



# Building energy renovation through timber prefabricated modules

## Fact Sheet

### Project Information

#### BERTIM

Grant agreement ID: 636984

[Project website](#)

#### DOI

[10.3030/636984](https://doi.org/10.3030/636984)

Project closed

#### EC signature date

20 May 2015

#### Start date

1 June 2015

#### End date

31 May 2019

#### Funded under

SOCIETAL CHALLENGES - Secure, clean and efficient energy

#### Total cost

€ 4 914 210,20

#### EU contribution

€ 4 148 435,25

#### Coordinated by

FUNDACION TECNALIA  
RESEARCH & INNOVATION



Spain

## Objective

About 40% of the overall energy consumption in Europe is related to the building sector and represents about 1/3 of Europe's CO2 emissions. The successful accomplishment of the emission reduction target by 2050, involves the need to increase the rate of retrofitting of the inefficient building stock up to 2.9%. In order to increase the renovation rate, more efficient renovation processes from design to manufacturing phase are needed. The use of prefabricated modules for renovation reduces on-site works, installation time, works intrusiveness, minimising the consumption of raw material; however there is a need to define holistic methodologies to adapt prefabrication processes to individual renovation solutions as

well as to mass production, linked to computer design tools.

Giving answer to the mentioned needs BERTIM will provide: (1) High energy performance prefabricated modules for deep renovation, integrating windows, insulation materials, collective HVAC systems, renewable energy systems and energy supply systems. The modules will be based in timber and recyclable materials for a low carbon foot print. The assembly system will guarantee a very little time in the installation and low disturbance to tenants. (2) An innovative holistic renovation process methodology based on a digital workflow from design to installation phase. In order to support the renovation process, a renovation project design tool oriented to SME integrating BIM with CAD/CAM tools and assuring the interoperability with CNC machines for mass manufacturing processes will be developed and implemented in three industrial settings. (3) Affordable business opportunities for different stakeholders as potential leaders in the launching of the renovation process. The whole renovation process and the developed timber modules will be validated in a full-scale research infrastructure, and then, they will be demonstrated in two real buildigns in two different climatic zones (South and North Europe).

## Fields of science (EuroSciVoc)

[engineering and technology](#) > [mechanical engineering](#) > **[manufacturing engineering](#)**

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#) > **[renewable energy](#)**

[engineering and technology](#) > [mechanical engineering](#) > **[thermodynamic engineering](#)**

[engineering and technology](#) > [environmental engineering](#) > **[air pollution engineering](#)**

[engineering and technology](#) > [civil engineering](#) > [architecture engineering](#) > [sustainable architecture](#) > **[sustainable building](#)**



## Keywords

[Timber prefabricated modules](#)

[BIM](#)

[Mass manufacturing](#)

## Programme(s)

[H2020-EU.3.3. - SOCIETAL CHALLENGES - Secure, clean and efficient energy](#)

MAIN PROGRAMME

[H2020-EU.3.3.1. - Reducing energy consumption and carbon fooprint by smart and sustainable use](#)

# Topic(s)

[EE-01-2014 - Manufacturing of prefabricated modules for renovation of building](#)

## Call for proposal

[H2020-EE-2014-2015](#)

[See other projects for this call](#)

## Sub call

H2020-EE-2014-1-PPP

## Funding Scheme

[IA - Innovation action](#)

## Coordinator



### FUNDACION TECNALIA RESEARCH & INNOVATION

Net EU contribution

€ 946 469,79

Total cost

€ 946 469,79

Address

PARQUE CIENTIFICO Y TECNOLOGICO DE BIZKAIA, ASTONDO BIDEA, EDIFICIO 700  
48160 DERIO BIZKAIA

 Spain 

Region

Noreste > País Vasco > Gipuzkoa

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

## Participants (15)

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### EGOIN SA

 Spain

Net EU contribution

€ 310 555,00

Address

**CASERIO ASTEI S/N**

**48287 Vizcaya** 

SME 

**Yes**

Region

**Noreste > País Vasco > Bizkaia**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 443 650,00

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### EMPRESA MUNICIPAL DE LA VIVIENDA Y SUELO DE MADRID SA

 Spain

Net EU contribution

€ 105 665,00

Address

**CALLE PALOS DE LA FRONTERA 13**

**28012 Madrid** 

Region

**Comunidad de Madrid > Comunidad de Madrid > Madrid**

Activity type

**Private for-profit entities (excluding Higher or Secondary Education Establishments)**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

Total cost

€ 150 950,00

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## INSTITUT TECHNOLOGIQUE FCBA (FORETCELLULOSE BOIS-CONSTRUCTION AMEUBLEMENT)

 France

Net EU contribution

€ 267 243,75

Address

**10 RUE DE GALILEE**  
**77420 Champs Sur Marne** 

Region

**Ile-de-France > Ile-de-France > Seine-et-Marne**

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 267 243,75

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## POBI STRUCTURES

 France

Net EU contribution

€ 278 910,25

Address

**78 RUE ELISEE RECLUS**  
**58400 Decines-Charpieu** 

Region

**Corse > Corse > Corse-du-Sud**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 398 443,21

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**COLLAGE ARKITEKTER AB** 

 Sweden

Net EU contribution

€ 15 458,96

Address

**PO BOX 709**

**93127 Skelleftea** 

Region

**Norra Sverige > Övre Norrland > Västerbottens län**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 22 084,23

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**RISE RESEARCH INSTITUTES OF SWEDEN AB**

 Sweden

Net EU contribution

€ 385 000,00

Address

**BRINELLGATAN 4**

**501 15 Borås** 

Region

**Södra Sverige > Västsverige > Västra Götalands län**

Activity type

**Research Organisations**

Links

[Contact the organisation](#) 

[Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 385 000,00

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**MARTINSONS BYGGSYSTEM KB** 

 Sweden

Net EU contribution

€ 9 128,00

Address

**BURTRASKVAGEN 53**

**93780 Bygdsiljum** 

Region

**Norra Sverige > Övre Norrland > Västerbottens län**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 13 040,00

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**BRABRAND BOLIGFORENING** 

 Denmark

Net EU contribution

€ 3 940,00

Address

**RYMARKEN 2 HASLE**

**8210 Aarhus V** 

Region

**Danmark > Midtjylland > Østjylland**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost  
€ 3 940,00

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## DIETRICH'S FRANCE

 France

Net EU contribution

**€ 342 020,00**

Address

**2 RUE HENRI BERGSON**  
**67200 Strasbourg** 

Region

**Corse > Corse > Corse-du-Sud**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**€ 883 400,00**

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 **THIRD-PARTY** 


## DIETRICHS AG

 Germany

Net EU contribution

**€ 276 360,00**

Address

**Hauptstrasse 37**  
**85579 Neubiberg** 

Region

**Bayern > Oberbayern > München, Landkreis**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**€ 394 800,00**





## TECHNISCHE UNIVERSITAET MUENCHEN

 Germany

Net EU contribution

€ 299 966,25

Address

**Arcisstrasse 21**  
**80333 Muenchen** 

Region

**Bayern > Oberbayern > München, Kreisfreie Stadt**

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 299 966,25



## ASM RESEARCH SOLUTIONS STRATEGY SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA

 Poland

Net EU contribution

€ 261 250,00

Address

**UL. GRUNWALDZKA 5**  
**99-301 KUTNO** 

SME 

**Yes**

Region

**Makroregion centralny > Łódzkie > Łódzki**

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 261 250,00

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**OSLO KOMMUNE** 

 Norway

Net EU contribution

€ 2 333,49

Address

**RADHUSET**

**0037 Oslo** 

Activity type

**Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 2 333,49

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**LULEA TEKNISKA UNIVERSITET**

 Sweden

Net EU contribution

€ 195 423,75

Address

**UNIVERSITETSOMRADET PORSON**

**971 87 Lulea** 

Region

**Norra Sverige > Övre Norrland > Norrbottens län**

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 195 423,75



## SETRA TRAVAROR AB

 Sweden

Net EU contribution

€ 448 711,01

Address

**BOX 3027**

**169 03 Solna** 

SME 

Yes

Region

Östra Sverige > Stockholm > Stockholms län

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 641 015,73

**Last update:** 12 September 2023

**Permalink:** <https://cordis.europa.eu/project/id/636984>

European Union, 2025