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Instantly Deployable Evolvable Assembly Systems

Fact Sheet

Project Information

IDEAS

Grant agreement ID: 246083

[Project website](#) 

Project closed

Start date

1 April 2010

End date

30 June 2013

Funded under

Specific Programme "Cooperation": Nanosciences, Nanotechnologies, Materials and new Production Technologies

Total cost

€ 5 649 099,54

EU contribution

€ 3 899 729,00

Coordinated by

KUNGLIGA TEKNISKA
HOEGSKOLAN

 Sweden

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Objective

Discussions held by the IDEAS consortium members with a wide range of industrial sectors all lead to the same conclusion: the further development of assembly equipment still requires sophisticated answers from science. In addition, current major road mapping efforts, such as ManuFuture, FutMan and EUPASS, clearly underlined that true industrial sustainability will require far higher levels of systems' autonomy and adaptability. ManuFuture's new paradigm "adding value instead of cost competition" leads to a new approach to production technology and proves that the solutions required for the next step ahead clearly are not "state of the art". In accordance with these suggestions, the IDEAS consortium aims at developing a demonstrator/technological solution that proves that assembly equipment can be highly adaptable. Such a step will be based on the further development of the Evolvable Assembly Systems (EAS) paradigm, and its integration with the results of other EC projects (IPROMS, SOCRADES, EUPASS). EAS is now an established paradigm, and previous projects (EUPASS, A3) have demonstrated that process-oriented assembly modules may be effectively re-used if applied with distributed control systems: EAS allows the development of adaptive modules for each individual assembly process. In principle this is possible as it was proven in the laboratories of Schneider, Masmec, and Festo. However, this needs to be combined with real-time adaptability and advanced control solutions in order to attain self-learning and self-diagnosing systems: true adaptability. These IDEAS objectives go well beyond what is commercially exploitable today. To achieve this, IDEAS is designed to work on respective components with intrinsic machine intelligence, on adaptive control and on control architecture. The results will be used in a demonstrator assembly line, requested by two industrial partners, developed by the IDEAS consortium. This will validate its Adaptability and Responsiveness.

Fields of science (EuroSciVoc) 

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

[natural sciences](#) > [computer and information sciences](#) > [artificial intelligence](#) > [machine learning](#) > **[deep learning](#)**



Programme(s)

[FP7-NMP - Specific Programme "Cooperation": Nanosciences, Nanotechnologies, Materials and new Production Technologies](#)

Topic(s)

[NMP-2009-3.2-2 - Adaptive control systems for responsive factories](#)

Call for proposal

FP7-NMP-2009-SMALL-3

[See other projects for this call](#)

Funding Scheme

[CP-FP - Small or medium-scale focused research project](#)

Coordinator



KUNGLIGA TEKNISKA HOEGSKOLAN

EU contribution

€ 687 991,04

Total cost

No data

Address

BRINELLVAGEN 8

100 44 Stockholm

 **Sweden** 

Region
Östra Sverige > Stockholm > Stockholms län

Activity type
Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Participants (9)



FESTO SE & CO KG

Germany
EU contribution
€ 352 482,00

Address
RUITER STRASSE 82
73734 Esslingen

Region
Baden-Württemberg > Stuttgart > Esslingen

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

- Links
- [Contact the organisation](#)
 - [Participation in EU R&I programmes](#)
 - [HORIZON collaboration network](#)

Total cost
No data



UNINOVA-INSTITUTO DE DESENVOLVIMENTO DE NOVAS TECNOLOGIAS-ASSOCIACAO

Portugal
EU contribution
€ 475 517,06

Address

CAMPUS DA CAPARICA QUINTA DA TORRE
2829-516 Caparica 

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



ELECTROLUX ITALIA SPA

 Italy

EU contribution

€ 120 660,00

Address

CORSO LINO ZANUSSI 24
33080 Porcia 

Region

Nord-Est > Friuli-Venezia Giulia > Pordenone

Activity type

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

Links

[Contact the organisation](#)  [Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



THE UNIVERSITY OF NOTTINGHAM

 United Kingdom

EU contribution

€ 309 444,40

Address

University Park
NG7 2RD Nottingham 

Region

East Midlands (England) > Derbyshire and Nottinghamshire > Nottingham

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



MASMEC SPA

 Italy

EU contribution

€ 616 460,00

Address

VIA DELLE VIOLETTE 14
70026 MODUGNO 

Region

Sud > Puglia > Bari

Activity type

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

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



Elrest Automationssysteme GmbH

 Germany

EU contribution

€ 527 904,00

Address

Leibnitzstrasse 10
73230 Kirchheim / Teck 

Region

Baden-Württemberg > Stuttgart > Esslingen

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

No data



TEKS SARL

 France

EU contribution

€ 326 400,00

Address

RUE DU PRAYA, LES TOITS BLANCS 23
05100 MONTGENEVRE 

Region

Provence-Alpes-Côte d’Azur > Provence-Alpes-Côte d’Azur > Hautes-Alpes

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

No data



KARLSRUHER INSTITUT FUER TECHNOLOGIE

 Germany

EU contribution

€ 346 930,00

Address

KAISERSTRASSE 12

76131 Karlsruhe 

Region

Baden-Württemberg > Karlsruhe > Karlsruhe, Stadtkreis

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



CENTRO RICERCHE FIAT SCPA

 Italy

EU contribution

€ 135 940,50

Address

STRADA TORINO 50

10043 Orbassano 

Region

Nord-Ovest > Piemonte > Torino

Activity type

Research Organisations

Links

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

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Total cost

No data

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Permalink: <https://cordis.europa.eu/project/id/246083>

European Union, 2025

