

Research report

"Future Skills & Sustainable Development in the Green Salon"

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Introduction and motivation for the research

The aim of the research made in the partner countries and presented in this report, is to create the foundation for developing the learning materials and tools for entrepreneurs in the Hair and beauty sectors. The research report, learning materials and tools are planned to be delivered in the ERASMUS+ project "Future Skills & Sustainable Development in the Green Salon".

The background for the present project and thereby this report, is a Leonardo Da Vinci project in creative industries where partners exchanged experiences on Health and safety and implementation for sustainability in hairdressing and graphic industry. During the project, it was obvious that the problems in the sector were cross-national and severe. It is an issue that everyone working in the hair and beauty industry – being in education, salons or as producers – talk about. From the project, it was also clear that many discussions were based on emotions and single cases, which stakeholders had experienced often at a personal level. For more information, please see www.greenability.info

These insights created a strong motivation to get an overview of the actual knowledge on Health and Safety as well as sustainability in the hair and beauty sector.

To get this insight a questionnaire was developed covering these 10 overall questions:

1. National research on asthma, allergy and deceases (ex. prevalence of cancer) for people working in hair and beauty
2. National research on asthma, allergy and deceases related to hair and beauty products.
3. National statistics on hair and beauty salons:
4. National requirements for environmental protection hair and beauty salons.
5. National requirements for Health and Safety in hair and beauty salons & how it is monitored
6. Demands in the VET education in Hair and beauty in relation sustainability and H&S
7. Existing national or local tools and methods to analyse and improve sustainability in hair and beauty (or from other trades if applicable)
8. What is the attitude of National producers and their development activities in relation to Sustainable hair and beauty products?
9. What is the general attitude in the hair and beauty sector with regard to sustainability?
10. What is the general attitude of hair and beauty customers regard to sustainability?

4 project partners (IES El Palo, ROC van Amsterdam, Bridgwater College, ARHUS TECH) have made the research and submitted their findings to AARHUS TECH

We had high expectations. As this report will show, the findings vary from country to country and generally shows a picture that the accessibility of information is limited.

Overview of the sector per country

In the questionnaire, we posed a variety of questions, which should help to give a quantitative overview of the countries involved in the project.

The hope was that by gathering these information we could derive some financial arguments for introducing a more sustainable approach in Hair and beauty.

The available statistics for Hair and Beauty are presented separately. Especially for both Denmark and the Netherlands there is a surprisingly lack of statistical information and even less information on the beauty sector than hairdressing.

National statistics on hair salons

<i>Hairdressing</i>	ES	NL	UK	DK
Number of salons 1-5 employees 6-10 employees 10 employees	Total salons 50.000. 98% have less than 5 employees (42% of hair salons have just one employee).	25.305	THERE ARE over 40,000 hairdressing, barbering and beauty businesses in the UK. A quarter of them are in London and the South East 35,704 hairdressing	No information But an estimated 5000 salons in Denmark
Yearly turnover of salons (total industry)	3.296.880 €		TWO THIRDS of hairdressing, barbering and beauty businesses have annual turnover of less than £99k. A quarter have turnover between £100k and £250k	N/A
Number of self-employed	95548 self-employed in H&B	With turnover less than 175K: 3, >175K 6 Most business are self-employed without personnel	300,000 PEOPLE work in the hairdressing, barbering and beauty industry 44% OF PEOPLE working in hairdressing and barbering and 56% of people working in beauty are self-employed.	N/A
Number of part-time employees in the trade	Total number of employees in H&B: 112271 people (part and full time)		HALF THE PEOPLE working in hairdressing and barbering work part-time. Part-time working is more common in the beauty industry than in hairdressing and barbering	N/A
Number of full-time employees in the trade	Pending of publishing		56%	N/A

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Average number of employees per salon	98% of salons have less than 5 employees	32.900 (of which some 10% students)	93% OF ALL hairdressing, barbering and beauty businesses employ less than 10 people and two thirds employ less than 5 people	N/A
Number of VET students graduating per year	Academic Year 2012/13 (only statistics available) - 3352 graduated students from VET Schools - 3776 H&B students from occupational training, Total number of H&B students graduating on 2013 year: 9749	Approximately 1000	In 2014/15, there were 499,900 apprenticeship starts in England, 59,500 (14%) more than the previous year. It was the first year since 2011/12 in which apprenticeship numbers increased.	470

<i>Hairdressing</i>	ES	NL	UK	DK		
Type and number of registered work hazards in 2013/2014/2015	Type of accidents with sick leaves	2013	2014	2015	Main risks are: 1. Allergenic 2. Physical 3. work related stress Self-reported work-related symptoms in hairdressers¹ Results a. hairdressers reported significantly higher levels of musculoskeletal problems, including work-related shoulder pain work-related wrist and hand pain), work-related upper back pain work-related lower back pain, and work-related leg/foot pain). b. The frequency of self-reported asthma was similar in both groups (hairdressers 16%, controls 17%) as was chest tightness and wheeze. c. Work-related cough was significantly more frequently reported in hairdressers than in controls	N/A
	H&B Working accidents	952	925	Not pub.		
	1PS Working Accidents	33383	33091	40193		
	H&B In itinere accidents	489	519	Not pub.		
	PS In Itinere Accidents	896	888	1070		
	Cause and number of occupational diseases	2013	2014	2015		
Physical agents	Not av.	100	122			

¹ Research basis: In total, 147 hairdressers, 86% of whom were female (median age 27 years) and 67 non-hairdressing controls, all female (median age 38 years) were recruited. Following adjustment for age, smoking and years worked

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	Inhalation of chemicals	Not av.	25	26			
	Skin damage	Not av.	54	64			

	ES				NL	UK	DK
Loss of working days due to sick leave in the trade	Average of lost working days	2013	2014	2015		No data. Most hairdressers are self-employed. Therefore would not have sick leave	N/A
	H&B Working accidents	24,5	24,1	Not pub.			
	H&B In itinere accidents	38,9	36	Not pub.			
	Occupational diseases	Not av.	56,27	78			
	TOTAL DAYS	63,4	116,37				
Yearly cost of sickness and accidents in the trade	Not available					As above need to research more	N/A
% sick leave in the trade	% Sick leave in PS	2013	2014	2015		skin disorders comprise more than 45 percent of all Occupationally related diseases. Irritant Contact Dermatitis accounts for 80% of all occupational Dermatitis's alone.	N/A
	Working accidents	1,32	1,18	1,52			
	In itinere	0,34	0,32	0,37			
	%Sick leaves in the trade = Number of Accidents/ Employees and self employed Registered in Social Security ²						

	ES	NL	UK	DK
3 main reasons to leave the trade	Lack of management of the hairdressing	Main risks are: 1 Allergenic	Skin Disorders	N/A

² Non specific statistics for H&B available. Data has been obtained from the general statistics for personal services (PS) which includes hair and beauty, laundry, funeral services and gyms. We've estimated than almost a 70-75% of the figures are related with H&B

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	salon, lack of business experience. Lack of profitability due to the economic crisis. Occupational diseases	2 Physical 3 work related stress	Muscle and musculoskeletal disorders Low wages at the start	
Number of people leaving the industry yearly	8% of total The average in others sectors is 3.5-5%			N/A
Average number of active years in the trade	13'9 years	For businesses with employees: 14 years, for those without 8 years	Most established hairdressing would stay in industry for a live career. Others between 2-5 years	8 -9 years. The average age is 48, 7 the figure is misleading as students dropping out after 14 days are included in the figure
Number of Salons using common standards or guidelines such as CSR, ISO, Green initiatives or others	Academia Verde by Lóreal According to LÓreal report, only 100 salons worldwide have this kind of certification. None of them are located in Spain		There are new incentives for salons to work within CSR. ISO but it still very much in its early stages with no statistics. Also green initiatives	No statistics on the number of environmental friendly Salons. 27 salons have the Green salon certification which is an estimated 1% of the salons

National Statistics on Beauty salons

<i>Beauty</i>	Es	NI	Uk	Dk
Number of salons 1-5 employees 6-10 employees 10 employees	Total salons: 22.000 95% have less than 10 employees	25.000	13,107	N/A
Yearly turnover of salons (total industry)	N/A		THE HAIRDRESSING, BARBERING AND BEAUTY INDUSTRY generates almost £7bn in turnover each year	N/A
Number of self-employed	There is not separation between hair and beauty data	N/A		N/A
Number of part-time employees in the trade	There is not separation between hair and beauty data	N/A		N/A
Number of full-time employees in the trade	Pending of publishing	N/A		N/A

Stivako intern: Project code: 553

<i>Beauty</i>	ES	UK	NL	DK
Average number of employees per salon	95% have less than 10 employees	N/A		N/A
Number of VET students graduating per year	Academic Year 2012/13 - 3021 graduated students from VET Schools	Approximately 700		35
Type and number of registered work hazards in 2013/2014/2015	There is not separation between hair and beauty data. Please see previous figures.	Main risks are: 1 Allergenic 2 Physical 3 work related stress		N/A
Loss of working days due to sick leave in the trade	There is not separation between hair and beauty data. Please see previous figures.			N/A
% sick leave in the trade	There is not separation between hair and beauty data. Please see previous figures.		N/A	N/A
Yearly cost of sickness and accidents in the trade	N/A			
3 main reasons to leave the trade	1. Economic crisis 2. Competitiveness of Medical Aesthetic Centers	No hard data yet, research in progress		N/A
Number of people leaving the industry yearly	N/A			N/A
Average number of active years in the trade	N/A	No data found		N/A
Number of Salons using common standards or guidelines such as CSR, ISO, Green initiatives or others	N/A			N/A

The main conclusions, which can be generated from the information, is a confirmation of the picture we already had. The large number is self-employed, the risk of work related illnesses is high and the number of years working in the business is quite low.

Generally, the problem is that the information available is presenting an unclear picture and cannot be used for much. For instance in Spain, the figures cover a large group of professions within personal services (PS): hair and beauty, laundry, funeral services and gyms. Both in Denmark and the Netherlands very limited information is available at all.

Overview of national requirements for Health & Safety

This section will give an overview of the requirements for Health and Safety in Hair & Beauty in the four countries. The categories are derived from the European Agency of Safety and Health at work report from 2014: Ergonomic factors, Hazardous Substances, Hygiene, Physical factors (microclimate), Electrical risks, Slips, trips and falls, Burns and Cuts, Fire risks, psychosocial factors. Furthermore each country are explaining the monitoring mechanisms in place.

Spain

There is no specific legislation regulating Occupational Health and Safety in the hairdressing and beauty sectors in Spain³. Most of this National Legislation and Requirements are explained and gathered in the Technical Guide to Evaluate and Prevent occupational risks in the workplace, issued by the National Institute for Occupational Safety and Health at Work (INSHT)⁴.

In addition, the National Institute for Occupational Safety and Health at Work (INSHT), has developed a technical GUIDE to promote Prevention Actions within Hair and Beauty Salons

Ergonomic factors

To improve ergonomics in the workplace the Andalusian Hairdressers Federation, developed in 2010 a complete Guide to evaluate and prevent Ergonomics and posture factors in Hair and Beauty Salons. Exp. IT-0130/2010.⁵

The main recommendations are:

1. Washbasin, hairdresser chair, customers armchair, stretchers and trolleys must be accommodative.
2. To keep postural Hygiene with straight back, relax shoulders with hand and forearms aligned
3. To avoid long and intense efforts, especially flex-extension and rotation movements
4. To use ergonomics tools and sharp cutting or shaving utensils to reduce strength and bad postures.
5. To exchange tasks and activities to use different muscles and decrease monotony.
6. Periodically, the owner of the salon shall offer medical exams and information about ergonomic risks prevention.

Hazardous Substances

Cosmetic product means any substance or mixture intended to get in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth

³ We describe the national legislation and legal requirements to start any kind of economic activity in our country according to the royal Decree: **486/1997 14 April on Minimum requirements concerning Safety and Hygiene in the workplace, 485/1997, 14 April, on Minimum requirements concerning Safety Signals in the workplace, 1215/1997, 18 July, on Minimum requirements concerning health and Safety of equipments in the workplace, 1027/2007, 20 July, which approves the regulation for Thermal installations in buildings.**

⁴ <http://www.insht.es/InshtWeb/Contenidos/Normativa/GuiasTecnicas/Ficheros/lugares.pdf>

⁵ [http://www.aneip.org/NdSite/OnLineCache/FMS/73/09/ef954bcc65dda618cd7120955c9236bc/IT-0130-2010%20\(Web%203\)%20Gu%EDa%20Pt%E1ctica.%20Evaluaci%F3n%20de%20Riesgos%20Ergon%F3micos%20y%20Postural es%20en%20establecimientos%20de%20Peluquer%EDa%20y%20Est%E9tica.pdf](http://www.aneip.org/NdSite/OnLineCache/FMS/73/09/ef954bcc65dda618cd7120955c9236bc/IT-0130-2010%20(Web%203)%20Gu%EDa%20Pt%E1ctica.%20Evaluaci%F3n%20de%20Riesgos%20Ergon%F3micos%20y%20Postural es%20en%20establecimientos%20de%20Peluquer%EDa%20y%20Est%E9tica.pdf)

and the mucous membranes of the oral cavity. Cosmetic products is used to clean, perfume, changing appearance, protect, keeping in good condition or correcting body odours⁶;

For substances, which are likely to cause allergy to a part of the population, the presence of these substances should be mentioned in the list of ingredients and restrictive measures such as a ban or a restriction of concentration should be considered.

The use in cosmetic products of substances classified as CMR substances, of category 1A, 1B and 2, under Part 3 of Annex VI to Regulation (EC) No 1272/2008 shall be prohibited. However, a substance classified in category 2 may be used in cosmetic products where the substance has been evaluated by the SCCS (Scientific Committee for Consumer's Safety) and found safe for use in cosmetic products.

In the event of serious undesirable effects, the responsible person, distributors, end users or health professionals shall, without delay, notify the following to the Spanish Agency of Medicaments and Sanitary Products.

What's more, the National Institute for Occupational Safety and Health (INSHT), has classified Hairdressing as a dangerous work due to its exposure to chemicals, and according to it, has developed a report with useful information about identification, assessment, prevention and protection against hazardous substances in hairdressing salons⁷.

Key Points of the report:

1. To look for hazardous chemicals reduction. Examples: vegetal dying, dyes with dimeticona, perms with clorhidrato de mercaptamina, bleaching with sodium carbonate, hair smoothing or curling with hairdrying⁸.
2. To use natural cosmetics
3. Avoid the use of cosmetics on dust or spray
4. To follow strictly cosmetics use instructions and to storage them, well closed, in a specific and ventilated area.
5. In case of cosmetics transfers to smaller recipients, these shall be perfectly labelled.
6. Preparation of hazardous products such as dyes or perms shall be done in a separate zone with localized air extraction. If it is not possible, air renovation should be higher than 100 m³/hour per worker. Inside the salon, ventilation can be natural or forced but it must assure a minimum of air renovation of 50m³ per hour per worker.
7. Empty recipients shall be disposed in covered containers.
8. Be aware of using protecting gloves (no latex) and breathing masks to reduce direct exposure or inhalation of chemicals.
9. To wash and dry hands after each work and to clean and rinse working tools.

Hygiene

Recommendations on safety and hygiene in general for work places⁹:

⁶ The regulation on cosmetic products is defined by RD 1599/1997 , 17 of October on Cosmetics Products (July 2013 version after transposition of Regulation (EC) No 1223/2009 on cosmetic products).

⁷ Link to the report in Spanish: <http://stp.insht.es:86/stp/basequim/013-tratamientos-del-cabello-en-peluquer%C3%ADas-exposici%C3%B3n-agentes-qu%C3%ADmicos>.

⁸ Recommendation as to how hazardous substances can be substituted can be found on www.subsport.eu

⁹ Recommendations described on the basis of: Annex II of RD.486/97 of 14 April on Minimum requirements concerning Safety and Hygiene in the workplace.

1. Workplace as well as toilets, equipment and installations should be cleaned periodically to keep them in appropriate hygienic conditions. Therefore, floors, ceilings, walls, furniture, tools... should be suitable for easy cleaning and maintenance.
2. Garbage, grease or any other slippery substance, as well as any other hazardous product, which could provoke any risk for humans and/or environmental damage, shall be immediately cleaned.
3. Ventilation Systems shall be controlled for proper functioning
4. Boilers/Heating appliances and air conditioning systems shall be inspected every 2 years (RD 1027/2007, de 20 de Julio, IT4.2)
5. Recycling and no waste of energy and water is recommended but not compulsory. However, Local Administrations are compelled to facilitate and promote recycling procedures among consumers and businesses.
6. Separate storage of garments, cosmetics and cleaning products.
7. Tools and utensils should be disinfected and sterilised.
8. Disposable cutting materials such as razor blades and needles must be disposed in waterproof, hard and closed containers that will be collected by an authorized company

Physical factors (microclimate)

The regulations on physical factors are regulated by 4 degrees and can be summed up in 9 points¹⁰:

1. Temperature in the workplace for non-sedentary works: Between 21 °C and 25 °C in summer time, and between 16 °C and 22 °C in winter. However, the RD 1826/2009, that modifies the Regulation of Thermic Installations in buildings (RITE), indicates that for energy saving reasons, the temperature in heated buildings should not be higher than 21°C. In the case of air-conditioning, the temperature should be no less than 26°C.
2. Relative Humidity: Between 50 and 70%.
3. Airflow: Below 0,75m/s.
4. Ventilation can be natural or forced but it must assure a minimum air renovation of 50m³ per hour per worker.
5. A technical report before initial opening of a business is required by law to estimate proper physical factors depending on the size, number of users, equipment and installations. This report must be in accordance to the regulations in the RD 1027/2007 of 20 July that approves the regulation for thermic installations in buildings.
6. Lighting levels in hair and beauty salon shall be between 500 and 1000 lux, due to the high visual demand of the tasks. Lighting in the workplace should avoid dazzles and high contrasts.
7. Every tool or equipment that may cause health risks due to high levels of noise, vibrations or radiations, must have barriers or proper devices to limit or reduce this physical factors.
8. When the level of noise is higher than 80db, different measures must be adopted such as providing ear protection, medical check-ups, information and supervision.
9. The size of business premises will be calculated depending on the number of workers and equipment dimensions. However, there are minimum requirements such as: 2,5 meters from floor to ceiling; 2 mts² and 10mts³ of free surface per worker

¹⁰ Annex III of RD.486/97 of 14 April on Minimum requirements concerning Safety and Hygiene in the workplace. ROYAL DECREE 1027/2007 of 20 July that approves on the Regulation for Thermal installations in buildings (RITE). Annex I of RD. 1215/97 of 18 July about the Minimum requirements for Health and Safety of Working Equipments. ROYAL DECREE 286/2006 of 10 March, on Workers health and Safety concerning protection against Noise.

Electrical risks

There are no specific guidelines for Hair and beauty. The general rules and recommendation should be followed¹¹:

1. The use and maintenance of Electrical installations shall respect the Electrical Engineers Regulations and the specific legislation related to Safety signals in the workplace. Therefore, every business shall have a Technical Project designed by authorized technicians and supervised by the Administration, which will guarantee that the electrical Installation is in accordance to all the regulations.
2. The use of ground wires and electrical panels protected by electrical cabinets are compulsory in order to prevent electrical contacts and short circuiting.
3. Business owners are forced to inform their workers about the electrical risks they are exposed to and how to prevent them, remembering basic rules such as: Do not work with electric devices with defective plugs or wires; Don't unplug by wire pulling ; Don't manipulate electrical devices with wet hands and avoid overloading plugs with multiple connectors.

Slips, trips and falls

There are no specific guidelines for Hair and beauty. The general rules and recommendation should be followed¹²:

1. Floors must be fixed, stable, anti-slip and without dangerous slopes.
2. Apertures or grades on floors or walls must be protected by rails.
3. Stairs and ramps higher than 60 cms shall have a banister at the height of 90cms. Banisters shall be built on rigid materials and with a protection to avoid people stepping or objects dropping.
4. Transparent doors or walls as well as any other areas of the workplace with dropping or falls risks, steps, and ramps must be signalized.
5. Any liquid or slippery product spill must be immediately cleaned.
6. Workers should use anti-slip shoes.
7. Avoid loose electric cords and hair on the floor

Burns and Cuts

There are no specific guidelines for Hair and beauty. The general rules and recommendation should be followed¹³. All working equipment that may cause burns and cuts shall be protected by barriers to prevent accidents.

Fire risks

There are no specific guidelines for Hair and beauty. The general rules and recommendation should be followed¹⁴.

¹¹ ROYAL DECREE 614/2001 of 8 June, on Worker's protection against electrical risks in the workplace; ROYAL DECREE 842/2002 of 2 August, on Electrical Engineers Regulations for low voltage

¹² Annex I of RD.486/97 of 14 April on Minimum requirements concerning safe and Hygiene in the workplace.

¹³ Annex I of RD 1215/1997, of 18 July, on Minimum requirements concerning health and Safety of equipments in the workplace

¹⁴ RD 314/2006 of 17 March, that approves a Technical Building Code for Fire and Security (CTE); RD 1942/1993 of 5 November, that approves the Regulation for Fire Protection Installations; RD.485/97 of 14 April on Minimum requirements

The design and structural characteristics of the workplace shall facilitate the control of emergency situations, specially fire risk, and assure a quick and safe evacuation.

It is compulsory to have fire extinguishers each 15 m or even 10 m in the case of workplaces with high fire risk.

Evacuation corridors and exits shall be signalled and have emergency lights. Minimum width of corridors and doors will be of 80 cm and 1 meter respectively. Doors will open outwards only if the number of occupants is higher than 50 persons.

All businesses must have an Emergency Plan describing the different procedures to be followed for handling sudden emergency situations (especially fire), evacuation maps and first aid measures.

Psychosocial factors

The Hair and Beauty Collective Labour Agreement establishes several requirements related to working hours, timetables, breaks, holidays, paid leaves, tasks and salary that improves National Legislation:

- Working hours per year: 1750 hours. However, 28% of these hours can be distributed depending on salon needs as far as workers have the compulsory breaks.
- Workers are entitled to 30 days of vacations per year; 12 hours between working days; 1,5 days between working weeks; and 1,5 hours at split shifts.
- Extra hours are forbidden and only in case of delayed clients, workers can increase their working time half an hour after the closing. That extra time shall be compensated with money or relax the following days.
- Paid leaves: 16 weeks for maternity and 13 days for paternity; 15 days for marriage or union, 1 day for children´s marriage; 2 days (4 if they live away) for relatives' illness, death or birth; 1 day for house moving; 2 days for private issues and 1 hour per day for lactation of babies under 9 months.
- Unpaid leaves: Minimum of 4 months and maximum of 5 years for private issues. They can also reduce their working time (a maximum of 50% and a minimum of 10%) every day to take care of children under 12 years old or disabled or very sick relatives.

Additional aspects

Monitoring mechanisms

There are two different moments where Health and Safety Requirements are supervised:

- A) While the construction or alteration of workplace.
- B) When the business is already functioning.

A) While the construction or alteration of the workplace¹⁵.

In accordance with the foregoing, a Technical Project made by competent Technical Authority (engineers, architects...) must be approved by the Local Administration to guarantee that all

concerning Safety and Hygiene in the workplace; RD 485/1997 of 14 April on Minimum requirements concerning health and Safety signs at work.

¹⁵ RD 314/2006 17 of March, that approves a Technical Code for Building and Fire Security (CTE).

regulations are duly followed, including local laws on urban planning, accessibility, environmental impact...depending on the type of economic activity.

Once the construction works are finished, City Hall Technicians will supervise the premise and its installations, and if everything is right, they will extend an Activity Opening License.

B) When business is already functioning¹⁶.

Every business owner is compelled to protect their workers against occupational risks and they are responsible for all the damages and accidents at work. Employers/owners have the following duties:

- The elaboration of a Risk Prevention Plan and provision of First Aid and an Emergency Plan.
- Ensure that employees who carry out activities in his workplace receive information and adequate instructions, regarding the existing risks at the workplace and the appropriate measures for protection and prevention and the emergency measures to be applied.
- The provision of formation, training activities, free and suitable protection equipment and medical check-ups to workers.
- Respect working time and conditions content on the Hair and Beauty Collective Labour Agreement.

Labour and Social Security Inspectors will monitor all these duties.

England

Ergonomic factors

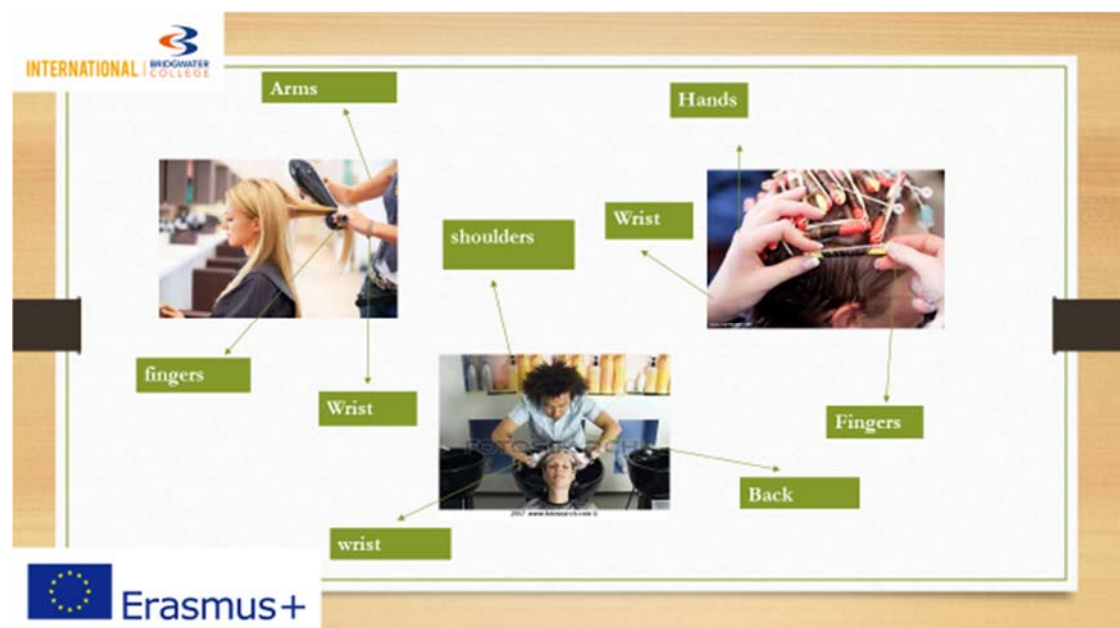
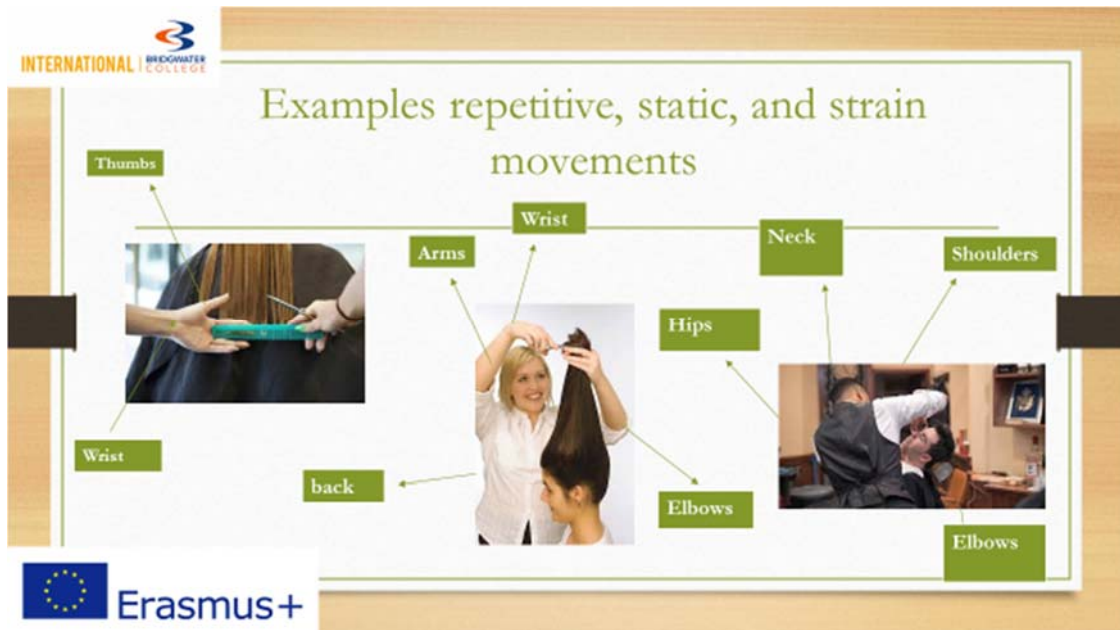
a) Proper design of the work environment

The hairdresser must have sufficient space around him- or herself to move freely and change body position so that he or she can reduce excessive reaching and bending. All workbenches must be constructed at appropriate heights and hairdressers' chairs must always be height adjustable. Not only must equipment and materials be within easy reach, but considerations should also be taken for their weight and bulkiness. This can be facilitated by the use of trolleys with wheels.

b) Appropriate work practices.

It is important that the tasks vary as much as possible, so that the employee uses different muscles and allows muscles to recover (rotation of tasks). This can be accomplished by alternating between sitting and standing, for example when cutting hair, or alternating between different tasks such as sweeping and shampooing hair. Clearly defined responsibilities, equitable distribution of tasks, proper time allotments and rest breaks can help to diminish ergonomically induced symptoms. Health surveillance is a prerequisite for prevention.

¹⁶ Occupational Risks Prevention Act 31/1995 of 8 November and RD 39/1997, of 17 January on Prevention Services Regulation.



c) Appropriate equipment

The purchase of ergonomic tools with bended or adjustable grip keeps the wrists straight. Ergonomic issues should also be considered when new hair wash installations are purchased. The same applies for handheld hairdryers and scissors.

At the expert meeting in June 2016 Bridgwater College presented more information on the [ergonomics and how to integrate it in education](#).

All these measures are to prevent Musculoskeletal Disorder (MSD), which is a high risk in hair and beauty, due to repetitive work processes and many hours standing every day.



Musculoskeletal Disorders (MSD)

- Shoulders, elbows, wrist/hands (upper limbs)
- Knees (lower limbs)
- Neck or and back



Where do they affect

- Tendons - tendinitis
- Veins - varicose veins
- Nerves – carpel tunnel (compression of the nerve endings usually wrist)
- Muscle – strain pains cramps stiffness (neck, back, arms)
- Bursa – Inflammation of big joints such as shoulders, hips and knees



Hazardous Substances

An analysis of typical hairdressing activities revealed that the following activities in particular must be taken into account in the hazard assessment¹⁷:

- hair shampooing and application of hair care products;
- hair colouring;
- permanent waves;
- styling; and
- wet cleaning and disinfection work.

¹⁷ The source of the analysis is not indicated

It is of major importance that the products used have been designed and manufactured in compliance with the EU Cosmetics Regulation (EC Regulation No 1223/2009) and the instructions of use must be followed. In the case of cosmetic products, warnings and/or use instructions on labels or package inserts will also provide valuable information.

Based on the information obtained on the substance risks arising from the products used and the type and nature of the envisaged activities, the related inhalative, dermal and physico-chemical hazards (fire and explosion hazards) are to be assessed independently of one another and compiled in the hazard assessment.

Some basic measures for the prevention of exposure to chemicals are checking that the containers are immediately capped after use, disposing of empty containers appropriately and storing products as directed by the manufacturer.

Proper ventilation of the hairdressing salon is vital to minimise exposure.

The employer is obliged to ensure that any hazard for staff in the salon is appropriately identified and assessed by specifically educated experts.

Hygiene

Routinely brushes, combs, scissors, razors, clippers, towels, blow wavers, etc. must be washed in hot, soapy water followed by immersion in disinfectant solution for 15–20 minutes. Cuts and abrasions should be covered with waterproof dressings. Equipment should not be reused on the next client until it has been thoroughly washed and disinfected.

Hands should be washed regularly with antibacterial soap. Here the use of gloves can also protect from diseases.

As for all workplaces, washrooms and toilets must also be kept clean and disinfected.

Air conditioners should be properly maintained and serviced to prevent the incubation and spread of microorganisms.

Physical factors (microclimate)

The microclimate parameters (room temperature and humidity, rate of indoor air exchange, etc.) should be adjusted to provide the maximum comfort for both employees and clients.

Proper maintenance of the air-conditioning system is therefore important. The work areas must be adequately illuminated by natural or artificial light.

Electrical risks

Employers are responsible for ensuring the safety and health of their employees and also the public, if they are at risk from those work activities. This includes electrical safety¹⁸.

A hairdressing salon is equipped with a variety of electrical devices used in the proximity of wet conditions. If they are not cared for, there will always be the danger of electric shocks. Maintenance

¹⁸ Under UK law the Health and Safety at Work etc Act 1974 (HSW Act) in Great Britain or the Health and Safety at Work (Northern Ireland) Order 1978 in Northern Ireland

of electrical equipment is vital. A qualified electrician must inspect the electrical infrastructure and equipment regularly.

Important safety points to remember are:

- Always store electrical equipment away from moist or wet areas
- Never to touch electrical devices with wet hands
- Switch off and unplug devices before cleaning.
- The use of extension cords and multiple plugs should be avoided.
- All electrical equipment must be certified and all safety requirements for their use should be fulfilled.

Slips, trips and falls

To prevent slips a) all floor surfaces must be dried and immediately cleaned from spills and hair constantly swept away. B) The floor surface must be horizontal, void of cracks or tile breakages and slip proof. C) Ladders and steps must also be slip proof. Employees should wear non-slip footwear. Proper storage and easy access of utensils, liquid or semi-liquid package products are essential to avoid accidents from falls.

Burns and Cuts

Contact with hairdryers and steamers that may have hot surfaces can cause burns. Care must also be taken to avoid continuous contact with excessive hot water. It is important that all utensils such as scissors, razors or clippers are handled carefully, kept in good condition and stored with protective coverings

Fire risks

All three parameters necessary to initiate and propagate a fire coexist in the work environment of a hairdressing salon: hot electrical surfaces, flammable products and air. In order to minimise the risk of fire, one must isolate one parameter from the other

The salon should be equipped with fire extinguishers, fire blankets, sprinklers and a fire alarm. An emergency plan should be designed and all employees should become familiar with it and participate in any emergency drills.

Psychosocial factors

Under *European OSH* regulations employers have a duty to provide information on these issues, a safe work environment and training. It is particularly important to establish, from the outset, a workplace policy on sexual harassment and bullying. The employer must continuously consult and cooperate with his or her employees and not burden them with excess work that can lead to stress. In order to avoid the above conflicts and misunderstandings, the employer should prepare a clear plan on work times, tasks, responsibilities and decision-making powers, as stipulated in *Article 6 of the European social partners' Framework Agreement on Work-related Stress (October 2004)*.

In the agreement in the hairdressing sector, both sectoral social partners confirm their commitment to this European agreement on work-related stress.

Additional aspects

The doctor's opinion with regard to whether a pregnant employee should be exempt from some tasks should always be followed. Provisions in legislation and collective agreements for the protection of maternity should be adhered to. Risk assessment in a hairdressing salon should take into account

Monitoring mechanisms

If you own or manage a hair or beauty salon you have a duty to ensure you safeguard the health and safety of your staff, your customers, yourself and any self-employed people or contractors working at your premise. Further guidance can be obtained from the National Hairdressers Federation, The Hair and Beauty Industry Authority (HABIA) or the Health and Safety Executive (HSE).

Netherland

Ergonomic factors

Primarily the regulations focus on avoiding RSI (repetitive strain injury), by stating that there should be a mixture in activities, from welcoming the client, through the treatment and cashier activities. Also employee should be able to move freely and naturally given specific guidelines for the furniture and layout of the salon. With regard to equipment used, there are many recommendations, for example, to use scissors with a little finger support.

Hazardous Substances

All hairdressing salons are required to have a chemical 'corner' and appropriate air management.

Hygiene

Eating and drinking is not allowed in the salon.

Physical factors (microclimate)

No special requirements other than 'a good ventilation of the workspace'. Air suction is required above the 'chemical corner'.

Electrical risks

No special requirements.

Slips, trips and falls

All employees must be educated in the specific risks of the workplace and be given instructions what to do in case of an emergency.

Burns and Cuts

A first aid kit must be on the premises.

Fire risks

A fire extinguisher needs to be easily accessible on the premises.

Psychosocial factors

After a two hour work period a 10 minute break is required.

Additional aspects

Pregnant employees may not (in the last three months of the pregnancy) squat, bend or kneel. Walking of stairs is to be avoided.

Monitoring mechanisms

Governmental inspection in the workplace is carried out by the 'Arbejdsinspectie'. They may visit any workplace unannounced. They may give a warning (and will check at a future date to inspect if measures have been taken) or a fine in case of gross violations.

Denmark

Ergonomic factors

The guidelines for ergonomics in salons follow the general guidelines of Danish Working Environment Authority (WEA). Ceiling height should be at least 2.5m and space should be at least 12 m³ per employee.

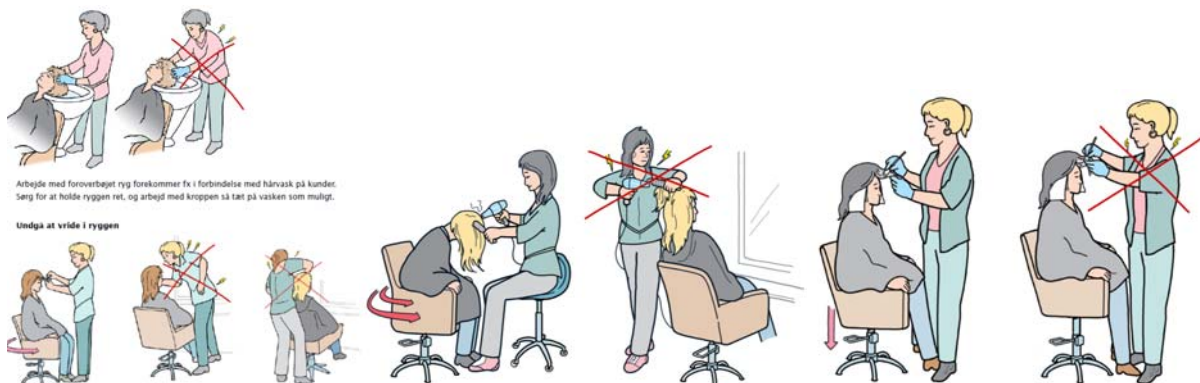
It is the responsibility of the employer that each workstation is safe and fits each worker with regard to equipment, tools and appropriate work methods and variation of activities. There should be sufficient space around the workstation to move around freely.

Chairs and tables used for different types of activities and/or by different employees should be easily height adjustable. Lighting should be appropriate for the specific task.

In 2015 *The Fund for Better Working Environment and Labour Retention* under the Ministry of Labour ran a campaign targeting Hairdresser on improving the work environment especially on ergonomics and psychosocial work environment.

On ergonomics they focused on: 1) work with your back straight 2) work with your arms close to your body 3) Use a variation of tools 4) change your work positions.

A guideline with instructions was developed in Danish, which also describes the process how to change and implement new practices.



Pictures from the guideline: 'Sundt klip'

Hazardous Substances

Salons present a wet work environment, which increases the risk of being affected by the substances used. The Danish Working Environment Authority, section for Hair and Beauty have published a

guideline for Salons including an overview of the risks and effects of the different substances. It is a 36 pages publication with specific explanations and recommendations¹⁹.

Main recommendations are:

1. substitution of products with a high health risk with products with less health risk or even better avoid the use of products with health risk
2. Change work methods to reduce/avoid contact with the substance
3. Use bottles with a pump instead of aerosol/spray bottles
4. Mix colours in a separate cabinet with dedicated suction
5. Install both ventilation for the room and dedicated suction for each workstation
6. Use personal protection equipment (ex. Gloves)
7. Store cosmetics and products safely

Hygiene

All businesses with employees must prepare an APV. APV is the company's own tool to identify, prioritize and solve Health and Safety problems.

The checklist contains a series of questions, which the company should answer yes or no to. The issues that the company answers yes to represents a working environment problem that must be solved and the company must prepare an action plan.

Physical factors (microclimate)

The hairdressing sector is the sector where the rules on local exhaust ventilation is most explicit. When working with any harmful products developing gases, aerosols, microorganisms, dust or the like, foul odours or other nuisance air pollution the exhaust system must be used. Local exhaust ventilation must be used to prevent harmful particles spreading in the room.

Occupational health legislation also states that the extracted air volume should be approximately 100 m³ /hour/unit. This will eliminate pollution at the place where it is developed.

¹⁹ The publication is only accessible in Danish:

<http://www.frisorudsugning.dk/SiteConnect/Customers/Frisørudsugning/Archive/443/frisoerprodukter.pdf>



A salon with appropriate local exhaust ventilation

Local exhaust ventilation can be established via an arm with suction for every two operating workstations, and one arm for every two washing workstations. There must be access to local exhaust ventilation at all workstations of performing bleaching, perms, hair dye etc.

The air taken out of process ventilation - local exhaust ventilation - must not be returned to the working space or other facilities. This means that air cannot be recycled and must be evacuated to the outside.

Local exhaust ventilation should be mounted with an alarm, which will indicate if it is not working as it should. The alarm can be sound or light indicating if the exhaust efficiency decreases.



It is recommended to have a separate ventilation for mixing as shown above. The picture to the right show a local exhaust ventilation in use while applying colour.

Electrical risks

Electrical risk in hairdressing and beautician is subject to customary law.

Slips, trips and falls

Following general rules and recommendations by the Danish Working Environment Authority (WEA).

Burns and Cuts

Following general rules and recommendations by the Danish Working Environment Authority (WEA).

Fire risks

Following general rules and recommendations by the Danish Working Environment Authority (WEA).

Psychosocial factors

It is responsibility of the employer to ensure a good planning of schedule. During a campaign in 2015 the Danish Working Environment Authority visited hair salons focusing on especially the psychological work environment, interviewing employees and employers and giving recommendations how to improve. There is not yet published any results from this intervention.

Additional aspects

None

Monitoring mechanisms

Every company with employees must prepare a health and safety (H&S) risk assessment. This is an EU rule that applies all over Europe. The H&S risk assessment process helps determine whether you have any problems relating to health and safety and helps you draw up a plan for addressing any problems before someone gets injured.

The H&S risk assessment can therefore contribute to a good working environment. Important requirements for the H&S risk assessment:

- The risk assessment must be prepared jointly by the employer and the health and safety organisation or the employees.
- The risk assessment must be written down either on paper or electronically.
- The risk assessment must be available at the workplace such that management, the employees and the Danish Working Environment Authority (WEA) can read it.
- The risk assessment must contain a survey of the company's health and safety initiatives and a description of any problems. You must also include the company's sick absence statistics. If there are health and safety-related problems, the risk assessment must also include an action plan for addressing any problems that cannot be solved immediately.
- The risk assessment must be revised at least every three years.

Danish Working Environment Authority (WEA) plan to visit 621 companies within the hair dressing and personal welfare sector a year. Each selected company will be visited twice within a 6 months period.

Conclusion and recommendations

There are a lot of knowledge especially on ergonomics and hazardous substances. It cannot be questioned that the risk of MSD is remarkably high which has also been documented by the European Agency for Health and Safety at work and in the report 'A close Shave' by Coiffure.org both in 2014.

In Spain and Denmark there are similar guidelines on ergonomics focusing on working with a straight back, paying attention to arm and shoulder positions, using ergonomic tools and change the work positions and activities regularly. Bridgwater College showed how with only few means ergonomics can be integrated in the curriculum and in the salon, and which effect it has not to consider the issue of ergonomics properly leaving 40 % of hairdressers with back, neck and knee pains.

When it comes to hazardous substances, there is a close link with to the prevention of Asthma and eczema. Working in a wet environment increases the risk of developing eczema. The recommendations specified in guidelines in both Spain and Denmark are quite similar and can be summarised in the following points:

1. substitution of risk products;
2. use natural products;
3. Change work methods to reduce/avoid contact with the substance;
4. Use bottles with a pump instead of aerosol/spray bottles;
5. Mix colours in a separate cabinet with local exhaust;
6. Install both ventilation for the room and local exhaust ventilation for each workstation;
7. Use personal protection equipment (ex. Gloves);
8. Store cosmetics and products safely.

A strategy for the project could be to get permission to translate the guidelines developed nationally and use this in the diagnostic scan and other products to be developed.

For hygiene, Electrical risks, Slips, trips and falls, Burns and Cuts air and beauty generally follow the same guidelines as everyone else. For microclimate hair and beauty also generally follow the same regulations as other companies, except that all countries recommend that the mixing of colours, perms etc. is done under exhaust facilities. In Denmark, as the only country, the regulations on local exhaust facilities is quite demanding. This is being presented at the partner meeting.

Concerning monitoring Health and Safety all countries should have a mechanism in place as it is under EU law and should be equal for all. All employers should have a plan, which is updated regularly. In some countries, there is a mechanism of a self-assessment and all countries have government inspection. The information shows that it is unclear in some countries how often this inspection is.

National requirements for environmental protection in Hair & Beauty

This section is aiming to give an overview of environmental requirements and regulations, which are specific for the Hair and Beauty sector.

	ES	NL	UK	DK
Water	There is no specific legislation regulating environment protection in the hairdressing and beauty sector in Spain. Instead, there are guidelines and bylaws developed by regions and municipalities –	No requirements	Water authorities are responsible for the public water supply. There are no limits or restraints for salons	No specific regulations. It follows the general rules

Stivako intern: Project code: 553

	such as developing water-saving mechanism ²⁰ .			
Electricity	Development of energy saving practices.	No requirements	No specific regulations	No specific regulations. It follows the general rules – including assistance for reducing electricity consumption
Waste management	“The final holder of packaging waste and used packaging must deliver, in proper separation conditions, to an economic operator for recovery, reuse or recycling, unless a specific provision requires a particular method of management.” ²¹	Waste needs to be separated – paper/glass/ plastics/chemicals/ waste/ rest waste	All employers are responsible to separate waste in the provided bins. This is monitored by the disposal team	Each county has different rules
Chemicals	No regulation on chemicals, only the advice to choose chemicals and cleaning products among those less aggressive with the environment.	Chemical waste needs to be presented separately from regular waste	All colours and perm solution should be diluted down the sink	Regulations for exhaust systems and mixing chemical products

²⁰ National, published by the Ministry of Agriculture, Food and Environment: http://www.magrama.gob.es/es/calidad-y-evaluacion-ambiental/temas/red-de-autoridades-ambientales-raa-/servcomunidad_tcm7-15053.pdf

Navarra (Comunidad Foral de Navarra): <http://www.navarra.es/NR/rdonlyres/624A5BD9-8E3C-4118-98B3-9E12D0B95FEB/322719/Peluqueria.pdf>

Alicante (Comunidad Valenciana): <http://www.alicante.es/sites/default/files/documentos/normativa/ordenanza-reguladora-condiciones-tecnicas-e-higienico-sanitarias-peluquerias-institutos-belleza-y/ordenanza-peluquerias.pdf>

Alcobendas (Madrid): https://www.alcobendas.org/recursos/doc/Documentales/Ordenanzas/1579285129_251201195212.pdf

Valencia (Comunidad Valenciana): [http://www.valencia.es/ayuntamiento/Sanidad.nsf/0/B4D59F6DF95222D3C12577D0003C76B2/\\$FILE/REQUISITOS%20%20PELUQUERIAS%209-9-10Nuevo.pdf?OpenElement](http://www.valencia.es/ayuntamiento/Sanidad.nsf/0/B4D59F6DF95222D3C12577D0003C76B2/$FILE/REQUISITOS%20%20PELUQUERIAS%209-9-10Nuevo.pdf?OpenElement)

²¹ Law 11/1997, of 24 April, on packaging and waste packaging (Article 12).

Stivako intern: Project code: 553

Financial	No information	No requirements	All business will have to pay business rates this figure will depend on the building this will be revised every 5 years. Also your business turn over. Your local council will evaluate all these factors.	No specific regulations. It follows the general rules
Control	No information		The environmental agency would monitor. Also Local council.	No specific control on environmental aspects only on H&S
Other	Regulation on noise pollution ²²	Hair and Beauty salons are not considered to have a high impact on the environment. Requirement for special license only applies to companies with high impact on the environment.		
How is it monitored	As there is no regulation, there is no monitoring except for waste management, done by Health Inspection (needles, etc.) and Environment Councillorship of each Town Hall through local police.		Waste management, and H&S is monitored by respective authorities	H&S is monitored

Conclusion and recommendation

Generally, it is safe to say that there are no requirements and regulation on environmental aspects, which applies only to hair and beauty salons. There are some general regulations, which vary from country to country, that also apply to Salons. From the information collected, it seems that the Netherlands are prioritising waste management.

The questions in the survey does not ask specifically for best practices in the countries on reducing water and electricity consumption. This could have been more relevant questions to pose. Some added information came from the presentation by Johan Galster on the [Danish Green Salon Certification](#).

²² Ley 37/2003, de 17 de noviembre, del Ruido.

Research on Health & Safety through national research institutes

Contact allergy and dermatitis

At the expert meeting in Aarhus in June 2016, Ulrik Fischer Friis from the Danish National Allergy Research Centre presented the convincing research determining that hairdressing is a high-risk occupation.

By no comparison, hairdressers and barbers have the highest incident rate of hand dermatitis. Ulrik Fischer Friis and his colleagues can through extensive research show that the wet work environment combined with the many chemical substances in the hair products creates the basis of a high-risk work environment.

HAIRDRESSER – A HIGH RISK OCCUPATION

There is a high risk for develop hand dermatitis

Table 2. The overall incidence rate per 10,000 workers per year

Hairdressers and barbers	97·4
Bakers	33·2
Florists	23·9
Pastry cooks	20·6
Tile setters and terrazzo workers	19·0
Electroplaters	13·3
Solderers	10·9
Dental technicians	10·8
Machinists	9·0
Metal-surface processors	9·0

Dickel et al. 2001

30% of all hairdresser reports ever having hand dermatitis

Lind ML et al. 2006



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²³ All [slides](#) in this section is from the presentation made by Ulrik Fischer Friis from the Danish National Allergy Research Centre at the Green Salon Expert Meeting June 2016

A HAIRDRESSERS WET WORK

A Danish survey

5324 hairdresser – educated from 1985-2007

Table 2. Description of the occurrence of potential risk factors for hand eczema among 2918 trained hairdressers (125 men and 2793 women) who answered a postal questionnaire

	Male hairdressers Total (%)	Female hairdressers Total (%)	All hairdressers Total (%)
Wet hands			
Question: On any normal day at work: for how long are your hands wet? Include cutting of wet hair, washing hair, washing dishes, cleaning in the salon, etc. Please tick one box only	n = 125 (100)	n = 2771 (100)	n = 2896 (100)
Never	0 (0)	3 (0.1)	3 (0.1)
Less than half an hour a day	10 (8.0)	55 (2.0)	65 (2.2)
½–1 hr a day	8 (6.4)	111 (4.0)	119 (4.1)
More than 1 hr but less than 2 hr a day	9 (7.2)	194 (7.0)	203 (7.0)
2–3 hr a day	21 (16.8)	464 (16.7)	485 (16.8)
More than 3 hr but less than 4 hr a day	25 (20.0)	431 (15.6)	456 (15.8)
4 hr or more a day	52 (41.6)	1513 (54.6)	1565 (54.0)

Lysdal SH et al. 2012



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The majority of hairdresser have wet hands more than 4 hours per day. This sensitises the hands and increases the risk of hand eczema and dermatitis.

Ulrik Fischer Friis and his colleagues have also shown that the effective prevention measurement is using gloves (the recommendation is Nitril gloves), and also, that using gloves correctly is not as easy as one might think.

Susan Hovmand Lysdal got responses from 2818 hairdressers in the research for her PhD. On the question on gloves 569 (29.2%) did not use new disposable gloves every time and 228 (8.1%) turned the gloves inside out and recycled the gloves.

This lead to an experiment on the use of gloves. The experiment showed that a short instruction could improve the correct use of gloves and lead to the development of a [video showing the correct way to remove the gloves](#)²⁴.

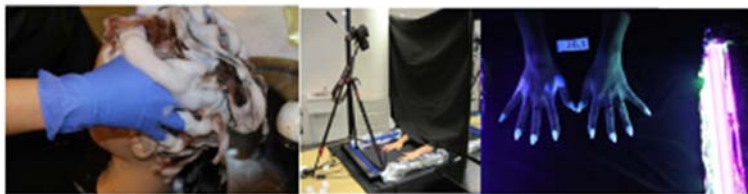


²⁴ Video on correct use of gloves: <http://www.youtube.com/watch?v=6UyylxEfj00>

HOW TO REMOVE GLOVES CORRECT

Removing gloves is important

- 43 hairdresser/hairdressing apprentices washing hair on a manikin
- The shampoo contained a UV-fluorescent substance
- They were instructed how to remove the gloves
 - Before instruction 43/43 (100%)
 - After instruction 24/43 (55,8%)



- In the view of this, a video was produced

Oreskov K et al. 2015



The main conclusions from Ulrik and the Danish National Allergy research centre is that the risk of dermatitis can be reduced by

- Using the correct gloves in the correct way
- Using good and regular Lotion, moisturizing cream
- Limiting the contact with allergens
- Enforcing good working routines
- Ensuring good advice for hairdressers

Persulfate and the effects in terms of Allergy and Asthma

A lot of research has been done especially on asthma and eczema. The team from IES El Palo presented a collection of research data on persulfate and how it relates to allergy and asthma for hair and beauty. This section of the report is based on the presentation from IES El Palo.

Figures to reflect on

- ▶ In a small study of [hairdressers](#), occupational asthma (OA) was found in 51.1% and allergic occupational dermatitis in 36.2% of study participants.
- ▶ Ammonium persulfate was the responsible agent in 87.5% of OA cases.
- ▶ The average overall duration of exposure in the group of hairdressers with OA was 7 years and the average time from start of exposure to onset of symptoms was 5.3 years.
- ▶ Whilst just over 30% had a family history of allergic disease, none of the patients had previous occupations with possible risk factors for asthma, rhinitis, or dermatitis prior to the becoming hairdressers.

The combination of a wet work environment and the persulfate creates the increased risk for hairdressers.

In a report from the Spanish Institute for Occupational Safety and Health at work the main chemical products listed in the review are²⁵:

- Persulphate salts (potassium, ammonium),
- ammonia,
- p-phenyldiamine,
- p-toluendiamina,
- 4-aminophenol,
- resorcinol,
- Tetrahidrofurfurilic alcohol,
- Ammonium Tioglycolate,
- glicerolmonotiogliolate,
- Formaldehíde,
- Hydroquinone

As if this is not complicated enough by itself, persulfate has been given a number of alternative names, which makes it even more difficult for both professionals and consumers to understand the content in cosmetic products. Here are some of the alternative names of persulfate

- ammonium peroxydisulfate
- diammonium peroxodisulfate
- diammonium persulfate
- diazanium sulfonatoxy sulfate
- peroxydisulfuric acid (((HO)S(O)2)2O2) ammonium salt (1:2)
- peroxydisulfuric acid diammonium salt

Persulfate is not the only hazardous substance in cosmetic products. There is a long list of products one should be aware of²⁶.



12 Toxic Ingredients To Avoid in Shampoo and Conditioner

www.livelovefruit.com

Sodium Lauryl Sulfate (SLS) Cancer, liver damage, skin rashes, depression	Fragrance Clogs the lymphatic system, major organ system toxicity	Cocamidopropyl Betaine Eye & skin irritation, allergic contact dermatitis	Triclosan Skin, eye and lung irritation, endocrine & organ disruption	Polysorbates Skin, eye and lung irritation, endocrine & organ disruption	Polyethylene Glycol (PEG) Direct link to CANCER, organ system toxicity
Potassium Sorbate Causes skin and organ system toxicity	Phenoxyethanol Irritant of skin, eyes & lungs, vomiting, contact dermatitis	Retinyl Palmitate Carcinogen, causes reproductive & organ system toxicity	Dimethicone Irritation of the skin, scalp & eyes, traps impurities in skin	Behentrimonium Chloride Damages the eyes, inflammatory agent, irritates skin	Quaternium-15 Contains carcinogenic formaldehyde, major toxin to body

²⁵ For further information: <http://stp.insht.es:86/stp/basequim/013-tratamientos-del-cabello-en-peluquer%C3%ADas-exposici%C3%B3n-agentes-qu%C3%ADmicos>

²⁶ The full [EU list for the strongest allergenic perfume substances mandatory for declaration](#)

Hair & beauty and certification - the world of standards & guidelines

This section should give you an overview of the certifications used in the Hair and Beauty sector in the 4 countries in this research.

Common certifications - The EU Ecolabel



The EU Ecolabel²⁷ is a voluntary scheme, which means that producers, importers and retailers can choose to apply for the label for their products.

The life cycle of a product begins with extraction – the mining or cultivation of the raw materials, such as cotton (for textiles) or wood (for paper products). It continues with manufacturing and packaging, distribution, use and finally the “end of life” stage, when the product is disposed of or recycled.



When developing EU Ecolabel criteria for products, the focus is on the stages where the product has the highest environmental impact, and this differs from product to product. In addition, product-specific criteria ensure that any product bearing the EU Ecolabel is of good quality with high performance.

Criteria are developed and revised in a transparent way by a group of experts and stakeholders.

Country Certifications – Spain

Spain as described numerous certification and quality assurance system. There is not described a certificate specifically for sustainable salons. In this report, only those found most relevant for the project are presented.

ACENE. Asociación de Cosmética Ecológica y Natural de España.

Ecologic and Natural Cosmetics Association. Acene is a Spanish non-profit Association that guarantees that cosmetic products with their seal have passed the verification by an independent auditor (<http://aceneasociacion.org>)

The QHair.

Spanish hairdressing quality certification. There is no explicit specification about environment <http://www.theqhair.com>

²⁷ http://ec.europa.eu/environment/ecolabel/index_en.htm

PAK professionalism, art and quality.

Spanish hairdressing quality certification. There is no explicit specification about environment (<http://bipebizkaia.com/index.php/inicio>) .

Personas + Sostenibles.

Empresas + Sostenibles is a branch of the collaborative project promoted by Cabildo de Tenerife together with business organizations like the Chamber of Commerce of Santa Cruz de Tenerife, to integrate training and certificate green economy and sustainability business (www.personasmassostenibles.es).

Country Certifications – Denmark

The Nordic Ecolabel & The Climate

The Nordic Ecolabel is a comprehensive ecolabel. This means that, in developing criteria, we look at the whole life cycle of the product and all its related environmental issues. Climate considerations are thus a key element of the assessment.

There are developed specific criteria for cosmetic products following the strictest recommendations from scientist²⁸.

Green salon/Safe hair Salon Certificate²⁹

Safe Hair Salon is a Scandinavian certification system for hairdressers who want to get rid of the most health and environmentally harmful dyes and other hair products. The purpose of Safe Hair Salons is to help the hairdressers phase out the most allergenic and harmful chemicals and at the same be able to work creatively and manage an economically viable business. Safe Hair Salon also advises suppliers and manufacturers who want to develop green products. The system is managed by Copenhagen Green Business Network, The City of Copenhagen and Energitjenesten.

The presentation at the Expert meeting in June 2016 showed that it can be questioned if Green Salon can be considered a certification. As Peter Tegel, SCCI (Stichting Certificatie Creatieve Industrie), NL explained in his presentation³⁰, experience is that a growth path can be a good motivation and also a

²⁸ www.nordic-ecolabel.org/criteria/product-groups

²⁹ www.groensalon.dk

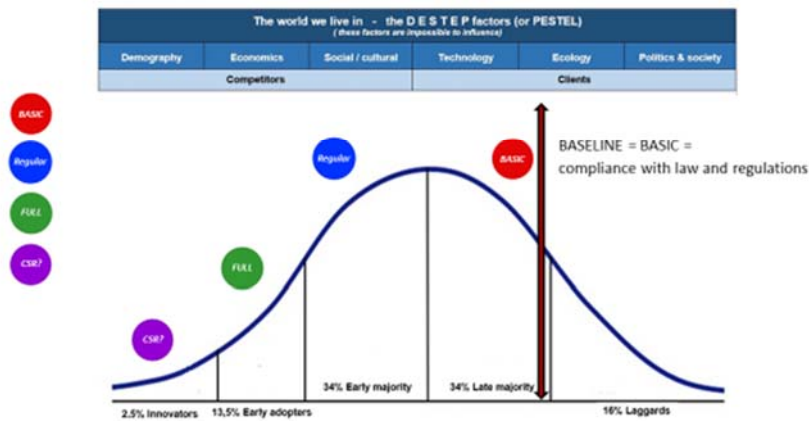
³⁰ [Certification of sustainable salons How can experiences from the graphic industry inspire the development of level model for sustainability in hair and beauty salons?](#)

good business strategy. The importance of a succesfull certification is that it is transparent and that it is recognised by the social partners of the sector.



Hair & Beauty and Certification

Could the certification be a growth path?



This is not the case of the Danish green salon certification, which is upheld by a few enthusiastic chemical engineers and not generally recognised by the social partners in the hair and beauty sector in Denmark.

Showcase from Belgium by Ecolife

At the expert meeting in June 2016 Ans Rossy from ECOLIFE in Belgium presented the results from a project among hairdressers on sustainability³¹.

The main aim of the project was to engage hairdressers in sustainability in 4 aspects:

The project was focusing on changing attitudes and behaviour step by step through empowering hairdresser to enter into dialogue with customers and suppliers.

³¹ [Hairdressers for the Future. A project in Belgium by Ecolife with hairdressers, schools and the sector: making sustainability part of daily practices. Ans Rossy, ecolife, BE](#)

Conclusion and recommendation

Of the four countries providing information for the research, only Denmark has a specific certification for Salons and it can even be questioned if it can be recognised as a genuine certification. There are European and Nordic labels, which are used also for cosmetics and perfumes following European standards. As a conclusion, it is possible to find safer and environmentally friendly products to be used in hair and beauty. This can be a benefit both for the environment, for the customers and the professionals.

From the research there seems to be a foundation to build on with the ecolabel system already in place. If it is possible to develop a certification, which potentially could fit all EU countries, is difficult to say from this limited desk research. Only about 1% of Salons in Denmark are certified making you question if the Safe Hair certification fits with the sector or it is a new approach, which is needed?

There are relevant experienced on how to develop a certification from the graphic industry.

Attitude Hair & Beauty sector

This section should give an impression of the attitudes in the sector when it comes to sustainability and H&S. In the research both the attitude of global and local producers are presented and will be reflected. Client's perspective is mainly reflected in articles of magazine and similar sources.

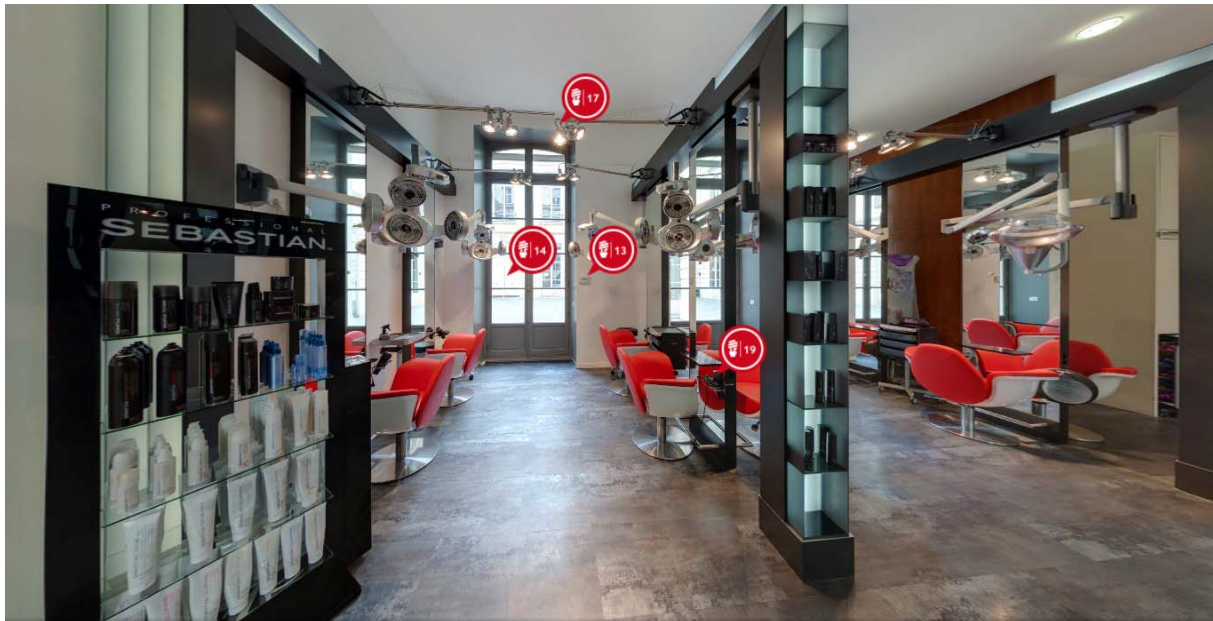
Global producers

L'Oréal is the biggest producers of cosmetics and hair products. They are dedicated to increase sustainability focusing on for aspects: innovating, producing, Living and developing³². With regard to sustainability their main focus is on raw materials substituting components with ecological ingredients as Palm oil for instance. Another focus is improving and reducing packaging.

In Spain L'Oréal has a 'green academy' concept 'La nueva Academia Verde'. This seems to be a national initiative and information are not available if this is a concept, which will be transferred to other countries.

Wella is another of the major global producers. Their dedication to sustainability is also visual – a good example being that they have developed a virtual salon, where Salons can find inspiration and advice as to how they can improve their sustainability

³² <http://www.sharingbeautywithall.com/en>



<http://www.wella.com/professional/en-EN/virtual-salon#page>

On their website, you can also find an inclusive list of green tips on waste, water, laundry, lighting, heating, energy and equipment.



EQUIPMENT TIPS

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Wella has also developed Koleston Perfect INNOSENSE which was launched in 2014. ME+ allows Koleston Perfect INNOSENSE to combine a significantly reduced allergy risk with unlimited and long-lasting hair colour intensity and variability and perfect coverage of grey hair. The color system has the ecarf-label, which indicates it is allergy friendly tested. Koleston Perfect INNOSENSE with ME+ reduces the risk of allergies occurring. It is free from the active ingredients PPD and PTD.

Schwarzkopf is the third of the global producers. They also give salons access to advice, education and tips to become greener³⁴. As the only producer, they include marketing advice when becoming a more sustainable salon. Schwarzkopf focus on providing access to education and training also in sustainability.

Also Schwarzkopf has developed a colour system which has the Ecarf-label - Igora Royal Senea. The color formulation of IGORA SENEА combines both, perfect color intensity and good skin compatibility, even for people with sensitive skin. The highly intensive color pigments allow for

³³ <http://www.wella.com/professional/en-EN/tip-gallery#page>

³⁴ <http://www.schwarzkopf-professional.com/skp/com/en/home/education/ask/consultation/0614/tips-to-make-your-salon-greener.html>

fascinating, intensive colors, which are long-lasting and provide perfect grey coverage. Furthermore they have developed the brand ESSENSITY, which includes both color and other hair cosmetics free from ammonia, silicones, mineral oil, sulfates* and artificial fragrances.

None of the products described above is approved as safe products to be used in the Danish Safe hair salons.

The only global producers with colours approved for Safe hair Salons are **Goldwell** and their colour system Elumen and bleach from **Farouk**³⁵

Local producers

Davine is an Italian brand with a strong sustainability profile: Our ideal of beauty works through practical and "sustainable" efforts. For us, sustainability deals with the responsibility we owe to ourselves, the people with which we work, our customers, and the world in which we live and operate. Davine has an inclusive approach to sustainability and have tips to improve sustainability in the daily practices, though events and in your private life³⁶.

SUSTAINABILITY PROJECTS

RENEWABLE ENERGY

SUSTAINABLE BEAUTY DAY

ZERO IMPACT PRODUCTS

ZERO IMPACT SALONS

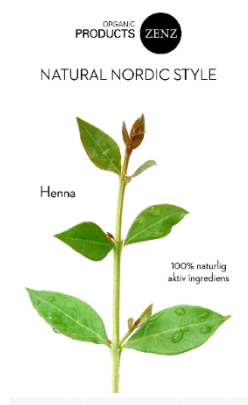
SALON ECO-TIPS

ECO SALON BOOK

ECO SALON CONTESTS

ECO-PACKAGING

Ingridién³⁷ is a Danish brand of shampoo, treatment, conditioner, styling and skincare products with the Nordic Ecolabel. Ingridién is a close partner of AARHUS TECH and was involved in the previous Leonardo project.



Zenz Organic is a Danish brand, which stated has organic/sustainable Salons and since developed into web shop of organic products including their own colour system based on Henna. The colour system has the Nordic Ecolabel.

The list of products which can replace traditional hair and styling products are increasing presenting an accessible alternative to products with hazardous substances.

The founder, Anne-Sophie Skjødt Villumsen, has won several awards both as a hairdresser and as a producer of cosmetics.

Salons and Clients

In the UK **Ray Seymour**, secretary general of the National Hairdressers' Federation, says there are plenty of small changes salons can make. "As well as looking at areas like lighting, water consumption and recycling, you should make sure the products you are using are environmentally friendly," he says. "Be a little frugal with stock – as it's not only better for the environment but will save you money. Two squirts of shampoo will not give you a better coverage than one. Think about how much stock is being wasted – and how much extra stock you really need," says Ray.

³⁵ <http://www.goldwell.us/products/color/permanent/elumen/> , <http://farouk.com/>

³⁶ <http://www.davines.com/en/about-davines/sustainable-beauty>

³⁷ <http://www.ingredien.dk/en>

In Denmark the number of organic or environmental friendly hairdressers are increasing showing that being Safe Hair certified does not represent the only way to become more sustainable. There is an increasing market and the public is becoming more aware about the effects of hazardous substances in hair and beauty products.

In the Netherlands the general attitude is on price and quality. Although there are some Green Salons, the vast majority of salons offer traditional treatments rather than natural ones. Some salons provide green treatments only.

In Spain there is a growing interest for natural cosmetics and ecological cosmetics is a growing subsector³⁸

Conclusions and recommendations

Sustainability can be addressed in many ways. Some for the largest producers approach it from an inclusive angle and provides a variety of tools and access to tips and advice how to increase sustainability in the Salons. These tools are valuable and useful – both for Salons and for educational purposes.

On the other hand the global producers are not the first movers when it comes to creating safer products without harmful substances. The exception being Goldwell's colour system Elumen. Local producers in Italy and Denmark are more advanced when it comes to developing products with Eco-labels.

Demands of VET institutes in relation sustainability and H&S

In all countries Health and Safety is part of the curriculum. This Includes all aspects of H&S reflected in section 5 'National requirements for Health and Safety in hair and beauty salons & how it is monitored'. For both Denmark and the Netherlands it is mainly the responsibility of salon owners to train and supervise their apprentice in H&S practices.

In Spain, depending on the region, VET education also includes Environmental Awareness, Waste, energy and water management and Chemistry Effects. The subjects are validated through reports integrated in other main subjects.

In England on top of the H&S the question of environmental protection and sustainability is integrated in the workstations, such as shampooing and colouring/perm. Questions as minimizing the use of products, water and energy is integral part. This approach is also applicable to Denmark.

In Denmark students also have to pass an exam in chemical work environment. Furthermore they have a module of about 1 week on 'New Generation', which is focusing on Green/Sustainable Hair and 1 week on ergonomics and the use of tools. (1 week is equivalent to 34 study hours)

³⁸ <http://vidasana.org/noticias/cosmtica-ecologica-un-subsector-al-alza-y-subiendo-subiendo>

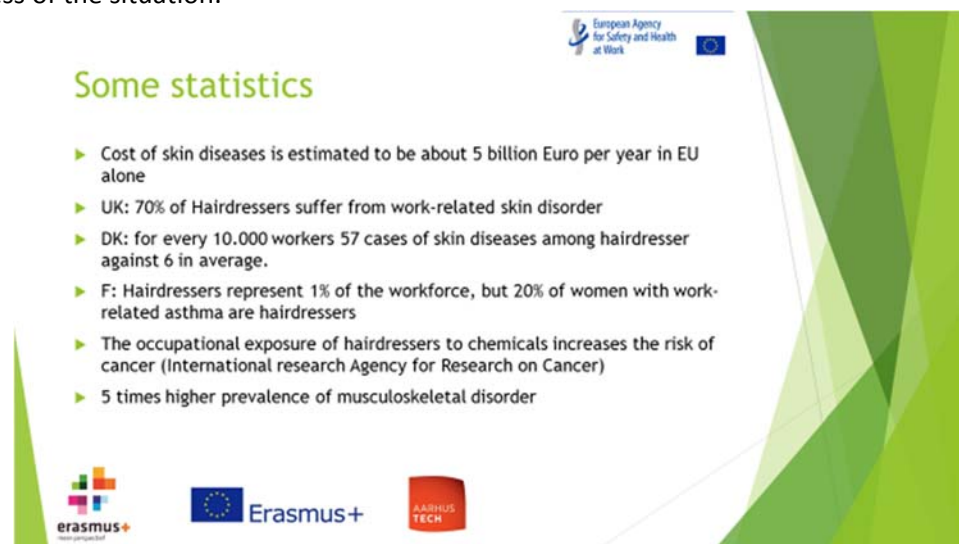
Overall conclusions and recommendations

Health and safety is an integrated part of all educations focusing on ergonomics and chemicals/ products and how the student and professional can protect themselves.

There is substantial evidence documenting that Hair and beauty is a risk profession and at European level it is recognised that MSD is directly caused by repeated work processes, long hours of work standing, few breaks and non-ergonomic equipment.

The case is a bit different when it comes to recognising dermatitis and asthma has work related conditions. In Spain EIS El Palo has presented several testimonies. Also the fact that there it is only required to have exhaust systems in Denmark and not in any other partner country, supports the general picture that the risky work environment is yet not fully acknowledged.

Statistics from the European Agency for Safety and Health at work demonstrates never the less the seriousness of the situation.



Environmental protection and sustainability is only an add-on subject, which is integrated in other subjects, probably mostly based on the interest and motivation of the teacher. There are not a transparent tool or certification available for Hair and Beauty to become more sustainable or CSR. The sustainability agenda in the sector is still driven by personal enthusiasm and convictions.

Many suppliers provide what they present as 'ecological', 'green' or 'bio' products. Unfortunately only 2% in a cosmetic product needs to be organic to be allowed this label. Many of the so-called 'green' products do still contain for instance persulfate or other hazardous substances and both the professional and the consumer needs to be more than well-informed to find the way in the jungle. There are though a growing trend to reduce hazardous substances.

Experiences from Belgium have shown that hairdressers can be agents of change putting sustainability on the agenda locally by using simple visible tools and dialogue. The empowerment of hairdressers to take charge of changing the situation step by step could be a way forward.

The conclusion must be that there is a need to increase awareness and new practises in both education and the sector in general. This needs to be both on Health and safety and on sustainability. The recommendation from Peter Segel to create a 4 step certification and from Ans Rossy to build on the strength of Hairdresser as local agents for dialogue seems as the obvious choice.

