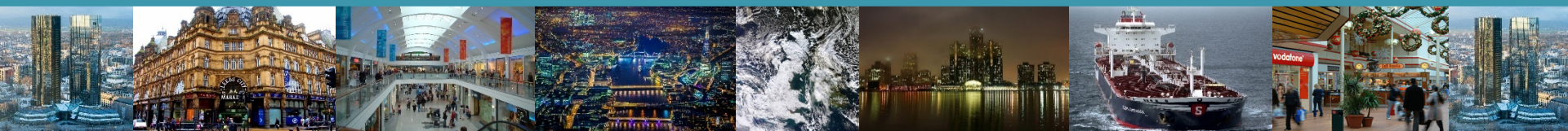


ENERGYPRO & ABRACADABRA

THE FINANCIAL TOOL KIT

22nd June 2017





- ABRA aims to activate a market for deep renovations that increases building asset value and improves building energy efficiency delivering
 - Increased asset value
 - Increased landlord/owner revenue from the asset through rental income
 - Increased asset marketability
 - Increased life cycle of buildings
 - Increased quality and attractiveness of buildings
 - Improved worker productivity and occupant health and well-being
 - Reduced dilapidations losses
 - Reduced O&M costs
 - Reduced vacancy rates
- ABRA aims to show clearly the substantial investments deep retrofits required can provide attractive and secure returns for investors
- ABRA aims to show that incorporated energy efficiency and renewables into deep renovations can provide multiple benefit

- There are multiple European drivers aimed at increasing investment into Europe's building stock to improve its quality and efficiency
- Further policy and legislator drivers are likely to be put in place
- But investment in improving Europe's building stock is proving slow
- Investors are focused on projects that are low risk and that provide clear financial returns
- To meet investor goals standardised best practice processes need to be used to provide investor confidence and speed up investment flow
- ABRACADABRA aims to support this development by highlighting the significant non-energy returns for investors of more efficient building stock

Who Should be Engaged in Projects?



- The deep renovation of buildings requires the engagement of multiple stakeholders in the market, such as;
 - Landlords
 - Building owners
 - Property managers
 - Project originators and developers
 - Planning personnel
 - Design professionals
 - Architects
 - Construction personnel
 - Vendors
 - Building technology vendors
 - Financiers / investors

Investment Issues Facing the Financial Community



- High cost of deep renovation with long pay back periods
- Limited investor confidence in returns, not business as usual
- Limited understanding of the Risks and Returns of deep renovation investments
- Long length of due diligence process increases the cost of transactions
- Slow decision making process
- Limited documentation for investor governance
- Limited understanding of deep renovation contractual structures

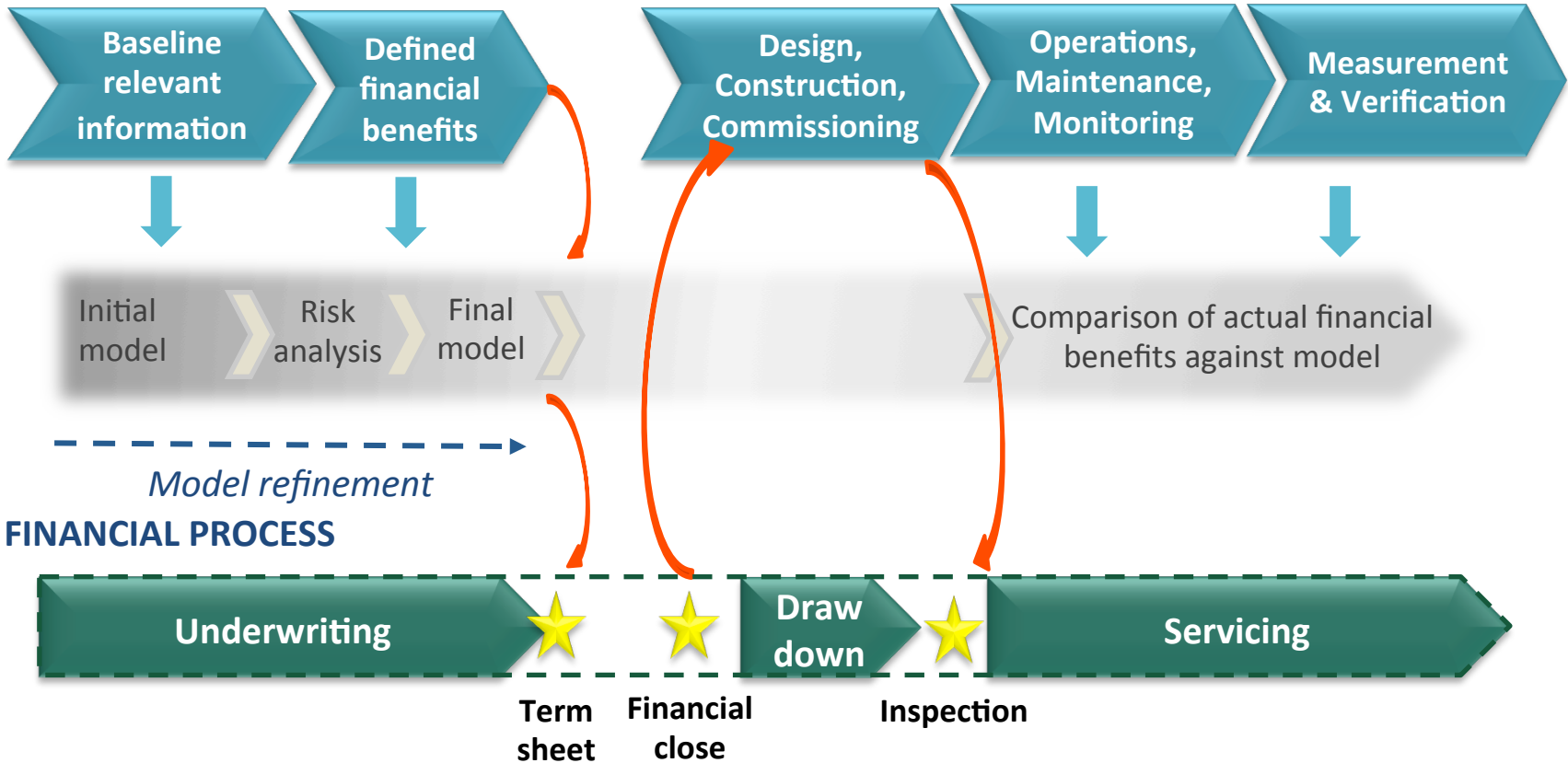
How the ABRA can Address Investor Issues



- Provide a standardised best practice process for project origination, delivery and ongoing verification
- Provide robust and transparent documentation for investor governance
- Engaging with investors early ensures all parties understand expectations and requirements
- Enable investors to build teams around a standard process and attract specialist fund managers with well understood transaction structures
- Aims to allow investments to be confidentially ‘wrapped’ in secure and well understood contractual transaction structures
- Clearly define and present the multiple benefits of deep renovations through the ABRA route
- Ultimately provide a clear and standardised process to enable investors to understand the risks and returns of investment within deep renovation projects

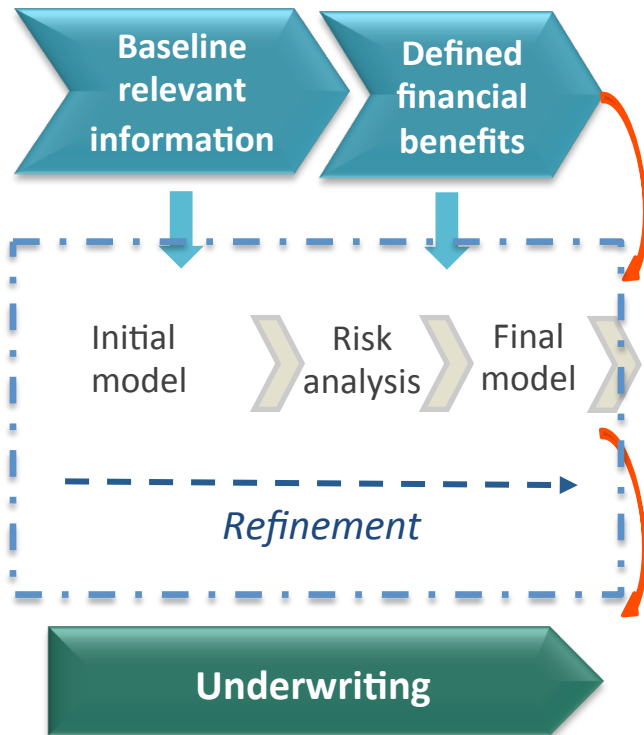
The Tool Kit Road Map

TECHNICAL PROCESS



The Tool Kit Stage 1

BEST PRACTICE PROCESS



- Use best practice development and technical process, such as the **Investor Confidence Project** protocols
- Ensure all data is obtained and clearly categorized and presented within the model
- Engage investors early to ensure all parties understand, agree to and will work with the model
- Understand investor and developer requirements; e.g. financial, governance, process, risk appetite, return thresholds etc
- Ensure project concept is simple to understand, do not focus on environmental/green benefits – it has to work financially

- Example baseline information/data required through the process.
- Starting Model:
 - Increase in revenue from increased m² rental income / rental uplift from higher quality facility
 - Assets value multiple from revenue (e.g. may be x10 annual income value)
 - Value from improved operational and energy efficiency
 - What value can be placed on the increase in aesthetic – if any (ease through planning?)
- Capital Costs of Programme
 - Design, infrastructural costs, site down time etc. capital costs
 - Costs of contract development and execution, finance, insurance etc
- Operational Costs of Programme
 - Produce O&M plan and understand ongoing O&M costs
 - Produce IPMVP plan and understand the ongoing M&V costs of programme
- Identification of other local benefits and try to value them for the landlord/stakeholders and if they bring generic or direct benefit

Understanding the Underwriting Process

Project underwriting is a **formal process** during which an investor **analyses risks** related to a given project to determine if there is a **technically feasible** and **economic foundation** for making an investment.

The process assesses **project feasibility**, identify and where possible **quantify risks**, and to **authorize financial resources** for project development and implementation.

An organisation that wants to invest in a project, or lend to a project, needs to have supporting documentation to underwrite the project and ensure the project is feasible.

The following documents would typically be required;

- Preliminary risk assessment and feasibility study
- Project financial forecast or cash-flow model
- Financing documentation (loan, equity agreements as appropriate)
- Structural documentation e.g. shareholders' agreements for SPV
- Any performance guarantees / warranties and the credit worthiness of these
- Any government permits/licenses and/or purchasing agreements

All other applicable documents that support the project for initiation.

Practicalities of the Underwriting Process

Pre-financing

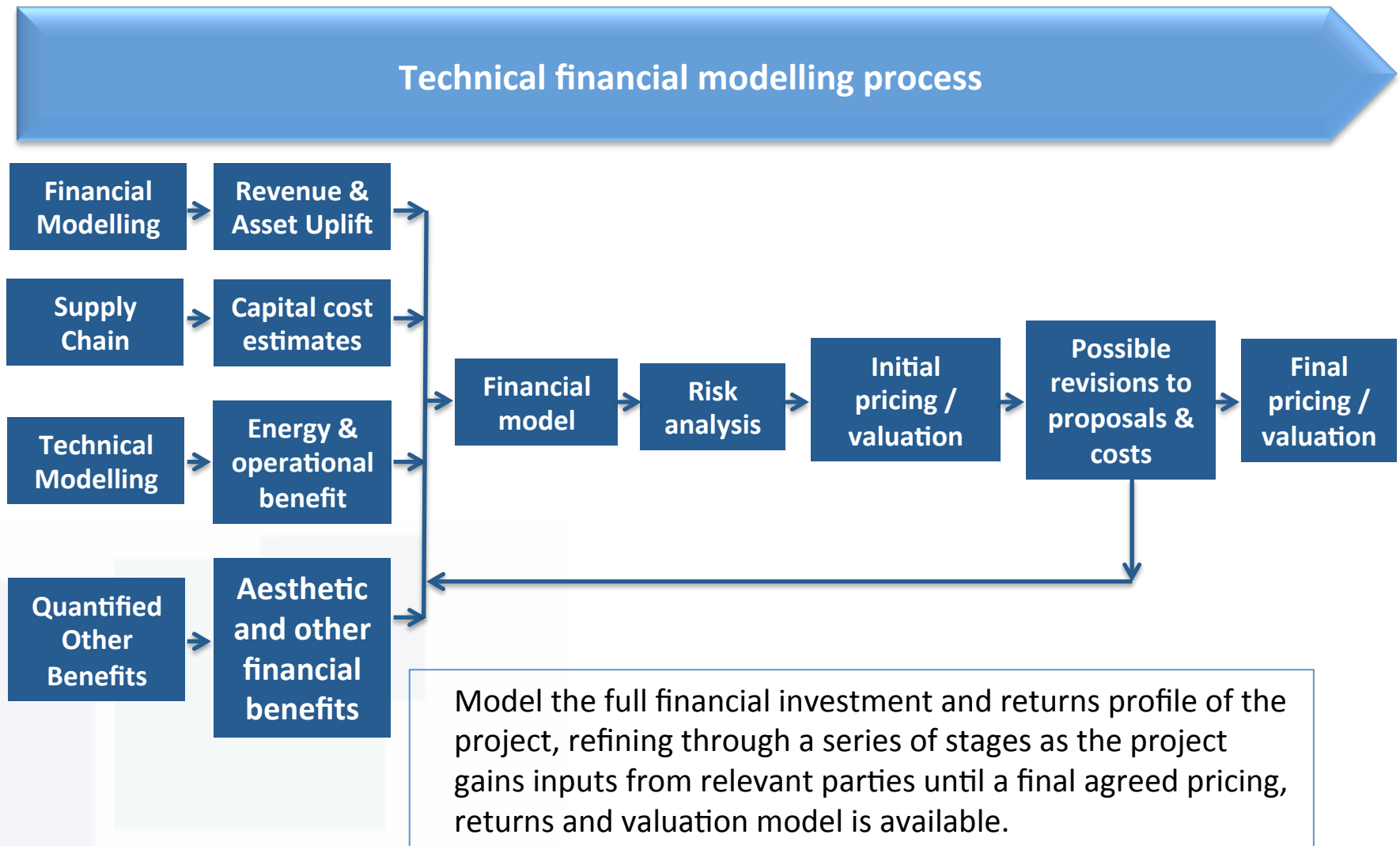
Consists of 3 components which interact

Technical financial modelling process

Contracting, legal and accounting process

Credit assessment process

Technical Financial Modelling Within the Underwriting Process



Technical Financial Modelling Within the Underwriting Process

Technical financial modelling process

Revenue & Asset Uplift

Include expected **increase in rental income** from increased space / improved facility quality
Include expected **asset uplift**
Include expected **increase in asset marketability**
Include expected **value** from reduction in mortgage / loan default rate (if available)

Capital cost estimates

Include all capital costs of design, installation and commissioning of works
Include all costs of finance, commercial and legal activities associated with the programme
Include **expected savings** from reduced dilapidations activity in coming years

Energy & operational benefit

Include the energy generation / savings income from the proposed deep retrofit
Include non-unit related energy cost savings, e.g. reduced Maximum Demand charges
Include **savings from O&M** activity
Include avoided costs / incentives payment from generation activity

Aesthetic and other financial benefits

Include the estimated value from increased tenant productivity (if appropriate)
Include the estimated value of reduced tenant churn (if appropriate)
Include the estimated value of any other aesthetic value
Improved resident/worker productivity and occupant health and well-being

Technical Financial Modelling Within the Underwriting Process

Technical financial modelling process

Types of Risk to be Assessed

Construction Risks

- Capital cost risks associated with the Works
- Delivery risk associated with contractor, delays etc

Performance Risks, both internal and external factors

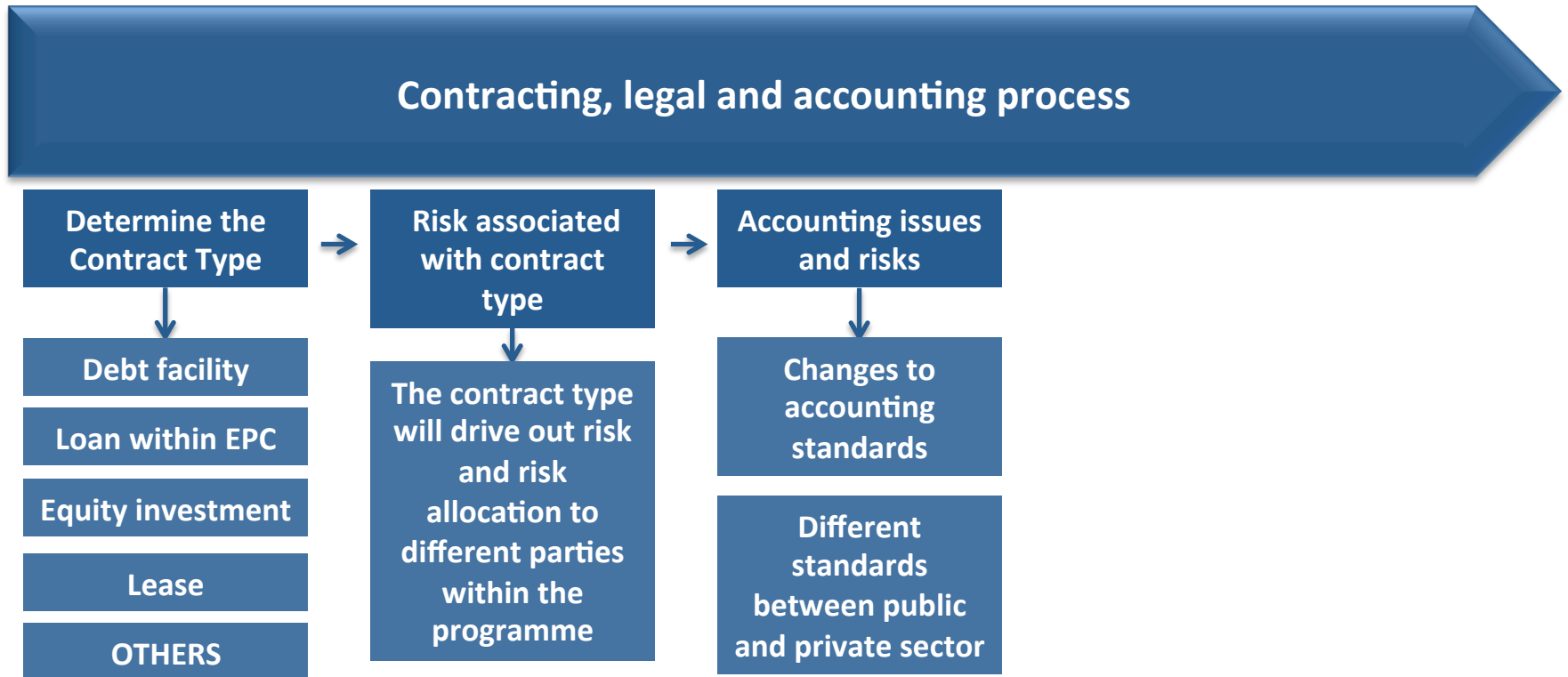
- Technical / design failure of activity
- O&M activity does not meet expectations
- Performance failure of energy efficiency measures
- Impacts on weather
- Change of use, building occupancy type changes from expected
- Closure of site

Other Risks

- Aesthetic value not achieved

- All inputs have uncertainties with different distributions that can impact the viability of a programme
- Through the identification of risks it is possible to carry out sensitivity analysis on each risk and consider further investigations (with costs) or mitigation options for these key risk factors
- Mitigation options can carry costs e.g. acquiring more data, buying insurance
- But can be modelled and provide investor confidence in the project risk and return profiles

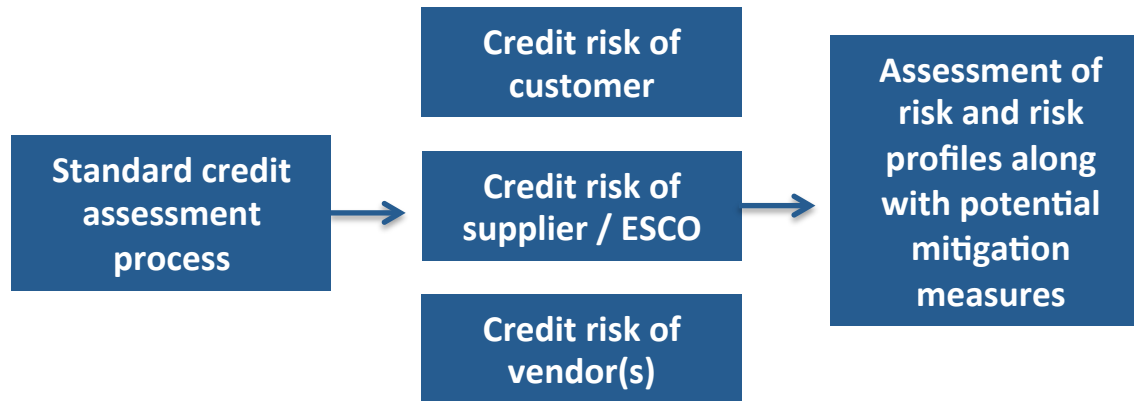
Contracting, Legal and Accounting Within the Underwriting Process



- Once an initial contracting model has been chosen the contractual, legal and accounting risks should be profiled
- Accounting rules are likely to change depending on the contracting parties and their specific jurisdictions

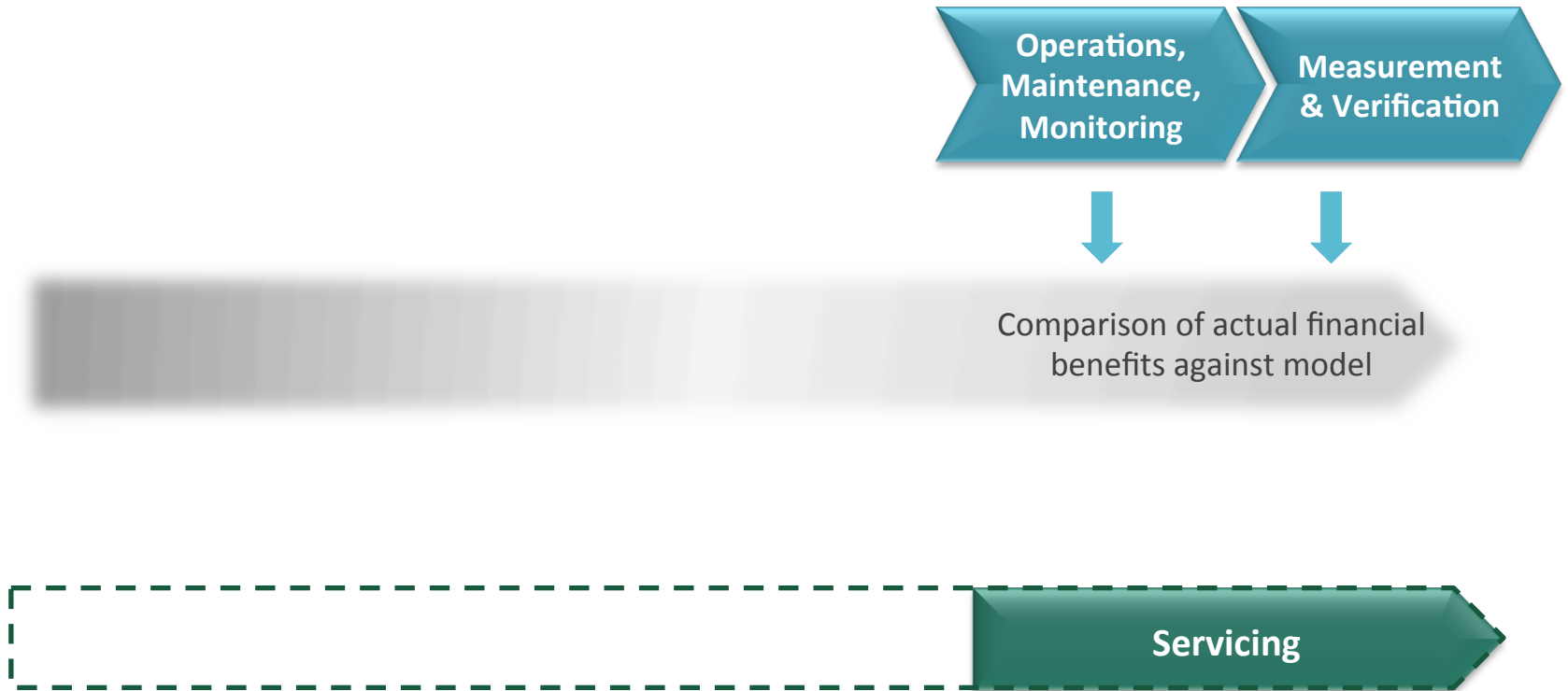
Credit Assessment Within the Underwriting Process

Credit assessment process



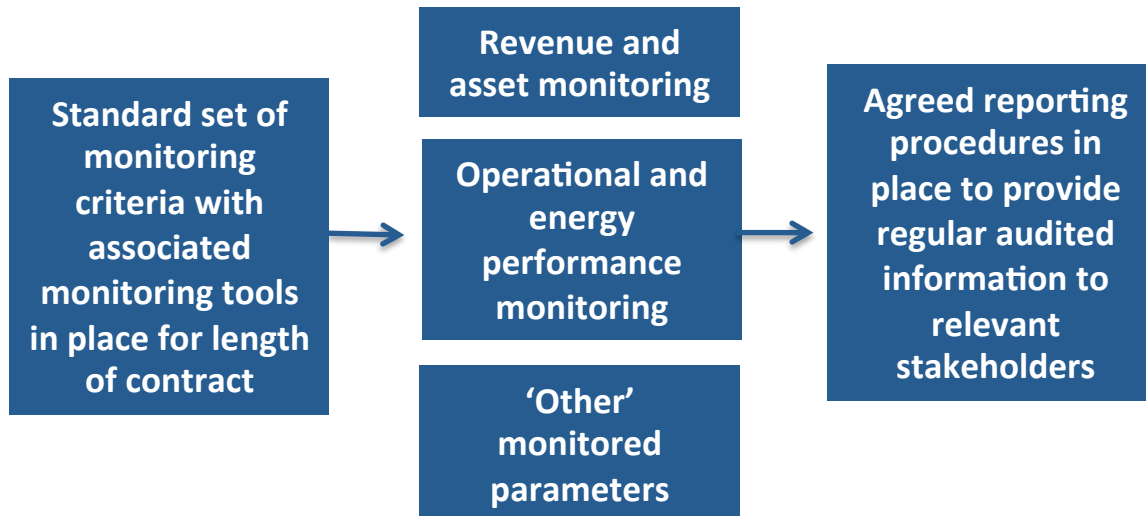
- Identification of credit risks associated with the parties within the transaction
- Can risks be mitigated through insurance
- Could the outcomes of the renovations improve the credit worthiness of the landlord / building owner?

The Tool Kit Road Map



Ongoing Monitoring and Verification of Project Results

Ongoing Monitoring and Verification of Project Performance



- The ongoing monitoring and verification of the results of the scope of works will need to be maintained to provide the reporting all parties will require
- This process should be agreed at the start of the programme to ensure the 'rules' are fully understood by all parties (this is critical should there be a performance component within the contract)

And there you have it.....

It may seem complicated, but follow a clear process will cut time and costs and ensure all stakeholders are speaking the same language.....

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