

**RALLY RAID LAB**  
**NEUROSCIENCE AND SPORT PERFORMANCE**

**Eugenio Lizama Codocedo**  
**Mental Coach**

**Edo Mossi**  
**Navigation Specialist**

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## THE COMPANY



**BIOPERFORMANCE GROUP** presents the **RALLY RAID LAB**. A project studied and carried out in collaboration with private persons, organizations, institutions, companies, and sports teams.

We work to give our athletes real instruments to manage and achieve self control in stress conditions and critical moments during the sport performance.

**Neuroscience to increase the  
performance**



# GLOBAL SPORTS PERFORMANCE



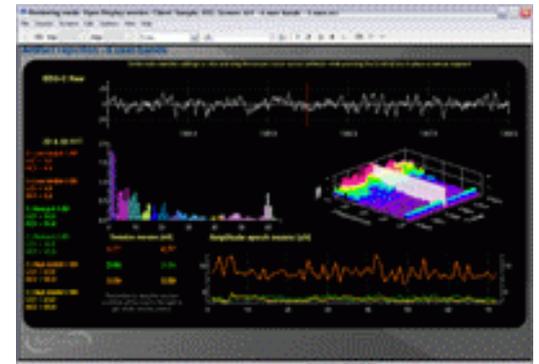
# HOW IT WORKS?

- **RALLY RAID LAB** can be successfully applied to the sports preparation as it positively influences the athlete's control over 2 fundamental aspects: the body control (Biofeedback) and brain control (Neurofeedback).
- This training aims at increasing concentration, focus and a calm state of mind.
- Using this program the athlete learns to be in the most efficient state of mind, increasing his performance.
- In Rally Sport, athletes need to train their abilities to resist physical and mental fatigue, to take good decisions (make decision point) and meet the target.

- **We work in two ways:**

**a) Mental training (Eugenio Lizama):** Using sensors and software to analyze the data and response of the athletes during the simulate and virtual stress setting training.

**b) Practical training (Edo Mossi):** Using bikes and road book to increase the technical expertise and use the strategies learned in the Mental Training while riding.



# BRAIN AND PERFORMANCE

We train our athletes to control their brain functions: **Decisions and resistance.**

- ✓ To increase the concentration.
- ✓ To maintain the control of the mind and body in conditions of pressure coming from the outside.
- ✓ To take strategic decision in conditions of stress and physically demanding situations.
- ✓ To create a routine to efficient recovery of mental and physical fatigue.

**We train our athletes to control their brain functions**

# TRAINING VARIABLES

<b>Resilience</b>	Ability to control the alarm in the body as a response to external pressure.
<b>Chronic Resilience</b>	Ability to manage the alarm response and long-term ability to relieve stress after it has disappeared.
<b>Acute Resilience</b>	Ability to manage and control the sudden alarm responses to cope with stress.
<b>Alert</b>	The ability to be mentally alert and intensely "present."
<b>Control</b>	Control muscle tension, respiration and heart rate, allowing better composure and better physical recovery.
<b>Flexibility</b>	The ability to ignore distractions and move your view on what counts.

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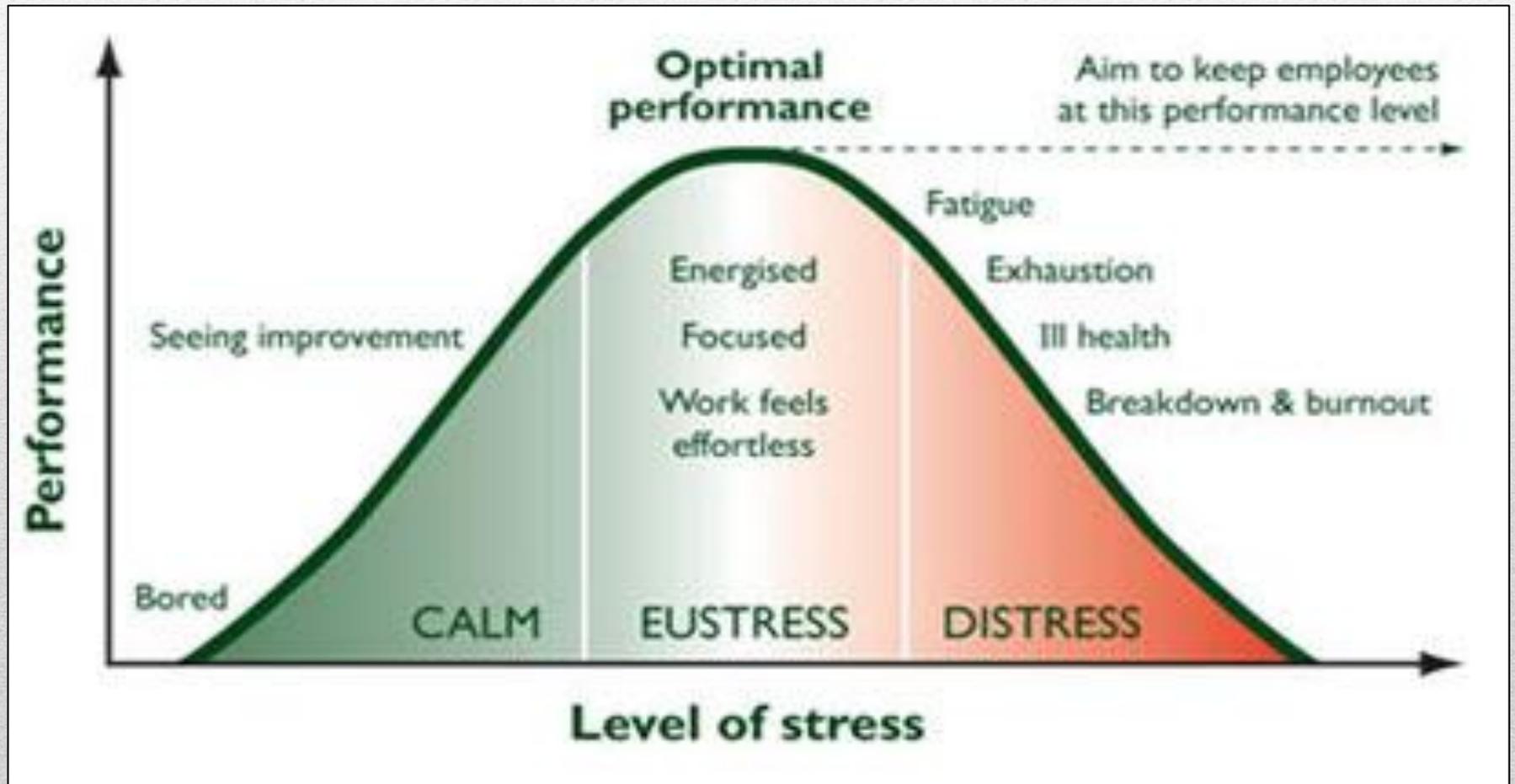
# TRAINING PROTOCOL

<ul style="list-style-type: none"> <li>• <b>Assessment</b></li> </ul>	<ul style="list-style-type: none"> <li>• Hability to self control.</li> <li>• Focus and sustain attention.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Neuro - Education</b></li> </ul>	<ul style="list-style-type: none"> <li>• Brain and body functions.</li> <li>• How the brain works during the Rally.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Biofeedback Neurofeedback Training</b></li> </ul>	<ul style="list-style-type: none"> <li>• Body control.</li> <li>• Brain control.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Practical Training</b></li> </ul>	<ul style="list-style-type: none"> <li>• Hability to perceive the distance.</li> <li>• Speed and space.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Routine on track</b></li> </ul>	<ul style="list-style-type: none"> <li>• Goals, objectives and specific strategies for each Rally.</li> <li>• Organization of the day.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Assessment 2</b></li> </ul>	<ul style="list-style-type: none"> <li>• Hability to self control.</li> <li>• Focus and sostain attention.</li> </ul>

# QUESTIONS?



# THEORETICAL MODEL



# Eugenio Lizama



- Psychologist at the University of La Serena (Chile). Master in Sport & Management, Catholic University of Sacro Cuore (Italy). Master © in Affective Neuroscience, Maastricht University (Netherlands). Specialist Biofeedback - Neurofeedback and neurophysiological monitoring techniques for improving performance.
  - One of the authors of the book, *"History of Psychology in Chile"*, which was awarded by the College of Psychologists of Chile 2011. He is also one of the authors of the chapter on neuroscience applied to motorcycling, the book, *"Guida alla Psychology dello sport"*, Flavio Nascimbene 2011 (Italy).
  - In his international experience, highlights his work with elite athletes in the world: football, tennis, Formula 1, Cycling, Fencing, Golf, Basketball.
  - Athletes (2009 – today): Andrea Dovizioso (Moto GP) - Julian Simon (Moto 2) – Yuki Takahashi (Moto 2).
  - Currently holds the position of Scientific Director at Bioperformance Group.
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# Edo Mossi



- Rally Raid Organizer Edo Mossi has developed a unique experience in the creation, management and development of international sport events and training programs for professional riders.
  - With a degree in Communication and PR at the IULM University in Milan, Italy, from 2004 to 2010 Edo Mossi competed in numerous races of the World Rally Raid Championship, including 3 Paris – Dakar in Africa, being the first Italian rider to win the “Super Fair Play Total” in 2005 in the Barcelona – Dakar, and one Dakar Rally in South America in 2012, enrolled in the 4x4 solo category.
  - In 2010 Edo Mossi decides to bring together his inside knowledge of the rally raid world, his deep “on the field” experience of the African territory and his expertise in road book creation to organize major Rally Raid events in Africa such as the Merzouga Rally, the XRally Marrakech and the Tunisia Revival with one goal in mind: to create highly technical competitions with route studied specifically for bikes, where the riders challenge themselves against the clock and their own limits using the same navigation system as in the Dakar Rally.
  - Several collaborations with professional and amateur riders with dedicated programs to improve the technical riding style on the sand and to train the navigation with road book brought to the idea to create the Rally Raid Lab.
  - His inside knowledge of the rally raid world and great expertise in the road book navigation combined with the support of Sports Psychologist Professionals ensure the Rally Raid Lab stays at the forefront of professional training programs for riders aiming at getting the best results in the toughest Rally of the world.
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