



Press release

Paris, 26 September 2017

TeaM Cables – European Tools and Methodologies for an efficient ageing management of nuclear power plant cables – is a research project which has received 4,2 M€ of funding from the European Commission’s EURATOM programme, which is part of the Horizon 2020 framework programme for Research and Innovation. The project is coordinated by Electricité de France (EDF) and will run until 2022.

With an average of 25 000 electrical cables for a total length of ~1 500 km per NPP (Nuclear Power Plant) unit, all organisations involved in the current and next generation of NPPs have recognised the importance of cable qualification, condition monitoring, and ageing management. Electrical cables are the nerves and blood vessels of NPPs!

The TeaM Cables kick-off meeting, which took place in EDF’s premises near Fontainebleau in France this September, was the beginning of a collaboration of 13 European academic and industrial partners from six different countries.

The overall ambition of TeaM Cables is to allow NPP operators to improve their capacity to safely manage the lifetime of cables and thereby contribute to ensuring the lifetime extension of NPPs to 60-80 years. The main innovation of the project is the radically new way of estimating the lifetime duration of cables, using much more precise information and more relevant methods to analyse the data based on multi-scale studies of the materials. Specific goals include the characterisation of cables at molecular, micro and macro level, the development of multiscale models, the definition of criteria and protocols for on-site monitoring with non-destructive testing techniques (NDT) and finally the development of a tool which can be used by utilities for a better ageing management of their NPPs.

The TeaM Cables multiscale modelling approach and associated tools will allow NPP operators to safely extend the plant life duration of generation II and III reactors and thus contribute to the production of sustainable energy responding to future energy needs.