* Group 1 – A new lathe machine for a machining company

Using the headers outlined in 3.1 (combine operations cost), answer the following questions relating to your purchase

1. Identify the transparent costs involved
* Purchase price
* Acquisition costs (installation, overhead costs from procurement department, as well as cross-functional input, transport)
* Maintenance (fluids and other consumables + labour cost of technician call-out)
* Operational costs (related to the apparent, original purpose – i.e. tooling related to a certain material, fuel, energy)
* End of life costs (costs related to re-sale, overhaul, recycle)
1. Identify the costs that could be missed without a proper TCO exercise
* Costs related to ensuring adequate cover for personnel involved (training, cross-team project involvement)
* Operation costs (related to unexpected uses of the machine – i.e. tooling for a new material with different specs)
* Currency fluctuations (dealing in a weak, volatile currency)
* Risk assessment (pre and during installation)
1. Assess how the costs would be captured
* Cross-functional team input into a project
* Project funded and resources allocated through buy-in from the leadership team
* Adequate information gathering, storing and communication process
1. Propose the personnel on the TCO team
* Procurement
* Suppliers (ESI)
* Customers
* Finance
* Engineering
* Sales
* Maintenance
* Facilities
* EHS team
1. Identify any environmental or social impact on the purchase
* Social: reduction in role scope for human operator leading to potential reduction in workforce / health and safety implications (during installation, operation and removal)
* Environmental: pollution from chemicals (oils, fluids, etc), improper disposal of swarf, increased energy consumption from old machines or towards end of its life

Group 3 – Your New House

1. Identify the transparent costs involved

These were identified:

* Pre-acquisition costs

Solicitor

Architect

Surveyor

Current rental costs

* Acquisition costs

Land purchase

Mortgage

Planning permission

Materials

Contractors

Provision of utilities installation water/gas/electric/telephone

Provision for access/road

Removal/storage

* Future forecasting

Maintenance of upkeep gardener/window cleaner/boiler maintenance

Council Tax

Factor fees (if you have shared space i.e. for communal cleaning/gardening)

Insurance

1. Identify the costs that could be missed without a proper TCO exercise

These were identified:

Disposal of furniture (if moved too much)

Acts of god (flood/storms)

Change of laws (i.e. fire/smoke detectors)

Solar panels

Change of fabrication materials (i.e. cladding)

Renovations

1. Assess how the costs would be captured

We all love an Excel spreadsheet!

Budgeting your estimated forecasting costs

Obtaining quotes

Bills

1. Propose the personnel on the TCO team

There were two options:

* Owner and Contractor
* Owner, contractor, Solicitor, Architect, Financial Advisor
1. Identify any environmental or social impact on the purchase

These were identified:

Neighbours – Access/noise/inconvenience

Greenland

Flood planes

Wildlife

Conservation

Energy Production – installation of greener fuels i.e. solar panels

Water access

Disposal of waste (i.e. old buildings, asbestos, building materials

Group 4 – New beachfront proposed in Aberdeen

Potential missed costs without a proper TCO exercise?

* Without a proper TCO exercise the development could be completely insufficient for the city and many of the costs captured by all the studies highlighted in the Pre-Acquisition phase could be missed without a full TCO exercise.

Pre-Acquisition Costs:

* Environmental Impact Surveys
* Public engagement research
* Planning consultancy & assessment
	+ Determining potential acquisition costs of property / land
* Local economic development research
* Feasibility studies
* Budgetary Planning Meetings
* Stakeholder Engagement
* Identifying suitable contractors (construction)
* Traffic analysis
* Costs will be internal (council) as well as external (consultants & partners)

Acquisition Costs:

* Land, Property & Compulsory purchase costs
* Lease costs of land
* Opportunity Cost (what if the land is left empty compared to utilising as part of this development)
* Direct & Indirect staff costs
* Construction
* Specialist contractors

Assess how the costs would be captured

* Independent consultancy analysis
* ITT exercises
* Data comparison to other similar infrastructure projects