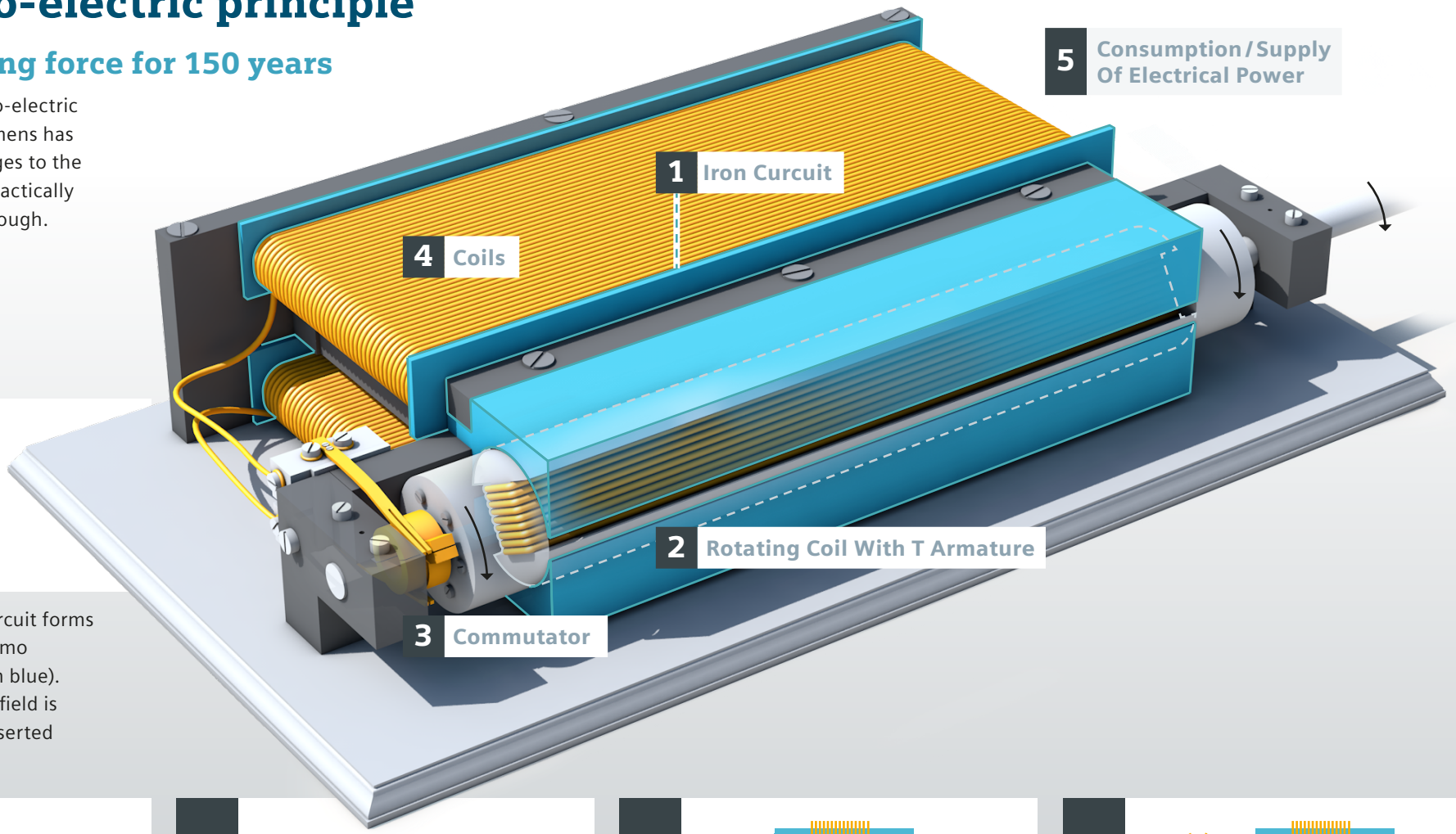
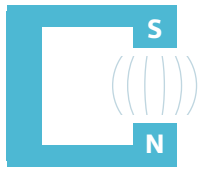
The dynamo-electric principle

A powerful driving force for 150 years

The discovery of the dynamo-electric principle by Werner von Siemens has brought about greater changes to the way our society lives than practically any other scientific breakthrough.

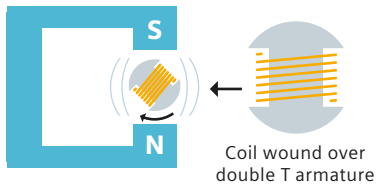


1



A magnetized iron circuit forms the basis of the dynamo (elements outlined in blue). Where the magnetic field is strongest, a coil is inserted and rotated.

2

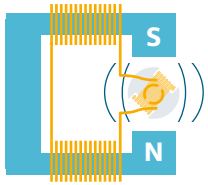


This coil is also wound over an iron core (double T armature) which amplifies the occurring self-exciting effect.

3

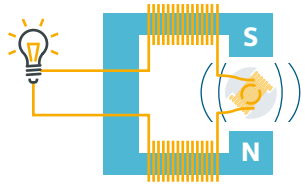
The movement in the magnetic field induces a voltage in the coil which allows current to flow over a commutator or rectifier.

4



The iron core is also wrapped by coils. Electricity flows from the rotating coil over the rectifier into these coils, causing them to amplify the magnetic field in the iron circuit.

5



The rotation of the coil in the amplified magnetic iron circuit allows to consum or supply electrical power, now.