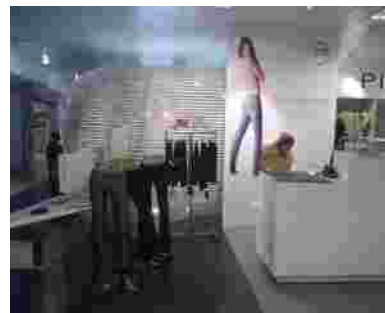


# A Vision for Australian Apparel

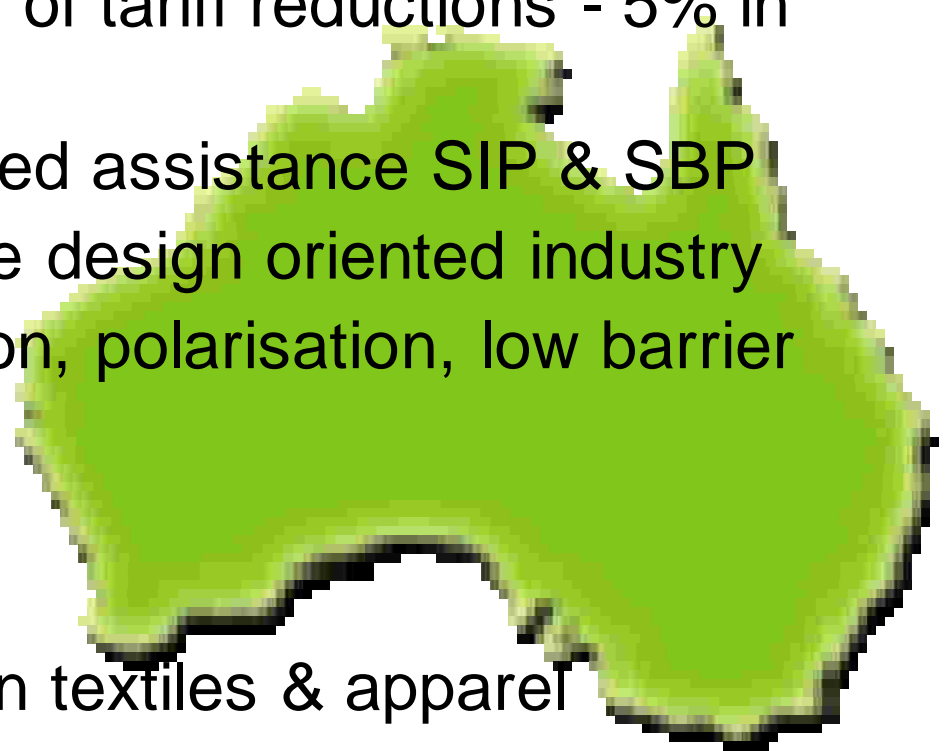
- Where are we now?
- What can be done?
- Where to from here?



# Where are we now?

Australian fashion is a \$14bil industry with more than 2000 companies exporting Source DFAT Fact Sheet Dec 2007

- Coming out of 30 year cycle of tariff reductions - 5% in 2015
- 2000 ? restructure under Fed assistance SIP & SBP
- No longer sunset but sunrise design oriented industry
- Still issues with fragmentation, polarisation, low barrier to entry and communication
- New Federal Government
- New TCF training package
- New businesses emerging in textiles & apparel



# Where are we now?

Australian designers achieving international acclaim

Sass & Bide



[www.sassandbide.com](http://www.sassandbide.com)

Collette Dinnigan



[www.collettedinnigan.com](http://www.collettedinnigan.com)

Jenny Kee



Akira Isogawa



[www.akira.com.au](http://www.akira.com.au)

Martin Grant



[www.martingrantparis.com](http://www.martingrantparis.com)

# Where are we now?

Fertile ground of emerging Australian designers

Alexi Freeman



[www.alexifreeman.com](http://www.alexifreeman.com)

Lil'Mama



[www.lilmama.com.au](http://www.lilmama.com.au)

Friedrich Gray



[www.adrianmesko.com](http://www.adrianmesko.com)

Thurley



[www.thurley.com.au](http://www.thurley.com.au)

Material By Product



[www.materialbyproduct.com](http://www.materialbyproduct.com)

# Where are we now?

Global Innovations – avatars, garment draping technologies  
second life & new shopping for clothes experiences



[http://secondlife.com/showcase/sub\\_page.php?showcase\\_category=2&blog\\_category=2](http://secondlife.com/showcase/sub_page.php?showcase_category=2&blog_category=2)



<http://www.ifashion.or.kr/>



<http://www.paxar-emea.com/en/aboutpaxar/news/RFIDmirror.html>

# Where are we now?

Global Innovations – blogs, web 2 fashion & style communities, style swapping, web forecasting services



<http://www.frockfashion.com.au/>



<http://www.2threads.com/>



<http://www.swapmystyle.com.au/>

# Where are we now?

Global Innovations – convergence online of style analysis, image consultancy & fashion design with mass customisation models



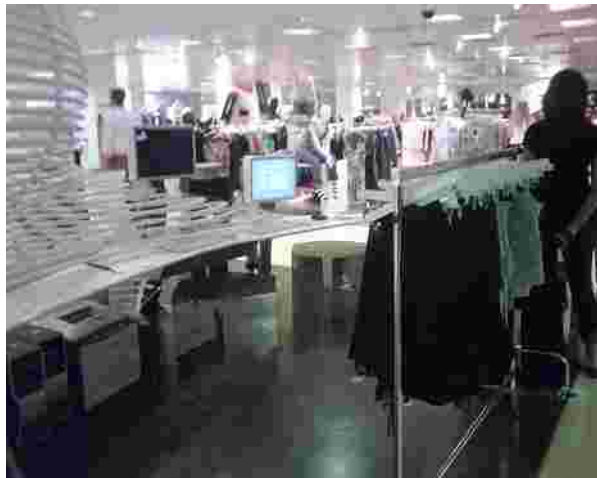
<http://www.aici.org/index.htm/>



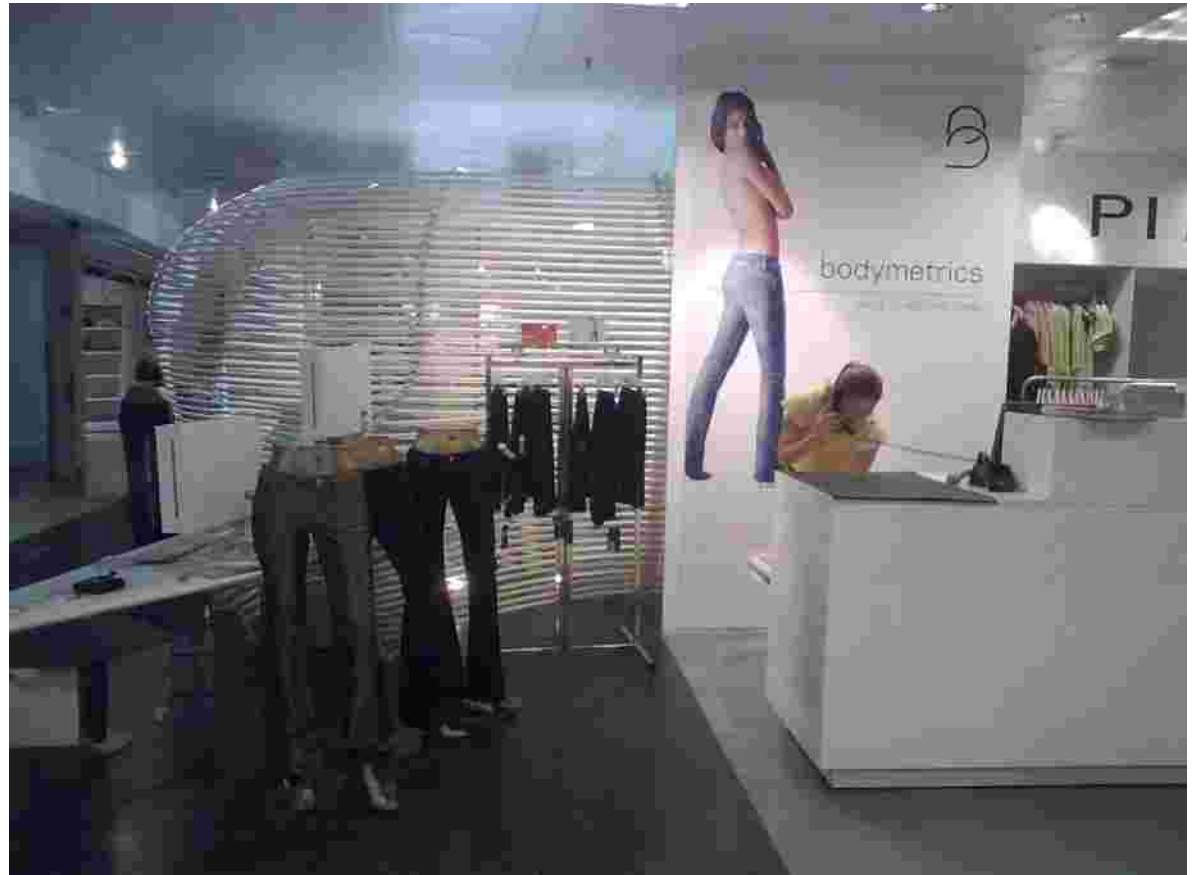
<http://www.zafu.com/>

# Where are we now?

Global Innovations -  
merchandising &  
mass customisation

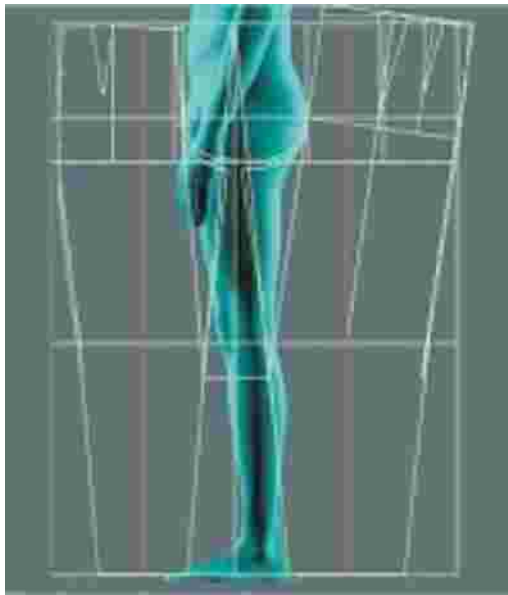


<http://www.bodymetrics.com/>



# Where are we now?

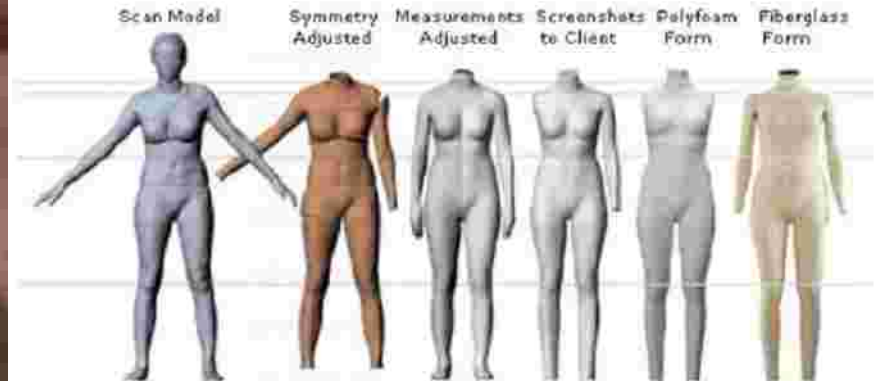
Global Innovations – e-fit technologies, scanned models & simulated dress forms for designers and technicians



<http://www.tpc-intl.com/technology.asp>



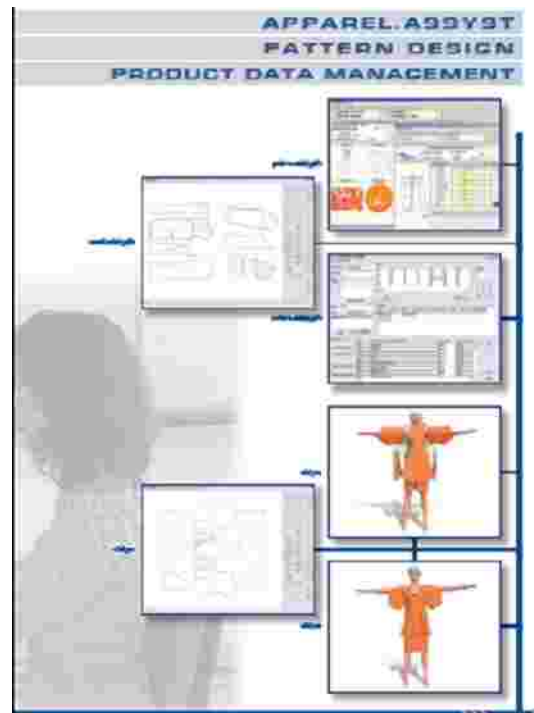
<http://www.shapelyshadow.com/>



<http://www.alvanon.com/>

# Where are we now?

Global Innovations – 2D to 3D CAD technologies, digital technologies



<http://www.audaces.com/>

<http://www.optitex.com/index.php>

<http://www.assyst-intl.com/>

10

AVAA 2008



# Where are we now?

Global Innovations – fully integrated TCF systems from PLM & CAD technologies through to automated pattern scanners, plotters, cutters & production flow systems



<http://www.lectra.com/en/index.html>



<http://www.gerberotechnology.com/>

**AccuScan for Apparel**



AccuScan is an optimized, high-precision system designed to scan your patterns in less than a minute for accuracy.

Accelerate pattern digitizing with high-speed scanning technology.

Digitize hard patterns faster and more accurately.

- AccuScan offers multiple pattern sizes, continuously and 300 dpi (300 pixels per inch) resolution.
- The system uses pattern board imaging (PBI) (PBI) to increase width (3000).
- Spinning thread digitizing mode.
- AccuScan can digitize patterns on both sides of the paper, and thus will digitize patterns.

Get up and running with AccuScan.

- Digitize and then integrate AccuScan into your workflow by using the AccuScan Integration Software (AIS) and AccuScan Integration Software (AIS).
- The necessary interface is automatically established between AccuScan and your CAD system.
- AccuScan can be used for a wide range of applications.
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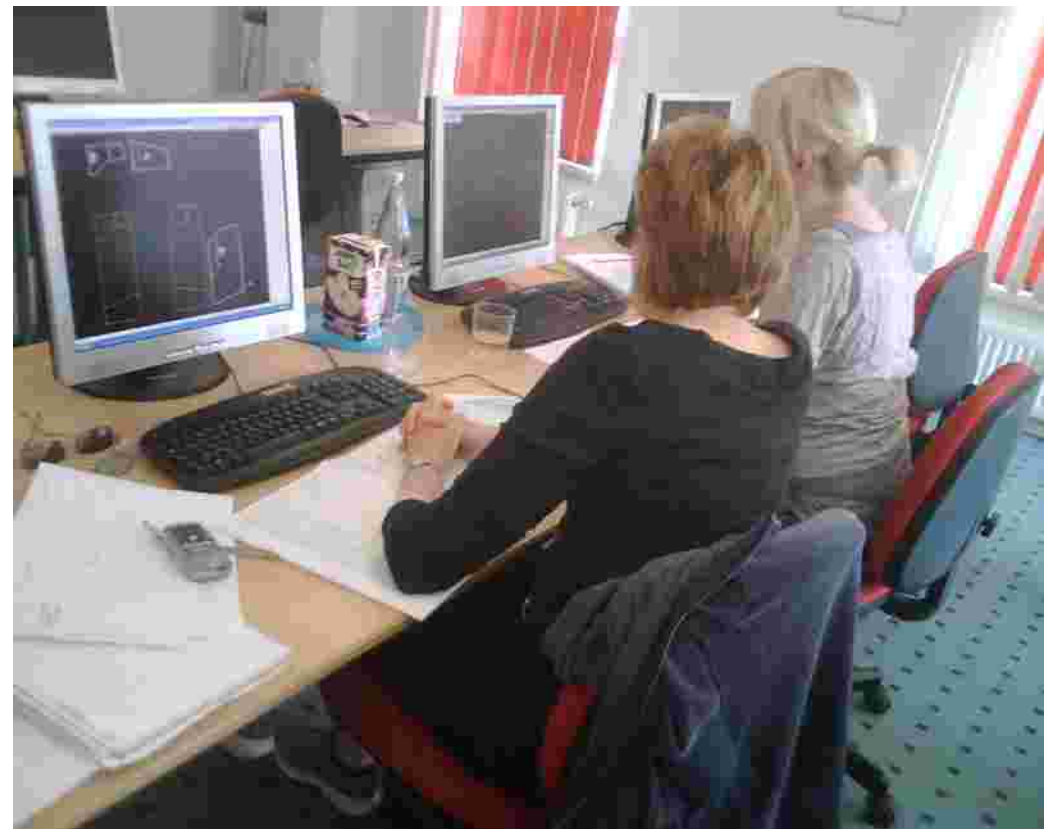
GERBER TECHNOLOGY  
Expert Made

# Where are we now?

Global Innovations -  
affordable CAD  
programs for SME's

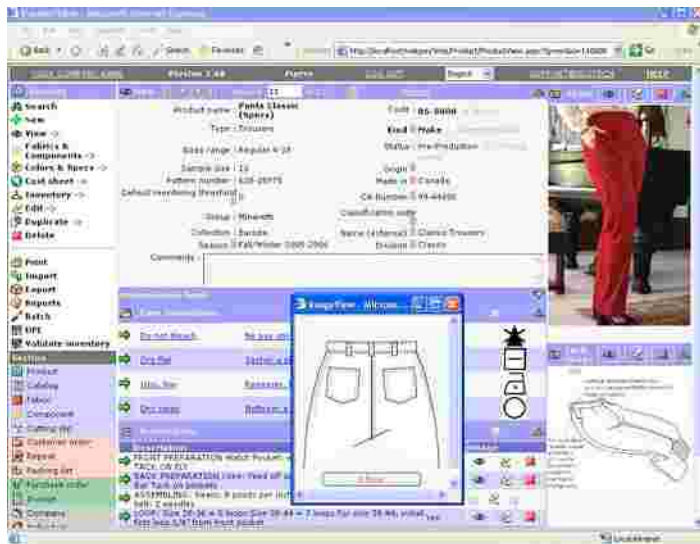


<http://www.grafis.de/eng/index.htm>



# Where are we now?

Global Innovations Technology – web 2 software platforms for business systems & rent on line CAD

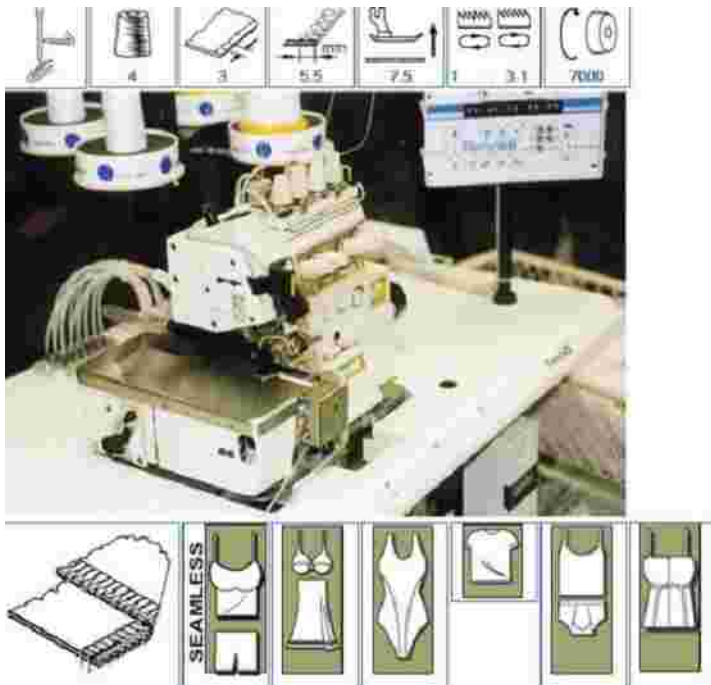


<http://www.olotech.com/>  
<http://www.worldfashionexchange.com/apparel-plm.html>  
<http://www.asapofga.com/>  
<http://www.wfxondemand.com/Default.aspx>

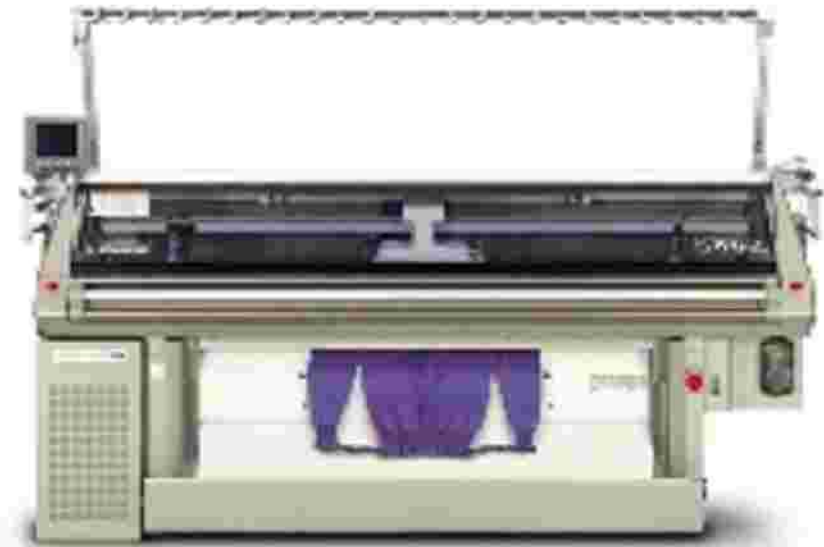
<http://www.tukatech.com/index.html>

# Where are we now?

Global Innovations – seamless niche apparel manufacturing & 3D whole garment knitting machines



<http://www.cfrimoldi.com/cgi-bin/home.asp?Lingua=inglese>



[http://www.shimaseikiusa.com/shima7102\\_001.htm](http://www.shimaseikiusa.com/shima7102_001.htm)

# Where are we now?

Global Innovations – specialist semi-automated equipment & international trade shows



<http://www.tabio.com/uk/corporate/about/dream/>

<http://www.jiam2008.com>

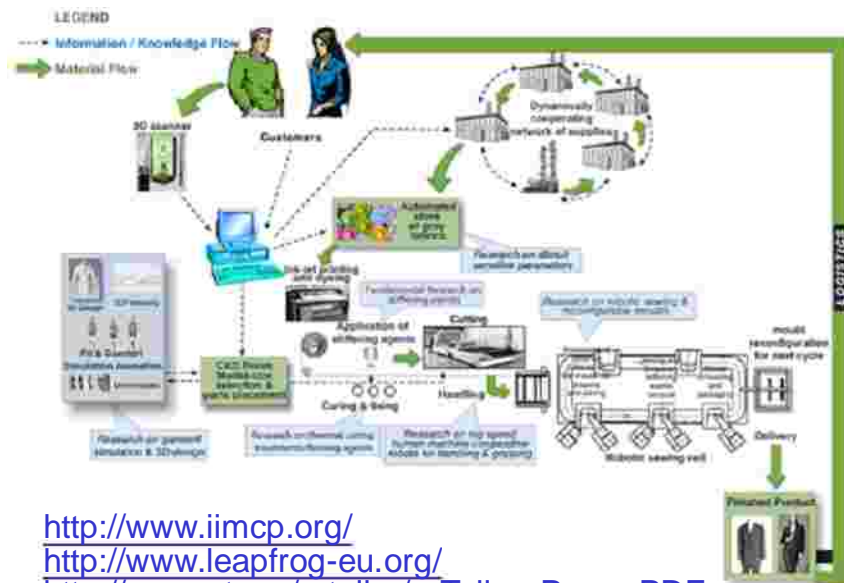
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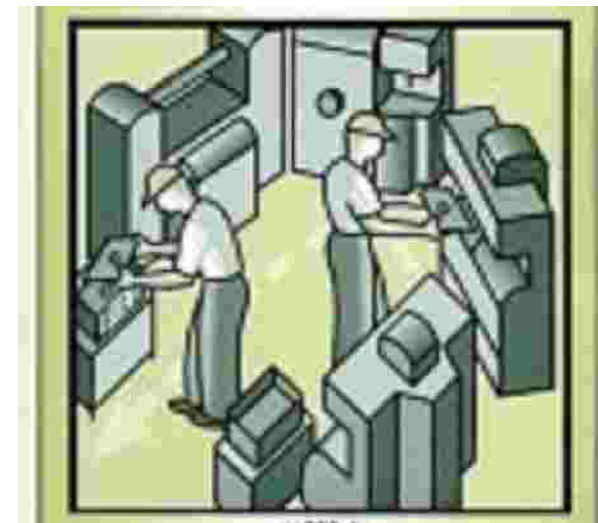


# Where are we now?

Global Innovations – mass customisation models  
e.g. cellular manufacture, one piece flow and lean systems



<http://www.iimcp.org/>  
<http://www.leapfrog-eu.org/>  
[http://www.atc.gr/e-tailor/e-Tailor\\_Paper.PDF](http://www.atc.gr/e-tailor/e-Tailor_Paper.PDF)  
<http://www.zweave.com/>  
<http://www.bodymetrics.gr>



<http://www.superfactory.com/topics/one.htm>  
[http://www.webcastgroup.com/webcast/window\\_new/frameset.asp?WebcastID=2135](http://www.webcastgroup.com/webcast/window_new/frameset.asp?WebcastID=2135)

# Where are we now?

Global Innovations -  
video conferencing  
to remote prod. &  
large scale processing  
units of 1 for uniforms



<http://www.royal-park.com/>

# Where are we now?

Global Innovations – revival of local organisations e.g. craft guilds with IT, for provoking ideas & preserving skills



<http://www.maineecraftsguild.com/>

<http://nsweave.org.au/link/guild.html>

[http://www.form.net.au/creative\\_capital/field\\_of\\_ideas/](http://www.form.net.au/creative_capital/field_of_ideas/)

<http://www.craftaustralia.com.au/calendars/exhibitions.php/>

18

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# Where are we now?

Global Innovations – a human centric approach to future apparel e.g. wearable computers, smart clothing & smart closets



Figure 5. 'SmartSecondSkin' constructed from silk, with micro-tubes containing coloured liquid that demonstrates wellbeing fragrances 'pulsed' around the body to reduce stress, depending on the emotion of the wearer. Photograph by Guy Hills.



Figure 11. 'Scensory Communication' aroma rainbow 'coded messages', to convey information and alert the eyes (sight) and ears (sounds) via olfaction. Illustration by Wendy Latham, photo by Guy Hills.

<http://www.redwoodhouse.com/wearable/>

[http://www.wearitatwork.com/Human\\_Centric.16.0.html](http://www.wearitatwork.com/Human_Centric.16.0.html)

<http://iswc.net/>

# Where are we now?

Global Innovations – morphing of fashion with sportswear, promotional gear, work wear and protective garments



<http://www.techexchange.com/thelibrary/designinnov.html>



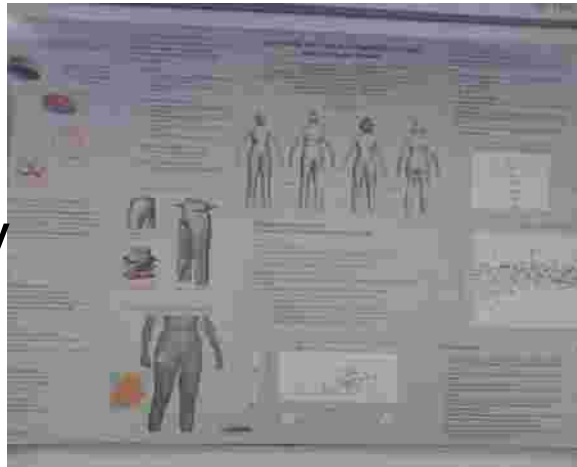
<http://www.tdctrade.com/prodmag/worldent/worldent200703apparel.htm>



<http://www.dnrnews.com/site/article.php?id=183>

# Where are we now?

Global Innovations -  
training in design  
process & technology  
for sampling

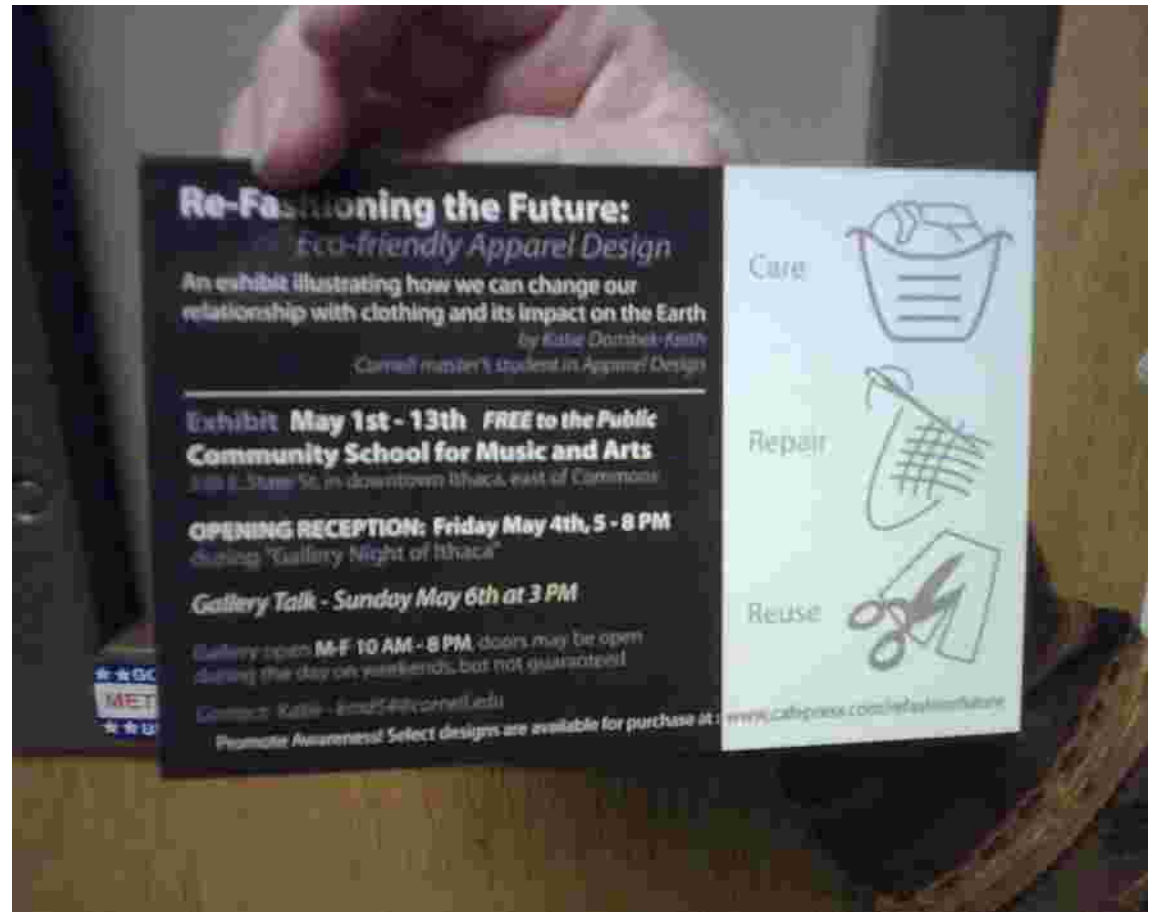


<http://www.human.cornell.edu/che/fsad/index.cfm>

<http://www.bodyscan.human.cornell.edu/scene0037.html>

# Where are we now?

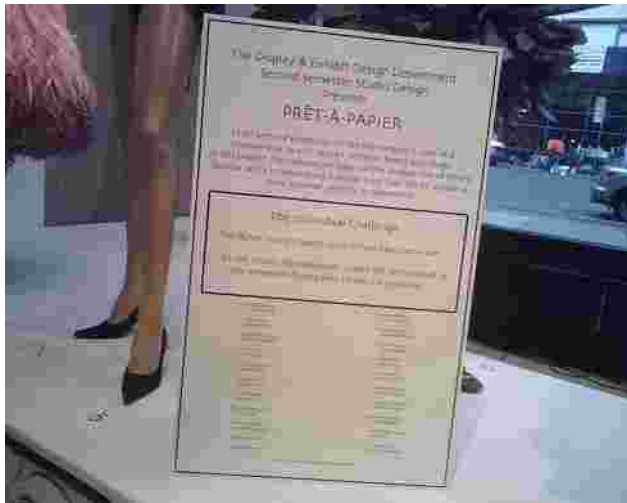
Global Innovations –  
training eco friendly  
apparel & dressing  
for well being



<http://www.human.cornell.edu/che/fsad/research/faculty.cfm>

# Where are we now?

Global Innovations –  
growth in recycling,  
alteration & remake  
sustainable fashion



<http://www.fitnyc.edu/html/dynamic.html>

# Where are we now?

Global Innovations -  
universities with as many  
technicians as teachers  
& student ratios of 1:3  
designers to technologists



# Where are we now?

Global Innovations – global sourcing requires advanced IT & skillful planning to

- Design / Develop
- Market / Sell
- Distribute / Ship (electronically)
- Manufacture / Make



<http://www.skcc.com/>

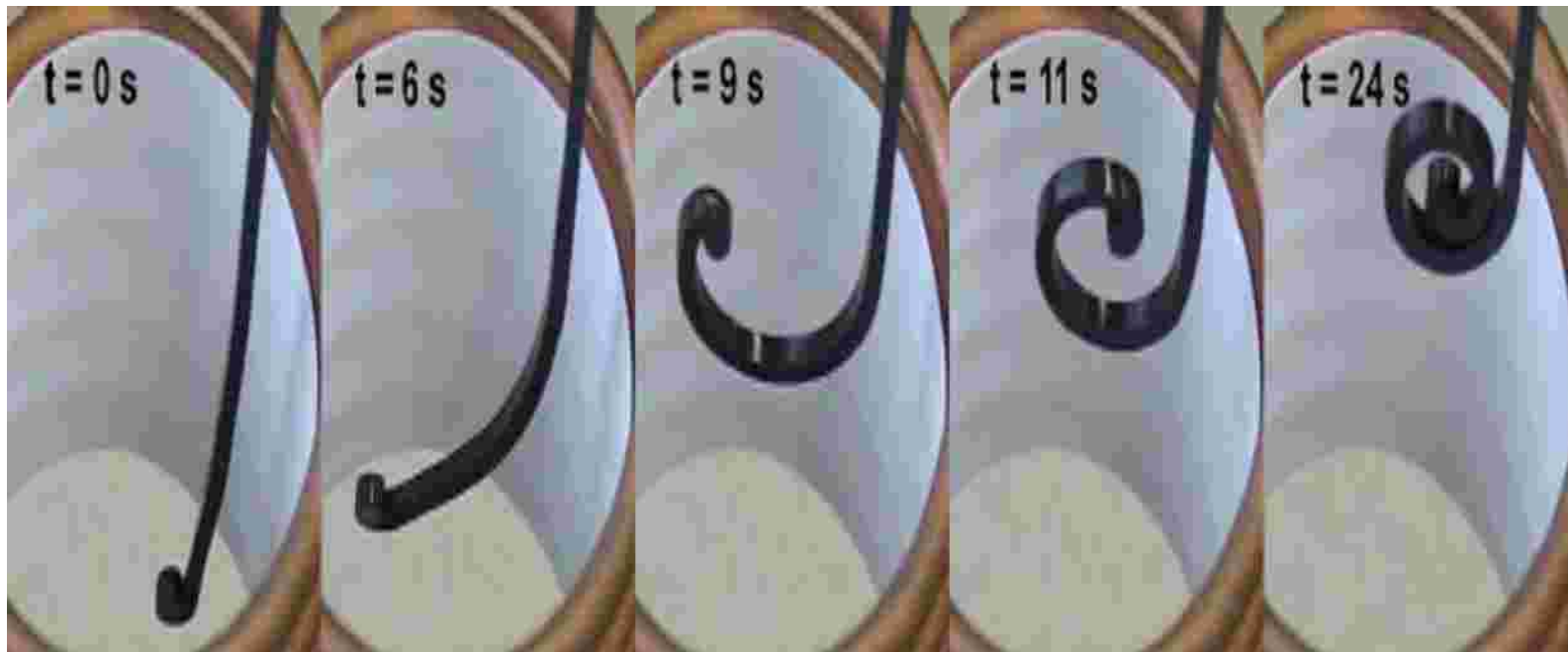
Products can now be marketed before they are made & distributed before they are made up physically e.g. digital designs, patterns



<http://www.tc2.com/coolzone/>

# Where are we now?

Global Innovations – design implications for future fibres  
e.g. which react to environments and technical textiles  
e.g. which react to temperature changes



'A shape memory polymer in action ' Tara Punner (IFFTI Pres 2008) Pearl Academy New Delhi India

# Where are we now?

Global Innovations – global recruitment of employees who now need to be able to

- Respond quickly & meet deadlines
- Clearly instruct but team play
- Have multi knowledge but advanced skill
- Have customer focus
- Career orient but travel



*Angela Lynkushka, b. 1947, An outworker in the clothing industry at home, Brunswick. Gelatin silver photograph, selenium toned, 1980. Building a Country archive – Greek community [LTAF 573 H92.250/738], La Trobe Picture Collection.*

# What can be done?

If we really want growth each of us needs to physically change our activities on a daily basis

- Communicate
- Participate
- Advocate
- Nurture
- Engage
- Lobby



Rapid change can best be digested in bit sized pieces!

# What can be done?

## Communicate with Government

- Fed TCF Industry & Innovation Reviews
- Nominate & make submissions 2020 summit
- TCF National Forum of Practice & MSA Training package continuous improvement plan
- Discussion papers generated from both management & 'Grass Root' level
- Critical need for accurate mapping of TCF industry
- Industry benchmarks & new apparel models
- Who are the innovators & what are the innovations

# What can be done?

## Communicate with industry

- Utilise industry portals – national & international
  - <http://www.atfmag.com/atfportal/basefiles/welcome.asp?context=apparel>
  - <http://www.wgsn.com>
  - [http://www.apparesearch.com/Fashion/Forecasting/Fashion\\_Forecasting.htm](http://www.apparesearch.com/Fashion/Forecasting/Fashion_Forecasting.htm)
  - <http://www.techexchange.com/welcome.html>
- Expand networks – <http://www.iafnet.com>
- Use mainstream as well as industry media
- Develop relationships O/S R&D ‘silos’ & integrate
  - <http://www.ist-world.org/default.aspx>
  - <http://ovrt.nist.gov/projects/wear/>
- Link in to O/S innovation programs
  - [http://www.nesta.org.uk/informing/policy\\_and\\_research/digest/index.aspx](http://www.nesta.org.uk/informing/policy_and_research/digest/index.aspx)
  - <http://www.proinno-europe.eu/>

# What can be done?

## Participate

- Join associations e.g. [www.tfia.com.au](http://www.tfia.com.au) [www.ftaa.com.au](http://www.ftaa.com.au) [www.tcftechnet.com.au](http://www.tcftechnet.com.au)  
[www.australianfashioncouncil.com](http://www.australianfashioncouncil.com)
- Attend LMFF, Rosemont & Fashion State festivals
- Industry surveys, workshops
- Mentor students & undertake work experience
- Take advantage of traineeships, internships & apprenticeships
- Become accredited eg Green Leader, technician
- Apply for Govt assistance programs [www.ausindustry.com.au](http://www.ausindustry.com.au)

# What can be done?

## Advocate

- Good news stories in mainstream press
- Importance to sector of clothing other than fashion e.g. uniforms, promotional wear, defense apparel
- Restructure ? workplace retraining e.g. advanced skills
- Economic, social and environmental issues e.g. waste management of inferior / poor fitting product
- Importance of design process instead of copying
- Shift focus to front end of supply chain e.g. to avoid 'garbage in garbage out' scenarios
- Need to free up time & resources currently spent on fixing problems & redirect towards innovation



[www.ada.com.au](http://www.ada.com.au)

# What can be done?

## Nurture

- 'Shape Our Nation' (SON) Research Centre for body scanning Australian population & developing multi sector applications (including a Size Aus project to improve clothing fit)
- Digital Supply Chain project – new innovative short run manufacturing model to establish industry benchmarks & ethical practices
- Textile & Design Specialist Center for advanced apparel skills training for senior industry people & teachers
- National TCF industry awards to acknowledge achievements



# What can be done?

## Update Australian Standards for Clothing Sizes



34

*What size label will I become?*

Correct sizing is established by scanning population for

- Size - Age & Ethnicity
- Shape - Chest, Waist, High Hip, Hip & Thigh, Weight, BMI, Pelvic & Chest shape
- Proportion – Height; Bust, Hip & Knee levels; Inside leg length & body rise; Arm length
- Posture – Upper & Lower body, Shoulder slope, Pelvic tilt, Foot size

# What can be done?

## Engage technology

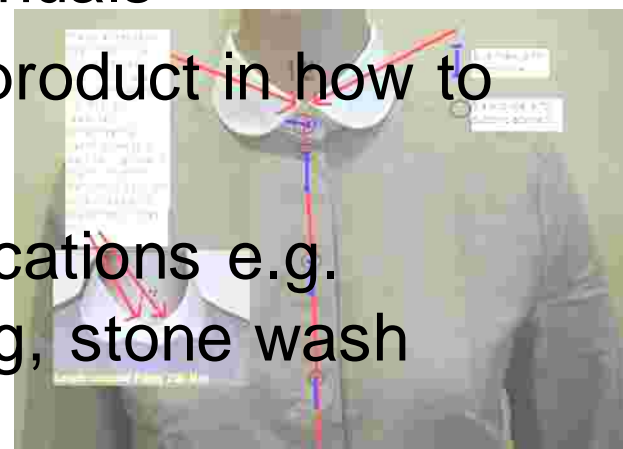
- Become IT literate in multi platforms e.g. webcam, web 2 & 3 technology (Facebook), blogs, new 3D CAD systems, design tools for illustration
- Integrate automated garment development technologies with RFI tracking, digital QA manuals and digital printing applications
- Become experts as short run samplers (product developers) for design and merchandise model
- Use e-Learning frameworks, Skype, webinars, audio visual files for on the job training



# What can be done?

Engage in proper and ethical TCF practices to prevent bottlenecks in the supply chain, for example;

- Use design process instead of sample copying and knock offs thereby avoiding poor instruction & IP infringements
- Promote skill mastery combined with multi knowledge in technical area & development of QC manuals
- Train in fit assessment of O/S sampled product in how to alter & adjust then instruct the changes
- Test for the outcomes of finishing / applications e.g. embroidery, pigment dyes, digital printing, stone wash



# What can be done?

## Lobby

- Industry – benefits of moving from ‘faster, cheaper, easier’ model to engage more ‘time, investment, complexity’ to demonstrate the true capabilities of the Australian industry
- Educators – specialise in programs (not all colleges doing same thing) & lift qualifications from Higher Diploma to Degree, encourage researchers to publish
- Government – to establish meaningful funding programs to help foster continued innovation and growth for the industry and to link in with their industry bodies to enhance the prospects of positive outcomes

# Where to from here?

Over next 6 months

- Discussion paper to inform reviews
- Profile TCF industry through expansion of existing databases & ABS figures
- Addition of new committees for TCF Review, ACCC Labeling, Body Image, Advanced Training, Green Leader
- Expand TCF Technology Network transfers to include apparel and on national & global stage
- AFC and FTAA working closer together to improve communication between designer & technician

# Where to from here?

Capture industry ideas to develop  
**A Vision for Australian Apparel**

# AVAA