



# ETN- Project Report

<Month> <Year>

SIEMENS

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## 1) Programme and progress

### (i) General comments

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#### ▪ There is still a large uncertainty about completion date:

- Unpredictable constraints onstreet (MUDFA, ground conditions, Traffic Management...)
- Dysfunctional Change Management, continues hindering progress
- Idem, BSC (BB) Claim Strategy – i.e., is this project ever going to take off?
- Potential impact of unachieved Design Freeze on actual progress
- Are scheduled rates of progress realistic? (insufficient actual progress to know it)

#### ▪ Several programmes (with different purposes/contexts) are being handled simultaneously:

- Rev 1 contractual baseline (completion date 6 sep 2011, includes EoT1 time impact)
- Rev 2 claim schedule, mitigated (completion date 2 oct 2012; incorporates expected impact of changes, but only to data date end March 2009)
- MUDFA v8 impacted Programme, mitigated (completion date 2 mar 2012; incorporates MUDFA impact only, at data date end March 2009)
- Monthly progress updates, latest update Oct 2009 (NON mitigated; completion date 19 dec 2012; does NOT incorporate unagreed changes and/or notices of delay, compensation events etc.)
- BAM Subcontract Completion Schedule "more aggressive than" equivalent activities in tie-related overall Programmes

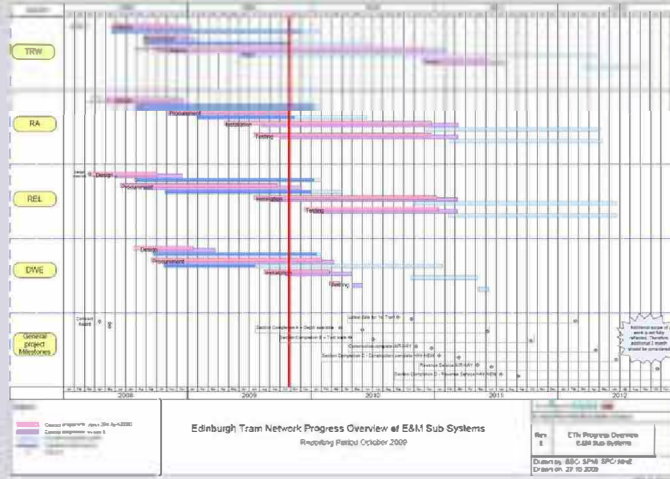
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1) Programme and progress  
(ii) Summary, per Siemens Lots

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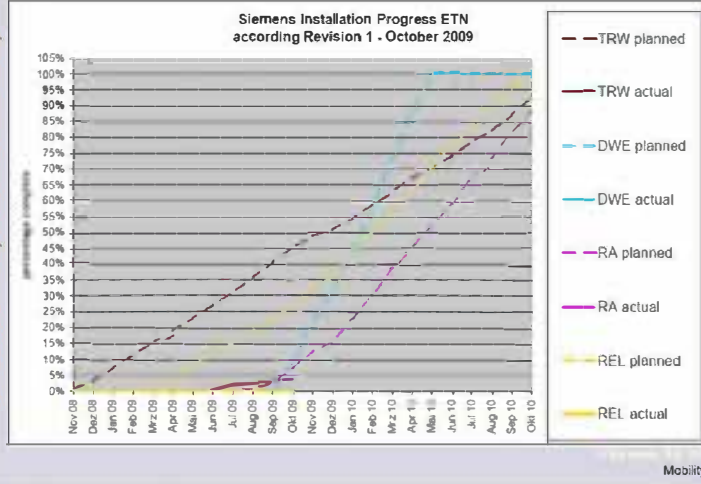
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1) Programme and progress  
 (iii) Planned vs actual (cumulated), per Siemens Lots



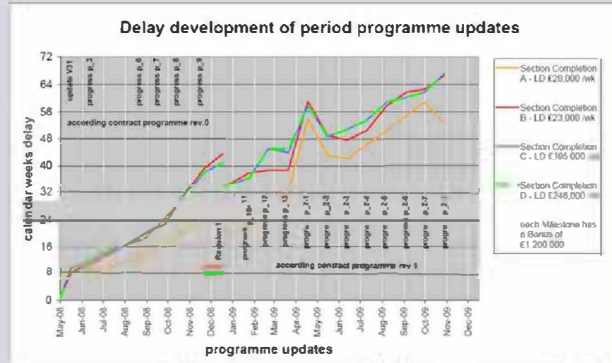
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1) Programme and progress  
 (iv) Sectional Completion Dates, risk of LD's



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	contract work price	Revision 1 19.12.2008	contract rev 0.8 06.03.2009	period 21.12.4 28.10.2009	contract completion date
Section Completion A	28.03.2010	01.06.2010	08.07.2010	08.08.2010	0
Section Completion B	23.04.2010	01.07.2010	12.09.2011	03.10.2011	0
Section Completion C	17.01.2011	10.03.2011	11.11.2011	03.12.2011	0
Section Completion D	16.07.2011	06.09.2011	11.11.2011	03.12.2011	163,517,143

Note: there is a max cap of all LDs to 10% of Construction Works Price (238 M €); save as extra LDs that could come from Trm; performance issues. Also, LDs for Section Completion D only apply for new delays caused after conclusion of Section C.

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1) Programme and progress  
(v) Possible risk mitigation strategies

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- **Earlier start of technical Lots**, whenever possible (i.e. without incommensurate cost nor risk)
- **Acceleration scenarios** (still unexplored, too early)
- **(?) Negotiate with tie staged opening of the line**, incl. renegotiation of Sectional Completion Milestones and their proportional weight of LDs
- **(?) Selective takeover of BB scope** (only for low risk items enabling maximum Siemens progress) as a possible "lower damage scenario" than partial demobilization
- **(?)** If project really "flatlines" beyond reasonable recovery: **partial demobilization** – but without incurring risk of breach.

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(?) – negotiation challenge, far from trivial !

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1) Programme and progress  
(vi) Design status

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# of Siemens submittal packages		Level			Grand Total
Sub-system	Current Status	1	05	C	
(systemwide)	00 Documents rejected, Siemens to issue updated revision 00 Not yet submitted 00 Not yet submitted, not yet due 01 Recently submitted, awaiting for review 03 not responded, review comments are still open 07 Documents Accepted	2	1		3
<b>- Total</b>		2	1		3
DWE	04 Siemens led for comment to subupplier 05 Siemens responded to his review comments 07 Documents Accepted	1			1
<b>DWE Total</b>		1			1
RA	03 not responded, review comments are still open 05 Siemens responded to his review comments 07 Documents Accepted	1			1
<b>RA Total</b>		1			1
REL	01 Documents rejected, Siemens to issue updated revision 01 Recently submitted, awaiting for review 03 not responded, review comments are still open 07 Documents Accepted	1	12		13
<b>REL Total</b>		1	12		13
TRW	00 Documents rejected, Siemens to issue updated revision 00 Not yet submitted 01 Recently submitted, awaiting for review 03 not responded, review comments are still open 04 Siemens led for comment to subupplier 07 Documents Accepted	27			27
<b>TRW Total</b>		27			27
<b>Grand Total</b>		22	10	15	47

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**Programme and progress  
(vii) Design status SDS Design**



Status SDS design (graph according to new distribution and review process)

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Programme and progress  
(viii) TQ's



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Issued to	raised by	reason Data										
		Information			Response							
		Closed	New	Open	Closed	New	Open					
		TQ's	TQ's Overdue	TQ's Overdue	TQ's	TQ's Overdue	TQ's Overdue					
BAM-Rail NV	Siemens	5		13	-281							
<b>BAM-Rail NV Total</b>		<b>5</b>		<b>13</b>	<b>-281</b>							
Biffinger Berger	Siemens	12	2	-231	40	-244						
<b>Biffinger Berger Total</b>		<b>12</b>	<b>2</b>	<b>-231</b>	<b>40</b>	<b>-244</b>						
CAF	Siemens	1		6	-172							
<b>CAF Total</b>		<b>1</b>		<b>6</b>	<b>-172</b>							
PB	Siemens	20	4	-359	88	-348	14	3	-301	64	-295	
<b>PB Total</b>		<b>20</b>	<b>4</b>	<b>-359</b>	<b>88</b>	<b>-348</b>	<b>14</b>	<b>3</b>	<b>-301</b>	<b>64</b>	<b>-295</b>	
Siemens	Biffinger Berger	15	4	-161	76	-98	24	1	-362	10	-138	
	Siemens	20	4	-254	91	-287				1	-472	
<b>Siemens Total</b>		<b>171</b>	<b>8</b>	<b>-213</b>	<b>167</b>	<b>-219</b>	<b>24</b>	<b>1</b>	<b>-362</b>	<b>11</b>	<b>-180</b>	
<b>Grand Total</b>			<b>209</b>	<b>14</b>	<b>-261</b>	<b>314</b>	<b>-260</b>	<b>38</b>	<b>4</b>	<b>-312</b>	<b>75</b>	<b>-280</b>

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Programme and progress  
(ix) RFI's



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Issued to	raised by	reason				Response		
		Information		Open		Closed		Open
		Cancelled	Closed	RFI's	RFI's	RFI's	RFI's	Overdue
B&B-Rail NV	Siemens							
B&B-Rail NV Total				1				
Bilfinger Berger	Bilfinger Berger			177	0	50		
	PB			2				
	Siemens			16	13	-195		
Bilfinger Berger Total				195	13	-145		
PB	Bilfinger Berger			0	0	-48		
	PB			0				
	Siemens			1				
PB Total				1	0	-48		
Siemens	Bilfinger Berger			1	0	-51		
	PB			1				
	Siemens			33	14	-184		
Siemens Total				35	14	-135		
Tie Ltd	Bilfinger Berger			172	0	-47	106	-35
	PB			4	0			
	Siemens			23	0	-329	17	-141
Tie Ltd Total				199	0	-376	123	-176
Grand Total				449	52	-163	124	-82

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1) Programme and progress  
(x) Design General Comments



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Submissions

TQ's

- Most TQ's are in fact closed, but not closed in BIW by owner. No proper statistics possible

RFI's

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Programme and progress  
(xi) Requirements



Status overview

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Programme and progress  
(xi) Requirements



General comments

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1) Programme and progress  
(xii) Status of procurement



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- TRW**
  - **Delivered:** most rails, Rheda material, initial stock of rail sealant
  - **In pre-production:** first batches of points
  - **On hold:** later batches of points (insufficient design); ballast (mitigation, lack of approval); anti-vib mats (change still in negot.)
- DWE**
  - **In production:** largest machines (long lead items): underfloor wheel lathe, cranes, lifting jacks, washing plant
  - **On hold / mitigation:** smaller machines and tools
- SIG**
  - **Delivered:** IMU boxes, track loop cable, TPDS
  - **In production:** point machines, other trackside components
  - **On hold / mitigation:** interlockings / control cubicles
- REL**
  - **Delivered:** poles & weights for Princes St; building fixing anchors
  - **Ready to ship:** TPS components, next batch of poles
  - **On hold / mitigation:** OLE components, cables, steel casting material, other batches of poles

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1) Programme and progress  
(xiii) Status of procurement (cont'd)



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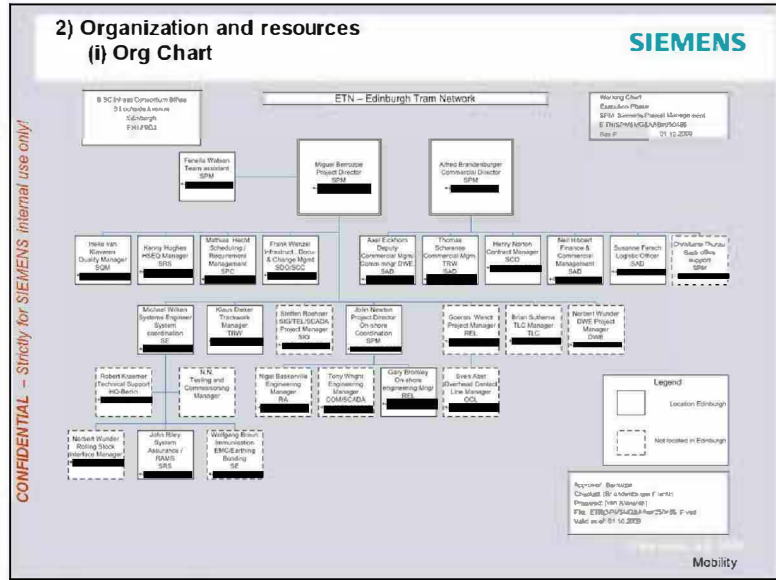
**COM** ▪ **Delivered:** all radio equipment (at Ashby, and/or, CAF)  
▪ **In production:** UPS, 8 of 23 tramstop cabinets, CORE HV supplies  
▪ **On hold / mitigation:** remaining tramstop cabinets

**SCA** ▪ **In production:** RailCom Manager (in Ashby)  
▪ **On hold / mitigation:** CCTV, PID, PA (suppliers and price frozen, but production deferred)

**TLC** ▪ **In production:** Stock for first 4 junctions, under special C.O.  
▪ **On hold / mitigation:** rest (tie Change still under negotiation)

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2) Organization and resources  
(ii) Resource planning, long term



### Alfred / Axel add Excel Gantt chart

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2) Organization and resources  
(iii) Resource needs (next 3 months)



SHORT TERM

- Immediate support in Systems Engineering (discuss options)
- Immediate support in TRW Design Management (external)
- Increased support in Contract Management (discuss situation)

MEDIUM TERM:

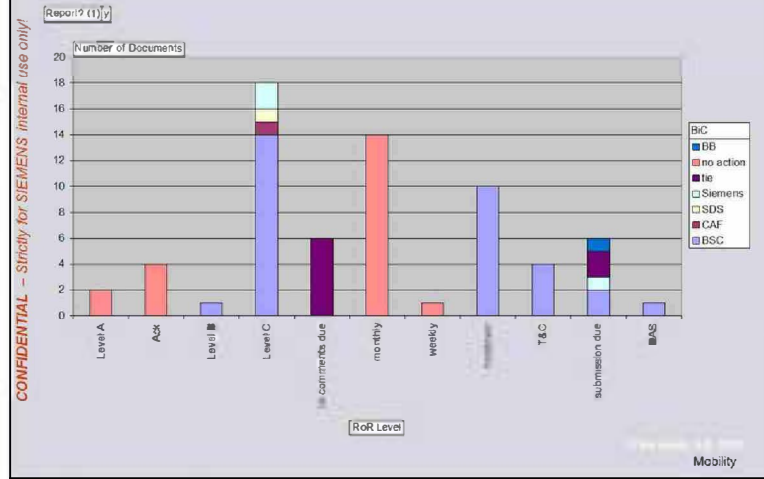
- Increased support in HSE, UK experienced
- Site Manager, UK experienced
- T&C Manager, UK experienced
- Extra field supervision TRW
- Full mobilization TLC
- Full mobilization (field resources) REL, RA, COM, SCA

RECRUITMENT PROCESSES

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**(3) Quality, Health, Safety and Environment  
(i) Deliverables (Plans/and procedures)**



Quality, Health, Safety and Environment  
(ii) Quality NCR's



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NCR Type: QUA

NCR's

Issued to	Issued by	Open	Close	Reopen	Cancel	Final	Other
BAM-Rail IV	BB Civil Siemens						
<b>BAM-Rail IV Total</b>							
BB Civil	BB Civil Siemens	22					
<b>BB Civil Total</b>							
Mackenzie Ltd	BB Civil Siemens						
<b>Mackenzie Ltd Total</b>							
PB	BB Civil Siemens						
<b>PB Total</b>							
Siemens	BB Civil Siemens	6	7				
<b>Siemens Total</b>							
<b>Grand Total</b>							

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**Quality, Health, Safety and Environment**  
**(iii) Quality General comments**

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- Overdue submissions: system integration plan (first issue), Siemens Quality Plan (annual update & tie comments), Testing and Commissioning Plan
- Audit findings (part of quality NCR's).  
Overdue: system integration plan (tie), Closed 2 (tie) , New 1 (TK)
- Handover packaging process being 'tested' for Princes Street. Lessons learned session will be organized before new revision issued.
- Whole ITP-process must be set up for Siemens and lots. For now ad-hoc solutions are used.
- Distribution SDS drawings for review now in BIW. Tracking process being created
- PM300 Planned for 15 December 2009
- PM200 open actions – 6(?)
- 11 December 2009 : CMMI interviews in Edinburgh. General presentations given on 16 November

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Quality, Health, Safety and Environment  
(iv) Safety NCR's



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NCR-Type		reason	Status	message
		Information	Response	
		Open	Open	
issued to	raised by	Incomplete	on time	Incomplete
BAM-Rail NV	Siemens	1		6
BAM-Rail NV Total				
Siemens				
Siemens Total				
Grand Total				

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**Quality, Health, Safety and Environment**  
**(v) HSE General comments**



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- Occupational Health
- Site interface meetings
- Competences
- Accidents, Incidents, Near misses
- AFR (accident frequency rate) 4 weekly information
- Safety tours
- Audit and inspection findings
- Environmental issues

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**(4) Main issues by Lots / Subs**  
**(i) Trackwork**



- Incomplete Design: struggle with design resources (BAM, Siemens) and with SDS Design
- Orders not yet placed for some long lead items (points)
- Claim-oriented attitude of/towards BAM, subcontract "wrongly wired"
- Insufficient portions of the Site ready for BAM, due to slow CIV progress
- Certain BAM construction quality / site management issues still unresolved
- Certain outstanding technical decisions impacting TRW: TIL, anti-vibr, ballast approval, technical details turnouts

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**(4) Main issues by Lots / Subs**  
**(ii) REL, HV, LV**

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- Very frustrating coordination with SDS Design (especially for OLE)
- Some OLE planning permissions still outstanding
- Some REL scope / responsibilities / interfaces uncertain or unclear
- Insufficient REL progress due to delay of CIV. Also, inconvenient (piecemeal) expected sequence of CIV
- Need for TK to establish soon a permanent warehouse
- Certain outstanding technical decisions impacting REL: stray current protection, immunisation
- Lack of LV design from SDS
- Decision on HV supplier required from tie to complete Design and place orders

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**(4) Main issues by Lots / Subs**  
**(iii) SIG, COM, SCA**

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- Insufficient installation details produced by SIG (possible risk in interfaces and/or implementation)
- Certain outstanding technical decisions impacting SIG: turnback at intermediate turnouts, point heating details, etc.
- Lack of progress, caused by delays in CIV and TRW
- Inconvenient sequencing of CIV
- Lack of Planning Approval for tramstop equipment, dependent on integration and submittal by BB/SDS

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**(4) Main issues by Lots / Subs**  
**(iv) TLC, DWE**



- TLC: Change Order for full scope not yet signed. Only small intervention stock through separate C.O.
- DWE: lack of progress caused by CIV delay; lack of Design progress (at CIV interfaces) due to strong disagreement BSC/SDS as to whether it is extra work or baseline SDS scope.

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# Status of Claims KPI



SPM Change - Overview

Status: 27.10.2009

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Technical Status	Change (Mand. TIE Chg.)	Change (Non-Mand. TIE Chg.)	Claim	Comp-Event	Derogation Prop.	Value Eng.	Prov.Sum.	Grand Total
Topic known/No		7	1	8			5	4
Submitted	9	5	1	1	5	4	1	
Evaluated	6	1	1		1			
Approved							1	
Change made	2				1			
Verified	1							
Cancelled	1			1				
Closed	2	2		3	5	3		1
<b>Grand Total</b>	<b>50</b>	<b>15</b>	<b>3</b>	<b>13</b>	<b>12</b>	<b>7</b>	<b>7</b>	<b>10</b>

Sum of Value (€)	
Nature	Total
Change (Mand. TIE Chg.)	£778,974.00
Change (Non-Mand. TIE Chg.)	£199,783.00
Claim	£2,041,000.00
Comp-Event	£445,465.00
Derogation Prop.	£22,000.00
Value Eng.	£440,049.00
Prov.Sum.	£4,640,674.00
<b>Grand Total</b>	<b>£8,767,145.00</b>

Sum of Value (€)	
Nature	Total
Change (Mand. TIE Chg.)	
Change (Non-Mand. TIE Chg.)	
Claim	
Comp-Event	
Derogation Prop.	
Prov.Sum.	
Value Eng.	
<b>Grand Total</b>	

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# Status of provisional sums



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Item	Description	Unit	Quantity	Rate	Amount	Remarks
1000	...	...	...	...	...	...
1001	...	...	...	...	...	...
1002	...	...	...	...	...	...
1003	...	...	...	...	...	...
1004	...	...	...	...	...	...
1005	...	...	...	...	...	...
1006	...	...	...	...	...	...
1007	...	...	...	...	...	...
1008	...	...	...	...	...	...
1009	...	...	...	...	...	...
1010	...	...	...	...	...	...

Item	Description	Unit	Quantity	Rate	Amount	Remarks
1011	...	...	...	...	...	...
1012	...	...	...	...	...	...
1013	...	...	...	...	...	...
1014	...	...	...	...	...	...
1015	...	...	...	...	...	...
1016	...	...	...	...	...	...
1017	...	...	...	...	...	...
1018	...	...	...	...	...	...
1019	...	...	...	...	...	...
1020	...	...	...	...	...	...

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**Time and Cost Related**

- EoT 1
- MUDFA v8 EoT

**Sub-contractor**

BAM DRP

**Scope changes (major issues)**

- TLC
- Other civil work disputes

## EoT1 claim (financial part), Dispute

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### Description, background:

INTC for 9 weeks delay submitted in July 2008, tie awarded a 38 business day EoT after negotiating mitigation. Estimate first submitted in Nov 2008, then updated in Feb 2009. Negotiations continued to take place till Aug 2009 when tie raised a formal Dispute.

### Current status (Oct 26 2009):

Mediation started Oct 22 and 23, agreed to continue on Oct 30. It is expected that an agreement (at least partial) may be reached with tie. Still, case is being prepared for possible Adjudication, and Biggart Baillie are seeking a legal opinion from Gordon Reid, QC, on the interpretation and proper application of clause 80.6 in valuing Changes.

### Parties involved:

Siemens, Bilfinger Berger, CAF "silent", against tie

### Strategy

Pursue settlement first through mediation and then, if need be, adjudication. Should the principles of Siemens entitlement to estimated Actual Cost be not agreed, legal counsel advises to immediately refer the matter to Court, to avoid setting a negative precedent for all future EoT claims.

### Estimated value for final settlement:

Siemens portion: GBP 1.4 to 2 million, of which BAM circa 400 k

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## MUDFA v8 EoT, Dispute

SIEMENS

### Description :

This comprises a revision to the contract Programme, showing all delays known at the end of Mar 2009 based on the delay caused solely by MUDFA revised programme v8, which extends completion date to Apr 2012 (as alternative strategy to EoT2)

### Current position (Oct 26, 2009):

Meeting between PDir's took place on 9 Sep. Positions paper exchanged 15 Sep. Following CEO meeting it was agreed to refer to mediation, scheduled Nov 5 and 6. Mediator still has to be identified.

### Parties involved:

Siemens, Bilfinger Berger CAF against tie.

### Strategy :

To prove entitlement for the delay caused by the MUDFA works as "dominant delay", and unequivocally the responsibility of tie. The idea is to split up the overall delay into different packages by main causes, weakening possible concurrent delay arguments, and securing relief in a staged approach.

### Estimated value for final settlement:

Agreed with tie first settle time extension, then submit Estimate. However, it is anticipated that financial value will be large (ca GBP 7 to 10M, Siemens only).

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## BAM first and second disputes (delay beyond EoT1)

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### Description :

BAM are seeking a Revised Subcontract Completion Schedule together with recompense for the additional costs which flow from this delay, beyond EoT1.

### Current position:

Mediation took place on 22 and 24 September. A settlement protocol has been signed, balancing certain risks and compromises between BAM and Siemens. BAM's DRP 1 and the nearly identical DRP 2 have officially been withdrawn. A specific roadmap is signed, Siemens "exposure" effectively deferred to Q1, 2010.

### Parties involved:

BAM against Siemens.

### Further strategy :

Intensify BAM subcontract management. Use all the existing subcontract clauses to allowing forcing BAM to behave as a partner and not just a subcontractor. Prove BAM's own portion of fault in their claims. Achieve fair valuation rules (BAM claims are currently very inflated). Motivate BAM to support an EPR approach, as opposite as, to deviate from it.

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## TLC negotiation (Prov. Sum → tie Change)

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### Description

The Traffic Light Control (TLC) was allowed for as a Provisional Sum (2x 2.5 million GBP) in the Contract. Siemens provided a quote on available design data (limited amount of junctions) in July 2009 to TIE, valued at 3.4 million GBP incl. surcharges. BB included a similar sum for Civil Works.

In order to allow some initial work and a rapid mobilization, Siemens provided two sub quotes (extracted from the final, complete TLC quote) for mobilisation (£ 125,000) and advanced material procurement (£337,000).

### Current position:

TIE have issued a change order for part mobilisation and advanced material procurement of Siemens' portion of the works, albeit the Estimate itself is conditioned to agreement on unit rates.

Negotiation ongoing for the Siemens remaining TLC scope. The civil element of the Estimate has been rejected by tie (and may end up in Dispute).

### Parties involved:

Siemens, Bilfinger Berger, tie

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## Other Disputes (several, Civil Works)

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### Description :

This comprises various DRP's raised between tie and BSC, for matters which generally relate to the civil works, and which may set a precedent for similar works. There are currently 4 disputes of this nature notified by tie, plus 2 raised by BB. The first one has been adjudicated in favor of tie.

### Strategy :

Siemens to act as observer, but to ensure that no agreement reached, adversely affects Siemens position. This position has been agreed with LS.

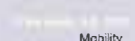
Also, carefully watch if BB's claim strategy was "proven wrong" and BB would ultimately have inflicted damage to the Consortium, mainly as concurrent delay. Initiate "preventive defensive strategy" towards BB, in case later needed.

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**Other issues** **SIEMENS**

Result Employee Satisfaction Survey

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