

## Joint Press release

nova-Institut GmbH ([www.nova-institute.eu](http://www.nova-institute.eu))

GO!PHA ([www.gopha.org](http://www.gopha.org))

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## PHAs: Tenfold increase in production capacity in sight in just six years

### Market report “Mimicking Nature – The PHA Industry Landscape. Latest trends and 28 producer profiles” published

Natural PHAs are a class of materials that exist in nature for over millions of years. These materials are both bio-based and biodegradable, similar to other natural materials such as cellulose, proteins and starch. Natural PHAs are produced by an extensive variety of microorganisms through bacterial fermentation. Due to its high performance, biocompatibility, biodegradability and green credentials, the PHA family has a large design space and accommodates a wide range of market applications, as a broad variety of different polymers can be produced and blended. The potential of PHAs is enormous.

Natural PHAs have been intensively researched for many years and many hopes for more environmentally friendly polymers are based on these PHAs. There have been highs and lows over the last 20 years, several expansions and scale-up plans have been postponed or even cancelled. A few reasons for that were the challenges of technology scale-up, product and application development needs, an underestimation of how much time it takes for a new polymer-platform to penetrate the market and the time it takes for previously unconnected disciplines to understand each other for the benefit of successfully addressing all opportunities. But now, the momentum for this new polymer platform is rapidly changing for the better.

At the end of 2021, there was an installed manufacturing capacity of about 48 kt/annum up and running, based on the information from the companies described in the market report “Mimicking Nature – The PHA Industry Landscape. Latest trends and 28 producer profiles”. Capacity expansions have been announced and there are numerous plants under construction. Together, the manufacturers aim for a manufacturing capacity of about 570 kt/annum by 2027.

Developing new products to create a sustainable future for polymers, respecting the environment and our future generations is the motivation for most parties working on this new materials platform. They are in tune with a rapidly changing plastics industry.

Most companies portrait in the market report are/were start-ups when they began their natural PHA activities. Only six companies are already established in the market.

The report is a must-read for all those interested in the very latest in PHAs, as developers, producers or, above all, users. The information on the companies described has been checked with each of them and is state-of-the-art for February 2022.

Author of “Mimicking Nature” is Prof. Jan Ravenstijn, who has been working intensively on the topic of PHAs for 20 years, is the author of numerous publications and co-founder of the Global Organization for PHA, **GO!PHA** ([www.gopha.org](http://www.gopha.org)). The report is a joint publication of **GO!PHA** and nova-Institute ([www.nova-institute.eu](http://www.nova-institute.eu)).

“Mimicking Nature – The PHA Industry Landscape. Latest trends and 28 producer profiles” is available at [www.renewable-carbon.eu/publications](http://www.renewable-carbon.eu/publications) starting at 1,500 €.

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