COORDINATOR:

AITEX (Textile Research Institute)

AITEX is a Spanish non-profit making private association formed by textile and related companies. In the field of standardisation and quality, it has advanced testing laboratories that are authorised to award several certifications. AITEX participates in various EC initiatives, supporting the Spanish companies in the development of a growing number of diverse EU-funded projects. AITEX has coordinated several LIFE projects such as:

- **LIFEENV99/E/346** - The application of advanced photo-oxidation techniques in the treatment of residual waters in the Textile industry.
- **LIFE03 ENV/E/000102)** - Water Purification Tertiary Treatment using Photo-oxidation at semi-industrial scale.
- **LIFE05 ENV/ E/000285** - Alternatives for waste volume reduction in the textile sector through the application of minimisation measures in the production process and in the consumption awarded as Best LIFE Environment 2008-2009 Project by EC and Best Environment European Project of Valencian Comunity 2008.
- **LIFE07/ENV/E/000794 - TEXLEGIO** - Risk reduction to public health from environmental sources using biotechnology in the textile sector.
- **LIFE09/ENV/ES/000461 - NOISEFREETEX** - Demonstrative solutions to reduce noise pollution in industrial areas, using finishing technologies in textile materials
- **LIFE10 ENV/ES/000431 - WETCOMP** - Wet-laid technology application for textile residues revalorization in composites industry
- **LIFE11 ENV/ES/552 - BIOMOMI** - BIO-Monitoring and Automatic Microbiological Contamination Control System of Industrial Hydraulic Circuits.

THE CONSORTIUM:

Asociación de Investigación de la Industria Textil
AITEX (Spain)
www.aitex.es

Serviecología Y Tratamiento De Aguas, S.L
SERVYECO (Spain)
www.servyeco.com

Pascual y Bernabeu S.A
PYB (Spain)
www.pascualybernabeu.com

Ramón Espí S.L
RAPIFE (Spain)
www.rapife.com

FADRELL CPS
FADRELL (Spain)
www.fadrell.com

European Water Partnership
EWP (Belgium)
www.ewp.eu

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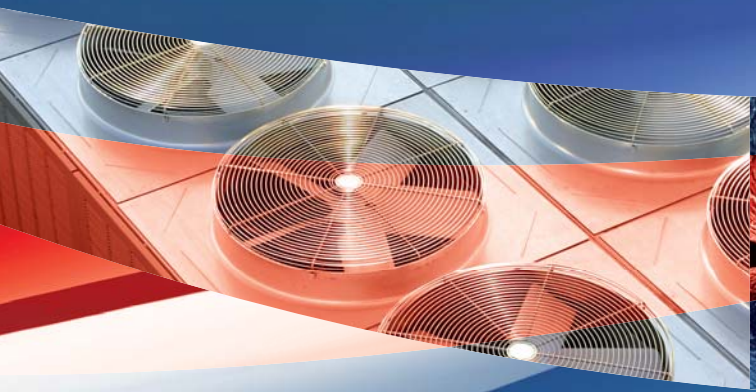
biomomi

BIO-MONITORING AND AUTOMATIC MICROBIOLOGICAL CONTAMINATION CONTROL SYSTEM OF INDUSTRIAL HYDRAULIC CIRCUITS

www.biomomi.eu

BIOMOMI - LIFE11 ENV/ES/000552
Funding Program: LIFE+. Call 2011



NEEDS

ENVIRONMENTAL PROBLEM

- Lacks of control of biocides optimization in cooling tower and air conditioning Systems
- Chemical products used as biocides are oxidant substances or harmful substances for the human health and the environment

ECONOMIC PROBLEM

- Equipment and systems lifetime is highly reduced because of the biocide excess, causing several environmental issues like extra energetic costs, inefficiency of the industrial processes, continual spare parts substitution or increase of the produced waste residues.

OBJECTIVES

The principal aim of the project is to validate and demonstrate a new technology that allows:

1. A real time monitoring and quantifying of aerobic microorganisms present in the water of a hydraulic system
2. A correct dosage
3. Constant optimization of an adequate biocide to minimize these microorganisms.

Industrial-scale prototype of the plant will be constructed and put into operation to demonstrate the technique in two representative Spanish textile companies with very different hydraulic systems, both of whom require disinfection systems:

An air-conditioning system of a weaving company
Ramón Espí SL

RAPIFE
-Spanish Underwear since 1923-

A cooling towers of a finishing company
Pascual y Bernabeu SA

Pascual y Bernabeu S.A.

EXPECTED RESULTS

Existing aerobic microorganism counts must be carried out in a laboratory. Results from this type of testing take between 24-48hrs.

The control equipment that will be developed during this project will permit an analysis of aerobic microorganisms within 15 min.

The system being validated in the project will allow:

1. The correct dosing of a biocide
2. Automatically monitoring microbiological contamination in real-time

Reduction in the use of chemicals

Reduction in maintenance costs of between 10% and 20%