### The Environmental Warehouse



Economic and Environmental advantages of Sustainable Design

#### Jonathan Fenton-Jones

Global Procurement and Sustainability Director Gazeley Ltd



### **About Gazeley**

G

One of the top five warehouse developers in the world

Operational in Europe, China, India and Mexico

Pioneer in sustainable development

Gazeley brand delivers the same service and product throughout the world

Gazeley adds value through strategic partnerships with customers

Subsidiary of Wal-Mart



## Magna Park UK



8 million sq ft



## First ECO project – 43,000 sq m



CO<sup>2</sup> Emissions saving pa 6% (156 tonnes)

Energy Usage saving pa 7% (364 MWh)



## John Lewis, Milton Keynes – 65,000 sq m



CO<sup>2</sup> Emissions saving pa 39% (1826 tonnes)

Energy Usage saving pa 40% (2990 MWh)



### Business is Awakening





Going Zero Carbon & promoting it



Carbon Neutral in 5 years



"Zero global warming company by 2010"



72% reduction on 1990 CO<sup>2</sup> levels



Kyoto+ internally, saves \$650m in last 3years



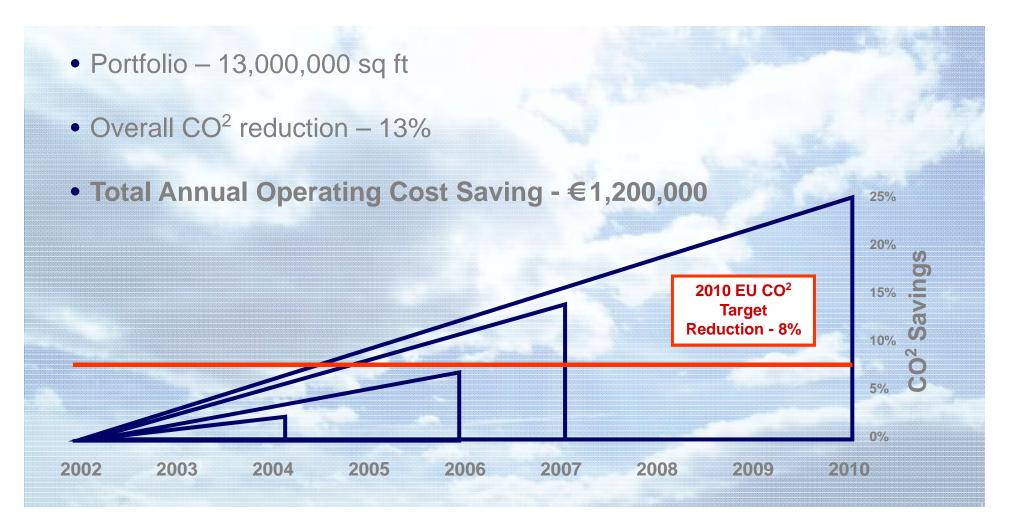
First bank to go carbon neutral



£3bn for bio fuels in 10 years

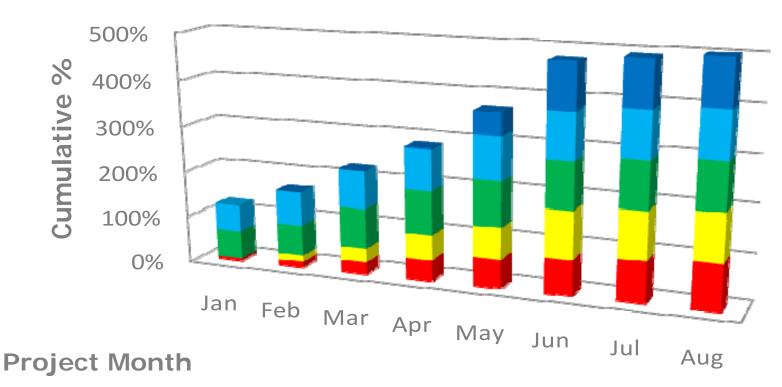
#### Performance Achieved



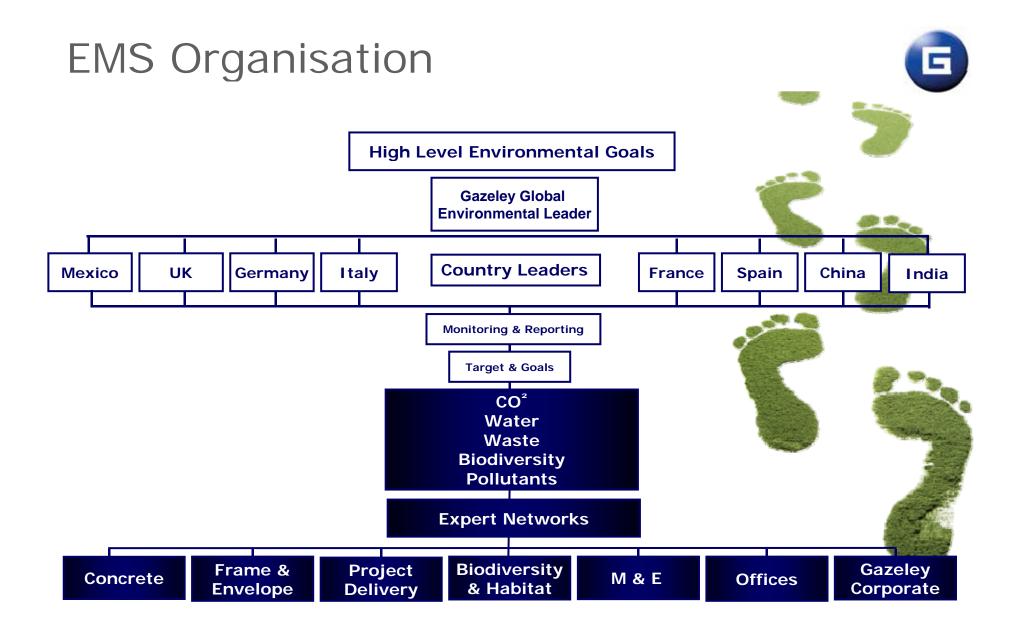


# Site Impacts in Relation to Construction Programme





	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
■ Waste	0%	0%	1%	3%	49%	100%	100%	100%
Fuel Consumption	56%	71%	83%	88%	93%	100%	100%	100%
CO2 Emissions	62%	68%	84%	92%	94%	100%	100%	100%
Water Usage	0%	14%	30%	54%	68%	100%	100%	100%
■ Programme Completion	5%	12%	26%	46%	63%	77%	90%	100%



## Sustainable Strategy



OBJECTIVE	TARGET
Develop a Sustainable office environment	Implement a Waste Management System
Improve Waste Management on site	Reduce Site Waste by 25% by 2008
Carbon Management	<ul> <li>Identify ways to reduce CO<sup>2</sup>e</li> </ul>
Material Specification	Help via develop industry recognised metrics
Supply Chain Management	Identify Sustainability Criteria via a Supplier PQQ
Sustainable Construction Solutions	Produce an FKRS Green Spec Alternative
<ul> <li>Communication</li> </ul>	Publish an Interim Sustainability Report by September 2007

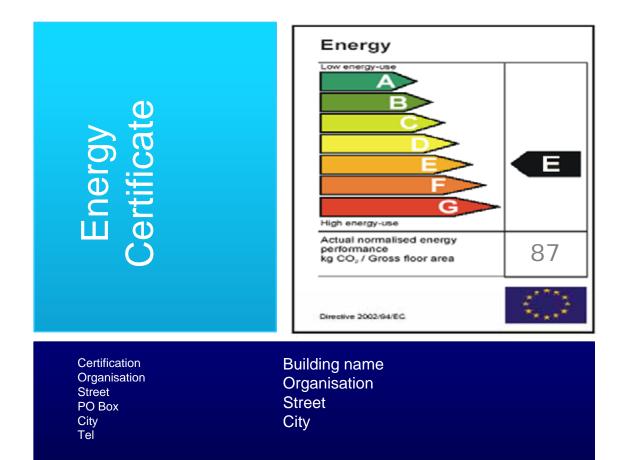
## Material Chemistry



- Characterization
- Carcinogenic Impact
- Impact to Sexual Development and Reproduction
- Toxicity Impact
- Sensitizing Impact
- Impact to Earth Ecology

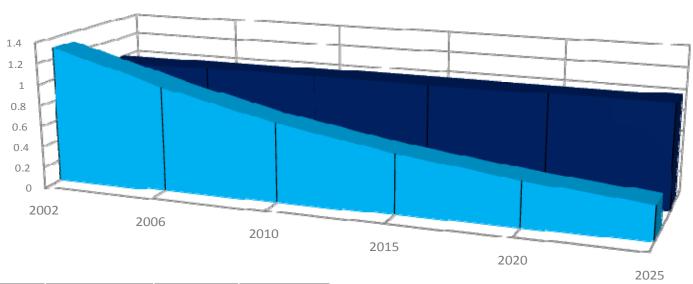
# European Energy Performance of Buildings Directive





#### Possible EPBD Trends 2002 - 2025



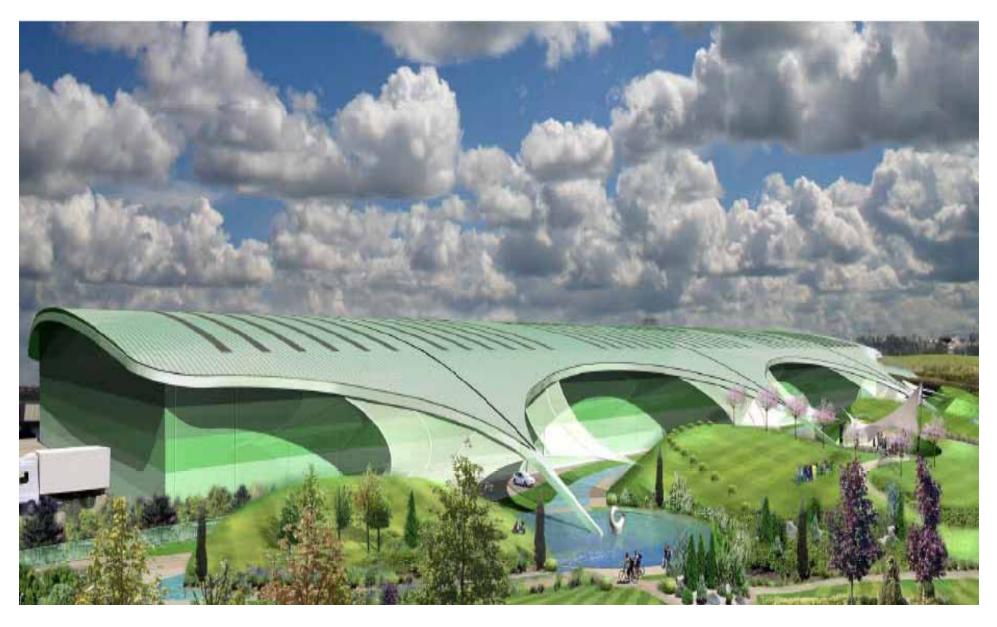


YEAR	COMPLIANT BUILDING	2006 SPECIFICATION EFFICIENCY RATIO	DIFFERENCE	ADDITIONAL CO <sup>2</sup> PRODUCED BY 2006 SPEC BUILDING
2002	1.0	1.3	+30%	+30%
2006	1.0	1.0	NEUTRAL	NEUTRAL
2010	1.0	0.75	-25%	+33%
2015	1.0	0.56	-46%	+79%
2020	1.0	0.42	-58%	+138%
2025	1.0	0.32	-68%	+213%









# Focus on whole system change



Culture is a serious competitive advantage

Have a plan, measure performance and be accountable

