

EUREKA PROJECT E!803 - EUROCARE GLUELAM 94

1. General description

Project	E! 803 - EUROCARE GLUELAM 94	Status	Finished - 06-FEB-1997
Title	Laminated Timber Structures (Lts) For Larger Buildings And Constructions		
Class	Sub-Umbrella	Technological area	Environment
Start date	01-DEC-1991	End date	01-OCT-1995
Duration	46 months	Total cost	0.38 Meuro
Partner sought	No		
Summary	Based On The Development Of Large-Span Laminated Timber Structures, The Main Aim Is To Increase The Use Of These Constructions For Larger Buildings And Constructions		

Budget and duration

Phase	Budget(Meuro)	Duration (Months)
Definition phase	0.05	12
Implementation phase	0.33	42
Total	0.38	46

Member contribution

Member	Contribution	Position	Since
Norway	85.00%	Notified Finished	06-FEB-1997
Sweden	15.00%	Notified Finished	06-FEB-1997

Participants

Company	Country	Type	Role
Moelven Limtregruppen A/S	Norway	Large company	Main
Euro-Tre A/S	Norway	Large company	Partner
Norbuild	Norway	Large company	Partner
Sp Swedish National Testing And Research Institute	Sweden	Research Institute	Partner
Nti - Norwegian Institute Of Wood Technology	Norway	Research Institute	Partner
Nilu - Norwegian Institute For Air Research	Norway	Research Institute	Partner

2. Project outline

Project description

The main partner in this project is the "MOELVEN LIMTRE GRUPPEN", in cooperation with:

- * STATENS PROVNINGSANSTALT (SP), SWEDEN
- * NORSK TRETEKNISK INSTITUTT
- * EURO-TRE
- * NORBUILD
- * The NORWEGIAN INSTITUTE FOR AIR RESEARCH (NILU).

Until two years ago, Laminated Timber Structures (LTS), in up to 60 metre lengths, were used in buildings. The halls to be used in the 1994 Olympic Games, have posed various challenges to the company. The environmental profile of the 1994 Olympic Games requires the use of environmentally acceptable and traditional Norwegian materials in the hall building structures, particularly the visible structures.

This provided grounds for the development of LTS with large span and high bearing capacity.

The utilisation of Norwegian LTS should now give access to new markets of greater buildings and constructions, such as sports halls and grounds, warehouses, hangars, bridge constructions, etc. To successfully increase LTS exports, it is necessary to prepare and organise competent networks. This means qualifications in research, architecture and engineering as well as marketing and management.

The project will also produce basic information on expected service life and yearly maintenance costs incurred in using LTS.

Technological development envisaged

GLULAM means glued vital timber constructions, where every cross-section comprises at least four laminations.

MOELVEN has been producing LTS for approximately 30 years.

Today these products enjoy international recognition.

In proportion to GLULAM's own weight, LTS is the strongest construction material used in larger buildings. The development of a series of new timber products to be used in larger buildings and constructions and simultaneously fulfilling essential requirements, is the new Building Products' Directive for Europe.

Markets application and exploitation

The main markets for the types of larger buildings and constructions described are GERMANY, East Europe and ENGLAND.

In Europe by firms of architects, engineers and contractors as well as competent marketing and management networks.

Project codes

BSI

RBE.X

sports facilities (sports centres)

BSI

RD
RXH
THC
WC

buildings
construction materials
adhesives
wood (timber)

NACE

7310

Research and experimental development on natural sciences
and engineering

3. Main participant

Company **Moelven Limtregruppen A/S**
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Managing Director

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Organisation type Large company
Participant role Main

Contribution to project

40% NORSK TRETEKNISK INSTITUTT (NTI), EURO-TRE, NORBUILD (NB) and NILU will contribute 5%.

Expertise

Organisation activities: produces Laminated Timber Structures (LTS). Exports today are approximately 35 million NOK, i.e. 30% of turnover.

4. Partner

Company **Euro-Tre A/S**
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Norway

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Fax

Contact

Tel
Fax

Organisation type Large company
Participant role Partner

Contribution to project

Expertise

4. Partner

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Organisation type Large company
Participant role Partner

Contribution to project

Expertise

4. Partner

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Organisation type Research Institute

Participant role Partner

Contribution to project

15%. Testing and evaluation of materials and structures. Development of calculation methods.

Expertise

* Unique testing facilities for large structures, capacities of 20,000 kn. * Advanced tools for computer analysis of complicated structures * National expert in the European standardisation of glued laminated timber * Research projects with: - glueing of large glulam components - new techniques of joining glued laminated timber frames. * National expert of quality control of timber products * Office of the Swedish Quality Control Board. Organisation activities: institute dealing with testing research and technical evaluation of materials, products and constructions. 15 years' experience in glued laminated timber research.

4. Partner

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Organisation type Research Institute
Participant role Partner

Contribution to project

Expertise

4. Partner

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Organisation type
Participant role

Research Institute
Partner

Contribution to project

Expertise