

# Joint Action 2013 GPSD

Joint Market Surveillance Action co-funded by the European Union  
Agreement No: 2013 82 01



## Final Technical Report, Cots

Covering the period 1 January 2013 - 30 April 2015



Co-funded by  
the European Union



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## Disclaimer

This report arises from the Joint Market Surveillance Action on GPSD Products - JA2013, which received funding from the European Union in the framework of the 'Programme of Community Action in the field of Consumer Policy (2007-2013)'.

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## Executive Summary

This report presents the tasks undertaken and the results achieved in the Cots Activity of “Joint Market Surveillance Action on GPSD Products - JA2013” supported financially by the European Union under Grant Agreement No. 2013 82 01.

The activity was carried out by PROSAFE and 25 market surveillance authorities from 20 EU Member States (Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Germany, Greece, Iceland, Latvia, Lithuania, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden and the United Kingdom) plus two additional EEA Member States - Iceland and Norway.

The primary goals of the Action on Cots were to:

- build on the work undertaken during the previous Joint Actions (JAs) on Childcare Articles (CCA) - CCA1 (baby bath tubs and wheeled conveyances) & CCA2 (Highchairs), and thereby increase the safety of products within this product category
- ensure that cots, travel cots and items that can be combined with them are safe in use
- continue to support harmonisation of market surveillance across the EEA within this product sector

The participating 8 Member States who were involved in this specific Activity on cots were Belgium, Bulgaria, the Czech Republic, Germany, Greece, Malta, The Netherlands and Portugal, plus 1 EFTA Member - Iceland.

The approach to the Activity was typical in that the participating Market Surveillance Authorities undertook to:

- study the participating members’ national markets for the appropriate types of cots and travel cots;
- use this data to make decisions on sampling;
- visit manufacturers/importers/wholesalers/retailers to inspect and collect products;
- test all the cots samples at an appropriately skilled laboratory;
- carry out harmonised risk assessments;
- undertake follow-up actions and/or appropriate administrative activities on non-compliant products; and...
- report on follow up actions taken (in order to improve safety for consumers).

In total, 50 cots were selected. 31 travel (or folding) cots and 19 traditional (wooden or plastic) cots were sent for testing to the current standard for cots and travel cots, EN716:2008+A1:2013, plus some additional tests designed by the Activity.

92% of the cots failed to meet the requirements of the clauses contained within the current standard, which is a serious cause for concern. The results of the additional tests designed by this Activity highlighted some specific areas where the EN716 standard may not cover all necessary safety requirements, particularly in regards to the strength/durability of cot sides and air permeability of the fabric used in travel cots.

The test results were subject to risk assessments using the RAG tool. Following the results of this, the participating MSAs took enforcement actions on many of the models tested and also provided detailed feedback to the relevant CEN Working Group (TC 207 WG 4 for Cots) regarding their views on the standard, as there was a question regarding its suitability prior to the Activity starting.

Overall, it can be concluded that the goals of the Action were met.

**Caution!**

The above results are based on products that were sampled from the markets in the participating countries by experienced market surveillance inspectors that were looking for non-compliant and potentially unsafe products. As in any routine market surveillance activity, the results represent the targeted efforts that authorities undertake to identify unsafe products. They do not give a statistically valid picture of the market situation.

The samples were tested at accredited laboratories. The tests focused on those safety requirements that have the largest impact on consumer safety.

## Introduction

This is the final technical report prepared for the Cots Activity of the Joint Market Surveillance Action on GPSD Products - JA2013. The Joint Action received funding from the European Union in the framework of the 'Programme of Community action in the field of Consumer policy (2007-2013)'.

Funding for the testing of cots was granted due to the large number of reported accidents that involved children aged between 0-4 and cots (17,000 incidents were notified according to the European Injury Database between 2005 - 2007). It has also been reported by the US Consumer Product Safety Commission that more babies die in incidents involving cots and cot-related products than any other child care items. The main problems associated with cots products being entrapment (of fingers, limbs, head and neck) and strangulation.

The current European standard for cots EN 716-1&2:2008+A1:2013 [1] was revised in 2008 and amended in 2013 - but there remains a question regarding these changes, and whether they have resulted in a safe standard? Of particular concern are travel/folding cots, which are included within this legislation for the first time. Some cots currently available on the European market are sold with a combinable changing unit (that fits atop the cot), but some accidents concerning their combined usage have been reported. The current EN does not cover the combined use of these products.

It is also interesting to note that the latest version of EN 716-1&2:2008+A1:2013 is not a harmonised standard, and therefore falls under the legal framework of the General Product Safety Directive (GPSD 2001/95/EC) [2] which states that 'The purpose of this Directive is to ensure that products placed on the market are safe'. Consequently Market Surveillance Authorities from 9 participating EEA countries cooperated in executing this Joint Activity, to examine whether 'cots and items that can be combined with them are safe in use'.

## 1 Background Information

This chapter presents a short extract of the project description. The full description can be found in the Grant Agreement.

### 1.1 Title of the Activity

JA2013 CCA3 (Childcare Articles 3) Cots

The activity was part of Joint Market Surveillance Action on GPSD Products - JA2013.

The European Commission supported the Joint Action financially under the Grant Agreement No. 2013 82 01 in the framework of the 'Programme of Community action in the field of Consumer policy (2007-2013)'.

### 1.2 Participating Member States

The activity was undertaken by PROSAFE and 9 Market Surveillance Authorities (MSAs) from 8 Member States of the EU (Belgium, Bulgaria, the Czech Republic, Germany, Greece, Malta, The Netherlands and Portugal) and 1 Member of EFTA (Iceland) as follows:

BE - Federal Public Service Economy

BG - Commission for Consumer Protection

CZ - Czech Trade Inspection

DE - Bavarian State Ministry for Environment and Consumer Protection

GR - General Secretariat for Consumer Affairs

IS - Neytendastofa

MT - Malta Competition and Consumer Affairs Authority

NL - Nederlandse Voedsel en Waren Autoriteit

PT - Food and Economic Safety Authority

The applicant body that also took overall responsibility for the Joint Action was PROSAFE.

### 1.3 Overview of Key Staff in the Activity

The Activity Leader (AL) was Stamatia Chroni (Greece - now General Secretariat of Industry, Ministry of Economics, Development and Tourism).

The Activity Leader was supported by the PROSAFE Activity Coordinator (AC), Rebecca Morrison.

### 1.4 Main Objectives

The general objectives of the overall 2013 Activity were to continue to create conditions under which Member States could cooperate successfully on market surveillance activities and to co-ordinate a number of product activities exposing the results of the activities to the largest number of Member States national authorities possible.

The objectives of all the product activities of JA2013 were to ensure that childcare articles (cots and travel cots), toys, clothing, children's kick scooters and smoke detectors on the EU market are safe and carry the appropriate warnings and instructions.

The following specific objectives were identified for the method development activities:

- Improved coordination of all Joint Actions being managed by PROSAFE;
- Maintenance, implementation and further development of the existing best practice;
- Using an appropriate IT tool to make the information on PROSAFE'S activities more readily available to the Member States. The potentially confidential nature of this information will be taken into account;
- Operation of existing systems such as the Rapid Advice Forum, the Knowledge Base and other initiatives promoting the continuous improvement of national systems such as CIMS;
- Further development and roll out of PROSAFE's e-learning initiative focused on the market surveillance of consumer products including the development of additional e-learning modules.

### 1.5 Budgeted Activities

The specific aim of this JA was to test 50 cots and travel cots against the recently amended standard EN7161&2:2008+A1:2013. This was to ensure that cots, travel cots and items that can be combined with them, such as changing tables, are safe in use. All 50 samples were tested to this EN standard and, in addition, were also subject to some further tests designed by this JA that went beyond the requirements of this standard. This was because there was a feeling amongst the participants that the standard may not cover all necessary safety requirements.

### 1.6 The Phases of the Activity

The Activity was a market surveillance action that followed these phases:

- Deciding on sampling criteria

Each of the 9 MSAs presented information on those cots, travel cots and accessories that are present in their economies, alongside details of issues, complaints, accidents, etc. This overview helped to deliver a snapshot of the types of cots and cot accessories currently being sold on the markets of the MSAs, and provided a basis for the sampling criteria within the scope of the Action. It was finally agreed that MSAs would sample:

- Cots
- Cots with accessories (in the form of a changing table)
- Travel or folding cots
- Travel or folding cots with accessories (in the form of a changing table)

- Sample products

Using the data gathered above, the Activity decided on how the MSAs should carry out sampling, i.e. how many and what type of cots would be taken by each authority, when the sampling would take place, and how many samples should be taken of each cot

- Test products at a laboratory

The Activity issued a call for tender and selected an appropriate laboratory, then the MSAs were instructed how to send their products for testing. The cots were shipped and the laboratory submitted test reports to each MSA after the testing had taken place

- Risk assessment

The participants developed a common approach for risk assessment following the methodology described in the Risk assessment guidelines for Consumer Products published in Commission Decision 2010/15/EU part IV, Chapter 5 for the cots to assure that the resulting assessments were harmonised to the extent possible, using the results of the tests undertaken from EN716<sup>1</sup>. The MSAs then further assessed the risk for the cots applying the results of the additional tests developed by the JA participants

- Follow-up on non-compliant products and exchange information on follow-up activities

The Member State authorities directed their follow-up activities at the economic operators, i.e. consulted the economic operators on the results from the risk assessments, agreed on appropriate measures and followed-up to ensure that these were properly implemented. The resulting measures were reported to the Joint Action and shared with all participants

## 1.7 Timeline for Activity

The timing of the major tasks undertaken during this 26 month activity is given below:

<i>January 2014</i>	JA2013 start date
<i>February 2014</i>	JA2013 Launch Meeting
<i>May 2014</i>	CCA3 Kick Off Meeting (with stakeholders) and Planning of Activity for Cots undertaken
<i>September 2014</i>	CCA3 Meeting 2
<i>October 2014</i>	Set up means for exchange of information, Sampling schemes developed, Guideline for best practice of market surveillance activities, Develop test criteria
<i>December 2014</i> and contract signed	Expression of Interest (EOI) for testing Cots, tender documents sent, lab appointed
<i>January 2015</i>	CCA3 Meeting 3, market surveillance/sampling undertaken
<i>March 2015</i>	Samples to lab, testing begins
<i>August 2015</i>	Testing completed and test reports circulated
<i>September 2015</i>	CCA3 Meeting 4 (at test lab), risk assessments performed, follow up actions begin
<i>December 2015</i>	CCA3 Meeting 5, Meeting with CEN Working Group to present results
<i>January 2016</i>	JA2013 Final Conference, final actions completed
<i>February 2016</i>	Final Technical Report delivered



<sup>1</sup> For the remainder of this report, most references to the test standard EN716-1&2:2008+A1:2013, have been shortened to EN716

## 2 Setting up the Product Activity

### 2.1 Tendering Process for Test Laboratories

A list of potential testing laboratories from within the EEA was populated by the participants and the Activity Coordinator. An 'Expression of Interest' for the testing of cots and travel cots (10 of which were to be supplied with an accessory in the form of a changing table) was prepared and sent to a total of 25 laboratories, of which 8 replied detailing their experience of testing cots, relevant accreditations and their relationships with cot manufacturers.

A call for tender was then prepared (using PROSAFE's standard procedures and detailing all tests/methods required) and sent to 7 of the responding labs (the eighth laboratory was not accredited for testing to EN716 so was excluded from the remainder of the tendering process). In addition, the call was placed on the PROSAFE website. A total of 6 laboratories replied. These were evaluated at length, and following a detailed evaluation the testing contract was awarded.

The purpose of the testing was to check that the cots supplied met all tests within the current standard - EN716-1&2:2008+A1:2013. In addition, some extra tests designed by the Activity were also included (specific details of how the non-standard tests were to be performed were provided within the tender documentation).

### 2.2 Selecting Products, Sampling

The Childcare Articles activity under JA2013 focussed on cots, as they had been selected using the annual Priority List task that has been in place and updated annually since JA2011. In this, each country within the EU and EFTA is asked to propose those CCA products that are causing them the most concern, their responses being ranked in order to determine the priority products that the Joint Actions should focus on.

The Grant Agreement also stated that the JA was to 'test cots and travel cots against the recently amended standard EN716-1&2:2008+A1:2013 'children's cots for domestic use with an internal length greater than 900mm but not more than 1400mm''. This standard is applicable also for folding cots, which are those that 'can be dismantled or folded without the use of a tool for transportation'. The Grant Agreement also asked the participants to ensure that cots, travel cots and items that can be combined with them are safe in use. Therefore, the testing of cots, travel cots and compatible accessories was a requirement for the Action. Following the MSAs investigation into their own markets for Cots, it was agreed that the JA would test:

- 50 cots
- a mix a traditional and travel/folding cots
- 10 of which would be supplied with an accessory in the form of a changing table

The Activity Coordinator sent a memo to all the MSAs giving pictorial examples of which types of cots to sample - see Table 1 overleaf.

Table 1: The 4 types of Cots targeted by the Childcare Articles Activity

	<p><b>Cots</b></p> <p>Often of wood or plastic construction and sometimes with a drop-side.</p>
	<p><b>Cots with accessories</b></p> <p>Accessories must be supplied with the cot and not available as an 'add on item'. These can include changing tables only for the purposes of this project.</p>
	<p><b>Folding or travel cot</b></p> <p>Usually of fabric construction, these can fold down for easy transportation.</p>
	<p><b>Folding or travel cot with accessories</b></p> <p>Accessories must be supplied with the cot and not available as an 'add on item'. These can include changing tables only for the purposes of this project.</p>

Thereafter, the JA discussed how the target of 50 samples would be divided amongst the 9 MSAs and what combination of products would be sampled. As a result, each participant was provided with a number of models to obtain from their market; this number being based on the available budget (as per the Grant Agreement) for testing being shared between the participating MSAs.

Each of the 9 participating countries supplied a mix of cots as set out in Table 2 below:

Table 2: Number of samples of each of the 4 types of Cots that each MSAs supplied

	BELGIUM	BULGAIRA	CZECH REPUBLIC	GERMANY	GREECE	ICELAND	MALTA	NETHERLANDS	PORTUGAL	TOTAL
COTS	3	1	2	4	2	3	1	3	0	19
COTS WITH ACCESSORIES	0	0	0	0	0	0	0	0	0	0
TRAVEL COTS	3	3	3	1	1	2	3	2	3	21
TRAVEL COTS WITH ACCESSORIES	0	2	0	1	2	1	1	1	2	10
total	6	6	5	6	5	6	5	6	5	50

The methodology for the selection of cot samples varied from country to country. In total, some 150 economic operators were inspected in order to gather the 50 samples tested. This included:

11 Manufacturers

2 Importers

7 Distributors

24 Retailers (a mix that included large chains and small independents)

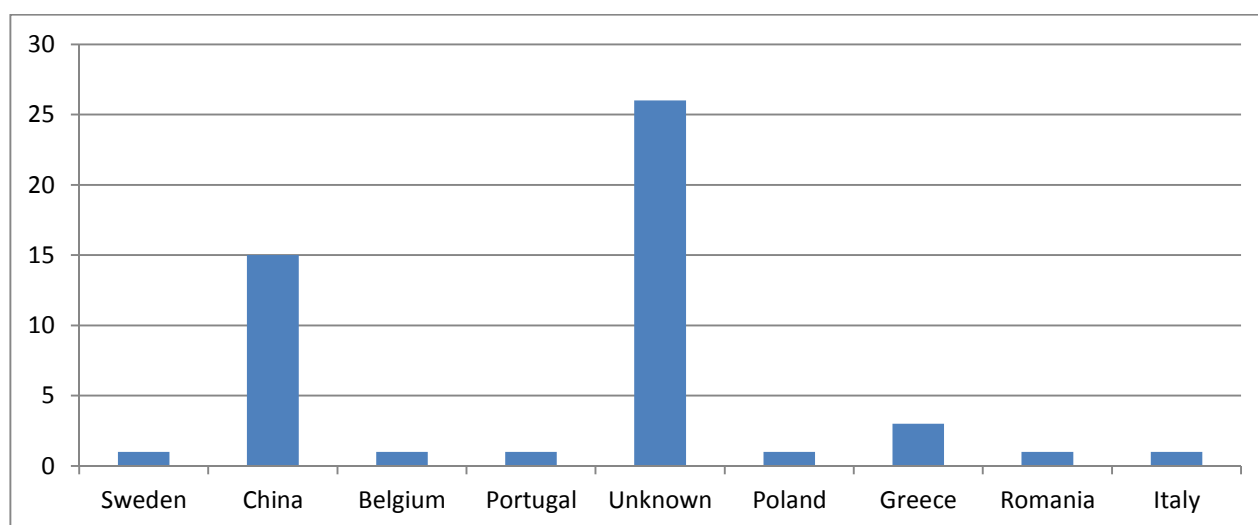
100+ online inspections

The number of online inspections was high, as the Market Surveillance Inspectors in some instances used the internet to seek out products that could be visually seen to demonstrate a cause for concern e.g. the presence of possible snagging risks, footholds, head entrapments, etc.

Despite the MSAs agreeing to sample (traditional) cots with a changing table, you can see from Table 2 above that all 10 samples supplied with an accessory were in fact travel cots - as these were widely available, popular with consumers and less expensive.

The MSAs also recorded detail regarding the Country of Origin for the 50 sampled cots as detailed in Figure 1 below:

Figure 1: Country of Origin for all 50 Cots sampled



As can be seen above, 26 samples (or 52%) were of unknown origin, 15 cots (or 30%) were manufactured in China and only 9 (or 18%) came from Europe.

## 3 Testing

### 3.1 The Test Programme

Testing is usually required to establish the extent to which a product represents a safety risk to users and this is normally undertaken in accordance with the applicable safety standard. But, in the case of cots, the test standard, EN716-1&2:2008+A1:2013, was thought to be deficient in some areas. Consequently, the JA participants decided to develop some additional test requirements beyond those contained within EN716.

Prior to testing, the cots were stored in ambient conditions for at least one week before being assembled for use according to their instructions. Tests were conducted on 1 sample per cot model, and each test was undertaken in the cot's most onerous position (as regards the height of cot base, number of accessories attached, use of test masses, etc.). If a failure occurred on a cot during testing, tests continued unless the failure rendered the cot unusable.

#### 3.1.1 Testing based on EN716-1&2:2008+A1:2013

The EN716 tests applied were as follows:

#### 4.0 Safety requirements

##### 4.1 General

##### 4.2 Materials

##### 4.2.1 Materials and surfaces

##### 4.2.2 Flammability of textiles, coated textiles and plastics coverings

##### 4.3 Initial stability

##### 4.4 Construction

##### 4.4.1 General

##### 4.4.2 Holes, gaps and openings on the inside of the cot

##### 4.4.3 Head entrapment on the outside of the cot

##### 4.4.4 Shear and squeeze points

##### 4.4.5 Snag points

##### 4.4.6 Locking systems

##### 4.4.7 Cot base

##### 4.4.8 Sides and ends

##### 4.4.9 Cot rim

##### 4.5 Final stability

##### 4.6 Mattress size

##### 5 Packaging

##### 6 Instructions for use

##### 7 Marking

#### 3.1.2 Further tests developed by the Activity

The additional tests developed by the Activity (the "JA" tests) were undertaken following the testing to the EN standard. The additional tests were as follows:

1. Test for the ability to collapse a folding cot by a child crawling underneath (if the small head probe - an item of test equipment designed to replicate the head of a 6-9 month old child who can crawl - passed under the cot, a 50N force was applied, with a test dummy (mannequin representing a baby) placed in the three most onerous positions)
2. Check of cot/folding cot accessories against the applicable standard (EN12221:2008+A1:2013 for changing tables).
3. Identify (macroscopically) additional hazards resulting from the combined use of cots/folding cots with the accessories supplied (i.e. a changing unit). This expert visual examination was based on CEN/TR 13387 [4], CEN Guide 12 [5] and ISO Guide 50 [6] (e.g. entrapment of body parts due to moving parts, protrusions, cords/ribbons/loops; ingestion; choking; suffocation; sharp edges;

inadequate stability; inadequate structural integrity; inadequate protection; footholds; inadvertent release of locking mechanisms/attachments, etc.)

4. Rattle test to check the effectiveness of the fixing and fastening devices (according to the test method described in EN1930: 2011 [7] for safety barriers)
5. Push pull test to check the strength of the cots' sides and the effectiveness of the locking mechanisms (according to the test method described in EN1930:2011)
6. For 9 folding cots (1 per MSA) - to test the air permeability of a folding cot's fabric according to the test methods described in EN ISO 9237:1995 [8] and ASTM D737 [9]

Following testing, 2 test reports were delivered by the laboratory for each cot model supplied. Report 1 covered all EN tests and a second report covered the JA designed tests (except the air permeability tests which were reported separately for the 9 cots subject to these additional examinations). All the reports included the test results obtained and indicated the non-compliance to the particular clauses of the standard/test clause being used. Also included were pictures of any non-compliances, as well as comments or other relevant clarifications.

## 3.2 Results

### 3.2.1 Results of tests to EN716

Table 3 gives an overview of the non-compliances found within the 50 samples when tested to the current version of the EN standard for cots. The tests showed that 35 samples (or 70%) failed clause 4 of EN716 - which relates the mechanical parts of the standard. The table also shows that high levels of failures for marking, instructions and packaging were also identified.

*Table 3: Distribution of non-compliant samples based on tests to EN716*

Clause	Title	Number of tested samples	Number of non-compliant samples	Failure rate
4	Safety requirements	50	35	70%
5	Packaging	32	7	22%
6	Instructions for use	40	30	75%
7	Marking	49	33	67%
4,5,6,7	All clauses	Up to 50	46	92%

Table 4, below, provides a breakdown of the test failures to EN716 where only 4 of the 50 samples (8%) passed all of the tests.

The table also demonstrates the effectiveness of the sampling activities - that inspectors were able to select potentially non-compliant products when they chose the cots for testing.

*Table 4: Number of failures attributed to particular test clauses (all 50 samples)*

Clause	Requirement	Number of non-compliant samples	Failure rate
4.1	General	0	0%
4.2	Materials	1	2%
4.2.1	Materials and surfaces	1	2%

4. 2. 2	Flammability of textiles, coated textiles and plastics coverings	0	0%
4.3	Initial stability	2	4%
4.4	Construction	33	66%
4.4.1	General	7	14%
4.4.1.1	Edges and protruding parts	3	6%
4.4.1.2	Self-tapping screws	0	0%
4.4.1.3	Labels and decals	0	0%
4.4.1.4	Small parts	6	12%
4.4.1.5	Castors and wheels	0	0%
4.4.2	Holes, gaps and openings on the inside of the cot	18	36%
4.4.2.1	General	15	30%
4.4.2.2	Assembly holes	5	10%
4.4.2.3	Distance between cot base and sides and ends	7	14%
4.4.2.4	Openings in mesh sides and ends	1	2%
4.4.2.5	Distance between slats of the cot base	3	6%
4.4.2.6	Openings in mesh of the cot base	0	0%
4.4.3	Head entrapment on the outside of the cot	7	14%
4.4.4	Shear and squeeze points	0	0%
4.4.4.1	Shear and squeeze points when setting up and folding	0	0%
4.4.4.2	Shear and squeeze points under the influence of powered mechanisms	0	0%
4.4.4.3	Shear and squeeze points during use	0	0%
4.4.5	Snag points	8	16%
4.4.6	Locking systems	3	6%
4.4.6.1	Locking systems for folding cots	3	6%
4.4.6.2	All locking systems	0	0%
4.4.7	Cot base	16	32%
4.4.7.1	Folding mattress base and cot base	12	24%
4.4.7.2	Adjustable cot base	5	10%
4.4.7.3	Strength of the cot base	12	24%
4.4.8	Sides and ends	9	18%
4.4.8.1	Movable sides	4	8%
4.4.8.2	Distance between footholds and top of cot sides and ends	5	10%
4.4.8.3	Strength of side and end components	4	8%
4.4.8.4	Strength of frame and fastenings	0	0%
4.4.9	Cot rim	0	0%
4.5	Final stability	1	2%
4.6	Mattress size	0	0%
5	Packaging	7	14%
6	Instructions for use	30	60%
7	Marking	33	66%

Figure 2: Overview of results to EN716 (as percentages of all non compliances to EN 716)

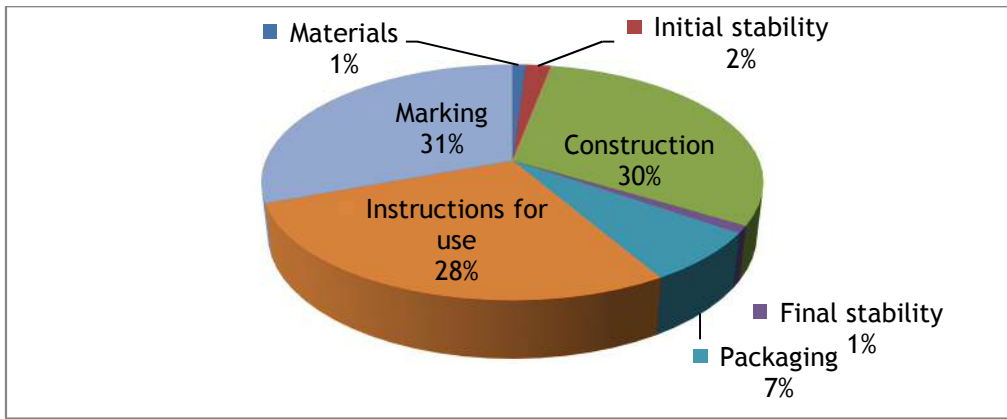
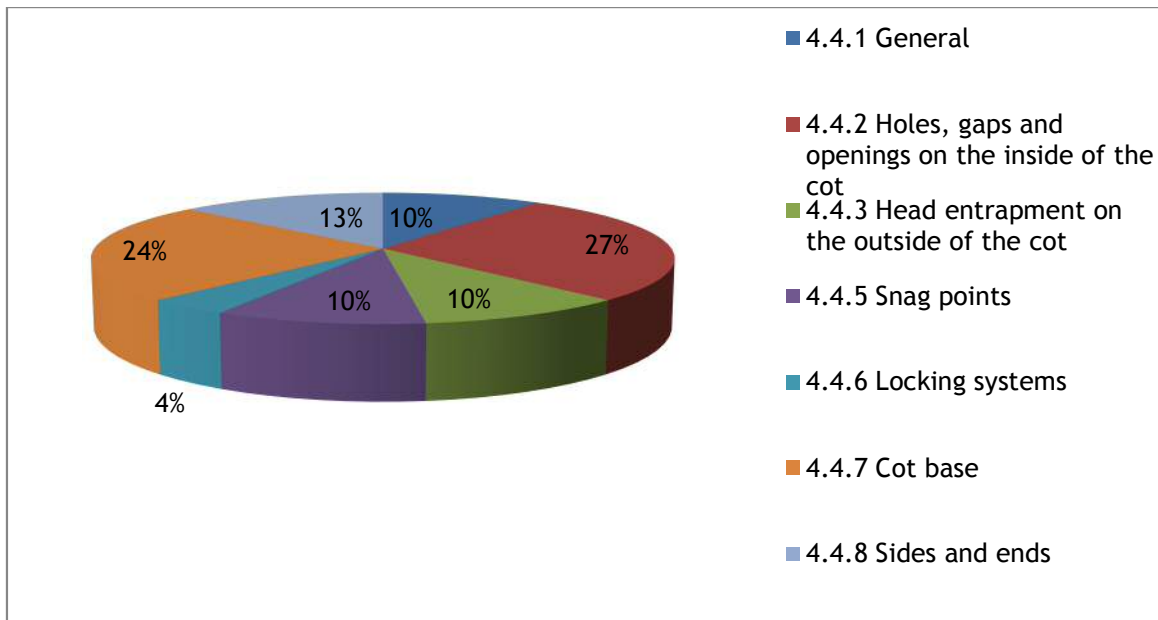


Figure 2 above gives an overview of the results of all samples according to EN716, and examines the different types of failures as a percentage of all failures seen. Figure 3 below analyses the types of failures seen under Clause 4.4 of EN716 only, all of which relates to the physical construction of the cots.

Figure 3: Breakdown of failures attributed to the sub clauses of Cl 4.4 of EN716



Many of the failures to clause 4.4 relate to holes, gaps and openings on the inside of the cot - which included finger entrapment in screw holes inside wooden cots, finger entrapment in the locking systems of drop side cots, limb/head entrapment between the slats in cot bases, limb/head entrapment between the slats in cot sides, limb/head entrapment between cot bases and cot sides.

Some examples are shown below:



*Picture 1: Showing potential finger entrapment*



*Picture 2: Showing potential limb entrapment*

There were a considerable number of non-compliances relating to all the other hazards contained within clause 4.4 - including those that are easy for the manufacturers to recognise and rectify - such as poor construction, snagging points, footholds and locking systems. Additionally, one failure for materials and surfaces was seen - lead was found in the paint.



*Picture 3: Poor construction - failure of slats in cot base*



*Picture 4: Failure for footholds*



*Picture 5: Failure for snagging points*





Picture 6: Failure for lead in painted cot end

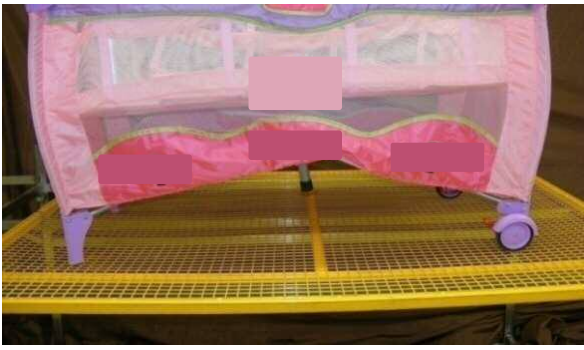
### 3.2.2 Results of further tests developed by the Activity

As stated earlier in this report, the participants felt that the current standard for cots (EN716) is deficient in some areas. As a consequence the JA designed the 6 additional tests detailed in 3.1 earlier in this report. The results can be seen in Table 5 below:

Table 5: Distribution of non-compliant samples based on the JA designed tests

Title	Number of tested samples	Non-compliant samples	Failure rate
Ability to collapse a travel cot from underneath	30	2	7%
Check of relevant samples to EN12221 for Changing Tables (only applicable to those supplied with a changing table)	10	8	80%
Macroscopic (expert visual) inspection of cot with changing table attached	10	9	90%
Rattle test (from EN1930 - Safety Barriers)	50	0	0%
Push pull test (from EN1930)	41	7 (6 of 7 were travel cots)	17%
Air permeability of a fabric travel cot sides/ends	9	6 where a level of '0' (i.e. nil air permeability) was given in either test method used	67%

The first test listed in Table 5, above, was designed to replicate the possible risk created by a small child crawling under a folding or travel cot whilst a baby was sleeping inside. 2 samples failed this test.



Picture 7: A travel cot collapses when a 50N force is applied



Picture 8: The possible risk resulting when a child crawls under a travel cot

The Grant Agreement required that the participants should establish whether ‘items that can be combined with cots [and travel cots] are safe in use’ so the participants sampled 10 cots that were sold with a changing unit and tested them to EN12221:2008+A1:2013, the current standard for baby changing units. As can be seen below, 8 samples did not meet the requirements.

Table 6: Distribution of non-compliant samples based on EN12221:2008+A1:2013

Clause	Title	Number of samples tested	Non-compliance	Failure rate
4.1.	Dimensions	10	8	80%
5.1.1.	Entrapment of fingers	10	7	70%
5.1.2.	Entrapment of limbs	10	0	0%
5.1.3.	Entrapment of head, neck and torso	10	0	0%
5.1.4.	Cords, strings and other narrow fabrics	8	6	75%
5.1.5.	Loops	7	1	14%
5.2.	Edges and protruding parts	10	0	0%
5.3.	Moving parts	7	0	0%
5.4.	Locking and folding mechanisms of the complete unit	1	1	100%
5.5.	Small detachable components	10	0	0%
5.6.	Castors/wheels	0	0	0%
5.7.	Self-tapping screws	0	0	0%
5.8.	Stability	10	1	10%
5.9.	Strength	10	0	0%
5.10.	Extension elements	0	0	0%
5.11.	Barriers	9	0	0%
5.12.	Changing board flap	0	0	0%
5.13.	Child bath tub	0	0	0%
6.	PLASTIC PACKAGING	2	0	0%

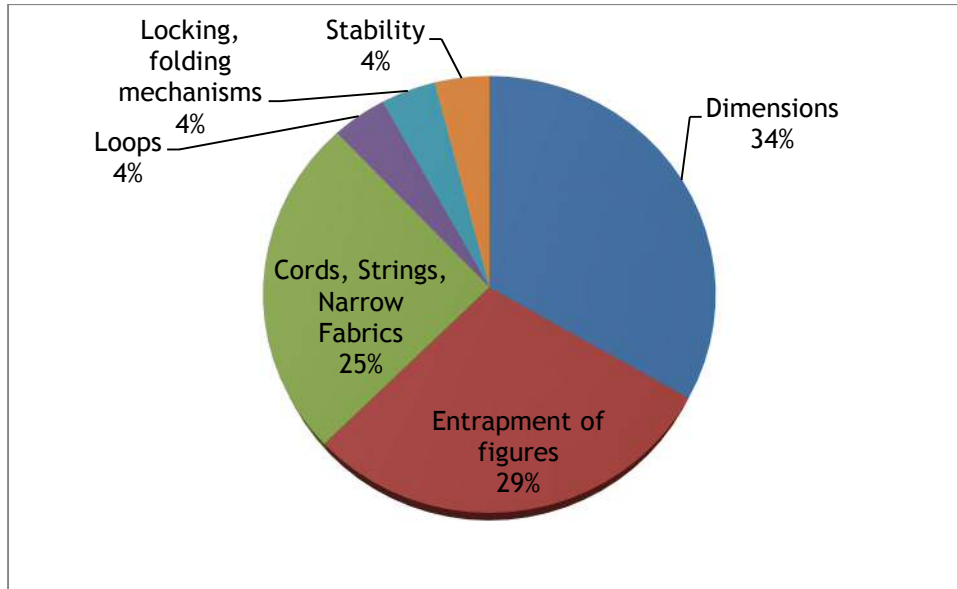
8 of the 10 changing units examined failed for ‘dimensions’, they are too small to safely hold a growing child.

7 failed for the entrapment of fingers and 6 failed for cords, strings and other narrow fabrics.

8 of the 10 changing units sampled were supplied with a restraint system, designed to hold a child in place when using the changing unit - but in 6 cases the presence of this strap gives an incorrect indication of safety to parents, as the presence of the strap can cause a serious suffocation hazard.

Figure 4 below examines the each failure to EN12221:2008+A1:2013, as a percentage of all failures seen.

Figure 4: Distribution of non-compliances according to EN12221:2008+A1:2013



The use of the 10 changing units atop a cot was then subject to a macroscopic (visual or common sense) check, following the guidelines set out in CEN/TR 13387, CEN Guide 12 and ISO Guide 50. This process identified some additional mechanical hazards that resulted from the combined use of a cot and changing table, that are not covered by EN7161&2:2008+A1:2013 or EN12221:2008+A1:2013. The 12 points checked are detailed in Table 7.

Table 7: Distribution of non-compliant samples according to the 12 point macroscopic study

Clause	Title	Number of samples tested	Non-compliance	Failure rate
1	Hazards from gaps and openings	10	5	50%
2	Hazards from moving parts	8	7	88%
3	Entanglement hazards	8	1	13%
4	Choking hazards	10	0	0%
5	Ingestion hazards	10	0	0%
6	Suffocation hazards	10	0	0%
7	Hazardous edges and projections	10	0	0%
8	Hazards associated with stability	9	0	0%
9	Structural integrity	1	0	0%

10	Protective function	8	1	13%
11	Hazards due to inadvertent release of attachment mechanisms	10	2	20%
12	Hazards with products designed to fold	0	0	0%

The main areas for concern from the macroscopic study were:

‘Clause 1 - Hazards from gaps and openings’ where the potential entrapment of head, neck, limbs and fingers was observed in some of the samples tested.

‘Clause 2 Hazards for moving parts’, where 7 instances of a crushing hazard was identified between the changing unit and cot top, resulting in a compression action that could result in finger damage.



Picture 9: Head entrapment was observed



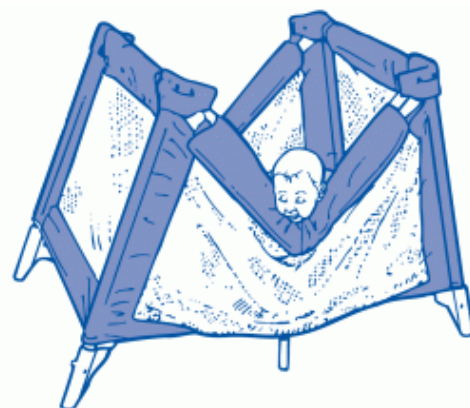
Picture 10: Finger crushing hazard

All 50 cot samples were then subject to the Rattle Test, taken from EN1930:2011 the standard for Safety Barriers which was included to check the effectiveness of the fixing and fastening devices, but all 50 samples passed this test.

The samples were then subject to the Push Pull Test, also taken from EN1930:2011. The idea of this test was to check the strength of the cot sides, in particular the locking mechanism found in the middle of a folding cot’s side. 7 samples failed this test, 6 of which were travel/folding cots. The potential risk associated with this type of failure is severe, as is shown below.



Picture 11: Failure of a travel cot’s locking mechanism



Picture 12: The potential hazard associated with this type of failure

The final JA designed test related to the air permeability of the fabric used in the construction of travel cots. The participants were aware of a case in the USA, where an infant died as a result of positional asphyxiation - he suffocated in a travel cot when sleeping with his mouth and nose pressed against the fabric cot side. Two similar, but yet unproven, cases were reported in the Netherlands last year. As a result, each participating MSA selected 1 travel cot for examination. Two test methods were identified -

ASTM D737:2012 and EN ISO 9237:1996 - and used to establish the air permeability of these fabrics (or the rate of air passing through). The results are shown in Table 8:

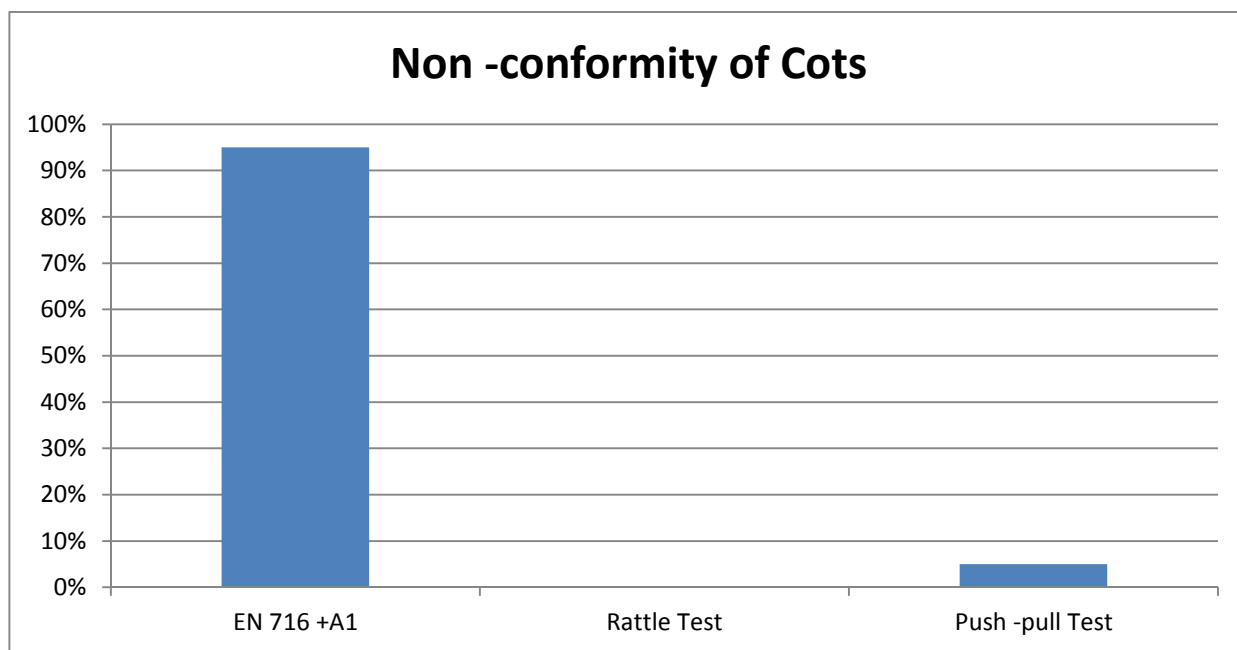
*Table 8: Results of the air permeability tests according to both methods used*

Samples	1	2	3	4	5	6	7	8	9
EN ISO 9237:1996	0.4	3.15	0.54	0.94	0	0.31	1.22	0	1.91
ASTM D737:2012	0	0.1703	0	0.0962	0	0	0.0251	0	0

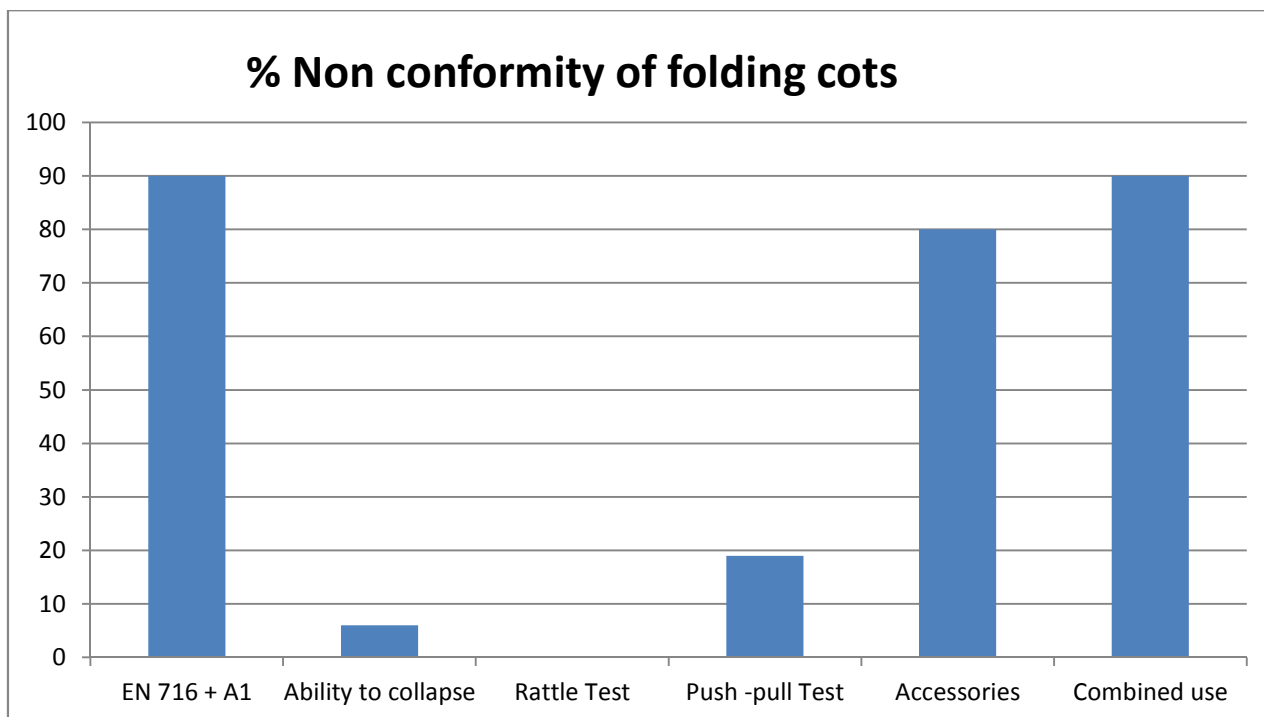
Where a value of '0' is given, no air can pass through the fabric according to the test method used. In 2 samples, both test methods resulted in a value of '0' being recorded, which indicates that no air movement is possible whatsoever.

Figures 3 and 4 below give an overview of all the results (from both EN716 and the 'JA' designed tests) that are covered above, and demonstrate separately the non-conformities associated with cots and the non-conformities associated with travel cots.

*Figure 3: Non-conformities associated with Cots (according to EN716 and the 'JA' designed tests)*



*Figure 4: Non-conformities associated with travel cots (according to EN716 and the 'JA' designed tests, including those relating to the 10 travel cots that were tested in combination with a changing table)*



### 3.3 Risk evaluation

The participants met together with the expert staff from the test laboratory to review and evaluate the test results. The participants then developed risk assessments for many of the scenarios presented (using the on-line risk assessment application <http://ec.europa.eu/consumers/consumer-safety/rag/public>). And this work was later completed by the participants for each of the samples that they supplied.

Overall, the participants concluded that half of the cots tested presented a serious level of risk. The overall risk results are given in Table 9.

Table 9: Overall risk evaluations

Risk level	Number of samples	Percentage
Complies	13	26%
Minor Risk	7	14%
Medium Risk	5	10%
Serious Risk	25	50%

As a result, the participating market surveillance authorities took enforcement actions on 35 of the 50 cots charted above. The actions and measures are shown in Table 10.

Table 10: Overview of final measures taken against the cots (considering the test results from EN716 and the JA designed tests also)

Actions taken	Number of samples
Compliant to EN716 at point of testing	4
Later accepted as compliant by the MSAs	13
No action	10
Minor measures or notification to economic operator	10
Sales ban	3
Withdrawal from the market	7
Recall from consumers	15
RAPEX notifications made/pending	22
Still under evaluation	5

The actions listed in Table 10 above have the following meaning:

- Compliant to EN716 at point of testing. No action necessary as the cot was fully compliant to EN716 when tested at the laboratory.
- Later accepted as compliant by the MSAs. The laboratory testing showed these samples to be non-compliant with the current standard, but follow-up testing by the producer/counter expertise available to the MSA/adaptions then made by the economic operators showed these cots to become compliant to EN7161&2:2008+A1:2013 or EN7161&2:2008.
- No action. No action is necessary because no safety issues were identified with the product, or the risk is so low that no action was taken.
- Minor measures. The economic operator takes measures against (future deliveries of) the product in line with directions from the market surveillance authority. The measures could be minor design changes, minor changes in production or quality control, minor update of markings, small changes to the instructions, etc.
- Sales ban. The product is prohibited from sale permanently or until certain conditions are met.
- Withdrawal. This measure is defined in the General Product Safety Directive (GPSD Directive 2001/95/EC). The distribution, display and the offer of a product which is dangerous to consumers are stopped.
- Recall. This measure is defined in the GPSD (Directive 2001/95/EC). Any means aimed at achieving a return of a product that has already been supplied or made available to consumers.

Furthermore, products presenting a serious risk must be notified in the RAPEX system. At the time of the reporting 22 RAPEX reports had either been made or are pending (as notifications cannot be made until the cot has been re-tested and communications with the producer are finalised).

### 3.4 Conclusions and impacts from the testing

The overall results of the laboratory tests for cots showed that only 4 out of the 50 samples passed all of the tests according to EN716 (although 13 out of the 50 were later accepted as being compliant, as explained in 3.3 above). These results, combined with the risk analysis undertaken demonstrate three things:

- Firstly, that the sampling process was very effective, the inspectors were able to identify potentially non-compliant products in their sampling.
- Secondly, that there appears to be many unsafe cots available on the EU market, which is a cause for significant concern.
- Thirdly, that the current standard for cots, EN716-1&2:2008 + A1:2013, is lacking in some significant areas (as detailed below).

As a consequence, the participants have undertaken the following actions:

- 22 RAPEX notifications made/planned
- 24 models of cots recalled, withdrawn or sales bans put in place
- 10 products to be modified before further sales distribution
- Regular, if indirect, liaison maintained with the GPSD Committee via the European Commission Directorate-General for Justice and Consumers (DG JUST) representative who attended all meetings

- Regular cooperation with stakeholders, in particular CEN (European Committee for Standardization), ANEC (European Consumer Voice in Standardization) and ENPC (European Nursery Products Confederation)
- Formally communicated the findings of this project to the above parties
- Developed check lists for Market Surveillance Inspectors and Customs Authorities, to be used as guidelines when undertaking product evaluations
- Had CCA3 representatives (Stamatia Chroni - Task Leader, and Corine Postma - NL expert on CCA and toys) attend the recent CEN 207 WG 4 meeting in order to present the results of this project and provide the group's detailed feedback on the current version of EN716, particularly in respect of:
  - collapsing travel cots
  - push-pull testing
  - using cots and changing units in combination
  - air permeability of travel cot fabric
  - standard could be hazard based
  - some clauses need to be clearer
- One Authority (GR) held a workshop for 100+ economic operators, to explain the importance of complying with EN716. In future, they intend a collaboration with Customs too
- Developed a news release, for the use of all MSAs (including those outside JA2013 CCA3), the Commission and PROSAFE
- Secured press coverage on dangerous products (see Chapter 7 below for examples from the Czech Republic, Iceland and Malta)
- Two Authorities (NL and GR) are planning their own projects on cots for later this year/next year

NOTE: A further Joint Action on cots was proposed by those MSAs participating in JA2014

## 4 Liaisons

The Childcare Articles Activity maintained close links with DG JUST, who participated in all JA Meetings. The group also maintained good relationships with key stakeholders, who were invited to 3 Meetings, and provided valuable input and support. As a consequence the JA participants were, at an early stage in the project, invited to share the outcomes with the relevant CEN Working Group Technical Committee who are responsible for the provision of EN standards (TC 207 WG4 for cots, as reported above).

## 5 Evaluation, Lessons Learned

As set out in the Grant Agreement, the objectives of the Cots Activity were to:

- To build on the work undertaken during CCA1&2 and thereby increase the safety of products within this product category
- To agree the ongoing Priority List for CCA - resulted in Soothers & Soother Holders being selected for JA2015
- To ensure that cots, travel cots and items that can be combined with them are safe in use
- To continue to support harmonisation of market surveillance across the EEA within this product sector
- Take actions if and where necessary (see the bullet points below for details)
- Coordinate with stakeholders ANEC, ENPC and CEN

Significantly, work regarding 'to ensure that cots, travel cots and items that can be combined with them are safe in use' has resulted in some detailed feedback to the relevant standards committee. Regarding the current version of EN716, the group made the following observations, which were formally reported to the WG as reported above:

- In some areas EN716 is not clear and confusion over the wording of 2 particular clauses was debated at length. It was suggested that the standard is re-written, using a hazard based format
- A test for the ability to collapse a travel cot from underneath should be included
- The push pull test from EN1930:2011 should be incorporated, to mitigate against travel/folding cots with weak locking systems



- 80% of samples with changing units failed EN12221:2008+A1:2013 and 90% failed the JA's macroscopic evaluation. Currently there is no standard addressing the combined use of a cot with a changing table or other similar accessory - this needs addressing as soon as possible
- The air permeability of travel cot fabric urgently needs examining further. Perhaps all travel/folding cots should be manufactured with mesh sides (as is the requirement in Australia)

Due to the severity of the findings - 92% of samples initially failing the current EN standard, 50% of samples evaluated as presenting serious risk to consumers, and with so many deficiencies in the current standard - a further Joint Action on Cots is proposed - to check that the standard has been improved and that these changes are reflected within the EU market place.

## 6 Bibliography

1 EN 716-1&2:2008+A1:2013 - Furniture - Children's cots and folding cots for domestic use - Part 1: Safety requirements and Part 2: Test methods

2 General Product Safety Directive (GPSD 2001/95/EC)

[http://ec.europa.eu/consumers/consumers\\_safety/product\\_safety\\_legislation/general\\_product\\_safety\\_directive/index\\_en.htm](http://ec.europa.eu/consumers/consumers_safety/product_safety_legislation/general_product_safety_directive/index_en.htm)

3 Grant Agreement 2013 82 01 GPSD JA

4 CEN/TR 13387 Child use and care articles - safety guidelines

5 CEN Guide 12 Child safety - Guidance for its inclusion in standards

6 ISO Guide 50:2014 Safety aspects - Guidelines for child safety in standards and other specifications

7 EN1930:2011 Child use and care articles - Safety barriers. Safety requirements and test methods

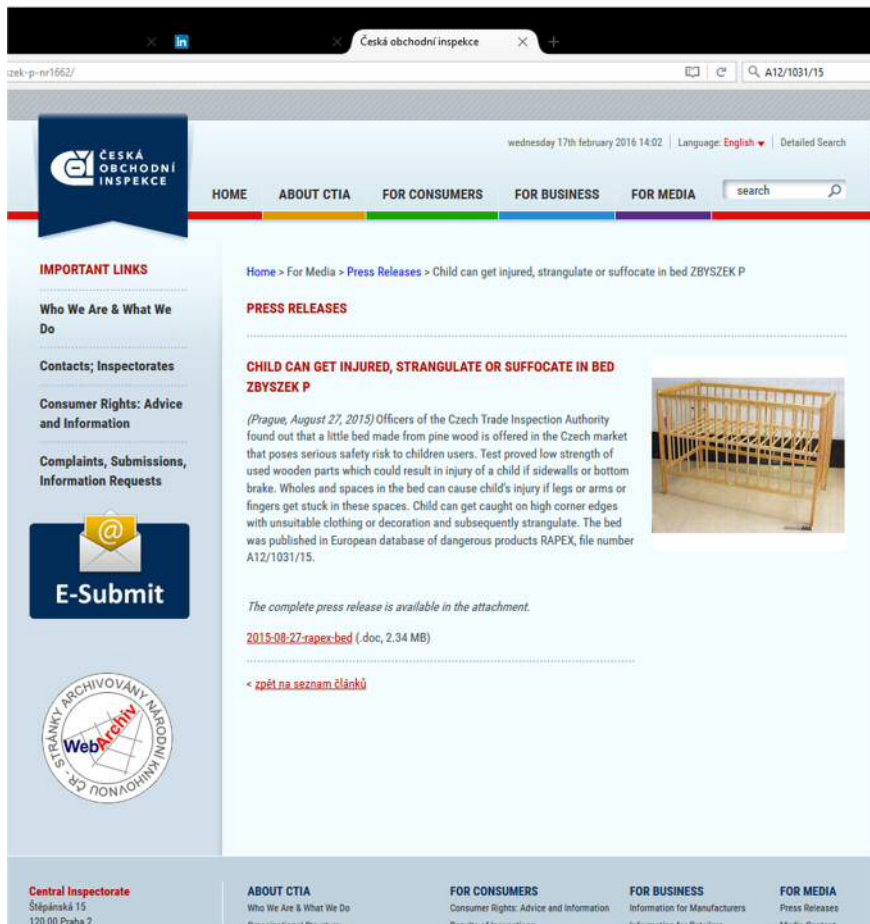
8 EN ISO 9237:1995 Textiles - Determination of the permeability of fabrics to air

9 ASTM D737 (04) 2012 US Standard Test Method for Air Permeability of Textile Fabrics

All standards can be obtained from the national standardisation bodies. An overview of these bodies can be found on the website of the European Committee for Standardisation, CEN at [www.cen.eu](http://www.cen.eu).

## 7 Examples of Press Coverage Obtained

Below are 3 examples of press coverage obtained by the participating MSAs for CCA3:



The screenshot shows the website of the Czech Trade Inspection Authority (Česká obchodní inspekce). The page is titled "Child can get injured, strangulate or suffocate in bed ZBYSZEK P". The main content is a press release dated August 27, 2015, from Prague. It reports that officers of the authority found a pine wood bed with low strength of wooden parts, posing a safety risk to children. The bed's design allows children's limbs to get stuck in gaps, leading to potential strangulation or suffocation. The bed is listed in the European RAPEX database with file number A12/1031/15. An image of the bed is included. A link to the full press release (2.34 MB) is provided. The website footer contains contact information for the Central Inspectorate and navigation links for consumers, business, and media.

Picture 13: Press Coverage obtained in CZ

Sunday, October 18, 2015, 00:01 by Odette Vella

## Cots: product safety warning



Giraffe Quatro

As part of the Prosafe Joint Action Market Surveillance of Cots and Travel Cots, the Technical Regulations Division within the Malta Competition and Consumer Affairs Authority has tested a number of cots found on the market locally.

Results from the accredited laboratory have shown that the traditional cot, 'Baby Italia – Dalia', and the travel cot, 'Quatro Giraffe', pose a serious risk to consumers, infants and babies.

The Baby Italia – Dalia cot is not compliant with the applicable standard since when the moveable sides are in the open position, the locking mechanism does not engage automatically. Moreover, the adjacent slats of the cot base are placed too wide apart.



Picture 14: Press Coverage obtained in MT

## Barnarúm innkölluð vegna mögulegrar slyshættu



Neytendastofa vill vekja athygli á innköllun ilvu á Malík barnarúmum vegna mögulegrar slyshættu. Ástæða innköllunar er sú að barnarúmin eru ekki næglega örugg og uppfylla ekki kröfur um öryggi. að því er segir á vef Neytendastofu.

Í tilkynningu frá ilvu kemur fram að viðskiptavinir sem eiga Malík barnarúm, séu beðnir um að hætta notkun þeirra.

Barnarúmarnir hafa verið seld í ilvu, Korputorgi frá því árið 2011. Ilva mun hafa samband við kaupendur rúmana en hægt er að skila rúmunum í ilvu versluninni.

Engar tilkynningar hafa borist Neytendastofu um slys af völdum ofangreindra barnarúma.

Picture 15: Press Coverage obtained in IS