Trimatec

Trimatec is a group of players in the field of eco-technology in the regions of Provence-Alpes-Côte d'Azur, Languedoc-Roussillon and Rhône-Alpes. It was recognised as a Competitiveness Cluster in 2005 and as a PRIDES (a regional cluster for innovation and mutually supportive economic development) in 2009.

What Trimatec does is to promote innovative and clean processes to find industrial applications.

The cluster is developing expertise in four main areas: working in confined environments, applications for supercritical fluids, use of membrane separation technologies, and the production and promotion of micro and macro algae.

THE EXCEPTIONAL ADVANTAGES OF THE REGION

The Trimatec competitiveness cluster covers the regions Provence-Alpes-Côte d'Azur, Rhône-Alpes and Languedoc-Roussillon. This area presents major benefits for development in the cluster's key domains:

• **A large range of businesses,** major international leaders and SMEs in the field of:

- ecological extraction of plant matter (supercritical fluid and membrane technologies): most of the businesses nationwide are situated in Provence-Alpes-Côte d'Azur,
- confinement technologies: the Areva group and Sperian Protection.

• **Internationally recognised scientific and academic players** :
Universities of Aix Marseille and Avignon Pays de Vaucluse, and the Club Français des Membranes in Montpellier.

• **A suitable natural environment:**
The climate and shoreline in the regions of Provence-Alpes-Côte d'Azur and Languedoc Roussillon are particularly favourable for growing algae.

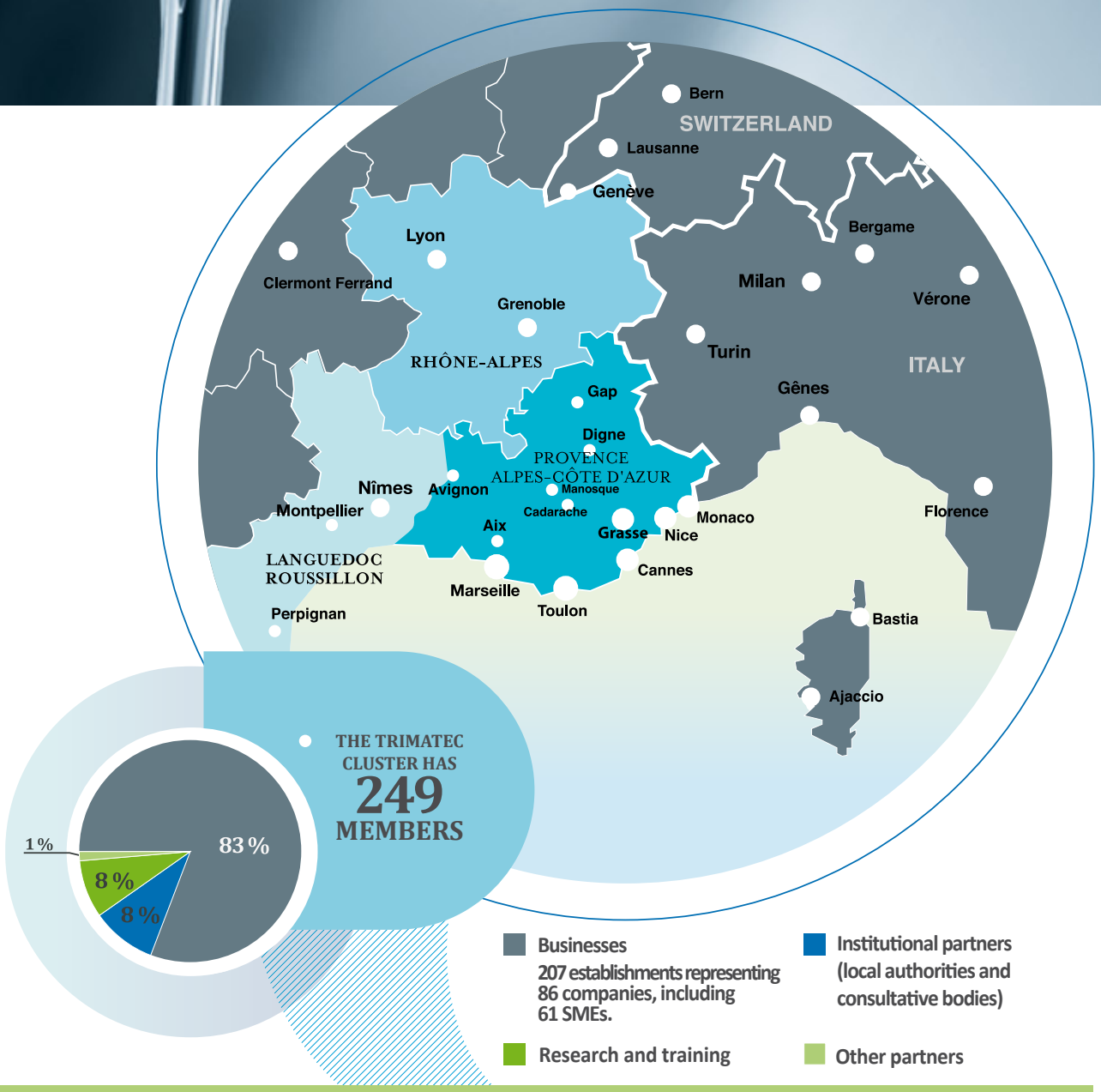
AIMS OF THE CLUSTER

Given the vast number of specialisms in the field of eco-technologies, their high growth rate and the diversity of SMEs on this market, the aim of the Trimatec Cluster is to nurture and develop structured ecosystems among four lines of excellence.

THE CLUSTER'S AXES OF EXCELLENCE

mEc	WORKING IN CONFINED ENVIRONMENTS	Control of these environments is a response to the need to protect individuals, the environment and products. The technologies developed find applications in highly profitable industries such as health, micro-nanotechnology and the nuclear field.
Fs	SUPERCRITICAL FLUIDS	The use of supercritical fluids, particularly CO2, to replace solvents in the processes of extraction and purification. Other possible applications are: synthesis of nanopowders, impregnation of materials, degreasing.
TSm	MEMBRANE SEPARATION TECHNIQUES	Membrane separation technologies are used to treat effluents, separate gases, and concentrate liquids while protecting the environment.
Ba	BIOMASS FROM ALGAE	The production and promotion of algal biomass have applications in the production of fuel, proteins, valuable chemicals, cosmetics, pharmacy, etc.

111 PROJECTS APPROVED, 28 of them in 2010.Worth a total of 191 million euros



PARTNERSHIPS

- France Eco-extraction has been set up with the PEIFL (the Fruits and Vegetables cluster) and PASS (Perfumes, aromas, scents and savours cluster) and the following technical partners: Green laboratory and IFS, working on the eco-extraction of plant matter (identifying skills, sharing resources, joint projects)
- Signatory to the national Charter of the 13 clusters specialising in eco-technologies.
- Partnership on microalgae with the Marine Clusters of PACA and Brittany, IAR and Qualitropic.

INTERNATIONAL STRATEGY

- Supporting SMEs who export: strategic studies of European and North-American markets, preparing a short-term work placement abroad, etc.
- Identifying foreign partners: organising the international Alg'n'Chem conference in Montpellier, the international benchmark for clusters
- Improving the international attractiveness of the regions involved in the cluster, aimed mainly at Chinese, Korean and Chilean markets.

EXAMPLES OF INNOVATIVE PROJECTS

LAGUMEM Project (jointly accredited by the Water Cluster)

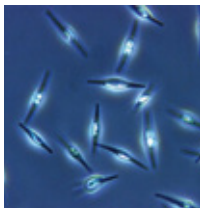
Development of a new membrane filtration process in a sewage lagoon, to re-use waste water for irrigation.

Partners: L'Eau Pure (leader), with Orelis Environnement, Laboratoire LM2P2 Université Paul Cézanne Aix-Marseille

DOSELESS Project (jointly accredited by Techtera cluster)

Developing textiles to filter ionising radiation for various sectors: medical, industry, research, nuclear and military. These textiles should replace present solutions which contain toxic chemicals, primarily lead.

Partners: Melox, Areva group (leader), with Ecole des Mines in Ales, Université Montpellier 2, Université Lyon 1.



SALINALGUE Project (jointly accredited by Capenergies, Derbi and Mer PACA clusters)

Growing micro-algae on unused salt-beds to produce bio products (bio-diesel, biogas, profitable chemicals: beta-carotene, omega 3, etc.), and proteins for aquaculture nutrition. This is the largest French project in this field.

Partners : Compagnie du Vent (leader) with Idée Aquaculture, Air Liquide, Naskeo, and Ifremer, INSA Toulouse, Green laboratory, CEA Marcoule, Supagro, INRIA Comore, Tour du Valat.

… and the EXTRAPOLE, FILTEXCOL, MEMFOS, HELIOPUR projects.

EVENEMENTS

Alg'n'Chem - international conference on algae and green chemistry, Pollutec, Energaïa, MEMPRO.

CONTACTS

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