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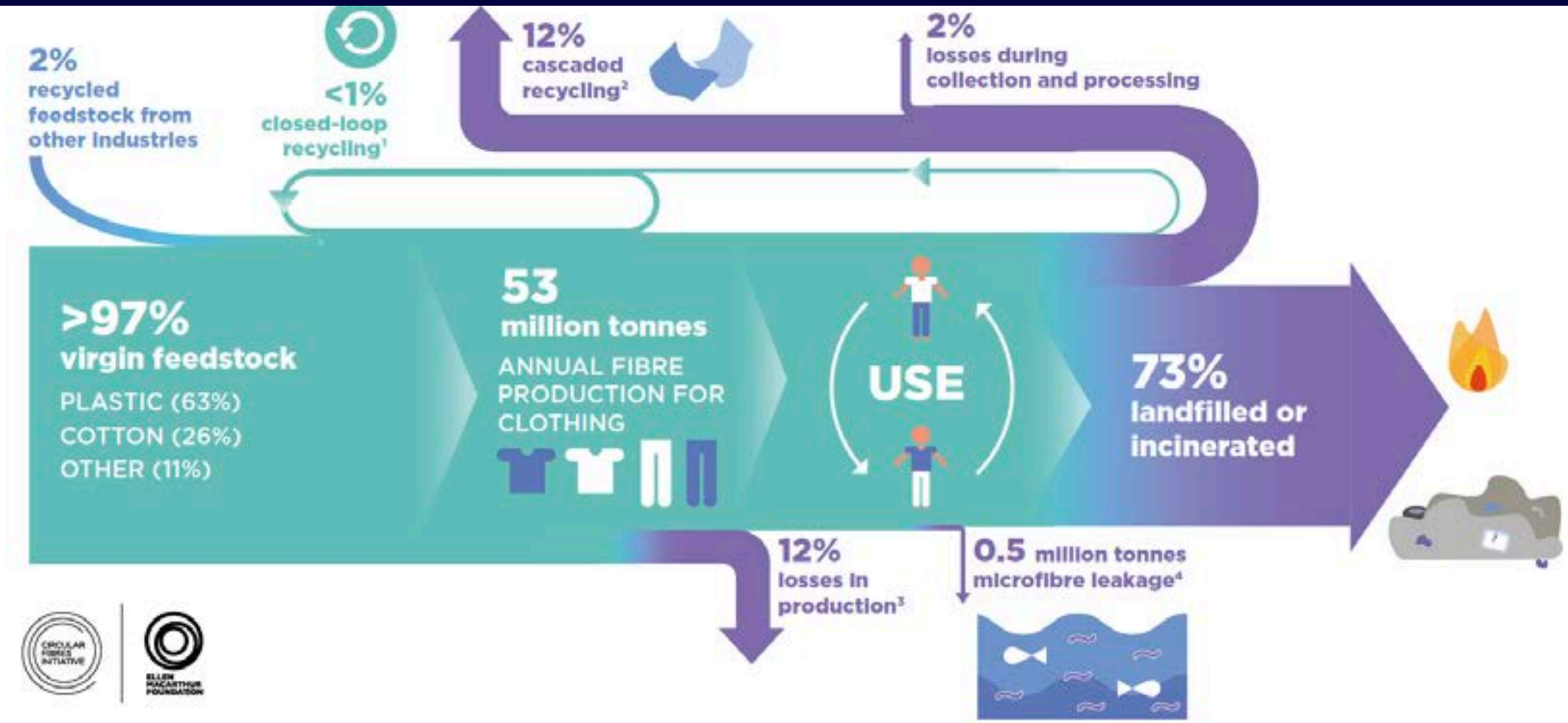
THE PICTURE over an undervalued problem



1 Recycling of clothing into the same or similar quality applications
2 Recycling of clothing into other, lower-value applications such as insulation material, wiping cloths, or mattress stuffing
3 Includes factory offcuts and overstock liquidation
4 Plastic microfibres shed through the washing of all textiles released into the ocean

Source: Circular Fibres Initiative analysis – for details see Appendix B

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WHY-1

……In the EU, the consumption of textiles, most of which are imported, now accounts on average for the **fourth (4th) highest negative impact on the environment and on climate change** and **third (3rd) highest for water and land use** from a global life cycle perspective 3 .
About **5.8 million tonnes of textiles are discarded every year** in the EU, approximately **11kg per person** , and every second somewhere in the world a truckload of textiles is landfilled or incinerate

EU https://environment.ec.europa.eu/strategy/textiles-strategy_en

Brussels, 30.3.2022

WEIGHT of 1 T-shirt = 0,11 Kg

EU 2022 citizens: 447,956,050
WORLD population:8,048,920,892
EU = 5,56% of total world population

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WHY-1

1) ….5 million tonnes
of clothing discarded each year in the EU - around 12kg per person
2) 20 to 35 jobs created for each 1000 tonnes of textiles collected for re-use
3) 1% of material in clothing is recycled into new clothing
……
4) …….in factories, 25-40% of all fabric used is either leftover or becomes waste.
……
Around 20% of the separately collected used textiles
in EU are downcycled for use as industry wipes
or other applications,
while the rest is lost…….

EU https://environment.ec.europa.eu/strategy/textiles-strategy_en

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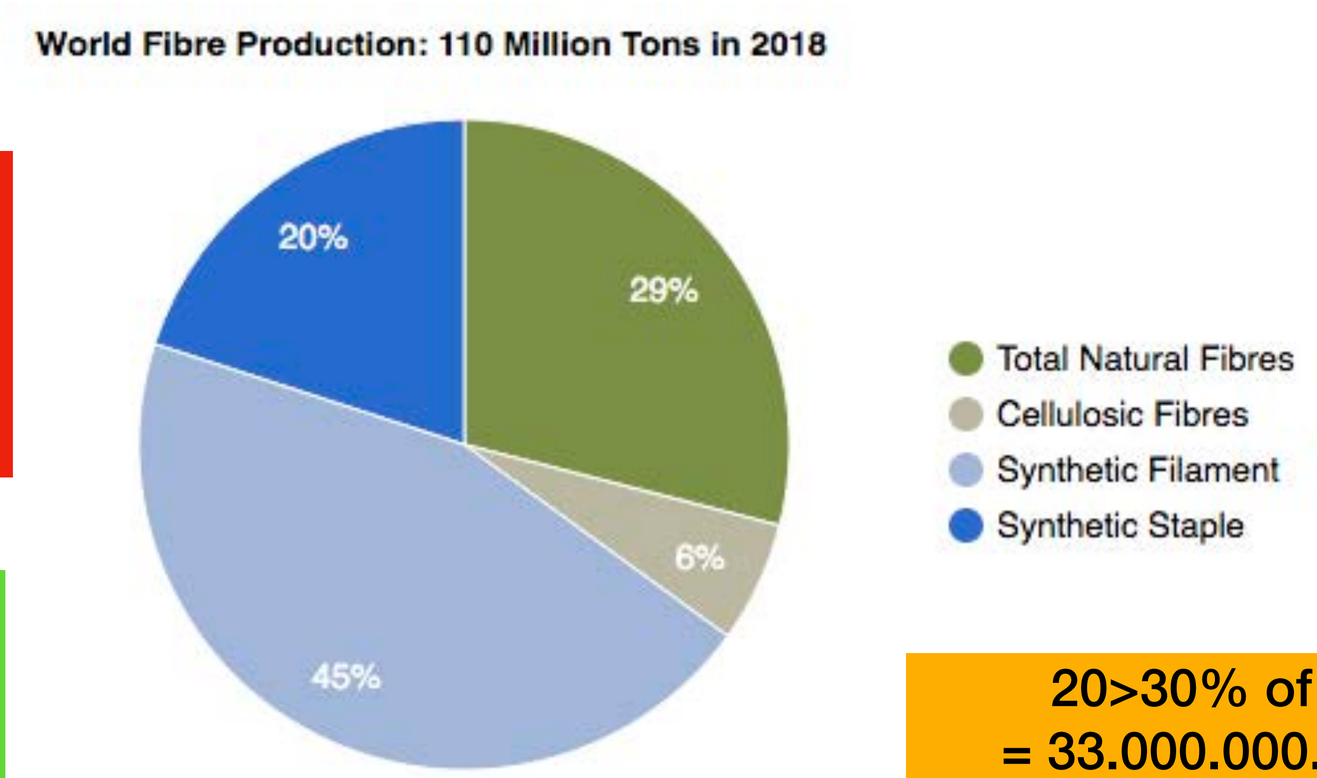
WHY-2

WATER CONSUMPTION
for production of TEXTILES:
a) 1 kg cotton textile (8 T-shirt) = 1200 lt
b) 1 kg of PET fibre = 72.000 lt (60 times more)

Total GAS EMISSION
from Textile production
At 1.200.000 Tons/Y annually
are more that all international flights and maritime shipping combined
(MacArthur foudation 2023 report)



20>30% of fibers
= 33.000.000.000 kgs
become a waste during the 1° textile
& clothing
Manufacturing cycle

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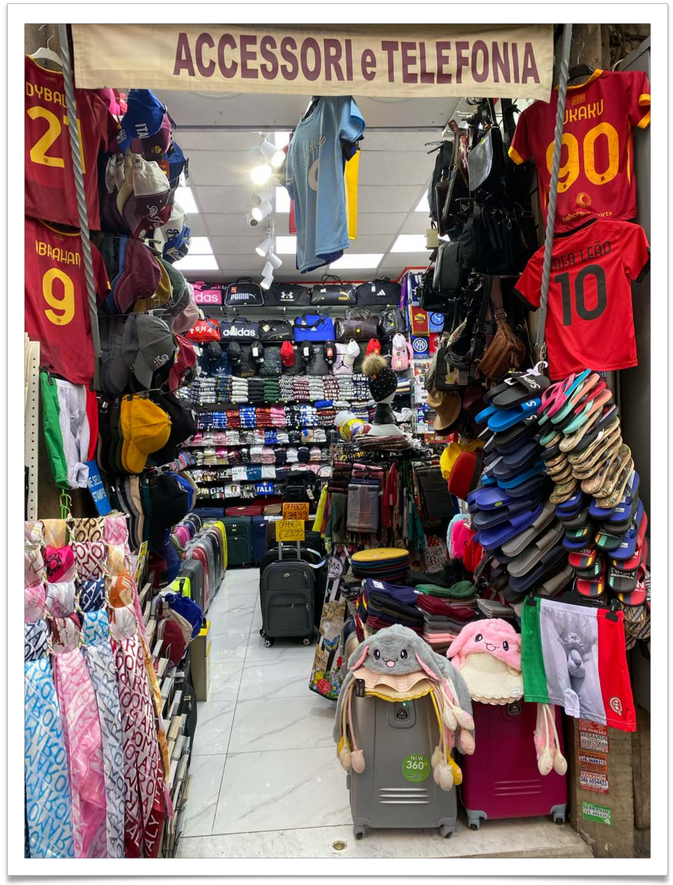
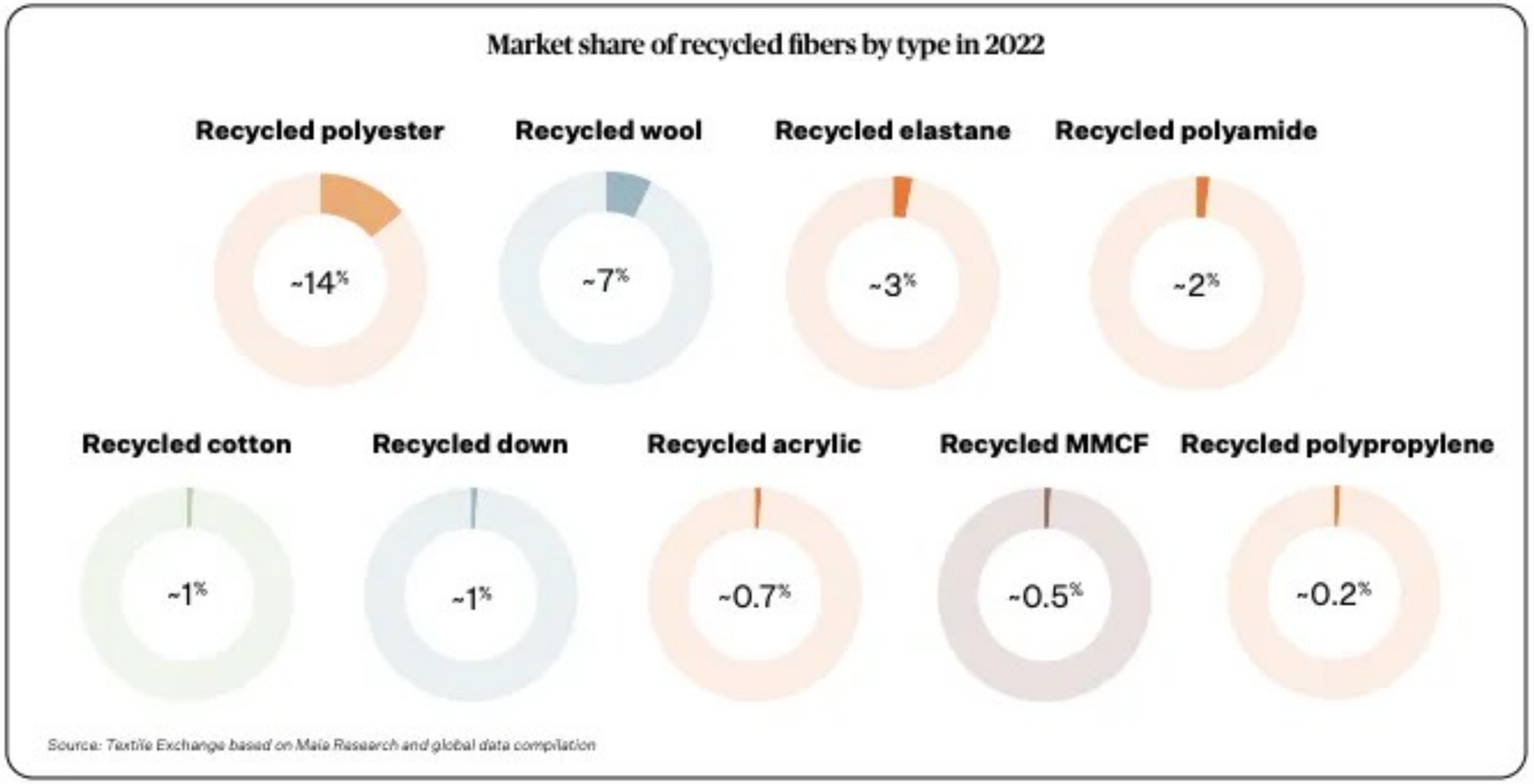
WHY-3





Textile exchange report

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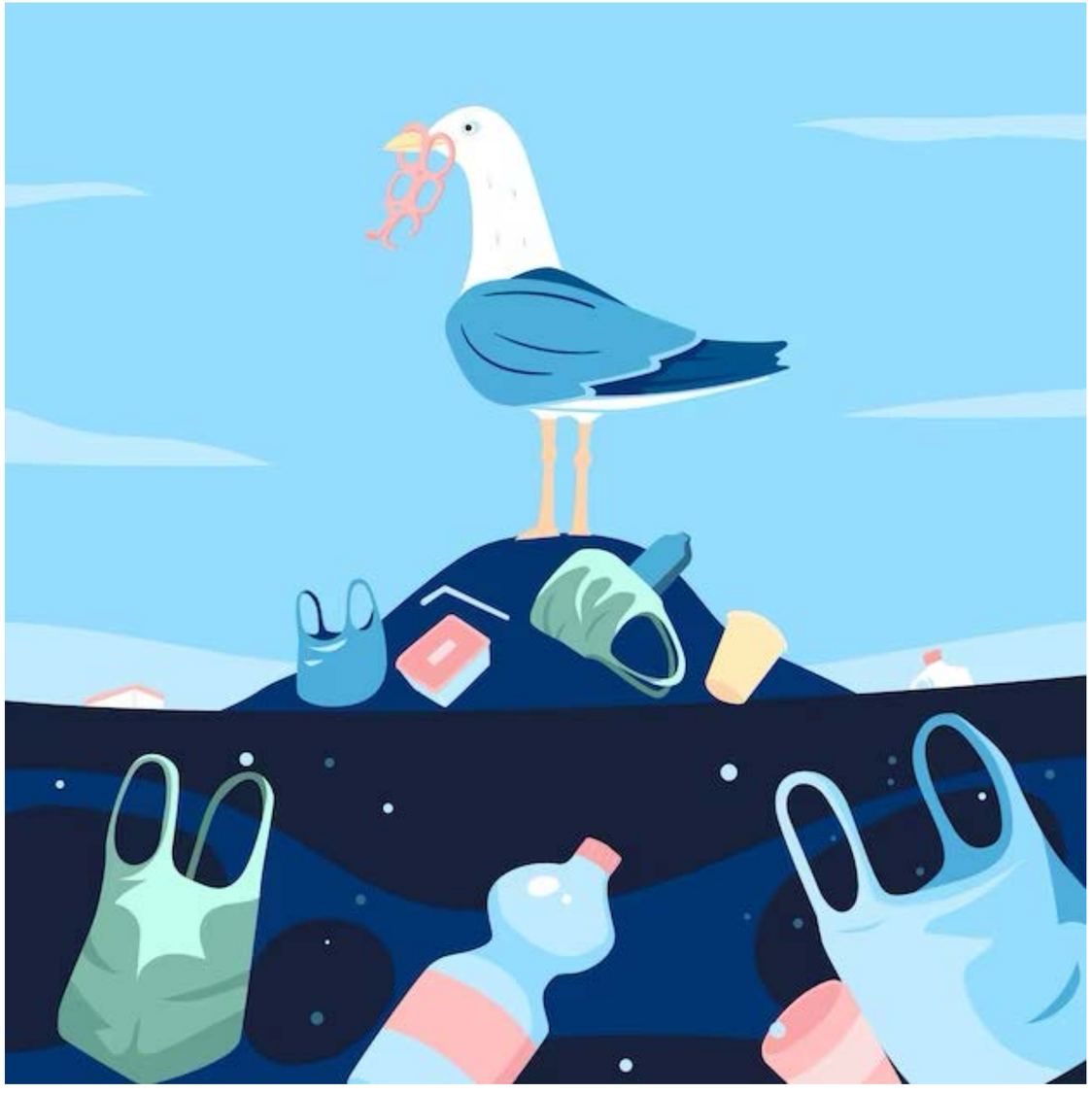
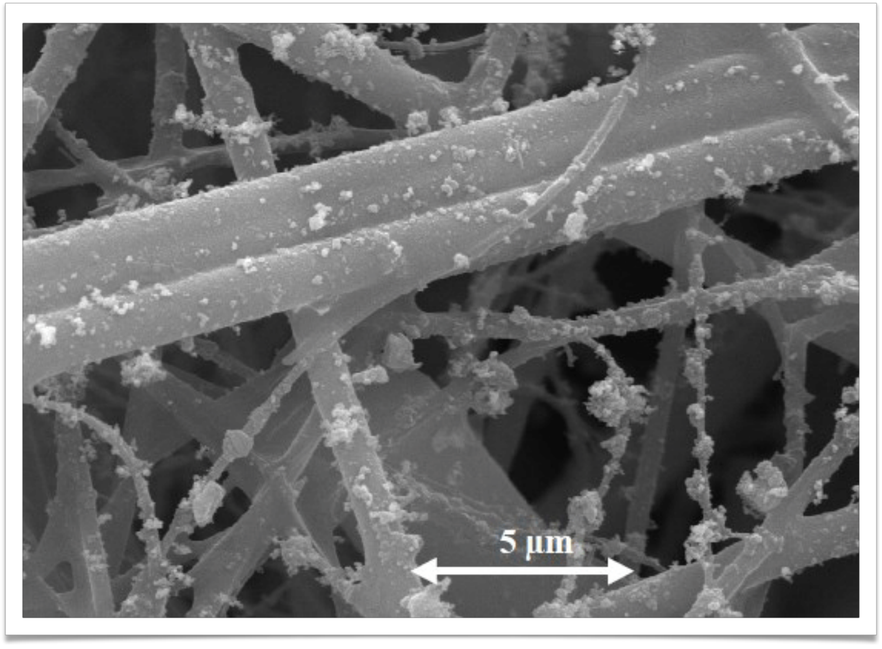
WHY-4

OCEAN waste





OCEAN microplastic
from synthetic fibres

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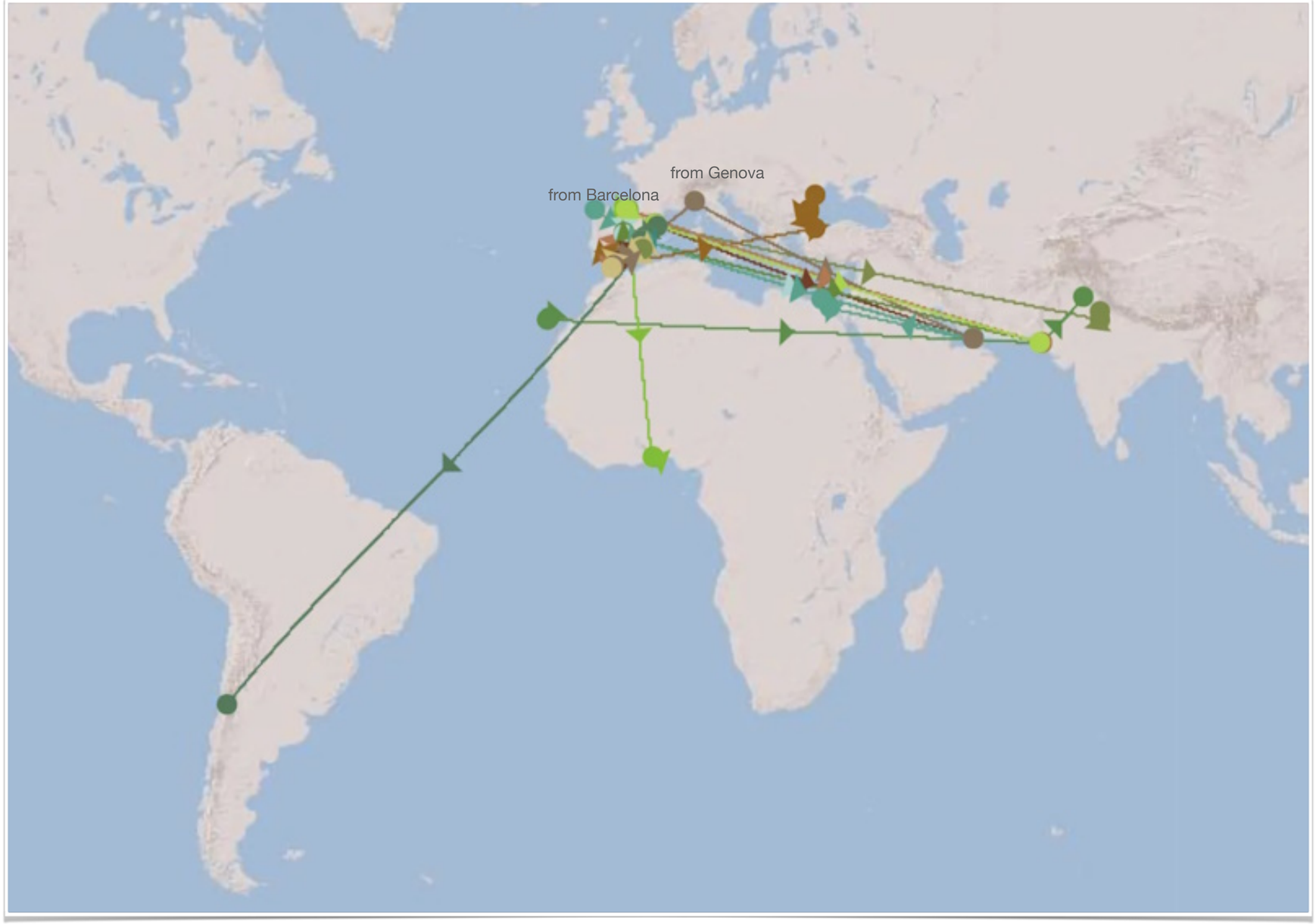
WHY-5 GREENPEACE REPORT



WHERE our western style textile waste are spread into the Planet

……More than USD 500 billion of value is lost every year due to clothing underutilisation and the lack of recycling.

ELLEN MACARTHUR FOUNDATION REPORT 2023:
…….A NEW TEXTILES ECONOMY: REDESIGNING FASHION'S FUTURE

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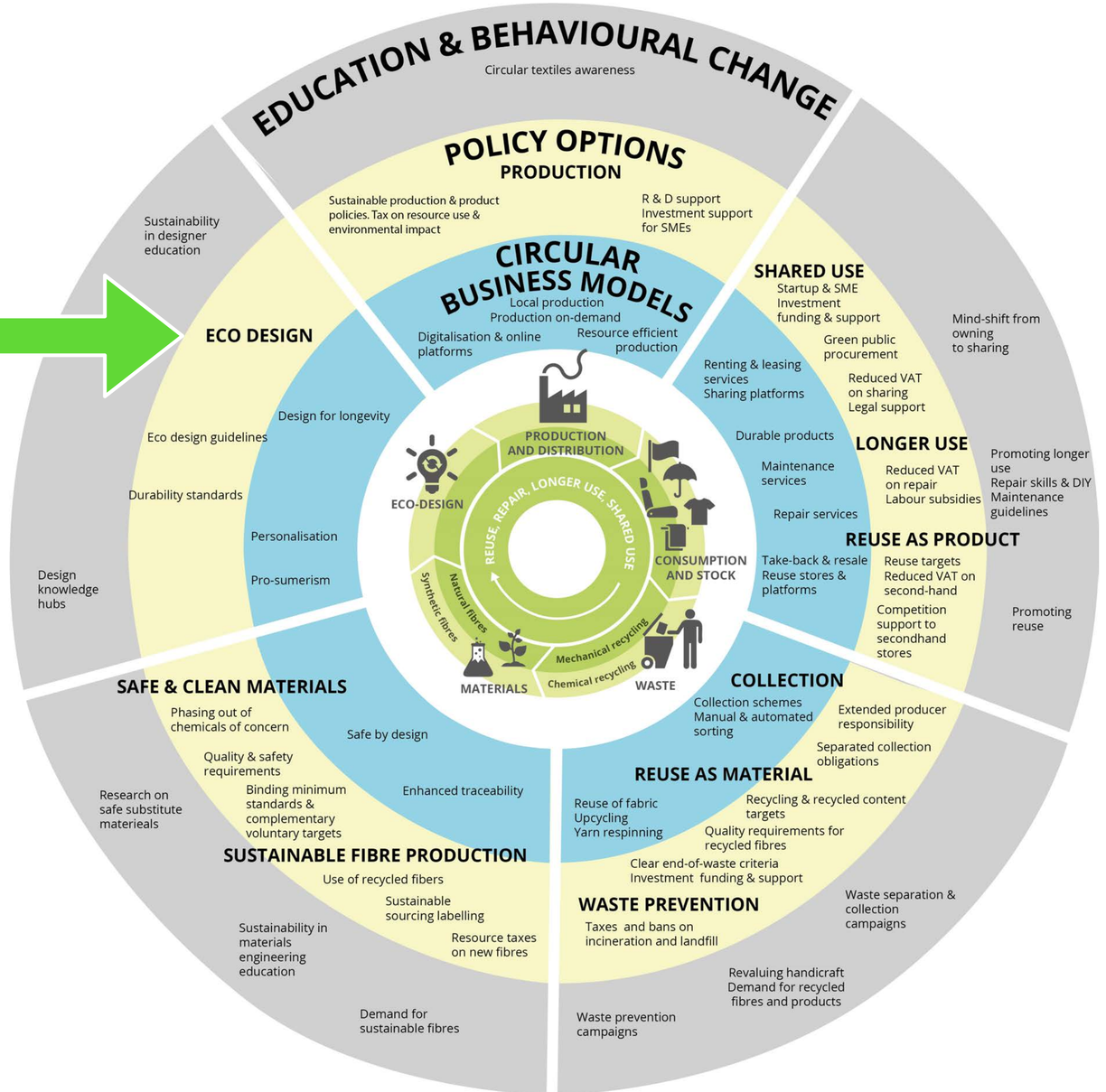
CIRCULAR ECONOMY & ECODESIGN: the route

the NEW starting point



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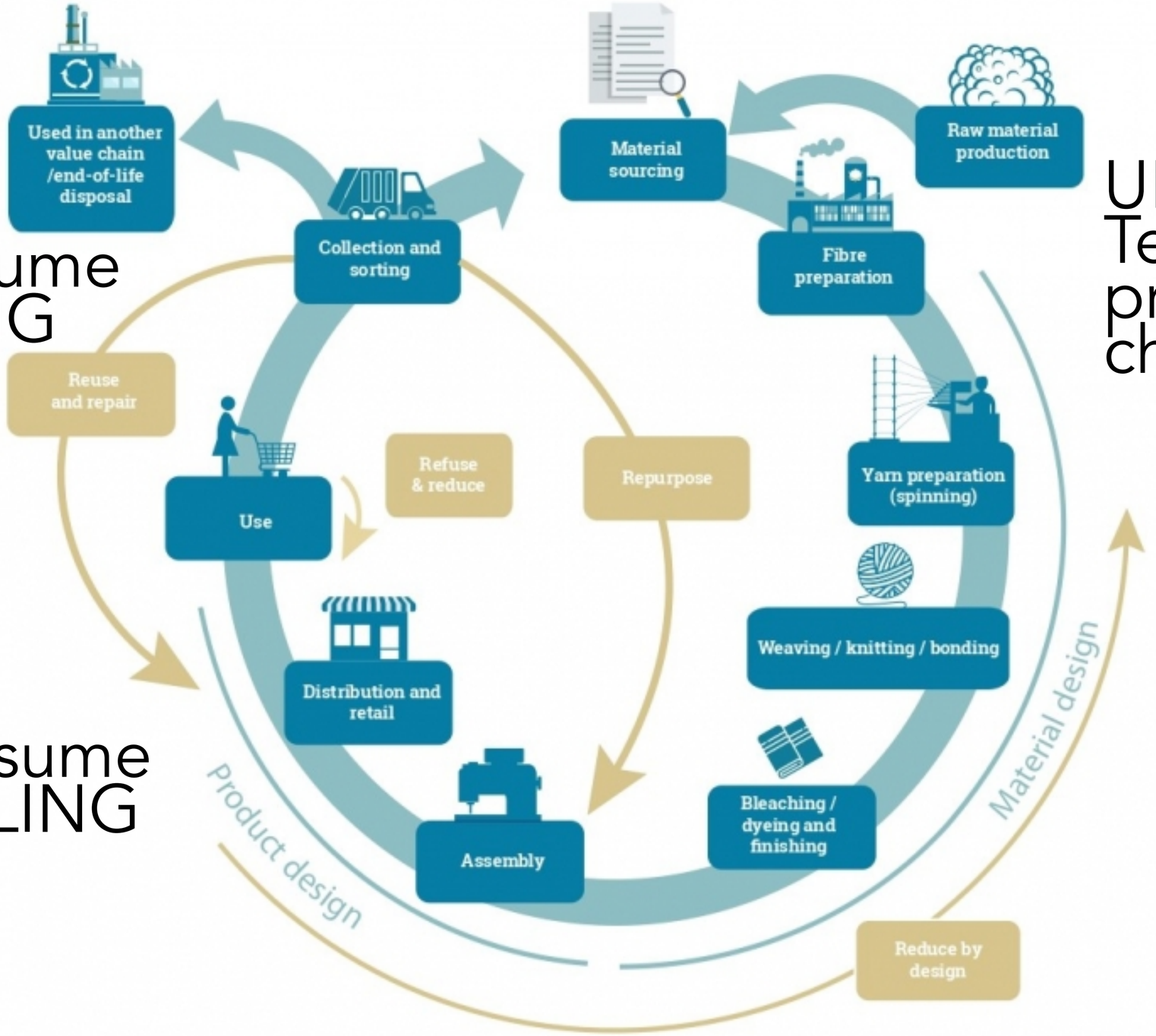
POST consume UP-CYCLING

PRE consume UP-CYCLING

UN & EU Textile process flow chart



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EU' expectation: a change in the mind of consumers is ongoing, recycled raw material as a VALUE not a WASTE

from
second life
of the textile
raw materials
>
to
SUSTAINABLE
FASHION
MARKET

La Fayette dep.store- winter 2022-23 - Paris (France)

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DENIM ' MARKET TREND

www.agi.com:..... with 2027 up to 3.000.000.000 > 4.000.000.000 denim units = + > 2.000.000.000/ kg

SOLUTIONS FOR FIBRE PROCESSING

- Market trend:
- ANYWAY looks for quality fibres
- (mechanical resistance, stressless, efficiency…) at reasonable price
- SENTENCE:

high quality recycled fibre
will be needed anyway

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ENVIRONMENTAL FRIENDLY QUALITY SOLUTIONS

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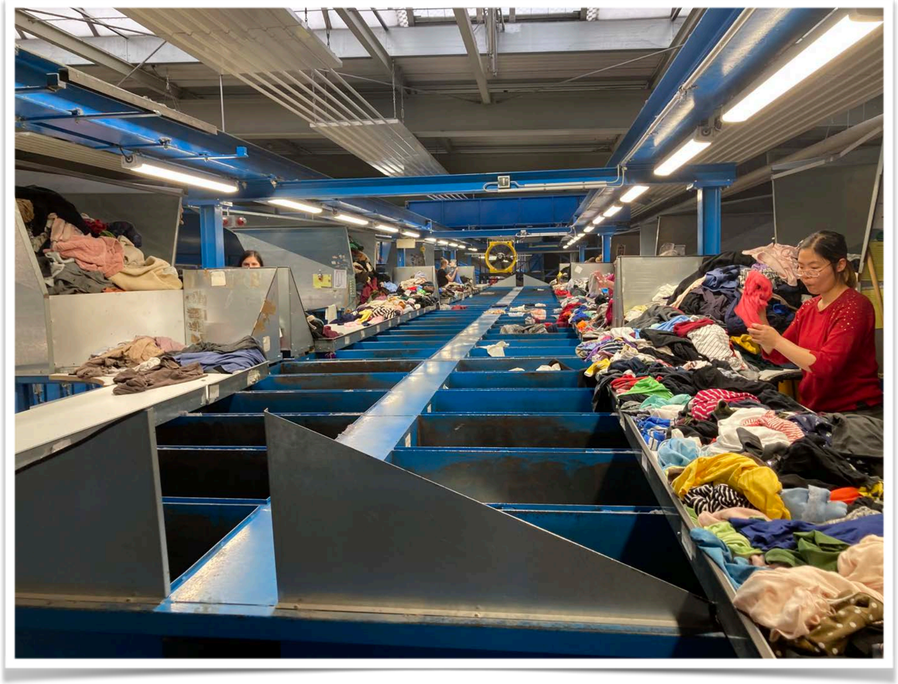
SOLUTIONS FOR FIBRE PROCESSING

HOW

…toward the SUSTAINABLE FASHION

THE 2 STEPS
GREEN VALUABLE SOLUTION
FOR THE SECOND LIFE
OF TEXTILES

COLLECT & SORTING
used garments



MECHANICAL DEFIBRATION
starter of the new
valuable textile cycle

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DEFIBERING PROCESS : a news…from the experience

EXPERT

PRATO'
TEXTILE DISTRICT FROM THE 12TH CENTURY & WORLD' VERY FIRST EXAMPLE OF CIRCULAR ECONOMY

The fiber regeneration process was optimized at the end of the 18th century, thanks to the mechanical industrialization of spinning and weaving processes, which efficiently regenerates the used wool clothes, mattress pads and so on. From the second post-war period of the 19th century, the Textile District of Prato became the world center for the recovery of textile fibers of all types: those were "mechanically" transformed from textile waste into newly processable fibre - wool process - which made it possible to produce fabrics of all kinds, at competitive prices. These products conquered the world markets thanks also to the development of the Fashion sector. Today all types of fibers are regenerated, including synthetic ones, creating new textile structures as was the case of "pile". The precious cashmere, alpaca, vicuna become fibers for world fashion. Fantasy and flexibility are the keys to success. Today many companies adhere to the Greenpeace GOTS project for the reduction of the environmental impact of processes and GRS for the reuse of textile materials as required by the EUROPEAN GREEN DEAL

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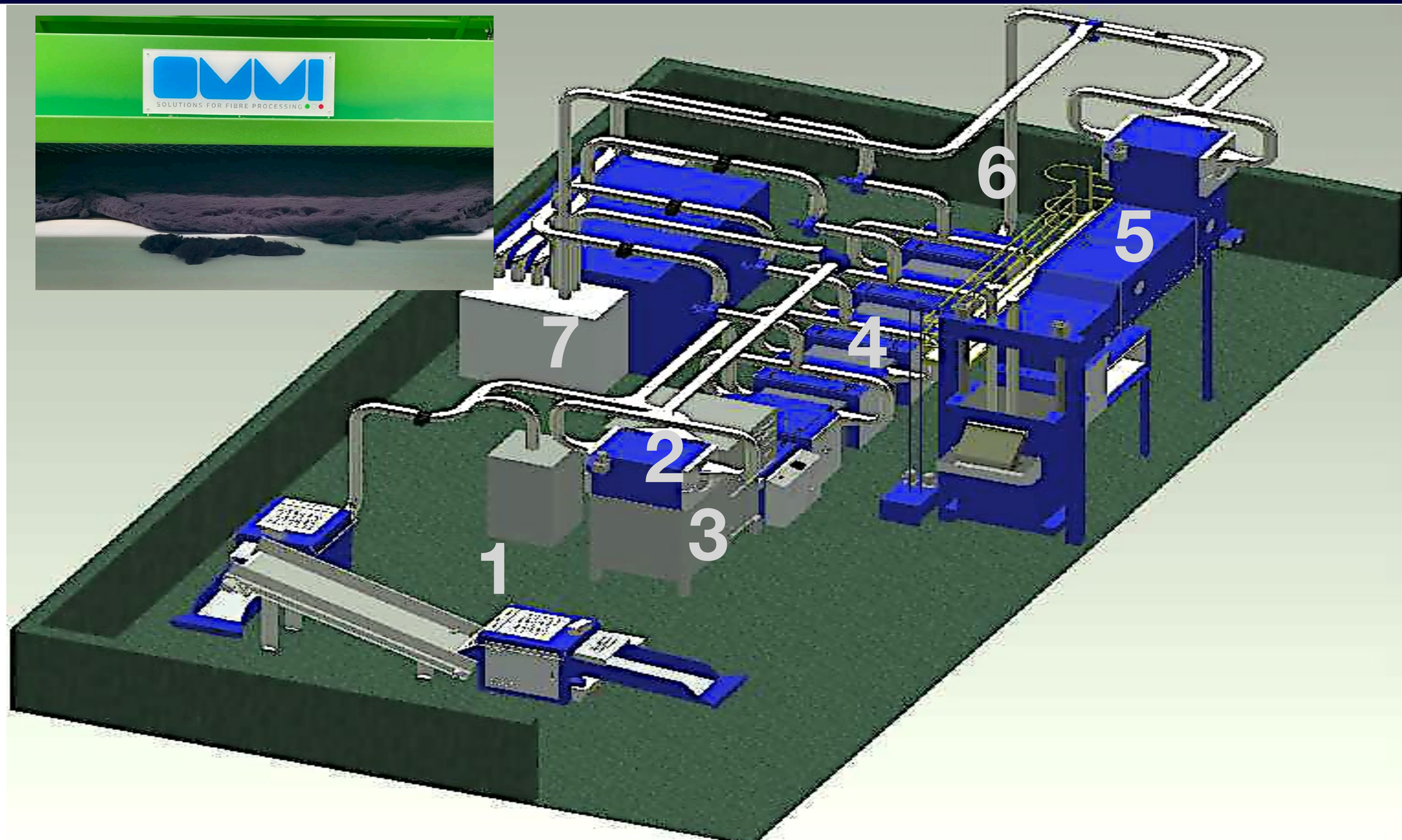
italiana
ir
rigenerazione

defibering vs tearing/shredding processes: from VOLUME to VALUE

A COMPLETE PLANT

1 - Fabric cutting units
2 - RECOLINE™ feeding
3 - storage/blending box
4 - RECOLINE™ 1>5 units
5 - bailing press
6 - dust filtering
& fibre separation
7 - air filtration



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