



# Footprint Measurement

BizNGO Annual Meeting  
December 8, 2016



## Chemical Footprint:

Total *mass*

of *chemicals of high concern*

in a company's

- *Products* sold
- *Manufacturing* operations
- *Suppliers'* operations
- *Packaging*



# Why Footprint Measurement?

- Quantitative metrics
- Key to internal and external communication
- Understand if/where chemicals of high concern are in products
- Identify opportunities for moving to safer alternatives



# Chemical Footprint: CFP 2016 Survey

- Report **mass and/or count** of chemicals of high concern
- Choice of **longer or shorter reference list** for chemicals of high concern
- Chemicals in **products** (not manufacturing, supply chains, or packaging)



# Chemical Footprint: Total Mass

$$\text{Total mass of CoHCs} = \text{Sum of the mass of CoHCs for all parts in a product} \times \text{Sales of that product}$$



# Chemical Footprint: Count

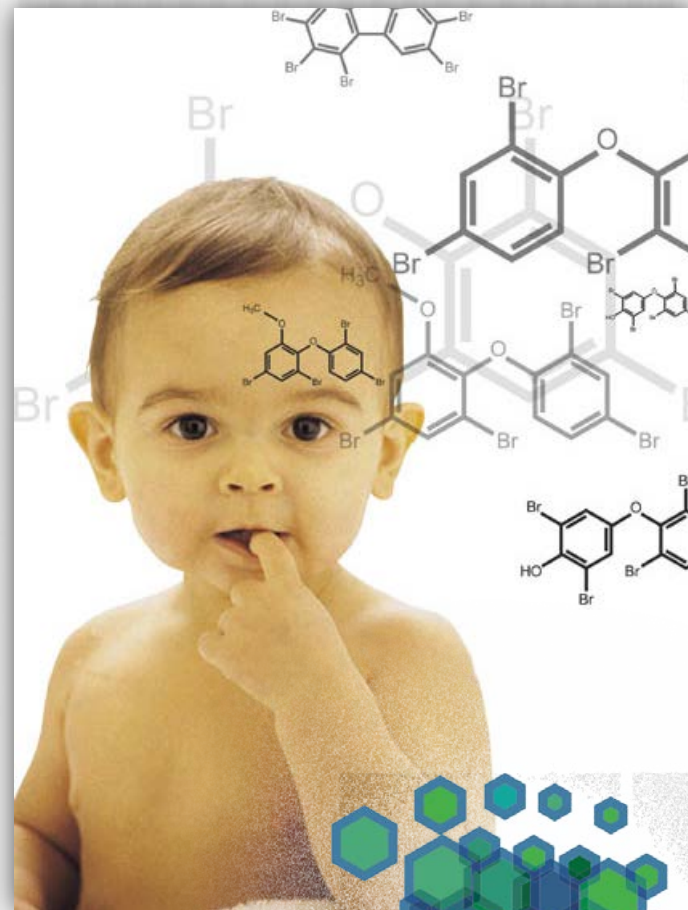
**Total count:** Number of CoHCs  
intentionally added across all products





# Chemicals of High Concern (CoHCs)

- carcinogen, mutagen, or reproductive toxicant (CMR)
- persistent, bioaccumulative and toxic substance (PBT)
- any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that give rise to an equivalent level of concern
- a chemical whose breakdown products result in a CoHC that meets any of the above criteria





# CFP 2016 Chemicals of High Concern List

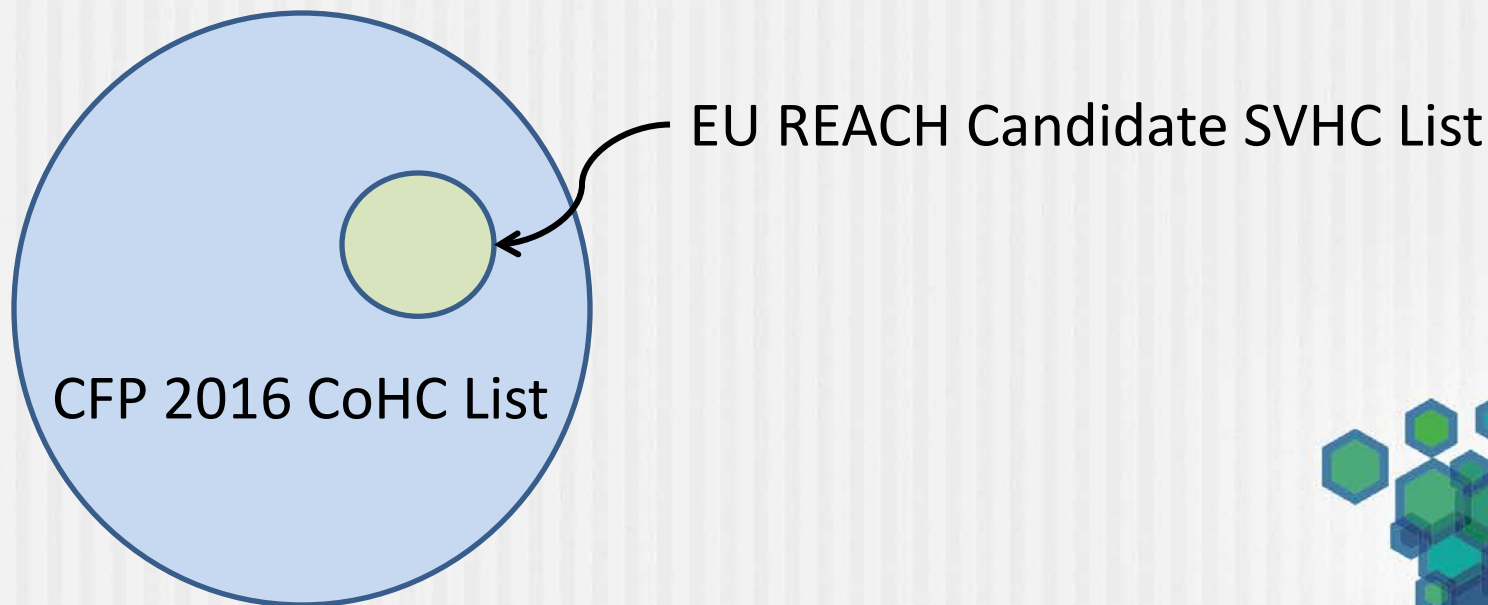
- Compiled from 14 lists of hazardous chemicals developed by governments & other authoritative bodies
- Includes any chemical or chemical group that meets any combination of the CFP criteria
- Static, using July 1, 2016 versions of source lists
- Aligns with GreenScreen List Translator 1 chemicals





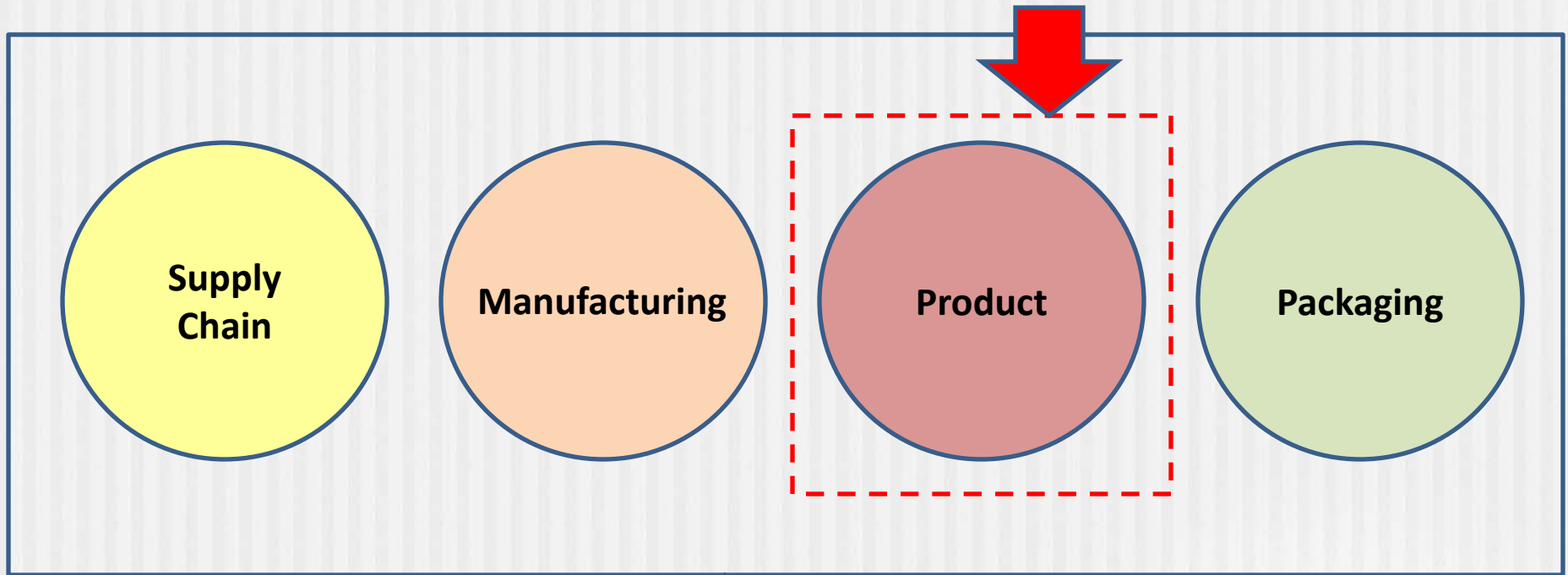
## Two reference list options:

- CFP 2016 CoHC List (~2,200 chemicals)
- EU REACH Candidate SVHC List (169 chemicals)



# Chemical Footprint Scope

2016 chemical footprint reporting requirement



CFP definition of “chemical footprint”



# Basic Chemical Footprint Calculation

For each SKU: Chemical ingredients & formula



Mass of CoHCs contained in each SKU / unit volume



Annual volume of SKU shipped



SKU – level chemical footprint

Sum of all SKU-level chemical footprints



Corporate – level chemical footprint



# Footprint challenges

- New metric
- Depends on robust chemical inventory
- On ramp option designed to enable more companies to calculate

