

CITY OF THE FUTURE

GRAPHENE IN SPACE
Graphene's thermal properties improve the performance of loop heat pipes and thermal management systems used in aerospace and satellite applications.



PLANE OF THE FUTURE
Graphene composites are used to develop ice protection systems and create lighter and more robust aircraft.

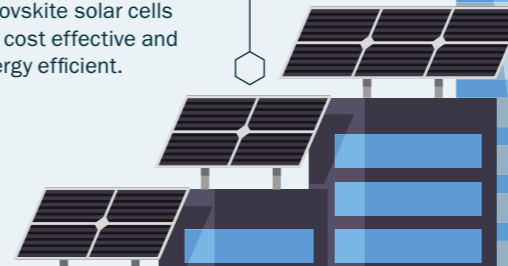
SMOG REDUCING PAINT
Graphene composite coatings can be applied to concrete walls and pavements to remove air pollutants.

DE-ICING TECHNOLOGY
Carbon-based graphene used as a de-icing agent for glass, applied as a transparent film.

Progressive technologies and innovative devices from the Graphene Flagship promote sustainable smart cities.

By: Melanie Lawson

GREEN ENERGY
Graphene-enabled perovskite solar cells are cost effective and energy efficient.



GRAPHENE SUPERCAPACITORS
Graphene supercapacitors are paving the way to ultra-fast charging and battery-free electric cars.



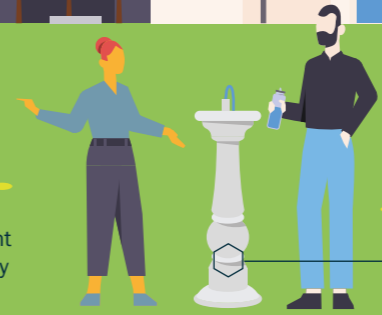
AUTONOMOUS DRIVING
High resolution hyper-spectral image sensors enable safe autonomous driving.



INTELLIGENT CAMERA SYSTEMS
A single super-pixel device will reduce the cost of broad-spectrum imaging.

CONDUCTIVE CONCRETE
Graphene makes cement thermally and electrically conductive, providing a myriad of new possibilities from underfloor heating to charging solutions for electric cars.

WATER FILTRATION
Graphene enables innovative water filtration systems for sustainable and efficient water purification.



POLLUTION SENSORS
Graphene-based gas sensors enable portable and highly sensitive monitoring of nitrogen dioxide.

