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Assuring People Costs Under NEC4 Contracts

Darren Ward & Ian Heaphy

15th October 2024

Agenda

- Contract Requirements
  - Overview of Defined Cost
  - Overview of Schedule of Cost Components
  - Record keeping requirements in the contract
- Inspecting accounts and records
  - Scope requirements and Z clause amendments
  - Understanding environment in which people costs are prepare, controlled and reported
  - Visualise and interrogate the data
  - Evaluate the records and report
  - Disallowed cost
- Q&A

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Speakers

Darren Ward Managing Director, The Orange Partnership Limited

Darren Ward is pragmatic, passionate and down to earth, he has vast experience delivering assurance assignments over the last 20 plus years on major capital projects across sectors including rail, aviation, water, rail, nuclear and oil & gas.

He is a Fellow of the Institute of Chartered Accountants in England and Wales, Audit Qualified and “Big 4” trained. He worked for BAA as Head of Supply Chain Commercial Management for 5 years on the Terminal 5 programme.

Since then, Darren has led the scoping and delivery of over 600 assurance assignments on reimbursable style contracts, predominantly NEC based. His unique concentration of expertise combining audit and forensic accountancy skills with an in-depth knowledge on all matters both commercial and contractual in construction means he is able to unpick complex cost and commercial issues quickly.

Darren has training courses and written papers on practical ways to inspect and audit Defined Cost.

DarrenWard@theorangepartnership.co.uk.

Ian Heaphy NEC4 Contract Board

Over 25 years of experience in the construction industry, working with clients in the UK, Europe, Middle East, Far East, North America and Australia.

Specialises in the development of innovative procurement strategies with particular expertise around partnering, alliancing and target cost contracts.

Member of the NEC4 Contract Board and directly involved in drafting and shaping the fourth generation of NEC contracts.

Adjudicator, dispute resolver and quantum Expert Witness

Ian.Heaphy@inccons.com

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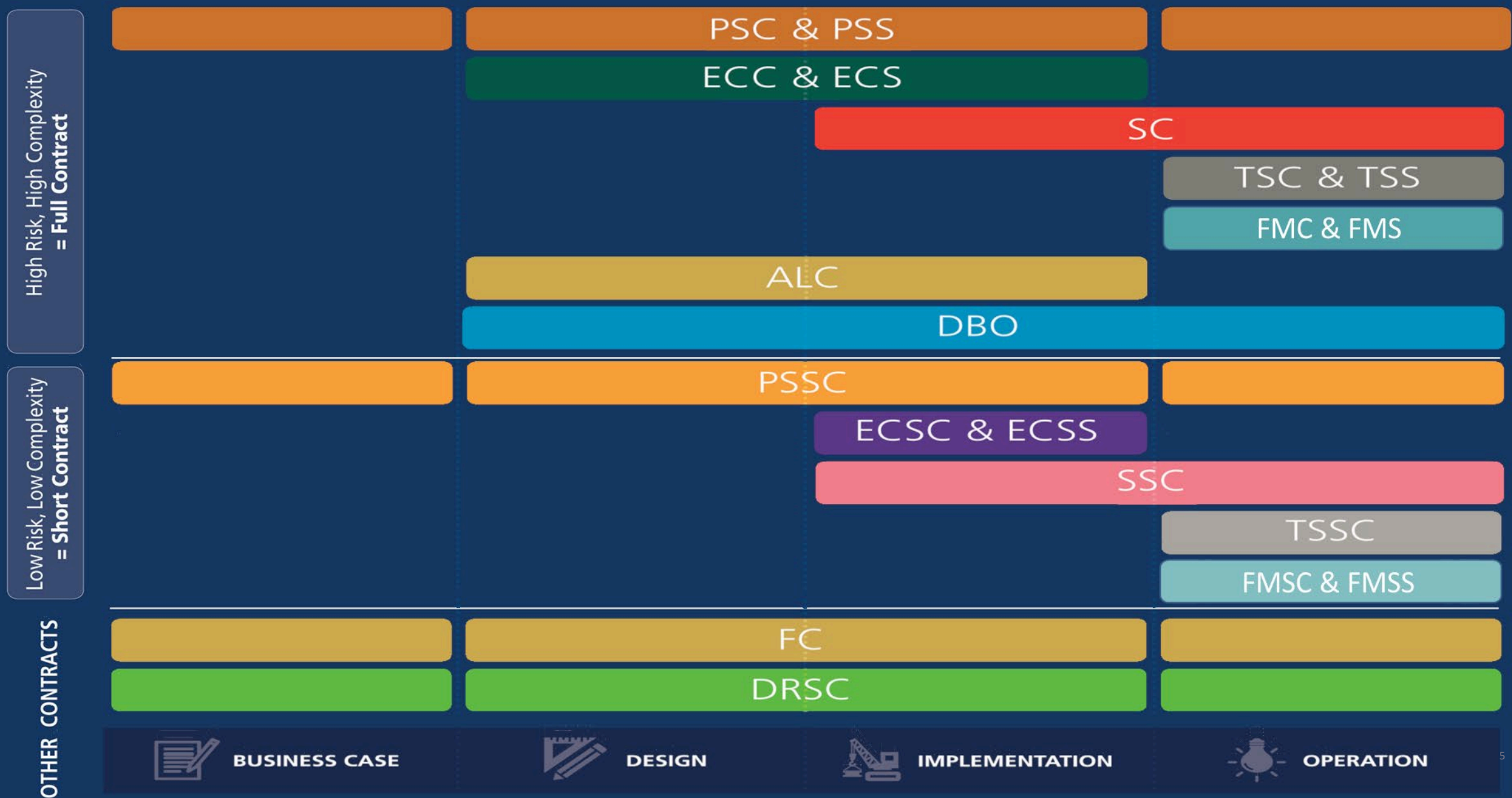
Defined Cost & Schedule of Cost Components

When and where to use the NEC Contracts



Structure of the contract

- Use Engineering and Construction Contract (ECC) as an example
- Note: cost reimbursable payment options are present in the following contracts
  - Professional Service Contract
  - Term Service Contract
  - Facilities Management Contract
  - Alliance Contract
  - Design Build Operate Contract

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Main Option clauses

- A - Priced contract with activity schedule
- B - Priced contract with bill of quantities
- C - Target contract with activity schedule
- D - Target contract with bill of quantities
- E - Cost reimbursable contract
- F - Management contract

Cost reimbursable payment options

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Use of Defined Cost

Main Option	Contract Type	Use of Defined Cost			SCC	SSCC
		Payment	Compensation events	Disallowed Cost		
A	Priced Based	✗	✓	✗	✗	✓
B		✗	✓	✗	✗	✓
C	Cost Based Target	✓	✓	✓	✓	✗
D		✓	✓	✓	✓	✗
E	Cost reimbursable	✓	✓	✓	✓	✗
F		✓	✓	✓	✗	✗

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Defined Cost

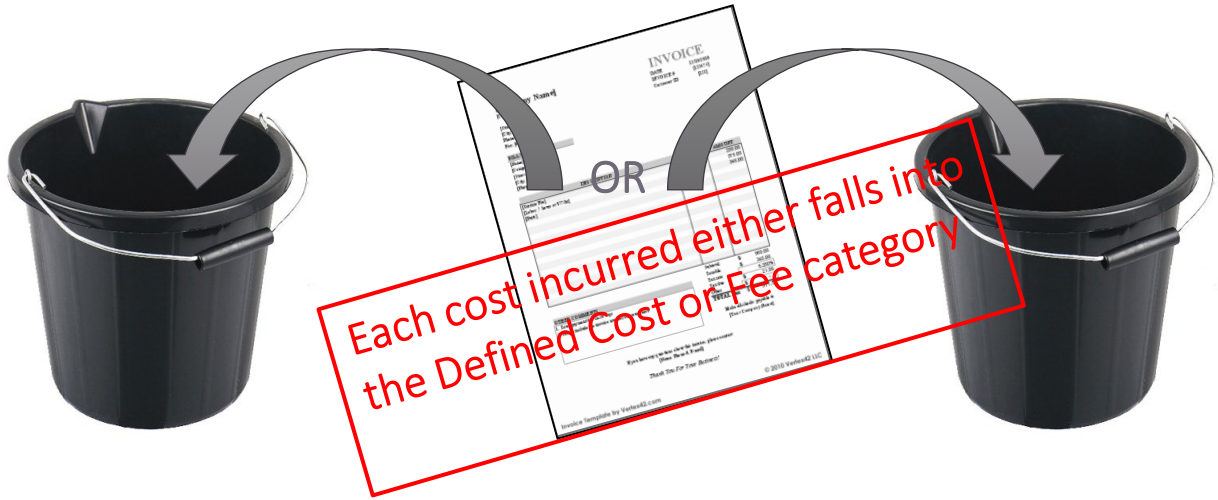
Defined Cost

Only includes

- amounts calculated using rates and percentages stated in the Contract Data, and
- other amounts at open market or competitively tendered prices with deductions for all discounts, rebates and taxes which can be recovered

Fee

All the *Contractor's* costs not included in the Defined Cost are treated as included in the Fee



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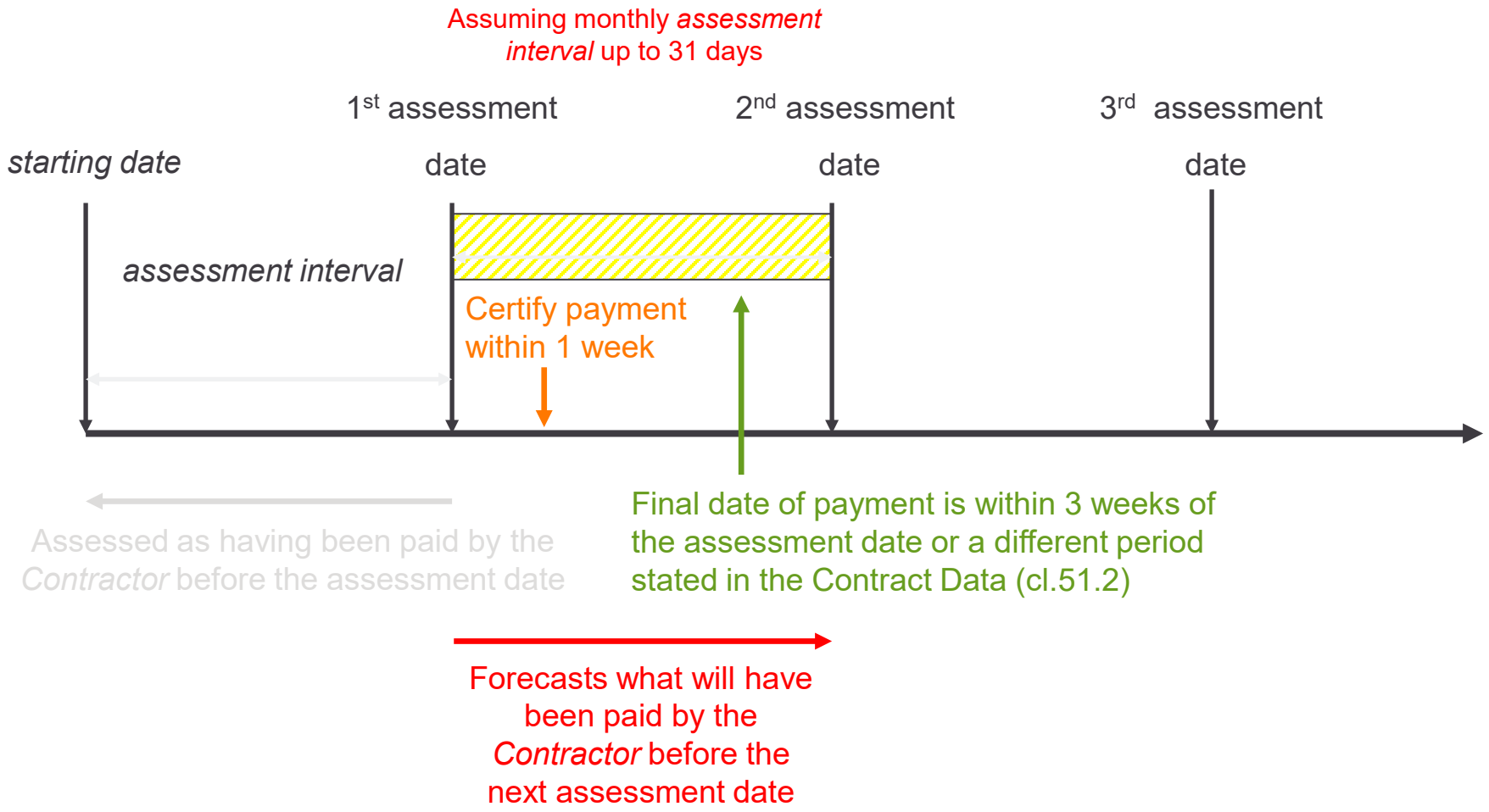
Defined Cost

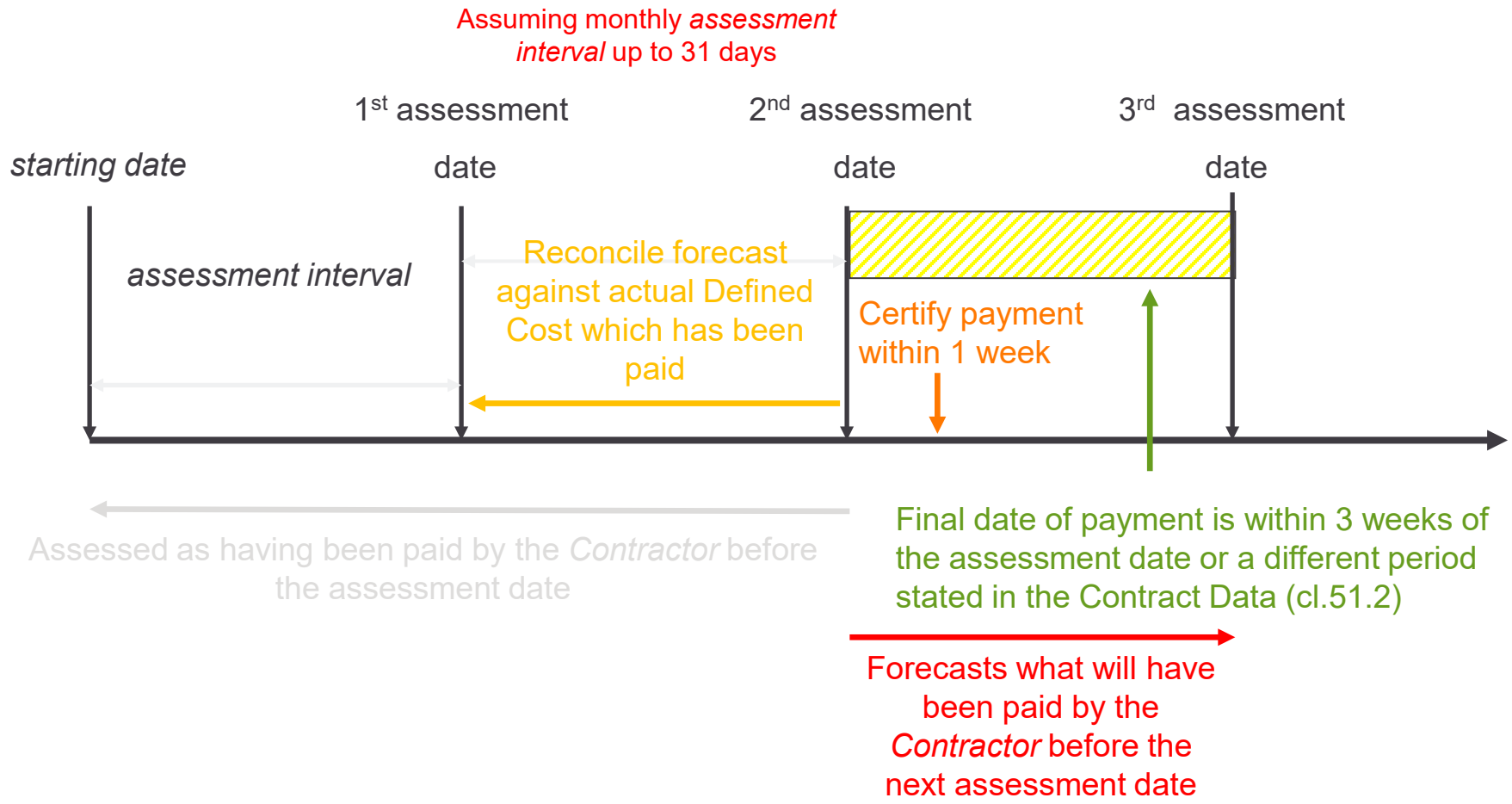
Option C, D, E & F (cl 11.2(31))

- The Price for Work Done to Date is the total Defined Cost which the *Project Manager* forecasts will have been paid by the *Contractor* before the next assessment date plus the Fee

Defined Cost



Defined Cost



Schedule of Cost Components

- There are two Schedules of Cost Components
- Short Schedule of Cost Components
  - only used with Options A & B
  - only used to assess compensation events
- Schedule of Cost Components
  - only used with Options C, D & E
  - used to assess compensation events and
  - determine the Price for Work Done to Date
- The schedules are a set of rules to define those components of the *Contractor's* cost which are included in Defined Cost
- Linked to entries in Contract Data Part 2

Schedule of Cost Components

- Preamble
  - Costs must be incurred in order to Provide the Works
  - Costs can only be claimed under one cost component
- Working Areas separate direct costs – Defined Cost - and overheads – Fee
- Working Areas are the Site and those parts of the *working areas* which are
  - necessary for Providing the Works and
  - used only for work in the contract (cl 11.2(20))

Schedule of Cost Components : people 1

- People whose normal place of working is the Working Areas are paid for the time worked on the contract whether they are within the Working Areas or not – so working from home or visiting a supplier's factory to witness tests is recoverable
- People whose normal place of working is not within the Working Areas but who are working in the Working Areas are recovered but only proportionate to the time spent in the Working Areas – so they cannot recover the cost of working from home, head office etc.
- People whose normal place of working is not within the Working Areas but who have been identified in the Contract Data as recoverable as part of Defined Cost wherever they work as long as they are working on the contract – so working from home or head office etc.

Short Schedule of Cost Components: people 1

- Only used in the assessment of compensation events
- People – who have to be working within the Working Areas – are paid based on a schedule of rates in Contract Data part two

Short Schedule of Cost Components: people 1

- Disallowed Cost is cost, which may fall within the definition of Defined Cost, but the *Project Manager* can refuse to certify for payment as the cost should not have been incurred
  - A failure to follow the requirements of the contract
  - Inefficiency of the *Contractor*
- Disallowed Cost only appears in the main Options (C, D, E & F) where payment is made on the basis of Defined Cost plus Fee

Disallowed Cost

Option	Disallowed Cost
C to E 11.2(26)	For example, cost • not justified by the *Contractor's* accounts and records • should not have been paid to Subcontractor • was incurred only because *Contractor* did not give early warning • correcting Defects after Completion • of Plant and Materials not used to Provide the Works (after allowing for reasonable wastage) • of resources not used to Provide the Works (after allowing for reasonable availability and utilisation)

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Inspecting accounts and records (DW)

Inspecting records – why it is important?

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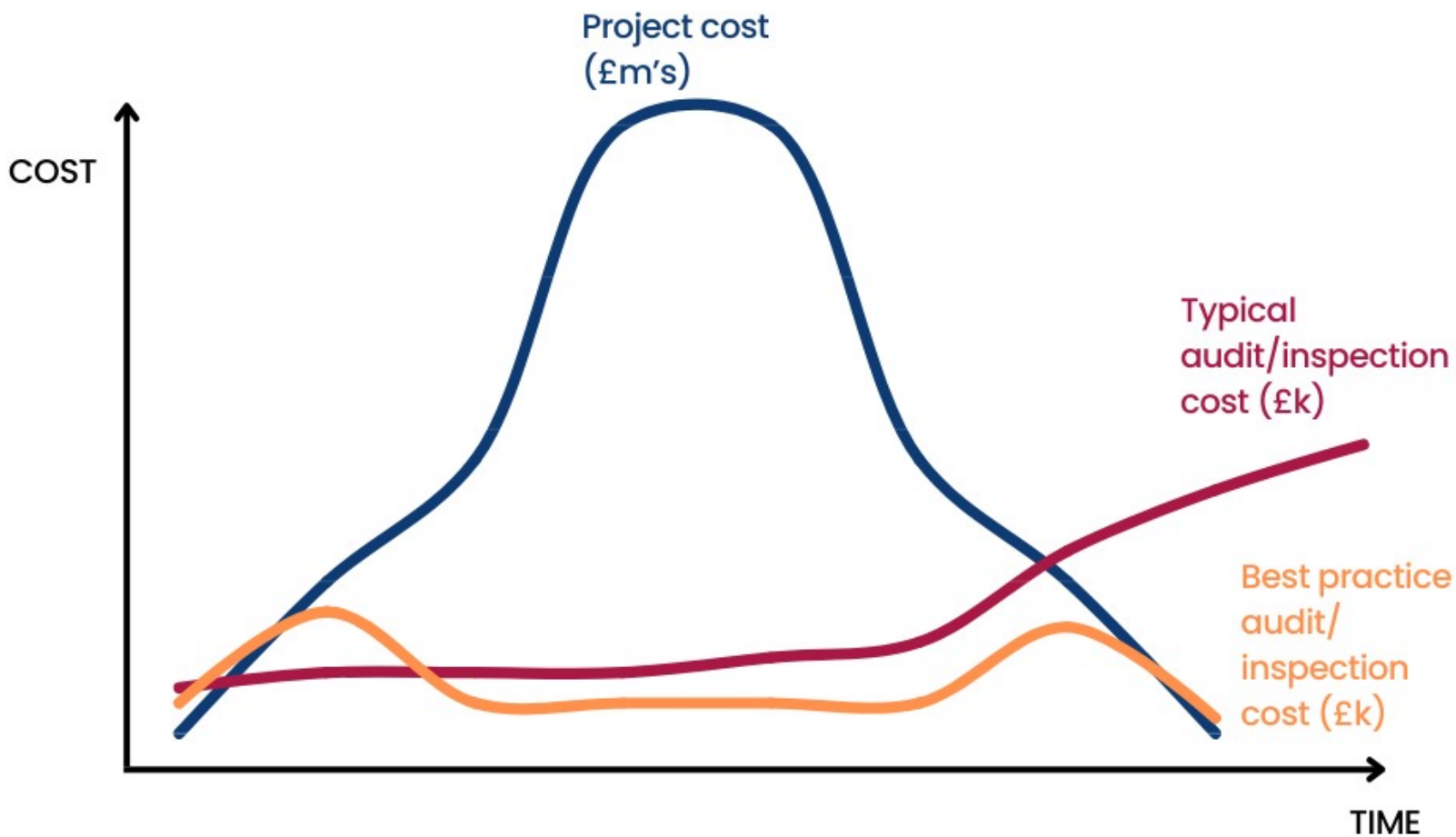
PAY WHAT IS CONTRACTUALLY CORRECT

- Defined Cost - accurate, transparent and well controlled
- And “right first time”
- Basically, good open book principles!
- Whether you are PM, CM, Auditor, Supplier
- Aim of today is increase awareness, provide tips re people cost, whichever side of the fence!
- Shouldn’t be any games here
- Aim of inspections - gaining confidence

Never leave inspection to the end

Think three lines of defence

Typical v Best Practice Audit Cost



Scope requirements and Z clause amendments

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WHY AMEND OR ADD TO?

- Client/Employer taking risk in Defined Cost options (albeit some protection in Target scenarios)
- Want suppliers to “look after our money as if it was their own”
- As value of contracts increase, expectations on “rules and records” increase
- Client/Employer turn to scope/Z clauses to amend

Be practical in records you add to scope

“Allows to inspect” better than “shall supply”

Scope requirements and Z clause amendments

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TYPICAL AMENDS

- Controlling mobilisation - Personnel Authorisation Form (PAF)
- Timesheet detail, authorisations and pre-authorisations - importance of having weekly timesheets
- Independent time verification - regular reconciliations to attendance/swipe systems to verify hours claimed (labour)
- Delete/amend specific cost components
- Rates v SoCC - will come on to

Excellent suggestions on bigger projects

Need to be there day one!

Swipe systems/app based very cheap/effective these days (becoming essential for labour – often drive payroll)

Scope requirements and Z clause amendments

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IMPORTANCE TO INSPECTION WORK

- Can’t inspect/review/audit/assure what you don’t understand
- A quick review of SoCC and Contract Data isn’t good enough
- These additional rules are key - go find them. Only then will you understand the full charging landscape
- Remember - risk of disallowed cost if not justified by accounts and records (often enhanced)

A thorough review of the whole contract is key prior to inspection

Especially if heavily amended or lots of cost/commercial processes referenced in scope

Know the rules

Scope requirements and Z clause amendments

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THE GREAT RATES DEBATE

- NEC 3 v 4 moved PSC from rates to SoCC
- But plenty amend contract back to rates (can be for both Directly Employed Staff and Labour)
- Why?
- Pros and cons of each

Rates or SoCC

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RATES

PROS:

- Simple - rate x hours. Admin time low
- Perfect on short duration and simple projects/contracts (can also allow for inflation/X1)
- See rates typically against role/grade/trade - reduces GDPR

CONS:

- Often poorly prepared/take time to do right
- Added to without thinking e.g. overtime, which is rarely 1.5x normal rate!
- Sometimes, no cap on hours charged - what if worker not paid overtime?
- Generous estimates (over recovery more than under recover vs SoCC)
- Need lots of other rules to capture all work face scenarios

If prefer rates insist on:

1) pre contract audit

and

2) expect time charging clarifications

Rates or SoCC

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SoCC – OPPOSITE OF RATES IN MANY CASES

PROS:

- More accurate - pay correct per person
- Better on long duration/large projects
- No one is taking over or under recovery risk

CONS:

- Audit trail and inspection more complex than most think .Beyond average reviewer e.g. holiday pay accrual/pensions/hours/journal/ reconciliations
- Have to be comfortable as a GDPR processor
- SoCC data busy - not as easy to visualise as rates

If prefer SoCC consider:

1) Finance/audit support for pay complexities/GDPR

and

2) Option of rates in the interim with annual true ups/actualisations. Sensible.

Rates or SoCC – where rates fall down

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Getting a rate correct?

	£K	Who
People cost		
Subsistence and lodging	20	Commercial
Travel	2	Commercial
Pension (6%)	2	FD
Tax (Er's NI 13.8% - imposed by law)	4	HR/Payroll
Bonus (15%)	5	FD
Salary	35	HR/Payroll
Total	**68**	
Hourly rate	**£38.64**	

	Weeks	Who
Divisor		
Weeks in year	52	
Less		
Holiday	-5	HR/Payroll
Bank Holiday	-1.6	HR/Payroll
Sick	-1	HR/Payroll
Training	-0.4	Commercial
Utilisation/non charge	0	Commercial/FD
Total	**44**	
Hours per year	**1760**	

More complex for labour (wages and overtime on LHS/work patterns influence divisior hours on RHS)

Understand the cost control environment

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GOOD PROJECT CONTROL LOWERS RISK OF ERROR

- Discussed rules - know basis of charging
- Review the AFP - get a feel for numbers (headcount, cost, when and where)

Then "see in practice"

- Familiarise yourself with project - visit site
- Understand day to day processes for staff, labour, agency cost capture - speak to PM's and Labour Managers
- Who knows who - what other key information/reports are produced?
- Good 1st line of defence?

Always seek out key controls you can rely on - who checks what each week, each month?

How is it evidenced? How do we know they are here/working on the project?

Ultimately, what day to day tools and reports help manage people cost

Understand the cost control environment

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TAKE STOCK

- Building an understanding
  - Contract
  - Site
  - Day to day operations and controls
- Scribble it down (matchstick men) - regardless of project/contract size
- X people working there doing X, costing £Xk per month, Y people working, ratio between part timers/full timers is A/B
- Chat “approach” through with a colleague. Why X not Y?
- Is it efficient?

Industry in danger of over auditing and inspecting.

Not in right areas either…..too much review in easy areas people are familiar with e.g. expenses

Importance of peer review!

Visualise and interrogate the data

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AFP DATA CAN BE "USER" UNFRIENDLY

- Staff costs might be journalled to protect GDPR (one dump of staff cost per month) - lose hours, detailed cost per person info, or cost might be booked at "employee number" not name for anonymity
- Labour cost might be a cost per person per day or week but at summary level, not SoCC
- Detailed data (hrs x rate) for LOSC, Agency might be lost in accounts ledger invoices

Your supplier "does what it does" - standard to how its internal accounting systems are set up. They are not being awkward if it doesn't "easily" align to the contract

Work with them not against them to get extra granularity required – payroll reports typically. Key to this is discussing processes/reporting with Head Office Finance/Payroll teams

This will allow you to build better data sets to visualise data and ultimately sample

Visualise and interrogate the data

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OTHER DATA SETS YOU MIGHT WANT TO BRING IN

Depending on the contract rules, you might need to look at other data sets (not just core support in AFPs). Think:

- **Swipe data** - important for labour/LOSC
- **Global timesheet reports** - will pick up in one data set all labour or staff hours from commencement (per day)
- **Mobilisation approval logs** - can be the basis from which people's charging officially commences

Be sensible and think of why that data is produced – its purpose.

It might be more site record related and not accounting data

Visualise and interrogate the data

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DATA PATTERNS (CORE)

Start with the simple and obvious ones:

- **People cost over time** (per day/week/month)*, split into staff/labour/agency/LOSC. Month usually best initially
- **Track the same in terms of hours booked** (average hours per day, week, month)
- **Any periods look unusual?** Any persons not expected? Low/high hours bookers as expected? Total annual hours?
- **Does that data hang together with works?**
- **Check against programme**/performance reports/known issues (site closed)
- **Align with budgets/forecast?**

Need some basic excel formulae/pivot skills

Develop these and a core set of tables/graphs to visualise for yourself going forward

Will give you an 80:20 feel for where money spent

Visualise and interrogate the data

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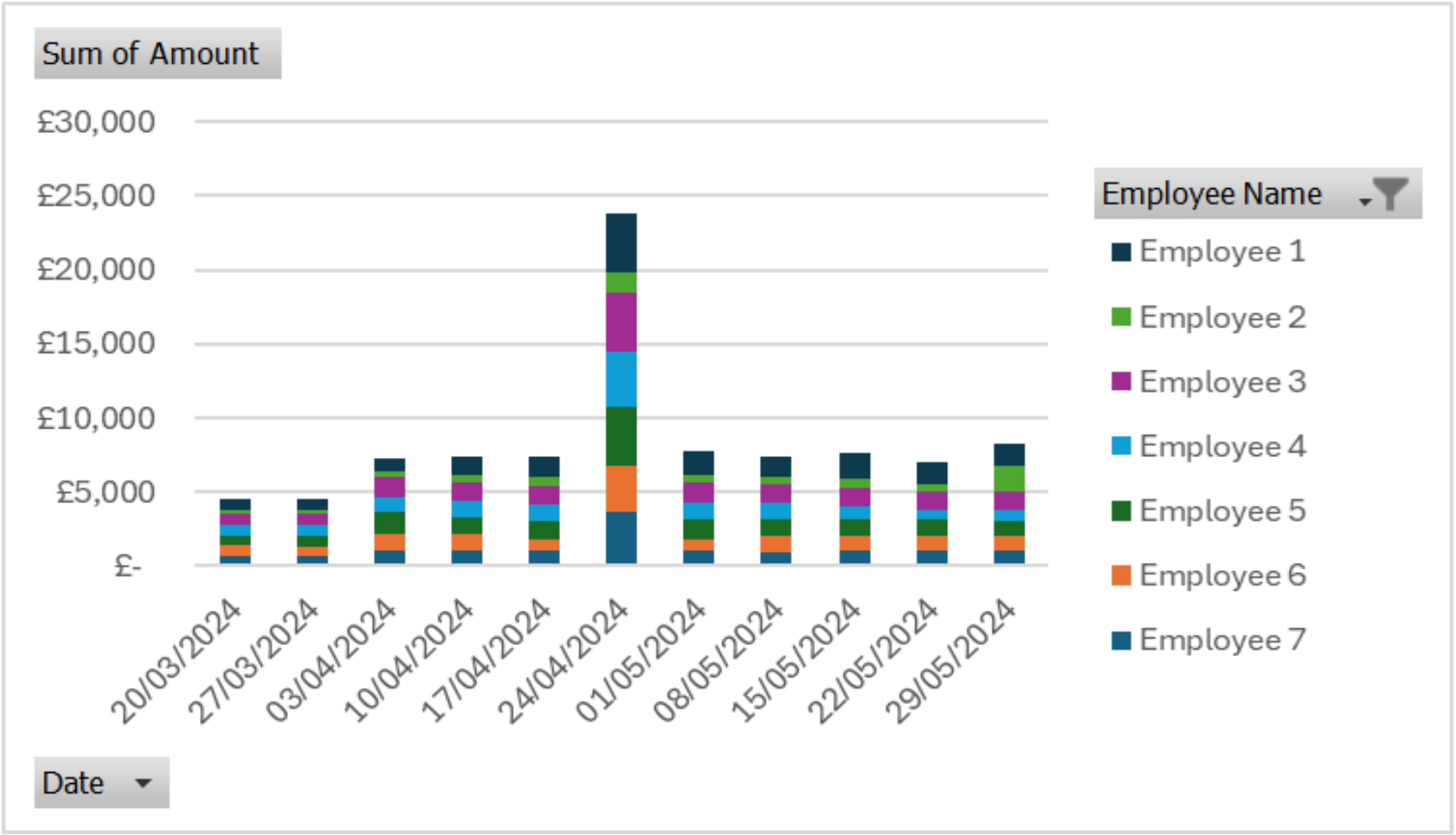
GRAPH – LABOUR COSTS PER WEEK PER EMPLOYEE



Graph opposite based on actual labour cost per employee per week.
Not at SoCC level of detail but simple.
Showed a concern on 24/4/24 – related to back pay (much of it related to previous project).

Visualise and interrogate the data

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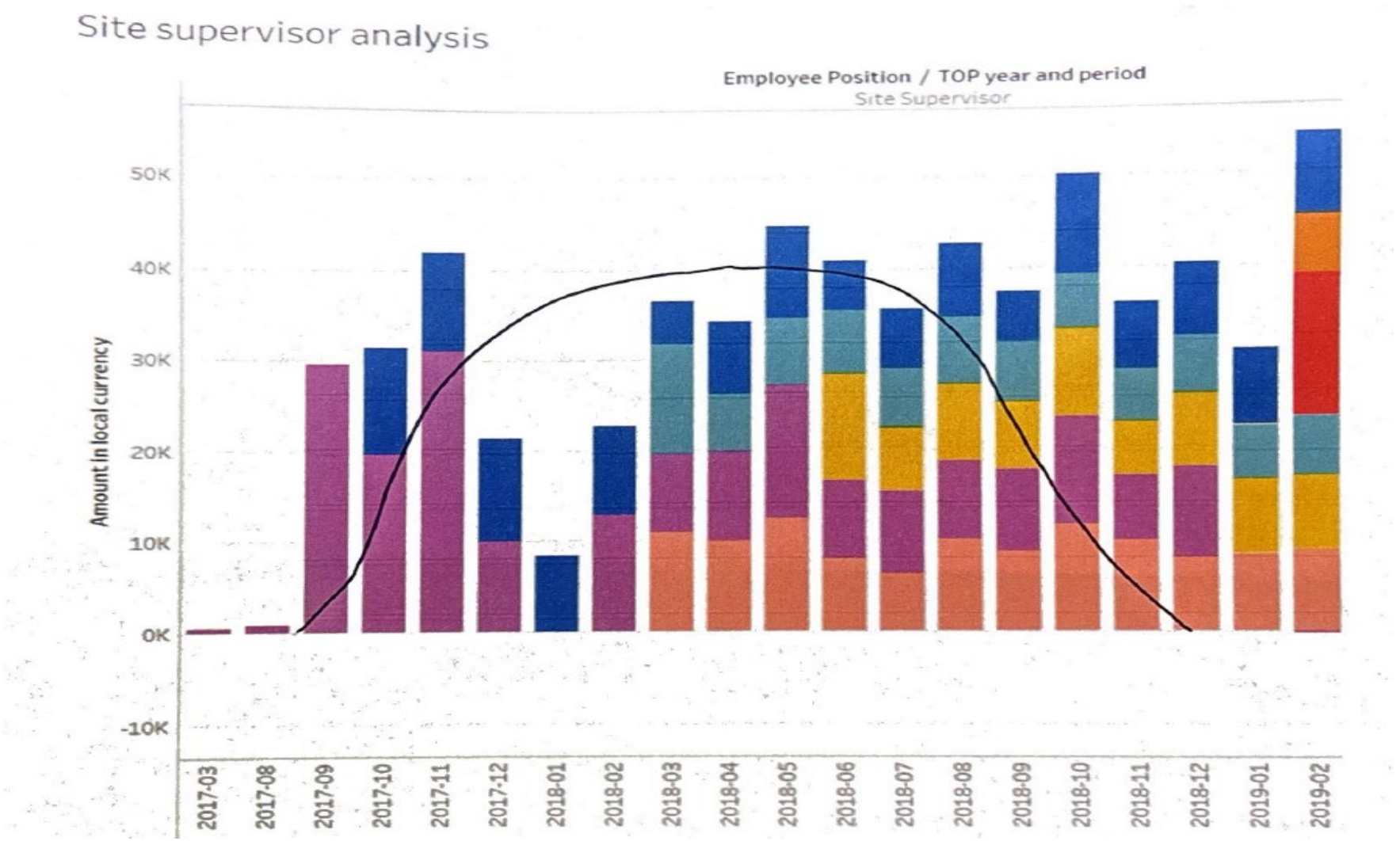
GRAPH – SUPERVISOR HEADCOUNT/COST VS MOB RECORDS VS LABOURER COST



Only two supervisors (blue and purple) formally approved to project via mobilisation process, required per Scope.
Black line shows labourer activity.
Tails off yet supervisors added!!!

Visualise and interrogate the data

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DATA PATTERNS (SoCC) – IMPORTANCE OF PAYROLL REPORTS

When looking at directly employed staff and labour, payroll reports will give you a significant level of support for SoCC

Analyse as follows:

- Categorise by cost component and see if they align to your SoCC
- Even those that align may not be allowed (in full). Many are paid real time (regardless of NEC rules) e.g. bonus/redundancy
- Work up and overlay SoCC value as a percentage of people base salary or wage. Does that data hang together?

Talk through the payroll report with your supplier.

Ask which items are payslip linked (rarely wrong). Book a session with the payroll manager for these payslip inspections

Other items might need wider finance team to support e.g. company car costs, health insurance.

Audit across/down!!!

Visualise and interrogate the data

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TABLE BY COMPONENT AND PERCENTAGE OF SALARY

Staff: Full Name	Salary	Car Allowance	%	Annual Bonus	%	Travel / Subs / Lodging	%	E'Ers National Insurance	%	E'Ers Pension	%	BUPA health insurance	%	Staff Life Cover	%	Income Protect-ion	%	Total Salary and Payroll burden
Paul Brown	£45,000.00	£6,000.00	13%	£0.00	0%	£0.00	0%	£5,925.72	12%	£3,150.00	7%	£0.00	0%	£140.67	0.3%	£75.26	0.2%	£60,291.65
Joe White	£28,000.00	£0.00	0%	£0.00	0%	£0.00	0%	£2,751.72	10%	£1,960.00	7%	£849.12	3%	£87.53	0.3%	£46.83	0.2%	£33,695.20
Linda Grey	£165,845.00	£10,200.00	6%	£7,000.00	4%	£7,058.00	4%	£24,147.93	13%	£28,201.00	17%	£2,122.80	1%	£518.43	0.3%	£277.38	0.2%	£245,370.54
Ian Black	£42,000.00	£4,200.00	10%	£1,500.00	4%	£0.00	0%	£5,470.32	11%	£840.00	2%	£0.00	0%	£131.29	0.3%	£70.25	0.2%	£54,211.86
John Green	£75,632.52	£7,800.00	10%	£0.00	0%	£10,096.80	13%	£10,401.41	12%	£5,294.28	7%	£849.12	1%	£236.43	0.3%	£126.50	0.2%	£110,437.05
Phil Blue	£112,000.00	£9,000.00	8%	£30,000.00	27%	£0.00	0%	£19,725.72	13%	£7,840.00	7%	£2,122.80	2%	£350.11	0.3%	£187.32	0.2%	£181,225.95
Liam Pink	£71,000.00	£7,800.00	11%	£0.00	0%	£0.00	0%	£9,762.12	12%	£4,970.00	7%	£849.12	1%	£221.95	0.3%	£118.75	0.2%	£94,721.93
Fred Plum	£71,979.60	£7,200.00	10%	£2,500.00	3%	£0.00	0%	£10,159.50	12%	£5,038.57	7%	£849.12	1%	£225.01	0.3%	£120.39	0.2%	£98,072.19
Shaun Teale	£85,000.00	£7,200.00	8%	£0.00	0%	£0.00	0%	£11,611.32	13%	£5,950.00	7%	£849.12	1%	£265.71	0.3%	£142.16	0.2%	£111,018.31
Millie Sky	£120,500.00	£9,000.00	7%	£8,000.00	7%	£0.00	0%	£23,000.00	17%	£8,435.00	7%	£1,273.68	1%	£376.68	0.3%	£201.54	0.2%	£170,786.90

Are elements claimed correct vs SoCC – Income protection? Understand better
On a simple percentage basis do any items looks risky i.e. different to your expectation/knowledge?
Bonus/pension may just be generous
Employer's National Insurance shouldn't be more than 13.8%

Visualise and interrogate the data

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DATA PATTERNS (WIDER DATA SETS)

Mentioned earlier using accounting data vs other data sets (META data)

Analyse as follows:

- Labour/LOSC hours paid vs swipe hours
- Labour movements versus equipment movements (operated equipment)
- GPS vehicle tracking - vans vs labour

Can drive high levels of assurance quickly.

But need to know data a) is robust and b) can be analysed smartly

Will be outliers that need removing, more than likely

Visualise and interrogate the data

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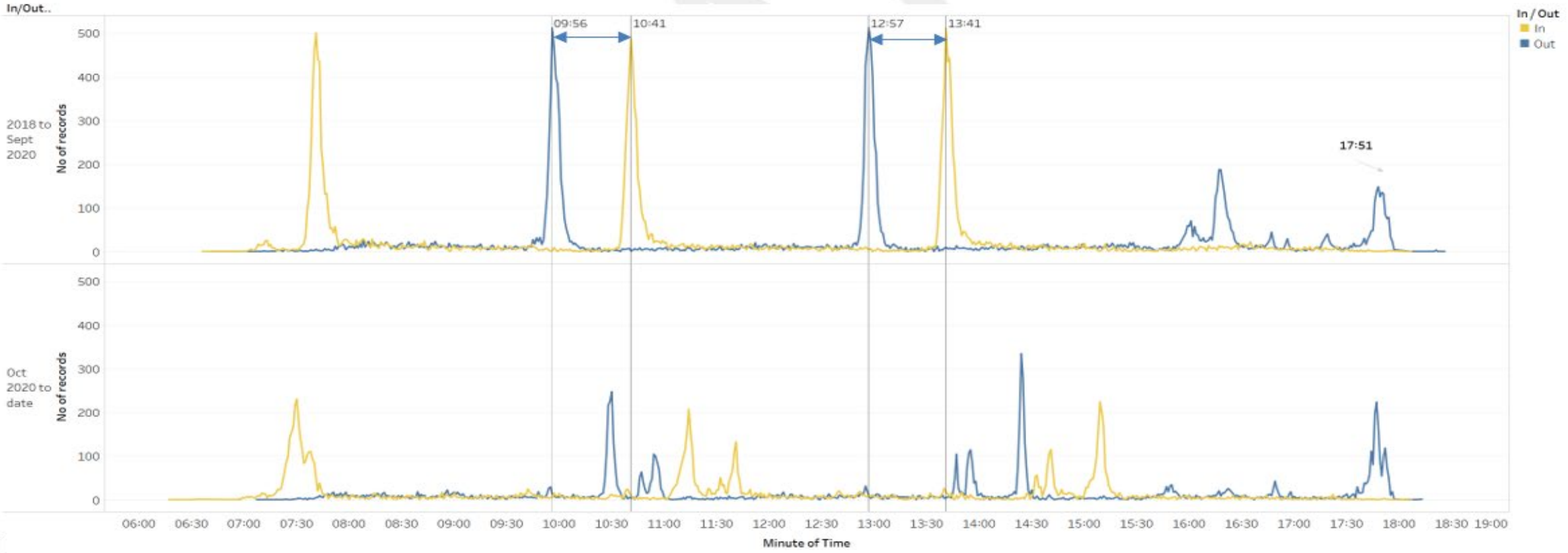
Labour swipe patterns



Very powerful analysis if done well – can quickly corroborate timesheet hours claimed
Data may need understanding/cleansing and knowledge of site/turnstiles/canteens etc

Evaluate the records and report

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DESIGNING TESTS AND SAMPLING

- Know rules, environment, analysed data
- Tests need to link back to these
  - Obvious - checks back to timesheets, payslips, contracts (DEL)
  - Obvious - checks back to timesheets, invoices, payment (LOSC/Agency)
  - Obvious - check where worked/re-working area
  - Obvious - checks to SoCC/ remember time on contract key
  - Rules - pre-authorised checks re mobilisation/overtime hours
  - Rules - rates, capping of hours/divisors
  - Meta data – linking data to provide comfort

Test in population sets (Staff, Labour, Agency, LOSC) or by cost component (pensions, health insurance, expenses etc)

Design a template/work paper - objective of test, method of testing, time period/costs covered, results, conclusion etc

Evaluate the records and report

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EVALUATING RESULTS

- Records results - keep on top of
- Records may not initially support Defined Costs claimed
- Ask suppliers why, work with them to understand better
- Easy to miss something - jump to wrong conclusion
- Root cause understanding always key
- Better approach than disallowing/with-holding

If samples are indicative of wider population, you will draw sensible conclusions

Written records of your tests - prevents duplicate/triplicate reviews, gets the project fit for CI50.9 close out

Start early - better to get confidence early and test less at end

Disallowed cost

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COMMON ISSUES: NOT JUSTIFIED BY ACCOUNTS AND RECORDS

- **Time apportionment** - bonus/redundancy charged in full
- **Accruals/provisions** - proof paid (bonus/redundancy)
- **Time claimed outside working area**
- **Holiday pay** (staff v labour - not the same)
- **Duplicates re rates** (PPE/Laptops/Mobiles)
- **Add ons that conflict with SoCC** (payroll/pension admin levy/handling)
- **Expenses charged gross not net**

Ghost hours/people are rare - would often be fraud

Rarer than people think!

Disallowed cost

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COMMON ISSUES: RESOURCES NOT USED TO PROVIDE THE WORKS

- Allowing for reasonable availability and utilisation
- Subjective
- Importance of good/wider contract management e.g. via CE's/Forecasting
- Not taken away when PM requested

Ensure the total defined cost for people hangs together against wider information.

Always a story to be told (good or bad)

Summary

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EFFECTIVE INSPECTIONS OF PEOPLE COSTS

- **Pre contract** - amend pragmatically
- **Pre contract** - audit rates (if that is route chose)
- **Post contract** - read and understand charging rules
- **Visit site** - helps you visualise in/out access points and what types of people are where/when
- **Build good data sets** - speak to site and finance/HO teams to understand process and wider cost reports
- **Audit** - design tests specific for the contract/sample population sets
- **Reporting** - Write up results/root cause key if things aren't supported

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Upcoming webinars

- Link will be shared in the chat
- More information on LinkedIn

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Q & A