

Robots to Re-Construction

Fact Sheet

Project Information

Bots2ReC

Grant agreement ID: 687593

[Project website](#) 

DOI

[10.3030/687593](https://doi.org/10.3030/687593) 

Project closed

EC signature date

11 November 2015

Start date

1 February 2016

End date

30 November 2019

Funded under

INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)

Total cost

€ 4 768 875,00

EU contribution

€ 3 964 162,50

Coordinated by

RHEINISCH-WESTFAELISCHE
TECHNISCHE HOCHSCHULE
AACHEN



Germany

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Artificial Intelligence: Turbocharging European industry

Objective

Despite the high degree of industrial automation, robotic solutions are not yet prevalent in construction and demolition industry due to the complex environment and demanding requirements. For hazardous tasks, like the removal of asbestos contamination from a flat (rehabilitation site), manual performance is very inefficient, due to the intense safety measures. This leads to the main objective of Bots2ReC: “Introducing, testing and validating an operational process for the automated removal of asbestos contamination at a real world rehabilitation site using a robotic system.” After the necessary clearing from furniture and containment, the site is less complex and separated from human workers. In this environment safe automated robotic operations can be realized with current state of the art technology. The proposed robotic system will consist of multiple robotic units (lightweight robotic arms with abrasive tools and aspiration on a mobile platform) and a central process control system. Optical and radar sensors will allow environmental perception and navigation and local monitoring of the asbestos-removal, even in dusty conditions. The developed control system allows the user to specify and supervise automated tasks (e.g. disk grinding of contaminated paint from a wall), supported by a virtual representation of the site. The process and robotic system will be developed and enhanced in several iterations, supported by permanent testing on a test rehabilitation site benchmarked on a real life rehabilitation site at project end. Bots2ReC will have strong impacts to the robotics industry and society in Europe: It provides a step change towards a system prototype demonstrated in the operational environment of the demolition and construction industry and will strengthen the European robotic industry by later commercialisation of the system. Avoiding exposure to highly dangerous asbestos fibres will sustainably help protect the health of humans in Europe and worldwide.

Fields of science (EuroSciVoc) 

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electronic engineering](#) > **[control systems](#)**

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Programme(s)

[H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies \(ICT\)](#)

MAIN PROGRAMME

Topic(s)

[ICT-24-2015 - Robotics](#)

Call for proposal

[H2020-ICT-2015](#)

[See other projects for this call](#)

Funding Scheme

[IA - Innovation action](#)

Coordinator



RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN

Net EU contribution

€ 961 250,00

Total cost

€ 961 250,00

Address

TEMPLERGRABEN 55

52062 Aachen

 **Germany** 

Region

Nordrhein-Westfalen > Köln > Städteregion Aachen

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Participants (7)



BOUYGUES CONSTRUCTION SA

 **France**

Net EU contribution

€ 159 495,00

Address

AVENUE EUGENE FREYSSINET 1

78280 Guyancourt 

Region

Ile-de-France > Ile-de-France > Yvelines

Activity type

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

Links

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

[HORIZON collaboration network](#) 

Total cost

€ 427 500,00

BOUYGUES BATIMENT NORD-EST

 France

Net EU contribution

€ 139 755,00

Address

1 AVENUE DE L HORIZON

59651 Villeneuve D Ascq Cedex 

Region

Hauts-de-France > Nord-Pas de Calais > Nord

Activity type

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

Links

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Total cost

€ 199 650,00



FUNDACIO EURECAT

 Spain

Net EU contribution

€ 530 250,00

Address

AVENIDA UNIVERSITAT AUTONOMA 23

08290 Cerdanyola Del Valles (Barcelona) 

Region

Este > Cataluña > Barcelona

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 530 250,00



DANIELI TELEROBOT LABS S.R.L.

 Italy

Net EU contribution

€ 602 875,00

Address

CORSO F.M. PERRONE 47 R
16152 GENOVA 

SME 

Yes

Region

Nord-Ovest > Liguria > Genova

Activity type

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

Links

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Total cost

€ 861 250,00



ROBOTNIK AUTOMATION SL

 Spain

Net EU contribution

€ 601 037,50

Address

RONDA AUGUSTE Y LOUIS LUMIERE 6 Y 8
46980 Paterna 

SME 

Yes

Region

Este > Comunitat Valenciana > Valencia/València

Activity type

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

Links

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Total cost

€ 858 625,00



CLERMONT AUVERGNE INP

 France

Net EU contribution

€ 595 000,00

Address

CAMPUS LES CEZEAUX
63178 Aubiere Cedex 

Region

Auvergne-Rhône-Alpes > Auvergne > Puy-de-Dôme

Activity type

Higher or Secondary Education Establishments

Links

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Total cost

€ 595 000,00



INDURAD GMBH

 Germany

Net EU contribution

€ 374 500,00

Address

BELVEDEREALLEE 5
52070 AACHEN 

SME 

Yes

Region

Nordrhein-Westfalen > Köln > Städteregion Aachen

Activity type

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

Links

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Total cost

€ 535 000,00

Last update: 16 August 2022

Permalink: <https://cordis.europa.eu/project/id/687593>

European Union, 2025