

Innovative Ltd. - Profile



- Founded in 2006 by Ron Chen
- Privately owned
- Mission – Patents Development:
 - Tisteron© - Investment raised, Prototype & pilot tests finalized
 - BumperOn© - Local electrical power manufacturing

Product Strength



- Extremely low electricity production costs
- Local, “green” electrical power production
- High Return On Investment (ROI)
- Very high growth potential
- Win-win situation: Investors, city authorities, drivers

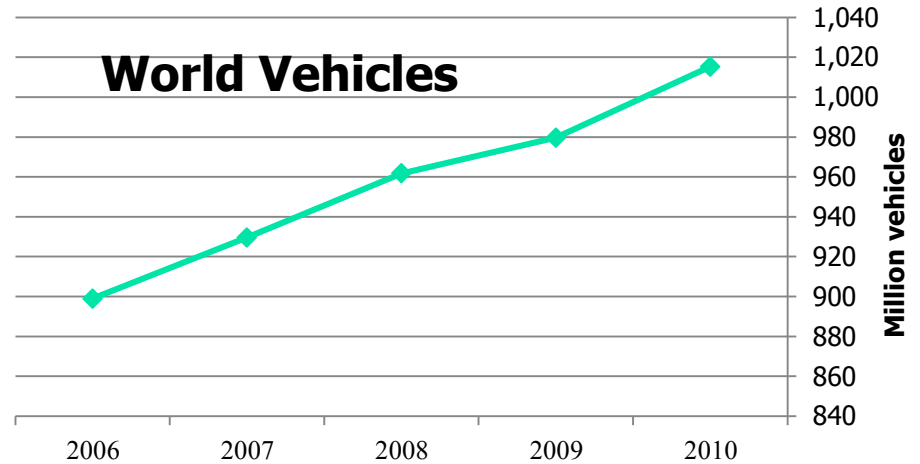
Problem 1 – Energy costs

Crude oil prices over the last decade



Problem 2 – Traffic Volume

Traffic volume constantly increase



Moscow: 3 Million cars



Milan: 120,000 cars



Problem 3 – Road Safety

Safety and Accidents prevention

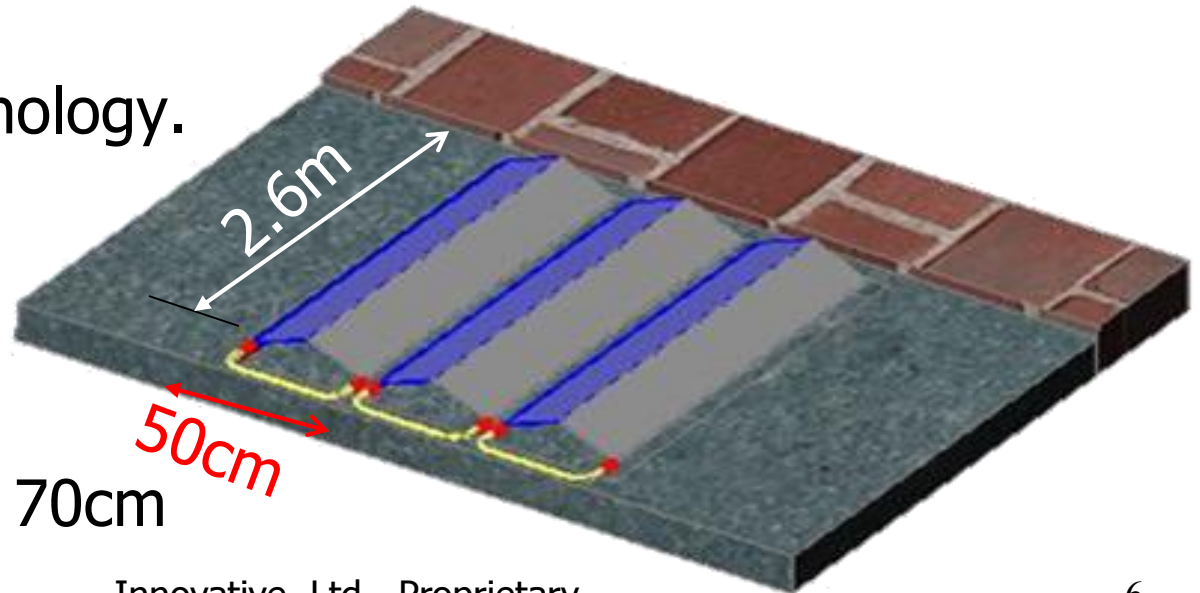
Country	Fatalities per 100k Vehicles	Total Fatalities	Injury Crashes 2010
USA	13	32,900	1,546,000
Germany	7.2	3,650	288,300
Italy	8	4,090	211,400
Russia	55.3	26,600	

“We repair roads, fill the potholes, but accidents rise. You won't drive fast on a bumpy road”,
(Vladimir Fyodorov, former traffic police chief, Moscow)

BumperOn[©]

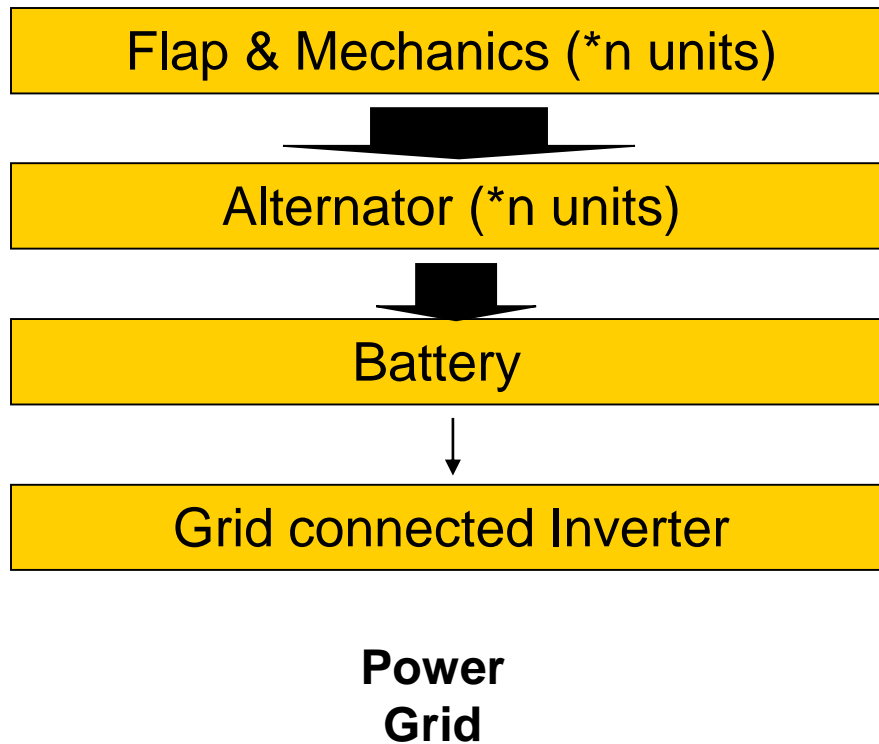


- BumperOn[©]: Several consecutive rotating flaps, each one is a self power-generating unit
- Installed as a regular bumper, flashed to road surface.
- Covered by a flexible cover, to withstand snow, rain, dust etc.
- Patented Technology.



System depth – 70cm

Electrical Block Diagram



Versatile Solution

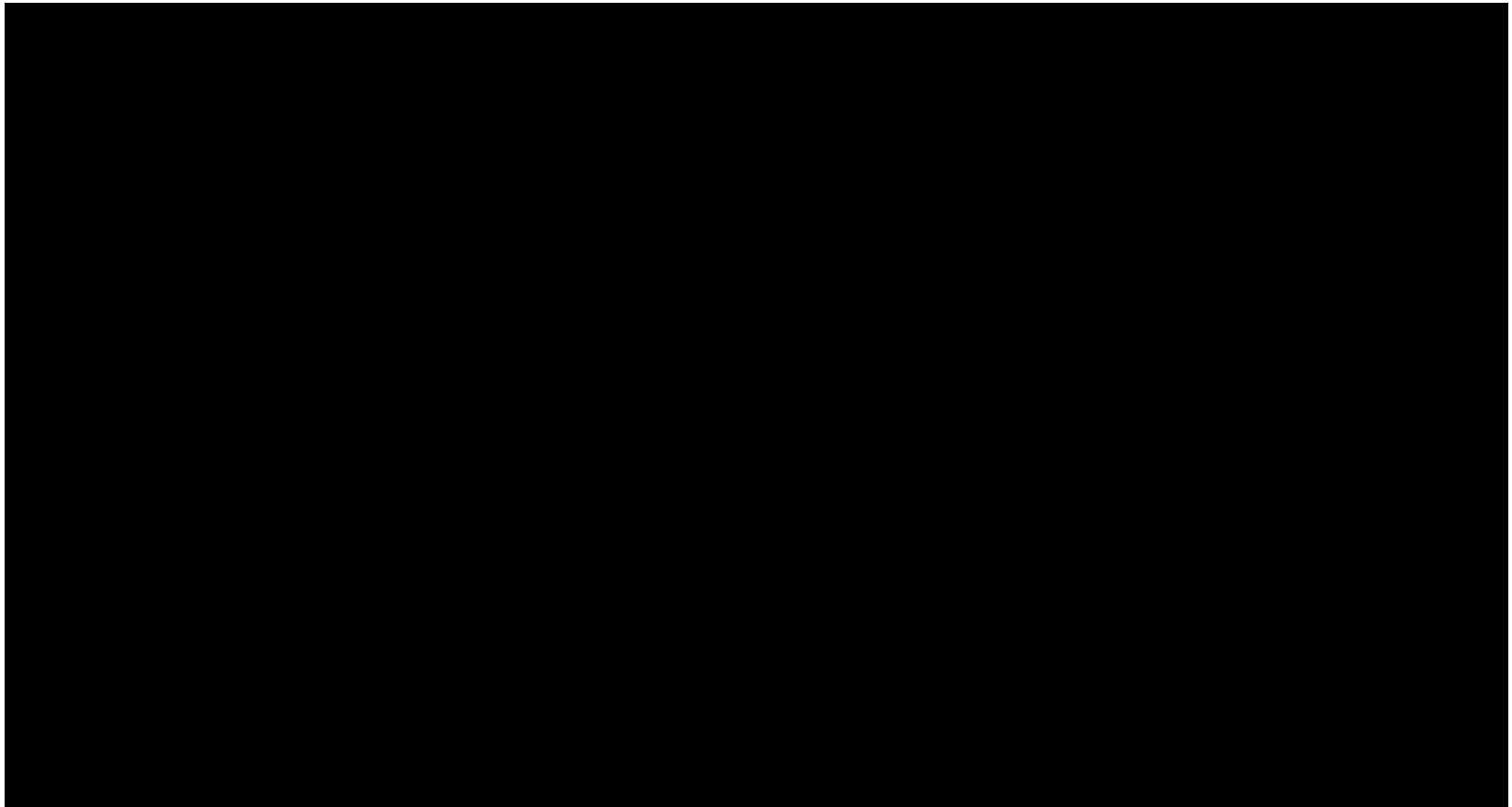


- Bumper can be installed in highways, that are crowded during rush-hours:
 - Protrude surface when traffic is slow
 - Flushed with surface when traffic is fast

Prototype in Action



The piston simulates a passing car
Accelerating alternator is heard



Patents



- BumperOn granted patents at:
 - United States
 - Canada
 - South Africa
 - Israel
- Patents pending at:
 - European Union

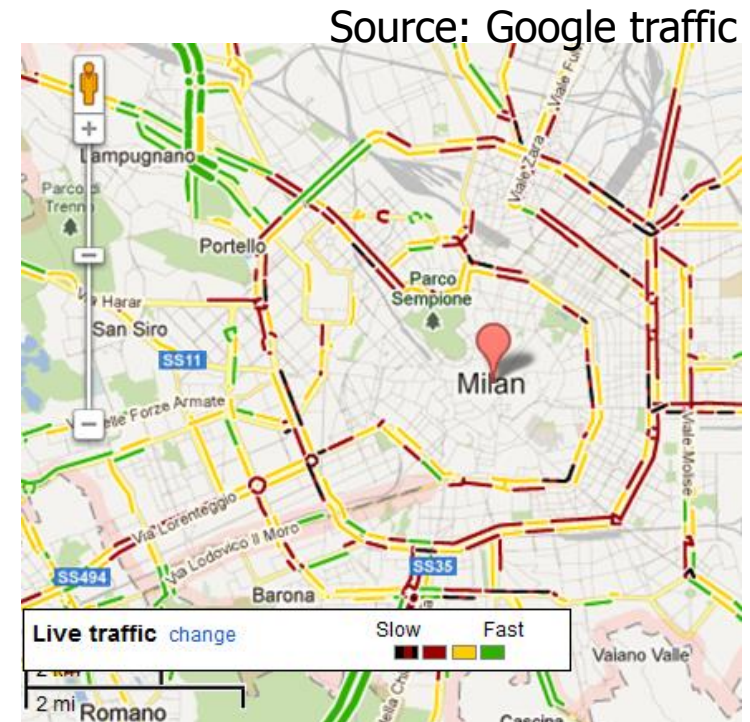
Energy Production Analysis



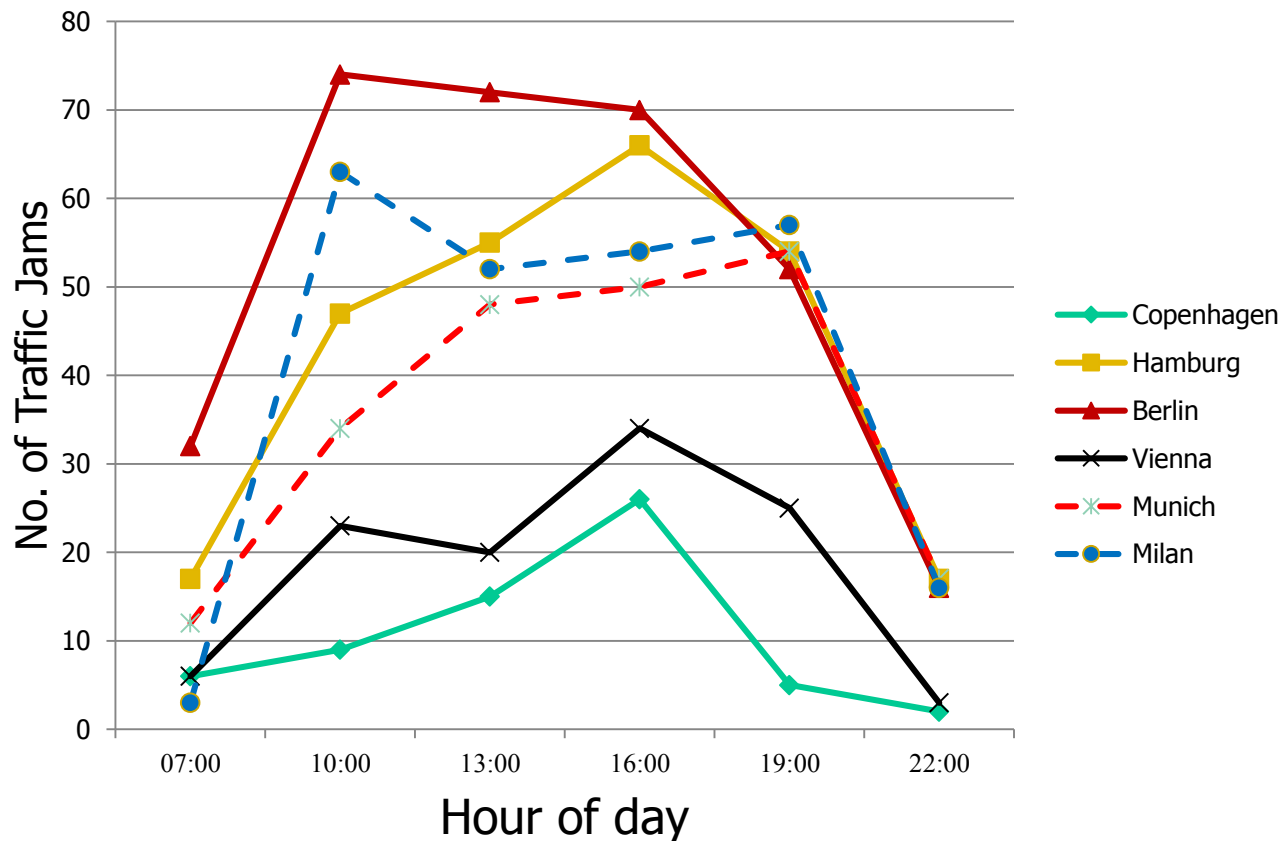
- Parameters and assumptions:
 - Car/Lorry ratio: 90% / 10%
 - Average weight – 3000Kg
 - Initial vehicle velocity – 40km/h
 - 5 consecutive flaps

Attractive Installation Sites

- Roads with high traffic volume
- Rings exits
- Left turns, crossroads/lights
- Shopping centers, parking lots



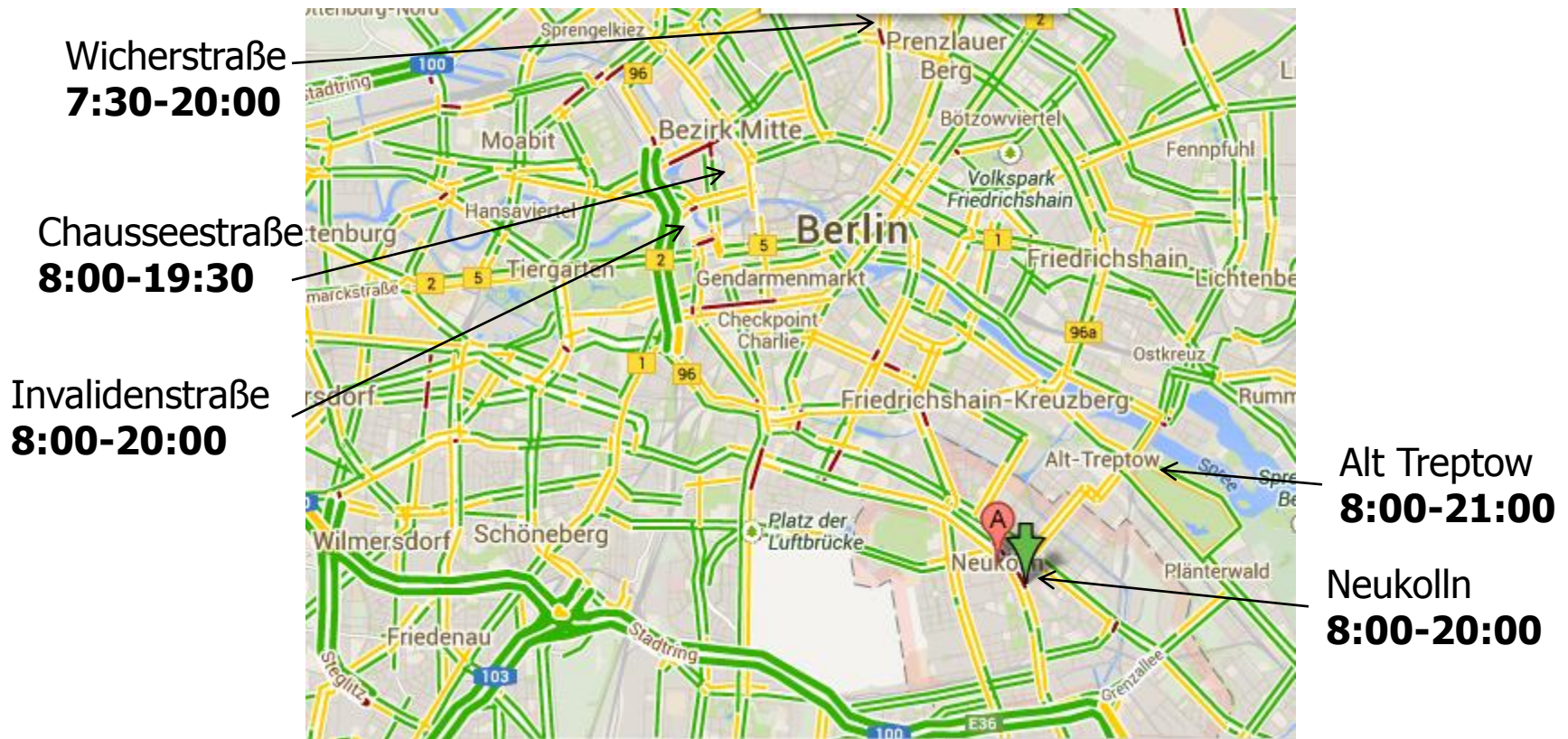
Transportation in Europe



Conclusions: 12 hours of high traffic – good assumption
Vienna, Copenhagen not attractive...
Berlin, Hamburg, Milan, Munich – are!

Berlin Attractive Sites - Example

<40	40-60	>60	Km/h
<12	12-18	>18	m/s



Conclusion: 12 hours of high traffic

How much money can it make?

High traffic volume: cars at 36Km/h (10 m/s), with 3 seconds delay between cars, results 1200 cars per hour.

Mid traffic volume: 48 Km/h (15 m/s), with 6 seconds delay between cars, results 600 cars per hour.

Monday – Friday has higher volume of traffic

1000 cars = 6.6 kWh ~ 0.66\$

	High traffic 1200 Cars/h [hours]	Mid traffic 600 Cars/h [hours]
Monday	12	4
Tuesday	12	4
Wednesday	12	4
Thursday	12	4
Friday	12	4
Saturday	6	6
Sunday	6	6
YEAR	=72*54= 3888 h	=32*54= 1728 h

Income = \sum (Total Hours * Income per hour) =

$3888*0.8\$ + 1728*0.4\$ = \mathbf{3800 \$/year}$



How much money can it make?

System cost is ~5000\$, thus

ROI ~ **1.5 Years**

Summary



- “Green” electricity production
- Very fast return on investment.
- Enormous growth potential.

Innovative would license technology and patents to relevant group in Europe that is a significant player in the municipal energy market.



Thank You !