Team B



Team B service description

concept

A new shopping experience offering a highly customizable product to a fashion oriented community, backed up by ground-breaking technologies and the development of a fashion social network.

before starting

What there is to do

- _ Define the zero collection's models
- _ Design the models on Shima's software
- _ Convert into 3d models
- _ Program web-site with social network capabilities
- _ Define Target and Price
- _ Define HR responsibilities and line of command
- _ Define Store Locations (precise location)
- _ Define Production Location (precise location)



SDS-ONE APEX is what we need in order to create our collections

Important characteristics:

- 3d prototyping (no need for the very long and costly real sampling)
- Possible to use 3d image on the recorded video of the customer
- Directly possible to automatically translate validated design into machine language

Our idea is to create a 3d collection of variants obtained with the combination of subcomponents



For example for this specific dress concept the components would be:

Top part of the shirt \rightarrow sub-dimensions: color, sleeves (long and short) Bottom part of the shirt \rightarrow sub-dimensions: pattern, color

We want to define all the sizes, colors and variants for each kind of garment .

In this way, every possible combination must be previously designed with Shima's Software, so, when a client create his apparel, he create a version that is existing yet in our library of Shima Machine Codes.

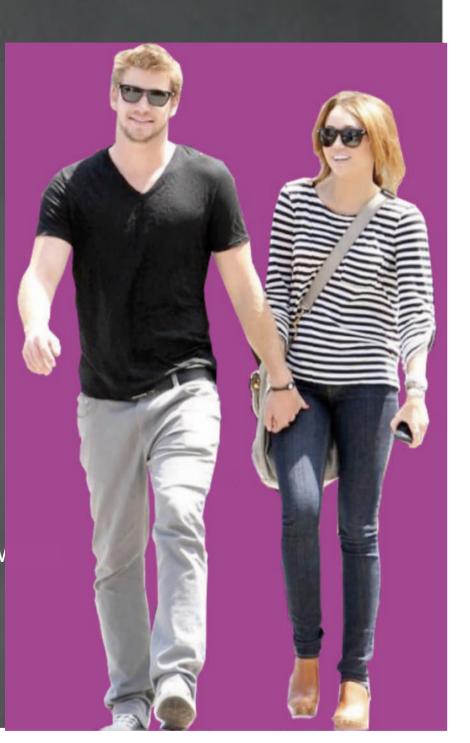
Due to this, it is not necessary that a technician draw the garment with shima sw according to clients needs, because what the client choose has a univocal machine code.



Our clients want a customizable garment.

They can start their shopping experience in 3 v

_visiting our shop(1);
_visiting our temporary shops(2);
_connecting to our website(3).





In our project we think that is important to open a store in the centre of Milan in order to strengthen the image of our brand \rightarrow focal point of our identity

However, it is not a traditional shop, since there are non garments on sale, but it is a place where clients can:

- create their video-avatar
- touch the quality of our fabrics
- watch our collections
- pick up the clothes that they have previously ordered.



The fashion experience provided by TEXSTURE

0_Reservation

Before starting our fashion experience, our clients must book for his turn by web or by phone or directly at our shop.

activities	staff
reservation	multi-languages shop assistant (in case of reservation made by phone or directly at the shop)

The fashion experience provided by TEXStulle

1_Welcome and info

When the client enters our shop a staff member welcome him and explain him what to do, giving an ipad which will help him during the following steps.

activities	staff
welcome	shop assistant (aptitude to talk to the
description	customers explaining how the experience works)

The fashion experience provided by TEXSTURE

2_Video making and measurement

The client goes into the changing room and then he goes into the "recording room" for the video-making.

When he finishes the recording phase, the staff member enter the videomaking room and takes measurement of the client (height, shoulders, torso's circumference, waist's circumference and hip's circumference). The client can change himself again in the changing roomand then he can trim on an ipad his video..

activities	staff
measurement	shop assistant (skill in taking measurements)



The fashion experience provided by TEXSTURE

3_Log-in

The shop assistant, under the client's supervision, create the customer's account and webpage and upload there the video and the measurements.

activities	staff
Log-in	shop assistant (skill in using computer
Upload	and technologies)



The fashion experience provided by TEXSTURE

4_Consultation and info

Clients can freely consult our collections through an ipad and can touch and appreciate the quality of our fabrics.

activities	staff
Consultation	shop assistant (aptitude to talk to the
Info	customers and skill in answering their questions about collections and fabrics)

The fashion experience provided by TEXStulle

This experience lasts about 15/20 minutes.

1_Welcome and info \rightarrow 4/5 min + 2_Video making and measurement \rightarrow 8/10 min + 3_Log -in \rightarrow 4/5 min

Phase n.4 "Consultation and info" lasts according to client's preferences.



The shop will be characterized by an up-to-date and refined design, according to the brand's image.



linearity Sigrun Woehr_Stuttgard Ippolito Fleitz Group **attention for details** Breill_Shangai Studio63 Architecture+Design





technology Prada Epicenter_Los Angeles OMA

Layout

It will be constituted by:

_ two desks where the shop assistants wait for the client and create the webpages

_ one "shelf" where clients can pick up the garments that they have ordered

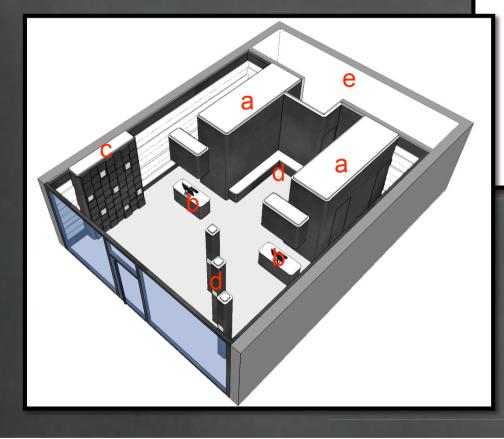
- _ two changing rooms + two recording rooms
- _ an exhibition area
- _ back-shop

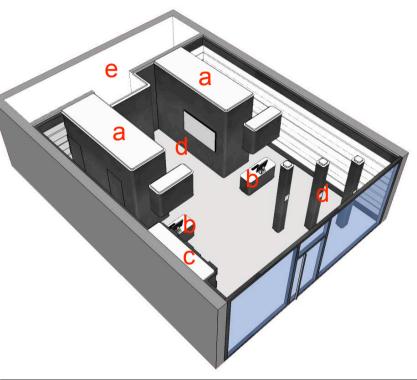
At least 60/70 m²

Staff

Two shop assistants

Our idea for our main store

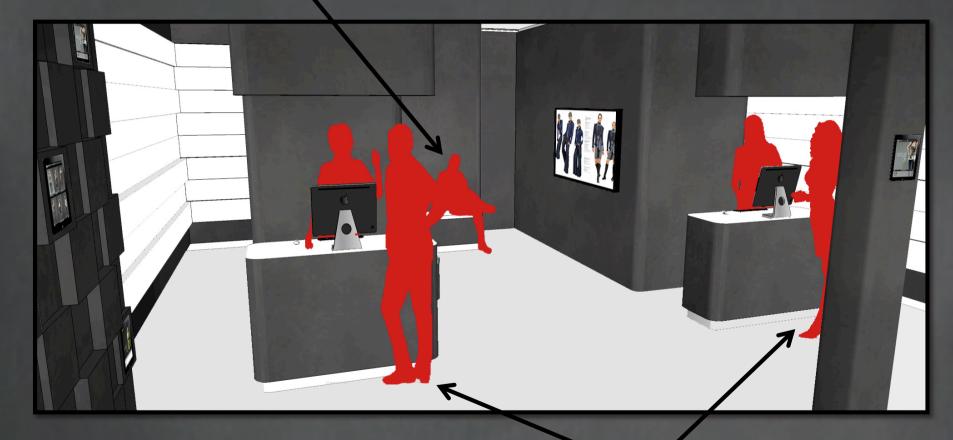




a_ dressing+video making room
 b_ reception desk
 c_ "pick-up shelf"
 d_ exhibition and relax area
 e_ backshop



customer at step n.4: **Consultation and info**,



people at step n.1: Welcome and info



customer at step n.3: Log-in

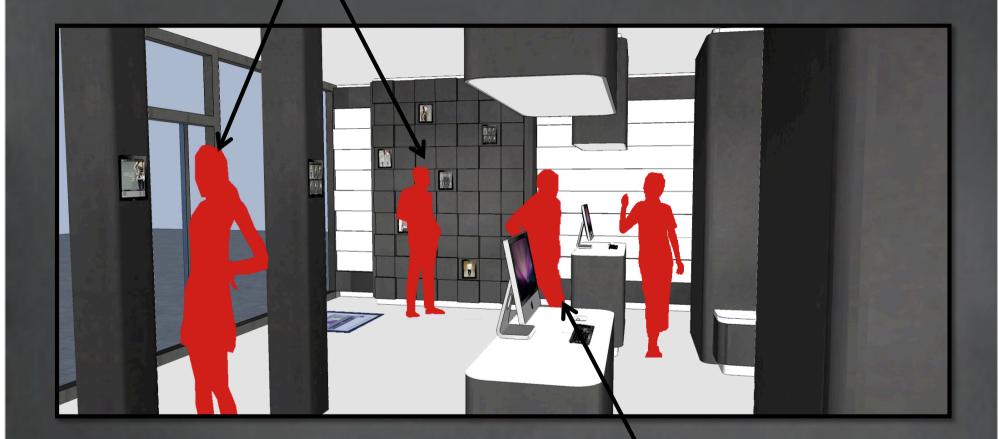


Shop assistant waiting for measuring the client who is going into the dressing-video making room client at step n.2: Video making and

measuremen



customers at step n.4: Consultation and info



customer at step n.1: Welcome and info



Everyone wants to visit our shop!



In order to reach a wide diffusion of our brand through the market, a useful tool could be the creation of temporary shops.

They can be located for a specific period of time in the most important places of a city (for example in the main square) or in places such airports or railways stations, where there is a great amount of people that can have a lot of free time.

Location and timing of our temporary shops will be communicated on the website in a dedicated area. In this way, clients know every time where they can find the nearest shop to go.



Temporary shops will host more or less the same functions of the shop.

Clients can:

touch the quality of our fabrics

create their Video-avatar and be measured

whatch our collections

Among these activities, the most important is that our client can create here their video avatar and be measured by our staff.

Unlike what happens in our shop, where customers are requested to book their turn, here reservation is not necessary.

1_Welcome and info

When the client enters our shop a staff member welcome him and explain him what to do, giving an ipad which will help him during the following steps.

activities	staff
welcome	shop assistant (aptitude to talk to the
description	customers explaining how the experience works)

2_Video making and measurement

The client goes into the changing room and then he goes into the "recording room" for the video-making.

When he finishes the recording phase, the staff member enter the videomaking room and takes measurement of the client (height, shoulders, torso's circumference, waist's circumference and hip's circumference). The client can change himself again in the changing room and then he can trim on an ipad his video..

activities	staff
measurement	shop assistant (skill in taking measurements)

3_Log-in

The shop assistant, under the client's supervision, create the customer's account and webpage and upload there the video and the measurements.

activities	staff
Log-in	shop assistant (skill in using computer
Upload	and technologies)

shop Temporary shops will have an up-to-date and refined design and they will be designed considering the fact they must be dismantled, reassembled and transported many times.



Layout

They will be a "miniaturized" shop in 25/30 m²

The layout will be constituted by:

_ one desk where the shop assistants wait for the client and create their account

two changing rooms + two recording rooms

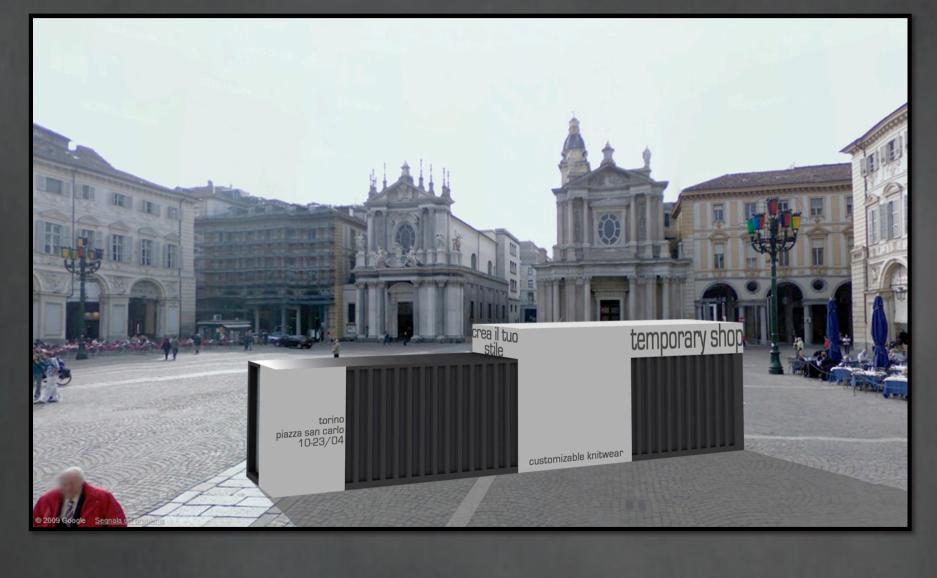
_ backshop

Displays will show the collection and our customers can touch and appreciate the quality of our fabrics.

Staff

Two shop assistants

Our idea for our temporary shop



how the video-avatar creation works

Video-avatar creation_detailed description

The video avatar creation phase is the same for shop or temporary shop

Equipment needed

 Mirror equipped with a camera, controller box (with wireless) to manage the access to the camera

What does the customer see? There's someone with him or not?

 User can access the changing room and record his/her video connecting via wireless to the camera through the iPad (controller box will allow or deny the connection/utilization)

What does he wear during recording time?

User will wear special dresses furnished by the store

Video-avatar creation_detailed description

Who places the motion tracking sticker dots?

 User will apply to his/her body special spots for the motion tracking (instructions are furnished by the iPad)

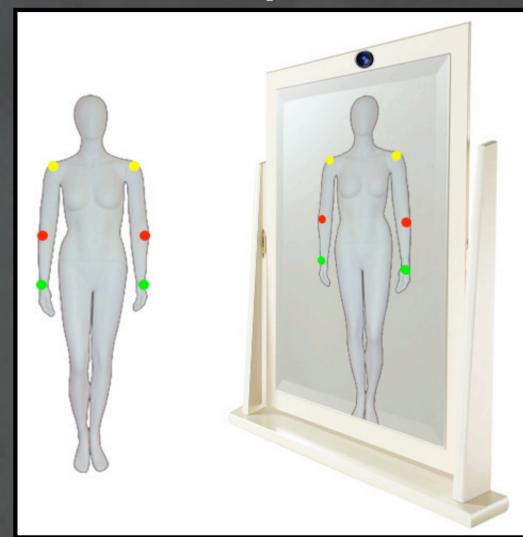
How do the user select the 10s video?

- User will start and stop the recording through the iPad: the camera will automatically stop the recording after 15 seconds.
- User will trim the sequence and confirm it as his/her avatar, or record another shot

What movements are allowed for the customer during recording time?

Movements like putting the hands in front of the body (rotations, touching of the body) are discouraged

Video-avatar creation_detailed description



A high resolution camera permits an easier image processing, which will retrieve the information of the user's motion through the tracking of the colored spots.

The 10s video is ready

How the video is saved?

The video is uploaded on the server and associated to the user's account

What does the customer see after log-in?

 The video is visible whenever the user wants, and he/she can apply a demonstrative wearing to see if the avatar behaves correctly with the computer generated videos of knitwear









Website

For those people who don't have the possibility to visit our shop or our temporary shop, there is the opportunity to "start" their experience directly through their pc.

What they need is just a pc with a webcam and they must connect to our website and follow the instructions in order to create their image-avatar, clicking on "create my image".

In this case, the avatar will be constituted by an image and not by a 10s video and customer will find also instruction for the self measurement phase. (see "Image-avatar creation" slide)

After the creation of the image-avatar, customer can open his account and start to create his garments.

Website

Watching our website's homepage, clients can see different sections:

- history (description of the brand and of the company)
- collection (clicking here, clients can see the collection)
- create my image (clicking here, clients can create their image-avatar)
- myprofile (clients access to their account inserting their username
 and password)
- store locator (here there is the address of our shop and temporary
- shop)
- contacts (contacts of the company)

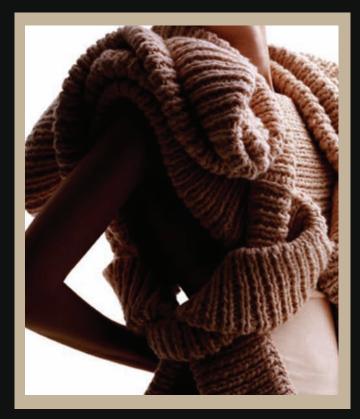


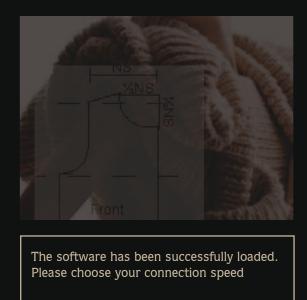




We place our finely designed templates at your creative disposal online. create your image avatar, select ,match up and try on the individual cuttings for your very own knitwear .

my TEXSILL design your own knitwear





LOW (modem/ISDN)

HIGH (cable/ADSL)

my TEXSILL design your own knitwear



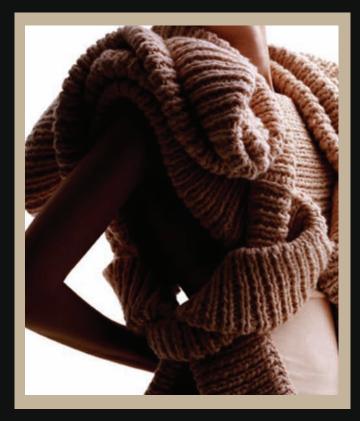
- > start my design> create my image
- > choose a category
- > visualize
- > share / acquire

> Info

> help

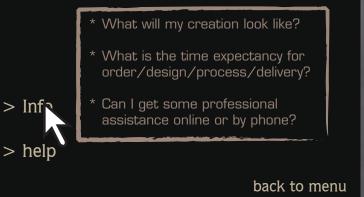
back to menu

my TEXSILL design your own knitwear

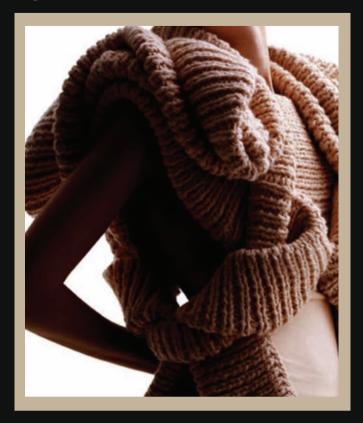


- > start my design
- > create my image
- > choose a category
- > visualize

> share / acquire

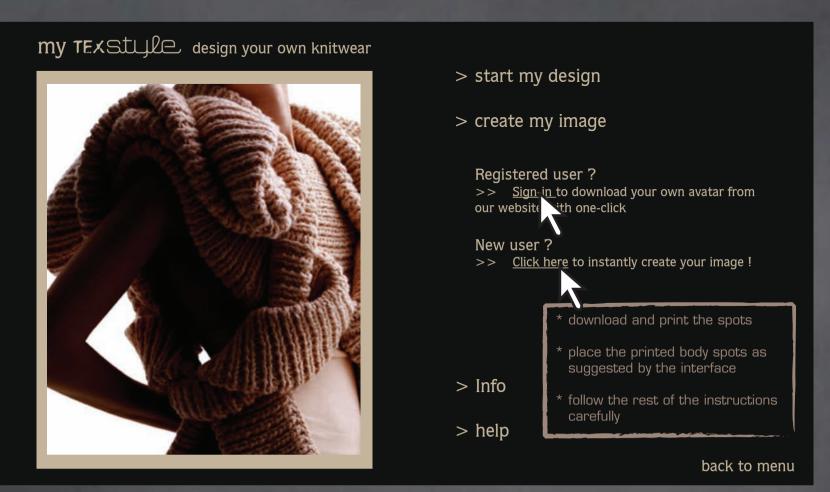


my TEXSILL design your own knitwear



- > start my design
- > create my image
- > choose a category
- > visualize
- > share / acquire







my TEXSILLE design your own knitwear

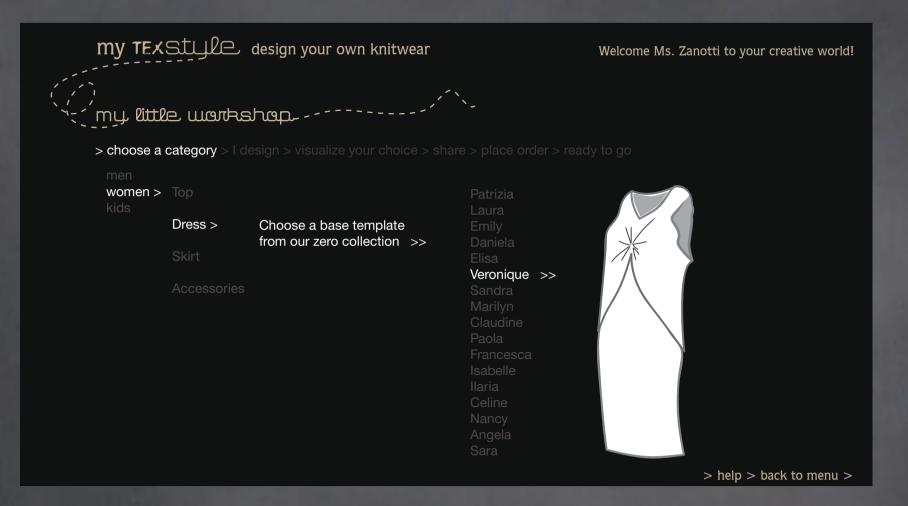
User : L.Zanotti81 Password : ****** Sign - in

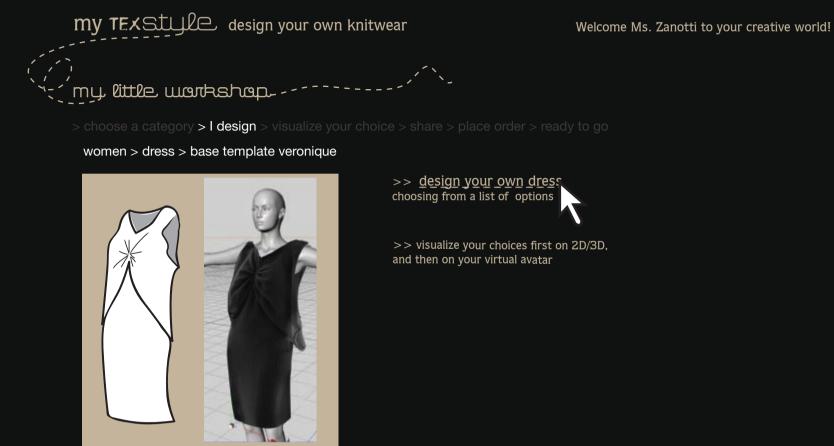
>> <u>download your avatar</u> please choose your connection speed low (modem/IDSN) high (cable/ADSL)

>> <u>click here</u> if you can't access your account

> help

back to menu





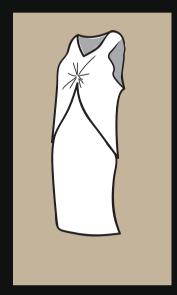
> help > back to menu >



Welcome Ms. Zanotti to your creative world!

> choose a category > I design > visualize your choice > share > place order > ready to go

women > dress > base template veronique



Neckline	Sleeve	Skirt	Add-ons	knitwear patterns click here to visualize
polo jewel	sleeveless cap	a-line full	flounce Iow V-back	all the patterns
bateau square deep square	short elbow three-quarter	straight	sexier sleeveless square deep square	knitwear yarns <u>click here</u> to visualize all types of yarns
scoop deep scoop	long	Length	scoop deep scoop	
V Iow V		knee mid long	V Iow V	knitwear colors <u>click here</u> to visualize all the colors

> help > back to menu >

my TEXStyle design your own knitwear

Welcome Ms. Zanotti to your creative world!

> choose a category > I design > visualize your choice > share > place order > ready to go

women > dress > base template veronique



Neckline						
polo jew v bateau square deep square scoop deep scoop V low V						

sleeveless cap short elbow three-quarter

Sleeve



f s



knee

mid

Skirt

h square deep square h scoop deep scoop V low V

Add-ons

flounce

low V-back

sexier sleeveless

knitwear patterns <u>click here</u> to visualize all the patterns

knitwear yarns

<u>click here</u> to visualize all types of yarns

knitwear colors

<u>click here</u> to visualize all the colors

> help > back to menu >





> choose a category > I design > visualize your choice > share > place order > ready to go

women > dress > base template veronique



choose colors, knitting patterns and yarns



knitwear patterns <u>click here</u> to visualize all the patterns

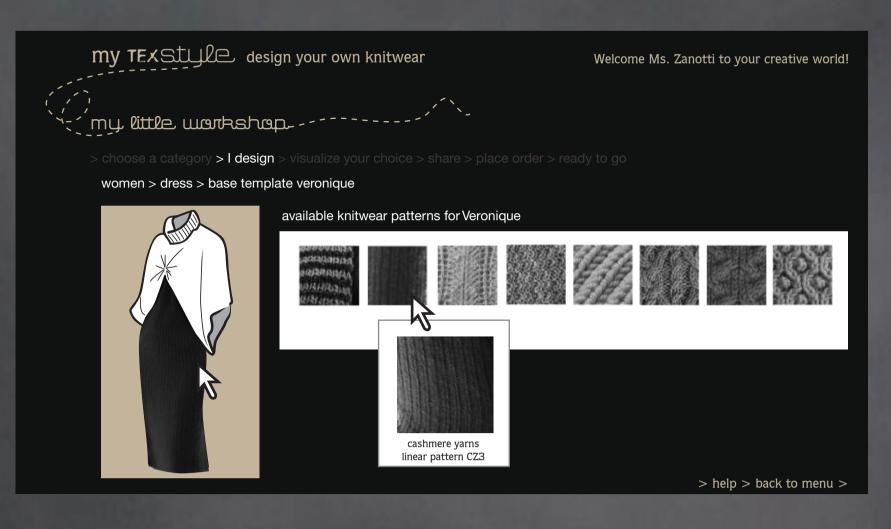


knitwear yarns <u>click here</u> to visualize all types of yarns



knitwear colors <u>click here</u> to visualize <u>all the colors</u>

> help > back to menu >







> choose a category > I design > visualize your choice > share > place order > ready to go

women > dress > base template veronique



selected pattern

available knitwear colors for Veronique



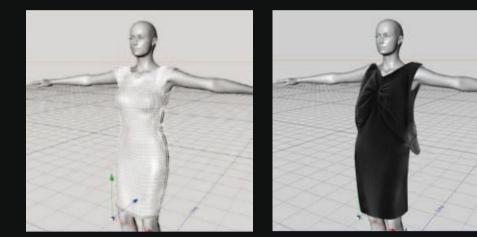
> help > back to menu >





> choose a category > I design > visualize your choice > share > place order > ready to go

women > dress > base template veronique



visualize the selected elements on a virtual avatar

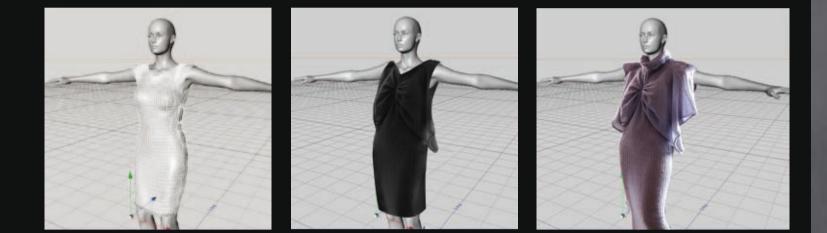
>> rendering >>

> help > back to menu >





> choose a category > I design > visualize your choice > share > place order > ready to go



> help > back to menu >

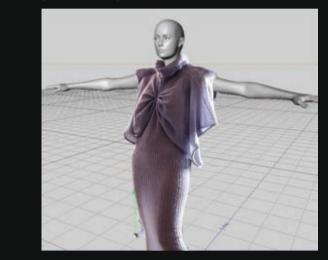




> choose a category > I design > visualize your choice > share > place order > ready to go

women > dress > base template veronique



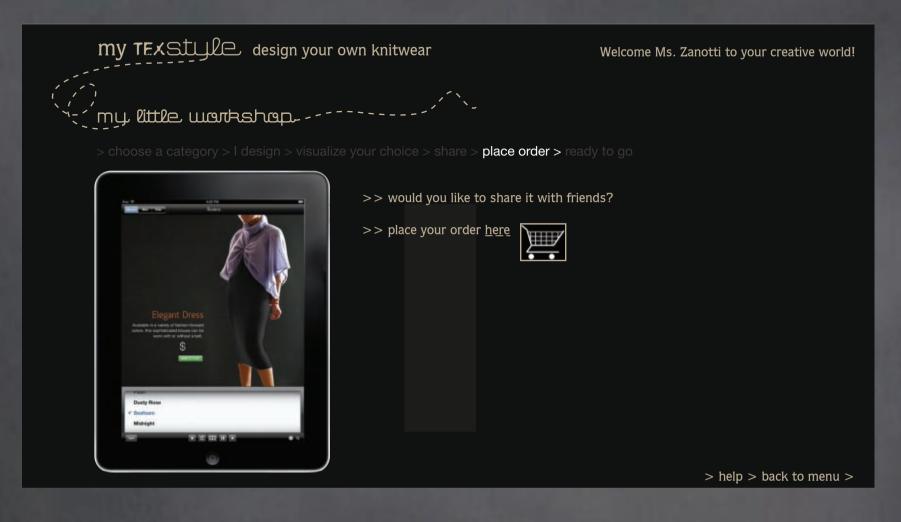


follow instructions to view it on your video avatar!



> help > back to menu >





how the image-avatar creation works

Image-avatar creation

What does the customer have to do with his web-cam? How to "attach" rendered dress to webcam image?

- 1_ connect to our website
- 2_ click on "create my image"
- 3_ download and print the spots
- **4**_ turn on the webcam
- 5_ calibrate the camera (user's silhouette must fit the silhouette proposed by the interface)

Image-avatar creation

6_ apply the printed spots to his/her body as suggested from the interface

- 7_ Start the count-down for the snapshot with special movements (like moving the hand on the upper right corner)
- 8_ Avoid the hiding of parts of the body (hands touching the body, crossed hands...) for the snapshots
- 9_The rendered dress will be attached to the snapshot with the same method as for the video (instead of a sequence of frames, it will be done just for one frame)

After the first phase, consisting on the video-avatar c image-avatar creation, our customers can connect to the website and start the customization experience from our templates

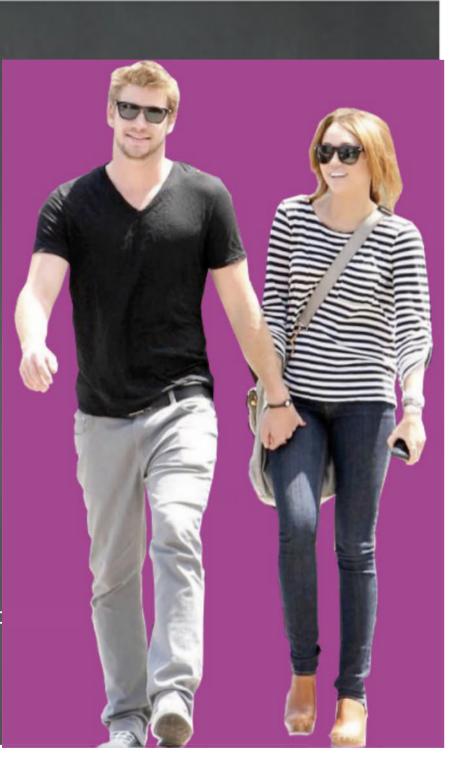


Image-avatar creation

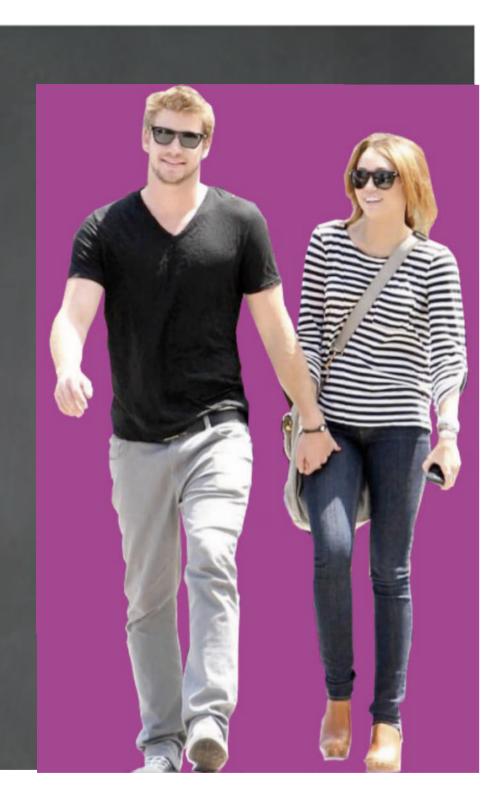
The User Interface (UI) can be developed in:

- HTML 5 (natively supported by browsers, but not yet a de-facto standard)
- Adobe Flash/Microsoft Silverlight (requires a plug-in to be visualized, offers libraries for 3D rendering like PaperVision3D)

The best choice is to develop the UI in HTML 5, in order to be correctly visualized also from mobile devices (iPad, iPhone, Android) without the requirement of additional plug-ins.

Unlike HTML 5, Adobe Flash offers API & libraries that can be used immediately, so for the first prototype we suggest an implementation in Flash, considering that the code will need to be re-written as soon as HTML 5 will support efficiently 3D rendering libraries.

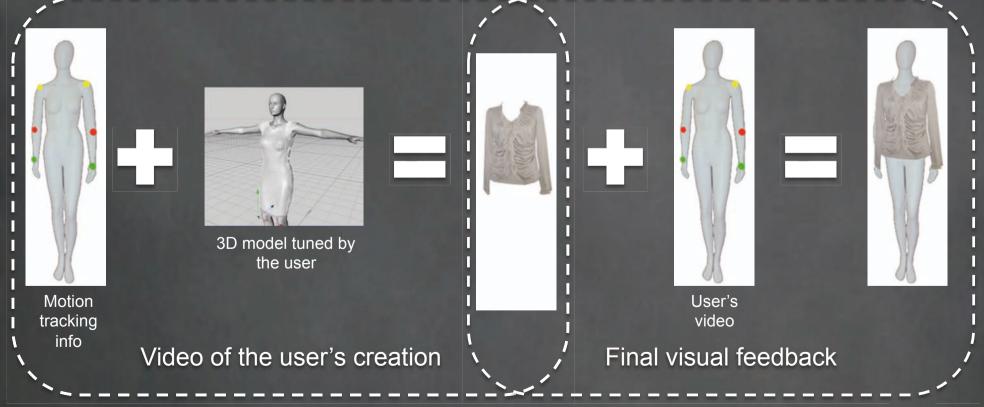
When the garment is created, there is the virtual-try on experience



Virtual try-on

Before buying his/her creation, the user needs a visual feedback, possibly share-able with friends to have their opinion, in order to be able to decide whether to purchase it or make other changes.

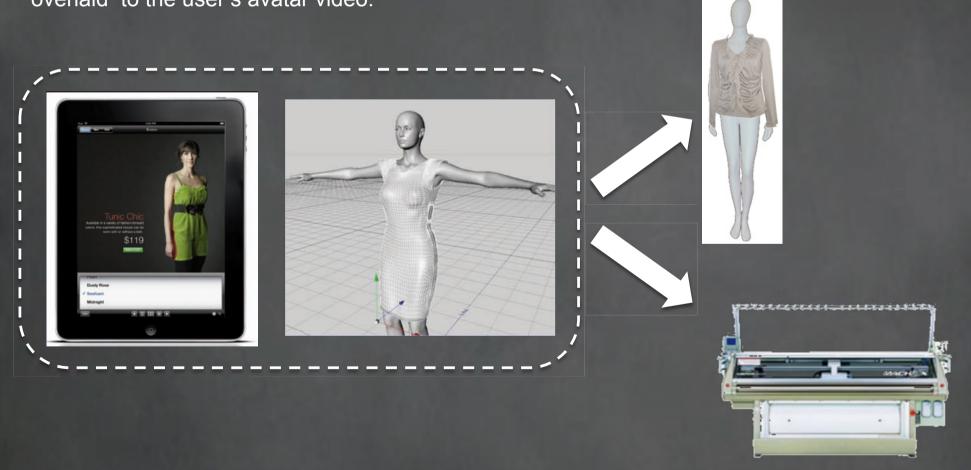
Our solution is to merge together the video of the user (avatar), the motion tracking information, plus the computer generated video of the personalized model the user has designed; the result obtained is a video of the user wearing his/her creation, that can be shared, commented and voted within the user's social networks.



Virtual try-on

The user will choose one model among the ones available, and tune its parameters according to his/her tastes (color, accessories); the level of customization will depend on the model variables available to the user.

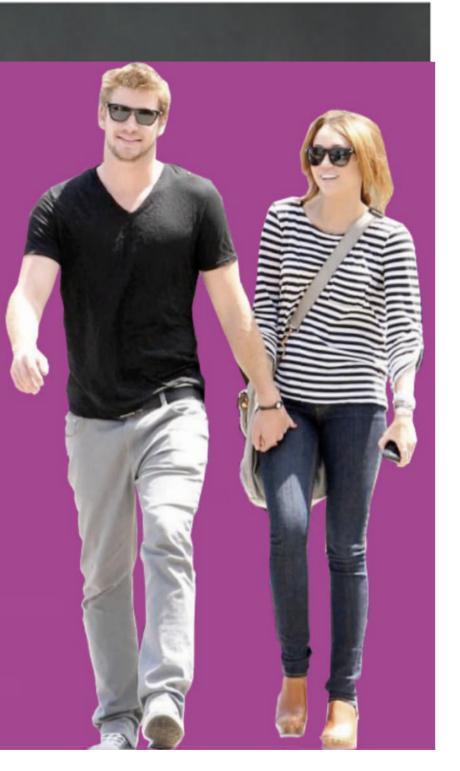
The models will be created once and accessed and modified by users; they will be used both to generate the Shima Seiki machine's code, and to generate the video of the knitwear to be overlaid to the user's avatar video.

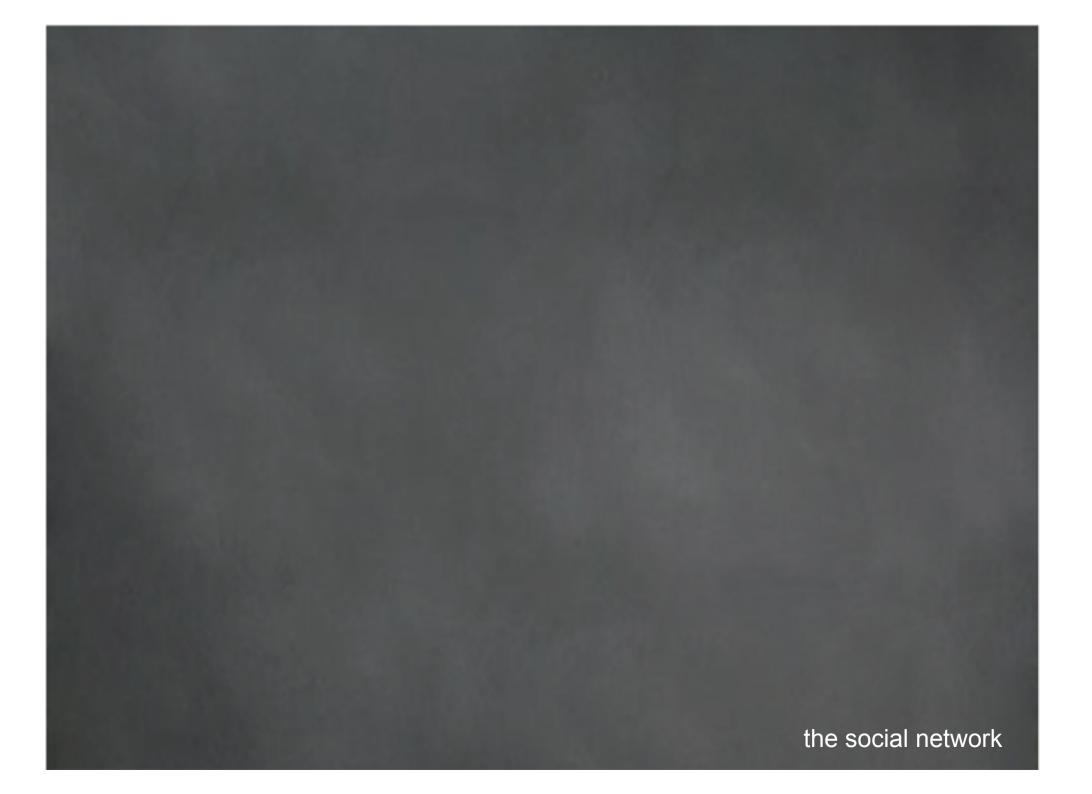


After the virtual try-on phase, our customers face 3 c They can:

_ buy the garment;

_ keep the rendered video choosing not to buy the it
_ erase the content





Web Community

The web site will also serve as a social network and fashion portal where the contents are provided by the users

fasp	Ricerca	٩	Неяте	Profile Assount v	
	🗉 Notizie	Notizie più popolari • Più recenti			
	A cosa stai pensando?		Richieste	Mostra tutte	
			表 1 richiesta di amicizia	3 	
				1.0	.hat (offline)

All the videos of the virtual try-ons with the different clothes which haven't been chosen for purchase shouldn't be lost and can be shared on the personal page. In this way each person can receive feedback from friends or other people (based on privacy settings).

On the community our designers will provide drafts of the upcoming designs and ask for feedback from the users. Such designs will be as usual structured in modules so different combinations may be made.

Web Community

A well developed web community structured in such a way may be interesting for third parties who might be willing to pay for information

- Model scouting?
- Market research on rising fashion trends market push?

USERS ALSO CAN:

- Upload their sketches to have feedback best sketches could be sponsored to become part of the collection!
- Upload links or articles related to fashion so that people get involved in the topic
- Gain visibility from professional when their uploaded works become popular enough – both design skills and modeling skills (the short video is an interesting self-ad)

Social Network_share and enjoy

Our project provides to our clients a specific and totally dedicated social network

In this way, it is possible to create a community where they can share their ideas, their garments, their photos and videos in real time

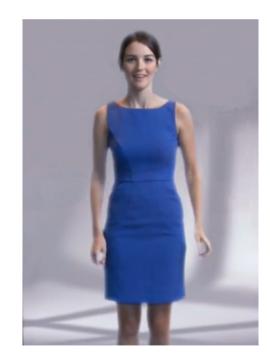
How it works:

•

_ after the recording of the video, our client will receive it on a pen-drive with a password

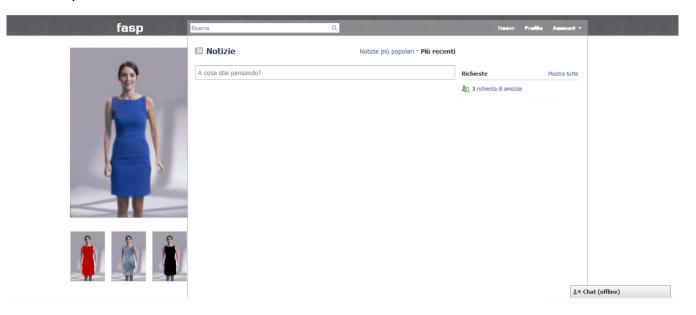
_ from our website the client can create his own account using the password provided and choosing a username. From now the account is valid! He will automatically find his video on his homepage (it has the same function of the profile picture on

(it has the same function of the profile picture on facebook)



Social Network_share and enjoy

_ the homepage has more or less the same functions of the facebook's homepage (chat, wall, friends list...)

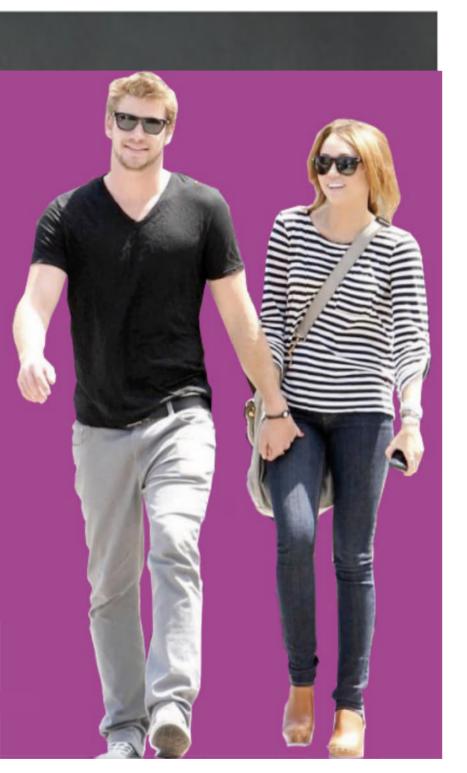


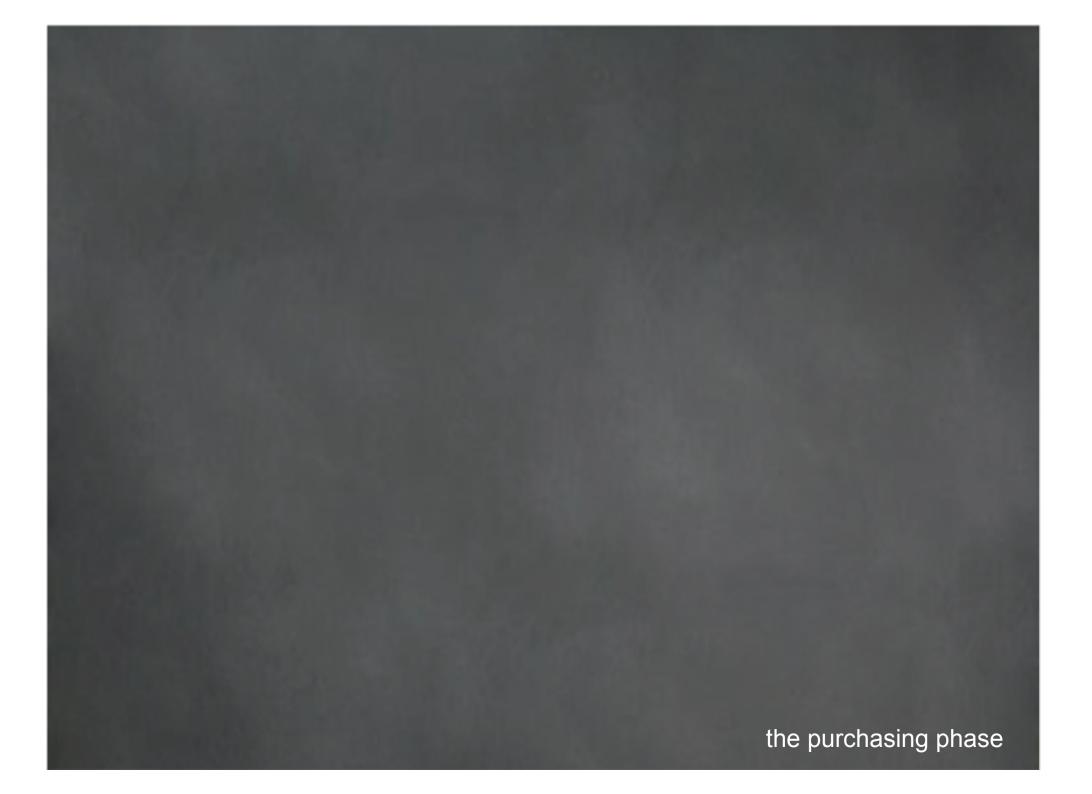
_ the client can add his personal data and photos and share them with his friends' list

_ the client can upload all the "profile videos" with the different garments in a specific section where friends can express their ideas about them

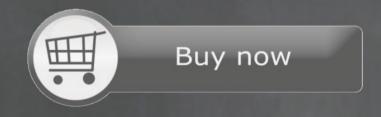
Our social network will be completely independent from the social network that are already existing. However, it offers the possibility to link on facebook all the videos, in order to share them with all the other friends who are not our clients

They adore the garments they have created and dec to buy them by clicking on "buy now!"





When the user purchases the knitwear by clicking on "Buy now!", an XML file containing all the information about the user's creation will be generated and sent to the Shima's machines; a communication protocol must be implemented together with Shima to correctly communicate the data to the machines.



UI Input:

- 3D model of the knitwear chosen by the user
- User's modifications
- Avatar video & its motion tracking information
- Environment light conditions (retrieved once from the changing room, static values)

UI Processing:

- Apply the modifications to the 3D model (only for simple customization like color change)
- Render it using the avatar's motion tracking information & environment light conditions

UI Output:

- Two overlapped video streams, coherent & aligned in time and space (visual feedback)
- XML file containing all the information about the created knitwear (e.g. user id, model id, model modifications, etc..)

The garment identifying code is sent to our production facility What web-protocols for safe delivery of the code?

- User can assembly different components; each possible combination has an identifier associated, and this id will be communicated to the shima machines.
- For the communication phase we just need to send an id, so a simple xml communication is enough, through a secure protocol like https
- The web-to-shima conversion is avoided due to the pre-process of the allowed combinations: these are generated at the beginning both for the web and for the shima machines, in order to be able to send just an id after.
- Customers delivery preferences should be sent as well

When the client places an order, he has to choose for the payment methods.

Since the type of production is on-demand, we think that is important that the client pays when he places the order. Garment production will start, in fact, only after the payment.

Some payment methods that are common for online shopping are here not available: credit transfer and cash on delivery.

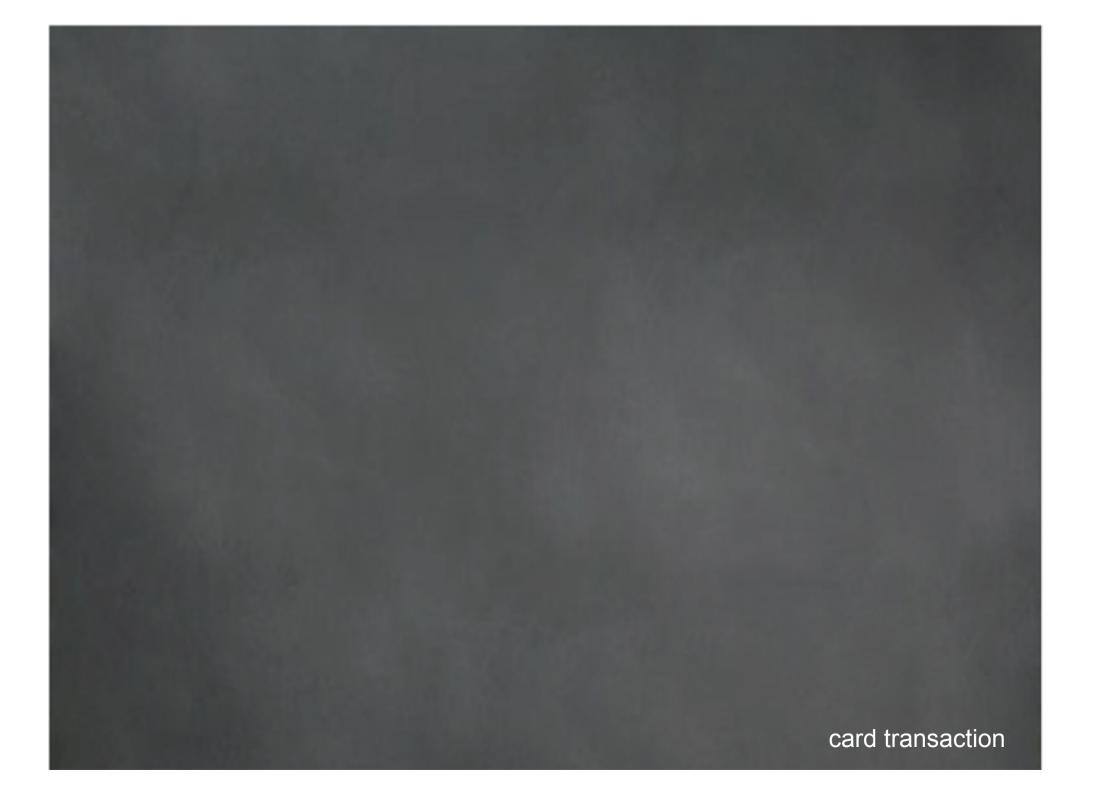
For our project we think that **card payment** (credit card or pre-payed card) is the better solution



The delivery service will be provided by a safe and well-known pony express company.

Client must specify if he choose to pick up his garment at our shop or, instead, if he prefer to receive it directly at home.





Card transaction

In order to accept card transaction, the seller must be part of a bank circuit and this is possible requiring to own bank the service and the qualification for the e-commerce (Banca Sella offers Gestpay platform).

What we need in order to start selling on-line:

 \rightarrow Website

and

→ Softwares for e-commerce (e.g. Product Cart; EasyWeb Editor), which are necessary to create the "shopping cart" on the website. These softwares requires to be joined to a e-commerce provider.

or

 \rightarrow On-line payment service (Gestpay, E-Shopping Sanpaolo).

In this case the software for the e-commerce is not necessary because is included in the service.

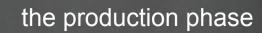
A similar system is that offered by PayPal, a society of eBay group, which consents to receive on-line payment card in a simple and easy manner.

There are two ways in which to structure the on-line card payment phase:

 \rightarrow the most common, and more secure, is the following: when the client has to fill the gaps with the numbers of his card (typically, the number of the card and the date of expiry), the buyer is rerouted from the seller's site to the bank's site. This process is called "gateway" and is perceived by the clients safer than the normal way because the data are directly transmitted to the bank and not to the merchant.

 \rightarrow in the other way the transaction is completed on the seller's website. In this case, the client inserts his numbers directly on the merchant's site and, in reason of this, it is necessary to protect the payment pages by a SSL (Secure Socket Layer) certificate, that allows to share data between the site and the bank in a secure manner, thanks to coding algorithms. These sites are recognizable because the URL starts with "https" and not "http" and there is a little image of a padlock.

For our project probably the first solution is the better, because the clients can purchase their garment in absolute security.



The production phase

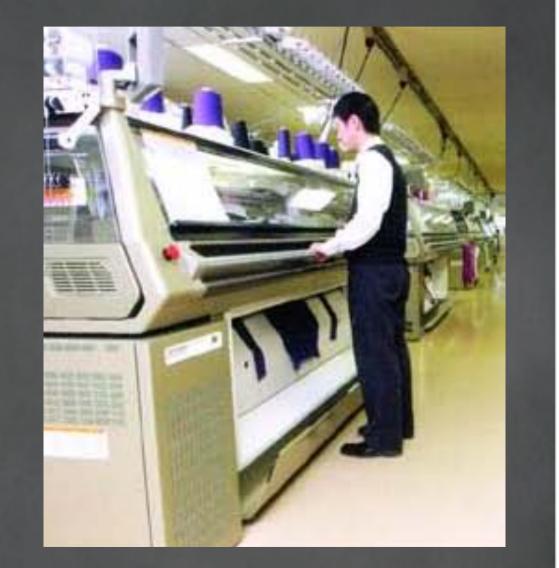
The production chain

_ client places the order and pays;

_ an XML file containing all the information about the user's creation will be generated and sent to the production place;

_ every order will be carried out when the machinery support ing the gauge of the garment is available, following the chronological order;

_technicians will set up the knitting machines with the correct gauge and yarn (cotton or wool and colors);



The production phase

The production chain

_ a staff member will check every garment fixing any loose yarn;

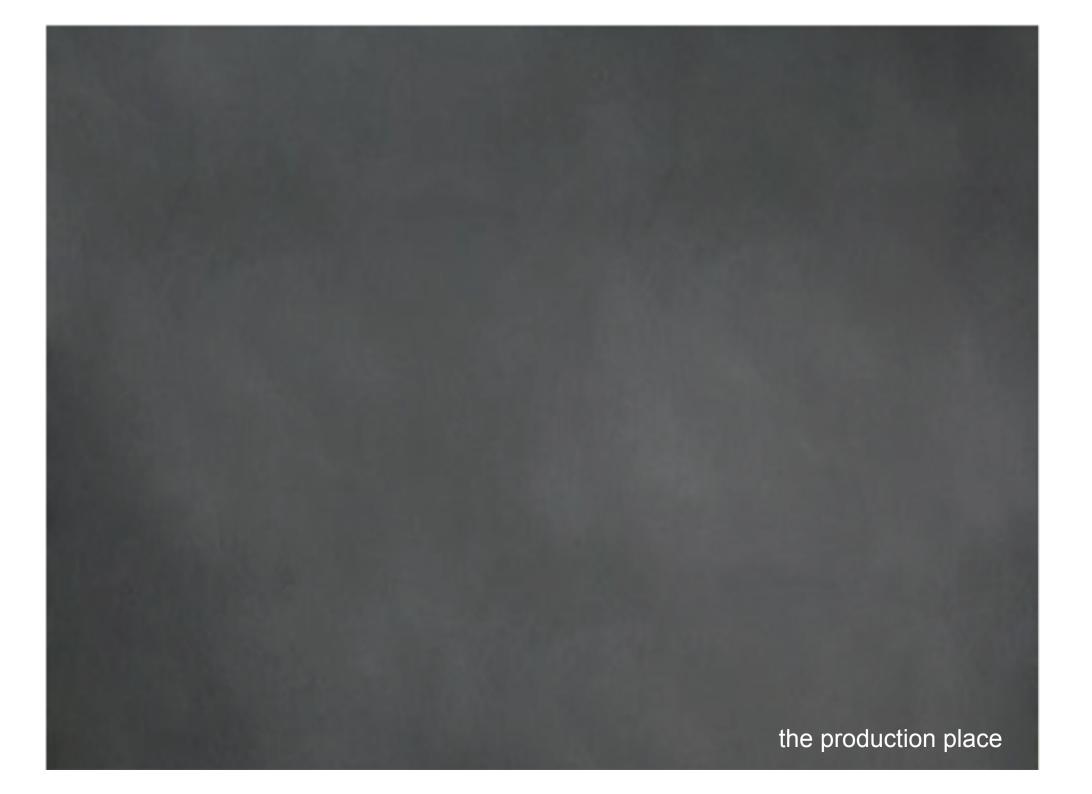
_ daily, or when a certain quantity of produced items has been reached, garments are washed, fulled and dryed;

_ after, garments are checked again and labels are stitched;



_ then, garments are ironed, packaged and placed in the storehouse until delivering!

We guarantee garment's delivery within 72hours from the order



In our project the production phase is no more on site We have decided, in fact, to "delocalize" and "collect" the production phase in a specific place that will cover all the orders coming from a certain geographic area.

Why this decision?

_ the project is no more based on an idea of "real time" production

_ therefore, since our shop will be located in the centre of the cities, there will be not the necessity to rent larger shops in order to place the production area inside them. **Save money!**

The pictures below show the difference between the fee for a shop in Milan and the fee for a shed in Segrate

Tipologia	Stato conservativo	Valore 1 (€/mq)	Mercato	Superficie (L/N)	Valori Lo x mese)	cazione (€/mq	Superficie (L/N)
		Min	Max		Min	Max	
Magazzini	NORMALE	900	1300	L	5,4	7,8	L
Negozi	NORMALE	3500	4500	L	16	21	L
Negozi	Ottimo	6000	8500	L	28	39,5	L

Milano_zona corso Venezia (fonte Agenzia del Territorio)

	Tipologia	Stato conservativo	Valore Mercato (€/mq)		Superficie (L/N)	Valori Locazione (€/mq x mese)		Superficie (L/N)
ł			Min	Max		Min	Max	
	Capannoni industriali	NORMALE	740	840	L	4,4	5	Ľ
	Capannoni tipici	NORMALE	790	890	Ľ	4,5	5	Ľ
	Laboratori	NORMALE	790	890	Ļ	4,7	5,1	L

Segrate_zona cascina boffalora (fonte Agenzia del Territorio)

_ collecting the production phases in a single place allow us to exploit economies of scale and to make the production phase more efficient (for the machineries, the employees, etc).

As a consequence:

_ the production place could be located in suburban areas or outside the cities (for example Milan or Turin), where the rental are lower

Tipologia	Stato conservativo	Valore Mercato (€/mq)		Superficie (L/N)	Valori Locazione (€/mq x mese)		Superficie (L/N)
		Min	Мах		Min	Max	
Capannoni industriali	оттімо	510	710	L	3,1	4,6	L
Laboratori	оттімо	860	1100	L	4,1	6,1	L

Venaria Reale_Zona Corso Garibaldi (fonte Agenzia del Territorio)

_ a single production place for covering all the Italian market (at least during the starting phase)

What we need

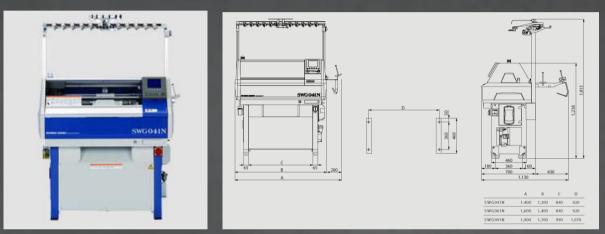
_ 1 Shima Seiki Wholegarment knitting machine (type NewSES-S-WG) in order to cover the following finenesses: 8, 10, 12, 14, 16.

_1 Shima Seiki Wholegarment knitting machine (type NewSWG-V) in order to cover the following finenesses: 4, 6.



What we need

_ 1 Shima Seiki knitting machine (type SWG041N) for the production of accessories



_1/2 fulling machine \rightarrow PW 6321 produced by Miele

PW 6321 - 32 Kg. Volume tamburo 320 litri Centrifugazione 1.000 giri/min. Fattore g 448

50 PROGRAMMI SPECIALI PER FOLLATURA.

- Comando elettronico liberamente programmabile.
- Grande display, con guida utante chiaramente leggibile.
- Indicazione svolgimento programma e altre funzioni.
- Indicazione del Ivelo.
- indicazione della temperatura.



What we need

_1/2 dryers \rightarrow PT 7801 produced by Miele

PT 7801 - 32 - 40 Kg. Volume tamburo 800 litri

Comando Profitronic M

Il comando "Profitronic M" consente un preciso adattamento al diversi tipi di maglieria per un'asciugatura delicata e appropriata delle fibre. 12 Programmi di cui due a tempo. L'elettronica, non soggetta ad usura, consente inoltre una rapida e semplice diagnosi di servizio per l'assistenza teonica.



2 ironing presses → AUTOMATIC UTILITY PRESS 2300 (produced by Grandimpianti)



MODELLI			2300		MODELS
Dimensioni	Larg.	mm	1400	Width	Dimensions
	Prof.	mm	1130	Depth	
	AIL.	mm	1420	Height	
Dimensioni	Larg.	mm	1420	Width	Packing
imbalio	Prof.	mm	1150	Dopth	dimension
	AIL.	mm.	1440	Height	
Volume	m		2,35	rm ^a	Volume
Peso netto/lordo	kg		300/350	kg	Net/gross weight
Aria aspirata	m²/h		80	m ¹ /h	Air intaks
Arta compressa	Littri/m/		80	Litri/m'	Compressed air
Consumo idrico	Litria		15	Litrivh	Water consumption
Consumo elattrico mod. autonomo	KW		9-12	KW	Electric consumption
Consumo vapora mod. vapore	Kgm		20	Kgh	Steam consumption

What we need

- _1 work-table
- _ 1 yarn stand
- _ 1 packaging stand
- _ shelf for garments

_ 3/4 computers for the management of the production phase (orders, machinery set up, delivery, supply...)

Staff

2/3 technicians for the control of the knitting machines
 3/4 employees for the finishing operations (fixing loose yarn ends, fulling, ironing, packaging)

Area

150/200 m² (production area+ warehouse)