

## Press release

nova-Institut GmbH ([www.nova-institute.eu](http://www.nova-institute.eu))  
Hürth, May 15, 2017



## “Bio-based Materials of the Year 2017” Announced

**Winners are packaging materials based on agricultural residues from BIO-LUTIONS (DE), new generation paper bags from Paptic® (FI) and the first biotech raspberry fragrance from Phytowelt (DE)**

The Innovation Award "Bio-based Material of the Year 2017" was awarded to three innovative materials in specific applications. The competition focused on new developments in the bio-based economy, which have had (or will have) a market launch in 2016 or 2017. The winners were elected by the participants of the 10<sup>th</sup> International Conference on Bio-based Materials in Cologne, Germany ([www.bio-based-conference.com](http://www.bio-based-conference.com)). Award sponsor is InfraServ GmbH & Co. Knapsack KG, a service provider for the planning, construction and operation of plants and sites.

The “International Conference on Bio-based Materials” is a well-established meeting point for companies working in the field of bio-based chemicals and materials. Almost 200 participants, mainly from the industry and representing 25 countries, met in Cologne to discuss the latest developments in the sector. 25 companies presented their products and services at the exhibition. The event was supported by Novamont.

Currently, the bio-based economy is developing well. We see a lot of investment in medium-sized production plants and double digit growth for new bio-based building blocks and platform chemicals. They are precursors for new bio-based polymers, composites, textiles, adhesives, solvents, detergents or lubricants, which provide new features and properties for a wide range of end products. The worldwide leading companies in the field of new bio-based building blocks presented their latest developments and applications at the event in Cologne.

The conference presentations highlighted bio-based solutions with special features and properties. As representatives of a new sustainable green chemistry, they have a lot to offer and will conquer the market. What comes next? The winners of the award are great examples of this new generation of bio-based products with improved features.

Six companies out of about 20 applicants were nominated by the conference’s advisory board and experts of nova-Institute. Each nominee introduced its innovation in a short 10-minute presentation to the audience. The three winners were elected by the participants of the conference and announced at the traditional gala dinner.

nova-Institute and the award sponsor InfraServ GmbH & Co. Knapsack KG (DE), are proud to announce the winners of the “Bio-based Material of the Year 2017”, which are from Finland and Germany:

**First place: BIO-LUTIONS (DE): Upgrading agricultural residues to packaging materials [www.bio-lutions.com](http://www.bio-lutions.com)**

With its innovative mechanical process, BIO-LUTIONS produces high performance ecologically sustainable packaging and disposable tableware made directly from agricultural residuals. For this, BIO-LUTIONS works with small farmers in India and China. Converted into self-binding natural fibres, this innovation lets the contaminating and energy-intense process of cellulose extraction to be a thing of the past. The final products can either decompose under normal conditions, be used for biogas production and can be recycled or burned with a nearly CO<sub>2</sub> neutral carbon footprint. Local raw material, local production and local market – decentralisation is the key.

**Second place: Paptic® (FI): The next generation of paper bags – lighter and stronger [www.paptic.com](http://www.paptic.com)**

Paptic® is replacing oil-based plastics with bio-based, recyclable and reusable PAPTIC® materials, which uses a novel wood fibre for a bioplastic composite paper combining the benefits of paper, plastics and textiles. Furthermore, this material can be recycled in existing paper recycling facilities. First application of PAPTIC® is carrier bags, addressing the EU directive target for 55% reduction of plastic bag use by 2019. PAPTIC® bags have been launched to market in June 2016. The patented PAPTIC® technology is based on foam forming technology which is using 30% less energy and enabling up to 50% light weighting of products, when compared to traditional papermaking.

**Third place: Phytowelt GreenTechnologies (DE): High-quality raspberry fragrance with the help of biotechnology [www.phytowelt.com](http://www.phytowelt.com)**

The (R)-alpha-Ionone is the main component of raspberry fragrance. Usually it is synthesized chemically as a racemate which contains the enantiomer (R)-alpha-Ionone as well as the distomer (S)-alpha-Ionone. The (S)-form has a woody and musty flavour which gives the chemical racemate a different and impure fragrance. However, it is complex and uneconomic to separate the two molecules. With its patented process, Phytowelt is now able to produce only the desired (R)-alpha-Ione. Therefore, the raspberry fragrance is chiral pure, smells intensive and is, because of the biotechnological production, a natural flavour component. It is used in food, drinks, perfumes, drugs and other applications. This raspberry fragrance is the first natural essence in the market which can be produced in high quantity as well as quality resulting in a high competitive advantage.

**Click here for more information on the six nominated candidates and the winners:**  
[www.bio-based-conference.com/award](http://www.bio-based-conference.com/award)

**The following pictures can be downloaded at this link (please include the source):**  
[www.bio-based-conference.com/media/files/2017/17-05-15-Bio-based-Material-of-the-Year-2017-pictures.zip](http://www.bio-based-conference.com/media/files/2017/17-05-15-Bio-based-Material-of-the-Year-2017-pictures.zip)

**Responsible under press legislation (V.i.S.d.P.):**

Dipl.-Phys. Michael Carus (Managing Director)

nova-Institut GmbH, Chemiepark Knapsack, Industriestraße 300, DE-50354 Hürth (Germany)

Internet: [www.nova-institute.eu](http://www.nova-institute.eu) and [www.bio-based.eu](http://www.bio-based.eu)

Email: [contact@nova-institut.de](mailto:contact@nova-institut.de)

Phone: +49 (0) 22 33-48 14 40

nova-Institute is a private and independent institute, founded in 1994; nova offers research and consultancy with a focus on bio-based and CO<sub>2</sub>-based economy in the fields of feedstock, techno-economic evaluation, markets, sustainability, dissemination, B2B communication and policy. Today, nova-Institute has 25 employees and an annual turnover of more than 2.5 million €.