Development of Resource-efficient and Advanced underGrOund techNologies

Fact Sheet

**Project information**

**DRAGON**

Grant agreement ID: 308389

Status
Closed project

Start date 1 October 2012
End date 30 September 2015

Funded under:
FP7-ENVIRONMENT

Overall budget:
€ 4 554 771,06

EU contribution
€ 3 243 659

Coordinated by:
MONTANUNIVERSITAET LEOBEN
Austria

**Objective**

Increased global competition, economic requirements in order to act budget-conscious as well as current (and future) environmental regulations have caused/will cause the need for new underground construction technologies in order to guarantee resource-efficiency within the tunnelling processes. The before mentioned situation also calls for a paradigm shift from only landfilling with excavation material in a direction to re-use the excavated material by nearly 100% as valuable new raw material in other industrial processes and sectors.

Therefore the overall goal of DRAGON is to develop new work flows and new techniques in order to guarantee a) a fast detection of useable materials; b) an immediate separation of high value materials already within the underground construction site and c) the recycling of that material on the backup system of the tunnel boring machines.

Based on that research results a number of different prototypes will be developed and tested throughout the project duration.

Another important impact of DRAGON is that the LCA (life cycle analysis) is going to provide scientific evidence that the re-use of excavated tunnelling material will result in more resource-efficient and more closed-loop related systems (even in industry-related economy) in Europe.

A complex project such as DRAGON can only be addressed by joint and concerted actions of outstanding experts: DRAGON’s scientific partner MUL belongs to Europe’s leading tunnelling experts; the 4 participating SME partners are highly specialised companies which are active in environmental niche
markets; HK as market leader of mechanized tunnelling systems guarantees the market power and brings in the corresponding market knowledge whereas PORR as end user partner will mostly benefit from the newly developed equipment and the way to save costs either by commercializing valuable excavation materials or by re-using excavation material as its own raw material.

Field of Science

/ engineering and technology / environmental engineering / waste management / recycling
/social sciences / economics and business / business and management / commerce

Programme(s)

FP7-ENVIRONMENT - Specific Programme "Cooperation": Environment (including Climate Change)

Topic(s)

ENV.2012.6.3-1 - Innovative resource efficient technologies, processes and services

Call for proposal

FP7-ENV-2012-two-stage

See other projects for this call

Funding Scheme

CP - Collaborative project (generic)

Coordinator

MONTANUNIVERSITAET LEOBEN

Address
Franz Josef Strasse 18
8700 Leoben
Austria

Activity type
Higher or Secondary Education Establishments

EU Contribution
€ 1 006 400

Website
Contact the organisation

Administrative Contact
Karin Rehatschek (Ms.)

Participants (6)
<table>
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<tr>
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<th>Country</th>
<th>EU Contribution</th>
<th>Address</th>
<th>Activity type</th>
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<tr>
<td>PORR BAU GMBH</td>
<td>Austria</td>
<td>€ 239 396</td>
<td>Absberggasse 47, 1100 Wien</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
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<tr>
<td>HERRENKNECHT AG</td>
<td>Germany</td>
<td>€ 382 980</td>
<td>Schlehenweg 2, 77963 Schwanau Allmannsweier</td>
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<td>B+G BETONTECHNOLOGIE + MATERIALBEWIRTSCHAFTUNG AG</td>
<td>Switzerland</td>
<td>€ 566 400</td>
<td>Dorfstrass 10, 3073 Gumligen</td>
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<td>Thinkstep Ltd</td>
<td>United Kingdom</td>
<td>€ 414 000</td>
<td>Catherine Place 35 Sw1e 6dy London</td>
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<td>INDUTECH INSTRUMENTS GMBH</td>
<td>Germany</td>
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