

# NEURAL HORIZONS: FUTURE PANORAMA WITHIN BRAIN-MACHINE INTERFACES

19.02.2025

Gardanne, France

BRANCODER  
CONFERENCE

## Session 1: Innovation within Brain Implants: pioneering BMIs

- Brice Bathellier – Institut Pasteur | HearLight  
***Encoding algorithms for sensory rehabilitation implants***
- Hans Scherberger – DPZ | B-CRATOS  
***Cortical hand movement prosthetics***
- Fabien Sauter-Starace – CEA DTIS | NEMO-BMI  
***Design and clinical validation of WIMAGINE®, a BMI wireless ECoG implant***
- Paul Wanda – Blackrock Microsystems Europe | B-CRATOS  
***Modern Brain Computer Interface Platforms: The Need for Next-Generation Wireless Technologies***
- Paul Le Floch – CEO of Axoft  
***Novel materials and electronics for soft neural interfaces***

## Session 2: Mind Meets Machine: evolutions within communication

- Robin Augustine – Uppsala University | B-CRATOS  
***Fat – Intra Body Communication: A new paradigm for intra-body communication technology enabling reinstatement of lost functionalities in human***
- Charles Rezaei-Mazinani – Ecole des Mines, Department of Bioelectronics | HearLight  
***Multi-conductive layer flexible bioelectronic implants for neural recording and stimulation***
- Ali Khaleghi – NTNU | B-CRATOS  
***A Battery-Free, High Data-Rate Brain-Machine Interface with RF Backscatter Communication, Wireless Power, and NFC Telemetry***

## Session 3: Prospects about the Machine-Humans Interactions

- Marco Controzzi – Scuola Superiore Sant'Anna | B-CRATOS
- Guillaume Charvet – CEA DTIS | NEMO-BMI & Reverse-Paralysis  
***Implantable chronic Brain Machine Interface for movement compensation: from clinical proof of concept to use in daily life***
- Henri Lorach – EPFL | NEMO-BMI & Reverse-Paralysis  
***Brain-controlled spinal cord stimulation to restore voluntary motor control after paralysis***