

HORIZON
2020

Re-Think All Plastic Packaging

Fact Sheet

Project Information

ReTAPP

Grant agreement ID: 691414

[Project website](#) 

DOI

[10.3030/691414](https://doi.org/10.3030/691414) 

Project closed

EC signature date

19 November 2015

Start date

1 November 2015

End date

30 April 2018

Funded under

Horizon 2020 Framework Programme

Total cost

€ 3 340 625,00

EU contribution

€ 2 338 437,50

Coordinated by

METGEN OY



Finland

Objective

The ReTAPP project aims at producing wood-based fructose for production of plastic bottles and all plastic packaging.

The ReTAPP project will generate fructose from wood to commercial process as a replacement for food/starch based fructose. The fructose is further converted to 5-hydroxymethylfurfural (5-HMF) – a chemical that can be used to produce a biobased polymer, Polyethylene Furanoate (PEF). Ultimately, ReTAPP will make it possible to make the plastics from wood – a solution not just sustainable and 100% renewable, but also technically and economically superior to the technologies and materials used

today.

In ReTAPP, the consortium will improve the processes through enzymatic solutions to positively impact quality, performance and economics: In the end, the wood-based fructose must be better than food-based fructose for further in chemical conversion in industrial scale. Even more importantly, the overall process, including but not limited to the fructose conversion, is also made economically more sustainable than the petroleum or the food-based solutions. Ultimately, the 100% renewable packaging is more affordable and has better qualities, such as barrier properties, than the most common thermoplastic resin: polyethylene terephthalate (PET).

ReTAPP enables the collaboration between consortium members to address the entire value-chain and achieve objectives none of the companies could achieve alone. European competitive advantage can be found in strength of collaboration between masters of their field, such as MetGen, SEKAB and Avantium.

Fields of science (EuroSciVoc)

[social sciences](#) > [economics and business](#) > **[economics](#)**

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#) > [fossil energy](#) > **[petroleum](#)**

[natural sciences](#) > [chemical sciences](#) > **[polymer sciences](#)**

[agricultural sciences](#) > [agriculture, forestry, and fisheries](#) > **[forestry](#)**



Keywords

[biotechnology](#)

[Advanced processing](#)

[enzyme](#)

[fructose](#)

[HMF](#)

[PEF](#)

Programme(s)

[H2020-EC - Horizon 2020 Framework Programme](#)

MAIN PROGRAMME

[H2020-EU.3. - PRIORITY 'Societal challenges](#)

[H2020-EU.2. - PRIORITY 'Industrial leadership'](#)

Topic(s)

Call for proposal

[H2020-FTIPilot-2015-1](#)

[See other projects for this call](#)

Funding Scheme

[IA - Innovation action](#)

Coordinator



METGEN OY

Net EU contribution

€ 1 121 750,00

Total cost

€ 1 602 500,00

Address

RAKENTAJANTIE 26

20780 Kaarina

+ Finland

SME

Yes

Region

Manner-Suomi > Etelä-Suomi > Varsinais-Suomi

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Participants (3)



AVANTIUM CHEMICALS BV

 Netherlands

Net EU contribution

€ 408 712,50

Address

ZEKERINGSTRAAT 29

1014 BV Amsterdam 

SME 

Yes

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 733 875,00



THIRD-PARTY 

AVANTIUM SUPPORT BV

 Netherlands

Net EU contribution

€ 105 000,00

Address

ZEKERINGSTRAAT 29

1014 BV Amsterdam 

SME 

Yes

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



SEKAB E-TECHNOLOGY AB

 Sweden

Net EU contribution

€ 702 975,00

Address

Hoernborgsvaegen
89121 Oernskoeldsvik 

Region

Norra Sverige > Mellersta Norrland > Västernorrlands län

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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[HORIZON collaboration network](#) 

Total cost

€ 1 004 250,00

Last update: 7 August 2024

Permalink: <https://cordis.europa.eu/project/id/691414>

European Union, 2025