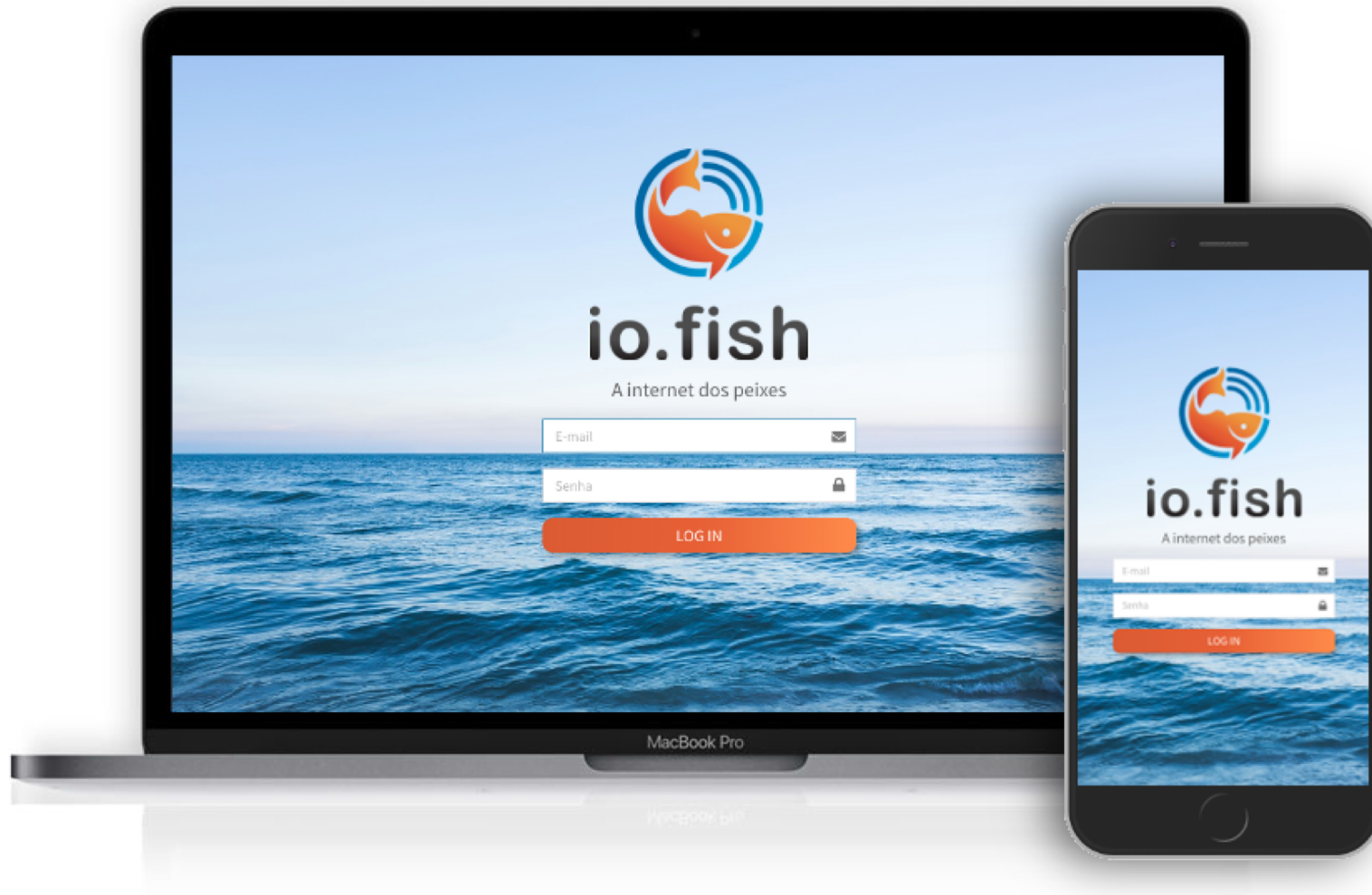




io.fish

The Internet of Fish

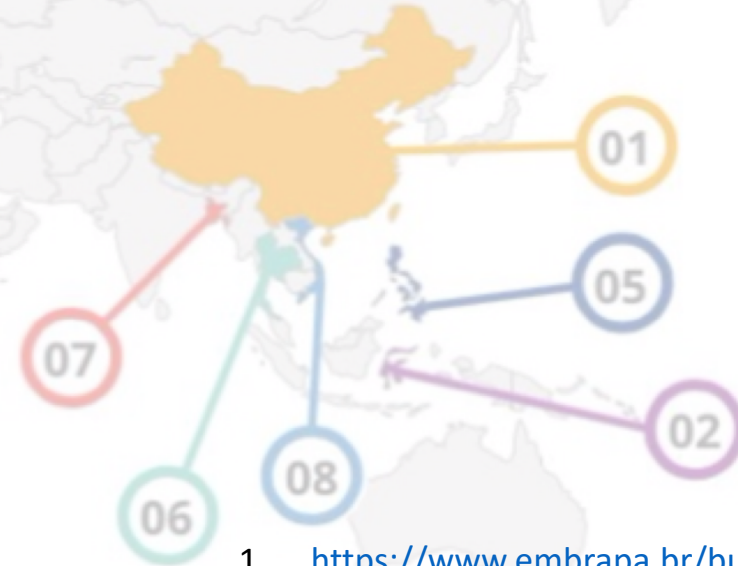
Monitoring Solutions For Aquaculture



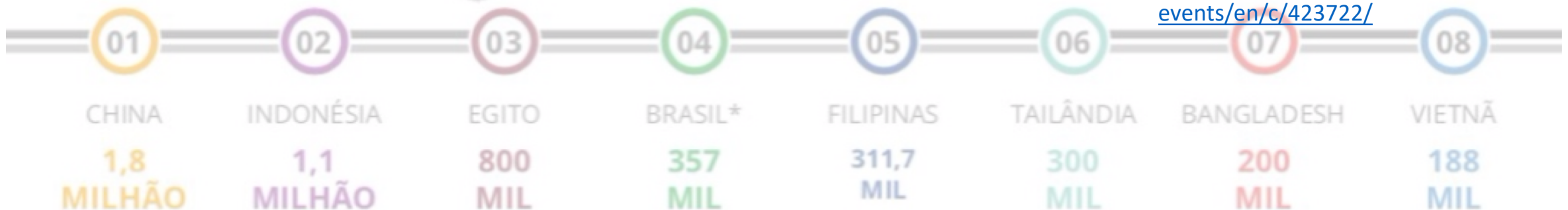


Brazilian Aquaculture Potential

- ✓ Growth of **123% in 10 years** (2005-2015). [1]
- ✓ FAO estimates **growth of 104% from 2016-2025**. [2]
- ✓ 4th largest producer of tilapia. Behind of Indonesia and Egypt that together have less than ¼ of Brazilian area.
- ✓ Brazil has natural potential. Abundant water resources.
- ✓ Precision aquiculture not largely applied.
- ✓ Production still very primitive. There is a lot to explore.



1. <https://www.embrapa.br/busca-de-noticias/-/noticia/18797150/aquicultura-brasileira-cresce-123-em-dez-anos> BR 2017
2. <http://www.fao.org/brasil/noticias/detail-events/en/c/423722/>



What happens inside of the water?

Daily analysis - 12%

3x week analysis - 20%



36% Track the results

64% Do not track the results

io.fish

16% don't do any kind of analysis!

52% analyze only 1-2 times per month!

Based on André's survey
with aquaculture producers



Entire South America
Has Potential for
AQUACULTURE



io.fish



Tanque 5

Horário do último dado: 23/05/2018 18:15:00

8.02V

Oxigênio dissolvido: 6.848 mg/L **pH:** 8.018 pH

Temperatura: 26.952 °C

[Resumo](#) [Detalhes](#)



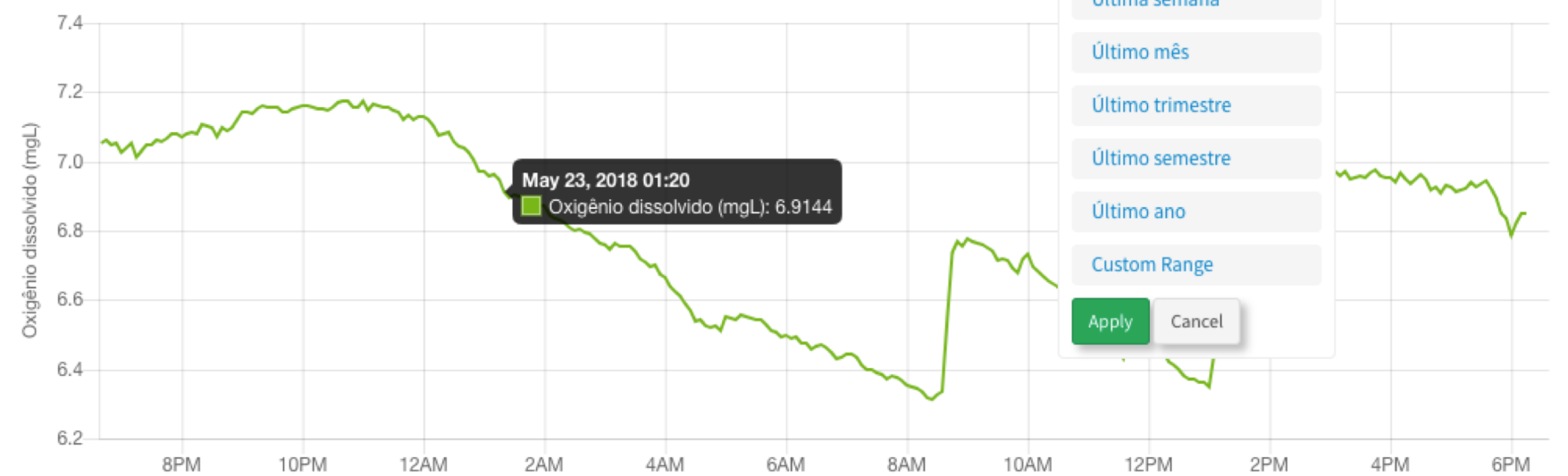
Tanque 5

↻

📅 22/5/2018 18:37:00 - 23/5/2018 18:37:00

📄 Exportar dados

Oxigênio dissolvido (mg/L)



- Últimas 6h
- Último dia**
- Última semana
- Último mês
- Último trimestre
- Último semestre
- Último ano
- Custom Range

Apply
Cancel

Tanque 5



23/05/2018	23/05/2018
18:30:57	18:15:00
ÚLTIMA COMUNICAÇÃO	ÚLTIMOS DADOS
Últimos dados	
Oxigênio dissolvido	6.848 mg/L
pH	8.018 pH
Temperatura	26.952 °C
8.02V	Visualizar

May 22nd 2018 18:37:31

||

||

May 23rd 2018 18:37:31

pH (pH)

Temperatura (°C)



Water Monitoring

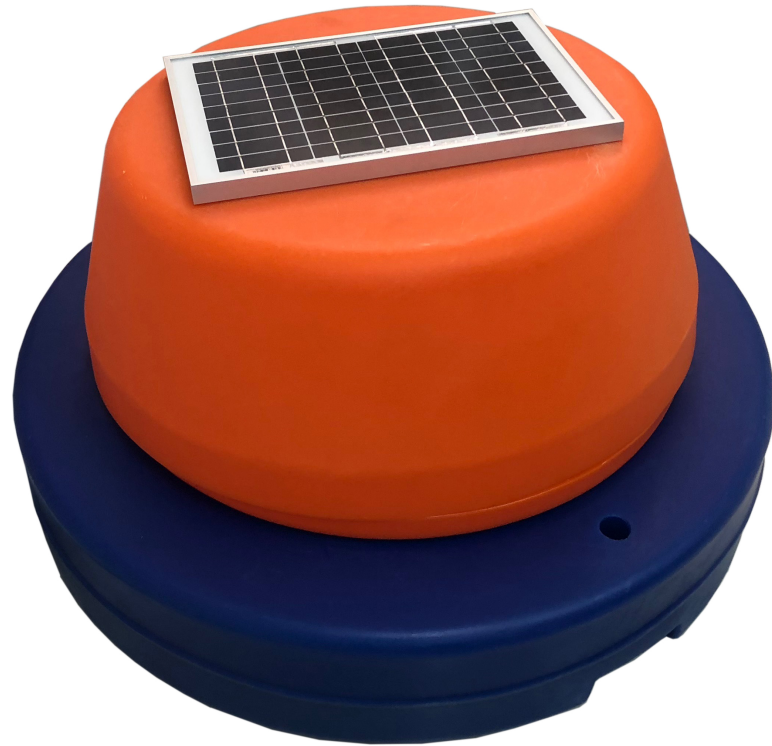
Bluetooth Probes

- ✓ Probes connected to bluetooth devices.
- ✓ User collects data from probes using our app.
- ✓ Upload the data to the platform as soon as it gets internet connection.
- ✓ Organized, centralized, safe and insightful data.
- ✓ Cheaper solution.
- ✓ Exchange use of paper an pen for reliable data.





Water Monitoring



IoFish Floaters

- ✓ Probes connected to data logger inside of the floater.
- ✓ Automatic data collection and submission over GSM connection.
- ✓ Solar panel charging.
- ✓ Market price: ~USD 1500 + Probes
- ✓ High amount of data.
- ✓ Powerful analytics.
- ✓ Real time decisions.
- ✓ Alarms and relay triggers (power aerators).
- ✓ Good cost benefit. Affordable despite of price.



Water Monitoring

Chemical kits



- ✓ Free app for manual inputs.
- ✓ Partner to water quality kits sellers.
- ✓ Create and support the culture of water monitoring and technology in aquaculture.
- ✓ Offer Basic and Pro upgrades with extend features.
- ✓ Create connections and suggest use of floaters and bluetooth probes.
- ✓ Extinguish paper and pen from the field.





Biometry

Biometria

Tanque 1 - Carpa Húngara - Jul/17

Data da última biometria: 17/05/2017

1

comprimento (cm)

altura (cm)

peso (g)

2

comprimento (cm)

altura (cm)

peso (g)

3

comprimento (cm)

altura (cm)

peso (g)

4

comprimento (cm)

altura (cm)

peso (g)

Continuar

- ✓ Inform population size.
- ✓ Submit measurement data every week, two weeks or month.
- ✓ Submit deaths.
- ✓ Estimate production weight.
- ✓ Suggest ration.



Modularity



- ✓ ioFish is built to be modular.
- ✓ Customizations are easy to implement and fast to deploy.
- ✓ Customer pays only what he uses.
- ✓ New features are added really fast.



Work in Progress / Future Ideas



- ✓ Image recognition biometry.
- ✓ Underwater camera automatic biometry.
- ✓ Water monitoring data insights.
- ✓ Production traceability. Am I consuming fish from reliable sources?
- ✓ Get cheaper production prices for our hardware and make it even more affordable.
- ✓ English version.

Why Us?

- ✓ We are really interested in HATCH connections and know how.
- ✓ We do not necessarily need the money, but... Hatch's investment along with the program indeed would accelerate our work and help us to get results faster.
- ✓ We are certain of our team potential for what we are doing.
- ✓ We are determined to the South America market and ambitious for the rest of the world.

