Sunbeds & Solarium Services 2

Joint Market Surveillance Action supported by the Executive Agency for Health and Consumers (EAHC)

Agreement No: 2009 82 01

Final Implementation Report

Covering the period 1 January 2010 – 31 December 2011

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INTRODUCTION

This is the final technical implementation report prepared for the Joint Market Surveillance Action on sunbeds and solarium services part 2. In accordance with the grant agreement the report is due 28 February 2012 and it shall provide a concise overview of the Joint Action.

In accordance with Annex III in the Grant agreement [6] the report in particular includes the following information:

Activities undertaken in the Joint Action:

- All activities undertaken throughout the Joint Action, including awareness-raising and dissemination activities are described in chapter 2. Awareness-raising activities are described in chapter 2.6. Dissemination activities are described in chapter 2.5.
- The report shall make a distinction between co-ordination activities and activities undertaken at national level by the participants. Co-ordination activities are described in chapter 2.4 and activities undertaken at national level by the participants are described in chapter 2.3.
- Explanations for any differences between the foreseen activities and the work program and those actually undertaken are explained in chapter 2.7. This chapter also includes an overview of additional activities undertaken that were not foreseen in the agreement.

Participants in the Joint Action:

- A description of how the participants have been involved in the Joint Action and what activities they have undertaken is presented in chapter 3. The description of how a balanced participation between the different organisations was achieved is given in chapter 3.2.
- The report shall also present an overview of all organisation and persons (by organisation) who participated in the execution of the Joint Action indicating man-days worked and their professional category. This overview is found in Annex 3. Differences between the foreseen participation in the Joint Action and those actually realised are explained in chapter 3.3.

Results of the Joint Action:

- A description of the results of the Joint Action and how they have contributed to the overall objectives distinguishing between results at a global and national level is presented in chapter 4. Differences between the foreseen results and objectives of the Joint Action and those actually achieved are explained in chapter 4.5. This chapter also includes an overview of additional results that were not foreseen in the grant agreement.
- An analysis of the results achieved, impact evaluation, policy option and recommendations for future market surveillance are presented in chapter 4.2.

Together with the final report comes the financial statement that provides a consolidated overview of all expenditures as well as a breakdown per participant. According to the contract this final report includes explanations for any deviation from the budget laid down in the grant agreement. It can be found in chapter 5. The Joint Action has been executed under the 2009 call for tender. Thus, the reporting requirements may differ from actions granted under the call for tenders outlined in other years.

1. Background Information

1.1. Summary of Project Description

The full plan can be found in [6].

1.1.1. Title of the Joint Action

Joint Market Surveillance Action on Sunbeds and Solarium Services part 2.

The joint action was supported financially by the European Commission under Grant Agreement No: 2009 82 03 [6].

1.1.2. Participating Member States

The application for the joint action was signed by Stichting PROSAFE, 11 Member States and Norway. A list of the participants is given in Table 1.

Table 1: list of participants

Country	Body
Belgium	FPS Economy, SME's, Self-employed and Energy - Directorate General of Energy - Division Infrastructure and Controls
Cyprus	Competition and Consumer Protection Service
Czech Republic	Czech Trade Inspection under the Ministry of Industry and Trade
Denmark	Danish Safety Technology Authority
France	Direction Générale de la Concurrence de la Consommation et de la Rèpression des Fraudes
Germany	Regierungspräsidium Kassel
Hungary	Trade and Market Surveillance Authority of the Hungarian Trade Licensing Office
Latvia	Consumer Rights Protection Centre / Health Inspectorate
Norway	Norwegian Radiation Protection Authority
Portugal	Authority for Food and Economic Safety (ASAE)
The Netherlands	Food and Consumer Product Safety Authority, Region South/West
United Kingdom	Essex County Council

Annex 3 gives a complete overview of the people and organisations actually participating in the action as listed in the grant agreement.

For Latvia the grant agreement was signed by the Consumer Rights Protection Centre. During the action the responsibility for the market surveillance of tanning facilities was transferred to the Health Ministry, in particular to the Health Inspectorate. The Health Inspectorate has agreed to continue the activities required in the grant agreement.

The applicant body that took overall responsibility for the joint action was Stichting PROSAFE, the legal body behind PROSAFE. (The PROSAFE organisation is an informal cooperation between product safety enforcement officers in Europe.)

Four of the twelve participants participate with smaller contributions than the 77 man days required for full participation in the grant agreement. Those are Norway (54 working days), Germany (35 working days), France (6 working days) and Belgium (5 working days). One reason for these significant differences is that some of the Member States have chosen only to follow the development in the project and to benefit from findings from the other participants. Another reason is that some other Member States have sufficient knowledge about the situation in their markets to know that a lower effort is necessary than for the average participant.

The coordination of the project was subcontracted to a consultant, Jan Willem Weijland. Issues related to the daily management of the project were discussed between Marijn Colijn (project leader), Evert van Wilgenburg (VWA) and Jan Willem Weijland.

1.1.3. Budget

The total estimated eligible budget for this project was 518.627,19 €, out of which the Commission funds a maximum of 346.394,94 €, corresponding to 66,79% of the estimated total eligible cost.

1.1.4. Primary Objective

New sunbeds and sunbeds presented to the public as part of a service on the European market must be safe. Sunbeds that meet the relevant requirement of the standard EN 60335-2-27:1997 "Safety of household and similar electrical appliances - Part 2-27: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation" as published in the Official Journal of the European Union had the presumption of conformity to be safe.

The results of the first joint action on sunbeds and solarium services indicated that a large share of these services do not comply with the standards, although the share differs between the participating Member States.

Primary objectives of the action are:

- The primary purpose is to ensure that new sunbeds and sunbeds offered for use in services are safe, especially with regard to the UV radiation, including the availability of instructions for safe use.

The means employed is enforcement; the action comprises inspections at importers and manufacturers of sun beds and at service providers that offer sun beds for use by consumers, like tanning studio's, hairdressers, health clubs, etc.

Inspections will address both the information available to the consumers and the conformity of the sun beds offered for use. The action will make available portable UV measurement equipment, with which the UV emission of the sun beds offered can be screened. Sun beds that fail the screening test can then be measured professionally with accurate (and regrettably expensive) equipment made available from the VWA (partially funded by the joint action program). When not in compliance, measures will be taken to force them into compliance.

Thus, the activities expand on the inspections already performed in the first sun bed action and aim directly at diminishing the risks consumers are exposed to.

- Secondly the purpose is to gather further experience related to best practice techniques with running a joint market surveillance action that involves many Member States.

1.1.5. Secondary Objective

- This action aims to consolidate the progress made in the first joint action on sunbeds and solarium services. See also.

- The project aims to extend the cooperation already established with the branch organizations for the sunbed industry and the providers of tanning services.

- It also intends to expand the cooperation with stakeholders by establishing contact with that part of the medical scientific community that is involved in diminishing the incidence of skin cancers due to UV radiation. Both activities are meant to contribute to raising awareness of the risks of UV radiation from sun beds, the importance of proper consumer guidance and the legal requirements in operators of tanning studios and similar businesses.

1.1.6. Deliverables of the Joint Action

The deliverables as defined in the grant agreement are listed in Table 2:

Table 2: deliverables of the Joint Action on Sunbeds and Solarium Services part 2

Activity	Deliverable	Title	Description	Expected by
Kick off meeting	D1	Kick-off meeting's minutes	Report containing one short synthesis of main issues and conclusions. Annexes: minutes and clear Gantt chart.	Month 1
Training of inspection team	D2	Training of inspection team	Report in 2 parts: Part 1: Main issues such as understanding the European regulations, knowing the background the hazards of UV emission and UV measurements, knowing which items to address in inspections and can perform screening measurements of UV radiation Part 2: Research protocol (methodology)	Month 1
Progress meetings	D3, D8,D9,D11, D17,D18, D19,D20	Reports of projects meeting.	Report containing one short synthesis of main issues and conclusions. Annexes: minutes.	Corresponding months
Issue information to business	D4	Overview of the activities in this area within the framework of this joint action	Report	
Real enforcement activity in the area of sunbeds/solaria offered as a service Screening measurements	D5	Technical report	Report on results of the inspection, including the state of affairs with respect to the availability of safety information on artificial tanning in tanning studios and the conformity of the sun beds employed in these studios	End of month 5
Interim report	D6	Interim report	Report in 3 parts: Part 1: synthesis on technical results and exchange of information Part 2: project progress Part 3: financial statement.	Month 12 +2
Report to	D10	Stakeholders	Report including an overview of	Month 11

Activity	Deliverable	Title	Description	Expected by
stakeholders		relation report	results of the contacts with Euroskin; These contacts aim to investigate the possibilities for cooperation in the organization of public awareness raising publicity and possible other activities that inform the public of the hazards of tanning;	
Meeting with stakeholders	D12 to D16	Reports on projects meeting	Reports containing one short synthesis of main issues and conclusions. Annexes: minutes.	Corresponding months
Final report	D17	Final report	Report in 4 parts including: Part 1: technical results of the project Part 2: impact evaluation and policy options including recommendations for future market surveillance policies and activities in the sunbed/tanning markets. Part 3: progress report of the project Part 4: financial statement	Month 24 + 2

1.1.7. The Activities of the Joint Action

The activities of the joint action were divided into three stages:

The activities to be performed along the project include:

- Training of inspectors from the Member States, which contributes to both the expertise and uniformity of market surveillance in this area;

- Awareness raising via information exchange with branch organisations (ESA) and technical support to these organizations and information material aimed at the general public. This application requests funding for these awareness raising campaigns, referring to the costs of the activity as the production costs of folders and brochures. At this point in time this should be seen as indicative, because the activities may evolve into a different form than information distributed on printed paper. For example, awareness raising in tanning studio operators may well be more effective when presented as an e-learning program aimed at these operators, developed in cooperation with ESA. Similarly, awareness raising for the general public might also take the form of the development of web content. Therefore it is premature to settle the exact number of pages and the exact need for translation at this moment.

- Market surveillance and enforcement. Market surveillance will be carried out by performing inspections at both importers/manufacturers as well as service providers (see also above). To enhance the efficiency, inspections are foreseen in which screening measurements are performed to select those sunbeds likely not to comply. For this purpose the action plans to make available inexpensive portable measuring devices to all participants (see also the expenses in the excel sheets). Sunbeds that fail the screening tests will then be measured with accurate equipment, made available in this action, including the measurement crew. The measuring equipment is made available from the Netherlands and is operated by PROSAFE consultants, which is reflected in the travel costs and equipment costs in the excel sheets.

1.1.8. Updated grant agreement.

An updated grant agreement was drawn up to adapt the original agreement to changing needs of the Joint action during its course.

The update concerned a revision of the budget, an adaptation of the contributions in kind of the participants and an update concerning the participants of the action.

During the course of the action the responsibility for the market surveillance of sunbeds in Latvia was transferred from the Consumer to the Health Inspection to the Latvian Health Inspectorate. This implied that the activities of the Consumer Rights Protection Centre for the Sunbed joint action ceased already early during the action and were taken over by, the Health Inspection, requiring an formal update of the grant agreement, with a new Annex II for Latvia.

The revision of the budget intended to bring the budget in line with the pattern of expenditure developing during the action and to take into account the overhead costs for the administrative services of the PROSAFE bureau (help with the collection of timesheets and their administration as well as accounting services). Changes of the budget further included the incorporation of the costs for the UV radiospectrometer equipment used to measure sunbeds on site in the participating member states, and a raise of the amount for subcontracting to allow for the development of videos, a website and a smartphone application (app) for consumer information. The reason for the latter change was that at the progress meetings the participants came the conclusion that a higher impact on consumers is likely when the communication will use more modern channels, like social media, you tube videos and phone apps instead of the usual leaflets. .

To allow for the rise in other budget categories, the travel and subsistence budget is diminished by reducing the number of project meetings. Originally the grant agreement listed 8 project meetings, including the kick-off meeting and the final project meeting. This amounted to a progress meeting every three months. Having a progress meeting every three months was not necessary. Indeed, it would have been difficult to find a meaningful agenda for each three month meeting. Therefore the number of meetings was diminished.

The revision of the agreement affected the following deliverable :

- Progress meetings

  The original number of 8 progress meetings (including kick-off and final workshop) were reduced to the following meetings:

  - Kick-off
  - progress-training meeting
  - progress November 2010
  - Progress July 2011
  - Final meeting

None of the other deliverables was directly affected by the changes proposed. Some deviation of the original planning occurred though. These are discussed extensively in this report for the joint action.

1.2. Other Background information

1.2.1. The European Market

The Joint Actions on sunbeds and artificial tanning services are unique in that they address services and not the compliance of a single product. Because the providers of indoor tanning services can influence the compliance of the sunbeds used in indoor tanning, compliance of the device when leaving the manufacturer does not automatically imply compliance during use. A simple exchange in the UV-emitters is sufficient to obtain higher UV levels than allowed, making the device not compliant. This means that enforcement at the source (manufacturers or importers) is not sufficient to assure compliance of sunbeds

in use with the service providers and that enforcement at the indoor tanning service providers is a necessity.

Indoor tanning services are offered locally, the way the service is provided varying with the local circumstances in the different countries. Indoor tanning service providers are numerous, with many small businesses offering tanning services close to their customers. Over Europe the density of indoor tanning services varies with customer demand, depending on local culture, fashion and sunshine hours.

The way these indoor tanning services are offered varies between the countries participating in the action. In general there are two ways indoor tanning services are provided. The first is by dedicated services; facilities specialized in offering tanning to their customers, tanning salons. Besides indoor tanning is offered as a side service in a variety of other businesses, like health and fitness centres, hairdressers, swimming pools, hotels, etc. This makes a difference, because it is not unlikely that providers who offer tanning as their main activity are more frequently members of tanning associations and therefore more aware of the regulations and safety issues.

In some parts of Europe, especially in the Scandinavian countries indoor services are often provided using coin operated sunbeds. Frequently no supervision is present, which may lead to less guidance of the customer with respect to the use of the sunbeds offered.

From this investigation it appears that the sunbeds in use at indoor tanning services come from a limited number of importers/manufacturers, between 30 and 40. Most of these were encountered infrequently; the majority of the sunbeds encountered came from only four manufacturers. With few exceptions the sunbeds in use were produced in the European Union, often in Germany, the Netherlands and France.

1.2.2. Risks of artificial tanning

The primary reason to continue the joint action on indoor tanning services is found in the health hazards posed by exposure to UV light.

The evidence for a causal link between UV-exposure and skin cancer incidence is presently such, that scientific consensus exists that UV radiation from sun exposure and from artificial tanning is a determinant for skin cancer [7]. Evidence also indicates that overexposure to UV light resulting in sunburn during youth is a determining factor in the occurrence of skin cancer in later age.

The carcinogenic properties of exposure to UV from the sun inevitably raised the question if similar effects might be induced by exposure to artificially generated UV radiation. Until now, according to IACR in 2005, "epidemiologic studies do not give consistent evidence that use of indoor tanning facilities in general is associated with the development of melanoma or skin cancer" [8]. IARC also concluded at the time that there is a prominent and consistent increase in risk for melanoma in people who first used indoor tanning facilities in their twenties or teen years and notes that the data suggest "that the risk of squamous cell carcinoma is similarly increased after first use as a teenager".

Nevertheless, IARC concluded in that, "although the available findings are not conclusive, the strength of the existing evidence suggests that policymakers should consider enacting measures, such as prohibiting minors and discouraging young adults from using indoor tanning facilities, to protect the general population from possible additional risk for melanoma and squamous cell carcinoma".

In 2006 the Scientific Committee on Consumer Products evaluated the hazards of artificial tanning on the request of the European Commission, which asked the Committee a number of questions related to health effects of the different categories of UV radiation and about the necessity of and the possibility to set limits to UV radiation from sunbeds. The main conclusions of the SCCP, published in SCCP /0949/05 [1] and adopted June 2006, can be summarized as follows:

- The use of UVR tanning devices to achieve and maintain cosmetic tanning, whether by UVB and/or UVA, is likely to increase the risk of malignant melanoma of the skin and possibly ocular melanoma.
- There is no justification for the presence of UVC in tanning devices
- The maximum erythemally weighted irradiance should not exceed 0.3W/m2, or 11 standard erythema doses (SED) per hour.

The latter irradiance is equivalent to tropical sun, which the WHO terms extreme.

The SCCP also concludes that people with known risk factors for skin cancer, especially malignant melanoma, should be advised not to use UVR tanning devices. Specifically, these are skin phototypes I and II and the presence of freckles, atypical and/or multiple moles and a family history of melanoma. Because of the consistent evidence of a positive association between the use of UV-emitting tanning devices and ocular melanoma eye [11] protection from UVB and UVA should be worn if sunbeds are used.

Furthermore it is noted that the risk of melanoma seems to be particularly high when using sunbeds at a young age and that UVR tanning devices should not be used by individuals under the age of 18 years.

Since the SCCP report was published many scientific papers have underlined the correlation between the use of indoor tanning devices and the incidence of melanoma. which by now can be considered scientific consensus (see for example [9] , [10].

In 2009 IARC [11] accentuated its conclusions about the hazards of UV radiation and artificial tanning, concluding that "the risk of cutaneous melanoma is increased by 75% when use of tanning devices starts before 30 years of age", while classifying UV radiation from indoor tanning devices as "carcinogenic to humans".

1.2.3. Regulation and Standardisation

The final report of the first joint action on sunbeds and solarium devices extensively discussed the regulatory status at the time [12]. Meanwhile the situation with respect to the standard has changed, simplifying the legal situation and clarifying the requirements.

Sunbeds remain of course within the scope of The Low Voltage Directive, which requires sunbeds to be safe when placed on the (European) market. Because the LVD cannot assure that sunbeds remain safe when made available for use to the consumer by a service provider, the General Product Safety Directive (GPSD) still has to provide the legal framework that allows the authorities to intervene when consumer safety is endangered by the use of equipment made available in the context of services.

In 2010 EN 60335-2-27:2010 was published, a consolidated version of EN 60335-2-27 :2002, MOD; EN 60335-2-27:2002/A1:2004, MOD; EN 60335-2-27:2002/A2:2007, MOD. This new version of the standard, modified the previous version to bring it in line with the report of the SCCP, the Commission opinion and the Commission mandate for change of the previous standard.

Sunbeds that fulfil the requirements of this standard are therefore presumed to fulfil the requirements of the LVD and the GPSD.

In practical terms the requirements translate into the following:

- Tanning salons should provide the consumer with Information and advice about the tanning schemes suitable for their skin type,
- Block the use of sunbeds by consumers under the age of 18
- Give clear information about the hazards of UV radiation.
- The sunbeds must carry warnings
- For consumer use the UV radiation emitted is restricted to 0,3W/m2
- UV protecting goggles should be available for eye protection

Presently within IEC a new standard for sun beds is developed, which (via the parallel voting procedure) is also offered to Cenelec. Within CLC TC61, the technical committee responsible for the standard, objections have been brought forward against this proposed standard. One of the objections concerns the proposed measurement method, which may not assure that the limit of 0,3 W/m2 for the sun beds, as meant in the SCCP report, is upheld. Because the proposed measurement method is likely to measure lower values for the UV emission than was previously the case, adoption would imply de facto a higher limit for UV radiation, making it doubtful that sunbeds complying with the proposed standard are also complying with the LVD and GPSD.

1.2.4. The European Situation before the Joint Action

An overview of the legal situation in many of the participating member states in the first action was given on page 11 and in Annexe I of the report of the first sunbed joint action [12]. This report also gives information on the market situation at the time in the European countries participating in that action. Since the present joint action has several new participants and because in the meantime the regulatory status in other participants member states has developed, un updated version of the this annex in is appended to the technical report for this action (Annex II). That annex adds information from the new participants Norway, the United Kingdom, France and Portugal, describes important developments in Germany and Latvia and gives updates for the remaining participants.

Note that for Norway the Norwegian Radiation Protection Authority (NRPA) participated in this joint action. The NRPA is not the responsible authority to enforce the LVD or GPSD, and therefore cannot enforce some of the requirements checked in this action. This is for example the case for 18 year age limit and other requirements concerning the operation of tanning facilities. (see also Annex II, Norway)

2. Activities Undertaken in the Joint Action

2.1. Overview of Activities

This chapter presents all activities undertaken in the Joint Action. A timeline of the action can be found in Annex 1.

Detailed descriptions of some of the activities are found in chapters - 2.6.

2.1.1. Project management activities

Select consultant

The first activity in the joint action was to select a consultant to manage and coordinate the joint action. This was done by Stichting PROSAFE drawing from its pool of the consultants and appointing an individual. This consultant was then engaged and a contract drawn up for his signature.

Management of the Joint Action

The action was managed by the project leader from the Netherlands in close cooperation with the consultant. The management activities included the preparation of checklists for the actual market surveillance activities, organisation and preparation of project meetings, monitoring of results of market surveillance and contribution in kind of the participants, maintain external (stakeholder) contacts on the European level and scheduling the UV measurement program.

Interim report

The interim technical implementation covering the period 1/1/2010 – 31.12.2010 report was produced.

Filing of documents

A document depository has been created on the EMARS WebEx website where all documents produced by the joint action are stored. The documents are accessible for all participants in the joint action and other people with access to the EMARS WebEx system.

2.1.2. Project Meetings

The joint action organised five project meetings over the course of the reporting period: the kick off meeting, a training meeting combined with progress meeting), two progress meetings and a final workshop. Stakeholders were invited for two of the progress meetings. The consultant produced invitations, agendas, minutes, lists of participants and, together with the project leader and the VWA employees involved, presentations for the meetings. More information on the meetings can be found in chapter 2.2.

2.1.3. Training

The joint action included a training intended to provide the participants information on the legal facets of market surveillance of tanning services, instruct in the inspection of such services within the framework of the joint action, instruct in the use of the hand held UV meters for screening measurements, give some hands-on experience of their use and inform about the UV measurements with the radiospectrometer. Further information is given in section 2.1.3.

2.1.4. Coordination of UV measurements in the participant's Member States

To avoid the expensive necessity of buying UV spectroradiometers by all participants, this joint action used a single UV spectroradiometer with double monochromator, partly funded by DG-Sanco within the scope of the grant agreement for the joint action.
In cooperation with the participants a measurement schedule was determined.

More information on the UV measurements by the 'travelling UV train' can be found in the next section, in sections 2.4.3, 4.2.10 and in reference [12].

2.1.5. UV measurements in the participants' Member States

The Food and Consumer Product Safety Authority in the Netherlands developed the standard operating procedures and calibration procedures for the EWI measurements of sunbeds and trained personnel to operate the equipment. In cooperation with PROSAFE the VWA measurement train visited most of the participants to perform measurements on sunbeds. According to the schedule described under 2.1.6. These measurements were performed during the period May – December 2010. At present the analysis of the data obtained in the member states during these visits are still being analyzed. Results will be reported in the final report.
Besides the activities mentioned above in this section, the JA supported the Czech Republic in making the UV measuring equipment it acquired operational.

2.1.6. Drafting and updating of miscellaneous documents

- Minutes of meetings
- A checklist for assessing with Sunbeds and Solarium Services.
- Instruction for the indicative measurement of sunbed radiation

2.1.7. Awareness-raising and outreach activities

The project leader of the joint action actively participated in 5 stakeholder meetings organized by ESA in the participants member states. These meetings were organized to raise awareness of the solarium services operators about the regulations on tanning services and the good operating procedures required for such services. See also 2.2.2. The project leader also supported the development of a training manual for tanning studio personnel by ESA and wrote a foreword for this manual. The training manual was published in September 2010 [15].

2.1.8. Dissemination activities

Dissemination activities see 2.3.4.

Tan-biz, March 2010, pg 43-49: interview Marijn Colijn.
(http://epub01.publitas.nl/Van_Munster_Media/45/magazine.php?spread=48#/spreadview/48/

2.1.9. Consumer information

The joint action includes the development of information material to raise consumer awareness. The assumption is here that consumers that are aware of the risks of artificial tanning will be better able to choose services in compliance with the safety regulations and thus restrict the exposure to UV to reasonable levels.
During the action the proper communication channel has been extensively discussed. Though it was originally intended to develop leaflets, experiences by some of the participants have shown that the impact of this approach is very limited. Therefore it was decided to investigate the possibility to develop video material for you-tube and similar communication channels. For the investigation of the possibilities and, at a later stage, the guidance of the production of these communication means a 'working group consumer information' was formed, consisting of the participants from Belgium, Cyprus, Hungary, Norway and the Netherlands, with the project leader acting as chairman.

A package was developed that consists of a video (in a short and long version), a web site containing these videos and information on tanning presented in a light hearted way. In addition a mobile phone app was developed, which also gives information on tanning and which refers to the web site.

2.2. Meetings

2.2.1. Project Meetings

Five project meetings have been organised by the joint action :

- Kick-off meeting; 12 February 2010 in Brussels

The purpose of the meeting was to present the joint action to the participants, to inform the participants of the project plan for the action and to discuss the involvement of stakeholders.

Present were 13 representatives from the participating Member States, a representative form DG-Sanco, two representatives from the main European Stakeholder, ESA and the project leader and project consultant.

Items discussed included short presentations on the results of the first sunbed action and their significance for the present action, the aims and purposes of the second sunbed joint action, the actual activities required and the time schedule for the action and a presentation on administrative issues. In addition ESA made a presentation on its activities and viewpoints on the promotion of safe tanning and good operating procedures in the tanning branch.

The meeting was concluded by a question and discussion session, during which specific questions with regard to the action were answered and specific circumstances in the participants member states were highlighted and discussed.

The deliverables for the kick off meeting can be found in Annex C.

- Training meeting; 30 March 2010 in Zwijndrecht (NL)

The joint action included a training meeting intended to provide the participants information on the legal facets of market surveillance of tanning services, instruct in the inspection of such services within the framework of the joint action, give some hand on experience of the use of handheld UV meters and inform about the UV measurements with the radiospectrometer. The training meeting was organized at the Zwijndrecht facilities of the VWA in the Netherlands, as this allowed to demonstrate the handheld meters and UV measuring equipment using an actual sunbed. 18 participants from 9 Member States and from Norway attended the training.

The subjects referred to in the first paragraph were given in the form of powerpoint presentations and demonstrations.

Additional presentations were given by Hungary and the Czech Republic, who discussed their experiences in the first sunbed joint action and informed about the progress and effects of market surveillance of tanning facilities.

Administrative matters were also discussed, in particular the necessity to submit timesheets for the work performed, salary information and information on changes in the personnel involved.

During the meeting handheld UV meters were distributed. Each participating country received 1 handheld meter to perform UV measurements on sunbeds at inspection sites.

The deliverables for the training meeting can be found in Annex 4.

- Progress meeting: 8 November 2010 in Brussels

The 8th of November 2010 a progress meeting for the joint action convened in Brussels. Participants from 12 member states attended, while 2 delegates from the main stakeholder (ESA) and a

representative from DG-Sanco were present for part of the meeting. In addition the project leader, the project consultant and a representative from the PROSAFE office were present.

During the meeting the participants reported the experiences with and the progress of the joint action in their Member State, addressing particularly the legal developments, their progress with inspections and their experiences with the UV measurements by the UV measurement crew form the Netherlands. At the time of the meeting all but two of the participants had already hosted the UV measurement crew, so preliminary results were reported.

The consultant gave a short presentation on the progress and preliminary result of the action so far reported and informed the participants on the contribution in kind thus far administrated. He also addressed the need to provide the consultant information for the interim report due on the 28th of February 2011.

Other items discussed included the question on how to proceed with the requirement in the grant agreement to prepare information for consumers about safe tanning and a question from Denmark regarding the requirement in the standard that sunbeds should be labelled with a type indication of their UV class.

ESA delivered a presentation on their activities over the months preceding the meeting. ESA also presented the JA project leader with a copy of the handbook for studio owners they prepared to inform and educate tanning studio owners about safe tanning and tanning regulations.

The deliverables for the progress meeting can be found in Annex 4.

- Progress meeting 29th of March 2011 Brussels.

The progress meeting was attended by 12 delegates from 10 member states, a representative from DG-Sanco, the project leader, the project consultant and a representative from the PROSAFE office. An important topic discussed concerned the cooperation with the indoor tanning industry, in particular ESA. The discussion followed an E-mail from the French participant expressing concern about the close cooperation with ESA, an organisation with clearly different objectives that the Market surveillance Authorities. France stressed the importance for the market surveillance authorities to maintain independence and take due account of scientific opinion with respect to the risks. With respect to maintain independence for the MS authorities there is general agreement, but opinions differ on the disadvantages and merits of cooperation with industry. Several participants report good results of their cooperation with industry, especially with respect to raising awareness of the regulation in the tanning branch, but a few participants kept reservations. There was agreement that the independency of the market surveillance authorities should be ascertained. The discussion is described extensively in the minutes appended to this report.

Further topics discussed were the progress of the activities in the participating member states and the interim progress report, which had recently been forwarded to the commission. The project consultant finally gave an overview of the contributions in kind so far, stressing the importance of regular delivery of time sheets and other administrative data by the participants. The deliverables for the progress meeting can be found in Annex C.

- Final Workshop 2nd of November 2011

The final workshop was attended by 8 delegates from 7 participating member states and Norway, as well as representatives from the following stakeholders: ANEC, ESA (3 representatives), CEN/CENELEC, the Sunbed Association (UK), the Hungarian Tanning Association (2 representatives) and from ČAZO, the Czech Tanning Association (2 representatives). Also the project leader and project consultant were present, as well as a representative from the PROSAFE office.

The main item discussed during the workshop was the draft technical report, which had been distributed to most of the participants in advance. An introductory presentation by the project leader gave an overview of the design, the purposes of and the methods used by the action to accomplish these purposes. A second presentation by the project consultant then gave a summary of the results from the action and the conclusions drawn.

ANEC gave its reaction in a presentation, concluding that the results from the joint action agreed with the findings in several investigations by consumer organizations in several countries. There, too, it was

found that high percentages of sunbeds and tanning services did not fulfil the safety requirements and guidance was insufficient. ANEC thought that the services lacked professionalism and supported the development of a standard for indoor tanning services and strongly advocated continuation of market surveillance in this field.

ESA also reacted on the findings in the draft report with a presentation. Though the main conclusion were not contested, ESA felt that the emphasis in the report was unbalanced. For example, the 18+ age limit was stressed, but in ESA's opinion the role of skin type and proper advice and guidance on these aspects was just as important. A similar criticism concerned the way the risks were presented, which ESA felt unbalanced. ESA pointed out some new developments, like the initiative to develop a standard for indoor tanning services. Finally, ESA concluded from the results in the report that continued enforcement by the authorities is needed.

The development of the "standard for indoor tanning services" was discussed in a presentation by a representative from CEN/CENELEC.

Finally the representatives from the national association for the tanning branch from Hungary, the Czech Republic and the United Kingdom discussed the developments in their countries and in particular the way they worked together with the National Authorities and the role the Joint Action played in this cooperation. On the whole their experiences were positive and it was felt that cooperation contributed to increased awareness in the service providers in their countries.

The afternoon session was for the market surveillance authorities only. The draft report was discussed. The participants could comment and did so, sometimes at a detailed level. Some of the comments made were noted and ultimately led to improvements and changes in the draft technical report. Before the end of the meeting participants were asked to submit their final timesheets as soon as possible.

2.2.2. Stakeholder meetings

During the joint action the joint action management, the participating Member State's Authority participated with ESA and local industry associations in organizing national stakeholders meetings in several participating Member States. These were primarily intended to discuss with local stakeholders the requirements for tanning studios, best practices in operating studios and to familiarize the local stakeholders with the activities of ESA and about the active market surveillance on tanning studios in the framework of the joint action. During the reporting period such meetings were organized in:

- Poland, 2nd of March 2010, Warsaw
- Hungary, 25th of March 2010, Budapest
- Czech Republic, 24th of March 2010, Prague
- United Kingdom, 7th of May 2010 Chelmsford
- Slovenia, 22nd September 2011 Ljubljana

More information is given in 2.3.1.

2.2.3. Other Meetings Attended within the Framework of the Joint Action

The following meetings and events were attended by representatives from the Joint Action:

- Meeting with ESA, Warsaw, 2nd of March, 2010
- Meeting with ESA Hungary, 25th of March 2010, Budapest
- Meeting with ESA Czech Republic, 24th of March 2010, Prague
- Meeting with ESA United Kingdom, 7th of May 2010 Chelmsford
- Meeting with ESA Slovenia, 22nd September 2011 Ljubljana
- Sunbed Association Workshop, Birmingham , the 14th of April 2011
- Meeting with ESA, Den Haag, August 12, 2010
  Regular meeting with ESA representatives during which the ongoing cooperation between the JA

on sunbeds and ESA was discussed, including the stakeholders meetings organized in the Member States and possible cooperation in the development of consumer information. As a new development the possibility to develop a "Service standard for tanning facilities" in cooperation with CEN CENELEC was discussed and the possibility of the JA to support this initiative.

- The PROSAFE meeting, Malta, 28th - 30th of April 2010;
- PROSAFE EMARS core group meeting, Brussels, 16th – 17th of June 2010
- PROSAFE and PROSAFE EMARS core group meeting, Brussels, 18th – 20th October 2010

2.2.4. Meetings of the working group consumer information

The working group consumer information was formed on behalf of the participants in order to guide the development consumer information, after it was decided by the participants that the information material for consumers should aim to use modern media like the www, videos and material for mobile phones. The working group met several times: the 20th of May (Amsterdam), the 7th of July (The Hague), the 26th of September 2011 (teleconference). These meetings concerned the development of ideas using these media and at a later stage the guidance of the implementation of these ideas by a third party. Participating in the working group were Cyprus, Belgium, Hungary, Norway, the Netherlands and the project leader and project consultant.

2.2.5. Project management meetings

Several meetings of the project management took place in the Hague or Zwijndrecht. These served to organize project meetings, discuss project progress and developments, and the general management of the Joint Action and preparations of project meetings.

In 2010 such meetings took place on the 25th of January, 1st of February, 10th of March, 4th of May, 1st of July, 13th of August, 12th of October and the 21st of December. Further meetings took place the 13th of January 2011, the 25th of February 2011, the 24th of March 2011, the 8th of April 2011, the 17th of April 2011, the 17th of May 2011, the 1st of July 2011, the 30th of August 2011, the 23rd of September 2011, the 25th of October 2011, the 22nd of December 2011, the 23rd of January 2012 .

Regular participants were the project leader and project consultant as well as Evert van Wilgenburg, who coordinated the UV measurement team.

2.3. Activities Undertaken at the National Level

2.3.1. Market surveillance

The main activity that the Member States undertook at national level in the context of the joint action on Sunbeds and Solarium Services was market surveillance. Over the two year period of the action the participants in the joint action were to perform inspections at tanning studios, manufacturers and EU-importers. A checklist was provided, which centred on those items in the operation of the studios that should assure that customers receive sufficient information and personal advice to allow safe use of the sunbeds, checks on the age of the customers t prevent youth from using the sunbeds and the intensity of the UV radiation from the sunbeds at the facilities. Where possible this was to be measured with the hand held UV meters supplied.

2.3.2. Facilitating and performing inspections with the UV-measurement equipment

To avoid the expensive necessity of buying UV spectroradiometers by all participants, this joint action, like the previous joint action on sunbeds used a single UV spectroradiometer with double monochromator, partly funded by DG-Sanco within the scope of the grant agreement for the first (and possibly also the second) joint action. The Food and Consumer Product Safety Authority in the

Netherlands developed the standard operating procedures and calibration procedures for the EWI measurements of sunbeds and trained personnel to operate the equipment. The use of this equipment is required to obtain accurate measurements of the EWI values of the sunbeds, suitable to serve as proof when cases come to court.

During the joint action a trained operator took along the equipment to perform measurement in most of the participating member states. In each participant's member state the equipment and crew was available for one week, which in practice meant 3 – 4 days for measurement. Between visits to participants a week was allowed for recalibration of the equipment.

Prior to these measuring visits the participants selected sunbeds to be measured, preferably selected on the basis of suspicion of non-compliance. Participants also prepared the visits by providing suitable transport and storing facilities for the equipment during the visit.

In the reporting period all planned visits have taken place. Measurements were performed in: the Czech Republic, the United Kingdom, Hungary, Norway, Portugal, Denmark, Cyprus, Latvia and Germany. Measurements started in July 2010 and ended in November 2010. In the Czech Republic and Hungary the use of the measurement train had the added purpose to compare and fine tune the results with those obtained by similar equipment that those participants have meanwhile purchased. Having their own equipment extends the possibilities of the Czech Republic and Hungary to effectively enforce the regulation for tanning studios.

2.3.3. Participation in stakeholder meetings

During the joint action the joint action management, the participating Member State's Authority participated with ESA and local industry associations in organizing national stakeholders meetings in several participating Member States These were primarily intended to discuss with local stakeholders the requirements for tanning studios, best practices in operating studios and to familiarize the local stakeholders with the activities of ESA and about the active market surveillance on tanning studios in the framework of the joint action. During the reporting period such meetings were organized in:

- Poland, 2nd of March 2010, Warsaw.
- Hungary, 24th of March 2010, Budapest
- Czech Republic, 25th of March 2010, Prague
- United Kingdom, 7th of May 2010, Chelmsford
- Slovenia, 22nd of September, Ljubljana

2.3.4. Dissemination and Awareness raising

Industry and tanning service operators

Several participants have also undertaken dissemination and awareness raising activities at the national level.

Hungary:

At the beginning of the year the Hungarian Authority translated and published the press releases issued by the European Commission and PROSAFE and a summary of the Report on the joint action in 2009. The Ministry of National Development and Economy (NFGM) issued a communication on the joint action and on the results of the Hungarian surveillance. These publications induced a large press interest about the joint solarium action. Many of TV channels, radio stations broadcasted reports on the joint action and its results. Also several journals and magazines published interviews about the safety situation of solariums.

The Trade and Market Surveillance Authority organized a Solarium Forum for the stakeholders of the solarium industry in February. The Forum was held under the patronage of the Ministry of National Development and Economy. More than 100 participants took part at the conference and they were given information about the experiments of the joint action 1 and the aims of joint action 2, the legislative framework and the legal background. Frequently asked questions were discussed. The experts of the

institutions concerned – Hungarian National Public Health and Medical Officer Service (ANTSZ), Hungarian Standards Institution (MSZT), an associate professor from Department of Dermatology, Semmelweis University School of Medicine, – gave lectures on the health, safety, medical and legal aspects of solariums, in Hungary. The secretary and the chairman of the two Hungarian solarium associations (MSZE member of ESA, MSZUE Hungarian Association of Tanning Operators) exposed their opinion and they projected how to solve the bad situation. A press conference was held right after the solarium forum.

The Trade and Market Surveillance Authority issued two Newsletters on the homepage of their Authority this year to inform the stakeholders and the clients on the aims and the legal background of the joint action, on the presentations of the Solarium forum and on the safety instructions for the clients. More information can be found here.

Czech Republic:

There was TV coverage of the risks of artificial tanning multiple times, generally also highlighting the involvement of the Czech Inspection. An example still found on the internet:

Norway:

Lill Tove Nilsen presented the Sunbed-project on several occasions:

- Meeting hosted by and held at NRPA 6-7 May 2010 for the members of Technical Committee No. 61: Safety of household and similar electrical appliances; Maintenance Team 16: Ultra-violet radiation.
- Meeting between NRPA and the Norwegian Sunbed Association on the 1 December 2010.
- -The annual consensus-meeting between scientific experts at the Norwegian Cancer Society in Oslo 7 December 2010.

In addition the NRPA organized 3 courses (1 day each; 17+18 February and 23 March) in 2010 and 1 (23 March) in 2011 for local solarium inspectors. These courses included lectures on health effects, safety and legal aspects of solariums, as well as practical training of inspecting solariums. About 70 inspectors participated.

Employees of the NRPA also published 3 papers with respect to solariums, which had media attention [16, 17, 5].

Portugal

In 2010 the ASAE gave an internal training for those inspectors who cooperated in this action. The training took place at the premises of the ASAE in Lisbon and Porto.

The practical component of the training was given by a Portuguese notified body, notified under the LVD.

The ASAE also published information on its website regarding the risks associated with artificial tanning aimed at the consumers.

United Kingdom

The Essex Country Council, participant in the action, participated in the Sunbed Association Workshop, Birmingham, the 14th of April 2011 with a presentation on the legal requirements for tanning services and the market surveillance of these services in the United Kingdom.

Probably more participants have been performing similar activities, but these have not been reported.

2.4. Activities Undertaken by the Coordinating Body

These activities include coordination activities and coordinated activities undertaken by the coordinating body. For the larger part these have been described in sections 2.1 and 2.2.

2.4.1. Administration of Action

The participants also discussed an overview of received timesheets at each meeting. This was done to encourage a continuous collecting of timesheets during the Joint Action.

2.4.2. Checklist

To realize a high degree of harmonization of the inspections between the participants a common inspection list was developed. The inspection was a reduced version of the list used during the first action, concentrating more on the items directly relevant for the safety of the service and sunbeds used. The inspection list was developed as an excel file, designed to be 'inspector' friendly.

2.4.3. UV measurements in the participants' Member States

The Food and Consumer Product Safety Authority in the Netherlands developed the standard operating procedures and calibration procedures for the EWI measurements of sunbeds and trained personnel to operate the equipment. In cooperation with PROSAFE the VWA measurement train visited most of the participants to perform measurements on sunbeds. According to the schedule described under 2.1.6. These measurements were performed during the period May – December 2010. At present the analysis of the data obtained in the member states during these visits are still being analysed. Results will be reported in the final report.
Besides the activities mentioned above in this section, the JA supported the Czech Republic in making the UV measuring equipment it acquired operational.

2.5. Dissemination activities

2.5.1. Meetings where Presentations of the Joint Action have been given

Presentation of the joint action were generally given at stakeholders meetings, reaching a target audience of indoor tanning service providers and other stakeholders. A list of these meetings is given in section 2.6.3.

Short progress reports were also given at PROSAFE meetings and in the Consumer Safety Network meeting on the 10th of February 2012.

2.5.2. Final Workshop

The final workshop was described in section 2.2.1

2.6. Awareness-Raising Activities

2.6.1. Consumers

The joint action include the development of information material to raise consumer awareness. This has partly been discussed in section 2.1.9., where it was noted that a package was developed that consists of a video (in a short and long version), a web site containing these videos and information on tanning presented in a light hearted way. In addition a mobile phone app was developed, which also gives information on tanning and which refers to the web site.

The information package was developed under guidance of the working group consumer information (see sections 2.1.9 and 2.2.4). The actual conceptualization and production of the website, the videos and the smart phone application was subcontracted to Schuttelaar & Partners of the Hague, the Netherlands Schuttelaar & Partners were selected out of three applicants following a formal tender.

Though risks of artificial tanning affect all age cohorts, it has been shown that overexposure to UV at younger ages increases the probability to develop skin cancer. It was therefore decided to aim risk communication primarily at the younger age cohorts, the age groups between 14-20 years of age. According to Schuttelaar & Partners these age groups communicate primarily via smartphone and internet. The approach adopted to raise curiosity in the target group used a humorous video concerning an spoof app that allowed smart phones to be used as a tanning device. Once interested, the consumer is guided to a web site which gives additional information about the app, while at the same time giving easy to read and comprehend information on the risks of artificial tanning and the things to watch when using artificial tanning devices: http://mobiletanningdevice.com.

Those who fell for the spoof can also order the app on this web site. A real app that is available for those who order was also developed. The app does not function as a tanning device of course, but instead gives guidance about the risks, addressing age, skin type and what to regard when visiting a tanning salon.

To attract the attention of the target group the video was seeded on social media like Facebook or similar regionally popular social network sites. To this end a seeding package was developed by Schutteleaar & Partners, including the video and text examples that accompanied the placing in the social media.

At the moment (End of January 2012) nearly 50.000 people have seen the video and 1500 – 2000 visitors have visited the site the past two months. The visits to the site don't fulfil the expectations, but 70-80% of the visitors of the site look at all the pages and spend on average 5,5 minutes on the site, which is judged a good score.

2.6.2. The European Commission

The representatives from DG SANCO were invited to participate in every project group meeting and in the meetings of the working group consumer information. Wherever participation was not possible the SANCO representative was kept informed by E-mail.

2.6.3. Stakeholders

As the indoor tanning service branch is still relatively new to the regulation of the service they provide the Joint Action on Sunbeds II devoted much attention to the associations of this industry. Cooperation with industry can help to make the branch aware of the legal requirements, thus promoting compliance with regulations. On the European level cooperation with the European Sunlight Association (ESA) was already established during the first Joint Action on Sunbeds and in this action further cooperation was actively pursued.

In practice the cooperation continued the work of the ESA Working Group Joint Action Sunbeds, set up in the previous joint action on sunbeds. This working group's aim is to promote in collaboration with the market surveillance authorities compliance of the sector with the new regulations. To that end the following activities were undertaken:

- Providing information to ESA members about the implementation of the new rules,
- Support in the development of training material (in English) for personnel of tanning studios;
- Support in the development of a standard for service in indoor tanning facilities;
- Participation in stakeholders meetings organized by ESA and local tanning associations to inform the local stakeholders about the regulations on sunbeds and operating of tanning facilities, as well as the joint action.

Though in many member states cooperation with the industry organization is considered a useful means to raise compliance levels, it is good here to remark that some other member states have reservations about cooperation between market surveillance authorities and industry. Such cooperation has also been criticised by scientists [13]. In spite of these criticisms the cooperation in the project had a positive impact in those Member States who actively cooperated with the tanning industry.

To coordinate the cooperation, regular meetings were held with ESA representatives, during which the ongoing cooperation between the JA on sunbeds and ESA was discussed, including the stakeholders meetings organized in the Member States and possible cooperation in the development of consumer information. As a new development the possibility to develop a "Service standard for tanning facilities" in cooperation with CEN CENELEC was discussed and the possibility of the JA to support this initiative.

Meetings were held on the same days as the national stakeholder meetings:

- Meeting with ESA, Warsaw, 2nd of March, 2010
- Meeting with ESA Hungary, 25th of March 2010, Budapest
- Meeting with ESA Czech Republic, 24th of March 2010, Prague
- Meeting with ESA United Kingdom, 7th of May 2010 Chelmsford
- Meeting with ESA, Den Haag, August 12, 2010
- Meeting with ESA Slovenia, 22nd September 2011 Ljubljana

The project leader of the joint action also actively participated in 5 stakeholder meetings organized by ESA in the participants' member states. These meetings were organized (in cooperation with the local associations) to raise awareness of the solarium services operators about the regulations on tanning services and the good operating procedures required for such services. Attendants usually included indoor tanning service providers, the market surveillance authorities and frequently also representatives from science (dermatologists). See also 2.2.2. The project leader also supported the development of a training manual for tanning studio personnel by ESA and wrote a foreword for this manual. The training manual was published in September 2010 [15].

ESA representatives attended the kick-off meeting and the final workshop and were invited to attend (an open) part of some of the progress meetings.

Consumer organizations ANEC and BEUC were invited for both the kick off meeting and the final workshop. ANEC attended and gave a presentation of their view of the indoor tanning branch.

The Joint Action on Sunbeds II also tried to connect with the scientific community at the European level. In particular the coordinating body attempted to contact Euroskin several times, because it was felt that a common initiative to inform consumers about the risks of UV radiation was a shared interest.

Regrettably no response was obtained from Euroskin. Note that at the national level contacts with the scientific community were made in several participating countries (see 2.3).

2.6.4. Enforcement communication

Publicity about the cross border action also can raise compliance levels, because the target group is made to perceive an increased probability of being inspected [19]. Enforcement communication was therefore part of the sunbed cross border action. Participants were stimulated to generate publicity about the action on a national level in their member state, both in public media and in media specializing in information for the target group.

2.7. Differences between Work Program and Activities Actually Undertaken

Table 3 below compares the activities foreseen in the work programme as stated in the updated grant agreement to those actually undertaken in the Joint Action.

Planned Activity	Deliverable	Activity actually undertaken
Kick off meeting	D1 Report containing one short synthesis of main issues and conclusions. Annexes: minutes and clear Gantt chart.	The kick-off meeting was organized on the 12th of February 2010 in Brussels. Further information has already been given in 2.2.1. The kick off meeting was organized slightly later than originally planned to allow optimal availability of the participants involved. The deliverables are appended to this report.
Training of inspection team	D2 Report in 2 parts: Part 1: Main issues such as understanding the European regulations, knowing the background the hazards of UV emission and UV measurements, knowing which items to address in inspections and can perform screening measurements of UV radiation Part 2: Research protocol	The training meeting was organized on the 30th of March 2010 in Zwijndrecht (NL). More information on the training is given in section 2.2.1. The training was also delayed from the original projected month 1 till month three, also to get a suitable date for the participants as well as the time necessary to prepare the desired training program. The deliverables have been appended to this report. The presentations can be requested from info@proasafe.org.
Progress meetings	Meetings according to the updated grant agreement: Progress-training meeting Progress November 2010 Progress July 2011	The first progress meeting was combined with the training meeting on the 30th of March 2010. (see 2.2.1). The 8th of November 2010 a progress meeting for the joint action convened in Brussels. More information is given in section 2.2.1. The 29th of March 2011 a progress meeting for the joint action

Planned Activity	Deliverable	Activity actually undertaken
	Report containing one short synthesis of main issues and conclusions. Annexes: minutes.	convened in Brussels. More information is given in section 2.2.1. Minutes and presentations of these meetings are available upon request from info@prosafe.org. The deliverables are appended to this report.
Issue information to business	D4 Report	The activities of the joint action to inform businesses took place both on the European level and the national level. The included the participation and co-organization with ESA of stakeholders meetings at the national level (see section **Error! Reference source not found.**) and supporting ESA in the development of the ESA training manual [15] as well as activities on the national level (see 2.3.3 and 2.3.4) The grant agreement also requires that consumer information is developed. In order to reach as many consumers as possible, the consumer information took the form of a website with videos drawing attention to the risks of tanning, accompanied by a mobile phone application that provides individually tailored advice. See section 2.1.9. and 2.6. The video and web site can be viewed at: http://mobiletanningdevice.com.
Real enforcement activity in the area of sunbeds/solaria offered as a service Screening measurements	D5 Report on results of the inspection, including the state of affairs with respect to the availability of safety information on artificial tanning in tanning studios and the conformity of the sun beds employed in these studios	During the reporting period market surveillance activities were performed. An overview of the activities and results is given in this final implementation report. (See section **Error! Reference source not found.** and 4). The market surveillance activities have been separately reported for external use, included the stakeholders [18] .
Interim report	D6	Delivered: [**Error! Reference source not found.**]
Report to stakeholders	D10 Report including an overview of results of the contacts with Euroskin; These contacts aim to investigate the possibilities for cooperation in the organization of public awareness raising publicity and possible other activities that inform the public of the	During the course of the project the project leader has tried to contact Euroskin. Despite several efforts no reaction from Euroskin was ever received. On the local level, during the stakeholder meetings in the Member States stakeholders from the dermatological profession attended some of the meetings and at the local level some cooperation existed. Without the cooperation of raising consume awareness was taken on independently, leading to the production of the 'campaign' described in section 2.6.

Planned Activity	Deliverable	Activity actually undertaken
	hazards of tanning;	
Meeting with stakeholders	D12 to D16	Stakeholder meetings organized by ESA in cooperation with local associations and the Joint Action were held in: • Poland, 2nd of March 2010, Warsaw. • Hungary, 24th of March 2010, Budapest • Czech Republic, 25th of March 2010, Prague • United Kingdom, 7th of May 2010, Chelmsford • Slovenia, 22nd of September, Ljubljana For more information see:
Final report	D17	This report: 28-2-2012

Table 3. Overview of activities foreseen in the working program and activities actually carried out.

3. Participants in the Joint Action

3.1. Planned and Actual Involvement of Participants

Table 4 below shows the planned (as in the revised grant agreement) and actual involvement of each of the participating organisations in the Joint Action. The table also shows a breakdown of the involvement of the four professional categories of manager, advisor, inspector and support, respectively

Member State	Man-days									
	Manager		Advisor		Inspector		Support		Total	
	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual
Belgium	0	1,7	0	0,7	5				5	2,4
Cyprus	12	0			56	76,5			68	76,5
Czech Republic	10				164	304,3			174	304,3
Denmark					60	41,5			60	41,5
France			6	4					6	4
Germany					26	23,6			26	23,6
Hungary	43	47,9			66	106,2	7	10,6	116	164,7
Latvia I	2	4			14	28			16	32
Latvia II	17	30,1			41	47			58	77,1
Netherlands	45	60	20	9,4	123	243,9			188	313,3
Norway					56	71			56	71
Portugal			72	30,5					72	30,5
United Kingdom	15	30,4			44	45,2			59	75,6
PROSAFE	97		24		80		48		249	

Table 4. Planned and actual involvement of the participants in the action.

3.2. Activities to Balance the Participants' Participation

Balancing the contributions from the participants is delicate and cannot be done 100%. The national markets are different and the working procedures of the market surveillance authorities in the member states also vary considerably. It therefore does not make sense to strive for an absolute balance in the number of man-days contributed from the participants. Moreover the grant agreement already foresaw some differences in the contributions from the participating Member States as can be seen from Table 5.

Therefore the balancing became more a question of ensuring that all Member States participated actively in the action, i.e. attended the meetings, submitted inspection data and administrative information regarding their participation. The means for ensuring this were mainly follow-up activities on project meetings and individually.

The project group had five meetings and one training session was organized. After the kick-off meeting project progress and contribution in kind was discussed at every meeting. Participants were explicitly pushed to submit the necessary information (both inspection results and timesheets as early as possible to the project management. Furthermore, as of the second half of 2010 the PROSAFE office monthly e-mailed the participants to request the time sheets for the previous months.

The project management also followed up individually with Member States when necessary. This was done by sending mails to people involved in the action.

3.3. Differences between Foreseen and Actual Participation

It is foreseeable that there will be some unbalance between the workload of the participating Member States due to national differences. The penetration of tanning salons varies between the Member States and so does the type of business that offers tanning services. In some Member States the usual facilities are tanning salons, but in Cyprus for example, fitness centres are common. In the Nordic States coin operated sunbeds are frequent, while in others this type of service is rare. The economic operators' knowledge of the relatively recent requirements varies as does the willingness to follow the measures imposed by authorities. Legal procedures also vary, and so do the operating procedures of the national market surveillance authorities participating in the action. Finally the non-conformity level is likely to have varied across Europe before the start of the joint action.

The above presumptions were only incorporated in the budget in the grant agreement to a limited extent. It was not feasible (or possible) to do it differently as it would have required a thorough investigation of the market situation before the project was started.

The differences between the planned and actual involvement for each of the participating Member States is shown in table 5.

Participant	revised budget days	actual days	difference days	%
Belgium	5	2,4	-2,6	-52,0%
Cyprus	68	76,5	8,5	12,5%
Czech Republic	174	304,3	130,3	74,9%
Denmark	60	41,5	-18,5	-30,8%
France	6	4,0	-2,0	-33,3%
Germany	26	23,6	-2,4	-9,2%
Hungary	116	164,7	48,7	42,0%
Latvia 1	16	32,0	16,0	100,0%
Latvia 2	58	77,1	19,1	32,9%
Netherlands	188	313,3	125,3	66,6%
Norway	56	71,0	15,0	26,8%
Portugal	72	30,5	-41,5	-57,6%
United Kingdom	59	75,6	16,6	28,1%
Total	**904**	**1216,5**	**312,5**	34,6%

Table 5. Differences between the planned and actual involvement of the participating Member States.

The major differences will be explained here: Overall the man days contributed by the participating Member States (1216,5 man days) exceeded the estimated man days in the grant agreement (904 man days) by 35 %.

4. Results of the Joint Action

4.1. Introduction

The Grant agreement identifies the following deliverables:

4.2. Results from Member States' Market Surveillance Activities

4.2.1. Introduction

The main activity that the Member States undertook in the context of the joint action on Sunbeds and Solarium Services at the national level was market surveillance. Over the two year period of the action the participants in the joint action performed inspections at tanning studios, manufacturers and EU-importers. A checklist was provided, which centred on those items in the operation of the studios which assure that customers receive sufficient information and personal advise to allow responsible use of the sunbeds, checks on the age of the customers to prevent youth from using the sunbeds and the intensity of the UV radiation from the sunbeds at the facilities. Where possible a screening measurement of the UV radiation was made using the hand held UV meters supplied.

4.2.2. Characterization of Inspections

During the period from the 1st of January 2010 up till the 14th of December 2011 the participants in this joint action reported a total of 1307 inspections at tanning service providers and manufacturers, EU importers or distributors of sunbeds.

The inspections are summarized by participants and inspection type in Table 6. The inspection type is either a first inspection of a business, or it is a re-inspection, which is generally done when a previous inspection determined shortcomings.

Note that Belgium's participation was restricted to attendance of the meetings in order to stay informed about developments in the other member states and no contribution of inspections was planned. Originally the same held for France, but during the action France decided to perform inspections of indoor tanning services and contribute the results of their inspections to the joint action.

Table 6: inspections by participant and inspection type

	First inspection	Re-inspection	Total
Cyprus	7	11	18
Czech Republic	64	14	78
Denmark	353		353
France	239	10	249
Germany	32		32
Hungary	128	5	133
Latvia	58		58
Netherlands	204	76	280
Norway	32	1	33
Portugal	17		17
United Kingdom	44	2	46
Total	**1178**	**119**	**1307**

4.2.3. Characterization of Inspection Sites

The businesses involved in indoor tanning services include the manufacturers and distributors of the sunbeds used in these services and the businesses that provide the indoor tanning services to the customers. The latter group is varied, but may be distinguished in businesses for which indoor tanning is the main activity and businesses that offer other services, but as a side activity also make sunbeds available to their customers. These include, for example, hotels, fitness and wellness services, swimming pools, beauty parlours, hair dressers, etc.

Table 7 lists the distribution of the inspections according to the type of business inspected.

Only first inspections are taken into account, as these convey an idea about the present situation in the markets. Re-inspections, in which usually checks are made if shortcomings have been rectified, are excluded from this analysis, as they would distort the image obtained. Note also that these results refer to the inspected sites, which may well operate multiple sunbeds.

Table 7: characterization of inspection sites

		Manufacturer	Distributive trade	Service provider			
participant	total			tanning main activitiy	tanning side activity	staffed?	membership association
Cyprus	7			4	3	100%	0%
Czech Republic	64			32	32	84%	0%
Denmark	353			353		0%	-
France	232		8	16	208	99%	4%
Germany	32		1	23	8	97%	45%
Hungary	128	1		60	67	98%	13%
Latvia	58		1	28	29	100%	8%
Netherlands	204	9	3	58	134	95%	41%
Norway	32			13	19	31%	0%
Portugal	17			13	4	100%	0%
United Kingdom	43			18	25	93%	31%
Total	1170	10	13	618	529		

For the following analyses a word of caution is in order. When the number of inspections for a particular participant is low, the results found are heavily dependent on each specific inspection result and the estimated degree of non-compliance is not very reliable. This is true for example for Cyprus and Portugal and to a lesser extent for Germany, Latvia and Norway.

In the majority of the sites inspected indoor tanning was offered as the main activity. However, this result is heavily influenced by the results from Denmark, which contributed more than 300 inspections exclusively at services where tanning was the main activity. If these inspections are excluded, the situation in the rest of the participating countries appears to be different and a considerable fraction of sunbeds are offered by service providers who offer tanning as a side service. This observation is relevant, because it can reasonably be assumed that businesses that offer tanning as a side service will be harder to reach when trying to convince them of the necessity to comply with the rules. After all, they are unlikely to be a member of a tanning association and most likely will miss information offered by that association.

The ratio between service providers with tanning as the main activity and those who offer service as a side service varies between countries, with a high fraction providers of tanning as a side service in France and the Netherlands. For the Netherlands the high fraction of indoor tanning provided as a side service can be explained, because over the period the joint action's attention has shifted from services with tanning as the main activity to those businesses that offer tanning as a side service. In reality the ratio may therefore be more balanced than found here, probably nearer the half/half ratio.

As can be seen in the last column of the table the percentage of proprietors of tanning facilities that is member of a branch association is low. The percentage shown may even be flattered, because sites that offered tanning as a side service frequently are member of an association, but the association is concerned with their primary activity. The conclusion is that the degree of organization is low in most

member states. This is regrettable, because this limits the possibilities for the indoor tanning service associations to influence the standard of service provided directly.

Responsible use of sunbeds by consumers requires that the personnel of the tanning facility informs the customers about the use of sunbed, taking into account skin type, age of the customer, etc. Typically this requires staff. However, there are also 'coin operated self-service' sunbeds offered, especially in the Scandinavian countries. Often there is no staff present to advise customers and preclude that persons under18 years of age and other vulnerable groups use the sunbeds. Table 7 shows the percentage of inspections sites that were staffed. In most countries staff is present at the great majority of service providers. In Denmark staff is almost absent. This is because indoor tanning services are mainly unstaffed sites, where coin operated sunbeds are offered. In Norway the percentage of facilities where staff is present is also low, a fact known to the Authorities and a source of concern. In fact, Norway is considering legislation making staff obligatory for indoor tanning services.

4.2.4. Safety information, tanning advise, handling of age limit and the availability of goggles

Minimizing the adverse effects of the use of sunbeds requires that consumers visiting the solarium service are informed about the risks of sunbed use and that they are advised about a suitable tanning scheme, taking into account their skin type, the presence of freckles or moles, medical history, etc. Also, the sites should have procedures in place to prohibit the use of sunbeds by people under the age of 18. Such policies should be part of the way in which the tanning facility is run.

Table 8: risk information, personal advise, handling of age limit (18 year+) and availability of goggles; all service providers (n=1147)

	Risk information	Personal advise	18 year +	Sufficient goggles
	No/insufficient	No/insufficient	No/insufficient	No
Cyprus	29%	71%	29%	0%
Czech Republic	11%	13%	22%	3%
Denmark	100%	100%	100%	25%
France	17%	30%	41%	3%
Germany	10%	6%	3%	7%
Hungary	92%	71%	91%	2%
Latvia	33%	21%	24%	8%
Netherlands	44%	47%	9%	12%
Norway	100%	100%	100%	75%
Portugal	82%	0%	0%	35%
United Kingdom	7%	14%	33%	5%

These aspects were addressed in the joint action, where inspections checked the way in which safety information and individual tanning advice were given, how the age limit was upheld and if sufficient goggles were available. Table 8 shows the results for indoor tanning service providers at first inspection.

From the table it can be concluded that great differences exist between the participating countries, but that generally the way customers are informed about the risks of sunbed use and the way they are given personal advice leaves much to be desired. The same holds true for the enforcement of the 18+ years of age limit, which is often absent or insufficient. Remarkable are the results for Norway. In Norway tanning services are required to show a wall poster, easily seen in the room, with precautionary text, warnings against the use of solariums and advise against the use by persons under the age of 18 years. This information is generally present, but because personal advice is frequently lacking there is no guarantee that these warnings are actually read. For that reason the single observation that such posters were present did not qualify for the NRPA as sufficient. This is of course connected with the fact that in

Norway most services are presently not staffed, which also explains why personal advice and enforcement of the age limit is judged insufficient.

Norway also reports that goggles are frequently not available to the customers. The reason for that is that Norwegian regulations did not require goggles to be made available until the 1st of January 2011.

The results shown above refer to all service providers, including those providers that offer tanning only as a side service. Those businesses may not be informed about the regulations as well as those who offer tanning as their main activity. The latter are more likely to be member of tanning business associations as tanning service is their main concern. It is interesting therefore to see if services whose main activity is offering indoor tanning comply better than average.

Table 9: risk information, personal advise, handling of age limit and availability of goggles; tanning as the main activity (n=618) vs. tanning as a side service (n=529)

	Risk information		Personal advice		18 years +		sufficient goggles	
	no/insufficient		no/insufficient		no/insufficient		No	
	main activtity	side service	main activtity	side service	main activtity	side service	main activtity	side service
Cyprus	50%	0%	75%	67%	25%	33%	0%	0%
Denmark	100%	-	100%	-	100%	-	0%	-
Czech Republic	6%	16%	9%	16%	16%	28%	0%	5%
France	6%	17%	44%	29%	25%	41%	6%	3%
Germany	9%	13%	4%	13%	4%	0%	9%	0%
Hungary	95%	90%	63%	78%	92%	90%	0%	3%
Latvia	14%	52%	11%	31%	4%	45%	7%	3%
Netherlands	38%	47%	40%	51%	7%	10%	5%	15%
Norway	100%	100%	100%	100%	100%	100%	77%	74%
Portugal	77%	100%	0%	0%	0%	0%	46%	0%
United Kingdom	6%	8%	17%	12%	33%	32%	6%	4%

Table 9 gives this information for service providers whose primary activity is providing indoor tanning services (blue columns) against the same information for providers who do tanning as a side service (reddish columns).

The differences vary by participant, but from this table compliance on the whole seems better for those businesses that have tanning as their main activity.

4.2.5. Re-inspections

The joint action on sunbeds and solarium devices is primarily a market surveillance action, which means that when non compliances are found corrective measures are taken. The severity of the measures taken depends on the enforcement policies of the participants. In general measures can vary from unofficial warnings to imposing fines or starting official prosecution. At first offense the measures taken are usually not very strict and may be confined to a warning when the violation does not directly constitute an immediate safety hazard. The measures taken during the joint action will be discussed later (because they frequently involve non-compliance of the sunbeds offered, which is discussed in section 4.2.6).

Once measures are taken the usual best practice is to re-inspect the business at a later time to check if the violations were indeed corrected. The results with respect to the same parameters discussed before are listed in Table 10. The percentages listed have been calculated from a limited number of re-inspections (n= 119), so the significance of the results, especially for the individual participants, should not be overestimated. For example, for Norway the improvement in personal advice of 100% is based on the result of a single re-inspection.

Table 10: risk information, personal advise, handling of age limit and availability of goggles; all service providers; re-inspections (n= 119)

	Risk information	personal advise	18 year +	sufficient goggles
	no/insufficient	no/insufficient	No/insufficient	Yes
Cyprus	18%	64%	18%	100%
Czech Republic	21%	29%	29%	100%
France	11%	0%	22%	100%
Hungary	80%	60%	80%	100%
Netherlands	17%	22%	10%	75%
Norway	100%	0%	100%	100%
United Kingdom	0%	0%	0%	100%
Eindtotaal	21%	26%	18%	83%

On the whole it appears that compliance is somewhat improved after re-inspection compared with the average compliance levels at first inspection.

4.2.6. Inspected sunbeds

Sunbeds used in solarium services must be electrically safe and at the same time comply with the requirements of the GPSD. Electrical safety implies that they comply with the requirements of the Low Voltage Directive, which also requires the level of radiation from the sunbeds to be safe. The LVD requirements apply when the sunbed is brought on the European market. However, when used in the context of providing solarium services, both maintenance (replacing of worn out UV tubes by proper replacements, etc) and the way it is used determine the level of UV irradiance the customers are exposed to. Operating a tanning salon responsibly therefore also depends on the way customers are informed of the dangers and how they are advised about suitable tanning schemes. Both of these have been discussed in the previous section.

Besides, the sunbeds themselves have to comply with a number of other requirements, both with respect to labelling (prescribed warnings, administrative labelling requirements, etc) as well as electrical safety requirements and limitations to the level of UV radiation emitted. The most important aspects have been inspected during the joint action on sunbeds 2 and results follow.

Until the 14th of December 2011 inspection results for a total of 1798 sunbeds were (sometimes partially) submitted by the participants in the joint action. This number exceeds the number of inspections performed, because many inspected sites operate more than one sunbed. For many of the inspected sunbeds screening measurements of the UV irradiances have been made using hand held meters distributed in the joint action. In some cases sunbeds were also measured with radio-spectrometer equipment.

4.2.7. Characterization of inspected sunbeds

Sunbeds can be roughly divided in single and double solariums. The latter also have UV emitters in the bench upon which the customer lies, so that the whole body is irradiated at the same time. Both can be fitted with special emitters to irradiate the face, i.e. they also comprise a facial solarium.

There are also vertical sunbeds. In this case the customer stands while being irradiated. One may assume that, because standing is less comfortable, there is a strong incentive to limit the exposure time and, in order to get good results in this short time, increase the UV level. Market surveillance authorities therefore categorize these as more likely to exceed the UV radiation limit, though presently this assumption has not been substantiated.

An overview of the types of sunbeds seen by the participants is given in Table 11.

Table 11: inspected sunbeds by type of sunbed

	Double solarium	Single solarium	Vertical solarium	Not classified	Total
Cyprus	14		12		26
Czech Rep	124	33	4	3	164
Denmark	353				353
France	233	85	14	2	334
Germany	71	3	1		75
Hungary	159		89		248
Latvia	62		27		89
Netherlands	307		15	1	323
Norway	54		1		55
Portugal	27		5		32
United Kingdom	49		50		99
Total	1453	121	218	6	1798

The great majority of the sunbeds seen during the inspections were double solariums (1453 sunbeds, 81% of the sunbeds classified) and most of those were equipped with facial emitters (90% of the sunbeds for which data were available). Single solariums are relatively rare in the sites inspected; 121 single solaria were checked (6,7% of the sunbeds classified), 80% of which were also facial solaria.

Finally, 11,7 % of the sunbeds encountered were vertical sunbeds. These seem to be especially common in Hungary, the United Kingdom and Cyprus.

4.2.8. Coin operated sunbeds

Though in many European countries solarium services are typically offered by tanning salons and similar businesses, which are generally staffed, in some of the member states coin operated sunbeds are frequently encountered. Especially the Scandinavian countries have indicated that such coin operated systems are common.

When coin operated sunbeds are offered in an environment where no staff is present to advise consumers about their tanning habits, passing the safety information required for safe tanning effectively is more difficult and likely to be absent.

The checklist for the action therefore asked to indicate if the sunbed investigated was a coin operated machine. Results are given in Table 12 as the percentage coin operated machines of the total number of sunbeds inspected (last column).

Table 12: Percentage coin operated machines by participant

	coin operated %	unclassified	total
Cyprus	50%		26
Czech Rep	10%	24%	164
Denmark	100%		353
France	7%		334
Germany	15%		75
Hungary	6%		248
Latvia	0%		89
Netherlands	21%		323
Norway	98%		55
Portugal	0%		32
United Kingdom	3%		99
total			1798

In Denmark (100%) and Norway (98%) the sunbeds investigated were almost exclusively coin operated. The sites where these coin operated sunbeds are offered are generally unattended. In Denmark the inspections were specifically aimed at such unattended sunbed services, but such services are the main operators of indoor tanning services in Denmark. There are businesses who offer tanning as a side service, but these are relatively rare (at most 5% of the sunbeds offered). Coin operated sunbeds are also common in Cyprus and to a minor extent were in the Czech Republic, Germany and the Netherlands.

The common opinion of market surveillance officers in the Netherland is that coin operated machines are less frequent than it appears in this investigation. An explanation is found in the fact that the Netherlands have been inspecting tanning services for a number of years, starting with inspections of tanning salons but now gradually shifting to providers who offer tanning as a side service and with special attention to coin operated machines. Also premises with coin operated sunbeds were inspected during complaint investigations. Possibly this also holds true for other participants, who have been inspecting indoor tanning services for a longer time.

Despite the fact that it is mandatory in Norway to provide posters with warnings and information, it is recognized by the Norwegian Authorities that the high percentage of coin operated machines, often employed without supervision, may lead to inadequate guidance of the customers.

In December 2011 the Norwegian Ministry of Health and Care Services announced that regulations have passed requiring no solarium to be offered to persons under the age of 18 years and that every tanning studio must have trained staff to guide the customers.

The age limit is valid from 1 July 2012, while requirements for trained staff are valid from 1 January 2014. (see also Annexe 1 for legal situation in Norway).

4.2.9. Compliance with the requirements

Labelling

The LVD requires that electrical products carry specific labelling. This includes the requirement to carry the CE mark. Warnings are required where necessary for the user to make responsible use of the appliance. Specifically Standard EN 60335-2-27, which applies to sunbeds, requires a warning that "Ultraviolet radiation can cause injury …..". Though there are more labelling requirements, these are the most important and the joint action has restricted the checks on these labelling requirements.

An overview of the results for labelling of sunbeds is given in Table 13, which lists the non-compliances with the main labelling requirements investigated.

Note that the warning "Ultraviolet radiation may cause injury …..” is regularly found not to be present in some of the participants Member States. Remarkable is also that a substantial fraction of the sunbeds does not carry the obligatory CE marking. Especially in Hungary, the United Kingdom and Norway the percentages non-compliance are high.

Table 13: compliance with labelling requirements and presence of 'passport"

	n	CE -marking absent	Warning is lacking	passport lacking	does not testify <0,3 w/m2*
Cyprus	26	8%	23%	85%	100%
Czech Rep	164	9%	3%	81%	74%
Denmark	353	no data	29%	no data	no data
France	334	12%	0%	19%	52%
Germany	75	1%		44%	21%
Hungary	248	46%	45%	57%	89%
Latvia	89	12%	30%	43%	27%
Netherlands	323	18%	15%	35%	17%
Norway	55	82%	18%	*	*
Portugal	32	6%	0%	100%	-
United Kingdom	99	29%	34%	100%	-
Total	**1798**				

* For Norway: see text

The checklist for the joint action also asked if name and address of the manufacturer/EU-importer was listed on the sunbed. Regrettably the data submitted by some of the participants did not allow a precise estimate of the fraction non compliances with this requirement. For those participants that submitted accurate data the percentage non-compliance with the obligation was low: generally less than 5 %.

Passport and/or technical file

Each sunbed should be accompanied by a technical file or 'passport'. The technical file is a requirement from the LVD, which refers to all technical information about the product necessary to demonstrate its compliance before the product can be introduced into the European market. The "passport" is a document that summarizes the main specification and properties of the sunbed, which is promoted by the industry organization as a way of certifying the compliance of the sunbed with the regulations, in particular with respect to the UV radiation emitted.

In principle this type of document could facilitate the market surveillance of tanning services, because it allows to check that the sunbed complies with the radiation limit by document checks only. That way expensive on site UV measurements can be avoided. Of course this is based on the assumption that the passport reflects the actual situation and performance of the sunbed it refers to, an assumption that may not always be justified. For the time being the usefulness of these documents for market surveillance authorities remains limited. Table 13 shows that in the majority of cases such a documents could not be shown by the proprietor of the solarium service, or that, when the document can be shown, it frequently does not specify the UV radiation emitted by the sunbed.

For proper interpretation it should be noted that in Norway a different situation occurs. All solariums that can be used in Norway must be listed on NRPA's web-pages and in order to be listed the UV-type 3 classification must be documented to NRPA. Solariums are then listed with lamps that can be used in each specific solarium. Also user instructions must be documented to the NRPA. In that way, passports are more or less publically available. In the context of this joint action it is relevant that the NRPA did not have the inspection mandate to check either the passports or the CE-marking, which explains why no data are given (Responsible for these aspects is DSB – Directorate for Civil Protection and Emergency Planning). In fact, many of the tested solariums did comply with the "passports" requirements, and the data are available on the NRPA's internet pages.

UV measurements

Though responsible use of indoor tanning services depends on the factors discussed before, the level of UV radiation emitted from the sunbed itself also determines the amount of UV radiation the consumer is exposed to.

For sunbeds the requirement is that the EWI does not exceed 0,3W/m^2. The EWI (erythemally weighted irradiance) describes the ability of a particular dose of UV light to induce erythema and serves as an indicator for the adverse effect of UV radiation.

In this joint action the EWI value from the UV radiation emitted was measured by using handheld meters, type Solarmeter® model 7,5 (Solartech), one of which was made available to each of the participants. Before handing over the meters these were checked using a radiospectrometer (Spectroradiometer: OL756; Integrating Sphere: IS670; Dual Calibration Check Source: OL756-150; Irradiation; lamp standard Model 220 and Programmable Current Source OL65A).

Hand held meters are not very accurate, so the results cannot yet be used to determine unequivocally that a sunbed violates the limit. In fact measurements with the Solarmeter® should be seen as screening measurements. To obtain results that can stand up in court measurement with the far more expensive UV Spectroradiometer/monochromator system are required. These were also performed during the action, but because these are complicated and lengthy measurements and therefore expensive, only a limited number of sunbeds were measured with this equipment.

Hand held meters may not be as accurate as the spectroradiometer/monochromator, they do allow to measure a large number of sunbeds quickly, giving useful indicative information on the UV levels of the sunbeds currently in use.

The participants were asked to measure the sunbeds they were inspecting where possible. The method used for these measurements was instructed during the training and is described in Annex III. Measurements were to made of the bottom emitters of the sunbed, of the top emitters on double solariums and also facial emitters when these were part of the sunbed. In all the participants made measurements on a total 1072 sunbeds. The results of these measurements are summarized in Figure 1.

Figure 1 shows normalized bar graphs for the measured emissions from the top and the bottom half of the sunbed, as well as for the facial area. The number of measurements in each range is denoted in the corresponding sections of the bars. The percentage of measurements below the UV radiation limit of EWI < 0,3 W/m^2 is denoted in the green part of the bar, while higher EWI values are denoted progressively more reddish.

Striking in Figure 1 are the scores for Norway and the Netherlands, which show relatively high percentages of measurements below the 0,3 W/m^2 limit, while violations of this limit remain limited. A possible reason is that both Norway and the Netherlands have inspected indoor tanning services and have measured sunbeds for some years and that these efforts are showing effect. Notable is also that the scores for the bench, the canopy and the facial emitters run highly parallel for these countries; compliance behaviour appears to address all UV emitters of the sunbed. To a greater or lesser extent this also holds the other way round: a substantial share of large violations of the limit is frequently seen for bench, canopy and facial UV emissions.

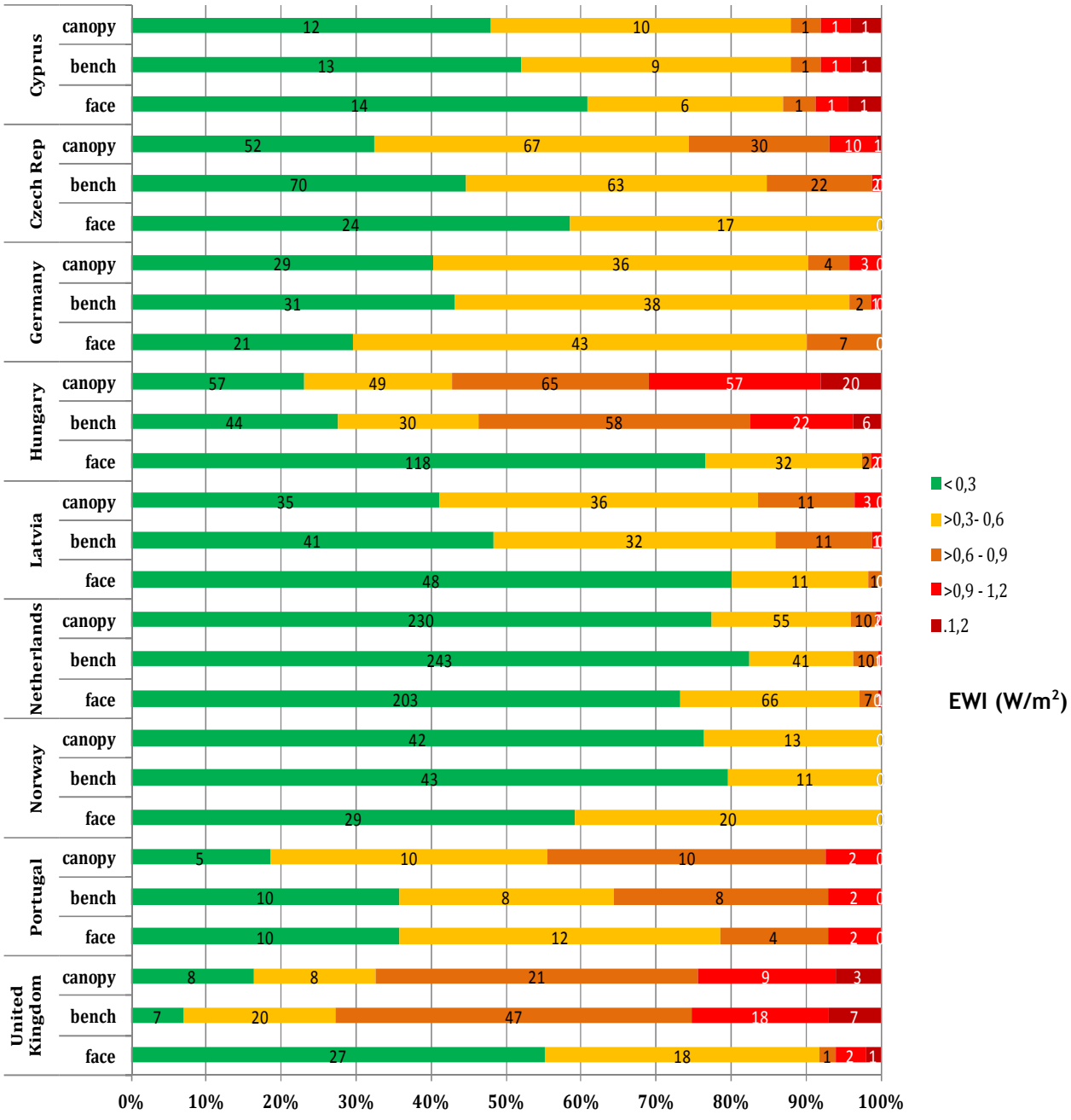


Figure 1: Results of UV measurements
Results for the Solarmeter measurements of the top emission, bottom emission and facial emission by participants. The numbers of beds measured for each source are indicated in the bars.

Though Figure 1 conveys the notion that many sunbeds violate the 0,3 W/m2 limit for UV radiation, it is not possible to see which fraction is actually not complying. For a sunbed to comply the UV radiation emitted from each of the top side, bottom side and facial emitter must remain below 0,3 W/m^2; when one of the values exceeds the limit the sunbed does not comply.

Figure 2 gives a bar graph which shows the numbers of sunbeds where the value of the worst UV radiation value measured (of either top, bottom or face area) are within the designated ranges. The figure gives a fair indication of the fractions of sunbed complying with the limit (green part of the bar) and the distribution of violations over progressively higher EWI ranges.

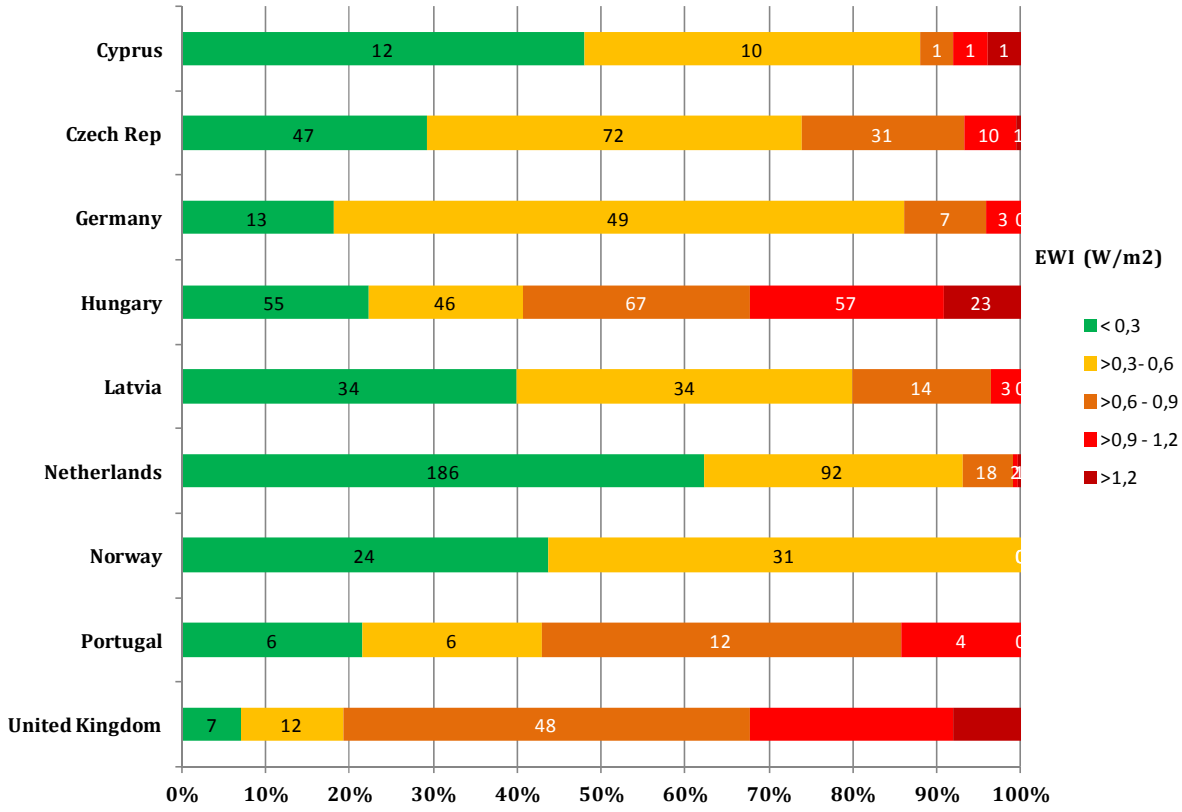


Figure 2: Highest EWI values measured in each investigated sunbed

In fact, for a total number of 1072 sunbeds (of 1798 inspected) one or more measurement values were reported. In 688 (64%) sunbeds measured at least one of the EWI values exceeded 0,3 W/m^2, sometimes considerably. In 138 sunbeds (13%) the EWI exceeded 0,9 W/m^2 , 34 (3,2%) of which read even higher than 1,2 W/m^2.

An overview of the overall distribution of the highest EWI values measured for each sunbed, as reported by all the participants, is shown in Figure 3.

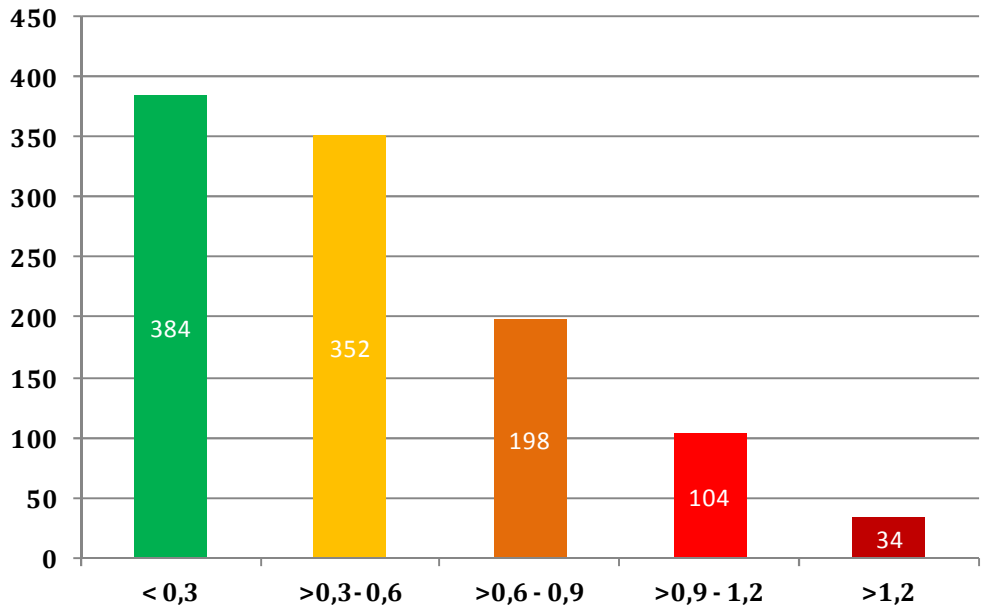


Figure 3: Histogram of highest measured EWI values (n=1072)

Positive about this figure is that it shows the largest bar in the < 0,3 W/m^2 range , indicating that many proprietors of tanning services operate sunbeds which comply with the safety limit (36%). Sobering is the observation that a considerable fraction (64%) of the sunbeds in use in indoor tanning services still exceed the limit, frequently by double or thrice the EWI value allowed.

Reliability of the results

Results of EWI measurements with the handheld meters, including the Solarmeter®, are known to deviate from the results obtained with the more sophisticated Spectroradiometer. The doubts are such, that in most Member States measurement with a Spectroradiometer is necessary to substantiate court cases against violation of the UV limit. It is therefore reasonable to question the significance of these results.

In this joint action a number of sunbeds were also measured with Spectroradiometer equipment. These measurements are discussed in section 4.2.10. Because the sunbeds measured with the Spectroradiometer were also measured with the Solarmeter® the results of the Solarmeter® measurements can be compared with those of the Spectroradiometer, giving an impression of the precision of the Solarmeter® . In section 4.2.12 the precision of the Solarmeter® with regard to the Spectroradiometer measurements is discussed, taking the latter as the reference method. From that analysis it is concluded that the deviation between the instrument's readings remains within 20% in 90% of the measured cases. The deviations of the Solarmeter® are both positive and negative, but positive deviations occur slightly more frequent (55% against 45%).

This raises the question what influence the deviations of the Solarmeter® may have on the results previously discussed. An impression is obtained when it is assumed that all Solarmeter® results are 20% high. For the sunbed operator this would mean that he is allowed a 20% increase in UV radiation before the sunbed is classified as 'over the limit'. This is a worst case approach, because in reality the deviations are less in 90% of the cases and many of them (45%) underestimate the value given by the Spectroradiometer (taken again as the reference).

Recalculation for the results of all sunbeds measured then gives the results shown in Figure 4. This figure compares the results without 'correction' as previously given (n) with those after recalculation of the data for limits 20% higher (nw).

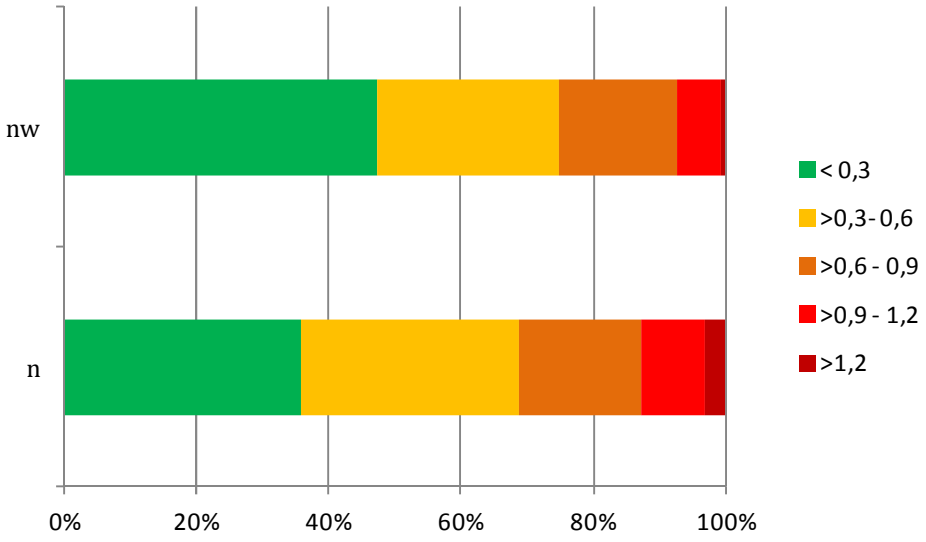


Figure 4: comparison between the results (n) and results recalculated to include a 20% positive deviation in Solarmeter reading (nw)

Indeed there is a shift in the direction of more compliance, but the fraction of sunbeds in violation of the UV limit remains more than 50% and the conclusion that an unacceptable percentage of the sunbeds investigated violates the UV limit remains unaffected.

4.2.10. UV Spectroradiometer measurements

To avoid the expensive necessity of buying UV spectroradiometers by all participants, this joint action, like the previous joint action on sunbeds, used a single UV spectroradiometer[1] with double monochromator, partly funded by DG-Sanco within the scope of the grant agreement. The Food and Consumer Product Safety Authority in the Netherlands developed the standard operating procedures and calibration procedures for the EWI measurements of sunbeds and trained personnel to operate the equipment. The use of this equipment is required to obtain accurate measurements of the EWI values of the sunbeds, suitable to serve as proof when cases come to court.

During the joint action a trained operator took along the equipment to perform measurement in most of the participants member states. In each participant's member state the equipment and crew was available for one week, which in practice meant 3 – 4 days for measurement. Between visits to participants a week was allowed for recalibration of the equipment. These measurements were performed during the period May – December 2010.

Prior to these measuring visits, the participants selected sunbeds to be measured, preferably selected on the basis of suspicion of non-compliance. Participants also prepared the visits by providing suitable transport and storing facilities for the equipment during the visit.
Measurements were performed in: the United Kingdom, Norway, Portugal , Denmark, Cyprus, Latvia, the Netherlands and Germany. Measurements started in July 2010 and ended in November 2010. In the Czech Republic and Hungary the main purpose of the use of the measurement train was to compare and fine tune the results with those obtained by similar equipment that those participants have meanwhile purchased. Having their own equipment extends the possibilities of the Czech Republic and Hungary to effectively enforce the 0,3W/m^2 regulation for tanning studios.

4.2.11. Results

In all 128 sunbeds were measured with the spectroradiometer in the United Kingdom, Norway, Portugal , Denmark, Cyprus, Latvia, Germany and the Netherlands. Depending on the type of sunbed the UV emission of the bottom part of the sun bed, the top part of the sunbed and the facial emitters were measured.

The results of the measurements with the spectroradiometer are summarized in the following table, which gives the maximum EWI values measured in 128 sunbeds.

Table 14: maximum EWI values of 128 sunbeds measured by spectroradiometer

EWI	<0,3	>0,3 - 0,6	>0,6 - 0,9	>0,9 - 1,2	>1,2
n	12	55	39	13	9
%	14%	63%	44%	15%	10%

It should be realized that the results of these measurements, though more accurate than the results obtained with the Solarmeter®, are not representative of the situation in the market. The investigated sunbeds are a biased sample, selected for measurement on the suspicion that they might not comply with the radiation limit.

[1] Spectroradiometer: OL756; Integrating Sphere: IS670; Dual Calibration Check Source: OL756-150; Irradiation; lamp standard Model 220 and Programmable Current Source OL65A

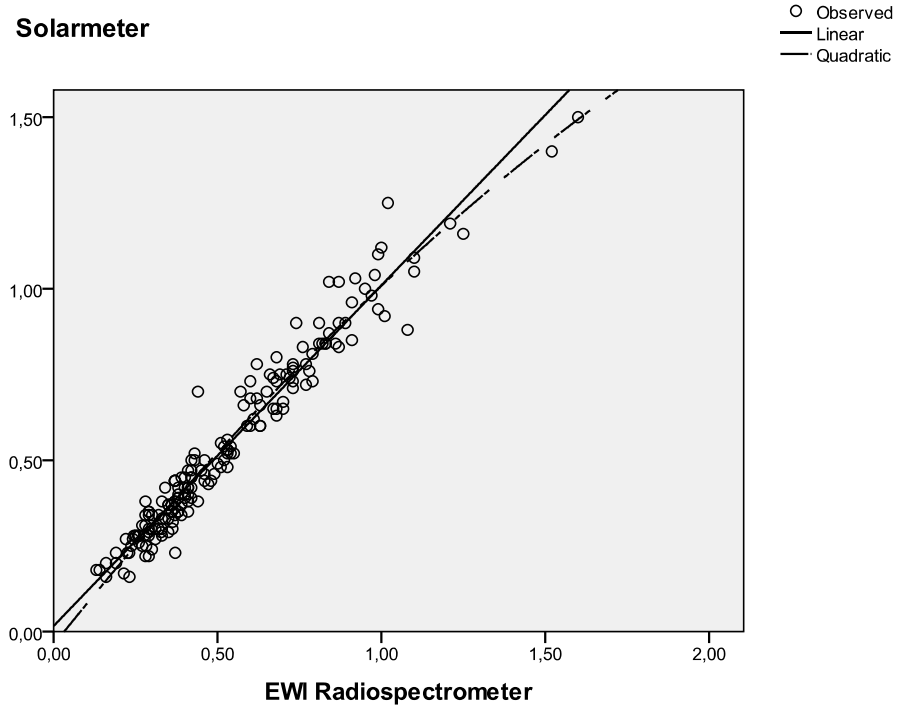
4.2.12. Accuracy and precision of Solarmeter® measurements

Since the sunbeds measured by the spectroradiometer were also measured with the Solarmeter®, an impression of the precision of the Solarmeter® measurements in comparison with the spectroradiometer measurements can be obtained. Though the spectroradiometer readings (like all analytical methods) will be subject to systematic error, for the purpose of this analysis it is taken as the reference method. The measurements used have been made on the 128 sunbeds referred to above, which included double solaria, single solaria and vertical solaria. Depending on type of sunbed, both measurements were made on the bench and canopy sections of the bed. In all, 171 measurements were taken on the canopy and bench sections with both instruments. In addition 13 measurements were taken on vertical sunbeds. Note that more than one measurement can be taken on each sunbed (canopy, bench or facial emitters); hence the number of measurements exceeds the number of sunbeds.

Figure 5 shows a plot of the Solarmeter® measurement results against the corresponding results obtained by the spectroradiometer. Linear regression gives the regression coefficient as 0,993 (Standard Error = 0,017) and the regression constant as 0,017 (SE=0,010), with a correlation coefficient of 0,975.

Because for higher Spectroradiometer values the data seem to be consistently below the predicted values regression on a quadratic model was performed to assess whether the deviation from linearity was significant. Indeed the quadratic coefficient was statistically significant, leading to:

$EWI_{Solarmeter} = -0,038 + 1,194EWI_{Spectroradiometer} - 0,148$



$EWI^2_{Spectroradiometer}$

Figure 5: plot measurement results Solarmeter® against spectroradiometer

The quadratic model is also shown in Figure 5. The differences between the models are small and only serve to show that there is indeed a minor deviation from linearity. The Solarmeter® appears to slightly underestimate high EWI values.

Regression models fit the data by minimizing the squares between the distances of estimate and data points. For the data set analyzed the distances between estimate and data point seem to slightly increase with increasing EWI values. However, for the purpose of market surveillance the absolute values of the deviations between both measuring instruments are less interesting than the relative differences.

Figure 6 plots the relative differences between the results of the measurement with the spectroradiometer and the hand held meters (($EWI_{Solarmeter®} - EWI_{Spectraradiometer}$)/ $EWI_{Spectraradiometer}$)) against the value measured with the spectroradiometer. These are plotted against the value measured with the spectroradiometer (X-axis). Positive values for the relative difference signify an overestimate of the EWI

value measured with the Solarmeter® when compared to the spectroradiometer reading; negative differences the opposite. As can be seen from the plot, the Solarmeter® has a slight tendency to overestimate more at lower EWI values and underestimate for higher values.

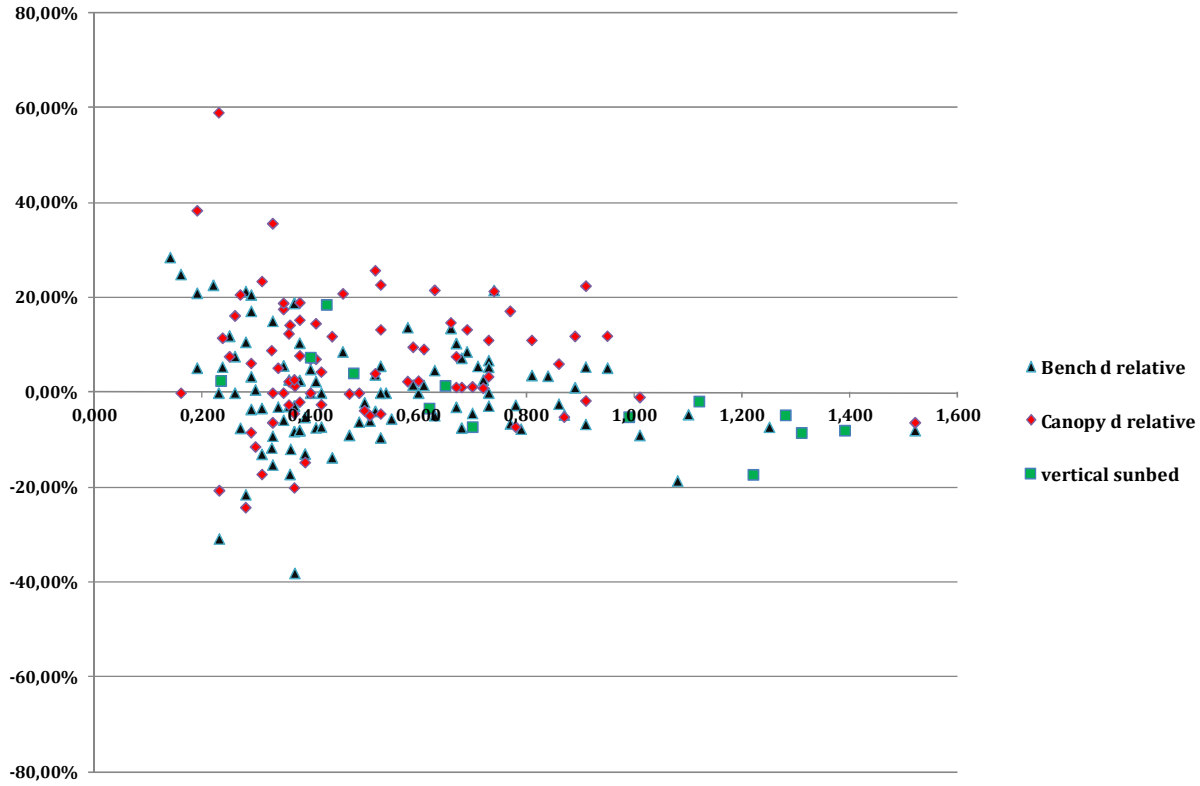


Figure 6: plot of relative differences between Solarmeter® and Spectroradiometer for the bench tubes, the canopy tubes of the sunbed and for vertical sunbeds

Casual inspection of the figure indicates that most deviations of the Solarmeter® values remain within an absolute value of 20% and many within 10%. In fact a plot of the percentiles of these relative deviations shows that app. 90% of the measurements with the Solarmeter® remain within 20% of the Spectroradiometer results and app. 65% within 10%.

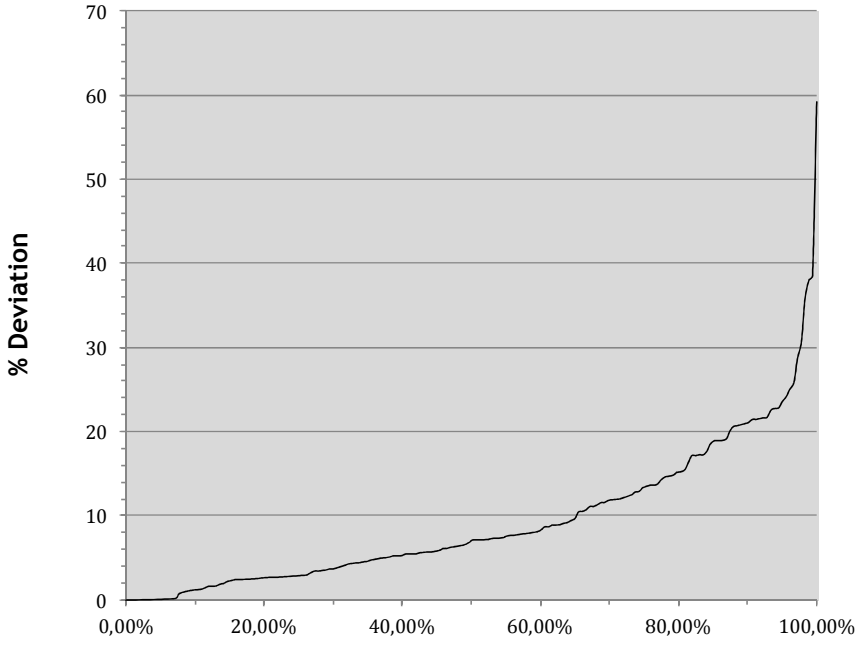


Figure 7: percentiles of deviations Solarmeter® readings

It should be noted that the above refers to absolute deviations (signs disregarded). In practice the deviations are both positive and negative. The distribution is a bit skewed, though. Approximately 55% of the deviations are positive, 45% zero or negative.

Facial emitters

During the action measurements of the UV radiation of the facial emitters present in many sunbeds were also made. It is known that the uncertainty of measurements with the Solarmeter® of the UV emitted by high pressure lamps, which are frequently used in the integrated facial tanner, can be very high. The results of the measurements of the facial emitters in this action confirm this. Figure 8 shows the plot for the relative deviations between the Solarmeter® readings of facial emitters and the spectroradiometer readings.

Clearly the relative differences are much higher than was the case for the bench and canopy tubes measured in the sunbeds. Interesting is, however, that here the Solarmeter® underestimates quite substantially at lower levels. On average actual UV levels are therefore (much) higher than the values obtained with the Solarmeter®.

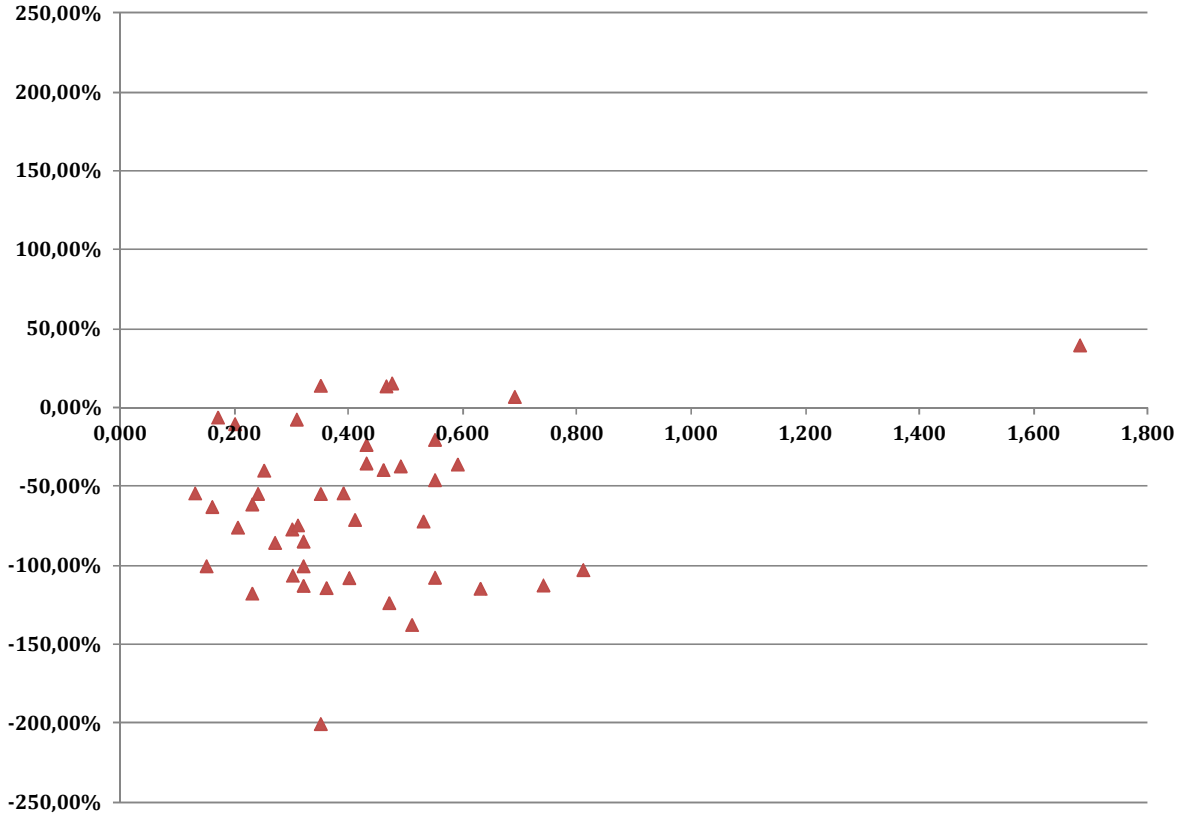


Figure 8: plot of relative differences between Solarmeter® and Spectroradiometer readings for the facial emitters in sunbeds measured

4.2.13. Sanctions

Market surveillance authorities can impose sanctions when violation of the regulations is determined. The severity of the sanction depends on the gravity of the violation. Because the legal systems in the Member States differ the measures taken by market surveillance authorities may also vary. For example, some authorities are authorized to directly impose fines, while others have to submit official reports to the public prosecution.

For the purpose of this action the participants were asked to categorize the sanctions they imposed in the following categories:

None: no legal measure was taken

Official warning: official warnings are not really sanctions, but formally inform the inspected business that it violates the rules. Warnings are usually given when the violations are not a very serious risk for health or injury and are often given for violation of labelling requirements. Common (best) practice is that after a short period of time the business will be inspected again to check if the shortcomings have been corrected. On repeat violation generally more severe sanctions are imposed.

Fine, Official report, Protocol: these are different forms a real sanctions imposed for violations of the rules. The procedures differ between the member states and participants, but the intended results are real fines or even stricter punishment.
Fines, reports and protocols are generally imposed for more severe violation of the rules, generally when the violation subjects the customer to an unacceptable health or safety risk.

The sanctions imposed during the joint action are summarized in Table 15. In interpreting this table it is important to realize that the majority of inspections were 'first inspections'. This means the inspected indoor tanning provider was visited for the first time.

Table 15: Summary of sanctions imposed during the action as percentage of the number of inspected tanning service providers

	None	Warning	Fine/official report
Cyprus	71%	0%	29%
Czech Republic	20%	55%	25%
Denmark	19%	12%	69%
France	76%	20%	4%
Germany	77%	0%	23%
Hungary	17%	3%	80%
Latvia	97%	3%	0%
Netherlands	38%	54%	8%
Norway	22%	41%	38%
Portugal			*
United Kingdom	7%	93%	0%

* For Portugal: see text

Moreover, these inspections were made in a branch where many businesses are not yet accustomed to these regulations. Though varying between the Member States, first inspections often serve to check the business and to inform the proprietor about the shortcoming found. This may either be informal, or formal via a written 'warning'. Measures taken in first inspections are generally not severe, unless immediate remedy of a health or injury risk is at stake.

As can be seen from Table 15 the sanctions given vary by participant, but a considerable fraction of the inspected indoor tanning services was sanctioned. Hungary sanctioned most frequently, 80% of inspections led to sanctions classified fine or official report. In a number of other Member States this sanction was imposed in between 20 – 30% of the cases.

The table does not give results for Portugal, although Portugal did take legal measures. In all cases the ASAE fined the operators and sealed and closed the tanning equipment, the closure only to be cancelled when the economic operator has brought the equipment incompliance. This requires that the tanning equipment is inspected by a notified body under the LVD with test accreditation.

4.2.14.Comparison with the first joint action on sunbeds

Have compliance levels been raised since the first joint action? Did the first joint action effect any change? A comparison between the results found in this investigation and those of the first joint action on sunbeds might give insight in whether the present situation has improved over the last two years.

For a number of reasons this comparison is not easy to make. The participants in this joint action are only partially the same as those who participated in the previous action, making overall results difficult to compare. The items checked in the previous action were not exactly the same as during the present action, which sharpened the inspected parameters to zoom in on safety. The reason for this is that in the meantime the regulations have become clearer for everybody, both because of the publishing of the updated standard for sunbeds and the publication of the training manual by ESA. Finally, in the first action it was not really possible to obtain a view of the UV radiation emitted from the inspected sunbeds. Only few sunbeds were measured, and then only those already suspected to violate the limit were actually measured.

Comparing results between the actions is therefore hazardous. For example, when looking at the compliance levels with respect to the obligation to provide the customer with sufficient information and personal advice the results differ between the participants. Some of those participating in both actions show minor improvements, but others report compliance levels much worse than before. Probably this is not a real effect and it is likely to be caused by clearer formulation of the items to inspect in the current action. Things like the fraction of tanning sites where staff is present and the availability of goggles in the sites remain high, with only few exceptions.

The obligatory warning on the sunbeds offered by service providers, that UV radiation can damage the health of the users was reported to be lacking in about 50% of the cases in the previous action. Now most participants report lower and sometimes much lower levels of non-compliance. The availability of technical documentation was and remains low.

No comparison can be made for the UV radiation emitted. The first joint action did not have the means to collect sufficient data to make such a comparison useful. Only with the results from this action a good idea has become available on the present situation in the market.

Overall the conclusion must be that it is not really possible to make a definite statement about the progress made by the action in terms of improved compliance levels.

Interesting is that Hungary reports in its status report (Annex I) improvement in the compliance with the UV limit since the first joint action.

4.3. Conclusions

4.3.1. Aims and time schedule

The second joint action on sunbeds and solarium services was scheduled to run from January 2010 till the end of December 2011. Goals of the action were to raise awareness of regulations in the indoor tanning branch, to inform the public of the safety risks of indoor tanning and to raise compliance with regulations in indoor tanning services by performing market surveillance.

During the period from the 1st of January 2010 up till the 14th of December 2011 a total of 1307 inspections at tanning service providers and manufacturers, EU importers or distributors of sunbeds were performed by the participating market surveillance authorities.

4.3.2. Tanning as the main activity versus tanning as a side activity

In a small majority of the sites inspected indoor tanning was offered as the main activity of the inspected business, but indoor tanning was often also offered as a side service in businesses whose first activity concerned other something else. That so often indoor tanning is not the main occupation is an important observation, because awareness raising activities and enforcement communication has largely been aimed at services where tanning is the primary activity via the associations for the tanning branch. The finding that an appreciable fraction of sunbeds is offered as a side service suggests more attention should be paid to service providers offering tanning as a side service.

4.3.3. Associations

Tanning associations play a valuable role in the development of service standards for indoor tanning services and promoting compliance of the service providers with these standards and with the rules via initiatives to make this information available to their members and other indoor tanning services. This investigation found the percentage of proprietors of tanning facilities that is member of an indoor tanning branch association to be low, an observation which was already made in the report of the previous action on sunbeds. While so many tanning service providers are not members of the tanning associations, it seems wise to investigate if alternative channels to reach the providers of tanning services who are not members can be used. Such channels could for example include industry associations for the wellness, beauty and hotel branches, which can be approached both by ESA and the Market Surveillance Authorities.

4.3.4. Risk information and personal tanning advice

Customers of indoor tanning services must be informed about the risks of indoor tanning and must give personal advice and proper tanning schedules, taking into account their individual skin type and medical history. Youngsters till the age of 18 should be prohibited to use the service. Though there are great differences between the participating countries this investigation shows that the way customers are informed about the risks of sunbed use and the way they are given personal advice still leaves much to be desired. The same holds true for the enforcement of the 18+ years of age limit, which is often absent or insufficient.

4.3.5. Staffed/not staffed

In Cyprus, Denmark and Norway coin operated sunbeds are widespread. To a lesser extent this is also the case in the Czech Republic, Germany and the Netherlands. Since the sites where coin operated sunbeds are offered are frequently not staffed, safety information and personal advised is usually not given and checks on the users age are absent. In Norway it is recognized by the national authorities that the high percentage of coin operated machines without supervision may lead to inadequate guidance of the customers and legislation is suggested where mandatory attendance with relevant training to guide the customers will be required.

4.3.6. Compliance of sunbeds

The risks of indoor tanning are also determined by the properties of the sunbeds used. To limit this risk the amount of UV radiation emitted by sunbeds in indoor tanning services is restricted to 0,3W/m^2, measured as EWI and sunbeds must carry a warning about the risks of UV radiation.

During the inspection performed in this joint action 1798 sunbeds were checked on compliance with labelling requirements and, where possible, compliance with the 0,3 W/m^2 limit.

4.3.7. Labelling

The warning "Ultraviolet radiation can cause injury …..” is found to be absent in 16% of all the sunbeds checked at first inspection. The percentage varies between the participants and was much higher in some of the participants’ Member States. Remarkable is also that a substantial fraction of the sunbeds (22%) does not carry the obligatory CE marking. The technical information required, technical file or ‘passport’ for the sunbed, was absent or insufficient for 50% of the sunbeds.

4.3.8. Radiation limit

For a total number of 1072 sunbeds one or more measurement values were reported. In 688 (64%) sunbeds measured at least one of the EWI values exceeded 0,3 W/m^2, sometimes considerably. In 138 sunbeds (13%) the EWI exceeded 0,9 W/m^2 , 34 (3,5%) of which read even higher than 1,2 W/m^2 .

The overall conclusions from the results of the inspections are that:

- For many businesses indoor tanning is offered as a side activity;

- Many providers of indoor tanning services are not member of branch organization for the tanning branch;
- Consumer guidance in tanning studios is frequently not given;
- The labelling of the sunbeds fails to comply in at least 20% of the cases and technical documentation is frequently absent;
- How often the maximum EWI values for sunbeds are violated varies between the Member States. In several Member States the percentage may be above 80%, while in others the fraction of sunbeds that does not comply is less than 40%. Overall far too many sunbeds offered in indoor tanning services still exceed the limit for UV radiation.

4.4. Recommendations

The data presented in this report justify continuation of the market surveillance of sunbeds, the more so when it is appreciated that the joint action has effected momentum in market surveillance authorities as well as sector organizations to improve the standard of service in the artificial tanning branch. Visible continuation of enforcement can support the efforts to raise these standards.

Considering the fact that, according to this investigation, a considerable fraction of the indoor tanning services are offered by providers who offer indoor tanning as a side service and who are not a member of a tanning association, it seems wise to investigate if additional channels can be used to reach the providers of tanning services who are not members. Such channels could for example include industry associations for the wellness, beauty and hotel branches, which can be approached both by ESA and the Market Surveillance Authorities.

Following an initiative from ESA a standard for *services in indoor tanning facilities* is under development within CEN. Potentially such a standard can contribute significantly to establishing clear and harmonized requirements in tanning services, which benefits both the industry and the market surveillance authorities. To maximize the effect of this standard it should be assured that not only the tanning branch, but also providers who offer tanning as a side service are also made familiar with this standard.

4.5. Differences between Foreseen Results and those Actually Achieved

Table 16 below compares the results foreseen in the work programme from the grant agreement [reference]with those actually achieved in the Joint Action.

Foreseen Deliverable or Result	Deliverable or Result Actually Achieved
Main deliverable	
Training (D2)	Delivered as planned (see Table 3)
Market Surveillance Activities (D5)	Delivered as planned (see Table 3 and Chapter 36)
Consumer information (awareness raising) (D4, D10)	Delivered as planned (see 28)
Final report (D17)	Delivered as planned (this report)
	Besides a technical report for external use was produced discussing the results of the joint action, drawing conclusion and containing recommendations [19]
Further deliverables	
Kick-off, progress meetings; final workshop	Delivered as planned in updated grant agreement (see 17)
Interim report (D6)	Delivered [20]
Meeting with stakeholders (D12 to D16)	Delivered; see section 22

Table 16. Overview of results and deliverables foreseen in the working program and those achieved.

5. Financial Analysis

Table 17 below presents the original budget and the actual expenses of this Joint Action.

	Budget	Actual costs
Expenditure	**Total costs**	**Total costs**
Direct costs		
E.1 Staff:		
a. Costs not pertaining to national officials	€ 135.042,11	€ 125.061,41
b. Costs pertaining to national officials	€ 172.232,85	€ 171.976,33
E.2 Travel costs and Subsistence allowances	€ 78.416,00	€ 67.172,02
E.3 Equipment	€ 25.007,35	€ 6.817,60
E.5 Subcontracting costs	€ 64.000,00	€ 64.005,94
E.6 Miscellaneous:	€ 10.000,00	€ -
Total direct costs	**€ 484.698,31**	**€ 435.033,30**
Indirect costs		
E.7 Overheads (equal to 7% of direct costs)	€ 33.928,88	€ 30.452,33
Total Costs	**€ 518.627,19**	**€ 465.485,63**
Income		
I.1 Amount of EU support requested:	€ 346.394,34	€ 293.509,30
I.2 Contribution pertaIning to public officials	€ 172.232,85	€ 171.976,33
Total income	**€ 518.627,19**	**€ 465.485,63**

Table 17. The budget and actual expenditures of the Joint Action.

The difference is calculated so that it is negative, if the actual expenses exceed the amended budget.