

# France

## 2009 - 2021

### Battery, hybrid and solar vessels



The French Electric Boat Association has an important corpus of 50 active and professional members. With pioneer companies such as Ruban Bleu of Nantes, by 2020 the total number of small pleasure boats, privately owned or for rental, has grown to 9,000.

Meanwhile Alternative Energies of La Rochelle, founded in 1996 by Philippe Palu de la Barrière, starting with a 35PAX solar-powered ferry, have progressed to 15 such boats for various cities in France (Paris, Bordeaux, Marseille, Rouen, Strasbourg, Ajaccio, Calais, la Rochelle, Lorient, Nantes and Toulon).

**2009** In 2009 ODC marine introduced the first passenger ferry powered by lithium batteries and in 2012 first hybrid passenger vessel. These are part of a 70-strong nationwide fleet of hydrogen fuel and all-electric passenger boats,

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## Commuter Ferries • Battery Ferries • Solar Ferries



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built by other shipyards such as the Chantier Naval Franco Suisse, Transfluid, Torqeedo, Fisher Panda and Naviwatt, Mayday, ABB, ODC Marine with capacities from 12 to 200 passengers.

**2009** In 2017 AE developed a fuel-cell sea ferry called Galilee. They also worked with NavAlt in India to create their first solar-electric ferry Aditaya (see Kochi Case History below).

AFBE, led by their President Xavier de Montgros, are also the interlocutors of professional organizations and public authorities, asked to participate in various working groups, such as the ISO standard on electric propulsion through AFNOR or the PAMI (Modernization and Innovation Assistance Plan) system of VNF for a cleaner river fleet.

AFBE is also part of the Federation of Nautical Industries, the EcoNav network and the Groupement des Industries de Construction et Activités Navales (GICAN) and the Maritime Cluster.

While those wishing to build or retrofit electric boats in France can obtain financial aid, recent legislation passed by the French Government requires any harbour with more than 200 berths to set aside 1% for electricity complete with recharging points. This will create 2000 berths by the end of 2021.