

The Zeus Project: Joint Procurement of electric cars and vans

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The Zeus Project 1996 -2000

- The partner cities – Stockholm (lead city) Athens, Bremen, Copenhagen, Helsinki, London Boroughs with the City of Coventry, Luxembourg and Palermo
- The Zeus Project had the following aims:
 - To develop infrastructure for CNG, LPG, ethanol, biogas and electric recharging
 - Buy over 1,000 alternatively fuelled vehicles and 600 ‘City’ bikes
 - Develop the market for alternatively fuelled vehicles
 - Spread the awareness of sustainable transport
 - Develop new intermodal transport facilities
- Website: www.zeus-europe.org

Joint Procurement can take many forms

Procurement

- Commissioning and developing new vehicles from scratch
- Testing new production prototype vehicles - demonstrations
- Procuring vehicles ready for the market either as chassis or as production vehicles **The Zeus Project approach**
- Developing refuelling infrastructure, telematics etc aimed at changing demand patterns

Some basic guidelines

- **Buying *fit for purpose* vehicles is the key to success**
- 2. Set up a Procurement Management Team with access to expert advice**
- 3. Decide the format of the procurement**
 - open tender - restricted tender**
 - Check all national, legal / fiscal constraints**
 - Official Journal advertisement & tender call papers**
 - Vehicle characteristics required - new vehicle, chassis only, production line**
 - Decide purpose to which the vehicles will be put**
 - Decide on fuel systems**
- 4. Draw up a list of needs and their evaluation**

Alternative fuels raise issues

- Which motive power - there are, at least, 12 alternative fuels – what operational efficiency? How green? etc
- Fuelling systems issues including:
 - People's fears – will it explode?
 - Local planning permission – issues for refuelling
 - Cost of installation
 - Technology involved
- Buy or lease?
 - Residual values or full depreciation?
 - Collateral values – financial institutions' views
 - Local Authority capital controls – strict in UK

The Zeus Procurement Consortium

- Five Zeus partners: Athens, Copenhagen, London with Coventry, Stockholm and Palermo all decide to buy electric vehicles and they formed the *Zeus Procurement Consortium* – ZPC.
- The ZPC was commissioned to:
 - Prepare and agree performance and user requirements
 - Agree on the procurement process
 - Prepare and agree the invitation to tender
 - Evaluate tenders and agree on preferred tenders
 - Negotiate a framework agreement (terms of sale) and supply contracts

The Process

- The ZPC appointed an expert to advise the partners as well as sharing knowledge on electric vehicle technology – **this was a good step as we needed help.**
- The ZPC followed the Council Directive on *Coordinating procedures for the award public supply contracts (93/96/EEC 14.06.93.)* The directive gives three options: open, restricted and negotiated.
- A Restrictive was adopted and notices were placed in the OJ on 18 February 1997
- **Partners decided to buy off the shelf production line vehicles and not prototypes**

ZPC drew up a list of user needs and requirements – not so easy

- **Vehicle performance**
 - speed, acceleration, range per fuelling etc
- **Vehicle capacity**
 - no of seats, cargo capacity, driver comfort, optional extras including radios etc
- **Vehicle health & safety**
 - additional bulkheads, low floors, ventilation, air bags, seat belts etc
- **Operational needs**
 - servicing, spare parts costs, refuelling needs, energy efficiencies, side of driving wheel

ZPC drew up an evaluation process

- Process has to be objective and fair
- Zeus awarded points to deviations from the list of requirements.
- Points had cash equivalents which were added to costs – any benefits led to cash reductions in costs
- Right to check the producers capacity to deliver the number of vehicles
- WTO rules say that failed bidders can ask why their bid failed – *must have robust procedures*

Outcome

Peugeot 106
electric

Best Value in UK



Citroën Berlingo
electric van

Best Value in UK,
Sweden & Italy

Fiat 600 Ellettra

Best Value in Denmark,
Greece, Italy and Sweden



Outcome

How many vehicles were bought?

<u>Electric Vehicle</u>	<u>Zeus</u>	<u>Options*</u>
Citroën Berlingo	24	200+
Fiat Seicento	116	?
Peugeot 106	28	45
Total	168	245+

Other EV purchases:

Renault Clio	39
Peugeot Partner van	8
Others	18

***The Supply Contracts allowed for option purchases to be bought by third parties**

Benefits from the process

- Saved time – it would have taken longer alone
- Pooled knowledge and expertise amongst partners
- All partners learned from each other
- Reduced prices: significant cost savings
- Established terms and conditions of sale & standards
- Raised confidence of consumers and manufacturers
- Encouraged others to buy

*volume was enough to change attitudes
but not enough to kick start a revolution*

Benefits of Joint Procurement

- Increased size of order –
 - Encouraged manufacturer investment
 - Helps avoid batch production problems
 - Reduces costs of purchase
 - Provides a *best value* approach
 - In the UK, kick-started the opening of the market for electric vehicles
- Offers potential for shared fuelling & servicing infrastructures – *economies of scale*
- Does not affect competition amongst suppliers
- Offers a route for *operational savings* and *overhead cost reductions*

Coventry fully supported the process but did worry

- Political support was strong – new way of procurement
- Lawyers were concerned throughout – who's law?
- Number of vehicles to be bought was uncertain so the city used option rights – by 2002 30 have been bought
- The city had to learn to trust other people
- The city had to understand other people's ways of doing things and learned some better ways of doing things
- The joint procurement procedures added confidence to the initiative and in new vehicle technologies

Some outstanding issues

- Bids tended to partition the market – some manufacturers offered to supply some cities but not others - **servicing reach too costly?**
- Different states have different standards – **power, plugs et al**
- Many new small companies are not financially strong enough to deliver large orders – **a real problem for new small technology firms**
- Homologation requirements for alternative fuelled vehicles may limit numbers sold – **limits number and adaptations produced**
- Lack of refuelling infrastructure puts would be buyers off – fast charging is needed but which – **onboard or off board recharging?**
- There is no consensus as to which drive systems are best and which green fuels to use. **More developments needed to extend range and power of electric vehicles – still a niche use vehicle.**