



CREATIVE INNOVATIVE CITIES & ENERGY

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**INNOVATION IS BEING
INCREASINGLY LINKED TO
SUSTAINABILITY**

The following represents a few of the innovative and creative development by cities and their stakeholders drawn from our research...

CITIES & ENERGY

Lots of innovation in the race to find alternative sources and become less wasteful: hydrogen (Tokyo), Biochar/Biomass (Stockholm), waste to energy (Amman++), thermal (Winnipeg++), wind (Bristol++), solar (Orlando+++), electric mobility... Among some creative ideas:

Policy & dissemination: Melbourne & Asker

- Melbourne: National construction code for energy efficiency; Energy Efficiency Award to businesses (1500 projects).
- Asker: zero-emission construction sites (electric machinery); citizen association to transform waste into something new.

Innovation: Barcelona

- Bio-photovoltaic systems – producing energy from bacteria in soil.

Networks & Engagement: Lombardy & Samsø Island

- Lombardy: 4200 electrical energy storage systems and shared energy among 6000 energy communities.
- Samsø Island: Energy Academy co-managed with resident generates 100% sustainable energy requirements.



CITIES & CREATIVITY

Cities recognize the importance of innovation and creativity – and the environment is changing...

Planning for AI: Singapore

- \$1B investment into AI centers of excellence, AI responsible governance, supporting older workers to return to school to learn AI. #1 in AI talent.

Use of media and IT: Issy-les-Moulineaux

- Digital inclusion & engagement in democracy, living labs, open data, smart grid, digital cube (for digital art creation), digital Fort eco-district and home automation.

Creative pattern changes:

- Toyota city: Ultra-compact electric vehicles
- Fractional ownership or own-share models of autonomous vehicles
- Standardization of vehicle batteries

