

Flat Panel and Lamp Recycling System

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The world of Flat Panels



- There are thousands of flat panels on the market.
- All sizes from small handheld monitors up to huge TV screens.
- All types from LCD, LED, Plasma, QLED and OLED.

And the World of Lamps



- There are several thousands of different lamps on the market.
- All sizes and forms.
- From old, mercury containing lamps to the new generation of LED lamps.

The “all in one” Recycling System - BLUBOX

For all sizes and types of flat panels and lamps.



- ✓ All equipment built in a 40-foot container.
- ✓ Protected against damage.



- ✓ Easy to install and operate.
- ✓ Safe, secure and reliable.

Recycling of Lamps and Flat Screens

- FPD processing through the shredder, a continuous process with a capacity of 2000 tons per year.

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- Lamp processing by the mixer in a batch process with a capacity of 1000 tons per year.



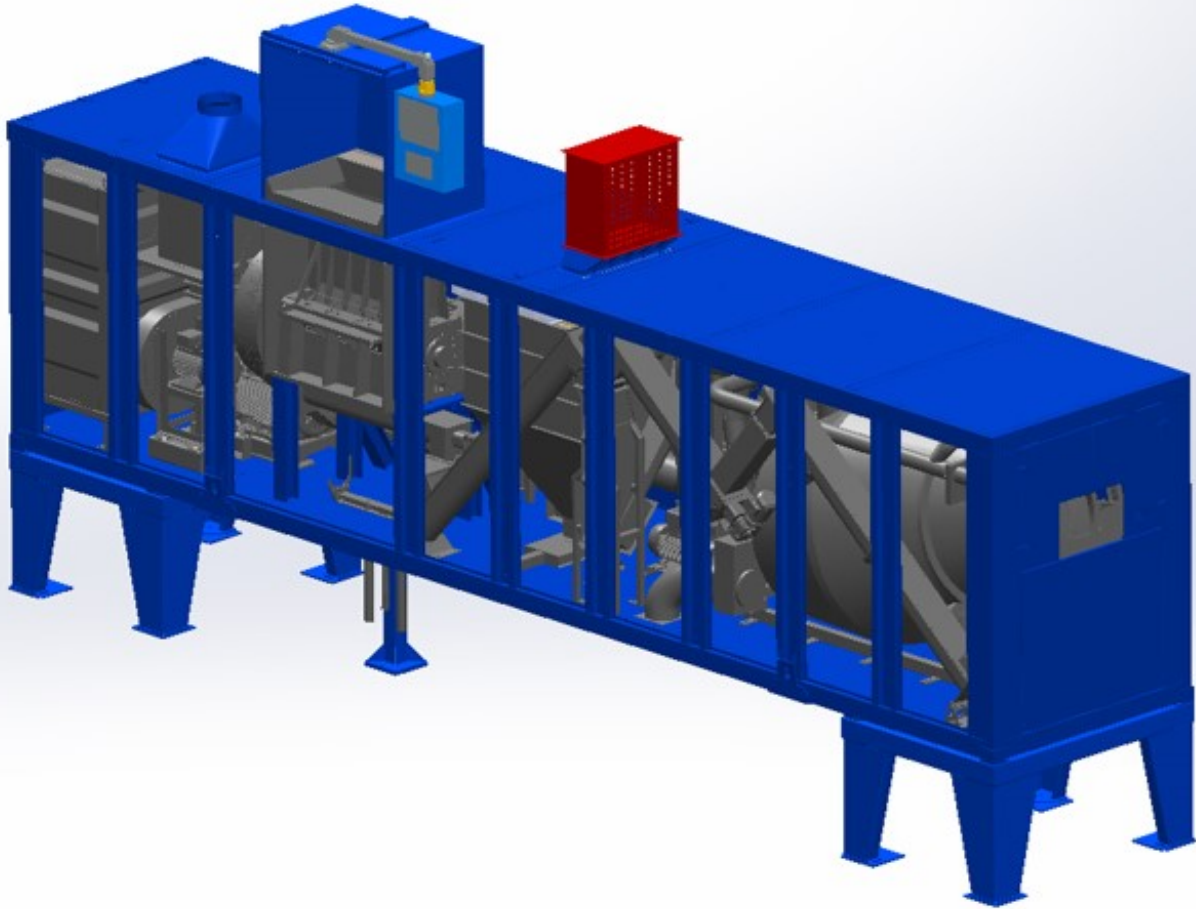
2000 tons of FPDs + 1000 tons of Lamps = 3000 tons/year in an 8 hours shift!

How does it look like?

- A closed installation, all in a 40-foot container.
- Operates under slight vacuum.
- No leakage of hazardous materials without treatment.



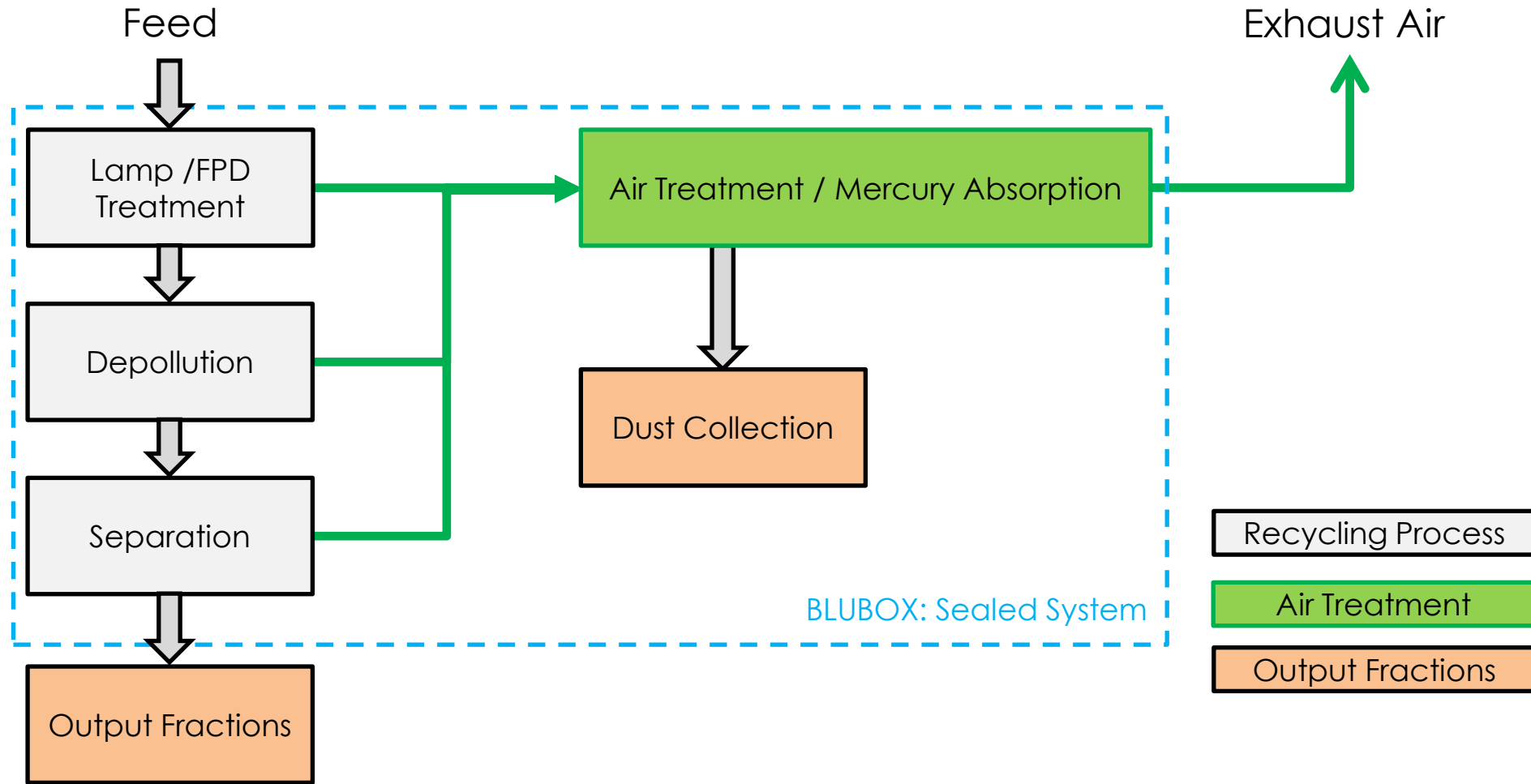
The Inside



is packed with all the equipment:

- ✓ 90 kVA shredder
- ✓ 4m³ mixer
- ✓ 5'000 m³/h air treatment system with mercury and dust absorption.
- ✓ A separation system with magnetic separation and drum screen.

The Flow Chart



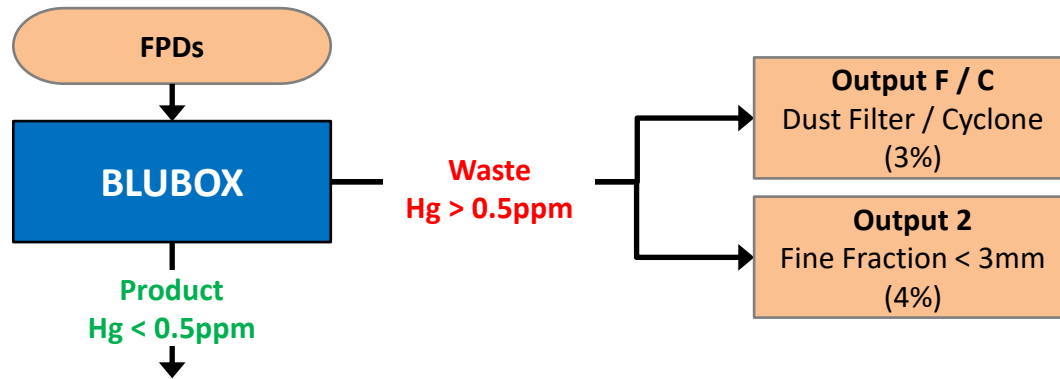
In detail - the Flat Panel Treatment



The BLUBOX treats:

- ✓ All types of flat screens
- ✓ Flat screens up to 95 inch
- ✓ Plasma screens up to 55 inch
- ✓ Throughput 1'000 kg/h or
 - 180 monitors/h
 - 55 televisions/h

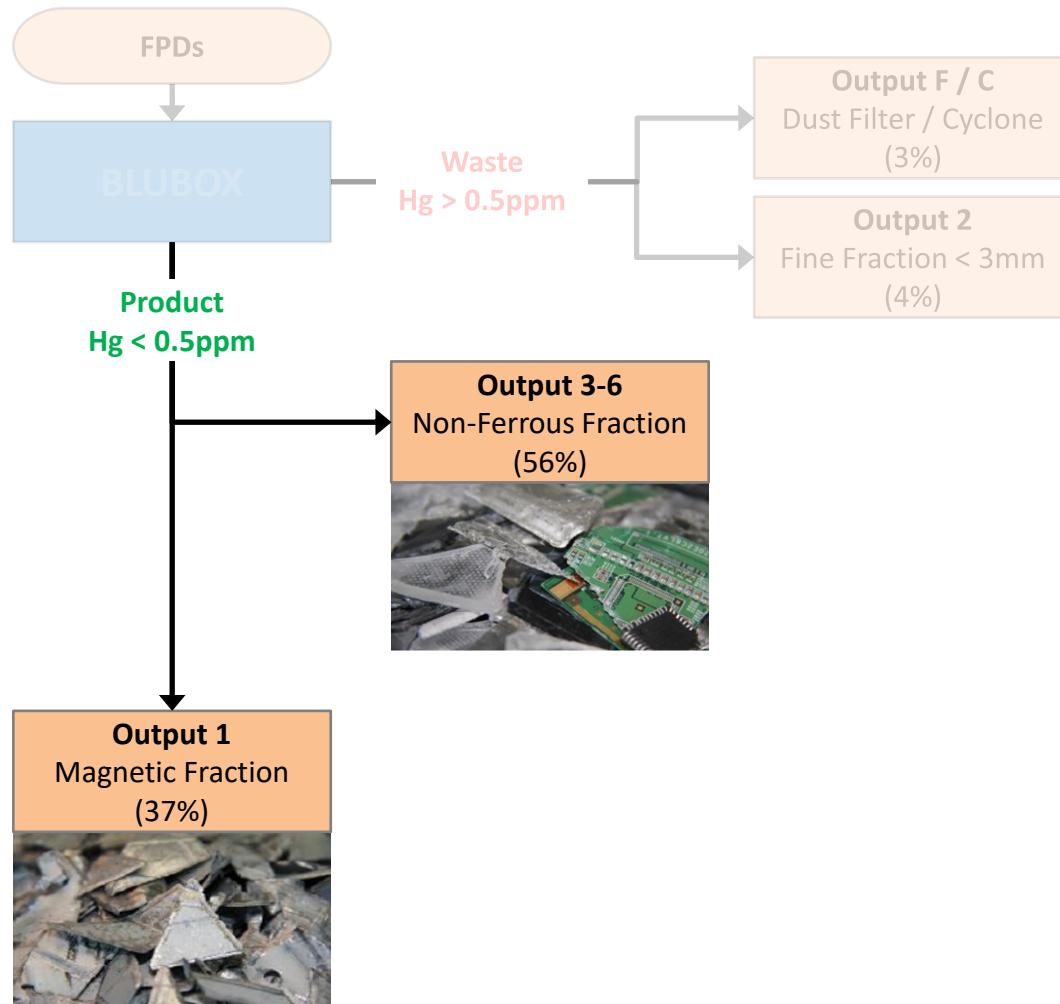
Step One



Shredding and Depollution

- The FPD are shredded inside the BLUBOX.
- Mercury vapor and dust are collected and absorbed by the air treatment system.
- Separation of the hazardous from the non-hazardous materials.

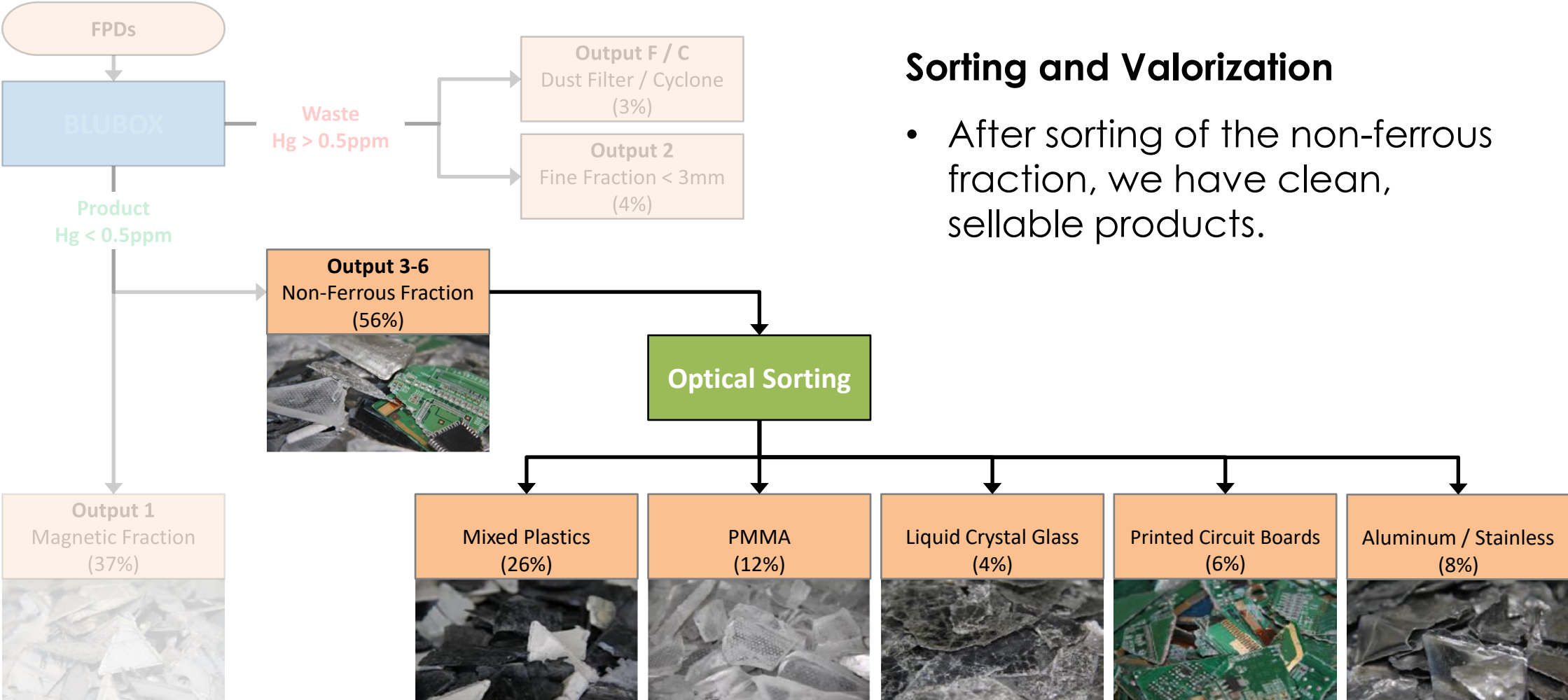
Step Two



Separation

- The products are separated in a magnetic and a non-ferrous fraction.
- The magnetic fraction is an end product and can be sold without further treatment.
- The non-ferrous fractions needs further sorting to be valorized.

Step Three



Sorting and Valorization

- After sorting of the non-ferrous fraction, we have clean, sellable products.

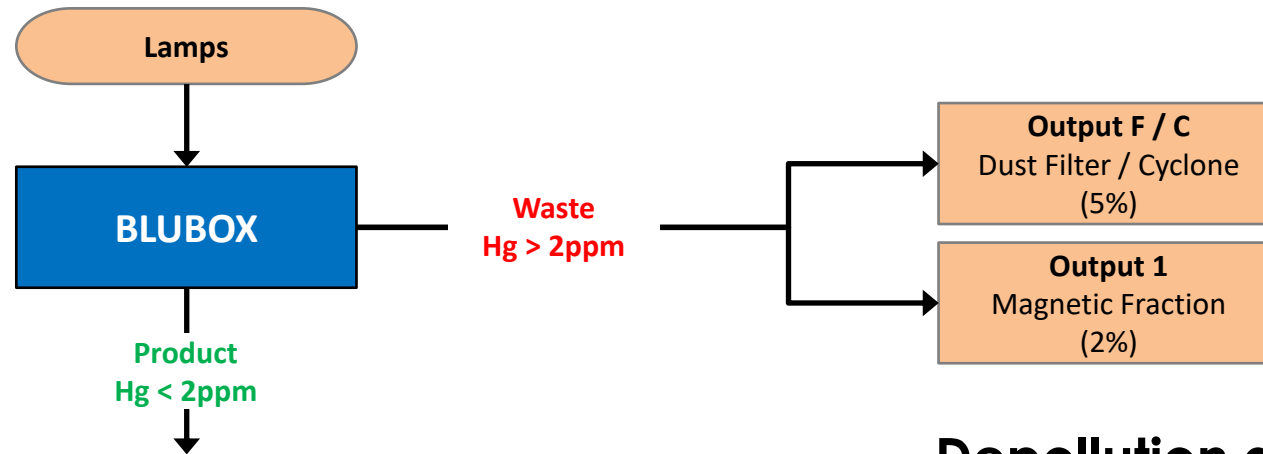
Close up- the Lamp Treatment



The BLUBOX treat:

- ✓ Straight fluorescent tubes.
- ✓ Special forms and compact lamps.
- ✓ And LED Lamps!
- ✓ Throughput 500 kg/h or
- 2'500 tubes/h

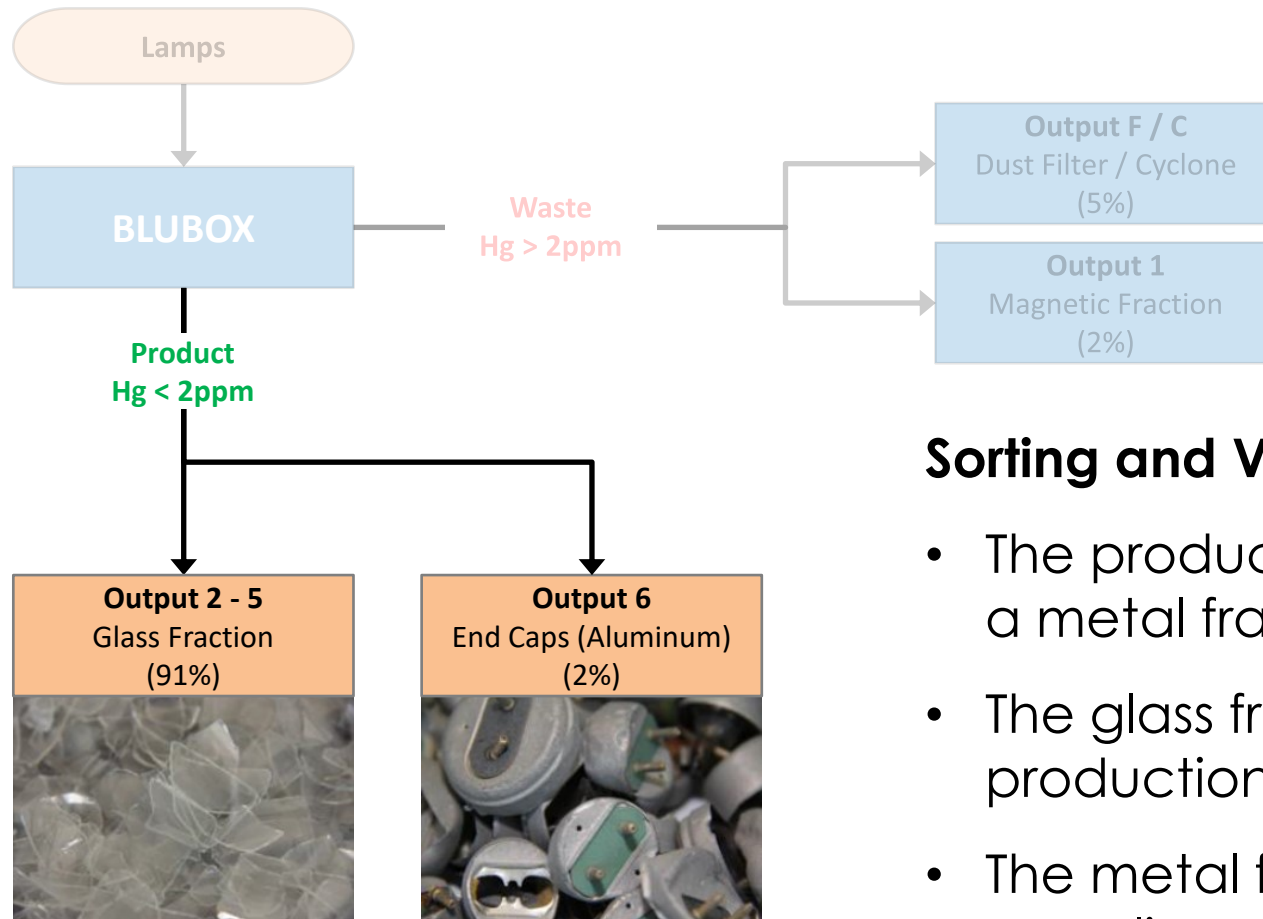
Step One



Depollution and Hazardous Separation

- The lamps are crushed inside the BLUBOX.
- Mercury vapor and dust are collected and absorbed by the air treatment system.
- Separation of the hazardous from the non-hazardous materials.

Step Two



Sorting and Valorization

- The products are separated in a glass and a metal fraction.
- The glass fraction can be reused for the production new lamps or isolation material.
- The metal fractions goes to the metal recycling.

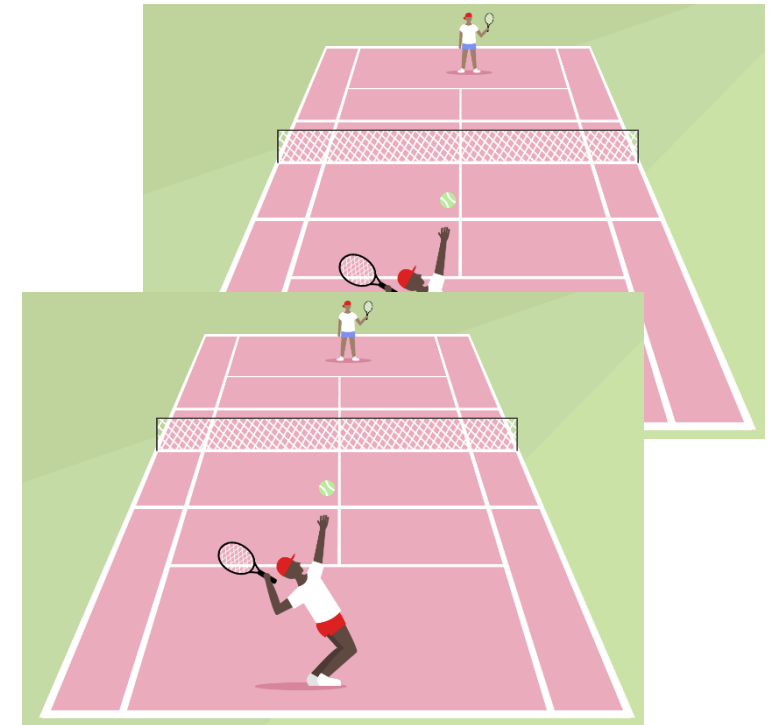
The space needed for the installation



The footprint for the installation are 2 tennis courts!

- One for the BLUBOX
- And one for the optical sorter

2 Tennis fields



We do more

Other materials can be recycled to, such as....



Mobile Phones and Tablets



Laptops



Hard Drives



Phones, Switches, etc.



Desktop Computers

Do not Forget Data Destruction



“Secure your data even after the end of use!”

- ✓ The BLUBOX is equipped with a camera system to control the shredding room.
- ✓ This system can be used for **monitoring and proof** of the data destruction.
- ✓ The particle size of the output material can be adjusted to your needs.

For more information



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