

Thoughts materialized



Recycle & Reuse

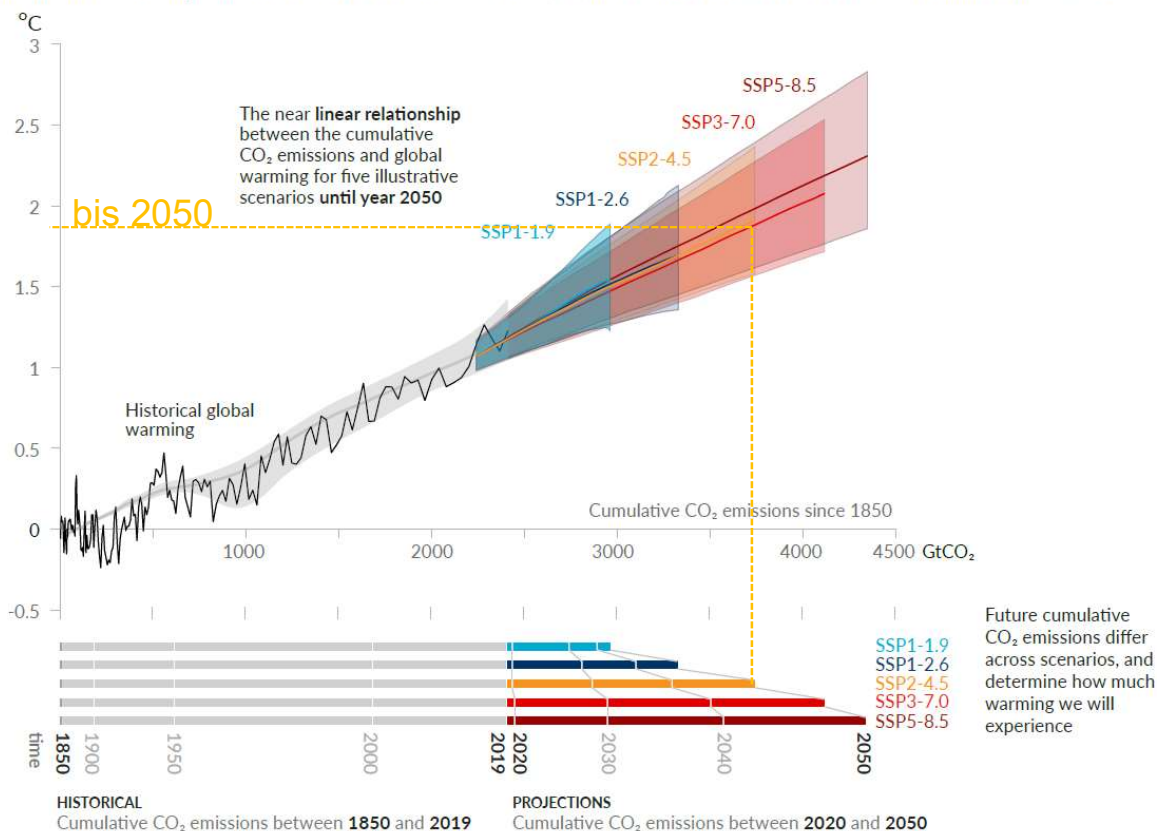
Dr. Markus Schoisswohl
Hegla New Technology

CO2 emission

Motivation

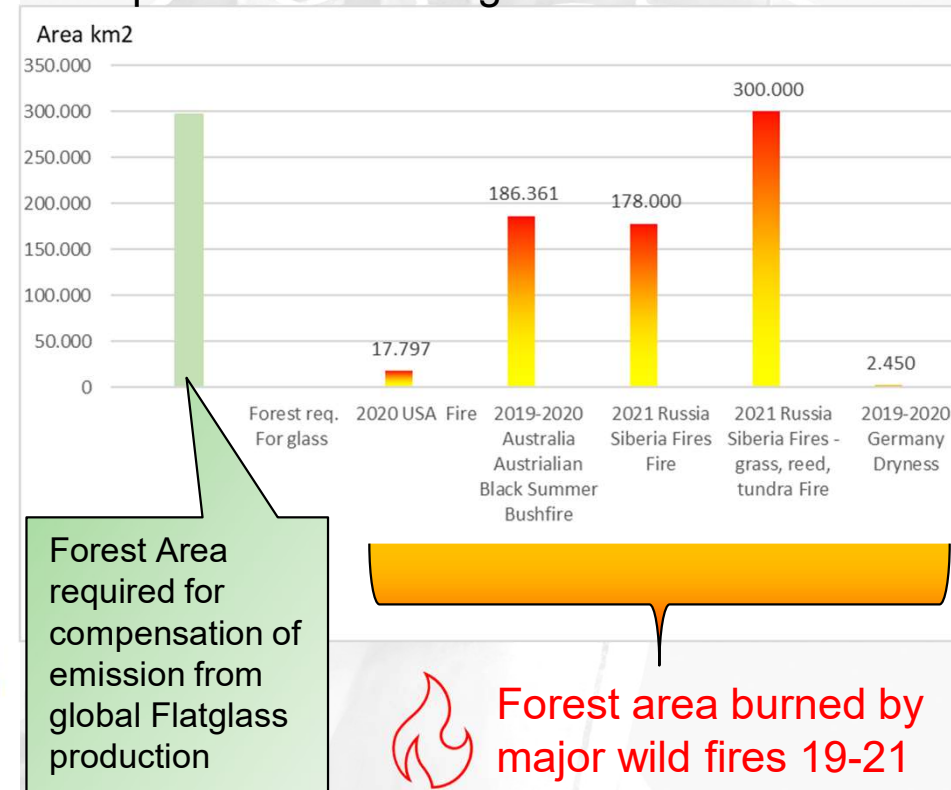
Every tonne of CO₂ emissions adds to global warming

Global surface temperature increase since 1850-1900 (°C) as a function of cumulative CO₂ emissions (GtCO₂)



IPCC, Climate Change 2021, The Physical Science
Motivation, Summary for Policymakers

Required forest 4 flat glass and draw backs

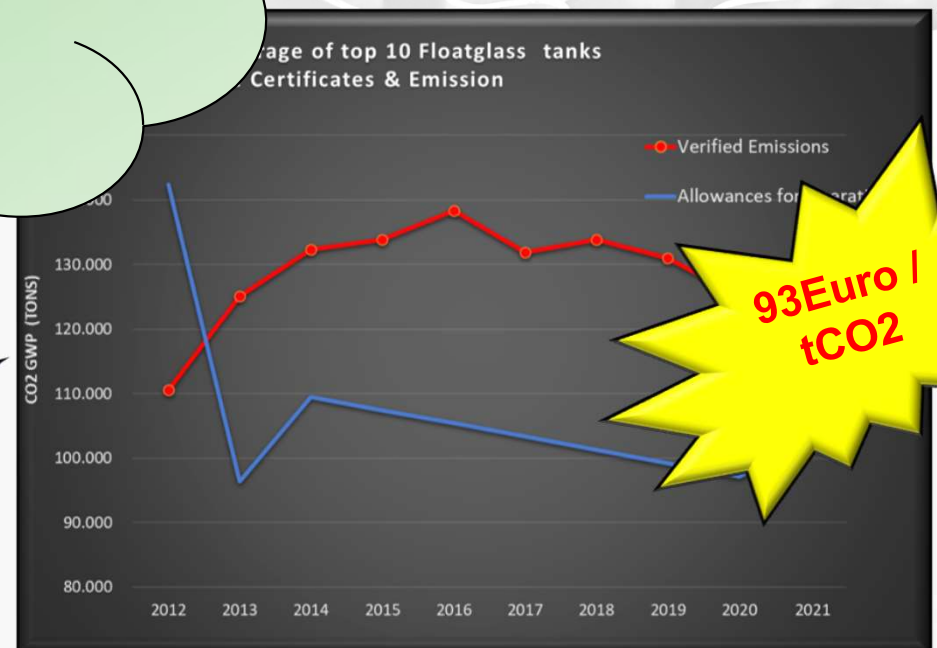


Future thoughts

Record > 59Gt
Human GWP
CO2 emissions

And now?
First: know your
impact

Record 2021:
1,78 Gt CO2 from
fires

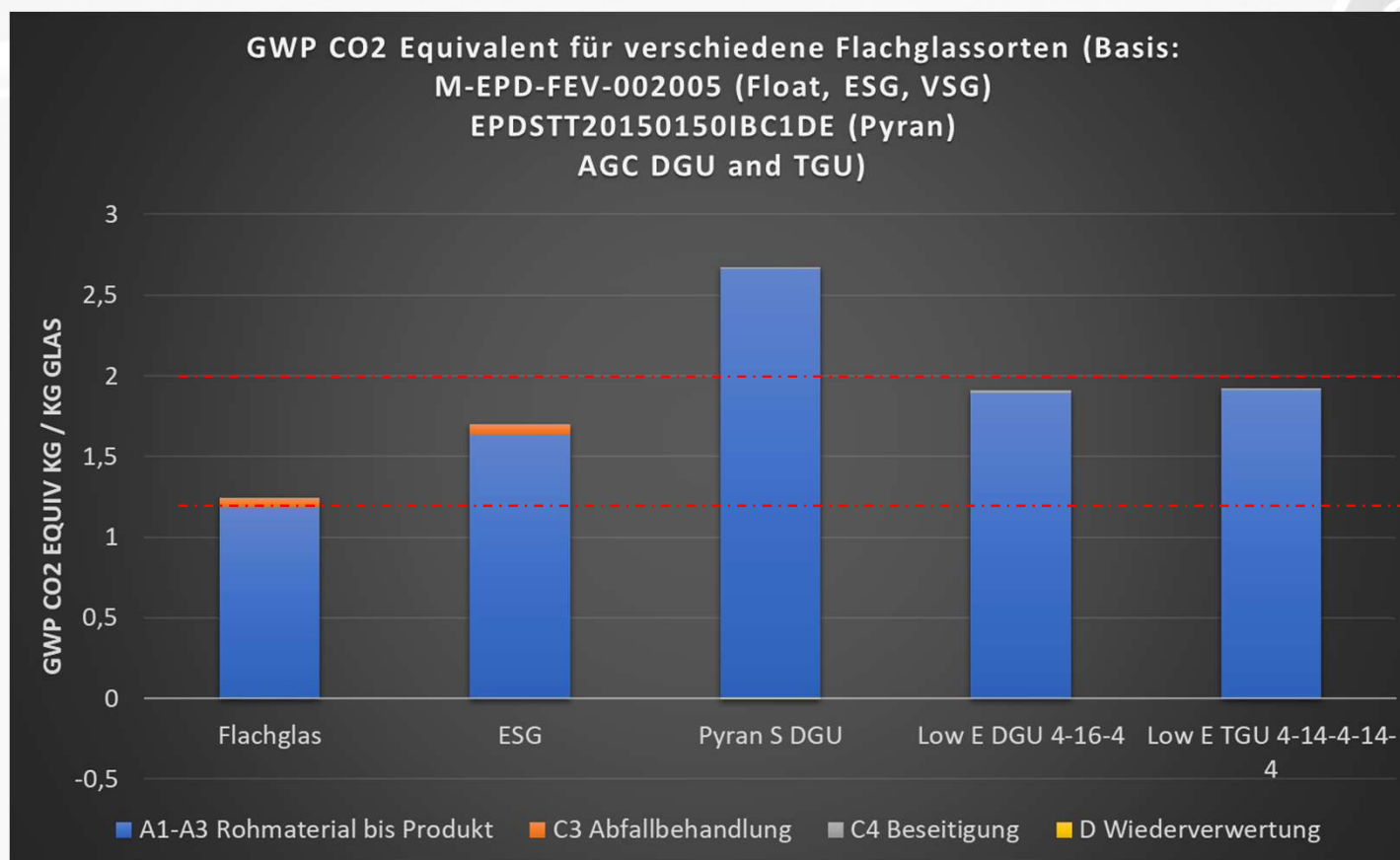


Ressourcenverbrauch

Flachglas Umweltproduktdeklaration (EPD)



New
Technology



CO2 equiv
1,3...2kg/kg
Glas

Motivation

Based on example of Recycling Figure Germany

Recycling according to BV DE 2019

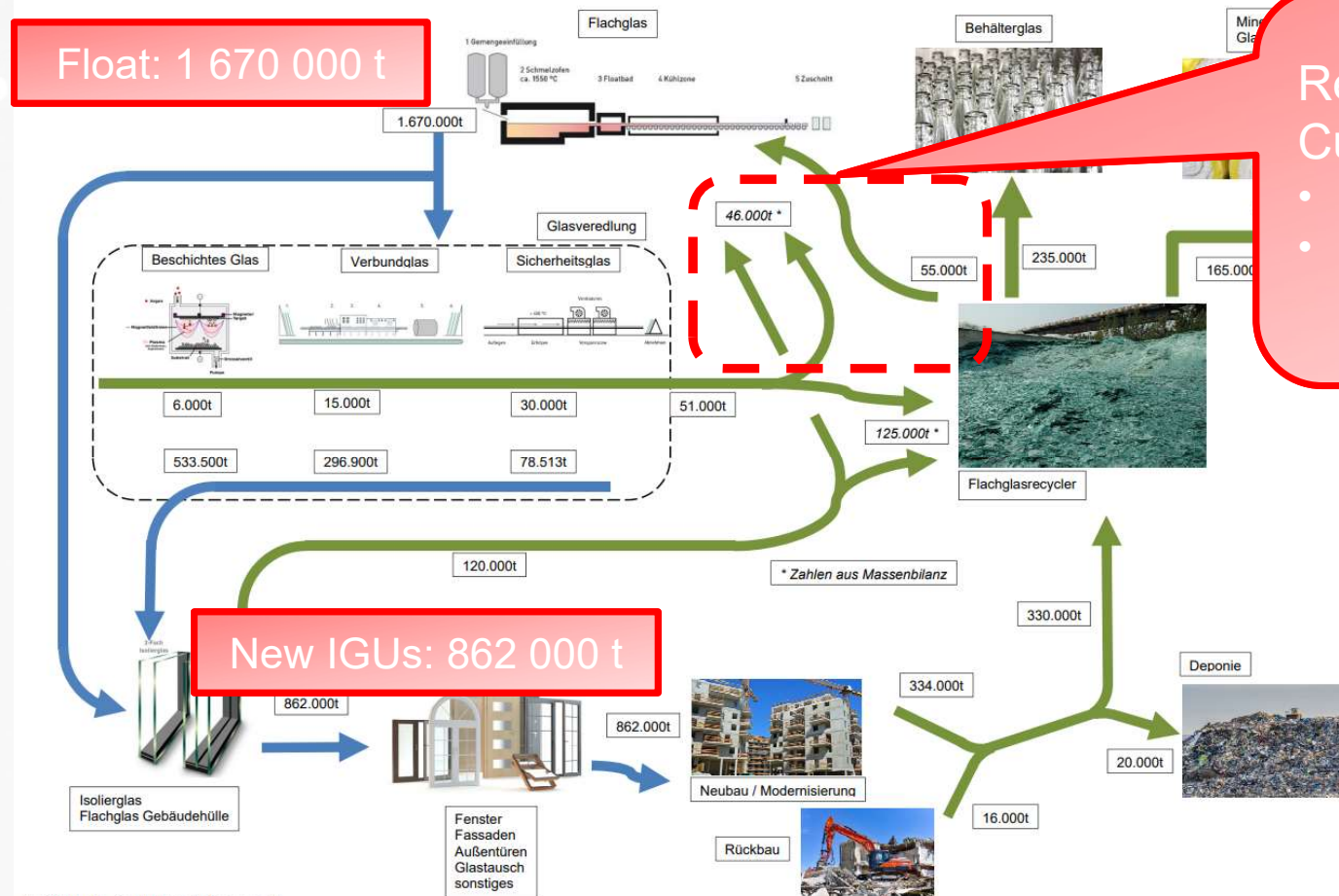


Abbildung 13 Quantitatives Stoffstrommodell

Recycling von Flachglas im Bauwesen – Analyse des IstZustandes und Ableitung von Handlungsempfehlungen; IFT Rosenheim für BV Flachglas

What do you do with unusable IG Elements?

➤ Production Failure

- IG Elements with defects right after production

➤ Returned Window elements

- Broken returns from Installations
- Return of used IG

.. is it waste or valuable source?



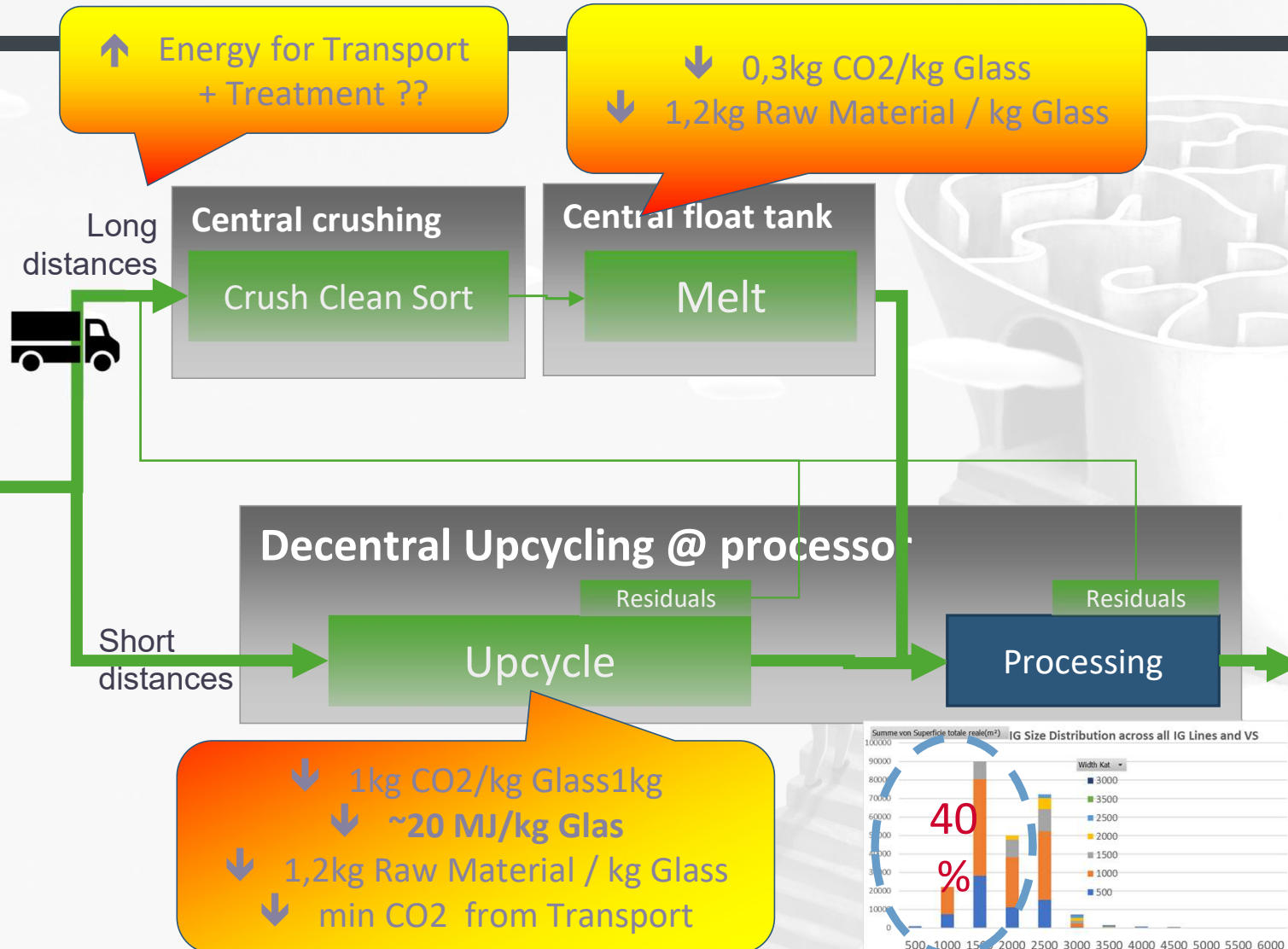
Scenarios

Path 1 Recycling

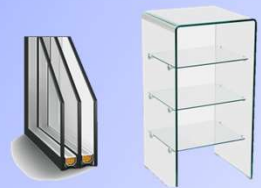
Old Glass



Path 2 Upcycling



Use /
Application

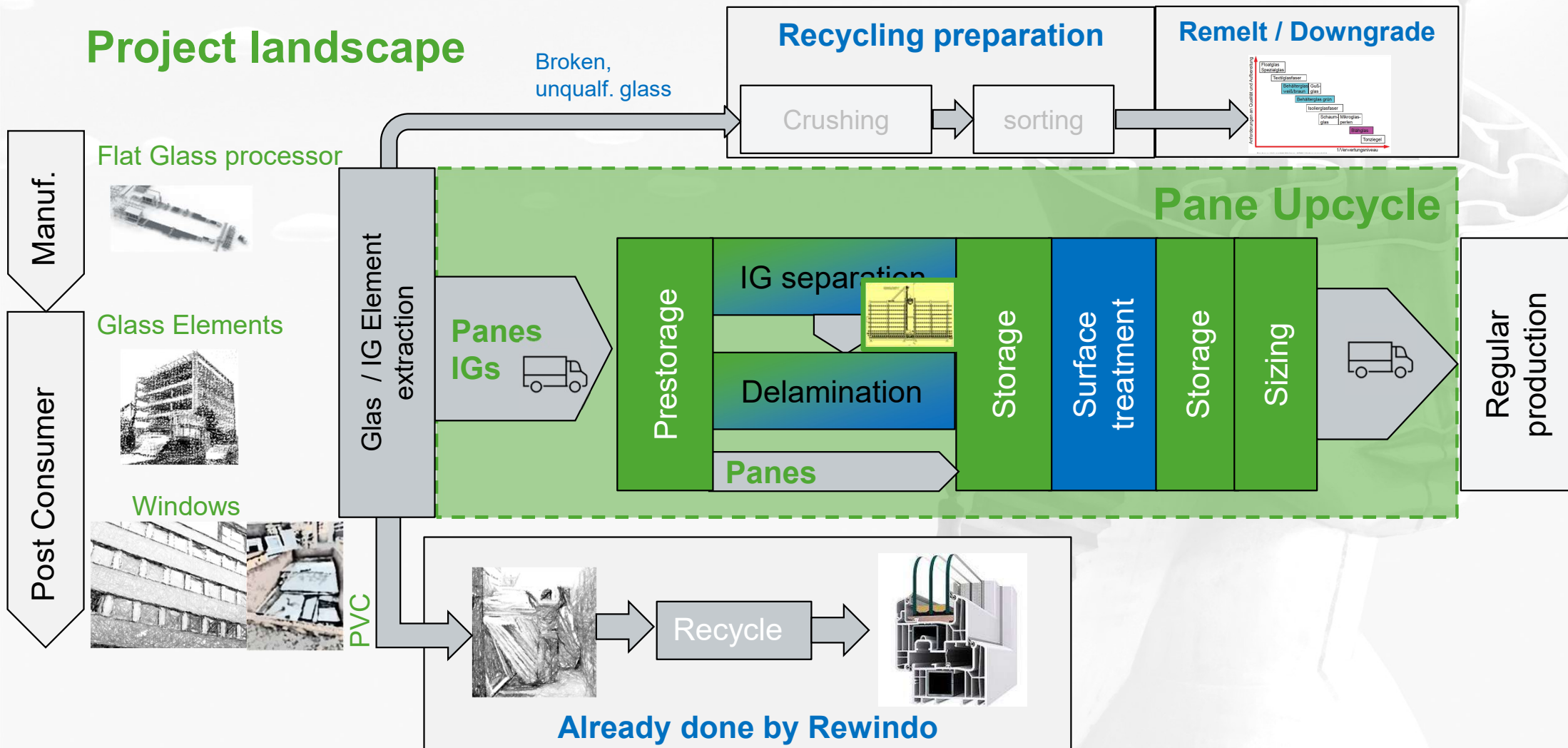


Pane Upcycle Process



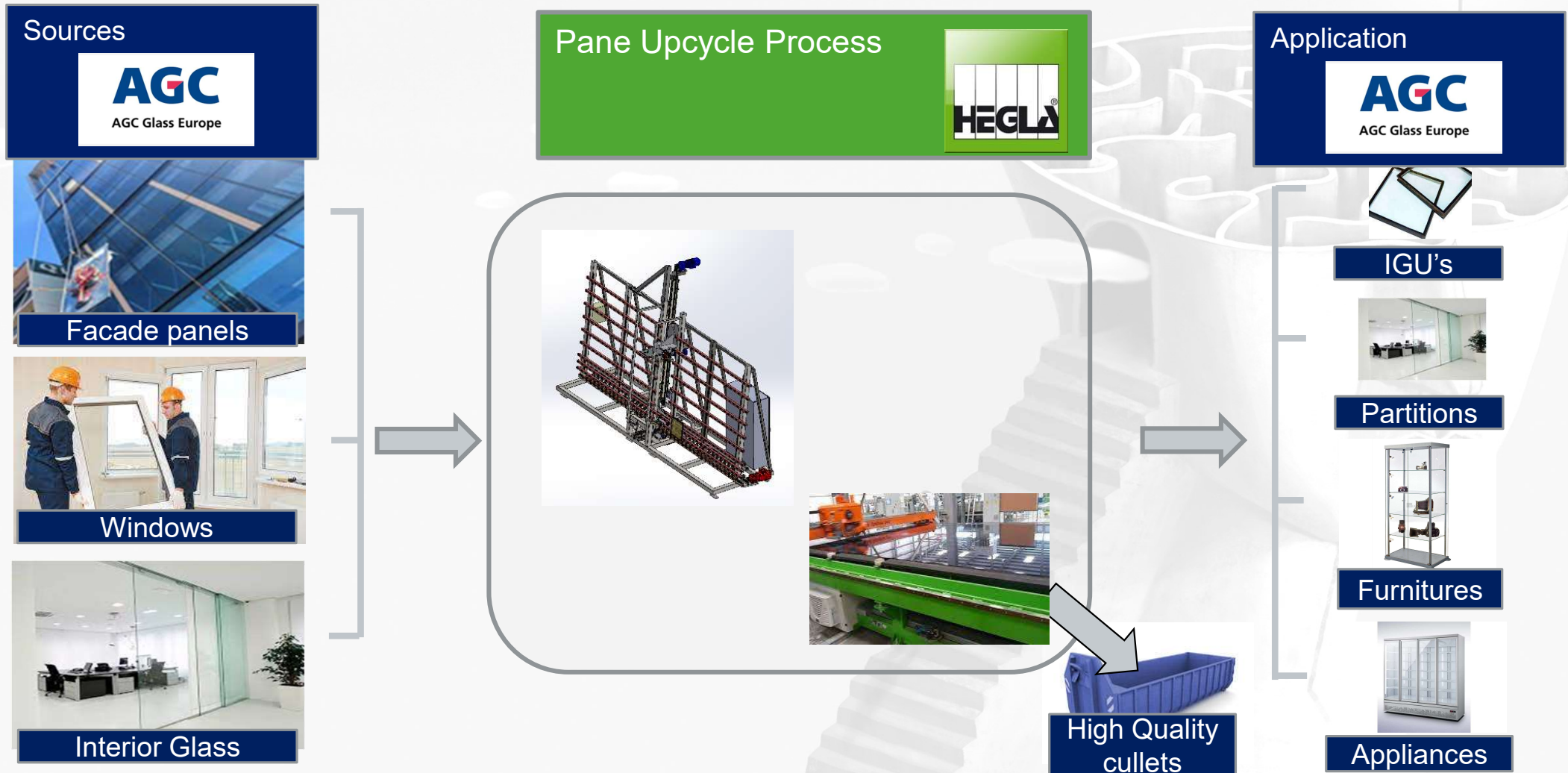
New
Technology

Project landscape

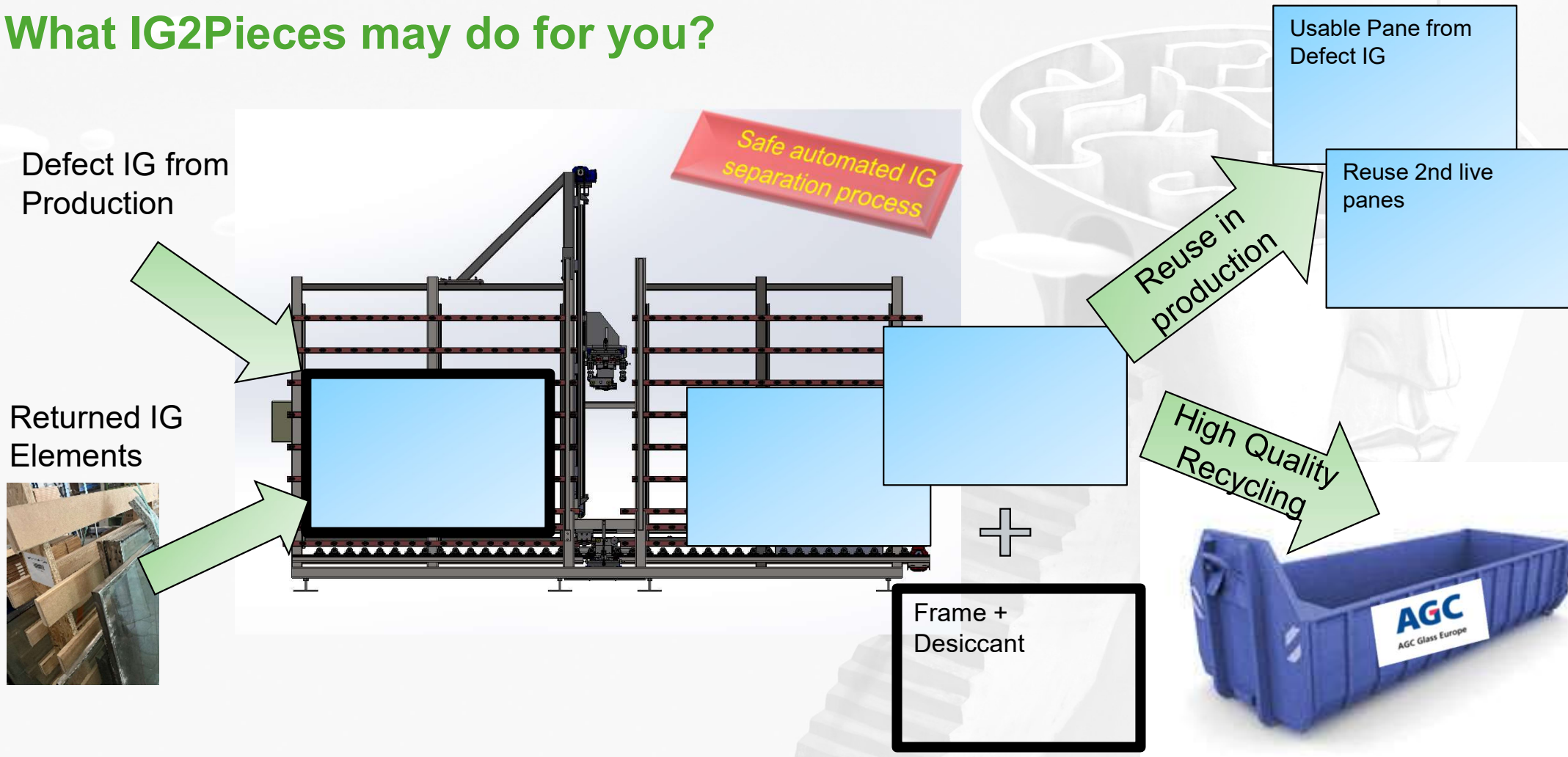


Pane Upcycle Process

Aim: Recycle / Reuse instead of waste



What IG2Pieces may do for you?



IG2Pieces

Basics

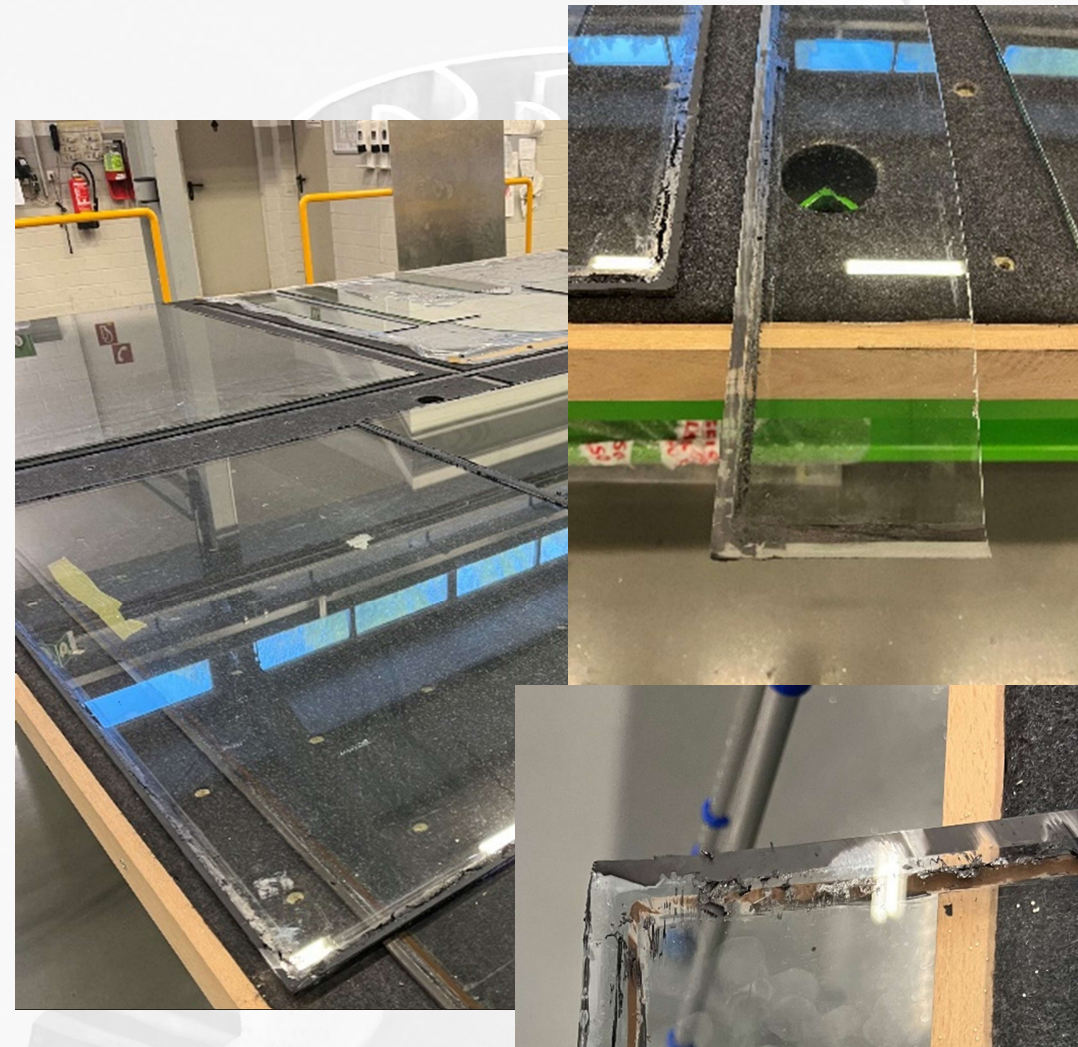
First Results

➤ General principle

- ✓ Function Working
- ✓ Separation glass and frame

➤ Industrial tests

- Ongoing, presentation @ GPD 2023



Where IG2Pieces makes sense?

➤ Repair

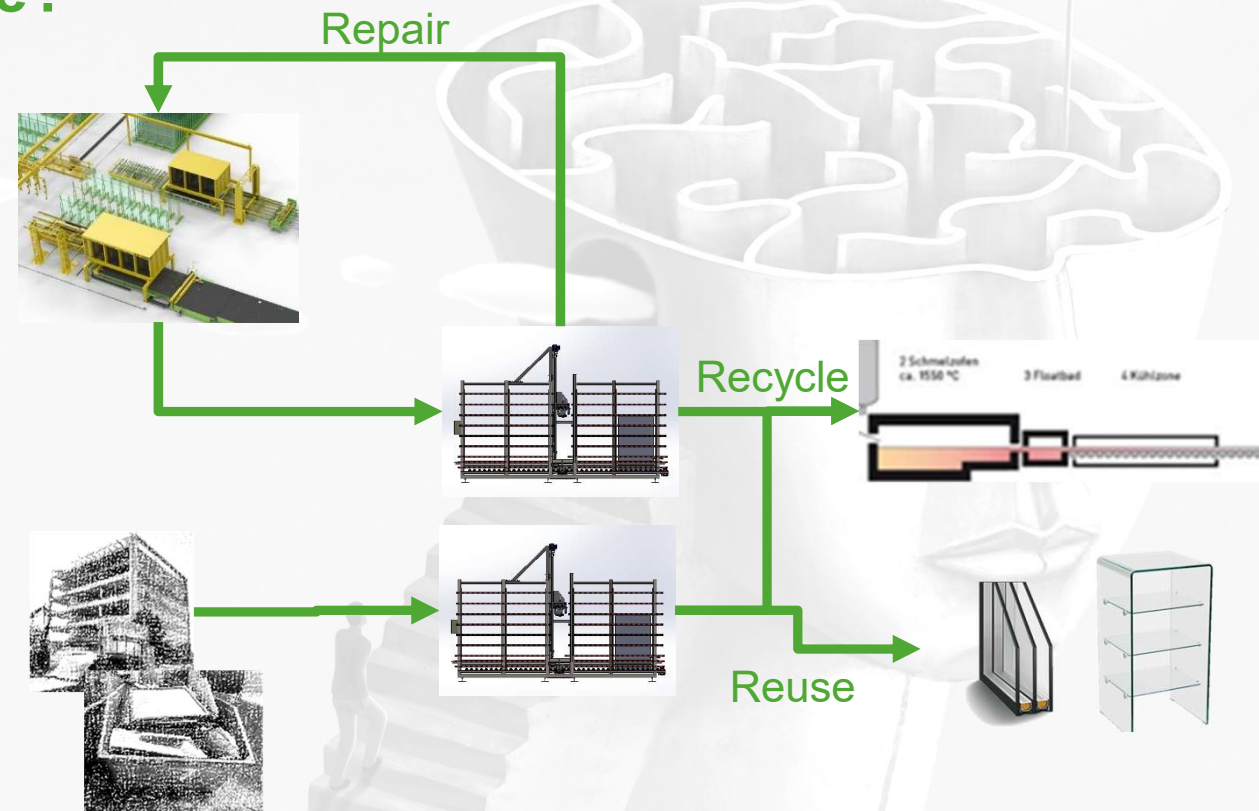
- Of “freshly” produced IGUs

➤ Recycle

- Convert IGUs to cullets

➤ Reuse

- Convert into new products



IG2Pieces

➤ Suits different application and ramp up

- Repair
- Recycle
- Reuse

➤ enables circularity (no greenwashing)

- real reduction in CO2 footprint
- with interested partner for waste
- anticipating coming EU legislation



... want to know more?

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