

MIKE HEATH – QUESTIONNAIRE

INTRODUCTION

1. a. Please explain what your involvement was in the Edinburgh Tram Project (ETP). How did you become involved in the project? What were your roles and responsibilities in the project? Between which dates were you involved in the ETP?

I was invited by Partnerships UK (part of UK Treasury) to join the Gateway Review Team for the ETP project in 2006. (I cannot remember the exact date). My role was as a team member of the review team. To the best of my recollection and referring to document TIE 00671216 my involvement was between 2006 and around March 2010. I cannot be specific on exact dates.

- b. What were your main qualifications and vocational experience at the stage you became involved in the ETP?

I had managed the Privatisation of London Buses' Operating Companies and had also taken the Croydon Tramlink Project from post Parliamentary approval through to Financial close as a Private Finance Initiative Project. In recognition of these two projects I was awarded MBE for Services to Public Transport. I had also managed the re-generation of passenger operation on the River Thames for the Millennium celebrations and acted as transactor and Director for the NHS Lift programme.

- c. What was your experience in major infrastructure projects, including tram and light rail systems, prior to your involvement with the ETP?

See above. I had managed the Croydon Tramlink project through to Financial close and as Operations and Services Director for London Buses I had overseen the contract management of the delivery of the project by the Private sector consortium.

REVIEW PROCESS – OVERVIEW

2. We understand that you were part of a team that conducted Office of Government Commerce ('OGC') Gateway Reviews on the ETP prior to contract close in May 2008 and thereafter conducted a number of 'Peer Reviews' on the project. An email from 2011 set out the dates on which the OGC and Peer Reviews took place (TIE00671216).

- a. Can you explain what the OGC was? What was its purpose?

OGC reviews are designed to help major Government related projects use best practice in governance and development. The nature of OGC reviews is best described on the Office of Government Commerce website. It would be best for the Inquiry to make its own enquiries of OGC whether any of the

currently displayed material has changed since 2006/7.

- b. In general can you explain what an OGC Gateway Review was? What was its purpose? Who undertook such reviews?

See above. The reviews were carried out by the team identified in the reports.

- c. In general can you explain what a Peer Review was? What was its purpose? Who undertook such reviews?

Peer Reviews are described in the OGC documentation. In the case of ETP, Peer Reviews were the appropriate way to proceed beyond Gateway stage 3 as stages 4 and 5 are operational phase stages.

- d. In general, can you explain what the review team's involvement in the ETP was? Between what dates were the review team engaged to work on the ETP? How was it engaged? What was its main duties and responsibilities? Did these duties and responsibilities change over time (and, if so, when, in what way and why)?

I was not involved in the arrangements to engage the review team. In practice, the review team worked on ETP between 2006 and March 2010. Its duty was to carry out the Gateway reviews and any subsequent Peer reviews. To the best of my recollection, the duties and responsibilities remained unchanged throughout the period of engagement until 2010 when the team members gave advice to the Project Team outside of the Peer Review process. This stage lasted no more than the first 3 months of 2010 and was clearly differentiated by the team from the Gateway and Peer Review process. It is unfortunate that the nomenclature used by Tie does not make that distinction but would have been descriptive for internal purposes within Tie.

- e. To whom did the review team report to and who reported to it?

It was an independent review team with no organisational reporting structure above or below it.

THE TRAM PROJECT – OVERVIEW

PROCUREMENT

3. In relation to the procurement strategy for the tram project:
- a. What was your understanding of the main elements and objectives of the procurement strategy for the tram project?

The procurement strategy was aimed at achieving good value for money and meeting the technical requirements set out by the procuring authority.

- b. Did the procurement strategy or objectives change in any way (and, if so, when and why?)

I cannot recall any such changes although once the bidders were shortlisted and down to two then there would, inevitably, be some subtle adjustment of objectives by the procuring authority although these would need to abide by the procurement regulations at the time.

- c. In the event, do you consider that the aims of the procurement strategy were met (and, if not, why not)?

I think the terms of the Inquiry indicate it is self-evident that good value for money was not delivered hence the procurement strategy's aims were not met. As my involvement with the project ceased in 2010 I would be simply speculating why the aims were not met.

- d. How important was it to obtain a fixed price for the Infraco contract?

A fixed price for the Infraco contract was crucial both commercially and financially for the project to baseline the scheme both to deliver the cost/benefit ratio envisaged by the business case and to prevent cost drift.

- e. What was your understanding of the extent to which the procurement strategy envisaged that the design and utilities would be completed before the Infraco contract was entered into and before the Infraco works commenced?

I understood that the expectation was that design and utilities would be substantially completed before the Infraco contract was entered into and, subject to any local agreements in areas not critical to programme, the works should be completed before Infraco works commenced. However, in any project of this nature, a number of contractor mobilisation works can be started without detrimental effect on the programme.

- f. How important was the prior completion of these works to the procurement strategy?

Extremely. It removes any underlying uncertainty.

DESIGN

4. We understand that there were difficulties and delays in progressing and completing the design for the tram project. By way of overview:

- a. What was your understanding of the main difficulties in carrying out the design work and the main reasons for these difficulties?

The review team were only exposed to the progress aspects of the design work as described by Tie. Therefore it would be inappropriate to comment

on any difficulties without first-hand knowledge of the activities.

- b. What steps were taken to address these difficulties?

I do not know. That was entirely a matter for Tie.

- c. Were these steps successful (and, if not, why not)?

As delays in design were seen as a major factor in the project's difficulties they were clearly not as successful as Tie had anticipated.

- d. In 2007, a decision was made to continue with the procurement process notwithstanding the incomplete design. Can you comment on the reasons for that decision and whether, in your view (with or without hindsight), it was the correct decision?

The decision to proceed was entirely a matter for Tie and its governance. As an observer, I would say that the decision was probably made with either incomplete or inaccurate information on progress. At the time, and given the information presented, it should have been the correct decision. Determining whether it was correct, in hindsight, is an academic exercise because only knowing the true position and costs to complete compared with extension of time claims would give a better picture.

UTILITIES

5. TIE entered into the MUDFA contract in October 2006. Utilities diversion work commenced in July 2007 and were due to be completed by the end of 2008, prior to the commencement of the main infrastructure works. There were difficulties and delays in progressing and completing the utilities diversion works. By way of overview:

- a. What was your understanding of the main difficulties in carrying out the utilities works and the main reasons for these difficulties? What role, if any, was played by the provision of designs for the utilities works?

We were unaware of the quantum of difficulties in carrying out the utilities works save knowing that the original contractors were replaced. I was not party to any substantive discussions concerning difficulties with utilities works other than in the reviews.

- b. What steps were taken to address these difficulties?

I do not know. These would have been a matter for Tie.

- c. Were these steps successful (and, if not, why not)?

It would appear that they were not entirely successful.

RISK

6. a. In general, what risks were identified as requiring management and how were they managed?

We only had presentations on the risk approach. I cannot remember the amount of detail we discussed.

- b. Who was responsible for managing and monitoring risk?

Tie.

- c. Did the risk management approach differ from other projects on which you have worked and, if so, in what ways?

No. The presentations on risk management were thorough and professional.

- d. Do you consider that the risk management on the tram project was effective and can you give reasons for your view?

I think there was a dis-connect between the Risk Manager and his process and effective management action to mitigate risk. This was reflected in one of our reports.

- e. In the tram project, do you know what was done when it became apparent that a risk would materialise and how does that compare with other projects?

I do not know.

OGC GATEWAY REVIEWS

READINESS REVIEW (OGC GATEWAY REVIEW 1)

7. Between 22 and 25 May 2006 a Readiness Review was carried out on the tram project. A report on the findings of the Readiness Review team was issued to the Chief Executive of TIE on 25 May 2006 (CEC01793454). The team made a number of findings. The review concluded that the project would not currently satisfy the criteria that would be assessed as part of an OGC Gateway 2 review. The overall status of the project was assessed as Red (i.e. to achieve progress the project should take action immediately).

The accompanying terms of reference explained that the review would be high level and strategic and would not be concerned with contract drafting or detailed provisions of the invitation to Tender Notice (ITN) documentation and schedules, nor with the economic case for the project, but would focus on key issues which underpinned successful procurements (CEC01881455). While the review team would have access to the Outline Business Case, the draft Infraco ITN documentation, vehicles documentation and other key documentation on request, they would rely principally on interviews with relevant individuals.

- a. On page 2 of the Readiness Review it is stated that no OGC Gateway reviews have been undertaken and that the project is considering whether to initiate a full OGC Gateway programme from Gateway 2 onwards. Can you explain the status of this Readiness Review? Is it an OGC review? Is it an OGC Gateway 1 review?

The terms of reference make it clear that it was a high level review dealing with issues that would impact on a successful procurement. It was not an OGC Gateway 1.

- b. What was the purpose of this review?

See above.

- c. What was the genesis of this review? Please explain, for example, who proposed that a Readiness Review should be undertaken and the reasons for that proposal?

This was a matter for TIE, Transport Scotland and CEC.

- d. Can you briefly explain what the main findings of this review were?

There is no reason to say any more than the findings presented in the report.

- e. Who undertook this review and drafted the report?

The report team is identified in the report.

- f. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis of the report of the review? Who provided that information to the review team? Please indicate the main documents and interviews upon which the review was based.

I cannot remember the detail beyond confirming that the report substantially described the methodology and the witnesses.

- g. How did the OGC team verify the information provided by TIE staff at interview?

The team used their experience of similar circumstances and questioning to verify the information. The review was a high level strategic review.

- h. Did TIE, CEC, Transport Scotland and/or contractors have any input into the final review report?

No

i. Who approved this report before it was sent to the Chief Executive of TIE?

The project team.

j. Who else received a copy of the report? For what purpose did they receive the report?

I do not know. It was addressed to the Chief Executive of Tie.

k. Did you (or others in the review team) have any concerns about the project at that stage? If so, what were those concerns?

Any concerns are set out in the report.

l. The terms of reference are attached to an email sent by Michael Howell at TIE (CEC01881454). Who determined the scope of the Readiness Review?

Tie and its governance regime.

m. Did you (or others in the team) have any concerns in relation to the project at that stage?

Not beyond those set out in the report.

8. One of the recommendations made is that procurement and contractual strategy should be reviewed in light of market feedback. The review recommended that the incoming Tram Project Director should lead a review of the procurement approach in light of concerns expressed by some of the bidders at the requirement to accept novation of subcontractors: *"For example, there are reports that potential Infracos may not want to take on designers or charge a premium for full novation of the SDS contract"*.

a. Why did the procurement and contractual strategy need to be reviewed?

Given the italicised remarks above there could have been a substantial re-allocation of risk and hence costs were the example to crystallize.

b. Do you know why Infraco bidders were concerned about novation of the design contract?

It would be conjecture on my part, but I think it likely they wanted to absolve themselves from risks relating to the substance and timeliness of the design.

c. Was a review ever carried out by TIE? Do you know what the outcome of any such review was?

I do not know. I think Tie did employ consultants to overview design but cannot be certain.

9. The review team had not seen evidence of the development of an agreed negotiation strategy for a project of this complexity and recommended that such a strategy be developed for discussion at Chief Executive level.

a. Would you expect to see the development of such a strategy at that stage?

yes

b. Was a negotiation strategy developed? Did you ever see or review the negotiation strategy? If so, what were your views on the strategy?

I do not know and cannot remember reviewing any such strategy.

10. It was noted in the Readiness Review that the governance structure for the project appeared complicated (albeit it was acknowledged that it was going through a process of change).

a. What were your views on the governance structure for the tram project? Was it fit for purpose? Did the governance structure change as the project progressed and, if so, how did it change? What did you consider to be an optimal governance structure?

I would not offer any views other than those set out in the report. It did change over time and we commented when asked.

11. The review noted that TIE had "bought in" most of its expertise through the TSS and SDS contractors.

a. Did you think that TIE had the requisite skills and experience to undertake the tram project?

No and one wouldn't expect them to have those in house on day one since the skill sets required for such projects change as the project develops.

b. What were your views on TIE buying in its expertise? Was this a good way to proceed? Was there a different approach?

See above.

c. Did you have any concerns from the fact that TIE, as organisation, had no prior experience on project managing, and delivering, major infrastructure projects?

In practice Tie was the nominated delivery agent by the ultimate client CEC. The Gateway process and Peer Reviews were a methodology to acknowledge a known deficiency.

- d. Did you have any concerns that TIE may find it difficult to manage "disaggregated" contracts (i.e. separate contracts for design, utilities and the infrastructure works) and the inter-relationship between these different contracts and works?

These were set out in the report.

12. The risk registers were considered as part of the Readiness Review. It was noted that there was no obvious evidence of risks being acted upon. It was recommended that the Project Director review the process for acting upon and mitigating the risks to ensure successful delivery of the project.

- a. What were your views on the tram project's risk management at this stage and later as the project progressed?

The statement above encapsulates the team's concerns.

- b. Did a review of risk management take place? Did the risk management on the project change? If so, what material changes were made to risk management?

I do not know as it was a matter for Tie.

13. It was noted that there had been a number of activities that had taken longer than expected, necessitating a series of revisions to the project programme.

- a. What activities had taken longer than expected and why? How did this impact on the project programme and cost? Did the revisions to the project programme cause you any concerns at that stage?

I cannot remember the detail or the impact. Without a full understanding of the programme and what corrective actions were available it is impossible to answer the question meaningfully.

14. In relation to Affordability and Funding, it was noted that there was no agreed common understanding as to the expected outturn costs of the project and the consequent balance between scope and affordability. Looking forward, the tender returns for the Infraco and Tramco would inform the costs estimating process *"but will not represent comprehensive tendered costs at the time the business case is next considered due to the negotiated procurement procedure being followed. The implications of this will need to be understood by all stakeholders"*

- a. Can you explain what was meant by *"no agreed common understanding as to the expected outturn costs of the project and the consequent balance between scope and affordability"*?

Beyond what is said in the report no.

- b. What role do tender returns have in the cost estimating process? Is it good practice to rely on tender returns as the basis for a cost estimate? If not, why not? What other factors need to be considered in the cost estimating process?

Providing tender returns have been properly evaluated, they do form a good basis for cost estimates especially in a competitive process where there is a clearly identifiable reference bid. Client benchmarking and experience of other similar projects are also valuable tools.

- c. What were "the implications" that required to be understood by all the stakeholders?

The implication as I read it, was that the business case review would not be against final costs and therefore had implicit uncertainty.

OGC GATEWAY REVIEW 2

15. Between 26 and 28 September 2006 another review was carried out (the scope of which was aligned with the criteria for a Scottish Executive OGC Gateway 2 review). It was carried out on the instruction of the Chief Executive of Transport Scotland (CEC01629382).

- a. Why did the Chief Executive of Transport Scotland instruct this review to be carried out?

I don't know.

- b. What was the purpose of this review?

The purpose is described in the report.

- c. Who determined the scope of the Gateway 2 review?

OGC Gateway 2 sets out the framework and it would be for the client to confirm that.

- d. Can you briefly explain what the main findings of this review were?

They are set out in the report I have no reason to amend them.

- e. Who undertook this review and drafted the report?

The review team as described in the report.

- f. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the review? Who provided the evidence to the review team? What were the main documents and interviews upon which the review was based? Were the OGC team able to verify the information provided?

The methodology is set out in the report.

- g. Did TIE, CEC, Transport Scotland and/or the contractors have any input into the final review report?

No

- h. Who approved this report before it was sent to the Chief Executive of TS?

The project team

- i. Who else received a copy of the report? For what purpose did they receive the report?

I do not know.

- j. Did you (or others in the review team) have any concerns about the project at that stage?

Not beyond those spelled out in the report.

16. The overall status of the project was assessed as Amber (i.e. the project should go forward with actions on recommendations to be carried out before the next review of the project). The majority of the recommendations from the previous OGC review had been fully achieved with a few being partially achieved. The procurement timetable appeared "tight but deliverable".

- a. What was your awareness, at that stage, of any difficulties and delays with the design and utilities works?

Only those described to us and reflected in the report's conclusions.

- b. Why was the procurement timetable considered "tight but deliverable"? What problems would arise if the procurement timetable was not delivered on time?

The project would inevitably be delayed with major reputational risk for the principal stakeholders and the project team members. The Contractors would also suffer reputational risk by association. There would be likely financial consequences for all parties.

- c. What process was there for following up recommendations made in reviews and checking whether they had been carried out?

These were a matter entirely for TIE and its upward governance.

17. The Gateway 2 Review Follow Up Report was issued on 22 November 2006 to Transport Scotland (CEC01791014, attached to CEC01791013). This review was

undertaken for TS to check progress has been made against the recommendations from the Gateway 2 Review and to comment on the robustness of the project going forward. Some of the conclusions of the review were that:

- All of the recommendations from the Gateway 2 review had been fully or substantially achieved
 - There were improvements in working and communication between the main bodies
 - There was a challenging timetable for submission of DFBC
 - SDS were being better managed
- a. What was the purpose of the follow up? Was a follow up conducted after every review?

The purpose was set out in the report. A follow up was not conducted after every review but TS would have been derelict in its duty not to require a follow up.

- b. Did you have any remaining concerns?

Not beyond those in the report.

OGC GATEWAY 3 REVIEW

18. An OGC Gateway 3 review took place between 1 and 4 October 2007 and a report was delivered to the Chief Executive of CEC (**CEC01562064**).

- a. What was the purpose of this review?

This was described in the report

- b. What was the genesis of this review? Please explain, for example, who proposed that a review should be undertaken and the reasons for that proposal?

This was a matter for CEC.

- c. Who determined the scope of the Gateway 3 review?

As for Gateway 2 the OGC methodology sets out a framework and it is for the client to make any amendments it sees fit within that framework

- d. What were the main findings of this review?

These are set out in the report

- e. Who undertook this review and drafted the report?

The review team.

- f. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the review?

The methodology and process for the review are set out in the report.

- g. What material and evidence were the review team provided with for this review? Who provided that information to the review team? Please indicate the main documents and interviews upon which the review was based. Were the OGC team able to verify the information provided?

I cannot remember the detail beyond saying that the report set out the basis on which it reached its conclusions. In the time available, the team would not have been able to verify the information having to rely on the processes within Tie to deliver reliable information. This is normal practice for such reviews which do not have the resources to undertake detailed verification in the time available.

Did TIE, CEC, Transport Scotland and/or the contractors have any input into the final review report? No

- h. Who approved this report before it was sent to the Chief Executive of CEC?

The project team.

- i. Who else received a copy of the report? For what purpose did they receive the report?

I do not know.

- j. Did you (or others in the review team) have any concerns about the project at that stage?

Not beyond those detailed in the report.

20. The overall status of the project was assessed as Green (i.e. "The project is on target to succeed provided that the recommendations are acted upon")

- a. Given that this was the final OGC review before contract close, what process was in place to make sure that the recommendations were acted upon? Who or what organisation was responsible for ensuring the recommendations were implemented?

These were all matters for the client Tie.

- b. The review stated that all of the recommendations in the Gateway 2 report had been fully or substantially achieved. How did the reviewers ascertain that?

This is set out in the report.

21. The project faced a challenging period with a number of matters requiring to be addressed. 65% of detailed designs had been completed. There was a tight programme of planning and technical approvals. The timeliness of project delivery was of concern. The review team believed it would be very challenging to finalise the matters noted in the report by the target date at the level of quality expected and recommended that the preferred bidder was appointed as soon as possible and that the programme during the preferred bidder period was monitored closely at a senior level.

a. What was your awareness at that stage of the difficulties and delays with the design and utilities works? What steps had been taken to address these difficulties? Had these steps been successful? What consideration had been given to how these difficulties might affect the procurement strategy, including obtaining a fixed price for the infrastructure contract? What consideration had been given to how these difficulties might affect the infrastructure works?

Our issues were principally with the quantum of matters not their resolution which was a matter for Tie.

b. Why was the timeliness of project delivery a concern?

The report spells out the concerns over timeliness of delivery.

c. What concerns did you have at this stage about the project? What were the implications for the project? Were your concerns adequately addressed?

The concerns were described in the report. Given the intermittent involvement of the team it was impossible to know if concerns had been adequately addressed until events unfolded.

22. At paragraph 10 on page 7 it was noted that tie's risk management was generally good. It was noted that the discussions of risks had not always been reflected in specific actions in the TPB minutes.

a. What were your views on TIE's risk management?

The statement above re-iterates earlier concerns about taking risk management seriously.

b. It was mentioned that not all the risks had been incorporated into the risk register and should be included. What risks were not at this point included in the risk register? Do you know whether they were subsequently included?

I do not know and cannot remember.

23. At the top of page 4 it was stated that the latest version of the business case was

provided to the review team. It is a document listed in Appendix C of the report.

- a. Did the review team review the Draft Final Business Case?

I cannot remember save that referred to in the report.

- b. Did the review team review the Final Business Case?

As above.

- c. If so, what were your views, in general, on these documents?

They were of the standard of presentation and detail one would expect.

24. **CEC01399632** is a thread of emails between Rebecca Andrew and others in CEC around 19 October 2007 in relation to critical issues arising from the OGC3 review.

Critical issues were:

- Concerns that TIE did not have the team nor a strategy in place to adequately manage the contract, that it was important that the team who will be managing the contract know it inside out and that that was best done by involving them at the negotiation stage. OGC had provided names of people who were appropriately skilled and experienced.
- Concerns about the contract itself that had not been previously highlighted in either TIE's risk register or the risk matrices provided by DLA
- MUDFA works were behind programme which would have an impact on Infracore
- The risk of change after financial close was very high, the critical design of phase 1a would only be considered after financial close

It was noted that while negotiations are still ongoing with the preferred bidder, these issues can be addressed, but only if TIE and DLA accept these criticisms and act quickly.

- a. What were your views on the concerns expressed in these emails?

She was right to echo the concerns raised in the report as recognition that client action was required.

- b. Do you know if anything was done to address those concerns?

No.

- c. Who did OGC recommend to help TIE with contract negotiations and to, thereafter, manage the contract?

I cannot remember.

PROJECT RISK REVIEW

25. TIE00663266 is an email dated 24 September 2007 in which it appears that CEC were to use Turner & Townsend to conduct a separate review of risk. It appears that the OGC review team were asked to review risk instead.

In an email from Rebecca Andrew at CEC to Jim Grieve dated 2 October 2007 (CEC01567757) RA said that TIE has engaged OGC to look at risk. She said she had concerns that the OGC review may be at too high a level to cover the details of the risks. Attached to that email is document setting out proposals for a review (CEC01567758). Those proposals said that the FBCv1 and DFBC would be made available for review.

- d. Do you know if CEC undertook an independent review of risk or were they, in the end, content for the OGC review team to review the risk?

I do not know.

- e. What are your views on Rebecca Andrew's comments that the OGC review may be at too high a level to cover the details of the risks?

She may well have been right. The OGC team conducted short high level reviews identifying areas for action whereas Rebecca with more detailed hands-on knowledge might have thought a longer in depth analysis and action would have been better.

26. On 15 October 2007 the OGC review team produced a further report, 'Project Risk Review' (CEC01496784).

- a. What was the purpose of this review?

It is set out in the report.

- b. What was the genesis of this review? Please explain, for example, who proposed that a review should be undertaken and the reasons for that proposal?

I believe it is described in the report which was addressed to CEC.

- c. Who determined the scope of the Gateway 3 review?

The project risk review was not a Gateway 3 review.

- d. What were the main findings of this review?

These are described in detail in the report.

- e. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the

review?

These are set out in the report.

- f. What material and evidence were the review team provided with for this review? Who provided that information to the review team? Please indicate the main documents and interviews upon which the review was based. Were the OGC team able to verify the information provided?

These are set out in the report, See previous comments about verification.

- g. Did TIE, CEC, Transport Scotland and/or the contractors have any input into the final review report?

No

- h. Who approved this report before it was sent to the Chief Executive of CEC?

The project team.

- i. Who else received a copy of the report? For what purpose did they receive the report?

I do not know.

- j. Did you (or others in the review team) have any concerns about the project at that stage?

Not beyond those set out in the report.

27. a. Who undertook the risk review in October 2007?

This is described in the report

- b. What were the qualifications and experience of each member of the OGC team who carried out that risk review?

In simple terms. Malcolm Hutchinson had successfully delivered a turnaround programme for Dockland Light Railway, I had delivered the contract for Croydon Tramlink and Willie Gillan had successfully delivered the M77 Motorway project in Scotland. Mr Gillan had delivered the Glasgow and Southern Orbital elements of the M77 motorway on behalf of East Renfrewshire and South Lanarkshire Councils and Transport Scotland and had served East Renfrewshire Council as its Chief Engineer.

- c. What experience did each member of the team have of major transport infrastructure projects, including, in particular, trams and light rail?

See above

28. The report noted that a number of risks remained with the public sector. The report further noted *"we endorse the assessment that the level of public sector risk on the capital expenditure programme is currently £49 million at a 90% confidence level. Further our best estimate of the schedule risk is currently 21 days also at a 90% confidence level. This equates to a capital expenditure risk of a sum of £2.2 million in the context of proposed contracts"*. The report concluded *"We believe that the overall headroom of £49m in the capital expenditure is a prudent provision at this stage of the project's development"*

- a. What was your awareness at that stage of the difficulties and delays with the design and utilities works and the extent to which the steps taken to address these difficulties and delays had been successful?

There is nothing to add to that stated in the report.

- b. How confident were you that the outstanding design and utilities works would be completed in accordance with the respective programmes in existence at that time?

At the time there was no reason to suppose they wouldn't.

- c. What was your understanding of the likely effect on the Infraco works, and price, if the design and utilities works were not completed in accordance with the respective programmes in existence at that time?

I cannot remember anything beyond those matters set out in the report.

- d. What was the basis for the OGC team's assessment that the level of public sector risk was £49m at a 90% confidence level and was a 'prudent' provision at that stage of the project's development?

This is set out in the report

- e. To what extent was the OGC team able to independently come to its own view on that matter and to what extent was the OGC team reliant on the information provided by others?

Our views were highly dependent on the information provided by others.

- f. What were the main assumptions on which the OGC's conclusion on the risk allowance was based?

These are set out in the report.

GENERAL QUESTIONS RE FINANCIAL CLOSE

30. Infraco contract close took place on 14 and 15 May 2008, as part of which a number of contracts were signed, including the Infraco contract (CEC00036952) and novation of

the S&S contract to BSC. Schedule 4 of the Infraco contract (USB00000032) contained a number of Pricing Assumptions.

- a. Did you know about Schedule 4? What did you understand to be the purpose and effect of the Pricing Assumptions? To what extent was Schedule 4, and the Pricing Assumptions, consistent or inconsistent with the assumptions used by the OGC team in October 2007 in arriving at their conclusion that the risk allowance was prudent?

I cannot remember suffice to say that in the time available we would not have been able to assess the full implications of schedule 4. The documentation I have seen confirms we saw it.

- b. If the OGC team had seen Schedule 4 prior to financial close what questions would the team have asked? On what matters would they have wished to be satisfied on?

We were not involved in financial close. It was not a matter for us to be satisfied. It was for CEC and its governance of the project to make those judgements.

- c. If the OGC team had seen Schedule 4 prior to financial close might that have affected the OGC report on risk and the conclusion reached and, if so, in what way?

The report in October identified areas that might have affected the final outcome of the negotiations and hence costs. I do not know if schedule 4 changed in the intervening 7 months but I cannot give a considered view given the elapsed time between the risk review and financial close.

PEER REVIEWS

JULY 2008

31. In July 2008 a Peer Review, led by you, was carried out on the tram project. The report of that review is dated 2 July 2008 (CEC01327777).

- a. Did you (or the OGC) have any involvement in the tram project between the Risk Review in October 2007 and the Peer Review in July 2008?

Not that I can remember.

- b. Do you consider that the OGC ought to have conducted a further review of the project, including the risks, prior to financial close in May 2008?

That was entirely a matter for Tie, its project board and CEC.

- c. This appears to be the first review of the peer review process. Is that correct?

Yes.

- d. What was the purpose of this review?

The purpose is set out in the report.

- e. What was the genesis of this review? Please explain, for example, who proposed that a review should be undertaken and the reasons for that proposal? Who instructed a review to take place?

This is described in the report

- f. Who determined the scope of this review?

The project director.

- g. What were the main findings of this review? What were your main concerns?

These are set out in the report

- h. Who undertook this review and drafted the report?

This is set out in the report

- i. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the review?

This is set out in the report

- j. What material and evidence were the review team provided with for this review? Who provided that information to the review team? Can you indicate the main documents and interviews upon which the review was based?

This is set out in the report.

- k. Did TIE, CEC, Transport Scotland and/or the contractors have any input into the final review report?

No

- l. Who within the review team approved this report?

All of us

- m. Who received a copy of the report? For what purpose did they receive the report?

The project director as commissioner of the report.

- n. Did you (or others in the review team) have any concerns about the project at that stage? If so, can you explain what those concerns were and whether they were addressed?

Any concerns are set out in the report. It was for Tie to decide whether to address the concerns or not.

32. The report noted in relation to the MUDFA works that *"The fact that the completion date remains uncertain (works 60% complete) will have an increasing impact on the Infraco works"*.
- a. Were you surprised that only 60% of the MUDFA works were complete and the completion date was uncertain?

Yes

33. In relation to design, it was noted that design was not complete at the point of novation to BBS and that *"It is unclear to the review team where risk lies for design development. BBS and tie in interview considered risk lay with the other party"*.
- a. Where did the review team think the risk lay?

It should have been novated to BBS in the final Infraco contract.

34. It was also noted *"We consider that the bespoke nature of the contract introduces additional risks arising from the inevitable areas of uncertainty associated with the interpretation of this unique form of contract"*.
- a. Can you explain further what is meant by this statement?

This was a form of contracting arrangement that had been developed specifically for Tram Projects around this time. We were aware of a similar structure for an unsuccessful proposal for a light rail scheme in, I believe, Liverpool. It was designed to address the perceived disadvantages of Special Purpose Vehicles (SPV) set up just for the project being an organisation dominated by its contractors. It gave the client greater initial control but imported delivery and quality risk as evidenced by the delay in the two critical areas of design and utility diversions. The other obvious disadvantage is that the Contractor has no real partnering or selection relationship with the designer so when there are tensions, as there inevitably will be, the Contractor can abrogate responsibility by saying to the client you chose the design and the designer and conveniently forget the due diligence they should have done.

- b. More generally, what were your impressions about the state of the project at that stage?

I think we were becoming more concerned about the quality of information

that was being used to drive decision making without being able to refer to concrete examples.

- c. How did the state of the project at that stage (including the progress of the individual contracts and works) compare with what you had anticipated would be the state of the project at that stage at the time the OGC team carried out their last review in October 2007?

I think this is set out in the report.

NOVEMBER 2008

35. There was discussion of a Peer Review taking place in November 2008 but it does not seem to have taken place. People were asked to hold space in their diaries but we cannot find any evidence of it taking place.
 - a. Did a peer review take place in November 2008? Do you consider that it ought to have? Is there any guidance, or a practice, on how often peer reviews should take place?

I do not recall a Peer Review taking place. I do not consider it appropriate to consider Peer Reviews as some quasi audit. Their objective is to give independent comments based on the reviewers' experience and best practice. It is very much a tool of strategic management and therefore it is incumbent on the client management and its overall governance arrangements to determine the timing and content of such reviews.

2009

36. **CEC00989336** is an email sent by you to David Mackay on 2 March 2009 which outlines your thoughts on an upcoming review. You thought the upcoming review should look at the causes of the current contractual dispute. Further emails were sent by you requesting documents and information (**CEC00862112** and **CEC00944716**). The terms of reference can be found in an email sent by Stewart McGarrity to you dated 6 March 2009 (**CEC01009882**). This appears to be an attempt to determine the circumstances of the dispute.

On 15 March 2009 you provided Stewart McGarrity with a draft report of an independent review of the issues surrounding Change Order 21 and its referral to the dispute resolution process (DRP) (**CEC00864983** and **CEC00864984**) (CEC01002735, attached to CEC01002734 appears to be the final version with TIE's comments). This outlines the issues surrounding the Princes Street dispute that arose in February 2009.

- a. What was the purpose of this review?

This is set out in the documents.

- b. What was the genesis of this review? Please explain, for example, who proposed that a review should be undertaken and the reasons for that proposal?

Who instructed a review to take place?

This was a matter for Tie to determine whether it thought a review was necessary.

c. Who determined the scope of this review?

Tie

d. What were the main findings of this review? What were your main concerns?

These are set out clearly in the report.

e. Who undertook this review and drafted the report?

This is set out in the report

f. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the review? Who provided that information to the review team? Can you indicate the main documents and interviews upon which the review was based.

This is set out in the report.

g. Did TIE, CEC, Transport Scotland and/or the contractors have any input into the final review report?

No

h. Who within the review team approved this report?

Both of us.

i. Who received a copy of the report? For what purpose did they receive the report?

Tie.

j. What were your (or others in the review team) concerns about the project at that stage?

This was very specific piece of work although it did raise concerns about the now adversarial nature of the relationship between BBS and Tie, the prospect and implications of which had been referred to in the earlier report.

38. It appears that TIE did not react well to this draft of the report. TIE were worried about how it might affect relations with CEC (CEC00982191).

- a. Can you explain why TIE reacted in this way?

I don't know

- b. Why were TIE worried that the report might affect relations with CEC?

Only Tie knows the answer to this.

- c. Are you aware whether the report was provided to CEC?

No

39. It appears that another review was due in May 2009 but it was postponed. In an email from you to Julie Smith at TIE dated 17 April 2009 you said "the peer review team has to be mindful of its responsibilities to the wider group of stakeholders" (CEC00971612).

- a. What did you mean by that comment?

I cannot remember but it proved prescient.

- b. What was the review team's responsibilities and who were the wider group of stakeholders?

See above.

40. The Terms of Reference (TORs) for the June Peer Review are at CEC00964156.

- a. Who determined the TORs for this review? What input did you, or others within the PRT, have into the TORs? What input did TIE have into the TORs?

These were Tie's TORs.

- b. From the TORs it appears that evidence was gathered and the report was written over a two day period. Can you confirm that was the case? Was this the case with all Peer Reviews undertaken on the project?

In fact TOR's allowed one day for evidence gathering and ½ day report writing and presentation. The TORs for the other reviews would show the time made available.

- c. Did a two day period provide sufficient time to undertake a meaningful review? What were the review team able to achieve within this timescale?

The report delivered after the review seems to me to have delivered meaningful conclusions.

41. The final version of the report from the June Peer Review is dated 29 June 2009 (CEC01012780).

- a. What was the purpose of this review?

This is set out in the report.

- b. What was the genesis of this review? Please explain, for example, who proposed that a review should be undertaken and the reasons for that proposal? Who instructed a review to take place?

The review was commissioned by Tie. It would be for Tie to explain why it chose to commission the work at that time and with those terms of reference.

- c. Who determined the scope of this review?

Tie

- d. Who undertook this review and drafted the report?

This is set out in the report

- e. How was this review undertaken? What were the main findings? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the review? Who provided that information to the review team? Are you able to indicate the main documents and interviews upon which the review was based?

The report sets out the methodology, the findings and the evidence including the providers of information.

- f. Did TIE, CEC, Transport Scotland and/or contractors have any input into the final review report?

No

- g. Who within the review team approved this report?

The project team.

- h. Who received a copy of the report? For what purpose did they receive the report?

Tie.it received the report as the client.

42. a. The review team produced six conclusions on page 3 of the report. Do you still agree with each of those conclusions? Can you explain the basis for each of those conclusions?

Eight years later and having read the report, I would comment that based on the information provided to us there is no reason not to agree with the conclusions. The recommendations that follow give strong evidence to support that belief.

- b. What concerns did you (or others in the review team) have about the project at that stage?

These are clearly set out in the recommendations.

DECEMBER 2009

- 43. A further Peer Review seems to have been produced in December 2009. The report is dated 22 December and appears in a slightly different format to previous peer reviews (CEC00584282, attached to CEC00584281).

- a. What was the purpose and outcome of this review?

This is set out in the report.

- b. Why does it appear in a different format to previous peer reviews? How does this peer review differ from previous reviews?

The report reflects the critical stage the project had reached in cost and delivery and was delivered at Tie's request in a short timescale. The methodology was consistent with other reviews.

- c. What was the genesis of this review? Please explain, for example, who proposed that a review should be undertaken and the reasons for that proposal? Who instructed a review to take place?

This review was conducted at Tie's request.

- d. Who determined the scope of this review?

Tie

- e. What were the main findings of this review?

These are set out in the report

- f. Who undertook this review and drafted the report?

This is set out in the report

- g. How was this review undertaken? What methodology was used to reach the findings contained in the review? What evidence formed the basis for the review?

This is set out in the report.

- h. What material and evidence were the review team provided with for this review? Who provided that information to the review team? What were the main documents and interviews upon which the review was based?

This is set out in the report.

- i. Did TIE, CEC, Transport Scotland and/or contractors have any input into the final review report?

No

- j. Who within the review team approved this report?

The project team

- k. Who received a copy of the report? For what purpose did they receive the report?

Tie

- l. Did you (or others in the review team) have any concerns about the project at that stage?

These are set out in the report.

JANUARY 2010

44. On 5 January 2010 Malcolm Hutchinson sent a letter to Richard Jeffrey outlining his concerns regarding the review process (CEC00585164). Mr Hutchinson said that the peer review process was "management directed consultancy" that conflicted with the principle of an independent review process.

- a. Did you agree with these concerns at that stage? Did these concerns apply to all the peer reviews undertaken since contract close in May 2008?

Yes. You will remember I had alluded to something similar in my email to Julie Smith a year before. I do not consider it applied to all the peer reviews after May 2008 but as the TORs became more specific and the progress of the project became more problematic it was likely that Tie would turn to people with relevant experience and unfortunately more continuity with the project than some of Tie management. I think the last review very much tipped the balance of the issue and I had discussed the matter with Malcolm so was not surprised when he as Project Leader wrote the letter he did.

- b. What was the "rescue effort" referred to in this letter?

The letter makes it clear that the project needs a resource to arrest the evident problems identified by the December review.

45. **CEC00588414** is an email from you to Susan Clark dated 21 January 2010. In that email you record his concerns about being able to verify the information provided by TIE.

a. What were your concerns at this stage? Were those concerns addressed?

I think the concerns are set out in the email. I have no way of knowing whether the concerns were addressed.

b. You said *"I put this to you as an example just to help clarify the methodology. If we believe that evidence is wrong or is insufficient or a conclusion has been drawn that is questionable how will that be presented by Tie management to the TPB, since, as you know, previous reports have been caveated by Tie management?"* Can you elaborate on what you meant by this? Were you aware that previous reports had been 'caveated' by TIE management? Did you consider that to be appropriate?

I think but cannot be certain that we became aware of the caveating in conversation around the December review. It would have been appropriate for Tie to comment on the report in its entirety if the report was submitted as a whole to a governing authority for the project. The caveating of the DRP report shown to me in the documents is the first time I was aware that it had happened but given the circumstances of short time to review evidence it would have been proper to correct any obvious misunderstandings of fact or to offer an alternative approach. As I did not see the caveats I cannot give a view on whether they were appropriate.

46. **CEC00570512** is a paper from the review team to Susan Clark dated 25 January 2010 (it is attached to email **CEC00570511**). It sets out proposals for future PRT involvement in the project.

a. What was the outcome of these proposals?

This clearly moves away from Peer reviews to consultancy and the issues thereby arising seem clear from my original email. It triggered the requests for the work in March 2010.

b. It is noted that you do not appear to be involved in the drafting of this paper. What was your involvement in the tram project at this stage? Can you comment on email **CEC00625468**? I wrote both of the papers referred to above as is clear from the email and the signature on the second paper.

It is simply to advise Susan Clark to establish for herself whether Malcolm was to be further involved. I think there may be some confusion over

involvement with Malcolm and I sharing common initials.

MARCH 2010

47. **CEC00574745** is an email from Susan Clark to others in TIE dated 2 March 2010 discussing review team involvement. A note of the meeting with the peer review group on 4 March is **CEC00541592**.

- a. Were you still involved with reviewing the tram project at this stage? If not, when was your last involvement? Why did your involvement stop?

The report is delivered as a consequence of a meeting with the Tie team with me and Andy Sloan.

If you were still involved with reviewing the trams project at this time:

Yes but in an advisory role. The use of the term peer review team is Tie's shorthand for the people not the process by this stage.

- b. What was the purpose of the peer review team involvement at this stage?

Simply as advisers to Tie on key issues of the project.

- c. What is Susan Clark referring to in this email? What role did she envisage for the peer review team? It seems to suggest that TIE were making a decision on recommendations to the TPB in advance of any recommendations from the peer review team. Do you consider that to have been appropriate?

At this stage the peer review process had been either terminated or suspended. I cannot remember which. We were reviewing a document that had already been drafted. I had not seen Susan's email before it was sent to me by the Inquiry. We had asked for a document in advance so that discussions would be informed and more effective. You can see from our comments on the document that we were only able to give a very immediate view. It is an unusual approach to have sought a decision before asking for advice on its basis. I think from memory that we thought the report we had seen lead the reader to the opposite conclusion to the recommendation in the report that we were asked to comment on. We did not see the final version that was submitted nor the file note.

- d. What was the peer review team involvement in involvement in Project Pitchfork? What was Project Pitchfork?

I cannot remember any involvement in Project Pitchfork whatever it was.

- e. Was a peer review report ever produced from their March involvement? If so, where can it be found?

No. we were simply asked to comment on the report. I do not know whether our involvement was reported to whoever saw the Tie note and we were not asked to confirm whether we agreed with it or not.

- f. Was March 2010 the end of the peer review team involvement in the project (and, if so, why)? Were they involved in any other capacity in the project after that date?

To the best of my knowledge that was the end of our involvement and I certainly had no other input to the project thereafter. Only Tie can determine why they did not wish to involve the team again either as individual advisers or independent reviewers through the peer review process.

48. The note of the meeting (CEC00541592) recorded a number of key messages:

- a. Do you have any views on whether the advice, apparently given by the peer review team (as set out in that note), was consistent with the peer review team's role of independent reviewers rather than "management directed consultancy"?

As I have said before the work in March was clearly advice and not independent review.

49. a. Did the role of the Peer Review team change over the course of the project?

Not until 2010.

- b. Did what they were being asked to do change over time?

The principle behind the reviews remained constant but reading the documents together for the first time in eight years one can see some subtle changes in emphasis. However, once Gateway 3 was completed the peer review process was always determined by Tie.

- c. What was their role in the latter stages?

See above.

- d. Did the role of review team change to something that you agreed with?

The change in 2010 was to ensure that there was clear water between the delivery of independent advice on strategic matters and giving practical assistance to a project that was clearly struggling. We wanted to protect the integrity of the peer review and to help the project hence the clearly documented change in role.

- e. Why was the Peer Review process stopped around March 2010?

That was entirely a matter for Tie and its governance.

PROJECT MANAGEMENT AND GOVERNANCE

51. a. Which body or organisation do you consider was ultimately responsible for ensuring that the contracts and works were properly managed, including managing the interface between the different contracts and works?

Tie

- b. Which body or organisation do you consider was ultimately responsible for ensuring that the tram project was delivered on time and within budget?

Tram project Board reporting to CEC. The ultimate client was CEC.

52. In relation to TIE:

- a. Did you have any concerns at any stage in relation to TIE's management of the tram project or the performance of any of TIE's senior personnel or Board members?

These were largely set out in the reports. One of our reports referred to the Wiesbaden agreement. This had a material effect on the project yet we were not made aware of it until after it had been referred to in passing. One might have thought that the senior management at the time might have considered it appropriate to ensure we had seen it.

- b. Did you have any concerns at any stage in relation to TIE's reporting to the OGC or Peer Review teams?

I think these were set out later in reports. We did slowly reach the conclusion that bad news did not necessarily travel upwards in Tie and beyond but given our reliance on Tie's information and its own audit and governance procedures to ensure the accuracy of such information we could not refer to hard and fast examples. At the time I felt that the management we interviewed were giving open and honest answers and believed in the information they were providing.

53. In relation to CEC:

- a. What was your understanding of CEC's roles and responsibilities in the project?

CEC was the owner of the project and responsible specifically for traffic management matters. It was to oversee the governance of the project as it had the key interest in the project's success.

54. In relation to the Tram Project Board (TPB):

- a. What was your understanding of the role and responsibilities of the TPB in the project?
- b. Did you have any concerns at any stage in relation to the performance of the

TPB or any members of the TPB?

Our exposure to TPB was extremely limited beyond meetings with some of its members. To the best of my knowledge we never attended or presented to TPB.

55. In relation to TEL:

- a. What was your understanding of the role and responsibilities of TEL in the tram project?

TEL were responsible for the operating interface for the project and provided working knowledge of operating tram systems

- b. Did you have any concerns at any stage in relation to the performance of TEL or any members of TEL?

I cannot remember but I don't think so.

56. In relation to the Scottish Government (SG) and Transport Scotland (TS):

- a. What was your understanding of the role and responsibilities of SG and TS in the tram project?

They had provided £500m funding and were responsible to ensure the funds were spent in accordance with the proposal they had approved and that the project did deliver its contribution to SG's transport strategy.

- b. Did you have any concerns at any stage in relation to the performance of SG/TS or any ministers or senior officials?

No.

- c. What were your views on the decision taken around July 2007 that TS should play a lesser role in the governance of the project?

I think it was very sensible at the time. Complex projects require the simplest overall governance structure and reporting to both CEC and TS with inevitably different emphasis in their reporting requirements would have been unnecessarily burdensome and introduced potential decision delay and risk. The relationship between CEC and TS could be managed perfectly satisfactorily off line.

- d. What do you understand to be the benefits of greater TS involvement in the governance of the project?

See above. TS may have been able to introduce other expertise but short of becoming directly involved with the contractor once things started going wrong it is hard to see where the benefits would have outweighed the considerable dis-benefit of undermining both the management team and any agreements they had reached preceding its involvement. My understanding of the agreement between CEC and TS was that SG's cost risk was capped so its involvement would have imported both financial and

reputational risk.

FINAL THOUGHTS

57. By way of final thoughts:

- a. How did your experience of the Edinburgh Trams Project compare with other projects you have worked on (both previously and subsequently)?

It was the first major project I have ever been involved in to have gone so badly.

- b. Do you have any views on what were the main reasons for the failure to deliver the project in the time, within the budget and to the extent projected?

These are personal views:

1. The contract structure was over reliant on the skills of a central project team and project manager and interpretation of a suite of contracts..
2. The contract structure needed a firm baseline of design and infrastructure works which were not there.
3. There were too many changes in senior personnel which negated the value of a repository of knowledge required to make the contract structure chosen to be effective.
4. The quality and timeliness of information for effective decision making proved to be deficient.
5. There was a major failure to get a conformity of understanding on the Infraco contract between the parties.
6. Because of point 5 above, relationships between client and contractor deteriorated to unsustainable levels.
7. The contractor was ill prepared for the task, and had probably underestimated the costs
8. Because there was never a realistic programme, decisions appear to have been made to reach an impossible deadline without alerting that it was unlikely to be achieved from the outset. (In my experience starting later doesn't get a job done quicker)
9. In the light of the above factors there was disproportionate reliance on the legal advisers who will naturally default to defend their documentation.
10. There may well have been a fear of failure to meet the target date that set in early on and had a disproportionate effect of information flows and decision making.

- c. Do you have any comments, with the benefit of hindsight, on how these failures might have been avoided?

1. Making the Infraco responsible for the design at the outset would have simplified matters immensely.
2. Better understanding between client and contractor on interpretation of key issues and a less adversarial approach might have helped.
3. Better due diligence by the client during procurement on the Contractor's ability to deliver the project and hit the ground running. (It became apparent that key sub-contractors had not been appointed.)
4. Far tighter control of the Utilities Diversion works. (In Croydon these were

delivered on time and on budget with an exemplary safety record so it is achievable).

5. Better oversight of Tie with greater challenge from above.

6. Expecting a Claims culture from its contractor.

- d. Do you have any views on why, despite a number of OGC and Peer Reviews, the project encountered difficulties and ended up costing so much more than had been budgeted for?

The question implies that the reviews played a contributory role to the difficulties of the project. From the earlier answers I would hope that the Inquiry would understand that the Gateway reviews by their very nature are to ensure best practice and as a tool for strategic management to oversee its delivery of a project. I can only re-iterate that the role of OGC and Peer reviews was not as a quasi-auditor. Interestingly the documents I have seen do not include the outcomes of any audits on information undertaken on behalf of any of the governance bodies in the project. The reviews identified at each stage areas where management action was required however because of the variable frequency of the reviews we were looking at situations often long after we had delivered our previous report.

- e. Have project reviews changed in any way since the reviews were carried out on the tram project? if so, what, if any, improvements in the review process have been made? Do you consider that any further improvements of the review process could be made?

I do not know as my involvement with such projects ended in 2010. My only major suggestion is that in situations akin to ETP such reviews are considered in detail by the ultimate client, in this case CEC directly with the project leader. Reviews will only be useful if they are used effectively which is entirely a management issue. I think when projects have gone wrong there is a natural desire to introduce further structures into the management process. In my experience small focussed teams of competent experts with clearly defined authority and responsibility will deliver the best results. There is a risk that the senior management of a project will be beset with reporting and unwittingly become better at reporting issues than managing them. An effective check and challenge regime within the client organisation (often driven by either CEO or FD) is more likely to deliver better results by dealing with issues as they occur.


- f. Are there any final comments you would like to make that fall within the Inquiry's Terms of Reference and which have not already been covered in your answers to the above questions?

I think the role of the contractor in this case needs serious consideration. Was its leadership up to the task in terms of experience?

I was always of the view that exchange rate fluctuations with a subsidiary pricing in Sterling and declaring its profits to Group in Euro may have been a contributory factor to its behaviour. Whilst Tie made a number of mistakes in the process, many of them should have been mitigated by a Contractor properly participating in the partnering relationship necessary for the project's success. I find it ironic that BBS were allegedly selected because

of their "partnering" approach. Unfortunately when Partnering breaks down a number of people in construction on both client and contractor sides revert to what they know best which is claims and litigation.

I confirm that the facts to which I attest in the answers contained within this document, consisting of this and the preceding 34 pages are within my direct knowledge and are true. Where they are based on information provided to me by others, I confirm that they are true to the best of my knowledge, information and belief.

WITNESS 

DATE 25th May 2017

