



## PRIAM

### PHOTOBIOREACTOR FOR PRODUCING HIGH ADDED VALUE MOLECULES

The PRIAM project involved developing a system for producing microalgae for biotech applications. It was based on an intensive, controlled pilot photobioreactor operating at high production capacity and offering low energy consumption.

The project led to the design of a pilot photobioreactor that uses artificial light and LED technology and meets the initial objectives of the project. The modular system developed uses internal lighting panels that can be easily scaled up to encompass a volume range of between 10 and approximately 1000 litres per production unit. Continuous culture produced 3.7kg to 3.8kg/m<sup>3</sup>/day, a volume of around 15 to 30 times greater than current technologies.

The photobioreactor is particularly aimed at emerging markets in microalgae: production of plant molecules of interest to the food or health sector, molecule production platforms for chemistry and effluent decontamination, and bioenergy production.

#### Spin-offs and future developments

- Two patents issued
- Two scientific papers and 2 project presentations given at symposia
- PRIAM technology is currently being developed on an industrial scale. A company is being created for this purpose

#### Partners

##### Research centers

Université de Nantes, laboratoire GEPEA,  
Nantes [\[Project Developer\]](#)  
Institut Pascal, laboratoire GEPEB,  
Clermont-Ferrand

#### Funder

- Agence Nationale de la Recherche

#### Labelisation

14/09/2012

#### Overall budget

433 K€