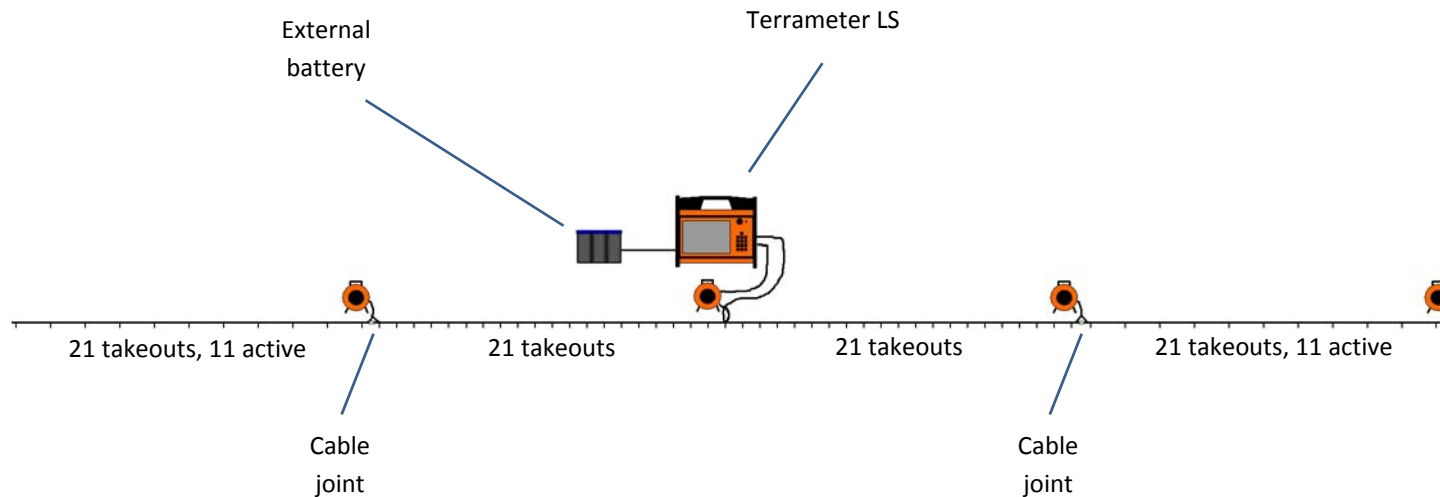


## Terrameter LS – Imaging system description



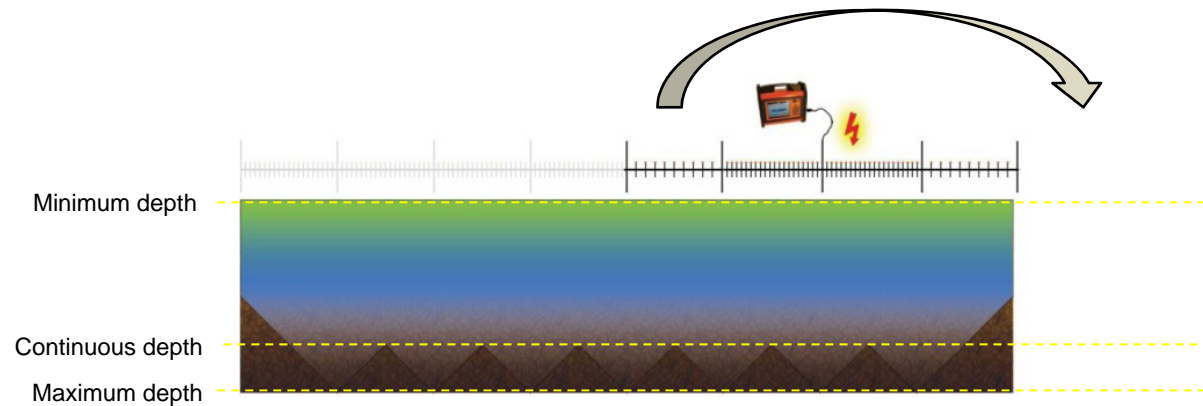
### System layout description

All four imaging cables, with 21 takeouts each, are interconnected with an overlap, thus sharing an electrode position. This way the electrode spacing is easily maintained without using a measuring tape. The total array length, which depends on the electrode takeout spacing, allows for high resolution imaging to an approximate depth of  $0.2 \times$  the total length of the array (depending on geological conditions).

The two outer cables in the array initially utilize every second electrode takeout. By distributing the array electrodes this way the total length of the array is longer, thus measuring deeper. The initial lower resolution at the cable array ends is effectively compensated for when making a roll-along, where the cable previously utilizing every second takeout now measures with every takeout, filling in with more data for the profile. The result is a high resolution profile all the way to maximum depth. All electrodes can be placed from the beginning since they will be used at some stage.

# ABEM

At roll-along, the first cable of the array is moved to the end of the array. This means that one fourth (1/4) of the total array length is moved, resulting in a deep continuous depth of penetration.



## Data collection

Terrameter LS has the ability to measure both Resistivity and Induced Polarization (IP) simultaneously. This means that apparent resistivity and chargeability can be obtained from the same survey. With this data it is also possible to calculate normalized chargeability as well, making the Terrameter LS a highly competent and flexible solution for near surface investigations.

All data is stored into a database which is exported for post processing. Data is interpreted with e.g. Res2Dinv or Res3Dinv in order to display measured results in two or three dimensions.

## Multiple Gradient array

Terrameter LS supports the Multiple Gradient array protocols which are a most effective method for imaging. It utilizes all instrument channels simultaneously and gives a signal-to-noise ratio far better than that of e.g. dipole-dipole.

## Full Waveform recording

Terrameter LS optionally stores records Full Waveform data, ensuring that the received measured signal is stored totally uncompromised. This means that it can be thoroughly analysed and supply the user with vital information.

