

BE PART OF IT

# RE:FIT

BUILDING ENERGY EFFICIENCY FOR TOMORROW

Formerly  
known as  
BEEP

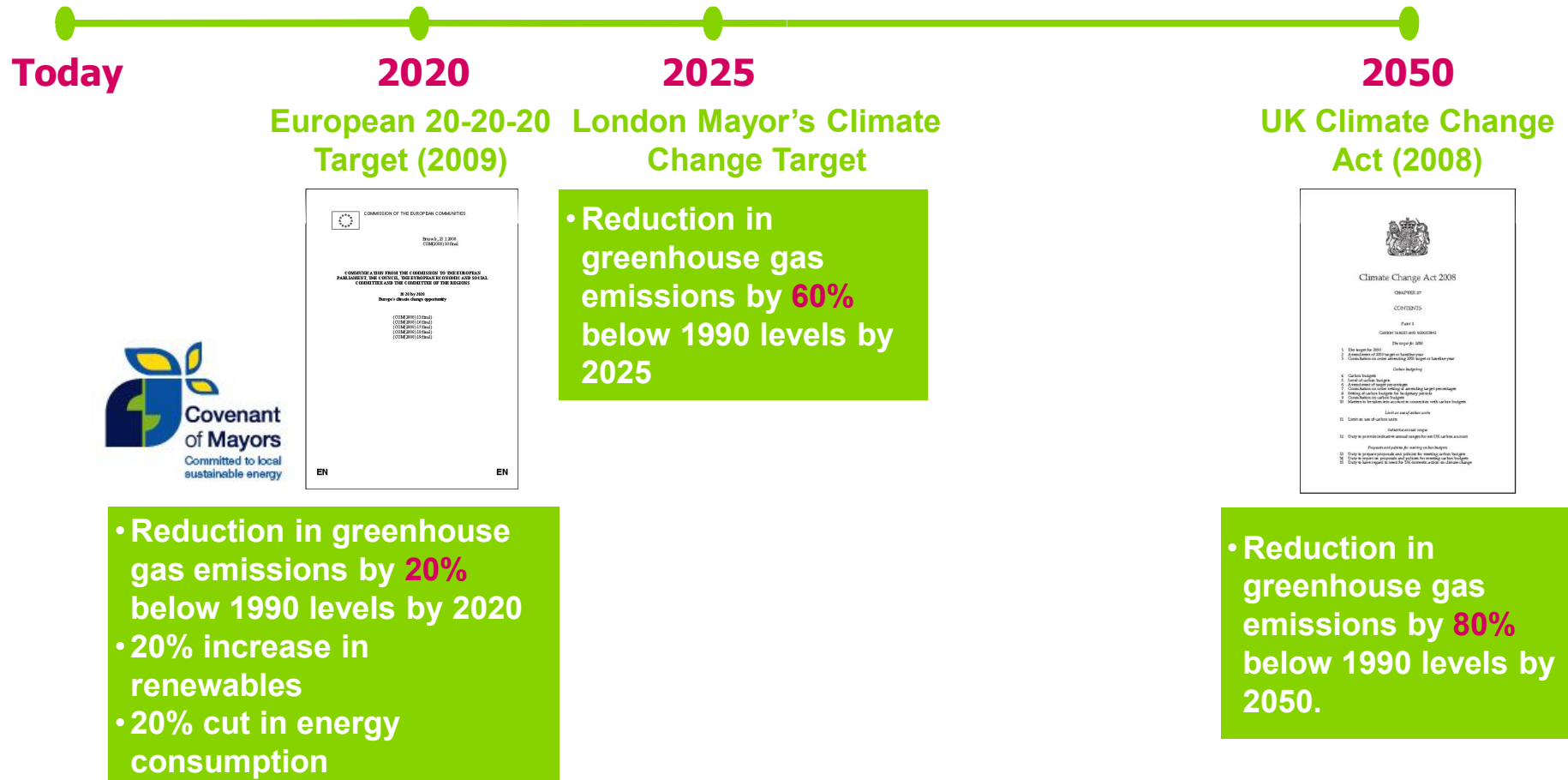
## London's building retrofit programme

Steve Barnes – RE:FIT Programme Manager

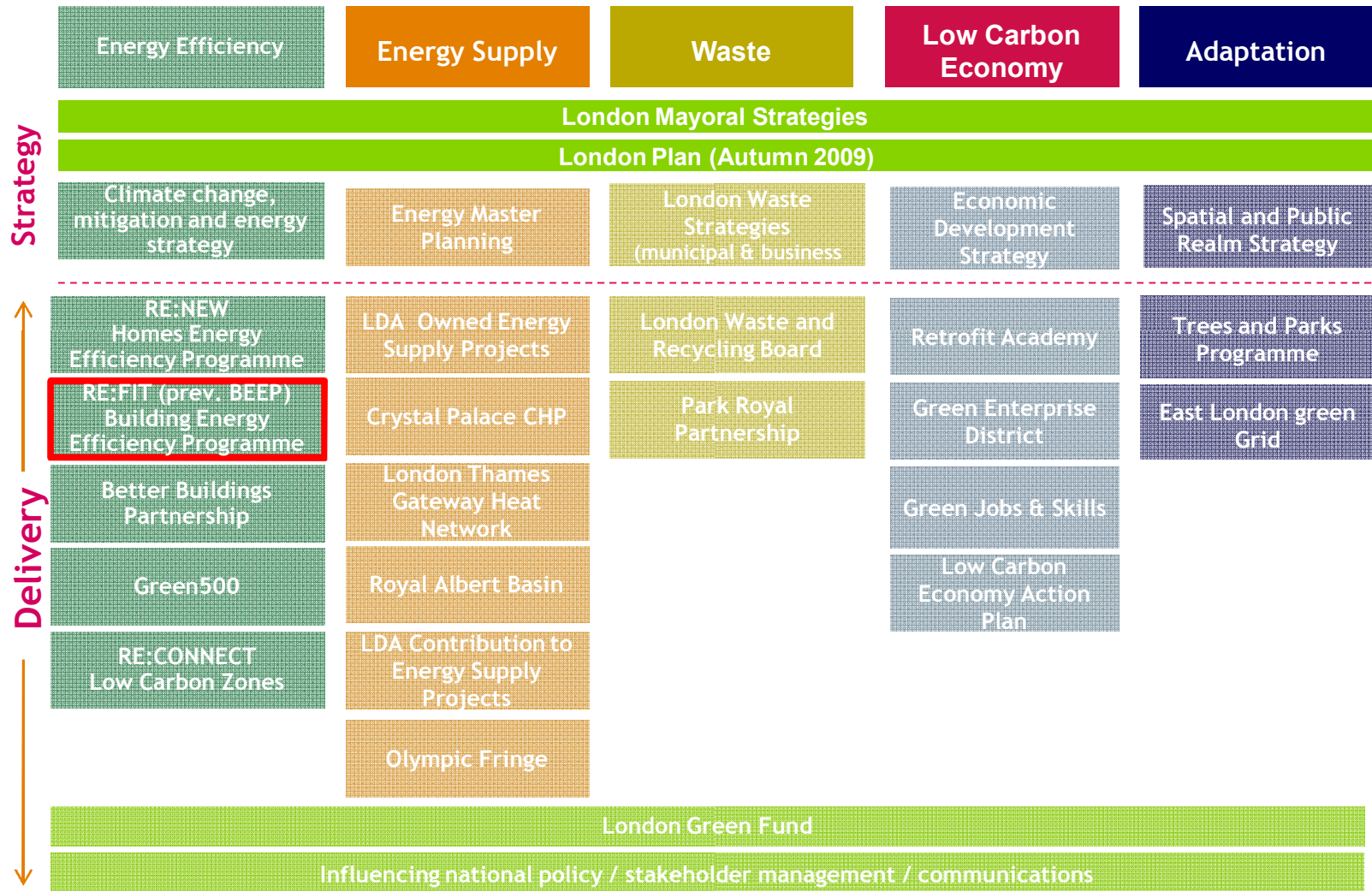
## What is it?

- **Ready to use Framework**
- **Retrofit existing public sector buildings with ECM's**
- **ESCO's guarantee energy savings / cost savings**
- **Reduced carbon emissions to meet CRC**
- **Substantial energy cost savings.**

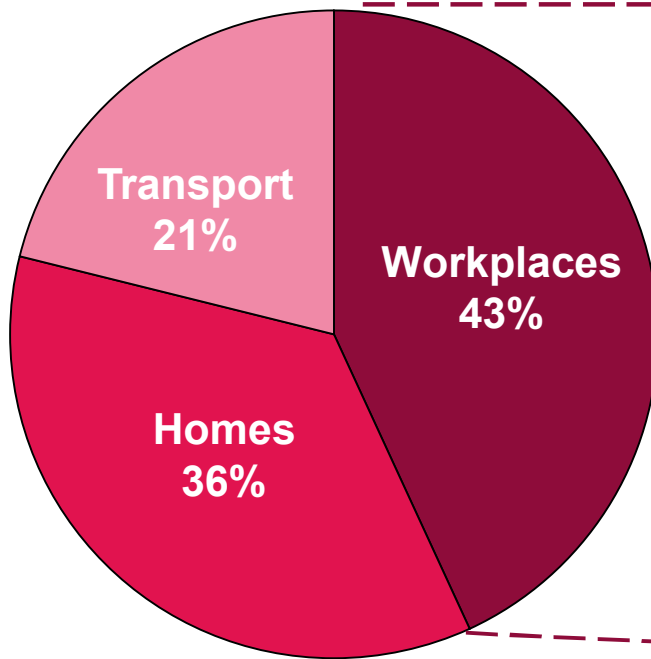
The Mayor is committed to London becoming the greenest city in the world and to a city that becomes a world leader in improving the environment



## The climate change programmes – stimulating demand

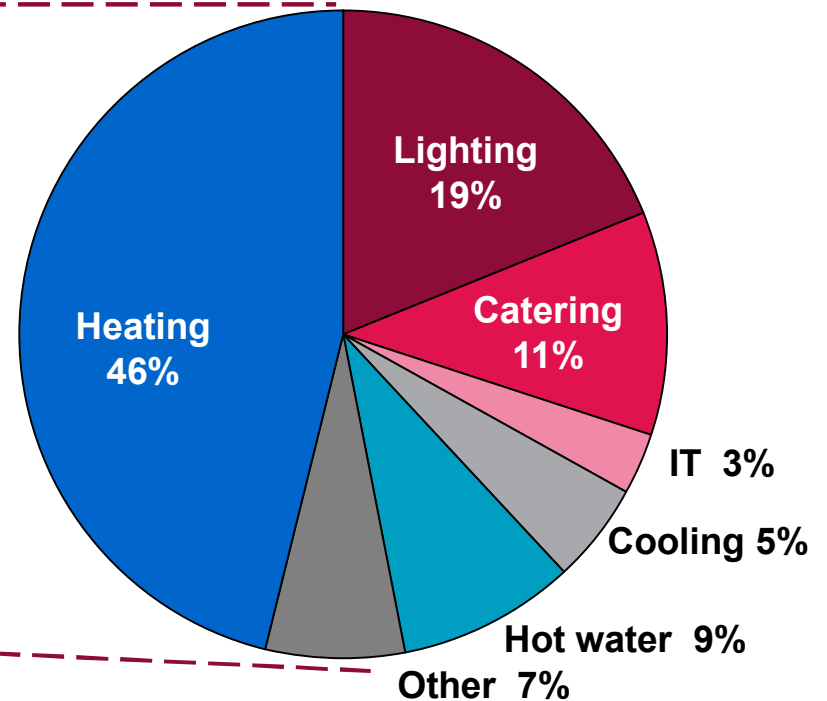


**33% of London's total CO<sub>2</sub> emissions are from Commercial & Public Sector buildings. Over one third of this is from heating.**



**CO<sub>2</sub> emissions from London, 2006  
(excluding aviation)**

100% = 47.5million tonnes CO<sub>2</sub>



**Commercial & Public Sector CO<sub>2</sub> emissions  
from London, 2006**

100% = 20.5million tonnes CO<sub>2</sub>

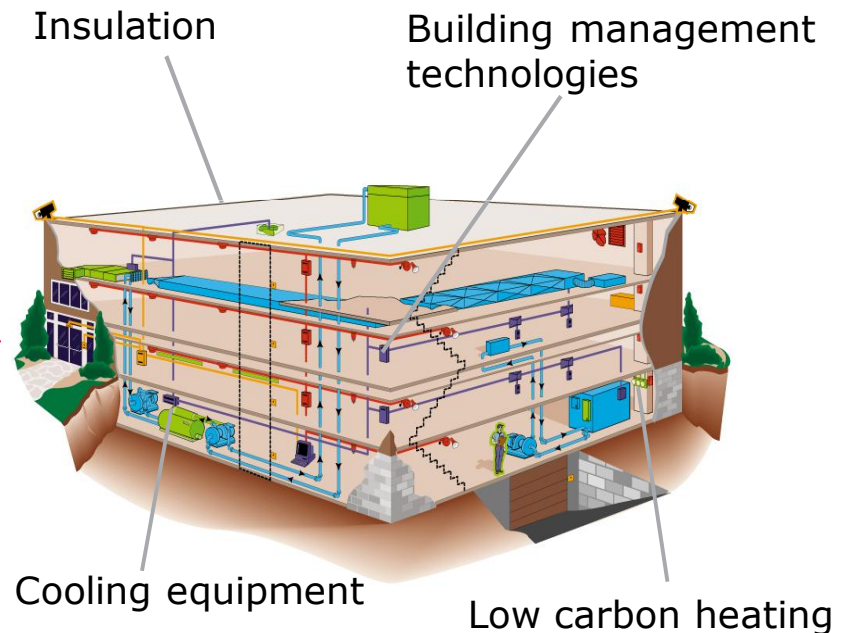
Public sector comprised of health (23%), education (47%) and offices (30%)

## What is the RE:FIT building energy efficiency programme?

- **Energy Performance Contracting approach:** The public sector building owner identifies a portfolio of buildings they would like to retrofit, sets a target percentage energy savings and a payback period

- **An Energy service companies (ESCOs)** carry out the works and guarantee the resulting energy savings

- **This guarantees the payback of the initial investment** with the delivery risk transferred to the ESCO.
- Hence this is a cost neutral means to reduce energy bills and carbon footprint of buildings



## Framework Agreement

- Available for 3 years with an option to extend to a fourth year
- Call offs from the agreements will be for periods of 10 years, depending on the payback period that is selected for each requirement
- Managed by the LDA
- Call offs contracts will be managed by the respective contracting organisation
- First call-offs to start during Autumn 2010
- Buyer guidance and toolkits have been developed


## Framework Panel of Approved Suppliers

- Balfour Beatty
- COFELY (GDF SUEZ)
- Dalkia FM (MITIE)
- EDF Energy
- E.ON Sustainable Energy Business
- Hoare Lea Consulting Engineers
- Honeywell
- Hurleypalmerflatt
- Interserve
- Johnson Controls
- Schneider Electric's Buildings Business
- Willmott Dixon Ltd



**A pilot has proved the model – we are now extending the model to the whole of London’s public sector**

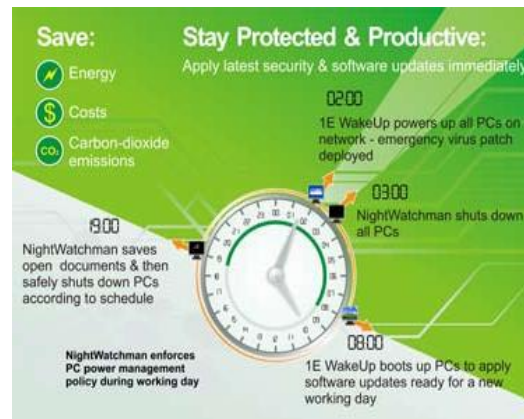
*underway*

	Tranche 1 Initial Pilot 	Rollout of RE:FIT Framework London Public Sector Publics
<b>Aim</b>	To pilot concept of Energy performance contracting and help develop retrofit market	Facilitate Energy Performance Contracting across London public sector buildings
<b>Buildings Covered</b>	42	40% of public sector
<b>CO2 Reduction (tonnes)</b>	6,117	2,500,000
<b>M<sup>2</sup> Retrofitted (est)</b>	145,852	11,000,000
<b>Total Spend (£m est)</b>	7	400
<b>Status</b>	<ul style="list-style-type: none"> <li>- 42 buildings completed</li> <li>- Average of 28% reduction in energy consumption</li> <li>- Payback period 7 years –saving of £1m per annum</li> </ul>	<ul style="list-style-type: none"> <li>- Panel of suppliers in place since January 2010</li> <li>- Public sector organisations now using the framework</li> </ul>

# Energy Conservations Measures

- CHP
- VSDs on Pumps and Fans
- PC control
- Voltage optimisation
- Lighting & controls
- BMS Controls
- Heat recovery
- Solar thermal
- Photovoltaic panels
- Cavity wall insulation
- Loft insulation
- Insulation to pipework
- Secondary glazing
- Draught proofing
- Radiator reflector panels

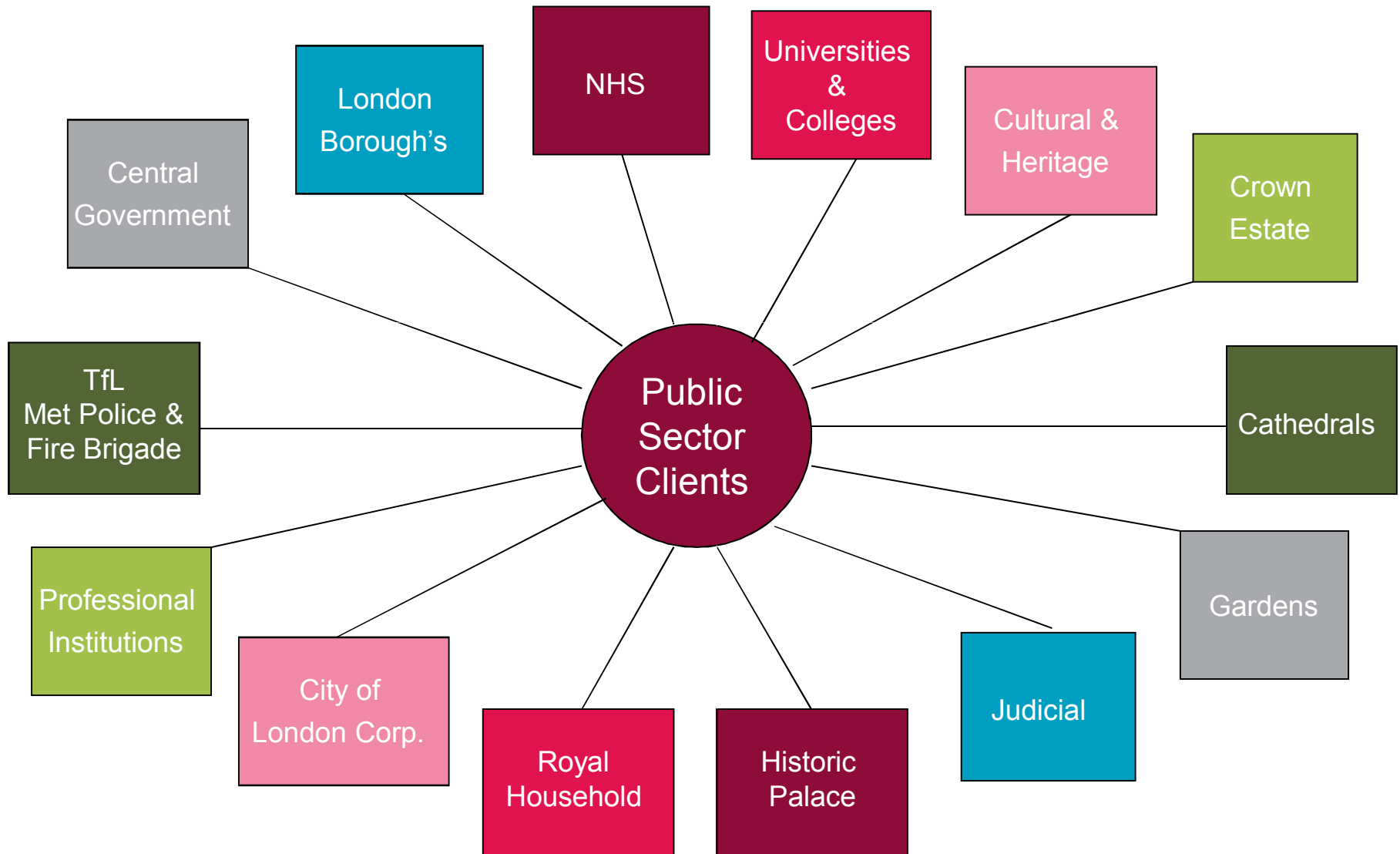
Integral MLS Digital Detector



1E Nightwatchman software for PC auto shutdown



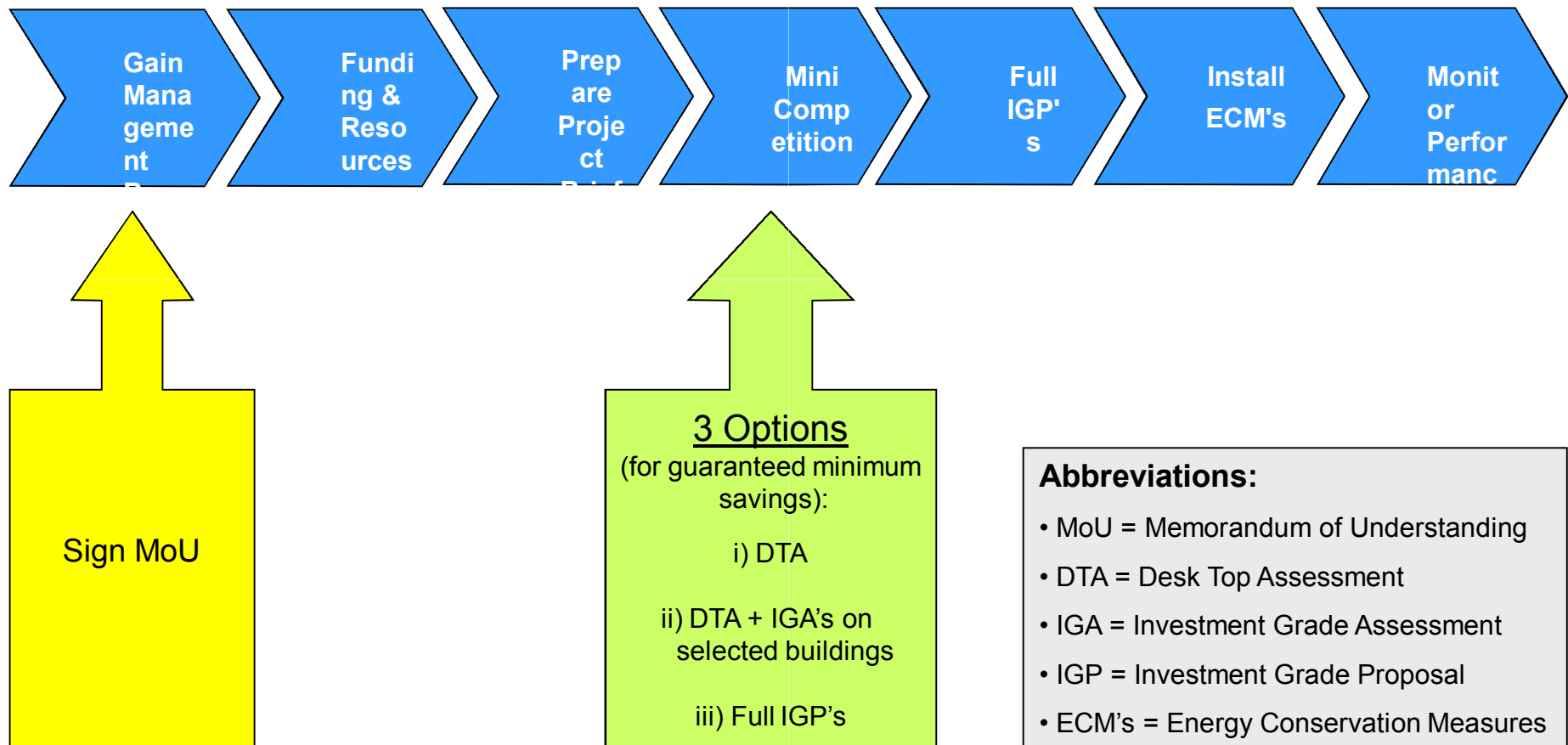
## Public Sectors (over 400)



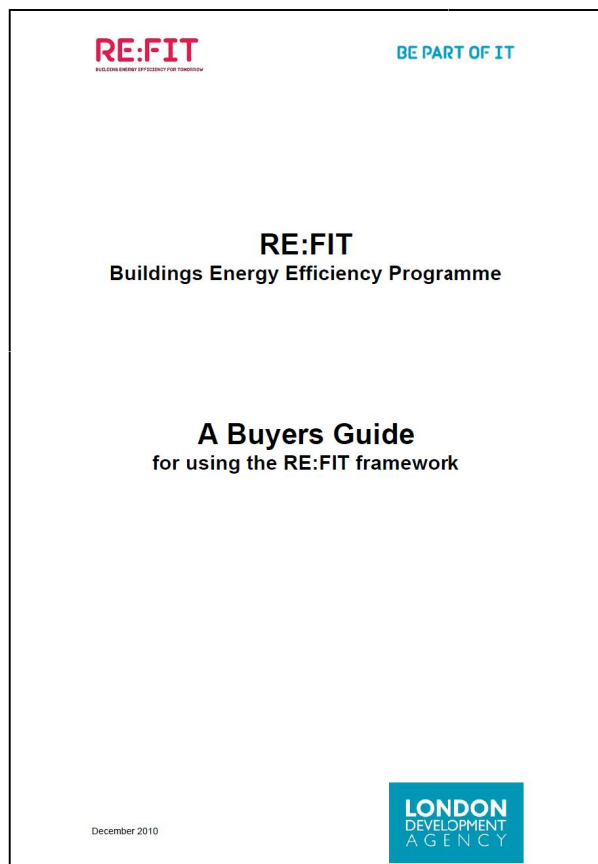
## Work underway



## Process



# Guidance Documents: Buyers Guide

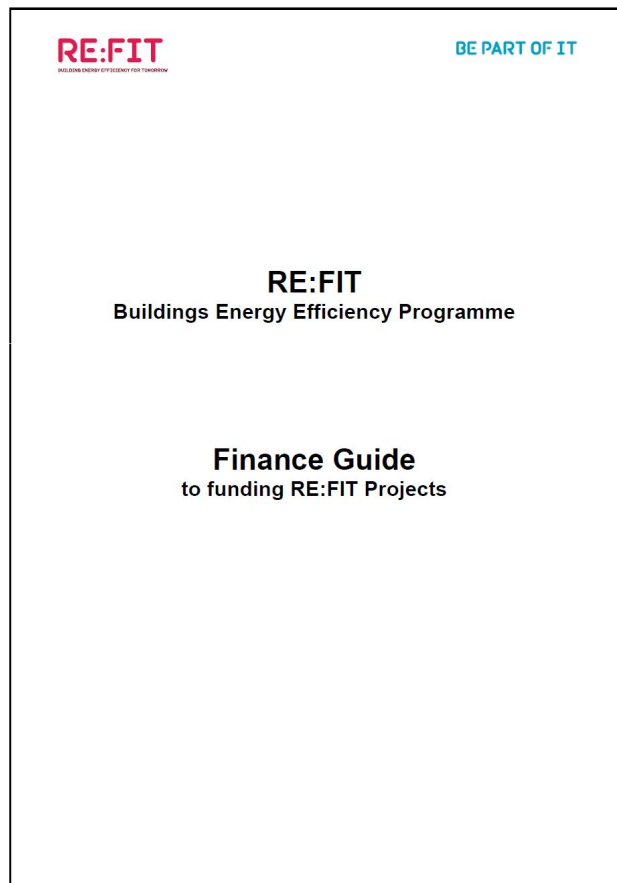


## Guidance Documents: Building Data Sheet

General Building Data													Energy/Utility Data															
Building	Floor Area (m²)	Population	Address	Post code	Building Manager Contact name	Building Manager Contact details	Building Type (ECON 19)	Tenure	Lease expiry date	Date Refurbished	Approx. Date of construction	Occupancy (include different occupancy in corresponding areas)	No. of floors	BREEAM Rating	BREEAM Date (year)	Type of Construction	Total Elec usage 20 <sup>-21</sup> /yr (kWh)	Total Elec Cost 20 <sup>-21</sup> /yr (€)	Total Gas usage 20 <sup>-21</sup> /yr (kWh)	Total Gas Cost 20 <sup>-21</sup> /yr (€)	Total Water usage 20 <sup>-21</sup> /yr (m³)	Total Water Cost 20 <sup>-21</sup> /yr (€)	Elec Supply Type	Elec HH Data	Gas HH Data	Elec sub metered data	Gas sub metered data	
																</												



# Guidance Documents: Finance Guide



## BEING INVESTMENT READY

To be investment ready:

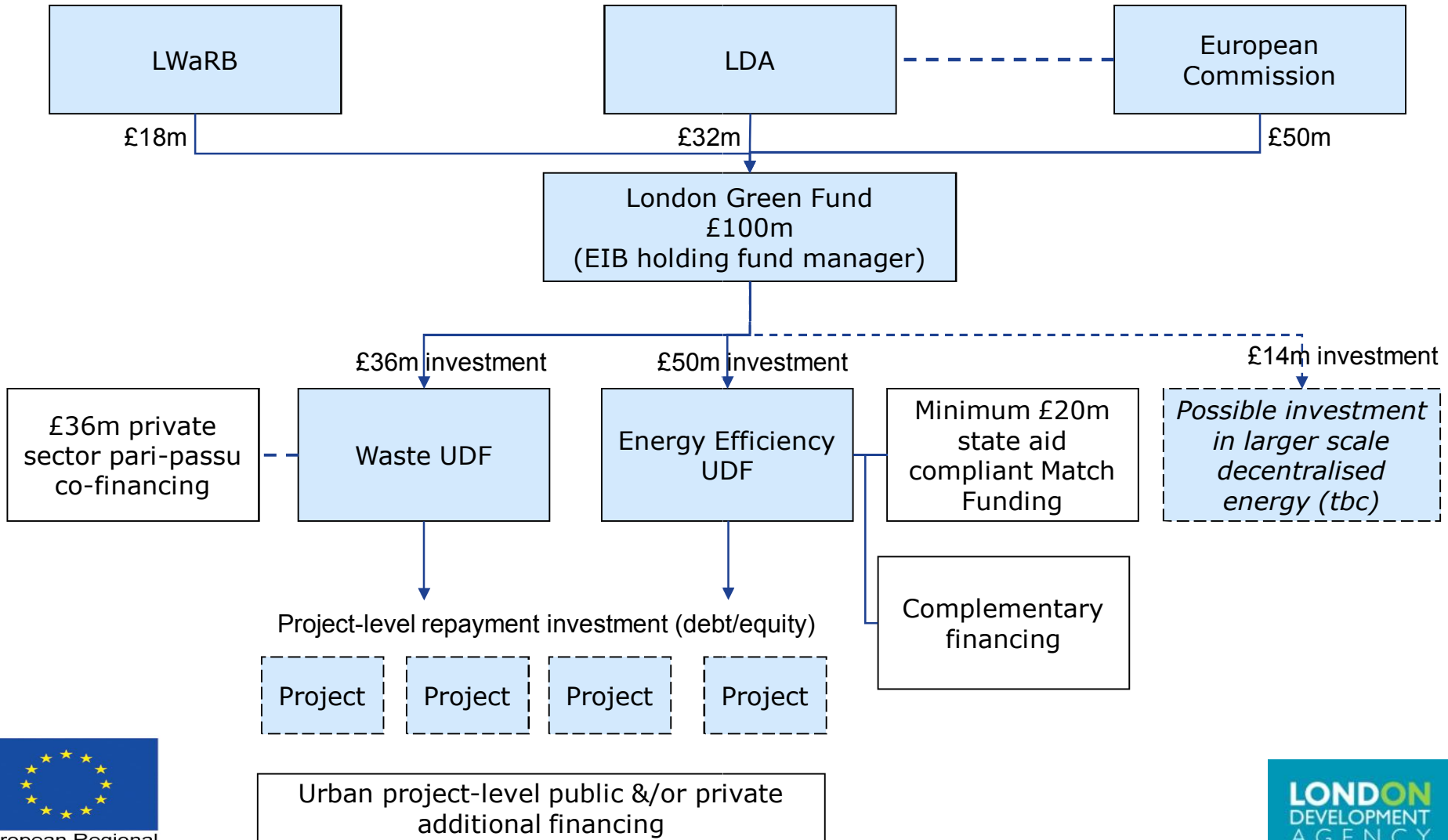
- Project Initiation Document (PID) – summary of how the Project is conceived, how it is to be resourced and managed and what key decisions will require to be made
- Initial Project Plan (high level) – phases (if any), timescales and Gantt chart to summarise how the project will be planned and implemented
- Project Execution Plan (PEP), scaled as appropriate – this should set out the reporting structures, governance arrangements and risk management for the Project
- Benefits Realisation Plan, with particular focus on carbon saving – this may well be incorporated into the Business Case
- Robust Business Case for the Project, stating both financial and non-financial benefits
- Documented internal approvals to LGF involvement – this provides comfort to the LGF when undertaking due diligence that the appropriate internal approvals have been obtained
- Funding proposal – amount required to borrow, contingency, proposed repayment period, security arrangements



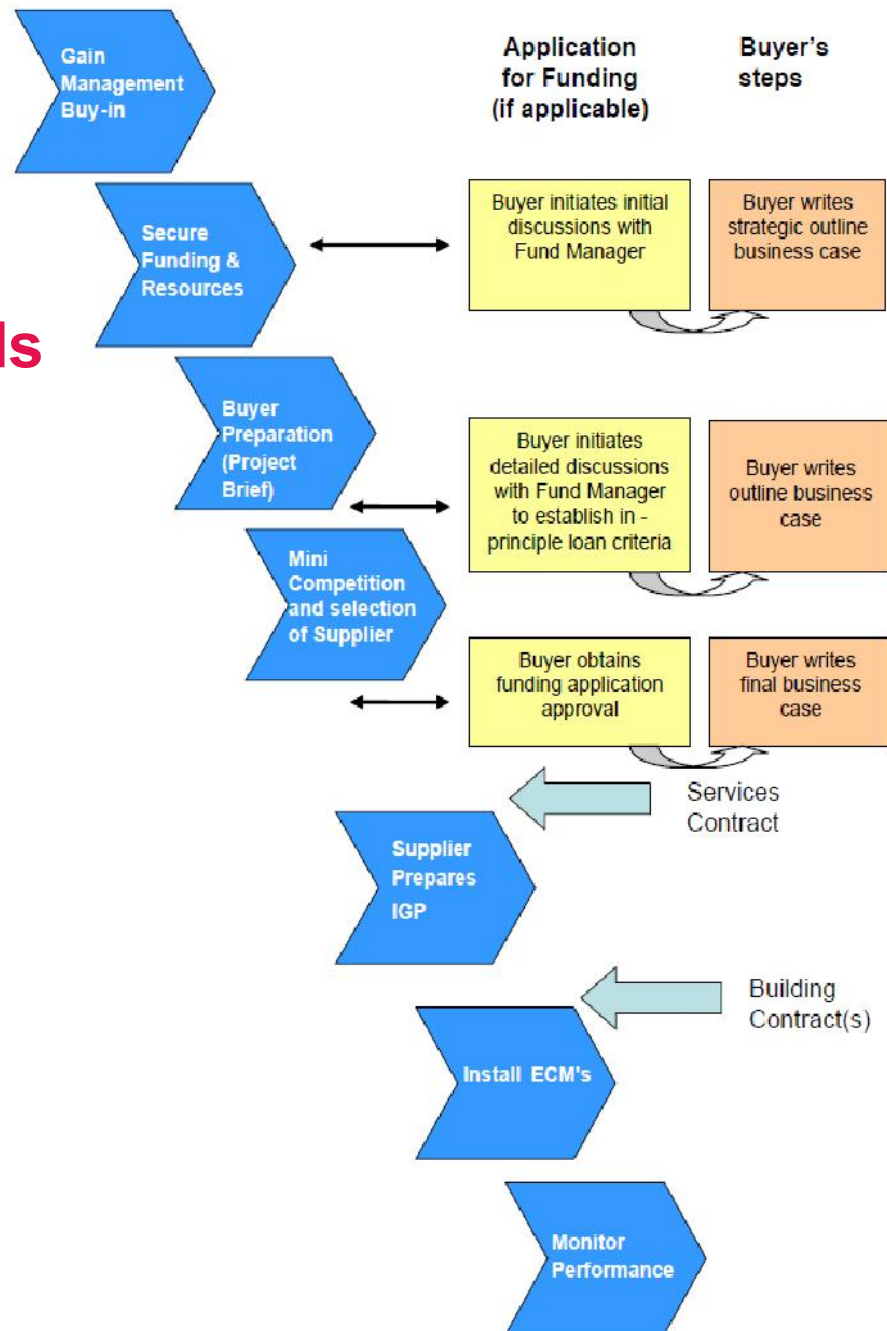
## Funding Options

- Own Funds
- Borrowing
  - eg:
    - Salix
    - Banks
    - Public Works Loan Board (PWLB)
    - London Green Fund - seed funding of £114m for energy efficiency, waste and decentralised energy projects in London.
    - EU Funds
    - Others

# London Green Fund



## Process to Secure Funds

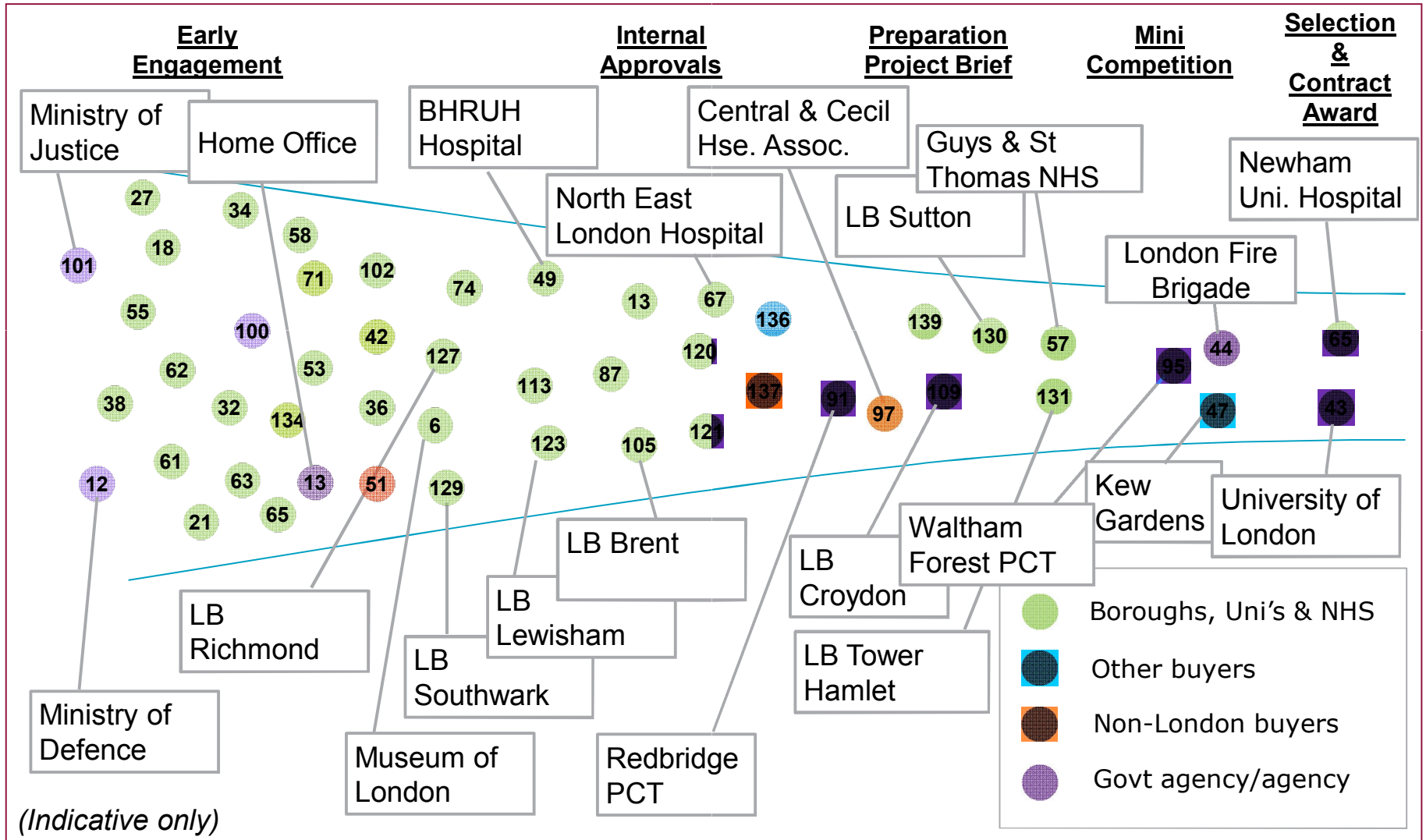


**BE PART OF IT**

## Key Benefits of the RE:FIT Framework

• Innovative	- provides guaranteed energy savings from ESCO's & access to the latest energy saving products
• Significant energy savings	- 25% energy savings or more
• Ready to use	- cuts out the time delay, hassle & expense of OJEU procurement process
• Proven	- Piloted by TfL, Metropolitan Police and London Fire Brigade
• Sustainable	- Makes retrofit of existing buildings sustainable
• Alternative financing Solutions	- eg. Banks - London Green Fund
• LDA support	- Support & advice with standardised contracts & toolkits
• Single Point of Responsibility	- ESCO has contractual responsibility for performance

## >140 organisations are in the RE:FIT pipeline



## Next Steps.....

- Organisational buy-in
- Sign MoU
- Select Buildings
- Explore Funding routes
- Project Management Support

## Contact Details

Steve Barnes  
RE:FIT Programme Manager  
Design, Delivery & Environment  
[stevenbarnes@lda.gov.uk](mailto:stevenbarnes@lda.gov.uk)  
Mobile 07887 562914

London Development Agency  
Palestra  
197 Blackfriars Road  
London  
SE1 8AA  
Switchboard: 020 7593 8000