The importance of implementing 3D Fabrics

in our textile life

FUNCTIONAL FABRIC FAIR POWERED BY PERFORMANCEDAYS MUNICH | NEW YORK | PORTLAND



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WELCOME to today's Expert Talks Live Webinar Series

"The importance of implementing 3D Fabrics in our textile life"

created for "FUNCTIONAL FABRIC FAIR" powered by PERFORMANCE DAYS January 18, 2021



- The apparel industry is finally opening up to the possibility of a broader implementation of 3D technologies within the supply chain. The fashion consumer is changing. It is younger, more conscious of global social and environmental changes.
- Recognition of the 3D technology and benefits it brings to the design and manufacturing process is on the rise. Fashion brands and retailers are acknowledging the inevitability and high potential of 3D technologies.
- It is not only about speeding up product to market cycle but opening up an opportunity to make apparel product development and manufacturing fully digitized, therefore more sustainable.



A future scenario of a fashion designer comfortable enough with 3D technology to create from the beginning that initial fashion drawing in a three-dimensional space making quick decisions, trying out different fabrics, colors and contrasts, communicating his/her ideas with the pattern maker and the entire development team in true to life 3D and within hours instead of days or weeks, sounds exciting but for some, still science fiction.

https://www.researchgate.net/publication/299982121_Can_3D_Virtual_Prototype_Conquer_the_Apparel_Industry



This state-of-the-art 3D technology has been described as transformative and "disruptive" comparing to the process of the way apparel companies develop their fashion products today. It provides the benefit of virtual sampling not only for quick testing of design ideas, but also reducing process steps and having more visibility.

https://www.researchgate.net/publication/299982121_Can_3D_Virtual_Prototype_Conquer_the_Apparel_Industry



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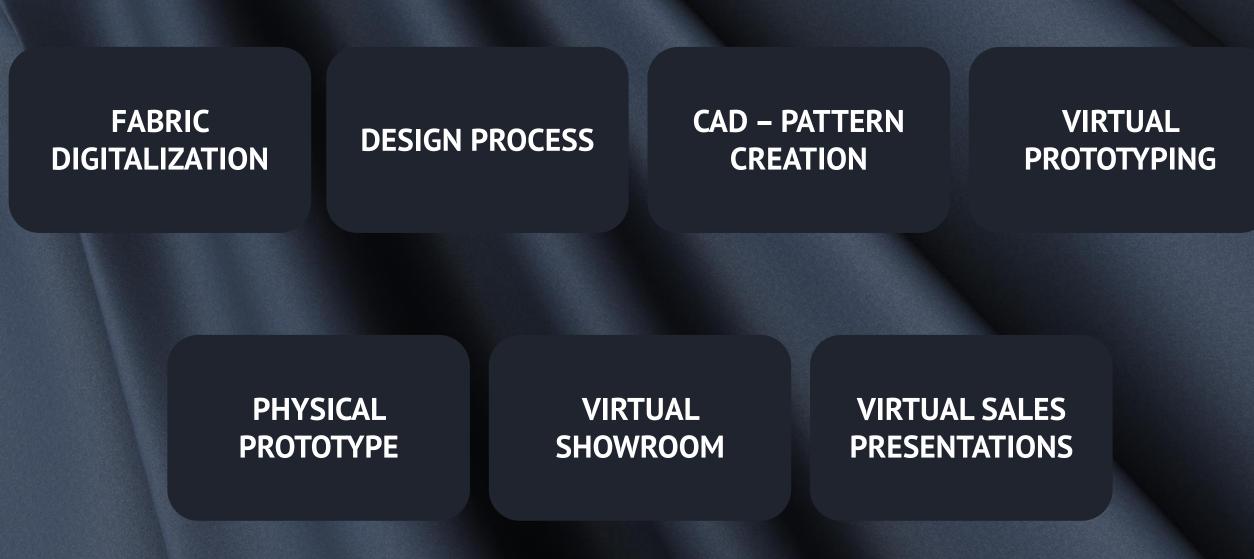
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ADVANTAGES OF 3D NA THE IDEAL DIGITAL SUPPLY CHAIN ΗA K POWERED BY PERFORM

"The importance of implementing 3D Fabrics in our textile life" – The ideal digital supply chain with digital assistance.

OVERVIEW HOW





HOW is the usual process of 3D Design? **Steps**





1 PATTERN

pattern development is made and prepared for 3D simulation

2 FABRIC

select the fabric for your virtual sample

3 DUMMY choose a dummy

4 VIRTUAL SAMPLE

check if the fit of the garment & modify your garment

STYLE DEVLEOPMENT – COMPARISON PHYSICAL AND DIGITAL SAMPLE



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STYLE DEVELOPMENT WITH PHYSICAL SAMPLE			STYLE DEVELOPMENT WITH VIRTUAL SAMPLE 3D		
1 2 3 4	Design Pattern Materials First physical Sample	FIRST SAMPLE DEVELOPMENT	1 2 3 4	Design Pattern / VIRTUAL SAMPLE 3 Checking Comments Pattern correction	D FIRST SAMPLE DEVELOPMENT
5 6 7	Sending Checking Fitting comments		5 6 7	Materials First physical sample Sending	SECOND SAMPLE DEVELOPMENT
8 9	Pattern correction Second physical sample		8 9	Checking Fitting Comments	
10 11 12	Sending Checking Fitting Comments	SECOND SAMPLE DEVELOPMENT	10	OK STYLE	in total about 12 weeks
13	OK STYLE	in total about 16 weeks			@ Alova Dahmal active coast design & consulting



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lexa Dehmel active-sport-design & consulting

X-RITE/PANTONE DIGITAL FABRICS NA FROM THE SUMMER 2022 FORUM FA POWERED BY PERFORM



Your friends at Reed Exhibitions have invested in digital technology from X-Rite/Pantone to provide you with digital versions of fabrics. These digital versions saved in X-Rite's Appearance Exchange Format (AxF) are designed to be used with design and rendering software, so that you can design and approve your materials without the need to have a physical sample.

THE IDEAL DIGITAL SUPPLY CHAIN WITH DIGITAL ASSISTANCE.



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https://www.xrite.com/ **X-RITE PANTONE** FABRIC https://www.vizoo3d.com/ VIZOO DIGITALIZATION https://www.colordigital.com/ DMIx I COLOR DIGITAL

"The importance of implementing 3D Fabrics in our textile life" FABRIC DIGITALIZATION – EXAMPLE X-RITE PANTONE





X-RITE OFFERS END-TO-END SOLUTIONS TO ENSURE YOUR MATERIAL WORKFLOW IS COLOR-OPTIMIZED FOR ACCURATE VISUALIZATION AND COMMUNICATION

DIGITAL TEXTILE PARAMETERS

MEASURED

Color Gloss Texture Transparency Translucency Coatings

STORED / EMBEDDED

Weight Fabric thickness Tensile force / elongation Bending Fold volume / draping THE AxF FILE IS THE DIGITAL TWIN OF A PHYSICAL MATERIAL SAMPLE COMPRISING, FULL APPEARANCE MEASUREMENT INFORMATION PLUS METADATA "The importance of implementing 3D Fabrics in our textile life" FABRIC DIGITALIZATION – EXAMPLE X-RITE PANTONE – FABRIC RENDERING



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https://frontier.cool/ FRONTIER FABRIC **LIBRARIES** https://www.swatchbook.us/ SWATCHBOOK

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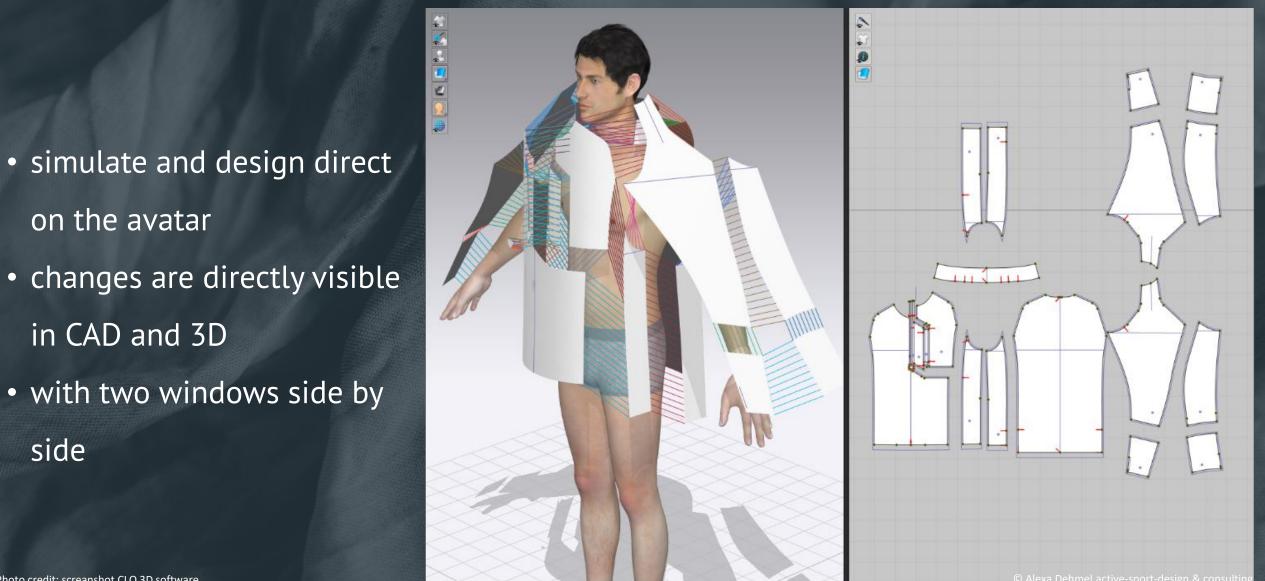


	ASSYST – VIDYA SKETCH	https://www.assyst.de/en/products/3d-
		<u>vidya/index.html</u>
	BROWZWEAR – Vstitcher & Lotta	https://browzwear.com/products/
	CLO 3D	https://www.clo3d.com/
	EFI / OPTITEX	https://optitex.com/
DESIGN PROCESS	GERBER – Accu Mark 3D	https://www.gerbertechnology.com/fashion-
		apparel/design/accumark-3d/
	LECTRA – Modaris	https://www.lectra.com/en/products/modaris-
		<u>quick-estimate</u>
	SEDDI	<u>https://seddi.com/</u>
	TUKATECH – TUKA3D	<u>https://tukatech.com/tuka3d-de/</u>
		© Alexa Dehmel active-sport-design & consulting

"The importance of implementing 3D Fabrics in our textile life" **DESIGN PROCESS – EXAMPLE CLO 3D**

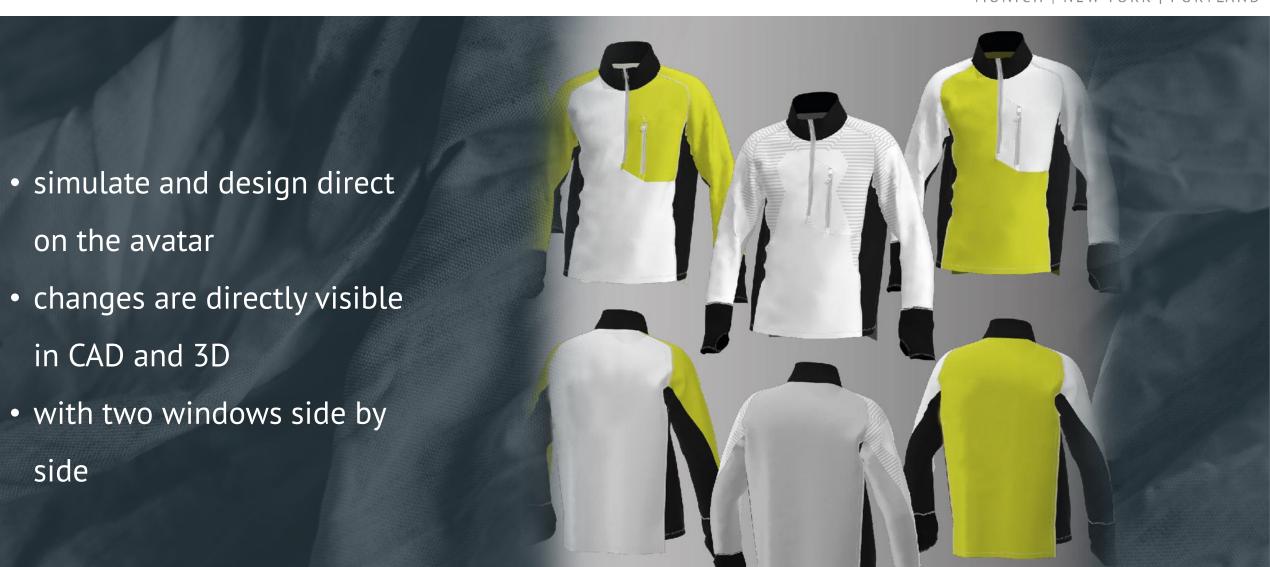


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"The importance of implementing 3D Fabrics in our textile life" DESIGN PROCESS – EXAMPLE CLO 3D





THE IDEAL DIGITAL SUPPLY CHAIN WITH DIGITAL ASSISTANCE.

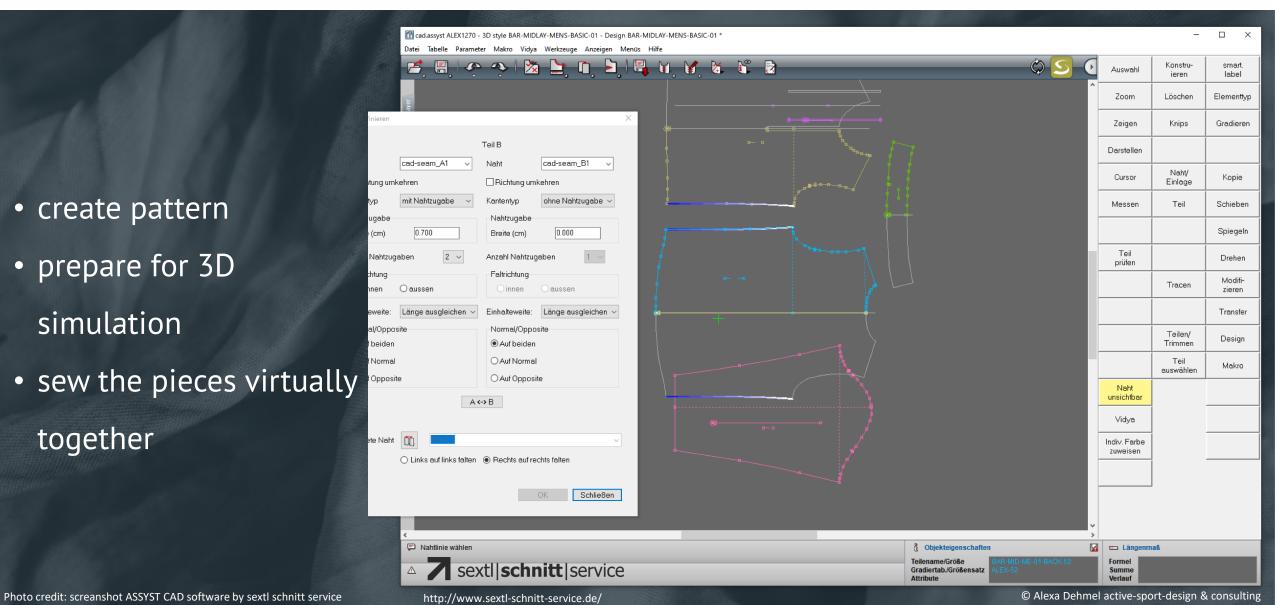


https://www.assyst.de/en/products/cad/index. ASSYST – CAD html https://browzwear.com/products/ **BROWZWEAR – Vstitcher & Lotta** https://www.clo3d.com/ CLO 3D CAD – PATTERN https://optitex.com/ EFI / OPTITEX CREATION https://www.gerbertechnology.com/fashion-**GERBER – Accu Mark** apparel/design/accumark/ https://www.lectra.com/en/products/modaris-**LECTRA – Modaris** quick-estimate https://tukatech.com/tukacad/ **TUKATECH - TUKAcad**

CAD - PATTERN CREATION – EXAMPLE ASSYST CAD



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https://www.assyst.de/en/products/3d-ASSYST – 3D VIDYA vidya/index.html https://browzwear.com/products/ **BROWZWEAR – Vstitcher & Lotta** https://www.clo3d.com/ CLO 3D VIRTUAL https://optitex.com/ EFI / OPTITEX PROTOTYPING https://www.gerbertechnology.com/fashion-**GERBER – Accu Mark 3D** apparel/design/accumark-3d/ https://www.lectra.com/en/products/modaris-**LECTRA – Modaris** quick-estimate https://tukatech.com/tuka3d-de/ TUKATECH – TUKA3D

VIRTUAL PROTOTYPING – EXAMPLE ASSYST 3D VIDYA



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Photo credit: screanshot ASSYST VIDYA software by sextl schnitt service

http://www.sextl-schnitt-service.de/

VIRTUAL PROTOTYPING – EXAMPLE ASSYST 3D VIDYA



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virtual

http://www.sextl-schnitt-service.de/

VIRTUAL PROTOTYPING – EXAMPLE ASSYST 3D VIDYA



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• design

collection

overview

http://www.sextl-schnitt-service.de/

VIRTUAL PROTOTYPING – EXAMPLE ASSYST 3D VIDYA



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http://www.sextl-schnitt-service.de/

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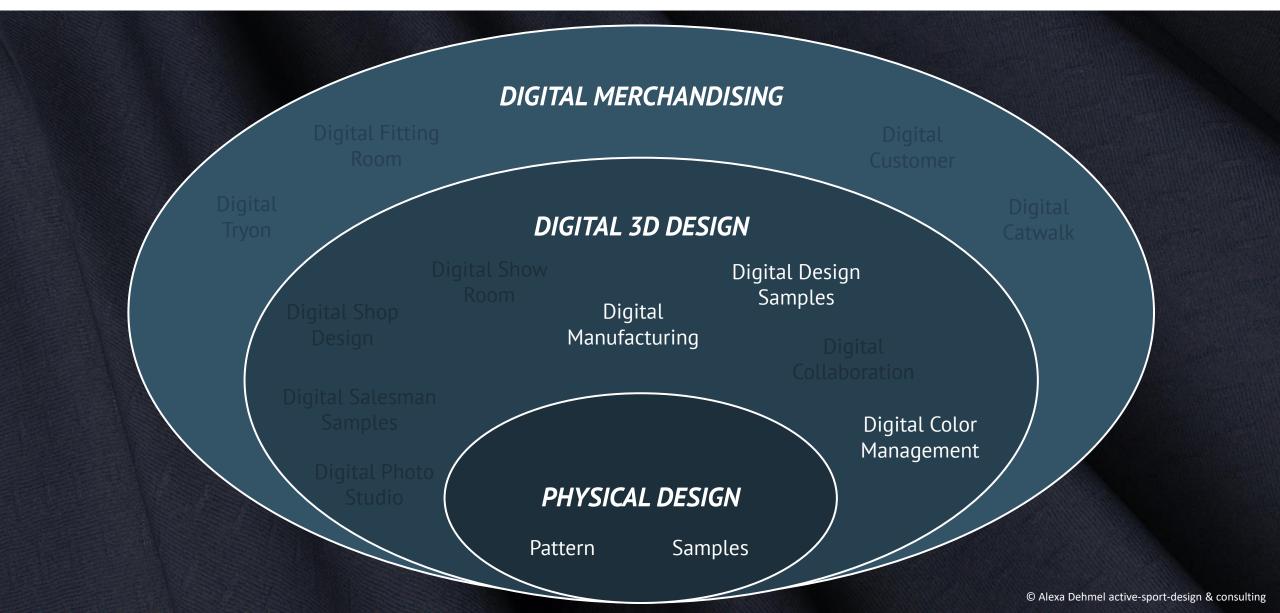


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PHYSICAL PROTOTYPE



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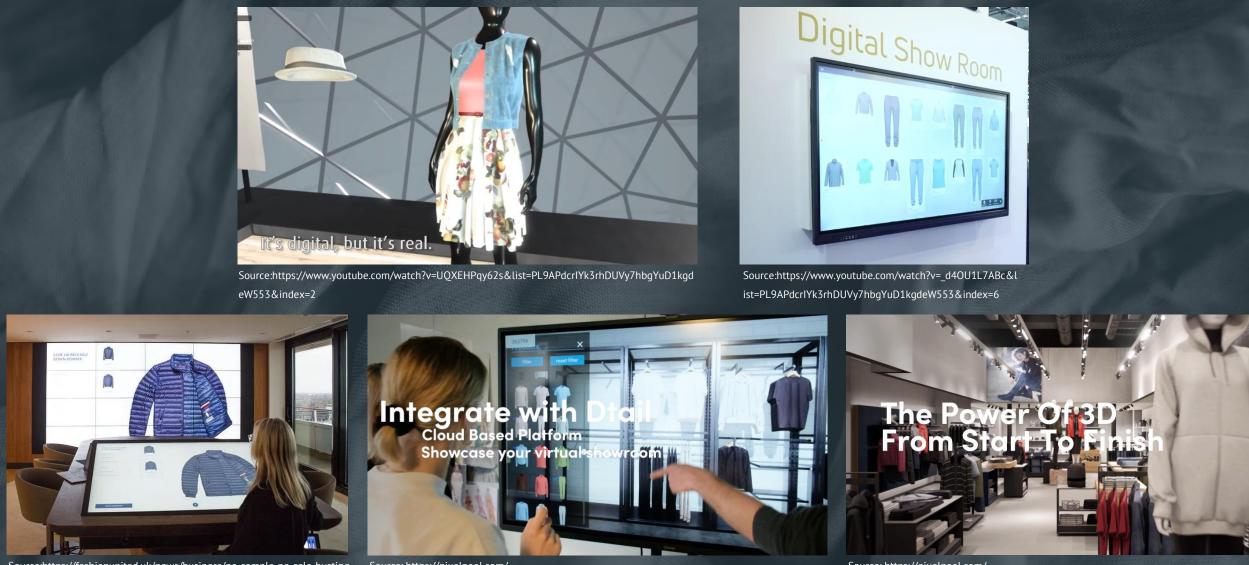
BRIEF INSIGHT TO:

VIRTUAL SHOWROOM

VIRTUAL SALES PRESENTATIONS

"The importance of implementing 3D Fabrics in our textile life" **EXAMPLE VIRTUAL SHOWROOM & VIRTUAL SALES PRESENTATIONS**





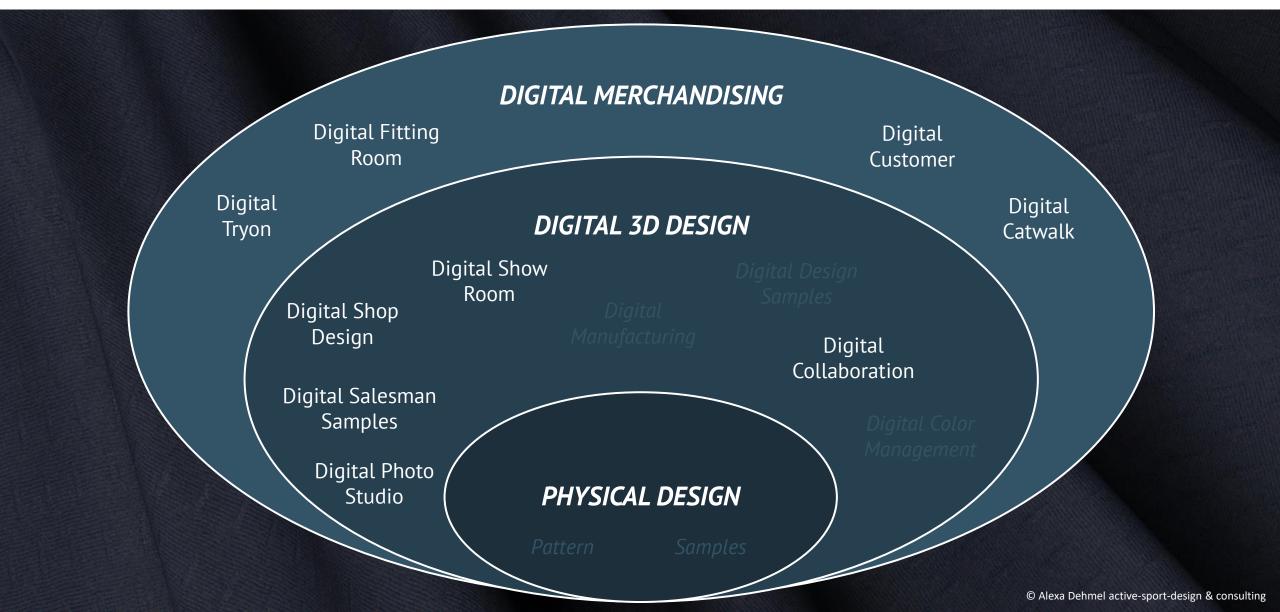
Source:https://fashionunited.uk/news/business/no-sample-no-sale-busting- Source: https://pixelpool.com/ the-myths-of-selling-without-samples-pt-1/2020121652585

Source: https://pixelpool.com/

QUESTION: SHOULD THERE BE A FOLLOW UP WEBINAR ON THE OPEN DIGITAL COLLECTION TOOLS?



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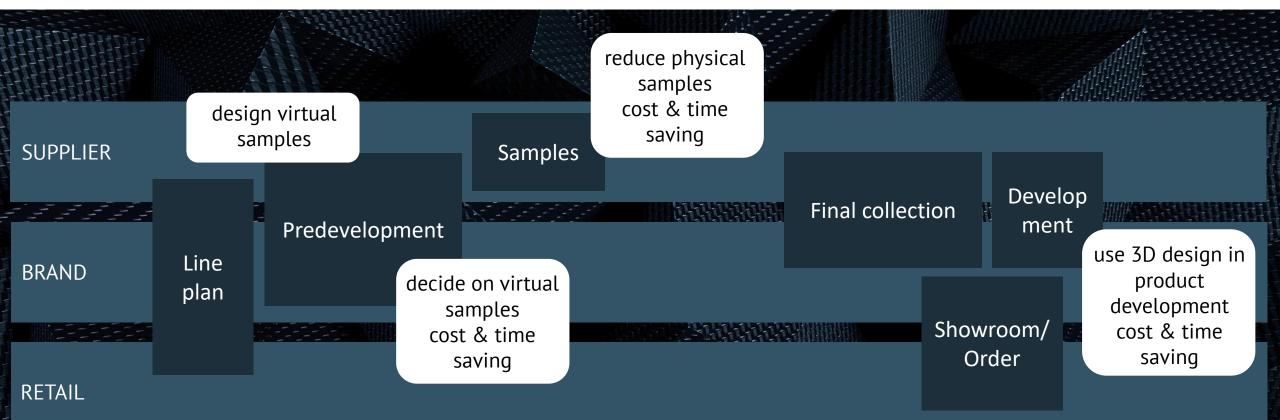
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CONCLUSION

"The importance of implementing 3D Fabrics in our textile life" THE FUTURE PROCESS TOMORROW



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Process optimizsed collection creation. 3D can save up to 60% of costs and up to 50% of time.



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REDESIGN YOUR PROCESS

- **FACILITATE** your digital design, development and selling process
- **COST & TIME EFFICENCY**: fabric swatches with supplier references can be used in 3D from design to prototyping until sample yardages need to be ordered
- **RESULT**: the number of prototypes can be cut • down substantially in the future
- **HUGE POTENTIAL:** 3D samples lead to a more igodolsustainable collection development process Photo credit: screenshot CLO 3D software



"The importance of implementing 3D Fabrics in our textile life" SUPPLY CHAIN – SUSTAINABILITY



USING 3D TECHNOLOGY IMPROVES EFFICIENCY AND HELPS CONSERVE RESOURCES.

- less material waste
- less shipping
- lower carbon footprint

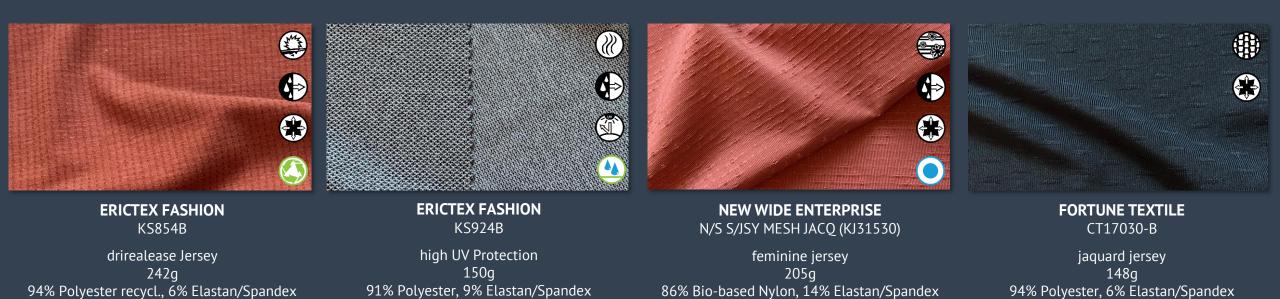
Consequently, the fashion consumer demands a response from the leaders of the fashion world about actions that will <u>move the global fashion industry to greater sustainability</u>.

https://fortune.com/2019/09/06/government-consumer-pressure-global-fashion-sustainability/

"The importance of implementing 3D Fabrics in our textile life" EXAMPLES OF FABRIC FORUM



NEXT TO SKIN / BASELAYER



X-RITE[®] 181

X-RITE® 184

X-RITE[®] 251

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X-RITE® 118

EXAMPLES OF FABRIC FORUM



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MIDLAYER

DA FON INTERNATIONAL SSPP00925

Thermal Polar Fleece with Infrared 208g 100% Polyester recycl.

X-RITE® 197



SPRUCE INTERNATIONAL JYGJ182

Spandex Air Layer 410g 40% Cotton, 32% Modal, 23% Polyester, 5% Elastan/Spandex

X-RITE[®] 144



DOMILES ENTERPRISE DK3298-WPB4D4

Bonded fleece 350g 100% Polyester recycl.

X-RITE[®] 220



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MIDLAYER



DA FON INTERNATIONAL SSPP00925

Thermal Polar Fleece with Infrared 208g 100% Polyester recycl.

sextl|schnitt|service

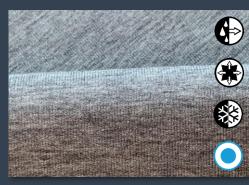
X-RITE® 197



Photo credit: screanshot ASSYST VIDYA software by sextl schnitt service - http://www.sextl-schnitt-service.de/



MIDLAYER



SPRUCE INTERNATIONAL JYGJ182

Spandex Air Layer 410g 40% Cotton, 32% Modal, 23% Polyester, 5% Elastan/Spandex

> sextl|**schnitt**|service

X-RITE[®] 144



Photo credit: screanshot ASSYST VIDYA software by sextl schnitt service - http://www.sextl-schnitt-service.de/



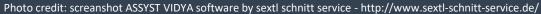
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DOMILES ENTERPRISE DK3298-WPB4D4

Bonded fleece 350g 100% Polyester recycl.

X-RITE® 220









OUTER MIDLAYER / SOFTSHELL



DE LICACY INDUSTRIAL C3190623-GKR5

Durable texture on the face side 240g 54% Polyamide, 39% Polyester, 7% Elastan/Spandex

X-RITE® 106



MERRYSON CORP. N54370B

Wovwn Jaquard Fabric (12K / 10K) 160g 100% Polyester

X-RITE[®] 52



HYPERBOLA SR1388

Two layers of down proof textile, insulation without additional stitching 116g 97% Nylon recycled, 3% Elastan/Spandex

X-RITE[®] 160



OUTERLAYER 1LAYER



"The importance of implementing 3D Fabrics in our textile life"

EXAMPLES OF FABRIC FORUM



WATERPROOF / BREATHABLE 2LAYER



"The importance of implementing 3D Fabrics in our textile life"

EXAMPLES OF FABRIC FORUM



WATERPROOF / BREATHABLE 2.5 & 3LAYER



WONDER SHAPE WS-534

Third wave fabric 220g 34% Polyamide, 34% Polyester, 32% Elastan/Spandex





WONDER SHAPE WS-122S-2.5L

Third wave fabric 238g 71% Polyamide, 13% Polyurethane, 16% Elastan/Spandex

X-RITE® 200



DETAILGREAT INTERNATIONAL

RT4345QRW4353-1

178g 66.6% Polyester, 33.4% Polyester recycl.

X-RITE® 154



HIGHDENSITY / LIGHTWEIGHT



ERICTEX FASHION D4507WAA

38g 100% Polyester

X-RITE[®] 186

GIANT TEXTILE ENTERPRISE GGK1373-K03JAZJD

> ECO print technique 24g 100% Polyamide

X-RITE® 127

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ACTIVE STYLE



MEGA MASTER TECHNOLOGY MWG10342

Warp knit rib structure 288g 87% Polyamide, 13% Elastan/Spandex

X-RITE[®] 212

A PLUS CHAN CHIA 20035796

High pile animal like fur 60g 100% Polyester

X-RITE[®] 270



HYPERBOLA PP266

Knitted tie dye fabric 223g 78% Polyester recycl., 22% Elastan/Spandex

X-RITE® 168

MERRYSON CORP. T11282

Woven Denim Jaquard 300g 100% Cotton

X-RITE[®] 57



SHIRTS WOVEN & KNIT



LONG ADVANCE LNC-20005-117

155g 48% Polyamide, 52% Abaca 136g 61% REFIBRA™ Lyocell, 34% Polyester recycl., 5% Elastan/Spandex

SHINKONG TEXTILE

RS-Y0005-1

X-RITE[®] 46

X-RITE[®] 65



DE LICACY INDUSTRIAL CB205218-101

Irregular pleated design/ upgraded seersucker 96g 96% Polyester, 4% Elastan/Spandex

DEX-RITE[®] 113



DETAILGREAT INTERNATIONAL

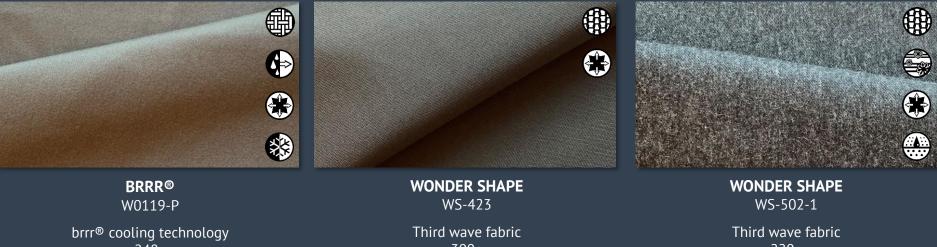
RT3682QPP-2

Double-side print 253g 82% Polyester, recycl., 18% Elastan/Spandex

X-RITE® 158



PANTS WOVEN & KNIT



248g 48% Cotton, 48% brrr® Nylon, 4% Elastan/Spandex

X-RITE® 268

300g 56% Polyester, 30% Cotton, 14% Elastan/Spandex

X-RITE® 201

220q

74% Polyester, 26% Elastan/Spandex

X-RITE® 205



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How can you have acces to these digital samples:

You will be receiving a link to the complimentary files, but you can also access here »

For a list of programs that accept AxF file format, please visit this link: https://www.xrite.com/axf

How can you have access to the physical samples: You will receive a description via email. "The importance of implementing 3D Fabrics in our textile life" FUTURE OF 3D FABRICS



FUTURE OF 3D FABRICS

- get digital 3D FABRICS and data driectly from the supplier
- get digital 3D FABRICS from Fabric Fairs
- get digital 3D and physical FABRICS from Digital Fabric Suppliers
- get digital 3D FABRICS curated with physical samples as subscription

"The importance of implementing 3D Fabrics in our textile life" SOFTWARE PROVIDER INDEX



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X-RITE PANTONE	https://www.xrite.com/
VIZOO	https://www.vizoo3d.com/
DMIx I COLOR DIGITAL	https://www.colordigital.com/
FRONTIER	<u>https://frontier.cool/</u>
SWATCHBOOK	https://www.swatchbook.us/
ASSYST – CAD	https://www.assyst.de/en/products/cad/index.html
ASSYST – 3D VIDYA & VIDYA SKETCH	https://www.assyst.de/en/products/3d-vidya/index.html
BROWZWEAR – Vstitcher & Lotta	https://browzwear.com/products/
CLO 3D	https://www.clo3d.com/
EFI / OPTITEX	https://optitex.com/
GERBER – Accu Mark & Accu Mark 3D	https://www.gerbertechnology.com/fashion-apparel/design/accumark-3d/
LECTRA – Modaris und Quick Estimate	https://www.lectra.com/en/products/modaris-quick-estimate
SEDDI	https://seddi.com/
TUKATECH - TUKAcad	https://tukatech.com/tukacad/
TUKATECH – TUKA3D	https://tukatech.com/tuka3d-de/ © Alexa Dehmel active-sport-design & consultir

"The importance of implementing 3D Fabrics in our textile life" *CLOSURE*



Closure:

I hope I could give you some useful information and inspiration

for the journey of your company.

That's all the time we have for today.

Thank you very much for attending today's webinar:

"The importance of implementing 3D Fabrics in our textile life"

You should receive the recording of the webinar later on and if I did not get a chance to answer your questions, please don't hesitate to contact me via email at <u>alexa.dehmel@active-sports-design.com</u> or at <u>www.active-sports-design.com</u>.

As a reminder, please sign up for the Functional Fabric Fair powered by Performance Days newsletter to receive more curated material stories and to be updated on our future webinars. You can learn more by visiting www.functionalfabricfair.com. Thanks again and I look forward to connecting with you all again, very soon!