



water traces

SOCIAL ENVIRONMENTAL AND
WATER FOOTPRINT PROJECT

water traces

SOCIAL ENVIRONMENTAL AND WATER FOOTPRINT PROJECT

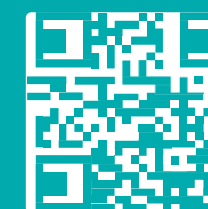
an Italian-Brazilian innovative project on water footprint survey
and social environmental impacts in the fashion industry

ITALIAN PROGRAM FOR THE EVALUATION
OF THE ENVIRONMENTAL FOOTPRINT

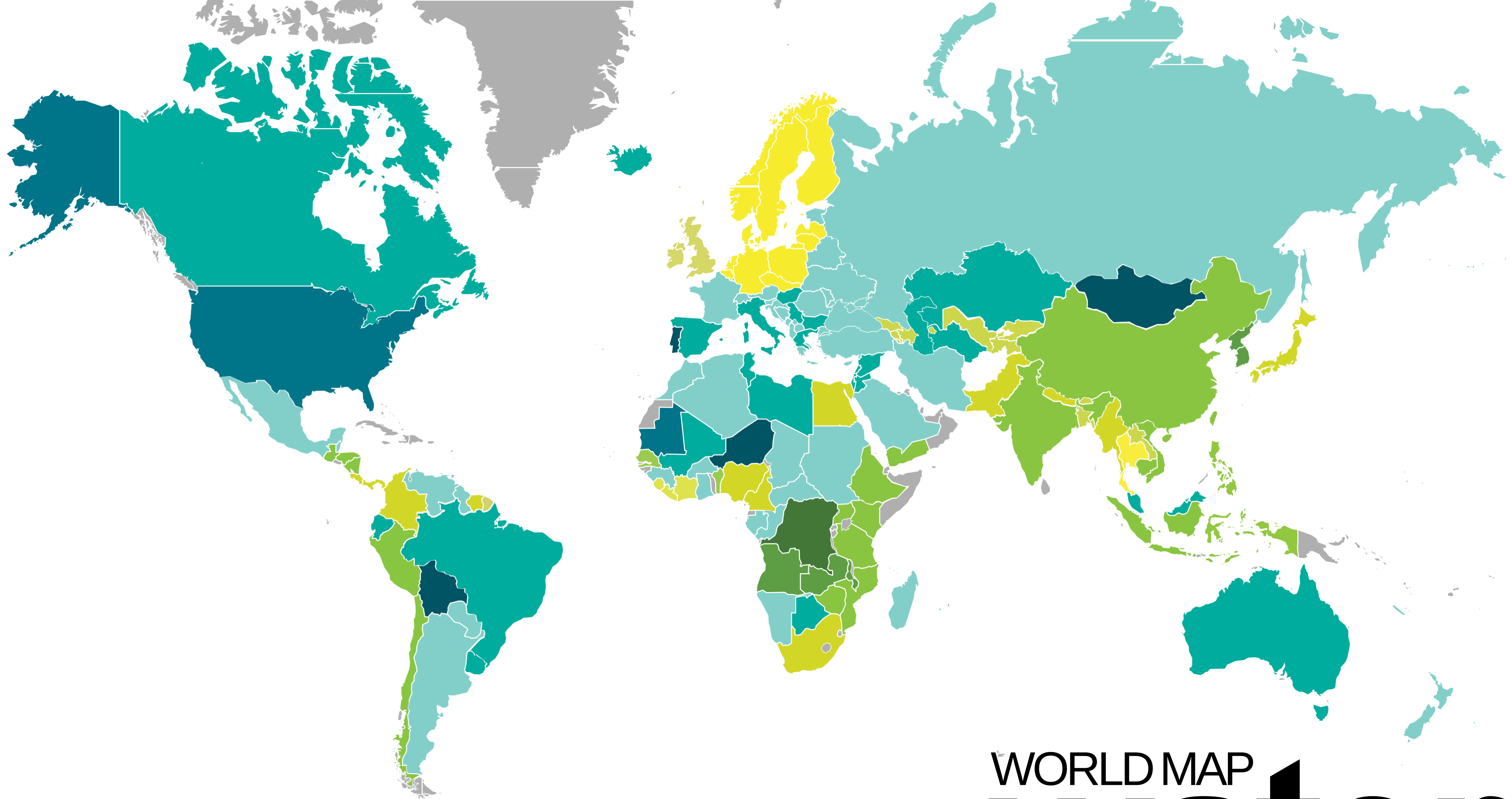


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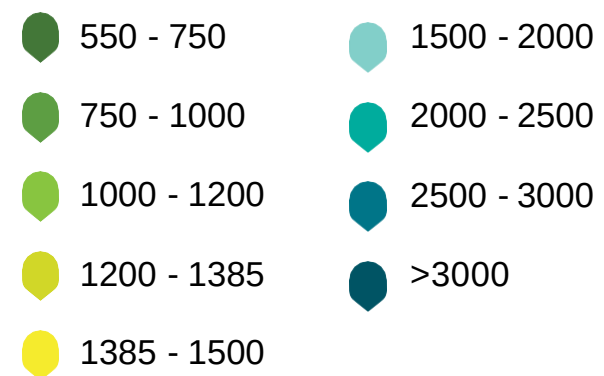
OSKLEN



www.watertraces.org



TOTAL WATER FOOTPRINT
(m^3 /yr/cap)



WORLD MAP
Water
FOOTPRINT

STATE MENTS

Corrado Clini

Director General for Sustainable
Development, Climate and Energy –
Italian Ministry for the Environment,
Land and Sea

WATER TRACES is the second step of TRACES project, the innovative and fascinating Italian-Brazilian task developed by the Italian Ministry for the Environment and Instituto e / OSKLEN, presented at Rio+20 in 2012.

TRACES account the social and environmental impacts in textile production, a sector employing more than 30 million people in developing countries with one of the most important environmental and social footprint in the manufactory industry. It was a brave attempt that brought us in a success story that is going on in Italy with the involvement of more of 200 firms in a wide program on environmental footprint.

Thanks to TRACES, consumers are able to acknowledge the environmental footprint and the social impact of Osklen's products. TRACES says how much energy, green house gas emissions, soil, wastes are behind the products, as well as describes the labour and workers conditions.

WATER TRACES, focused on a water footprint analysis and an updated social footprint assessment, is a step forward. Water footprint is a crucial environmental indicator considering the scarcity of freshwater and its growing demand. Water is a vital resource and a sensitive issue we need to address in our daily life. Accounting water consumption and pollution behind a product means more transparency and awareness enabling better choices for consumers and producers, towards a sustainable development.

TRACES and WATER TRACES are a flagship of the partnership of the Italian Ministry for the Environment for the sustainable development of Brazil.

Oskar Metsavaht

President of Instituto-E, Osklen
Creative Director and UNESCO's
Goodwill Ambassador

I've always believed that economic wealth should walk alongside social-environmental wealth, because they are complementary or indissociable. That's why not only have I founded the Instituto e , an OSCIP (Civil Society Organization of Public Interest) that has as a mission the promotion of sustainable human development, but I also support projects such as this Water Traces, preceded by Traces, which clearly show how a green economy is not only possible, it is also desirable.

With fashion as a starting point, where I've also began my trajectory as businessman and environmentalist, this project that I proudly present is the deployment of a well-succeeded partnership with Italy's Environment Ministry that exists for over a couple of years. Through this association between the public sector, the private sector, and the third sector it has become possible to monitor some good practices in course and spread them around, acknowledging the value of such entrepreneurs that act as authentic guardians of the planet in a time when we must act fast and efficiently under the risk of collapsing.

In studying and disseminating these attitudes, we contribute to the recognition, also on the part of the public, of the added value present in products with social-environmental content. So, I share the hope that paradigms be shifted and that more people adopt a lifestyle in which sustainability plays a central role.

SOCIAL ENVIRONMENTAL AND WATER FOOTPRINT PROJECT

water traces



Many people, if not everyone, know that water is essential and is present in every living thing on this planet. However, not all are aware that there's also water in inanimate products, such as clothing. That's precisely why after having mapped, through the Traces project, the carbon and social footprints of six e-fabrics used by Osklen, we have decided to undertake the survey of the hydric footprint in another four products from Osklen, our partner from the start.

In yet another pioneer and creative project, our team of experts again explored many regions of Brazil – Midwest, Southeast, and South – in order to check the amounts of water used in the multiple stages of planting and manufacturing of each of these pieces, as well as the social actions that happen along these chains of production.

During this analysis, more than once we encountered good practices, be it in the use of hydric resources, such as reuse or adequate treatment of post-production, be it in social projects. The importance of highlighting what is being done with the water in an economic activity as relevant as the fashion industry is evident when we take into consideration that, contrary to what most people think, water is limited and of difficult access to over a billion people in the world. Looking after this natural resource is imperative, and one of the ways of exercising this care is calling attention to its presence in the productive processes, exactly as it is unprecedentedly done by the Water Traces project.

WATER FOOT PR NT	GREEN WATER 	BLUE WATER 	GREY WATER 	TOTAL PER PRODUCT
t·sh·rt	6 619 L	189 L	70 L	4 878 L
straw bag	4 488 L	220 L	62 L	4 770 L
jeans	2 323 L	805 L	428 L	3 556 L
tenn is shoes	1 713 L	1.155 L	225 L	3 093 L

IMPORTANCE OF WATER

Water is an essential resource required for sustaining life and livelihoods: safe water is required for drinking, hygiene and providing food; and adequate water to produce energy and support economic activities such as industry and transportation. Water in the natural environment ensures the provision of a multitude of ecosystem services to meet basic human needs and support economic and cultural activities.

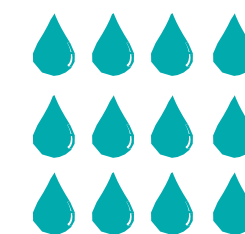
For too long water has been an issue that is at once everywhere and nowhere: it is the lifeblood of our planet and of the human societies that flourish upon it, but is frequently taken for granted, with decisions at all levels and across all sectors made without full consideration of the potential impacts on water resources and other water users. The challenge for twenty-first century governance is to place water at the heart of decision-making at all levels – horizontally across departments and sectors, and vertically at local, national, regional and global scales.

UN Water Programm

WATER FOOTPRINT DEFINITION

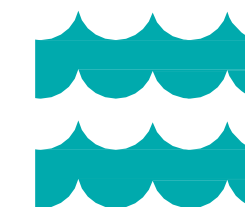
The Water Footprint of a product is the volume of freshwater appropriated to produce the product, taking into account the volumes of water consumed and polluted in the different steps of the supply chain.

TYPES OF WATER



**GREEN
WATER**

Is rain water that does not run off or recharge the groundwater but is stored in the soil or temporarily stays on top of the soil or vegetation. Eventually, this part of precipitation evaporates or transpires through plants. Green water can be made productive for crop growth.



**BLUE
WATER**

Is fresh surface and groundwater, in other words, is the water that comes from lakes, rivers and aquifers. Water is considered as being used when it evaporates, is incorporated in products, goes to the sea or to another catchment and eventually when returning to the same catchment at a different period.



**GREY
WATER**

Corresponds to pollute water output of agriculture, industries and domestic usage. Each litter of polluted water (grey water) will contaminate and certain amount of clean water making it unusable downstream. In other words the grey water amount equals to the volume of clean water necessary to dilute pollution in order to come back to natural concentration.

IMELS ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA

ITALIAN PROGRAM FOR THE EVALUATION
OF THE ENVIRONMENTAL FOOTPRINT



ITALIAN MINISTRY
FOR THE ENVIRONMENT LAND AND SEA
DEPARTMENT FOR SOSTAINABLE DEVELOPMENT, CLIMATE AND ENERGY

The Italian Ministry for Environment, Land and Sea has promoted more than 300 cooperation projects in 40 developing countries, generating environmental monitoring and management; institutional strengthening; biodiversity; natural resource protection and conservation; energy production from waste, renewable energies and energy efficiency promotion in the industrial and residential sectors; water resource management; sustainable urban planning; development of low carbon technologies and transport systems; sustainable agriculture and forest management.

In order to enhance the measures foreseen in the norms and policies of the Kyoto Protocol and the European “Climate and Energy package”, the Italian Ministry for the Environment is currently strongly involved in the support of voluntary commitment of the private sector for the reduction of GHG emissions.

The Italian Ministry started in 2009 an intensive program on environmental footprint of goods and services (carbon footprint and water footprint) to experiment on a large scale and optimize different methodologies evaluating environmental performances, taking into account the differences of economic sectors, in order to harmonize and make them repeatable.

The Italian program today involves more than 200 companies. The aim is to identify procedures of carbon management and support the implementation of low-carbon technologies and best practices in the production processes as well as in the life cycle of goods. The Environmental footprint represents a competitive tool for companies in the global market; an opportunity to create new awareness for consumers, to encourage increasingly responsible choices; an important driver of economic development toward a more sustainable growth.

INSTITUTO-E



Earth Charter
Coexistence between man and nature
creating opportunities for future generations.



**Green Economy and
Natural Capital**
Indicators based on the triple
bottom line of sustainability (social,
environmental and economically viable).



Kyoto and Montreal Protocol
Renewable energy, production techniques and
industrial processes that reduces the GHG
emissions.



**Millennium Development
Goals**
Knowledge to promote social inclusion
and collective evolution respecting the
environment.



**Convention on
Biological Diversity**
Environmental protection initiatives,
attitudes that contribute to the
conservation of the biodiversity.



Agenda 21
Capacity as an instrument to the human become
the protagonist in the sustainable development.

Instituto e is an independent organization which acts in all fields related to the six 'E's listed above. Its mission is to promote Brazil as the country of sustainability through creative thinking and management of a net that engages synergies between academic and scientific institutions, government and NGOs, companies and civil society agents. Created in the early 2000s, it has developed different projects of local and global achievements.

Instituto e's project e-fabrics was identified by the Italian Minister of Environmental, Land and Sea (IMELS) as an ideal partner to stimulate best practices which can be replicated not only in Brazil, but also worldwide. This innovative project originated Traces – the social environmental and carbon foot print project – and now Water Traces. Sharing the project's results matches Instituto e's goal to use, whenever possible, an alternative and multimedia language in order to canalize society's energy towards the protection of our diversity, the right for information and education, as well as cultural heritage

OSKLEN

Osklen is based on the harmony of contrasts. The brand represents the lifestyle of contemporary women and men, in a world where live together urban and nature, global and local, organic and technological. It is precisely this integrated perception of nature, culture and society, associated with a refined aesthetic, which makes Osklen considered by WGSN as one of the ten most influential and inspiring brand in the world and identified as "Future Maker" by WWF-UK.

Oskar Metsavaht, founder of the brand, is a multidisciplinary designer who moves between areas such as fashion, audiovisual, furniture design, environmental actions and expeditions. As creative director of Osklen he prints his original vision and current Brazilian lifestyle, sophisticated and stripped, to the brands' collections.

As an environmentalist he idealized and founded Instituto e. His commitment towards sustainability leaded him to be nominated UNESCO's Goodwill Ambassador for the Culture of Peace and Sustainability.



E-FABRICS

Instituto e's permanent project aims to identify sustainable raw materials, especially in the fashion and textile industry.

An aerial photograph showing a river winding through a vast, green, forested landscape. In the upper left corner, a city with a grid-like street pattern is visible. The river flows from the bottom left towards the top right, with several meanders. The water appears dark, contrasting with the vibrant green of the surrounding land.

“There can be no development without water, and no sustainable human development without sustainable water management. Cooperation is essential to all our efforts to eradicate poverty, deepen social equity, and promote gender equality”

Irina Bokova

UNESCO's International Year of Water Cooperation



t-shirt

3.093 L

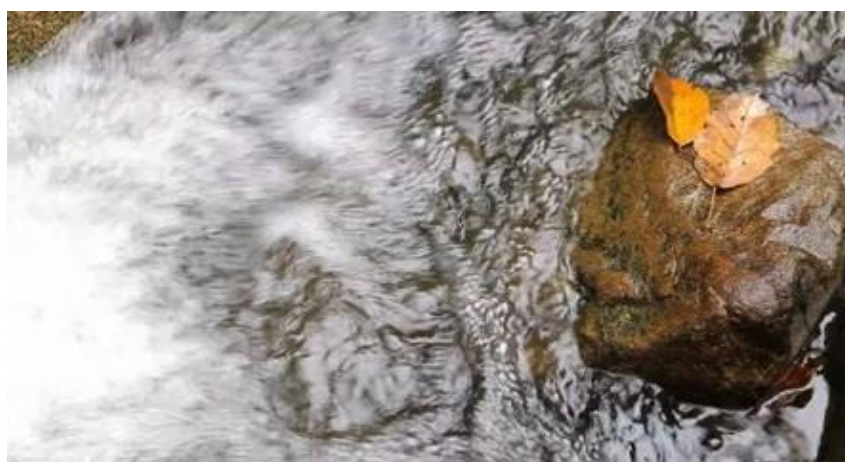
// total product
water footprint



The cotton used to produce this t-shirt comes from farms which are part of the “Better Cotton Initiative” aimed to share among farmers the tools to produce more with less environmental and social impact. They almost don’t irrigate their lands. To hydrate the cotton crops, the farmers use a variety of adapted methods such as tillage, terracing and level curve to maximize the benefits of rain water. Besides using water in an efficient way, the soil is maintained healthy, as well as they care for the health of the workers, creating jobs in better conditions and increasing their quality of life.



Unlike many countries,
Brazilian cotton
production uses mainly
green water that does not
 impact on the water availability.



T-SHIRT PRODUCTION CHARTS

// regions covered by the product supply chain

- 1. Rondonópolis •MT 
- 2. Jaraguá do Sul •SC 
- 3. Rio de Janeiro •RJ  OSKLEN









basic handmade machinery manufacturing agriculture recycling retail

// total employees involved **681**

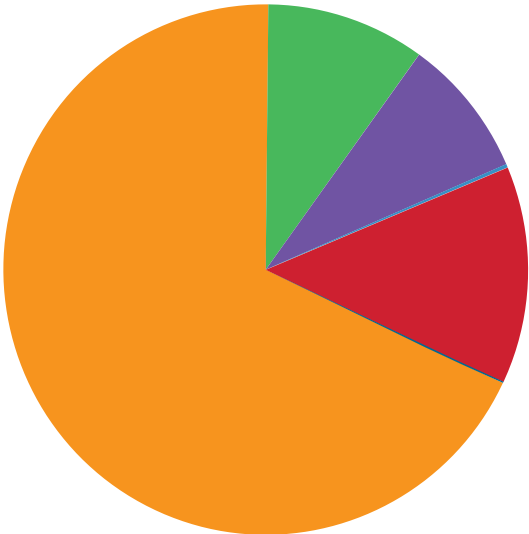


Cotton crop, hydrated with green water, is responsible for 69.03% of the total amount of water necessary for the t-shirt production.

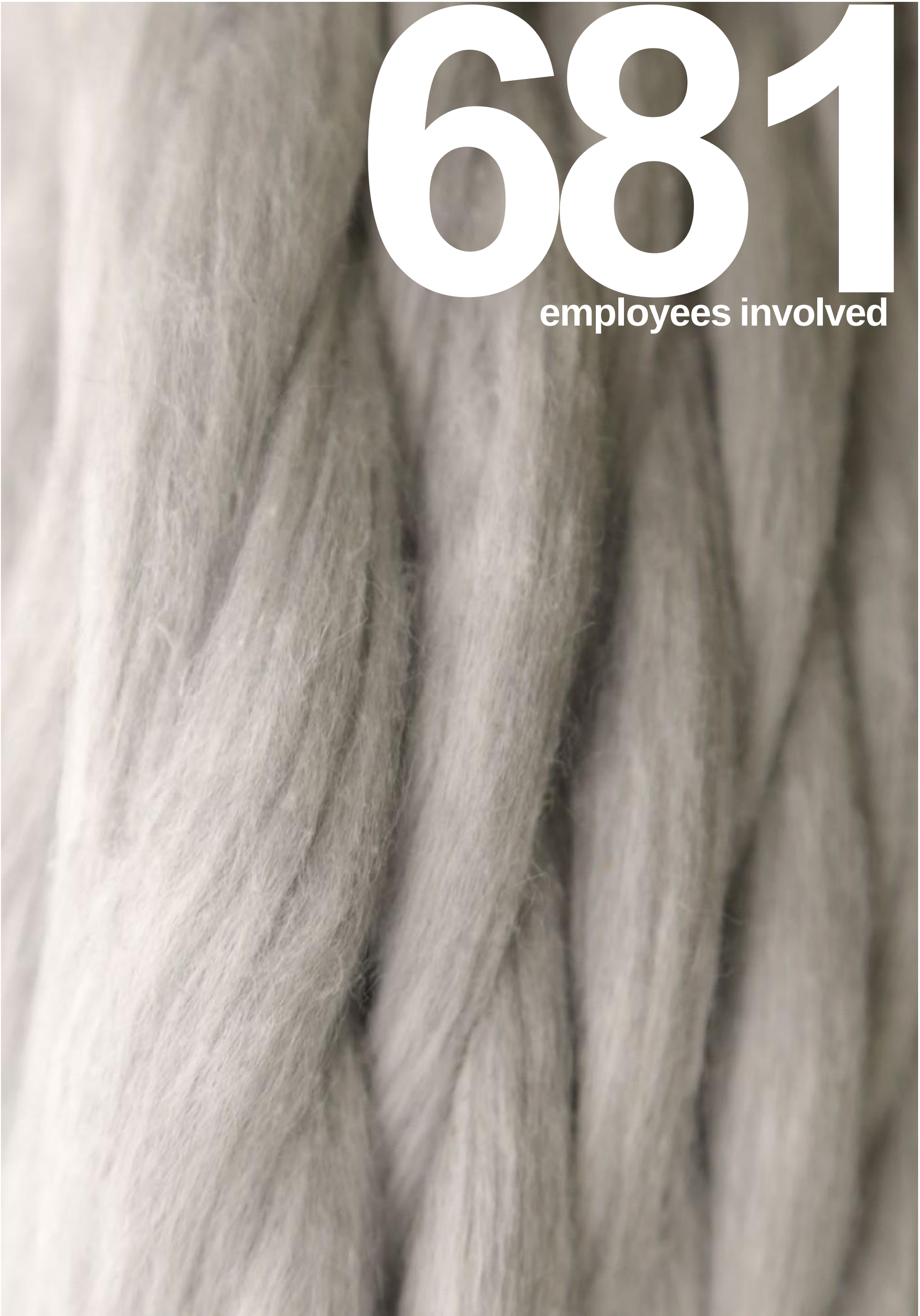
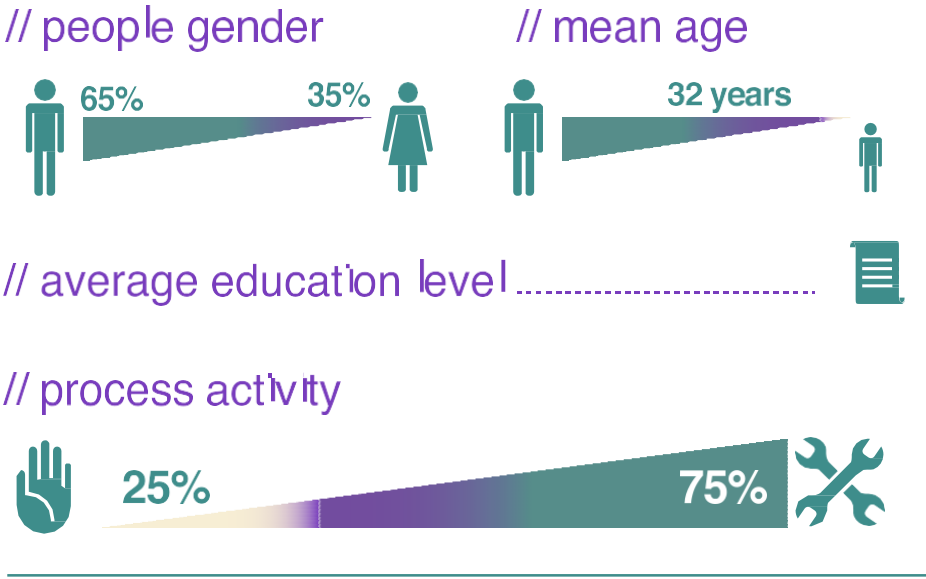


Complete summary of Osklen's T- SHIRTS WF

	GREEN WATER 		BLUE WATER 		GREY WATER 		TOTAL WF	
	l/t-shirt	%	l/t-shirt	%	l/t-shirt	%	l/t-shirt	%
cotton crop	200.6	17.37 %	1709.2	99.8%	225.1	100%	2135.0	69.03%
cotton yarn spinning	375.73	2.52 %	0.00	0%	0.00	%	375.71	12.15%
cotton fabric + t-shirt confection	248.92	1.55 %	0.00	0%	0.00	%	248.9	8.05%
metal parts	0.004	0.0003 %	0.00	0%	0.05	0.02%	0.06	0.002%
paper label	0.03	0.003 %	3.4	0.2%	0.0	0%	3.43	0.11%
use phase	330.02	8.57 %	0.0	0%	0.0	0%	330	10.67%
sub-total (i/product)	1155.2		1712.6		225.2		3093.0	



Cotton yarn





water traces

SOCIAL WATER FOOTPRINT 2012

WATER FOOTPRINT verified by TUV ITALIA SRL

T-SHIRT

Cotton

OSKLEN

// total product water footprint 3.093 L

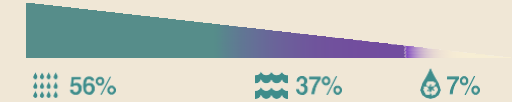
// water footprint by type

GREEN WATER 1.713 L
Volume of the rainwater, evapotranspirated during the crop cycle

BLUE WATER 1.155 L
Volume of fresh water consumed in a process that doesn't return within the same catchment or not immediately

GREY WATER 225 L
Volume of fresh water needed to dilute pollutants to reach defined quality standards

// percentage water footprint



Project developed by:
ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA
OSKLEN
FORUM AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE of suppliers involved in Osklen's production chain of male T-Shirt

// people gender
65% male, 35% female
// mean age
32 years

// average education level 8 years

// process activity
25% basic, 75% machinery

// projects 14

// projects involving employees 9

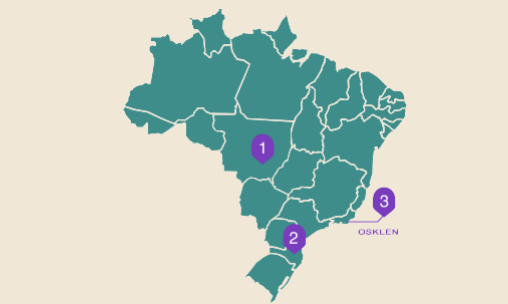
631 basic, 50 machinery, 360 retail

// total employees involved 681

// partners involved in all social projects
public 02 private 02 no profit 02

// regions covered by the product supply chain

1. Rondonópolis • MT
2. Jaraguá do Sul • SC
3. Rio de Janeiro • RJ



basic handmade machinery manufacturing agriculture recycling retail



Awareness can reduce the environmental impact



jeans

// total product
water footprint **3.556 L**



The cotton used in this jeans comes from crops hydrated exclusively by rainwater ("green water"), located in a region of heavy rainfall precipitation. This prevents the depletion of groundwater - what usually happens when irrigation is thoroughly used.

Mato Grosso is the biggest cotton producer in Brazil and “**green water**” is used to hydrate the crops



691 employees involved



JEANS PRODUCTION CHARTS

- // regions covered by the product supply chain
- 1. Campo Verde •MT
 - 2. Alabama •EUA
 - 3. Americana •SP
 - 4. Cianorte •PR
 - 5. Cianorte •PR
 - 5. Rio de Janeiro •RJ OSKLEN

basic

handmade

machinery

manufacturing

agriculture

recycling

retail

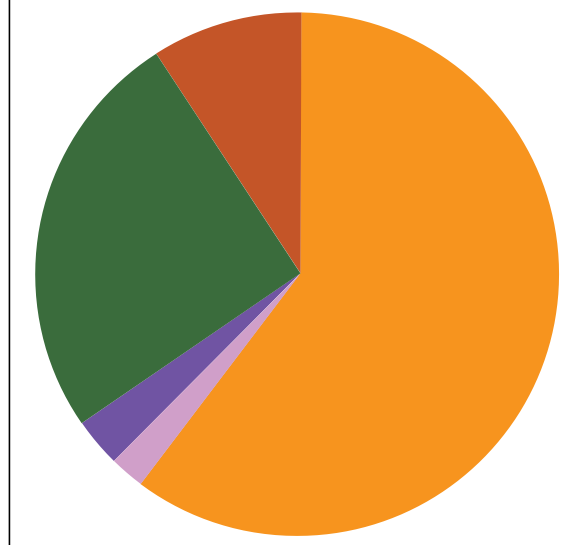
// employees involved 691





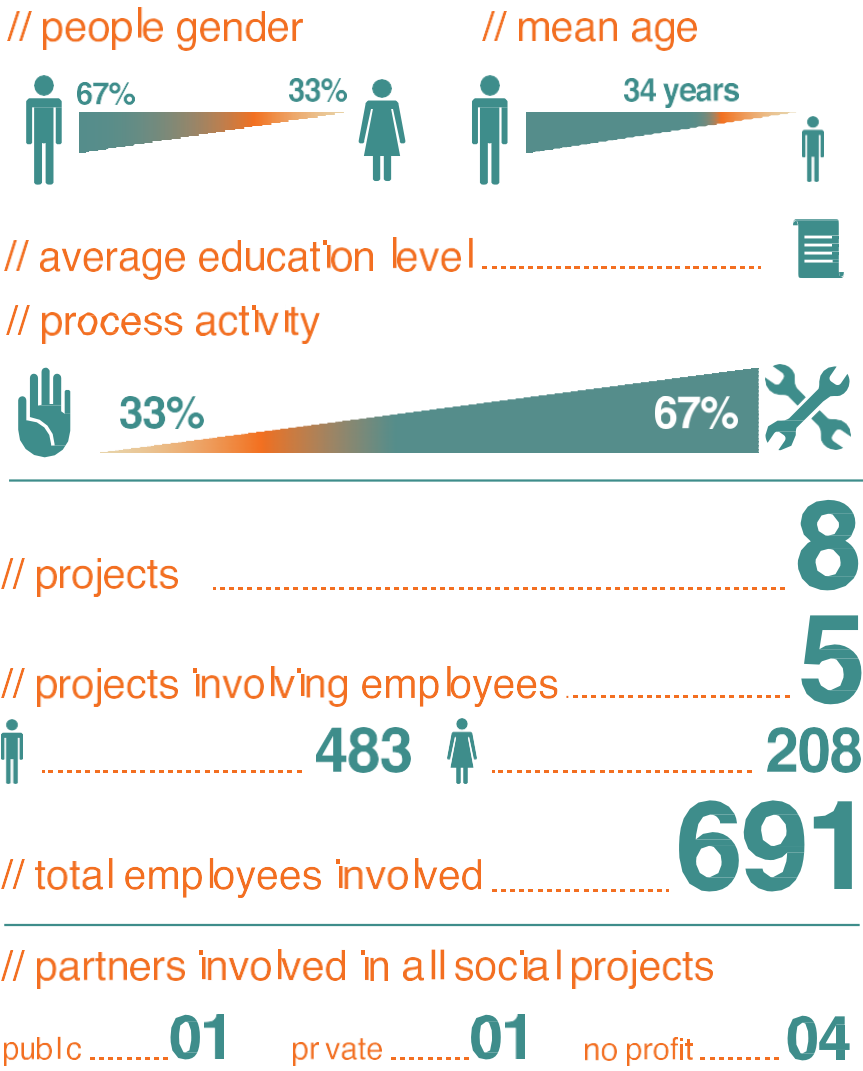
Complete summary of Osklen's
JEANS WF

	GREEN WATER		BLUE WATER		GREY WATER		TOTAL WF	
	l/product	%	l/product	%	l/product	%	l/product	%
cooperfibra cotton fields	1443.63	62.83%	336.63	46.98%	364.95	85.20%	2145.21	60.32%
cooperfibra-fiber and spinning	0	0%	0.02	0%	0.00	0%	0.02	0%
lyocell yarn producer	17.71	3.14%	0.74	0.10%	0.00	0%	72.79	2.05%
tavex	25.55	21.91%	91.04	78.07%	0.02	0.02%	116.62	3.28%
metal parts producer	0	0%	0.41	0.06%	0.03	0.01%	0.45	0.01%
paper label producer	3.40	0.15%	0.03	0%	0	0%	3.44	0.10%
pl conf.	0	0%	8.32	1.16%	0.00	0%	8.32	0.23%
lavinorte	778.74	33.89%	40.58	5.66%	63.34	14.79%	882.66	24.82%
use phase	0	0%	326.73	45.60%	0.00	0%	326.73	9.19%
sub-total (l/product)	2323.38		804.50		428.33		3556.2	

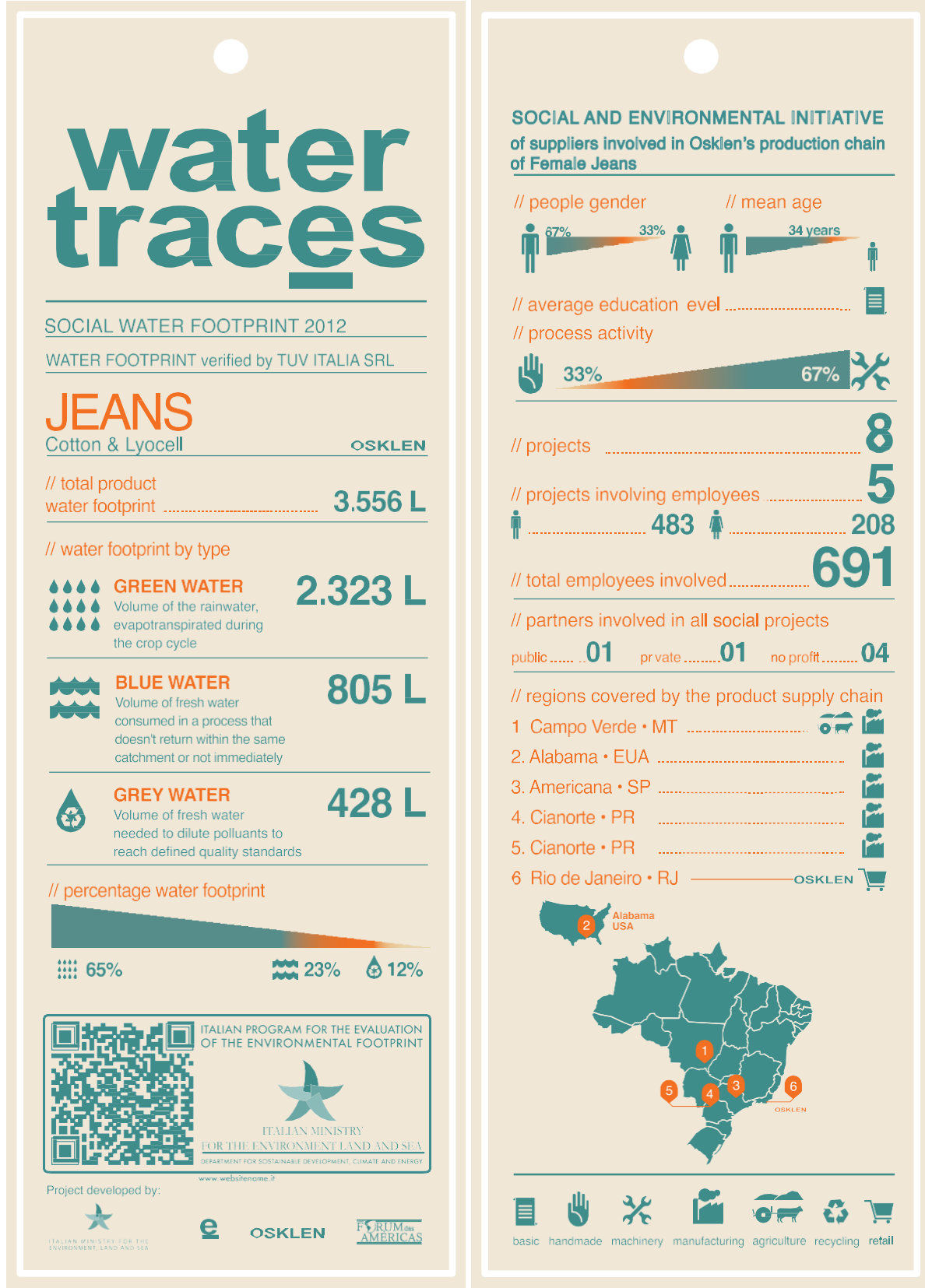


The production chain generates
thousands of job opportunities





Sewage
treatment plant





straw bag

// total product
water footprint 4.878 L



The sustainable handling of the productive process makes each resource explored in a way that does not harm the environment. It uses cocoons that have been discarded by the industrial process and silkworm residues, which cover the soil, avoid erosion and increase its fertility. This kind of processing generates incomes for craftsmen's families, stimulating the regain of the manual threading tradition. Besides that, the dying process uses only vegetable dyes.



STRAW BAG PRODUCTION CHARTS

// regions covered by the product supply chain

- 1. Londrina •PR
- 2. Maringá •PR
- 3. Fortaleza •CE
- 4. Rio de Janeiro •RJ

basic handmade machinery manufacturing agriculture recycling retail

// employees involved **387**



Organic silk made from cocoons that were rejected by the industry and are dyed with natural material





// average education level.....



// projects 9

// projects involving employees 6

105 282 80

// total employees involved 387

// partners involved in all social projects

public 01 pr vate 01 no profit 02



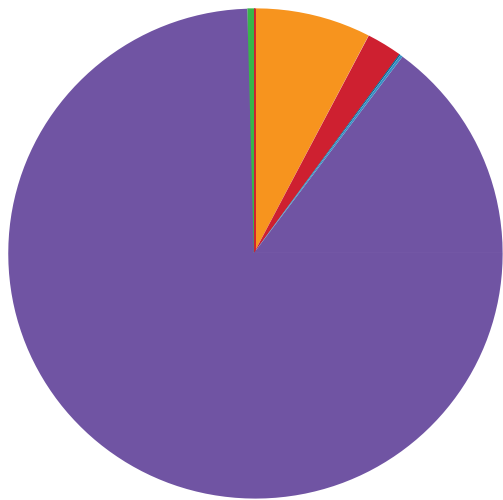
employees involved

387



Complete summary of Osklen's
STRAW BAG

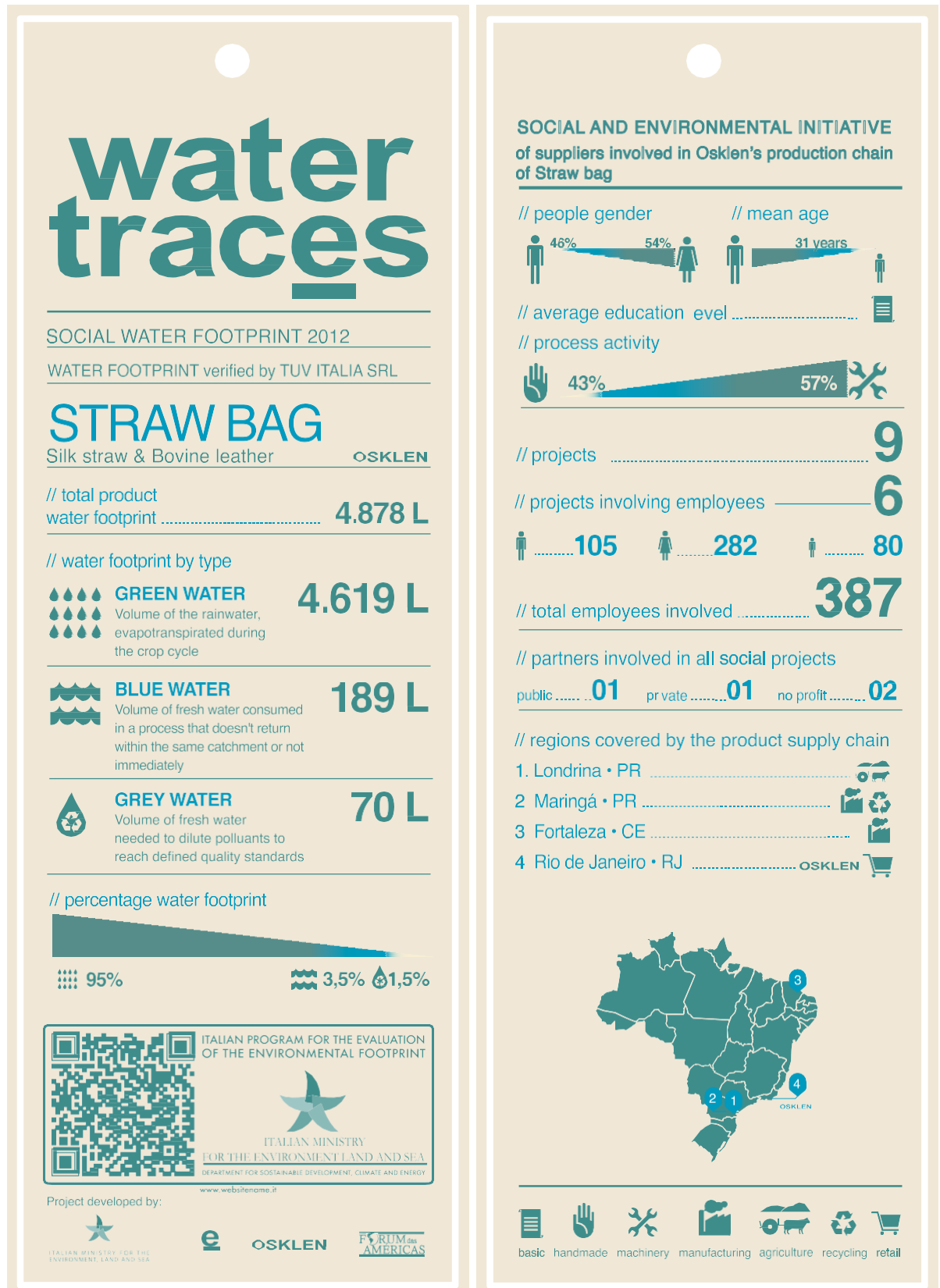
	GREEN WATER 		BLUE WATER 		GREY WATER 		TOTAL WF	
	l/product	%	l/product	%	l/product	%	l/product	%
bratac agricultural	262.5	5.7%	60.24	31.9%	51.58	73.5%	374.32	7.7%
bratac, processing	58.03	1.3%	47.19	25%	00	%	105.22	2.2%
leather part	4,295.47	93.0%	57.29	30.3%	18.42	6.2%	248.9	89.6%
metal part	0	0%	2.0	1.1%	0.16	0.2%	0.06	0.04%
casulo feliz, processing	0	0%	22.03	11.7%	0.0	0%	3.43	0.5%
paper label	3.4	0.1%	0.03	0%	0.0	0%	330	0.1%
sub-total (l/product)	4,619.41		188.77		70.14		4,878.32	



95%

it's the percentage of
“green water” used





Organic silk + Bovine leather



tennis shoes

// total product
water footprint **4.770 L**



The leather of this shoe has its origin from cattle farms located in regions distant from forests, thus it does not represent a threat to the preservation and conservation of Brazilian ecosystems.



TENNIS SHOES PRODUCTION CHARTS

// regions covered by the product supply chain

- 1. Campo Grande •MS  
- 2. Franca •SP 
- 3. Franca •SP 
- 4. Franca •SP 
- 5. Rio de Janeiro •RJ  





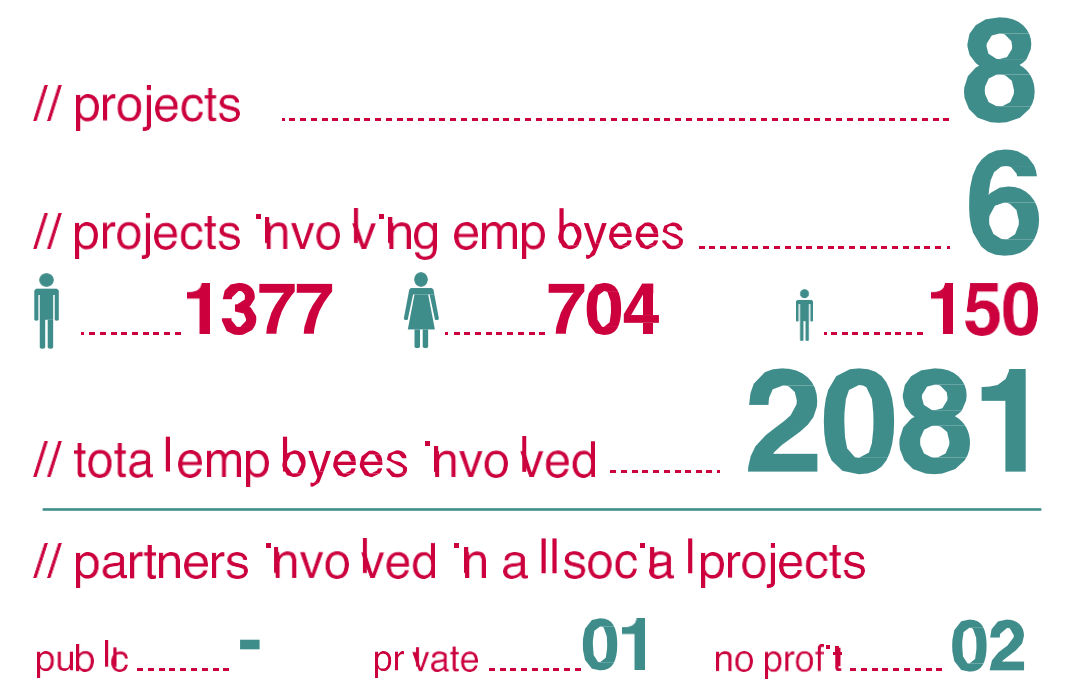
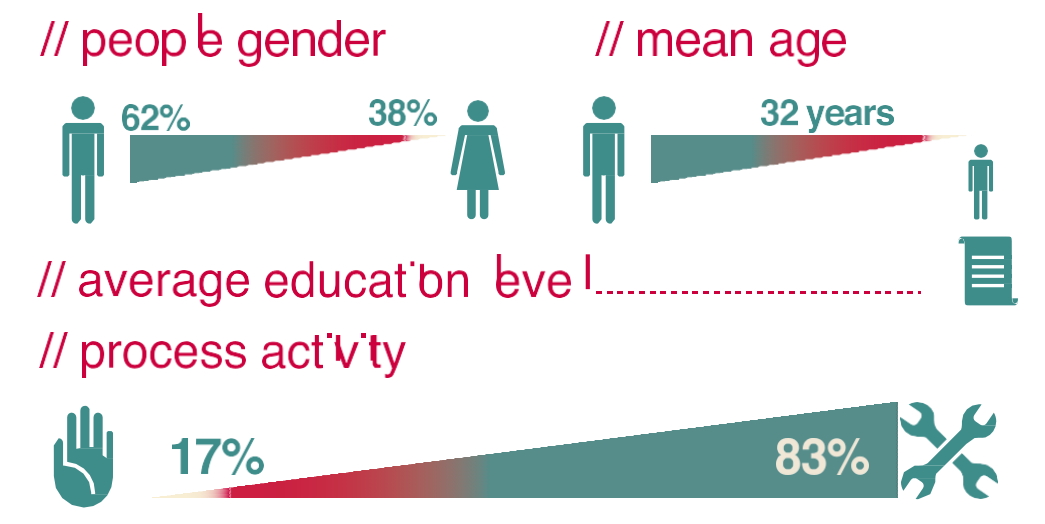




basic handmade machinery manufacturing agriculture recycling retail

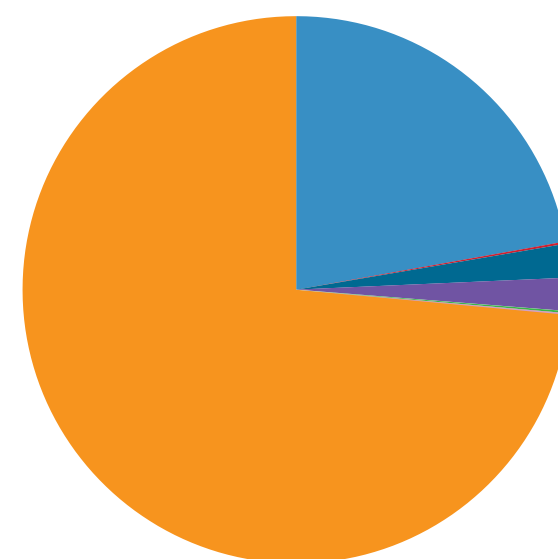
// employees involved **2081**





Complete summary of Osklen's TENNIS SHOES

	GREEN WATER		BLUE WATER		GREY WATER		TOTAL WF	
	/product	%	/product	%	/product	%	/product	%
raw skin production	3,448.97	76.9%	31.79	14.44%	14.96	24.1%	3,495.72	73.3%
wet leather production	3.25	0.1%	0.64	0.29%	5.62	9.1%	9.51	0.2%
final leather production	17.71	0.4%	1.30	0.59%	0.26	0.1%	19.05	0.4%
product assembling	0	0%	86.1	39.10%	0.0	0%	86.1	1.8%
cotton parts, shoelace	82.24	1.8%	2.58	1.17%	20.91	33.7%	105.73	2.2%
rubber part, sole	932.34	20.8%	97.75	44.39%	20.46	33.0%	1,050.56	22.0%
paper label	3.4	0.1%	0.03	0.01%	0.0	0%	3.43	0.1%
sub-total (l/product)	4,487.91		220.19		61.99		4,770.10	





water traces

SOCIAL WATER FOOTPRINT 2012
WATER FOOTPRINT verified by TUV ITALIA SRL

TENNIS SHOES

Varnish bovine leather **OSKLEN**

// total product water footprint **4.770 L**

// water footprint by type

GREEN WATER **4.488 L**
Volume of the rainwater, evapotranspired during the crop cycle

BLUE WATER **220 L**
Volume of fresh water consumed in a process that doesn't return within the same catchment or not immediately

GREY WATER **62 L**
Volume of fresh water needed to dilute pollutants to reach defined quality standards

// percentage water footprint

94% 5% 1%

ITALIAN PROGRAM FOR THE EVALUATION OF THE ENVIRONMENTAL FOOTPRINT
ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA
DEPARTMENT FOR SUSTAINABLE DEVELOPMENT, CLIMATE AND ENERGY
www.mise.it/en/ef

Project developed by:
ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA
OSKLEN
FORUM AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE of suppliers involved in Osklen's production chain of Tennis Shoes

// people gender // mean age

62% 38% 32 years

// average education level
// process activity

17% 83%

// projects **86**

// projects involving employees
1377 **704** **150**

// total employees involved **2081**

// partners involved in all social projects

public pr vate **01** no profit **02**

// regions covered by the product supply chain

1 Campo Grande • MS
2 Franca • SP
3 Franca • SP
4 Franca • SP
5 Rio de Janeiro • RJ **OSKLEN**

1 2 3 4 5

basic handmade machinery manufacturing agriculture recycling retail



TUV is one of the world's leading technical service organizations.

Headquartered in Munich, Germany and founded in 1866, TÜV SÜD is represented by more than 17,000 employees across 800 locations, partnering clients wherever they are in the world.



TUV for OSKLEN

TÜV Italia has performed verification of the Water Footprint Assessment related to four products from OSKLEN. The review has been performed against the principles and methods presented in the Water Footprint Assessment Manual, Water Footprint Network 2011.







water traces

SOCIAL ENVIRONMENTAL AND WATER FOOTPRINT PROJECT

IMELS

Corrado Clini Director General for Sustainable Development, Energy and Climate

Martina Hauser Coordinator Environmental Footprint Task Force

Fiamma Valentino Project Coordinator

Ivana Radulovic Water Footprint Expert

Vladimir Stefanovic Water Footprint Expert

Instituto e

Oskar Metsavaht President

Nina A. Braga Director

Renata Koga Manager

Lucas Cabral Trainee

Fernanda Felix Administrative assistant

Érika Helena Financial assistant

Osklen

Oskar Metsavaht Creative Director

Eduardo Varela Creative Coordinator

Hilnando Mendes Film Coordinator

Loran Film Editor

Renata Gonçalves Project Coordinator

Rafo Castro Graphic Design

Leonardo Rodrigues Digital Media

CAPELLINI design & consulting

Marco Capellini – CEO

Senai-Cetiq

Adriano Alves Passos Textile Chemist Specialist

Enio Soares Project Manager

José Simas de Miranda Textile specialist

Richard Maciel Environmental specialist

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