traces

SOCIAL ENVIRONMENTAL AND CARBON FOOTPRINT PROJECT

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

ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA

FORUM das AMERICAS

instituto e

OSKLEN

www.tracesefabrics.org

STATEMENTS

Corrado Clini
Minister for the Environment,
Land and Sea of Italy

The project of the Italian Ministry for the Environment and of Instituto e / OSKLEN is a "best practice" of public-private cooperation between a public institution of a developed country and a private company based in a "developing – emerging" economy.

The project is finalized to account the social and environmental impacts in textile production, a sector which currently employs more than 30 million people in developing countries and significantly contributes to land, water and energy consumption, with one of the most important carbon and social footprint in the manufactory industry.

Working together, the Italian and Brazilians experts are addressing the complex linkages in the poorest areas of the economic growth with the protection of the environment as well as of the workplace conditions.

Protection of the environment and social development should jointly guide the economic growth in the developing world.

Oskar Metsavaht
President of the Instituto e

Each day I feel more assured about the necessity and urgency to take actions which can really make a difference, either locally or globally. That's why I created Instituto e, aiming to promote, among several other projects, sustainable materials which can be used by the fashion and textile industry. It definitely has the potential to be a turning point for these economic activities because the e-fabrics is capable of joining knowledge, art and science, collaborating so that people can have a better life in this millennium. And that is exactly what we need now because we are running out of time to really act the way we should: as guardians of this planet towards its preservation. This generation is living in one of the most important periods of civilization. We are in a moment of transition and it's up to us to make a choice, to preserve our life on Earth, instead of destroying it.

Therefore, I couldn't be happier and prouder to participate in such an important project, developed in partnership by Instituto e and IMELS. Its originality, as well as its relevance proofs that being sustainable is more than an option: actually it's a strategic must-do that shows the path to become, with creativity and productivity, earth-brigaders or, in other terms, guardians of the planet.

Mario Garnero
Chairman of Fórum das Américas

The great global environmental leader, Corrado Clini, heads the project on behalf of the Italian Government. It will certainly become a hallmark for best practices in the vibrant fashion industry.

For us at Fórum das Américas, this initiative adds an important layer to our contribution for sustainable products. We were pioneers as the entrepreneurial force behind Brazil's biofuels program. This new cooperation will not only produce late technology textiles, but also raise awareness to environmental causes.

We are proud of our long-standing tradition in building a greener economy, especially as we led the industrial programs for the production of alcohol-fueled engines. That is why for Fórum das Américas this initiative will reach beyond the borders of fashion world and bring a new dimension to Brazil's sustainable development.

SOCIAL ENVIRONMENTAL AND CARBON FOOTPRINT PROJECT

traces



Symbolic and innovative, this cooperation project between Italy and Brazil traced the carbon footprint and the social and environmental impacts of six Osklen products made of e-fabrics sustainable materials: **pirarucu leather, organic cotton, eco-jute canvas, recycled fabric, organic silk and recycled cotton and PET.**

Experts from both countries crossed Brazil from North to South for months to study the supply chain of each of these six products from raw materials source until products end-of-life.The purpose was to provide sustainable models, improve social initiatives and to evaluate greenhouse gas emissions, as well as to identify possible mitigation measures to minimize environmental impacts.

The results indicate that tens of thousands of workers benefit from these sustainable processes improving their quality of life. And the project also contributes to the preservation of our forests, a world heritage site.

CARBON FOOTPRINT	PER PRODUCT	TOTAL PRODUCT PRODUCTION
Pirarucu Leather Bag	38.674 $grCO_2eq$	3.519 $kgCO_2eq$
Silk Tennis Shoes	10.704 $grCO_2eq$	7.878 $kgCO_2eq$
Eco Canvas Dock Side	4.874 $grCO_2eq$	1.569 $kgCO_2eq$
WWF Jute Bag	18.943 $grCO_2eq$	3.787 $kgCO_2eq$
Recycled pet and cotton Backpack	15.100 $grCO_2eq$	1.510 $kgCO_2eq$
Organic Cotton T-shirt	4.081 $grCO_2eq$	6.823 $kgCO_2eq$

TOTAL RESULTS FOR ALL SIX PRODUCTS	
Carbon footprint of all six products	92.376 $grCO_2eq$
Carbon footprint for whole production of chosen six products	25.086 $kgCO_2eq$

IMELS

ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA

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

In Italy, it has promoted more than 900 projects for the evaluation of climate change impacts a regional scale (Mediterranean and Alpine Regions), research and development in low environmental impact technologies for energy and transport, local sustainable development; information, building capacity and environmental education.

In this framework, a wide initiative was launched in 2009 for the measurement of ecological and carbon footprint in several industrial sectors and goods distribution, as well as in the public sector.

ITALIAN MINISTRY FOR THE
ENVIRONMENT, LAND AND SEA

INSTITUTO-E

Instituto e believes that sharing information is the first step in contributing to human development. Its main objective is making use of an alternative and multimedia language to direct society´s energy. It will then allow for protection of our biodiversity, the right to information and education, as well as cultural heritage. The Instituto e's mission is to promote a sustainable human development, through the establishment and management of a network that strengthens synergies between different initiatives and actors in society.

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

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

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

Millennium Development Goals
Knowledge to promote social inclusion and collective volution respecting the environment.
education

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

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

E-FABRICS

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

OSKLEN

Osklen represents man and woman's modern lifestyle, in a world where city and nature, global and local, organic and technologic ecosystems coexist.
The brand is recognized in Brazil and abroad by its innovative design and differentiated raw materials, always in the avant-garde of international fashion.

It is the integrated perception of nature, culture, and society, associated with refined aesthetics, which considers Osklen as one of the ten most influential and inspiring brands in the world, by WGSN, and indicated as "Future Maker" by WWF-UK.

It's casual chic style stores are widespread in Brazil, Latin America, Europe, United States, and Japan, which sell more than clothes. An authentic and genuine Brazilian lifestyle, is also, contemporary and cosmopolitan.

Besides, its creator – Oskar Metsavaht – founded the Instituto e and has been sponsering the e-fabrics project for many years.



pirarucu

It is a fish used basically for feeding purposes. Its skin usually represents a waste from the food industry and causes biological pollution when discharged.
Pirarucu capture is made in a sustainable way respecting nature's laws and fish reproduction periods.

// carbon footprint
ton CO_2 eq **0,039t**





PIRARUCU BAG PRODUCTION CHARTS

// regions covered by the product supply chain

1. Ilha de Marajó • PA
2. Belém • PA
3. Três Rios • RJ
4. Franca • SP
5. Rio de Janeiro • RJ

OSKLEN

// production activities

agriculture manufacturing fishing recycling handmade

// projects 5









// share of CO_2 emissions by source

88.8%	8.7%	1.1%	< 0.1%	1.4%
energy	materials	transport	waste	use phase end-of-life

// social environmental network

comunities

// main social initiatives

education environmental partnerships for quality of life

184

local people involved in the process



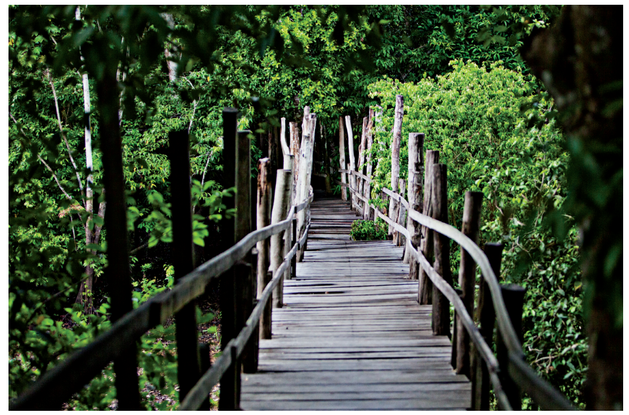
Mexiana Island, Marajó archipel.
Checking the fishing conditions of pirarucu.





mitigation action:

In Mexiana Island for the benefit of more than **100 families**, we are replacing the **pollutant diesel** with **solar energy.**





Locals only fish during time which permitted, according to MMA-Ibama rules:
no fish under 1.50m is caught.





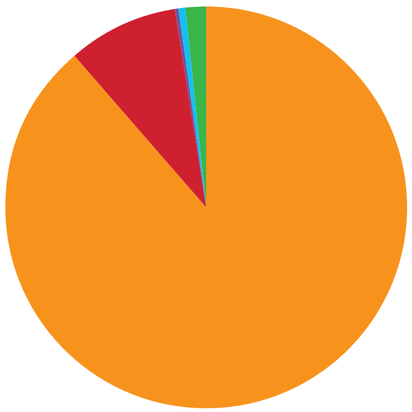


PIRARUCU BAG

The carbon footprint of one Pirarucu Bag is 38.674gr CO_2eq, while for the total production the GHG emissions have a value of 3.519kg CO_2eq.

GHG EMISSIONS ($grCO_2eq$)*		%
from energy consumption	34.351	88,8
from materials used	3.357	8,7
from transport of materials used	130	0,35
from products distribution	281	0,75
from waste management	0,35	< 0,1
from use phase and end-of-life	555	1,4

*Carbon footprint for one Pirarucu Bag .



The share of each emission source in the total GHG emissions balance for one pirarucu bag.

<0,1%

the percentage of GHG emissions from waste generation and management in the supply chain of 1 pirarucu bag



The transformation of the material which would normally become residue, is turned into a fashion accessory, generating jobs and incomes for hundreds of workers.





traces

e-fabrics

SOCIAL ENVIRONMENTAL CARBON FOOTPRINT

PIRARUCU BAG

pirarucu fish leather recycled from the waste of food industry

// carbon footprint

ton CO_2 eq **0,039t**

// share of CO_2 emissions by source

88.8%	8.7%	1.1%	< 0.1%	1.4%
energy	materials	transport	waste	use phase end-of-life

Product carbon footprint expressed through distance travelled by small passenger car

0 — 1.000km

bag — small car

Carbon footprint data certified by Rina

A project to neutralize the CO_2 emissions due to the production of this Osklen e-fabric product is planned to be developed in Mexiana island – Marajo's archipelago. The project is aimed to support the sustainable development of the community of Santo Ambrosio's farm, through the substitution of fossil fuel with renewable energies.

tracesefabrics.org

Project developed by:

ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA · instituto e · OSKLEN · FORUM for the AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE
of suppliers involved in Osklen's production chain of pirarucu bag

Data according to:
U.N. MILLENIUM DEVELOPMENT GOALS

// projects **5**

// people involved **184**

// social environmental network

comunities

// main social initiatives

education · environmental · partnerships for quality of life

// regions covered by the product supply chain

1. Ilha de Marajó • PA .....
2. Belém • PA .....
3. Três Rios • RJ .....
4. Franca • SP .....
5. Rio de Janeiro • RJ ..... OSKLEN



// production activities

agriculture · manufacturing · fishing · recycling · handmade





Osklen's e-fabrics products:

ethics + aesthetics
= new luxury





organic cotton



Organic cotton is obtained through sustainable systems, by managing and protecting natural resources. Contrary to conventional cotton crops – which use 25% of the agro-chemicals in the world – organic cultivation does not employ chemical fertilizers. It maintains soil fertility which preserves biodiversity.







ORGANIC COTTON T-SHIRT PRODUCTION CHARTS

// regions covered by the product supply chain

1. Campina Grande • PB
2. Andirá • PR
3. Jaraguá do Sul • SC
4. Rio de Janeiro • RJ

OSKLEN

// production activities

agriculture manufacturing fishing recycling handmade

// projects **4**





2,6%

the percentage of GHG emissions from transport in the supply chain of one organic cotton t-shirt

T-SHIRT

The carbon footprint of one T-shirt is 4.081gr CO_2eq, while for the total production the GHG emissions have a value of 6.823kg CO_2eq.

GHG EMISSIONS ($grCO_2eq$)*		%
from energy consumption	1.771	43,4
from transport used	603	14,8
from transport of materials used	15	0,4
from products distribution	92	2,25
from waste management	2	< 0,1
from use phase and end-of-life	1.598	39,2

*Carbon footprint for one T-shirt



The share of each emission source in the total GHG emissions balance for one T-shirt.

// share of CO_2 emissions by source

43.4%	14.8%	2.6%	< 0.1%	39.2%
energy	materials	transport	waste	use phase end-of-life

// social environmental network

NGO and institution

cooperative

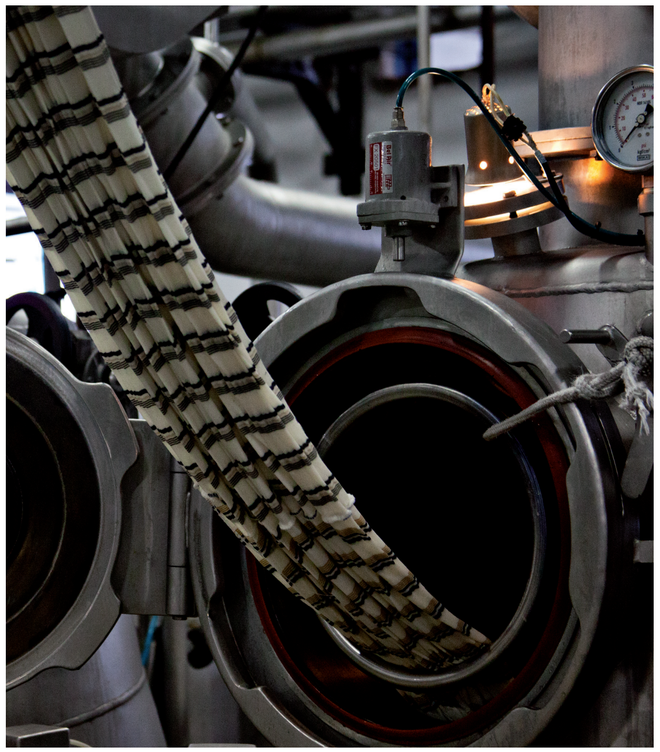
// main social initiatives

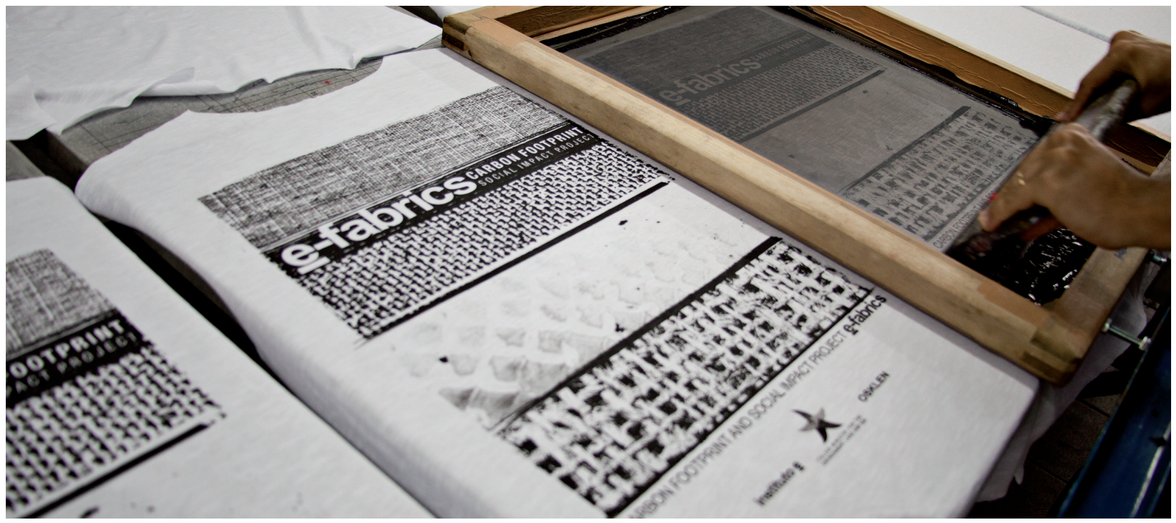
education

environmental

partnerships for quality of life

health assistance





The production of organic cotton gives a boost to family farming, by creating business opportunities, and as a result, generating income.

The sales of organic cotton meets a market demand for quality products manufactured from this material, enabling the consumer to become consciously involved in helping to minimize social and environmental problems and offers ways for people to become integrated into modern society.



traces

e-fabrics

SOCIAL ENVIRONMENTAL CARBON FOOTPRINT

T-SHIRT

organic and natural cotton

// carbon footprint

ton CO_2 eq **0.004t**

// share of CO_2 emissions by source

43.4%	14.8%	2.6%	< 0.1%	39.2%
energy	materials	transport	waste	use phase end-of-life

Product carbon footprint expressed through distance travelled by small passenger car

0 — 1.000km

t-shirt — small car

Carbon footprint data certified by Rina

A project to neutralize the CO_2 emissions due to the production of this Osklen e-fabric product is planned to be developed in Mexiana island – Marajo's archipelago. The project is aimed to support the sustainable development of the community of Santo Ambrosio's farm, through the substitution of fossil fuel with renewable energies.

tracesefabrics.org

Project developed by:

ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA · instituto e · OSKLEN · FORUM AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE
of suppliers involved in Osklen's production chain of organic cotton t-shirt

Data according to:
U.N. MILLENIUM DEVELOPMENT GOALS

// projects **4**

// people involved **509**

// social environmental network

NGO and institution · cooperative

// main social initiatives

education · environmental · partnerships for quality of life · health assistance

// regions covered by the product supply chain

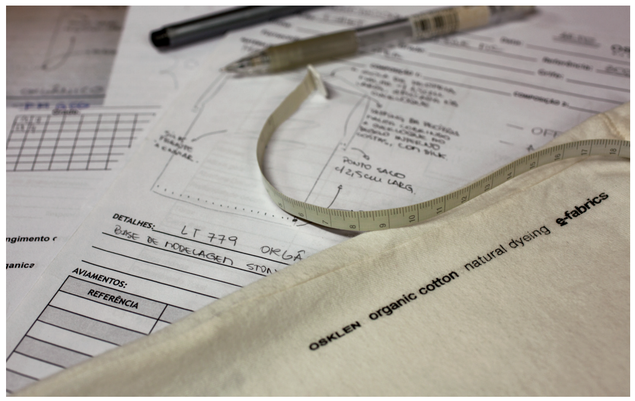
1. Campina Grande • PB
2. Andirá • PR
3. Jaraguá do Sul • SC
4. Rio de Janeiro • RJ

OSKLEN



// production activities

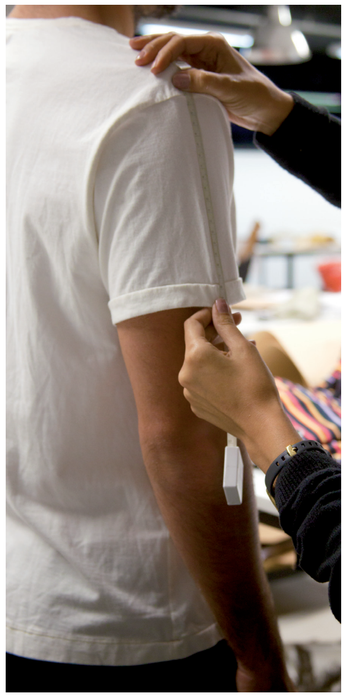
agriculture · manufacturing · fishing · recycling · handmade











organic cotton t-shirt



eco-jute canvas

Developed from jute fiber, a typical Amazon raw material. The seeding and extraction is done in a sustainable way, contributing to the biodiversity preservation in the Amazon region. In addition, this material is easily decomposable, taking two years to disappear, when discarded, while regular cotton takes 10 years and polyester can take up to 100 years.



// carbon footprint
ton CO_2 eq

0,019t



ECO-JUTE BAG PRODUCTION CHARTS

// regions covered by the product supply chain

1. Castanhal • PA
2. São Paulo • SP
3. Pouso Alegre • MG
4. São Gonçalo • RJ
5. Rio de Janeiro • RJ

OSKLEN

// production activities

agriculture manufacturing fishing recycling handmade

// projects 6



Despite the massive importation of jute from Asia, these farmers cultivate the jute on the Amazon river banks, avoiding the erosion made by the water stream. The riverside population finds this activity to be geographically stable without migrating to the urban peripheries.





386

local people involved in the process

Hundreds of workers are involved in socio-environmental responsibility programs as an incentive to education and leisure associations.







// share of CO_2 emissions by source

56.6%	6.7%	32%	0.4%	4.3%
energy	materials	transport	waste	use phase end-of-life

// social environmental network

NGO and institution

// main social initiatives

education · environmental · partnerships for quality of life · inclusion and equality

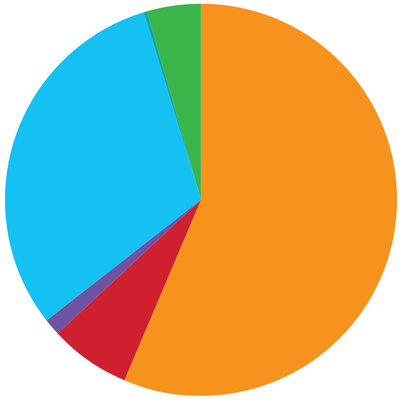
eco-jute e-bag

ECO-JUTE BAG

The carbon footprint of one bag is 18.943gr CO_2eq, while for the total production the GHG emissions have a value of 3.787kg CO_2eq.

GHG EMISSIONS ($grCO_2eq$)*		%
from energy consumption	10.711	56,6
from materials used	1.261	6,7
from transport of materials used	274	1,4
from products distribution	5.803	30,6
from waste management	70	0,4
from use phase and end-of-life	815	4,3

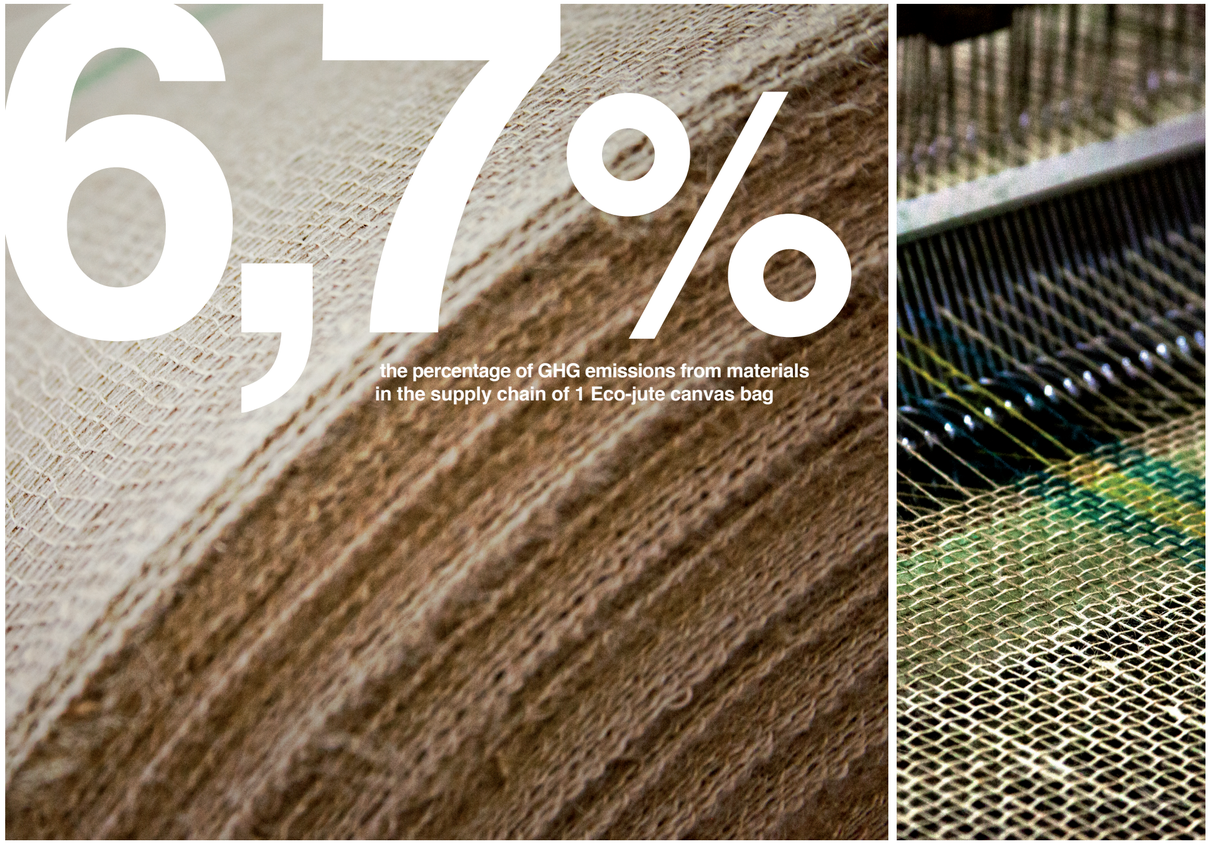
*Carbon footprint for one WWF bag.



The share of each emission source in the total GHG emissions balance for one bag.



Woven in a factory whose effluents post production are cleaner than when they reach the factory. Bags made from jute fabrics, are hand-made by a cooperative located in São Gonçalo - RJ.



Composed mainly of female labor this cooperative activity allows the seamstresses to compliment their housework with a job that generates an income and social inclusion. This cooperative has produced more than 30.000 pieces for Osklen, and one e-bag's model has been sold in MoMA´s Store in New York and Tokyo.





traces

e-fabrics

SOCIAL ENVIRONMENTAL CARBON FOOTPRINT

E-BAG

eco-jute and natural cotton fibers

// carbon footprint
ton CO_2 eq **0.019t**

// share of CO_2 emissions by source

56.6%	6.7%	32%	0.4%	4.3%
energy	materials	transport	waste	use phase end-of-life

Product carbon footprint expressed through distance travelled by small passenger car

0 — 1.000km

bag — small car

Carbon footprint data certified by Rina

A project to neutralize the CO_2 emissions due to the production of this Osklen e-fabric product is planned to be developed in Mexiana island – Marajo's archipelago. The project is aimed to support the sustainable development of the community of Santo Ambrosio's farm, through the substitution of fossil fuel with renewable energies.

tracesefabrics.org

Project developed by:

ITALIAN INSTITUTE FOR THE ENVIRONMENT, LAND AND SEA · instituto e · OSKLEN · FORUM for the AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE
of suppliers involved in Osklen's production chain of E-bag

Data according to:
U.N. MILLENIUM DEVELOPMENT GOALS

// projects **6**

// people involved **386**

// social environmental network

ONG and institution

// main social initiatives

education · environmental · partnerships for quality of life · inclusion and equality

// regions covered by the product supply chain

1. Castanhal • PA
2. São Paulo • SP
3. Pouso Alegre • MG
4. São Gonçalo • RJ
5. Rio de Janeiro • RJ

OSKLEN



// production activities

agriculture · manufacturing · fishing · recycling · handmade



The symbol "e" identifies materials with social and environmental content.



100% recycled fabric

// carbon footprint
ton CO_2 eq

0,005t



In the production process, products that would have been discarded are reused and transformed into an eco-friendly and good quality fabric. Scraps left over from the clothing businesses and PET packaging – responsible for 30% of the solid residues collected in the Brazilian cities – are entirely reused, generating income for the waste pickers. Moreover, the production of this fabric excludes the dyeing phase, thus saving resources.



100% RECYCLED FABRIC DOCKSIDE SHOES PRODUCTION CHARTS

// regions covered by the product supply chain

1. Brusque • SC
2. São Paulo • SP
3. Americana • SP
4. Franca • SP
5. Rio de Janeiro • RJ

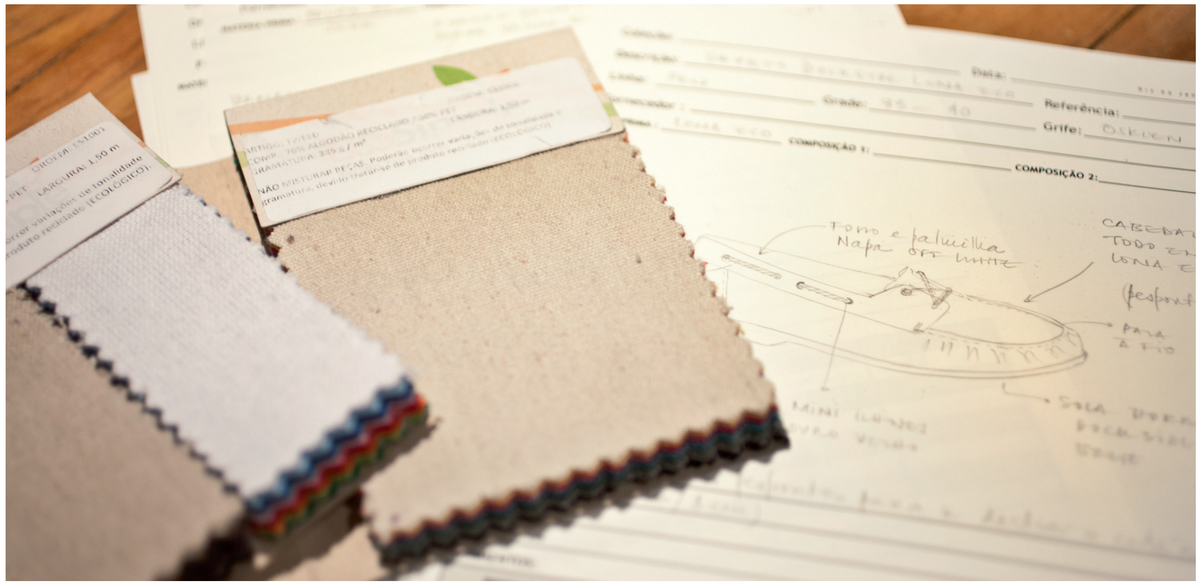
OSKLEN

// production activities

agriculture · manufacturing · fishing · recycling · handmade

// projects **5**











// share of CO_2 emissions by source

37.5%	53.8%	2.1%	< 0.1%	6.6%
energy	materials	transport	waste	use phase end-of-life

// social environmental network

NGO and institution · cooperative

// main social initiatives

education · environmental · partnerships for quality of life · health assistance





traces

2011 e-fabrics
SOCIAL ENVIRONMENTAL CARBON FOOTPRINT

DOCKSIDE SHOES

recycled cotton and recycled PET

// carbon footprint
ton CO_2 eq **0,005t**

// share of CO_2 emissions by source

37.5%	53.8%	2.1%	< 0.1%	6.6%
energy	materials	transport	waste	use phase end-of-life

Product carbon footprint expressed through distance travelled by small passenger car

0 — 1.000km

shoes — small car

Carbon footprint data certified by Rina

A project to neutralize the CO_2 emissions due to the production of this Osklen e-fabric product is planned to be developed in Mexiana island – Marajo's archipelago. The project is aimed to support the sustainable development of the community of Santo Ambrosio's farm, through the substitution of fossil fuel with renewable energies.

tracesefabrics.org

Project developed by:

instituto e OSKLEN FORUM AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE
of suppliers involved in Osklen's production chain of dockside shoes

Data according to:
U.N. MILLENIUM DEVELOPMENT GOALS

// projects 5

// people involved 325

// social environmental network

NGO and institution — cooperative

// main social initiatives

education — environmental — partnerships for quality of life — health assistance

// regions covered by the product supply chain

1. Brusque • SC
2. São Paulo • SP
3. Americana • SP
4. Franca • SP
5. Rio de Janeiro • RJ

OSKLEN



// production activities

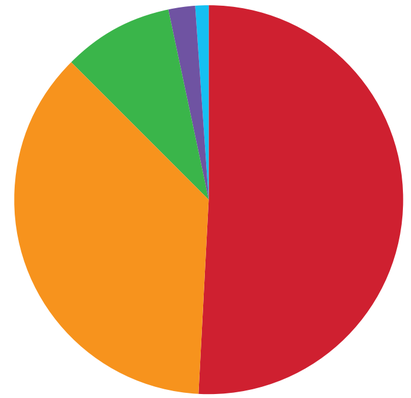
agriculture — manufacturing — fishing — recycling — handmade

100% RECYCLED FABRIC DOCKSIDE SHOES

The carbon footprint of one DockSide Shoes is 4.874gr CO_2eq, while for the total production the GHG emissions have a value of 1.569kg CO_2eq.

GHG EMISSIONS ($grCO_2eq$)*		%
from energy consumption	1.828	37,5
from materials used	2.620	53,8
from transport of materials used	47	2,1
from products distribution	56	1,1
from waste management	0.57	<0,1
from use phase and end-of-life	323	10,2

*Carbon footprint for one pair of Dockside shoes .



The share of each emission source in the total GHG emissions balance for one pair of dockside shoes



organic silk

// carbon footprint
ton CO_2 eq

0,011t



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 it´s fertility. This kind of processing generates income for craftsmen's families, stimulating the regain of the manual threading tradition. Besides that, the dyeing process uses only natural coloring.



The feeding of silkworms is 100% organic





ORGANIC SILK TENNIS SHOES PRODUCTION CHARTS

// regions covered by the product supply chain

1. Londrina • PR
2. Maringá • PR
3. Franca • SP
4. Rio de Janeiro • RJ OSKLEN

// production activities

agriculture · manufacturing · fishing · recycling · handmade

// projects 12

This farm is located in a community on the outskirts of Maringa-PR and represents an opportunity for people looking for job.



// share of CO_2 emissions by source

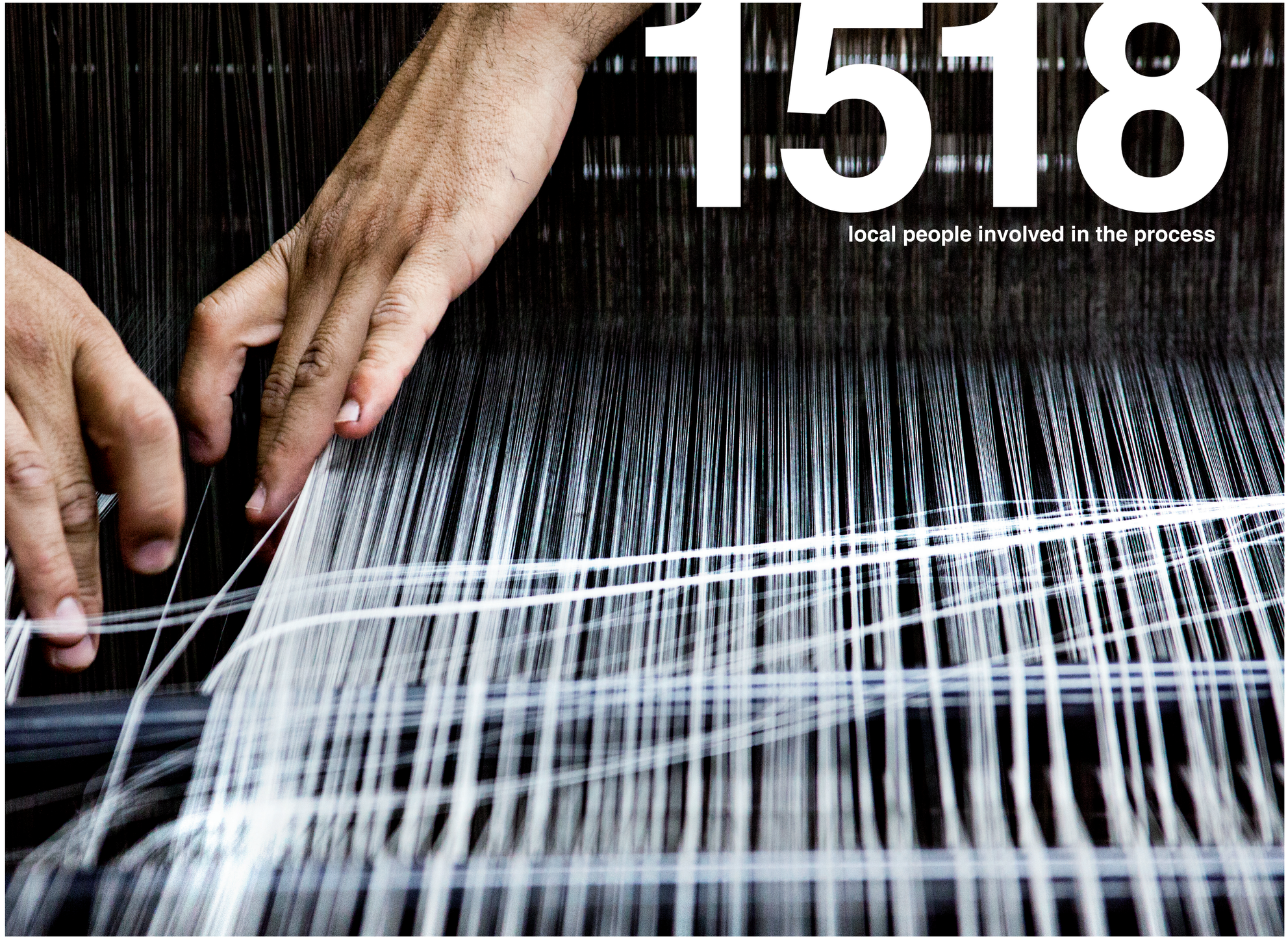
3.2%	50.1%	36.5%	6.2%	< 0.1%	4%
agriculture	energy	materials	transport	waste	use phase end-of-life

// social environmental network

social group | NGO and institution | cooperative

// main social initiatives

education | environmental | partnerships for quality of life | health assistance | inclusion and equality







The workforce is composed of weavers and ex prisoners who learned this craft in prison. The looms are manual, therefore consuming less energy and preserving traditional knowledge.











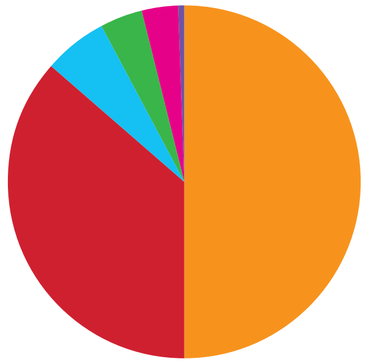
The dyeing process utilizes exclusively natural dyes.

ORGANIC SILK TENNIS SHOES

The carbon footprint of one Tennis Shoes is 10.704gr CO_2eq, while for the total production the GHG emissions have a value of 7.878kg CO_2eq.

GHG EMISSIONS ($grCO_2eq$)*		%
from agriculture	343	3,2
from energy consumption	5.363	50,1
from materials used	3.903	36,4
from transport of materials used	49	0,5
from products distribution	616	5,8
from waste management	2	<0,1
from use phase and end-of-life	428	4

*Carbon footprint for one pair of Silk tennis shoes.



The share of each emission source in the total GHG emissions balance for pair of silk tennis shoes.





traces

g-fabrics

SOCIAL ENVIRONMENTAL CARBON FOOTPRINT

TENNIS SHOES

organic silk

// carbon footprint
ton CO_2 eq **0.011t**

// share of CO_2 emissions by source

3.2%	50.1%	36.5%	6.2%	< 0.1%	4%
agriculture	energy	materials	transport	waste	use phase end-of-life

Product carbon footprint expressed through distance travelled by small passenger car

0 — 1.000km

shoes — small car

Carbon footprint data certified by Rina

A project to neutralize the CO_2 emissions due to the production of this Osklen e-fabric product is planned to be developed in Mexiana island – Marajo's archipelago. The project is aimed to support the sustainable development of the community of Santo Ambrosio's farm, through the substitution of fossil fuel with renewable energies.

tracesefabrics.org

Project developed by:

ITALIAN MINISTRY FOR THE ENVIRONMENT, LAND AND SEA · instituto e · OSKLEN · FORUM DAS AMERICAS

SOCIAL AND ENVIRONMENTAL INITIATIVE
of suppliers involved in Osklen's production chain of tennis shoes

Data according to:
U.N. MILLENIUM DEVELOPMENT GOALS

// projects **12**

// people involved **1518**

// social environmental network

social group · ONG and institution · cooperative

// main social initiatives

education · environmental · partnerships for quality of life · health assistance · inclusion and equality

// regions covered by the product supply chain

1. Londrina • PR ..... OSKLEN
2. Maringá • PR .....
3. Franca • SP .....
4. Rio de Janeiro • RJ .....



// production activities

agriculture · manufacturing · fishing · recycling · handmade







organic silk shoes



recycled cotton & pet

Pet is the one of the most pollutant materials filling up landfills in Brazil. Plastic bottles represent more than 30% of waste collected and their reuse in the textile industry helps reduce environmental impacts, while generating income for the waste pickers. Furthermore, as a social result this process gives an alternative revenue to the seamstresses.



// carbon footprint
ton CO_2 eq

0,015t

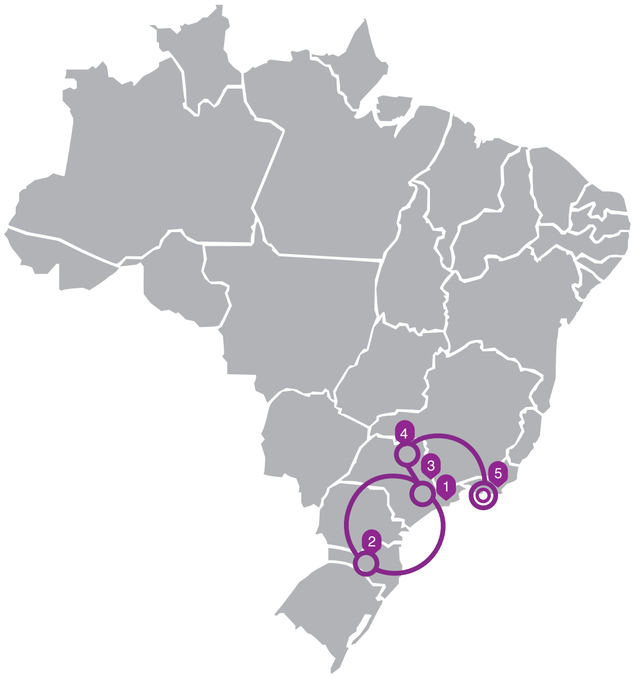






204

local people
involved in the process



RECLYCLED COTTON & PET BACKPACK PRODUCTION CHARTS

// regions covered by the product supply chain

1. São Paulo • SP
2. Brusque • SC
3. São Paulo • SP
4. Itatiba • SP
5. Rio de Janeiro • RJ — OSKLEN

// production activities

agriculture · manufacturing · fishing · recycling · handmade

// projects 6

// share of CO_2 emissions by source

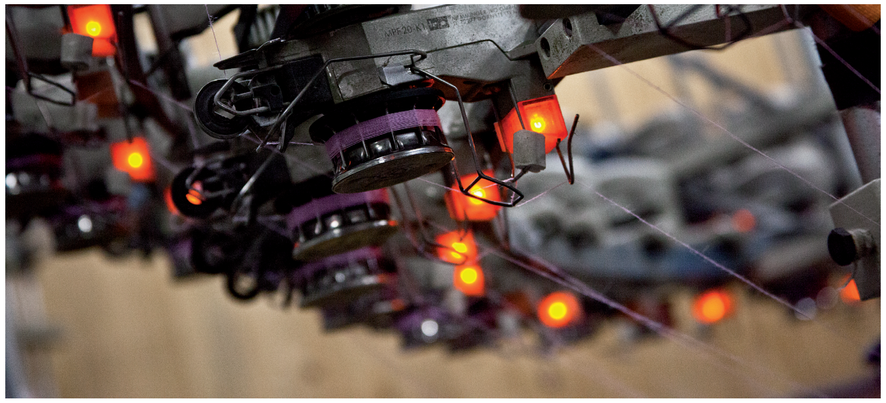
53.7%	30.5%	5.6%	< 0.1%	10.2%
energy	materials	transport	waste	use phase end-of-life

// social environmental network

social group

// main social initiatives

environmental





traces

2010 **g-fabrics**
SOCIAL ENVIRONMENTAL CARBON FOOTPRINT

BACKPACK HOOD

recycled cotton and recycled PET

// carbon footprint
ton CO_2 eq **0.015t**

// share of CO_2 emissions by source

53.7%	30.5%	5.6%	< 0.1%	10.2%
energy	materials	transport	waste	use phase end-of-life

Product carbon footprint expressed through distance travelled by small passenger car

0 — 1.000km

backpack — small car

Carbon footprint data certified by Rina

A project to neutralize the CO_2 emissions due to the production of this Osklen e-fabric product is planned to be developed in Mexiana island – Marajo's archipelago. The project is aimed to support the sustainable development of the community of Santo Ambrosio's farm, through the substitution of fossil fuel with renewable energies.

tracesefabrics.org

Project developed by:

instituto e · OSKLEN · Forum for the Americas

SOCIAL AND ENVIRONMENTAL INITIATIVE
of suppliers involved in Osklen's production chain of backpack hood

Data according to:
U.N. MILLENIUM DEVELOPMENT GOALS

// projects **6**

// people involved **204**

// social environmental network

social group

// main social initiatives

environmental

// regions covered by the product supply chain

1. São Paulo • SP
2. Brusque • SC
3. São Paulo • SP
4. Itatiba • SP
5. Rio de Janeiro • RJ ..... OSKLEN



// production activities

agriculture · manufacturing · fishing · recycling · handmade



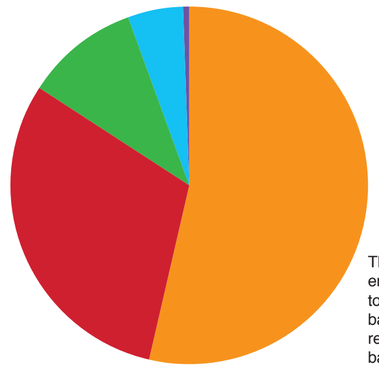


RECYCLED COTTON & PET BACKPACK HOOD

The carbon footprint of one Backpack Hood is 15.100gr CO_2eq, while for the total production the GHG emissions have a value of 1.510kg CO_2eq.

GHG EMISSIONS (grCO_2eq)*		%
from energy consumption	8.105	53,7
from materials used	4.618	30,6
from transport of materials used	45	0,3
from products distribution	795	5,2
from waste management	0,34	<0,1
from use phase and end-of-life	1.536	10,2

*Carbon footprint for one recycled pet and cotton backpack.



The share of each emission source in the total GHG emissions balance for one recycled pet and cotton backpack.

cotton & pet backpack

RINA is one of the oldest classification and certification companies in the world.

Established in 1861 in Genova to meet the needs of the shipping community, it has progressively expanded its areas of business, to develop, over the years, a set of skills and competence which has enabled it to evolve from being purely a certification company to an organization able to offer a full range of advanced services.

RINA for OSKLEN

RINA verified that the Carbon Footprints* related to the e-fabrics products used by OSKLEN are in line with the requirements of the GHG PROTOCOL – PRODUCT LIFE CYCLE ACCOUNTING AND REPORTING STANDARD

***Carbon footprint is the impact in terms of greenhouse gas emissions generated throughout the life cycle of a product.**



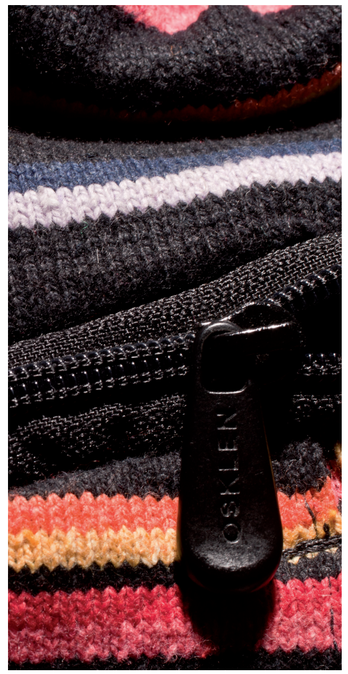
























e























e





traces

SOCIAL ENVIRONMENTAL AND CARBON FOOTPRINT PROJECT

IMELS
Martina Hauser Coordinator Carbon Footprint Task Force
Ivana Radulovic Expert
Fiamma Valentino Expert
Margherita Vitale Expert
Annalidia Pansini Expert
Stefania Romano Expert

Fórum das Américas
Mario Garnero President
Mario Spadari Director
Anamelia Meirelles Project Manager

Instituto e
Oskar Metsavaht President
Nina A. Braga Director
Renata Koga Manager
Patrícia Vance Administrative Assistant

AGFortunato Consultoria
Adriana Fortunato

Capellini design & consulting
Marco Capellini

Osklen
Oskar Metsavaht Creative Director
Eduardo Varela Creative Coordinator
Hilnando Mendes Film Coordinator
Antonio Escorel Camera and Post-Production
Fernando Teixeira Film Editor
Renata Gonçalves Project Coordinator
Rafo Castro Designer

Senai-Cetiqt
Flavio da Silveira Bruno Coordinator of Prospective Studies
Enio Soares Project Manager
José Simas de Miranda Textile Especialist
Carla P. S. Brêtas de Noronha Researcher
Richard Maciel Environmental Especialist
Rodrigo Garcia Textile Engineer

Photos:
Antonio Escorel
Fabio Bartelt
Gui Paganini
Hilnando Mendes
Lucas Bori
Marcio Madeira

ACKNOWLEDGEMENTS

Alex Sandro da Silva, Andrea Zigoni, Antônio Gomes, Aristides Conti, Claudia Guimarães, Eduardo Filgueiras Barbosa, Elândio Pantoja de Sousa, Fabíola Jobst, Felipe Medici, Fernando Campos, Gabriel Figueira Tartim, Glicínia Setenareski,Gustavo Setenareski, Hélio Mata Machado,José Rebelo III, Julio Nery, Lazaro Vierira, Leonardo Rodrigues, Lisani Silva de Vasconcelos, Marianna Mancuso, Maysa Gadelha, Marcelo Itacarambi Albergaria,Mauricio Aluisio Zubioli, Maurício Rodrigues,Melissa Vila Nova Sartori, Mônica Boock,Nadir Alves Reis, Nazaré A. B. Metsavaht, Norival Bergaria, Paulo Amauri, Priscilla Teixeira da Costa, Ric Viana, Roberta de Pádua Herrera, Rolf Altorfer, Shigueru Taniguti Junior, Soraya Toscano, Takao Amano, Thais Drummond, Vera Barcellos,Wellington Silva, Renata Castro e Raffael Costa.

www.tracesefabrics.org