

# Endocrine disruptors – consumer protection by soft regulatory measures







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### **Endocrine disrupters**

– consumer protection by soft regulatory measures

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# Introduction

For politicians to pass legislation and agree on appropriate regulation of chemicals, knowledge and a solid scientific foundation are needed. But more often than not – and especially within the field of chemicals – the present knowledge is insufficient to draw any firm conclusions. However with the introduction of REACH this situation will improve. At the same time, different scientific results can contradict each other making it more difficult for regulators to decide on more stringent legislation, because the benefits of chemicals for society and in our everyday life cannot be overlooked. Still our knowledge of chemicals' potential effects on human health suggests caution. We are seeing an increase in occurrences of for instance testicular cancer among adults and early puberty among children and our exposure to chemicals is likely playing a role.

Every day we are exposed to chemicals both from the air we breathe outside and in our homes, but also from our use of products and our consumption of food and water. In the cases where we lack the sufficient knowledge, authorities are left to find alternative ways of protecting the consumer without resorting to regulation. This is also called “soft regulatory measures”. In Denmark we've successfully carried out a number of campaigns to raise awareness as to how the consumer can reduce exposure to chemicals. Denmark has e.g. launched the information campaigns “9 gode vaner” (2006) and “65.000 grunde til bedre kemi” (2009), which focus on reducing the exposure of babies, toddlers, pregnant and breast-feeding women to chemicals, including endocrine disruptors. Green public procurement may be a tool for protection of children in day care, but also Eco-labelling and measures like the Danish “list of unwanted substances” can be discussed as tools for consumer protection. This workshop aims to bring together experts from the Nordic countries to build capacities and share experiences about soft regulatory measures.

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# Summary

The aim of this Nordic Workshop was to strengthen the capacity building and exchange information of the use of soft regulatory measures for consumer protection in Nordic countries. Of particular interest to this workshop was the use of alternative measures to reduce consumers' exposure to endocrine disruptors.

One of the presenters stressed the need for authorities to adopt an inclusive approach to risk governance.

Authorities can no longer assess and draw up legislation without consulting the public or stakeholders. To manage public concern and make regulation where needed authorities should maintain a continuous and open dialogue with both consumers, NGOs, and industry.

A popular soft regulatory measure frequently employed in most Nordic countries is the use of campaigns targeting consumers. For instance the Danish Environmental Protection Agency successfully created an awareness campaign aimed at the parents of toddlers. Equally the Swedish Chemicals Agency has launched an interactive website demonstrating the common sources of chemicals exposure in normal households.

In a joint effort with other authorities the Norwegian Climate and Pollution Agency maintains the website titled "Is it dangerous?". The site gives an overview of the 13 most dangerous substances and their presence in consumer products. Non-Governmental Organisations typically have the advantage of being able to take campaigns a step further than authorities. For example the Danish Consumer Protection Council created a campaign to supplement the Danish Environmental Protection Agency's campaign to reach parents of toddlers. The campaign asked consumers to find and report cosmetic products containing potential endocrine disruptors. The producers were then asked to remove the substance from their product or risk being put on a "name-and-shame"-list. As a consequence of the campaign 24 producers agreed to substitute the problematic substances in their products. The government in Sweden recently committed itself to increased dialogue with industry. A national action plan for chemicals allocates more than 25 million SEK per year for four years to a increased effort in the area. The plan will include dialogues with the chemicals industry with the hope that this will result in a number of voluntary commitments by the industry. In Finland researchers are working to develop a tool for policy makers to properly assess the risk of endocrine disruptors to the Baltic Sea environment. The tool should ideally enable politicians and authorities to estimate the consequences of different measures and thereby help select both the most cost-efficient as well as environmentally friendly option. The outcome of the workshop

was an increased awareness among the Nordic countries that there is a lot to learn from each other and that sharing of experiences and information will benefit all. An informal Nordic Authorities Network on endocrine disruptors was set up with the aim to facilitate the flow of information and cooperation between the countries.

# Background

Regulators are often faced with the challenge that exposure to chemicals can have adverse effects, but the scientific knowledge is not sufficiently robust to propose hard regulation. In such situations other precautions can be taken to lower the exposure to chemicals, especially for sensitive population groups, such as infants, children and pregnant and breastfeeding women. Over the past 20 years, concerns have increased that many of the chemicals we are surrounded by every day can affect our health via effects on the endocrine system. But until now the knowledge has not been solid enough to implement hard regulation.

The adoption of Council Conclusions on endocrine disruptors and combination effects of chemicals during the Swedish EU-presidency in 2009 is a new set off for the process of introducing endocrine disruptors and combination effects of chemicals into the EU regulatory framework. Furthermore, the ongoing implementation of the European chemicals legislation, REACH, will provide us with new information on the chemicals we are surrounded by every day. However, while legislative procedures are time consuming, soft regulatory measures and risk communication can be used to reduce consumer exposure to chemicals in general, and endocrine disruptors in particular, on a national level until regulation is in place. Therefore, the Danish Presidency of the Nordic Council of Ministers in 2010 prioritized further Nordic information exchange. The aim was to strengthen the capacity building and to discuss future regulatory aspects in the area of endocrine disruptors and combination effects and activities in the field of soft regulatory measures and effective risk communication. Future regulatory aspects of endocrine disruptors and combination effects were discussed at two workshops held in Copenhagen in October 2010 with participation of experts and government officials from the Nordic countries. The conclusions from the two workshops have been published in separate reports.

This Nordic Workshop focused on soft regulatory measures to reduce the exposure of sensitive population groups to chemicals, with a special focus on endocrine disruptors. Exchange of previous Nordic experiences in this field created a background for discussions of future possibilities.



# 1. How to communicate nonregulated risk

– a new approach to risk governance?

*The presentation aims at introducing ways of communicating nonregulated risks. What are the do's and don'ts and what new challenges are the regulators faced with in a world where means of communication changes rapidly. Including concrete examples.*

Presentation by *Thomas Breck*, Danish Center for Risk Communication (DK)

Recent decades have seen the traditional approach to governing risk severely challenged. Authorities and politicians have usually approached the emergence of new risks by first having the experts assessing the risk. Then on the basis of their risk assessment politicians craft the appropriate legislation or regulate where needed. Then the risk and regulation is communicated to the general public.

## 1.1 Challenges to business as usual

But the development in the public awareness during the last three decades, have forced policy makers and authorities to rethink that approach. At the risk assessment level, new types of risks have emerged that are no longer limited or clearly identifiable but are crossing borders, are invisible and unpredictable. Take for instance the debate surrounding nano, GMO, POP, EDCs and synthetic biology. What most of these new emerging risks have in common is that they may have a low probability but the uncertainty is high and the consequences are perceived to be equally high. At the risk management level politicians are being forced to adapt to a more sustainable and green way of thinking. Partly due to growing public risk awareness the politicians have adopted holistic approaches to managing risks and lack of scientific certainty is usually countered with the argument of using the precautionary principle. At the risk communication level there has also been big changes. Not least because information in today's media landscape spreads instantly and social media expands our networks and interconnectedness. The increased levels of information have led to increased public involvement and a disorganized skepticism among consumers. Every day consumers have to

make choices about potentially harmful nonregulated chemicals and there is an individual need for knowledge and advice that can help them make informed choices.

## 1.2 The case of the energy saving light bulb

But our societies have yet to adjust to this new reality and politicians and authorities are in many ways still stuck in the traditional and outdated way of governing risk. An example of the new reality came in Denmark in 2009 when the incandescent light bulb was banned and public concern suddenly surfaced on how to properly dispose of used energy saving light bulbs and what to do in case one of them breaks. The media attention and the ensuing public concern caught authorities off guard and illustrate the challenges of managing the triangle of new risks, new values and new media.

This new situation calls for a new integrative approach to risk governance. An approach that not only takes scientific but also sociocultural aspects of risk into account. That means an approach that acknowledges public risk perception and the public ability to accept risk. Where risk communication is not confined to the last stage of managing risk but is an ongoing dialogue with public and stakeholders involving them in the framing and discourse of the risk.

One proposed approach has been put forward by the International Risk Governing Council in Geneva. In this approach communication is at the center of the process be it the preassessment of risk, the appraisal of risk, the tolerability and acceptability judgment and finally the actual risk management phase.

## 1.3 A campaign involving stakeholders

The Danish EPA employed this new approach when it made the campaign “65,000 reasons” that targeted the parents of 2 year olds. The campaign took a holistic approach to chemicals by communicating that people are exposed to small doses from many sources. Furthermore the campaign was developed in cooperation with stakeholders and involved representatives from the target group. It provided simple and easy to use advice to parents enabling them to act instead of being passive and afraid of an unidentified risk.

Another example on how to move risk communication to a new level of continual dialogue is the establishment of the Danish Research Center for Chemical Sensitivities. The centre was established in 2006 by the Ministry of the Environment in response to a rising number of complaints from citizens experiencing symptoms when exposed to small amounts of airborne chemicals. The centre has proved an outstanding initiative that

demonstrates the new integrative approach to risk governance. What sets it apart is undoubtedly the fact that its creation is an example of “acknowledging risk communication”. Further advice for governing risk effectively:

- Choose the appropriate mode of risk communication
- Don't necessarily wait for sufficient knowledge before informing and engaging with consumers and the public
- Tell what you know, and also what you do not know.
- Tell what is being done to get more solid knowledge
- Provide “labelled” knowledge (origin, quality, expiry date)
- Differentiate messages to fit different target groups and different levels of concern
- Form, facilitate and mediate risk communities
- Consider to invite consumers/citizens/the media to engage in processes and share knowledge and experiences
- Consider the involving of stakeholders in risk framing and risk assessment
- Listening to and acknowledge any contribution from stakeholders.

By actively engaging with stakeholders and citizens you will gain trust, the scientific quality will be enhanced as well as the social robustness of the outcome. If all else fails consider if it might be easier to regulate than to try to communicate non-regulated risk.



## 2. Communication to the consumer without a concrete regulation based on noncomplete knowledge

– A successful consumer driven campaign to remove suspected EDCs from cosmetics

*The presentation aims at presenting a non-governmental way of communicating risks with an example of a campaign.*

Presentations by *Claus Jørgensen*, The Danish Consumer Council (DK)

When the Danish EPA launched its campaign “65,000 reasons” in 2009, the private consumer NGO, Danish Consumer Council (DCC), saw an opportunity to launch a campaign of its own. The backdrop for the campaign was the mounting evidence of health and environmental effects of endocrine disruptors (EDCs). Most western countries are experiencing dropping sperm count in young men, boys born with deformed reproductive organs, early puberty in girl and obesity. In all the instances EDCs are suspected to play a role but the science isn’t unequivocal on the matter and EDCs are still allowed in consumers products like for instance cosmetics. Furthermore knowledge of combination effects of chemicals, where individually harmless substances might achieve a negative health effect when mixed, underscores the need for action.

### 2.1 Name and shame list

Based on EU’s list of substances suspected to have endocrine disrupting effects, DCC asked consumers to look for 17 specific substances used in cosmetics and report the product to DCC. Within a day and a half consumers had reported more than 100 individual products ranging from lotions to hair dyes and sun screens containing substances like ethylparaben, propylparaben, benzophenone and boric acid. On the basis of the consumer reports DCC assembled a list of products and the companies producing them. DCC then contacted each company asking them to remove the suspected EDCs from their products. The companies were then given a 4-day deadline to reply and after that the name of product and the

producer was placed on a name and shame list for consumers to use in their daily shopping.

## 2.2 Well-known companies targeted

For maximum press coverage DCC specifically highlighted well-known companies, with IKEA's line of cosmetics products named "Family" among the more noticeable examples. Though the home products company was less than pleased with the attention, the case got good press coverage. DCC also compiled a list of 34 companies selling products without EDCs thus enabling consumers to make an informed choice when shopping for cosmetics. Apart from extensive press coverage and raising awareness among the general public the campaign generated tangible results as 24 producers chose to phase out the use of suspected EDCs. The campaign managed to build on the official EPA campaign and generate publicity despite the approaching Copenhagen UN summit on climate change stealing the headlines. The strength of the campaign was undoubtedly the involvement of consumers and the resulting concrete tools enabling shoppers to make informed choices regarding their cosmetics purchases.

## 3. EDCs and the Baltic Sea: How to capture unknown futures with scenarios and indicators?

*The presentation gives an example of how the Finnish experts use soft regulatory measures to assist politicians in their effort to increase the knowledge on endocrine disruptors in order to be able to introduce hard regulation.*

Presentation by *Nina Janasik*, University of Helsinki (FI)

What do you do when there is mounting public demand for action against EDCs but scientific evidence on the health and environmental effects remains unavailable within reasonable time? Nina Janasik and an interdisciplinary team of experts at the University of Helsinki have set out to provide politicians with a tool to assess future scenarios of EDCs in the Baltic Sea and pass appropriate legislation. The scenarios will ideally help politicians make predictions of future developments and answer the question “Where are we going?”. The team is made up of both analytical chemists and environmental social scientist from University of Helsinki and the project is funded by the Maj and Tor Nessling Foundation and the Helsinki Institute of Science and Technology (HIST). The chemists are screening for organic pollutants in waste water, sludge samples and in the Baltic Sea ecosystem. Meanwhile the environmental social scientists are assembling a credible forum of multidisciplinary experts and subsequently developing the scenarios.

### 3.1 Different stakeholders, different futures

Researchers face the challenge that different stakeholders hold different views to a particular environmental issue of what constitutes a desirable future. Therefore a range of different scenarios needs to be developed and researchers have to pay close attention to the values attributed to the relevant indicators.

An example is the subarctic ecosystem of Lapland where scenarios may help predict the effects on the environment of the absence or presence of reindeer herding. An indicator may be the thickness of the lichen cover. But the scenario might equally predict the effect on herders if the reindeer herding practice were to disappear. In short the scenarios

bring forth the value assumptions underlying the indicators and highlight the consequences of taking a particular path. It will then be up to politicians to answer the question “Is this where we want to go?”

### 3.2 Consumers as experts

But the Finnish team also wants to involve consumers in developing scenarios. The 2-year project looks to develop new ways to include consumers as experts in the deliberative process. For instance by drawing on pregnant women’s knowledge of their own body. The strength of the scenario approach is that it allows for scientists and policy makers to see early warning signals at a system level at what might be going wrong. The scenarios are also more easily communicated to consumers and the general public. A scenario might predict a certain risk for pregnant women to have babies with deformities and the public response may well be: We don’t want such a future! And the politicians can make the appropriate changes.

## 4. Is there a risk in communicating risk?

*The presentation discusses the problem that arises when a clear answer is needed on a subject like endocrine disruptors, where the scientists are unable to provide a clear answer in spite of plentiful research on the subject.*

Presentation by *Anna Beronius*, Institute of Environmental Medicine, Karolinska Institutet (SE)

Is the presence of Bisphenol A (BPA) in products like baby bottles dangerous to human health? Scientists are frequently posed that question by journalists or by concerned parents and depending on who is asked the answer may vary greatly. On one end of the scale you have the European Food Safety Authority (EFSA), which has deemed the substance of no concern to human health. On the other end of the scale you have experts at the 2007 Chapel Hill meeting who found bisphenol A a great cause for concern – even in low doses.

Some “gold standard” studies, conducted according to internationally validated and accepted test guidelines, suggest that adverse effects in rodents only occur at very high doses of 50 mg per kg body weight per day and above. But on the other hand more than 100 basic research studies have reported adverse effects on, for example, memory, behavior, sperm production and learning at much lower levels. However, these studies have been questioned as to their reliability and relevance for human health because they were not conducted according to guidelines and some of the results have been hard to reproduce.

So both journalists and the general public understandably feel confused and unsure of what to make of the differing pieces of information. Is it dangerous or not, is the repeated question to scientists.

### 4.1 The scientist’s dilemma

Scientists on their part are faced with the challenge of trying to communicate this scientific uncertainty, where the answer the media and the public seem to be looking for is either “yes” or “no”. But in many cases, and in particular in the case of BPA, lots of data doesn’t equal scientific certainty. It can be difficult to explain the reasons for the contradictory

toxicity data, or why some types of studies are considered to be of higher relevance for human health risk assessment than others.

In the end the scientist risks giving an oversimplified answer and thereby compromise his or her own scientific integrity or to frustrate the journalist and the general public by not being able to give clear-cut answers.

## 4.2 Is the general public worried?

Understandably scientists don't want to needlessly scare the public and are perhaps wondering whether a resounding "Yes, it is dangerous" or a "I don't know" might scare the public more. However, a recent (unpublished!) study conducted at the Royal Institute of Technology, Sweden, where 2,000 Swedish households participated, offers some comfort to scientists. The questionnaire asked about people's concern regarding different chemicals – including BPA. Surprisingly, preliminary analyses show that the general population, despite frequent media coverage, wasn't that concerned about BPA. Only about one third had even noticed the debate and of those only half expressed some level of concern. Furthermore the study showed that people generally trust in the knowledge of researchers.

So an answer to the question "Is bisphenol A dangerous?" might be: "Based on what we know today I cannot tell you if it's dangerous or not. If you want to avoid exposure you can..."

## 5. Reducing nonregulated risk in the Nordic countries

*Each participating Nordic country presents examples of ways in which soft regulatory measures have been used.*

### 5.1 Denmark (By *Elisabeth Paludan*, Danish Environmental Protection Agency):

The Danish EPA launched its major campaign “65,000 reasons” in 2009 targeting parents of toddlers. The goal was to raise awareness of and reduce the overall exposure to problematic chemicals from sources such as air, food, cosmetics, etc. The focus was mainly on EDC but also allergenic substances. Furthermore the EPA works to reduce the risk from EDCs through public procurement for example by developing a list of medical supplies without classified phthalates. The EPA also routinely renews a list of undesirable chemical substances every three or four years. The list serves as a signal list for consumers, producers and buyers – an early warning about substances that are under scrutiny of the authorities. In Denmark NGOs, like the Danish Consumer Council, are actively working to have EDCs banned from consumer products. They have the benefit of not needing to be balanced and not having to distinguish between where we have solid evidence and where we only have suspicion.

Since 2000 the EPA has conducted more than 100 consumer projects covering surveys of all kinds of products. Lately some of the projects have focused on suspected endocrine disruptors and lately also a survey of the total exposure of 2-year old children. This has for instance led to three consumer projects concerning phthalates that will be actively used for a proposal for new EU legislation. In the near future the Danish EPA will launch a new project looking at the exposure to chemicals of pregnant and pre-pregnant women.

### 5.2 Norway (By *Berit Eyde Kjuus*, Climate and Pollution Agency):

Know your audience, work with communications professionals, make the message simple and cooperate with NGOs! That’s basically how best to sum up the most valuable experiences of the Norwegian Climate and

Pollution Agency in communicating non-regulated risks. The agency employs a range of tools in trying to reduce the exposure of nonregulated chemicals, like promoting eco-labeled products, green public procurement and cooperation with industry as for instance the textile and building industry. In reaching the consumers with information the web page [www.erdetfarlig.no](http://www.erdetfarlig.no) (“Is it dangerous?”) plays a crucial role. The page is the result of cooperation between different ministries and NGOs, and it gives an overview of the 13 most dangerous substances in consumer products. It also informs consumers about where the substances usually are found. The agency’s staff also plays a key role in communicating with the public with the director blogging on the web page and by using Facebook and Twitter to spread information.

The agency generally try to target very specific target groups as experience has shown that trying to reach for instance parents with newborn children works better than just trying to reach adults.

### 5.3 Sweden (By *Jerker Forsell* of the Ministry of Environment and Anna Lindberg, Swedish Chemicals Agency):

In Sweden the government has recently underscored its commitment to trying to minimize the population’s exposure to chemicals. By allocating more than 25 million SEK per year (€ 2,7 million) for a national action plan from 2011 to 2014 it hopes specifically to engage industry in a dialogue on voluntary commitments. The need for strengthened action has been underscored by the growing concern for chemical cocktails. Also the potential negative health effects of endocrine disruptors, anti-bacterial additives and bisphenol A attracts heavy media attention in Sweden. Specifically a documentary showing high levels of chemicals in Swedish women and unborn children has fuelled the debate and raised concerns. And the Swedish government firmly stands behind the Nordic Council’s initiative to tackle endocrine disruptors.

As part of the action plan businesses should set up measurable goals for their commitments. Initially the Swedish Chemicals Agency will engage in dialogues with business organizations for cosmetics and toys on how to voluntarily identify, restrict and phase out hazardous substances. Further dialogues are foreseen for 2013–2014.

The Swedish Chemicals Agency has also launched a number of initiatives to target consumers. For instance on the agency web site consumers can browse through an interactive cartoon house to learn about the most common sources of chemical exposure in normal housing. The agency also developed a brochure entitled “Chemicals in children’s everyday lives” that contains tips and advice on how to reduce chemical exposure to children. The brochure was distributed to preschools and daycare cen-

ters. Finally the agency has targeted consumers with short movies broadcasted on national television. A new movie called “Perhaps the only warning you’ll get” instructs parents on how to store chemicals properly in the house to keep children safe and also gives some information on the new classification and labeling symbols. As a result from a former movie “Varning för tändvätskor/Danger! Fire-lighting fluids” there was a drop in incidents involving children and fire-lighting fluids.

#### 5.4 Finland (By *Jukka Ahtiainen*, Finnish Environment Institute):

Where NGOs are usually aggressively monitoring and pursuing authorities for lack of action, in Finland it seems that within the field of chemicals the roles have shifted. In fact the Finnish authorities are pondering how to get NGOs to become more active within the field of EDCs. In effect the main interest of NGOs towards chemicals peaked around 2004, where the REACH legislation was prepared. Since then it’s been left to particular research groups to raise interest in chemicals from a consumer perspective. On the other hand there is good cooperation between authorities and the business and industry associations. At the moment the view is that the current regulation and guidance to consumers regarding EDCs is adequate. Through 2010 the authorities carried through a campaign to consumers about the CLP regulation, and one NGO has produced a leaflet on household chemicals and cosmetics including EDCs. In early 2011 a number of relevant Finnish ministries and authorities will convene to discuss a strategy on EDCs. The cooperation between chemical regulators is also set to improve, as from the beginning of the 2011 the Finnish Safety and Chemicals Agency (Tukes) will be responsible for most tasks related to chemical safety. This task was previously jointly undertaken by the Finnish Environment Institute (SYKE), the Finnish Food Safety Authority (Evira) and the National Supervisory Authority for Welfare and Health (Valvira).



## 6. Future perspectives

*Conclusions from the group work where participants were divided into two groups and given the task of coming up with proposals for an effort targeting women before pregnancy in order to protect them against EDCs.*

The workshop allowed the Nordic countries to exchange previous experiences with soft regulatory measures and risk communication and discuss future possibilities for cooperation. The discussions showed that there are many future perspectives for sharing information among the Nordic countries. The experiences from each of the Nordic countries presented at the workshop showed that soft regulatory measures and risk communication do make a difference. All of the countries have had good experiences with consumer directed campaigns. The campaigns focused on advising the consumer on how best to reduce the risk. It was a common understanding that simple and positive messages were the best way of communication to make sure that the message reached the relevant target groups.

Using experiences from consumers and users have shown to be valuable when working with soft regulatory measures. Often the consumers have a more differentiated view on the use of products and what kind of e.g. information could be relevant in a given situation. This in turn can make the effort from the regulators more focused and successful. The major outcome of the workshop was an increased awareness among the Nordic government officials that there is a lot to learn from each other and that a more structured sharing of information, campaigns, and other political and scientific experiences in this field regarding endocrine disrupting chemicals will benefit all.

An informal Nordic Authorities Network on endocrine disruptors has been set up. The network is meant to facilitate the flow of information and cooperation between the Nordic Authorities with regard to efforts of reducing the consumers' exposure to not yet regulated endocrine disruptors, through risk communication, eco-labelling, public procurement, voluntary industry phase-outs etc.

## 6.1 Group work: How to protect women before pregnancy against endocrine disruptors that are not regulated?

The Group Work resulted in two proposals.

### *6.1.2 Group 1: Starting efforts early and the role of future fathers*

To genuinely protect women before pregnancy against the risk of endocrine disruptors, it is not sufficient to target women who are actively considering having a child, because women's exposure to chemicals may start a long time before that. Therefore an effective campaign should ideally devise ways to target teenagers and their use of cosmetics as studies have shown that the majority of teenagers' exposure to chemicals comes from cosmetics.

That task is challenging as teenagers are not too concerned about a future pregnancy. But experience from a Danish campaign about hair dye has shown that teenagers are indeed receptive to messages, if the messages are concrete and seen to concern their everyday lives. Also the advisory nurses at the public schools could play a role in informing the teenagers of proper use of cosmetics. Furthermore the potential fathers can play a valuable role both in supporting their partner's effort but also by actively trying to reduce their own exposure to chemicals.

Another challenge to a campaign effort is how to word the messages. Women are showered with advice on what to avoid and the dangers to their unborn children. Therefore a campaign warning women that their exposure starts early in life, runs the risk of paralyzing the target group by basically saying: "If you didn't think of this many years ago, you've put your unborn child at risk". Therefore the approach should be positive, warm and focused on relatively few, simple and practical advice. A way to reach women contemplating pregnancy is to use channels that they use and trust. In this regard social media like internet forums, Facebook groups, etc. play a role in influencing women's behavior and therefore should be part of the effort.

Finally it is also a challenge to the authority responsible for the campaign effort to balance the campaign messages with the fact that the substances are not regulated.

### *6.1.3 Group 2: Simple and positive messages*

Chemicals accumulate in the human body over time, but such a message risks scaring women so they might not breastfeed their babies. This will in turn mean that the many beneficial health effects of breast milk are lost. Therefore it's crucial to any campaign effort towards women before pregnancy that the messages are kept in a positive and constructive tone.

One of the key messages should be to promote the use of eco labeled products and also to include the importance of food as an important source to our overall chemical exposure. Messages might also focus on ways to reduce exposure to chemicals at work. The campaign effort should meet women at their level and ideally target them directly when they are actively trying to become pregnant. For example information could be distributed at the pharmacies where the ovulation tests are found.

Women's magazines also play an important role in getting the message across. For women to be able to properly estimate and evaluate the risk of for example exposure to EDCs, a campaign effort should ideally try to compare different known risks. That will make the information useful and tangible to the women. The NGOs can also help the campaign effort by supporting the messages and putting the spot light on individual products and pressuring producers and industry to substitute suspected substances with alternatives or to phase them out.

Further initiatives were discussed like for instance producing campaign materials in several languages to reach immigrants, focusing especially on the bio accumulative substances and starting education efforts at high school level where students are taught about birth control measures.



## 7. Examples of Nordic soft regulatory measures

Campaign to have EDCs banned in cosmetics (Danish Consumer Council) – <http://www.forbrugerraadet.dk/nyheder-alle/forbyd-hormonkemi-i-kosmetik/>

- Site for Danish campaign targeting pregnant and breastfeeding women: <http://www.babykemi.dk/>
- Site for Danish Campaign targeting parents of toddlers <http://www.netdoktor.dk/65000.htm>
- Site for Danish campaign to avoid skin allergies <http://www.hudallergi.dk/>
- Green DIY advice at Danish EPA [http://www.mst.dk/Borger/Kampagner/goer\\_det\\_groent/](http://www.mst.dk/Borger/Kampagner/goer_det_groent/)
- Advice on how to dispose of energy saving light bulbs (Danish EPA) [http://www.mst.dk/Borger/Kampagner/sparepaere/Paeredygtig\\_adfaerd.htm](http://www.mst.dk/Borger/Kampagner/sparepaere/Paeredygtig_adfaerd.htm)
- Advice to parents on how to reduce chemical exposure to their children (Danish EPA) <http://www.mst.dk/Borger/Kampagner/God+kemi+i+dine+b%3%b8rnes+hverdag/>
- Site with tools and advice on green procurement <http://www.gronindkobsportal.dk/>
- Learning material for public schools on chemicals in consumer products (Danish EPA) <http://www.chemicaldays.com/>
- Danish ecolabelling authority <http://www.ecolabel.dk/>
- Swedish Chemicals Agency's site for consumers on chemicals [http://kemi.se/templates/Page\\_\\_\\_\\_\\_2837.aspx](http://kemi.se/templates/Page_____2837.aspx)
- Chemicals at home – learning tool illustrating the different sources of chemicals exposure in ordinary households (Swedish Chemicals Agency) <http://apps.kemi.se/huset/studerandehus.html>
- Chemicals in children's every lives – pamphlet with advice for parents (Swedish Chemicals Agency) [http://kemi.se/upload/Trycksaker/Pdf/Broschyrrer/barnbroschyr\\_web.pdf](http://kemi.se/upload/Trycksaker/Pdf/Broschyrrer/barnbroschyr_web.pdf)
- Maybe the only warning – Movie for Swedish consumers on CLP regulation [http://kemi.se/upload/video/kanske\\_den\\_enda\\_varning.wmv](http://kemi.se/upload/video/kanske_den_enda_varning.wmv)
- Is it dangerous? Site for Norwegian consumers with information on hazardous substances in consumer products (Cooperation between Climate and Pollution Agency and other authorities) <http://www.erdetfarlig.no/>



# Sammenfatning

Målet med workshoppen var at øge indsigten i, samle erfaringer om og vise gode eksempler på brugen af såkaldt „bløde tiltag“ til at beskytte forbrugerne i de nordiske lande mod problematiske kemiske stoffer, når lovgivning ikke er mulig. Workshoppen havde særligt fokus på alternativer til egentlig lovgivning for at få mindsket forbrugernes påvirkning af hormonforstyrrende stoffer.

En af oplægsholderne satte streg under behovet for, at myndigheder anlægger en inkluderende tilgang i forbindelse med risikostyring. Det er i dag umuligt for myndigheder at vurdere risici og lave passende lovgivning uden at inddrage offentligheden eller øvrige interessenter. For at undgå unødigt offentlig bekymring og lave solid lovgivning må myndighederne indgå i en løbende og åben dialog med både forbrugere, interesseorganisationer og industrien.

Et populært redskab til at reducere forbrugernes påvirkning fra kemikalier herunder hormonforstyrrende stoffer er kampagner. En metode, der ofte bliver anvendt i de nordiske lande. Eksempelvis gennemførte Miljøstyrelsen i Danmark med succes en kampagne, der skulle få forældre til 2-årige til at forsøge at begrænse deres børns udsættelse for produkter med hormonforstyrrende kemi. Den svenske Kemikalieinspektionen har oprettet en interaktiv hjemmeside, der fortæller om de mest almindelige kilder kemikaliepåvirkning i hjemmet. Endelig arbejder det norske Klima- og Forurensningsdirektorat løbende sammen med andre myndigheder omkring hjemmesiden „Er det farlig?“. Her får forbrugerne oplysninger om de 13 mest farlige kemikalier og deres tilstedeværelse i forbrugerprodukter.

Non-governmental organisations (NGO) har typisk en række muligheder i forhold til kampagner, som myndigheder ikke har. Eksempelvis lancerede Forbrugerrådet i Danmark en kampagne i forbindelse med Miljøstyrelsens ovennævnte kampagne rettet mod forældre til 2-årige. I kampagnen bad Forbrugerrådet forbrugere om at finde og rapportere kosmetikprodukter med en række potentielt hormonforstyrrende stoffer. Producenterne blev så bedt om at fjerne stofferne eller risikere at havne på en offentlig „gabestoks“-liste. Som et resultat af kampagnen fjernede 24 producenter potentielt hormonforstyrrende stoffer fra deres produkter.

I Sverige har regeringen forpligtet sig til øget dialog. De har lanceret en national handlingsplan for kemikalier, hvor der er afsat 25 millioner kr. om året fra 2011 og frem 2014. I planen indgår fokus på en systematisk dialog med kemikalieindustrien. Håbet er, at dialogen vil føre til en række frivillige tiltag fra industriens side.

I Finland arbejder et team af forskere på at udvikle et værktøj, så myndigheder og politikere mere præcist kan vurdere konsekvenserne af for-

skellige handlingsscenarier. Værktøjet skal ideelt set sætte beslutningstagerne i stand til at vurdere, hvilken af forskellige muligheder der vil give den mest effektive løsning – både økonomisk og for miljøet.

Resultatet af workshopen var en øget opmærksomhed blandt de nordiske lande på, at der er meget at lære fra hinanden og at en deling af erfaringer og information vil være en fordel for alle. Et uformelt nordisk myndighedsnetværk omkring hormonforstyrrende stoffer blev nedsat med det formål at øge samarbejdet og informationsdelingen mellem landene.

# Annex

## Annex 1. Invitation for the workshop

Nordic Workshop: “Soft regulatory measures for consumer protection – with a special focus on endocrine disruptors”.

*November 30th 2010, Danish Architecture Center, Copenhagen*

Using soft regulatory measures and risk communication as effective tools for reducing exposure of chemicals to sensitive population groups, with a special focus on endocrine disruptors. The adoption of Council Conclusions on endocrine disruptors and combination effects of chemicals during the Swedish EU presidency in 2009, is a new set off for the process of introducing endocrine disruptors and combination effects of chemicals into the EU regulatory framework. Furthermore, the implementation of the European chemicals legislation, REACH, starting in 2010 will provide us with new information on the chemicals we are surrounded by every day. However, while legislative procedures are time consuming, soft regulatory measures and risk communication can be used to reduce consumer exposure to chemicals in general, and endocrine disruptors in particular, on a national level until regulation is in place.

Therefore, the Danish Presidency of the Nordic Council of Ministers has prioritized further Nordic information exchange and capacity building in the field of soft regulatory measures and effective risk communication. In cases where we have a suspicion that exposure to chemicals can have adverse effects, but the scientific knowledge is not yet sufficiently robust to propose regulation, other precautions can be taken to lower the exposure to chemicals, especially for sensitive population groups, such as infants, children and pregnant and breastfeeding women. Denmark has e.g. launched the information campaigns “9 gode vaner” (2006) and “65.000 grunde til bedre kemi” (2009), which focus on reducing the exposure of babies, toddlers, pregnant and breastfeeding women to chemicals, including endocrine disruptors. Green public procurement may be a tool for protection of children in day care, but also Eco-labelling and measures like the Danish “list of unwanted substances” can be discussed as tools for consumer protection.

This Nordic Workshop will focus on soft regulatory measures to reduce the exposure of sensitive population groups to chemicals, with a special focus on endocrine disruptors. Exchange of previous Nordic experiences in this field will create a background for discussions, and future possibilities will be discussed.

## Annex 2. Workshop programme

November 30th 2010

*Soft regulatory measures for consumer protection – with a special focus on endocrine disruptors*

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09.30–10.00	Arrival and registration	Maja Kirkegaard/ Mille Holst
10.00–10.05	Welcome	Henrik Søren Larsen, Danish Environmental Protection Agency (DK)
10.05–10.15	Introduction to the workshop	Christel Søgaard Kirkeby, Danish Environmental Protection Agency (DK)
10.15–10.45	“How to communicate nonregulated risk”?	Thomas Breck, European Institute for Risk Management (DK)
10.45–11.00	“Communication to the consumer without a concrete regulation based on noncomplete knowledge”	Claus Jørgensen, Forbrugerrådet, (DK)
11.00–11.10	“EDCs and the Baltic Sea: How to capture unknown futures with scenarios and indicators?”	Nina Janasik, University of Helsinki (FI)
11.10–11.20	“Is there a risk in communicating risk? The case of bisphenol A”	Anna Beronius, Karolinska Institute (SE)
11.20–12.20	“Alternative possibilities for reducing nonregulated risk in my country. If we do not have concrete knowledge, how can we communicate this to the consumer”	Elisabeth Paludan MST (DK), Berit Eyde Kjuus KLIF (NO), Jerker Forsell, Miljødepartementet, Anna Lindberg, KemI (SE) and Jukka Ahtainen, Finnish Environment Institute (FI)
<b>12.20–13.00</b>	<b>Lunch</b>	
13.00–14.00	Session 1: Group work and discussions for NGOs and government possibilities for reducing nonregulated risks. Moderators:	Christel Søgaard Kirkeby (DK) and Vibeke Bernson (SE)
<b>14.00–14.30</b>	<b>Coffee and closure of workshop</b>	
14.30–15.30	Session 2: Closed session for authorities group work and discussions for government, exchange of previous experiences with focus on concrete alternative possibilities of reducing the populations' exposure to e.g. endocrine disruptors. Moderators:	Christel Søgaard Kirkeby (DK) and Vibeke Bernson (SE)

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### Annex 3. List of participants

<i>Pia J. Nielsen</i>	Danish Environmental Protection Agency (DK)
<i>Christel S. Kirkeby</i>	Danish Environmental Protection Agency (DK)
<i>Mille Holst</i>	Danish Environmental Protection Agency (DK)
<i>Maja Kirkegaard</i>	Danish Environmental Protection Agency (DK)
<i>Shima Dobel</i>	Danish Environmental Protection Agency (DK)
<i>Elisabeth Paludan</i>	Danish Environmental Protection Agency (DK)
<i>Thomas Breck</i>	Danish Center for Risk Communication (DK)
<i>Berit Asmussen</i>	Informationscenter for Miljø og Sundhed (DK)
<i>Claus Jørgensen</i>	The Danish Consumer Council (DK)
<i>Agneta Ohlsson</i>	Swedish Chemicals Agency (SE)
<i>Jerker Forsell</i>	Ministry of Environment (SE)
<i>Anna Beronius</i>	Institute of Environmental Medicine (SE)
<i>Anna Lindberg</i>	Swedish Chemicals Agency (SE)
<i>Vibeke Bernson</i>	Swedish Chemicals Agency (SE)
<i>Claude Palate</i>	Consumer & Environmental Affairs PlasticsEurope (SE)
<i>David Gunnarsson</i>	Swedish Society for Nature Conservation (SE)
<i>Berit Eyde Kjuus</i>	Climate and Pollution Agency (NO)
<i>Håkon Lindahl</i>	Grønn Hverdag (NO)
<i>Nina Janasik</i>	Department of Social Research University of Helsinki (FI)
<i>Jukka Ahtiainen</i>	Chemicals Division Finnish Environment Institute (FI)
<i>Ing-Marie Olsson</i>	Swedish Chemicals Agency (SE)



## Soft regulatory measures for consumer protection – with a special focus on endocrine disruptors

During the 2010 Danish Presidency of the Nordic Council of Ministers environment and health was a prioritized subject. The aim was enhanced Nordic information exchange. To support this aim a number of Nordic workshops were held to strengthen the capacity building and discuss future regulatory aspects in the area of endocrine disruptors, combination effects, and soft regulatory measures and effective risk communication. One of the workshops held in November focused on soft regulatory measures to reduce the exposure of sensitive population groups to chemicals, with a special focus on endocrine disruptors. This report describes the workshop presentations, the ensuing discussions, and the outcome.

