EuroPHit

Financing Energy Efficient Building Retrofit

EuroPHit Workshop

16th September 2014

Co-funded by the Intelligent Energy Europe Programme of the European Union

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Introductions

EuroPHit

- **Adam Robinson**, Building Futures Group, BRE
- **Gilli Hobbs**, Strategic Director, BRE
- **Georg Kraft**, KfW
- **Jules Bickers**, Project Director, RE:NEW
- **Steve Groves**, Portsmouth City Council
- **Meredydd Hughes**, Portsmouth City Council
- **Joe Richardson**, RE:FIT Programme Delivery Unit

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Welcome

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Aim:

- Explore the financial models and solutions required to drive energy efficient refurbishment

Objectives:

- Share knowledge of EU financial models
- Share lessons from case study projects
- Discuss financial barriers to undertaking retrofits
- Explore new/alternative technical and financial models
- Identify where further industry work is required

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Agenda

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Time	Agenda
09:30	Introduction – Residential session, EuroPHit project
09:45	KfW – EU Policy and best practice finance models
10:15	RE:NEW – London-wide home energy efficiency retrofit programme
10:45	Coffee break
11:00	Residential case study – Wilmcote House – financial and technical challenges
11:30	Break-out session
12:15	Feedback
12:30	Lunch and networking
13:15	Introduction – Commercial session
13:45	RE:FIT – using ESCos to implement commercial energy efficiency measures
14.15	Coffee Break
14:30	Break-out session
15:15	Feedback and Summary
15:30	Close

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About BRE

EuroPHit

- Formed in 1923, privatised in 1997
- Owned by the BRE Trust
- HQ in Watford with numerous other satellite offices
- A research based organisation, developing products and solutions to drive change in the built environment
  - Consultancy
  - Testing
  - Certification and approvals
  - Accreditation
  - BREEAM
  - Academy
  - Events

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BRE and Retrofit

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- Strategic:
  - National Refurbishment Centre (joint venture with EST)
  - Centre of Refurbishment Excellence (principle partner)
  - Empty Homes Nationwide initiative
- Technical:
  - Specification preparation
  - Costs and payback periods for improvements
  - Energy modelling and consultancy
  - Whole house solutions
  - Airtightness testing
  - Infra-red thermography
  - PassivHaus training and consultancy
  - In-use performance analysis

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Context of Domestic Refurbishment

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The UK Housing Stock

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- Housing energy use is responsible for 27% of CO2 emissions
- Government commitment to reduce carbon emissions by 20% by 2020, 80% by 2050
- Old building stock
- Majority of current housing stock will still be standing in 2050
- 6.8 million solid wall homes
- Annual new-build rate <1% of existing stock
- Rising energy prices
- 700,000 empty homes

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Retrofit Opportunities

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- Reduce health impacts of poor housing
- Economic impacts on investment, growth and job creation
- Extend the building's useful life
- Alleviate fuel poverty
- Reduce emissions
- …

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Retrofit Challenges

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- Finance
- Owner/resident attitudes
- Lack of confidence in retrofit technologies
- The performance gap
- Number of skilled professionals
- …

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EuroPHit Project

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Policy Background

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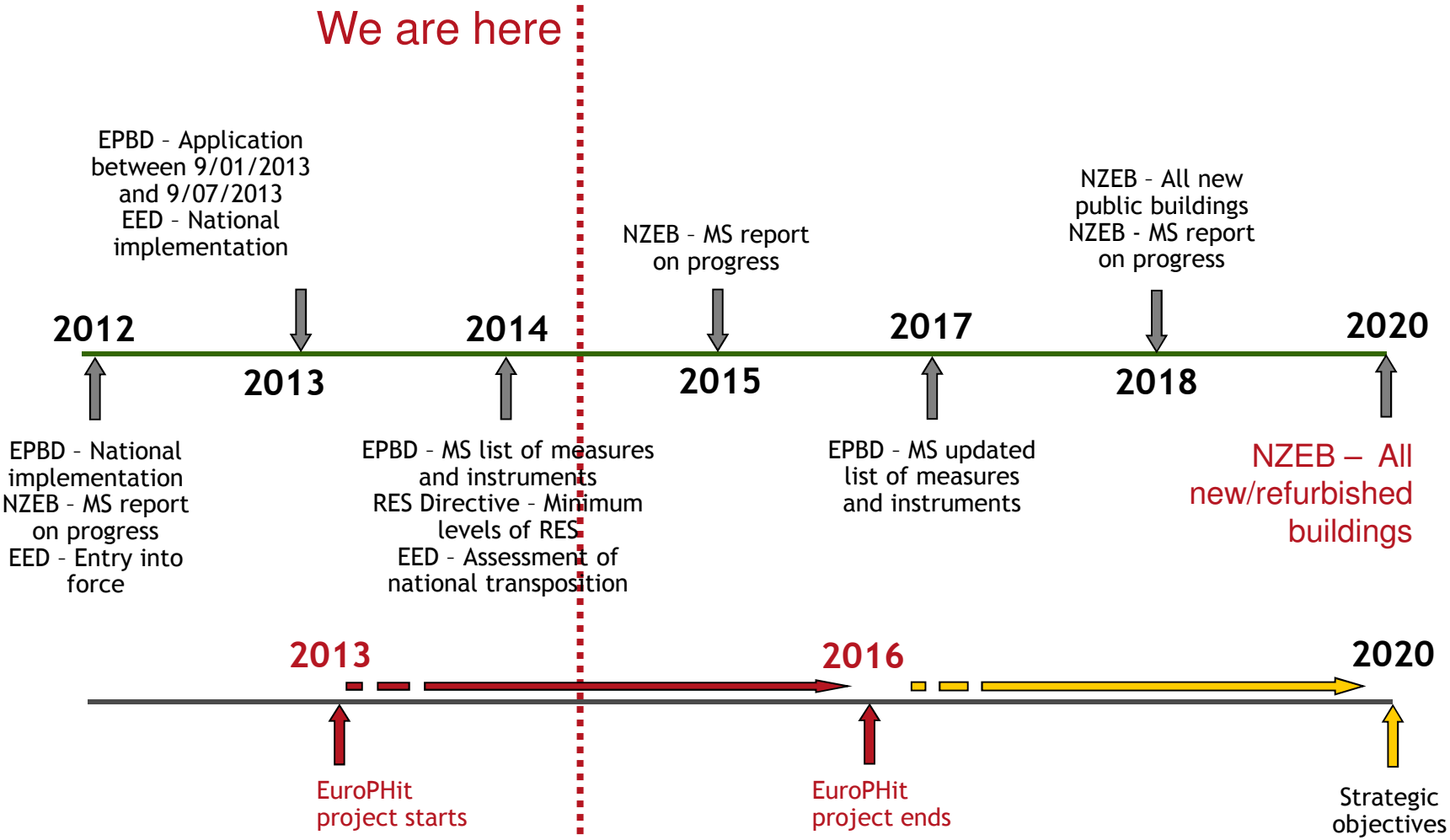

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Reduce consumption!

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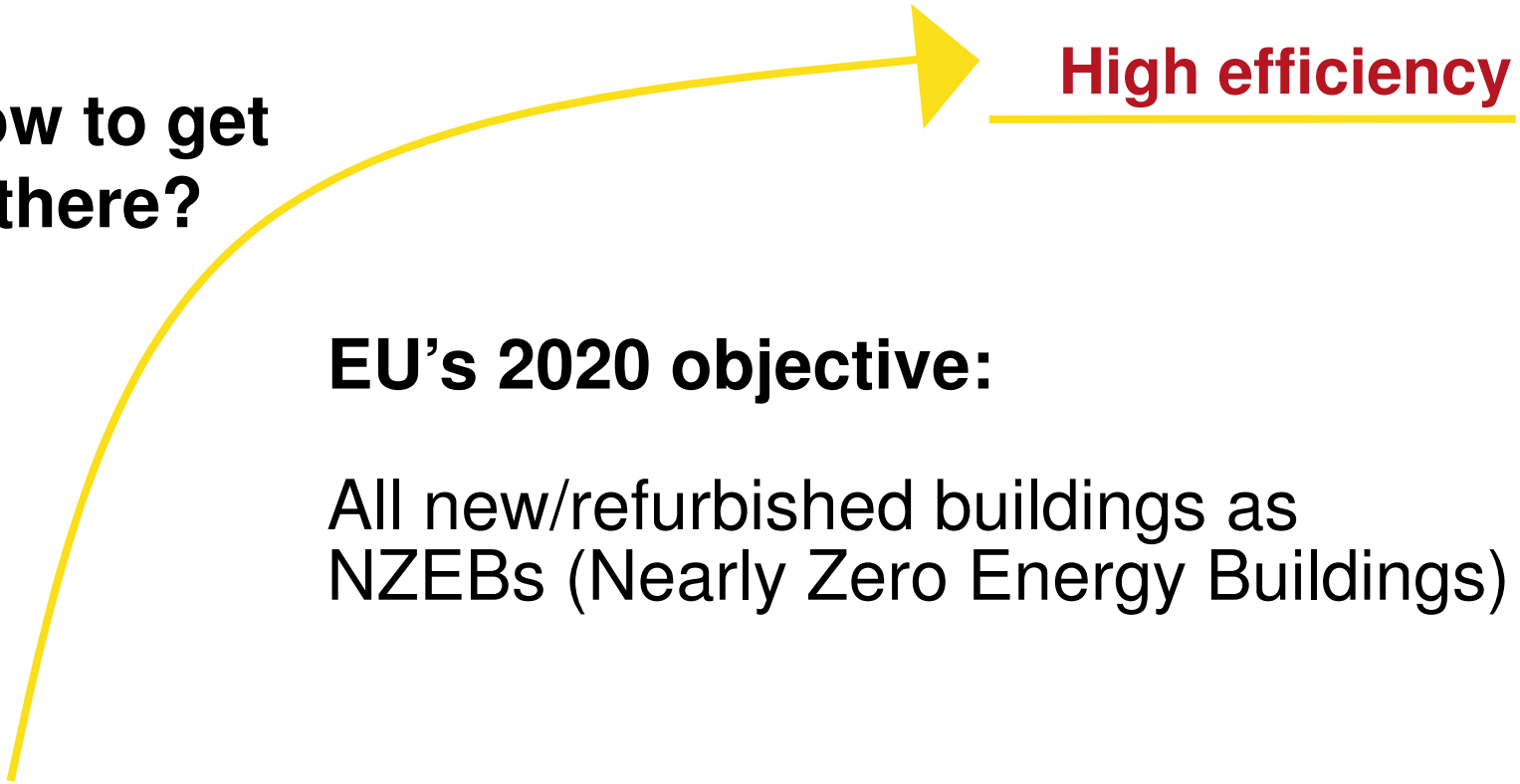

EU's 2020 objective:

All new/refurbished buildings as NZEBs (Nearly Zero Energy Buildings)

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About EnerPHit

EuroPHit

- “Quality-approved energy retrofit with Passivhaus components”
- Based on Passivhaus methodology, with 20 years of experience
- Detailed planning and modelling, still using PHPP software
- High quality building components
- Airtight construction, ventilation with heat recovery, avoidance of thermal bridging
- Low and predictable energy usage (80-90% reductions possible)

Criteria	Passivhaus	EnerPHit
Specific Heat Demand	≤ 15 kWh/m².yr	≤ 25 kWh/m².yr
Primary Energy Demand	≤ 120 kWh/m².yr	≤ 120 kWh/m².yr *
Limiting Value	n_{50} ≤0.6^{-1}	n_{50} ≤1.0^{-1}

** PE ≤ 120 kWh/m².yr + ((SHD - 15 kWh/ m².yr) x1.2)*

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All at once…

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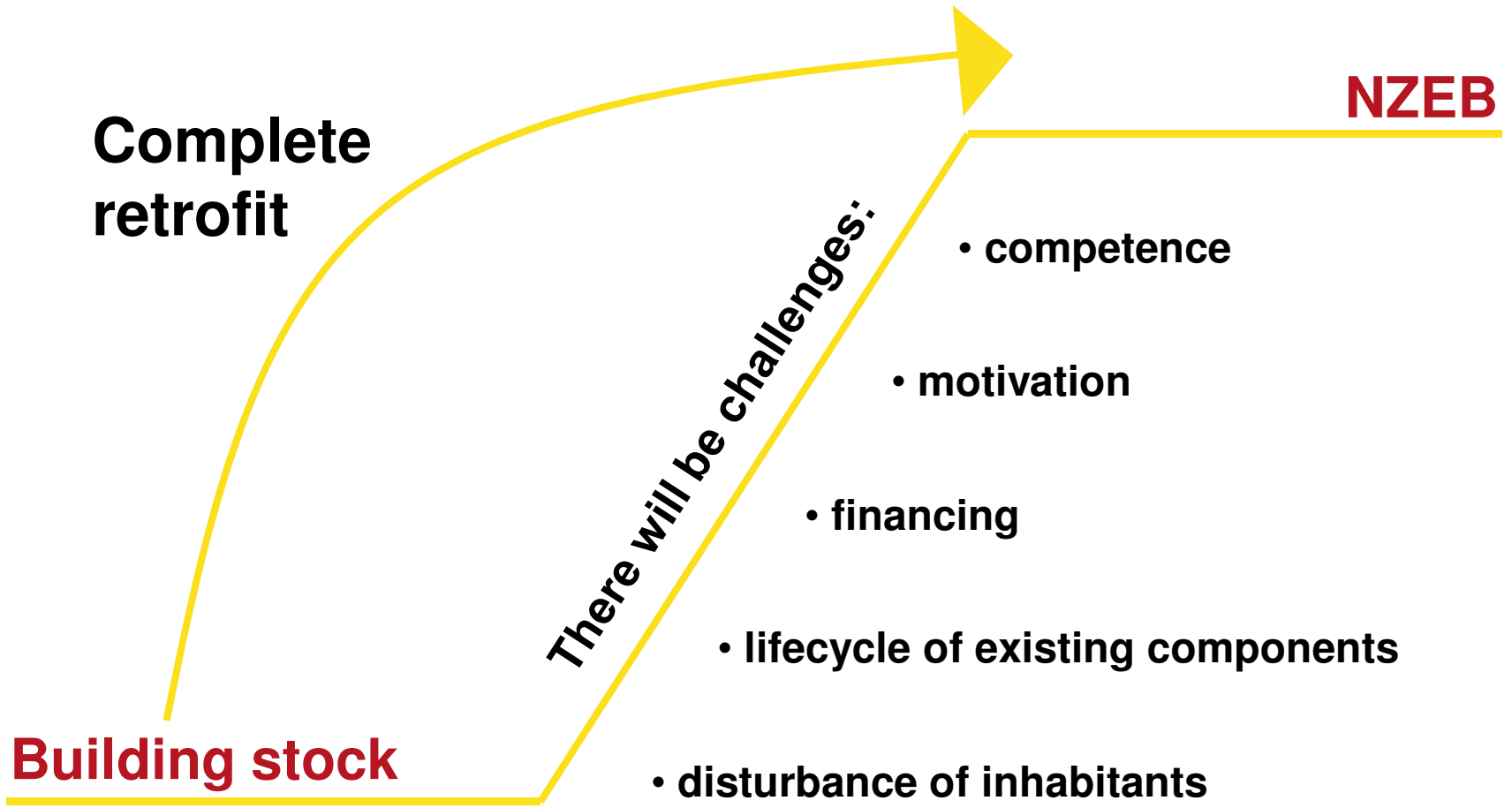

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...or Step-by-Step

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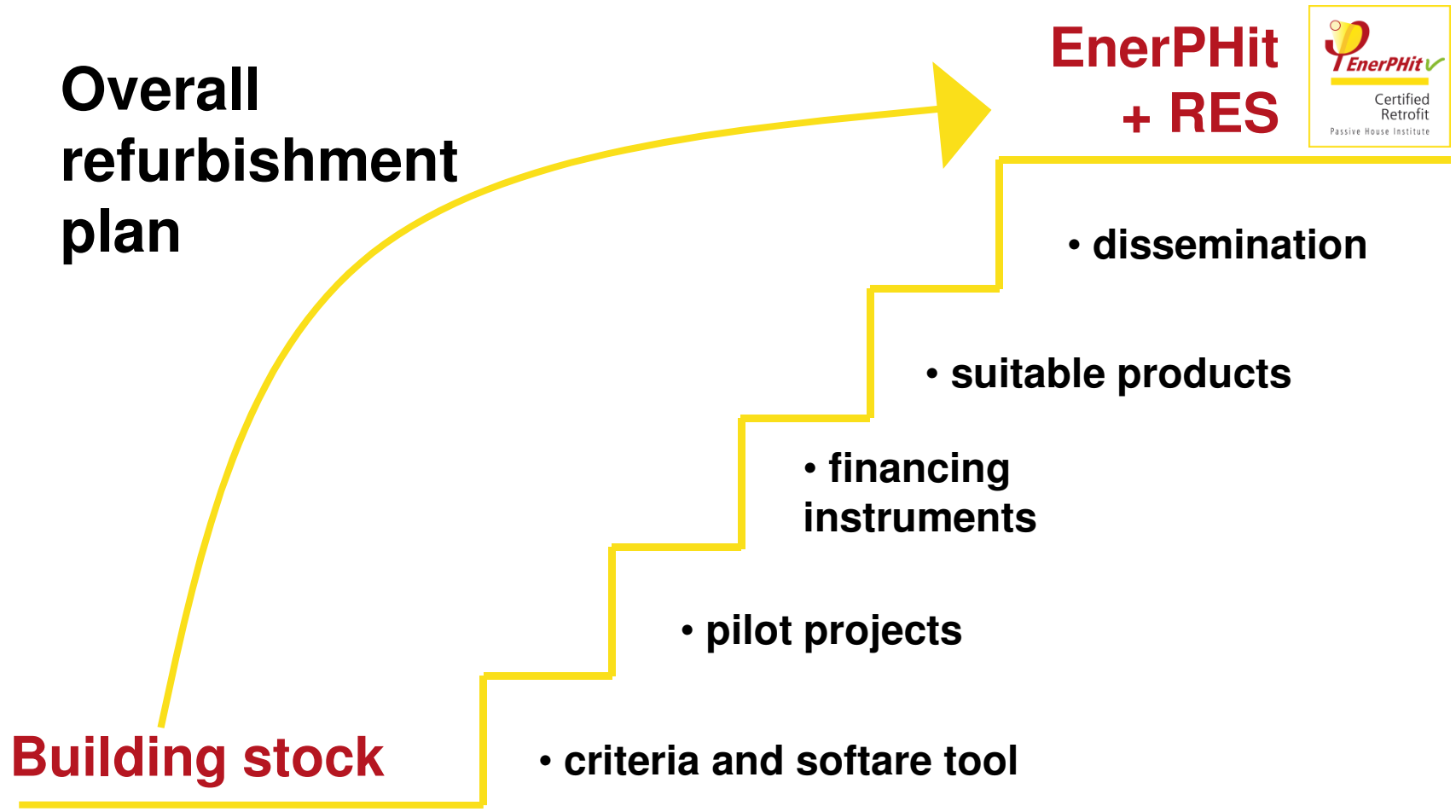

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Key project outcomes

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- Criteria and certification scheme for retrofits aiming for the EnerPHit Standard over an extended period
- Financing models and market incentive programmes tailored to step-by-step retrofits
- Design concepts and sound guidelines for the development of suitable, high performance building components
- Training materials and workshops focusing on the specific needs of step-by-step refurbishment
- Building case studies showing the way towards an increasingly high quality, energy efficient building stock.

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Example of step-by-step retrofit?

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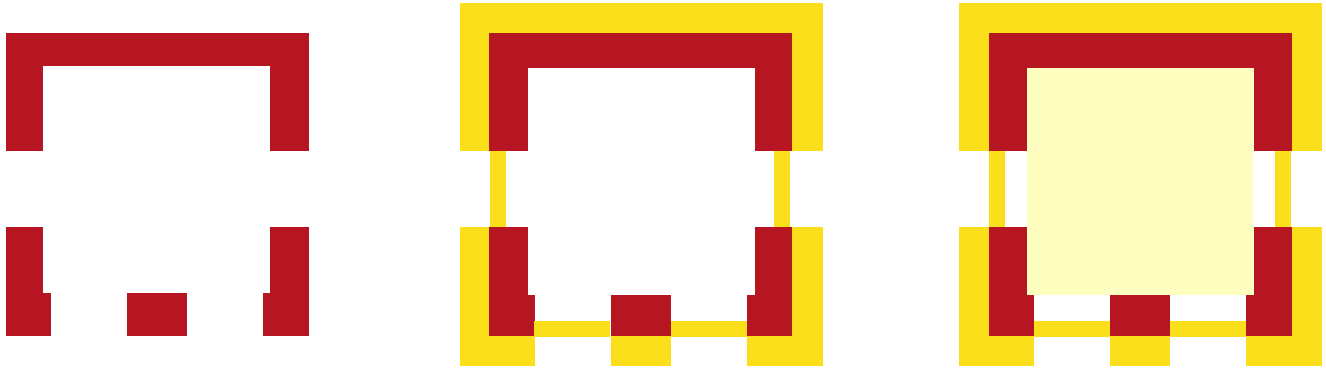

Building stock

Insulation windows, airtightness & ventilation

RES & heating system

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Improving the energy performance of step-by-step refurbishments

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paving the way to the EU's 2020 objectives by enabling and inspiring building owners, planners, craftspeople and financial institutions to make the right decisions on step-by-step energy retrofitting with long-lasting benefits.

EnerPHit Certified Retrofit Passive House Institute

EuroPHit is facilitating the transition to a Nearly Zero Energy society by:

- **Making step-by-step refurbishment plans, implementing them and documenting the findings for case studies across the EU**
- **Adapting training for designers and craftsmen on step-by-step retrofit and deep energy refurbishment**
- **Building quality assurance and certification infrastructure for step-by-step retrofits**
- **Stimulating demand for highly efficient refurbishment with financial and one-stop-shop solutions**
- **Driving the development of suitable products, materials and design concepts**

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Thank you

Any questions at this stage?

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Financing of Sustainable Housing Retrofit

Guidelines for Financial Institutions

Friedrichsdorfer Institut zur Nachhaltigkeit IzN e.V
Georg Kraft

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www.europhit.eu

To improve energy efficiency of buildings, we need to achieve a successful mix:

- of regulatory policies
- promotional schemes
- market based instruments

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German strategies to lower energy demand

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Law, Regularory Policies

- **Energy Saving Act, Energy Saving Ordinance**, tighten the requirements step by step
- **Renewable Energies Heat Act:** Mandatory use of Renewable Energies of about 15 p.c. for new buildings
- **Heating Costs Ordinance** commits owners of buildings to charge tennants with energy costs depending on individual consumption

Promotional Systems, Financial Benefits
Promotion by KfW via financial intermediaries

Market Based Instruments, Prices, information, transparency in the market, best practice projects,energy certificates,

Research

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The system of promotion of energy efficiency

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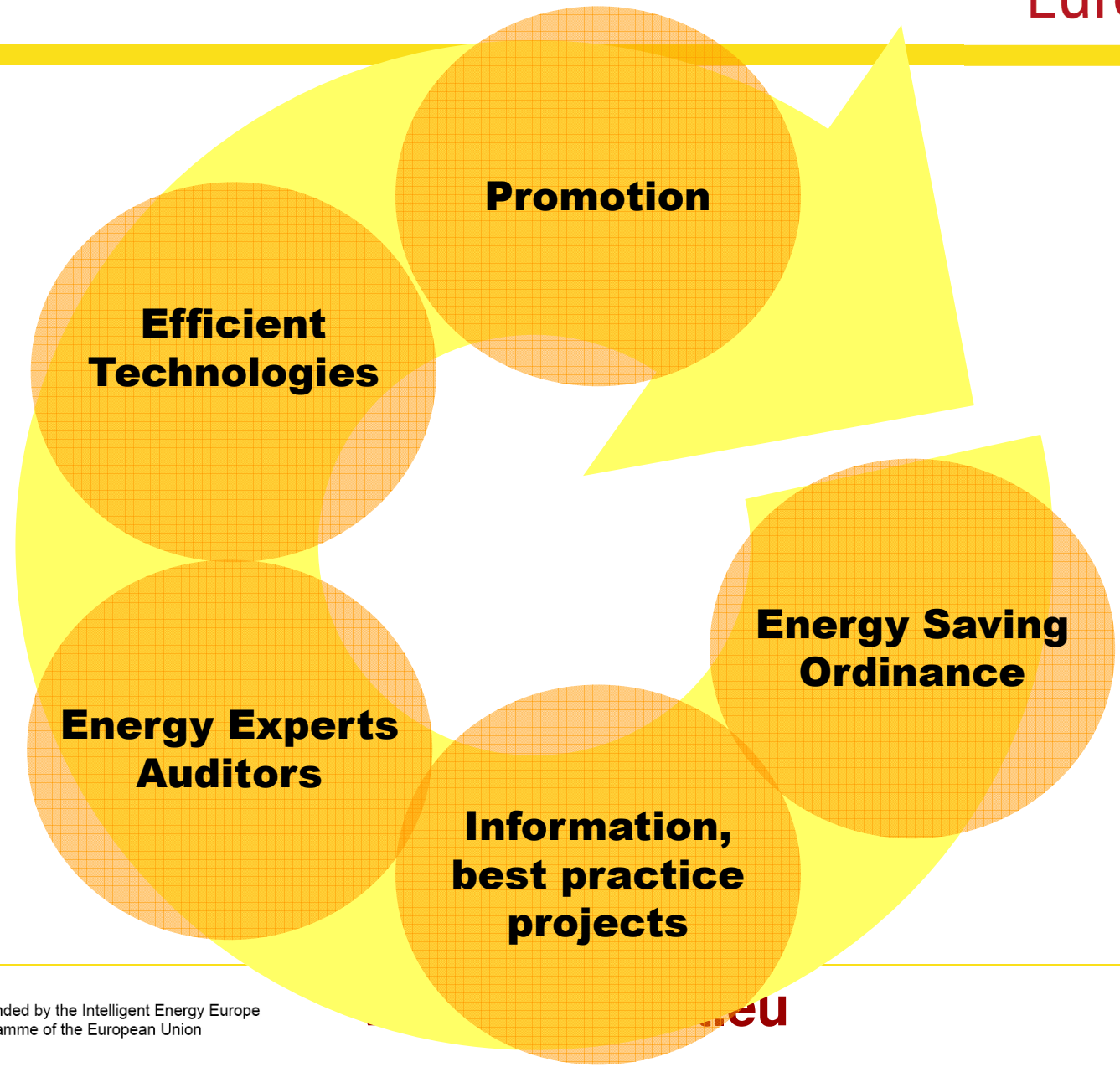

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EU Directive 2002/91/EC on Energy Performance of Buildings

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- Application of minimum requirements for new buildings and existing buildings for primary energy consumption and energy losses
- Energy certification of buildings
- Member States shall have regulations and administrative provisions to comply
- Member States: Energy Saving Ordinances

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Directive 2002/91/EC on the Energy Performance of Buildings

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Energy Performance Certificate

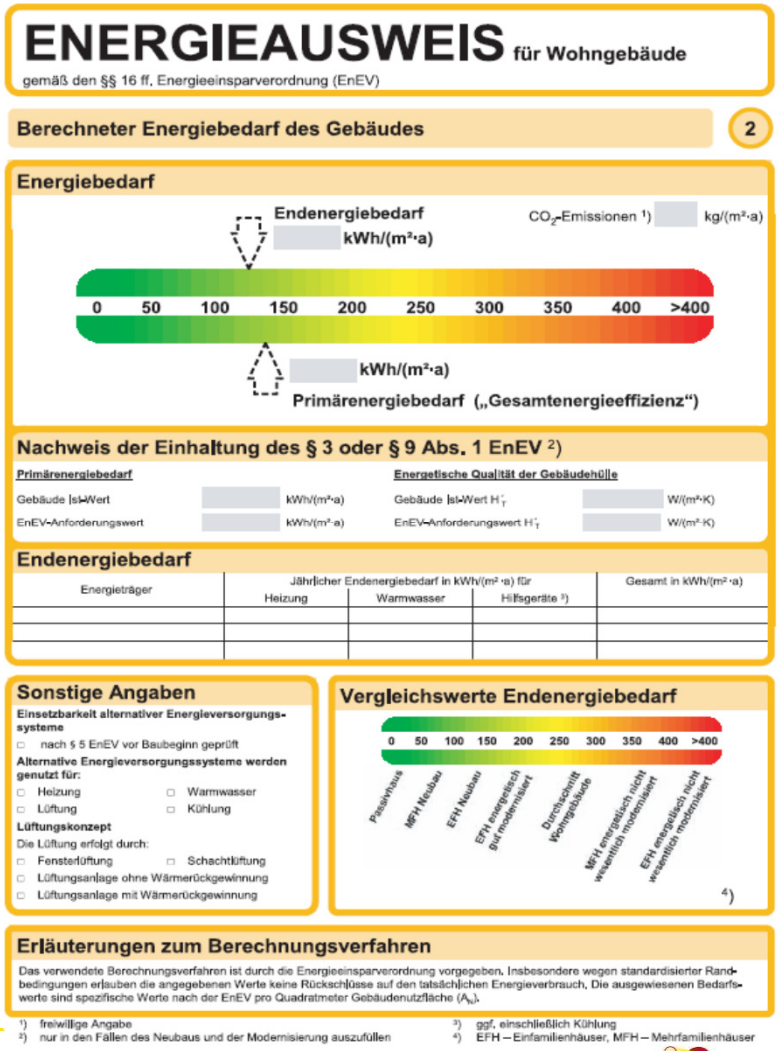
- provides more transparency in the real estate market for tenants, buyers and owners
- provides reference values to promote CO2 reduction and for the design of credit programmes
- information on the thermal characteristics and energy performance (energy need, energy consumption)
- reference values such as current legal standards and benchmarks
- recommendations for the cost–effective improvement of the energy performance

Germany: Energieausweis

Obligation to present an energy certification when dwellings and buildings are being let or sold.

Together with the energy certificates, modernization recommendations have to be presented if possible.

So prospective tenants and purchasers of buildings and dwellings will also be able to take energy efficiency into account



ENERGIEAUSWEIS für Wohngebäude

gemäß den §§ 16 ff. Energieeinsparverordnung (EnEV)

Berechneter Energiebedarf des Gebäudes 2

Energiebedarf

Endenergiebedarf _____ kWh/(m²·a)

CO_2-Emissionen ¹) _____ kg/(m²·a)

0 50 100 150 200 250 300 350 400 >400

_____ kWh/(m²·a)

Primärenergiebedarf („Gesamtenergieeffizienz")

Nachweis der Einhaltung des § 3 oder § 9 Abs. 1 EnEV ²)

Primärenergiebedarf			Energetische Qualität der Gebäudehülle		
Gebäude Ist-Wert		kWh/(m²·a)	Gebäude Ist-Wert H'_T		W/(m²·K)
EnEV-Anforderungswert		kWh/(m²·a)	EnEV-Anforderungswert H'_T		W/(m²·K)

Endenergiebedarf

Energieträger	Jährlicher Endenergiebedarf in kWh/(m²·a) für Heizung	Warmwasser	Hilfsgeräte ³)	Gesamt in kWh/(m²·a)

Sonstige Angaben

Einsetzbarkeit alternativer Energieversorgungssysteme

☐ nach § 5 EnEV vor Baubeginn geprüft

Alternative Energieversorgungssysteme werden genutzt für:

☐ Heizung ☐ Warmwasser

☐ Lüftung ☐ Kühlung

Lüftungskonzept

Die Lüftung erfolgt durch:

☐ Fensterlüftung ☐ Schachtlüftung

☐ Lüftungsanlage ohne Wärmerückgewinnung

☐ Lüftungsanlage mit Wärmerückgewinnung

Vergleichswerte Endenergiebedarf

0 50 100 150 200 250 300 350 400 >400

Passivhaus | MFH Neubau | EFH Neubau | EFH energetisch gut modernisiert | Durchschnitt Wohngebäude | MFH energetisch nicht wesentlich modernisiert | EFH energetisch nicht wesentlich modernisiert

⁴)

Erläuterungen zum Berechnungsverfahren

Das verwendete Berechnungsverfahren ist durch die Energieeinsparverordnung vorgegeben. Insbesondere wegen standardisierter Randbedingungen erlauben die angegebenen Werte keine Rückschlüsse auf den tatsächlichen Energieverbrauch. Die ausgewiesenen Bedarfswerte sind spezifische Werte nach der EnEV pro Quadratmeter Gebäudenutzfläche (A_N).

¹) freiwillige Angabe
²) nur in den Fällen des Neubaus und der Modernisierung auszufüllen
³) ggf. einschließlich Kühlung
⁴) EFH – Einfamilienhäuser, MFH – Mehrfamilienhäuser

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Established and internationally acknowledged promotional system

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Principles

- Promotional criteria and Building Code are consistent. EE-requirements are more ambitious than legal requirements
- Using energy auditors and calculation tools as for the energy certificate, Mandatory requirement of qualified engineers and architects (quality assurance)
- Promotional incentives correspond with achieved standard

How does the promotional scheme work?

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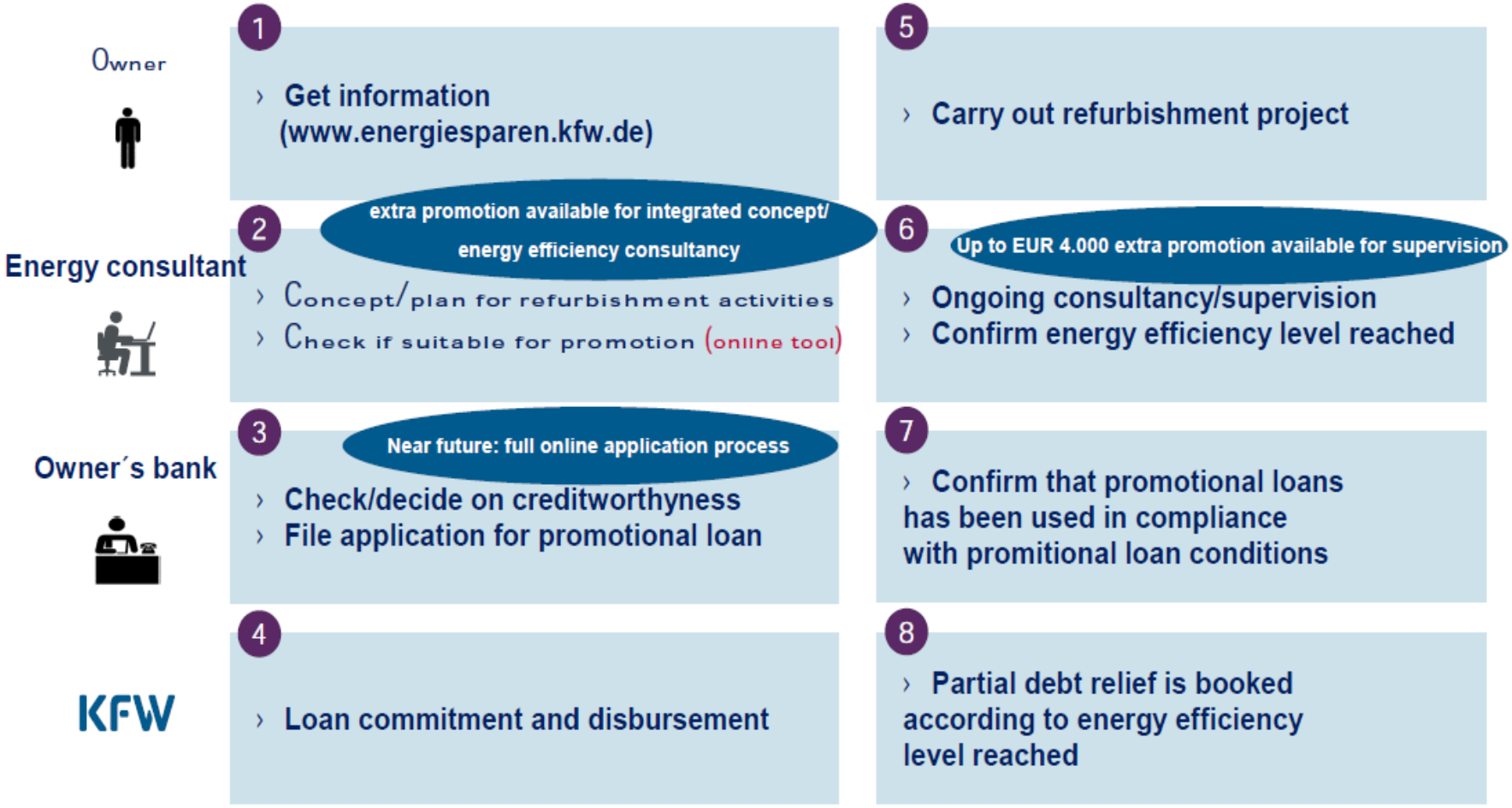

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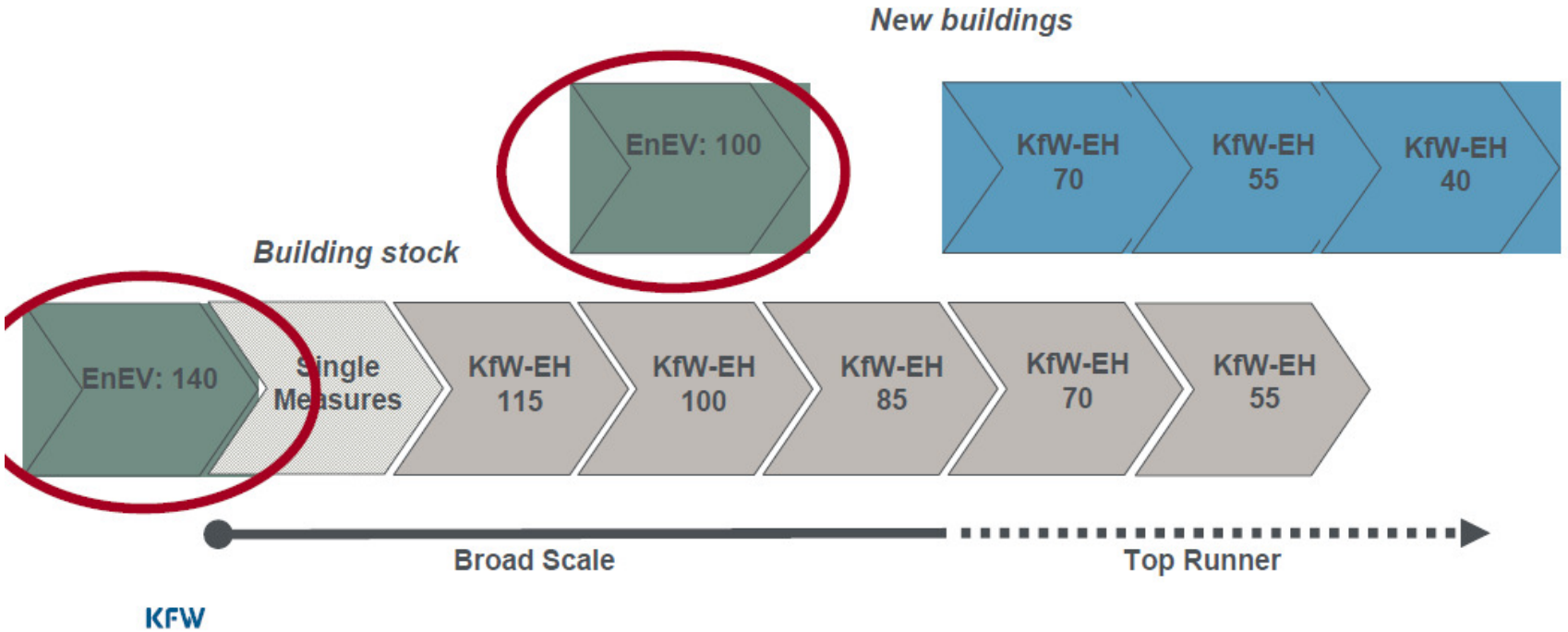
The benchmark is the legal requirement

Retrofitting step by step



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The EuroPHit Project

The EnerPhit Standard

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Financial Instruments for Energy Efficiency Investments in Buildings

Debt financing, Credit lines, Revolving funds,

ESCO financing

Leasing

Public Finance Mechanisms, Policies and Programs

- ***Preferential Soft loans***
- ***Grants - Redemption grants***
- ***Guarantee schemes***

Financing the retrofit of buildings

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http://ec.europa.eu/energy/efficiency/studies/doc/2014_guidance_energy_renovation_buildings.pdf

Document title	Financing the energy renovation of buildings with Cohesion Policy funding
Job Number	ENER/C3/2012-415
Prepared by	Julien Paulou (ICF International), Jonathan Lonsdale (ICF International), Max Jamieson (ICF International), Isabella Neuweg (ICF International), Paola Trucco (Hinicio), Patrick Maio (Hinicio), Martijn Blom (CE Delft), Geert Warringa (CE Delft)
Checked by	Jonathan Lonsdale (ICF International)
Date	14 February 2014

EU Funding for Energy Efficiency in Buildings

http://www.buildup.eu/financing-schemes/

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www.europhit.eu

ELENA - European Local ENergy Assistance

Europäische Investitionsbank

EIB ELENA
Big investment projects
> 50 million €

KFW

KfW ELENA
investment projects
< 50 Mio. €

Several facilities

CEB
COUNCIL OF EUROPE DEVELOPMENT BANK

CEB ELENA
Social investment projects
< 50 Mio. €

European Bank
for Reconstruction and Development

EBRD ELENA
Focus on municipalities
< 50 Mio. €

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The ELENA grant can be used for the preparation and implementation of the Investment Projects

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Eligible costs

- Feasibility studies
- Energy audits
- Implementation of tender procedures
- Contractual arrangements
- Hiring or training of staff (e.g. project implementation unit)

Amount of grant

- amounts up to 5% of Investment costs
- covers up to 90% of eligible costs

ELENA – Eligible Investment Projects

- Increase of energy efficiency in public and private buildings
- Integration of renewable energy sources into the built environment and in urban transportation
- Investments in renovation, extension or new district heating/cooling networks
- Municipal programmes for energy-efficient equipment and appliances in SMEs and private households

KfW ELENA facility

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Partnering Banks, Final Beneficiaries, Investors

Partnering Financial Intermediaries (PFIs)	Final Beneficiaries
› Banks operating in the EU member states, Norway, Iceland, Liechtenstein or Macedonia. › Banks receive global loans from KfW to fund the financing of investment projects of Final Beneficiaries / Investors.	› local or regional authorities (incl. members of the Covenant of Mayors) or associations of such bodies › other Public Bodies, created by a public authority, with a public service mission, with more than 50% funding from public sources.
	Investors
	› Local or regional authorities or other public bodies › Private investors

Specific aspects of KfW ELENA Facility

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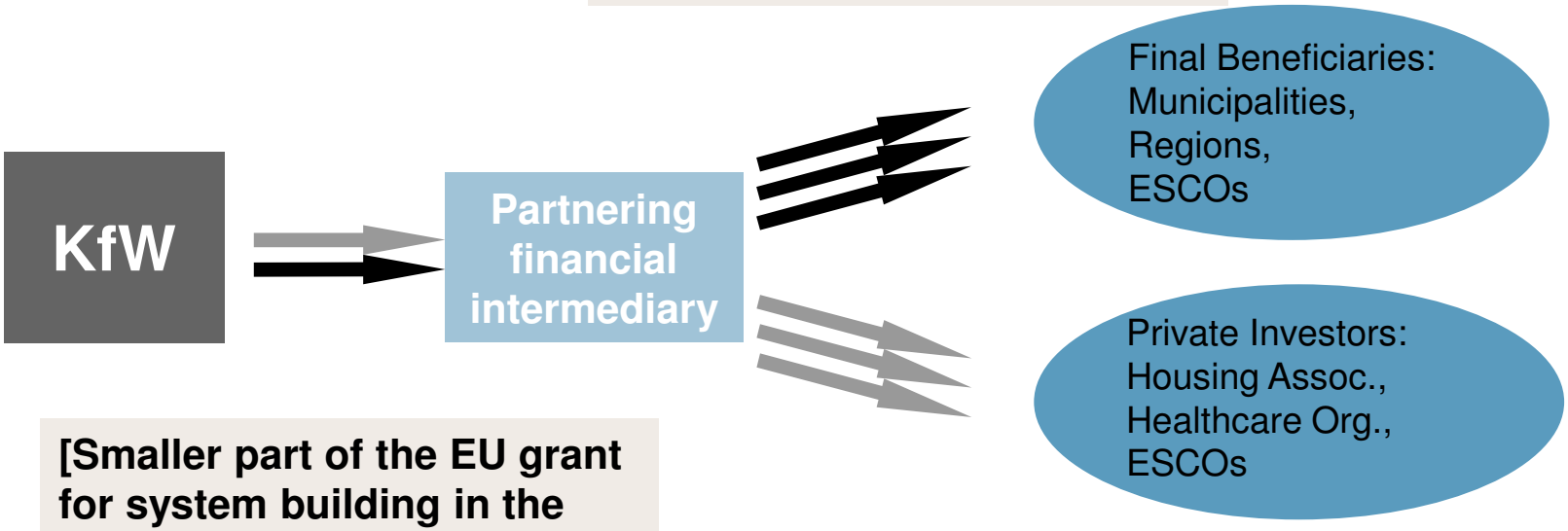
Global loans to local financial intermediaries

Global loan for the Investment Programme [+ ELENA Grant]

[Larger part of the ELENA grant for in house capacity building in the municipality/region and/or consultancy services]



[Smaller part of the EU grant for system building in the banks through technical assistance]

Individual loans for the Investment Projects

KfW ELENA Examples of Investment Programmes

BPCE	› France › 2,985 m EUR	› programme for local and regional energy efficiency projects for individuals and private housing co-ownership, especially one stop agencies and public guarantee funds in order to lower financial risk in loans to housing co-ownership
Deutsche Bank	› Germany › 2,43 m EUR	› programme for energy efficiency and renewables for municipalities, municipal owned companies and ESCOs
Erste Bank	› Austria › 2,43 m EUR	› new programme for energy efficiency and renewables for municipalities, including marketing and sales concept for a regional coverage throughout the country
Kommune-Kredit	› Denmark › 2,4 m EUR	› new programme for promoting energy efficiency and renewables investments by municipalities and regions

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KfW ELENA Facility

Next Steps

Internal decision of the Partnering Financial Intermediary

- Market analysis
- Interest of the bank for this type of programme
- Evaluation of the needs (volume of grant / volume of global loan)

ELENA Grant

- Preparation of the application (information on the applicant, the targeted region, the volume and use of the grant, the types of Investment Projects, the schedule of implementation, …)

Global Loan

- Negociations with KfW about the financing conditions (volume, term, interest, collateral, etc)
- Preparation of a Term Sheet

Special Aspects

- Co-operation
- Comprehensive Programs
- Viability and Feasibility
  (technical solution - energy audit – loan conditions)
- Know How (energy advisors)
- FaQ

Thank you

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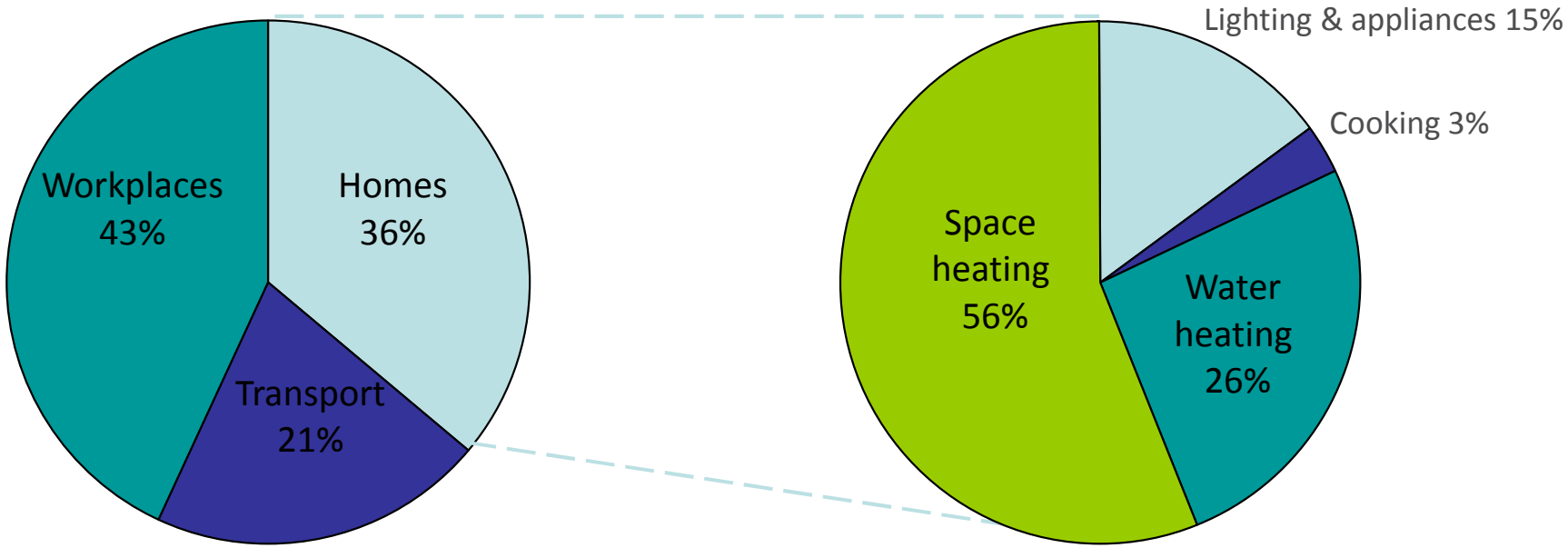
RE:NEW Support Team
Domestic Retrofit for London

Jules Bickers
Project Director RE:NEW
September 2014

Domestic Retrofit Context

- The Mayor has set a **60% CO_2 reduction target for London by 2025.**
- **36% of London's CO_2 emissions are from housing**, over 80% of this is from space and water heating.
- **80%** of buildings in use today **will still be standing in 2050**.



CO_2 emissions from London, 2008 (excluding aviation)

44.7 million tonnes CO2

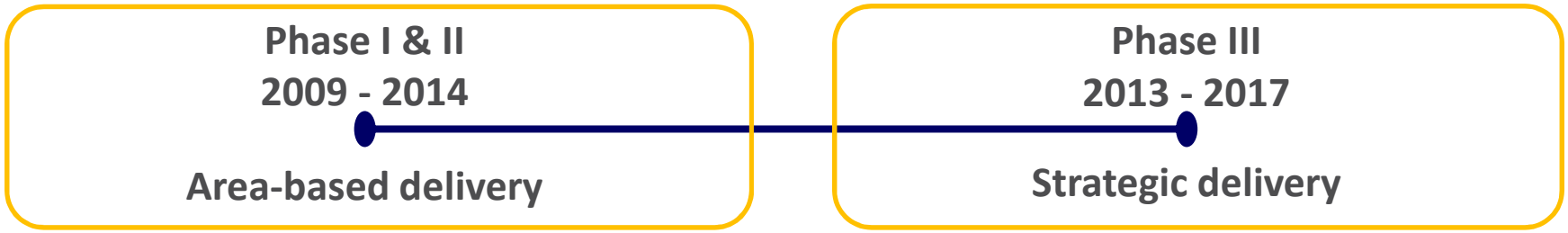
Domestic CO_2 emissions from London, 2008

15.9 million tonnes CO2

MAYOR OF LONDON

Source: Mayor's Climate Change Mitigation & Energy Strategy, 2010

RE:NEW Phases



Trial, demo, and rollout

- > 100,000 homes
- > 22,000 annual tCO_2

RE:NEW Support Team

Interim team supported (2013 – 2014)

- ~ £17.8m capital expenditure
- > 6,000 homes
- > 3,400 annual tCO_2

Full support team (2014 – 2017)

- 90% EIB* and 10% GLA funding
- £352m capital investment
- 175,000 homes
- 93,000 annual tCO_2

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* Funded through the ELENA facility under the CIP-Intelligent Energy Europe Programme.

RE:NEW Programme– Work streams

- **Support Team (core service) – active support to landlords**

- **Enabling projects – tools to make retrofit easier**
  - Procurement framework
  - New resources and guidance (planning, technical issues)

- **Innovation Unit – structured approach to overcome challenges and undertake retrofit at scale:**
  - Tackling the private rented sector
  - Strategic business case tool
  - Energiesprong – pre-fabricated solid wall insulation solution

- **Marketing & Communications – promoting RE:NEW Service and retrofit generally**

RE:NEW Support Team – Services

- Designed to increase scale, speed and value of domestic retrofit
- Support plan tailored to needs and progress of each organisation
- Community of Practice
- Expert team with broad skill set
- Free support

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RE:NEW Support Team – Services Example

Description: RE:NEW will help organisations to identify and secure the right mix of funding and finance for retrofit programmes

Support available to RE:NEW Community Members:

- Engaging providers of ECO and gas network funding – soft market testing;
- Supporting funding applications;
- Business case development to help secure internal funding;
- Liaison with external funders and brokerage;
- Identification of commercial opportunities to fund retrofit;
- Development of innovative approaches to financing retrofit;
- Making the case to health providers for funding – 'insulation on prescription'

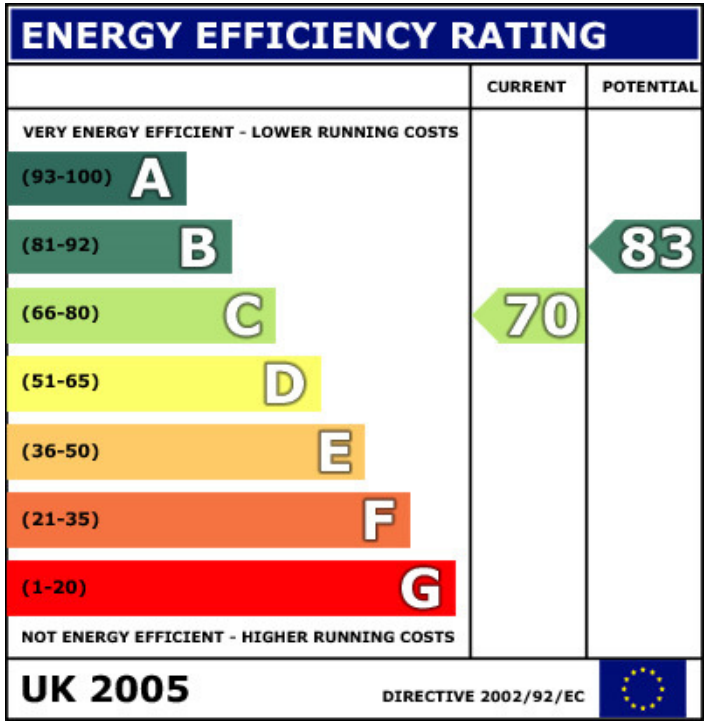
RE:NEW Case Studies

Genesis Housing Association

- Currently developing 4 year planned maintenance programme (kitchens, bathrooms, windows, heating)

- GHA's sustainability team keen to improve energy efficiency across stock by tackling worst performing dwellings (SAP rating of below 65)

- RE:NEW Support Team is working with asset management and sustainability teams to:
  - Identify additional work requirements, e.g. Solid wall insulation
  - Identify properties with a SAP of below 65 that are not included in the programme
  - Coordinate delivery of works at the household level to minimise disruption and costs
  - Coordinate delivery of works at the area level to minimise costs



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Break

Resume in 15mins

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Portsmouth CITY COUNCIL

Wilmcote House EnerPHit

EuroPHit Workshop September 2014

www.portsmouth.gov.uk

Agenda

- Portsmouth City Council (PCC) Housing Stock
- Wilmcote House Details
- Wilmcote House Demand
- Project Options
- Wilmcote House Project
- Research Evaluation
- Why EnerPHit?
- Portsmouth CC Funding
- ECO Funding

PCC Housing Stock

- Stock size
  - 15,000 HRA & 2,000 leaseholders
- Asset type
  - residential & commercial assets, traditional & non-traditional
- Age of stock
  - predominantly post war (1950 – 1970)
- Tower blocks
  - 13 tower blocks (10 storeys and above)
- Repairs & Maintenance budgets
  - £46 million annual repairs & maintenance budget (2014/2015)
- Asset management strategy
  - demand led planned maintenance programme, no repair backlog

Wilmcote House Details

Construction

- Large Bison REEMA concrete panel construction
- 11 storeys & built 1968
- Average SAP 55
- 100 x Three bedroom maisonettes
- 7 x One bedroom flats
- Area Housing Office located on ground floor
- Previous major schemes & estate regeneration early 1990s

Wilmcote House Demands

- Electric heating cost excessive for residents
  - Fuel poverty
  - Somerstown deprived area of city
- Maintenance costs significant
  - Condensation reported by a third of residents
  - Window repairs reported by 80% of residents over a 2 year period
  - Water ingress issues to properties and communal stairwells
- Windows and roof at end of serviceable life
- Concrete repairs required to maintain life of structure
- Decorations to communal & external areas failing
- Security to communal areas ineffective
- Area Housing Office relocating to new community hub

Project Options

- Do nothing
  - Life of building 15/20 years
- Refurbish elements adhoc over a period of time
  - Not resolving problems and no economies of scale for separate schemes
- Whole building approach – EnerPHit
  - Preferred option for life of building and resident lifestyle
- Demolish and rebuild
  - Most costly direct and indirect costs, impact on asset strategy

Factors Against Demolition

- Demolition costs
- Disturbance allowances & home loss costs
- Rebuilding costs including fees
- Rent loss during decant and rebuilding phases
- Site footprint physical constraints and planning requirements within area
- Decant impact on PCC waiting lists & demand for three bedroom properties
- Demolition impact on residents and community
- Financial cost appraisal supported refurbishment
- Asset management strategy impact on other high rise and non traditional buildings over next 30 years

Wilmcote House Project

Project Overview

- Insulate external envelope with cladding EWI
- Replace roof and insulate
- Triple glazed window replacement
- New hot water cylinders & install electric showers
- Mechanical Ventilation Heat Recovery (MVHR) units
- Extend living areas and create sun room
- Enclose communal walkway, create additional entrance
- Introduce restrictive access doors
- Convert office into 4 additional flats
- Structural concrete repairs & decorations to external/ communal areas
- **Replace electric heating**

Research Evaluation

- Energy benefits
  - Initial research indicates more than half the properties fail to achieve the recommended indoor temperatures
  - Reassess temperatures, demand for electricity & costs post scheme to address fuel poverty
- Health benefits
  - Health of residents before, during and after scheme
- Social benefits
  - Impact on residents lives before, during and after the project
  - Use of building and controls by residents post work
- Asset benefits
  - Impact on PCC asset management strategy for other high rise and non-traditional properties
  - Costs of work (direct & indirect) versus alternative asset management strategy options such as demolition or traditional schemes

Why EnerPHit ?

- Residents improved living environment
  - Fuel poverty & cost of heating
  - Health and social benefits
  - Effective management of property systems & controls
- Informing asset management strategy
  - Future proof against government energy standards for housing (U Values & SAP Ratings)
  - Future proof energy prices with strategy to insulate & reduce demand for energy
  - Reduce D2D maintenance demand in non-traditional stock
  - Learning from ‘actual’ complex large exemplar scheme informing strategy of all 17,000 PCC housing stock & not just Wilmcote House
- Priority is building performance versus certification

Portsmouth CC Funding

- Investment in housing stock for 20 years
- Self financing settlement
- 30 year financial plan
  - Major schemes to tower blocks planned
- 7 year capital budget plan
- 2014/15 annual budget agreed residents & councillors

Portsmouth CC Budget 2014/15

Expenditure

–Supervision & Management	£12.5M
–Special Services	£11.8M
–Response Repairs	£23.5M
–Rev Contribution Capital Work	£16.0M
–Debt & interest Costs	£10.2M
–Other Costs	£3.1M
	£77.1M

Income

–Supporting People Tenancy Grant	£1.0M
–Rents & Charges	£78.5M
	£79.5M

ECO Funding

- ECO Funding for Wilmcote House
  - July 2013 £880,000 ECO funding available
  - Sept 2014 NO ECO funding available
- ECO Funding issues
  - uncertainty with changes to criteria and estimated funds available
  - unrealistic timescales at commencement of project for procurement and planning
  - client input limitations regarding design and specification
- Additional funding would enable capital programme to be achieved over a shorter timescale

Thank You

Questions

EuroPHit

- What are the opportunities and challenges perceived?
- What partnerships and collaborations are needed?
- Is step-by-step a viable solution?
- Appropriateness of policy?
- What do residents need/want?
- Level of energy efficiency?

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Feedback

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Lunch

Resume in 45mins

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Commercial Property Session

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Agenda

EuroPHit

Time	Agenda
09:30	Introduction – Residential session, EuroPHit project
09:45	KfW – EU Policy and best practice finance models
10:15	RE:NEW – London-wide home energy efficiency retrofit programme
10:45	Coffee break
11:00	Residential case study – Wilmcote House – financial and technical challenges
11:30	Break-out session
12:15	Feedback
12:30	Lunch and networking
13:15	Introduction – Commercial session
13:45	RE:FIT – using ESCos to implement commercial energy efficiency measures
14.15	Coffee Break
14:30	Break-out session
15:15	Feedback and Summary
15:30	Close

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Context of Commercial Refurbishment

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The UK Commercial Building Stock

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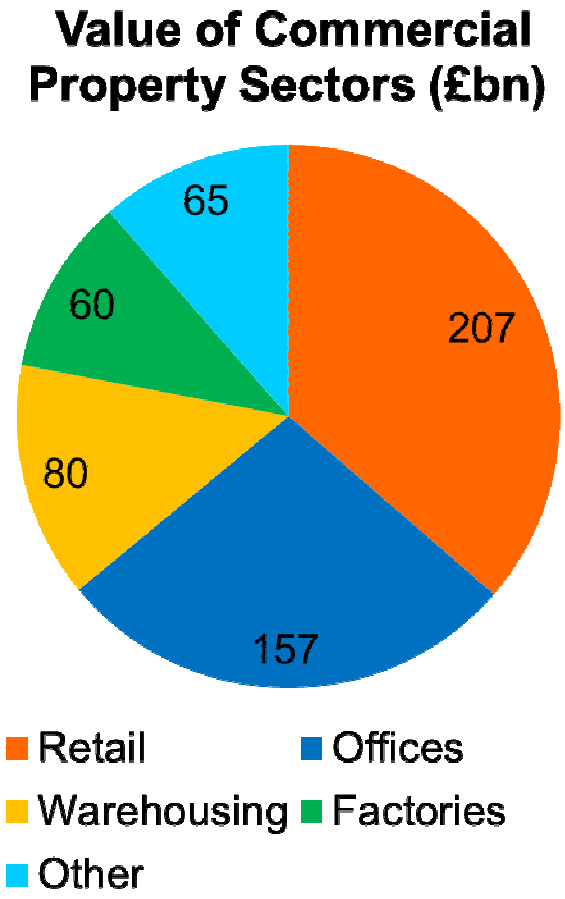
- Commercial buildings are responsible for 20% of CO2 emissions
- 1.8 million commercial buildings in the UK
- 70% of existing stock will still be standing in 2050
- Two thirds is rented, one third is owner-occupied (inverse of residential statistics)
- Average lease of 4.8 years



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Retrofit Opportunities

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- Annual refurbishment rates are between 2% and 8%
- Estimated total market investment potential of £9.7 billion
- Potential energy savings of £1.6 billion
- Reduced risks due to future energy cost and supply uncertainty
- Potential to extend the useful life of buildings
- Meeting regulations and technical standards
- Better environment for users
- Demonstrating corporate responsibility
- …

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Retrofit Challenges

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- Number of fiscal incentives already in place, not maximised
- Complexity of existing financial schemes
- Perceived level of financial risk
- Perceptions of having debt attached to an asset or balance sheet
- Short-termism
- Targets set in Regulations
- Levels of knowledge and available skills
- Split incentive between landlords and tenants
- Little desire to carry out retrofits on occupied buildings
- …

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Retail Market

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Top 3 motivators behind undertaking refurbishment:

- Need – creating an environment that attracts shoppers and displays the retailer's products as favourably as possible
- Competitor actions – reacting to portfolio refreshments by competitors to prevent loss of sales
- Return on investment – generating additional sales. Any expenditure needs to contribute directly to the bottom line within an acceptable payback period.

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Retail Market

EuroPHit

Other common drivers behind a retail retrofit programme include:

- Increasing the sales area of units
- Implementing a rebranding exercise
- A change in the client's management board
- As part of an expansion programme
- In response to declining share performance
- The implementation of measures to ensure compliance
- The introduction of technology to offer shoppers new experiences or to derive greater operational efficiency

Lots of factors to consider – energy efficiency is just one part of a complex picture

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Potential Solutions

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1. Define corporate retrofit goals
2. Designate appropriate roles, responsibilities and processes
3. Prioritise the portfolio
4. Occupier engagement and relationship management
5. Agree financing arrangements
6. Selecting appropriate technology
7. Delivery
8. Evaluation

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Questions

EuroPHit

- What are the opportunities and challenges perceived?
- How do we meet the challenge and deliver successful outcomes?
- Suggestions for overcoming short-termism?
- What partnerships and collaborations are needed?
- Appropriateness of current policy?
- How can the perceived risks be alleviated/managed?

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Feedback and Summary

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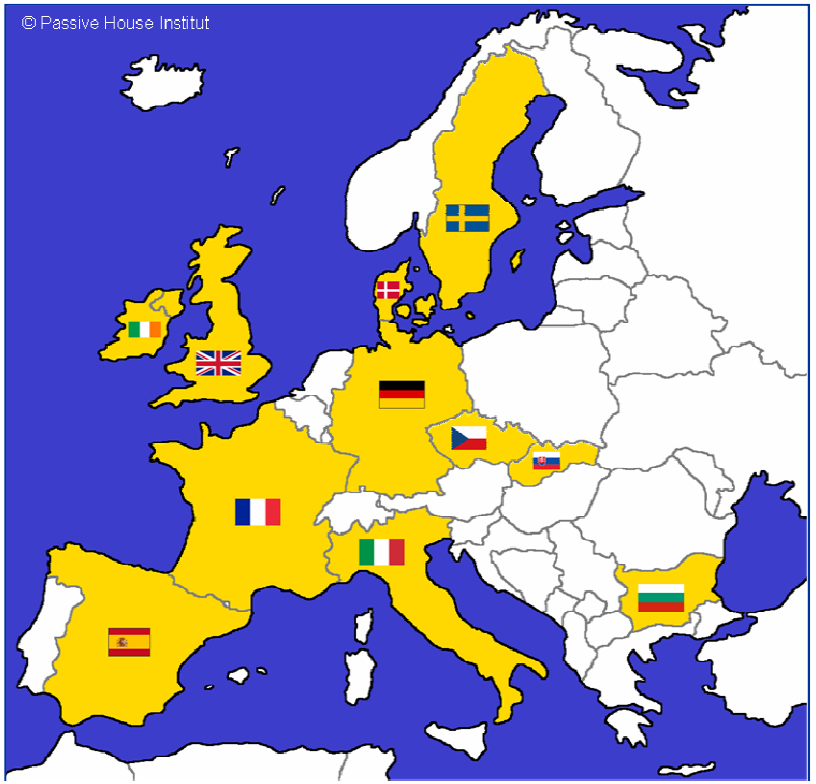
EuroPHit

Thank you
for your attention

www.europhit.eu



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