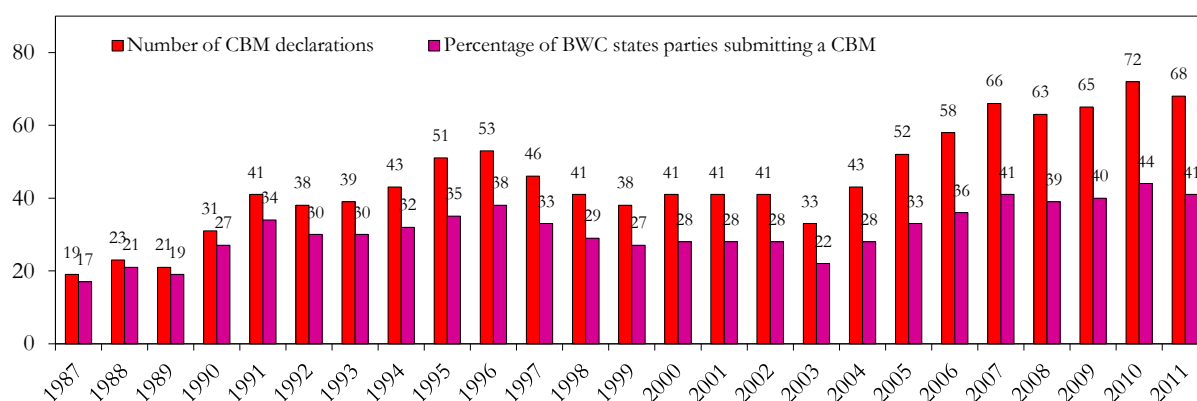
In 2011, participation in the CBM data exchange decreased slightly. As of 20 November 2011, 68 BWC states parties had submitted their CBM. The overall status of the CBMs remains weak. Since the beginning of the data exchange in 1987, the annual level of participation was never higher than 44 per cent of the BWC states parties. In total, 112 countries submitted a CBM at least once. This means that 53 BWC states parties have yet to submit their first CBM declaration. Continuity in states’ participation also remains weak: 26 countries have submitted a CBM annually for the last 10 years, 46 countries have done so for the last five years, and 36 countries have submitted a CBM only once or twice since 1987.

## First-time submissions in 2011: Ethiopia, Jamaica and Tajikistan

**CBM submissions in 2011** (States in bold made their CBM available to the public.):

1. Argentina	<b>15. Cyprus</b>	29. Iran	43. Morocco	57. Slovenia
2. Armenia	<b>16. Czech Republic</b>	30. Iraq	44. Netherlands	58. South Africa
<b>3. Australia</b>	<b>17. Denmark</b>	<b>31. Ireland</b>	<b>45. New Zealand</b>	59. Spain
<b>4. Austria</b>	<b>18. Ecuador</b>	32. Italy	<b>46. Norway</b>	<b>60. Sweden</b>
5. Azerbaijan	<b>19. Estonia</b>	33. Jamaica	47. Poland	<b>61. Switzerland</b>
6. Belarus	20. Ethiopia	34. Japan	<b>48. Portugal</b>	62. Tajikistan
<b>7. Belgium</b>	<b>21. Finland</b>	35. Kazakhstan	49. Qatar	<b>63. Thailand</b>
8. Brazil	22. France	<b>36. Latvia</b>	50. Rep. Korea	64. Tunisia
<b>9. Bulgaria</b>	23. Gambia	<b>37. Liechtenstein</b>	51. Rep. Moldova	<b>65. Turkey</b>
<b>10. Canada</b>	<b>24. Georgia</b>	<b>38. Lithuania</b>	<b>52. Romania</b>	<b>66. Ukraine</b>
11. Chile	<b>25. Germany</b>	39. Luxembourg	53. Russia	<b>67. UK</b>
12. China	<b>26. Greece</b>	<b>40. Malaysia</b>	54. Senegal	<b>68. USA</b>
13. Croatia	27. Hungary	41. Malta	55. Serbia	
14. Cuba	28. India	42. Mexico	56. Slovakia	

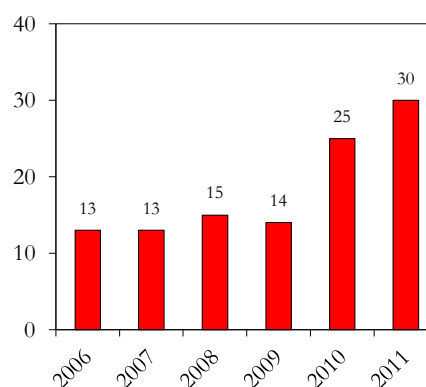
**Figure 1. CBM submissions per year between 1987 and 2011** (Numbers in this figure differ from numbers provided by the Implementation Support Unit. This is due to differences in counting states that were formerly part of other states, such as the former republics of the Soviet Union. This figure provides the actual number of CBM declarations submitted in the respective year.)



## Publicly available CBMs in 2011

As of 20 November 2011, 30 countries have made their 2011 CBM declarations publicly available, more than twice the number of five years ago. 21 of the 30 publicly available CBMs can be found on the website of the Implementation Support Unit (ISU) ([www.unog.ch/bwc/cbms](http://www.unog.ch/bwc/cbms)): Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, Germany, Ireland, Latvia, Lithuania, Malaysia, New Zealand, Norway, Portugal, Romania, Sweden, Switzerland, Turkey, United Kingdom and the USA. Nine CBMs were provided directly to the Hamburg Research Group: Bulgaria, Cyprus, Ecuador, Estonia, Georgia, Greece, Liechtenstein, Thailand and Ukraine.

**Figure 2. Number of publicly available CBMs 2006-2011**



At least Belgium and the USA provided two separate versions of their CBMs, one for the restricted part of the ISU website and one for the public.

**Table 1. Countries that made their CBM declarations publicly available, 2006-2011**

Country	2006	2007	2008	2009	2010	2011
Albania					x	
Australia	x	x	x	x	x	x
Austria				x	x	x
Bangladesh			x			
Belgium						x
Brazil					x	
Bulgaria		x	x		x	x
Canada						x
Croatia	x					
Cyprus						x
Czech Republic	x			x	x	x
Denmark		x	x		x	x
Ecuador						x
Estonia					x	x
Finland	x	x	x	x	x	x
Georgia				x	x	x
Germany	x	x	x	x	x	x
Greece						x
Ireland	x	x	x	x	x	x
Latvia	x			x		x
Lichtenstein		x	x	x	x	x
Lithuania	x	x	x	x	x	x
Malaysia	x					x
New Zealand	x	x	x		x	x
Norway			x		x	x
Poland					x	
Portugal					x	x
Romania			x	x	x	x
Senegal					x	
Slovakia		x				
Sweden	x	x	x	x	x	x
Switzerland	x	x	x	x	x	x
Thailand					x	x
Turkey						x
United Kingdom	x	x	x	x	x	x
Ukraine						x
USA					x	x
<b>Total</b>	<b>13</b>	<b>13</b>	<b>15</b>	<b>14</b>	<b>25</b>	<b>30</b>

As shown in Table 1 above, an increasing number of states make their CBM declarations publicly available. 37 countries have done so at least once since 2006. Many states make their CBMs publicly available in an erratic way. Only 13 of the 30 states that have made their CBMs publicly available in 2011 have done so annually for the past three years: Australia, Austria, Czech Republic, Finland, Georgia, Germany, Ireland, Liechtenstein, Lithuania, Romania, Sweden, Switzerland and the United Kingdom. No explanation readily offers itself for why many states make their CBMs publicly available in one year but not in another.

## Summary of data in publicly available 2011 CBM declarations

A summary of the data declared in the 30 publicly available CBMs of 2011 is provided in the table below. More detailed information can be found in the Annex to this Reader. 26 maximum biological containment facilities were declared in publicly available CBMs in 2011, seven of which were partially or wholly funded by ministries of defence. 16 of the 30 countries making their 2011 CBM publicly available declared having a biodefence programme; they provided information on 71 biodefence facilities. And lastly, five unusual disease outbreaks and 69 vaccine production facilities were declared in the 30 publicly available CBMs of 2011.

**Table 2. Summary of data in publicly available CBM declarations, 2011**

<b>Form A, part 1:</b>	Number of maximum biological containment facilities (BSL-4 or equivalent) declared.
<b>Form A, part 2 (i):</b>	Does the state party declare having a biodefence programme?
<b>Form A, part 2 (iii):</b>	Number of biodefence facilities declared.
<b>Form B (ii):</b>	Number of unusual disease outbreaks declared.
<b>Form F:</b>	Does the state party declare having a past offensive and/or defensive programme?
<b>Form G:</b>	Number of vaccine production facilities declared.
<b>ND:</b>	“Nothing to declare” indicated in Form 0.
<b>NN:</b>	“Nothing new to declare” indicated in Form 0.

Country	Form A, part 1	Form A, part 2 (i)	Form A, part 2 (iii)	Form B (ii)	Form F (off/def)	Form G
Australia	4	yes	1	0	no/no	3
Austria	0	yes	1	0	no/no	0
Belgium	ND	yes	4	ND	ND	2
Bulgaria	0	yes	1	1	no/no	1
Canada	2	yes	2	0	yes/yes	14
Cyprus	ND	no	ND	ND	no/no	ND
Czech Republic	2	no	4	ND	NN	5
Denmark	0	yes	1	0	no/yes	2
Ecuador	ND	ND	ND	ND	ND	ND
Estonia	ND	no	ND	0	no/no	ND
Finland	0	yes	1	ND	ND	ND
Georgia	0	yes	2	ND	no/yes	ND
Germany	3 <sup>1</sup>	yes	4	ND	NN	5
Greece	0	no	ND	ND	no/no	ND
Ireland	0	no	ND	0	no/no	1
Latvia	0	yes	1	0	<i>No data provided</i>	<i>No data provided</i>
Liechtenstein	NN	no	NN	0	NN	NN
Lithuania	0	no	ND	ND	no/no	NN
Malaysia	0	no	ND	0	no/no	1
New Zealand	0	no	ND	0	no/no	ND
Norway	0	yes	1	ND	no/no	3
Portugal	0	yes	1	ND	ND	ND
Romania	0	NN	1	ND	ND	NN
Sweden	1	yes	1	0	no/no	2
Switzerland	1 <sup>2</sup>	yes	13	0	no/yes	3
Thailand	NN	no	ND	0	no/no	1
Turkey	0	yes	2	0	no/no	3
Ukraine	0	no	ND	0	ND	12
United Kingdom	8 <sup>3</sup>	yes	1	1	yes/yes	3
USA	5	yes	29	3	NN	8

<sup>1</sup> Includes one maximum containment facility not suitable for work with human pathogens.

<sup>2</sup> The BSL-4 unit is approved for diagnostic purposes only.

<sup>3</sup> Includes three animal pathogen maximum containment facilities designated SAPO (Specified Animal Pathogens Order).

## ANNEX

The following table summarizes the data declared in **CBM Form A, part 1**, of the publicly available CBM submissions from 2011 and compares them with the information in publicly available CBMs from 2006 to 2010. The table provides the names and locations of facilities declared in CBM Form A, part 1, their containment levels, the year(s) they were declared, and whether the facilities were wholly or partly funded by ministries of defence (MoD). Grey cells indicate that there was no CBM submission or that it was not made publicly available in the respective year. “ND” indicates that the state ticked the “Nothing to declare” box in Form 0. “NN” indicates that the state ticked the “Nothing new to declare” box in Form 0. “-” indicates that no data were provided.

Country	Name and location of facilities declared in CBM Form A, part 1	Cont. level	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011	MoD funded in 2011?
Australia	1. Australian Animal Health Laboratory (Geelong)	BL4	x	x	x	x	x	x	no
	2. National High Security Quarantine Laboratory (North Melbourne)	BL4	x	x	x	x	x	x	no
	3. Queensland Health and Forensic Scientific Services (Cooper Plains)	BL4	x	x	x	x	x	x	no
	4. Emerging Infectious Disease and Biohazard Response Unit (Westmead)	BL4	-	-	x	x	x	x	no
Austria	Federal Ministry of Defence and Sports/Div NBC & Environmental Protection Technology (Vienna)	BL3				x	x	x	wholly
Belgium	<i>Nothing to declare</i>	n.a.						ND	n.a.
Bulgaria	1. National Center of Infectious and Parasitic Diseases (Sofia)	BL3		x	x		x	x	no
	2. National Diagnostic and Research Veterinary Medical Institute (Sofia)	BL3		-	-		x	x	no
Canada	1. National Microbiology Laboratory (Winnipeg)	BL4						x	no
	2. National Centre for Foreign Animal Disease (Winnipeg)	BL4						x	no
Cyprus	<i>Nothing to declare</i>	n.a.						ND	n.a.
Czech Republic	1. State Veterinary Institute (Jihlava)	BL3	-			-	x	x	no
	2. State Veterinary Institute (Lysolaje)	BL3	-			-	-	x	no
	3. Tekro, spol.s.r.o. (Uničov)	BL3	-			-	x	x	no
	4. Collection of Animal Pathogenic Microorganisms (Brno)	BL3	x			x	-	-	n.a.
	5. Institute of Molecular Pathology (Hradec Králové)	BL3	x			x	-	x	wholly
	6. Central Military Health Institute, Department Těchonín (Těchonín)	BL4	x			x	-	x	wholly
	7. Central Military Health Institute, Department Prague (Prague)	BL2	-			-	-	x	wholly
	8. Laboratory for Biological Monitoring and Protection (Milín)	BL4	x			x	-	x	no
	9. Laboratory of Molecular Biology (Hradec Králové)	BL2	x			x	-	-	n.a.
	10. Division of Infectious Diseases, Department of Infectious Diseases and Epizootology, Faculty of Veterinary Medicine (Brno)	BL3	x			x	-	x	no

Country	Name and location of facilities declared in CBM Form A, part 1	Cont. level	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011	MoD funded in 2011?
	11. National Institute of Public Health; Centre of Epidemiology and Microbiology (Šrobárova)	BL3	-			-	-	x	no
	12. Bioveta, a.s. (Ivanovice na Haně)	BL3	-			-	-	x	no
<b>Denmark</b>	1. Centre for Biosecurity and Biopreparedness (Copenhagen)	BL2		x	x		x	-	n.a.
	2. Anonymous larger university in Denmark ( <i>no location provided</i> )	BL3		-	-		-	x	no
	3. TB Vaccine Research (Copenhagen)	BL3		-	-		-	x	no
	4. QC Bio (Copenhagen)	BL3		-	-		-	x	no
	5. International Reference Laboratory of Mycobacteriology (Copenhagen)	BL3		-	-		-	x	no
<b>Ecuador</b>	<i>Nothing to declare</i>	n.a.						ND	n.a.
<b>Estonia</b>	<i>Nothing to declare</i>	n.a.					ND	ND	n.a.
<b>Finland</b>	1. Centre for Biothreat Preparedness (Helsinki)	BL3	x	x	x	x	x	x	partly
	2. National Institute for Health and Welfare, Bacteriological and Virological Laboratories (Helsinki, Turku)	BL3	x	x	x	x	x	x	no
	3. Yersinia Research Laboratory (Helsinki, Turku)	BL2	x	x	x	x	x	x	partly
	4. Department of Virology, University of Helsinki (Helsinki)	BL3	x	x	x	x	x	x	partly
	5. Finnish Food Safety Authority (Helsinki)	BL3	-	x	x	x	x	x	no
	6. Finnish Defence Forces Technical Research Centre (Lakiala)	BL2 <sup>1</sup>	-	x	x	x	x	x	wholly
<b>Georgia</b>	1. National Center for Disease Control and Public Health (Tbilisi)	BL2				x	x	x	no
	2. Laboratory of Ministry of Agriculture of Georgia (Tbilisi)	BL2				-	x	x	no
<b>Germany</b>	1. Bernhard-Nocht-Institut für Tropenmedizin (Hamburg)	BL4	x	x	x	x	x	x	no
	2. Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health (Insel Riems)	BL4 <sup>2</sup>	x	x	x	x	x	x	no
	3. Institut für Virologie der Philipps Universität Marburg (Marburg)	BL4	x	x	x	x	x	x	partly
<b>Greece</b>	1. University of Crete School of Medicine (Heraklion)	BL3						x	-
	2. Kapodistrian University of Athens School of Medicine (Athens)	BL3						x	-
	3. Aristotelian University of Thessaloniki (Thessaloniki)	BL3						x	-
	4. Infectious Diseases Hospital (Thessaloniki)	BL3						x	-

<sup>1</sup> A CB-deployable laboratory has been equipped with a BSL-3 glovebox.

<sup>2</sup> Maximum containment facility not suitable for work with human pathogens.

Country	Name and location of facilities declared in CBM Form A, part 1	Cont. level	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011	MoD funded in 2011?
	5. Hellenic Pasteur Institute (Athens)	BL3						x	-
	6. Athens School of Public Health (Athens)	BL3						x	-
<b>Ireland</b>	1. National Virus Reference Laboratory, University College Dublin (Dublin)	BL3+	x	x	x	x	x	x	-
	2. Public Health Laboratory (Dublin)	BL3	x	x	x	x	x	x	-
<b>Latvia</b>	National Microbiology Reference Laboratory (Riga)	BL3						x	no
<b>Liechtenstein</b>	<i>Nothing new to declare</i>	-		NN	NN	NN	NN	NN	-
<b>Lithuania</b>	1. Microbiological laboratory of Vilnius Public Health Centre (Vilnius)	BL3	x	x	x	x	x	-	n.a.
	2. Laboratory of Centre for Communicable Diseases and AIDS (Vilnius)	BL2	x	x	x	x	x	-	n.a.
	3. National Food and Veterinary Risk Assessment Institute (Vilnius)	BL3	x	x	x	x	x	x	no
	4. National Public Health Surveillance Laboratory (Vilnius)	BL2	-	-	-	-	-	x	no
<b>Malaysia</b>	1. Biotechnology Research Institute, Universiti Malaysia Sabah (Kota Kinabalu)	BL3	-					x	no
	2. Medical Laboratories for Medical Microbiology, Parasitology and Virology, University of Putra Malaysia (Serdang)	BL2	-					x	no
	3. Institute of Systems Biology, Universiti Kebangsaan (Bangi)	BL2	-					x	no
	4. Veterinary Research Institute (Ipoh)	BL3	-					x	no
	5. Science and Technology Research Institute for Defence (Kajang)	“normal”	x					-	n.a.
<b>New Zealand</b>	National Centre for Biosecurity and Infectious Disease (Upper Hutt)	BL3+	x	x	x		x	x	no
<b>Norway</b>	Institute of Microbiology, Armed Forces Medical Services (Oslo)	BL3			x		x	x	wholly
<b>Portugal</b>	1. Laboratório de Bromatologia e Defesa Biológica (Lisbon)	BL3					x	x	wholly
	2. Unidade de reposta a Emergências e Biopreparação (Lisbon)	BL3					x	x	no
<b>Romania</b>	Laboratory of Microbiology and Epidemiology, Army Center of Medical Research (Bucharest)	BL2			NN	x	NN	x	partly
<b>Sweden</b>	1. Swedish Defence Research Agency Division of NBC Defence (Umeå)	BL3	x	x	x	x	x	x	partly
	2. Säkerhetslaboratorium, Swedish Institute of Infectious Disease Control (Solna)	BL4	x	x	x	x	x	x	no
	3. National Veterinary Institute (Uppsala)	BL3	x	x	x	x	x	x	no
<b>Switzerland</b>	1. Labor Spiez (Spiez)	BL3	NN	NN	NN	NN	x	x	partly
	2. Instiute of Virology and Immunoprophylaxis (Mittelhäusern)	BL3	NN	NN	NN	NN	x	x	no
	3. National Reference Center for Emerging Viral Infections (Geneva)	BL4 <sup>3</sup>	NN	NN	NN	NN	x	x	no

<sup>3</sup> The BSL-4 unit is approved for diagnostic purposes only.



Country	Name and location of facilities declared in CBM Form A, part 1	Cont. level	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011	MoD funded in 2011?
<b>Thailand</b>	<i>Nothing new to declare</i>	-					NN	NN	-
<b>Turkey</b>	1. Ankara University Biotechnology Institute (Ankara)	BL2						x	no
	2. Refik Saydam National Public Health Agency (Ankara)	BL3						x	no
	3. Bornova Veterinary Control and Research Institute (Ankara)	BL3 <sup>4</sup>						x	no
	4. Diagnosis of Poultry Disease Laboratory (Ankara)	BL3						x	no
<b>Ukraine</b>	1. Governmental Scientific Oversight Institute for Biotechnology and Microorganism Culture Collection (Kiev)	.5						x	no
	2. Mechnikov Institute for Microbiology and Immunology (Charkov)	.6						x	no
	3. Gromashevsky Institute for Epidemiology and Infectious Diseases (Kiev)	.6						x	no
	4. Mechnikov Scientific Research Anti-Plague Institute (Odessa)	BL3						x	no
	5. Central Sanitary Epidemiological Station (Kiev)	BL3						x	no
	6. Lvov Scientific Research Institute for Epidemiology and Hygiene (Lvov)	.7						x	no
	7. Anti-Plague Station (Simferopol)	BL3						x	no
<b>United Kingdom</b>	1. Defence Science and Technology Laboratory (Porton Down, Salisbury)	BL4	x	x	x	x	x	x	partly
	2. Health Protection Agency (Colindale, London)	BL4	x	x	x	x	x	x	no
	3. Health Protection Agency, Centre for Emergency Preparedness and Response (Porton Down, Salisbury)	BL4	x	x	x	x	x	x	no
	4. National Institute for Biological Standards and Control (Potters Bar)	BL4	x	x	x	x	x	x	no
	5. National Institute for Medical Research (London)	BL4	x	x	x	x	x	x	no
	6. Veterinary Laboratories Agency (Addlestone)	SAPO4 <sup>8</sup>	x	x	x	x	x	x	no
	7. Institute for Animal Health, Pirbright Laboratory (Woking)	SAPO4 <sup>8</sup>	x	x	x	x	x	x	no
	8. Merial Animal Health (Pirbright)	SAPO4 <sup>8</sup>	-	-	x	x	x	x	no
	9. Schering-Plough Animal Health (Uxbridge)	SAPO4 <sup>8</sup>	-	-	x	-	-	-	n.a.
<b>USA</b>	1. Viral Immunology Center, Georgia State University (Atlanta, GA)	BL4					x	x	partly
	2. The Betty Slick and Lewis J. Moorman, Jr. Laboratory Complex (San Antonio, TX)	BL4					x	x	partly

<sup>4</sup> Under construction, not yet active.

<sup>5</sup> Ukraine declared four units with an overall floorspace of 780 sqm, without indicating the containment level.

<sup>6</sup> BL4 does not exist; highest level of containment is not indicated.

<sup>7</sup> Ukraine declared three units with an overall floorspace of 1,273 sqm, without indicating the containment level.

<sup>8</sup> Specified Animal Pathogens Order.

Country	Name and location of facilities declared in CBM Form A, part 1	Cont. level	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011	MoD funded in 2011?
	3. Galveston National Laboratory (Galveston, TX)	BL4					x	x	partly
	4. Plum Island Animal Disease Center (Greenport, TX)	BL3					x	x	no
	5. U.S. Army Medical Research Institute of Infectious Diseases (Fort Detrick, MD)	BL4					x	x	wholly
	6. Integrated Research Facility (IRF) – Rocky Mountain Laboratories (Hamilton, MT)	BL4					x	x	no
	7. Coordinating Center for Infectious Diseases (Atlanta, GA)	BL4					x	-	n.a.

The following table summarizes the data declared in **CBM Form A, part 2 (ii) and (iii)** of the publicly available CBM submissions from 2011 and compares them with the information in publicly available CBMs from 2006 to 2010. The table indicates the overall funding for the biodefence programme as declared in CBM Form A, part 2 (ii), and lists the names and locations of biodefence facilities declared in CBM Form A, part 2 (iii), specifying the year(s) they were declared. Grey cells indicate that there was no CBM submission or that it was not made publicly available in the respective year. “ND” indicates that the state ticked the “Nothing to declare” box in Form 0. “NN” indicates that the state ticked the “Nothing new to declare” box in Form 0. “-” indicates that no data were provided.

Country	Total funding in million EUR <sup>9</sup>						Name and location of biodefence facilities declared in CBM Form A, Part 2 (iii)	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
	2006	2007	2008	2009	2010	2011							
Australia	1.2	1.5	1.6	1.9	1.7	1.7	Human Protection and Performance Division, DSTO (Fishermans Bend)	x	x	x	x	x	x
Austria				0.01	0.03	0.05	Armament and Defence Technology Agency (Mödling)				x	x	x
Belgium						0.6	1. Centre de Technologies Moléculaires Appliquées (Brussels)						x
							2. Université Catholique de Louvain (Louvain-La-Neuve)						x
							3. Defense Laboratory Department (Vilvoorde)						x
							4. Research Laboratory for Vector Borne Disease (Brussels)						x
Bulgaria		-	-		-	-	National Center of Infectious and Parasitic Diseases, Ministry of Health (Sofia)		x	x		x	x
Canada						6.0+	1. Defence R&D Canada (Suffield)						x
							2. Defence R&D Canada (Valcartier)						x
Cyprus						ND	<i>Nothing to declare</i>						ND
Czech Rep.	-			-	-	-	1. Central Military Health Institute, Department Těchonin (Těchonin)	-			-	-	x

<sup>9</sup> National currencies were converted to Euros using the online service, <http://www.finanzen.net/waehrungsrechner>. 15 April of each respective year, the deadline for submitting the CBM to the UN, was selected as the date for the currency conversion.

Country	Total funding in million EUR <sup>9</sup>						Name and location of bio-defence facilities declared in CBM Form A, Part 2 (iii)	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
	2006	2007	2008	2009	2010	2011							
							2. Central Military Health Institute, department Prague (Prague)	-			-	-	x
							3. Institute of Molecular Pathology (IMP) (Hradec Králové)	-			-	-	x
							4. Laboratory for biological monitoring and protection (Mlín)	-			-	-	x
Denmark		1.9	2.0		2.9	2.8	Centre for Biosecurity and Biopreparedness (Copenhagen)		x	x		x	x
Ecuador						ND	<i>Nothing to declare</i>						ND
Estonia					ND	ND	<i>Nothing to declare</i>					ND	ND
Finland	-	-	-	-	-	-	Centre for Biothreat Preparedness (Helsinki)	x	x	x	x	x	x
Georgia				0.3	1.7	1.6	1. National Center for Disease Control and Public Health (Tbilisi)				x	x	x
							2. Laboratory of Ministry of Agriculture of Georgia (Tbilisi)				-	x	x
Germany	12.9	11.7	11.2	8.4	9.9	9.5	1. NBC-Defence and Self-Protection School of the Bundeswehr (Sonthofen)	x	x	x	x	x	x
							2. Bundeswehr Institute of Microbiology (Munich)	x	x	x	x	x	x
							3. Federal Armed Forces Scientific Institute for Protection Technologies (Munster)	x	x	x	x	x	x
							4. Central Institute of the Bundeswehr Medical Service (Kiel)	-	-	x	x	-	x
Greece					ND	<i>Nothing to declare</i>						ND	
Ireland	-	-	-	-	-	-	“no national programme to conduct biological defence R & D ...”	-	-	-	-	-	-
Latvia						-	Infectology Center of Latvia (Riga)						x
Liechtenstein		NN	NN	NN	NN	NN	<i>Nothing new to declare</i>		NN	NN	NN	NN	ND
Lithuania	ND	ND	ND	ND	ND	ND	<i>Nothing to declare</i>	ND	ND	ND	ND	ND	ND
Malaysia	ND					ND	<i>Nothing to declare</i>	ND					ND
New Zealand	ND	ND	ND		ND	ND	<i>Nothing to declare</i>	ND	ND	ND		ND	ND
Norway			-		-	-	Institute of Microbiology, Armed Forces Medical Services (Oslo)			x		x	x
Portugal					0.2	0.2	Laboratório de Bromatologia e Defesa Biológica (Lisbon)					x	x
Romania			-	NN	NN	-	Laboratory of Microbiology and Epidemiology (Bucharest)			x	NN	NN	x
Sweden	2.8	2.8	2.7	2.7	3.1	3.5	Swedish Defence Research Agency (Umea)				x	x	x

Country	Total funding in million EUR <sup>9</sup>						Name and location of bio-defence facilities declared in CBM Form A, Part 2 (iii)	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
	2006	2007	2008	2009	2010	2011							
Switzerland	0.6	0.6	0.6	1.0	1.7	3.9	1. Spiez Laboratory, Swiss NBC Defence Establishment (Spiez)	x	x	x	x	x	x
							2. Institute of Virology and Immunoprophylaxis (Mittelhäusern)	-	-	-	-	x	x
							3. National Reference Center for Emerging Viral Infections (Geneva)	-	-	-	-	x	x
							4. National Reference Center for Anthrax (Bern)	-	-	-	-	x	x
							5. Bacteriological Laboratory Regional Competence Center- Regional Laboratory West (Geneva)	-	-	-	-	x	x
							6. Virological Laboratory Regional Competence Center- Regional Laboratory West (Geneva)	-	-	-	-	x	x
							7. Diagnostic Laboratories of the Institute of Microbiology- Regional Competence Center- Regional Laboratory West (Lausanne)	-	-	-	-	x	x
							8. Labor Spiez- Regional Competence Center- Regional Laboratory West Central (Spiez)	-	-	-	-	x	x
							9. Department of Medical Microbiology- Regional Competence Center- Regional Laboratory East Central (Luzern)	-	-	-	-	x	x
							10. Institute of Medical Microbiology – Regional Competence Center- Regional Laboratory East (Zurich)	-	-	-	-	x	x
							11. Institute for Medical Virology- Regional Competence Center- Regional Laboratory East (Zurich)	-	-	-	-	x	x
							12. Cantonal Laboratory of Basel-Stadt- Regional Competence Center- Regional Laboratory North (Basel)	-	-	-	-	x	x
							13. Cantonal Institute of Microbiology- Regional Competence Center- Regional Laboratory South (Ticino)	-	-	-	-	x	x
Thailand					NN	NN	<i>Nothing new to declare</i>					NN	NN
Turkey						2.3	1. IDC (Ankara)						x
							2. Refik Saydam National Public Health Agency (Ankara)						x
Ukraine						-	“A national programme for research and development in bio-defence does not exist in Ukraine.” ( <i>Authors translation</i> )						-
UK	73.6	75.0	77.6	65.7	53.6	57.8	Defence Science and Technology Laboratory (Porton Down, Salisbury)	x	x	x	x	x	x

Country	Total funding in million EUR <sup>9</sup>						Name and location of biodefence facilities declared in CBM Form A, Part 2 (iii)						Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011	
	2006	2007	2008	2009	2010	2011													
USA					451.6	475.2	1. Plum Island Animal Disease Center (Greenport, TX)								x	x			
							2. Tyndall AFB, Research Road (Tyndall, FL)										x	x	
							3. Tyndall AFB, Barnes Drive (Tyndall, FL)										x	x	
							4. Lothar Salomon Life Sciences Test Facility (Dugway, UT)										x	x	
							5. U.S. Army Edgewood Chemical and Biological Center (Aberdeen, MD)										x	x	
							6. U.S. Army Medical Research Institute of Chemical Defense (Aberdeen, MD)										x	x	
							7. U.S. Army Medical Research Institute of Infectious Diseases (Fort Detrick, MD)										x	x	
							8. Walter Reed Army Institute of Research (Silver Spring, MD)										x	x	
							9. Battelle Biomedical Research Center (West Jefferson, OH)										x	x	
							10. Naval Surface Warfare Center – Dahlgren Division (Dahlgren, VA)										x	x	
							11. Naval Research Laboratory (Washington, DC)										x	x	
							12. Naval Medical Research Center (Silver Springs, MD)										x	x	
							13. Brookhaven National Laboratory (Upton, NY)										x	x	
							14. Idaho National Laboratory (Idaho Falls, ID)										x	x	
							15. Los Alamos National Laboratory (Los Alamos, NM)										x	x	
							16. Lawrence Livermore National Laboratory (Livermore, CA)										x	x	
							17. Oak Ridge National Laboratory (Oak Ridge, TN)										x	-	
							18. Pacific Northwest National Laboratory (Richland, WA)										x	x	
							19. Sandia National Laboratories (Albuquerque, NM)										x	x	
							20. C.W Bill Young Center for Biodefense and Emerging Infectious Diseases (Bethesda, MD)											x	x
							21. Integrated Research Facility- Rocky Mountain laboratories (Hamilton, MT)											x	x
							22. Dale and Betty Bumpers Vaccine Research Center (Bethesda, MD)											x	x
							23. Coordinating Center for Infectious Diseases (Atlanta, GA)											x	x
							24. Division of Vector-borne Infectious Diseases, CDC (Fort Collins, CO)											x	x
							25. Mass Spectrometry Toxin Laboratory, CDC (Atlanta, GA)											x	x

Country	Total funding in million EUR <sup>9</sup>						Name and location of bio defence facilities declared in CBM Form A, Part 2 (iii)					
	2006	2007	2008	2009	2010	2011	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
											x	x
											x	x
											x	x
											-	x
											-	x

The following table summarizes the data declared in **CBM Form G** of the publicly available CBM submissions from 2011 and compares them with the information in publicly available CBMs from 2006 to 2010. It provides the names and locations of vaccine production facilities declared in CBM Form G, the year(s) they were declared, and the diseases against which vaccines were produced. Grey cells indicate that there was no CBM submission or that it was not made publicly available in the respective year. “ND” indicates that the state ticked the “Nothing to declare” box in Form 0. “NN” indicates that the state ticked the “Nothing new to declare” box in Form 0. “-” indicates that no data were provided.

Country	Name and location of vaccine production facilities declared in CBM Form G	Cat. A diseases <sup>10</sup>	Other diseases	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
Australia	1. CSL Limited (Parkville)	no	yes	x	x	x	x	x	x
	2. Q-Gen Ltd. ( <i>no location provided</i> )	no	yes	-	-	-	x	x	x
	3. Ludwig Institute for Cancer Research (Heidelberg, VIC)	no	yes	-	-	-	x	x	x
Austria	<i>Nothing to declare</i>	n.a.	n.a.				ND	ND	ND
Belgium	1. GlaxoSmithKline Biologicals S.A (Rixensart)	_11	_11						x
	2. Pfizer Animal Health (Louvain-la-Neuve)	_11	_11						x
Bulgaria	1. BulBio- NCIPD Ltd (Sofia)	Haemorrh. fevers	yes		x	x		x	x
	2. National Diagnostic and Research Veterinary Medical Institute (Sofia)	Anthrax	yes		-	-		x	-
Canada	1. Artemis Technologies Inc. (Guelph)	no	yes						x
	2. Bioniche Life Sciences Inc. (Belleville)	no	yes						x
	3. Gallant Custom Laboratories Inc. (Cambridge)	no	yes						x
	4. Pfizer Animal Health (Saanichton)	no	yes						x

<sup>10</sup> As designated by the Centers for Disease Control and Prevention (CDC) in the USA.

<sup>11</sup> This information is not provided in the public version of the CBM.

Country	Name and location of vaccine production facilities declared in CBM Form G	Cat. A diseases <sup>10</sup>	Other diseases	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
	5. Novartis Animal Health Canada Inc. (Mississauga)	no	yes						x
	6. Novartis – Aqua Health (Charlottetown and Victoria)	no	yes						x
	7. Nutratech Inc. (Winnipeg)	no	yes						x
	8. Saskatchewan Research Council (Saskatoon)	no	yes						x
	9. Saskatoon Colostrum Co. Ltd. (Saskatoon)	no	yes						x
	10. Vetcovac Ltée. (Saint-Hyacinthe)	no	yes						x
	11. Vetech Laboratories Inc. (Guelph)	no	yes						x
	12. Biovet Inc. (Saint-Hyacinthe)	no	yes						x
	13. Intervet Canada Corp. (Kirkland)	no	yes						x
	14. Vétoquinol N.A. Inc. (Lavaltrie)	no	yes						x
<b>Cyprus</b>	<i>Nothing to declare</i>	n.a.	n.a.						ND
<b>Czech Republic</b>	1. Baxter BioScience s.r.o (Kostolec nad Černými Lesy)	no	yes	x			NN	ND	x
	2. Sevapharma a.s. (Prague)	no	yes	x			NN	ND	x
	3. Bioveta a.s. (Ivanovice nad Hané)	Anthrax	yes	x			NN	ND	x
	4. Dyntec s.r.o. (Terezín)	no	yes	x			NN	ND	x
	5. BIOPHARMA, Research Institute of Biopharmacy and Veterinary Drugs (Jíluvé u Prahy)	no	yes	x			NN	ND	x
<b>Denmark</b>	1. Statens Serum Institute (Copenhagen)	no	yes		x	x		NN	x
	2. Bavarian Nordic A/S (Kvistgard)	Smallpox	yes		x	x		NN	x
<b>Ecuador</b>	<i>Nothing to declare</i>	n.a.	n.a.						ND
<b>Estonia</b>	<i>Nothing to declare</i>	n.a.	n.a.					ND	ND
<b>Finland</b>	<i>Nothing to declare</i>	n.a.	n.a.	NN	NN	NN	NN	NN	ND
<b>Georgia</b>	<i>Nothing to declare</i>	n.a.	n.a.				ND	ND	ND
<b>Germany</b>	1. Novartis Vaccines and Diagnostics GmbH & Co. KG (Marburg)	Botulism	yes	x	x	x	x	x	x
	2. GlaxoSmithKline Biologicals (Dresden)	no	yes	x	x	x	x	x	x
	3. IDT Biologika GmbH (Rosslau)	Smallpox	yes	x	x	x	x	x	x
	4. Rhein Biotech GmbH (Düsseldorf)	no	yes	-	-	-	-	x	x
	5. Bavaria Nordic GmbH (Berlin)	Smallpox	no	-	-	-	-	x	x
<b>Greece</b>	<i>Nothing to declare</i>	n.a.	n.a.						ND

Country	Name and location of vaccine production facilities declared in CBM Form G	Cat. A diseases <sup>10</sup>	Other diseases	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
Ireland	Elanco Laboratories (Sligo) <sup>12</sup>	-	-	x	x	x	x	x	x
Latvia	<i>No data provided</i>	-	-						-
Liechtenstein	<i>Nothing new to declare</i>	-	-		NN	NN	NN	NN	NN
Lithuania	<i>Nothing new to declare</i>	-	-	NN	NN	NN	NN	NN	NN
Malaysia	Institute of Veterinary Services (Putrajaya)	no	yes						x
New Zealand	<i>Nothing to declare</i>	n.a.	n.a.	ND	ND	ND		ND	ND
Norway	1. Alpharma (Overhalla)	no	yes			x		x	x
	2. The National Veterinary Institute (Oslo)	no	yes			x		x	x
	3. Norwegian Institute of Public Health (Nydalen)	no	yes			x		x	x
Portugal	<i>Nothing to declare</i>	n.a.	n.a.					ND	ND
Romania	1. "Cantacuzino" National Institute of Research and Development for Microbiology and Immunology (Bucharest)	no	yes			-	-	x	NN
	2. National Society Pasteur Institute S.A. (Bucharest)	no	yes			x	x	-	NN
Sweden	1. SBL Vaccin AB (Solna)	no	yes	x	x	x	x	x	x
	2. UniTech Biopharma (Matfors)	no	yes	x	x	x	x	x	x
Switzerland	1. Crucell Switzerland AG (Bern)	no	yes	NN	NN	NN	NN	x	x
	2. Cytos Biotechnology AG (Schlieren)	no	no	NN	NN	NN	NN	x	x
	3. Pevion Biotech Ltd. (Ittingen)	no	yes	NN	NN	NN	NN	x	x
Thailand	The Government Pharmaceutical Organisation (Bangkok)	no	yes					x	x
Turkey	1. Konya Veterinary Control and Research Institute (Meram-Konya)	no	yes						x
	2. Pendik Veterinary Control and Research Institute (Pendik-Istanbul)	no	yes						x
	3. Central Veterinary Control and Research Institute (Ankara)	Anthrax	yes						x
Ukraine	1. Biofabrika Suma (Suma)	Anthrax	yes						x
	2. Biofabrika Dnepropetrovsk (Dnepropetrovsk)	no	yes						x
	3. Biofabrika Charkov (Charkov)	no	yes						x
	4. Biofabrika Cherson (Cherson)	Anthrax	yes						x
	5. Biofabrika Novogalechinsk (Kiev)	no	yes						x
	6. OOO "Ukrvetpromsnab" (Brovar)	no	yes						x

<sup>12</sup> Not currently active but maintains capacity to produce human or animal vaccines.



Country	Name and location of vaccine production facilities declared in CBM Form G	Cat. A diseases <sup>10</sup>	Other diseases	Decl. 2006	Decl. 2007	Decl. 2008	Decl. 2009	Decl. 2010	Decl. 2011
	7. Corporation "Ukrzoovetpromsnab" (Kiev)	no	yes						x
	8. Institute for Experimental and Clinical Veterinary medicine (Charkov)	no	yes						x
	9. Institute for Veterinary Medicine of the National Academy of Science (Kiev)	no	yes						x
	10. Closed Joint Stock Company "Biolek" (Charkov)	no	yes						x
	11. Pharmalife GmbH (Lvov)	no	yes						x
	12. Open Joint Stock Company "Pharmak" (Kiev)	no	yes						x
United Kingdom	1. Health Protection Agency, Centre for Emergency Preparedness and Response (Porton Down, Salisbury)	Anthrax	no	x	x	x	x	x	x
	2. MedImmune (Liverpool)	no	yes	x	x	x	x	x	x
	3. Novartis Vaccines and Diagnostics Limited (Liverpool)	no	yes	x	x	x	x	x	x
USA	1. Emergent BioDefense Operations Lansing Inc. (Lansing, MI)	Anthrax	no					x	x
	2. MassBiologics (Boston, MA)	no	yes					x	x
	3. Med Immune LLC (Gaithersburg, MD)	no	yes					x	x
	4. Merck & Co, Inc. (Whitehouse Station, NJ)	no	yes					x	x
	5. Organon Teknika Corporation LLC (Durham, NC)	no	yes					x	x
	6. Sanofi Pasteur Inc. (Swiftwater, PA)	no	yes					x	x
	7. Sanofi Pasteur Biologics Co. (Cambridge, MA)	Smallpox	no					x	x
	8. Wyeth Pharmaceuticals Inc. (New York, NY)	no	yes					x	x

### Research Group for Biological Arms Control

The aim of the Research Group is to contribute, through innovative research and outreach activities, to the universal prevention of biological weapons development, production and use. The focus of activities is twofold. Firstly, the Research Group contributes to preventing the erosion of the universal bioweapons prohibition by opposing norm-harming activities. Secondly, it develops new concepts and instruments for monitoring bioweapon relevant activities and for verifying and enforcing compliance with the norm against bioweapons.

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