



Università
Ca'Foscari
Venezia

PROJECT ACRONYM AND TITLE: LIFE GOAST- Green Organic Agents for Sustainable Tanneries

FUNDING PROGRAMME: LIFE

CALL: LIFE Environment and Resource Efficiency

SCIENTIFIC FIELD: Environmental technology and green economy

HOST DEPARTMENT/CENTRE: Department of Molecular Sciences and Nanosystems

SCIENTIFIC RESPONSIBLE: Valentina Beghetto

FINANCIAL DATA:

Project total costs	Overall funding assigned to UNIVE
€ 1.374.196,00	€ 314.536,00

ABSTRACT:

The aim of the project is to demonstrate that implementation of LIFE GOAST technology on a semi industrial scale is more environmental friendly than TCTP. The technical feasibility, social and economic impact will be monitored and compared with Traditional Chrome Tanning Process (TCTP) in order to demonstrate the reduction of environmental impacts by LIFE GOAST technology. The ultimate aim is to obtain comparable/better quality leather product with lower environmental impact and costs, no concern substances disposal rather than TCTP. Leather manufacturing is classified as water, energy and waste intensive and, according to European Directive 96/61EC, is considered to be an activity demanding for integrated prevention and control of pollution. Tannery effluents, if not properly treated, cause significant damage to soil and water bodies. Environmental concern clearly emerges from the European IPPC Bureau report 2013: at present over 85w% of the world leather production is chrome tanned and only 20-25w% of raw bovine hides processed are transformed in final leather goods. The current use of chrome poses serious environmental and health problems due to the formation of carcinogenic Cr (VI) in finished articles, prompting users to find innovative solutions. According to the EU directives, sustainable industrial processes and waste management are fundamental for ensuring a low level of risk and high environmental protection. LIFE GOAST project, with a LCA-LCC "cradle to grave approach", will aim at demonstrating sustainability of the overall production chain from manufacturing of leather articles to treatment of solid and liquid wastes.

The project specific objectives are:

1) to produce chrome-free high quality leather articles achieved by unprecedented pilot scale implementation of LIFE GOAST.

2) to improve the quality of tannery effluents by total reduction of chromium salts, acids/bases sodium chloride in tanning and retaining steps, since no chrome, nor pickling (acid treatment) or basification,

typically foreseen when Chromium, are used;

3) to demonstrate lower environmental impact of LIFE GOAST technology in terms of reduction of hazardous substances, environmental risks (human and ecological), primary resource consumption (water) due to simplification/reduction of industrial steps to process hides, according with the 7th Environment Action Programme, and environmental releases in water and soil

4) elimination/reduction of chrome containing sludge.

Planned Start date	Planned End date
July 1th, 2017	June 30, 2020

PARTNERSHIP:

1 GSC Group SPA (GSC)	IT	Coordinator
2 Medio Chiampo SPA (MDC)	IT	Partner
1 Conceria Pasubio SPA (PSB)	IT	Partner
2 Università Ca' Foscari Venezia	IT	Partner
