Pillar I generates large-scale quantitative data using the prospective discovery cohorts of ALS patients and established ALS *in vivo* and *in vitro* models.

- The ongoing European Consortium of ALS Registries allows for an efficient, standardized and harmonized population-based collection of patient samples and life-style questionnaires. Well defined and harmonized guidelines on sampling have been implemented across the different registries.

- Besides human cohort samples, Euro-MOTOR will apply state-of-the-art *in vitro* models and *in vivo* models to exploit additional tissue samples. These models include a new technology that enables the use of human motor neurons derived from fibroblasts from patients. Apart from data generation, these models will also be applied for biological validation aspects (see pillar II).

- High quality –omics data will be pursued by standardization and harmonization of sample processing (e.g. all DNA isolation will be performed in a central lab to have standardized DNA samples) and the use of harmonized –omics platforms (e.g. all platforms are Affymetrix-based).

- All –omics data will be validated clinically in a large validation cohort available to the consortium to ensure that the ALS model is fuelled with validated data.