Building Sustainability Into Hospital Design

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Great Ormond Street Hospital

Case Studies

- The Lewisham Hospital NHS Trust
  - Procured through PFI
  - Value £80m
- Great Ormond Street Hospital
  - Phase 1
  - Procured as conventional Design and Build
  - Value circa £100m Fundraised
- Great Ormond Street Hospital
  - Phase 2
  - Procured as conventional Design and Build
  - Value circa £320m
  - £75m Treasury Funded, £225m Fundraised

Who sets the agenda

- Building Regs, 2006
- UK White Paper commits to 60% reduction by 2050
- Climate Change Bill (November 2008)
- Department of Health, HTM 07-07
- London Borough Camden/Lewisham
- GLA (Mayors Office)
- Trust

Stages of a Project Life HTM 07-07

- Justification
- Scoping
- Procurement
- Commitment
- Construction
- Post Construction
- Operations
- End of life

Hurdles to cross

- BREEAM- NEAT
- AEDET evaluated design criteria
- ASPECT how design impacts on satisfaction
- Design review panel
- CABE
- Planning
- Business Case approvals

Procurement Options

- Private Finance Initiative (PFI/PPP/ LIFT)
- Procure 21(Framework)
- Traditional Lump Sum
- Develop and Construct (D&B)

GOSH

GOSH Site Now

Development Control Plan

Existing Building
Phase 2a/2b
Phase 3
Phase 4
Green Square

Great Ormond Street, World Class Tertiary Hospital

- **Phase 1** now complete at a cost of £100m includes Patients Hotel, PPU and Outpatients
- **Phase 2** – New inpatient Block upgrade of Cardiac Wing and extended imaging capacity
- **Phase 3** – Oncology Outpatients, Haematology Centre
- **Phase 4** – New Ambulatory Care Centre and Outpatients

Phase 2

- £312m; donated assets apart from £75m NHS Not PFI
- Complete Phase 2a 2011- Phase 2b 2014
- Delivers/enables:
  - Inpatient element of new Model of Care
  - Increased diagnostic & treatment capacity
  - Replacement of remaining (175) 1930's beds
  - Enhanced alignment of clinical & academic teams
- Partial site development
- High acuity
- Keeping the rest of the site running
- Planning
  - Viewing corridors

Demolition site

The Real Team

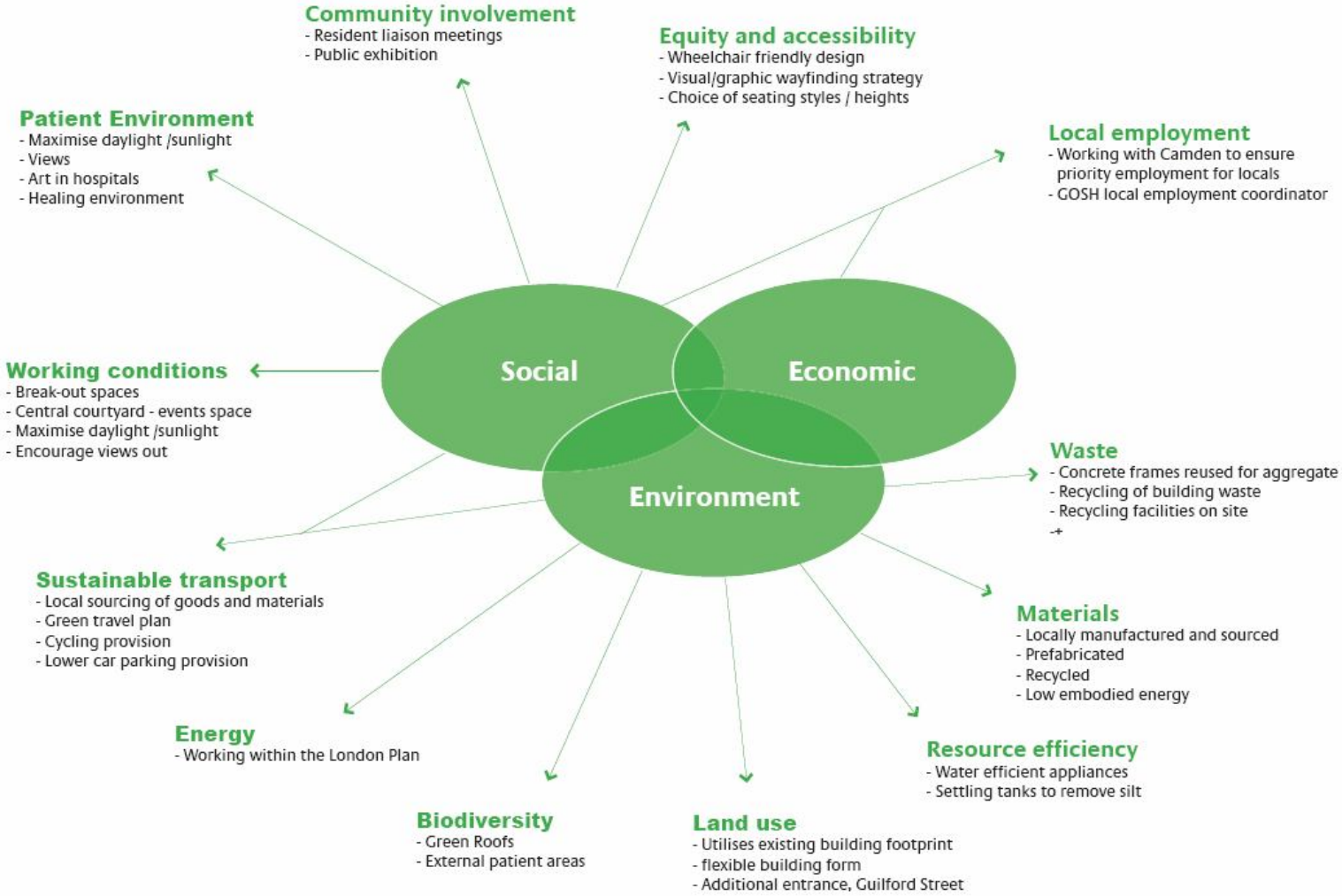
Our Patrons

GLA - targets

- The Mayor's Energy Strategy (2004) sets out the Energy Hierarchy for major development in London, which is to:
  - Use Less Energy (be lean),
  - Use Renewable Energy (be green),
  - Supply Energy Efficiently (be clean)
  - 10% reduction in CO_2 and 10% contribution from renewable energy by 2010

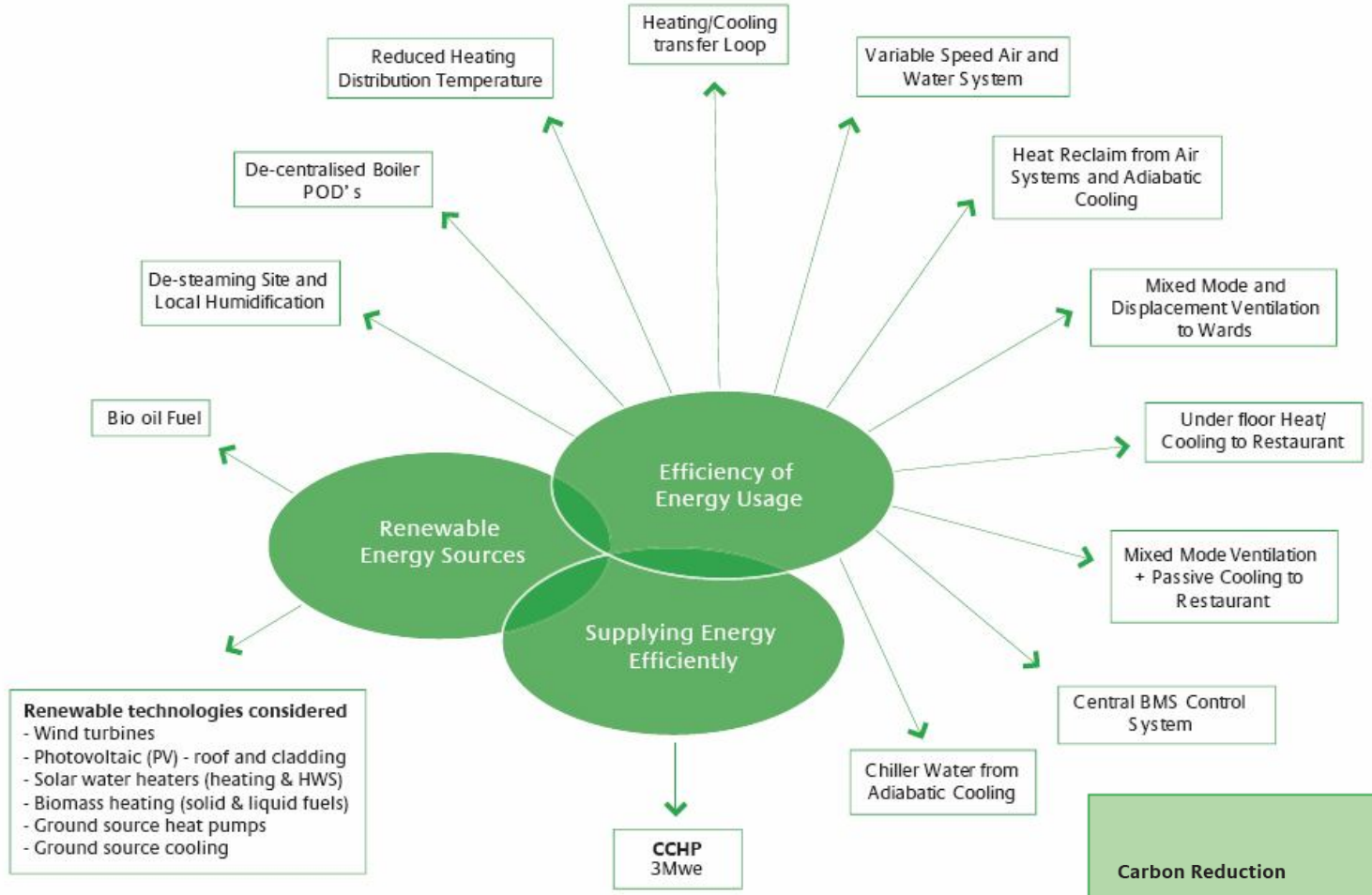
Sustainability

SUSTAINABLE DEVELOPMENT HIGHLIGHTS



Energy Strategy

STRATEGY



Renewable technologies considered
- Wind turbines
- Photovoltaic (PV) - roof and cladding
- Solar water heaters (heating & HWS)
- Biomass heating (solid & liquid fuels)
- Ground source heat pumps
- Ground source cooling

	Phase 2 Only	Whole Site
Carbon Reduction	124%	77%
Renewable Contribution	62%	26%

Grants

- Lewisham
  - Photovotaics £45k
  - Park development £1m
- GOSH
  - EU Innovative energy technology 700,000 euros

Photovoltaics on roof

Park regeneration works

Conclusion

- The **key players** have changed
- Sustainability is a **requirement for planning**
- There are **grants** around
- Think about the **opportunities with your community**
- Get good **expert advice**
- Politicians are now looking at **the long term so its going to get harder**