



LIFE 12 ENV/IT/000600

**The Life project.** Since October 2013 Advanced Polymer Materials is project leader of BiMoP, two-year European project that aims the production of thermo- and photo-curable paints, adhesives and composites. These new biodegradable and compostable monomers and unsaturated polyesters have been synthesized by using itaconic acid to be used in flexible packaging for food contact in combination with other biodegradable thermoplastic polymers, such as polylactic acid (PLA), and for the production of biocomposites and flexible abrasive tapes.



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**R&D on the chemical modification of itaconic acid produced by biorefinery for:**

1. synthesis of monomers obtained by chemical modification of itaconic acid.
2. synthesis of 100% unsaturated polyesters obtained from renewable resources
3. synthesis of crosslinking agents for epoxy resins based on itaconic acid derivatives.
4. Preparation of polymer matrix biophysics with fibers and tissues of natural origin
5. chemical modification with commercial polyolefin itaconic acid in extrusion processes.



LIFE 12 ENV/IT/000600

**Expected Results**

The BiMoP project aims to produce unsaturated monomers and polyesters as an alternative to commercially harmful to human health and the environment, for the production of:

1. biodegradable and compostable thermal and photo-polymerizable adhesives, paints and inks
2. crosslinking agents from renewable resources for commercial epoxy resins
3. commercial polyolefins as hot stickers
4. Abrasive tapes without styrene and formaldehyde emissions
5. Bio-composites with polymeric matrix with natural fibers



LIFE 12 ENV/IT/000600



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### associated beneficiaries

#### **Imperial SpA**

Via Amendola, 25  
Sermide (Mn)



[www.imperilabrasivi.com](http://www.imperilabrasivi.com)

#### **Polynt SpA**

Production facilities  
Scansorsciate (Bg)  
San Giovanni V.no (Ar)



[www.polynt.it](http://www.polynt.it)

*Università di Padova*

Dipartimento di Ingegneria Ind.le



[www.unipd.it](http://www.unipd.it)

### coordinating beneficiary:

#### **Advanced Polymer Materials Srl**

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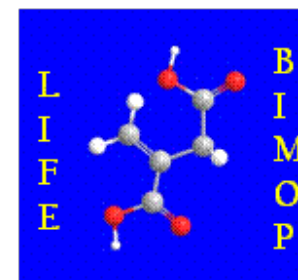
[www.apmlab.com](http://www.apmlab.com)

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### Bio-inspired thermo- and UV curable monomers and polymers



#### **BiMoP**

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LIFE is the EU financing tool as support of the environment and climate. The general objective of LIFE is to contribute to the implementation, updating and development of environmental and climate policy with EU co-financing projects  
[ec.europa.eu/environment/life](http://ec.europa.eu/environment/life).

realized with the financial contribution of the European Commission with the LIFE projects

**Progetto EC LIFE12/ENV/IT/600**

[www.life-bimop.eu](http://www.life-bimop.eu)

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