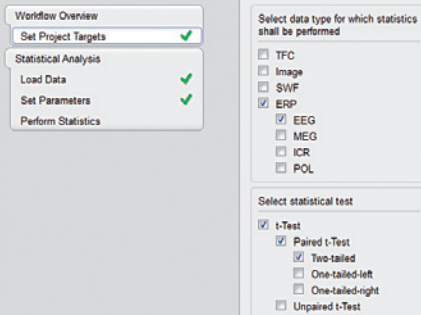# BESA Statistics

CE−certified software for cross-subject statistics of EEG / MEG data

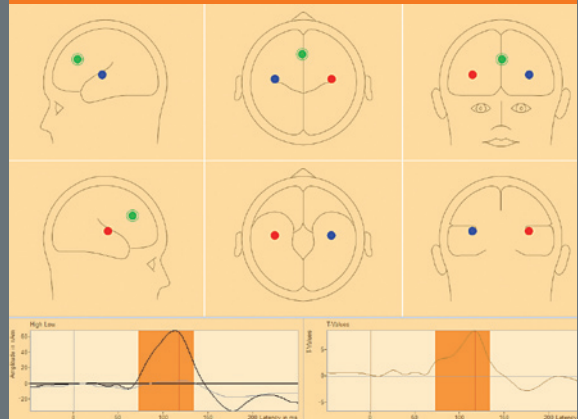# Intuitive Workflow

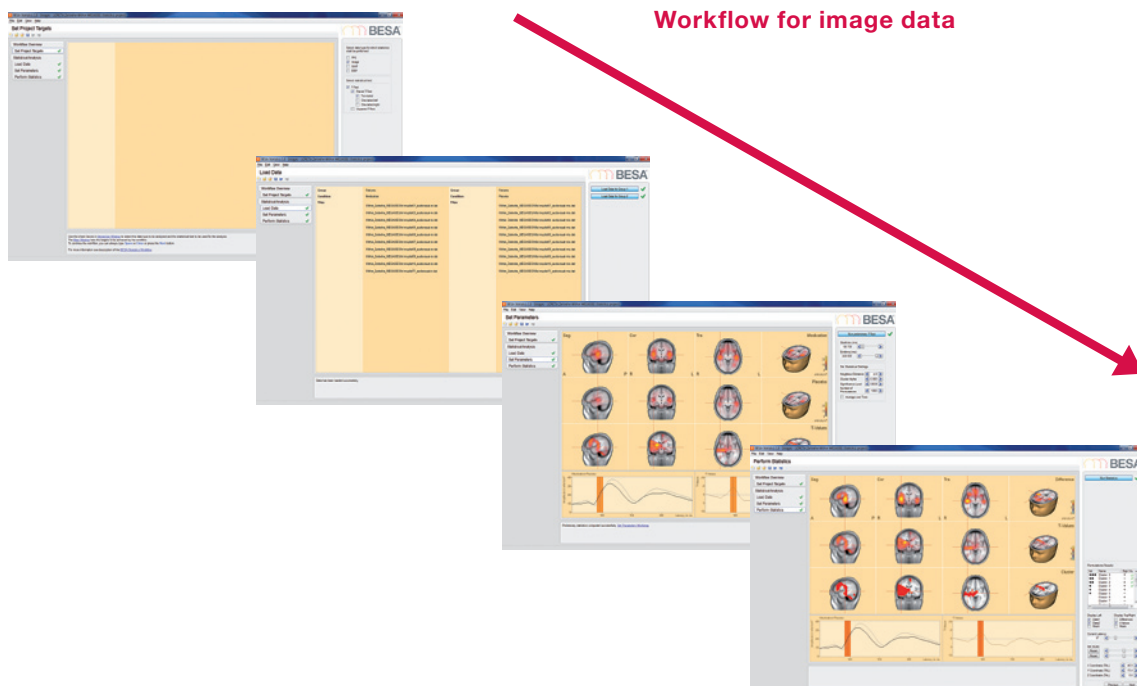**Optimized for data type**

Preliminary Statistics

For defining regions of interest

Data Input

- Event-related potentials / fields (ERP/F)

- Image data, e.g. LORETA, beamforming

- Time-frequency data, e.g. temporal-spectral evolution, coherence, inter-trial phase-locking
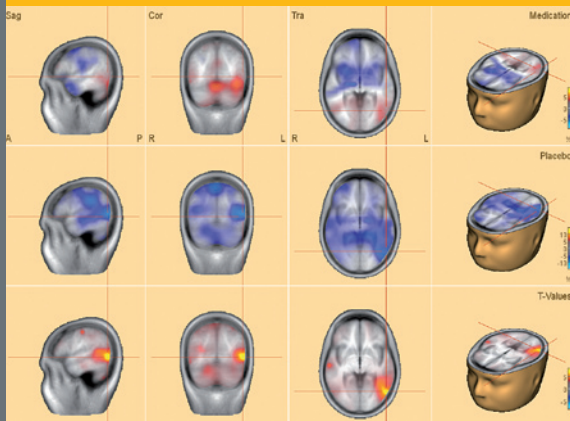
- Source waveforms

Preliminary Statistics

- Two groups (e.g. patients, controls) or conditions within the same group of subjects (e.g. time 1, time 2) can be compared

- Paired or unpaired Student's T-tests are calculated and visualized

- Based on these preliminary T-tests regions of interest can be defined that are passed on to permutation testing
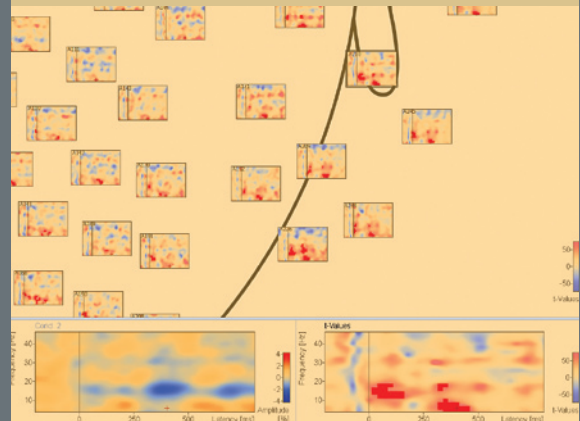

Workflow for image data

Cross-Subject Statistics based on Permutation Tests

Significant clusters in time, space and frequency are determined

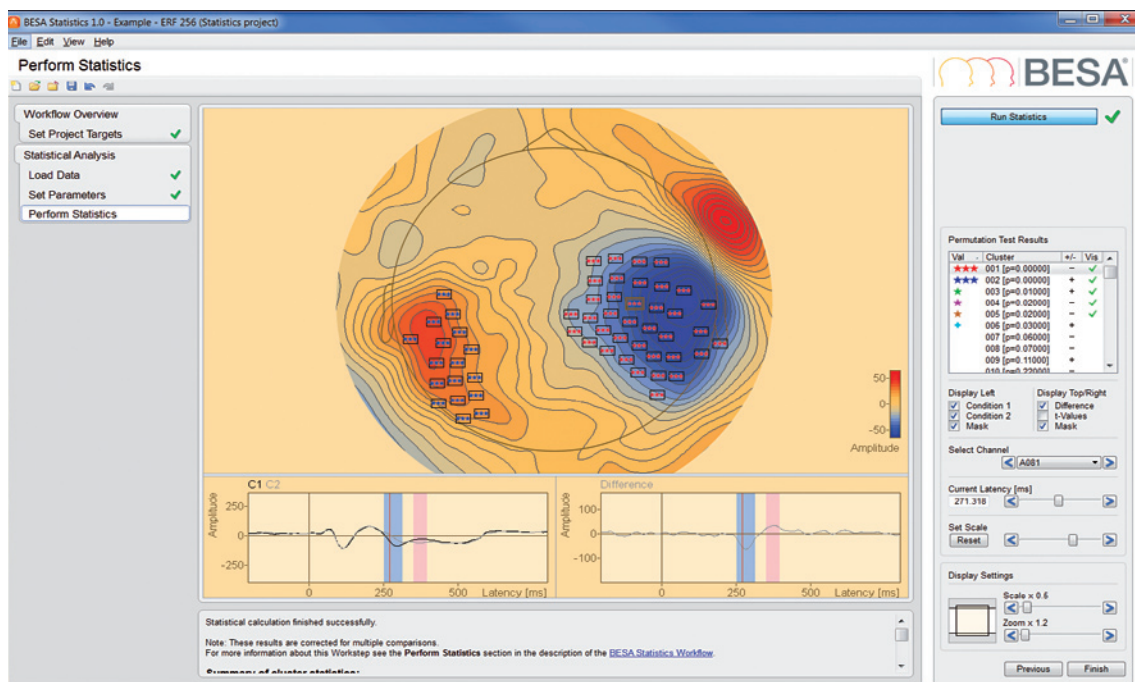## Visualization of Significant Data Clusters

Suitable for publications

Cluster Permutation Statistics

- BESA® Statistics will determine significant clusters in time and if applicable space and frequency that show robust differences between groups / conditions

- Clusters will be probed for significance by permutation testing

- Significant data clusters are visualized in categories (highly significant, significant, trend)

- Results are corrected for multiple comparisons

Exporting Data

- Statistical values can be directly used in scientific reports without further analysis

NEW - All statistical results can be exported

NEW - Detailed cluster information per person can be exported

NEW - All images can be saved as vector graphics (eps)

BESA GmbH
Freihamer Str. 18
82166 Gräfelfing – Germany

Phone + 49. 89. 89 80 99 66
Email   info@besa.de
Web   www.besa.de