SHAPING A HEALTHY ENVIRONMENT FIT FOR CHILDREN (HELSINKI 4-5/10/19)

Open Space 4 The health impact of environmental risks for children with special focus on air quality and endocrine disruptors

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AIR QUALITY:

OUTDOORS

In November last year the WHO stated that 90% of the world's children are breathing in unsafe air. According to the WHO, there are some 1.8 billion children on earth today aging 0 to 19 years. Millions of them suffer from asthma, and those children count as a substantial part of the almost 360 million asthma sufferers worldwide. Every year, 4 million children develop asthma as a result of air pollution from cars and trucks, which is equivalent to 11,000 new cases a day. Almost two in three cases occur in urban centres. It is alarming that most of these new cases occur in places where pollution levels are below the WHO limit of 21 ppb, suggesting that toxic air is even more harmful than generally assumed.

While one might think of megacities in China or India as worst case scenarios, Los Angeles and New York City are in the top 10 worst cities out of the 125 assessed. Even Canada is revealed to have the third highest rate of new traffic-related asthma cases. These results, which were published in the *Lancet Planetary Health* journal, are the first global assessment of the impact of traffic fumes on childhood asthma. They are based on high-resolution pollution data and conform nitrogen dioxide (NO_2) as the key pollutant, largely produced by diesel engine powered vehicles. Epidemiological evidence for NO_2 being the culprit is the strongest. However, that does not exclude other pollutants in the exhaust fumes having an impact on triggering children's asthma.

The country with the highest national rate of childhood asthma attributed to traffic pollution is South Korea (with almost one third of all new cases blamed on vehicles). Japan and Belgium are in the top ten, along with six Middle Eastern nations. Focusing on the population numbers, the top three countries for the total number of new children getting asthma each year are China (760,000), India (350,000) and the US (240,000). Many used to think that the only real danger roads posed to children was the threat of a car accident. Now we realize that breathing in traffic air pollution poses an equally deadly risk.

Recent research has shown that early exposure to air pollution from vehicles increases the risk of children becoming obese in later life. Especially high levels of NO_2 (nitrogen dioxide), emitted by diesel engines, lead to significantly faster weight gains. New research that was published in the journal *Environmental Health* followed over 2,300 children in Southern California over a period of ten years. It concluded that the impact of air pollution alongside busy roads where diesel trucks are common is considerable. By the age of ten, children who had suffered high early exposure during their first year of life were almost one kilogram heavier on average, compared to those with low exposure to diesel fumes. Other pollutants emitted by vehicles have also been linked to childhood obesity, e.g. a 2017 study in Boston, Massachusetts, where the focus was on particulate matter (PM_{10} and $PM_{2,5}$), or a 2012 study in New York City which looked at the exposure to polyaromatic hydrocarbons (PAH) of children while still in their mothers' womb.

Considering that our brain regulates appetite and changes in fat metabolism, the investigators presume that the overspill of lung inflammation into the brains might explain the weight increase. In

mice experiments, brain inflammation caused by air pollution resulted in anxiety-induced overeating. Prof. Jonathan Grigg of Queen Mary University London and founder of 'Doctors Against Diesel' states that the findings of these studies are compatible with previous studies showing an association between type 2 diabetes and air pollution in adults.

Quite worrisome is the impact of traffic related air pollution on the mental capacities of young children. This could help explain the rising prevalence of psychiatric disorders among English children since the first major survey in 1999. Would it be pure coincidence that since 2001 the sales of diesel cars skyrocketed when diesel fuel was taxed lower? Then it was presumed that diesel engines emitted less carbon dioxide, compared to petrol engines. In fact that difference in CO_2-emissons now appears to be very limited while the much higher emissions of NOx by diesel engines was simply overlooked. So within some years we might possibly speak of the 'Diesel Generation' ? Young children who are exposed to diesel fumes whilst walking to school or returning home are not only risking stunted growth of their lungs but also of their intellectual capacities. More and more studies seem to confirm that long-term exposure to air pollution of children impedes their cognitive performance in verbal and math tests. It is an unexpected paradox: going to school makes you less intelligent… Not surprisingly Scottish cities decided to ban all petrol and diesel-powered cars in their city centers from 2030 onwards.

The *Brain Development and Air Pollution Ultrafine Particles in School Children (BREATHE) project* looked at the first seven years of some 2,221 children from Barcelona (Spain) and tested them for their working memory, attentiveness and conflict network. Especially boys saw their working memory negatively affected during their fifth and sixth postnatal years , while girls were much less affected. This might be explained by the anti-inflammatory effect of estrogens, which counteracts the inflammatory response to $PM_{2,5}$ exposure in early life. Another reason that boys are more vulnerable has to do with the X chromosome. Of the 800 genes coding for proteins in the X chromosome, 500 are expressed in the brain. So, any genotoxicity affecting genes on the X chromosome is more likely to affect males who count only one X chromosome.

The so-called 'conflict attentional network', which starts earlier than the working memory, was also less performing than could be expected, both in boys and girls. This network is involved in high-level forms of attention, such as the detection and resolution of conflicts among various options and responses; error detection; response inhibition; as well as regulation of thoughts and feelings. The development of this network extends into adolescence.

Earlier studies used to focus more on associations between exposure to PM and NO_2 and reduced psychomotor development as well autism spectrum disorder. Evidence for these new findings above remains scarce and more studies focusing on the exposure during the most vulnerable 'time windows' of brain development – prenatal and first two postnatal years – are necessary.

In this respect the findings of researchers from the University of Hasselt managed to detect pollution by black carbon (BC) in the human placenta during the twelfth week of pregnancy using laser technology. Ten mothers who had been exposed to a higher degree of air pollution showed a much higher concentration of BC in their placenta than ten other mothers who had been exposed to a far less polluted air. The most striking observation was that the carbon particles accumulated on the fetal side of the placenta. The implications of this remain uncertain but other studies have linked air pollution to premature babies and a lower birth weight. Up to now black carbon particles could only be detected in urine and blood samples. BC particulate matter is often combustion-derived, mostly diesel engines are implicated.

So we applaud that in April 2018 the European Network of the Heads of Protection Agencies (EPA) has launched the Clean Air@School initiative, a joint initiative with the European Environmental Agency (EEA) promoting citizen campaigns to better understand children's exposure to nitrogen dioxide in school environments across Europe. Each school received a passive NO_2-sampler to collect data during at least four weeks, ideally in the spring and/or autumn period. Children at participating schools learned about air pollution and health effects, while both pupils and their parents saw how road transport affects air quality. The key question still remains whether, in light of the acquired knowledge, parents stop bringing their children to school by car. At the same time this initiative explores how data collected by citizens can complement 'official' air quality monitoring and improve understanding of local air quality. In fact the European Commission (EC) is doing efforts to streamline environmental reporting, in particular to 'promote the wider use of citizen science to complement environmental reporting'.
The EC might have been inspired by earlier citizen science initiatives that have been deployed in 2017 in Belgium by Greenpeace together with other organizations like the Flemish Family Alliance. The project 'My air, my school' measured the NO_2-concentrations in the ambient air inside and around some 222 schools during four weeks, as nitrogen dioxide is a good indicator of air pollution caused by motorized traffic and diesel exhausts in particular. The final results ranged from 'worrysome' to 'really bad'.
Similar actions followed in the following year, like 'CurieuzeNeuzen' (='Curious Noses'), which was organized by a Flemish newspaper, the universities of Antwerp and Louvain, VITO and the Flemish Environmental organization VMM. Some 20.000 Flemish citizens were selected to monitor air pollution in their street, whether it be in inner city or on the countryside.

Sources

- *Association between Early Life Exposure to Air Pollution and Working Memory and Attention, Ioar Rivas e.a., Environmental Health Perspectives, May 2019*
- *Global, national, and urban burdens of paediatric asthma incidence attributable to ambient NO_2 pollution: estimates from global datasets, The Lancet Planetary Health, Vol. 3, April 2019*
- *Ambient black carbon particles reach the fetal side of human placenta, Nature Communications, September 2019*
- *Europe's urban air quality – reassessing implementation challenges in cities, EEA report N° 24/2018 (published March 2019)*

INDOORS

Indoor air quality has to do with several sources of pollution, both inside the building and outside. Polluted air from outside can concentrate in your home through the ventilation system (in winter time) or simply through open windows or doors (in summer time). Especially the poorest households still heat their houses with solid wood and even coal. They burn it in obselete stoves and fire places. By doing so, they expose themselves to the most dangerous fine particles ($PM_{2,5}$) and other toxic combustion derived substances, like polyaromatic hydrocarbons (PAHs) and dioxins. This exposure has to be diminished as a first measure by burning only dry wood (the drying process of fresh cut wood can last up to two years), and, eventually, replacing their stoves by the new generation of stoves with electronic steered combustion, and with pellet stoves or mixed pellet-solid wood heating systems. Their homes will probably not allow for installing heatpumps, as those only function efficiently in well insulated houses with low floor temperature heating.

Another source of indoor air pollution is simply dust. Dust it is not as innocent as it might seem. It often is a vector for tiny particles that harm the health of children, especially toddlers who crawl around on the floor and bring just about everything to their mouth. Their skin comes into contact with the soil and they breathe just about one and a half as much as adult do.
When sitting on carpets they often come into contact with *halogenated* flame retardants (HFRs) that possess endocrine disrupting properties. Here it is a question of safety first versus health first. In fact, HFRs are intended to protect people from burning themselves, slowing down the process of materials to burst into flames. This explains why you often find them in electronics that can get overheated, such as smartphones. Surprisingly, even fire fighters are in favour of banning HFRs, since they are also found in the foam of fire extinguishers and released in fires where certain plastics are involved.
What complicates the situation is that flame retardants can be legally used in recycled plastics. Last year the BEUC, which represents 20 consumer organisations in Europe, conducted an analysis of plastic toys. Almost half of the more than 100 samples contained the flame retardant OctBDE. This chemical substance most probably comes from the recycling of used computers and other electronic waste. This so-called 'toxic loophole' greatly hampers the EU's goal of creating a circular economy where discarded products can be recycled into new products.
For now, thanks to new Ecodesign rules, the rims and stands of electronic displays – from small smartphone screens to far bigger TV screens – will have to be free of this type of flame retardants. And there might be even better news, since the Center for Applications in Polymer Science at the Central Michigan University succeeded in composing flame retardants from plants. These substances also strongly reduce the peak heat release rate of the epoxy resin, which reflects the intensity of the flame and how quickly it is going to spread.
Sources:

- *Toxic Loophole, Recycling Hazardous Waste into new Products, ZERO WASTE report, 2018*
- *Time's up for harmful flame retardants in TV screens, BEUC Newsletter, June 18, 2019*

PARTNERS
The Flemish Family Alliance (Gezinsbond) is member of a network to eliminate obsolete wood combustion stoves and open fires.
The Flemish Family Alliance (Gezinsbond) is member of a network to promote sustainable transport

NOISE POLLUTION

Acoustic pollution is an underestimated health danger, even a 'silent' killer – as contradictory it might sound. As a matter of fact, noise is not only about too much decibels but also about so-called 'extra-auditive' effects. For example low frequencies f.i. 20 Hertz which cannot be heared by our ears, represent the most heavy vibrations with a direct impact on the heart, veins and even the lungs. Often *pneumothorax* (klaplong) occurs on music festivals, conspicuously with tall males being exposed to hardrock music.
Persistant buzzing in the ear (tinnitus) often indicates a irreversable damage of the inner ear caused by being exposed to loud noise or music for too long.
Another harm that people can experience upon hearing noise is so-called decreased sound tolerance (DST). One form of DST is *hyperacusis* and consists of being averse towards any kind of sounds, regardless their intensity. The second type is *misophonia* which refers to sounds that one cannot

support not because of the intensity but because of the typical sound, f.i. munching. Finally, there's also *phonophobia* which refers to anxiety caused by certain sounds.
When concerning little children, one should realize that childrens' ears are more vulnerable than adults' ears, since the entrance of the ear is smaller and hence reinforcing incoming sounds. Their inner ear is still developing as well. Protection against noise indoors and outdoors can be resolved by putting on earcaps or headphones. The noise reduction ought to be at least 25 dB. When taking your kids to a music festival do not put them on your shoulders when they want to see more of the surroundings since you expose them even more to the (low) vibrations of the music. So always protect their and your ears!

ENDOCRINE DISRUPTORS

Following the definition of the WHO, we define an endocrine disruptor as 'an exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub)populations.
As a family organization we are especially worried about the effects of endocrine disruptors on unborn children, very young children and youngsters during their puberty who are especially vulnerable to EDCs. In what follows we present some problematic substances as examples of the omnipresence of EDCs, how we ought to be aware of them, and which measures can be taken to limit our own exposure and that of our (unborn) children in particular.

(Halogenated) Flame Retardants and Per- and Poly-Fluorinated Alkyl Substances (PFAS)

Flame Retardants (FR) can be found in unexpected places, like the safety seat you are obliged by law to strap your little child into in order to protect him or her in case of a collision. Paradoxically that same seat can be a source of harm, because its polystyrene foam and its fabric can contain halogenated flame retardants. These HFRs have been linked to a variety of health issues, including fertility problems, learning impairments, liver toxicity and cancer. FRs can be released through friction and settle as dust in the vehicle. Heat and UV-ray exposure in the car can accelerate the release of these EDCs. Infants and toddlers can be exposed through inhalation, ingestion and dermal absorption of these chemical substances.
Three US manufacturers are now selling children's car seats free of flame retardants while respecting automotive fire standards. However, most child car seats still contain hazardous FRs, whether with brominated compound or phosphorus-based compounds. Children's car seats are also being tested for *per- and poly-fluorinated alkyl substances* (PFAS). These are used to impart water- and stain resistance. Nevertheless PFAS are known to build up in the blood, liver and kidneys and by doing so may contribute to diseases of those organs, as well as the suppression of immune response, elevated cholesterol, thyroid disease, kidney cancer and testicular cancer. It is urgent that exposure to these substances should be minimized as much as possible.
Source:

- *Hidden hazards. Flame Retardant Chemicals & PFAS in Children's Car Seats, Healthy Stuff/Ecology Center, December 2018*

Bisphenol A/Parabens

Research by the University of Granada which was partially funded by the European Human Biomonitoring Initiative, HBM4EU in short, looked at some of the hundreds of chemicals that are used in industrial textile production and some 150 of which are potentially toxic to humans and/or the environment. The researchers chose to investigate two types of chemicals classified as EDCs, namely Bisphenol A (BPA) and four types of parabens.

They sampled 32 pairs of socks for infants and young children (1-48 months) and tested hormone-like activities for (anti-)estrogenicity and (anti-)androgenicity. This was the outcome: BPA was present in over 90% of the samples, and the concentration was higher in socks with a higher cotton content, while the highest concentrations of parabens were ethyl-paraben (100%), methyl-paraben (81%) and propyl-paraben (44%).
Although diet is considered the main pathway (90%) for BPA exposure, skin contact with (synthetic) textiles should not be overlooked, especially in infants and children whose skin is much more permeable than that of adults. Childhood exposure to methyl-paraben and propyl-paraben has been associated with puberty timing. Parabens are mainly used as preservatives in personal care products , cosmetics and pharmaceuticals. Exposure of pregnant women to parabens are detected in urinary levels and can lead to reduced neonatal thyroid hormones, early puberty, behavioral problems and respiratory and allergic disorders. We could add that another study also detected high concentrations of ethyl-parabens and bisphenols in pantyhose samples, especially those with a high spandex content. This might be relevant to pregnant women when choosing new panties.
Currently there are no environmental and health requirements for textiles in European regulations with the exception of Regulation 2014/350/EU on the EU Ecolabel for textile products. Strikingly, another class of EDCs, phthalates, are more readily absorbed by cotton clothing than other fabrics. They are not completely removed by laundering. DEHP remains the dominant phthalate while dermal absorption is the main route of infant exposure to phthalates. In comparison with the estimated daily intake via dermal absorption from house air and dust, clothing also plays an important role in dermal exposure of young children.
Sources:

- *Concentrations of bisphenol A and parabens in socks for infants and young children in Spain and their hormone-like activities, Environmental International, April 2019*
- *Phthalates in infant cotton clothing: Occurrence and implications for human exposure, Science of the Total Environment, May 2019*

Plastics
The most recent and comprehensive scientific study on the toxicity of chemicals present in plastic consumer products looked at over 30 widely used products that come into contact with food or drinks, such as refillable water bottles, food wraps and yoghurt cups. Eight major polymer types were covered using in vitro bioassays and nontarget high-resolution mass spectrometry: polyvinyl chloride (PVC), polyurethane (PUR), polyethylene terephthalate (PET), polystyrene (PS), polypropylene (PP), high-density polyethylene (HDPE), low-density polyethylene (LDPE) and polyactic acid (PLA). Some three quarters of the plastic products contained chemicals triggering at least one endpoint relevant for assessing health impacts, including estrogenicity and antiandrogenicity. Most plastics contain large mixtures of chemicals – including non-intentionally added substances – which are hard to identify, suggesting the need for an urgent shift towards a precautionary approach from all stakeholders. Extracts of PVC and PUR were observed to induce the highest toxicity at most endpoints whereas PET and HDPE caused no or low toxicity. Surprisingly, all bioplastics made of PLA were also observed to be of toxicity levels similar to that of PVC and PUR. The study also found compounds that are toxic in vitro but those remained largely unidentified. Such 'regrettable sustitution' ought to be avoided.
A particular class of ED chemicals are phthalates which continue to be used in hundreds of products, including canned food, beverage containers and plastic wraps. They leach from the inner lining of

the tin can into the foodstuff or escape from the plastic food container when heated in a microwave. Bisphenol A poses a similar problem although it has been banned in babybottles for several years. Still you can find BPA in epoxy resins that form the liners of aluminium cans and protect food from contamination, as well as in most water bottles and plastic containers used for protecting food.
Although it is identified as a 'substance of very high concern or SVHC' under REACH, the European registration and authorisation mechanism for chemicals, BPA is still tolerated in food contact materials. In fact only 5 out of 17 types of existing food contact materials are regulated at het European level.

Sources:

-*Benchmarking the in Vitro Toxicity and Chemical Composition of Plastic Consumer Products, Environmental Science and Technology, September 2019*

-*EDCs Mixtures: A Stealthy Hazard for Human Health? Toxics, February 2017*

****Pesticides***

This pesticide is most often detected in citrus fruits: more than 1 out of 3 sampled grapefruits (39%), and 1 out of 4 sampled oranges (29%) and mandarines (25%) contain chlorpyrifos residues. Various studies have concluded that this widely used insecticide of which residues are mostly found in European unprocessed food like fruits, can harm children's brain development and hormonal system. Chronic exposure to very low doses has been linked to decreases of IQ at school age, and to working memory loss. Chlorpyrifos also works as a thyroid hormone disruptor, which could partly explain these effects.
The current authorisation of chlorpyrifos is set to expire on 31 January 2020, but the member states (MSs) in charge of the safety assessment of this organophosphate insecticide are among those countries where residues of chlorpyrifos are most frequently detected in fruit. Like Spain, a country where roughly 1 in 5 samples (including 40% of oranges and 35% of mandarins) show residues of chlorpyrifos is assigned rapporteur MS to oversee the re-authorasation dossier. Poland, acting as co-rapporteur, is the country with the highest contamination with chlorpyrifos in apples. The previous European market approval process of chlorpyrifos was found to be based on just one single study, commissioned by the industry thus denying hundreds of independent studies showing evidence of brain-harming effects at exposure levels far below those used in the industry-funded development neurotoxicity study of 1997-1998.
Recent studies calculated that the annual costs for the EU of IQ losses due to chlorpyrifos and other organophosphate exposures during pregnancy amounts to 146 billion euros. No wonder eight EU MSs and several American states already haved banned the insecticide. Besides organophosphate insecticides, also pyrethroid insecticides appear as residues in fruit and vegetables. An American study looked at a group of 20 pregnant women who ate exclusively conventionally grown food. Throughout their second and third semester of pregnancy some of them received only organic produce. Pyrethroid biomarkers were found more frequently in women who continued a conventional diet. By contrast, no biomarkers for organophosphate insecticides were found between the two diet groups.

Sources:

-*Chlorpyrifos residues in fruits, the case for a EU-wide ban to protect consumers, HEAL and PAN Europe, June 2019*

-Safety of Safety Evaluation of Pesticides: developmental neurotoxicity of chlorpyrifos and chlorpyrifos-methyl, Environmental Health, November 2018
-Effect of a 24-week randomized trial of an organic produce intervention on pyrethroid and organophosphate pesticide exposure among pregnant women, Environment International, June 2019

Toys and children's clothings

Although some chemicals have been banned from toys for young children, they still do contain harmfull chemicals, like cadmium (Cd) which might also be an EDC. Research suggests a link between Cd and a wide range of detrimental effects on the reproductive system. Toys made of recycled materials often contain persistant flame retardants which can be traced back to the plastic housings of end-of-life waste electronic and electric equipment (WEEE), like smartphones or displays. In addition to the FR, these also contain heavy metals like antimony (a flame-retardant synergist), cadmium,chromium, mercury and lead. Their presence in recycled products undermines the circular economy and poses a threath to the public health and the health of children in particular. When buying waterrepellent clothing one should be aware of the fact that they might contain fluorinated POPs (=Persistant Organic Pollutants) such as PFOA and PFOS which are EDCs. Synthetic tissues with colorfull prints or glitters might also contain heavy metals and flame retardants as well. One should add here that by brominating bisphenol A you obtain TBBPA, currently the most commonly produced brominated flame retardant in the world, representing 60% of the BFR market.

***Cosmetics:**

The study of the American Breast Cancer Prevention Partners initiated by the end of 2016, revealed that the $70 billion global fragance industry allows many chemicals to hide under the word 'fragrance' on product labels of beauty and personal care products. The same is true for cleaning products. However, many fragrance chemicals are linked to negative impacts on human health, and some of them to hormone disruption. One should also consider hundreds of perfumes that are used in scented hand and body washes, in scented laundry detergents, in fabric softeners and dry-cleaned clothes. When your baby is sneezing or coughing he or she might not have a cold but is simply manifesting an allergic reaction to these perfumes. Especially breastfeeding mothers ought to create a fragance-free area for their baby when feeding it. Even make-up generally contains fragrance.
The review of Regulation (EC) N° 1223/2009 on cosmetic products with regard to substances with endocrine-disrupting properties, published almost four years behind schedule, still fails to acknowledge as a distinct category and continues to classify them as a CMR (substances which are carcinogenic, mutagenic or reprotoxic). Neither does it consider the so-called cocktail effect, which takes account of synergistic effects with a stronger impact than when substances are tested in isolation of one another. It also reaffirms the prevalence of 'risk' assessment over 'hazard' assessment, as proposed by the European Food Safety Authority (EFSA). It gives two examples, *triclosan* and *parabens,* and mentions children and pregnant women as specific vulnerable groups. Many more chemical substances ought to be scrutinized for their endocrine disrupting effects, yet this supposes that companies disclosure all the ingredients of their products. Currently the industry's 'high bar' for fragance disclosure is 100 ppm, but fragrance chemicals can be present at much lower levels. Exactly those extremely low levels are relevant for the exposure to EDCs.

Sources:

- *'Right to know: Exposing toxic fragrance chemicals in beauty, personal care and cleaning products', American Breast Cancer Prevention Partners, september 2018*
- *Potential Hormone Disruptors in Consumers' Cosmetics, BEUC, February 2019*

PARTNERS

- The Flemish Family Alliance is an ally of the Health and Environment Alliance (HEAL)
- The Flemish Family Alliance is also partner of EDC Free Europe…

LOOKING FORWARD

In her 'mission letter' to the newly appointed Health Commissioner Stella Kyriakides, the new president of the EU Commission, Ursula vonder Leyden, urges her to "help protect citizens from exposure to endocrine disruptors". This sounds hopeful for the future EU Policies regarding EDCs. However, another statement of the EU president is very worrying: "When the Commission creates new laws and regulations, it will apply the 'one-in, one out' principle to cut red tape." In its 'Working Methods' document, the future Commission states: "Every legislative proposal creating new burdens should relieve people and business of an equivalent existing burden at EU level *in the same policy area." (our emphasis).* This suggests that one cannot make any longer the equation between the costs of implementation of a better chemical regulation inflicted upon the producers and the savings for society as a result of avoiding health and environmental costs. Currently these run into billions of euros every year.

Since the EU Commission recognized EDCs as a health and environmental hazard in its 'Community Strategy for endocrine disruptors' in December 1999, almost twenty years have gone by. The new 'EU Framework for EDCs' presented by the Commission in November last year still lacks both a concrete action plan to mimimise exposure to EDCs and a timeline for the next steps to move forward. Currently there is a cross-cutting fitness check that should be finalised in the first half of 2020, followed by a 12-week-long public consultation. Before the end of this year the Commission will organise the first annual meeting of stakeholders and launch a new web portal, as part of the comprehensive set of actions to achieve the objectives included in the communication.

In response to this proposed framework, the European Parliament adopted a Resolution on endocrine disrupting chemicals (447 out of 502 MEPs voted in favour) in its final plenary session before the EU elections in May of this year. The Resolution calls in particular on the new Commission to come forward with a concrete action plan and legislative proposals to remove EDCs from cosmetics, toys and food packaging by June 2020.

On the Belgian level, the federal Health administration seems to have retaken interest in its National Environmental Health Action Plan (NEHAP). At the moment, an inquiry is held which is open to the general public, and asks them to give their input on general ecological issues and its link with health. As for this NEHAP, the Flemish Family Alliance would like it to be accompanied by a CEHAP or Children's Environmental Health Action Plan. Since children are not little adults, they react differently to environmental threaths to their health. CHILDPROOF[1] , therefore asks the not yet formed federal government to turn the words 'action plan' into 'action' on behalf of our children.

[1]*CHILDPROOF is an interdisciplinary and informal group of Dutch and Flemish organisations and scientists with the main purpose to protect children's health.*