# Key developments on FCMs in Europe

Dr. Jane Muncke, Food Packaging Forum Foundation

jane.muncke@fp-forum.org



# EU Chemicals Strategy for Sustainability

#### The Commission will:

extend the generic approach to risk management to ensure that consumer products – including, among other things, food contact materials, toys, childcare articles, cosmetics, detergents, furniture and textiles - do not contain chemicals that cause cancers, gene mutations, affect the reproductive or the endocrine system, or are persistent and bioaccumulative. In



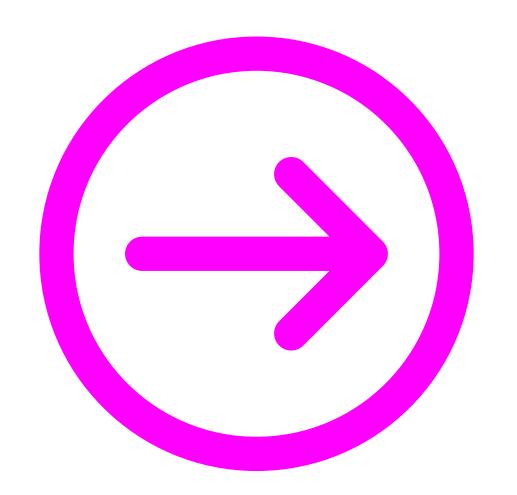
Food packaging plays a key role in the sustainability of food systems. The Commission will revise the food contact materials legislation to improve food safety and public health (in particular in reducing the use of hazardous chemicals), support the use

Sustainable food consumption



#ChemicalsStrategy

#EUGreenDeal



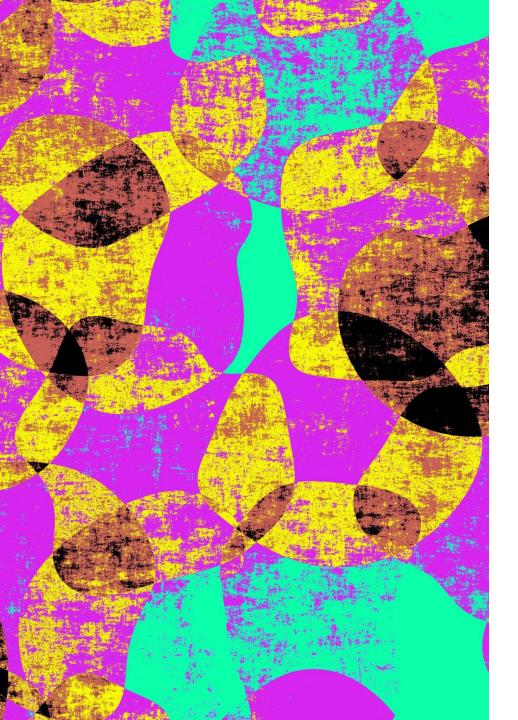
generic approach to risk management

id est hazardous chemicals are not allowed in FCMs.

Legal **definition** of food packaging safety in the EU today

EU 1935/2004, Art. 3.1.(a)

"Materials and articles, [...], shall be manufactured [...] so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could endanger human health"



So...

will Art. 3, 1935/2004 be revised?

EU COM is currently working on Impact Assessment for FCM regulatory revision.

Expected Q1.2022(?)

#### 3 additional reasons:

- 1. BPA
- 2. NMDR
- 3. Mixtures

# Reason 1: Bisphenol A (BPA; CAS 80-05-7)



draft scientific opinion EFSA Dec. 2021





New Tolerable Daily Intake (TDI) is 100'000 times below current TDI due to BPA's impacts on human health



New SML(BPA) is >2,4 ng/kg food (to account for other, non-FCM sources of exposure to BPA)



Migration limit 2 ppt: too low to enforce?

### Reason 2:

## Non-monotonic dose response

- EFSA new "Opinion on the impact of non-monotonic dose responses on EFSA's human health risk assessments"
- "The Dose Makes the Poison" cannot be applied universally: for substances with NMDR in low-dose range, more detailed assessment is required:

"If an NMDR is observed for an apical effect, the understanding of the underlying mechanism(s) is necessary to assess its biological plausibility and to consider the consequences for the risk assessment process"

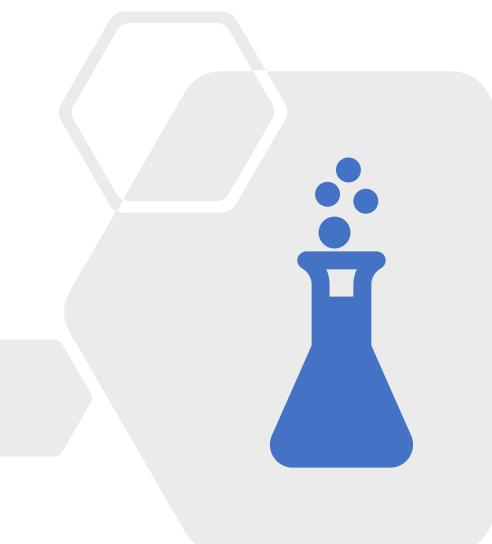
- IMPLICATION: Re-assess all authorized chemicals and identify mechanisms of action for those with NMDR?
- Or: New approach to chemical risk assessment and management?





#### Reason 3: Mixtures

- many different chemicals in FCMs migrate simultaneously
- many other exposure routes to chemicals
- setting "safe" exposure levels for individual chemicals is not sufficiently protective for public health





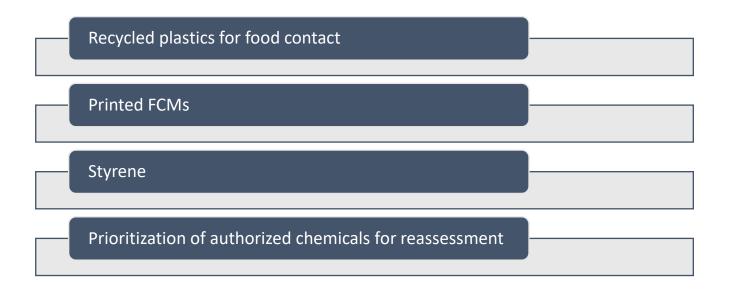
# low levels ≠ safe levels

**PROPOSAL** FOR A REVISED Legal **definition** of food packaging safety

"Materials and articles, [...], shall be manufactured [...] so that they do not contain constituents which could endanger human health."

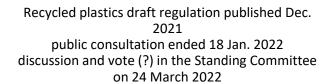


# Some other developments



# Recycled plastics for food contact









Open letter sent to Commissioner Dr. Kyriakides from by environmental and health NGOs, 21 Feb.

Concerns about safety



Systematic review article on chemicals in (recycled) PET, levels of migration by Food Packaging Forum and colleagues, published 4
March 2022





























































Hazardous Chemicals and Food Safety recycled plastic in food packaging (updated rules)





#### Contents lists available at ScienceDirect

#### Journal of Hazardous Materials

journal homepage: www.elsevier.com/locate/jhazmat



#### Review

# Unpacking the complexity of the PET drink bottles value chain: A chemicals perspective

Spyridoula Gerassimidou<sup>a</sup>, Paulina Lanska<sup>a</sup>, John N. Hahladakis<sup>b</sup>, Elena Lovat<sup>c</sup>, Silvia Vanzetto<sup>d</sup>, Birgit Geueke<sup>e</sup>, Ksenia J. Groh<sup>f</sup>, Jane Muncke<sup>e</sup>, Maricel Maffini<sup>g</sup>, Olwenn V. Martin<sup>a,h,\*</sup>, Eleni Iacovidou<sup>a,i,\*</sup>



<sup>&</sup>lt;sup>a</sup> Sustainable Plastics Research Group (SPlasH), Brunel University London, Uxbridge UBS 3PH, United Kingdom

b Waste Management Program, Center for Sustainable Development, College of Arts and Sciences, Qatar University, P.O. Box: 2713, Doha, Qatar

<sup>&</sup>lt;sup>e</sup> Italian Agency for Development Cooperation (AICS), Addis Ababa Office, Kebena, Addis Ababa, Ethiopia

d Centro Internazionale per l'Infanzia e la Famiglia (CIFA) Onlus, Hawassa Field Office, Hawassa, Ethiopia

e Food Packaging Forum (FPF), Zurich 8045, Switzerland

Eawag – Swiss Federal Institute of Aquatic Science and Technology, Dübendorf 8600, Switzerland

<sup>8</sup> Independent Consultant, Frederick, MD, USA

h Centre for Pollution Research and Policy, Brunel University London, Uxbridge UBS 3PH, United Kingdom

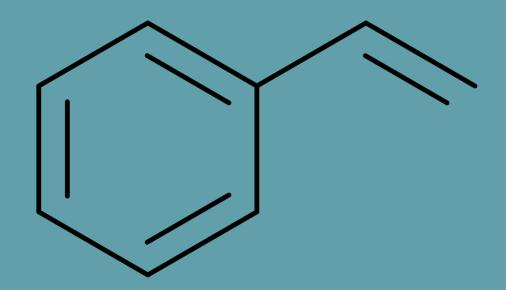
<sup>&</sup>lt;sup>1</sup> Division of Environmental Sciences, College of Health, Medicine and Life Sciences, Brunel University London, Uxbridge UB8 3PH, United Kingdom

## Printed FCMs: New German Ordinance

- Germany revises ordinance on printed FCMs, 2 December 2021
- Positive list of substances for inks and varnishes, some specific migration limits (for substances and groups)



# Styrene





- Styrene survey published by EU Commission on 28 February 2022

   open until 11 April Input requested on use and migration levels from FCMs
- EFSA requested to work on styrene
- Food Packaging Forum webinar on styrene planned for April/May 2022, date tbc

# Prioritization of authorized substances for reassessment: plasticizers

- EFSA published draft opinion on prioritization of plasticizers Nov 2021
- Proposes prioritization approach for assessing phthalatealternative plasticizers
- Comments: Methodological shortcomings of prioritization approach; Unclear why scope only on plasticizers and not ALL authorized substances



## Outlook



Prioritization of food contact chemicals with hazard properties under CSS



Systematic evidence map of chemicals migrating from/present in FCMs



Better integration of *sustainable* packaging and *chemicals*: for example Understanding Packaging Scorecard

