



## Customized Decompression : Air/Nitrox/Trimix – Open and Closed Circuit

O'Dive is a patented innovation that - for the first time in the world - allows scuba divers to personalise their diving practice by taking into consideration gas microbubbles detected in their venous system after diving.

### Decompression, a field to explore

For a 30-minute air dive at 30 metres and based on a standard level of conservatism (L0), **divers can be offered 12 to 21 minutes** of decompression stops depending on the model of their computer. **This range extends from 8 to 50 minutes** if all available settings are considered.

Given the diversity of decompression algorithms and the number of possible settings, **divers have no tangible criteria to assess the level of suitability of their procedures** to their own body.

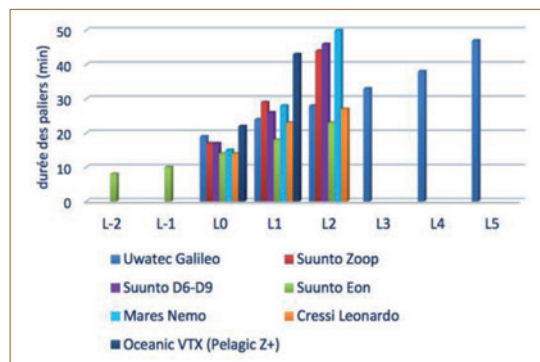


Illustration of the decompression stops duration for a 30'/30m dive

### A connected technology to better control the diving practice

O'Dive includes a robust, compact vascular microbubble sensor (ultrasonic Doppler technology) connected to a server with specialised analysis capabilities.

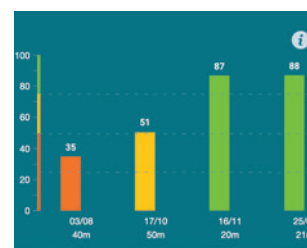


After the dive, divers place the sensor for twenty seconds under their right then left clavicle; they enter their dive parameters on the O'Dive application and synchronise their data.

About an hour later, they can visualise a personal QI index which value, between 0 and 100%, reflects the quality of their decompression.

3 zones are identified to guide them:

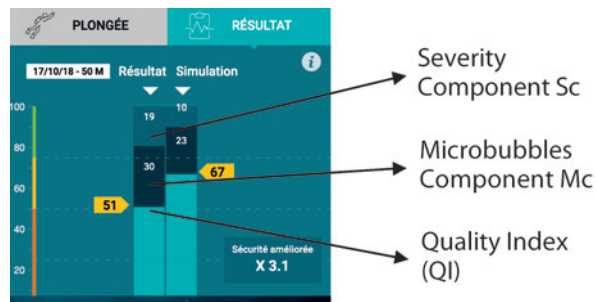
<b>75% to 100%</b>	Good quality procedure, where optimisation is still possible
<b>50% to 75%</b>	Intermediate quality procedure, with significant room for improvement
<b>0 to 50%</b>	Procedure and/or practice (recommended) to be improved



This index is designed so that when it increases by 33%, the diver's safety level is multiplied by 10.

## A detailed outcome

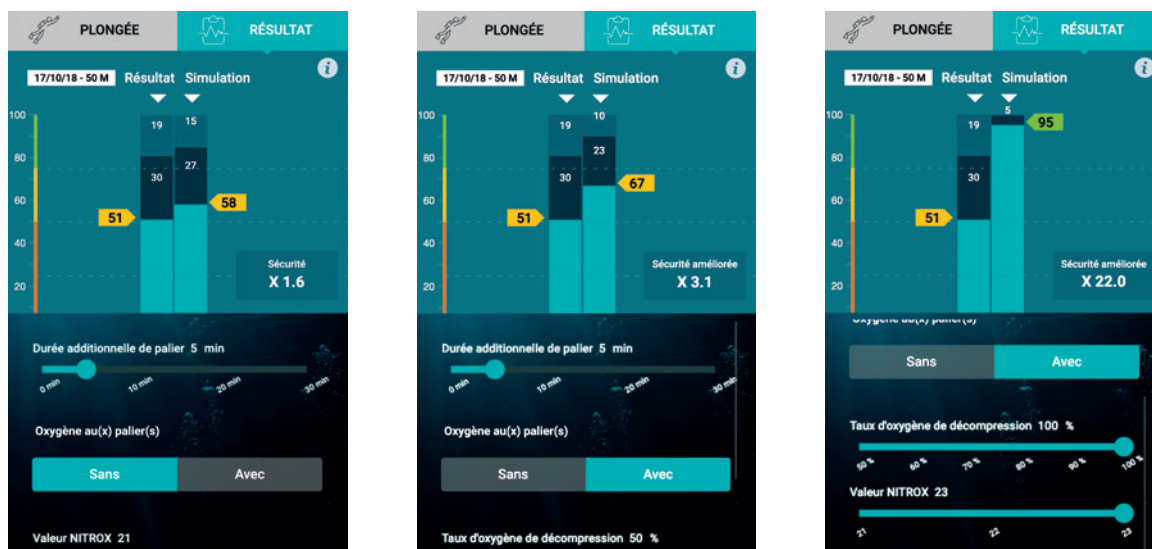
When the quality index QI does not reach 100%, divers can access detailed information specifying the part of their result attributable to the severity of the dive itself (parameters) and the part attributable to the level of detected vascular microbubbles.



## A fully customised simulation to improve practice

Divers can also measure, **by means of a simulation that is entirely theirs**, the added value of several options on their practice:

- Air/nitrox: extend the duration of the last stop; breathe a nitrox richer in oxygen at stops or dive with nitrox; modify the gradient factors GF;
- Open-circuit trimix: all Air/Nitrox options plus change the bottom mixture;
- Closed-circuit trimix: all Open-circuit trimix plus change the diluent and partial pressure of oxygen at the stop.



Individual simulation options showing the relative safety gain for the diver

Dive after dive, a customised model that is specific to each diver is refined over time to reflect as accurately as possible the added value of each previous options on their safety.

## State-of-the-art technology manufactured for the field

O'Dive is the result of knowledge acquired over 10 years of research and development by Azoth Systems in collaboration with laboratories, diving doctors, physiologists and diving safety professionals. About thirty experts from various backgrounds contributed to this knowledge. It is based on the analysis of hundreds of thousands of dives and the development of a technology shaped by years of user testing. This momentum has given rise to 4 research theses, numerous scientific articles and several patents.