

WAYS to MAKE a FINER
3D REPAIR/ REINFORCEMENT,
OR USING COLOURS that
MATCH GARMENT...



SILK - eg. 'THREADBARE on SHOULDERS,
SEAMS etc.

" IS THERE A WAY TO DO 'INVISIBLE'
REINFORCEMENT?

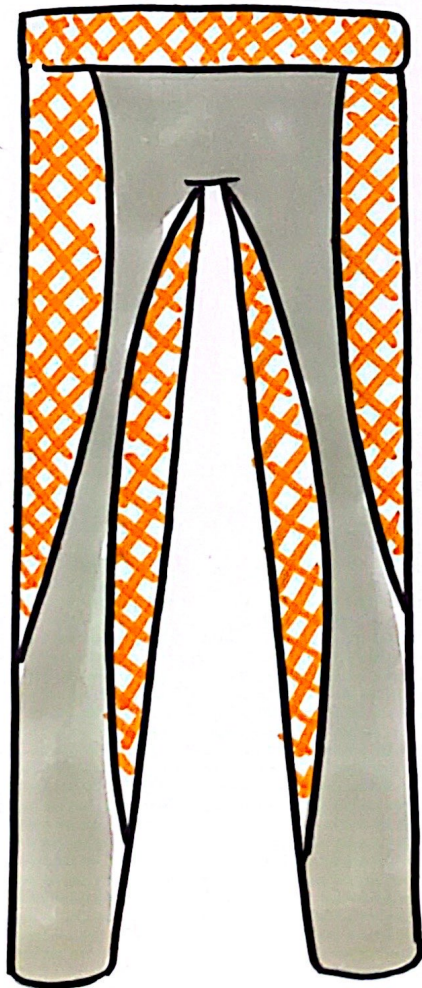
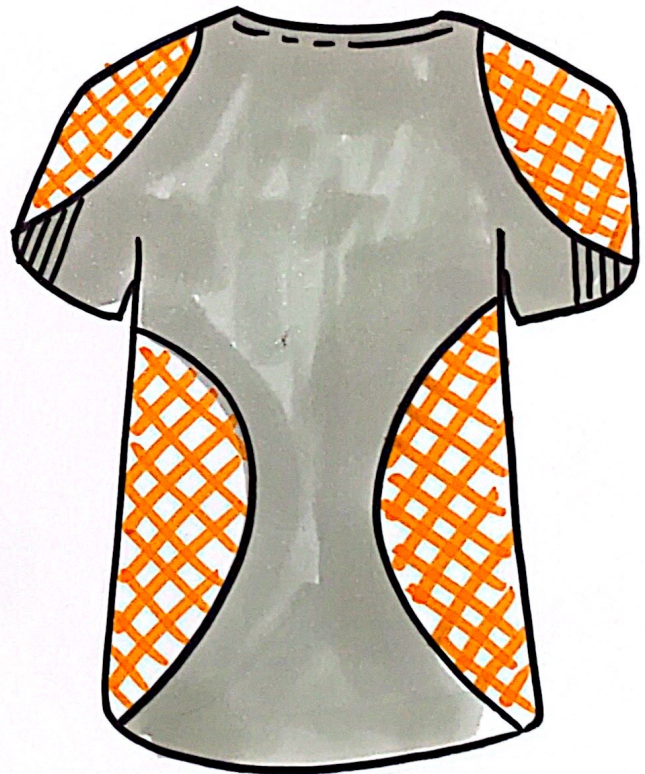


REINFORCEMENT CONSIDERED
at MANUFACTURE STAGE -
EG REINFORCEMENT INSIDE
the GARMENTS

INTERACTIVE INTERFACES/ CATALOGUES

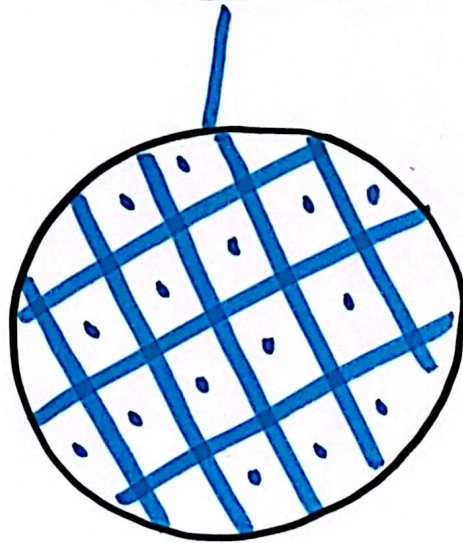
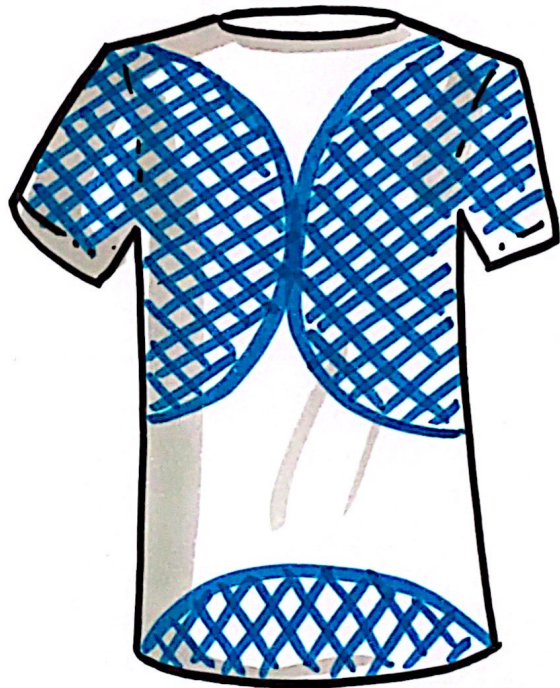


to EXPLORE the
OPTIONS of REPAIR
for YOUR GARMENT...



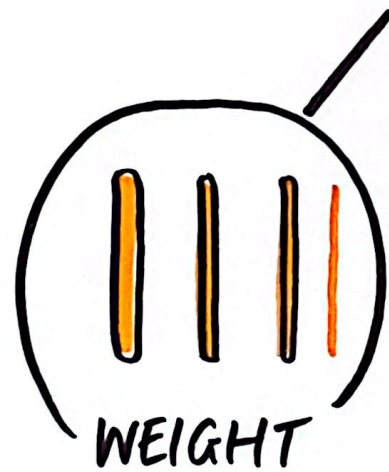
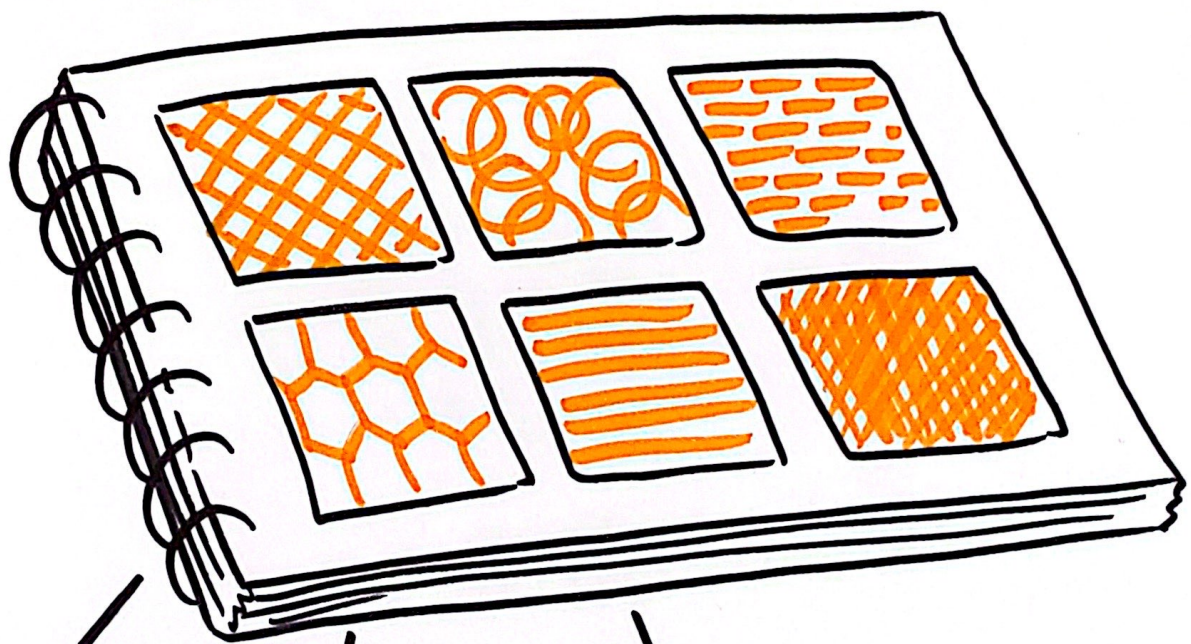
3D PRINTING
REINFORCEMENT
FOR SPORTSWEAR

ELECTRONICS COULD
BE EMBEDDED into
the GARMENTS

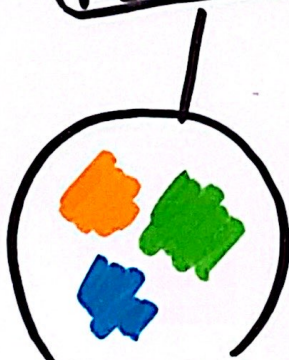


VERY VISIBLE
REINFORCEMENT -
PART of the DESIGN as
WELL as PRACTICALITY.

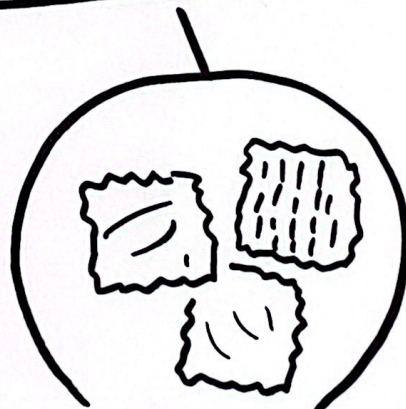
3D PRINT LIBRARY / CATALOGUE



WEIGHT



COLOUR



MATERIAL

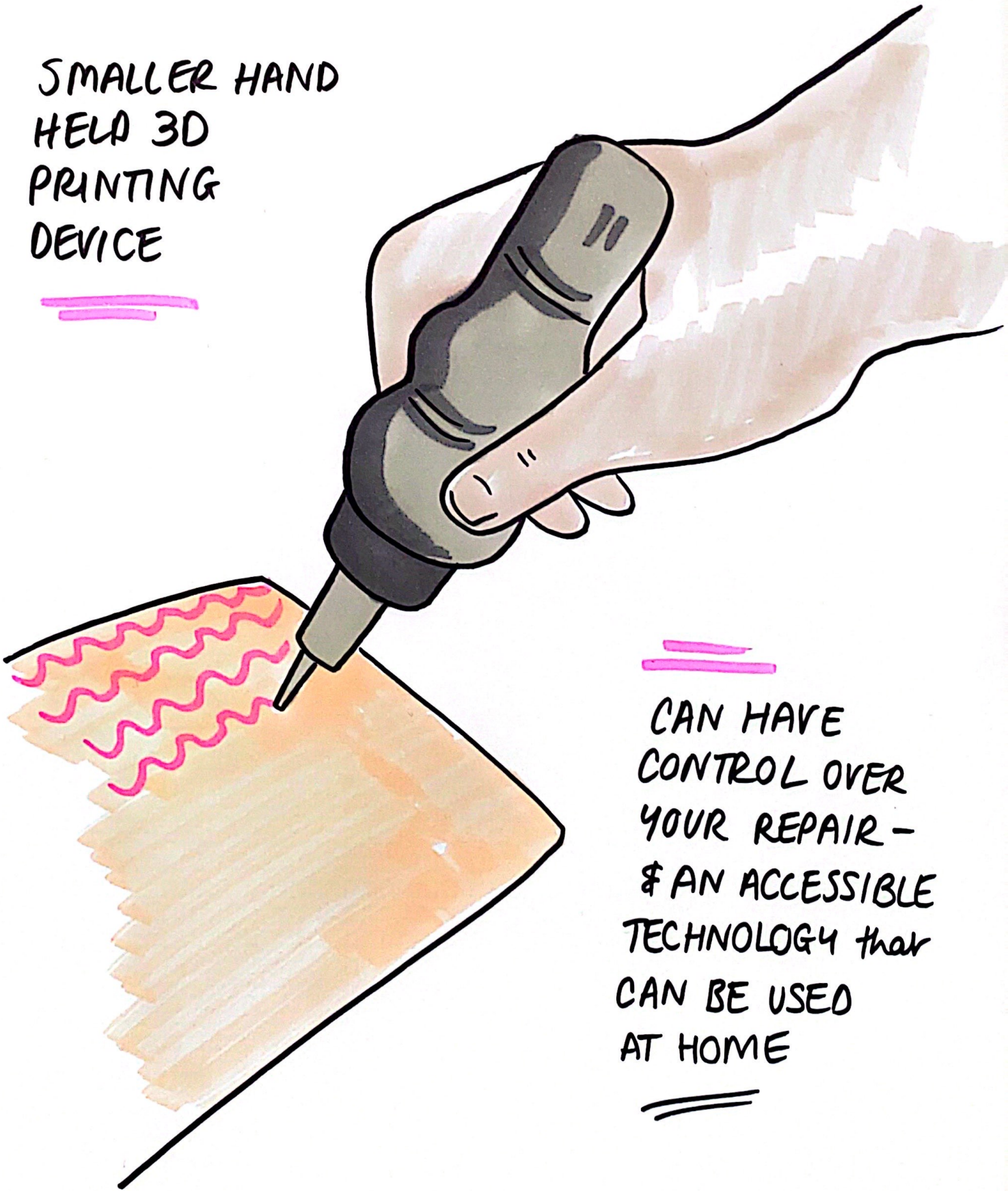
AR
TECHNOLOGY
TO DESIGN /
DETERMINE
YOUR
OPTIONS



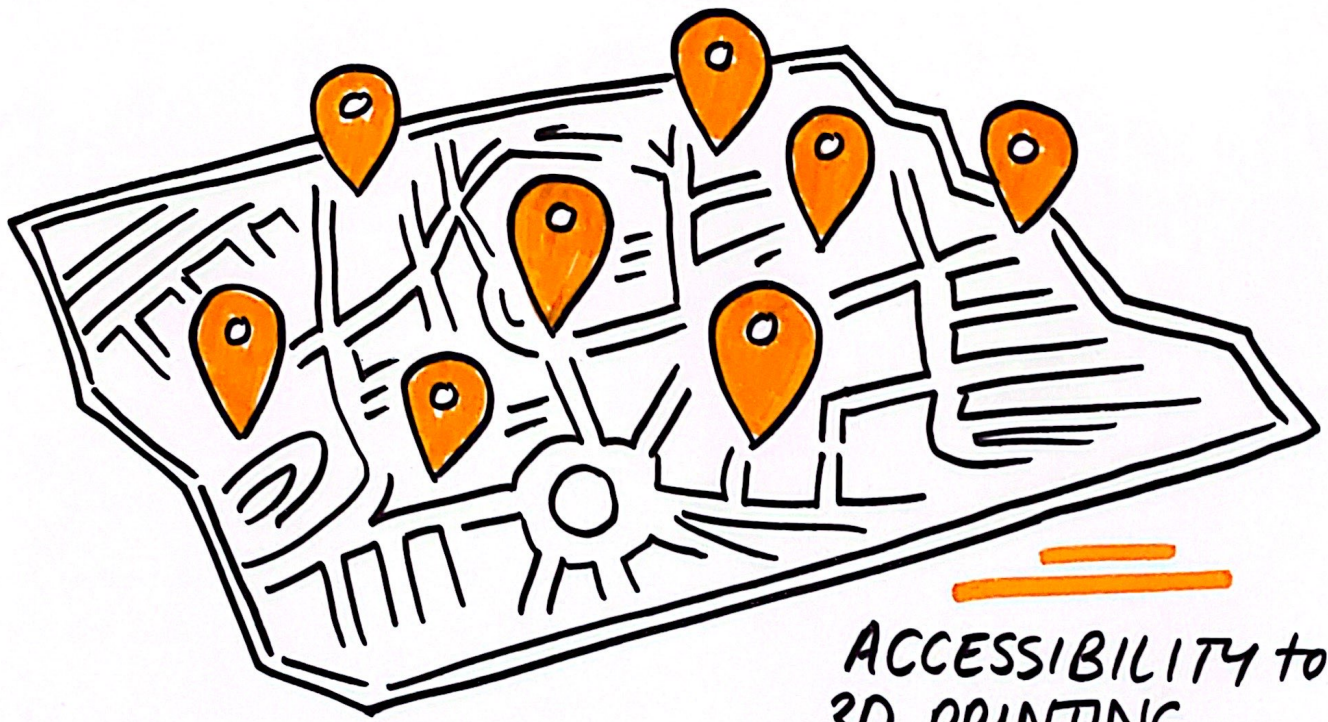


REINFORCEMENT COULD
APPEAR ON THE INSIDE of a
GARMENT, SO IT'S NOT VISIBLE
FROM THE OUTSIDE

SMALLER HAND
HELD 3D
PRINTING
DEVICE



CAN HAVE
CONTROL OVER
YOUR REPAIR -
& AN ACCESSIBLE
TECHNOLOGY that
CAN BE USED
AT HOME



ACCESSIBILITY to
3D PRINTING
REPAIR - HUBS



eg AVAILABLE
in TAILOR

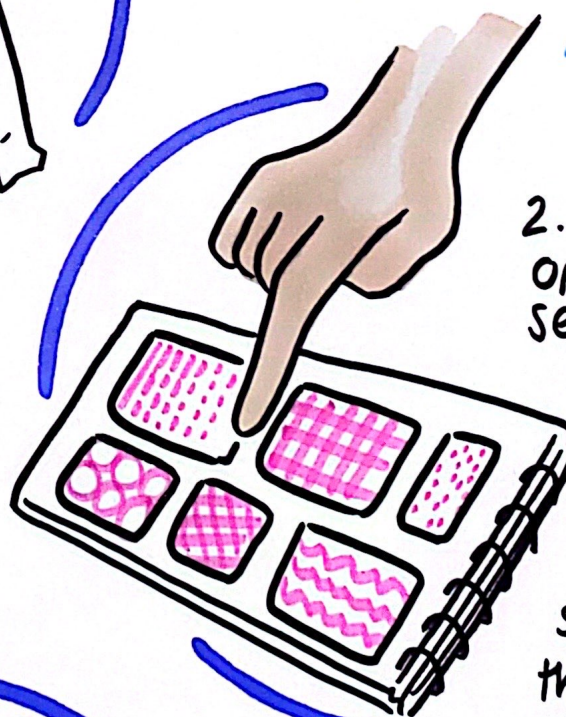
AVAILABLE
in
PUBLIC
SPACES



CO CREATION
SPACES - YOU
ARE INVOLVED
DIRECTLY in
the REPAIR of
YOUR ITEM

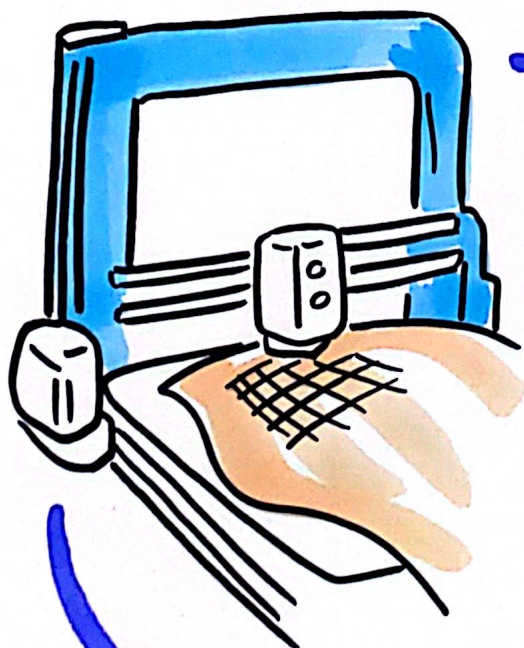


1. A silk shirt has thinning areas

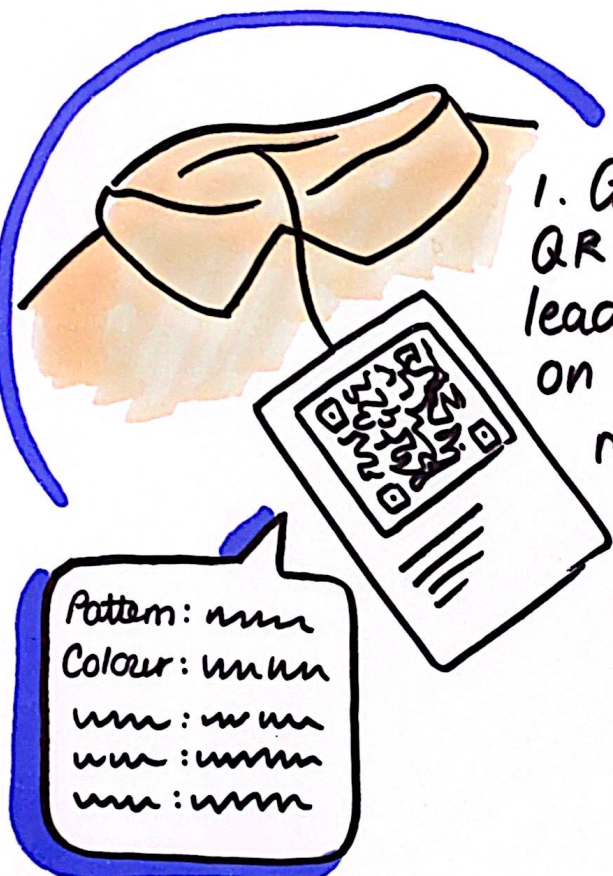


2. Browse options + select most appropriate process

(eg. gradient, something that doesn't affect drape)




3. PROGRAMME CHOICE INTO 3D PRINTER TO REPAIR




1. Garment has QR code that leads to information on specific garment repair settings

Pattern: ~~~~
Colour: ~~~~
~~~: ~~~~  
~~~: ~~~~  
~~~: ~~~~



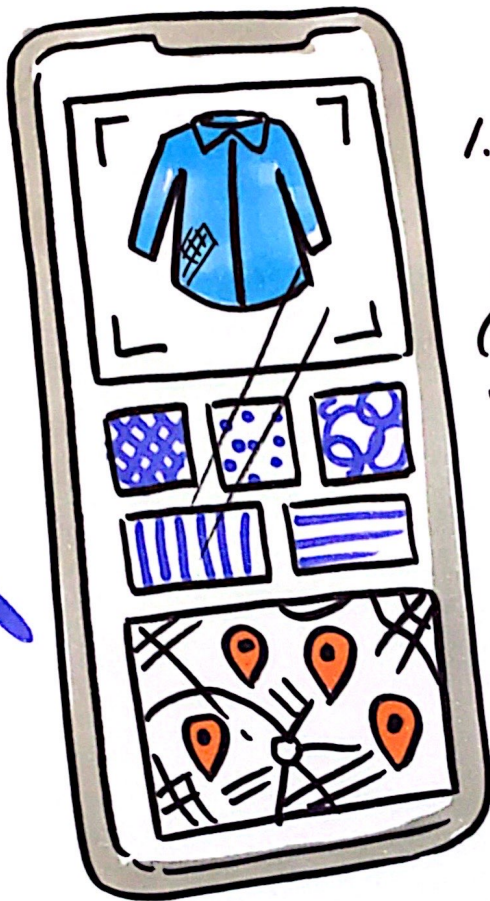
2. Consumer can take garment to local hub (eg. dry cleaners) & follow recommended settings or select their own

Custom settings option allows for totally unique garment



3. 'Brand approval if settings are followed (remains authentic)





1. Online app/  
knowledge  
Library  
(locations of  
specialists)

2. Take garment  
to specialist  
(drop off / stay +  
watch repair)



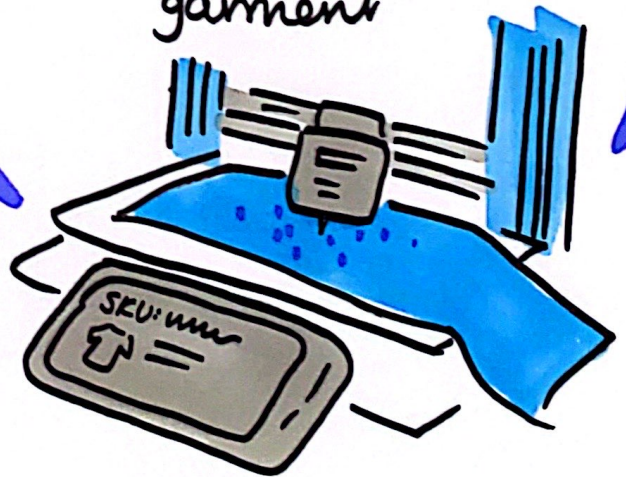
3. Collect / have  
repaired garment  
delivered to you



1. Consumer visits the 'brand repair shop / brand repair specialist



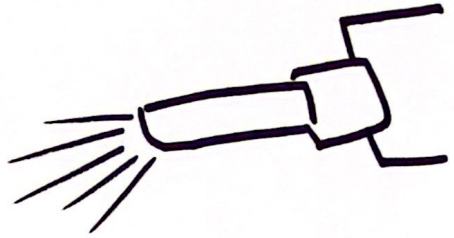
2. Repair specialist programmes 3D printer to repair garment alongside specific settings to garment



3. Repaired garment receives certificate of brand authenticity







LUXURY CUSTOMISATION OPTIONS -  
RESPRAY COATING



IRIDESCENT

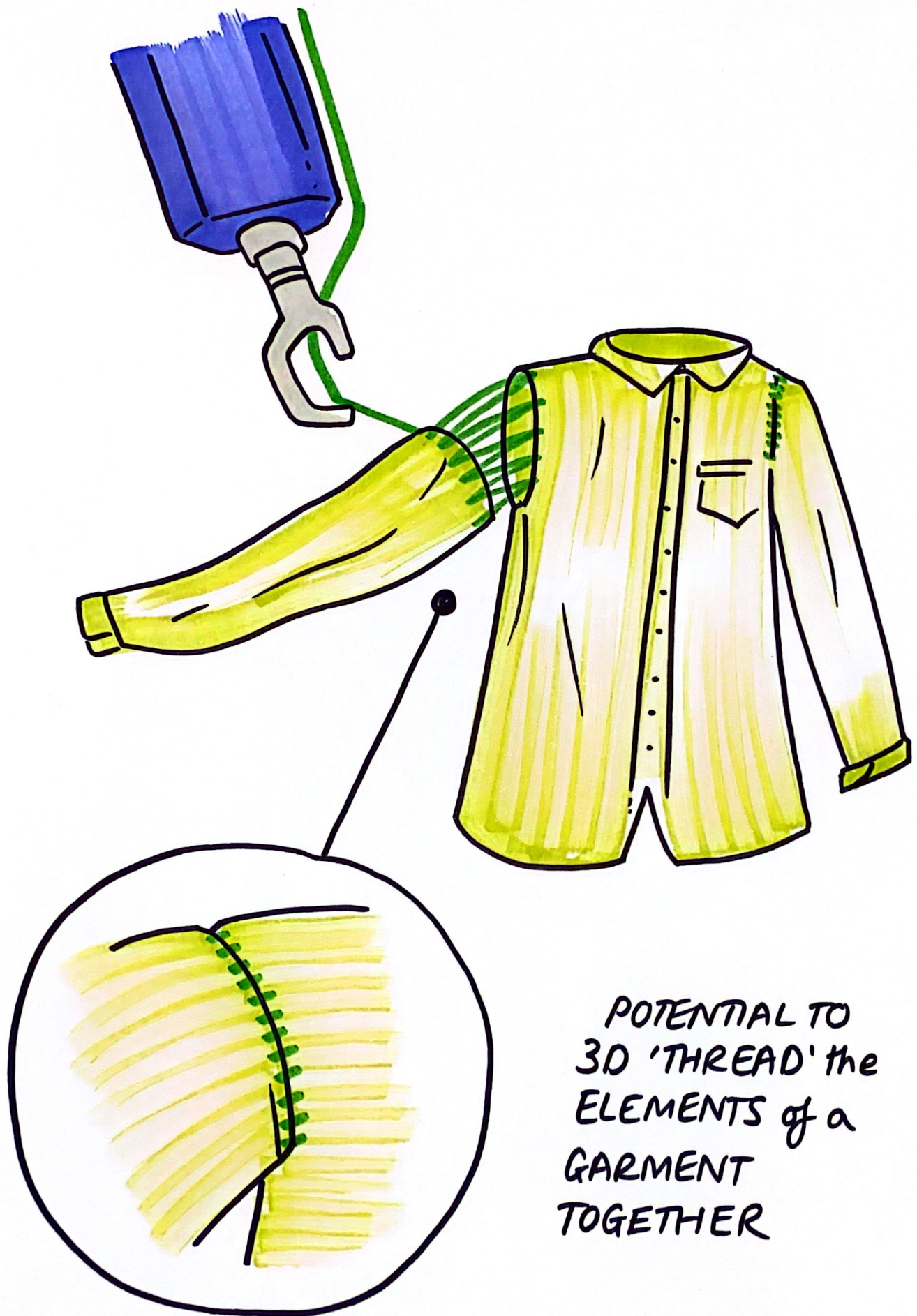


NEW  
COLOUR



CUSTOM  
DESIGN

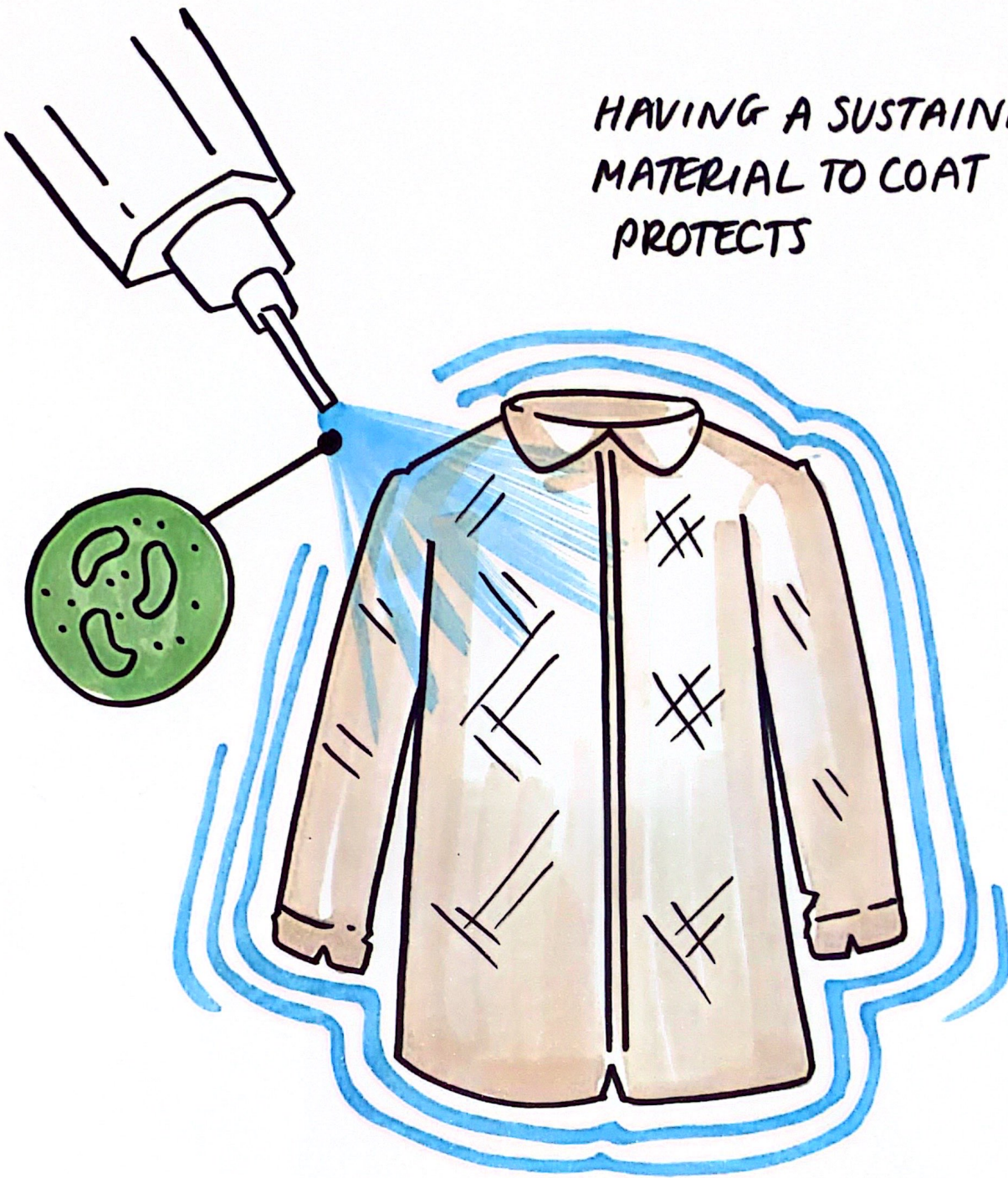




POTENTIAL TO  
3D 'THREAD' the  
ELEMENTS of a  
GARMENT  
TOGETHER



HAVING A SUSTAINABLE  
MATERIAL TO COAT  
PROTECTS



CURRENT PROCESSES OF PROTECTION  
COATING ARE SYNTHETIC -  
NOT SUSTAINABLE

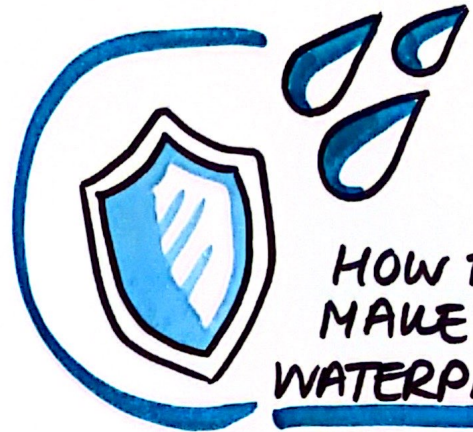




'GROWING'  
BIO MATERIAL -  
ROBOTIC ARM MAINTAINS that GROWTH &  
QUALITY of BIO MATERIALS



# CHALLENGES WITH BIO BASED FINISHING...



HOW TO  
MAKE IT  
WATERPROOF

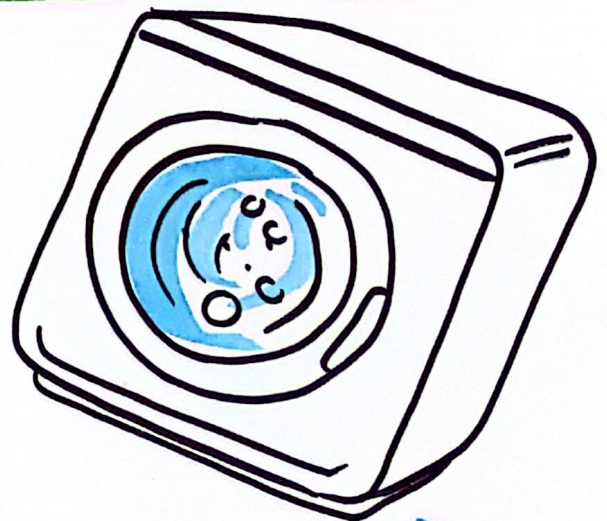


HOW TO  
MAKE IT  
LAST



HOW TO  
ENSURE IT  
STRENGTHENS  
ITEM





GARMETS are WASHED  
MUCH MORE OFTEN than  
ACCESSORIES... COATING NEEDS  
to be MUCH MORE DURABLE...



DROP IN 'FINISH  
TOP UP' - RECOATING  
REPAIR on YOUR  
OWNED PRODUCTS



DAMAGE is  
DETECTED & a  
REPAIR / COATING  
PROCESS is  
DETERMINED



COATING  
APPLIED &  
PRODUCT is  
RESTORED.





'VALUE OVER TIME'...

LOGO of BRAND is SPRAYED onto  
PRODUCT at time of SALE (BUT is  
NOT VISIBLE...)



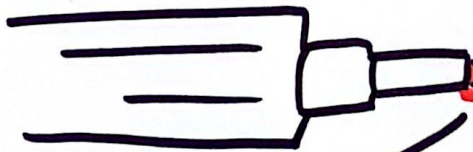
LOGO APPEARS  
OVER TIME,  
ENCOURAGE  
USE + REUSE  
+ TO KEEP  
FOR LONGER...





## RECYCLING MATERIALS - LUXURY BRANDS

eg. WELL LOVED  
LEATHER JACKET,  
TRANSFORMED  
INTO BAG...



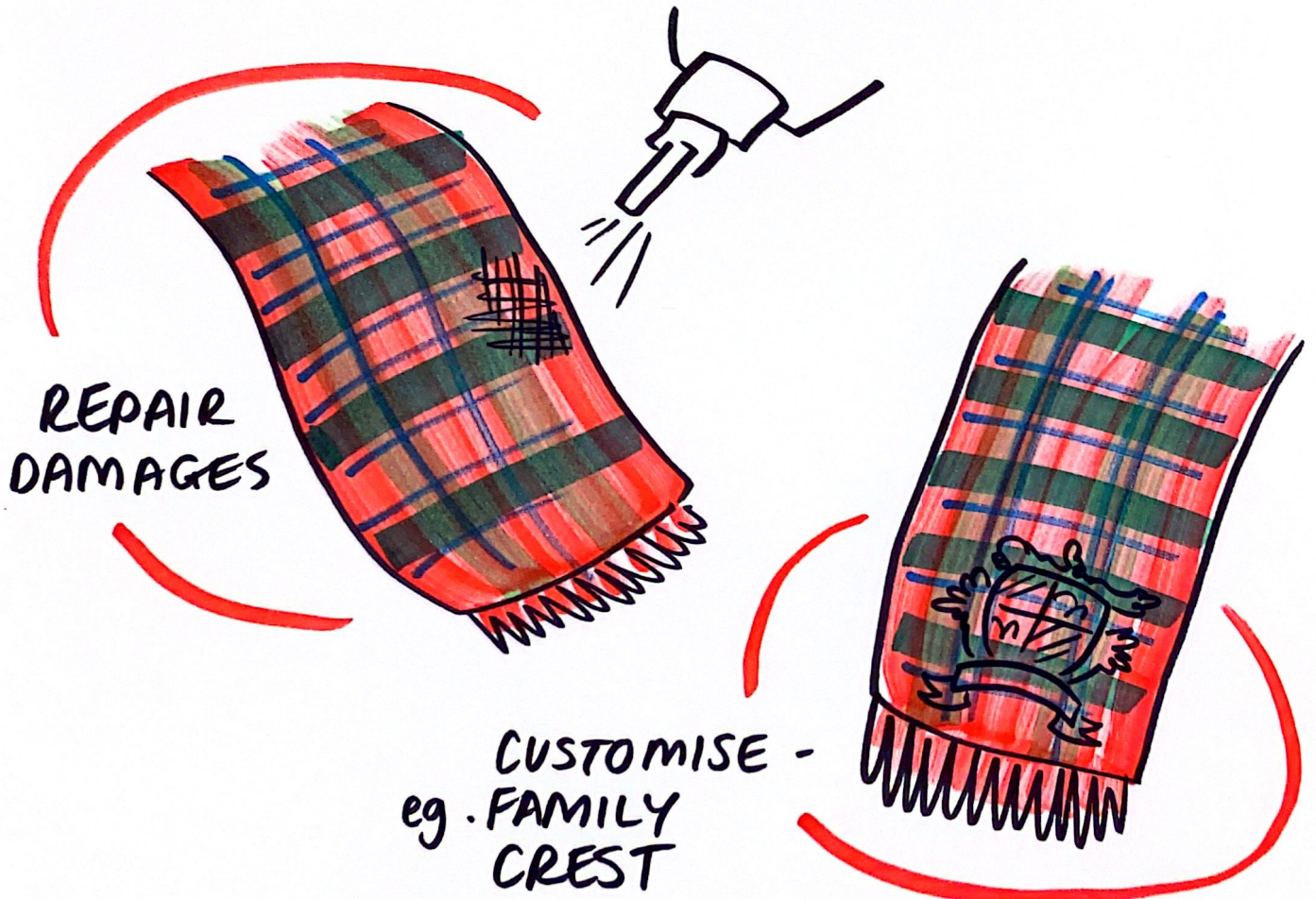
MATERIAL CAN  
ALSO BE RESPRAYED  
WITH NEW COLOUR



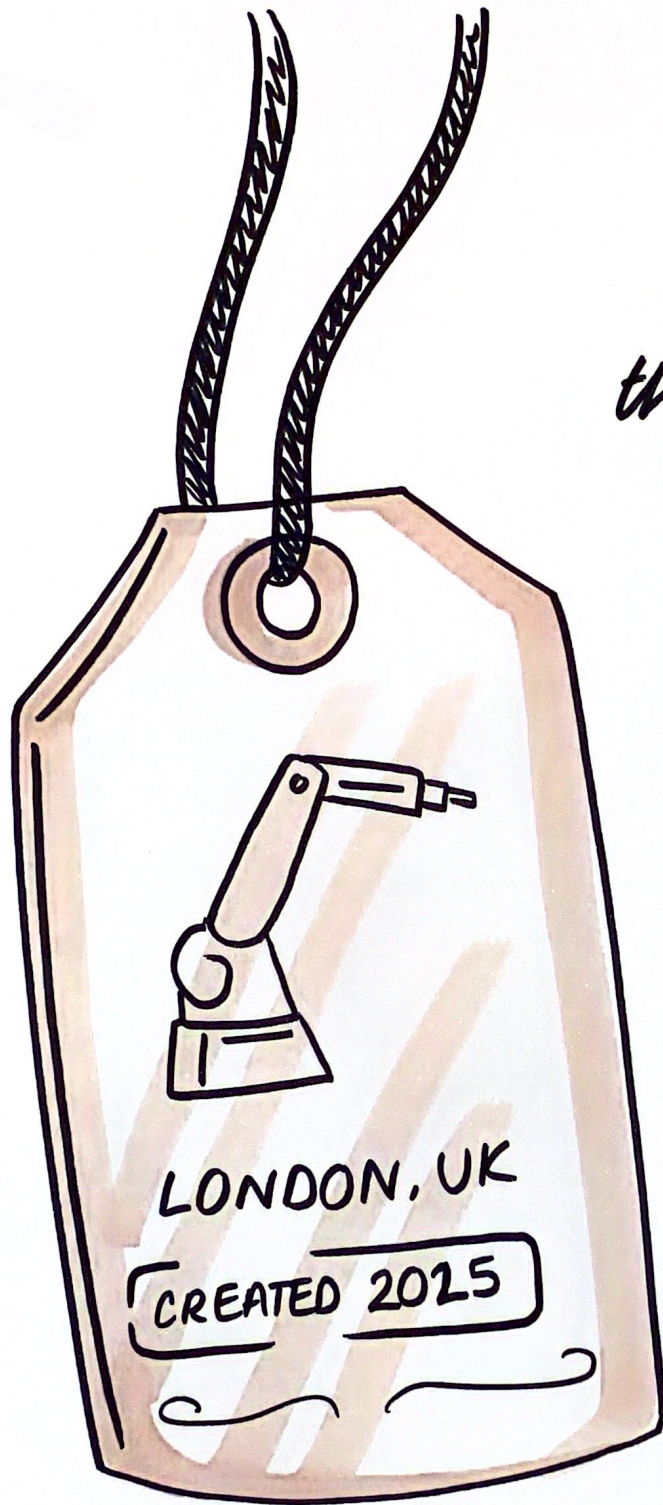


# Family Heirloom

REPAIR & CUSTOMISATION



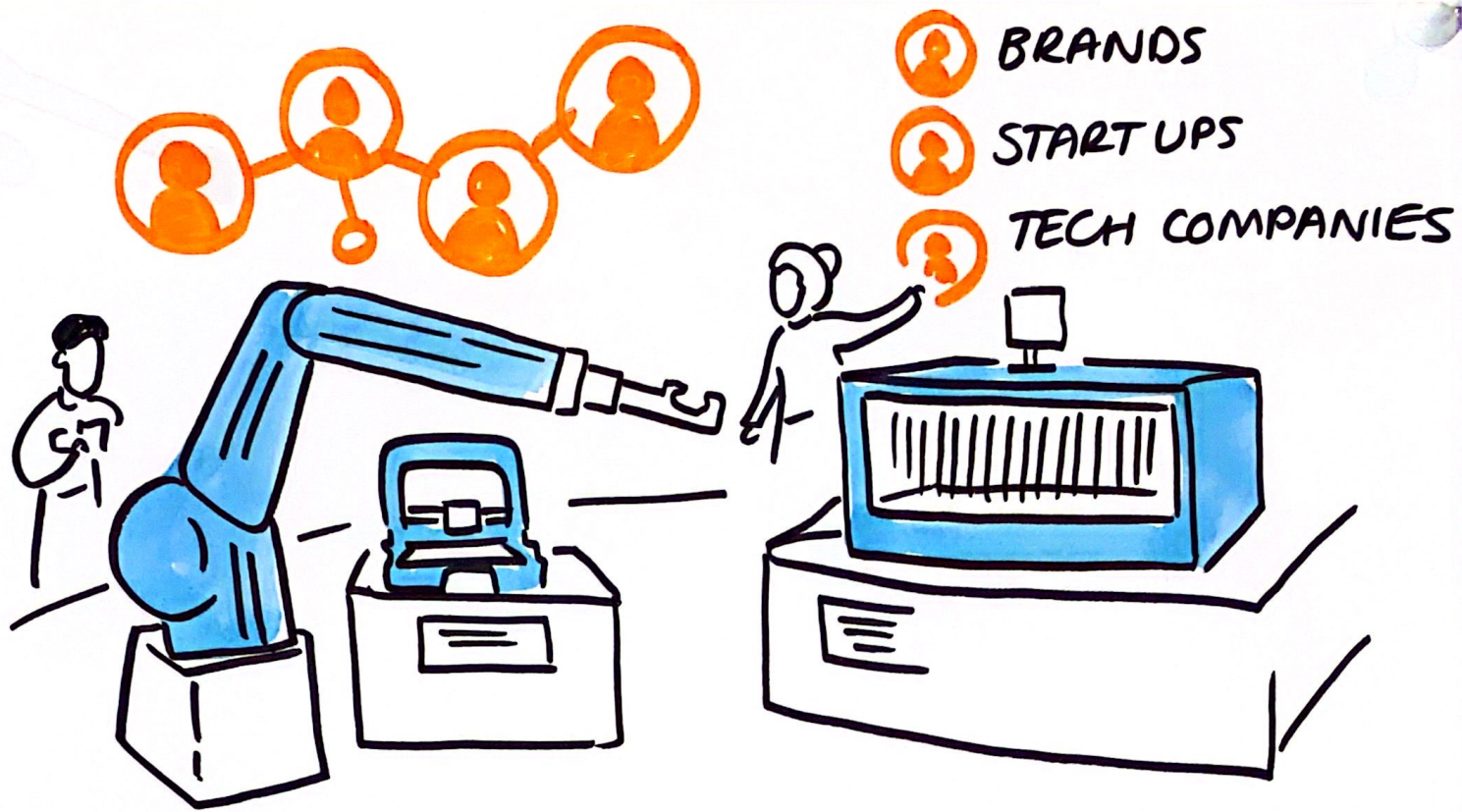




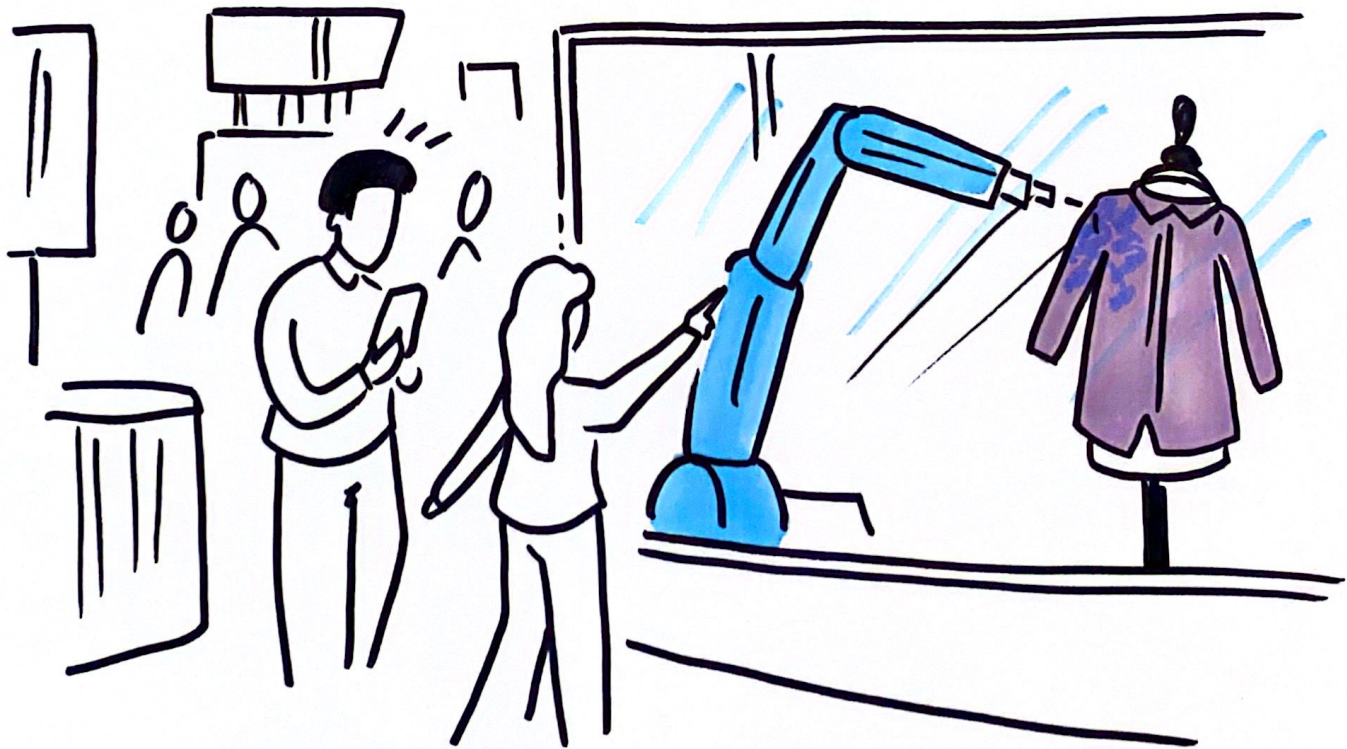
the 'MADE in /  
by' LUXURY  
ELEMENT of  
a PRODUCT  
(eg 'MADE in MILAN')





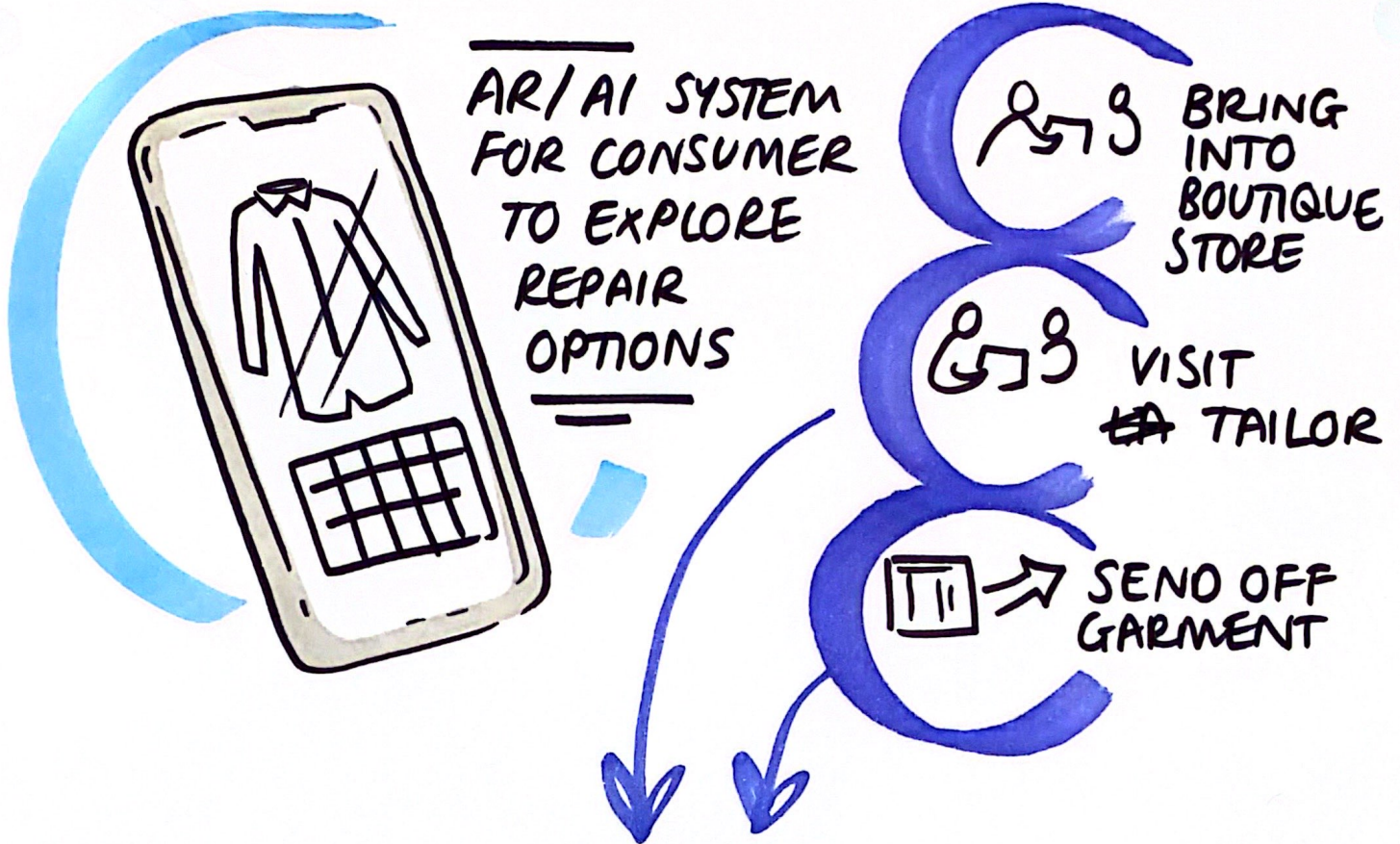


TECHNOLOGIES ACCESSIBLE to  
 START UPS / BRANDS in  
 CO-WORKING STYLE ENVIRONMENT  
 [EITHER SELF INITIATED OR SEND OFF]



'EXHIBITION' in RETAIL  
 ENVIRONMENT - see tech in action.



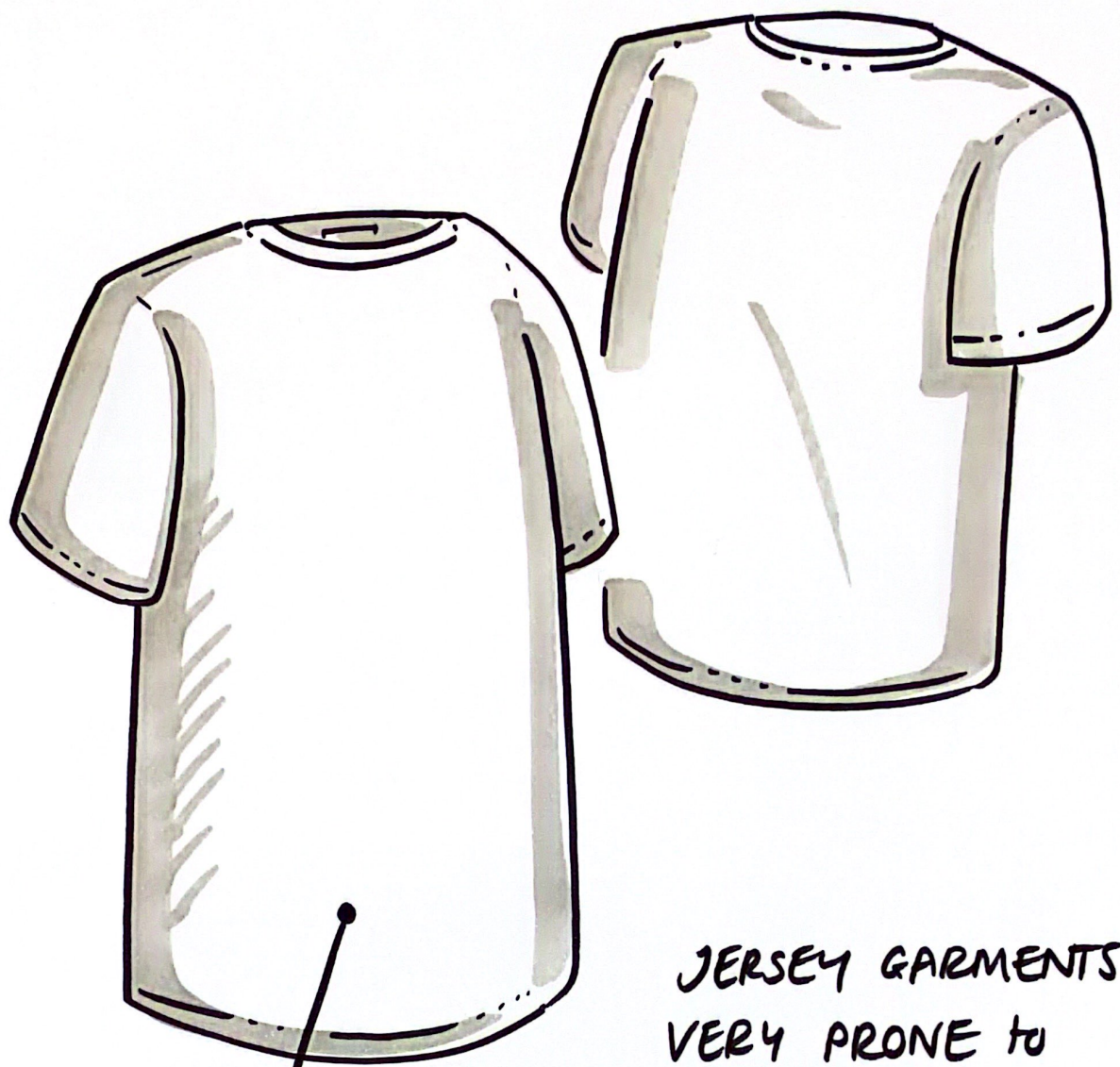


## REPAIR LAB



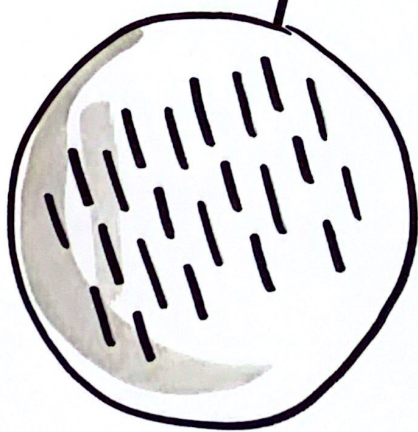
SENT TO REPAIR LAB WITH  
REQUESTED OPTIONS





JERSEY GARMENTS -  
VERY PRONE TO  
DAMAGE due to  
SINGLE LAYER

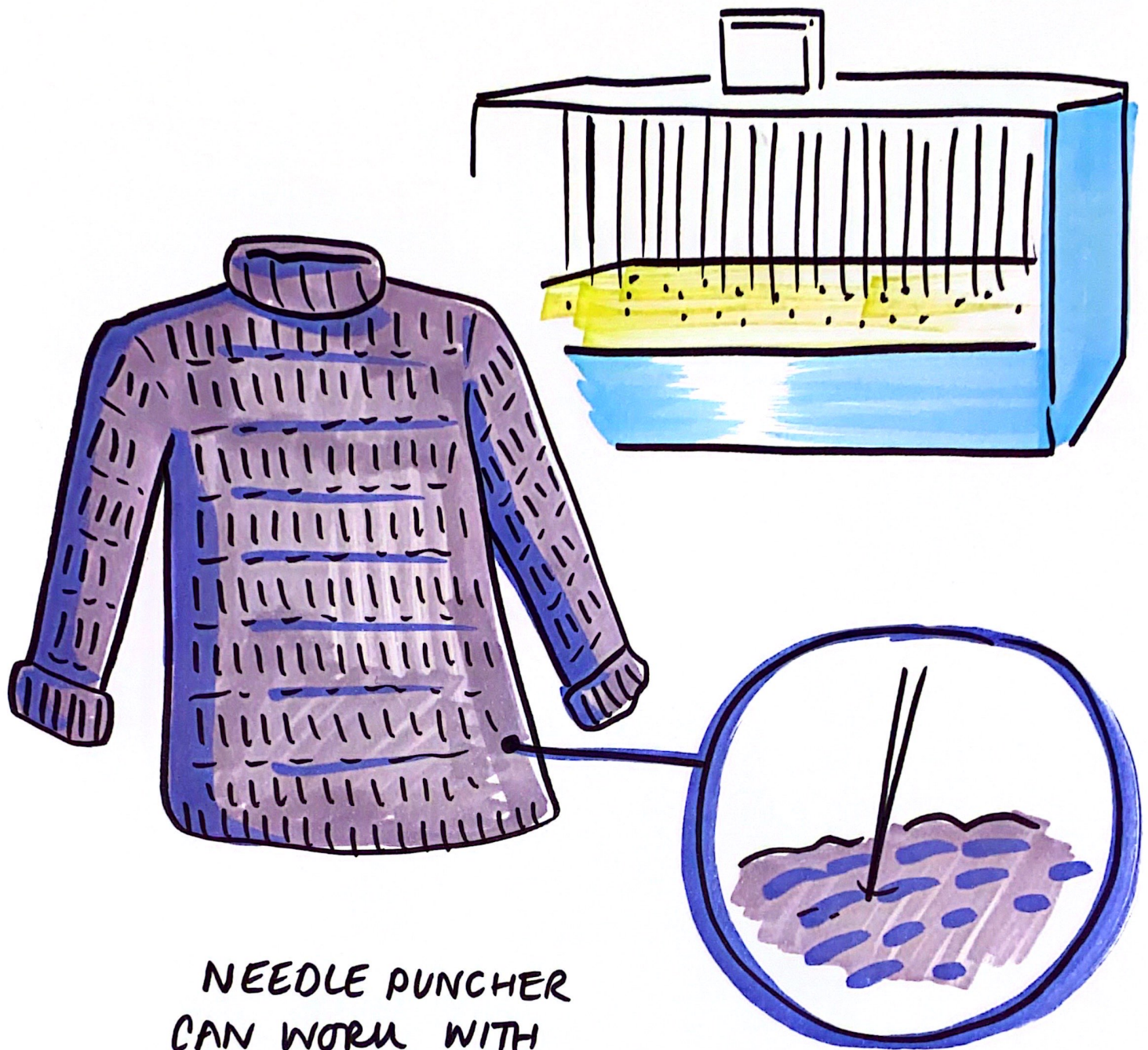
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VISCOSE or  
COTTON PUNCHING  
TECHNIQUES

(THE STITCHING COULD NOT  
BE VERY DURABLE)





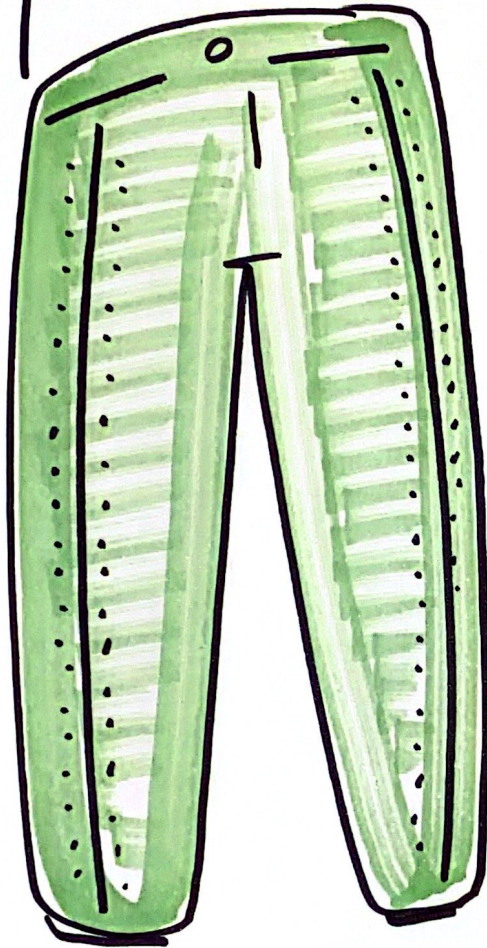
NEEDLE PUNCHER  
CAN WORK WITH  
VERY SMALL FIBRES-

THIS WOULD WORK WELL FOR  
REPAIRING WOOL GARMENTS

BINDS  
FIBRES  
TOGETHER



FELTING /  
SEAM REINFORCEMENT

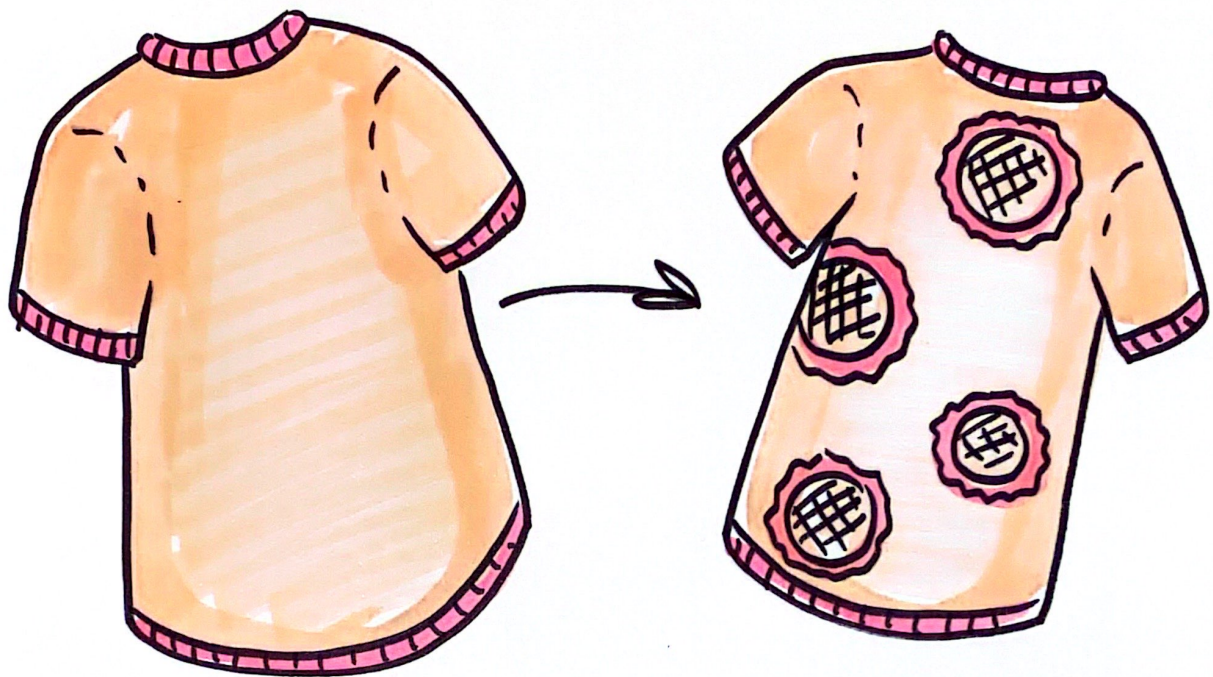


BONING  
REINFORCEMENT

REINFORCEMENT OF  
GARMENTS



# the VALUE of CUSTOMISATION...

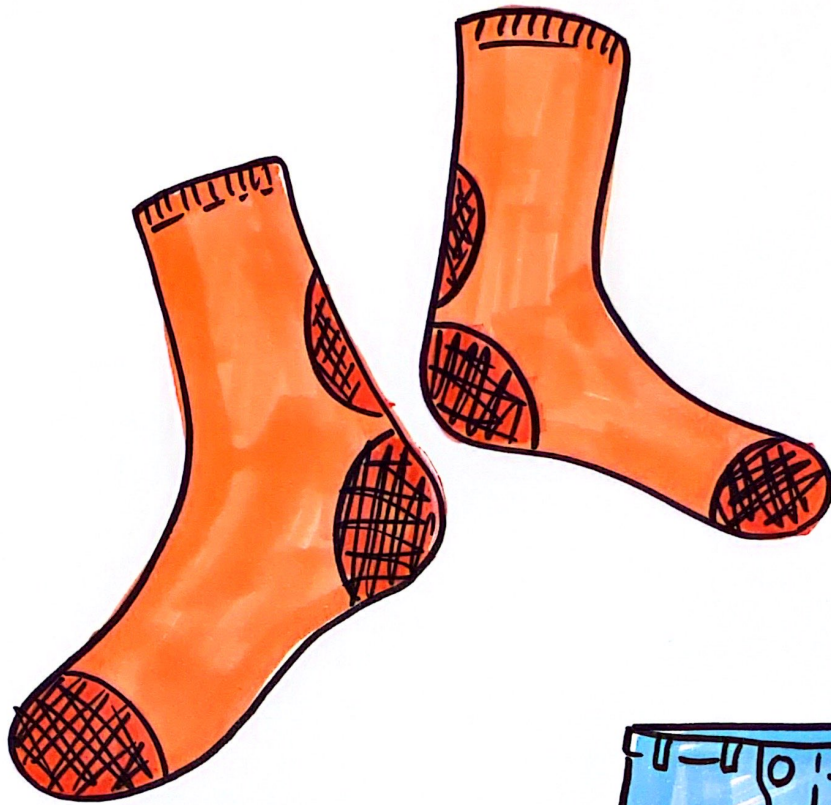


VALUE INCREASE  
OVER TIME +  
NUMBER OF  
REPAIRS

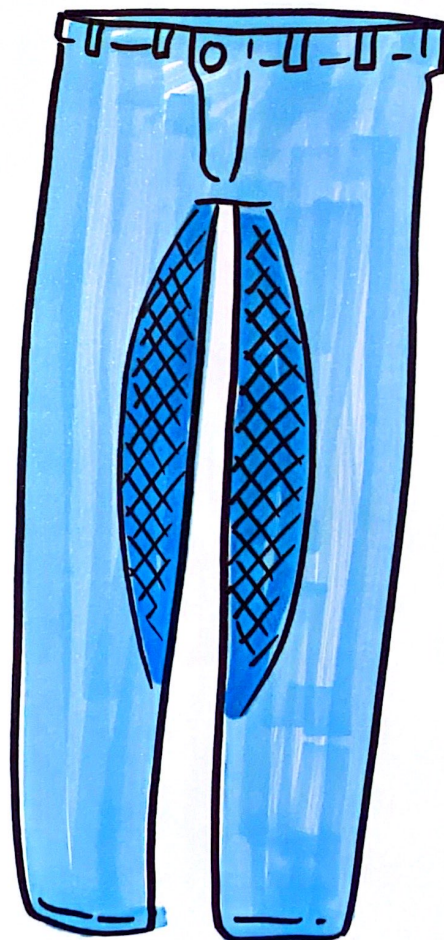
WOULD HAVING CUSTOM ADDITIONS  
TO GARMENTS MAKE PEOPLE WANT  
TO KEEP THEM FOR LONGER?



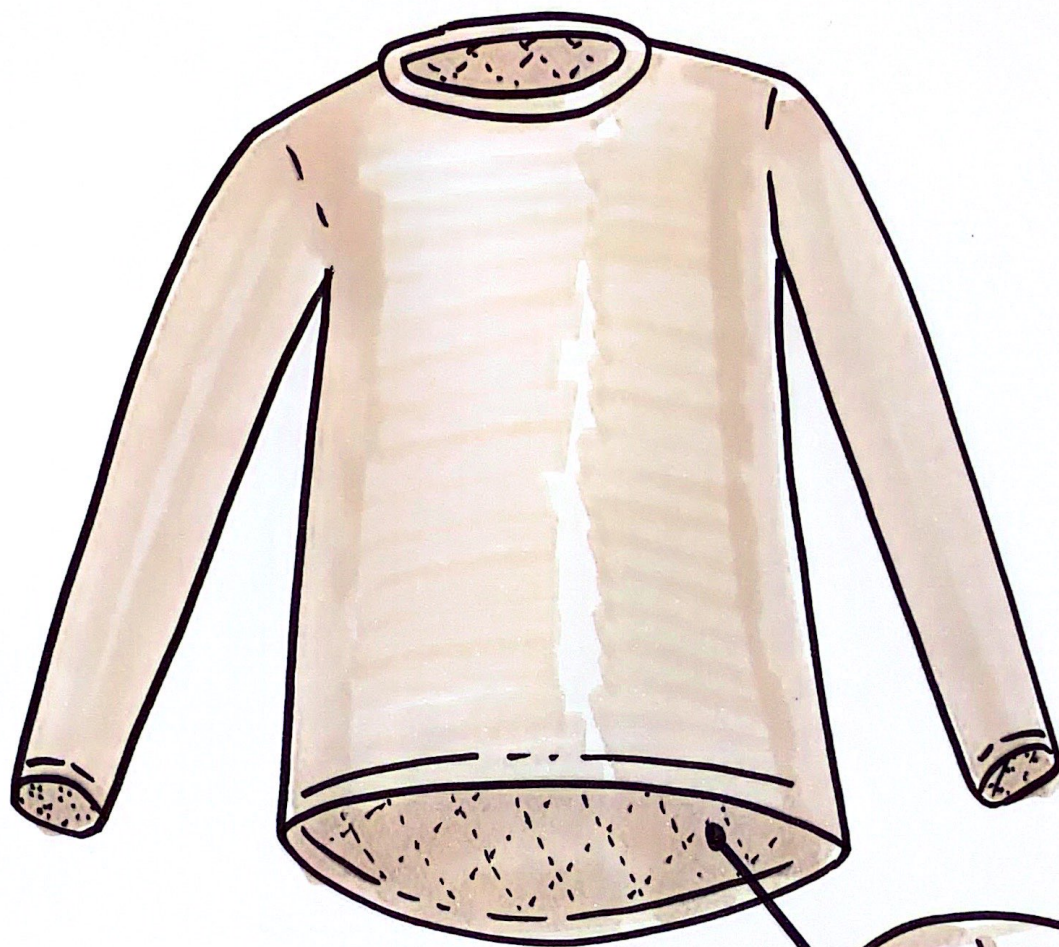
(THE STITCHING COULD NOT  
BE VERY DURABLE)



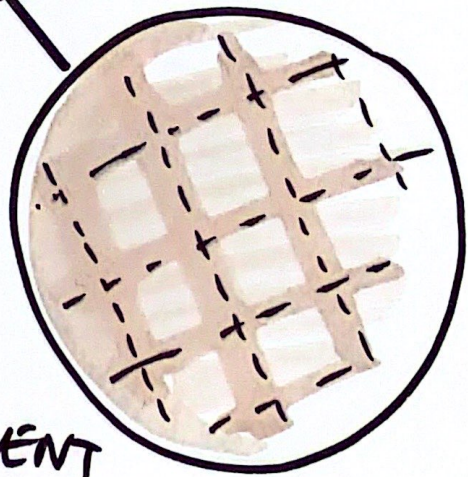
NEEDLE PUNCHER  
USING DARNING  
APPROACH -  
STRENGTHENING  
PARTS of a GARMENT  
that EXPERIENCE  
the MOST WEAR.





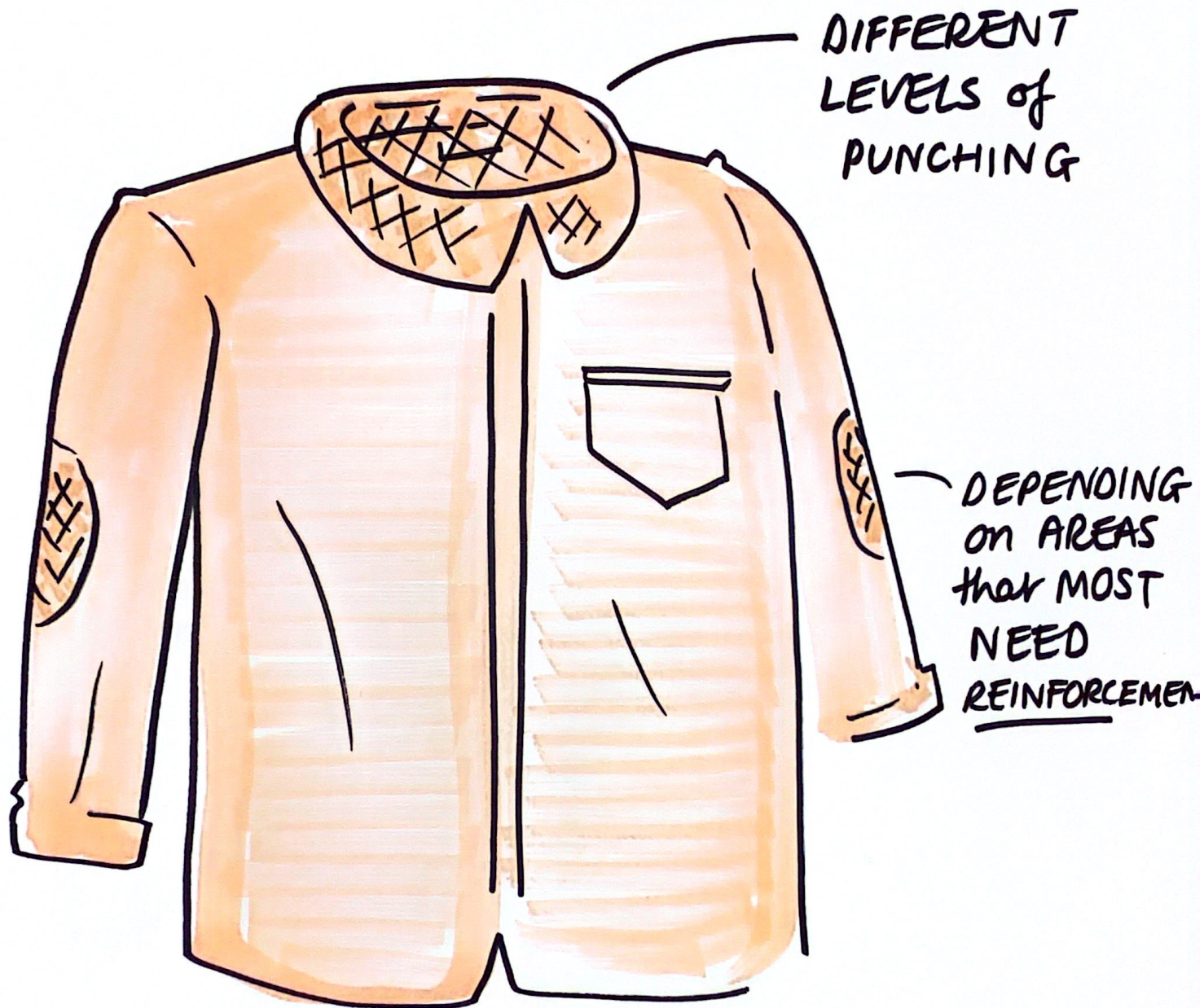


NEEDLE  
PUNCHING ON  
INSIDE OF GARMENT  
TO PROVIDE REINFORCEMENT





COULD THIS REPLACE  
STARCHING?

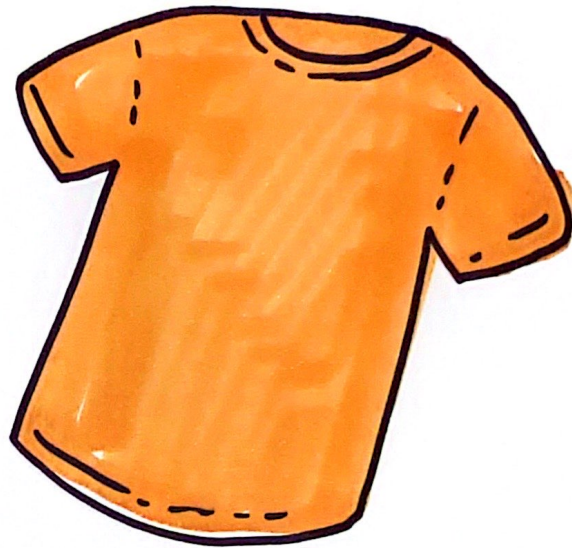
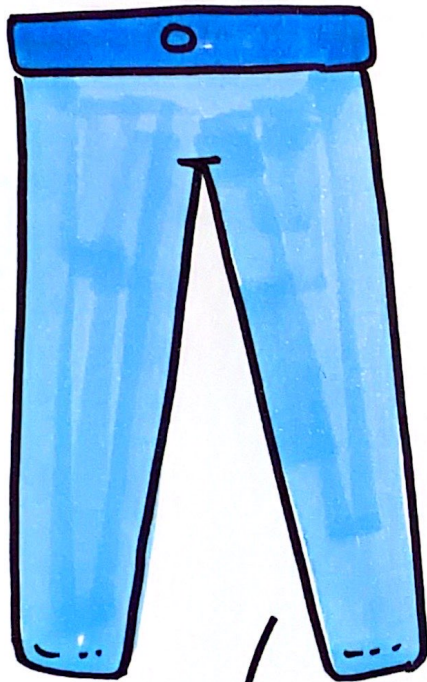


DIFFERENT  
LEVELS of  
PUNCHING

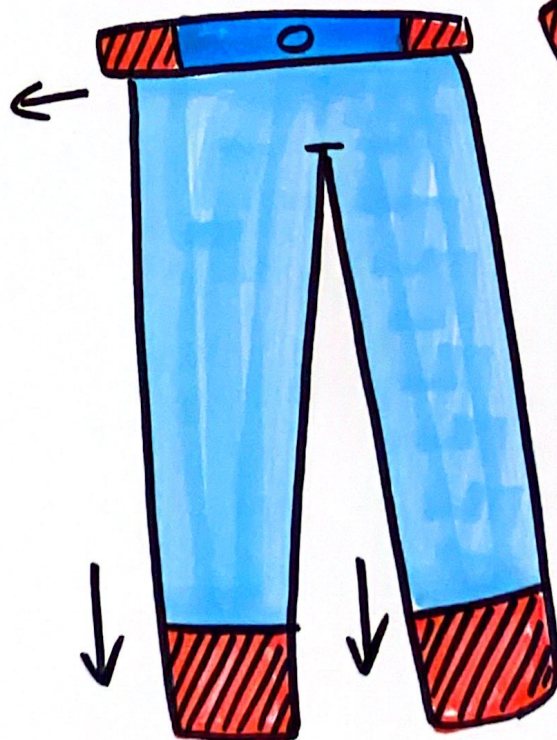
DEPENDING  
ON AREAS  
that MOST  
NEED  
REINFORCEMENT



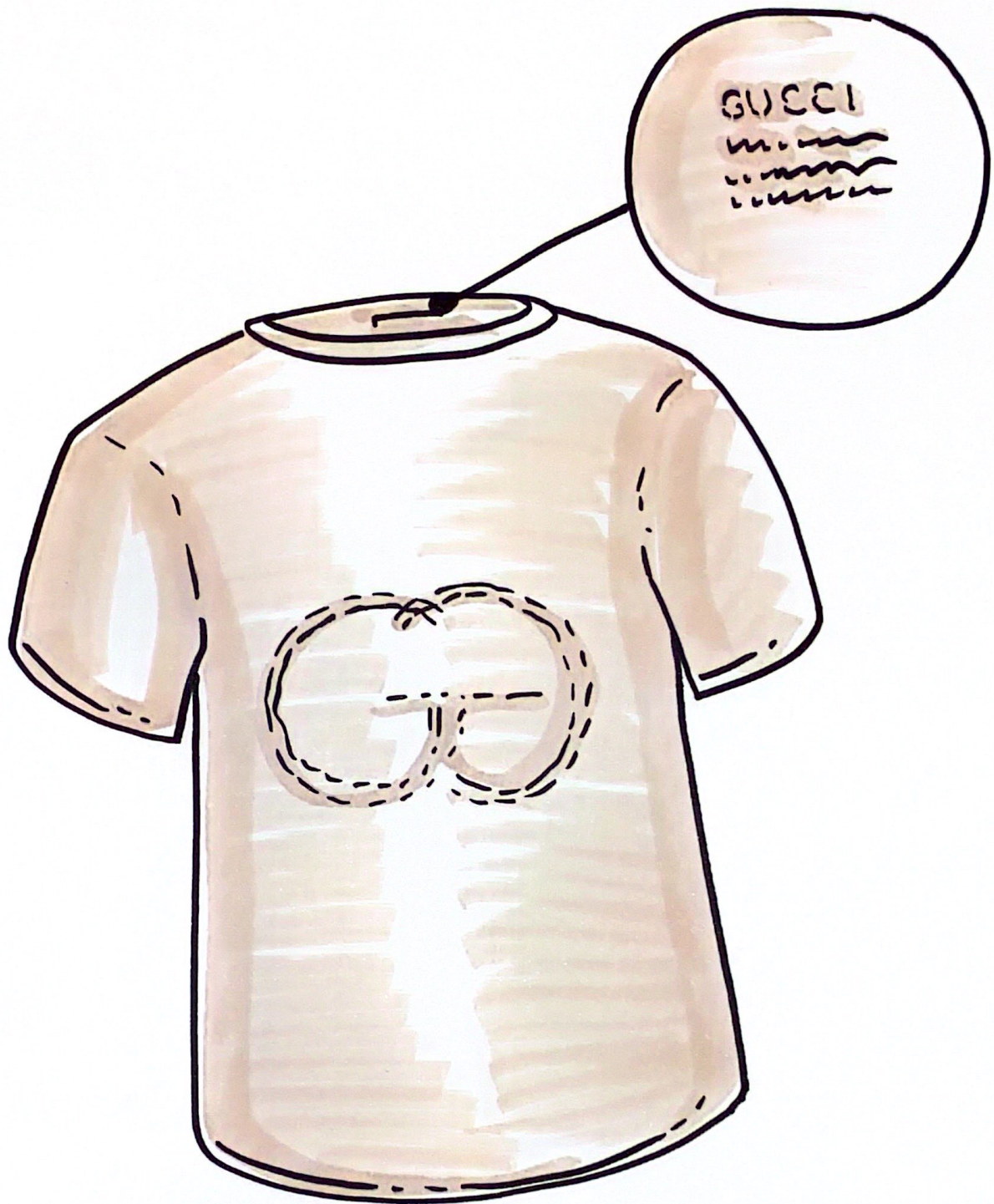
# DISASSEMBLY & REASSEMBLY.



eg. CHILDRENS CLOTHES  
- BEING ABLE TO TAKE  
ELEMENTS APART &  
ADD TO THEM...

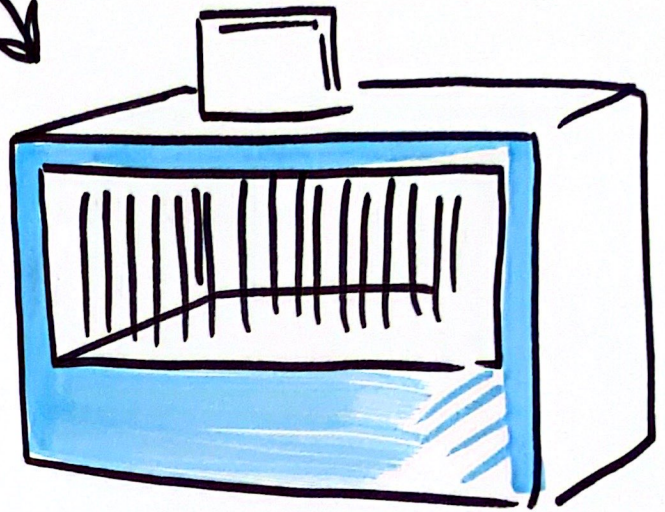
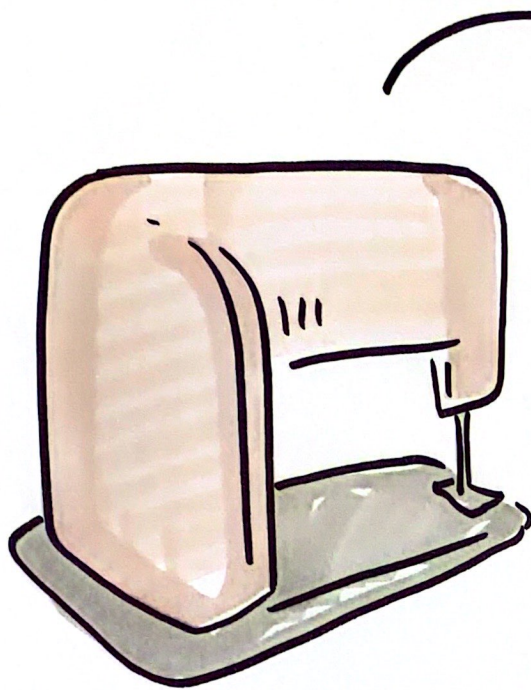






NEEDLE PUNCHING FOR BRANDING -  
BOTH VISIBLE ON GARMENT  
+ 'HIDDEN' (INSIDE REINFORCEMENT,  
LABELLING INSIDE ETC)





IDEALLY SIZE  
OF A SEWING MACHINE

SIZE & COST RESTRAINTS...



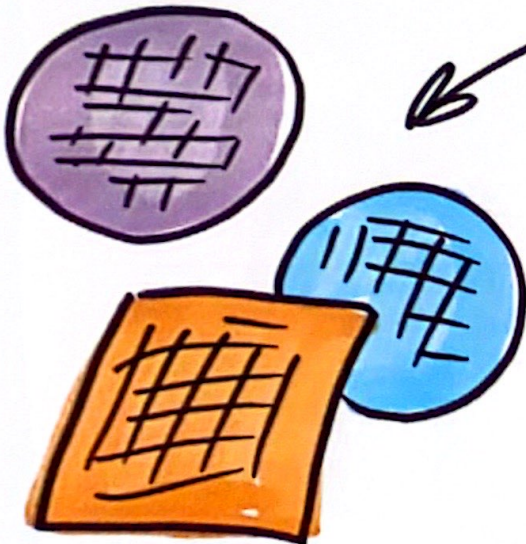
NO COST -  
BRAND  
ABSORBS  
COST OF  
REPAIRS





MASS COLLECTION  
of WASTE MATERIALS

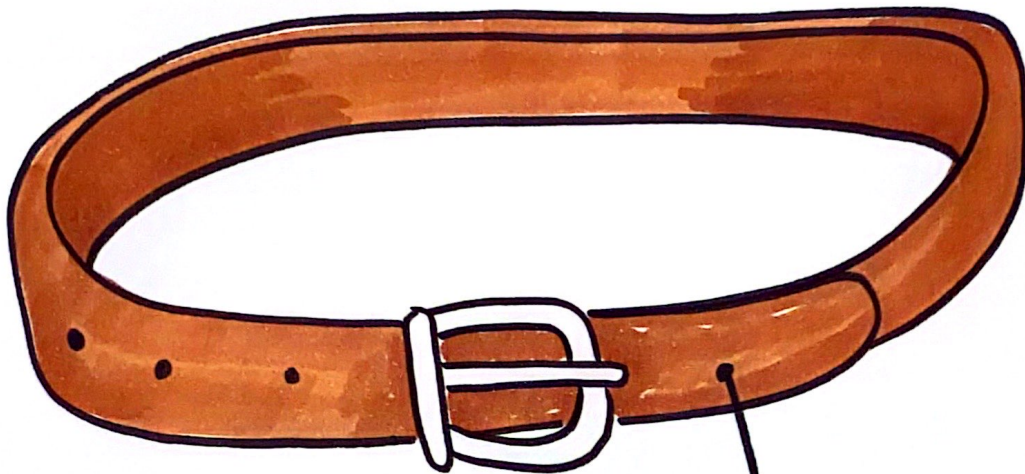
DARNING PATCHES  
DEVELOPED FOR SALE



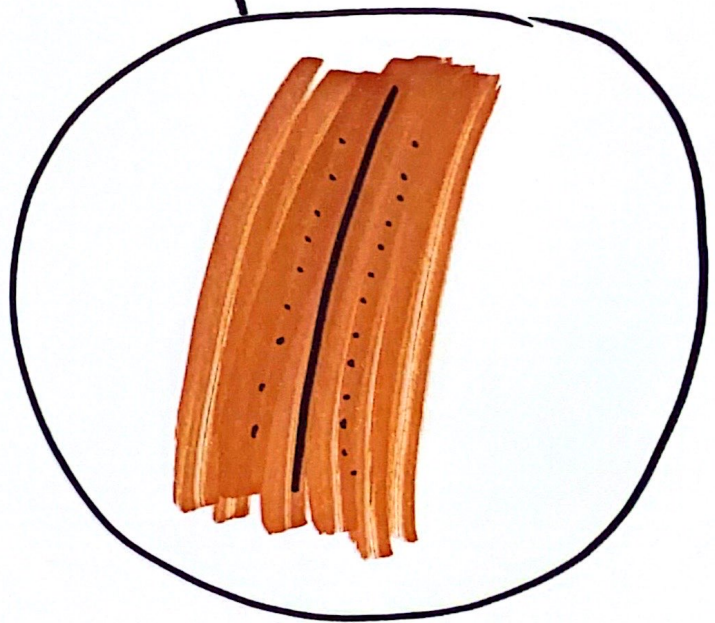
FIBRES  
PUNCHED  
DIRECT ONTO  
GARMENTS



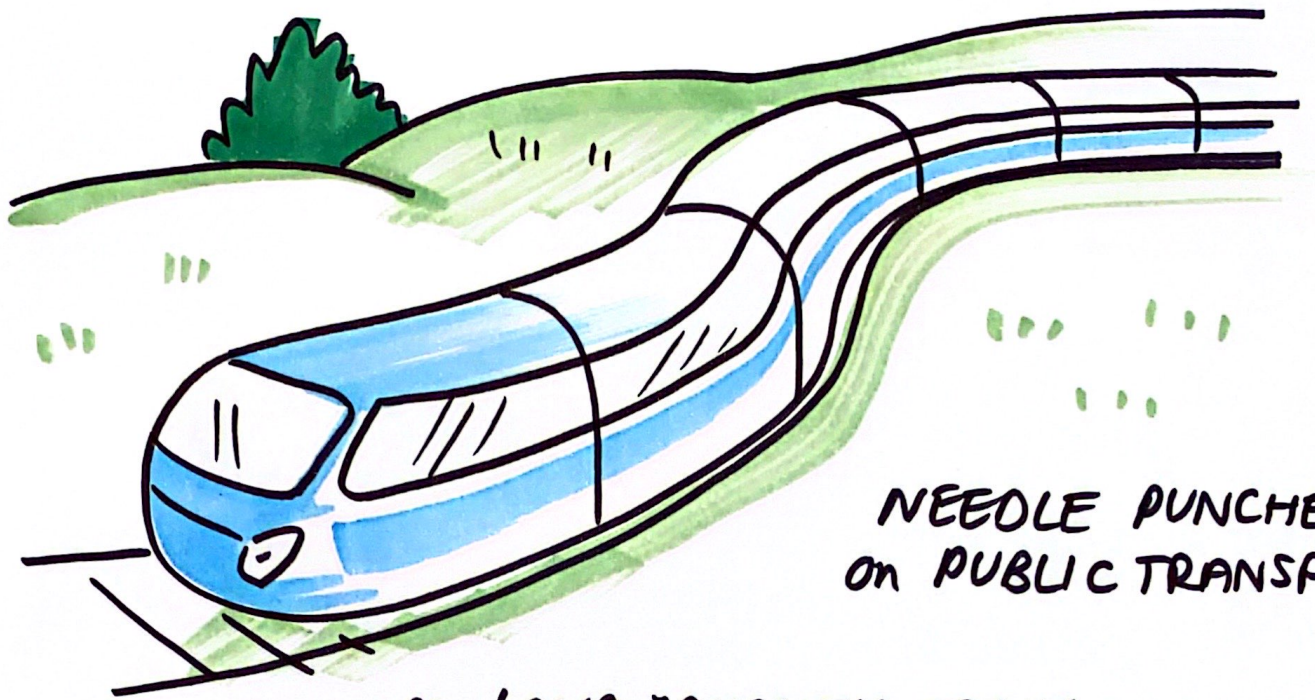
# AVOIDING SOLVENTS



NEEDLE  
PUNCHING  
CAN REDUCE  
the NEED  
for USING  
SOLVENTS....

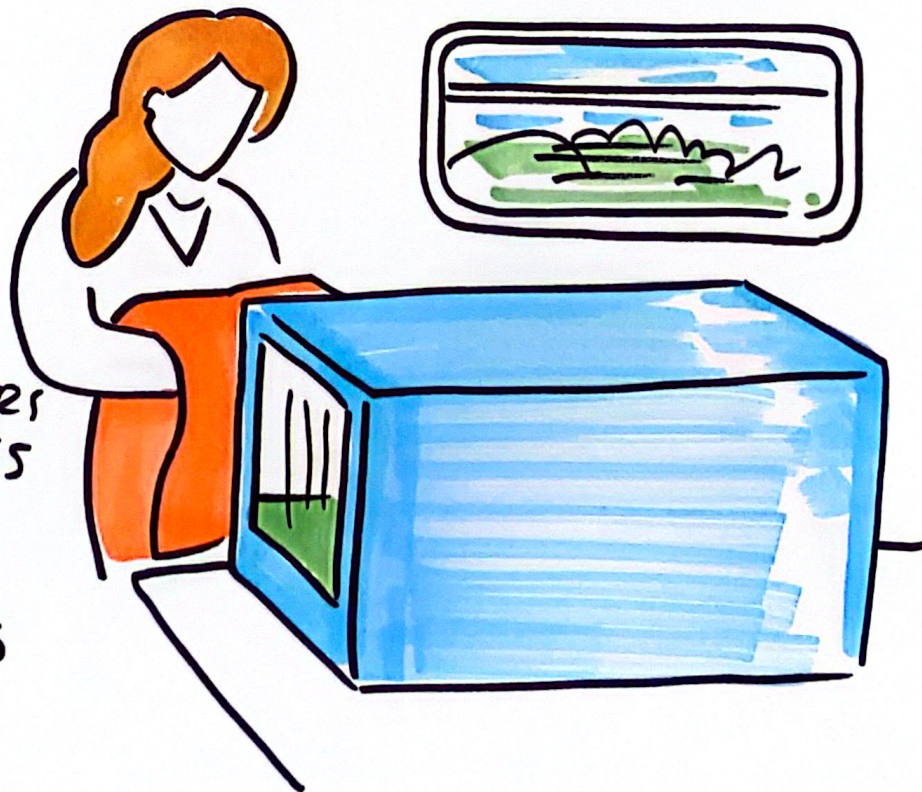






NEEDLE PUNCHER  
on PUBLIC TRANSPORT

eg. LONG JOURNEY TRAIN



CONSUMERS  
CAN ACCESS  
+ USE  
MACHINE  
on TRAINS





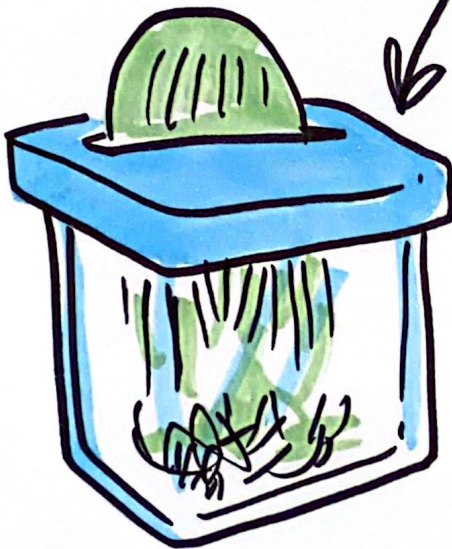
PARTNERING with  
KNOWN BRANDS  
to SHOWCASE TECHNOLOGIES  
& TECHNIQUES



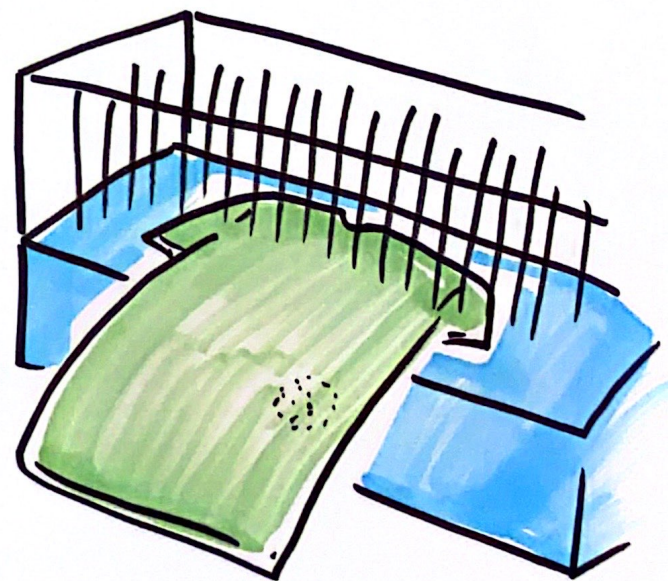
DETECT DAMAGE  
ON GARMENT



CUT DAMAGE  
OUT OF  
GARMENT



SMALL  
SHREDDER CAN  
BREAK SAMPLE  
DOWN TO SMALL  
FIBRES



NEEDLE PUNCHER  
ADDS FIBRES BACK  
INTO ORIGINAL GARMENT



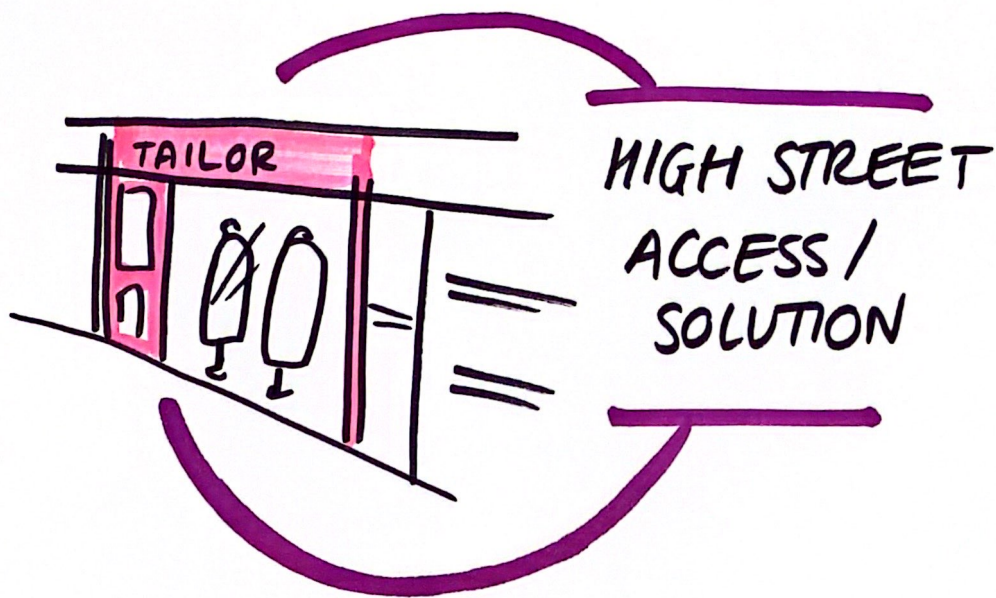


REPAIR HUB-  
CONSUMERS CAN  
EXPLORE  
HABIDASHERY  
STYLE SPACE  
WHILE THEY WAIT



PHYSICAL  
LIBRARY OF  
REPAIR  
EXAMPLES





CONSUMER VISITS RETAILER  
that OFFERS this as a  
SERVICE - QUICK CONSULTATION  
& QUICK REPAIR







POP UP /  
ROAMING  
SHOWCASE  
HUB



EXPLORE LATEST  
TECHNOLOGIES /  
MACHINES

LEARN ABOUT  
the REPAIR  
PROCESSES &  
THEIR BENEFITS



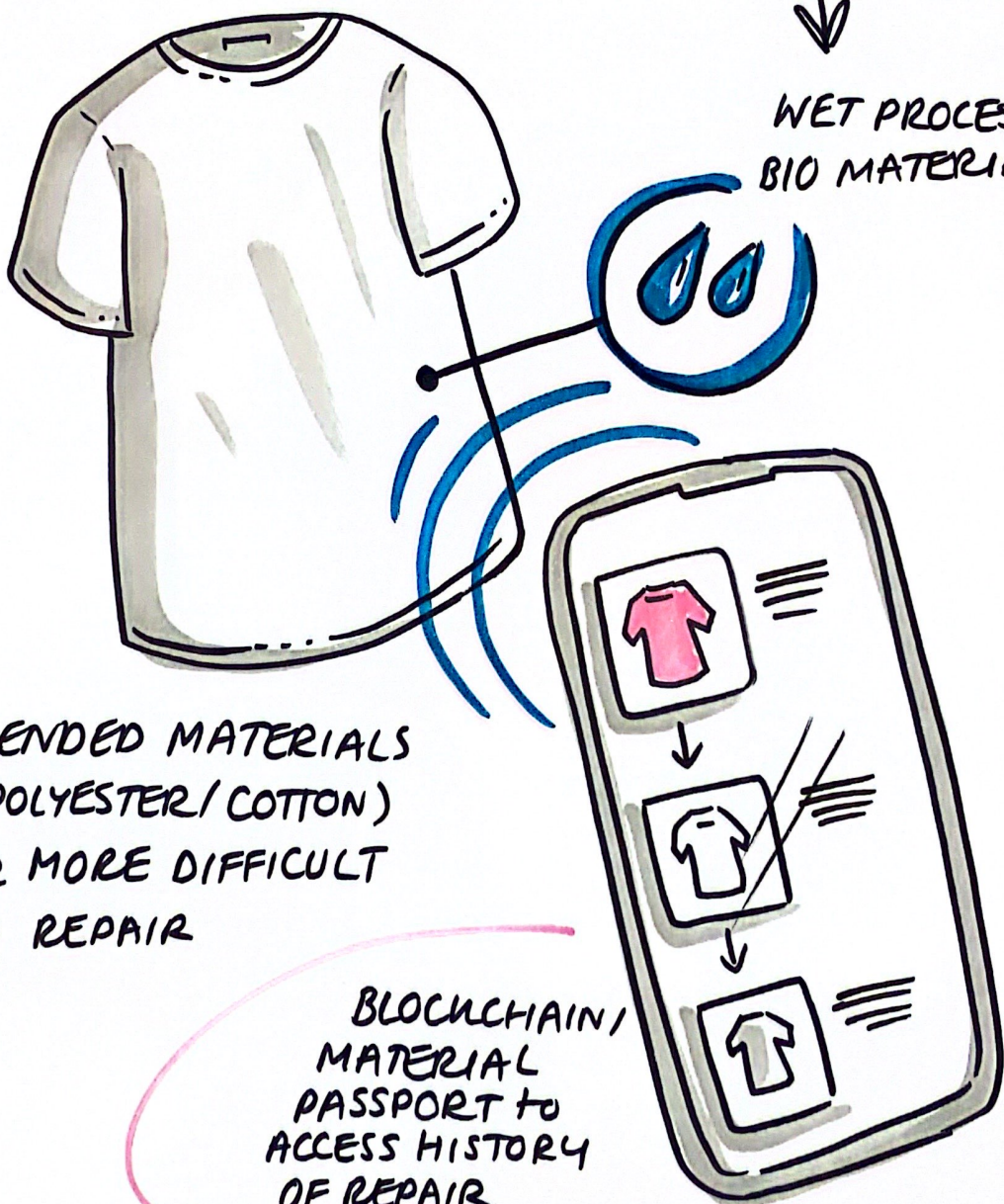


HOW TO ADD VALUE/  
EFFECTIVELY REPAIR  
PETROLEUM BASED  
MATERIALS?

WET PROCESSING/  
BIO MATERIALS

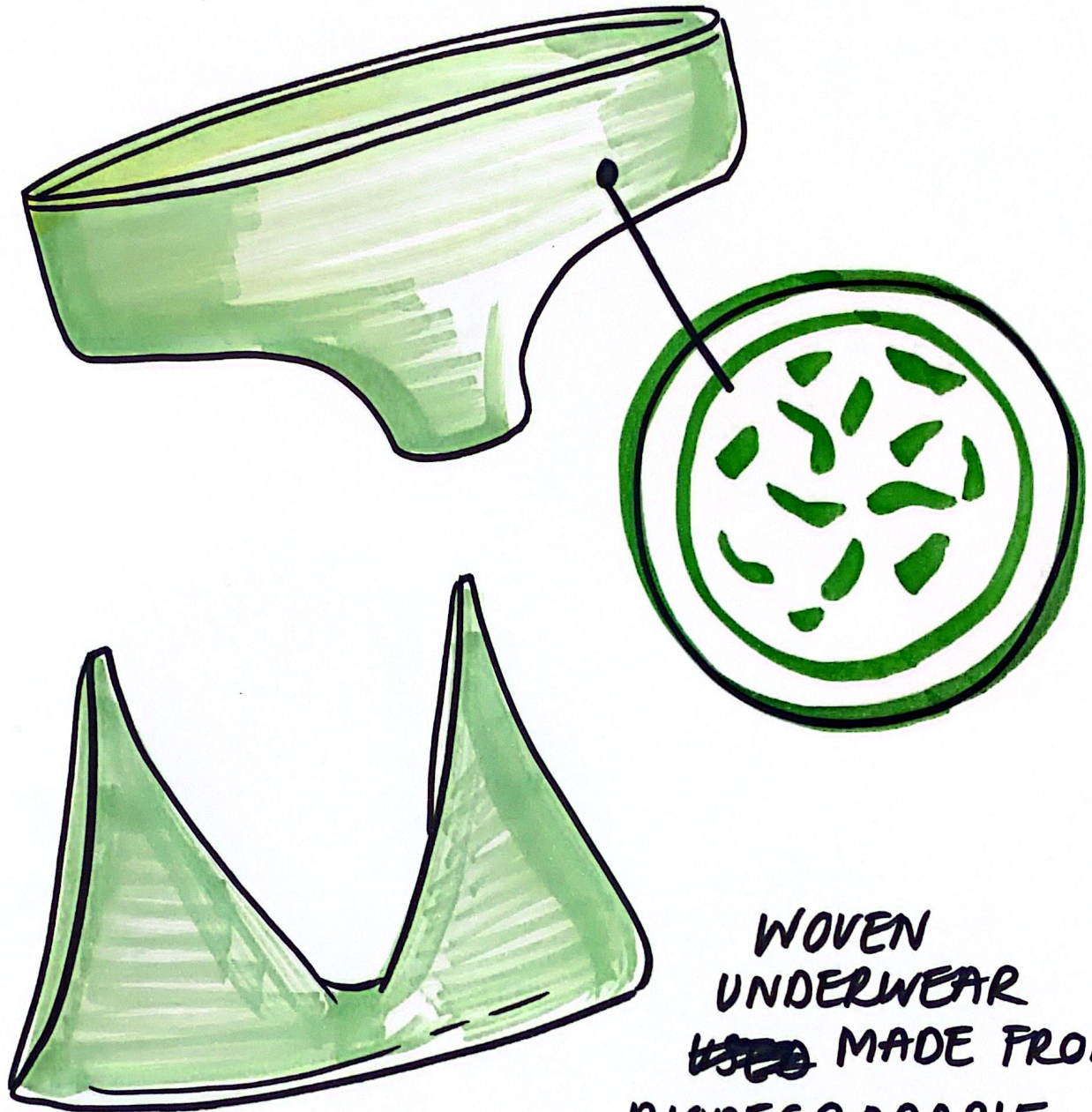
BLENDED MATERIALS  
(eg. POLYESTER/COTTON)  
are MORE DIFFICULT  
TO REPAIR

BLOCKCHAIN/  
MATERIAL  
PASSPORT TO  
ACCESS HISTORY  
OF REPAIR



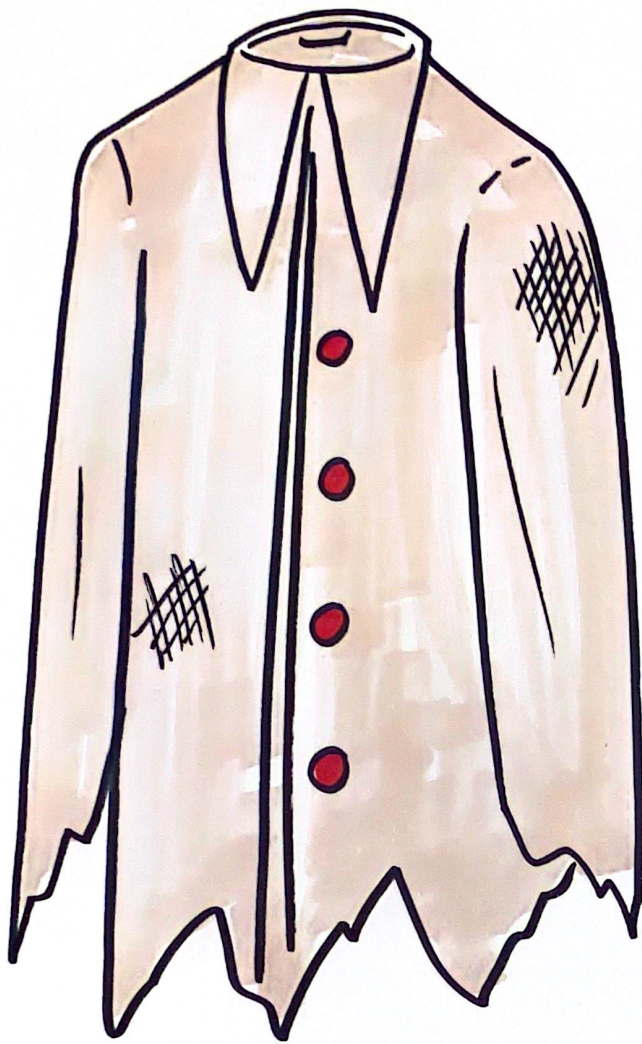


UNDERWEAR IS A HUGE WASTE...  
NO ONE BUYS PREOWNED UNDERWEAR..

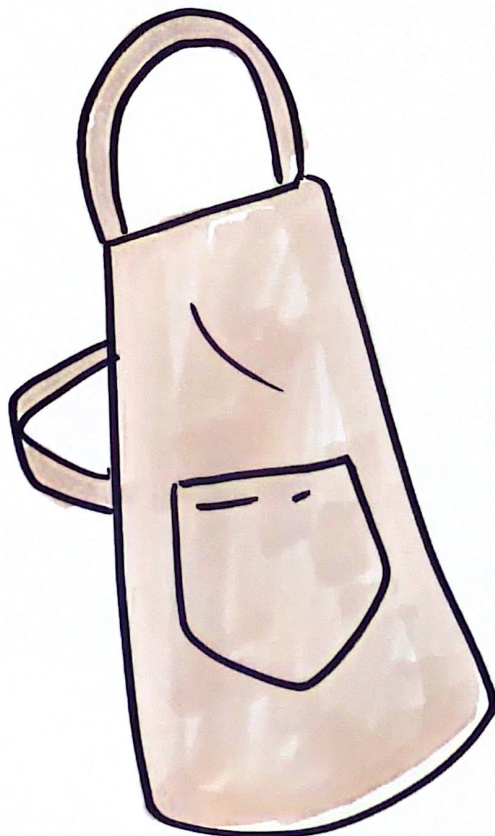


WOVEN  
UNDERWEAR  
~~USED~~ MADE FROM  
BIODEGRADABLE  
MATERIAL (with ADDED  
ELEMENTS that PURIFY  
WATER SYSTEMS.





IT DOESN'T NEED  
to be REPAIRED to  
IT'S ORIGINAL DESIGN...



IT CAN BE REPURPOSED  
INTO PRACTICAL  
ITEMS - eg BAGS &  
APRONS



LAYERING the  
WOVEN LOOMS  
PRINTS...

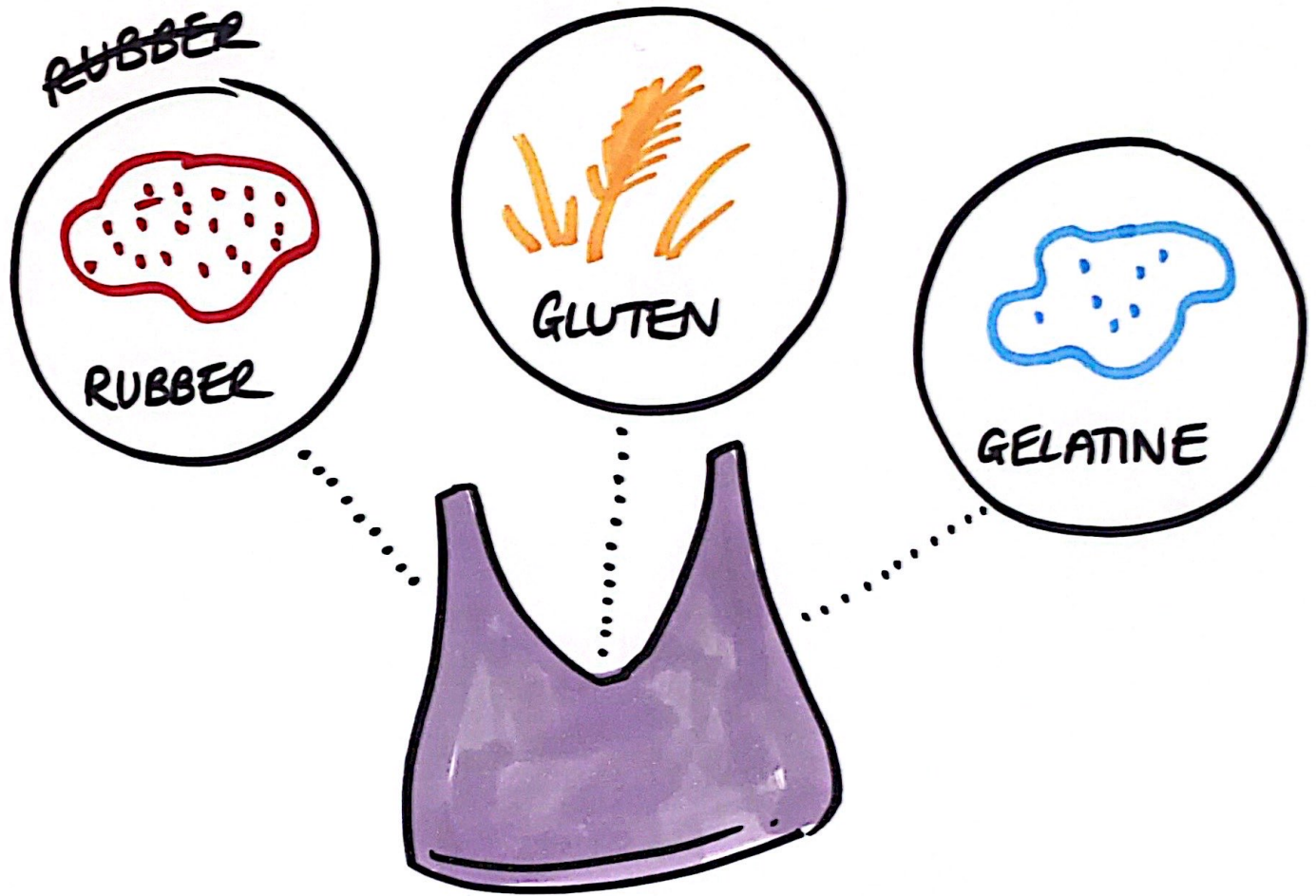


PLEATING  
EFFECT

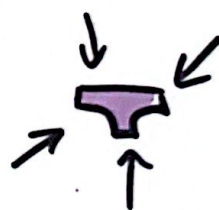
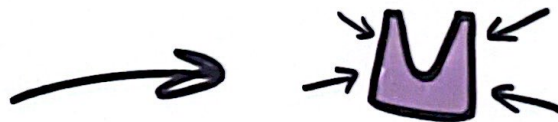
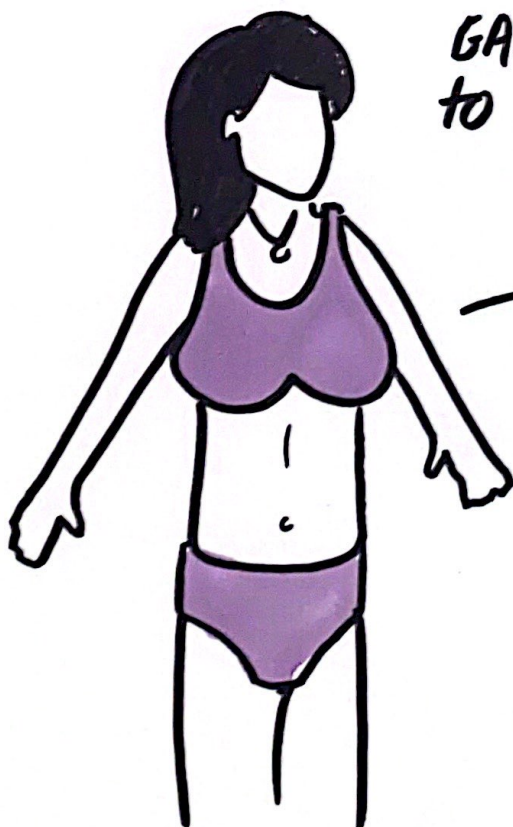
LAYERS CAN EITHER BE SEPARATED,  
OR EXTRA LAYERS CAN BE ADDED...



# THINKING ABOUT NATURAL MATERIALS THAT HAVE STRETCH...

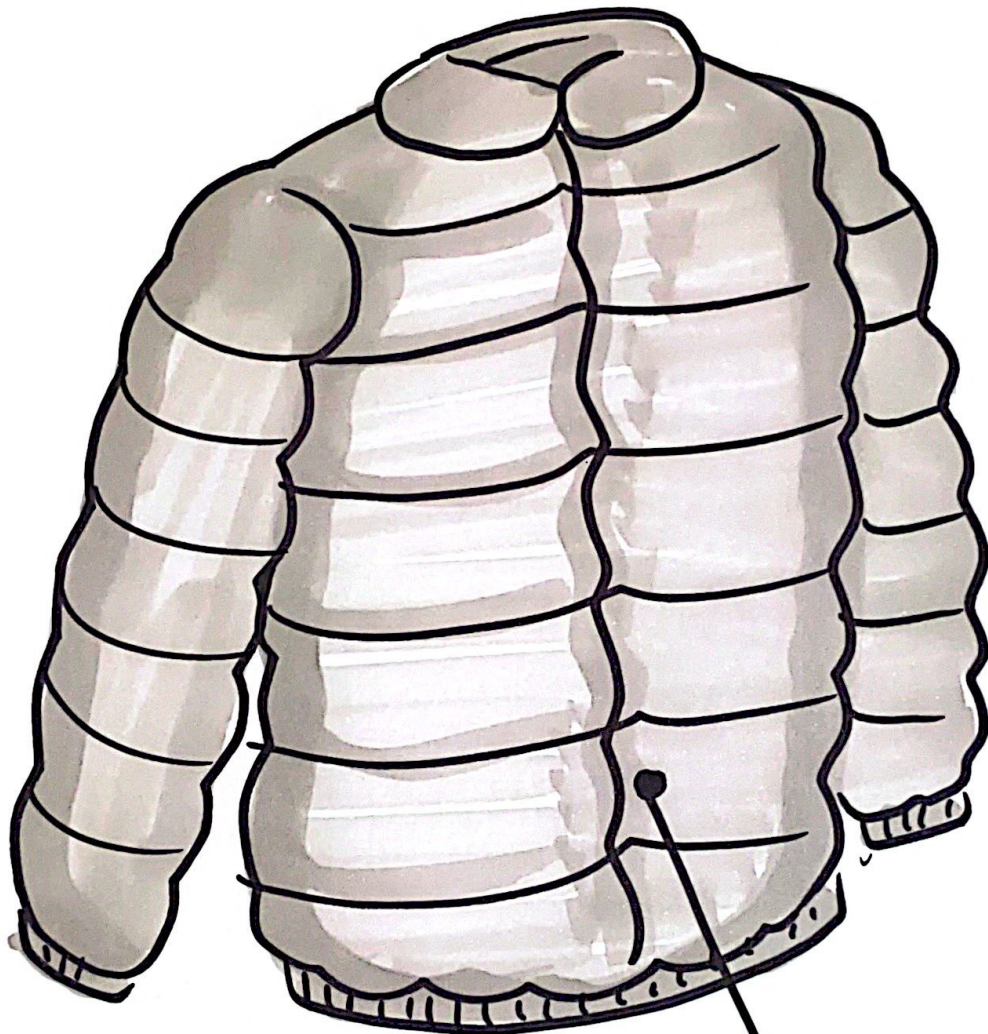


GARMENTS STRETCH  
TO FIT WHILE WEARING...

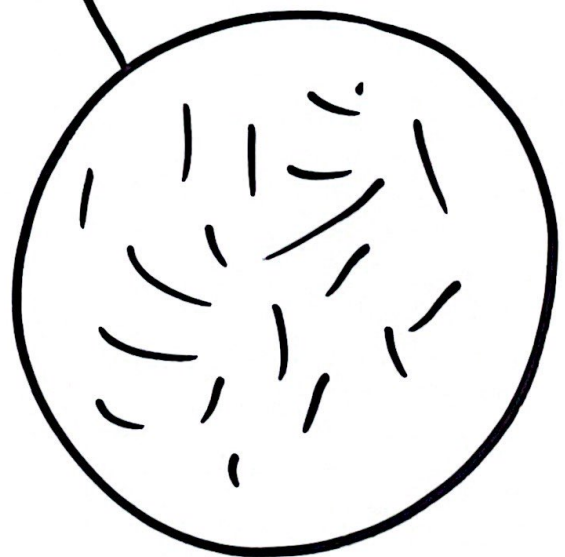


AND THEN  
'SHRINK' TO  
ORIGINAL FORM  
AFTER WEAR...



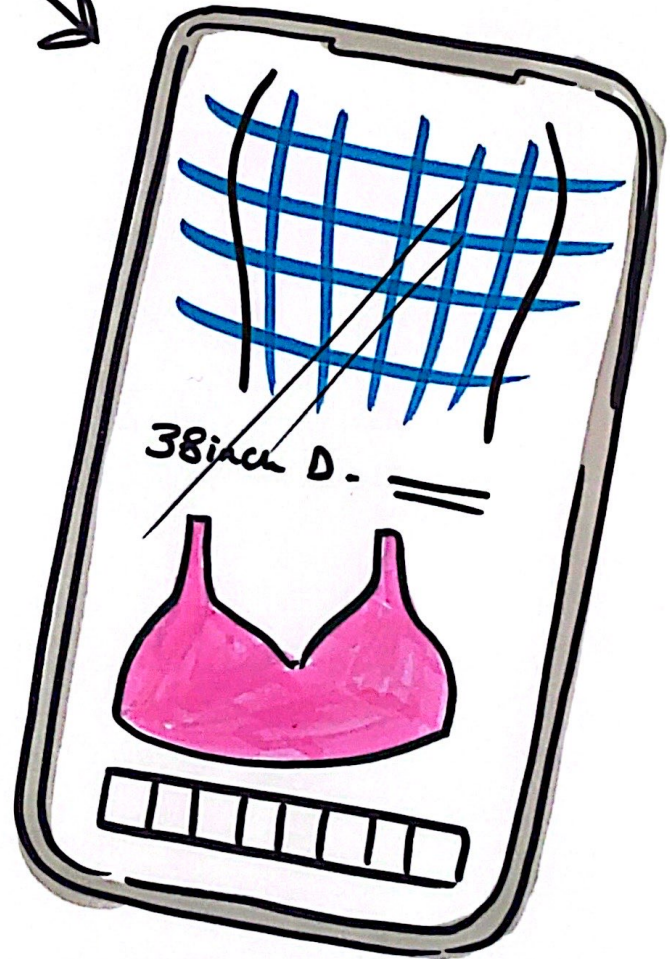
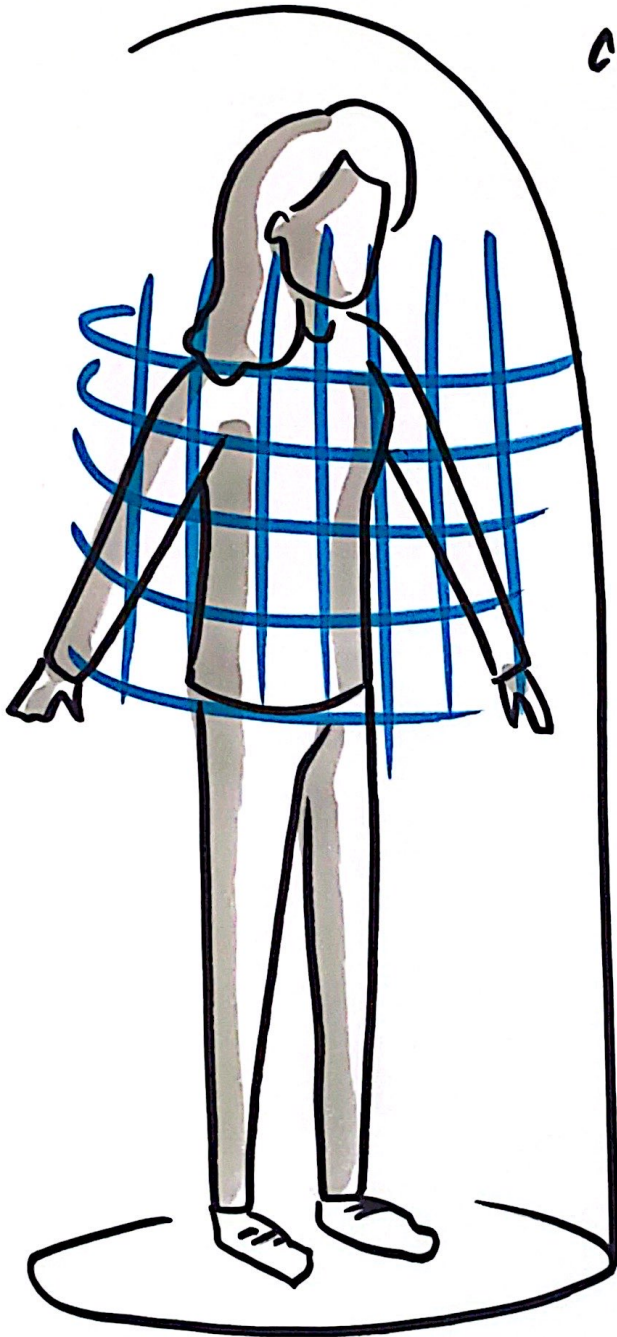


NO NEED TO USE  
FILLING LIKE  
DOWN - CAN USE  
LEFTOVER  
FIBRES FOR  
FILLING ...

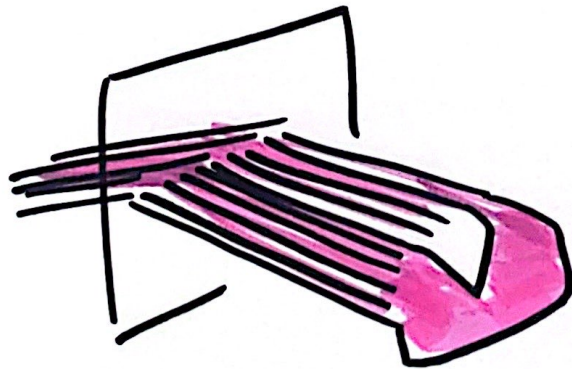




CONSUMER IS 3D SCANNED  
& MEASURED

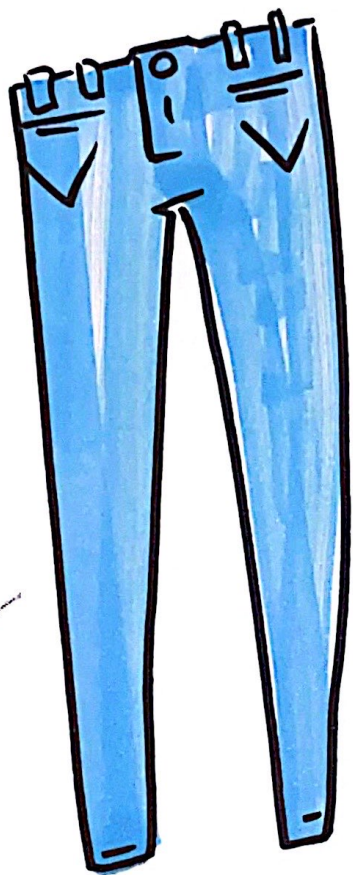


CONSUMER CAN  
CUSTOMISE THEIR DESIGN

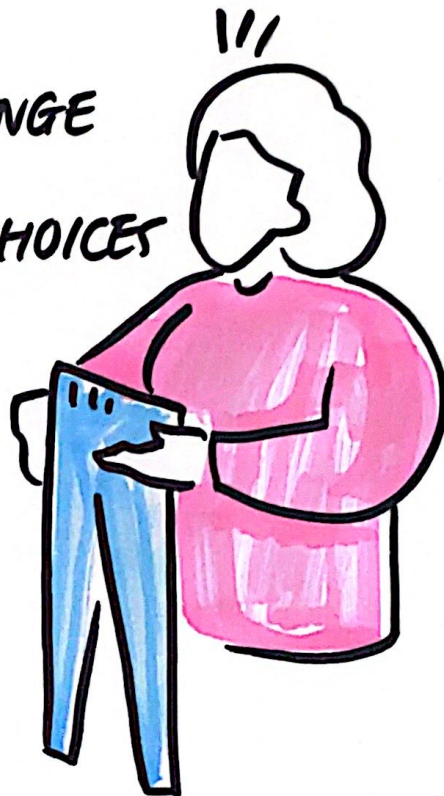


3D LOOM CREATES  
GARMENT BASED  
ON INPUT

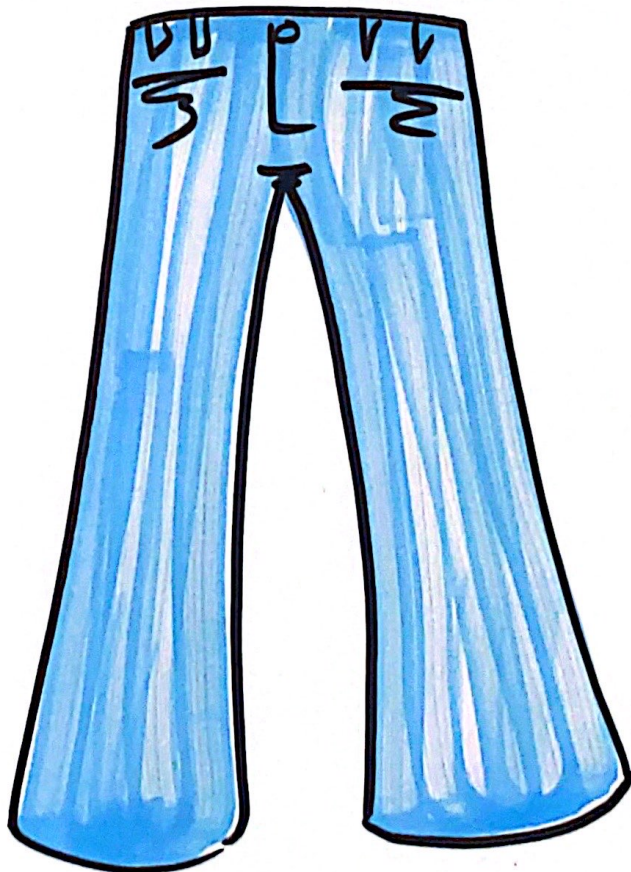




WE CHANGE  
SHAPE +  
FASHION CHOICES  
ALL THE  
TIME...



3D LOOM COULD NOT  
ONLY CHANGE SIZE,  
BUT ALSO STYLE...

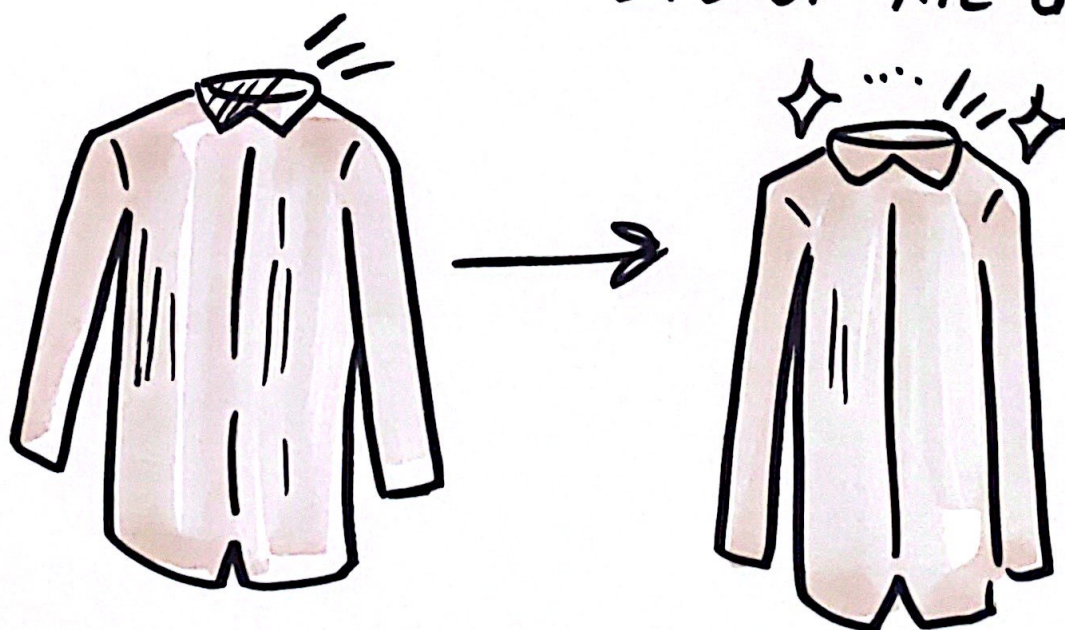




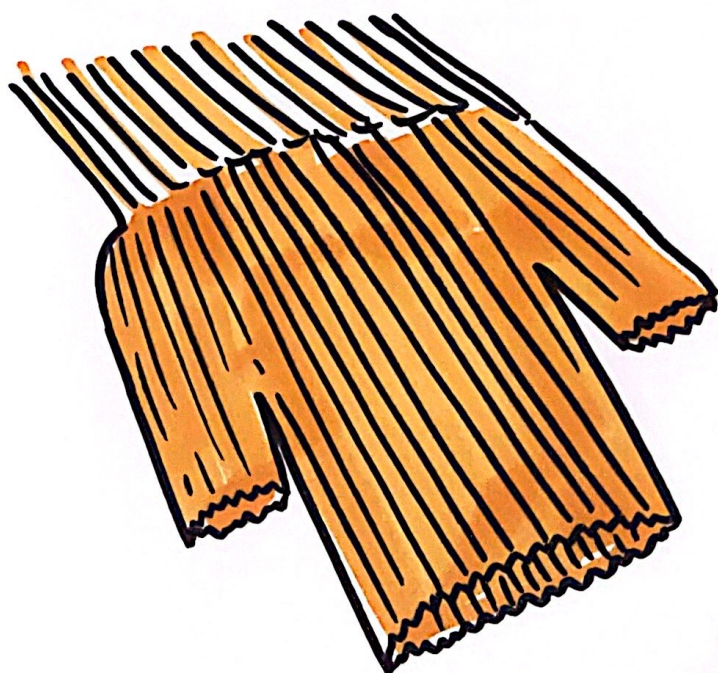


SHIFT in the  
WAY that  
THINGS are  
WOVEN...

PRINT MODULAR  
SO THAT WORN ELEMENTS  
CAN ALWAYS BE  
REPLACED, FOR EXTENDED  
LIFE OF THE GARMENT...







3D WEAVE in  
PLEATED DESIGN



CREATING MORE  
'ONE SIZE FITS ALL'  
GARMENTS / GARMENTS  
that FIT as YOU CHANGE  
SIZE / SHAPE FOR LONGER  
USE...



5 YEARS LATER...



# A PLAY SPACE ≡

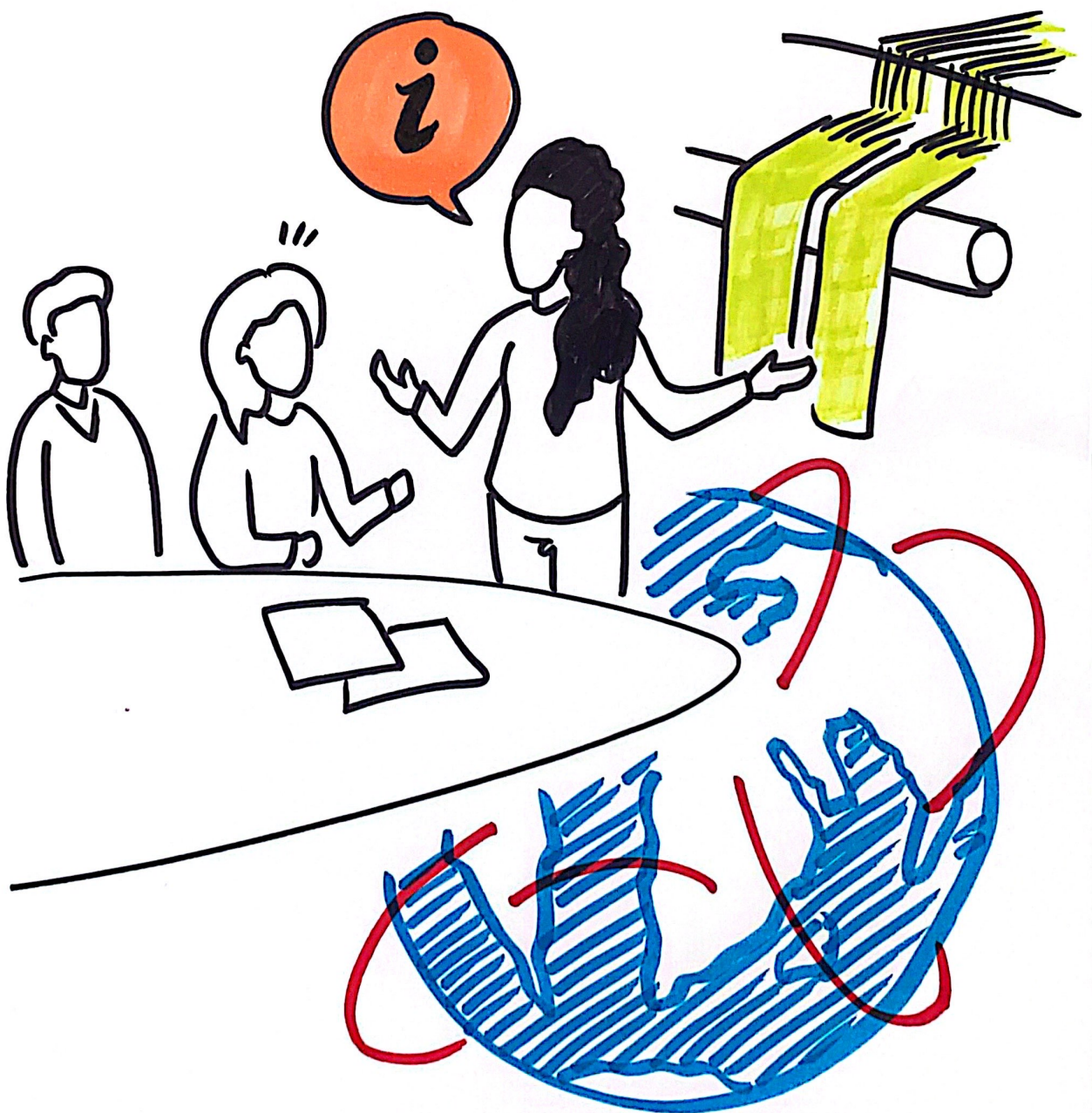
FOR PEOPLE TO EXPLORE, DISCOVER &  
INTERACT WITH THE LATEST INNOVATIONS  
in TECHNOLOGIES & PROCESSES...



• CUSTOMISE • REPAIR • REUSE •



DIRECT TRAINING OF NEW  
TECHNOLOGIES to INFLUENCE  
the SOURCE of MANUFACTURING



TRAINING on INTERNATIONAL  
LEVEL (eg. TEXTILE MANUFACTURE  
POPULAR COUNTRIES eg BANGLADESH)



GET LOCAL  
COUNCILS INVOLVED



DEVELOP ACCESS  
to LOCAL NETWORK



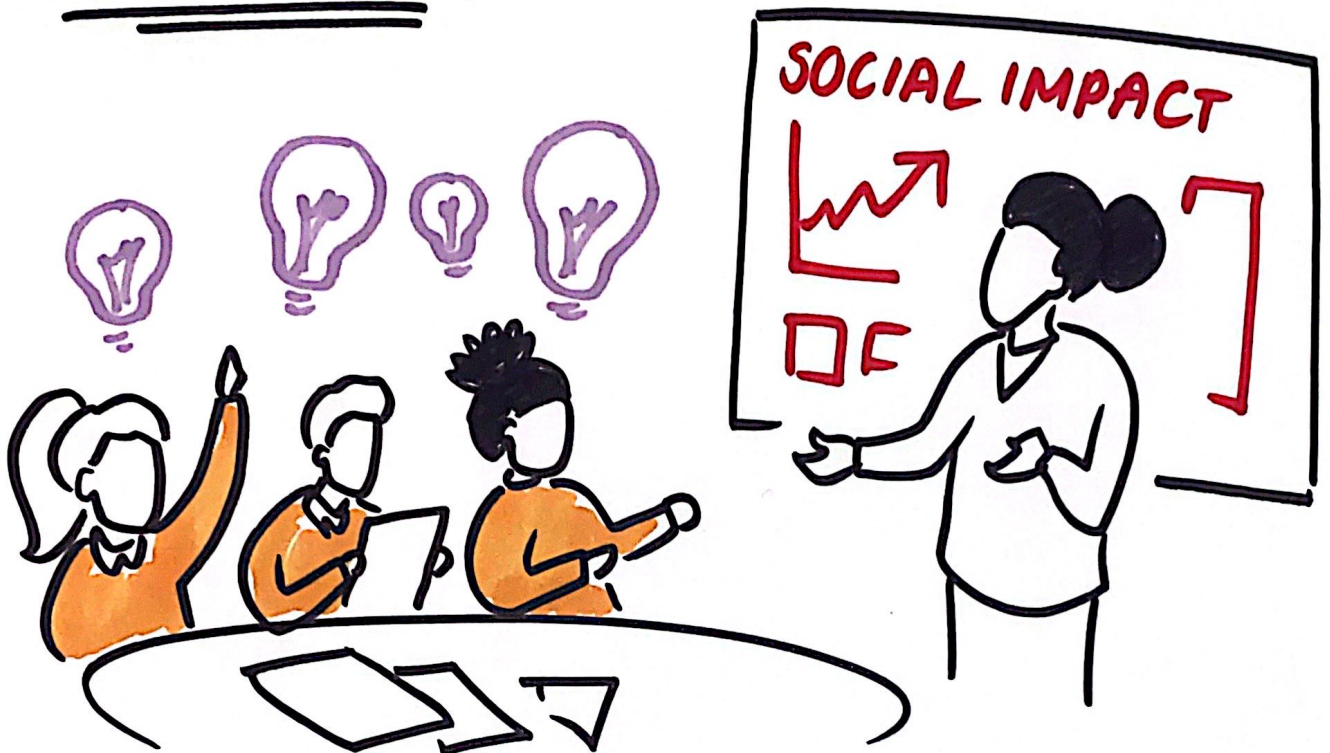
WORKSHOPS FROM  
LOCAL SPECIALISTS...



CONTACT SPECIALISTS  
FOR THEIR SERVICES...



# IMPROVING EDUCATION...



MAKING THEIR  
UNDERSTANDING RELATABLE...



THE IMPACT  
ON SOCIETIES



CONSEQUENCES  
OF PROCESSES



UNDERSTANDING  
ALTERNATIVES

WITH THIS  
KNOWLEDGE, THEY  
WILL MAKE MORE  
CONSCIOUS, INFORMED  
+ SUSTAINABLE  
DECISIONS...





# SHIFTING the VALUE of the MINOSET....

THIS IS £50 NOW... IT WILL  
BE WORTH £150 in 2 YEARS  
TIME...



**SWAP SHOP**

ENCOURAGING  
'SWAP SHOPS'  
(REFRAMING  
PRE-OWNED)

