



European  
Automobile  
Manufacturers  
Association

Interface between product, waste and chemical policy: can we phase out legacy substances while keeping high recycling rates?

## REINVENTING PLASTICS - CLOSING THE CIRCLE

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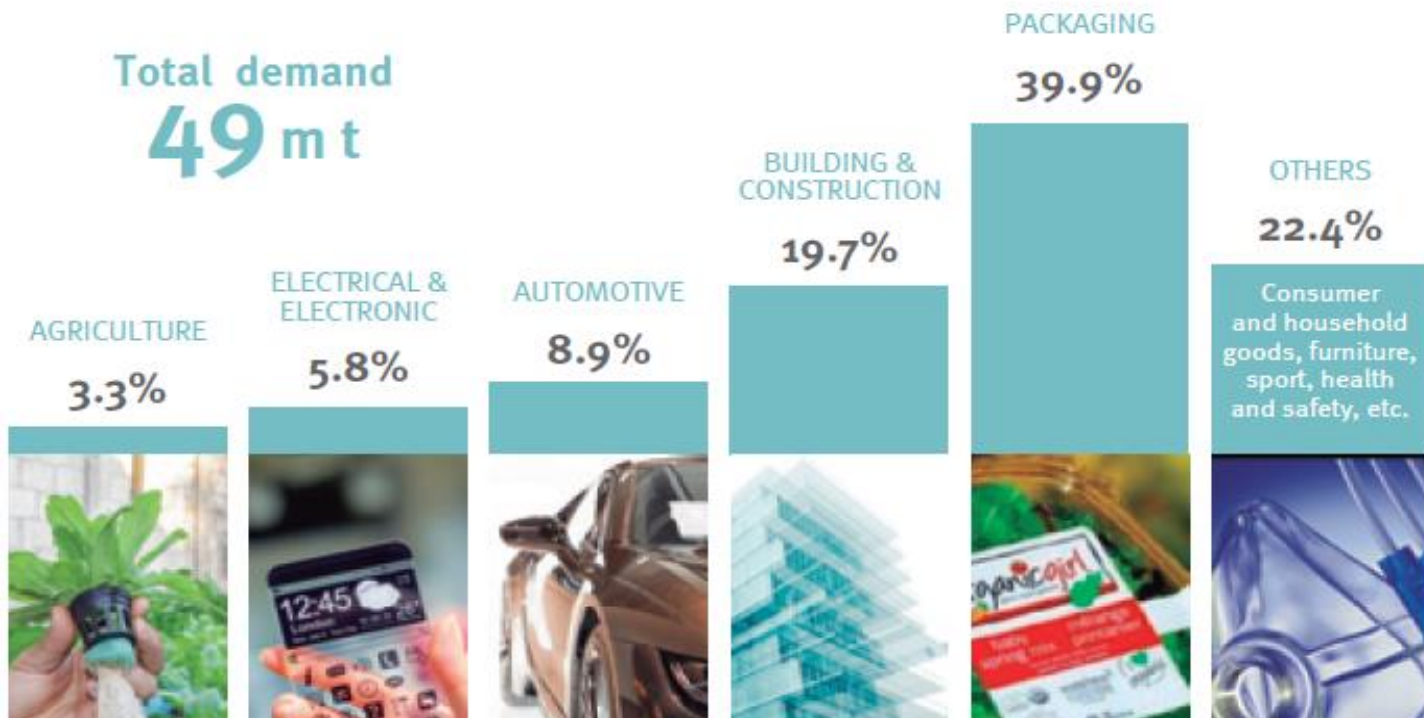
# OVERVIEW OF MATERIAL RECYCLING IN THE EU

Automotive represents less than 10 % of new plastic material demand in Europe

## Plastic materials demand main market sectors

Distribution of European (EU-28+NO/CH) plastics demand by segment in 2015.

Source: PlasticsEurope (PEMRG) / Consultic / myCeppi

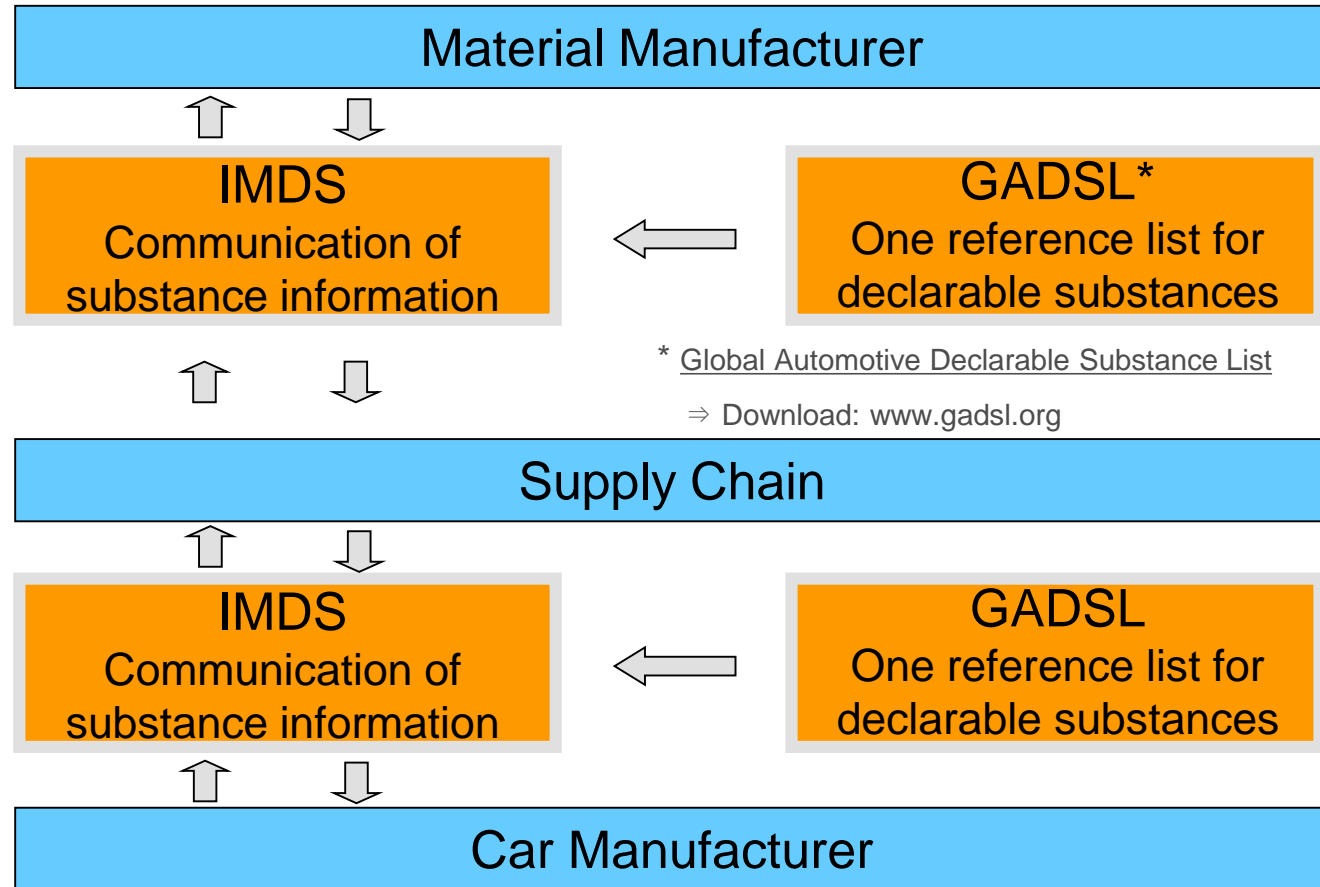


# THE GENERAL PROCESS OF SUBSTANCE REPORTING IN THE AUTOMOTIVE INDUSTRY

- Material Manufac. can use “Jokers” (max.10%) - CBI

BUT:

- Substances on GADSL (= prohibited or declarable) must be reported



⇒ No CBI Protection for GADSL Listed Substances

⇒ List has to be absolutely correct to ensure CBI Protection

# CHALLENGE OF SUBSTITUTION



Prohibited  
Substance

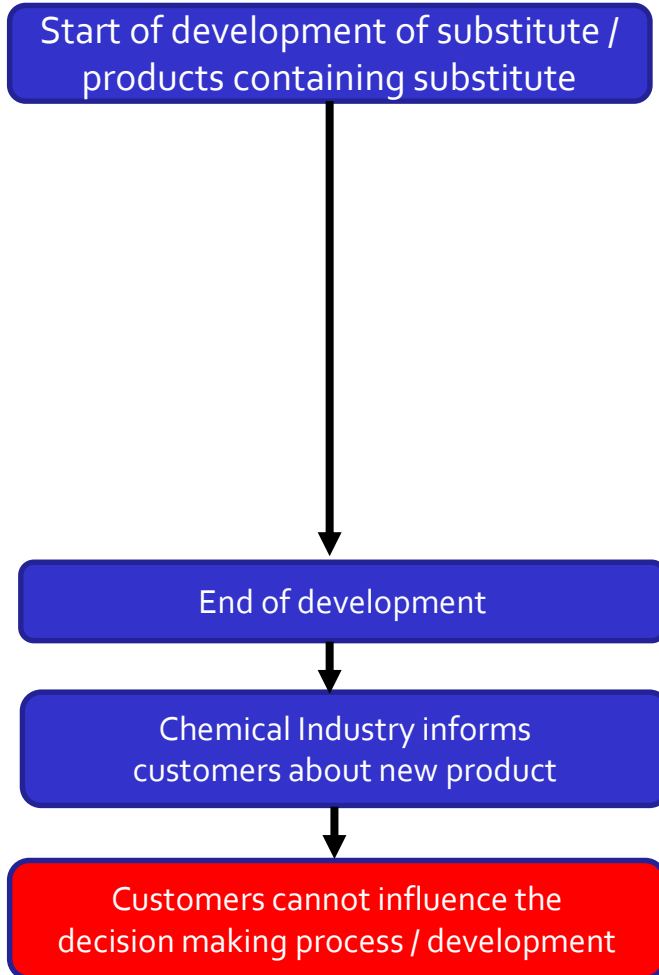


Possible  
Substitute

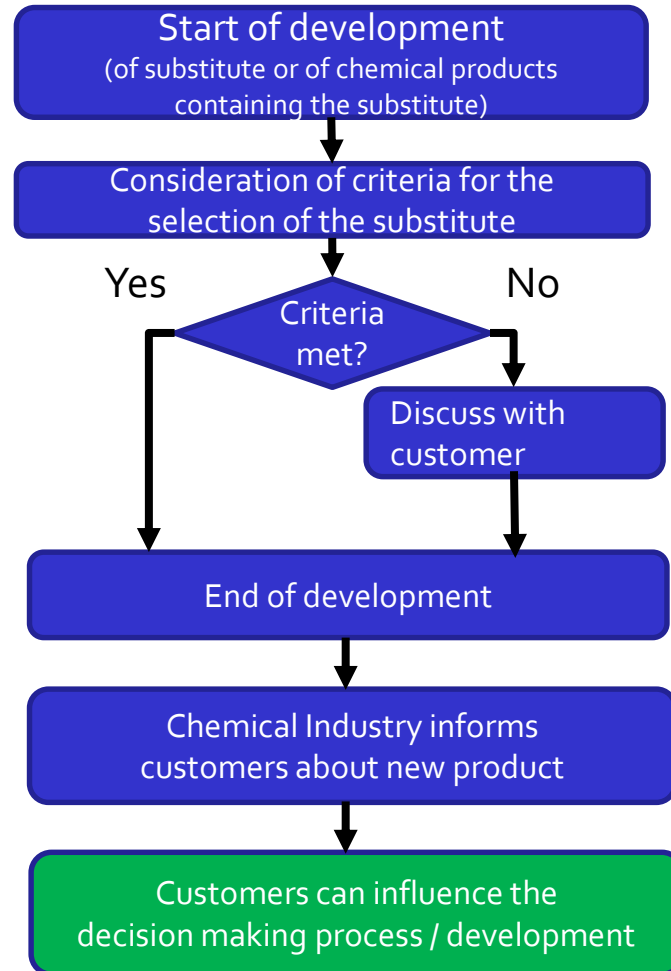


# LEGAL COMPLIANCE AND SUSTAINABLE SUBSTITUTION: COMMUNICATION PROCESS

## Current Standard Process



## Proposed Standard Process



# DIFFERENCES OF WASTE STREAMS



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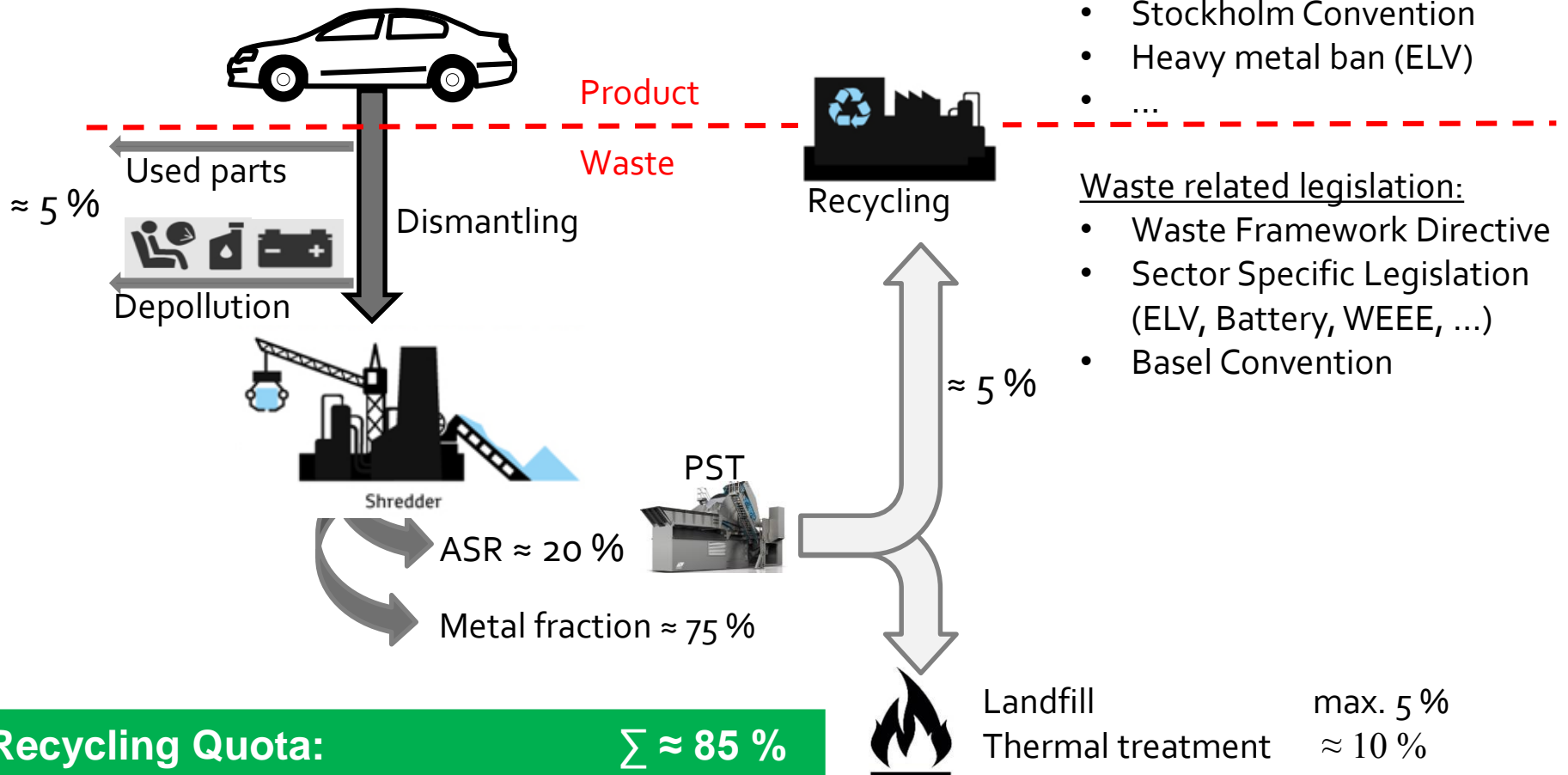


- „Simple“ product
- Few different materials
- Short life span - only one “owner”
- **Recycling Quota ~ 55%**

- One of the most „complex“ consumer products
- Very many different materials
- long life span (average 15 y) - several different owners
- **Recycling Quota ~ 85%**

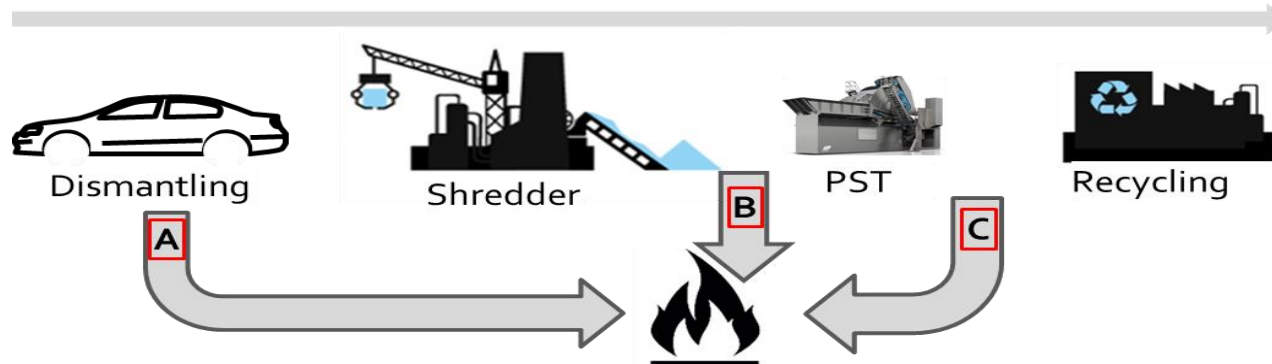
→ Requires a totally different basic concept for regulating the waste phase!

# MATERIAL FLOW – PRODUCT-WASTE-PRODUCT



ASR = Automotive Shredder Residues  
PST= Post Shredder Treatment

# TREATMENT OPTIONS – LEGACY SUBSTANCES



## Option A

Manual disassembling of every part potentially containing POPs

- Information on parts not available
- Full dismantling technically not possible (disperse distribution, individual application)
- LCA → Potential ecological disadvantages compared to PST
- Potential resources not containing POPs will be wasted
- 85%/95% recycling and recovery target not achievable

## Option B

Separating plastics containing POPs, separate treatment

- PST technology not globally utilized
- Separation and post treatment technologies are constantly improving (EU and globally)
- 85%/95% recycling and recovery target will be challenging

## Option C

Further treatment of entire ASR fraction as POP-waste

- Potential resources not containing POPs will be wasted
- 85%/95% recycling and recovery target not achievable

Incineration – general

- Incineration capacities not sufficiently available (EU / global)
- CO<sub>2</sub> emissions by transportation efforts

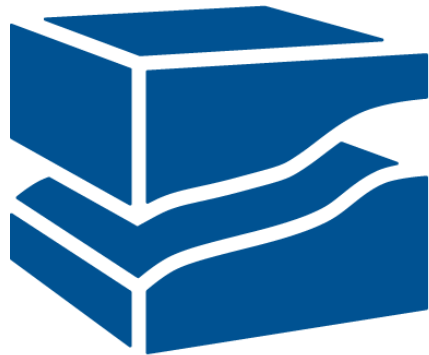
ACEA advocates for reasonable thresholds  
 No retroactive obligations to provide substance related information  
 No obligation for comprehensive dismantling



# CONCLUSIONS

- Automotive substance reporting process was launched in early 2000 and improved over time → compliance in production
- Sustainable substitution is pro-actively promoted
- Large variety and complexity of applications, differences in models and types from various OEMs → processing in treatment facilities not practical
- Complete identification of substances in plastic parts for current ELV is not possible (IMDS launched 2000, gradually improved)
- Cooperation and support for improvement of sorting technologies provides the only viable solution
- A risk based and end-point related discussion for waste streams with legacy substances is required

# THANK YOU FOR YOUR ATTENTION



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