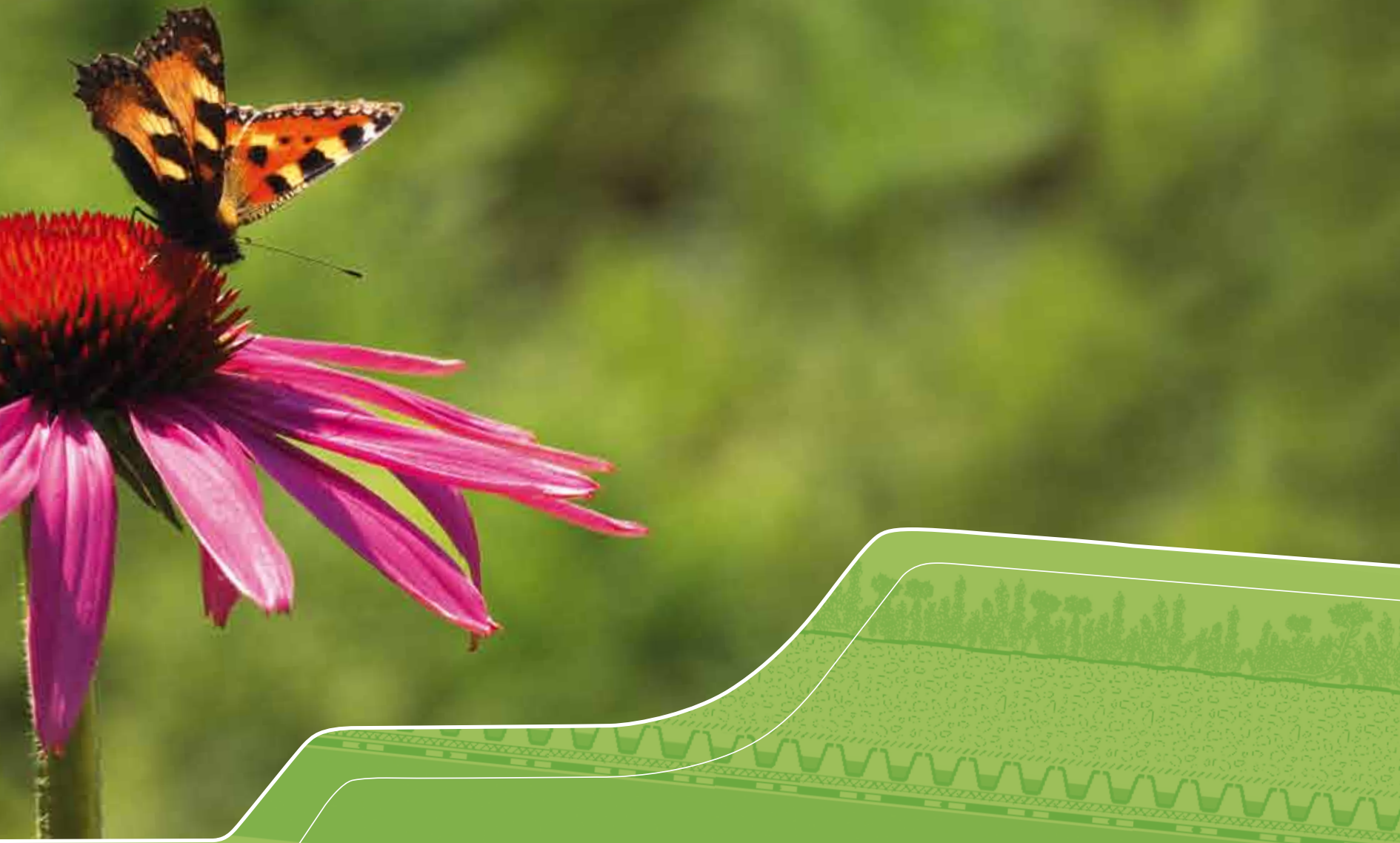


Life on Roofs



Roofs are more than just "functional components" for protecting building materials. Roofs give character to individual buildings and entire city districts. But roofs are also coming to be viewed more and more as reserve urban areas for creative planners looking for socially responsible concepts that counteract the loss of natural living spaces.

Green roofs are extending the variety of contemporary architecture. They fill the concept of "roof landscape" with new life: Nature – increasingly hemmed in by buildings and paved surfaces – returns as an attractive green element in residential, recreational and work environments.

ZinCo – one of the leading manufacturers – are pioneers and innovators in terms of extensive and intensive roof greening. Research projects and innovative systems developed by ZinCo inspire architects and demanding clients to plan both private and large public buildings in a holistic and sustainable way.

People, their relationship to nature and life in an ecologically intact environment – these are ZinCo´s main focuses.

We welcome the challenges that come with this responsibility.

Ulrich Schäfer and Dieter Schenk

Managing Directors, ZinCo GmbH

1957

Foundation of the company as a crafts enterprise in Unterensingen.

1968

The FZ rail is introduced and a sales organization is established for the EU region. Founding of Flachdach Zubehör GmbH ("Flat Roof Accessories GmbH").

1972

Innovation phase for the climate roof: "From flat roof to roof garden". Public relations work on a broad front, integrating colleges and universities.

1980

Focus on ZinCo's core competency: Roof greening systems

1978-1983

Market launch of Floradrain® FD 60 and FD 40 drainage elements.

1985

Founding of the Deutscher Dachgärtner Verband e.V. ("German Roof Gardeners Association") as a club for competent roof gardeners.

1987-1990

Founding of ZinCo Switzerland. Introduction of the "Duo-Roof" and inclined roof system build-ups with Floratherm® and Floraset®.

1990

Setup of a soil supply network and marketing of the roof substrate Zincolit that is made from recycled clay brick Recycling.

1992

Development and market launch of the Elastodrain® drainage element.

1995-1997

Expansion of export activities. The two German companies are merged to form ZinCo GmbH.

1998

Development and market launch of "Fallnet®" fall protection system.

2001

Founding of ZinCo Nederland, Amsterdam.

2002

Management buy-out: ZinCo GmbH is taken over by Ulrich Schaefer, Dieter Schenk, Roland Appl and Frank Stribel.

2003

Development and market launch of the Solar Base SB 200. Founding of ZinCo Singapore and ZinCo Danmark.

2006-2008

Founding of ZinCo Canada, ZinCo USA, and ZinCo Cubiertas Ecologicas, Spain.

2009-2010

Founding of ZinCo Russia, ZinCo Ukraine and ZinCo Italia. Market launch of the system "Summer Meadow".

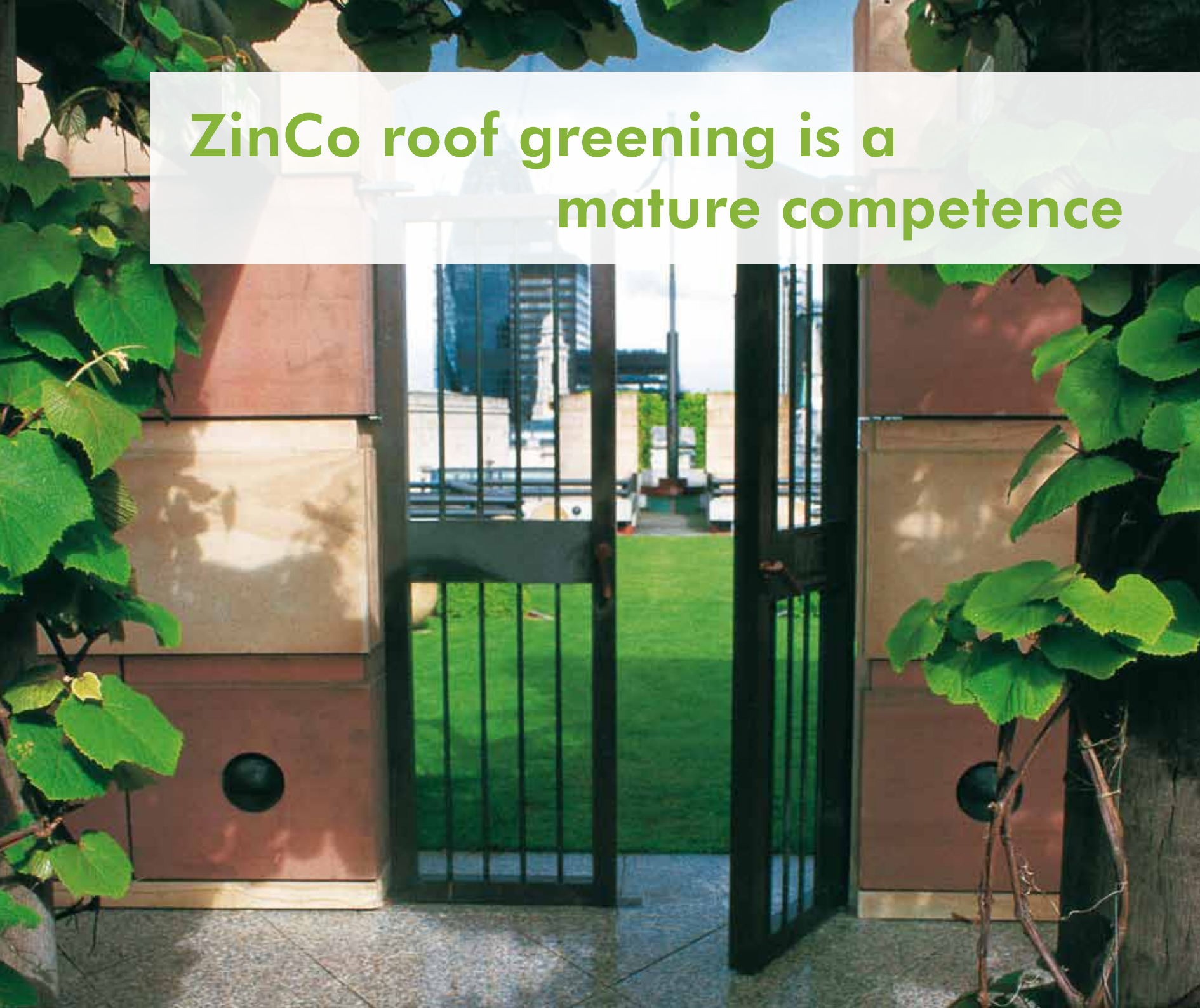
2011

Founding of ZinCo Norge, Norway. Market launch of Vertigreen®.

2012

Move in to the new technology center "Green Cubes".

We are leading architecture back to nature



ZinCo roof greening is a mature competence



Green roofs are based on a synthesis of various competency fields. The initial technical-physical-architectural orientation of ZinCo as a flat roof specialist has grown, step by step, to include knowledge and experience related to plants and microbiology, water management for plant growth and landscape design. In its close collaboration with scientific institutes, ZinCo has acquired the fundamentals for its special competence in the development and production of green roof system build-ups, which is recognized worldwide today.

Safeguarding our high quality standards is closely related to ZinCo's international commercial experience over several decades. The experience of our installation and service partners in various climate zones with different construction types and regulations all comes together at the ZinCo Technical Department. These ideas influence the development of new roof greening products and systems. At the same time, our partners benefit from the know-how and solution competence we have built up in adapting our system build-ups to specific architectural objects.

The goals are always the same for all projects of the ZinCo Technical Department: to provide top quality in all of our components and to generate innovative ideas for architectural visions.



Safe and reliable system build-ups by ZinCo are an investment in long-term building preservation, and their functional benefits are persuasive.

A key advantage is that the systems extend the life of roof membranes and roof construction considerably. Green roofs protect against UV rays as well as mechanical and thermal stresses.

The system build-up absorbs sound, which improves building noise protection. It also increases the thermal insulating value. In winter, this reduces energy losses and heating requirements, and in summer it provides thermal insulation due to the cooling effect of the plants.

Rainwater is stored in the system substrate materials. When heavy rains occur, water drainage into a building's storm sewer system is significantly delayed, reducing sewage system loads.

A natural microclimate with heightened oxygen production develops in the vicinity of roof plantings. Simultaneously, the plants filter out contaminants and reduce concentrations of fine dust in the air.

Roof landscapes extend a building's usable area and turn it into an attractive nature experience without the need for additional land.

Green roofs are better roofs



Contemporary architecture has a high level of social responsibility. It defines living spaces. The aesthetics of nature as an added dimension in the building process extends the formal design task, creating space for new ideas.

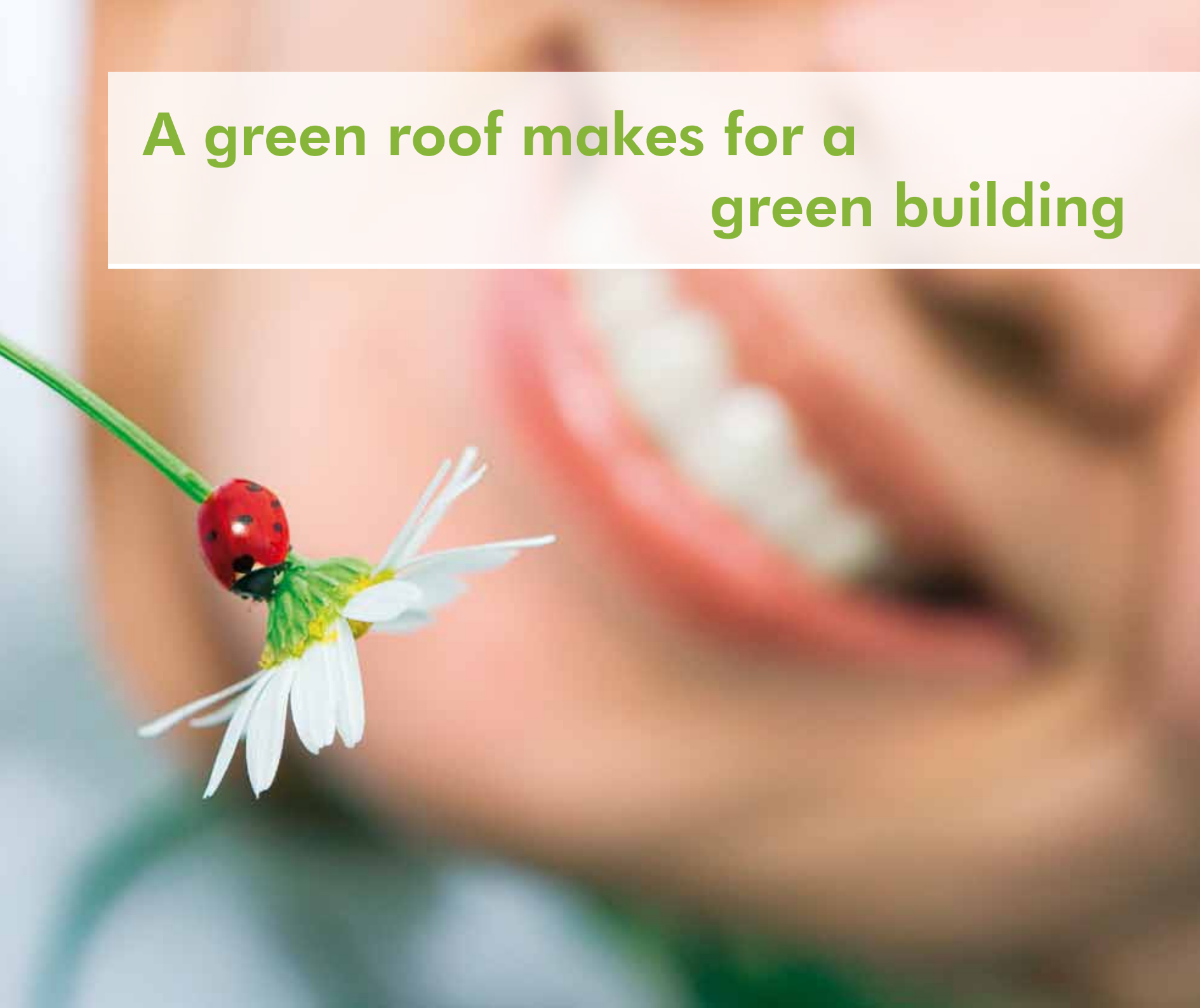
For people in urban areas, the possibility of experiencing nature offers a bit of quality to life. In the context of the residential environment, greened roof areas become spaces for private retreat. In public areas, they provide opportunities for meeting others, for recreation and for active ways to structure free time. Architects around the world are realizing their new goals together with ZinCo.

The integration of natural living spaces into architecture is certainly no longer just a vision. Engineered solutions for load-bearing structures and long-term preservation of building materials have existed for a long time now. Creative treatment of recovered outdoor areas is now creating opportunities for a wide variety of uses.

The ZinCo Technical Department develops customized solutions for attractive designs in roof landscapes. It offers concrete assistance in planning, layout of technical details and fundamentals for the bidding process. Experienced partner companies handle the professional on-site implementation of planning goals.

Nature as a creative dimension in architecture

A green roof makes for a green building





In the sum of their positive ecological and economic characteristics, green roofs make a relevant contribution toward achieving future-oriented sustainable architecture. They are in harmony with the objectives of environmental and climate protection.

Roof greening significantly extends the functional integrity of roof membranes. Durable, long-term building protection by the use of green roofs not only reduces costs for maintenance, renovations and disposal of roof sealing materials; it also conserves resources and energy for their reproduction. Today, this comprehensive perspective is increasingly being applied to computations of life cycle costs for a building, with the goal of long-term reduction of operating and management costs over its entire useful life. Heating and cooling energy savings based on green roof concepts have a dual effect: They reduce costs and protect the climate.

Green landscaping of roofs and roof terraces in new construction and renovations adds value to the building's substance, both visually and economically. The gain in usable space is simultaneously a gain in quality of life.



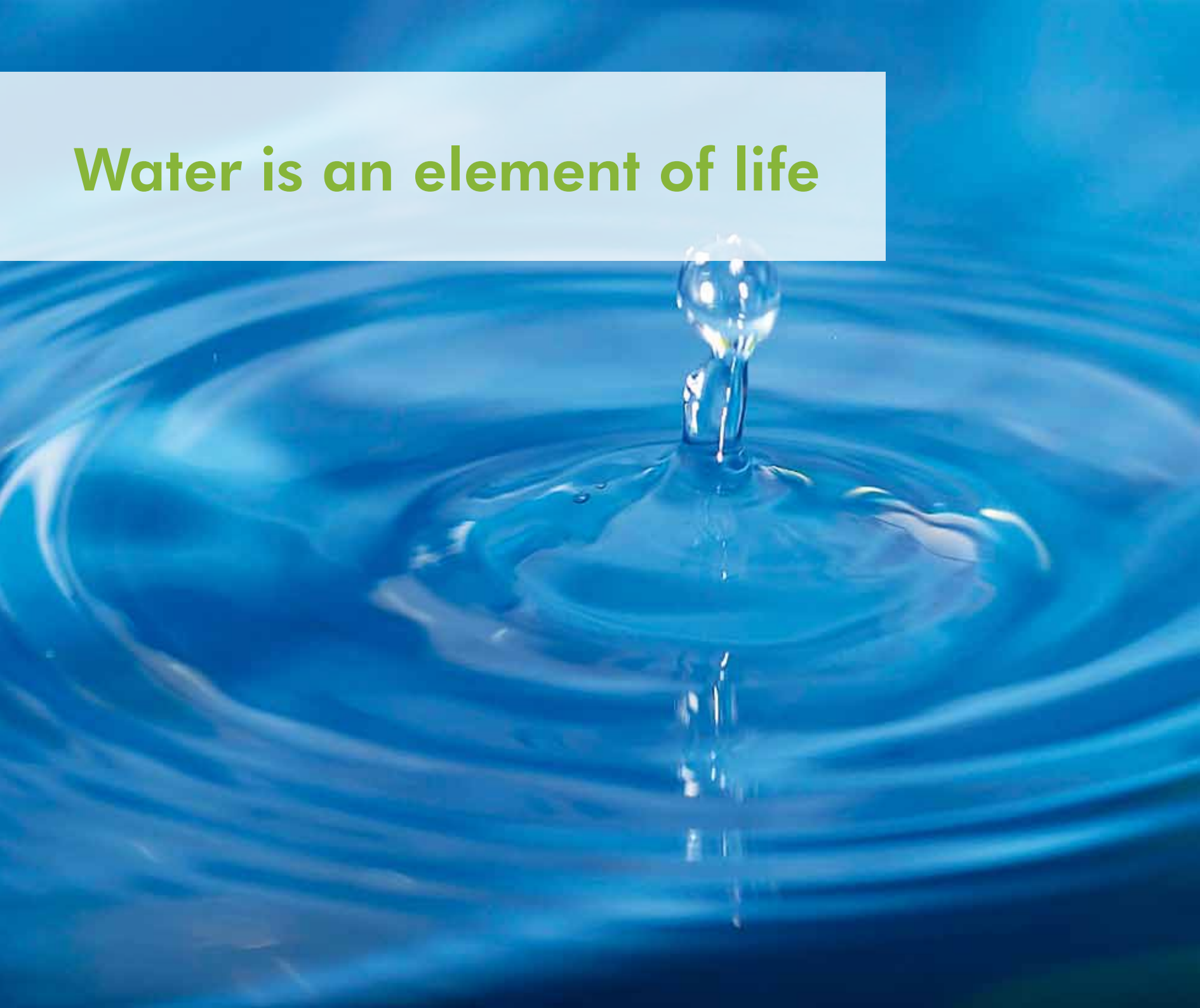
Water is one of the most valuable resources and is a life necessity – for people and flora. Green roofs make a protective and ecologically meaningful contribution to water management by their ability to store water.

In Central Europe, extensive green landscaping can generally be maintained without supplemental watering. The plant substrate that is installed retains up to 80 percent of the precipitation when it rains. This delays the drainage of excess water. Natural moisture in the roof plantings has a positive effect on the resulting microclimate.

Water has been used as a design element in landscape architecture for centuries. In traditional high-rise construction, however, many planners still consider water to be a "natural enemy." Yet water has long held a position of importance in conceptualizing green roof landscapes, and it enriches them with decorative fountains and watercourses.

The only crucial factors here are the load-bearing cpacity of the roof construction and the choice of the appropriate green roof build-up. The ZinCo Technical Department has acquired experience in internationally acclaimed projects. This professional knowledge is shared with our customers and partners.

Water is an element of life



Safety is a key consideration



The constantly growing number of green roof structures is bringing safety aspects into focus. Engineered systems for preventing falls are intrinsic components of our system competence. This applies to the construction phase as well as maintenance work and use of the space as a roof garden or for sports or recreational uses in private and public spaces.

ZinCo is a leader in the development of system-integrated safety equipment. All components for individual and general protection are optimally integrated into the ZinCo concept, and so they are economical and quick to install. Yet they can also be used independent of the system. All safety systems leave the roof membrane intact and penetration-free. The Fallnet® product line assures individual protection during planting and maintenance. Safety harnesses can be secured – with just a few hand movements – to anchorages on grid elements of the ZinCo system.

Roof garden and roof terrace users are protected by railings. ZinCo has developed a universal mounting base for this purpose that enables penetration-free assembly of railing systems and customized railing designs.



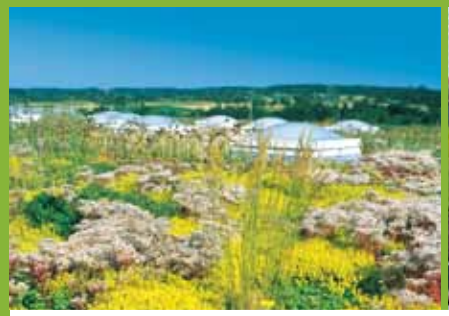
The sun is the foundation of life for plants and an inexhaustible source of energy for people. Exposed roof areas are in demand, both as sites for the recovery of clean, renewable energy by photovoltaics and as a green extension of living spaces. That is not really a conflict: utilization of roof areas for landscaping and the installation of solar power systems have proven to be a perfect combination offering technical and economical benefits.

The performance of photovoltaic systems depends on the ambient temperature. High temperatures, which on non-vegetated roof surfaces can easily rise to around 80°C, reduce power output.

The microclimate of green landscaped roof areas provides for cooling and improves the efficiency of solar power systems, making them more economical.

To install the solar technology, the ZinCo Technical Department has developed a solar base, a mechanical structure in the substrate that is compatible with the roof greening system. It offers secure mounting without damaging the roof membrane. The weight of the plant substrate anchors the solar energy systems adequately to withstand wind loads.

Roof greening with integrated energy recovery



The best green roofs always result from a partnership dialog between architect, client, construction trades and ZinCo. This dialog ensures that the client's expectations for building utilization and the architectural vision of the planner come together to form a technically sound and economically solid implementation. In the process, ZinCo handles coordination of this network as a competency center for adapting the system build-ups to specific architectural objects.

Internationally, ZinCo subsidiaries and specialized ZinCo construction partners provide local and optimal consultation and support of our customers.

Each new project expands the wealth of experience pool of the ZinCo Technical Department, and this serves as an ever-growing knowledge base that lets us take on new innovative challenges.

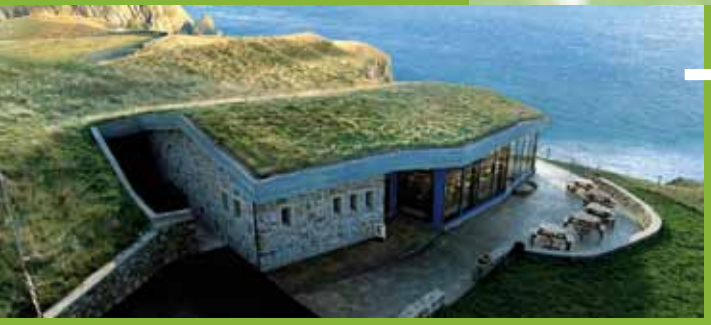
In seminars, training events and congresses we work with all of our partners to further develop our shared goal: the best green roofs of this world.

Underground garage, Netherlands

New Providence Wharf,
Great Britain

Roche Pharmaceutical, Israel

International School of Padua,
Italy



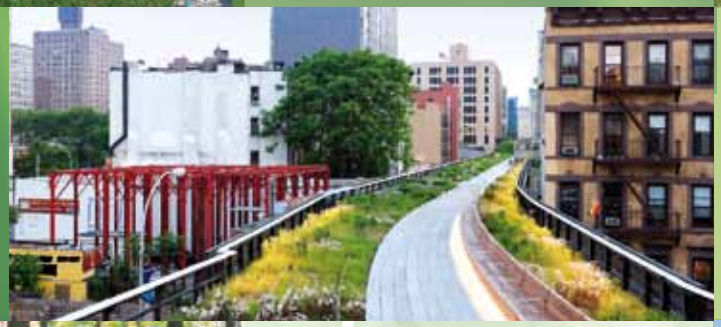
Gallie Craig, Great Britain

Underground garage, Spain

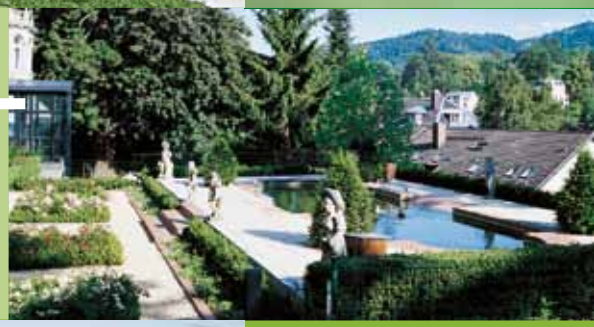
Meydan-Center, Turkey

Private Property, Switzerland

Hamilton Business Park,
Great Britain



Hotel Quisisana, Germany

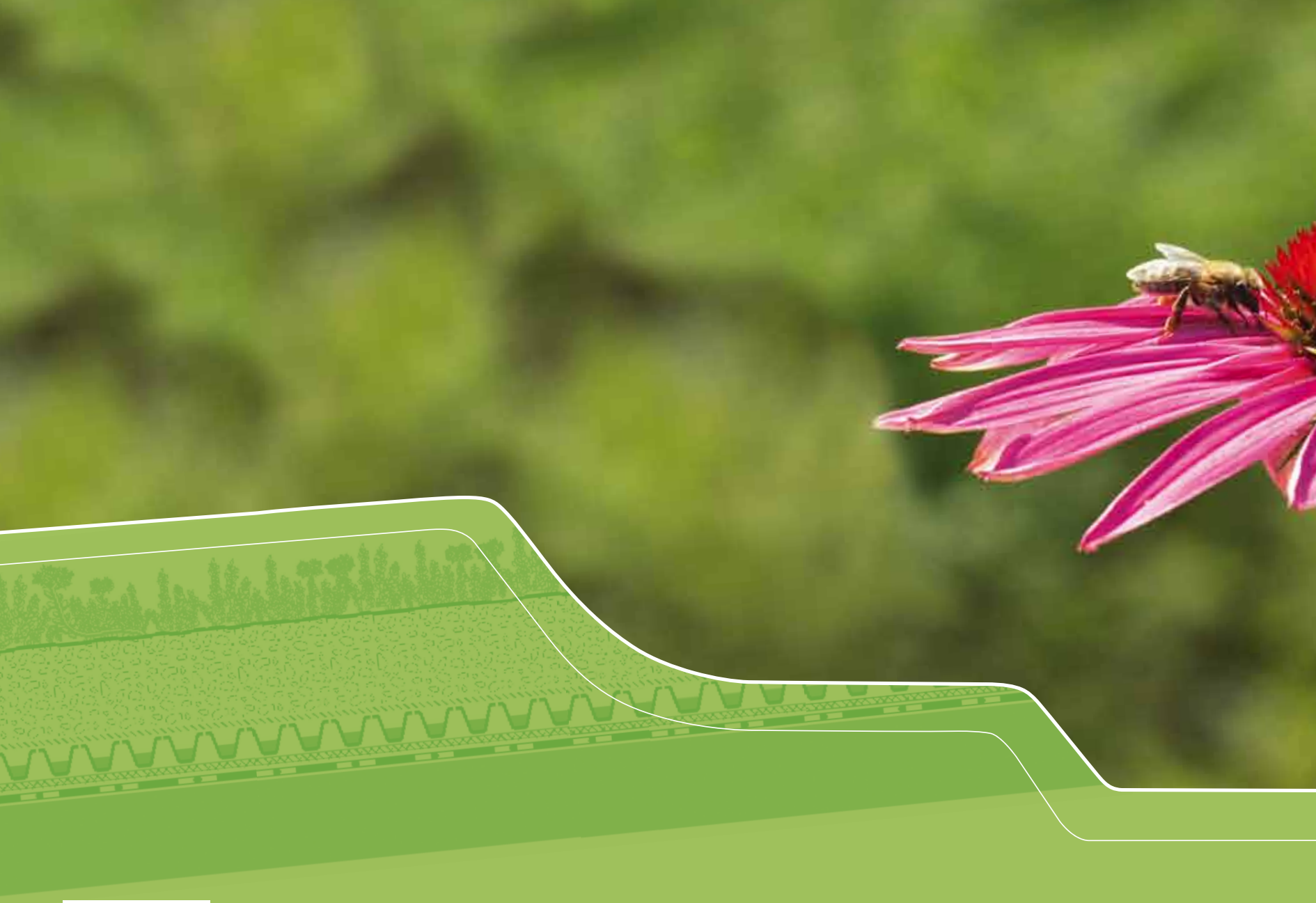


The High Line, USA

Jinlun Hotel, China

www.zinco-greenroof.com

Partnership for the best green roofs in the world



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