



bluesign®

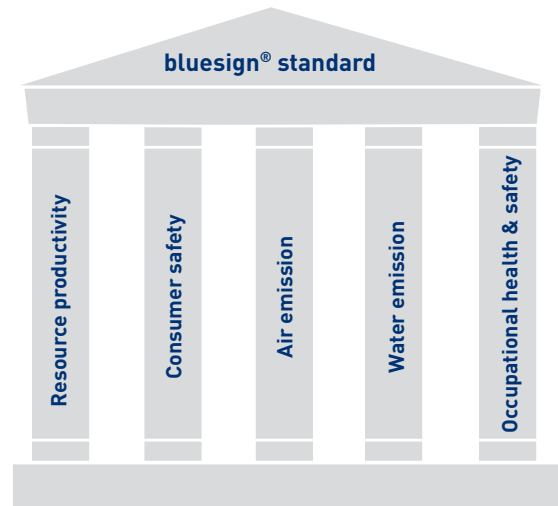
The
independent
industry
textile
standard



bluesign®

Pure
materials.
Pure
benefit.

bluesign® is a protected internationally registered brand name.



Today's standard for tomorrow's future.

Cultivate an altered consciousness

Everyone talks about sustainability. The bluesign® system does something about it. The independent international quality standard serves people, the environment, and a responsibly acting textile industry. bluesign® stands for low-pollutant textiles, an environmentally friendly production and a careful handling of resources. We must decisively reduce our ecological footprint, here and now,

so that the next generations can benefit from an intact environment. This is where the bluesign® concept comes in. The aim is to cultivate an altered consciousness in the textile industry. bluesign® sets the innovative standard. The label designates products and companies which consistently implement the bluesign® system in their own operation. Read more about it on the following pages.

The bluesign® standard in comparison

	Ecological labels	bluesign® standard
Consumer protection		
Occupational safety		
Wastewater / exhaust air		
Components rating		
Resource inflation factor (rif)		
Cost inflation factor (cif)		

not considered certain constraints strict constraints
 no information comprehensive information

Where's the actual problem?

Recurrent ecological and humanecological scandals damage the textile industry. The final inspection of textiles for pollutants says nothing about the history of their origin. It is in the interest of an innovative textile industry concerned with comprehensive quality to establish an independent quality standard which rewards responsible action.

Irresponsibility

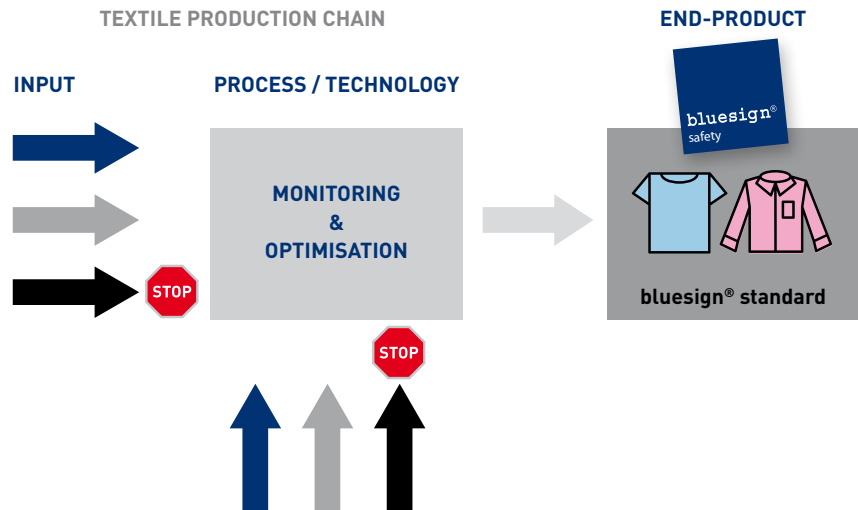
The rapid success of textile products is unfortunately too often achieved at the expense of the environment, sustainability and consumer protection. But what happens when textile companies don't take responsibility for what they do? They pass the burden on to their children and grandchildren, that's all. The consequences of the greenhouse effect and global warming and ever scarcer natural resources are sensitizing consumers. Rethinking is in process. Of course there are some responsible companies who like to proclaim that consumer protection, environmental conservation and sustainability mean more to them than mere catchwords. Nevertheless, up to now there has been no convincing overall concept to implement the good will.

Half-truths

Conventional test methods usually only focus on aspects of consumer protection. The textiles themselves are tested for residual harmful substances, but not the entire value-added chain, the manufacturing conditions or the environmentally sound handling of resources such as water, energy and raw materials. Independent studies confirm the partially very limited significance of such quality tests. What sense is there in a piece of clothing which itself is free of dangerous chemical substances, but for which the cotton production salinized the soil or huge amounts of chemicals have been dumped directly into rivers during the dyeing process? None. Thus the «ecological labels» of such wares often only say half the truth.



Gaining trust by taking responsibility.



What does the actual tangible solution look like?

The object is to keep the entire production process in view. This is exactly what bluesign® does. The new intelligent standard is an instrument for meeting EHS criteria (EHS = Environment, Health, Safety). The sustainability-based philosophy was developed in Switzerland. It has the potential of changing the textile world.

Input- instead of output-oriented

bluesign® addresses the problem at its roots. What's the use of testing finished products if new, problematic substances are constantly finding their way into the production cycle? Or if existing processes and production facilities work inefficiently or in ways harmful to the environment? Instead of only examining the manufacturer's final product, the bluesign® quality management system demands the advance testing of all components and processes involved in manufacturing the product. All input flows are examined. Only those materials are integrated into the production cycle which meet the minutely defined bluesign® standard. Bluesign Technologies calls this principle «Input Stream Management». Consistently applied, it contributes to ensuring a clean production which is environmentally sound and doesn't waste resources. At the same time, textile operations are re-engineered to environmentally friendly, resource-efficient and thus economical production and obligated to the principle of sustainability.

Well-conceived total concept

Bluesign Technologies has developed a concept with the bluesign® quality system which sets new standards. The bluesign® label identifies success-oriented textile companies that want to manage their affairs as sustainably and efficiently as

possible. The criteria defined by Bluesign Technologies can be applied to the entire textile manufacturing chain. The standard offers security and creates trust at all levels. It guarantees a maximum of benefits for industry and retailers, for brand names and consumers.

Input Stream Management

Everything is tested that gets into the production or somehow determines the manufacturing process. This way the use of dangerous substances is excluded before the manufacturing process has even begun. bluesign® makes a colour distinction between three input streams:

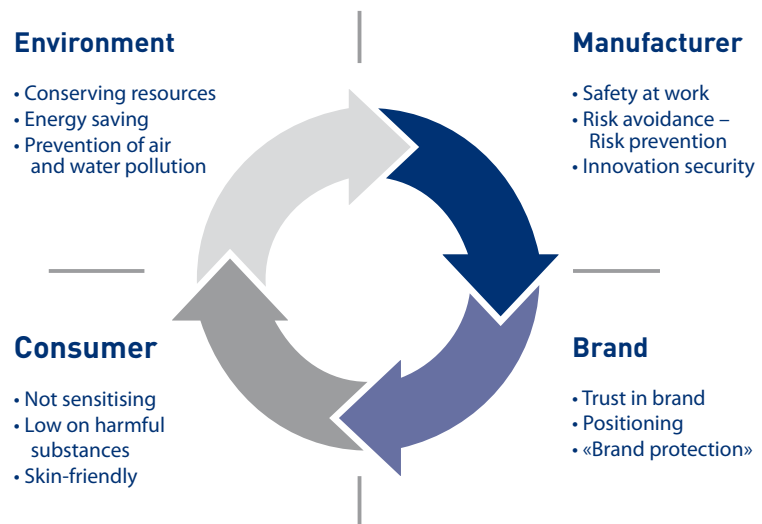
□ blue indicates anything that is non-hazardous and may therefore freely become a part of the production.

□ grey indicates components and processes which may only be used in the production under certain prerequisite conditions. The principle of the Best Available Technology applies here (BAT, see page 14).

□ black indicates anything that is excluded from production. These are hazardous substances or ecologically harmful components and materials which are insufficient with respect to resource productivity and consumer protection.



Build trust in the world.
That can only work if
we take safety needs
seriously.



What are the actual advantages for those involved?

It is a system partnership which links the suppliers, manufacturers, retailers, brand companies and end-consumers. Because bluesign® doesn't just stand for the good feeling of having done something for the environment, health, and safety. The «blue brand» convinces with substantial practical advantages.

For raw material and component suppliers

The bluesign® quality standard is a sustainable and safe instrument for reacting effectively to the increasing demand for environmental and consumer protection certification. Raw material and component suppliers who have their wares certified by the bluesign® quality label are acting proactively. They aren't waiting until legal measures are imposed from above, but are acting on their own here and now. Ecologically responsible, environmentally sound and in the interest of the end-consumer. And while doing so, they also secure their market chances in the long term.

For textile manufacturers

bluesign® guarantees that exclusively components and processes harmless for people and the environment are used throughout the entire manufacturing chain. This allows up-to-date active manufacturers to meet the demand for ethically responsible products before legal regulations force them to take action. The screening process necessary to achieve the required bluesign® standard optimises the entire produc-

tion. This automatically leads to greater cost efficiency. And the image advantage cannot be underestimated. bluesign® is a unique label which certifies compliance to the most stringent international quality requirements and will continue to distinguish products in the future.

For retailers

To set the highest requirements on environmental and consumer protection means to gain security and sovereignty and not needlessly jeopardise customer trust. As system partner of the bluesign® standard, the entire retail trade benefits from the confidence provided by this quality seal. And every day that the bluesign® standard gains in recognition and reputation means a parallel gain for retailers, enhancing the image of a responsible market player.



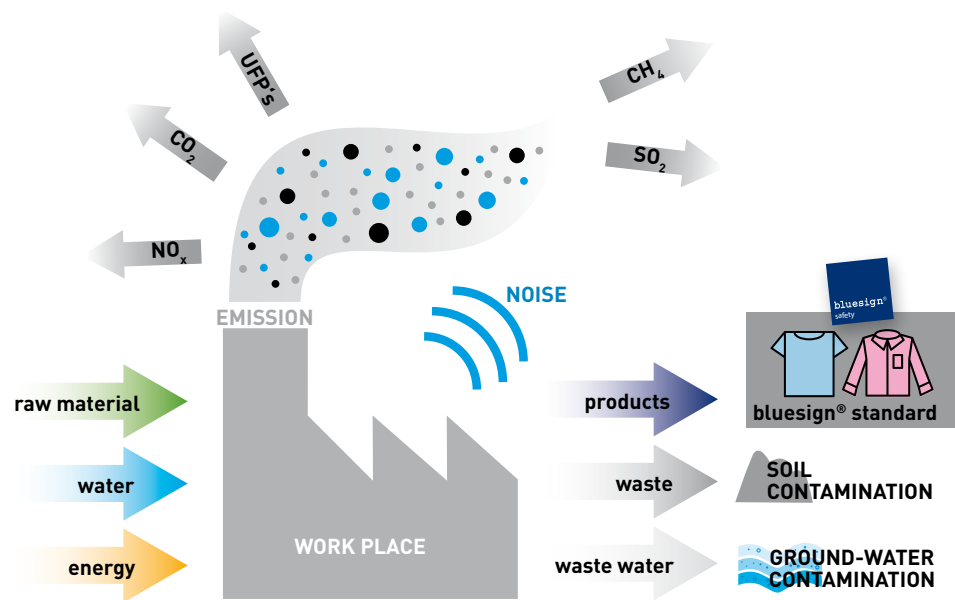
We have to take responsibility today, so that our children can face an unburdened future.

For suppliers of brand products

Image damage triggered by contaminated textiles or careless, wasteful production methods can turn out to be very costly indeed. Everything must be done to strengthen the trust in the brand name. Bluesign Technologies supports suppliers of brand products in their holistic claim of delivering superior quality. The bluesign® certificate is an insurance policy for the brand image.

For end-consumers

Purchasing textiles bearing the bluesign® label guarantees the consumer low-pollutant textiles which have no ill effects on health and have moreover been produced in an environmentally friendly manner. Basically, apart from the merchandise itself, consumers as a matter of course (and more so as time goes by) desire a safe product, an environmentally friendly product, a sustainable product. The bluesign® quality label vouches for this. It gives consumers the good feeling of having done something against global warming and the destruction of the environment.



How does the environment benefit?

The strict bluesign® limits help to preserve the environment and protect consumption of natural resources. Good success has been confirmed in the areas of air emissions, wastewater and resource consumption. Furthermore, over 600 limited or forbidden substances are monitored within the bluesign® standard.

Sustainability principle

Globalisation and the associated rapid economic dynamics characterise our time. Environmental pollution, excessive consumption of resources and global warming are the down sides of this development. Only decisive action can induce a reversal of trend. Only those who manage their affairs sustainably, meaning conserve the resources they use and return to the earth as much as they consume, are acting responsibly. All the system partners are obligated to work according to this principle of the bluesign® standard. Companies certified by the bluesign® label operate sustainably. That translates into success for our environment.

Emission protection

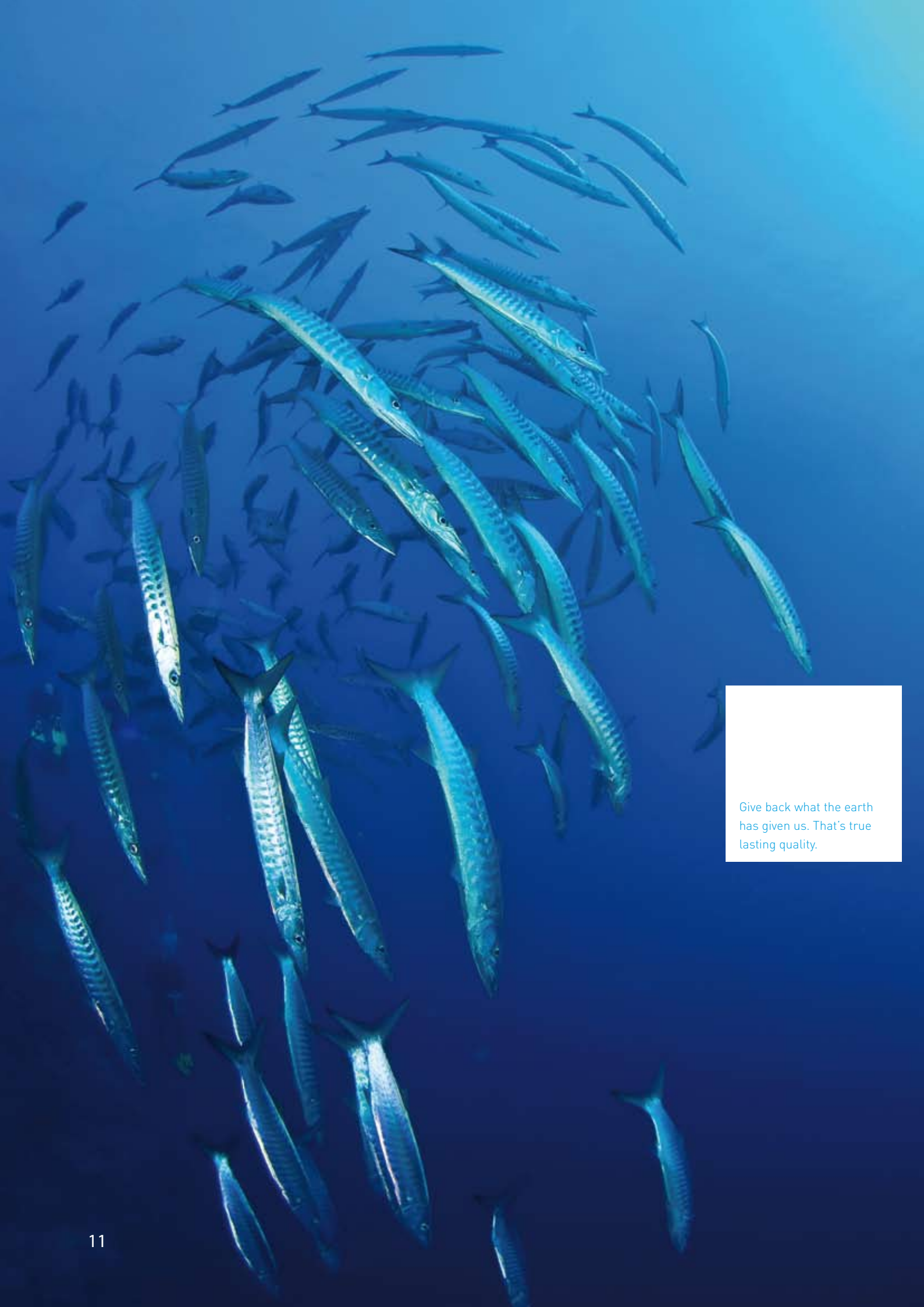
Strict compliance with the bluesign® criteria within the entire manufacturing chain, from the yarn to the weaving mill, knitting, pretreatment and dyeing to the finishing and coating process, demands absolute observance of the air level limits for pollutants. Integration and optimisation of the energy streams ensure great reductions in the CO₂ production and thus contribute to active climate protection.

Water conservation

bluesign® compatibility can be met by employing a properly functioning wastewater treatment systems. Subsequent water toxicities can be avoided completely by eliminating problematic substances from the production cycle right from the start. Taking local conditions into account, Bluesign Technologies pursues one aim in optimising the wastewater streams: to return clean water to the natural cycles and to burden the rivers, waterways and seas with pollutants as little as possible.

Resource efficiency

Perhaps the most important environmental objective of bluesign® is the attainment of a maximum resource productivity. The point is to achieve a greater added value of the products by using reduced resources and resulting in less environmental burden. This is a technical developmental process that bluesign® will continue to pursue in the future.



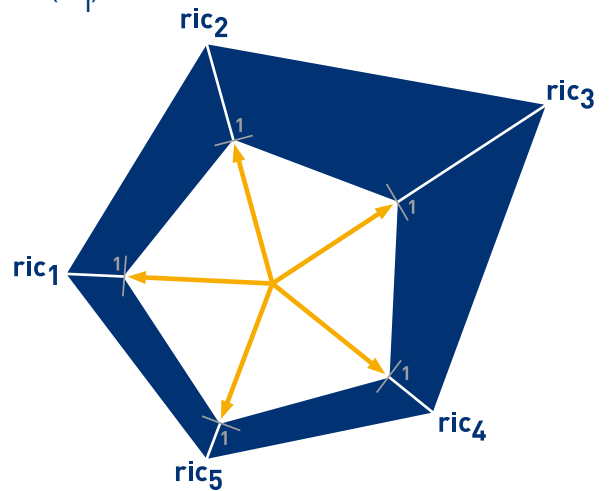
Give back what the earth has given us. That's true lasting quality.

Resource Inflation Factor

Resource inflation components (ric_i):

- Electrical Energy ric_1
- Water ric_2
- Base Chemicals ric_3
- Additives ric_4
- Caloric Energy ric_5

Calculation of rif



What are the advantages for the textile industry?

Clear differentiation and verification of quality. The introduction of the bluesign® standard is usually accompanied by an innovation surge. What's more, bluesign® also takes aspects of work safety into account and generates maximum cost efficiency with regard to resource consumption. All of this makes bluesign® an innovative instrument for implementing a holistic quality policy.

Innovation surge

The implementation and certification of the bluesign® quality system contributes significantly to an optimisation of internal workflows and improvement of all processes. This invariably leads to an innovation surge in the company. Introducing the bluesign® standard does not mean that the manufacturers make any compromises regarding functionality and design. The independent bluesign® industry standard is not just yet another ecological label. Instead, it stands for an innovation-based system also conceived for high-tech and functional textiles. Just the way that economic efficiency and environmental compatibility can go hand in hand today, high-tech textiles and sustainable handling of resources are by no means exclusive.

Safety on the job

Apart from consumer protection, occupational safety for the employees of the textile industry is one of the most important elements in the comprehensive bluesign®

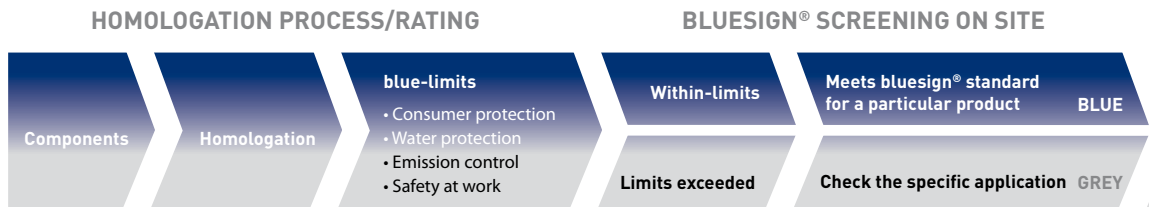
understanding of quality. Frequently occurring risk situations can be entirely eliminated or certain risks specifically reduced.

Maximum cost efficiency

Maximum resource efficiency also means maximum cost efficiency. The screening of textile factories has not only demonstrated optimisation potentials for the companies, but also shows the way to thrifty handling of resources – water, electricity, heating energy, raw materials. These savings, and thus naturally also the respective investments, pay off. Maximum cost efficiency means primarily to exploit as much as possible from invested energies and raw materials. Exactly this is what Bluesign Technologies is about.



Making progress by approaching the goal of sustainable added value step by step.



How is the new standard implemented and maintained?

Unvarying principles and innovative instruments help to implement the bluesign® industry standard in companies easily and smoothly. User-friendly software applications provide bluesign® system partners the know-how for satisfying the required criteria in daily practice.

Homologation with bluetool™

To ensure a globally valid and easily applicable definition of the compatibility of a textile product with the bluesign® standard, the homologation process was developed. Textile components, production processes and technologies are ranked into the two permissible categories of grey or blue according to the five pillar criteria of resource productivity, consumer safety, air emission, water emission and occupational health & safety.

BAT principle

An important principle of Bluesign Technologies is that of Best Available Technology (BAT). This states that the company will always access the best locally available technology. The available machines will be better used or installed procedures perfected. The idea is to exploit all available potential as fully as possible. Critical substances which cannot be avoided without accepting losses in functionality,

quality or design are given a grey ranking in the Input Stream Management. They can be tolerated under certain defined conditions, but may not endanger the consumer protection factor in any way.

Screening

Screening is what the principle is called comprising the fully comprehensive process which Bluesign Technologies uses to evaluate a company. It takes place on-site in order to consider the local conditions and contingencies, and is based on unvarying guide posts. Essentially the input streams and procedures used as well as the locally existing end-of-pipe situation undergo careful evaluation.



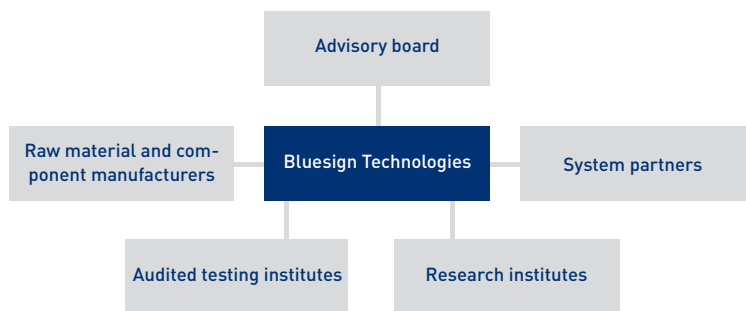
Viable natural habitat.
Future generations
demand nothing less.

bluetool™

The bluetool™ software was developed for raw material and component manufacturers to easily determine whether their products comply with the bluesign® standard. Once their compatibility with the bluesign® standard has been determined, Bluesign Technologies carries out the final approval and release. The know-how of the supplier remains absolutely protected.

bluefinder™

This is a web-based know-how database. It is a valuable and easy-to-use tool for authorised system partners to select new and alternative products. The database reflects the current state of knowledge and is continuously updated by Bluesign Technologies. The bluefinder™ innovation tool directs attention to novel products with convincing ecological and economic advantages.



System partnership for implementing a sustainable textile standard on an international level – everyone benefits.

Who is organising this global project?

Bluesign Technologies is integrated in a joint network of interested parties. The operative implementation of the concept lies in their hands. The idea of creating a textile quality label which unites consumer protection, environmental conservation and sustainability is still very new. Its success indicates that the bluesign® industry standard is meeting a genuine need.

The right idea

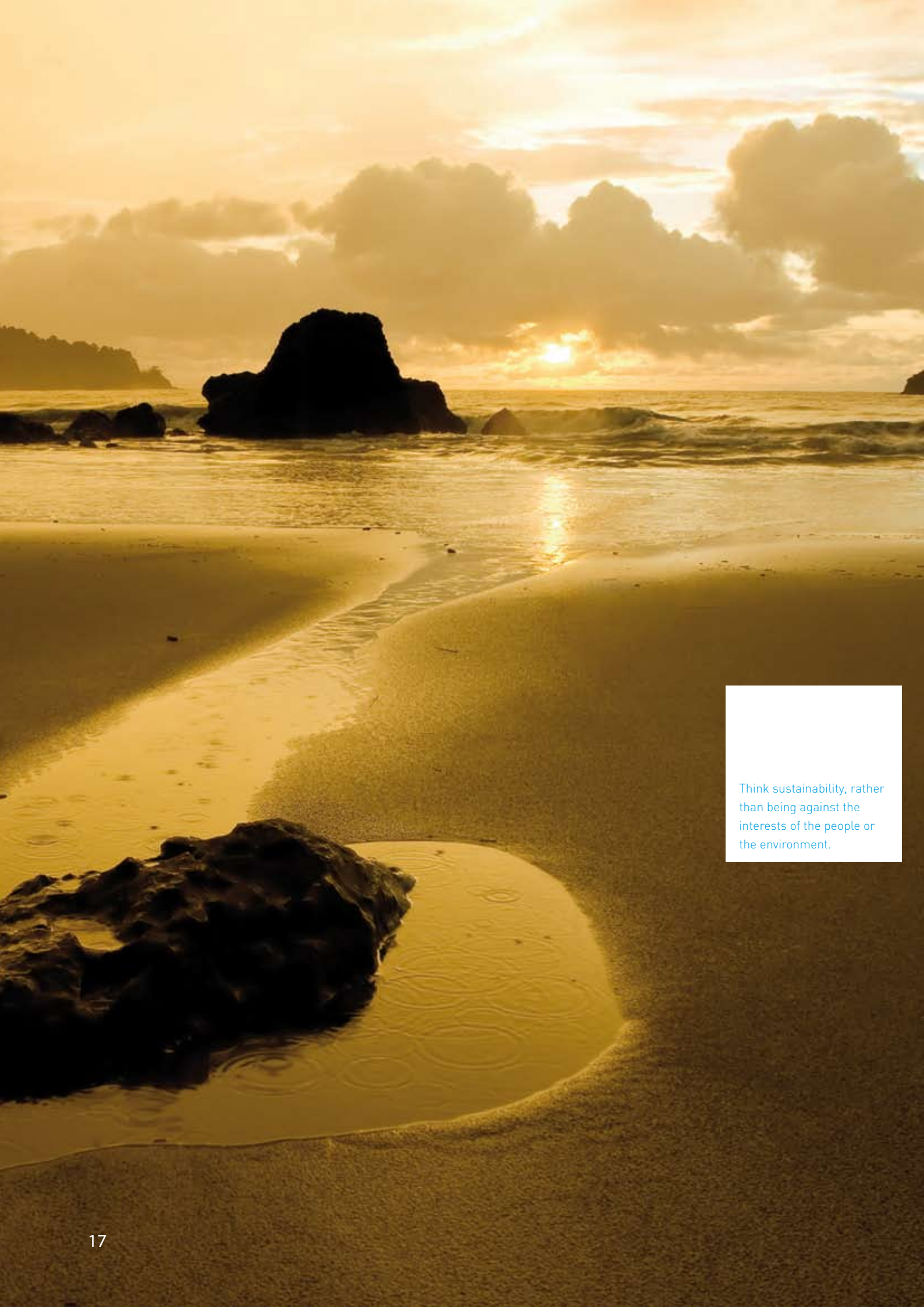
The idea of establishing the purposely highly positioned bluesign® standard arose from practical experience. The main concern was to develop a textile product with the least possible pollution burden, and to couple this with as environmentally friendly and resource-preserving means of production as possible. The concept is based on a project initiative of three leading partners of the textile manufacturing chain. «To start the initiative oneself, instead of waiting for legal limits and regulations to be imposed from above» – this was the motto that spurred the project on. The company Bluesign Technologies with headquarters in Switzerland was founded in 2000 with the express purpose of creating an open system which guarantees that the new textile quality standard is independent and thus can be applied to as many companies as possible.

Bluesign Technologies

Bluesign Technologies is responsible for the implementation of the integral bluesign® quality system. Another task of the company is to maintain the established interdisciplinary bluesign® network. As system provider Bluesign Technologies is the partner for internationally prominent companies in the textile industry.

Global network

The bluesign® organisation has linked together a global network which unites all partners involved in textile production. All bluesign® system partners are obligated to comply with the UN GLOBAL COMPACT. An interdisciplinary advisory board, composed of prominent representatives from science, politics, industry, trade as well as consumer and environmental organisations, is an important part of the organisation. It monitors the international application of the bluesign® standard and contributes to seeing that this quality label for environment, health and safety is enforced on an international level.



Think sustainability, rather than being against the interests of the people or the environment.

For all those who come after us.

Develop faith in the future

The way to a healthy textile future can only be via safe technology, sustainable handling of resources and effective consumer protection. This is no dream path, but rather a way which one must take and adhere to with determined conviction. Diligent care in dealing with natural resources is not primarily understood as a virtue here, but rather as something taken as a matter of course and demanded by the times we live in. Leading companies in the textile industry – suppliers, manufacturers, retailers and renowned suppliers

of brand products – have recognised this fact and comply with standards and limits which benefit the environment, our health and safety. The future of the textile industry lies in the hands of brand names and chain stores that guarantee non-harmful products for people and the environment. With bluesign® you are making a clear statement. It stands for a philosophy of sustainability which benefits everyone. Also those who come after us – our children – because they are our future.



bluesign®

The best sign
for environment,
health and safety

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The
independent
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