

Solar technology
for a changing world
Innovative photovoltaics from ralos[®]



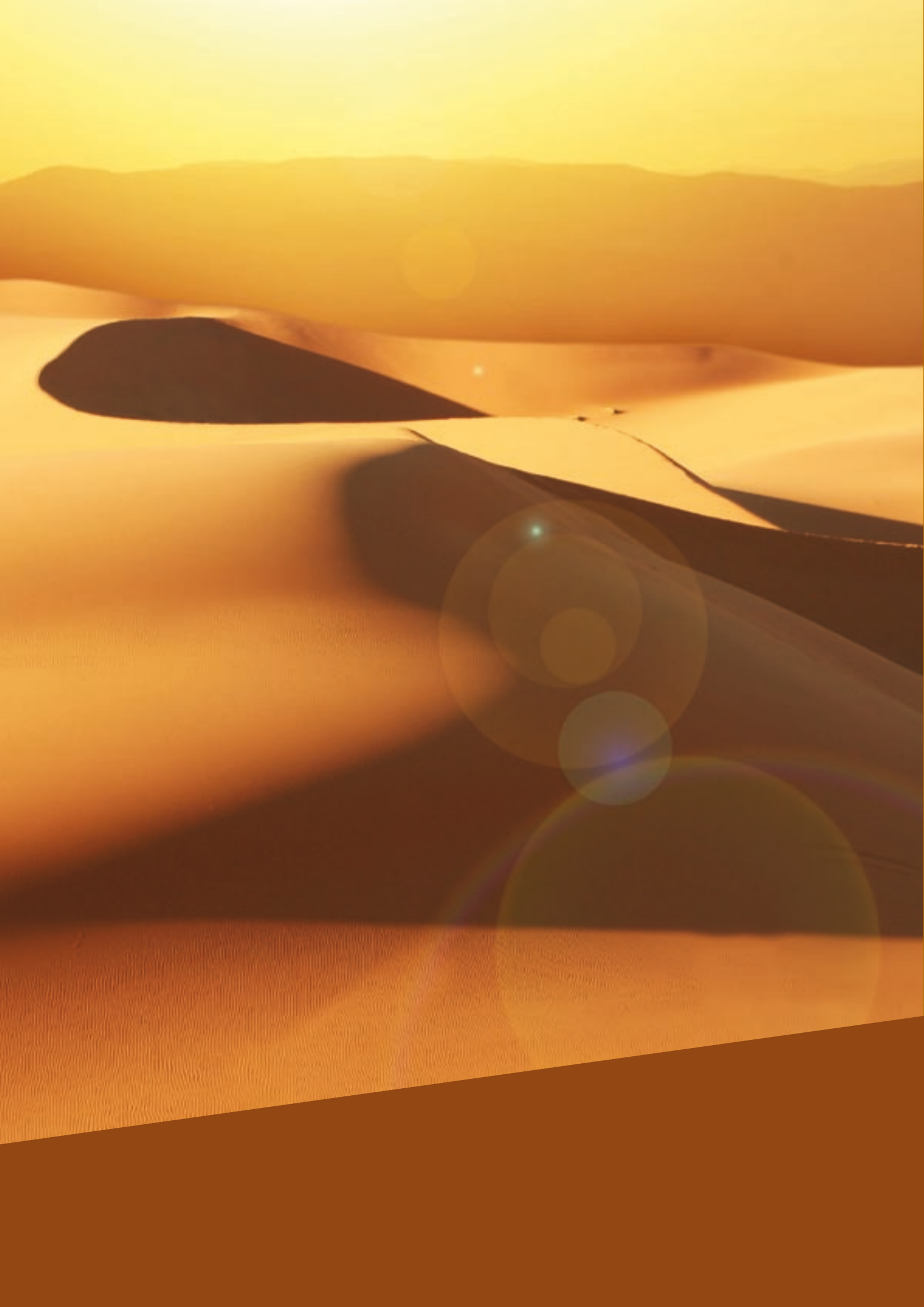
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The future lies in the harmony between nature and technology. We accept responsibility for maintaining a world worth living in for the following generations.

Global warming is progressing faster than expected. At the same time, the global demand for energy is increasing sharply. It is forecast that demand will have risen by approximately 50% by 2030. Renewable energies remain continually available and represent the way to a healthy future climate, especially in view of the exhaustion of fossil resources. We use the inexhaustible power of the sun and combine technological progress with sustainable thinking and action.

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The power of the sun is limitless.
The ideal basis for a company
with the greatest expertise in
photovoltaic energy.

Energy production from regenerative sources opens up vast possibilities. The solar irradiation falling on only 1% of an area of the Sahara desert would cover the world's entire energy needs. The growing market for solar technology is our capital. At our company, we concentrate on the development and marketing of innovative photovoltaic systems. What could possibly be a better investment for the future?

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The value of a company
can be recognised from the goals
that it pursues.



**In the beginning, there was an idea:
clean electricity for us,
our environment and our children.**

Our environment is changing radically. Biodiversity is continuing to decrease. The rain forests are shrinking day by day. Climate change and global warming are changing the ecosphere irrevocably. These developments endanger the foundation of our existence – for all of us, all over the world.



The energy problem is of central importance. While the demand for energy grows worldwide, stocks of fossil fuels continue to decrease. In addition to this, natural gas, crude oil and coal are causing serious pollution of the environment with their enormous emissions of the greenhouse gas, CO₂.

The need for action has never been so urgent. We are committed to the protection of the environment. And we oppose the current developments with a vision of our own evolution: the idea of a new unity of man, nature and technology. In this way we accept responsibility – for a world in which our children can still feel at ease.

We have understood.

To break new ground, new thinking is needed

We look beyond the present – into the world of tomorrow. It is our task to secure the energy of the future. From a global, ecological or social standpoint – the value of a sustainable energy supply is indispensable.

In order to maintain a sustainably high-quality life for humanity, we must provide access to clean, reliable and safe forms of energy. Our approach: energy that renews itself.

Regenerative forms of energy protect the climate, open up new markets, reduce dependence on imports of raw materials from abroad and create jobs in one's own country. And above all, unlike conventional forms of energy, they are inexhaustible.

In the future, sunlight will be our most important source of energy. Using photovoltaic technology, we can utilise this inexhaustible resource, converting the radiant energy into electrical energy – without polluting the environment with harmful emissions.

A global problem demands a global solution. That is why the ralos® Group is now already represented in many countries around the world. In the future it will systematically expand its international network.

In this way, an idea is becoming a movement spanning the world.





The world is in a state of constant change. **For us, this is an incentive to find new solutions and set new standards in quality and performance.**

Solar energy is available everywhere continually. Even when there is little solar radiation or when the sky is overcast, solar cells are highly efficient. In Germany, for example, the sun shines around 1,500 hours a year. With 130 sunny days a year and around 2,500 hours of sunshine, Sicily is the sunniest area in Europe. Regions close to the equator, such as, North Africa or the Arabian Gulf, offer high potential for the production of solar electricity. We feel at home in the places where we can harness the sunlight: everywhere in the world.

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The factors in our success – this is how we think and work.



Our actions have a clear direction – the energy of the future.

Our Vision

Our way of life needs to work in harmony with our natural environment and finding a solution to the problem of providing sufficient energy is essential for this. We are developing new energy provision models today for the world of tomorrow. And we use the most modern energy technologies to meet both national and international challenges.



Sustainability as a Principle

The results of our work have to pay off – for our customers just as much as for the environment. The two are closely connected. When a plant is profitable it also benefits the ecological balance. We therefore pay particular attention to the eco-balance, that is, the environmental effects of our systems over their entire lifetime: during production, their useful life and disposal – we think and act sustainably.

The Value of Planning

Good planning is the basis of every entrepreneurial success. We plan carefully and down to the last detail. This applies equally to our company strategy and to our projects. Our fundamental rule is that it is only through the combination of high-quality components that a valuable whole can be produced. That is why it is important to be able to count on the know-how and experience of our employees and partners. Together, we create what distinguishes ralos® systems: excellent quality.

Each Task is Different

We produce our systems irrespective of size and site. Regardless of whether they are photovoltaic plants for residential buildings, for agriculture, or for industry or are complex solar power stations – what is of decisive importance is that each project fulfils strict quality and efficiency requirements. No challenge is too big enough for us. We grow with our tasks.

The Future in Sight

We cultivate relationships with our customers that go far beyond supplying the plant. We maintain the value of our plants with a unique service for ongoing monitoring and servicing. Long service life and low maintenance operation are among our most important aims and every ralos® project carries our idea out into the world: creating solutions for the future of energy.



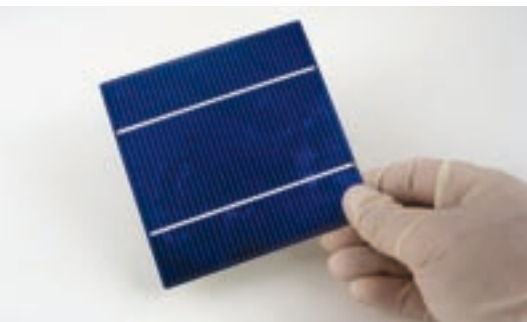
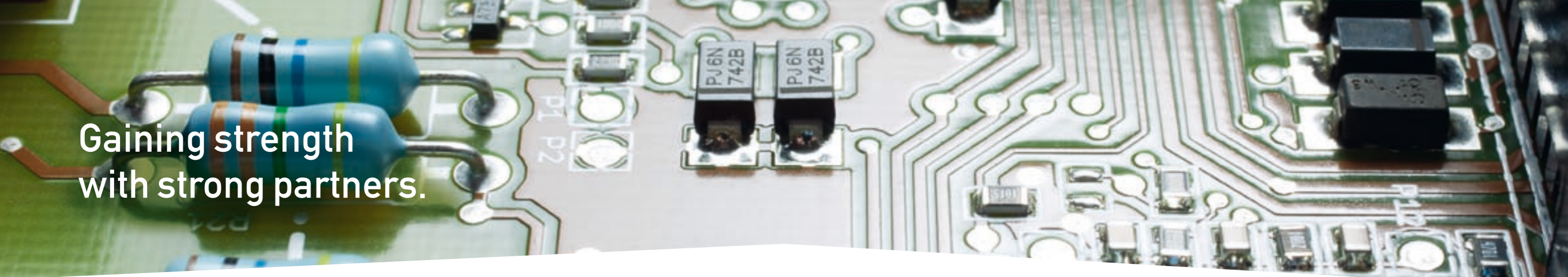


A perfect whole is composed of many parts. **Just as the highest quality only results from cooperation with excellent partners.**

The whole is always more than the sum of its parts, said the Greek philosopher Aristotle. This can mean, for example, that it is only when individual participants come together to form a unit that they can then perform their best work. In this way, individual specialists become a powerful team. That is why it is important for us to combine know-how, bundle capabilities and network tasks. We are only satisfied when these interlock. The result is outstanding quality.

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Gaining strength
with strong partners.



Partnership means striving together for perfection.

First-class quality is only achieved in cooperation with excellent partners. The cooperation partners of ralos® operate at the highest level of quality. They share our world-view and combine commercial thinking with responsible action. We benefit mutually from the prestige of our major and well-known brands – to everyone’s advantage.








The aim of our partnerships is an end-product of the highest quality: a long-lasting and reliable plant for decades of low-maintenance operation. This aim is achieved when all components are optimally coordinated with each other and interact in harmony.

We cultivate long-term relationships with our partners. Only in this way can the trust grow that is necessary for successful cooperation. And only in this way is it possible to secure the individual components required for warranty cases.

Strong partnerships strengthen performance. Our international network and the rapid transfer of information are the basis for opening up new markets and for the global expansion of our business activity. Together we achieve what can only be achieved together.

Selected cooperation partners

Conecon	Installation of solar plants	
Fronius	Inverters	
Kaco	Inverters	
Mitsubishi	Inverters and PV-modules (crystalline)	
Moserbaer	PV-modules (thin-film/crystalline)	
Refu	Inverters	
SMA	Inverters	
Solon	PV-modules (crystalline)	
Solutronic	Inverters	
Xantrex	Inverters	



At the beginning of something wonderful there is curiosity. That is why we are always a step ahead in the development of innovative technologies.

The principle of nature is continual further development. For example, 360 million years ago, the amphibians were the first living creatures to colonise the land from the sea – thus achieving a quantum leap in evolution. Following nature's example we search for and research technologies that supersede established forms of energy and lead us into the future. While doing this, we are not only optimising the efficiency of our plants but are also breaking new ground in design.

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With the ralos® Solar Academy
the future starts today.



The evolution of photovoltaics: we drive progress further onward.

Technological progress is unstoppable. All over the world, people are working passionately on ideas that help to improve our world. New applications and possibilities are constantly being created. With the ralos® Solar Academy we are making a contribution to this process. We want to lead the way. As a pace-setter and conveyor of knowledge we drive forward the evolution of photovoltaics and thus provide the market with new ideas.



Training

The process of rethinking starts at the roots – at the training institutions and colleges. Here are the germ cells of an attitude that is not content to settle for things as they are now, but instead searches actively and with dedication for innovative solutions. We encourage this potential. In addition to this we invite young people to take part in our projects, eye-to-eye and with fresh ideas.




Hochschule
Albstadt-Sigmaringen
Albstadt-Sigmaringen University



h_da
HOCHSCHULE DARMSTADT
UNIVERSITY OF APPLIED SCIENCES

Research and Development



Photovoltaics is continually developing, with new technologies, materials, requirements and approaches. This all demands a rapid and direct transferral of knowledge both internationally, across the limits of the disciplines, and in 'real time'. We network with the leading experts in photovoltaics, environmental technology and associated fields. We bring people together and bundle their capabilities. In this way we achieve our shared aim more quickly and efficiently.

Planning and Design



We give shape to the idea of energy for the future. We let ourselves be guided by the observation that no technology has been successful without contemporary and pioneering design. In the future integrated solutions will blend into their environments and supersede the principle of retrofitting. In collaboration with architects and town planners, photovoltaics will provide inspiration for designs of an entirely new type. A concept that is already conceivable would be the designing of a city that draws its entire energy exclusively from sunlight. Cooperation with industrial designers follows the same principle: the integration of photovoltaics into everyday life creates new needs, which in turn bring forth new solutions. In the future, photovoltaics will play an even greater and more visible role in our lives.

We are working on it.



The utilisation of regenerative energy sources is a global challenge. **As a solar technology company, we are set up internationally for this reason.**

The world is growing together. Forms of energy that preserve our natural environment are becoming all the more important. This includes the use of the most modern technology. Thanks to data transmission it is possible for us to check the condition and degree of utilisation of our plants and to initiate the right service measures when necessary – at any time and from anywhere in the world. In addition, the expansion of our international marketing network means that we are still local to our customers.

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An idea spanning the world – our sites.

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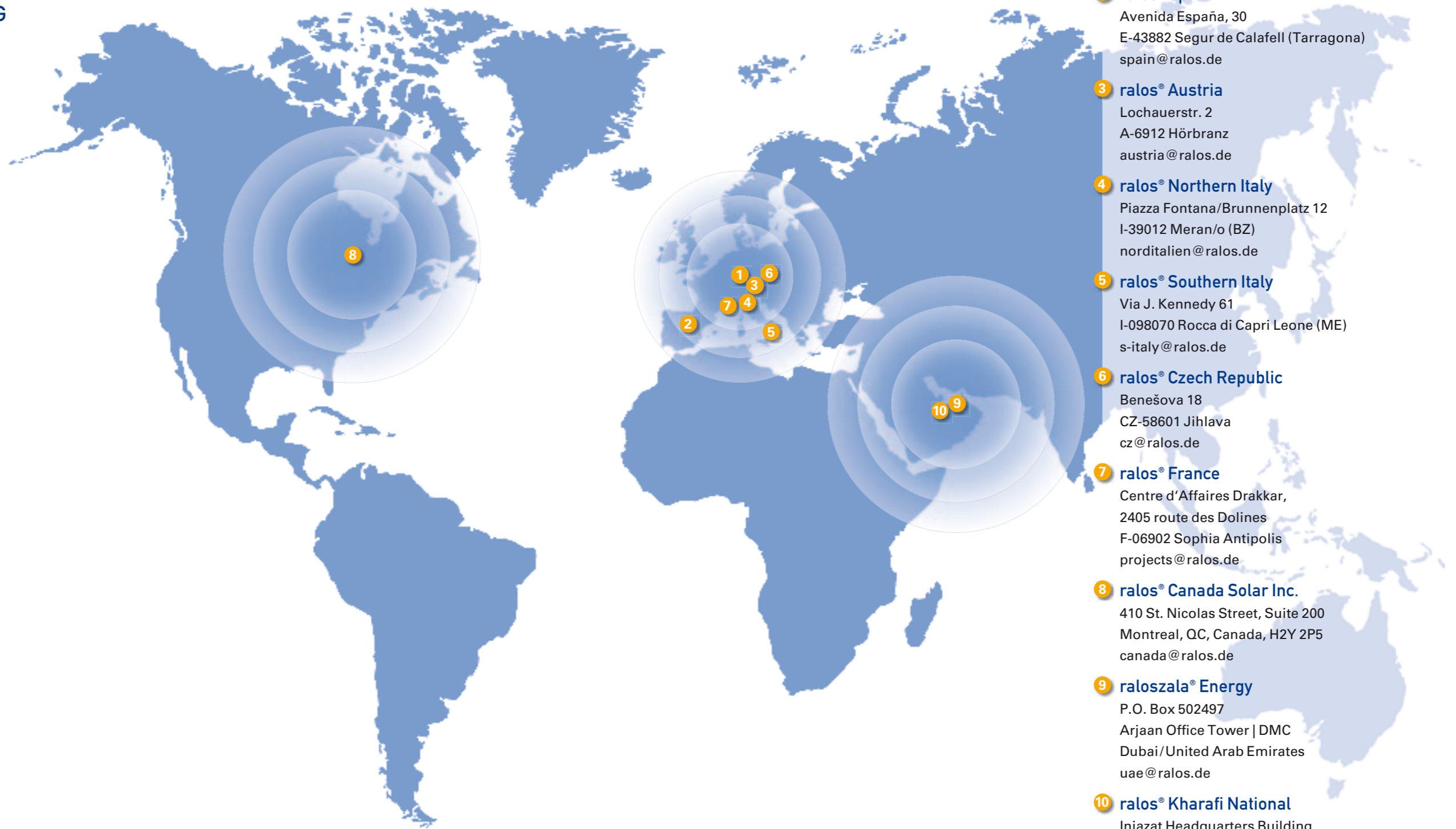
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