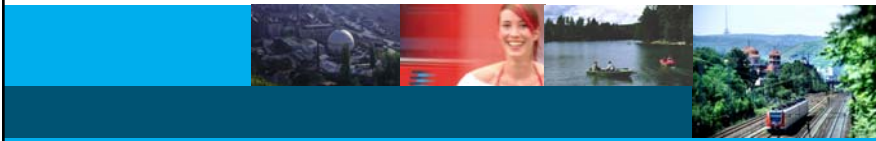


The Stuttgart case



**– experiences with the tendering of
suburban rail services**



Barcelona, 30th November 2011

Contents

I. The tendering process in the Stuttgart Region

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- New rolling stock
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- Ensuring satisfactory follow-up invitation to tender



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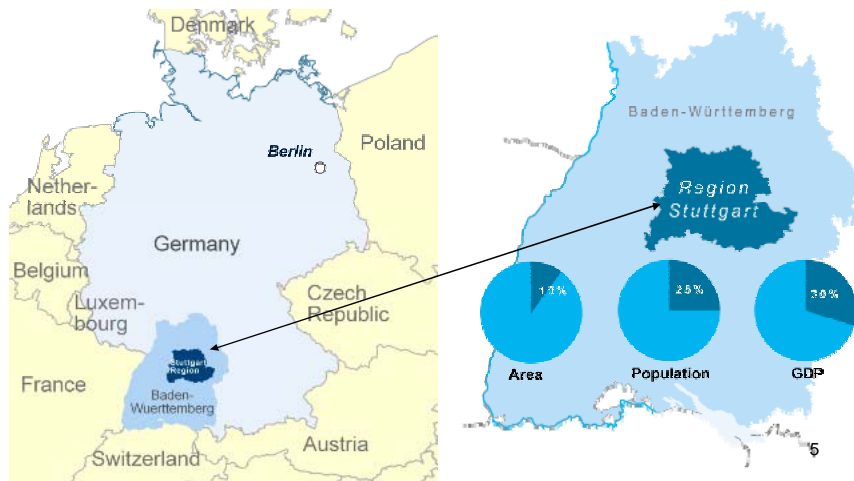


III. Conclusion

Competition in Germany

- until 1996 "Deutsche Bahn AG" was almost the only operator for rail services in Germany
- 1996 public transport became "regionalized", the federal states have to decide on their local and regional public transport themselves instead of the federal government and get subsidies from the federal government
- 1996-2004 most of the federal states awarded long-term contracts directly to Deutsche Bahn
- since 2004 smaller parts of the long-term contracts were awarded in tendering processes, usually only diesel-networks; market share of Deutsche Bahn fell to 83%
- 2007 the federal government reduced the subsidy-payments to the federal states; the need for tendering grew due to the lack of money
- 2009 economic crises makes it very difficult to realize competition, for it is very difficult for most of the players to finance rolling stock
- 2009-2013 for most of the contracts awarded until 2004, the tendering procedure for the next contract has to start, up to 70 million train-km per year

The Stuttgart Region within Europe



Competition in Stuttgart Region

- 1996 Greater Stuttgart Region became PTA for suburban rail in Stuttgart
- until 2003 the existing contract with Deutsche Bahn has been prolonged several times
- 2002 several competitors denied to be able to run a service like the S-Bahn before 2012 due to the lack of rolling stock
- 2003 the region awarded a new contract directly to Deutsche Bahn
- 2005 preparation of the following tendering procedure: creation of lots
- 2006 competitive selection procedure, cancelled in 2007 due to European Court-Decision
- 2007 - 2009 negotiation with a call for competition for the S-Bahn
- 2013 -2028 duration of the awarded contract



Objectives of competitive tender of S-Bahn services:

- Ensure adequate rail services that meet the mobility requirements of the Region's citizens
- Ensure economical rail services
- Transparency in granting aids
- Fair award procedure and real competition under the heading "A market of opportunities"



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Why opt for competitive tendering with subsequent negotiations?

- The Region only has access to 54 S-Bahn railcars and three diesel railcars.

→ **The funding and procurement of all other railcars must be negotiated.**

- The construction period of the rail-project Stuttgart 21 and the start of S-Bahn service operations under a new transport contract coincide.

→ **Negotiations must establish how flexible rail services can be realised during the contract period.**

- In financing the S-Bahn, the Region depends on funds transferred from the federal level to state level (regionalization funds).

→ **Negotiations must define how customised rail services can compensate for variability in the amount of regionalization funds available.**

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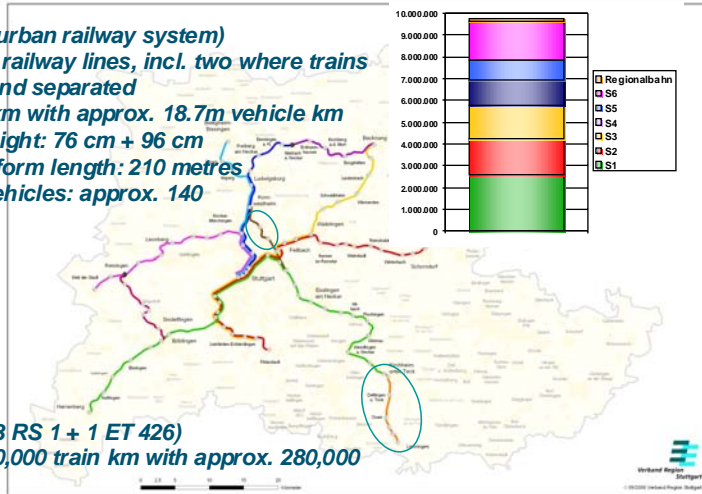
The contract network

S-Bahn (suburban railway system)

- Six S-Bahn railway lines, incl. two where trains are joined and separated
- 9.6m train km with approx. 18.7m vehicle km
- Platform height: 76 cm + 96 cm
- Usable platform length: 210 metres
- Required vehicles: approx. 140

Branch lines

- Two lines (3 RS 1 + 1 ET 426)
- Approx. 130,000 train km with approx. 280,000 vehicle km



Objective of the Region: create the right conditions for genuine competition

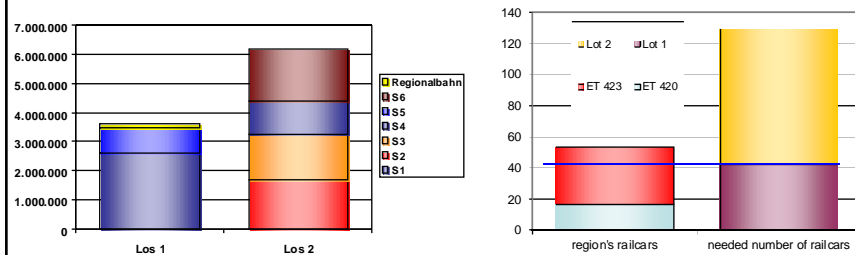
Barriers to competition must be kept to a minimum

- Calculation of revenues of third-party bidders in the integrated transport network
- Batch sizes in combination with
- large number of required vehicles and thus also with
- high investment costs
- Residual-value risk after the end of the contract
- Use/creation of a depot

Solutions must be provided by the region

Generating lots

- whole system is too big for most operators
 - aim: generating one lot only with the railcars of the region

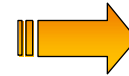


Result: Lot 1 only with the railcars of the region

Net-Cost or Gross-Cost contract?

- Calculation of revenues include high risks for newcomers
 - only Deutsche Bahn would have the chance to calculate revenues in a proper way

- Region decided to award a gross-cost contract



no revenue risk for the bidders

Preliminary conclusion

Wherever the region was able to do so, it ensured that the relevant aspects were shaped to maximise competition



The tendering procedure

- 5 requests for participation
- 1 had to be rejected due to formal faults
- 1 withdrew in november 2007 due to lack of staff
- Veolia and Keolis withdrew in February 2008 due to problems with the calculation of the maintaining depot
- only Deutsche Bahn made a first offer



*Negotiations only with German Rail
Now: net-cost contract*

Preliminary result of the tender

The competitive tendering process showed that, in 2008, competition was objectively impossible for a complex system like the Stuttgart suburban railway system.



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III. Conclusion

Cost calculation

- It is important to have highly detailed costing system with a large number of components in order to map changes over the years

Examples of possible cost groups:

- ✓ Overhead costs
 - ✓ Costs of different personnel
 - ✓ Distribution
 - ✓ Rolling stock (fixed costs, variable costs, costs of maintenance)
 - ✓ Maintenance facilities
- Define the indicators that should be used for updating different costs

Updating of cost figures

- Each cost item must be assigned to a cost group so as to specify suitable updating indicators
- Possible cost groups: human resources, vehicle, energy (electricity and diesel) and other costs
- Specify which costs are not subject to updating, e.g. cost of financing



Increased/reduced service level

- Service level can be expected to change throughout the term of the contract
- Cost elements must only be included if they are mileage-dependent (exceptions: temporary residual costs and stepped vehicle costs)
- The basic calculation must show for each cost item whether it is used for an increase in service level or not

***It must be possible to specify additional costs /
reductions at any time and without complex
cost calculations***

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Quality

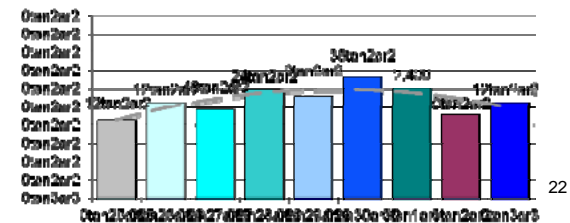


- Quality is an important element in the creation of customer loyalty
- Performance quality must be measured at regular intervals in order to evaluate it
- It is reasonable to apply suitable penalties as an incentive to ensure the agreed quality
- Weighting may differ from one region to another

Main focus in quality assessment

- Punctuality
- Safety
- Cleanliness
- Availability of vehicles
- Extent of damage to vehicles
- Availability of ticket machines

Customer Satisfaction



Punctuality

- Measurements at important points
- In relation to main direction of travel
- Different target values for peak and off peak

Traffic periods	Target values for punctuality levels	
	less than 3 min.	less than 6 min.
Peak	91,5%	98%
Off-peak	96%	98%

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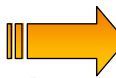
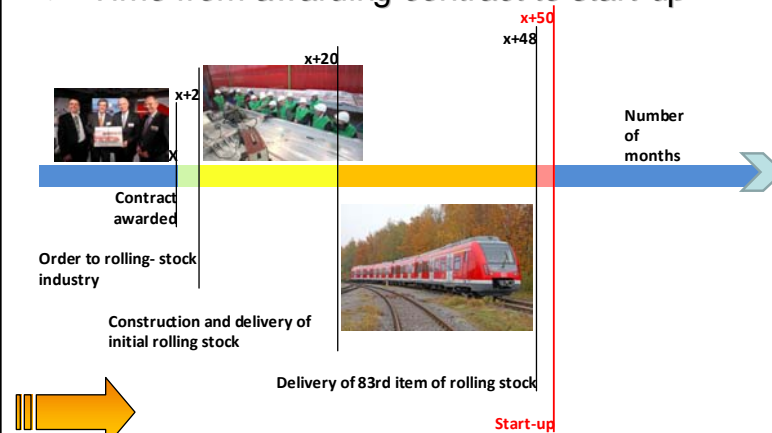
Example of Stuttgart

- Operator requires 83 new rail cars
- Rolling stock worth approx. € 450 million



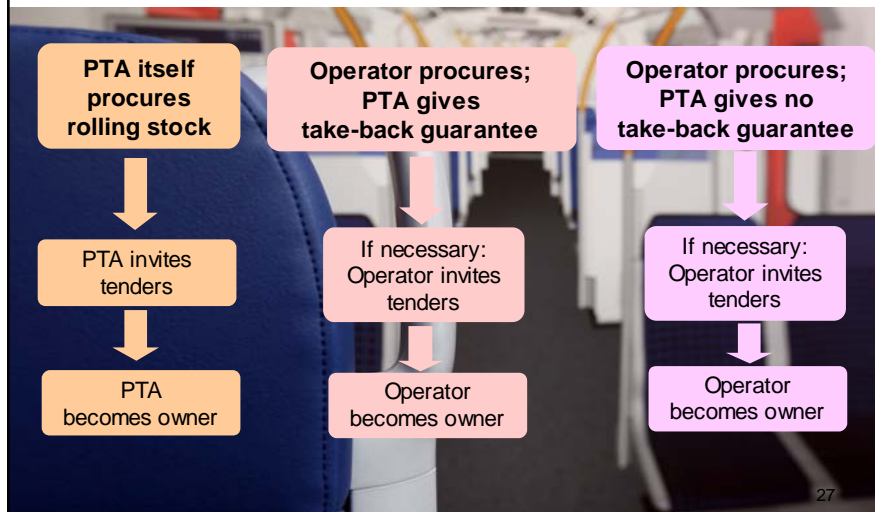
Lead time

- Time from awarding contract to start-up



Approx. 4 years between awarding contract and start-up

Options in procuring rolling stock



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Advance financing costs without earnings

- Financing volume for 83 units of rolling stock: € 450 million
- Usual: 30% on receiving order ➡ € 150 million
- Remainder in line with construction progress
 - Amounts running into many millions over a long period without earnings
- Parking and safeguarding costs until start-up -> industry delivers in batches
 - High additional costs

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Rolling stock: residual-value risk

- Term of contract: 15 years
- Rolling stock written down over: 20 years
- Technical service life: 25 – 30 years



How is the difference evened out between term of contract and technical service life?

- Option 1: Take-back guarantee by PTA
- Option 2: Risk allowance **demanded by operator** if it financed the trains itself

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Conditions for a take-back guarantee

- Detailed specifications in relation to rolling-stock procurement, rolling-stock appointments and quality
- Take-back commitment only takes effect after expiry of a precisely defined number of years over which the rolling stock must have confirmed its suitability
- Take-back commitment linked to a commitment to return rolling stock
- As the basis for safeguarding operation, high levels of security must be demanded during contract term to cover any maintenance work not carried out
- High demands by the Region on rolling-stock management and its transparency

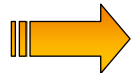


The PTA needs securities too

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Demands on rolling-stock management

- Operator must implement a maintenance planning system (MPS) and keep it up to date at all times
- Region provided with full access to MPS
- Specification of MPS contents that must be updated
- Concept for returning rolling stock is described in detail on entering the contract
- Details on returning rolling stock must be stipulated on entering the contract



PTA must be fully informed at all times on state of rolling stock fleet

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Key questions on handing over rolling stock at end of contract

- How will good maintenance be assured?
- When, by whom and how will the residual value be determined (on starting to invite tenders, on going into service)?
- Will all rolling stock be inspected?
- Who will bear the cost of expert assessment?
- How binding is the result of expert assessment?
- Hand-over to whom?
- When will how many rolling stock be handed over?
- How does the previous operator stand in respect of quality consequences as a result of a lower number of vehicles?
- Who is liable for the rolling stock?
- Who assumes responsibility for servicing and maintenance?
- How will the rolling stock physically change hands when the time comes?
- Is there any provision for any (partial) transition in service hand-over?



Matters must be conclusively settled as part of the tendering procedure

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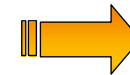
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III. Conclusion

Maintenance facility I

- Only one maintenance facility (Plochingen) is currently available
- Depot owned by DB Regio
- Not many alternative locations available within region
- Region has achieved classification as a service point by Federal Network Agency



***Despite classification
as a service point,
no reliable cost
calculation is possible***

Maintenance facility II

- Planning, construction and operation of maintenance facility is operator's responsibility
- Region may be prepared to provide funding
- The region would like to take over a depot for the maintenance of the S-Bahn vehicles after the end of the contract
- Alternatively, show how maintenance of S-Bahn and other regional transport vehicles will be contractually secured for the follow-up contract in geographical proximity



Definition of specifics through negotiations

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Important issues for the hand-over of the maintenance facility at the end of the contract

- When, how and by whom will the residual value be determined (beginning of tender, start-up)?
- What equipment will also be handed over?
- How will it be ensured that only necessary investments are made?
- How will it be ensured that any necessary investments will be made at the end of the contract?
- Who will bear the costs of expert reports?
- How binding will be experts' reports be?
- Who will receive the depot?
- How will the physical handover of the depot be handled when the time has come?
- Will there be a (partial) transfer of undertakings?



Issues will need to be resolved and finalised as part of the tendering process³⁶

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Ensuring follow-on invitation to tender without returning rolling stock

- Current operator must be required, at defined terms and conditions, to provide the full train services for a transitional period after the contract ends
- Following operator must be provided with the option of wanting to use train services of the previous operator
- Decision on making use of the option must be made within 3-6 months of being awarded the contract
- If the train services are wanted, this must be successively reduced (in all cases on a line-by-line basis)
- The previous operator must have completely withdrawn from the system after three years at the latest

Benefits of a train-service contract

- From the outset, follow-on operator alone is responsible for the entire system, previous operator only acts as subcontractor
- Follow-on operator can successively introduce new rolling stock into the system
- Start-up costs are significantly reduced as rolling stock finished relatively quickly can also be put into service
- At the same time, current operator successively withdraws its rolling stock over three years
- No need to exchange entire fleets on a particular cut-off date
- Costs for the train contract equate to the costs hitherto incurred by the previous operator

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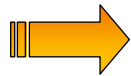


III. Conclusion

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Conclusion I

- If the rolling stock has to be financed by the operators and many rail cars are needed there is a huge problem in getting bids
- leasing is rather expensive and only useful for standardized rail cars in minor tenders
- financial crises make competition very difficult



*If many railcars are needed,
the PTA should offer
the financing of the rolling stock*

Conclusion II

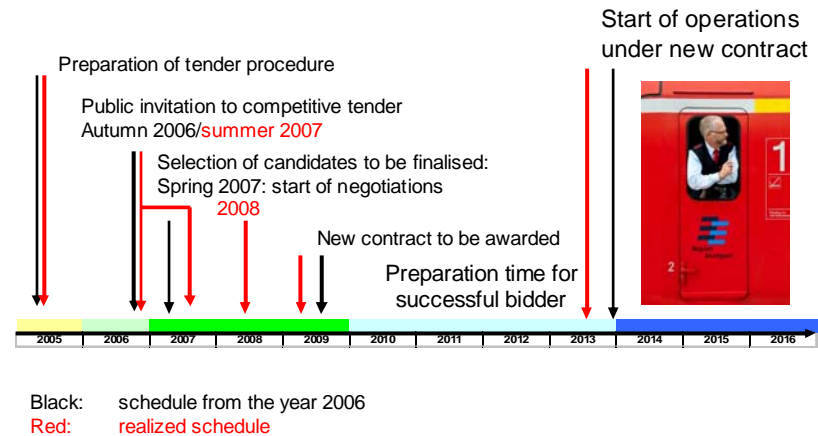
- The more specific rolling-stock requirements are and the greater the volume of financing volume is, the sooner supporting measures, such as a take-back guarantee, will be necessary
- However: monetary benefits of the take-back guarantee come with considerable costs and risks.
Important: find contractual solutions beforehand to the questions raised
- If new operator procures rolling stock itself and does not pass it to the PTA at the end of the contract, a train-service contract may be helpful in relation to the follow-on contract (particularly in the case of complex systems) as this spreads out the transition of rolling stock as well as personnel.

Results for the Stuttgart Case

- net-cost contract: Deutsche Bahn takes the revenue-risk and risk of changed corporate share within the integrated system VVS
- saving of 2 Million € per year
- 83 new cars, worth >400 Million €, no extra payments for rolling stock for the next 19 years
- easy way to calculate changes of supply
- a certified public accountant has confirmed that the contract is economically advantageous
- high quality is ensured
- competition for contract 2028 is made easier

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Schedule of tender procedure



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Many thanks for your attention



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