

EVERYONE HAS HIS OWN GREEN WAY



**GREENWAY™**  
THE WAY WE ACT

 **INVENTEC**  
PERFORMANCE CHEMICALS

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

Inspiring Innovation

# A CONTINUOUS EFFORT



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# THE SUSTAINABLE DEVELOPMENT :

## Values deeply entrenched in our roots

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The Dehon Group (185M€, 550 employees) has developed a sustainable approach in Chemicals for more than 25 years in various applications: refrigeration, electronic assembly, surface treatment, insulating foam ...

The CFC ban in 1995, 5 years before the legal date, has led the group to replace 70% of its margin in a record time!

### **This was the beginning of a two-fold strategy :**

- substitution, as much as possible, of hazardous substances (CMR, bio accumulating, etc...) in our formulations.
- creation of new services (engineering, audit, training, etc... ) to master the use of non substitutable hazardous substances including their recovery and recycling..

**Globally, in Europe, the group has substituted more than 5000 processes.**





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## THE SUSTAINABLE DEVELOPMENT REQUIRES A CONTINUOUS EFFORT

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**During the World Exposition in Shanghai, in October 2010, Inventec, performance chemical subsidiary of Dehon group, decides to go further and to implement a continuous sustainable development approach.**

While maintaining our solutions at a high level of technical and economical performance, we also define our products by their key impact parameters on health and environment.

If our engineers improve, significantly, 1/3 of parameters without degrading any of the other, we give the Greenway « label » to this product. If we do not improve further the product within the next 5 years, we take the label off.

**This label will be gradually introduced and by 2015 it should cover one third of our sales.**

**The chemical reality does not imply black or white products** where white products, supposedly, do not require any care when used- but more or less grey products that we “green up” progressively.

Up to now, in our high technology sectors, there are no standards defining products or services that are more health or environmental friendly, beyond regulations. Therefore the efficiency of our approach is validated by Bureau Veritas, as well as the products conformity to the new specifications.



## INVENTING A SUSTAINABLE FUTURE **with our customers**

**Even if we do create formulations with less hazardous substances, we will also continue to provide support to our customers for a safer use :**

- to better handle suitable and well « tuned » equipments,
- to better master waste and develop reuse after recycling,

The objectives of Greenway are clear:

Innovative formulation, more control over the downstream processes, stricter upstream supply especially for more renewable raw materials, more efficient waste treatment for an increased reuse.

More impact in the processes but less impact on health and environment, **this is the future of chemicals for high tech industries ...**

But Greenway also covers our services ; we will apply this approach to SF6 recycling programs at our customers' sites (manufacturers of high voltage circuit-breakers and transformers and utility companies).

**We plan to have 15% of products and 2 services under the Greenway label by the end of 2013.**

TM  
GREENWAY

## THE WAY WE THINK THE WAY WE ACT !

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We think that this approach goes beyond Inventec products and services. This is a permanent evolution due to a « **sustainable** » **mindset of the whole company**. It means thinking about sustainable development right from the design phase and also in all implementation details of production, logistics, customer service etc...

In the long run, 30% of our products and services should meet the Greenway objectives. The extension to other activities of the Dehon group is expected.

This simple, focussed and honest approach corresponds to **the state of mind of an international family owned SME** in High Tech markets.

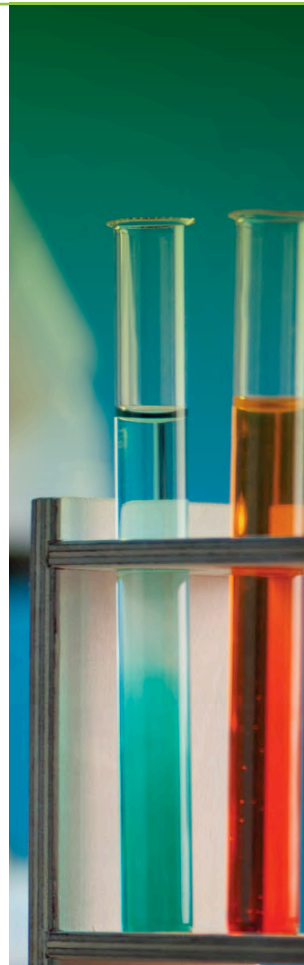
Greenway will be a real « green growth » opportunity for our « High Tech » customers.

# GREENWAY

## EXAMPLE IN PRECISION CLEANING

A « Greenway » cleaner is a solvent or a detergent that leads to at least 3 impact reductions on the 10 following parameters (and that does not worsen any of the 7 others) :

- **Toxicity** : level defined by GHS classification, but also including the newest aspects, for example the endocrine disruptors
- **Flammability** : beyond the flash point measurement
- **Corrosivity**
- **Ecotoxicity**
- **VOC content**
- **GWP average value**
- **Biodegradability**
- **COD** (Chemical Oxygen Demand)
- **Bioaccumulation**
- **Content** in non renewable raw material





## GREENWAY

### EXAMPLE IN SF6 EMISSION REDUCTION

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**Sulphur hexafluorure, commonly referred to as SF<sub>6</sub>, is a dielectric gas mainly used in circuit-breakers for medium and high voltage.**

Neither toxic nor corrosive, it has a strong global warming power of 23000. Despite its use in a close and airtight chamber, responsible action to reduce emissions was necessary at each steps of use : tests, maintenance, end of life; this is particularly important as there is no substitution for many years.

Inventec has developed equipment to limit emissions when transferring the gas (patented Clip n'Use system).

Furthermore, it was essential to set up a recycling system for very polluted SF<sub>6</sub>. Inventec has been the first to develop an SF<sub>6</sub> regeneration unit to reach the quality criteria of the IEC 60480 standard, even on highly polluted SF<sub>6</sub>, following electrical arks.

Besides, Inventec has participated to this standard drafting.



## The 6 impact parameters are

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- 1 leak rate during equipment fill
- 2 leak rate during equipment installation
- 3 leak rate during maintenance  
(even after electrical incidents)
- 4 leak rate during dismantling
- 5 recovery rate  
(compared to new product sales)
- 6 reuse rate

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**If we significantly improve, 2 of these parameters, we will give to this service the Greenway stamp.**

This approach is implemented in EUROPE with Schneider Electric, Alstom, RTE, ERDF, and Ormazabal to name a few

## INSPIRING INNOVATION

Inventec , merger of Promosol and Sotragal companies of the Dehon Group, has been serving the manufacturing industry over 40 years.

**Our mission: to provide sustainable solutions through our chemical products and services.**

We do focus on :

- **The technical performance** of our products and services for High tech industries (electronic, aeronautics, medical equipments, micromechanics, aerosol formulation, foam expansion, etc... )
- **The environment and health protection** by substituting, hazardous substances, even before regulation requires it, and by developing risk management solutions for non substitutable hazardous substances.
- **Local Proximity of our experts** in over 30 countries to implement our technical solutions and to answer our customers' requirements, in terms of performance and protection. Trust between people is the only way to build up progress.

In 2011, Inventec achieved **55M€ turnover**. Since 2003, it has been constantly progressing by more than 10% per year..

**The company employs 100 people :**

- 50 in France,
- 20 in Europe, excluding France
- 10 in America
- 20 in Asia
- More than a third of our employees are engineers.

## INVENTEC IS A 100% SUBSIDIARY OF THE DEHON GROUP

Managed by Patrice ROLLET, Inventec includes 10 subsidiaries in Europe, Asia and America ; and 7 production sites, all **ISO 9001** certified and equipped with control and application laboratories.

To serve its various markets, **the company is organized in 4 departments :**

- **Electronic BU** offers soldering, cleaning and coating solutions for the assembly of printed circuit boards. The main markets covered by this BU are Automotive, Aerospace, and Energy - including solar and LED lighting. Materials deliver high reliability, compatibility for these high end electronics markets.
- **Surface Technologies BU** offers chemicals for surface treatment (cleaning, protection) in various markets: aeronautics, micromechanics, automotive, medical, luxury jewellery etc ... It sells cleaning products (solvents and detergents) and gases (inerting, sterilization, protection). Our engineering realisations allow a safe use of these gases (unloading, storage, waste, etc... ).
- **Fine Chemicals BU** offers ranges of solvents and gases for aerosols formulation and for polyurethane foam expansion. It also develops an offer for waste collection (chemical products and gas bottles).
- **Exportis** : export department covering countries where our subsidiaries are not present.



