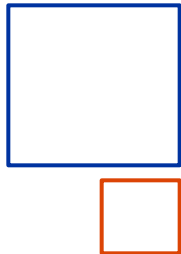


Measures for the Mitigation of Birds Electrocution in Italy

Enel Distribuzione Experience

Santa Fiora, November 6th, 2014





Enel Distribuzione and LIFE NATURA Projects

The Tip of the Iceberg

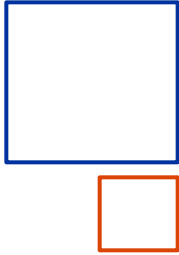


LIFE...



...and Beyond





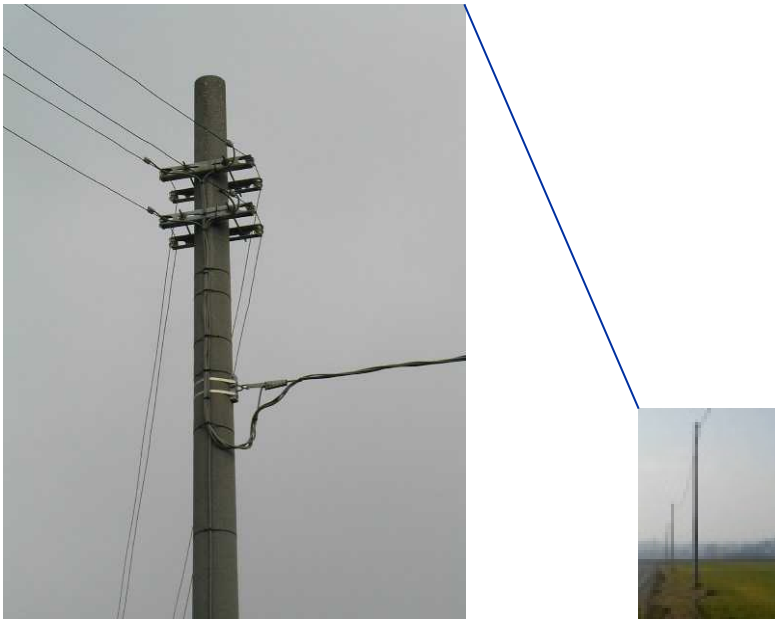
Low Voltage (LV) Distribution Network

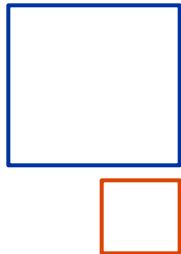
Enel Distribuzione's Standards



Year 1985

Year 2013



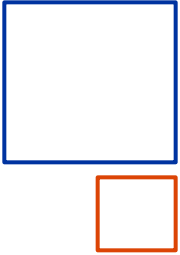


LV Network Statistics

From 1998 to 2013



Bare conductors presently account for less than 14% of total length

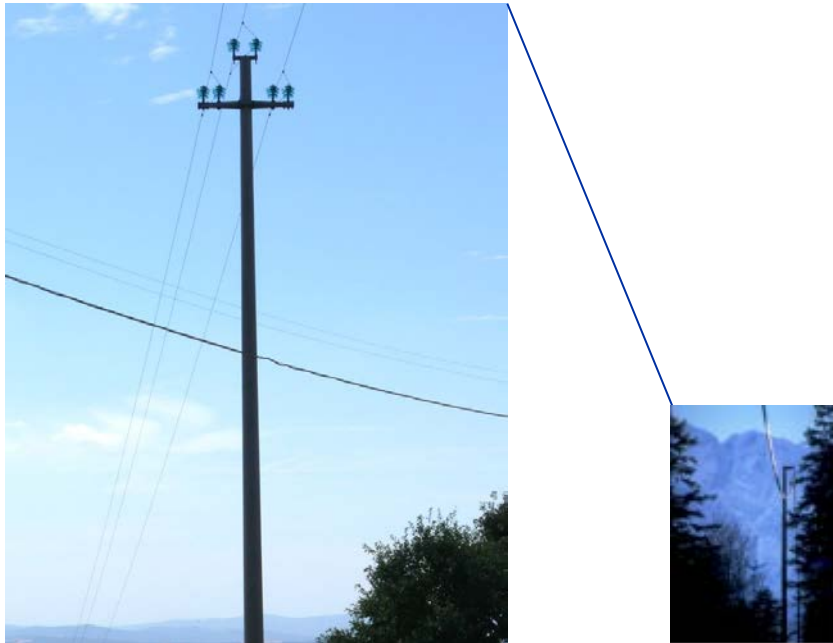


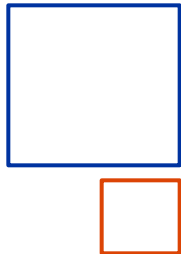
Medium Voltage (MV) Distribution Network Enel Distribuzione's Standards



Year 1997

Year 20??





MV Network Statistics

From 1998 to 2013



Total Length (MV)



+ 1% yearly

Underground Cables



+ 3% yearly

Aerial Cables



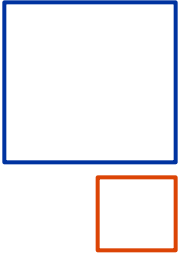
+16% yearly

Bare Conductors



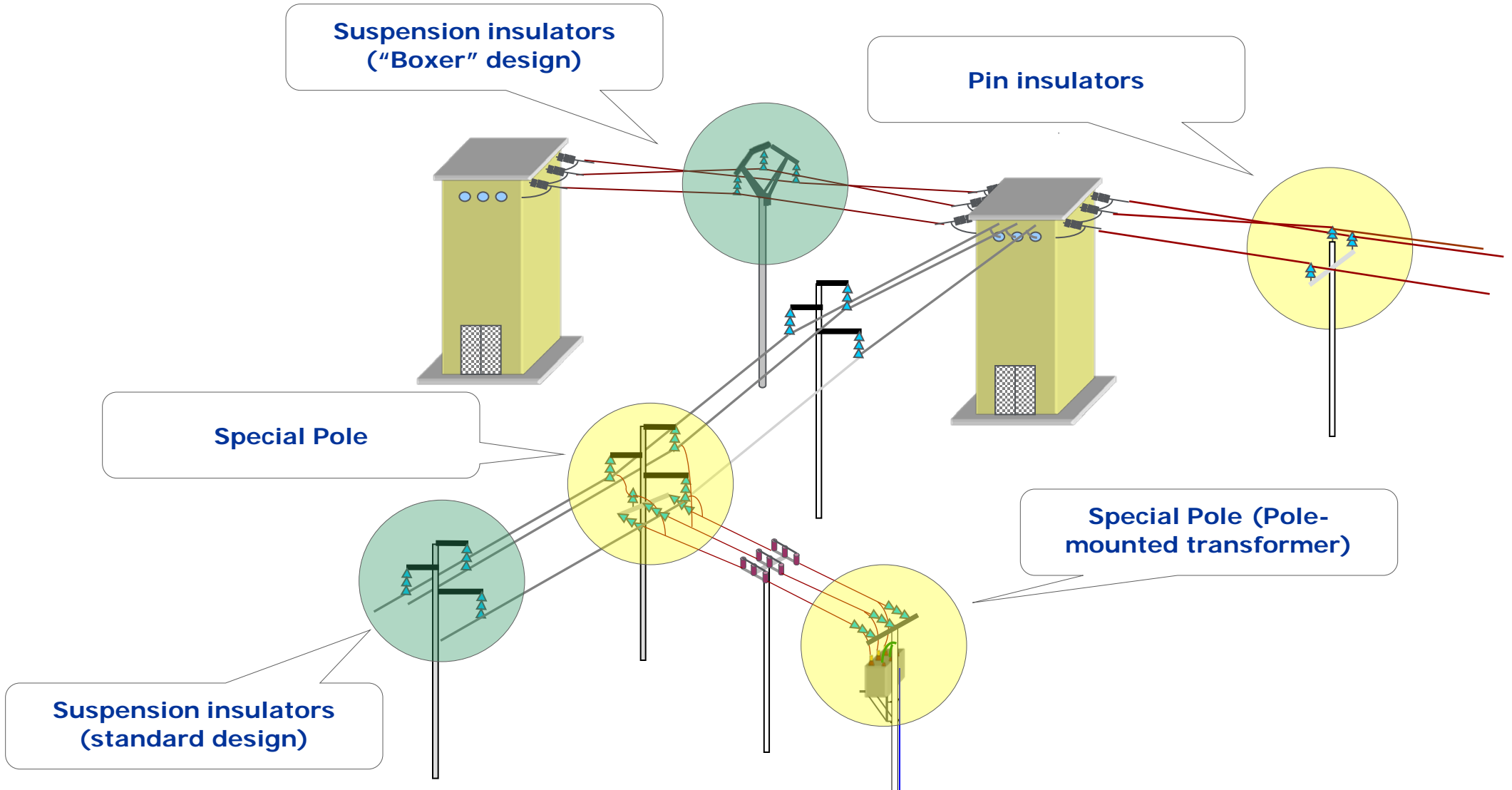
-0,5% yearly

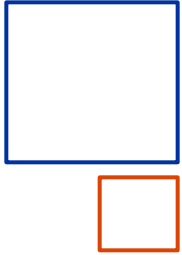
Bare conductors presently account for
55% of total length



Distribution Network

MV Bare Conductor Lines – Main Components



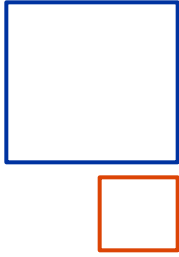


MV Distribution Network

Suspension insulators

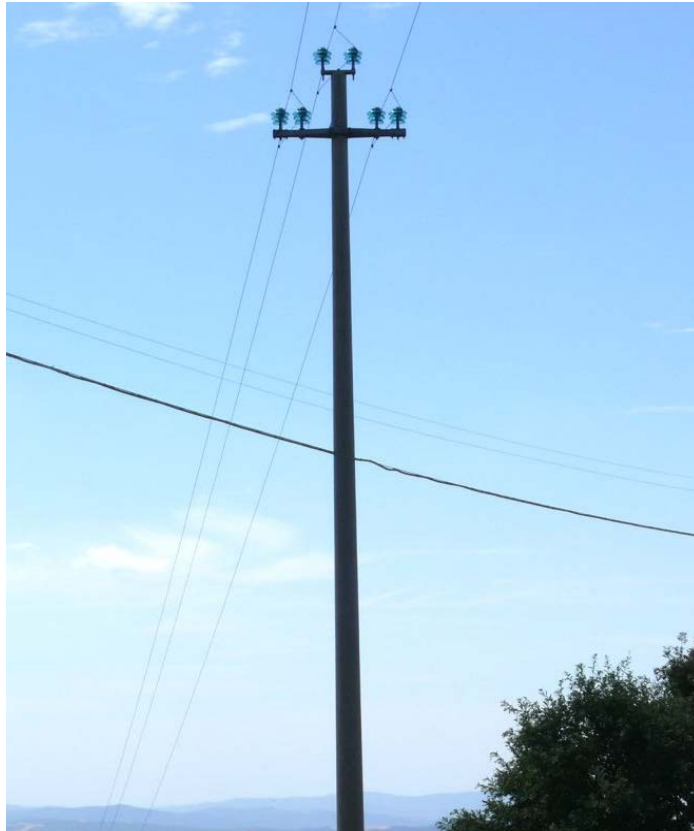


Risk: not relevant

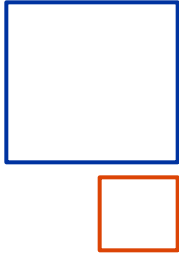


MV Distribution Network

Pin insulators



Risk: not negligible



MV Lines in bare conductors

Pin vs. Suspension Insulation 1998 -> 2013



-15%

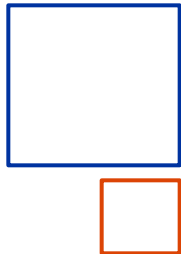
+10%

RIGID INSULATORS WITH EXTENDED SUPPORTS

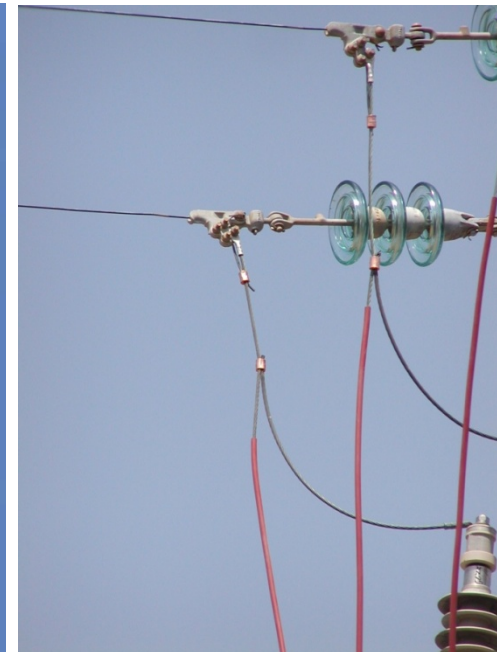
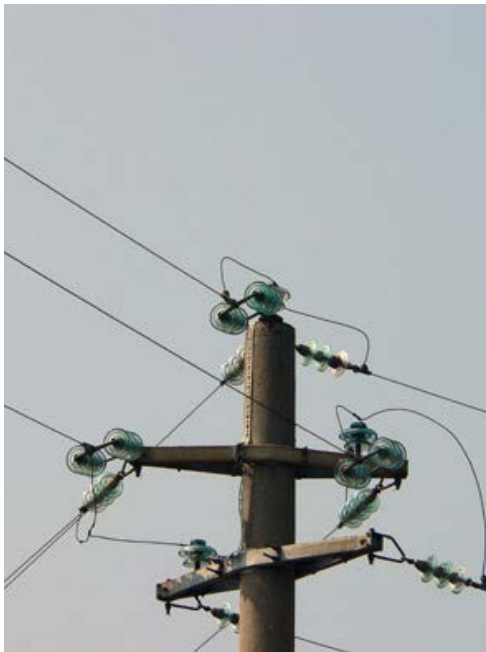
18%
(1998)



35%
(2013)

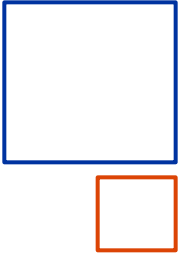


MV Lines in bare conductors Special Poles



Risk: relevant

Risk: NOT relevant



Thanks for your attention !