

A knowledge partner for Rolling Stock

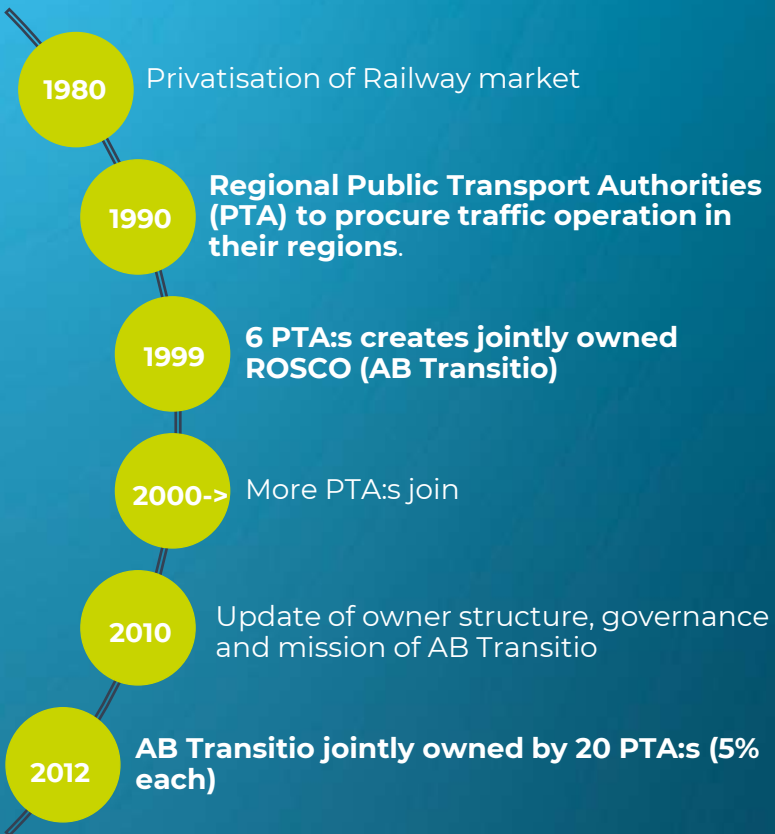
AB Transitio procures, finances and manages
Rolling Stock to optimize costs and ensure the
highest value for our owners.

New solutions for train maintenance - FSA



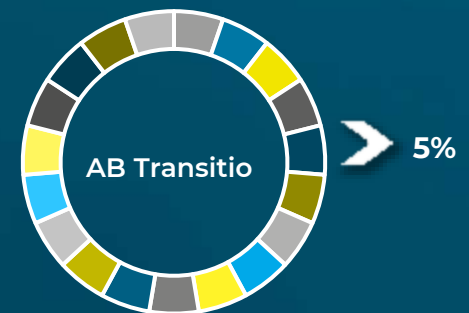
Niklas Johansson, Technical Director, Togakademien 4 juni

Background and Ownership



Ownership

- Dalarna
- Blekinge
- Uppsala
- Västra Götaland
- Västmanland
- Halland
- Örebro
- Skåne
- Värmland
- Sörmland
- Stockholm
- Västerbotten
- Östergötland
- Västernorrland
- Jönköping
- Jämtland Härjedalen
- Kalmar
- Gävleborg
- Kronoberg
- Norrbotten



Business and operation

Support the PTA:s with:

- Procurement and financing of vehicles
- Lease vehicles to PTA:s
- Fleet management – vehicles and high value components
- Heavy maintenance – vehicles and components
- Advise and support PTA:s with rolling stock expertise

The responsibility for light maintenance, repairs and spare part supply are included in the PTA contracts with operators/maintainers

Transitio and FSA...?

PTA Train services

- Rolling Stock owned by Regions/Transitio
- Maintenance in Traffic contract (no FSA)

- 12 systems 600 stations 640 vehicles
- Ca 10 miljarder SEK per year
- Ca 240 miljoner travelling per year (2019)

Tåg i Bergslagen (VR Sverige)
3,0 milj resor/år, 6,0 milj tågkm/år
51 stationer, 5 linjer, 28 fordon
Omsättning: ~ 205 mkr/år

Värmlandstrafik (VY tåg)
1,0 milj resor/år, 1,6 milj tågkm/år
19 stationer, 2 linjer, 15 fordon
Omsättning: ~ 155 mkr/år

Vänertåg (SJ)
0,7 milj resor/år, 1,0 milj tågkm/år
9 stationer, 1 linje, 5 fordon
Omsättning: ~ 100 mkr/år

Västtågen (SJ)
20,2 milj resor/år, 13,9 milj tågkm/år
120 stationer, 13 linjer, 148 fordon
Omsättning: ~ 1 596 mkr/år

Öresundståg (Transdev)
28,0 milj resor/år, 27,3 milj tågkm/år
40 stationer, 3 linjer, 111 fordon X31
Omsättning: ~ 876 mkr/år

Pågatågen (VR Sverige)
26,0 milj resor/år, 15,5 milj tågkm/år
72 stationer, 7 linjer, 99 fordon X61
Omsättning: ~ 1 075 mkr/år

Norrtåg (Vy tåg)
1,5 milj resor/år, 5,5 milj tågkm
82 stationer, 6 linjer, 22 fordon X62 mm
Omsättning: 309 mkr/år

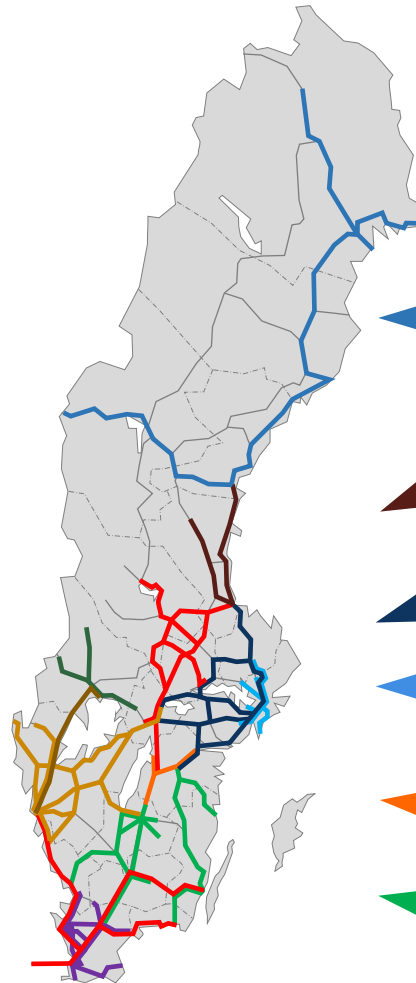
X-tåg (Vy tåg)
0,9 milj resor/år, 1,8 milj tågkm/år
20 stationer, 2 linjer, 7 fordon Regina
Omsättning: 109 mkr/år

Mälartåg (MTR/Transdev)
12 milj resor/år, 11,3 milj tågkm/år
50 stationer, 5 linjer, 62 fordon ER1 mm
Omsättning: ~ 1100 mkr/år

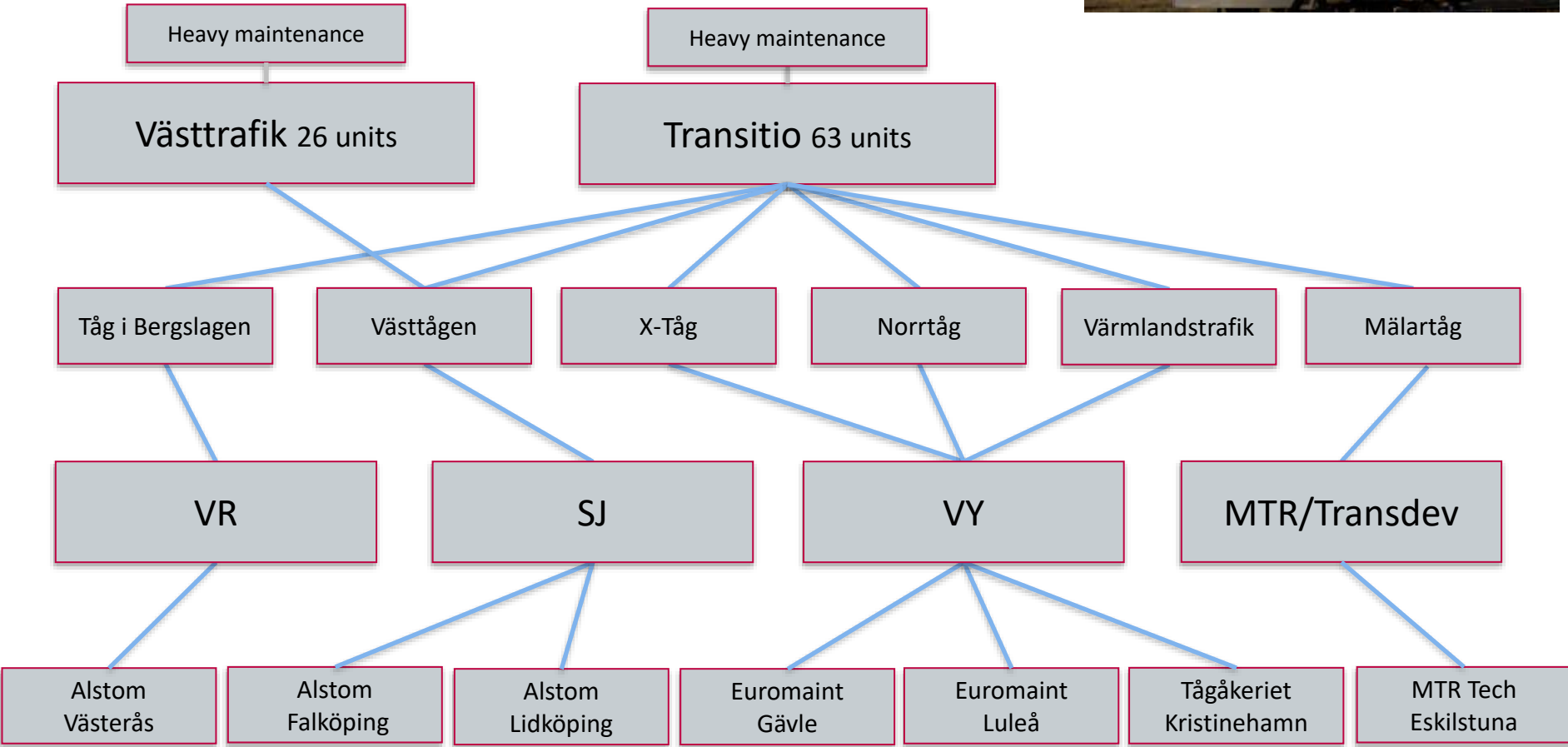
SL Pendeltåg (SJ)
125 milj resor/år, 12,5 milj tågkm/år
54 stationer, 7 linjer, 129 fordon X60
Omsättning: ~ 2 500 mkr/år

Östgötapendeln (VR Sverige)
4,1 milj resor/år, 3,6 milj tågkm/år
11 stationer, 2 linjer, 18 fordon
Omsättning: ~ 254 mkr/år

Krösatågen (SJ)
3,3 milj resor/år, 5,9 milj tågkm/år
81 stationer, 10 linjer, 36 fordon
Omsättning: ~ 405 mkr/år



Regina fleet



Fleet (approx 200 vehicles)



Contessa

Fleet size: 17

Type: EMU

Delivery: 2001-2012

Speed: 180 km/h

Region: Öresundståg



Itino

Fleet size: 13

Type: DMU

Delivery: 2002-2010

Speed: 140 km/h

Region: Värmlandstrafik, Krösatågen

Fleet



Coradia

Fleet size: 12

Type: EMU

Delivery: 2011-2012

Speed: 180 km/h

Region: Norrtåg



Regina

Fleet size: 63

Type: EMU

Delivery: 2001-2012

Speed: 180-200 km/h

Region: Mälardalstrafik, Norrtåg, Tåg i Bergslagen, Värmlandstrafik, Västtrafik, X-Trafik

Fleet



X11 – X14

Fleet size: 30

Type: EMU

Delivery: 1982-1991

Speed: 140 km/h

Region: Krösatågen, Tåg i Bergslagen, Norrtåg



Dosto

Fleet size: 60

Typ: EMU

Delivery: 2019-2023

Speed: 200 km/h

Region: Mälardalstrafik, Tåg i Bergslagen

Fleet



ER3 / BIR

Fleet size: 20 EMU + 8 BMU

Type: EMU / BMU

Delivery: 2025-2028

Speed: 200 km/h / 140 km/h

Region: Kröساتågen

No FSA: (Procured with the old frame agreement)

Projects



Rolling Stock for Norrtåg

- Fleet of 21 train sets today (3 types), technical life 2026 - 2041
- 1500 km of infrastructure + opening of Norrbottniabanan ca 2032 (250 km/h)
- More traffic + aging fleet
- Transitio responsible for procurement of Rolling Stock
- Pre-study conducted – FSA might not be preferable
 - RFI-feedback
 - Size of system and winter
 - One depot
 - Existing fleets



Trams for Uppsala including Full Service Agreement

- Green Field project – Rolling Stock, infrastructure, depot
- Start of service 2029/30
- Transitio responsible for procurement of Rolling Stock (approx 20 Trams)
- Tendering process to be started in June/July
- Full Service Agreement (FSA) to be included
 - RFI-feed back
 - New system
 - No existing traffic contract
 - Small area



NGÖ - "Next generations Öresundståg"

FSA – Transitio view

- Procurement of Rolling Stock including a maintenance contract from the same supplier
 - Length of contract up to technical life of Rolling Stock
 - Unusual in Sweden – More common in Europe
 - A "full commitment" from the supplier
 - Payment and penalties for vehicle availability and reliability
 - Charge extra for e.g. damage repair
 - Still many different views
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FSA – Transitio view

Processes

- Reliability growth
- Maintenance optimization
- Short and long term planning

Technical Support

- "Help desk"
- Fault finding
- Digital solution (surveillance, diagnosis)
- Obsolescence-management

Spare part supply

- Fixed prices
- Service level and lead time
- Vehicle availability

Maintenance

- Daily service
- Heavy maintenance
- Component maintenance
- Damage repair
- Upgrade & Refurbishment

FSA – Transitio view

- "Allowed to" perform a procurement of Rolling Stock including FSA
 - Transitio are "not allowed" to be the contractual party for daily maintenance
 - Swedish law of procurement – maximum length of contract 15 years
 - Each case needs to be analysed
 - Not a magic solution...
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Thank you

