

Brief presentation of the company Necton S.A.

Our Mission is to exploit innovative products resulting from scientific knowledge in Marine Technologies. Necton is specialized in the production and processing of microalgae for the extraction of valuable compounds. The available scientific, technological and market knowledge involves applications in several sectors, including: Feed, Aquaculture, Agrofood, Health Food, Cosmetic – and more recently Biofuels.

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There is a wide expertise in carotenoids (beta-carotene, astaxanthin), polyunsaturated fatty acids. The company has a unique small scale of marine and freshwater microalgae production facility. Several technology platform production range from small scale (50 liters plastic bags) to 1.000 liters photobioreactors (PBRs). Necton's proprietary technology with three types of PBRs makes possible to cultivate freshwater, sea salinity and hyper saline microalgae of many *genera*. And even though, Necton is actually focused in the production of ***Nannochloropsis spp.***, the PBR technologies can be adapted according with the production objectives, and used for the production of *Tetraselmis sp.*, *Isochrysis* (T-ISO), *Phaeodactylum tricornutum*, among others.

Necton is in the market with the product **PhytoBloom green formula** since 2000, consisting in a *Nannochloropsis* concentrate, was initially developed for the Green-Water applications and now is used, with success, in hatcheries, aquariums and R&D institutions. Necton also developed a state-of-the-art preservation system for marine microalgae – this advanced system keeps viable microalgae (99%) stored at 4°C in bottles without light for nine months.



Photobioreactors

PhytoBloom prof has the same biochemical properties than **PhytoBloom green formula**, but in addition it presents the advantage of easy storage and transportation. **PhytoBloom prof** can be stored at room temperature, in a dark and dry place for at least two years. Other microalgal solutions are produced on demand for cosmetics and other sectors.

Necton is located in a 23 ha salt marsh, between the cities of Faro and Olhao in the Natural Park of Ria Formosa, South of Portugal (Europe).

Previous experience

Necton has a unique experience in the business minded scale-up of microalgae production technologies for a wide range of applications, both freshwater and marine – and using raceways and PBRs.

Started operation: 1989 (research, prototype and pilot plant)
Established: 1997 (commercial production with raceways)
Large Scale: 2001 (flat panel photobioreactors)
2006 (tubular photobioreactor)

Necton has collaboration activities with several universities, research organizations and companies working with microalgae products and technologies.

National R&D projects: NOVALGAS (1999-2001); AQUALGAS (2001); CAROTENOIDES (2002-2003); BIORECICLA (2002-2003); OVERCAROTEN (2002-2005); ANTIVIRAL (2006-2008); BOTRYOFUEL (2007)

International R&D / Dissemination Projects: CAROTENOIDES (1994-1997); ASTAXANTHIN (1997-2000); PUFATECH (1997-2000); PUFAFEED (2001-2003); ALGINET (2003-2005); PHAGEVET-P (2005-2008)

Commercial partnerships

Necton has been in the hatchery market since the year 2000 selling its products to mediterranean hatcheries of sea bass, sea bream, sole, and other species also cultured in the basin. Our products are used for live prey production. Necton also commercializes microalgae as freeze-dried powder for feed manufacturers.

The commercial relationships established are envisaged as partnerships since the hatchery managers are supported through the production season with a “hand-in-hand” technical service and a fast response to orders with daily harvested product.