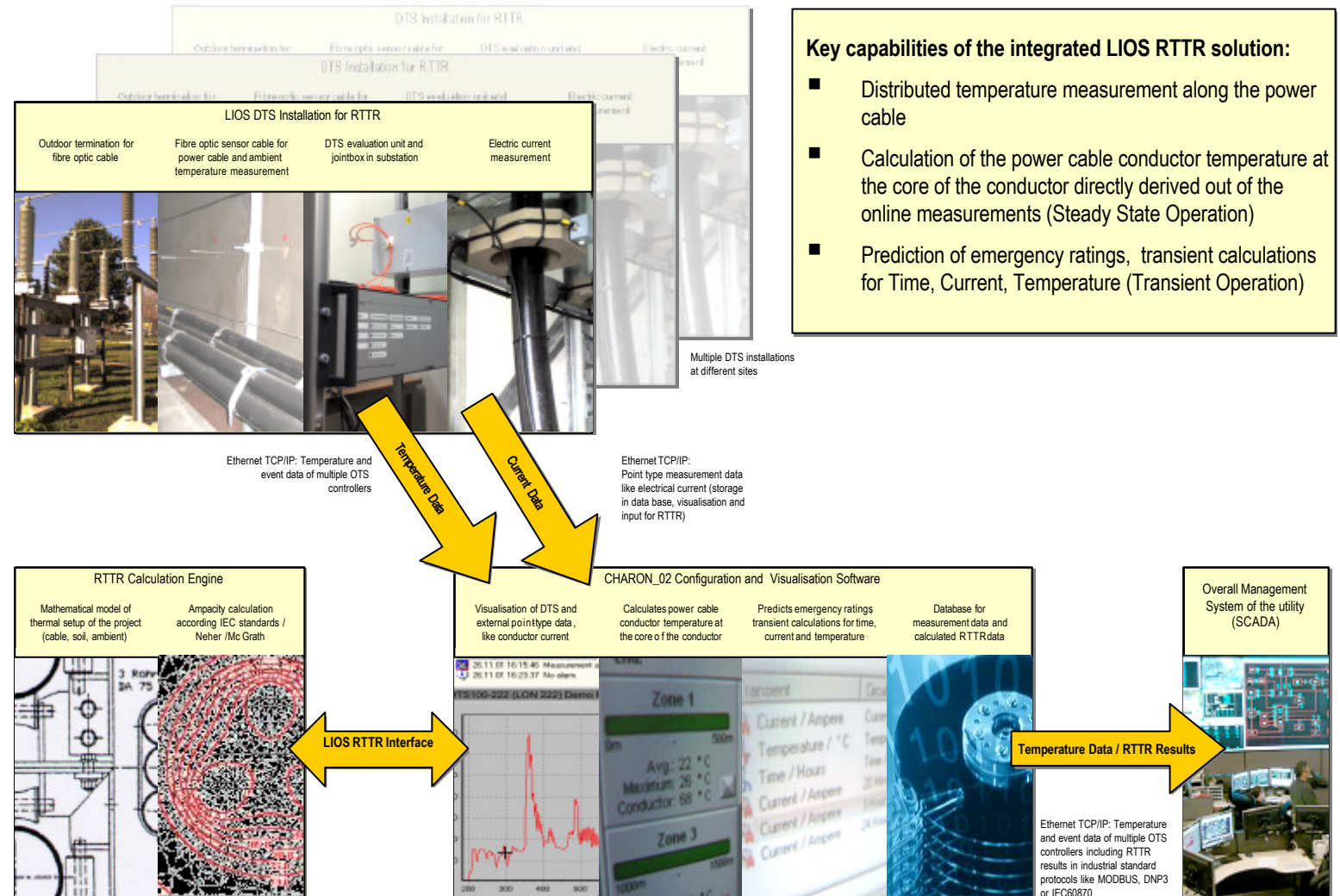


Integrated Solution for Real Time Thermal Rating (RTTR) of Energy Transmission Systems

The availability of Distributed Temperature Sensing (DTS) systems that measure in real time temperatures all along the cable is a first step in monitoring the transmission system capacity. Dynamic or “Real Time” Thermal Rating (RTTR) provides the ability to the Operator to predict the behaviour of the transmission system upon major changes made to its initial operating conditions.

Typically the actual maximum temperature reading of each configured cable section and the actual electrical current reading are computed to build the dynamic cable rating of the installation, based on the IEC 60287 and IEC 60853 standards.



- Key capabilities of the integrated LIOS RTTR solution:**
- Distributed temperature measurement along the power cable
 - Calculation of the power cable conductor temperature at the core of the conductor directly derived out of the online measurements (Steady State Operation)
 - Prediction of emergency ratings, transient calculations for Time, Current, Temperature (Transient Operation)