

## PRESS RELEASE

### AMBERG ENGINEERING AND ENPRODES WELCOME PUBLICATION OF GROUND BREAKING BOOK ON URBAN UNDERGROUND SPACE

**In a ground breaking new book, Antonia Cornaro (Amberg Engineering) and Han Admiraal (Enprodes), challenge the common perception that the development of underground spaces is only for cities that have a scarcity of land. They argue that both the sustainable development goals and the new urban agenda require cities to look at the planning and use of underground space. In a book written for urban planners, urban designers, architects, geologists, engineers, and for policy and decision makers, they unveil a hidden urban asset as able to provide solutions for many of the challenges urban areas face now and in the future. The authors work for Amberg Engineering of Switzerland and Enprodes of the Netherlands. Both companies welcome the timely publication of the book as cities are evermore being challenged by rapid urbanisation, climate change and the need for urban resilience.**

‘Underground Spaces Unveiled: Planning and Creating the Cities of the Future’ is to all intent and purposes a book on underground urbanism. It traces the history of human intervention below the surface from the earliest flint mines to the strategies of urban space lacking cities such as Singapore and Hong Kong. The book looks at how policies on sustainable development and urban resilience need to include the urban underground space. At the same time it recognises that this requires urban planners, geologists and engineers to work together to unlock the knowledge to take the right decisions. Unplanned exploitation of underground space has in many cases led to a subsurface chaos with little room for future expansion. The ‘first come – first served’ principle that has applied for so long, is now adversely affecting the needs cities have for optimising their spatial development. Many cities however have never looked below the surface for future expansion and this is where the ideas and concepts discussed in the book show real potential. As Dr Joan Clos, the former executive director of UN-Habitat writes in the foreword: “The use of underground space can help cities remain compact, be energy efficient or find the space needed to include new functions in the existing city landscape.” French architect Dominique Perrault, who also wrote a foreword in the book, emphasises the importance of underground space use: “We share the belief that underground building is not just a conceptual temporary architectural trend but holds a long-term potential, especially for dense urban environments.”

Written by Antonia Cornaro, an urban planner, and Han Admiraal, a civil engineer, the book provides a unique insight into a journey the authors have undertaken as co-chairs of the International Tunnelling and Underground Space Association's Committee on Underground Space (ITACUS). The journey focussed on the central question how to optimally integrate the underground space into the urban fabric and how to make it part of the issues urban planners, engineers, architects, designers and others dealing with the built environment need to consider. In the authors' vision urban integration is required to combine uses to avoid evermore space claims made by mono-use buildings and infrastructures. Why is it that mass rapid transport systems only transport people and lay dormant at night? What role could they play in urban logistics? Unveiling underground space is about a philosophy on future urban development that is inclusive and as such takes into account what the underground space has to offer in all its richness and variety.

Felix Amberg, CEO of Amberg Group, says: "With the increasing importance of the underground space, it was high time for such a comprehensive and informative book". Dr Joan Close echoes these words saying the book "significantly advances the discussion in this area".

In the final chapter of the book on the issue of disruption the authors conclude with: "We hope that what we have written in this book has given a glimpse into the possibilities that the future holds for underground space and how to potentially achieve these visions. But, above all, we hope this book will inspire future generations to look at the world below our feet in a different and appreciative way and make them tap into the as yet unforeseen opportunities that will allow humankind to survive and prosper on this planet."

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#### **Information for the editor - not for publication**

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The book 'Underground Spaces Unveiled: Planning and Creating the Cities of the Future' will be presented by the authors and different venues throughout the year providing opportunities to meet the press.

[4 April 2018](#) – REAL CORP 2018, Vienna, Austria

[18 April 2018](#) – Think Deep UK workshop on 3D planning, London, UK

[24 April 2018](#) – ITA-AITES WTC 2018 in Dubai, UAE

[1 – 5 October 2018](#) – ISOCARP World Congress, Bodø, Norway

[22 – 26 October 2018](#) – ICE Engineering Conference, London

Further information can also be found on the dedicated book website [www.thinkdeep.net](http://www.thinkdeep.net).

## **PRESS INFORMATION**

### **ABOUT THE AUTHORS**

#### **Han Admiraal**

Han Admiraal, a Civil Engineer (University of Applied Science, Rotterdam) is co-chair of the International Tunnelling and Underground Space Association's Committee on Underground Space (ITACUS) and a member of the Urban Planning Advisory Group of United Nations for Disaster Risk Reduction (UNISDR), advising the Special Representative. As President of the Dutch-Flemish Pipeline Industry Guild, he promotes underground freight transport as a sustainable and economically efficient mode.

Over the course of his career, Han worked for the National Department of Public Works and Water Management, acting amongst other positions as Project Manager for the first machine excavated (TBM driven) tunnel in soft soil in the Netherlands. Later, as Executive Director of the COB, the Netherlands Centre for Underground Construction, he implemented visionary concepts on underground construction and was part-time professor of Underground Space at Zeeland University of Applied Science. Since 2008, he is Owner and Managing Director of Enprodes Management Consultancy in Delft, consulting in the fields of underground space and road tunnel safety.

He is passionate about urban planning and an interdisciplinary dialogue between various stakeholders and professional disciplines dealing with urban and underground development. Having published numerous articles on this topic, this is his first book.

#### **Antonia Cornaro**

Antonia Cornaro, MA Urban Planning, studied at New York University where she earned her Master's in 1996 and later gained valuable experience working for the City of New York's Planning Department (DCP) in their Transportation Division.

She has over 20 years of working experience as an urban and transport planner from the public and private sector from New York City, London, Vienna and Zurich, having worked for NYC Department of City Planning (DCP, 1995-1997), Parsons Brinckerhoff (PB now WSP from 1997-2001), the Austrian Institute of Regional Planning (ÖIR, from 2001-2006), and the Zurich based multi-disciplinary engineering consulting firm EBP (2006-2010).

In her current work (since 2010 until today) as Business Development Manager for Amberg Engineering, an internationally active Swiss firm specializing in underground infrastructure design and management, she focuses on Urban Underground Space with the aim to increase mobility, liveability and resilience of urban areas

This is also central to her work as co-chair of ITACUS (the International Tunnel and Underground Space Association's Committee on Underground Space). Antonia is passionate about cities, global and sustainable development, and has presented and published extensively on this subject, often jointly with Han Admiraal. This is her first book.

## **PRESS INFORMATION**

### **COMPANY PROFILE AMBERG ENGINEERING**

#### **Engineering at its best – more than 50 years of innovation shaping the future**

Based on the motto "Contributing to a smart use of space", Amberg Group is committed to underground infrastructures. Headquartered in Switzerland, the company's four subsidiaries (Amberg Engineering Ltd., Amberg Technologies Ltd., Amberg Loglay Ltd. and Hagerbach Test Gallery Ltd.) have been actively involved in projects in more than 40 countries. Currently, Amberg Group employs approx. 400 staff worldwide. Amberg Engineering Ltd. is an internationally active, independent engineering and consulting company with branch offices in 11 countries spread over three continents.

In just over 50 years, Amberg Engineering AG has realized over 800 projects in more than 25 countries of the world on five continents. These include the Vereina Tunnel, which at 19 km is the longest narrow-gauge tunnel in the world. Or the currently longest railway tunnel in the world, the Gotthard Base Tunnel of 57 km, and the future longest, the Brenner Base Tunnel at 64 km in length, metro projects in more than 10 cities in 10 countries on 3 continents. Caverns with an excavated floor area of more than 300 m<sup>2</sup> in infrastructure, tunnel and hydroelectric projects in Europe, Asia and South America, including up to 1.5 million m<sup>3</sup> of excavated material – in a single project.

Since 1966, Amberg Engineering Ltd. has been providing total solutions for all tasks related to underground spaces and structural engineering.

Clients benefit from the extensive in-house expertise. Thanks to a distinct focus, high level of safety and cost-effectiveness during construction and operation, as well as tailor-made technical solutions, Amberg Engineering is always one step ahead of the market requirements.

More information: [www.amberggroup.com](http://www.amberggroup.com)

## **PRESS INFORMATION**

### **COMPANY PROFILE ENPRODES**

#### **Surface and subsurface – unseen opportunities for the city**

Han Admiraal founded Enprodes in 2008. Since then he has become a globally known thought leader on the use of underground space. As co-chair of the International Tunnelling and Underground Space Association's Committee on Underground Space (ITACUS), he is regularly invited to give keynotes worldwide.

On a professional level, Han Admiraal acts as a consultant for governments, contractors and engineering consultants. His primary focus is on how underground space can contribute to the sustainable development of resilient cities. Several more specific areas of expertise have developed from this, amongst them road tunnel safety and pipeline transport.

As an independent consultant, Han Admiraal is also regularly asked to chair panels or committees dealing with urban planning issues, safety and security issues, or future proof transport issues.

More information: <http://www.enprodes.nl>