

# FETS budget & spend

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FETS meeting at Warwick

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## Original plan : FETS-proposal2011Management-annexes-Final

<b>Ion source development</b>							
Source body * 2			15.00				15.00
Powersupply					15.00		15.00
Plasma diagnostics		15.00					15.00
<b>Diagnostics</b>							
Dipole		30.00					30.00
Detector Laser emittance			25.00				25.00
Readout electronics					20.00		20.00
<b>RFQ</b>							
RF components		30.00					30.00
Parts for commissioning / replacement			10.00		10.00		20.00
<b>Chopper</b>							
Slow chopper Material and construction			50.00		30.00		80.00
Slow chopper electronics		60.00					60.00
Fast chopper Material and construction			45.00		25.00		70.00
Fast chopper electronics		55.00					55.00
<b>Medium-energy beam transport</b>							
Vacuum generation and V diagnostics		60.00	15.00				75.00
QP magnets		25.00					25.00
QP Powersupply PS			25.00				25.00
RF cavities			35.00				35.00
RF generation					80.00		80.00
Diagnostics		10.00	20.00		10.00		40.00
<b>Infrastructure</b>							
Cooling, Power distribution, Controls, mechanics		20.00	20.00		20.00		60.00
Shielding and safety		50.00	50.00				100.00
<b>Inflation</b>		<b>8.87</b>	<b>15.69</b>		<b>16.15</b>		<b>40.72</b>
<b>Equipment total</b>		<b>363.88</b>	<b>325.69</b>		<b>226.15</b>		<b>915.72</b>
VAT		72.78	65.14		45.23		183.14
Working margin (10%)		43.67	39.08		27.14		109.89
Contingency (20%)		87.33	78.17		54.28		219.77
Consumables		5.00	5.00		5.00		15.00
Travel		10.00	10.00		10.00		30.00

**Updated plans for 2013/2014 foresee:**

**~ 280 k on capital spend (>10 k)**

- ~ k£100 RF amplifiers for the MEBT (quotes from 3 companies)
- ~ k£ 40 Dipole LD
- ~ k£ 40 shielding (roof)
- ~ k£ 50 MQP MEBT
- ~ k£ 50 MEBT RF cavities

**~ 150 k£ on resource (<10 k)**

LD vessel manufacture, MEBT beam line components, Chopper vessel, beam dump vessel, Interlocks (RF, Laser, Water, Ion source), Bunker Air exchange, Diagnostics, Cables ....

**~ 80 k£ on unnamed staff & outsourcing**

- shielding installation
- Laser room / safety & interlocks
- Services installation / "Bunker" .....

While details concerning the old spend on the shielding have to be re-evaluated due to missing invoices (- £ 40.000) and internal rebooking (+£ 70.000).

**=> Is any (capital) spend required in this financial year that is not mentioned above?**

**To enable timely spend on capital the following rough plans have been made**

~ k£100 RF amplifiers for the MEBT (quotes from 3 companies)

⇒ After decision on MEBT lattice (1st September), one month for admin process (3-6 month delivery time ?)

⇒ delivery between Dec. And Feb. / needs to have all procurement documents ready for 1<sup>st</sup> September)

~ k£ 40 Dipole LD

⇒ Requires further investigation. Assuming 4 month delivery time and delivery in Feb, October seems month to start the order process. PS can come first after EM and mechanical design fixed.

~ k£ 40 shielding (roof)

⇒ Requires agreement with radiation safety. Discussions under way. Design in house. Should try and get order in until November this year (end of year ?)

~ k£ 50 MQP MEBT

⇒ Requires agreement on MEBT lattice (1<sup>st</sup> September) and some more investigations (1 month ?). Contacts with companies in October, order in November (4 month delivery time) delivery in Feb. PS could be done in October / November

~ k£ 50 MEBT RF cavities

⇒ Requires agreement on MEBT lattice (1<sup>st</sup> September) and some more investigations and detailed mech. design (1 month + 2 month ?). Contacts with companies in November & material order, Order manufacturing in December (4 month delivery time) delivery in March.