



European Union
European Regional
Development Fund

DETOX: from threat for brands to opportunity for labs and manufacturers

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4 April, 2017 □ 3rd Thematic Seminar “New sustainable chemistry” in Bucharest

INTRO

FABIO GUENZA – Detox expert

My experience with Blumine Srl

- Since 2013 Detox business line implementation
- Since 2014 support to Detox committed clients:
 - Yarn Dyers
 - Fabric Dyers and Printers
 - Industrial laundries
 - Spinning and Twisting mills
 - Knitting and Weaving mills
 - Accessories producers: Tags and Padding

BLUMINE SRL

Blumine srl is a service company that designs and develops projects, products and business models that improve sustainability in the fashion and apparel industry and supply chain.

- For Blumine, more sustainable and more attention to all stakeholders are now a necessary condition for the success of businesses, small or large.
- Blumine regularly publishes research and studies on sustainability in the production chain of fashion and apparel.

BLUMINE SRL - Timeline

Timeline of achievements:

- In 2011: launch of www.sustainability-lab.net, first Italian social platform for sustainability in the fashion business
- Sept. 2013: our client Canepa Spa is the first Detox committed manufacturer in the world
- In 2014: release of Survey Report on Sustainable Procurement in Fashion , 18 international brands respondents, with 50 €billions turnover,
- In 2015: release of Survey Report on Green Chemistry in textiles, 16 international chemical producers respondents, with 3 €billions turnover
- In 2015: launch of www.change-makers.it a website that collects stories of good sustainability practices
- In 2017: editing of book “Neomaterials in the Circular Economy. Fashion” (publication in April)

Timeline, figures, map of the committed manufacturers

THE DETOX CAMPAIGN

WHAT IS DETOX

Greenpeace POV

- a **communication campaign** for a cleaner and toxic-substances-free fashion, with
 - Brand targets
 - Toxic Reports
 - Catwalk
- According to Greenpeace, in less than 6 years the Detox “umbrella” has come to **cover about 15% of the global fashion turnover.**

Businesses POV

- A **moral, unilateral and public commitment** to eliminate harmful substances from its supply chain, based on
 - Document (w/ principles, targets and reports)
 - Company M-RSL of banned substances

TIMELINE: Jul 2011-Jan 2020

The DETOX campaign timeline

Publicato da [admin tessuti_sostenibili](#) - 0 commenti - visualizzazioni: 1030



Voto ★★★★★



6 Febbraio 2017

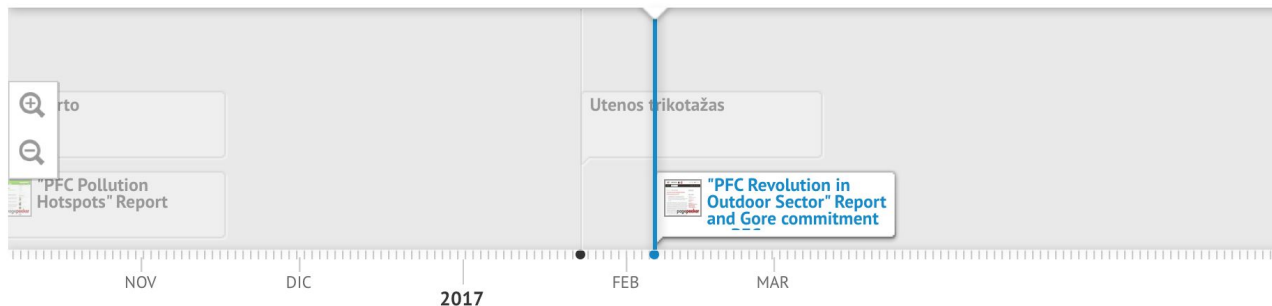
"PFC Revolution in Outdoor Sector" Report and Gore commitment on PFCs

By the end of 2020, Gore Fabrics will eliminate PFCs of Environmental Concern from its consumer laminate shipments corresponding to approximately 85% of product units in the



23 GENNAIO
2017

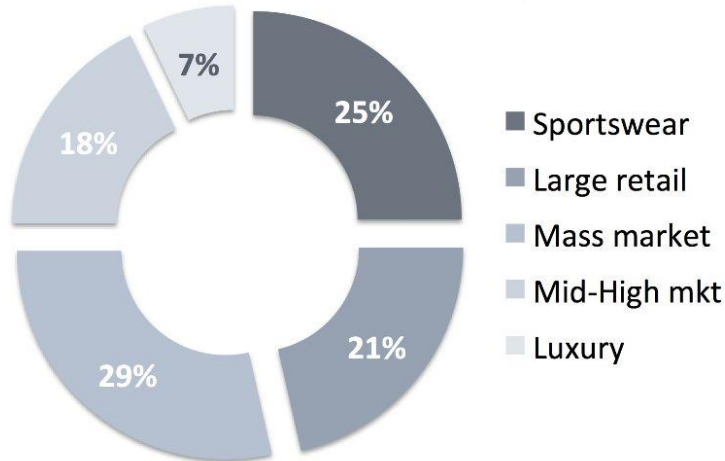
Utenos trikotažas



<http://www.sustainability-lab.net/it/groups/dtxleader-english-text/articles/the-detox-campaign-timeline.aspx>

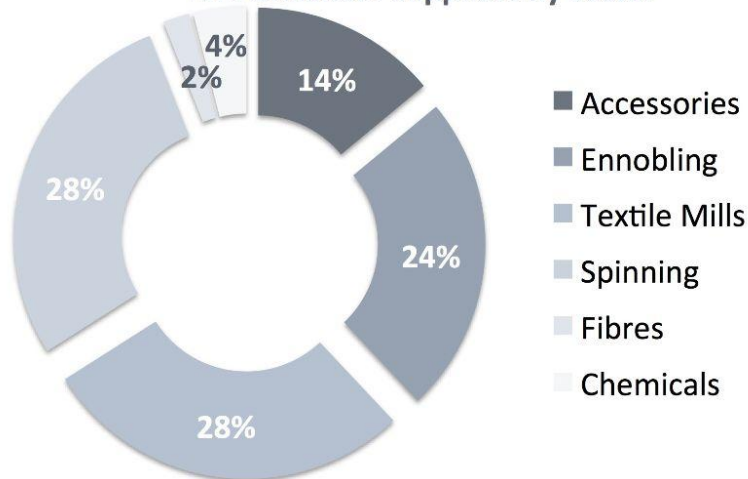
THE LEADERS

28 DETOX fashion brands by market



Fonte: www.sustainability-lab.net

53 DETOXLeader suppliers by sector



BRANDS [related brands]	MANUFACTURERS [brands]
Puma [Cobra Gold, Tretorn, Volcom]	
Nike [Converse, Hurley International, Jordan, Nike Golf], Adidas [Reeebok, Taylor Made]	
H&M [COS, Monki, Weekday, Cheap Monday, Other Stories]	
C&A, Li-Ning [Z-Do, Aigle, Double Happiness, Lotto, Kason]	
Marks&Spencer, Inditex [Zara, Pull & Bear, Massimo Dutti, Bershka, Stradivarious, Oysho, Zara Home, Uterqüe]	
Esprit [EDC], Mango [H.E., MNG by Mango], Levi Strauss & Co. [Levi's, Dockers, Signature, Denizen]	
Fast Retailing [Uniqlo, Comptoir des Cotonniers, GU, Helmut Lang, J Brand, PLST, Princess Tam Tam, Theory], Benetton [Undercolors of Benetton, Sisley, Playlife], G-Star Raw, Limited Brands [Victoria's Secret, PINK, Bath & Body Works, La Senza, Henri Bendel]	
Valentino [M Missoni], Coop CH	
Burberry	Canepa [Fiorio, la Rana, Gallieni]
Primark [Penneys-Republic of Ireland, Early Days, Rebel, Little Rebel, YD, Young Dimension, Atmosphere, Ocean Club, Love to Lounge, Opia, No Secret, Denim Co., Secret Possessions, Cedar Wood State]	
Miroglio Group [Motivi, Elena Mirò, Caractère, Fiorella Rubino, Oltre, Luisa Viola, Diana Gallesi, Per Te by Krizia]	Miroglio Textile, Berbrand, Besani, Italdenim, Tessitura Attilio Imperiali, Zip GFD
Tchibo, Lidl	
Rewe [Penny Market, Felgro/Selgros, Nahkauf, Toom Market, Merkur, Standa]	
Aldi	Gruppo Gritti
	Ditta Giovanni Lanfranchi (Lampo)
Kaufland, Pàramo	Prato/CTN x 20
	Cotonificio Olcese, FelliColor, Itaclab, Mabo, Taroni, Prato/CTN x 7
	Beste [Beste, Monobi], Ongetta e Italtexil Sarata, Dienpi, Maglificio Ripa, Monticolor, Imbotex, Alesilk, Filmar e Filmar Nile
Vaude, Rotauf	Berto, Utenos trikotažas [Utenos]

MANUFACTURERS BY COUNTRY



COUNTRY	COs
Italy	50
<i>Prato/CTN</i>	<i>27</i>
<i>Rest of Italy</i>	<i>23</i>
Romania	1
Lithuania	1
Egypt	1

Reasons why DETOX has been a

DISRUPTING INNOVATION

KEY SUCCESS FACTOR OF THE GP

Strategic alignment of stakeholders interests:

- Greenpeace need to show the technical feasibility of the commitment
- Manufacturers need to show their capacity to be privileged suppliers thanks to their leadership in Chemical Stewardship

A GAME CHANGER

CO₂ → Chemical Stewardship

- In few years DETOX has shifted the focus of sustainability in the fashion industry

Key points:

- Philosophy/Culture: **Elimination*** vs. **Management**
- Technicalities: **Total Elimination** vs. **Admissible Threshold**
- Responsible supply chain approach: **MRSL** vs **PRSL**
- Transparency: **Public Right-to-know** vs. **Certification**

**Zero = detection limits set to the best current testing technology using lowest detection / reporting limits always updated and applied..*

THE 11 GROUPS MRSL/PRSL Detox, Italian Fashion Chamber, ZDHC

	DETOX 2016				CAMERA MODA ITALIANA GUIDELINES		ZDHC	
	Input: Chemical Formulations / Output: Waste water (µg/l)		Output: Products / Output: Waste Water Sludge (mg/kg)		articles (mg/kg)		Output: Waste Water (µg/l) (sludge pending)	
	from	to	from	to	Proactive/Child	Advanced	Reporting limits	no. of CAS (cf to DTX)
1 APEOs	1	1	0,2	0,2	Σ100	1	5	-5
2 Phthalates	1	1	0,3	0,3	Σ50-500	5-10	10	=
3 PBDEs	0,01	0,5	0,01	0,25			5	-10
4 Amines (Associated with Azo dyes)	0,01	0,01	0,01	0,01	Σ20	5	0,1	=
5 Organotin compounds	0,01	0,1	0,01	0,1	0,5	0,1	0,01	-4
6 PFCs	0,01	0,1	0,001	0,01	1-10 µg/m ²	1-10 µg/m ²	0,01-1	-26
7 Chloro benzenes <i>Chlorobenzene</i>)	0,02	0,02	0,01	0,01	Σ1	0,5	0,2	+15
8 Chlorinated solvents <i>excepted Perchloroethylene</i>)	1	1	0,3	0,3	Σ500	0,5	1	-10
9 Chloro phenols	0,5	0,5	0,025	0,025	Σ0,5	0,05	0,5	-8
10 SCCP	0,4	0,4	0,03	0,03	50	50	5	=
11 Heavy metals (Cu, Cd, Cr VI, Pb)	0,05	1	0,006	1	0,1-3	0,02-3	1-250 to 50-1000	+8
Others	0,01	100	0,01	10			1-500	not calculated

WATER:

- ZDHC: indication, 2020
- DETOX: Request, immediate (8/11 groups)

EFFECTS IN THE MARKET

CONSUMERS/CITIZENS

- More informed (aware and safeguarded)

TEXTILE INDUSTRY

- Chemical Risk Management System unavoidable
- Integration with Responsible Supply Chain Management System

CHEMICAL INDUSTRY AND RESEARCH CENTERS

- Impulse to research for alternatives for substitution
- Green lists (ZDHC, Bluesign, Oeko-Tex...)

LABORATORIES

- Impulse to increase service, price/quality ratio ↑:
 - Prices ↓
 - Report: Pass/Fail → LOQ
 - LOQ: roughly 2-3 OM ↓ in few years

THE PRATO EXPERIENCE

PRATO CLUSTER COMMITTED COMPANIES :

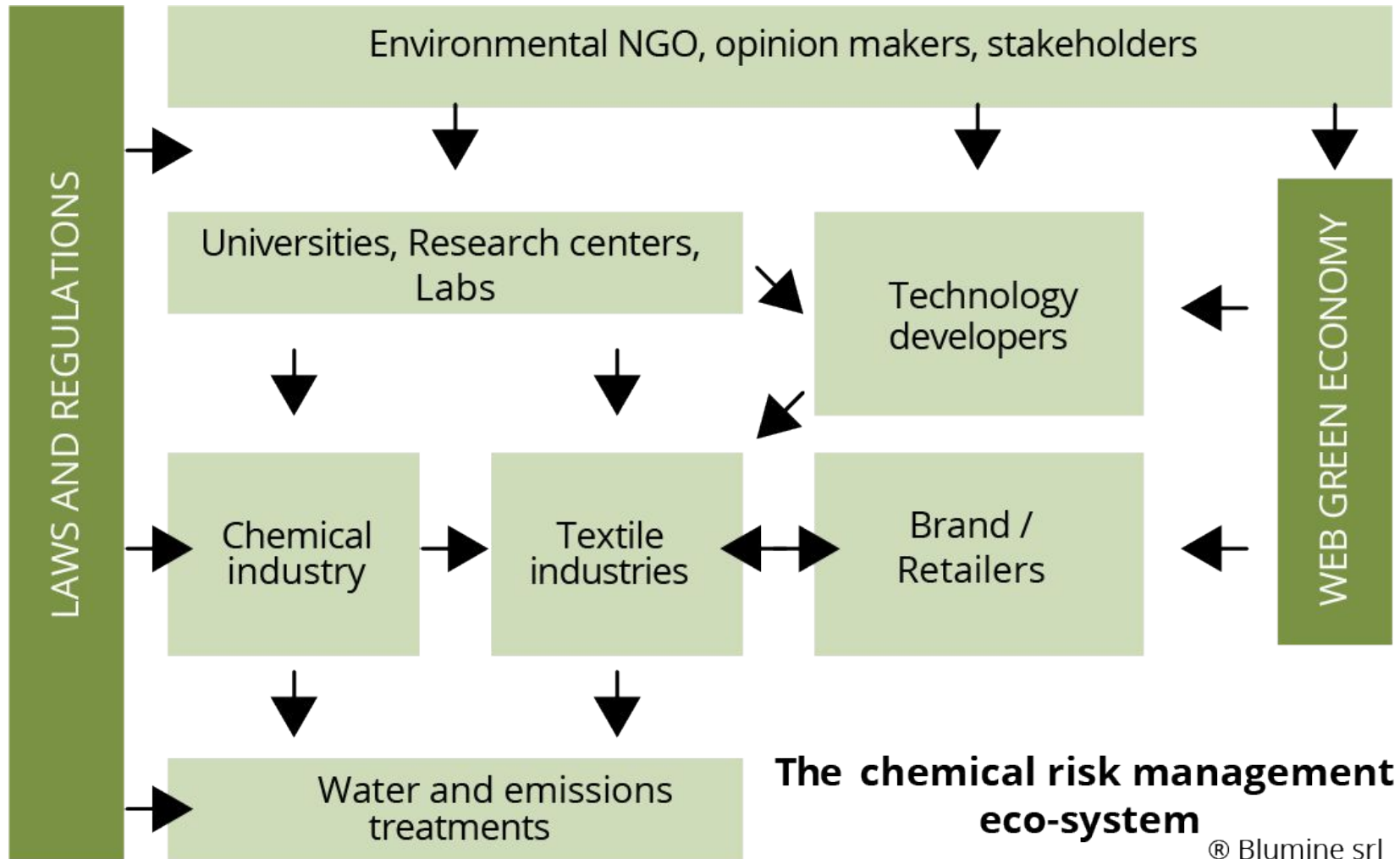
- 27 heading to CTN
- +1 independent

DOCUMENTS PRODUCED AND DISCLOSED IN 2016

- Detox commitment
- MRSL
- CTN operational plan
- Full data disclosure of all committed companies
- CTN-GIDA accord for recycling water monitoring of the centralised water treatment plants
- Results of the recycling water monitoring carried out by GIDA
- Case study: chemical substitution of PFC
- Case study: APEO's investigation report

OPPORTUNITIES IN THE MARKET

CHEM. RISK MGT. ECO-SYSTEM



POTENTIAL FOR TRANSFER

There is a space for pre-competitive activities at business cluster/association levels, to:

- program coordinated monitoring
- gather resources for the research of alternatives to potentially harmful chemical formulations,
- share information and good practices on common chemical problems
- realise scale economies in investigations and reporting on main issues (APEOs, PFCs, HMs...)

Steering, organizational and technical capabilities needed to start up, coordinate and support groups of business in this direction

DRIVERS

Mutual synergy between research and application of innovation at the industrial level can be realized and bring to critical mass. On these premises could even lean further European regulations aimed to foster the improvement of chemical performances of the production for the European market. Framework:

- COMMISSION REGULATION (EU) 2016/26 of 13 January 2016 amending Annex XVII to REACH (ban for textiles containing > 100 mg/kg of APEOs)
- Directive 2014/25/EU of The European Parliament and of The Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC and related regional award criteria in textile Green Public Procurement

CASE-STUDY: toward the elimination of 4-chloroaniline in dyeing

The substance, with proven carcinogenic effects, is present in the dyes used in the textile industry for dyeing of cotton yarn in dark colors. It is not added by chemical manufacturers in the dyes but is generated by reaction in an unpredictable way during the production of the formulations.

106-47-8 4-chloroaniline	VALUES
Prato Detox LOD in chemicals and articles	1 ppm
Oeko-Tex 100 LOD (acceptable limit),	20 ppm
PRSL LOD (acceptable limit), mainstream (e.g. H&M, M&S,	20 ppm
PRSL LOD (acceptable limit), Levi's, VFG	5 ppm
Reported quantity in test 1 on article	~4 ppm
Reported quantity in test 2 on article	~9 ppm
ZDHC Chemical supplier commercial formulation limit	150 ppm
Reported quantity in tests done on mainstream chemical product	75 ppm
	~110 ppm
Reported quantity in tests done on p-Ca free chemicals - Supplier 1	from 5 to 166 ppm
Reported quantity in tests done on p-Ca free chemicals - Supplier 2	< 1 ppm (LOD)



RESET

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Thank you!

Questions welcome



Project smedia