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GREEN - Polymeric Materials for Energy generation and harvesting from renewable sources

IMAST members involved:

- **CRF S.c.p.A** - FIAT Research Center
- **STMicroelectronics S.r.l.**
- **Selex Electronic Systems**
- **CNR** - Department of Chemical Science and Materials Technology (**DCSMT**)
- **University of Naples Federico II** – Department of Physical Science (**DSF**)
- **ENEA** - Italian National agency for new technologies, Energy and sustainable economic development

The project objective is to develop polymeric materials, processes and device architectures in order to realize electrical **power generators exploiting renewable energy source**, such as **solar** or energy from **electromagnetic sources** (GSM/UMTS signals, Wi-Fi, Bluetooth, DECT, GPS, BVB-T, Radar) and the **waste heat of combustion processes**.

In particular, the project aims to study and develop the following generators:

- **Dye Sensitized solar cells (DSSC)**
- **Thermoelectric cells** for the recovery of waste heat
- **Miniaturized antennas** for recovery of Energy from **electromagnetic waves**

