

DECENTRALISED ENERGY ENABLING PROJECT (DEEP)

- DEEP within the context of Mayoral priorities and
new London Environment Strategy -

Patrick Feehily, Assistant Director - Environment

31st May 2017

Future Cities

- 70% of the world's population will be living in cities by 2050
- London's set to rise to 11 million
- Growing pressure on resources and infrastructure
- Means we need to become more efficient and identify new lower carbon sources of supply
- Needs to be managed flexibly so that we are always utilising the lowest carbon and cheapest energy



The City Challenge

- To adapt current energy systems into more sustainable ones, less dependent on imported fuels
- Based on a diverse mix of energy sources, in particular renewables, energy carriers and non polluting sources
- Addressing the challenges of security of supply and climate change, whilst maintaining competitiveness
- Enhance energy efficiency, by rationalising use and storage of energy



Mayor of London – Key Manifesto Commitments

- 2050 target committing London to be a zero-carbon city by 2050.
- Establish Energy for Londoners, a not-for-profit company providing:
 - Help Londoners generate more low-carbon energy and increase their energy efficiency,
 - Support local and community energy enterprises,
 - Buy clean energy generated across the city, using it to power GLA and TfL facilities.
- Lead on work to cut energy bills for Londoners: explore the business case for savings on bills by bulk-buying energy.
- Solar strategy energy generation to make the most of the city's roofs, public buildings and land owned by TfL.
- Reduce energy demand by working with the industry to accelerate the rollout of smart meters.
- Back district heating schemes that make the most of waste heat from the Tube, such as that in Bunhill, Islington.

A CITY FOR ALL LONDONERS

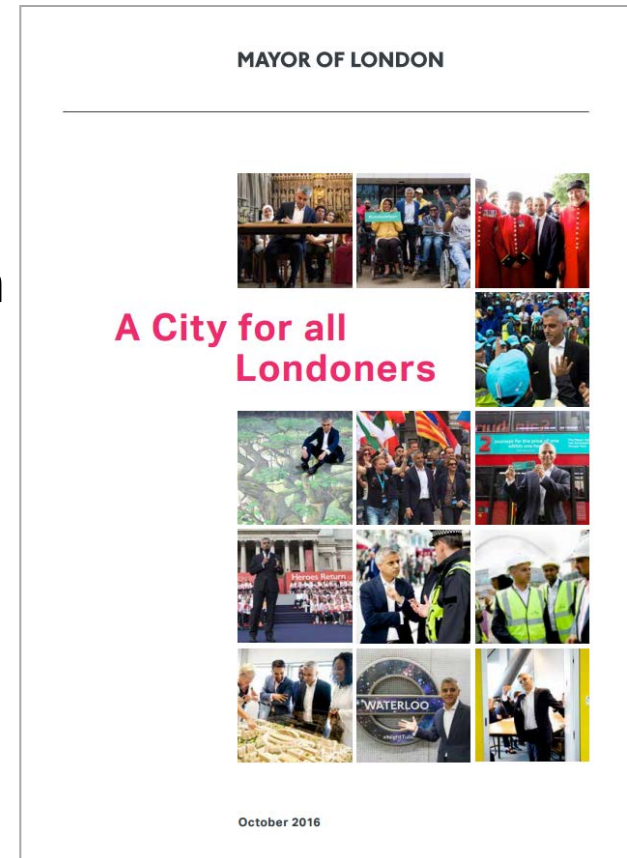
Vision: “for London to be the greenest of all global cities”

Objectives: “My environmental objectives can be broken down into two key areas – making the city healthy, resilient and fair, and making it resource efficient, low carbon and green.”

Target: Net Zero Carbon by 2050

Approach - Energy for Londoners

Commitment to produce a London Environment Strategy and London Plan



Fundamentals for DE Remain the Same

Nearly 80% of our emissions comes from buildings

30% of London's CO₂ emissions – and approximately 50% of its energy demand - are attributable to heat (mostly mains gas)

Great opportunity for CO₂ reduction within London is to reduce demand for heat through building retrofit and low carbon, local (decentralised) heat supply

Focus on connecting to medium and large scale heat networks

Decarbonising heat networks

- Transition increasingly to renewable and secondary heat sources
- Lower temperature supply temperatures



Thankyou for listening



London Environment Strategy launched summer 2017.

Ambitious carbon reduction targets driving future e.g. London Plan policy (projected launch Autumn)

Continued support for DE with a focus on Heat

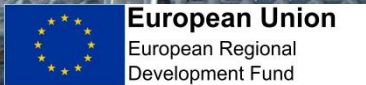
Would encourage you to get involved in the consultation on the GLA website.

DECENTRALISED ENERGY ENABLING PROJECT (DEEP)

Peter North

Senior Manager – Smart Energy Supply
(DEEP Project Director)

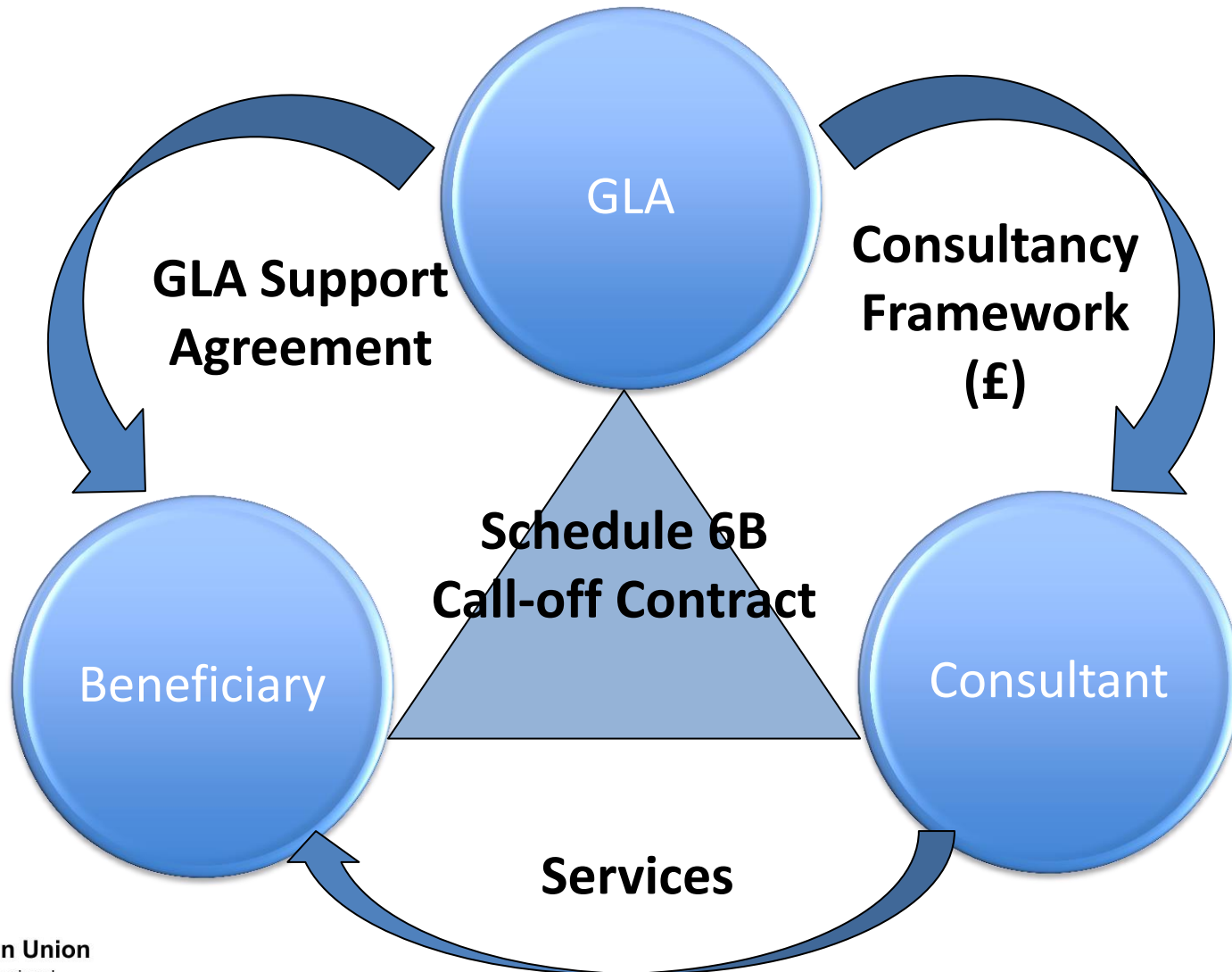
31st May 2017



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MAYOR OF LONDON

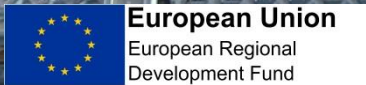
Tripartite Relationship



Decentralised Energy Enabling Project (DEEP)

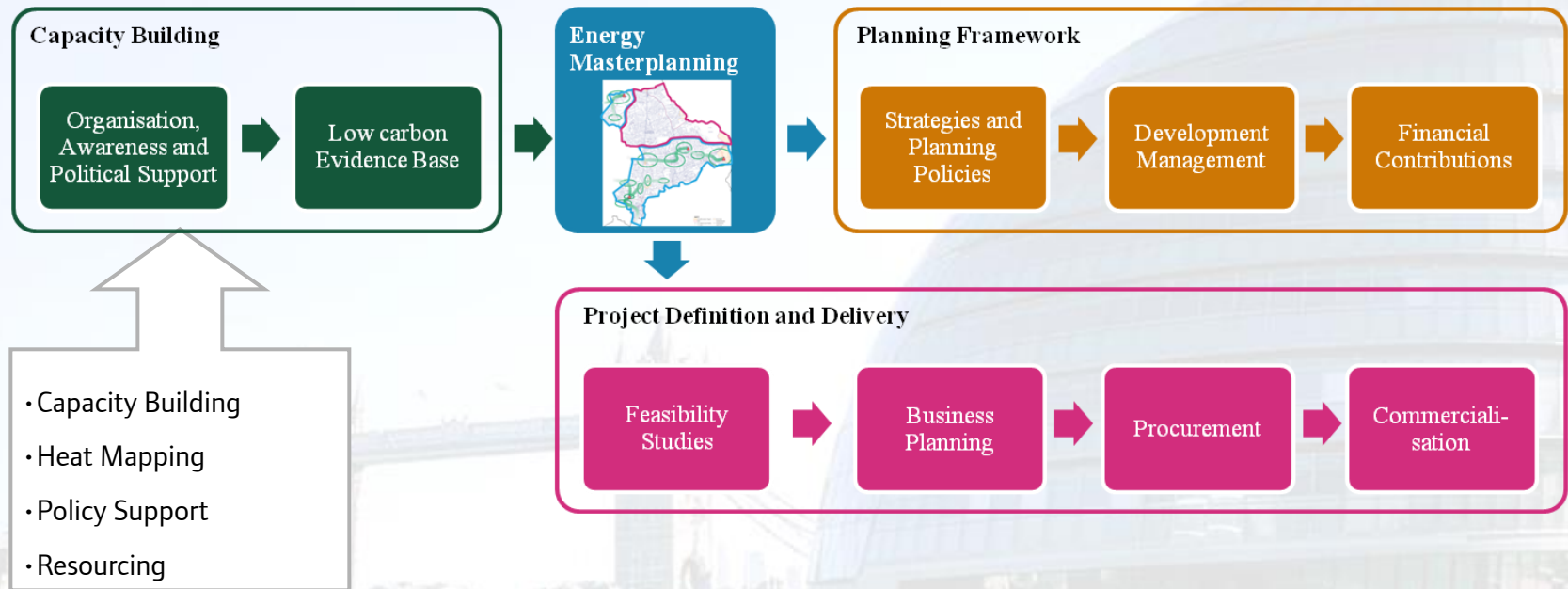
EXAMPLES OF HOW THE GLA HAS HELPED

Roberto Gagliardi La Gala, Senior Project Engineer
31st May 2017



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DEEP Project Support

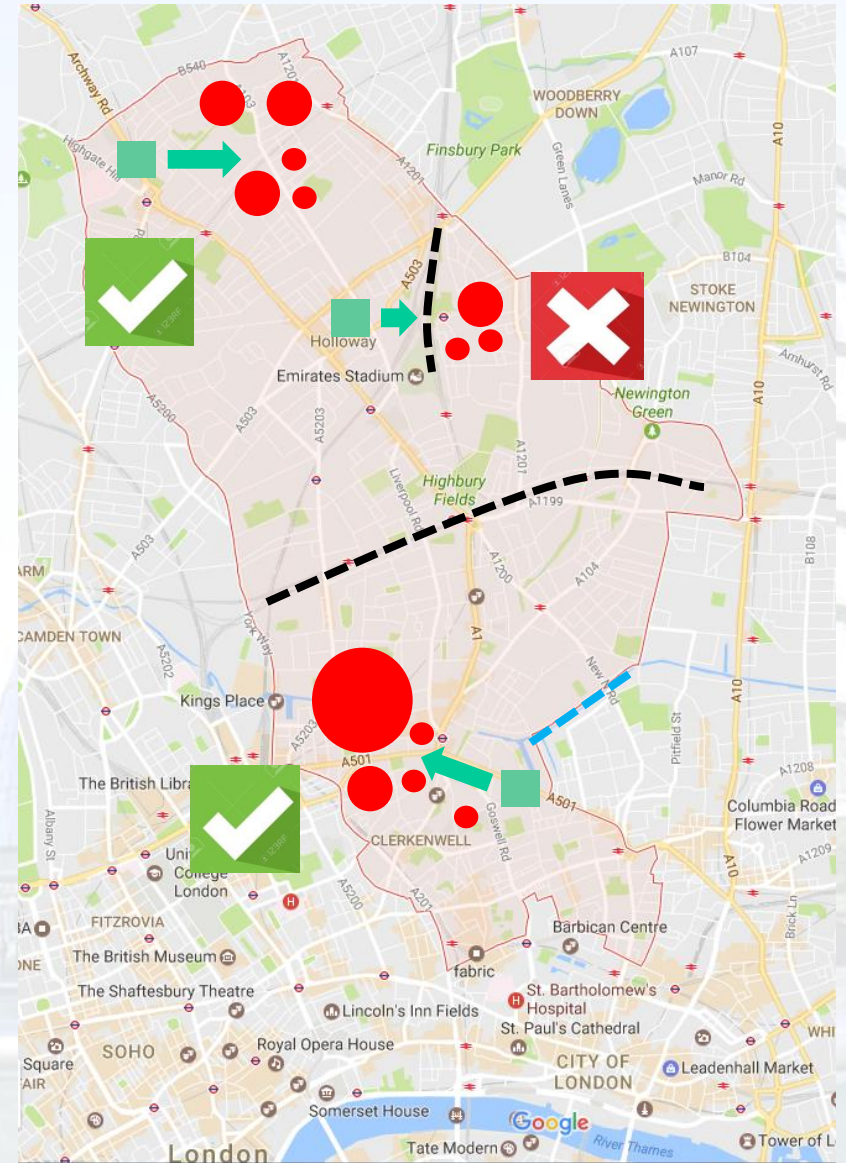


GLA role

1. Identifies with the beneficiary the short, medium and long term ambitions of the project
2. Agrees with the beneficiary the scope of work, timescale and level of support provided through DEEP
3. Supports the beneficiary in writing the technical specifications as part of their procurement process
4. Supports the beneficiary in the evaluation of the technical part of their tender
5. Steers the beneficiary following award of contract, attend progress meetings, review draft and final reports
6. Ensures that project outputs and outcomes meet GLA and ERDF requirements
7. Pays 😊
8. Makes the project outputs publicly available (London.gov and London Heat Map)

Energy Masterplans

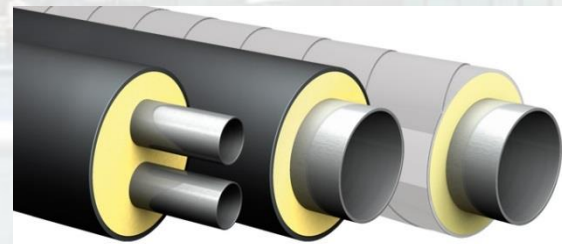
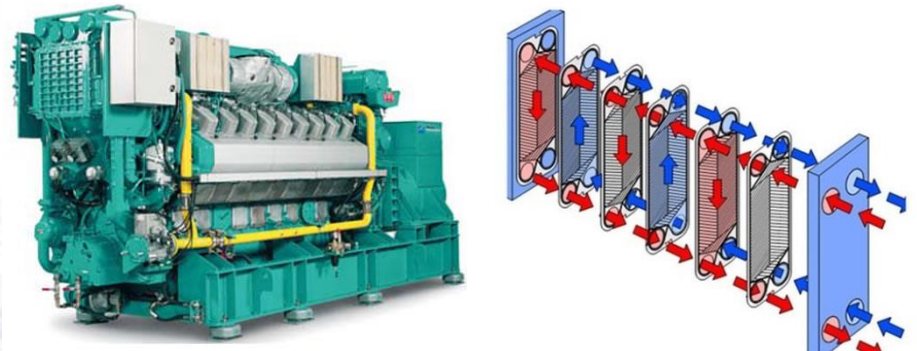
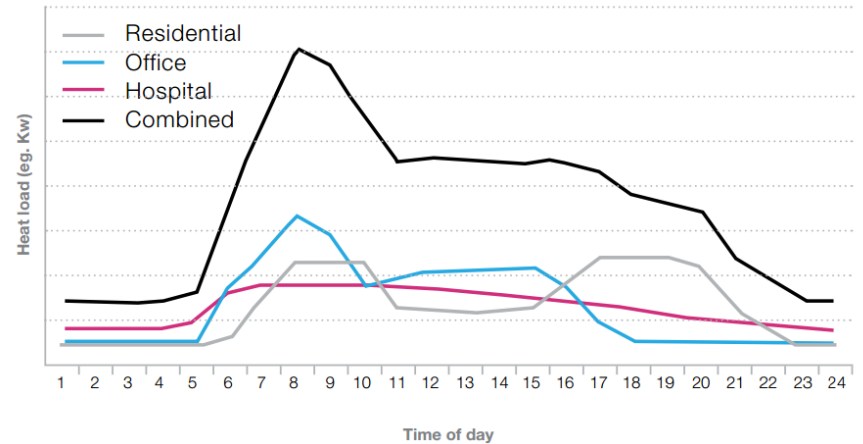
- Focus on a confined geographical area
- Identify and map current and future:
 - Energy demand and supply points
 - Barriers and constraints
 - Location and size of potential Energy Centres
 - Potential routes for heat networks
 - Secondary heat sources
- Determine high level techno-economic appraisal of DE options
- Inform policies and further studies



Feasibility Studies

- Focus on a specific DE opportunity or cluster
- Assess in details:
 - Energy demand and load profiling
 - Likelihood of connection
 - CAPEX, OPEX and revenues
- Include detailed design of:
 - Energy Centre, generating assets & ancillaries
 - Heat Network and Heat Substations
- Determine sound financial appraisal of preferred option(s)
- Inform Business Planning

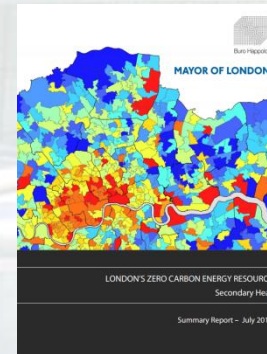
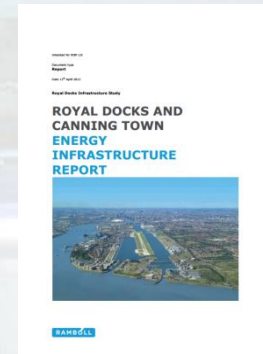
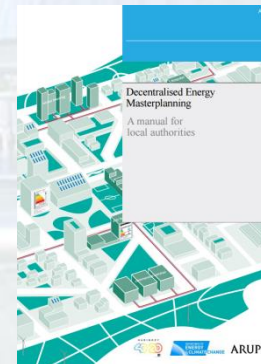
Typical Combined Daily Heat Demand Profile



London Heat Map

- The London Heat Map has recently been incorporated into the London.gov website
- More slim and user friendly
- It will be subject to an update & upgrade to be procured via the DEEP framework over the Summer
- Outputs of all DEEP studies will be uploaded where applicable
- All studies and reports produced under DEEP will be made publicly available in the Resource Library @ London.gov
- 13 EMPs and various other reports are currently available to download

The screenshot shows the Mayor of London website's navigation bar with links for 'What we do', 'In my area', 'Get involved', 'About us', and 'Media centre'. Below the navigation is a breadcrumb trail: 'Home > What we do > Environment > Energy > London Heat Map - helping decentralised energy projects > View the London Heat Map'. The main content area features the heading 'View the London Heat Map' and a brief description: 'The London Heat Map is an online tool used to assist with decentralised energy projects across the capital. If you want to see a bigger version of the map, you can [browse full width](#).' Below this is the 'London Heat Map' interface, which includes a search box for 'City Hall', a 'Layers' panel with checkboxes for 'London geography', 'DH masterplanning layers', 'RE-FIT priority layers', 'Policy indicators', and 'Base layers', and a map of London with a color-coded heat overlay. A 'Print' button is visible in the top right corner of the map area.



Thankyou for listening



Roberto Gagliardi La Gala
Senior Project Officer
Greater London Authority

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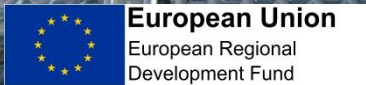
[@ldn_environment](https://twitter.com/ldn_environment)

www.london.gov.uk/environment-newsletter

Decentralised Energy Enabling Project (DEEP)

- SUPPORT PROCESS -

Alex Hoble, Project Manager
31st May 2017



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Presentation Content

- Who's providing the funding?
- My role
- How can I access what the project is providing?
- What is the process for procuring support?
- What are the requirements on project beneficiaries in return for receiving support?



Who is funding the £3.5 million project?

50% from:



European Union

European Regional
Development Fund

- 2014-2020 Funding Call
- Priority Axis 4: Supporting the shift towards a low carbon economy in all sectors
- Investment Priority 4a: Promoting the reduction and distribution of energy derived from renewable sources

Who is funding the £3.5 million project?

50% from:

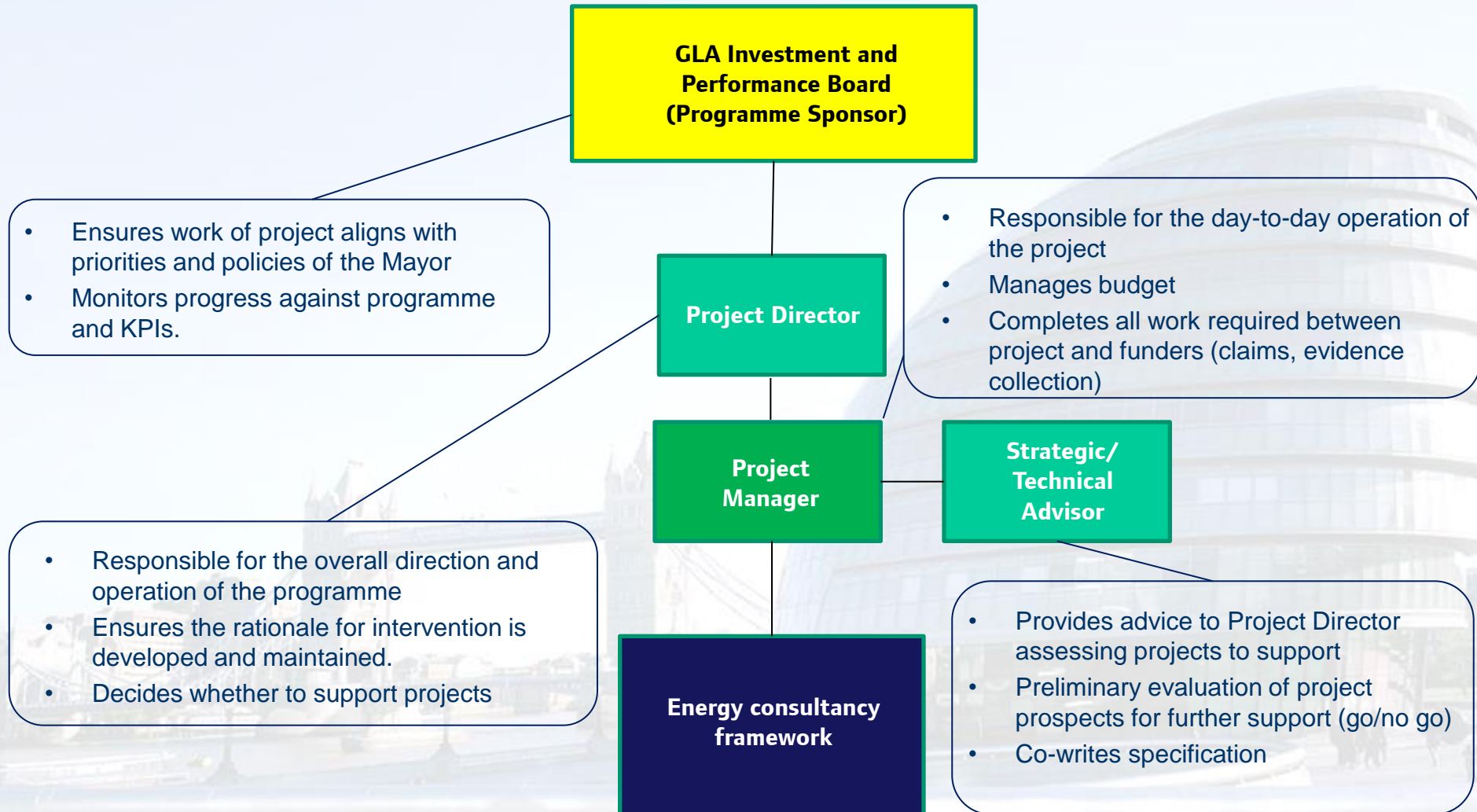
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My role as Project Manager

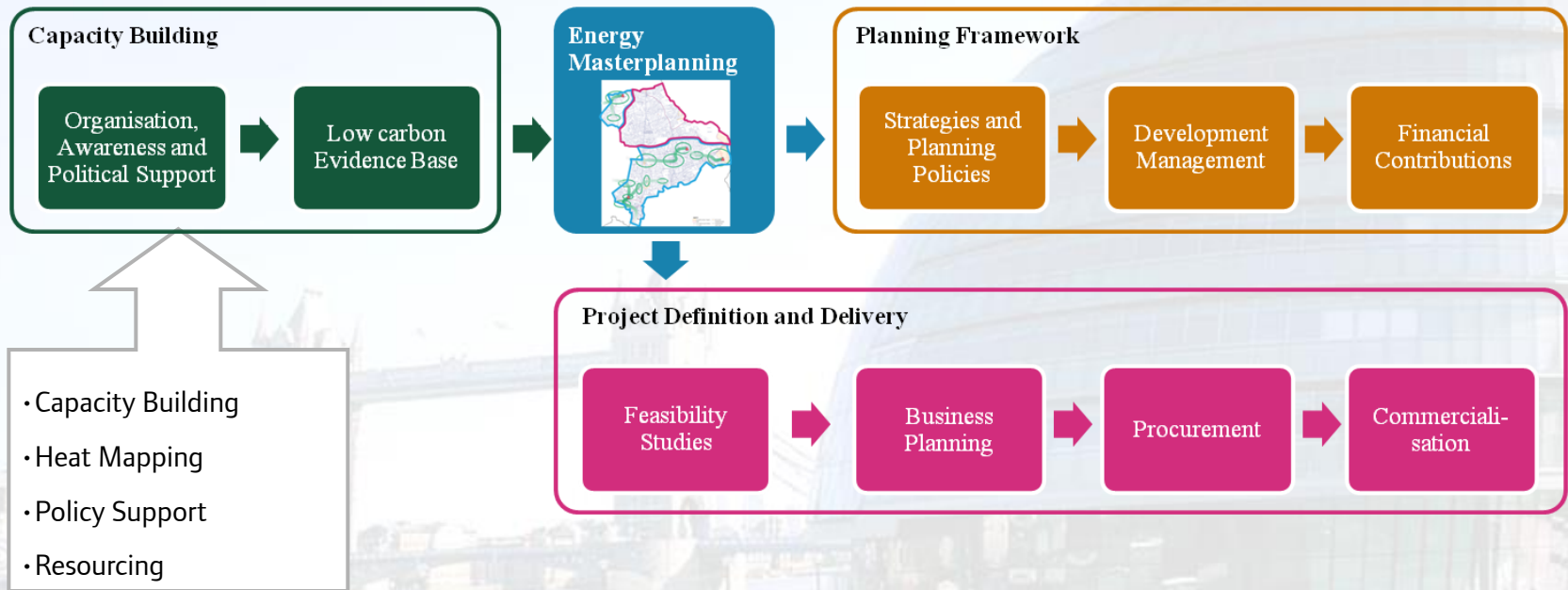
- Day to-day responsibility
- Interface between project and our funders
- Point of contact for beneficiaries
- Submitting claims
- Submitting evidence for audits
- Ensuring there's no funding claw-back
- Managing budget



Organisational structure



DEEP Project Support



Accessing DEEP Support

1. Borough/potential beneficiary to initiate contact with DEEP team
deep@london.gov.uk



2. Meet to discuss project & ascertain that potential projects aligns with DEEP outputs



Programme Outputs

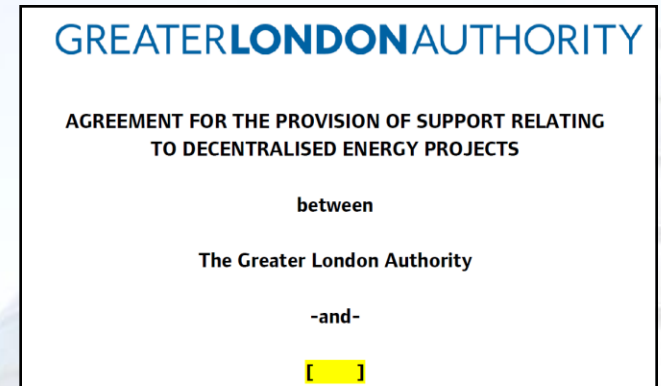
Renewable Energy Capacity (MW)

CO₂ reductions (tonnes of CO₂)

Capital investment levered (£87.5m)

Accessing DEEP Support

3. GLA & beneficiary to sign a Support Agreement
4. Beneficiary & GLA to jointly write specification to ensure its fit for purpose and includes Mayoral objectives

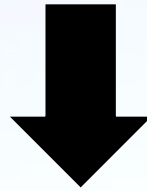


GLA Decentralised Energy Consultancy Framework (GLA80814)

FRAMEWORK	LEVEL 1 (Lot)	LEVEL 2 (Sub-Lot)
DECENTRALISED ENERGY Advisory Services	1. TECHNICAL	1.1 ENERGY GENERATION. ENERGY CENTRE DESIGN AND CONTROLS
		1.2 ENERGY TRANSMISSION. DISTRICT HEATING NETWORK DESIGN AND CONTROLS
		1.3 ENERGY DISTRIBUTION & SUPPLY IN BUILDINGS. SECONDARY SYSTEMS DESIGN AND CONTROLS
		1.4 FESIBILITY STUDIES FOR DE PROJECTS
		1.5 TECHNICAL SPECIFICATIONS & COSTING OF DE PROJECTS
		1.6 ENERGY ICT
	2. COMMERCIAL & FINANCIAL	2.1 BUSINESS CASE/PLAN FOR ENERGY PROJECTS
		2.2 DELIVERY VEICHLES, OWNERSHIP & FUNDING STRUCTURE FOR ENERGY PROJECTS
		2.3 COMMERCIAL DOCUMENTATION FOR ENERGY PROJECTS
		2.4 FINANCIAL MODELS FOR ENERGY PROJECTS
		2.5 PROJECT DOCUMENTATION FROM INCEPTION TO MARKET FOR ENERGY PROJECTS
	3. LEGAL	3.1 LEGAL DOCUMENTATION FOR ENERGY PROJECTS
		3.2 EU AND UK ENERGY REGULATION, ELECTRICITY & HEAT MARKETS AND LICENSING
	4. STRATEGIC	4.1 ENERGY STRATEGIES & MASTERPLANNING
		4.2 ENERGY POLICY, MARKETS AND PLANNING FOR DE AND CHP IN THE UK AND LONDON

How does a beneficiary procure support?

Beneficiary to procure by running mini-competition from framework



Beneficiary can jointly with DEEP team evaluate returned tenders and appoint consultant



**Framework Agreement
for the Provision of Services**

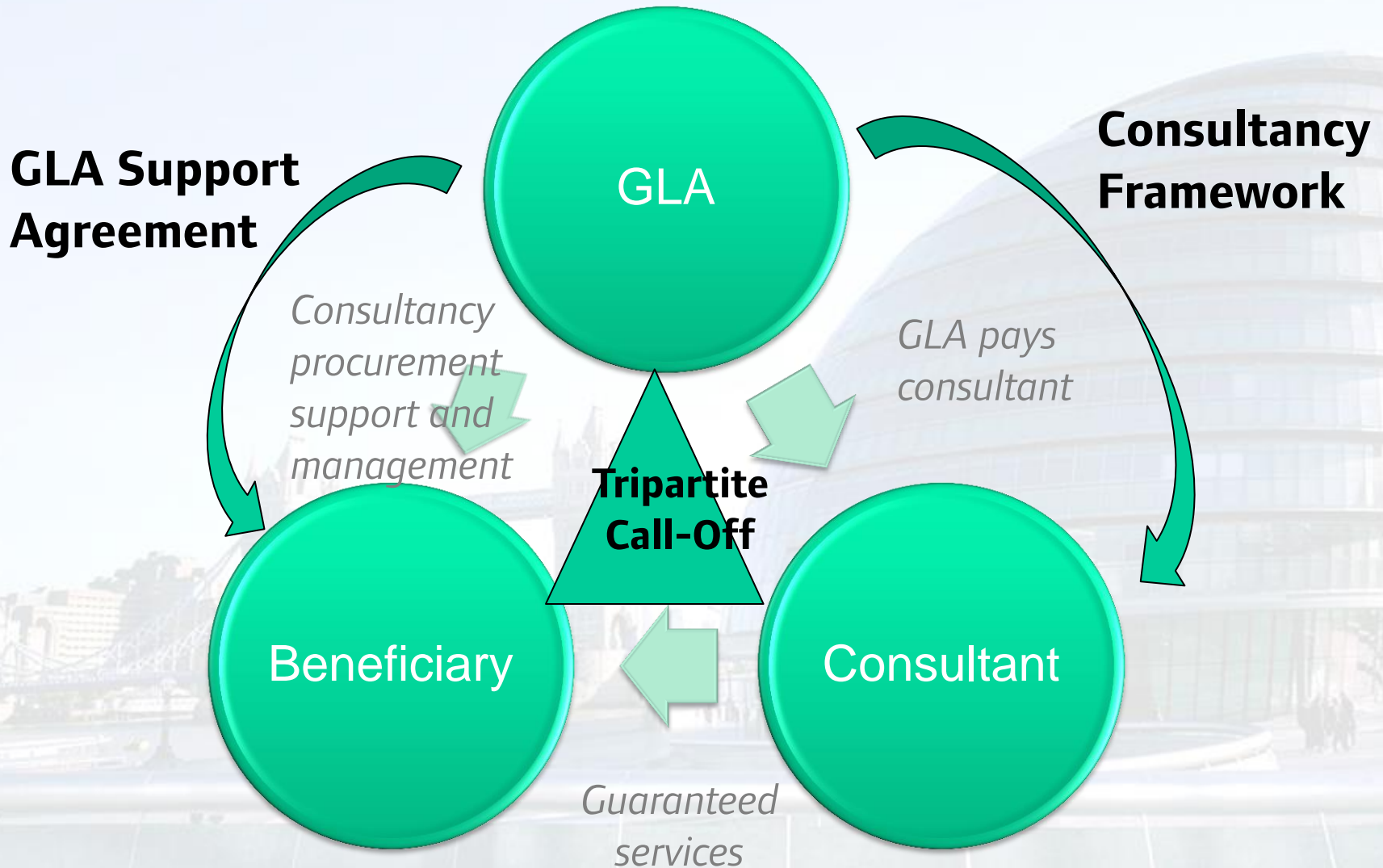
between

Greater London Authority

and

[Name of Service Provider]

DEEP Agreements



How does a beneficiary procure support?

Signing of Call-Off Contract

SCHEDULE 6B - CALL-OFF CONTRACT TEMPLATE

[NOTE TO USERS: TO BE USED WHEN THE GLA IS FUNDING THE SERVICES]

[NOTE TO USERS: It is IMPORTANT to ensure the call-off contract includes any specific Support Agreement / ERDF requirements if applicable]

Framework Number:

Call-Off Contract Number:

THIS CALL-OFF CONTRACT is made the _____ day of _____

BETWEEN:

- (1) [_____] ("**the Authority**");
- (2) [_____], a company registered in England and Wales (Company Registration Number [_____] whose registered office is at [_____] ("**the Service Provider**"); and
- (3) **THE GREATER LONDON AUTHORITY** whose principal offices are at City Hall, The Queen's Walk, London, SE1 2AA ("**the Contracting Authority**").

This Call-Off Contract has been signed by duly authorised representatives of each of the Parties.

SIGNED

For and on behalf of the [Authority]

Signature: _____

Name: _____

Title: _____

Date: _____

SIGNED

For and on behalf of [the Service Provider]

Signature: _____

Name: _____

Title: _____

Date: _____

SIGNED

For and on behalf of the Contracting Authority

Signature: _____

Name: _____

Title: _____

Date: _____

How does a beneficiary procure support?

Beneficiary to contract manage services through to completion



Work complete - beneficiary to issue GLA a work completion certificate (Schedule 9 of Support Agreement).



GLA to pay the net amount of the invoice issued by the supplier.



Project sponsor to pay the VAT amount to the supplier.

*payment arrangement established to address the issue that the project is not giving out grants but rather on behalf of project sponsors paying for services.

Requirements on project beneficiaries in return for receiving support?

- GLA will be audited multiple times randomly for different bits of spend undertaken between now and the project end in September 2019
- The GLA can be audited on spend from the project at any time until **2031**

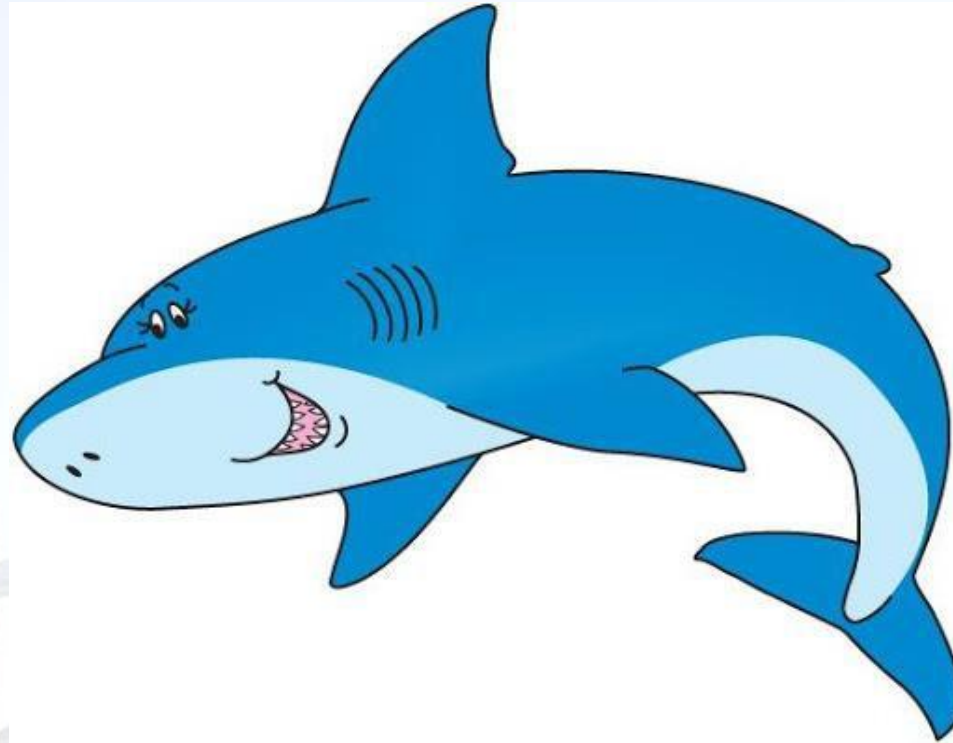
Who will audit the project?

The Project can at any time be audited by:

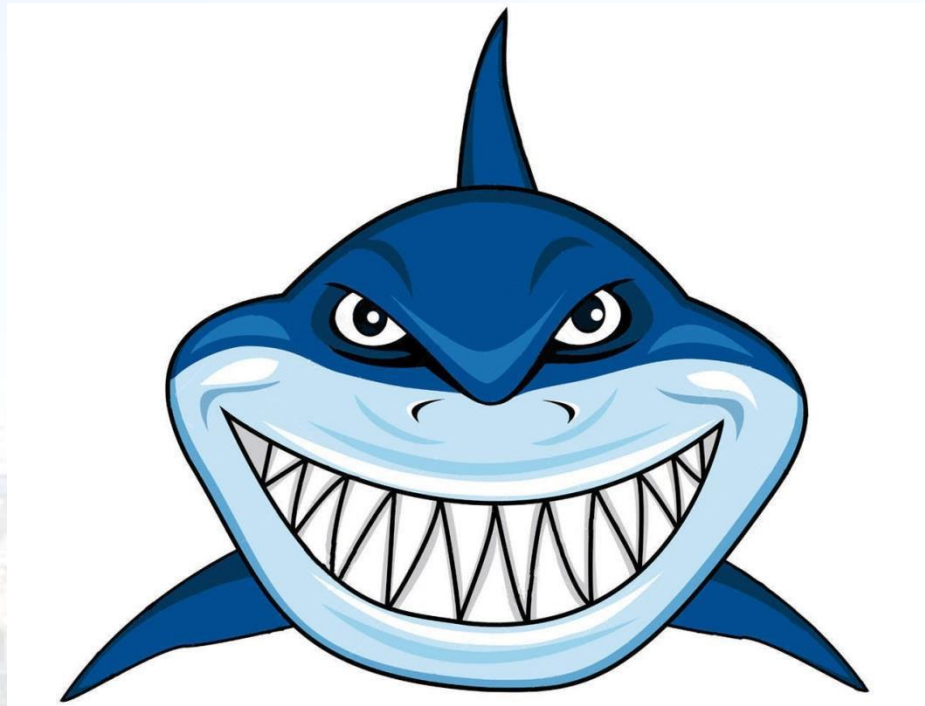
1. ESIF Compliance team
2. Audit Authority team
3. European Commission audit team
4. European Court of Auditors

*(Next slide borrowed from a fellow ERDF Project Manager!)

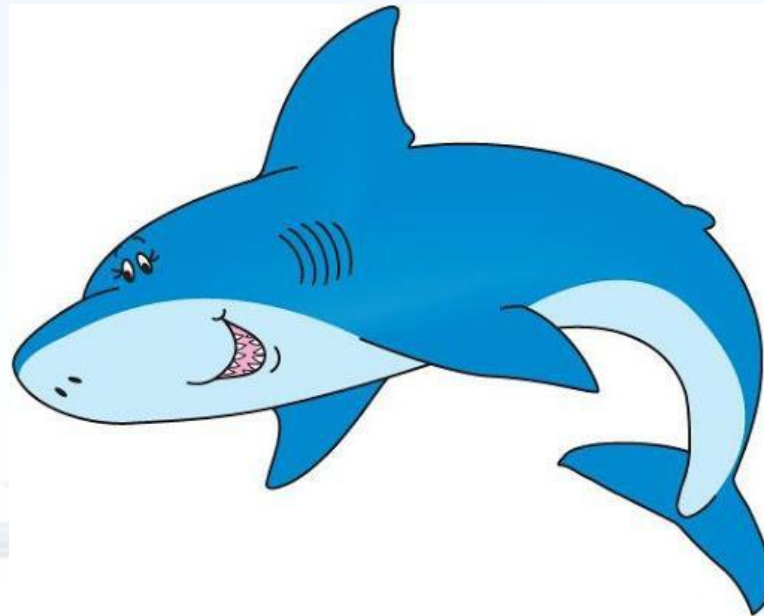
Article 125 Audit – What does that look like?



Article 125 Audit – Do not be fooled, it has teeth!



Article 127 Audit – What does that look like?



Article 127 Audit – Do not be fooled, it has teeth!



Procurement Record Keeping

For every procurement exercise the beneficiary must provide to the GLA (who must pass onto the ERDF Managing authority) **as soon as available**:

- Copy of tender specification with **clear** award criteria
- Log sheet for all tenders received (time and date)
- Tender evaluation matrix

Procurement Record Keeping

For every procurement exercise the beneficiary must provide to the GLA (who must pass onto the ERDF Managing authority) **as soon as available:**

- Summary sheet of tender scores from 2 evaluators
- Copy of OJEU award notice
- Copy of letters to unsuccessful tenderers giving appropriate standstill period (where appropriate)
- Copy of award letter
- Tender evaluation report (record of procurement process)

Procurement Record Keeping

Additionally if an audit is under taken by any of the **4 different auditors** further documentation must be provided by beneficiary to GLA:

- Lists of expressions of interest
- Copy of all tenders
- Copy of tender score sheets dated and signed by two people

Procurement Record Keeping

Additionally if an audit is under taken by any of the **4 different auditors** further documentation must be provided by beneficiary to GLA:

- Copy of correspondence (inc. interview questions) and clarification questions where appropriate
- Signed contact
- Copy of notes from inception meeting

Other requirements from ERDF

- Publicity requirements – standard guidelines on use of logos on all project materials (including procurement material)
- Output evidence requirements

Final comments

- Bear with us as a project team in initial stages
 - it's a new project with new ways of working
- Be proud of your projects
- Thanks to all those who've been closely involved in getting the project ready up to this stage

Thankyou for listening



**Alex Hobley,
Project Manager,
Greater London Authority**

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[@ldn_environment](https://twitter.com/ldn_environment)

www.london.gov.uk/environment-newsletter

Questions and answers

