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# The Chemical Strategy for Sustainability: BASF Perspective

Dr. Paul-M. Bever, 30 Nov. 2021

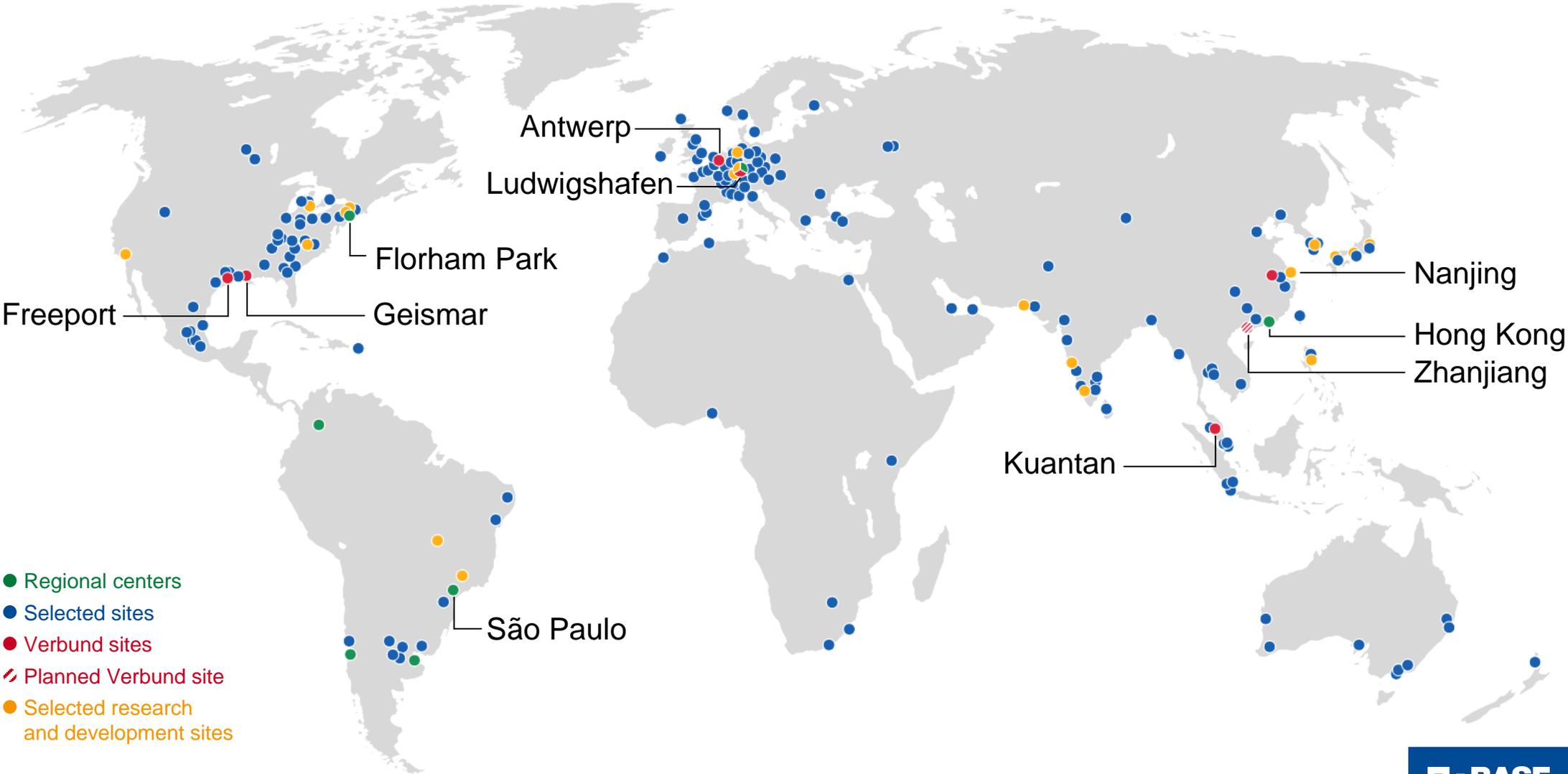
# Agenda

- BASF as global player, Verbund-Site Ludwigshafen: sustainability as our driver
- BASF and the EU Green Deal: many challenges at a time
- The Chemical Strategy: opportunities and challenges
- BASF perspectives on the CSS: preferences and contributions

**BASF as global player**

**Verbund-Site Ludwigshafen: sustainability as our driver**

# BASF worldwide: sites



# Verbund site Ludwigshafen

The world's largest integrated chemical complex owned by a single company

## Headquarters

Employees BASF SE	34,484*
Site area	10 km <sup>2</sup>
Sales products**	~ 8.1 million metric tons p.a.
Road	~ 106 km
Rail	~ 230 km
Logistics	
	~ 1,900 trucks daily
	~ 400 railcars daily
	~ 30 fully electric AGV transports daily
	~ 15 ships daily
Pipeline system	~ 2,850 km
Production facilities	~125 production facilities with around 200 production plants

\* as of December 31, 2020

\*\* from in-house production

Our corporate purpose:  
We create chemistry  
for a sustainable future



# **BASF and the EU Green Deal: many challenges at a time**

# Green Deal is Europe's Growth Strategy and Vision



First climate neutral continent by 2050



Lead the way to a circular economy



Move to a zero-pollution environment



Accelerate to a sustainable food system

**A vision and policy framework beyond climate neutrality!**

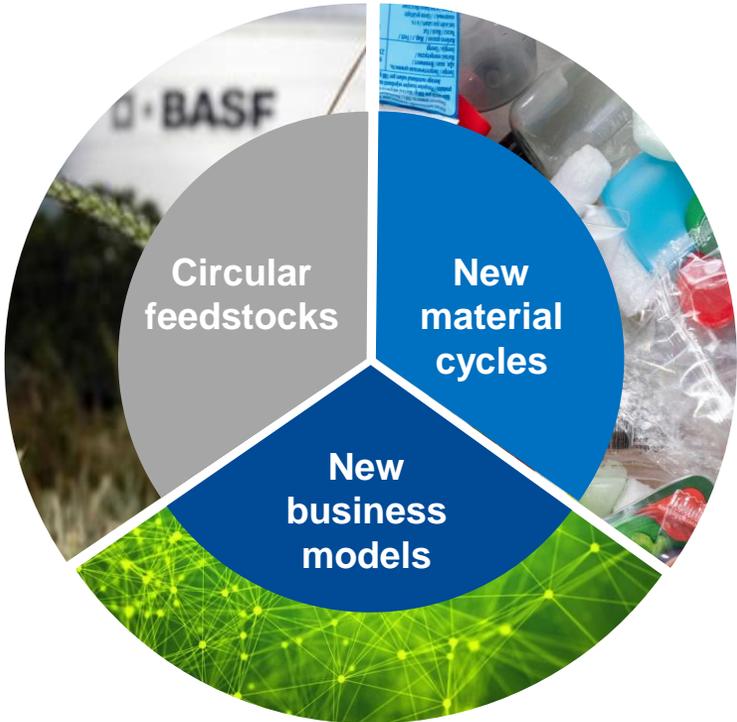
# BASF contributions to the EU Green Deal (examples)

## Carbon management



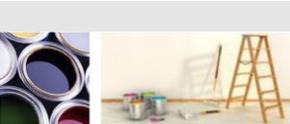
- 25 % less CO<sub>2</sub> emitted in 2030 than in 2018
- **Climate neutral by 2050**

## Circular Economy Roadmap



- 250 kt recycled and **waste-based raw materials** by 2025
- **€17 bn\*** circular sales by 2030

## Sustainable products

8 DECENT WORK AND ECONOMIC GROWTH	 <b>Battery materials</b>
15 LIFE ON LAND	
13 CLIMATE ACTION	 <b>Ecovio®</b>
11 SUSTAINABLE CITIES AND COMMUNITIES	
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	 <b>Paints and coatings</b>
6 CLEAN WATER AND SANITATION	
3 GOOD HEALTH AND WELL-BEING	
2 ZERO HUNGER	

- **€22 bn sales with Accelerator products** in 2025\*

\* partial overlap

# BASF views on the EU Green Deal (available on our website)

- BASF supports the objective of the Green Deal and the ambition to climate neutrality by 2050, in combination with a strong industrial policy
- Innovations and initiatives from BASF have the potential to help make the EU Green Deal come true
- A key prerequisite to realize the industrial transformation of the chemical sector is an enabling policy framework

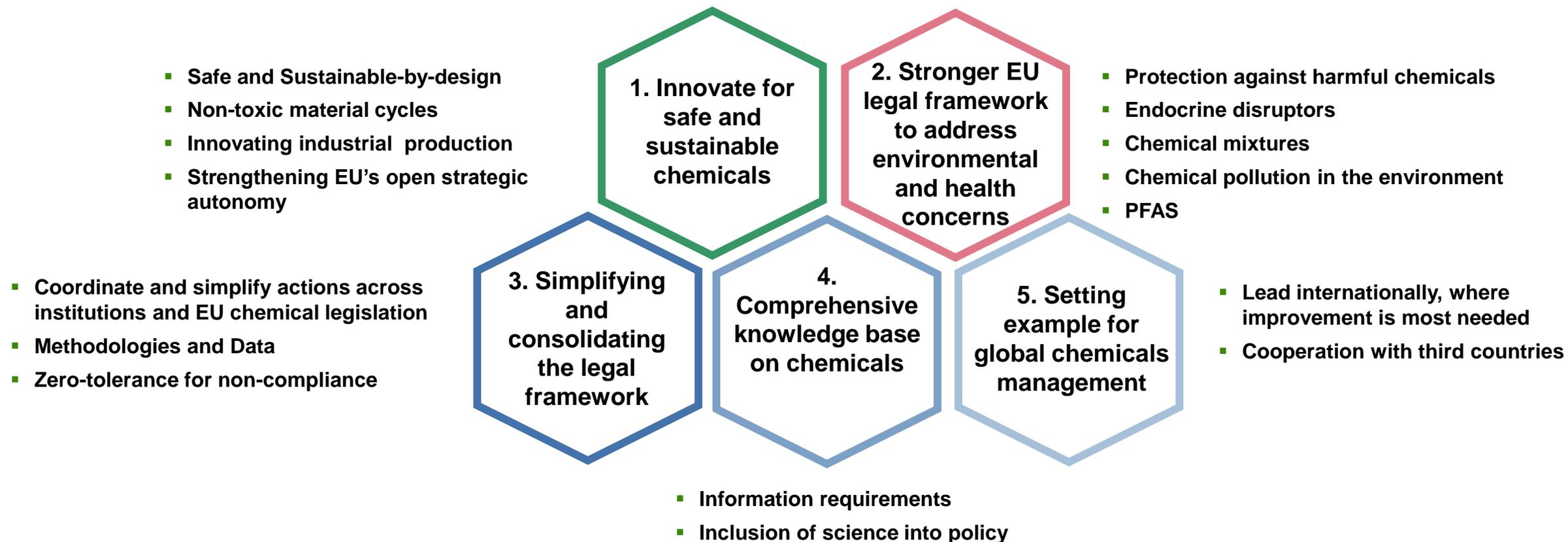


# The Chemical Strategy: opportunities and challenges

## CSS Objectives:

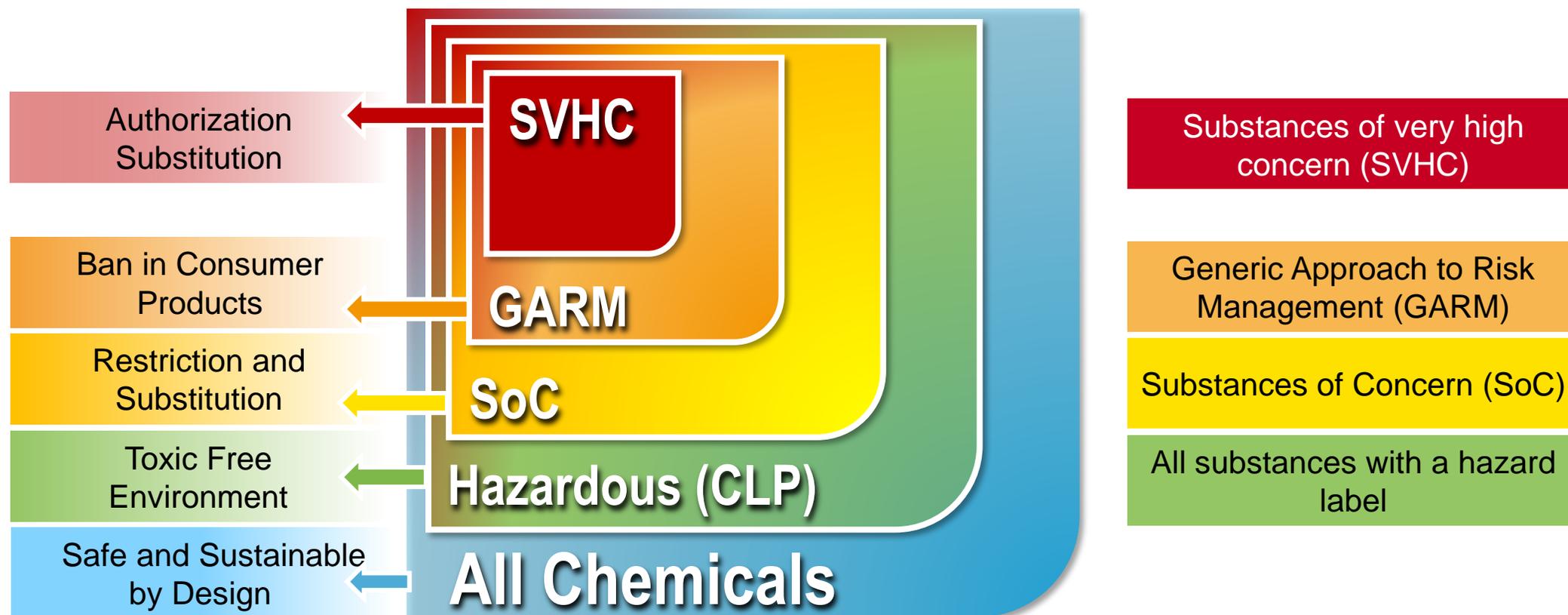
1. Enhancing protection of human health and the environment
2. Boost innovation to enable transition to safe and sustainable chemicals

# CSS's five building blocks and 16 measures



More than 80 changes to chemicals legislations are set out by the Chemicals Strategy for Sustainability to be implemented between 2021 and 2024.

# CSS – Universe of chemicals in scope



**Immediate phase-out of hazardous chemicals in non-essential uses**  
**Opportunities may come later from the development of safe and sustainable products**

# Objective 1: Establishing a toxic-free environment



## Implement a Generic Approach to Risk Management for consumer products

- Hazard-based approach, no exposure consideration



## Apply same level of protection to professional users as granted to consumers

- Disregard measures to manage occupational safety



## Restrict SVHCs in industrial production, set stricter OELs

- Competitive disadvantage for EU production



## Introduce Essential Use concept

- Regulators decide on essential uses



## Extend criteria for substances of very high concern; use of grouping

- More substances to be restricted / banned



## Prevent export of banned chemicals

- Effects beyond European business

OEL: Occupational Exposure Limit

If implemented as suggested, BASF's EU business will be significantly impacted

# What is at stake?

## CSS impact on BASF

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### Sales loss

New bans and restrictions based on broadened hazard definition and extension of protection to consumers and industrial production



### Implementation costs

For additional information requirements, including polymer registration, Endocrine Disruptors, etc.

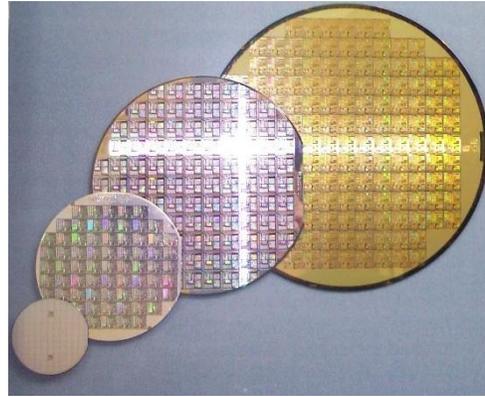
**Cefic Impact Assessment expected 2 Dec. 2021**

# Chemicals Strategy for Sustainability (CSS)

## Product classes „at risk“



UV Filter  
for light  
protection



Mikrochip  
production –  
process  
chemicals



BASF OASE®  
for energy efficient  
gas treatment  
processes



Epoxy  
hardener for  
rotor blades  
of windmills

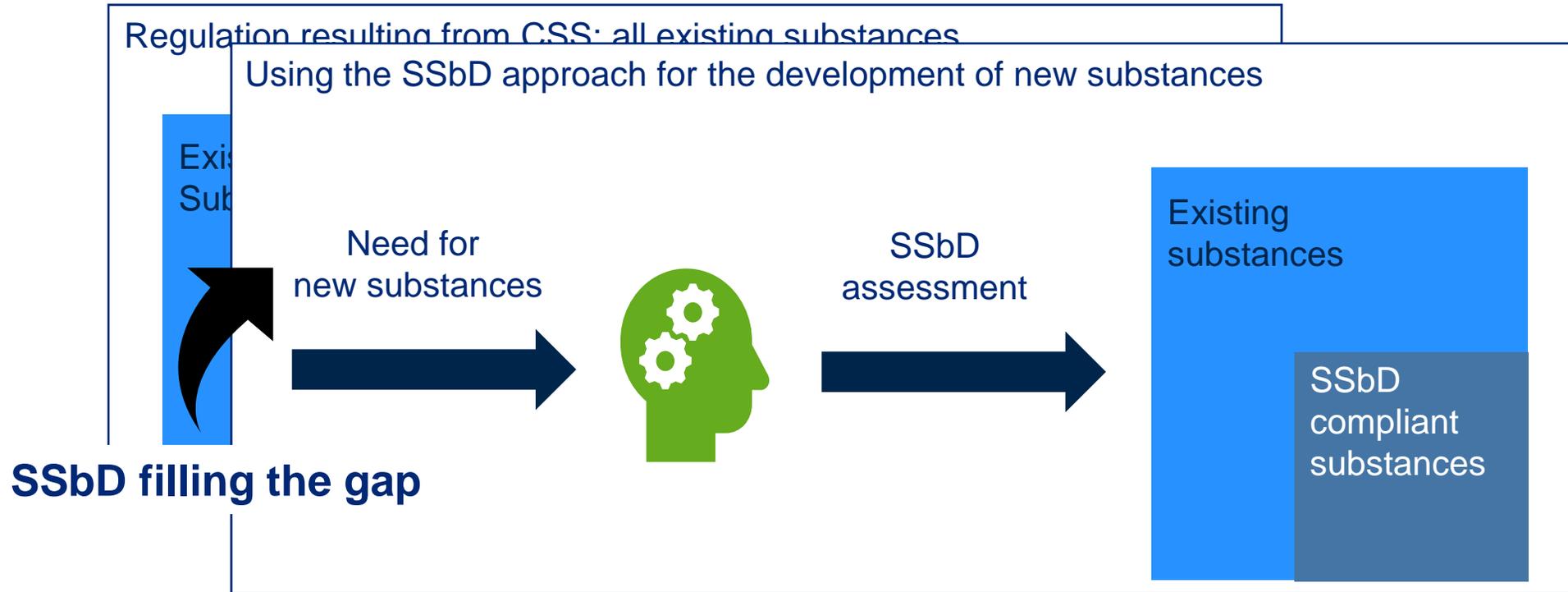


Biozides  
for durable  
water based  
paints



Break fluids

# Objective 2: Safe and sustainable chemicals as EU market norm and global standard



- Develop safe and sustainable-by-design (SSbD) chemicals
- Achieve non-toxic material cycles
  - Boost uptake of secondary raw materials
  - Exclude SoCs in products which might hamper recycling
- Access to funding available, e.g., through Horizon Europe and LIFE program

**Conclusions:**

**BASF perspectives on the CSS: preferences and contributions**

# It is clear that **CSS** will come

## We stand ready to work together

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**Strengthen R&D activities to develop SSbD products**



**Invest in sustainable production processes**

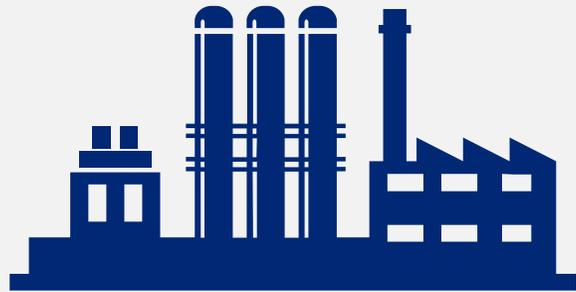


**Develop alternative toxicity testing concepts**

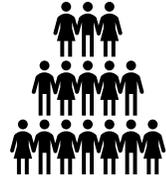


**Consider CSS impact in future investment decisions**

# BASF's response to CSS



**BASF and its customers  
are severely impacted by  
the Chemicals Strategy**



## **Dedicated BASF team**

- Development of positions and alternative concepts e.g., Essential Use



## **Industry-wide Impact Assessment**

- Cefic evaluates CSS impact for industry with ~120 companies participating



## **High-Level Round Table**

- 32 participants from industry, NGOs, academia; lead: DG ENV  
BASF CEO M. Brudermüller represents Cefic



## **BASF's EU27 net-work**

- Advocacy on country-level

## **BASF Position** (available on our website)

- BASF fully supports the objectives of the Green Deal and the intention of the CSS to protect human health and the environment.
- A stable regulatory environment is needed: the existing law should be fully utilized and carefully adjusted. Rather than creating new rules, existing ones should be properly enforced first for example on imported products to ensure the protection of human health and the environment and increase consumer protection in the EU.
- Risk evaluation: market restrictions should remain risk-based.
- Occupational safety: maintain the clear distinction between industrial, professional and consumer uses and differentiated risk management options.
- Innovation roadmap needed: adequate transition time for the implementation in the respective value chains, financial support and an innovation agenda.



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