

2001 Award

Improving living conditions in urban areas

The theme

For its 5th award, in 2001, the Altran Foundation for Innovation has chosen the theme "technological innovation for improving living conditions in urban areas".

The laureates

First Prize: Julien TROQUET - France
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Low-cost, on-site land decontamination

The Altran Foundation jury awarded the first prize to Julien Troquet, a young research engineer and founder of the start-up company Biobasic Environnement.

His project consists in developing a decontamination process for soil using bioremediation. Soil decontamination has become a major challenge in today's world. This technique for the decontamination of polluted sites is particularly innovative in that it is based on biotechnology. In concrete terms, it enables on-site decontamination via bioremediation, whereby pollutants are completely broken down by microorganisms.

The jury was won over by the combination of advantages provided by this process. It allows complete decontamination using a gentle "alternative" method. An excavation of the site is not necessary, which preserve the ecosystem. 5 times less expensive than competing techniques, it can be used on many types of pollution.

Altran Support

Charles, an Altran Consultant involved in the technological support of the 2001 Award winner: "The Altran Foundation allowed Julien Troquet – winner of the 2001 Prize – to develop his soil decontamination process. The Altran teams supplied their technological expertise in process engineering and digital simulation of fluids moving through soils.

They also worked on analyzing the process system, on defining the axes of development and on formulating the "manip plan" (or test logic).

Finally, Julien Troquet benefited from methodological support for test monitoring."

« What a breath when we could rely on Altran's consultants. Every time we needed help, on technological, market or commercial level, we asked for Altran's help. » Julien TROQUET

Results

Altran's support allowed Biobasic Environnement, company created in 2000, to solve many technical problems. It mainly contributed to having the biological process go from laboratory to industrialisation. Julien Troquet stresses "the serious and multi-task approach of Altran Consultants". His project needs various competences and skills that a young company could not gather.

After the Award

In addition to its activities of auditing and rehabilitation of industrial sites, Biobasic Environnement offers environmental consulting services on a long term basis. Biobasic Environnement also intervenes in the area of environmental management through studies on biodegradability, legislation or even training courses. Biobasic Environnement presently leads a decontamination pilot in a Romanian oil refinery. This is value-added for Julien Troquet whose company's revenues have been multiplied by 10 in 2004.

More about the theme

This cross-cutting theme covers a number of fields: urban planning, transport, mobility, environment (air and water quality, cleanness, noise pollution), urban communication (keeping city dwellers informed), safety and so on.



Second Prize Martin Lawson - United Kingdom

A new-generation urban transport system



In 2001, Martin Lawson was awarded second prize by the Altran Foundation for his ULTra (Urban Light Transport) project, developed in the United Kingdom. ULTra is an innovative form of individual rapid transport, inspired by a total reassessment of the needs of urban transport. It was designed to satisfy the needs of users while meeting essential criterion of cost effectiveness, construction simplicity and environmental respect. This revolutionary means of transport is totally automated. From certain perspectives it is like a taxi, given that users only have to choose their destination – wherever they wish – without having to transfer to another vehicle during the journey. Purchasing a ticket programs the vehicle, which can accommodate up to four persons.

"ULTra is a good alternative solution to the usual means of transport in the city," Martin Lawson points out. "But it also lends itself to travel within closed environments, such as airports, recreation centres, industrial parks or shopping centres." ULTra consumes three times less energy than its competitors: buses, subways, trams and trains.

It is unique in that it uses a large number of current technologies: it employs traditional civil engineering infrastructures, introduces sophisticated softwares, particularly with regard to operating safety, and draws on the latest communications protocols. "I am now relying on the Altran Foundation for help in conducting market studies and working out a marketing strategy. Technically speaking, the main areas that need work are the design of the composites, improvement of the critical safety software and safety engineering for the entire project."

Altran Support

Altran consultants worked closely with the prize-winning team on the marketing strategy, design of composite material and safety improvements.

After the Award

Since then, the company has completed the different development phases of the prototype, and has successfully carried out the initial passenger tests. Better yet, the first order has been received for a system being installed at Heathrow airport near London. The first on-site tests took place in August, and operation should begin in 2009. A second order should take the project beyond Europe's borders.

The Finalists



Tony CAFFIN Director of a web agency

"Balades dans Paris": Everything you ever wanted to know about the city.

To make urban neighbourhood information readily available is the mission of this project submitted by Tony Caffin, the director of a Web agency, who is proposing to replace the street signs in high-traffic locations with signs that include a special telephone number.

By calling this number from a mobile phone, the passer-by can contact a server offering a certain number of services, such as information, practical aid and historical facts and figures.

The project could allow city dwellers to rally around their neighbourhoods; provide information for tourists and provide handicapped persons with the shortest route to their destination.

Laurent LESCOP - France Architect

Better live in the city, better enjoy the city: Simulation technologies serving urban comfort.

City dwellers are highly concerned with urban planning and development issues, such as the impact of construction on access to sunlight or on the noise environment, urban security issues and so on. But the "urban environment" is a phenomenon that is difficult to analyze as a whole.

The project submitted by Laurent Lescop's team – Lescop is an architect in Nantes – proposes to develop simulation and modelling tools, as well as a methodology, which will take into account the cross-urban influences of the various parameters affecting city life (noise, access to sunlight, heat, wind orientation and strength, the behaviour of individuals in studied locations, the function of these locations and more).

The jury

President of the jury

Jean-Michel WILMOTTE – France

Architect. "The prize-winning and runner-up projects are quite varied and give us a glimpse of some promising perspectives for better living in cities.

For example, any new construction within the urban environment requires the analysis and meticulous cleaning of the site on which it will be built; the project that was awarded first prize responds to this need. With the year of technological consulting services offered by Altran, there is every chance that this innovation will very rapidly take on a concrete form."

Roland AURICH – Germany

Architect.

Jean DIGNE – France

Counsellor for Jack Lang-Government Minister for National Education abroad.

Francis GODARD – France

Director of the local authority programme of the Ministry of Research, author of the Gallimard books.

John LOUGHHEAD – England

Vice-President Technology – ALSTOM.

Macha MERIL – France

French actress.

Ralph MITCHELL – United States

Gordon McKay Professor of applied biology, Harvard University

Francis-Luc PERRET – Switzerland

Vice-President – EPFL.

Francis RAMBERT – France

Journalist at the Figaro and Director of architecture.

Prof. Carvalho ROGRIGUES – Belgium

Expert at NATO on civilian safety.

J.B VAGUIN – France

Director of the Parisian Workshop for Town Planning.

