

3 WAYS TO IMPROVE THE SOCIOECONOMIC ANALYSIS IN SEAC

ChemSec's concrete suggestions for how SEACs evaluation of authorisation applications can be improved and ultimately drive chemical innovation.

ChemSec sees three areas of SEACs decision-making process where increased attention could benefit industry and at the same time drive substitution of Substances of Very High Concern. The suggestions imply putting more emphasis on producers and users of alternatives, economic impacts on society and chemical innovation.

1 DO A COST-BENEFIT ANALYSIS FOR ALTERNATIVE PRODUCERS AND USERS

In order to get a complete picture of the economic impact when granting authorisation it is necessary to look beyond the costs of the applicant alone. Economic effects on alternative producers and users need to be accounted for as well.

Investment lost

Company investments in production or implementation of alternatives to a SVHC would lead to diminished profits if authorisation of the very same SVHC were to be granted. Anticipated sales won't materialise and with a non-growing demand for

the alternative prices won't come down either. In the long run the market will have less availability of alternatives and widespread use will be prevented. Innovation will halt and the SVHC will not be substituted.

One man's loss is another man's gain

If one company is forced to shut down due to not being granted authorisation, an alternative producing company will most likely gain market shares, build new plants and employ more people.

ARKEMA DEHP PRODUCTION VERSUS BASF DINCH PRODUCTION

July 2011: BASF is planning to have doubled the production of its phthalate-free plasticizer Hexamoll DINCH at the Ludwigshafen site by 2013. In order to handle the increased production, a second production plant will be built in Ludwigshafen. The decision to double-up is based on a strong increase of demand across all regions, as well as the continued growth of demand for alternative plasticizers. This is the second capacity increase for Hexamoll DINCH since its successful market launch in 2002. In 2007, the original production capacity of 25 Kt/a was quadrupled to 100 Kt/a.¹

November, 2013: Arkema is closing its phthalate plasticizer plant in Chauny, France as the market shifts to non-phthalates when making polyvinyl chloride for medical bags, tubing and other applications.²

1. http://www.mrcplast.com/news-news_open-128860.html

2. <http://www.plasticstoday.com/articles/transition-non-phthalate-plasticizers-speeds-europe1114201301>

Prices of alternatives will go down with increasing demand

The prices of alternatives are often higher compared to the original substance, because of high investment costs and low demand in the substance's early days. When the demand is

growing, however, prices tend to come down. Historically the inclusion of the original substance on both the candidate list and the authorisation list have been a big demand booster for alternatives.

APPLE'S ERADICATION OF BFRS AND PVC IN ITS PRODUCTS

"Two years after starting to produce BFR and PVC-free products, the cost parity is at the same level as before making this transition." said Andy Baynes, Head of Environmental Technologies at Apple Inc during the conference Greening Consumer Electronics in the EU parliament November 2009.³

2 TAKE INNOVATION POTENTIAL INTO ACCOUNT

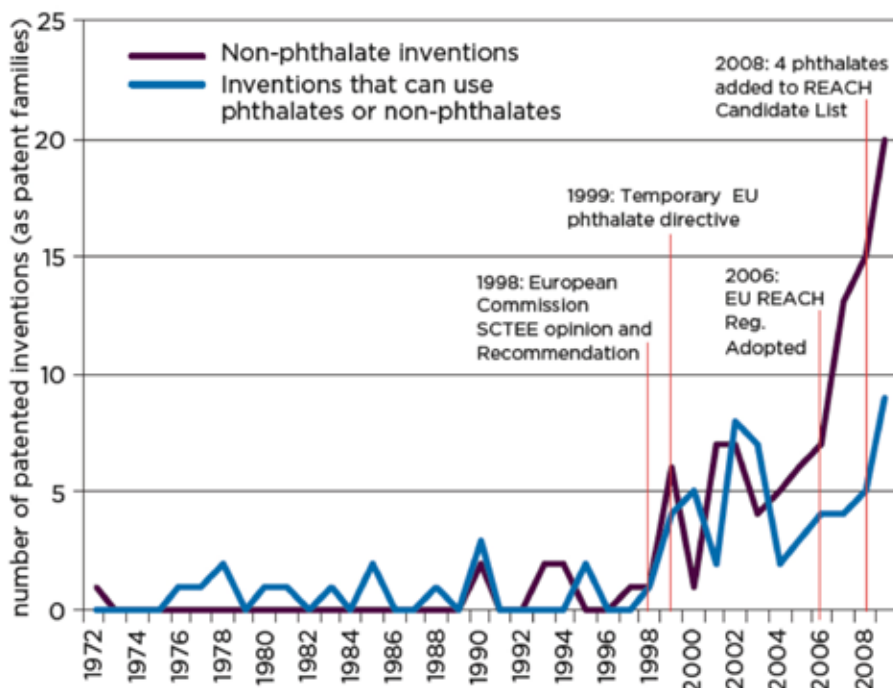
There is a common prejudice that strict chemical regulation would hinder the competitiveness of companies, but history shows that individual countries with rigid regulation, such as Germany and the Nordic countries, are also recognised for

their strong capacity to innovate. ASBC, the Green Chemistry & Commerce Council, released a report in May 2015 estimating the market for safer chemicals to have 24 times the growth of conventional chemicals market worldwide, from 2011 to 2020.⁴

SAFER ALTERNATIVES FOR PHTHALATES

The Centre of International Environmental Law, CIEL, elaborated on the question if stronger laws can bring safer chemicals to the market. They discovered there was an exponential growth of patents for phthalate alternatives since the first introduction of stricter regulation of phthalates.

Spike in Patented Inventions Free of Hazardous Phthalates



Exponential growth in the number of patented inventions for phthalate alternatives beginning in 1999, coinciding with the adoption of stricter rules (as captured by the number of patent families for "non-phthalate" and "phthalate free" inventions).

CIEL report "Driving Innovation, How stronger laws help bring safer chemicals to market", Feb 2013.

3. http://www.chemsec.org/images/stories/publications/Downloads/Summary_Greening_Consumer_Electronics_Conference_2.pdf

4. "Making the Business & Economic Case for Safer Chemistry Safer", report commissioned by ASBC, the Green Chemistry & Commerce Council, developed by Trucost (05/2015). <http://asbcouncil.org/sites/default/files/asbcsaferchemicalsreportpresred.pdf>

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CONSIDER ECONOMIC IMPACTS ON SOCIETY

REACH states that authorisation shall only be granted via the socio-economic route if it is shown that the socio-economic benefits outweigh the risks and that no alternatives are available.

Health costs related to continued use of SVHCs must be included

To be able to evaluate socioeconomic benefits, the health and environmental costs affected by continuous use of SVHCs must also be taken into account.

“Limiting our exposure to the most hazardous chemicals is likely to produce substantial economic benefit. The health costs of exposure to SVHCs need to be considered alongside the costs of safer alternatives and needs to be weighed in any socioeconomic analysis.”

Leonardo Trasande, Associate Professor in Pediatrics, Environmental Medicine and Health Policy at New York University and one of the authors behind the recent studies “Estimating Burden and Disease Costs of Exposure to Endocrine Disrupting Chemicals in the European Union”

Legislation is most likely not a factor when companies decides to relocate

The Swedish Chemicals Agency studied the factors driving companies that produce chemicals to relocate their production. The interviewed representatives of chemical associations all stated that in general, legislation plays a very small role, if any, on decisions to invest or relocate. Access to markets and feedstock are seen as the most important factors. The second most important factor were production cost savings.⁵

Non-use scenarios might be favourable to society but not to producing industry

If a process is changed to the non-use scenarios the chemical supplier will lose its business. It might therefore not be favourable to industry since no alternative is needed either. Still it's favourable for society and for the previous user of this substance since they will cut cost when not having to use this substance.

An undisclosed furniture company explained to ChemSec that they changed the fabric for sofas to a more densely knitted textile material. This knitting technique produces a material that is very hard to ignite and therefore the fabric has no need to be treated with chemical flame retardants. The company saves costs and can offer a healthier product to its consumers.

5. KEMI's report: The influence of legislation on the location of chemical industries, Feb 2013, <https://www.kemi.se/Documents/Publikationer/Trycksaker/PM/PM1-13.pdf>

SUMMARY

Do not disfavour producers and users of alternatives, consider economic impacts on society more widely and pay stronger attention to chemical innovation when evaluating authorisation applications. If these three areas where to be given reinforced attention, ChemSec believes that the SEAC processes would render even stronger end results and ultimately drive substitution of Substances of Very High Concern.

- Feasibility of alternatives must be investigated beyond the applicant's perspective and opinions from alternatives producers and users should be carefully considered.
- Make sure the fact that SVHC alternatives provide market opportunities and future growth for the chemical industry is accounted for.
- Take into account that prices on alternatives will go down when demand is rising.

According to REACH, authorisation shall only be granted via the socio-economic route if it is shown that socio-economic benefits for society outweigh the risks and that no alternatives are available, therefore:

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