Report on the Third Joint Cross Border R&TTE Market Surveillance Campaign

by the European Market Surveillance Authorities in 2008/2009

Survey Dates: 1. September 2008 – 31. May 2009 **final *Version***
Report date: 8th October 2009 / Rev. 4th November 2009

1 Executive Summary

A joint cross-border market surveillance campaign in the field of the Radio Equipment & Telecommunications Terminal Equipment ('R&TTE') Directive 1999/5/EC was carried out between 1 September 2008 and 1 June 2009 by 23 market surveillance authorities ('MSA') participating in the R&TTE ADCO (Administrative Cooperation) group. The focus of that campaign was private mobile radio ('PMR') products and products that utilises the licence exempt 2.4 GHz band. These products were chosen to reflect the importance of the applications to commerce as 2.4 GHz wireless Local Area Networks ('LAN'), CCTV video, PMR etc., are widely used for business communications.

The scope of the campaign included the assessment of compliance of products with the administrative requirements, including Technical Documentation, and the technical requirements of the R&TTE Directive regarding EMC and radio spectrum. In addition, electrical safety compliance checks were carried out by certain MSA on a voluntary basis.

In common with the previous campaigns, the objectives of the third campaign was to assess the level of compliance with elements of the R&TTE Directive, improve information exchange between MSA and facilitate their participation in market surveillance activities. The campaign required co-ordinated activities, information gathering, reporting and data analysis. Subsequent enforcement by MSA were considered a matter under the principle of subsidiary and was left to the discretion of individual MSA.

In summary the results of the third campaign showed that:

- Only 40% of the 259 products surveyed comply with the administrative requirements of the R&TTE Directive (compliance rate PMR: 53% and 2.4 GHz products: 27 %).
- For 12 products of 107 products marked with a notified body number (11.2% of all products marked with a notified body number) this number appeared to have been applied fraudulently.
- Only 15.7% of 219 products examined fulfilled the requirements with regard to the Technical Documentation.
- Only 62% of 242 products tested for their compliance with technical requirements of the R&TTE Directive fulfil the technical requirements when assessed on the basis of relevant standards.
- Only 53.5% of 71 products assessed against safety are technically compliant.
- Overall, only 22.6% of the checked PMR and 9.2% of the checked 2.4 GHz products fulfil all the requirements of the R&TTE Directive
- Overall, only 15.8% of the examined 259 products complied with all the requirements of the R&TTE Directive that were addressed in the campaign.

The above results were interesting, but gave little insight into the causes of the significant non-compliance issues indicated, limiting the conclusions that could be drawn from the results. The report therefore focuses on the analysis of statistics collected during the course of the campaign showing the relative level of non-compliance with various requirements of the R&TTE Directive, without speculating on the causes of such non-compliances. However, a follow-up investigation into the causes could be very valuable for all involved parties (administrations, manufacturers, importers, dealers, users).

The principal conclusions drawn from the campaign were as follows:

1. The level of compliance of the PMR and 2.4 GHz products present on the European market is very low.

2. There is a significant difference regarding the level of compliance between PMR and 2.4 GHz products

3. The result of the campaign shows, that it is really important for MSA to check the technical aspects because even where Technical Documentation ('TD') may show compliance.

4. Many products surveyed were marked with a Notified Body ('NB') number indicating compliance with the R&TTE Directive and upon further investigation appeared to have been applied fraudulently.

A full list of all the conclusions and recommendations are shown in chapter 4 and 5 of the report.

2 Background

2.1 Reasons and aims for the 3rd cross-border Campaign

Two cross-border Market Surveillance Campaigns in the field of the R&TTE have been carried out by MSA participating in the ADCO R&TTE group.

The first one was conducted in 2002/2003 by 19 MSA and was limited to assess the level of compliance of all kind of R&TTE products with the administrative requirements of the R&TTE Directive. Only 24% of 1900 products assessed complied with all administrative requirements.

The second campaign was conducted in 2005/2006 by 17 MSA. The campaign covered Short range devices (SRD). The scope of the campaign was extended to cover all administrative and technical requirements of the R&TTE Directive. Technical measurements were carried on the assessed products. The requirements for electrical safety and health were not assessed. Assessment of the Technical Documentation showed that only 6% of the 180 products assessed complied fully.

For this reason the ADCO R&TTE group decided to start a third campaign with the same assessment procedure. MSA were encouraged to check as well the technical aspects of article 3.1.a of the R&TTE Directive (safety).

The focus of this campaign was private mobile radio (PMR) products and products that utilises the licence exempt 2.4 GHz band. These product categories were chosen to reflect the importance of the applications to commerce 2.4 GHz wireless LANs, video etc., and PMR to business communications. There was a noticeable increase in use of this type of product in Europe and it was felt important to establish a general overview of the compliance rate and the possible impact for safety and interference.

In common with the previous campaigns, the objectives of the third campaign was to assess the level of compliance with elements of the R&TTE Directive, improve information exchange between MSA and facilitate their participation in market surveillance activities. The campaign required co-ordinated activities, information gathering, reporting and data analysis. Subsequent enforcement by MSA were considered a matter under the principle of subsidiary and was left to the discretion of individual MSA.

As market surveillance is an essential tool for the enforcement of New Approach directives[1] the European Commission is placing increasing emphasis on effective market surveillance in the context of the New Legislative Framework, and cross-border campaigns have proven to be an effective means of carrying out such activities.

2.2 Practical Arrangements

Participation
Participation in the campaign was voluntary, and was open to all MSA of the ADCO R&TTE group.

Timing
The campaign began on 1 September 2008, and the information gathering, testing and data-reporting phase of the campaign lasted nine month, ending on 31 May 2009. Within that period, participating MSA were responsible for their own timing of market surveillance actions. Test results could be uploaded to CIRCA at any time during the course of the campaign.

However, following the testing phase of the campaign, one further month, ending on 30 June 2009, was allowed for the remaining results obtained and uploaded to CIRCA.

Common understanding / Code of Practice
In order for this campaign to be effective, it was important that participating MSA had a common understanding of its purpose and, as far as possible, used a harmonised practice. An agreed "Code of Practice" was adopted by all participating MSA. It was intended to describe the methodology employed when carrying out the campaign.

Report of the campaign
It was also agreed that following the analysis of the results of the campaign, a report would be presented to TCAM and CEPT ECC/WG RA. This present document constitutes the report of the campaign.

Based on the conclusions of the campaign, the report sets out recommendations for future actions. These include measures aimed at improving manufacturer's awareness of the R&TTE Directive.

2.3 Choice of equipment surveyed

ADCO R&TTE chose to concentrate the third campaign on following R&TTE products:

1. "Private mobile radio (PMR)"
   examples: analogue and digital PMR, PMR 446, Tetra, trunk radio etc.

2. "2.4 GHz products."
   examples: RLAN, wireless video, remote control etc.

It was decided that the MSA would make their own choice of the specific types (manufacturers/models) to be surveyed and the quantities to be tested. However it was recognised that this could lead to MSA testing the same type of products and that this could influence the results.

To avoid this problem, MSA were requested to upload basic information (as manufacturer, product type, quantities) about the products they had selected for testing, as soon as this was determined, to a special CIRCA folder.

[1] Article 8 of the "Guide to the implementation of directives based on the New Approach and the Global Approach" (blue guide)

2.4 Data collecting, processing and Method of analysis

Data on the equipment surveyed was collected on the ADCO R&TTE section of the secure CIRCA website which is accessible to all MSA attending ADCO R&TTE. All participating MSA were required to respect the confidentiality of the data.

The analysis of the results were divided into

- administrative compliance
- compliance of the Technical Documentation
- technical compliance with the essential requirements set out in article 3.1.a (safety), article 3.1.b (EMC) and article 3.2 (efficient use of spectrum) of the R&TTE Directive based on testing against Harmonised Standards
- a summary of products' overall compliance with the provisions and requirements of the R&TTE Directive mentioned in the previous three bullet points

3 Test results and Analysis of results

The third market surveillance campaign was carried out with the participation of 23 MSA: Austria, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Lithuania, Luxembourg, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the Netherlands and the United Kingdom.

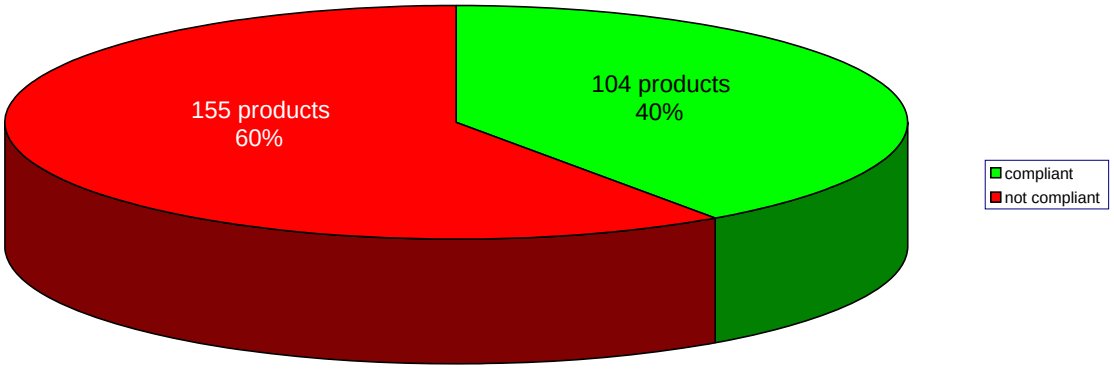
One of the campaign objectives was to analyse any correlation between compliance and the country of origin. Although data was collected, it was considered inconclusive as it proved difficult to distinguish the relationship between manufacturers, producers, suppliers, and ‘responsible person’ responsible for placing on the market.

3.2 General analysis

During the campaign 259 products were examined (128 PMR and 131 2.4 GHz products), of which 242 were assessed for technical compliance. 219 sets of Technical Documentation were requested.

3.3 Administrative compliance

The following figure shows the overall compliance of the surveyed products with the administrative requirements.



PMR **2.4 GHz**

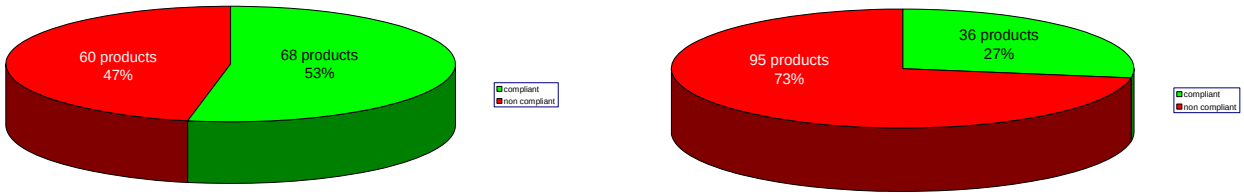


Figure 1 : Administrative compliance (overall, PMR and 2.4 GHz)

The result of the third campaign shows similar levels of administrative compliance (40%) as the second campaign (42%) with a significant difference between PMR (53%) and 2.4 GHz products (27%).

The following statistics relate to the application of the “CE” mark to the product, packaging and accompanying documentation as required by the R&TTE Directive:

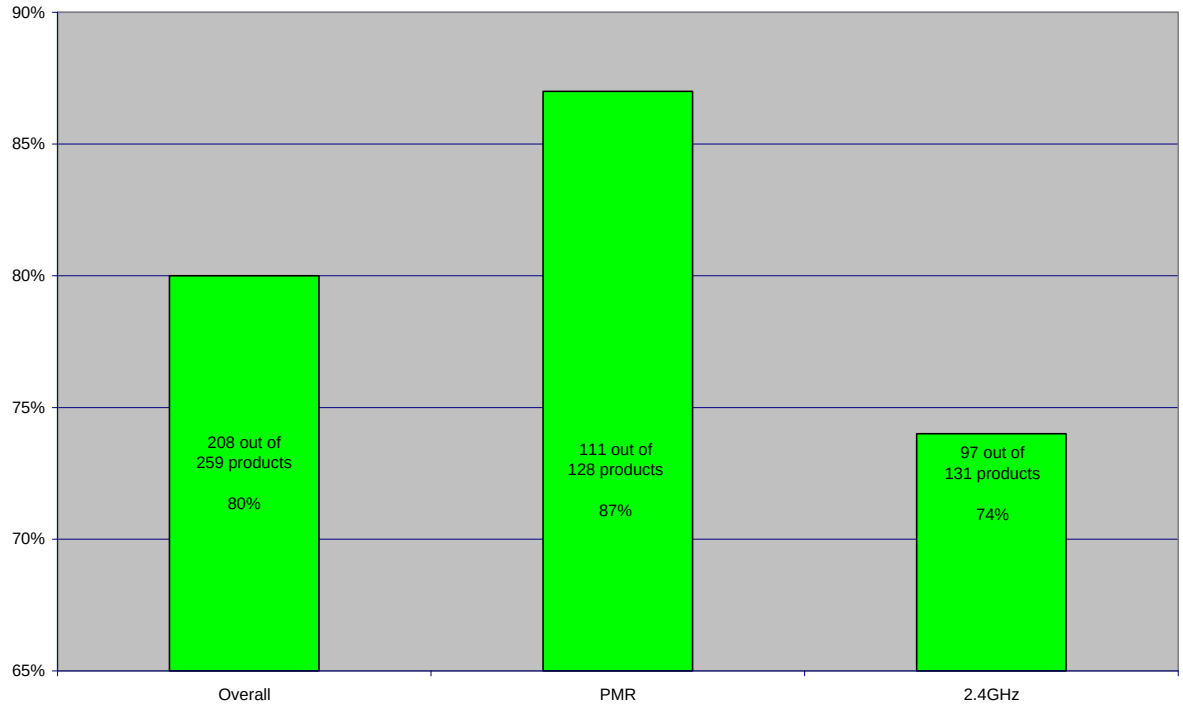


Figure 2 : Compliance with the CE mark requirements

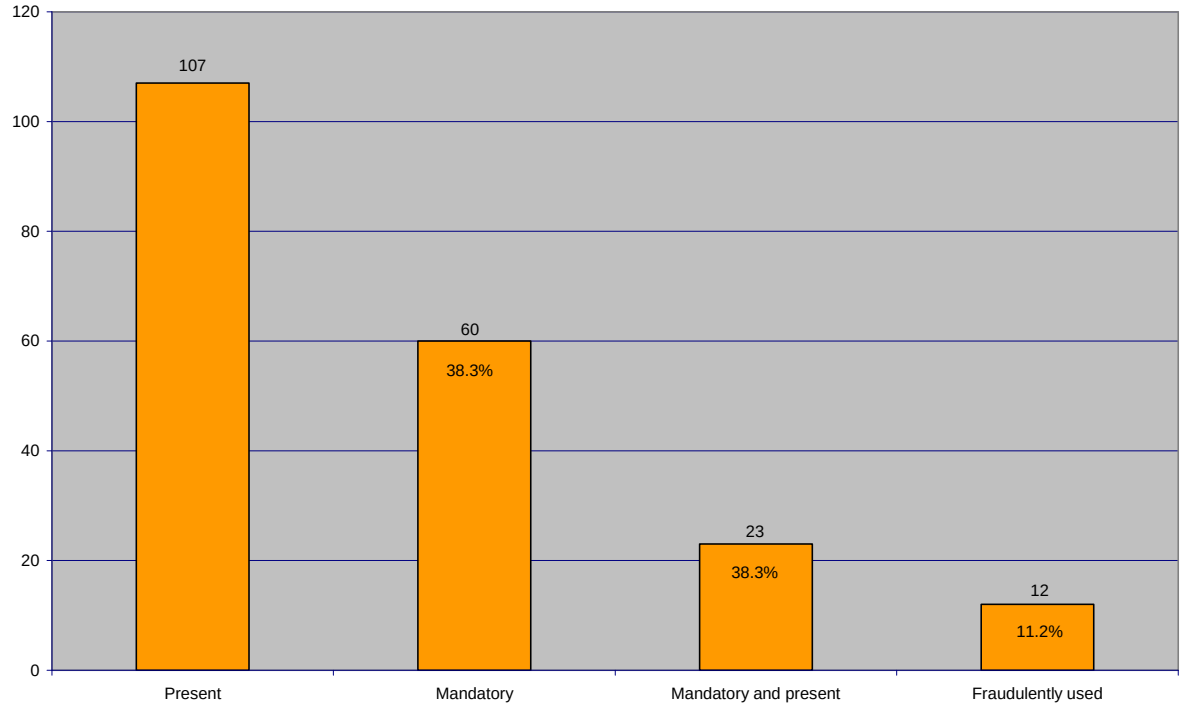


Figure 3 : Notified Body

A total of 107 products were marked with a Notified Body number (41% of all surveyed products). Notified Body involvement was mandatory for 60 products (23.2% of all surveyed products) of which only 23 where marked accordingly. A Notified Body number was fraudulently used on 12 products (11% of all products marked).

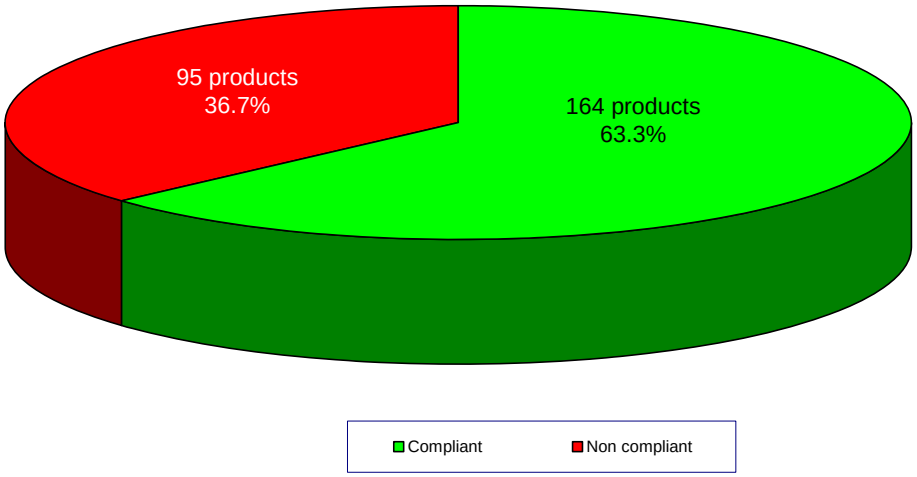


Figure 4 : Declaration of Conformity

164 products out of 259 met the requirements for the Declaration of Conformity in the R&TTE Directive (63.3% of the surveyed products).

3.4 Technical Documentation compliance

The Technical Documentation was requested for 219 out of 259 surveyed products. 133 sets of Technical Documentation were provided to the MSA an availability rate of 61%.

The following table indicates the level of compliance for each requirement laid down in Annex II number 4 of the R&TTE Directive.

Requirement	**Available**		**Correct**	
	Products	%	products	%
General description of the product	109	82%	104	78.2%
Conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits	84	63.4%	74	55.6%
Descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the product	59	44.4%	52	39.1%
Check of the compliance with the requirements of article 3.1.a	111	83.5%	92	69.2%
Check of the compliance with the requirements of article 3.1.b	132	99.2%	117	88.0%
Check of the compliance with the requirements of article 3.2	131	98.5%	123	92.5%
List of the Harmonised Standards referred to in article 5	133	100 %	[2]	
TD with all above mentioned items			33	24.8%

24.8% of the Technical Documentation examined fulfilled the requirements of the R&TTE Directive.
Taking in account of cases where no Technical Documentation was available, only 15.7% of the required Technical Documentations complied with the R&TTE Directive (33 out of 219 requested Technical Documentations).

[2] The requirement was the availability of the list, the correctness of the content was not checked.

The level of compliance with the requirement to provide "Descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the product" was particularly low (39%) compared with, the other aspects of TD.

A further interesting point was the low level of compliance with the TD requirements of article 3.1.a of the R&TTE Directive, compliance with safety requirements 69.1%).

MSA experienced difficulties in linking a TD and/or NB opinion with the product to which they relate (traceability).

Examination of 133 TD revealed that in most of the cases Harmonised Standards ('HS') were used in to demonstrate conformity. The following figure gives more information on this:

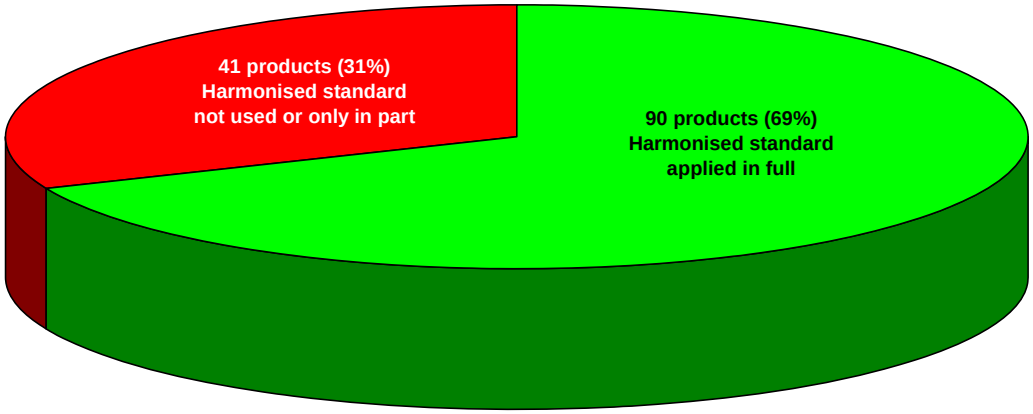


Figure 5 : Use of Harmonised Standards

69 % sets of Technical Documentation analysed indicated the application in full of Harmonised Standards.

3.5 Technical compliance

From the 242 products surveyed, 71 were assessed against article 3.1.a (safety), 188 against article 3.1.b (EMC) and 225 against article 3.2 (efficient use of spectrum).

The overall level of technical compliance, measured against a Harmonised Standard, for PMR and 2.4 GHz products is 62%.

The compliance rate for 2.4 GHz products is slightly higher (62.5%) than for PMR products (59.1%). Overall 93 products failed in one or more of the aspects measured.

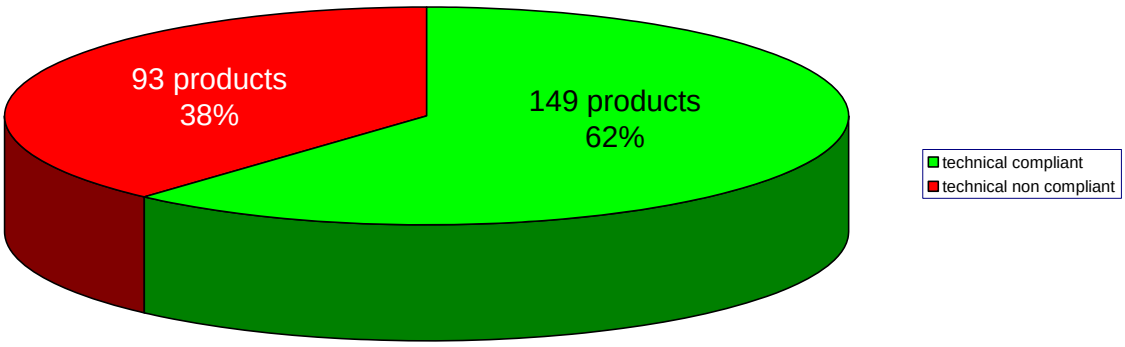


Figure 6 : Measured products overall technical compliance

The overall level of technical compliance for PMR and 2.4 GHz products is 62%. Overall 93 products failed in one or more of the aspects measured.

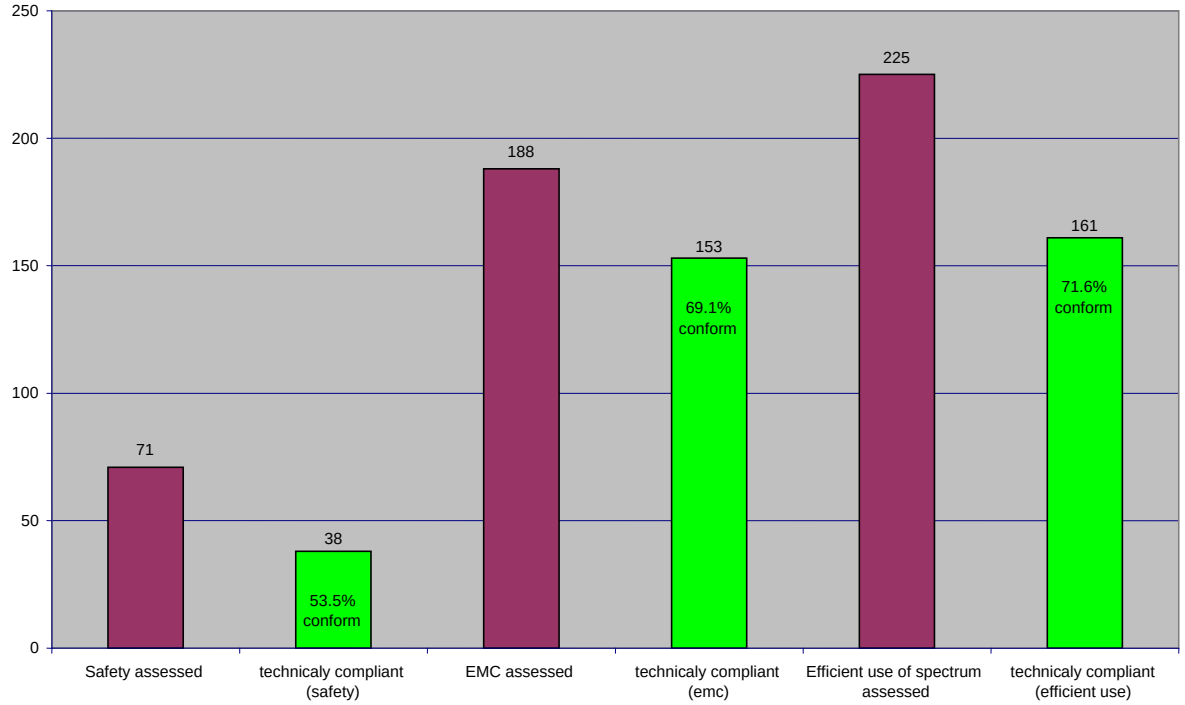


Figure 7 : Evaluation of non compliances in essential requirements

It is recognised that the failure to meet article 3.1.a (safety) was in most cases due to the failure to meet the general conditions laid down in the LVD Directive and the products did not represent an immediate safety risk.

It was noted that a number of manufacturers had demonstrated compliance to the essential requirements using Harmonised Standards in the Technical Documentation; however subsequent laboratory tests showed they failed to meet the standards used, as follows:

- 3.1.a (safety): 15 products (8 PMR and 7 2.4 GHz products)
- 3.1.b (EMC): 11 products (4 PMR and 7 2.4 GHz products)
- 3.2. (efficient use of spectrum): 26 products (15 PMR and 11 2.4 GHz products)

Due to the fact that all products were not assessed against all essential requirements and only 133 Technical Documentations were assessed, the overall result may be worse.

3.6 Overall compliance

A total of 259 products were surveyed, 218 did not fulfil at least one provision of the R&TTE Directive (technically tested against the Harmonised Standards and administratively including Technical Documentation, CE marking, etc.). (84.2%) (PMR → 99 products; 77.3%, 2.4 GHz products → 119 products; 90.8%) The following figure summarise the results of the different parts of the third Market surveillance campaign.

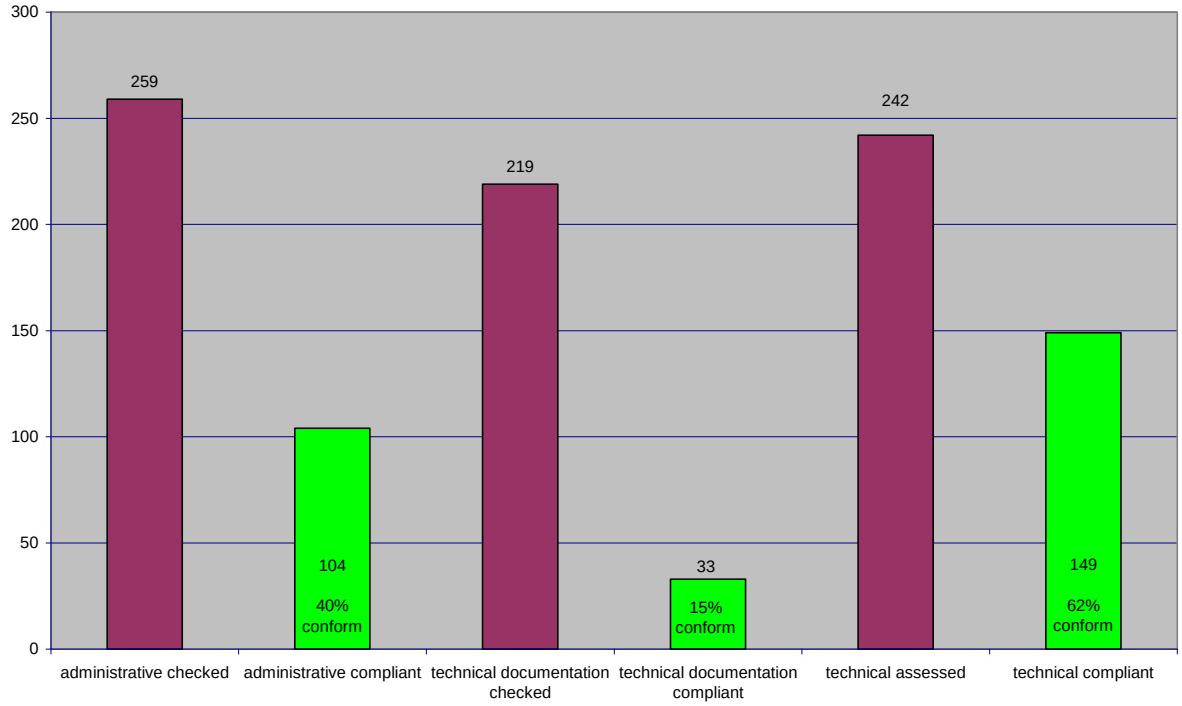


Figure 8 : Summary of the compliance

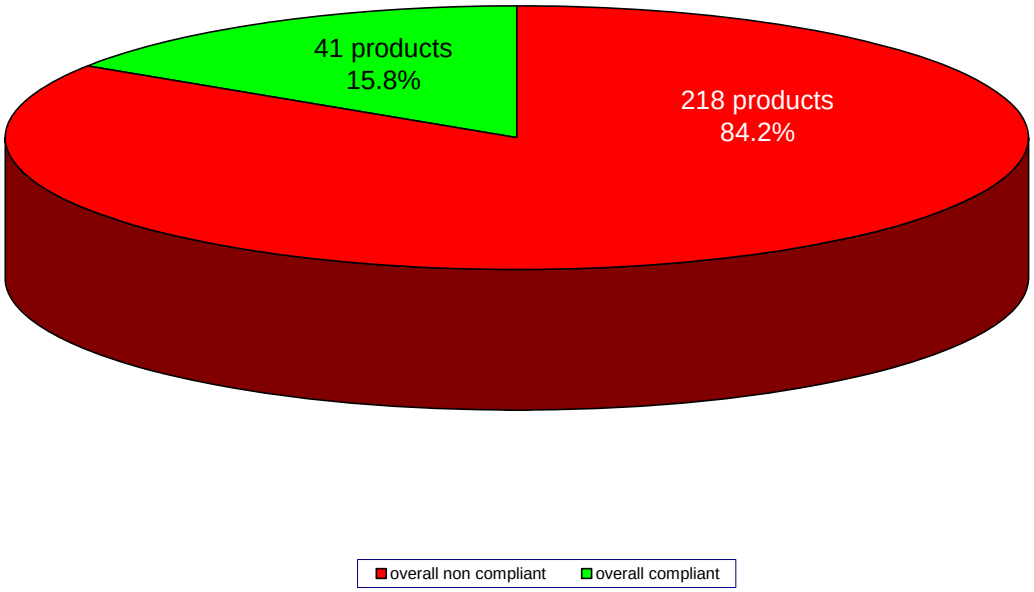


Figure 9: Overall compliance

Overall compliance for PMR is 2.5 times higher than for the surveyed 2.4 GHz products. The following figure summarises the results divided by PRM and 2.4 GHz products:

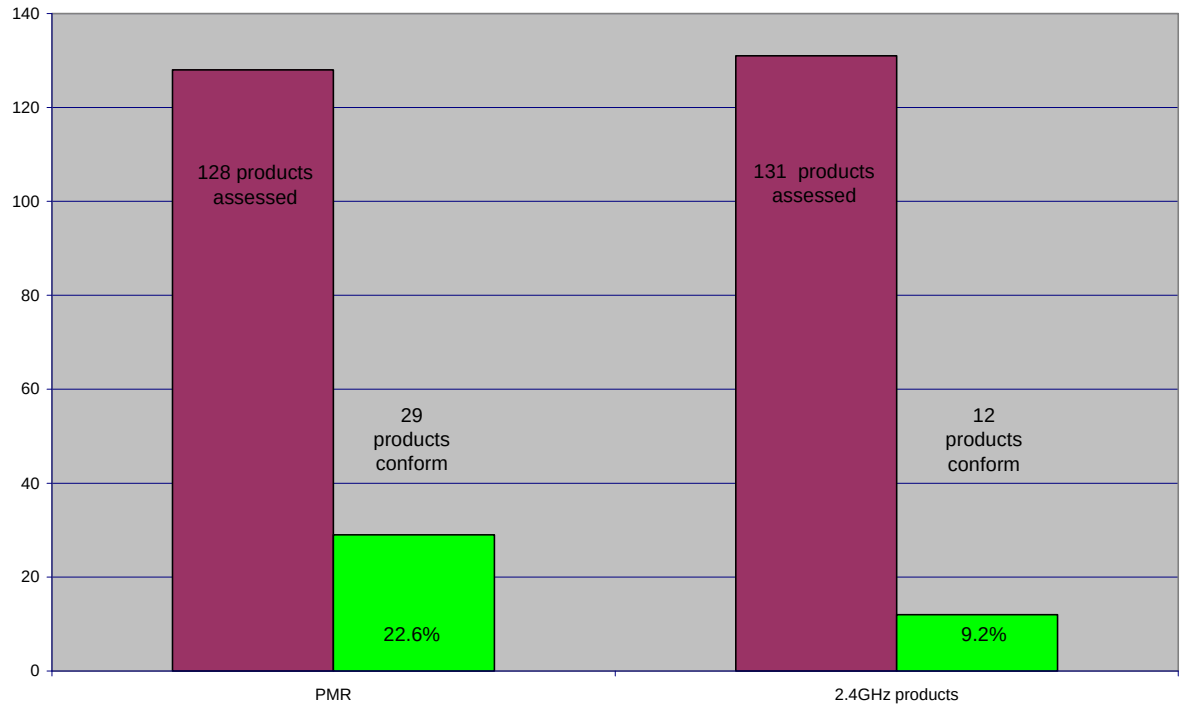


Figure 10 : Summary of the compliance

To provide data for the conclusions, overall compliance, excluding analysis of Technical Documentation, was calculated. 173 out of 259 surveyed products (66.7%) (PMR 71 : 55.5%, 2.4 GHz products: 102 : 77.8%) did not fulfil at least one provision of the R&TTE Directive (technically tested against the Harmonised Standards and administratively excluding Technical Documentation but including CE marking, etc.).

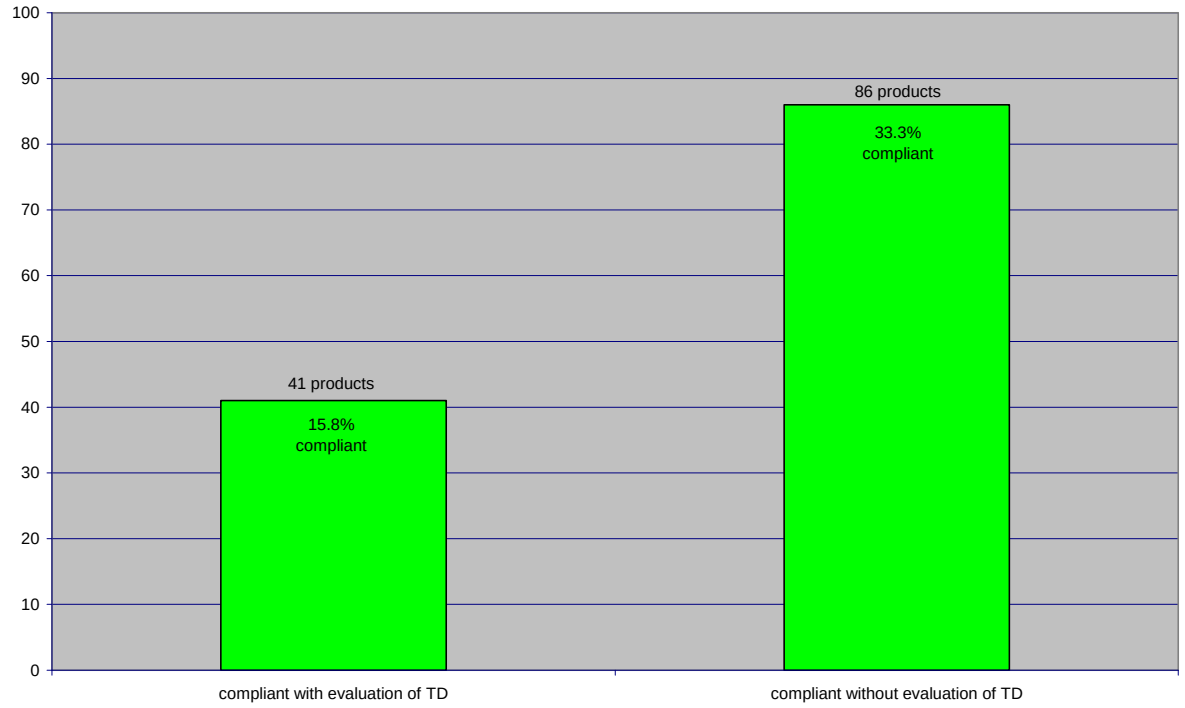


Figure 11 : Compliance with/without Technical Documentation

4 Overall conclusions

The campaign looked at PMR and 2.4 GHz products, which are mass-market products. Clearly, it was only possible to assess a small sample of the overall market. Accordingly the results of the campaign may not exactly reflect the state of products on the European market. Nevertheless, they indicate a significantly low level of overall compliance (only 15.8%). This is partly attributed to shortcomings in fulfilling the TD requirements (level of compliance without taking the Technical Documentation in account: 33.3%).

The level of administrative compliance of PMR from this campaign is 53%. An interesting comparison can be made with the results of the first Market surveillance campaign when a significant number of PMR was assessed. The results then showed a compliance rate of 15% for the same requirements. This indicates a clear improvement, but still shown a low level administrative compliance.

The level of administrative compliance of 2.4 GHz from this campaign is 27% which is lower than the administrative compliance rate for general SRD which was assessed in the second Market Surveillance campaign (41.7%).

The overall level of technical compliance for PMR and 2.4 GHz products is 62%. A total of 93 products failed in one or more of measured aspects. The compliance rate for 2.4 GHz products is slightly higher (62.5%) than for PMR products (59.1%).

A list of specific Conclusions follows:

Conclusion 1

The level of compliance with the R&TTE Directive of PMR and 2.4 GHz products indicated by the campaign is very low.

Conclusion 2

There is a significant difference regarding the level of administrative compliance between PMR (53%) and 2.4 GHz products (27%).

Conclusion 3

Analyses of the statistics concerning the application of the "CE" mark indicate that manufacturers have frequently used a "CE" mark on non compliant products.

Conclusion 4

The availability of the TD (61%) is not satisfactory for MSA. The level of compliance with the TD requirements of the received TD (24.8 %) is significantly low.

Conclusion 5

A significant level of non- compliance (36.7%) was observed when analysing the DoC requirements. MSA consider the DoC a particularly important aspect of the compliance process and essential in focusing manufacturers on their responsibilities. This fundamental failure may be attributed to a lack of clarity in the R&TTE Directive.

Conclusion 6

Although not a primary goal of the campaign, 6 of 23 MSA chose to assess the compliance of the products with the safety requirements[3].

Conclusion 7

Of the 71 products assessed for safety only 53.5% were considered compliant when assessed against a Harmonised Standard. It was recognised that in most cases, the failure did not represent an immediate safety risk. The failure was in most cases to meet the "general conditions"[4].

Conclusion 8

Only 62% of 242 products comply with the technical requirements of the R&TTE Directive when assessed against relevant Harmonised Standards. Almost one out of three products tested did not meet the technical requirements.

Conclusion 9

The result of the third Market Surveillance campaign highlighted the importance of MSA conducting laboratory tests in conjunction with administrative evaluation.

Conclusion 10

Many products surveyed were marked with a NB number even though the products claimed to be compliant with the relevant Harmonised Standards.

Conclusion 11

For 12 surveyed products (11.2% of all products marked with a notified body number) this notified body number appeared to have been applied fraudulently.

5 Recommendations

Recommendation 1

Efforts should be made to ensure that manufacturers, importers and suppliers of surveyed product groups are continuously informed about the requirements of the R&TTE Directive and their responsibilities.

[3] The assessment of safety was optional in this campaign. It should also be noted that it was not in the responsibility of certain MSA

[4] General conditions are one of the 11 main risk of Annex 1 of the LVD Directive 2006/95/EC

Recommendation 2

It is recommended to the Commission that a future revision of the R&TTE Directive requires the involvement of a NB in the conformity assessment procedure to be documented and included within the Technical Documentation.

Recommendation 3

It is recommended to the Commission that any future revision of the R&TTE Directive has to clarify the requirements on TD.

Recommendation 4

All national MSA should participate in future Market surveillance campaigns to fulfil the requirements of Market surveillance obligations included in the New Legislative Framework (NLF).

Recommendation 5

Efforts should be made to ensure that the person responsible for placing equipment on the market under his own brand provides, in addition to the Technical Documentation relating to the basic product, sufficient information to identify the original type of products to which it refers.

6 Abbreviations

ADCO R&TTE	Group on administrative Cooperation for the sector R&TTE
CIRCA	A web-based password secured tool developed by the European Commission to share information (for MSA)
DoC	Declaration of Conformity
EMC	Electromagnetic compatibility
HS	Harmonised Standard
NB	Notified Body
MSA	Market surveillance Authorities
PMR	Private mobile radio
Radio spectrum requirements	Requirements laid down in article 3.2 of the R&TTE Directive
R&TTE Directive	Directive 1999/05/EC of the European Parliament and of the Council of 9th March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity
SRD	Short range device
TCAM	Telecommunication Conformity Assessment and Market Surveillance Committee (Standing Committee under the R&TTE Directive according article 13 ff.)
TD	Technical Documentation
CEPT ECC/WGRA	Working Group Regulatory Affairs under Electronic Communications Committee of the European Conference of Postal and Telecommunications Administrations