Joint Action 2013

Children's Kick Scooters

Joint Market Surveillance Action co-funded by the European Union
Grant Agreement N° 2013 82 01

Final Technical Report

covering the period 1 January 2013 - 31 December 2015

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Disclaimer

This report arises from the Joint Market Surveillance Action – JA2013 – on kicks scooters for children, 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 activities undertaken and the results achieved in the activity on children's kick scooters in the framework of Joint Market Surveillance Action - JA2013, which was supported financially by the European Union under Grant Agreement N° 2013 82 01.

The activity was carried out by 9 market surveillance authorities from 8 EU Member States - Belgium, Bulgaria, the Czech Republic, Denmark, Greece, Latvia, Malta and Slovakia - and one EFTA Member - Iceland. The activity was coordinated by PROSAFE.

Kick scooters are used in play and leisure activities by children of all ages. Their use is an inherently risky activity. Accidents involving the use of kick scooters include a majority of falls which may result in fractures, sprains and contusions, particularly to the hands and arms.

The main objectives of the activity were to evaluate the conformity and safety of children's kick scooters on the European market and to ensure that non-compliant and unsafe products were brought into conformity or withdrawn from the market. The activity also aimed to foster good market surveillance practice and cooperation, to provide experience of market surveillance of products sold on the Internet and of cooperation with Customs.

In total 69 models of kick scooter were sampled on the basis of a common sampling plan: 49 toy kick scooters and 20 sports kick scooters. Tests on all of them were carried out according to the relevant standards by an accredited laboratory selected following a public call for tender.

Only 2 toy kick scooters and 2 sports kick scooters were in conformity with the requirements checked. Many kick scooters were found to have several non-conformities concerning, in particular, the strength of the kick scooter, the existence of gaps in which fingers can be entrapped, lack of stability and detachable small parts (on kick scooters for very young children), as well as inadequate markings, warnings and instructions for use.

The participating authorities carried out assessments of the risks associated with the non-conformities detected during the testing, following the RAPEX Risk Assessment Guidelines. The purpose of the risk assessment is to enable the market surveillance authorities to ensure that the follow-up measures are appropriate and proportional to the risks involved.

After giving the Economic Operators concerned the possibility to comment on the outcome of the testing, the market surveillance authorities took the necessary measures to ensure that non-compliant and unsafe kick scooters were brought into conformity or withdrawn from the market. In 5 cases, non-compliant kick scooters were also recalled from consumers. In the majority of cases, the necessary measures were agreed by the Economic Operators concerned. However, for 14 cases, mandatory measures were taken. Certain kick scooters giving rise to serious risks or less than serious risks were notified to RAPEX.

The results of the children's kick scooters activity were evaluated by the participating authorities, in cooperation with representatives of the European Commission. In particular, the following issues were examined:

- The high rate of non-conformity and doubts about the seriousness of the testing carried out on behalf of manufacturers;
- the understanding and application by Economic Operators of the distinction between toy and sports kick scooters;
- problems arising for market surveillance of kick scooters sold via the Internet;
- difficulties encountered when assessing the risks created by non-conformities;
- the need for improvement of certain specifications of the relevant standards.

On these questions, suggestions and recommendations have been forwarded to the relevant institutions, including the Member States, the European Commission and the European Committee for Standardisation, CEN.

Introduction

This is the Final Technical Report of the Children's kick scooters activity that was part of the Joint Market Surveillance Action – JA2013. The Joint Action received funding from the European Union under Grant Agreement N° 2013 82 01, in the framework of the 'Programme of Community action in the field of Consumer policy (2007-2013)'.

Section 1 of the report sets out the basic facts about the children's kick scooters activity. The main phases of the activity are described and the timeline is summarised.

Section 2 provides background information on the market for kick scooters, on the legal framework within which kick scooters are placed on the market and on the relevant European standards. The past RAPEX notifications relating to kick scooters are reviewed and the available data on accidents associated with the use of kick scooters by children is presented.

Section 3 of the report explains how a test laboratory was chosen for the children's kick scooters activity and indicates how sampling was carried out by the market surveillance authorities participating in the activity.

Section 4 summarises the checks and tests that were carried out by the authorities and by the test laboratory. The results of the examinations and tests are then presented and analysed.

Section 5 of the report presents the way the participating authorities assessed the risks associated with the non-conformities detected and describes the follow-up measures taken with respect to the Economic Operators responsible for placing non-compliant products on the market.

Section 6 sets out some of the lessons drawn from the children's' kick scooters activity and examines, in particular, the high rate of non-conformity. Certain problems relating to the specifications of the relevant standards are also explained and suggestions are made for improvement.

1 Presentation of the children's kick scooters activity

1.1 Title of the activity

JA2013 - Children's kick scooters

The activity was part of the Joint Market Surveillance Action – JA2013.

The European Commission supported the Joint Action financially, under Grant Agreement N° 2013 82 01, in the framework of the 'Programme of Community action in the field of Consumer policy (2007-2013)'.

1.2 Participating authorities

The activity was carried out by the following 9 national market surveillance authorities:

Belgium:	Federal Public Service Economy, SMEs, Self-Employed and Energy
Bulgaria:	State Agency for Metrological and Technical Surveillance
Czech Republic:	Trade Inspection Authority
Denmark:	Safety Technology Authority
Greece:	General Secretariat of Consumer Affairs
Iceland:	Consumer Agency
Latvia:	Consumer Rights Protection Centre
Malta:	Competition and Consumer Affairs Authority
Slovakia:	The Slovak Trade Inspection

The activity was coordinated by the applicant body, **PROSAFE**, that also took overall responsibility for the Joint Action.

1.3 Key staff in the children's kick scooters activity

The Activity Leader was initially Maureen LOGGHE of the Belgian FPS for Economy. After Maureen Logghe left the Consumer Safety Service during the activity, she was replaced by Carine RENARD of the same authority.

The Activity Leader was supported by the PROSAFE Consultant Ian FRASER acting as Coordinator for the activity.

1.4 Main objectives of the children's kick scooters activity

Use of kick scooters is an inherently risky activity. Accidents involving the use of kick scooters include a majority of falls which may result in fractures, sprains and contusions, particularly to the hands and arms - see Section 2.5.

The reduction of the risk of accidents involving kick scooters depends, in part, on measures taken by the users such as, for example, appropriate supervision of children using kick scooters, taking account of the warnings and instructions provided by the manufacturer and the wearing of personal protective equipment such as helmets.

The risk of such accidents can also be reduced by appropriate design measures taken by the manufacturers. Such design measures are required by the applicable EU legislation, supported by the specifications of the relevant European standards for kick scooters – see Sections 2.2 and 2.3. The main objectives of the children's kick scooters activity were to evaluate the conformity and safety of children's kick scooters on the European market and to ensure that non-compliant and unsafe products were withdrawn from the market.

The children's kick scooters activity also aimed:

- to implement and develop best practices and harmonise the approach to market surveillance in the participating countries;
- to gain experience of cooperation with customs;
- to gain experience of market surveillance of products sold via the Internet;
- to monitor the adequacy of the relevant standards;
- to examine the practical application of the distinction between toy and sports kick scooters.

1.5 The scope of the children's kick scooters activity

The activity concerned kick scooters intended for use by children of all ages, including both kick scooters classified as toys and kick scooters classified as sports equipment.

In total, 69 models of children's kick scooter were sampled in the 9 countries participating in the activity (49 toy kick scooters and 20 sports kick scooters).

1.6 The main phases of the children's kick scooters activity

The children's kick scooters activity was carried out in the following main phases:

a) Sampling criteria, sampling plan and checklist for documentary and visual checks

The Project Group determined which categories of kick scooter would be sampled and the number of samples required for each category. A sampling plan was agreed, setting out the number of products from each category to be sampled by each participating authority.

In the countries of northern Europe taking part in the activity (Denmark, Iceland and Latvia), the market for kick scooters is seasonal: they are mainly sold in summer. It was therefore decided to carry out the sampling and testing in 2 phases. In the first phase, the samples were collected before 15 March 2015. In the second phase, the samples were collected before 15 June 2015.

b) Sampling of products

The market surveillance authorities visited manufacturers, importers, wholesalers and retailers to collect the required samples. In addition, some samples were collected at the point of entry into the EU by the Customs services while other samples were ordered from Internet sites (see Section 3.2).

In order to avoid duplication and to ensure a wide coverage of the market, each market surveillance authority listed the necessary details of the models of kick scooter sampled and the updated list was circulated to the other participating authorities and to the Activity Coordinator.

c) Documentary and visual checks

The samples and the accompanying documents and information were examined by the participating authorities themselves and certain documentary and visual checks were carried out, such as checks on the markings, warnings and instructions and measurement of the diameter of the front wheel or of the handlebar ends. The findings of these documentary and visual checks were recorded in an agreed checklist (see Section 4.1).

d) Testing of kick scooters at a laboratory

An appropriate test laboratory was selected on the basis of a public call for tender. A contract was established between PROSAFE and the selected laboratory, specifying the tests to be carried out, and the participating authorities were instructed how to send their samples for testing. The samples were shipped to the laboratory accompanied by the checklists recording the outcome of the documentary and visual checks carried out by the authorities.

After testing the samples, the laboratory provided a test report for each sample as well as an overall summary report on the outcome of the testing. These reports were shared with all the participating authorities and were discussed with the laboratory team (see Section 3.1).

e) Risk assessment

Each participating authority carried out an assessment of the risks associated with the non-conformities detected during the inspection and testing of the products they had sampled. A common approach to the risk assessment was developed, based on the RAPEX Risk Assessment Guidelines.[1] Specific templates were developed for the risk assessment of toy kick scooters and sports kick scooters. The outcome of the risk assessments was circulated to all the other participating authorities. Cases in which different risk levels had been assigned to the same non-conformity were identified and discussed with a view to harmonising the risk assessment process as far as possible (see Section 5.1).

f) Follow-up of non-compliant products

The participating authorities informed the Economic Operators involved in the placing on the market or the making available of the non-compliant kick scooters sampled in their countries. Depending on the outcome of the risk assessment, the Economic Operators were required to take appropriate remedial measures. Where necessary, mandatory measures were taken and unsafe products were notified to the other Member States using the ICSMS[2] and RAPEX[3] systems.

The follow-up actions taken for each model of kick scooter were recorded in an agreed form that was shared with all the participating authorities (see Section 5.2).

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[1] Bibliography (6).

[2] The internet-supported information and communication system for the pan-European market surveillance.

[3] RAPEX is the EU rapid alert system that facilitates the rapid exchange of information between Member States and the Commission on measures taken to prevent or restrict the marketing or use of products posing a serious risk to the health and safety of consumers or professional users. Both measures ordered by national authorities and measures taken voluntarily by producers and distributors are reported to RAPEX. Notifications are also submitted and circulated on products posing a less than serious risk to health and safety and on those posing a risk to other public interests protected by the relevant EU legislation. An extract of the notifications is published on the RAPEX website.

1.7 Timeline for the children's kick scooters activity

The following table indicates the timeline for the main tasks of the children's kick scooters activity, the meetings held and the main documents produced and used.

Table 1 – Timeline for the JA2013 Children's kick scooters activity

Month	Main tasks	Meetings	Documents
Feb. 2014	Analysis of RAPEX notifications Preparation of Activity plan	JA2013 Launch meeting	Briefing memo
Mar. 2014	Collection and analysis of accident data		
Apr. 2014		Kick-off meeting 1st stakeholder session	Activity plan
May 2014		Report to Toys ADCO	Summary of accident data
Jun. 2014	Call for tender for test laboratory		Call for tender
Jul. 2014			
Aug. 2014			
Sep. 2014	Establishment of sampling plan Definition of documentary and visual checks Definition of test criteria Selection of test laboratory	2nd project meeting	Sampling plan Checklist for documentary and visual checks Table for exchange of information on sampling
Oct. 2014	Negotiation of the contract with the test laboratory		Contract with test laboratory Test criteria
Nov. 2014	Collection of samples (1st phase)		
Dec. 2014			
Jan. 2015			
Feb. 2015			
Mar. 2015	Testing (1st phase)		
Apr. 2015			Test reports (1st phase)
May 2015	Examination of first test results and risk assessment Collection of samples (2nd phase)	3rd project meeting	Risk assessment templates
Jun. 2015	Risk assessment and follow-up (1st phase) Testing (2nd phase)		
Jul. 2015			
Aug. 2015			
Sep. 2015	Examination of complete test results Risk assessment and follow-up	4th project meeting 2nd stakeholder session	Test reports (2nd phase) Overall summary of the outcome of testing Table of risk levels for the main non-conformities Table of follow-up measures
Oct. 2015		Report to Toys ADCO	
Nov. 2015	Preparation of final technical report		
Dec. 2015		5th project meeting	
Jan. 2016		JA2013 Final Conference	

2 Background information

2.1 The market for children's kick scooters

Kicks scooters are ride-on equipment propelled by the user pushing forward with one foot on the ground and the other foot on the scooter. Kick scooters comprise at least one deck or platform, two, three or four wheels and a steering system with an adjustable or fixed-length steering column. They may be foldable or not.

Kick scooters have been used for play and leisure activity by children for more than 100 years. The traditional kick scooter for children was made of wood and often homemade. By the 1960s, such kick scooters were out of fashion.

The modern market for kick scooters dates from the late 1990's, with the development of light foldable kick scooters made of metal having wheels derived from online roller skates, initially intended mainly for use by adults for urban mobility.

During the last decade of the 20th century, more and more children started to use kick scooters. Kick scooters with 3 or 4 wheels were developed with enhanced stability especially for use by very young children. Other kick scooters were intended for use by school-age children or adolescents. Recently a market has developed for kick scooters for freestyle riding or stunts, used in a similar manner to BMX bicycles or skateboards in skate parks, although this activity, initiated in the USA and Australia, has not yet reached all of the European countries.

It appears that no quantitative data has been published on the market for kick scooters in Europe. Furthermore, the relevant industry associations were not able to provide such data. However, there is evidence that the market for kick scooters is continuing to grow.

It appears that almost all the material production of the children's kick scooters placed on the market in Europe takes place in China. Three distinct processes can be distinguished:

(a) Kick scooters are designed by European manufacturers who contract the production to Chinese manufacturing companies;

(b) Products designed and manufactured by Chinese manufacturers are re-branded by European importers who are considered as the manufacturers for the purposes of EU legislation;

(c) European importers place products designed and manufactured by Chinese manufacturers on the EU market.

2.2 The legal framework for kick scooters

Toy kick scooters subject to the Toy Safety Directive 2009/48/EC[4]

The Toy Safety Directive applies to products designed or intended, whether or not exclusively, for use in play by children under 14 years of age (Article 2). Scooters and other means of transport designed for sport or which are intended to be used for travel on public roads or public pathways are excluded from the scope of the Directive (Annex I (5)).

Consequently, the Toy Safety Directive applies to kick scooters intended for use in play by children under 14 years of age that are not intended for sport or for travel on public roads or public pathways.

Sports kick scooters subject to the General Product Safety Directive 2001/95/EC[5]

All kick scooters that are not classified as toys are subject to the General Product Safety Directive. The kick scooters subject to the General Product Safety Directive include:

- children's scooters intended for sports or for travel on public roads or public pathways,
- scooters for young people and adults above the age of 14, whatever their intended use.

[4] Bibliography (1).

[5] Bibliography (2).

The JA2013 children's kick scooters activity covered both toy kick scooters and sports/transport kick scooters for children (see section 2.2 below).

The distinction between toy kick scooters and sports kick scooters

It is for the Economic Operators responsible for placing kick scooters on the market (manufacturers or importers) to determine the legal framework applicable to their products. One of the subsidiary objectives of the children's kick scooters activity was to examine whether the distinction between toy and sports kick scooters was well understood and correctly applied by Economic Operators. In evaluating this aspect, the project group decided to refer principally to the following guidance documents published by the European Commission:

- Guidance document N° 1 on the application of the Directive on the safety of toys – Scooters (20/01/2012);[6]
- Guidance document N° 14 on the application of the Directive on the safety of toys – Sports equipment versus toys (26/09/2011).[7]

2.3 The relevant standards for kick scooters

Harmonised standard for toy kick scooters

The requirements of the Toy Safety Directive are supported by standard EN 71-1:2011+A2:2013 - *Safety of toys* - Part 1: *Mechanical and physical properties*.[8] This standard is developed by the CEN Technical Committee 52 - *Safety of toys*.

Since standard EN-71 is a harmonised standard, the reference of which has been published by the European Commission in the OJEU, its application confers a presumption of conformity with the safety requirements of the Toy Safety Directive, including the particular safety requirements set out in Annex II, that are covered by the standard.

For toy kick scooters, the JA2013 activity on children's kick scooters was limited to the safety requirements relating to mechanical and physical properties set out in Part I of Annex II of the TSD (covered by Part 1 of EN 71). Conformity with the safety requirements set out in Part III of Annex II of the TSD relating to Chemical properties (covered by Part 3 of EN 71) was not checked during the activity.

Standard EN 71-1 distinguishes 2 groups of toy kick scooters:

- scooters intended for children with a body mass of 20 kg or less;
- scooters intended for children with a body mass of 50 kg or less.

The informative Annex A49 – *Toy scooters* - explains that:

- a body mass of 20 kg corresponds approximately to the mass (95th percentile) of a child of 3 years;
- a body mass of 50 kg corresponds approximately to the average mass of a child of 14 years.

In light of the above information, during the JA2013 children's kick scooters activity, it was assumed that a toy kick scooter marked with a maximum body mass of 20 kg was intended for use by children under 3 years of age, although such a kick scooter could also be used by older children with a body mass of less than 20 kg.

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[6] Bibliography (4).

[7] Bibliography (5).

[8] During the course of the JA2013 children's kick scooters activity, standard EN 71-1 was revised. The reference of the revised standard EN 71-1:2014 - *Safety of toys* - Part 1: *Mechanical and physical properties* - was published in the OJEU on 13/03/2015. However, for the purposes of the joint market surveillance action, reference was made to the 2013 version of the standard that was used when the products concerned were placed on the market.

European standard for sports kick scooters

Requirements for kick scooters for sports are given in the European standard EN 14619:2004 - *Roller sports equipment - Kick scooters - Safety requirements and test methods.*[9] This standard is developed by the CEN Technical Committee 136 - *Sports, playground and other recreational equipment*.

The reference of this standard is not published by the European Commission in the framework of the General Product Safety Directive. Consequently, application of the standard does not confer a presumption of conformity with the safety requirement of that Directive. Nevertheless, the JA2013 children's kick scooters activity confirmed that standard EN 14619 is generally referred to by Economic Operators placing sports kick scooters on the European market.

2.4 RAPEX notifications for kick scooters

Between 2007 and 2013, there were 38 notifications relating to kick scooters to the EU's rapid alert system for dangerous non-food products, RAPEX.

The notifications were made by 11 different Member States. The majority (31) of the notifications concerned kick scooters classified as toys. The other 7 notifications concerned kick scooters classified as sports equipment.

The following table shows the non-conformities mentioned in the RAPEX notifications. Based on the published information, it was not always possible to identify which of these non-conformities was considered to give rise to serious risks. In light of the risk assessments carried out by the authorities participating in the JA2013 children's kick scooters activity, several of the non-conformities listed below would not necessarily be considered to give rise to serious risks - see Section 4.1.

Table 2 – Non-conformities referred to in RAPEX notifications for kicks scooters 2007-2013

Non-conformity	Toy scooters	Sports scooters
Diameter of handlebar ends too small	18	1
Gaps allowing the entrapment of fingers	10	2
Sharp edges	9	3
Insufficient strength of steering column	7	2
Diameter of front wheel too small	8	-
Lack of rear brake	5	-
Insufficient strength of handlebar	1	3
Insufficient strength of folding mechanism	2	1
Minimum recess of steering tube not indicated	1	2
Insufficient space between front wheel and body of scooter	2	-
Inadequate locking mechanism	2	-
Inadequate surface of platform	-	2
Insufficient strength of frame	1	-
Insufficient strength of front fork	1	-
Inadequate handlebar adjustment	1	-
Presence of phthalates	1	-
Maximum weight not indicated	3	-
Lack of instructions or warnings	4	-
Lack of CE marking	1	-

[9] During the course of the JA2013 children's kick scooters activity, standard EN 14619 was revised. EN 14619:2015 - *Roller sports equipment - Kick scooters - Safety requirements and test methods* – has replaced the 2004 version of the standard. However, for the purposes of the joint market surveillance action, reference was only made to the 2004 version of the standard that was used when the products concerned were designed, manufactured and placed on the market.

2.5 Data on accidents involving children's kick scooters

Certain studies of kick scooter accidents were examined:

- A study of accidents involving kick scooters in France in 2000/2001;[10]
- A brochure by the Royal Society of Prevention of Accidents (ROSPA) in the UK on scooters published in 2003;[11]
- A Swiss study on dental injuries with kick-scooters published in 2011.[12]

The Project Group was not able to identify any systematic collection of data on accidents involving kick scooters in Europe. The only identified source of systematic data on such accidents was the National Electronic Injury Surveillance System (NEISS) operated by the United States Consumer Product Safety Commission.

The NEISS data are gathered from the emergency departments of approximately 100 US hospitals selected as a probability sample of more than 5000 US hospitals with emergency departments.

The following tables present data extracted from the **NEISS database** for the 5-year period 2009-2013 (latest year for which data was available). Only accidents involving children up to 14 years old were analysed. Comments on the data are presented in italics after each table.

Table 3 - Number of accidents recorded

2013	2012	2011	2010	2009	TOTAL
27	21	30	22	26	**126**

The number of accidents involving use of kick scooters by children requiring emergency hospital treatment recorded over the five-year period was quite constant: there was no discernible tendency for the number of such accidents to increase or decrease. The annual average for the sample of 100 hospitals is 25. It can therefore be estimated that about 1250 such accidents occur per year in the US.

Table 4 - Gender of injured child

Boys	Girls
82	44

Boys were injured more often than girls. This could result from more frequent use of kick scooters by boys than girls, from riskier use of kick scooters by boys, or from a combination of both factors.

Table 5 - Age group of injured child

> 5 years	6 - 10 years	11 - 14 years
24	66	35

More children in the 6 to 10 age group were injured compared to the younger and older age groups. This could result from more frequent use of kick scooters by children in this age group, from riskier use by these children or from a combination of these factors.

[10] Bibliography (9).

[11] Bibliography (10).

[12] Bibliography (11).

Table 6 - Type of accident

Fall	Hit obstacle	Hit vehicle	Catch foot	Run over foot	Pinch finger
110	9	3	2	1	1

Falling from the kick scooter is by far the most common type of accident. The reports do not usually specify the factors leading to the fall. None of the accident reports link the accident to specific design features of the kick scooters involved or to failures of the kick scooter itself. Some reports indicate that the child lost control of the kick scooter; others specify that the fall occurred when travelling downhill.

Table 7 - Part of body injured and type of injury

Body part		Type of injury	
Finger, wrist, elbow, forearm, shoulder	58	Fracture	43
		Sprain, dislocation	8
		Laceration, contusion	6
Head, face, teeth	41	Laceration, contusion	19
		Concussion	8
		Dental trauma	5
Leg, knee, ankle, foot, toe	28	Laceration, contusion	19
		Sprain, strain	7
		Fracture	3
Abdomen	1	Contusion	1

It appears that the hand-arm system is the most vulnerable part of the body when kick scooter users fall or hit an obstacle. Furthermore, three-quarters of the injuries to the hand-arm system involved a fracture.

The second most vulnerable body-part was the head, face and teeth. None of the recorded head injuries required the child to stay in hospital after emergency treatment.

The third most vulnerable body part was the leg-foot system, while the proportion of fractures to the lower limbs was lower than for the upper limbs.

The project group considered that the NEISS data provided a general picture of accidents involving children's kick scooters, although almost no information was available on the causes of the accidents recorded. However, the information on the most common types of accidents and injuries were useful when carrying out the risk assessment (see section 3.4 below).

3 Organisation of the children's kick scooters activity

3.1 Selection of a test laboratory

The test laboratory for the children's kick scooters activity was selected on the basis of a public call for tender. The most important requirements set out in the call for tender were experience of testing both toy and sports kick scooters, relevant accreditation and clear reporting. It was foreseen to focus the testing on the safety-critical aspects of children's kick scooters. Candidate laboratories were therefore requested to propose an appropriate test programme and to determine the number of samples required for the testing of each product.

The call for tender was published on the PROSAFE Website and was also circulated to all of the Notified Bodies for toys. 4 responses were received to the call for tender, only 2 of which comprised offers corresponding to the requirements. Initial screening of the 2 valid offers showed a clear advantage for the proposal of the Laboratoire national de métrologie et d'essais (LNE) in terms of accreditation, relevant

experience and cost. In particular, the LNE proposed a test programme limited to safety critical aspects selected and prioritised on the basis of the laboratory's experience of testing kick scooters.

The Activity Leader and the Activity Coordinator then visited the LNE Laboratory near Paris in order to view the test equipment, to discuss the test programme and to ensure that the reporting requirements were clearly understood. At the 2nd project meeting held in September 2014, the Project Group decided to accept the LNE offer.

For both toy and sports kick scooters, certain documentary and visual checks were carried out by the participating market surveillance authorities themselves – see Section 4.1.

For toy kick scooters, since the limited test programme proposed by the LNE included nearly all of the tests foreseen in the relevant harmonised standard, EN 71-1, it was finally decided to ask the laboratory to verify conformity with the totality of the applicable requirements of that standard, with the exception of the documentary and visual checks carried out by the participating authorities themselves.

Since the tests for sports kick scooters were significantly costlier, it was decided to ask the LNE to carry out a test programme covering 5 safety-critical requirements of the relevant European standard EN 14619.

3.2 Sampling

At the first meeting of the Project Group it was decided to include in the sampling both kick scooters classified as toys and kick scooters classified as sports equipment. It was observed that there were more different models of toy kick scooters on the market than models of sports kick scooters. Indeed, certain of the participating authorities found that there were virtually no sports kick scooters on their national market.

On the other hand, in some countries, sports kick scooters are widely used by children for travelling to school or to other activities. Furthermore, there is a development in some countries of use of kick scooters for freestyle riding or stunts at skate parks.

In light of this information, a larger number of toy kick scooters were included in the sampling plan than sports kick scooters. (70 % against 30 %).

Within these two product categories, since kick scooters are a very homogeneous product group, no criteria could be established for selecting particular types of kick scooters for testing. Nevertheless, the participating authorities chose to sample, as a priority, kick scooters for which the initial documentary and visual checks provided indications evidence of poor quality and non-conformity. On the other hand, it was also decided to sample some children's kick scooters from leading European brands in order to provide a reasonably representative picture of the market.

The initial sampling plan foresaw the collection of samples of 50 toy kick scooters and 19 sports kick scooters, however certain minor adjustments were made to the plan during the collection process. Finally, 49 toy kick scooters and 20 sports kick scooters were sampled. The following tables indicate the number of models of toy kick scooter and sports kick scooter sampled by each of the participating authorities.

Table 8 – Children's kick scooters sampled

Participating authority	Number of toy kick scooters sampled	Number of sports kick scooters sampled	Total number of kick scooters sampled
Belgium	7	4	11
Bulgaria	7	3	10
Czech Republic	7	3	10
Denmark	6	5	11
Greece	5	-	5
Iceland	3	1	4
Latvia	4	1	5
Malta	5	-	5
Slovakia	5	3	8
ALL	49	20	69

The purchase price of the samples collected

The participating authorities reported the purchase price of the samples they collected. In the following tables, the highest, lowest and average purchase prices are presented for toy kick scooters and sports kick scooters respectively in the following tables (the prices indicated are expressed in Euros and are rounded to the nearest Euro).

Table 9 – Purchase price of toy kick scooters sampled (Euros)

Participating authority	Average price	Highest price	Lowest price
Belgium	49	140* (60)	20
Bulgaria	26	63	16
Czech Republic	25	44	11
Denmark	36	54	23
Greece	30	80	15
Iceland	44	54	26
Latvia	38	59	25
Malta	32	53	13
Slovakia	22	30	12
ALL	32	140* (80)	11

* The most expensive toy kick scooter sampled in Belgium was an unusually complex product with a chain drive. Consequently, the next highest price is indicated in brackets.

Table 10 – Purchase price of sports kick scooters sampled (Euros)

Participating authority	Average price	Highest price	Lowest price
Belgium	75	130	48
Bulgaria	58	71	47
Czech Republic	39	50	22
Denmark	83	121	53
Iceland	40 (1 sample)	-	-
Latvia	46 (1 sample)	-	-
Slovakia	22	33	18
ALL	58	130	18

The purchase prices indicated in the above tables do not provide an exhaustive picture of the market for kick scooters, since they concern only the kick scooters selected by the market surveillance authorities for

sampling. However, they give an idea of the orders of magnitude involved. It can be seen that, on average, toy kick scooters were about half as expensive as sports kick scooters. In some countries, toy kick scooters could be purchased for 15 Euros or less.

The place of sampling

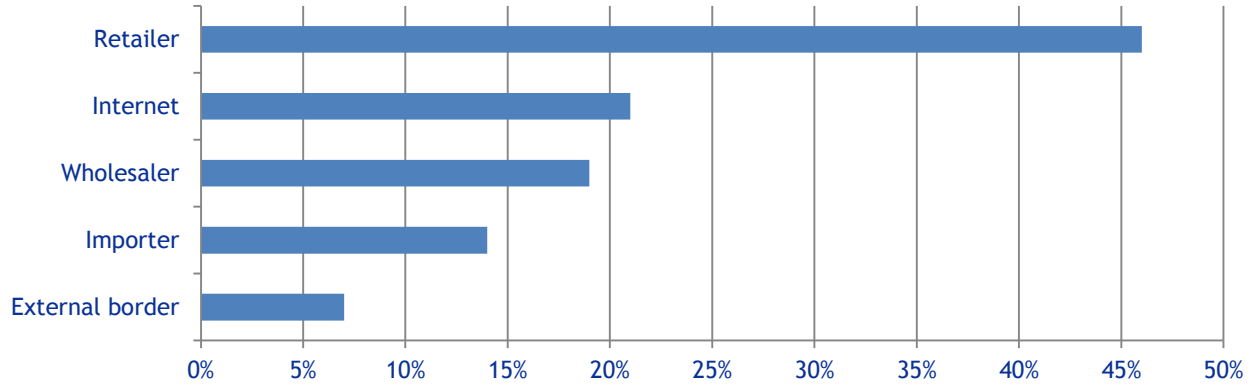
The following table indicates the places or Economic Operators from which the samples were collected by each participating authority. (In some cases, the same sample was counted as coming from 2 places, since the economic operator concerned was both a wholesaler or retailer and an importer, for example).

Table 11 - Place of sampling

Participating authority	Customs	Importer	Wholesaler	Retailer	Internet	Other
Belgium	2	2	9			
Bulgaria				8	1	1
Czech Republic			5	3	2	
Denmark				9	11	
Greece		4		5		
Iceland				4		
Latvia		1		3	1	
Malta	3	3		2		
Slovakia			1	7		
ALL	5	10	13	32	15	1

The following chart shows the share of samples collected from each source.

Chart 1 - Share of places of sampling



It may be noted that, while the largest group of samples were collected from 'classic' distribution channels such as retailers or wholesalers, a significant number of samples were collected from Internet sites. Two of the participating authorities cooperated with the customs services in order to collect samples of kick scooters entering the EU market at the external border.

4 Checks and testing

4.1 Documentary and visual checks

The participating authorities decided to themselves carry out a certain number of documentary and visual checks on the samples collected before sending them to the laboratory for testing. For this purpose, an appropriate checklist was prepared - See Annex.

This approach had two advantages. On the one hand, it was easier for the national authorities than for the test laboratory to check the text of warnings and instructions in their national languages. On the other

hand, the execution of certain visual checks on the samples collected helped the market surveillance inspectors to become familiar with the characteristics of the products concerned.

The checklist included the following information for the identification of the kick scooters concerned:

- JA 2013 Product Code[13]
- Required national product information
- Trademark or Brand
- Name of Model
- Product reference
- EAN Code (Bar code)
- Name and address of manufacturer
- Name and address of importer
- Date of placing on the market
- Name and address of distributor
- Maximum body weight (kg)
- Maximum age (if specified)
- Number of wheels (e.g. 2 front, 1 back)
- Picture of product and packaging

For toy kick scooters, the checklist covered, in addition, the following documentary and visual checks:

- Technical Documentation (when available)
- EC Declaration of conformity (when available)
- CE-marking
- Warnings on the kick scooter and on the packaging
- Instructions for use
- Presence of a braking system
- Size of front wheel
- Diameter of handle ends

For sports kick scooters, the checklist covered, in addition, the following documentary and visual checks:

- Warnings on the kick scooter and on the packaging
- Instructions for use
- Servicing and maintenance instructions
- Undue CE marking[14]

To facilitate the task of the market surveillance inspectors, for each aspect to be checked, the checklist provided references to the related legal requirements of the Toy Safety Directive, the General Product Safety Directive and cited the relevant provisions of the applicable standards, the national provisions implementing those Directives and the EU Market Surveillance Regulation.

The checklist recording the documentary and visual checks carried out on each product sampled was sent to the test laboratory together with the samples and was then annexed to the test report for each kick scooter tested.

[13] The kick scooters sampled during the JA213 children's kick scooters activity were identified by the following product code – explanations are given between square brackets :

JA2013 / KS *[= Kick scooters]* **/ Country** *[BE; BG etc.]* **/ XXX** *[= Product number]* **/ T** or **S** *[= toy or sports kick scooter]* / L *[= sample(s) sent to the test laboratory].*

[14] Sports kicks scooters shall not bear the CE marking since they are not in the scope of EU legislation foreseeing such a marking – see Regulation EU N° 765/2008, Article 30 (2).

4.2 The test programmes

The test programme for toy kick scooters

Since the test programme initially proposed by the LNE for toy kick scooters included nearly all of the tests foreseen in standard, EN 71-1, it was finally decided to verify the conformity of toy kick scooters with the totality of the applicable requirements of that standard.

The test programme for toy kick scooters covered only the mechanical and physical properties of the products sampled.

For all toy kick scooters, conformity with the following clauses of EN 71-1 was tested where applicable. The requirements that were checked by the participating authorities themselves are marked with an asterisk.

- 1 *Scope*
- 3.67 *Definition*
- 4.1 *Material cleanliness*
- 4.7 *Edges*
- 4.9 *Protruding parts*
- 4.10.1 *Folding and sliding mechanisms*
- 4.10.4 *Springs*
- 4.15.1.6 *Transmission and wheel arrangement*
- 4.15.1.3 *Strength*
- 4.15.1.7 *Adjustable seat pillar and handlebar stem minimum insertion marks*
- 4.15.5 *Toy scooters*
- 4.15.5.1 *General*
- 4.15.5.2 *Warnings and instructions for use**
- 4.15.5.3 *Strength*
- 4.15.5.4 *Adjustable and folding steering tubes*
- 4.15.5.5 *Braking*
- 4.15.5.6 *Wheel size**
- 4.15.5.7 *Protruding parts**
- *6* *Packaging*
- *7* *Warnings, markings and instructions for use**
- 7.18 *Toy scooters*

For toy kick scooters intended for children under 36 months, conformity with the following clauses of EN 71-1 was tested where applicable:

- 4.15.1.4 *Stability*
- 5.1 *General requirements*
- 5.4 *Cords, chains and electrical cables in toys*

The tests to verify conformity with the above requirements are set out in the following clauses of EN 71-1:

- 8 *Test methods*
- 8.2 *Small parts cylinder*
- 8.4.2.3 *Protective components*
- 8.11 *Sharpness of edges*
- 8.12 *Sharpness of points*
- 8.21 *Static strength*
- 8.22 *Dynamic strength*
- 8.22.1 *Principle*
- 8.22.2 *Loads*
- 8.22.3 *Procedure*
- 8.23 *Stability*
- 8.23.1 *Toys intended to bear the mass of a child*
- 8.26.*3* *Brake performance for toy scooters*
- 8.27 *Strength of toy scooter steering tubes*
- 8.27.1 *Resistance to downward forces*
- 8.27.2 *Resistance to upward forces*
- 8.40 *Length of cords, chains and electrical cables*

The test programme for sports kick scooters

Since the tests for sports kick scooters were significantly costlier, it was decided to limit the test programme to 5 safety-critical requirements of the relevant European standard EN 14619. These tests were chosen, in cooperation with the LNE, in light of the experience of testing sports kick scooters. In addition, certain documentary and visual checks were carried out by the market surveillance authorities themselves.

The requirements set out in the following clauses of EN 14619 were checked. The requirements checked by the participating authorities themselves are marked with an asterisk.

- 4.2.2 *Parts moving against each other (tests: Clause 5.8)*
- 5.4.2 *Steering column*
- 5.5 *Drop test*
- 5.6 *Impact against front wheel*
- 5.7 *Endurance test*
- 6 *Marking**
- 7.2 *Instructions for use**

4.3 Outcome of the examinations and tests

Toy kick scooters

Out of a total of 49 models of toy kick scooters tested, only 2 were found to comply fully with the requirements of the Toy Safety Directive harmonised standard EN 71-1. Several of the non-compliant toy kick scooters were found to have several non-conformities.

The following table indicates the number of toy kick scooters tested having a given number of non-conformities:

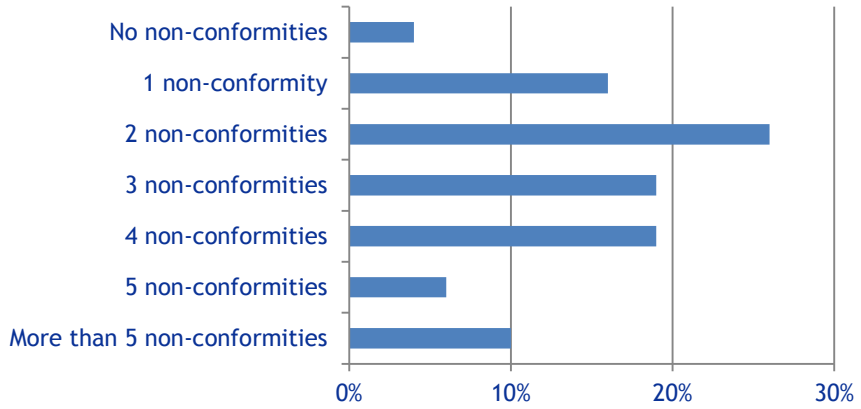
Table 12 - Number of non-conformities per toy kick scooter

Number of non-conformities per kick scooter[15]	Number of kick scooters
0	2
1	8
2	13
3	9
4	9
5	3
6	-
7	1
8	2
9	1
10	-
11	1

[15] For 4 toy kick scooters, the test programme described in section 4.2 could not be completed because of damage to the kick scooter due to failure in the dynamic strength test.

The following chart indicates the share of the total number of toy kick scooters having a given number of non-conformities.

Chart 2 - share of toy kick scooters having a number of non-conformities (n=49)



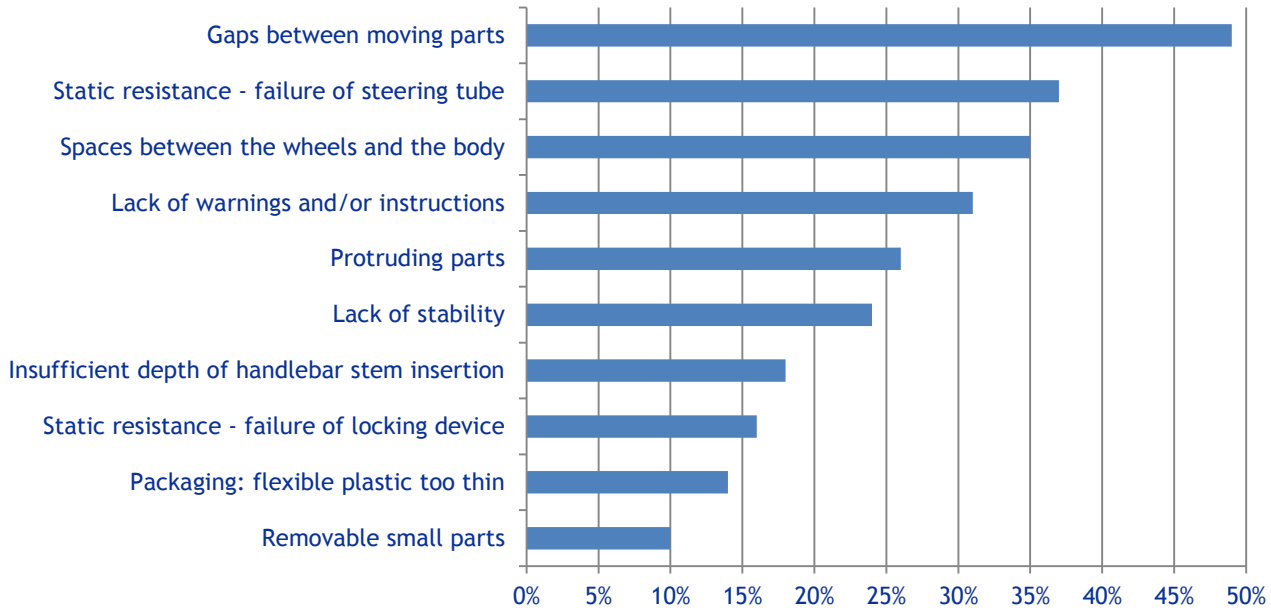
The following table presents the number of toy kick scooters concerned by each of the non-conformities detected.

Table 13 - Non-conformities of toy kick scooters

Clause of EN 71-1		Nature of the non-conformity	Number	
Requirement	Test			
4.1	Visual	Lack of cleanliness	2	
4.7	Visual	Burs	1	
4.9	8.4.2.3	Protruding parts	2	9
4.9	8.4.2.3	Protruding parts - handlebar ends	7	
4.10.1	Probe	Folding and sliding mechanisms	2	
4.10.4	Measurement	Springs	1	
4.15.1.3	8.21, 8.23	Strength - collapse of both wheels	1	
4.15.1.3	8.21, 8.23	Strength - collapse of steering column	1	
4.15.1.4	8.23.1	Lack of stability	12	
4.15.1.6	Probe	Spaces between wheels and the body	17	
4.15.1.6	Visual	Lack of guard for transmission chains	1	
4.15.1.7	Measurement	Insufficient depth of handlebar stem insertion	9	
4.15.5.2	Documents	Lack of warnings and/or instructions	15	
4.15.5.3	8.27	Static resistance: failure of main locking device	3	8
4.15.5.3	8.27	Static resistance: failure of secondary locking device	5	
4.15.5.3	8.27	Static resistance: steering tube separates in 2 parts	7	18
4.15.5.3	8.27	Static resistance: steering tube collapses	11	
4.15.5.3	8.27	Static resistance: steering tube collapses with sharp edges	7	
4.15.5.4	Probe	Accessible gaps between moving parts	24	
4.15.5.5	8.26.3	Braking system inadequate	1	
4.15.5.6	Measurement	Front wheel too small	4	
4.15.5.7	Measurement	Protruding parts: diameter of handlebar ends too small	4	
5.1	8.2	Removable small parts (children < 36 months)	5	
5.4	8.40	Cord attachments which can form nooses	1	
6	8.25.1	Packaging: flexible plastic too thin	7	
Lack of CE marking			4	

The following chart presents the percentage share of the total number of models of toy scooters tested having each of the non-conformities detected:

Chart 3 - Share of non-conformities for toy kick scooters (n = 49)



Sports kick scooters

Out of a total of 20 models of sports kick scooters examined and tested, only 2 successfully passed all of the examinations and tests carried out. Several of the non-compliant sports kick scooters were found to have several non-conformities.

The following table indicates the number of sports kick scooters tested having a given number of non-conformities:

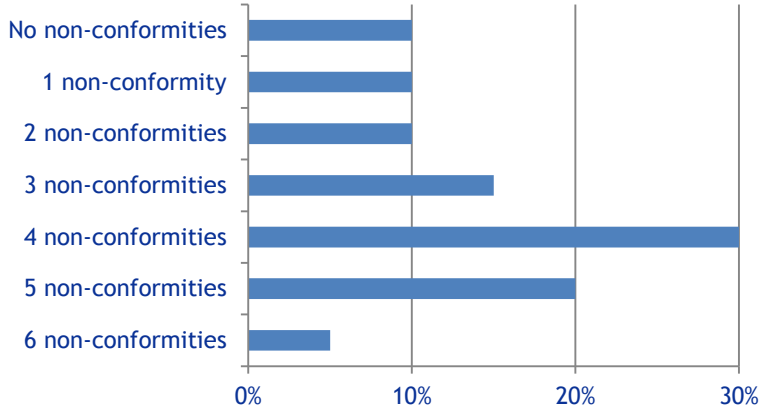
Table 14 - Number of non-conformities per sports kick scooter

Non-conformities per sports kick scooter[16]	Number of sports kick scooters
0	2
1	2
2	2
3	3
4	6
5	4
6	1

[16] For 4 sports kick scooters, the test programme described in section 4.2 could not be completed because of damage to the steering column due to failure in the static strength test.

The following chart indicates the share of the total number of sports kick scooters having a given number of non-conformities:

Chart 4 - share of sports kick scooters having a number of non-conformities (n = 20)



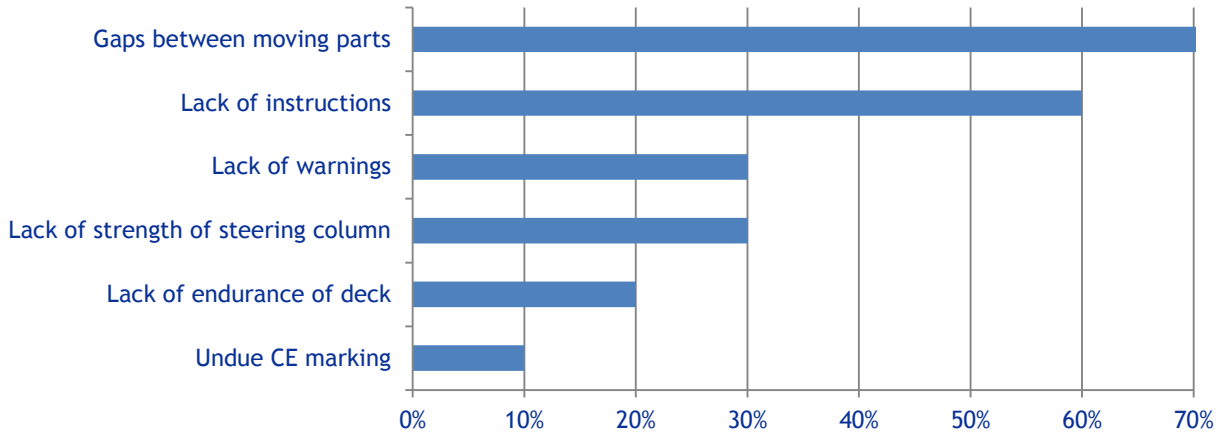
The following table presents the number of models of sports kick scooter having each of the non-conformities detected:

Table 15 - Non-conformities of sports kick scooters

Clause of EN 14619	Non-conformity	Number	
4.2.2 (Test: 5.8)	Gaps between moving parts	15	
5.4.2	Connection between the steering column and the head tube broke	3	6
5.4.2	Steering column broke	3	
5.7	Lack of endurance - cracks at rear of deck	3	4
5.7	Lack of endurance - rear of deck broke	1	
6	Lack of warnings	6	
7.2	Lack of instructions for use	7	12
7.3	Lack of maintenance instructions	3	
7.2 & 7.3	Instructions not in national language	2	
Undue CE marking		2	

The following chart presents the percentage share of the total number of models of sports scooters tested having each of the non-conformities detected.

Chart 5 – Share of non-conformities for sports kick scooters



5 Risk assessment and follow-up

5.1 Risk assessment

Each of the market surveillance authorities participating in the children's kick scooters activity carried out an assessment of the risks associated with the non-conformities detected on the models of kick scooter they had sampled using the method described in the European Commission's RAPEX Guidelines.[17] The purpose of the risk assessment is to ensure that the follow-up actions decided by the authorities is proportional to the risk involved by the non-compliant products, in accordance with the EU rules on market surveillance.[18]

Risk assessments for a given type of non-conformity may differ, since the estimation of the probability of accident scenarios and of the type and severity of injuries depends on the specific characteristics of the product concerned and also on the conditions of use that may vary from one country to another. Nevertheless, during the children's kick scooters activity, the following steps were followed to facilitate a more common approach to the risk assessment:

(a) Risk assessment templates for toy and sports kick scooters

In light of the outcome of testing, the Project Group prepared risk assessment templates for toy and sports kick scooters, with the help of the JA2013 Risk Assessment activity. For each of the most common non-conformities, risk scenarios are described. The probability of each scenario and the severity of the possible injuries that may result are then estimated. Use of the RAPEX method enables the authorities to assign one of the following 4 risk levels to each non-conformity detected: low, medium, high or serious.

(b) Discussion of the outcome of testing and inspection of tested samples

In addition to the test reports, input for the risk assessment was provided by discussion of the outcome of the testing and inspection of the tested samples with the LNE laboratory staff during the 3rd project meeting. Following this discussion, 2 examples of risk assessments for specific toy and sports kick scooters were worked out in common by the Project Group.

[17] Bibliography (6).

[18] Bibliography (3) - Article 8 (2).

(c) Comparison of assigned risk levels

The risk assessments carried out by each participating authority were circulated to the other participating authorities. The risk level assigned by each participating authority to each of the most frequently occurring non-conformities was recorded in a table.

The Project Group then examined the cases where differing risk levels were assigned to the same non-conformity. In some cases, the discussion enabled such differences to be resolved. In other cases, the differences were explained by factors specific to particular kick scooters. For example:

- the risk level assigned to the non-conformity *'gaps between moving parts'* depends on several factors:
  - the number of gaps – if a kick scooter has only one accessible gap, the probability of a finger getting caught is lower than if there are several such gaps;
  - the size of the gaps – there is a generally a higher probability of a child's finger getting caught in a larger gap than a smaller one;
  - the location of the gaps – there is a higher probability of child's finger entering a gap that is accessible while riding the kick scooter than a gap that is not accessible while riding;
  - the age of the child – very young children are more likely to put their fingers in small holes and gaps than older children;
  - the nature of the moving parts – for example, shearing and crushing points are associated with more serious injuries than pinching points.
- the probabilities of accident scenarios involving falls varied because of differing expectations as to whether children would be likely to wear a protective helmet while riding a kick scooter in the country concerned. For example, in some countries, it was considered that the probability of a child wearing a helmet while riding a kick scooter was 1/10 whereas in other countries, the probability of helmet use was estimated at 5/10.
- some participating authorities considered that where a model of kick scooter was found to have several non-conformities, each of which could result in the same accident scenario (for example, several failure modes that could cause the child to fall), the associated risk level was considered to be higher – see Section 6.4.
- the risk level assigned to the non-conformity *'protruding parts'* depends on how easily the handlebar ends can be removed – the standard specifies that a force of at least 60 N must be needed to remove the handlebar ends. There is a higher probability of accident occurring if the handlebar ends can be removed with a force of 30 N than if they can be removed with a force of 50 N, although both products fail to comply with the limit set by the standard.

  In this respect, it may be noted that it is more difficult to estimate the probability of a failure for non-conformities where standard specifies a test with a result of 'pass' or 'fail', without any indication of a measured value – see Section 6.5 (a).

The following table indicates the risk levels assigned by the participating authorities to the most frequent non-conformities found on toy kick scooters. Where the risk level is marked in bold and followed by an asterisk (*****), this indicates that the risk level concerned was assigned by the majority of the participating authorities.

Table 16 – Risk levels assigned to the non-conformities of toy kick scooters

Clause of EN 71-1	Non-conformity	Risk level
4.1	Lack of cleanliness	Low
4.7	Burs	Medium
4.9	Protruding parts	Medium/High/Serious
4.9	Protruding parts – handlebar ends	Low/Medium/High
4.10.1	Folding and sliding mechanisms	**Medium***/High
4.10.4	Springs	Low

4.15.1.3	Lack of strength – collapse of fork	High
4.15.1.4	Lack of stability	Low/**High***/Serious
4.15.1.6	Spaces between wheels and the body	Low/**Medium***
4.15.1.6	Lack of guard for transmission chains	Medium
4.15.1.7	Insufficient depth of handlebar stem insertion	Low/Medium*
4.15.5.2	Lack of warnings and/or instructions	**Medium***/High
4.15.5.3	Failure of main locking device	Medium/**Serious***
4.15.5.3	Failure of secondary locking device	Medium/Serious
4.15.5.3	Steering tube separates in 2 parts	Low/Medium/High/Serious
4.15.5.3	Steering tube collapses	**Medium***/High
4.15.5.3	Steering tube collapses with sharp edges	High/**Serious***
4.15.5.4	Accessible gaps between moving parts	Low/**Medium***/Serious
4.15.5.6	Front wheel too small	Medium/**High***
4.15.5.7	Diameter of handlebar ends too small	Low
5.1	Detachable small parts	Serious
5.4	Cord attachments which can form nooses	Serious
6	Packaging	Low/Serious

The following table indicates the risk levels assigned by the participating authorities to the most frequent non-conformities found on sports kick scooters. Where the risk level is marked in bold and followed by an asterisk (*), this indicates that this risk level was assigned by the majority of the participating authorities.

Table 17 – Assigned risk levels for the non-conformities of sports kick scooters

Clause of EN 14619	Non-conformity	Risk level
4.2.2.2	Gaps between moving parts	Low/**Medium***/High
5.4.2	Connection between the steering column and the head tube broke	High/**Serious***
5.7	Lack of endurance – cracks	Medium
6	Lack of warnings	Medium
7.2	Lack of instructions	Low/**Medium***

5.2 Follow-up with Economic Operators

Test reports provided by Economic Operators

The market surveillance authorities required the Economic Operators responsible for placing the kick scooters on the market to communicate relevant elements of their Technical Documentation. In response to such requests, a significant number of Economic Operators provided reports on tests carried out by third-party test laboratories.

It may be recalled that, for toy kick scooters, conformity assessment by an EU Notified Body is not required by the Toys Safety Directive where harmonised standards covering all of the applicable safety requirements of the Directive are applied.[19] In that case, the manufacturer is permitted to assess the conformity of the product himself. Manufacturers of sports kick scooters are also permitted to assess the conformity of their products themselves. However, for both categories of kick scooters, manufacturers frequently have recourse to testing by third-party laboratories.

The children's kick scooter project group examined a sample of test reports communicated by Economic Operators during the course of the Joint Action. Test reports relating to 42 kick scooters were examined. The following tables indicate the type of laboratory issuing the test report, the type of economic operator

[19] Article 19 (2) of Directive 2009/48/EC.

to whom the test report was issued and the link between the test report and the product sampled on the market.

Table 19 – Type of laboratory that issued the test report

Subsidiaries of European Certification Bodies in People's Republic of China	21
Subsidiaries of European Certification Bodies in Hong Kong	14
Subsidiaries of European Certification Bodies in Taiwan	2
Chinese Certification Bodies	1
European Certification Bodies	2
Other	2
Total	42

A majority of the test reports (38/42) were issued by laboratories in the Peoples Republic of China, Honking or Taiwan.

Table 20 – Type of economic operator to whom the test report was issued

Test report issued to manufacturer in China, Hong Kong or Taiwan	33
Test report issued to European importer	4
Test report issued to European manufacturer	4
Test report issued to unknown economic operator	1
Total	42

A majority of the test reports (33/42) were issued to a manufacturer in China, Hong Kong or Taiwan, including where the kick scooter was placed on the EU market under the brand of an EU importer.

Table 21 – Link between the test report and the product sampled on the market

Test report linked to the product sampled on the market	33
Test report not linked to the product sampled on the market	9
Total	42

In a significant number of cases (9/42) there is no clear link between the test report provided by the Economic Operator and the product sampled on the market during the Joint Action. This indicates that the test report concerned may have been misused for a product other than that initially tested. In such cases, it is probable that the product sampled on the market was not in fact tested according to the relevant standard.

Corrective measures

Based on the outcome of the risk assessment, the participating authorities decided on the measures necessary to remedy the non-conformities detected. The relevant Economic Operators were informed about the results of the examinations and tests carried out on their products and required to take the necessary measures, in proportion to the risk level. These measures could be stopping the sale of non-compliant and unsafe products, bringing such products into conformity or withdrawal of the products from the market. In certain cases, the authorities also ordered the Economic Operators to recall non-compliant products from consumers.

In a large majority cases, the Economic Operators agreed to cooperate with the market surveillance authorities and agreed to take appropriate measures on a voluntary basis. However, in some cases, mandatory measures were decided. In this respect, it may be noted that, in some of the participating countries, even when an Economic Operator agrees to take the required corrective measures, a mandatory order is made in order to ensure that sanctions can be imposed if the required measures are not effectively taken.

The following table summarises the follow-up measures reported to date:

Table 18 – Follow-up measures taken to deal with non-compliant products

Measure taken	Number of measures
Product accepted as compliant after comments by the economic operator	2
Future production to be brought into conformity	3
Product no longer sold	5
Voluntary measures	
Sales stopped	10
Sales stopped and design changed	2
Sales stopped and product withdrawn from the market	16
Mandatory measures	
Withdrawal from the market	9
Withdrawal from the market and recall from consumers	5
Notification to RAPEX	
Notification to RAPEX – serious risk (GPSD, Article 12)	13
Notification to RAPEX – less than serious risk (GPSD, Article 11)	11
Notification to RAPEX for information	1
Cases still pending	3

6 Evaluation and lessons learned

6.1 The high rate of non-conformity

The most striking outcome of the checks and tests carried out is the high rate of non-conformity of the products sampled. Only 2 toy kick scooters out of 49 models sampled fully complied with the requirements of the Toy Safety Directive and of the relevant harmonised standard. For sports kick scooters, only 2 out of 20 models sampled passed the 5 safety-critical tests and the documentary checks carried out (see section 4.3).

While the existence of detailed specifications in European standards is generally expected to result in an improvement in the general level of conformity and safety of the products concerned, such an improvement depends on whether or not the standards are correctly applied by the Economic Operators responsible for placing the products on the market.

None of the laboratories that tested the children's kick scooters on behalf of manufacturers or importers detected any of the non-conformities found on the products sampled on the market, even in the case of products having multiple non-conformities. This must raise doubts about the seriousness of the conformity assessment carried out by the manufacturers concerned and about the reliability of the testing carried out on their behalf.

In cases where there is a clear link between the test report and the product sampled on the market, there remains a doubt about the quality and reliability of the testing carried out on behalf of the manufacturer or about the manufacturer's control of the quality of his production.

It is recommended that the questions of the misuse of test reports and, in particular, of the quality and reliability of testing carried out by the Chinese subsidiaries of European Certification Bodies be discussed by the Member States and the European Commission with the organisations representing those Bodies.

6.2 The distinction between toy and sports kick scooters

One of the objectives of the children's kick scooters activity was to examine whether the distinction between toy and sports kick scooters was well understood and correctly applied by Economic Operators. The need to distinguish between toy and sports kick scooters for children results from the exclusion of sports equipment from the EU Toy Safety Directive (see Section 2.2).

In the case of kick scooters intended for very young children, the classification as toys is unproblematic. The classification of kick scooters explicitly designed for freestyle riding or stunts as sports equipment is also evident. However, in the case of many kick scooters intended for use by older children, the distinction between toys and sports equipment can be problematic.

The problem is not facilitated by the relevant standards. The standard EN 71-1 applies to toy kick scooters for children with a maximum body mass of 20 kg and toy kick scooters for children with a maximum body mass of 50 kg. For sports kick scooters, the 2004 version of standard EN 14619 (used as a reference during the children's kick scooters activity) applies to kick scooters for children with a body mass between 35 and 100 kg. The revised version of EN 14619 applies to kick scooters for users with a body mass between 20 and 100 kg. Consequently, for the 20 - 50 kg range, the scopes of the standards now overlap. For this range, the only way to distinguish toy kick scooters from sport kick scooters is by reference to their intended use.

It is unlikely that children of school age will restrict their use of toy kick scooters to play in areas other than public footpaths such as parks and gardens. Several of the market surveillance authorities confirmed that kick scooters intended for children with a maximum body mass of 50 kg are frequently used by school-age children for travelling to school or for travelling to other places outside the home.

Furthermore, for the 20 – 50 kg range, the distinction between toy and sports kick scooters does not correspond to a clear differentiation between the technical characteristics of the products. This was well illustrated by the fact that, during the testing of children's kick scooters, it transpired that several of the kick scooters sampled had been assembled from technically identical components. Some of these kick scooters had been classified as toys and others as sports equipment. Furthermore, certain kick scooters were declared to comply with both the toys standard EN 71-1 and the sports equipment standard EN 14619.

Overall, the decision by the manufacturer to classify a kick scooter intended for children with a maximum body mass of 50 kg as a toy or as sport equipment currently seems rather arbitrary. It is not satisfactory to apply a different legal framework and different tests to similar products on the basis of such an arbitrary decision.

It is therefore recommended that the criteria for classifying children's kick scooters as toys or as sports equipment be re-examined by the Member States and by the European Commission, in cooperation with CEN.

In order to overcome the current uncertainty on the market, it would be preferable to base the classification on a unique, simple and measurable criterion, as is already the case for roller skates, inline skates, skateboards and children's bicycles.[20]

For children's kick scooters, the most appropriate parameter on which to base the classification would appear to be the maximum body mass.

In order to simplify and clarify the classification of children's' kick scooters, the following measures should be considered:

- amendment of Annex I of the Toys Safety Directive;
- revision of the relevant Commission Guidance Documents;
- amendment of the relevant European Standards in order to remove the overlap of scope between the standard for toy kick scooters, EN 71-1, and the standard for sports kick scooters, EN 14619.

6.3 Experiences of sampling from the Internet

One of the aims of the JA2013 children's kick scooters activity was to gain experience of market surveillance of products sold via the Internet. 21 % of the kick scooters tested were sampled from Internet sites. These included Internet sites of manufacturers, Internet sites belonging to distribution chains that also have shops and pure online commerces selling products from different sources.

[20] The Toys Safety Directive excludes from its scope sports equipment, including roller skates, inline skates, and skateboards intended for children with a body mass of more than 20 kg and bicycles with a maximum saddle height of more than 435 mm – Directive 2009/48/EC - Annex I, 3 and 4.

In most cases, sampling from the Internet did not give rise to any particular problem of traceability. The Economic Operators responsible for placing the kick scooters on the market could be identified from the markings, packaging and documents accompanying the products that were delivered.

However, the following problems were encountered during the sampling:

Refusal to supply the product to the market surveillance authority

An Internet site refused to supply a product ordered by the market surveillance authority, invoking various pretexts. When the same product was ordered by a market surveillance official using personal contact details, the product was supplied immediately. The site concerned was clearly attempting to evade control by the market surveillance authority.

Taking samples without payment

Certain of the participating authorities have the policy and the necessary legal power to take samples without payment for market surveillance purposes. As a general rule, Internet sites only supply products after payment.

In some cases, the market surveillance authority sent letters to the Economic Operators indicated on the Internet sites, requiring them to supply samples of specified products for market surveillance purposes.

In another case, the Internet site permitted payment for the products ordered at a physical address. The market surveillance officer went to that address and the representative of the Internet site was informed that the products concerned would be taken without payment for market surveillance purposes.

However, neither of these solutions are available if the Internet site does not provide a link to the physical address of an Economic Operator located in the territory of the market surveillance authority concerned.

These are probably not the only problems that may be met when carrying out sampling for market surveillance purposes. But they illustrate the fact the current powers and policies of the national market surveillance authorities may not be fully adequate to deal with Internet sales in a satisfactory way. In particular, the following issues need to be addressed in order to ensure that Economic Operators selling products via the Internet are treated in an equal manner to other Economic Operators:

- Internet sites must not have the possibility to evade sampling by refusing to supply their products to a market surveillance authority. This probably requires the authority to establish a means of ordering samples for market surveillance purposes without revealing the identity of the 'customer' at the time the order is placed. Nevertheless, it seems important for the Internet site to be informed, after the products have been supplied, that the samples have been collected for market surveillance purposes, in order to protect the rights of the economic operator concerned.
- In countries where the market surveillance authority has the policy and the necessary legal power to take samples without payment for market surveillance purposes, it would be unfair to apply a different policy for Internet sales. It therefore seems necessary for such a market surveillance authority to have the legal power to order an Internet site to supply samples without payment for market surveillance purposes.

These issues will be communicated to the European Commission for discussion in the framework of the development of guidance on market surveillance of Internet sales.

6.4 Risk assessment and multiple non-conformities

During the discussion of the assessment of the risks created by the non-conformities detected during testing, a difficulty arose for kick scooters having multiple non-conformities. As a general rule, the RAPEX Risk Assessment Guidelines indicate that, when estimating the risk created by a non-compliant product having several non-conformities, the probability of occurrence of the different accident scenarios should not be accumulated, but the estimation should be based on the scenario having the highest risk level.

In the case of kick scooters, several products were shown to have several non-conformities, each of which could result in a similar accident scenario. For example, a lack of dynamic strength or a too small front wheel could both result in loss of control of the kick scooter followed by a fall. In the RAPEX RAG

application, the probability of each non-conformity leading to such an accident is estimated separately. However, the existence of multiple non-conformities increases the probability that any one of the non-conformities may lead to an accident. This factor does not seem to be adequately taken into account in the current guidance on the use of the RAG application.

This question will be forwarded to the PROSAFE Risk Assessment Project Group for consideration.

6.5 Needs for improvement in standards for kick scooters

The testing of 69 models of children's kick scooter and the discussion of the results with the staff of the test laboratory and with the Economic Operators responsible for placing the kick scooters on the market have brought to light certain specifications of the relevant standards that need clarification or improvement.

It should be stressed that the existence of these issues cannot be invoked by Economic Operators as an 'excuse' for non-conformities, since many of the kick scooters tested satisfied the requirements concerned. While the overall rate of non-conformity was high, for each individual requirement, between 50 and 90 % of the toy kick scooters tested complied. For sports kick scooters, for each individual requirement, between 30 and 80 % of the products tested complied (see Section 4.3, Charts 4 and 5).

(a) Evaluating the results of 'pass or fail' tests

Some of the tests prescribed in the relevant standards are carried out in such a way that the test report provides not just the indication 'pass' or 'fail' but also a measured value. For example, in the test relating to protruding objects, the test report indicates the force required to remove the handlebar ends – see Section 5.1 (c).

However, other tests are carried out in such a way that the only information provided in the test report is 'pass' or 'fail'. Consequently, there is no way of assessing, in case of failure, how far the product deviates from the limit fixed by the standard. The following are examples of such 'pass' or 'fail' tests:

- In the static strength tests set out in Clause 4.15.5.3 (b) of EN 71-1, a force is applied to the steering tube in the form of a suspended mass. In case of failure, there is no way of knowing with which force the failure occurred. For example, if the steering column fails with a suspended mass of 100 kg, it might have failed with a mass of 50 kg or 95 kg. If the test was carried out, for example, with a traction device equipped with a dynamometer, it would be possible to record the force at which a failure occurred. This information would be useful for the purpose of risk assessment, since it provides an indication of the probability of a dangerous failure occurring during use.
- The tests for spaces between moving parts set out in Clause 4.15.5.4 of EN 71-1 are carried out using 5 mm and 12 mm rods. However, for cases where the 5 mm rod can be inserted and the 12 mm rod cannot be inserted, the test report indicates 'fail', without indicating the actual dimension of the space. In addition to the insertion of test rods, the actual dimension could be measured using, for example, a Vernier calliper. Alternatively, the test could be carried out with successively larger rods (5 mm, 6 mm, 7 mm and so on). Information on the actual dimension of the space would be useful for the purpose of risk assessment since it influences the probability of a child's finger being entrapped.

The project group requests CEN to re-examine the test methods applied to children's kick scooters with a view, where possible, to providing measured values in addition to the indication 'pass' or 'fail'.

(b) Toy kick scooters: test of resistance to downward forces of the steering column (Clause 8.27.1 of EN 71-1).

Several experts expressed the opinion that the use of a test load of 100 kg test load (2 x 50 kg) for this test was excessively severe for children's kick scooters.

During discussions with Economic Operators, it was also pointed out that the effects of the test are different, depending on the inclination of the steering column with respect to the deck of the kick scooter. The standard requires the kick scooter to be placed on a horizontal plane during the test. This means that the test weights hang parallel to the steering column on kick scooters where the steering column is vertical. In that case, the test mainly affects the locking devices on the steering column. On

kick scooters where the steering column is inclined, the test mainly affects the steering column itself and its attachment to the deck.

The project group considers that the objective of this test should be clarified and both the test load and the test method should be re-examined accordingly. It might, for example, be preferable to test the strength and reliability of the locking devices in a downward direction by applying a force parallel to the steering column, and then to test the strength of the steering column itself and of its attachment to the deck by applying a force perpendicular to the steering column (as in the tests for sports kick scooters set out in in Clause 5.4.2 of EN 14619).

(c) Toy kick scooters: use of a 5 mm rod to test spaces between moving elements capable of injuring fingers (Clause 4.45.5.4 of EN 71-1).

Several experts considered that the use of a test rod with a diameter of 5 mm was unnecessarily stringent for kick scooters, in particular in the case of scooters intended for children older than 3 years. The Project Group considers that this requirement should be re-examined, in light of the specifications set out in standard for similar products (for example, child care articles or playground equipment).

(d) Toy kick scooters: the relationship between the limit of 3 years of age and the maximum body mass of 20 kg

It appears that users of EN 71-1 often assume that the criterion of less than 3 years of age and the criterion of a maximum body mass of 20 kg are identical.

On the one hand, while it is generally assumed that a kick scooter intended for children with a maximum body mass of 20 kg may be used by children under 3 years of age, this does not mean that such a kick scooter cannot be used by children of 3 years or older whose strength and behaviour may be very different from those of very young children.

On the other hand, certain Economic Operators wished to exclude use of kick scooters intended for children with a maximum body mass of 20 kg by children under 3 years of age.

Lack of clarity about the relationship between these two criteria has given rise to uncertainty about certain requirements of EN 71-1, for example:

- the applicability of the stability test which is not applicable to kick scooters intended for children of 3 years and over (Clause 4.15.1.4 of EN 71-1);
- the test load to be used for strength and stability tests, different depending on whether the toy is intended for children below 3 years of age or 3 years and over (Clause 8.18.1 of EN 71-1).

The Project Group considers that the applicability of requirements of the standard with respect to the intended age-group and the maximum body mass needs clarification. In particular, it should be made unambiguously clear to which toy kick scooters the stability test is applicable and which test load should be used for strength and stability tests on kick scooters intended for children with a maximum body mass of 20 kg.

It was also noted that the requirement for a braking system is not applicable to kick scooters intended for children with a maximum body mass of 20 kg (Clause 4.15.5.5 of EN 71-1). Some experts considered that, while brakes were not needed on kick scooters for children under 3 years of age, they should be required on kick scooters for older children with a maximum body mass of 20 kg who ride faster. It would therefore be preferable to base the exemption from the requirement for a braking system on age rather than on maximum body mass.

(e) Sports kick scooters: use of a 5 mm diameter test rod for accessible gaps (Clause 4.2.2.2 of EN 14619).

Several experts considered that the use of a test rod with a diameter of 5 mm was unnecessarily stringent for sports kick scooters. The Project Group considers that this requirement should be re-examined in light of the specifications in other standard for products used by children (see (b) above).

(f) Sports kick scooters – design measures to prevent the risk of entrapment (Clauses 4.2.2.2 and 4.2.2.3 of EN 14619).

Clause 4.2.2.2 of EN 14619, relating to the distance between parts moving against each other, specifies that the distance between accessible moving parts shall be either smaller than 5 mm or wider than 18 mm in any position. However, the standard does not provide criteria for judging whether or not such gaps between moving parts are to be considered accessible.

The 3rd indent of Clause 4.2.2.3, relating to the folding mechanism, specifies that if the distance specified in Clause 4.2.2.2 is not met, other designs to protect the user from unintentional injuries shall be provided. However, the standard does not specify what 'other designs' can be used nor does it provide criteria for evaluating their adequacy to prevent the risk.

The Project Group considers that the standard should, on the one hand, provide criteria for assessing the accessibility of moving parts and, on the other hand, specify what design measures can be used to prevent the risk in the folding mechanism and provide criteria for evaluating their adequacy; otherwise this derogation to the requirement set out in Clause 4.2.2.2 should be deleted.

(g) Sports kick scooters – language of markings and instructions (Clauses 6 and 7 of EN 14619).

Since it appears that a number of accidents involving kick scooters result from misuse, the Project Group considers that the clauses of standard EN 14619 on markings and instructions should include a requirement that written information should be expressed in a language easily understood by consumers.

(h) The need for specific requirements for freestyle or stunt kick scooters.

Several experts expressed the opinion that certain of the current requirements of EN 14619 are not adequate for kick scooters intended for freestyle riding or stunts which are subject to particularly severe conditions of use.

The Project Groups suggests than CEN should consider developing the necessary specific requirements for such kick scooters, either within EN 14619 or as a specific standard or part of the standard.

7 Bibliography

EU Legislation

1) Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys.

   http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0048&from=EN

2) Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety.

   http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0095&from=EN

3) Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products.

   http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R0765&from=EN

Guidance on the application of the EU legislation

4) Guidance Document N° 1 on the application of the Directive on the Safety of Toys – Scooters.

   http://ec.europa.eu/DocsRoom/documents/5842/attachments/1/translations/en/renditions/native

5) Guidance Document N° 14 on the application of the Directive on the Safety of Toys - Sports equipment versus toys.

   http://ec.europa.eu/DocsRoom/documents/5851/attachments/1/translations/en/renditions/native

6) Commission Decision of 16 December 2009 laying down guidelines for the management of the Community Rapid Information System 'RAPEX' established under Article 12 and of the notification procedure established under Article 11 of Directive 2001/95/EC (the General Product Safety Directive).

Standards for kick scooters

7) EN 71-1 - *Safety of toys* - Part 1: *Mechanical and physical properties.*

8) EN 14619:2005 - Roller sports equipment. Kick scooters. Safety requirements and test methods.

Accidents involving kick scooters

9) L'explosion des accidents de trottinette en France (2000-2001) : B. Thélot, M. Nectoux et le réseau français de surveillance des accidents de la vie courante - *BEH N° 38/2002*.

10) Road Safety Information – Scooters : The Royal Society for the Prevention of Accidents (RoSPA) – *July 2003*.

11) Dental injuries with kick-scooters in 6- to 12-year-old children: Elisabeth Nathalie Baumgartner, Gabriel Krastl, Sebastian Kûhl, Andreas Filippi - *Dental Traumatology 2011*.

8 ANNEX - Checklist for documentary and visual checks on kick scooters

A. Identification and description of the kick scooter (to be accompanied by a photo)	
JA 2013 Product Code:	**JA2013** /**KS** / **Country** (e.g. BE; BG) / **XXX** (product number) /**T** or **S** (toy or sports) /**L** (if sent to test laboratory)
Required national product information:	
Trademark or Brand:	
Name of Model:	
Product reference:	
EAN Code (Bar code):	
Name and address of manufacturer:	
Name and address of importer:	
Date of placing on the market (before or after 20.07.11):	
Name and address of distributor:	
Maximum body weight (kgs):	
Maximum age (if specified):	
Number of wheels (e.g. 2 front, 1 back):	
Picture of product and packaging:	

B. Toy scooters in the scope of the Toys Safety Directive 2009/48/EC and EN 71-1:

- all scooters intended for children or 3 years or less (<20 kg);
- any scooters intended for children between 4 and 14 years (20 < 50 kg) not designed for sport or for travel on public roads or public pathways.

Aspect of conformity	Requirement	TSD	National implementation of TSD	EN 71-1	C/NC	Reasons
Technical Documentation	The manufacturer shall establish the technical documentation. The technical documentation shall detail the means used to ensure compliance with the requirements set out in Article 10 and Annex II and contain the documents listed in Annex IV (e.g. test reports). The manufacturer shall keep the technical documentation at the disposal of the national authorities for 10 years after the product has been placed on the market.	Art. 4 (2) & (3) Art. 21 Art. 45 (1) (e) Annex IV		-		
EC Declaration of conformity	The manufacturer shall draw up an EC declaration of conformity and keep it at the disposal of the national authorities for 10 years after the product has been placed on the market. A copy of the declaration of conformity shall be made available to the relevant authorities upon request.	Art. 4 (2) & (3) Art. 15 Art. 45 (1) (c) & (d) Annex III		-		
CE-marking	The CE marking shall be affixed visibly, legibly and indelibly to the toy, to an affixed label or to the packaging. The CE marking shall be at least 5 mm high.	Article 4 (1) Article 16		-		

Aspect of conformity	Requirement	TSD	National implementation of TSD	EN 71-1	C/NC	Reasons
Warnings on the kick scooter and on the packaging	For toy scooters for children < 20kg: *"Warning. Protective equipment should be worn. Not to be used in traffic. 20 kg max."* For toy scooters for children 20<50kg: *"Warning. Protective equipment should be worn. Not to be used in traffic. 50 kg max.".*	Article 10 (2) Article 11 Annex V, Part A Annex V, Part B, 5.		Clause 4.15.5.2 – *Warnings and instructions for use*		
Instructions for use	- A reminder that the toy shall be used with caution, since skill is required to avoid falls or collisions causing injury to the user or third parties. - The warning relating to protective equipment and maximum weight (as on the marking); - How to safely fold or unfold foldable scooters; - the necessity to ensure that all locking devices are engaged; - the dangers of using toy scooters on public highways; - a recommendation to use protective equipment such as a helmet, gloves, knee-pads and elbow-pads.	Article 10 (2) Annex V, Part A Annex V, Part B, 5.		Clause 4.15.5.2 – *Warnings and instructions for use* Clause 7.18 – *Toy scooters*		
Presence of a braking system	Toy scooters for children >20 kg shall have at least one braking system operating on the rear wheel. (not required for toy scooters for children <20 kg). (Checking the performance of the brake is subject to a test).	Article 10 (2) Annex II, I, 7.		Clause 4.15.5.5 - *Braking*		

Aspect of conformity	Requirement	TSD	National implementation of TSD	EN 71-1	C/NC	Reasons
Size of front wheel	The diameter of the front wheel(s) on toy scooters shall be 120 mm or greater.	Article 10 (2)		Clause 4.15.5.6 – *Wheel size*		
Diameter of handle ends	The handles on toy scooters shall have an end with a diameter of 40 mm or more.	Article 10 (2) Annex II, I, 2.		4.15.5.7 – *Protruding parts*		

C. Kick scooters for sports/transport use in the scope of the General Product Safety Directive 2001/95/EC and EN 14619:

- Kick scooters intended for children between 4 and 14 years (>20 kg) designed for sport or for travel on public roads or public pathways;
- Kick scooters intended for young people or adults above 14 years of age.

Aspect of conformity	Requirement	GPSD	National implementation of GPSD	EN 14619	C/NC	Reasons
Warnings on the kick scooter and on the packaging	Each kick scooter shall be legibly and durably marked with the following: a) name, trade mark or other means of identification of the manufacturer, or his authorized representative within the European Community, or the importer; b) means of identification of the model; *c)* warning: *"Read the information supplied by the manufacturer".* d) maximum weight. The following information shall be provided on the package: a) all information given on the kick scooter; b) number of the standard EN 14619.	Article 5 (1)		Clause 6 - *Marking*		

Aspect of conformity	Requirement	GPSD	National implementation of GPSD	EN 14619	C/NC	Reasons
Instructions for use	The following advice shall be included: a) advice to the user to check the limitation of use according to regulations of road safety; b) recommendations regarding or descriptions of suitable surfaces (flat, clean, dry and where possible away from other road users); c) use of at least following protective equipment: hand/wrist, knee, head and elbow protection; d) instruction to check that the steering system is correctly adjusted and that all connection components are firmly secured and not broken; e) description of the correct techniques for use and for braking; f) advice on making ready for use in order to avoid pinching or entrapment; g) always wear shoes; h) do not ride in the darkness; i) mechanism to reduce speed will get hot from continuous use, do not touch after braking.	Article 5 (1)		Clause 7.2 - *Instructions for use*		

Aspect of conformity	Requirement	GPSD	National implementation of GPSD	EN 14619	C/NC	Reasons
Servicing and maintenance instructions	Clear advice stating that regular maintenance enhances the safety of the kick scooter. This includes: a) note regarding bearing maintenance; b) replacement of wheels, if applicable; c) no modifications other than to the manufacturer's instructions shall be made; note indicating when self-locking nuts and other self-locking fixings may lose their effectiveness.	Article 5 (1)		Clause 7.3 – *Servicing and maintenance instructions*		

Undue CE marking	Article 30 *General principles of the CE marking* 2. The CE marking as presented in Annex II shall be affixed only to products to which its affixing is provided for by specific Community harmonisation legislation, and shall not be affixed to any other product.	Regulation EU N° 765/2008 Article 30 (2)		-		