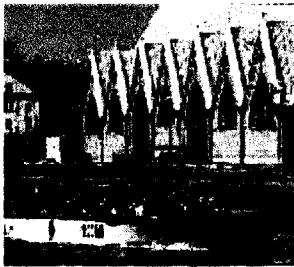
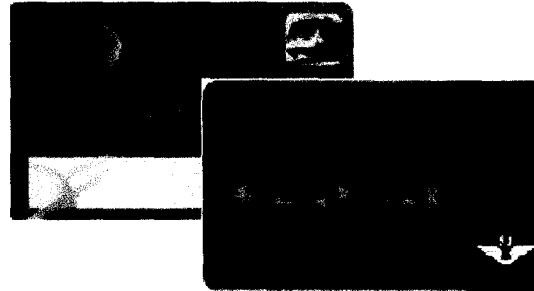


Appendix D: Request for Qualification, Part D: Selection Criteria.

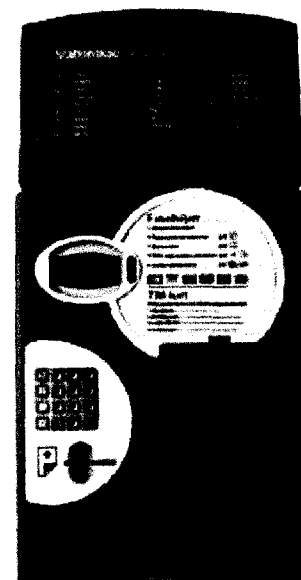
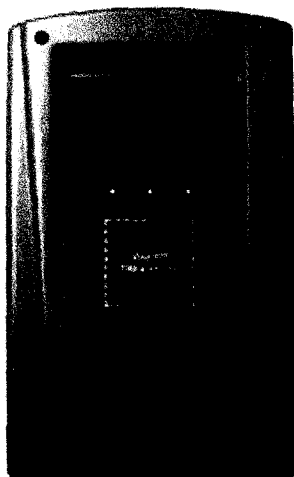
a) experience with yield management, electronic ticketing, internet-sales and customer loyalty programmes.



En natt i Göteborg?
Paketresor från 790 kr!



TÅG PLUS
GUIDEN



The decision made by the Dutch Government to invest in a new high-speed line, HSL-Zuid, is based on the absolute necessity to limit the growth of congestion on the roads and in the air. To convince people of the advantages there are to be gained by travelling by high-speed train, domestic and international, and to encourage repeat patronage, several different methods will be necessary.

The objectives would be to stay ahead of the competition, setting the right price, stimulate loyalty and make it extremely easy to book and get hold of tickets.

SJ is applying a multitude of methods in the Swedish Public Transport Market. Some of these are described below.

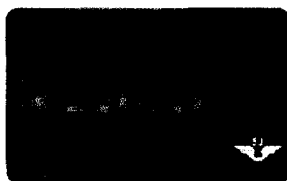
SJ has been able to meet low-price competition from bus transport and to take additional market shares from air transport for business travel by means of active product development and flexible pricing. The old kilometre based tariff was abolished and market prices were introduced in 1996.

SJ is working actively with yield management in its passenger transport operations. This has contributed considerably to improving results for SJ Passenger Traffic. Every route is a profit centre and operating income is analysed day by day and train by train. This is the starting point for work to optimise prices and cabin loading. The availability of low price seating is controlled by demand, i.e. there are fewer seats during peak travel times and more seats at other times.

Yield management means that SJ can meet the competition with highly flexible price setting – strategically, tactically, nationally, regionally, locally, per route and per departure. Yield management also takes into consideration special pricing for children, young people, students, elderly and disabled people. It is possible to keep rail travel prices generally lower than those of air travel, at the same time as the lowest rail travel fare is usually lower than that for bus travel on the same route.

A project called TRAPETS was started in 1998 to actively develop new ways of selling empty seats by creating and stimulating the demand for leisure travel.

Business travellers, leisure travellers and commuters are, all of them, important groups of customers. They are often passengers on the same trains, and the aim is to provide for their different specific needs and priorities. The same individual may also belong to different customer groups at different times. SJ Passenger Traffic has identified the various needs and is developing its services and pricing in line with these.



Customers who travel often can buy various types of annual tickets that provide different services and in some cases free travel in accordance with certain regulations. SJ offers a business travel card that provides a 25% discount on all train fares. There is also a special card (Reslustkortet) for non-business travellers, families and persons with flexible time schedules, which provides access to the cheapest tickets.

SJ Passenger Traffic has a huge number of corporate agreements with private companies and other organisations and institutions.

The corporate agreements include a customer programme for business travellers called Commeo. Companies who increase their travelling with SJ can get lower fares and a number of service benefits for the company, as well as special leisure offers for the passenger concerned. The companies are also provided with clear travel statistics and information on how they have contributed to a better environment by choosing rail travel.

The efforts being spent on yield management is a major factor behind the success of the X2000. The X2000 market share out of the total of train plus air travel Stockholm – Göteborg has increased from 37% in 1988 to 52% in 1996 and is even higher today.

It has been possible to book SJ tickets on the internet since 1997, and this service is available also to companies since 1999. SJ was the first travel company in Sweden to be able to offer booking and payment services via the internet. Tickets can be paid for by credit card on line. Tickets can also be booked on line and delivered against cash payment at approx. 2.600 ticket outlets; SJ's, ATG's and travel agencies. ATG handle betting on horses, football and other games and lotteries. They have an extremely dense network of outlets all over Sweden. Their service is mostly located in food shops and in small shops for newspapers, sweets, tobacco etc. often open till late in the evening.

Tickets can also be mailed together with an invoice to the customer's registered home address. Every customer is not yet connected to the internet nor do they all carry a payment card!

A new internet function will be launched by which customers will be able to create their own individual travel home pages on the basis of their own preferences.

The element of IT in customer relations is increasing steadily through self-service and business transactions. Self-service ticket machines for regional and inter-regional services, electronic ticketing and ticket-less travel are in place and provide both greater customer benefit and considerable potential for rationalisation.

The number of self-serviced ticket machines has increased dramatically. A new IT customer centre with all the available information and sales channels has been established at Stockholm Central Station.

SMS
Short Message Service



SJ is co-operating with Telia for the use of mobile phones as ticket carriers. Ticket purchase can be confirmed by an SMS message to a mobile phone. The SMS message is verified via the conductor's onboard computer. It is already possible to buy the entire range of tickets onboard as the guard's onboard computers can handle discount and credit cards.

The conductor's hand-held computers will be developed to act as mobile "gates" on the trains.

Integration is the key word in the new price and ticket system for the Öresund Region. Rail, bus and ferry traffic is integrated in a collective transport network with a common price and ticket system (the Öresund Tariff System). The idea is that travellers only need to buy one ticket for the whole region. For rail services, SJ is responsible for the Swedish side and DSB for the Danish; for bus services, Skånetrafiken on the Swedish side and HT, Hovestadsområdets Trafikselskab on the Danish.

The Lake Mälaren Valley is Sweden's largest and most important region. Here are located four of Sweden's biggest cities as well as Scandinavia's largest airport, (Arlanda).

TiM is a joint marketing company operated by SJ and the county public transport companies in the lake Mälaren Valley. The project was started up at the end of 1995 for the purpose of creating world-class travel opportunities for the people of the region – mainly for commuting, but also for longer journeys inside and outside the region. The system is based on efficient co-ordination of heavy rail (train), light rail (metro and tram) and bus with high flexibility via more frequent departures. On the heavy rail side, five different train systems have been integrated.



A new ticket system, called the TiM card, has been introduced in the beginning of 2000. The card is a contact-less smartcard. The card is for everyone, whether you travel only occasionally or every day. The card can be tailored for commuters with different travel profiles. It can be loaded for journeys between two stations, and eventually for the combination train, metro and bus in a more complex travel pattern. The new ticket system, which includes TiM vending machines and TiM card readers, is an important step towards seamless, border-less travelling throughout the region. The system has been developed in co-operation with Schlumberger.

Being a customer of SJ Passenger Traffic should be simple. The booking and price systems are therefore being further developed so that they will be easy to reach, understand and interact with. High capacity of the toll-free 020-75 75 75 number, automatic voice reply, simpler Internet booking and payment systems, ticket vending machines and IT stations with IT hosts are a part of this effort.

In May 2000 Ericsson Mobile Communications and SJ Passenger Traffic have made a full scale test for implementation of WAP- and Bluetooth technology as a method of communication via mobile telephones. This method of wire-less communication enables the passenger to book tickets, receive confirmation, reserve seat, pay, get access to the internet while on the train etc. – all via the mobile telephone. Applications adapted to the needs of train staff have also been tested.

Special attention is paid to services offered on board the high-speed train X2000. Trials are presently made to install screens and making internet available to the traveller. Mobile phones can be used on board without problem but there are restrictions in “silent” cars!

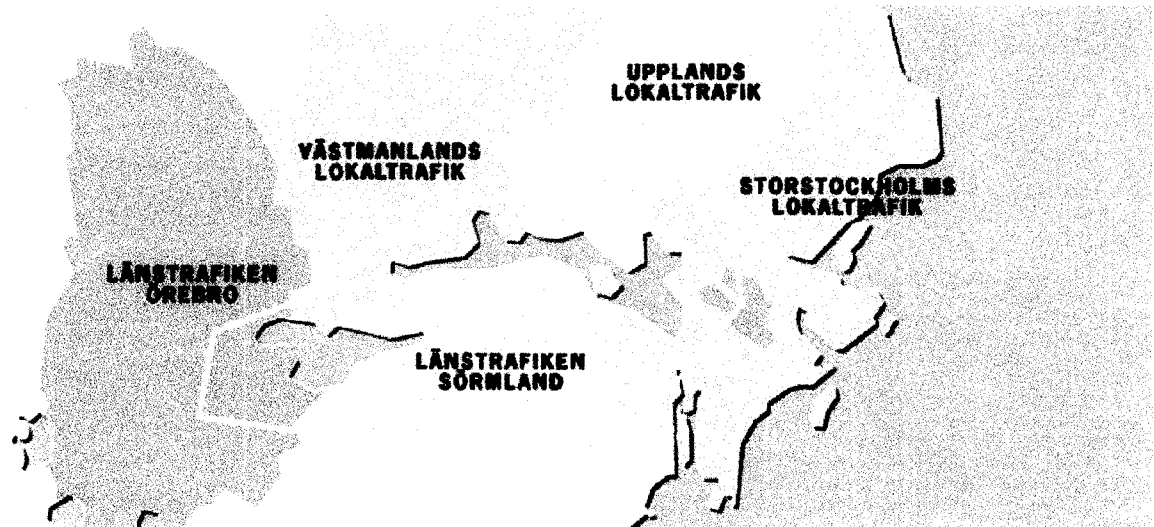
Everything a customer needs to know about public transport in Sweden is currently updated on the WEB pages of SJ Passenger Traffic, www.resor.sj.se.

The Tågplus scheme, which links train travel (run by SJ and/or other operators) to bus or ferry travel on the same ticket, has been in operation since 1991. The system covers all of Sweden and links together all County Public Transport Authorities (CPTA) train / bus / ferry to the inter-regional transport network. Via SJ Passenger Traffic web pages, service is thus rendered also to companies competing with SJ on rail and/or by other means of transport.

SJ Passenger Traffic is taking steps to create new combination products with other transport modes, particularly aviation, where a journey by rail in one direction and air in the other can be a very attractive combination for customers. SJ and SAS are co-operating with common ticketing, enabling customers to travel on one and the same ticket all the way from their home to a flight destination.

Appendix D: Request for Qualification, Part D: Selection Criteria.

b) Experience with multi-modal arrangements involving passenger train services and air, bus and/or metro services



SAMTRAFIKEN
SAMTRAFIKEN I SVERIGE AB

TÅG PLUS
GUIDEN

Riks
tidtabellen

To travel between A and B must be easy for the passengers. It is the responsibility of Public Transport providers to organise themselves accordingly, both concerning ticketing and practical facilities. SJ is contributing to the development of seamless easy travelling in different ways, many of which could be applied and developed in a Dutch context.

SJ is increasingly working to package train travel with other modes of transport and services. Domestic travel packages including hotel accommodation, ferry services and events are major growth areas.

The Tågplus scheme, which links train travel (run by SJ and/or other operators) to bus or ferry travel on the same ticket, has been in operation since 1991. The system covers all of Sweden and links together all County Public Transport Authorities (CPTA) train / bus / ferry to the inter-regional transport network



The Tågplus co-operation is formalised even further by the Samtrafiken i Sverige AB, established in 1993. The company is owned by all train operators and all CPTAs. Samtrafiken is focusing on the needs of the customer to travel easily from one point to another even when changes of transport mode or transport operator is necessary. The aim is formulated as follows:

- The customer shall be informed about the total journey, including necessary stops and changes from one source of information.
- Time schedules shall be co-ordinated to permit adequate time for change of transport.
- Changes shall be possible within a short walking distance.
- The total journey, irrespective of the number of operators, and irrespective of mode of transport shall be included in one single ticket.
- All transport operators shall co-operate closely to avoid unnecessary problems when delays occur. Thus they should as far as possible await each other's arrival or offer another suitable mode of transport to the customer.



Samtrafiken AB issues a nationwide time table (Rikstidtabellen) including all rail operators, approximately 1000 bus lines and 75 ferry connections. It is available in print, on CD Rom and on the internet. There is also a possibility on the internet to search for suitable travel connections. The systems covers about 2000 destinations.

Samtrafiken AB has achieved its purpose and all parties are co-operating and co-ordinating their activities for the common good.

Sverige & Co is a co-operation scheme with other companies in the travel and tourist industry that aims to create attractive packages for foreign tourists.

The new train connections to the big airports in Stockholm and Copenhagen are strategically important for SJ. Functioning train connections to the airports offer substantial advantages for both train and airline passengers, and new opportunities for creating combinations of rail and air journeys.

SJ Passenger Traffic is taking steps to create new combination products with other transport modes, particularly aviation, where a journey by rail in one direction and air in the other can be a very attractive combination for customers. SJ and SAS are co-operating with common ticketing, enabling customers to travel on one and the same ticket all the way from their home to a flight destination.

Special attention is paid to the development of various services such as food and drink on board and peripheral services before, during and after the journey. Different types of parking services are available at the stations, such as the new manned PS-Parkeringsservice. The car is a complement to the train, and SJ will assist all customers in easily obtaining access to a car at their destination via Tågbil (Train Car, a rental car service) and Tågtaxi (Train Taxi. Pre-booked taxi). Special services are available for disabled people.



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Since the opening of the Öresund Bridge in July 2000 there has been a co-operation agreement with Kastrup airport. Travellers coming from or going to Sweden will no longer go by ferry but by train. The train travels all the way into the airport terminal area. Luggage can be checked in in Malmö. Air and rail travel is included on the same ticket for SAS-flights. This possibility will probably be extended to other airlines.

SJ Real Estate has conducted a ten year programme of converting railway stations into travel centres, the aim being to co-ordinate rail traffic with airline, ferry, bus/coach and car traffic.



The concept of travel centres is to offer the rail traveller more than just a station to start and end the journey. As a valuable add on to the service chain the travel centre often delivers services to other rail operators who are in competition with SJ on the rail.

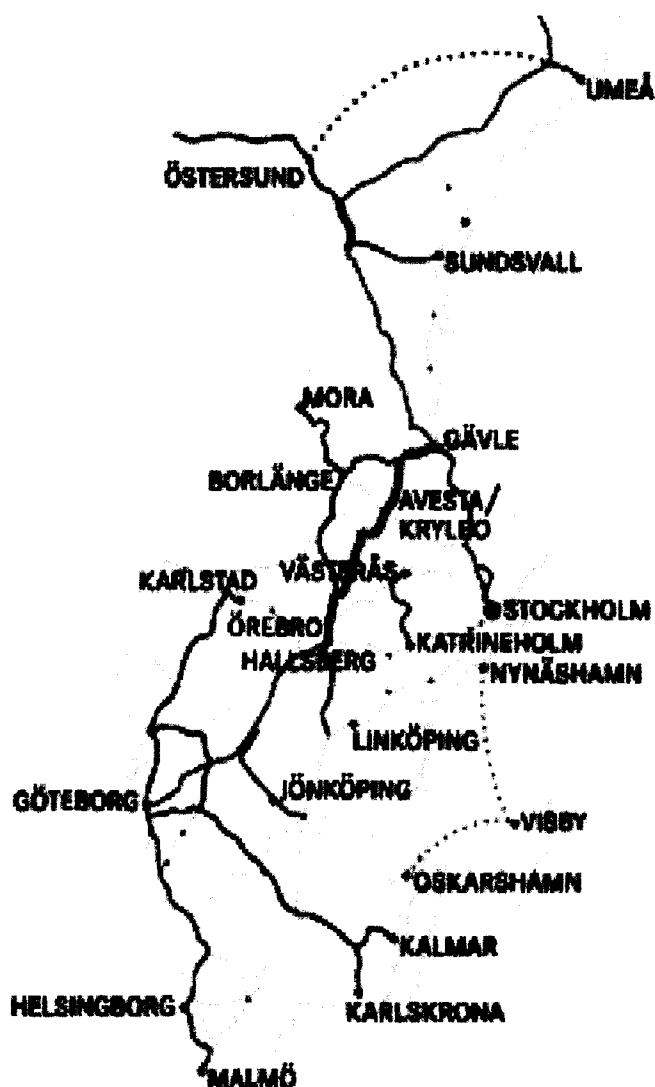
Since 1996 it is the responsibility of SJ Real Estate to ensure that buildings and land for railway purposes can be used by all railway transport operators on terms and conditions that are competitively neutral and non-discriminatory. A price system has been introduced concerning common station functions. Quality considerations play a major role in the operations. The ultimate quality goal is that the passengers and other users should feel that the stations and commercial centres are easily accessible, attractive, functional and offer good service.

Stockholm Central Station is a good example of a travel centre where long-distance rail traffic, operated by different train operating companies, regional train traffic, commuter traffic, metro, local bus services, long-distance bus services, airport bus, rail-airport shuttle and ferry agencies all meet under the same roof.

It is SJ's firm opinion that co-operation must continue. Public transport is a network activity where each route and each operator derive benefit from all other parts of the network. Competing players must collaborate operationally or the network will be weakened to everyone's disadvantage, customers as well as operators. Representatives of different modes of transport have tended to emphasise the competition aspect at the expense of the whole system. This is detrimental to all stakeholders, and the worst afflicted are customers and travellers.

Appendix D: Request for Qualification, Part D: Selection Criteria.

c) Experience with publicly tendered franchises/concessions for public transport services



BANVERKET



If we expect people to favour Public Transport by bus, rail and ferry, Transport Operators must continually develop the concept of travelling. Competition triggers product development and market orientation. The market demands good means of transport but does not very much care about who is operating what piece of the journey. Consequently it is for the good of both passengers and operators that countries within EU are opening up their market to open competition. SJ has more than ten years of experience of an open transport market.

Since 1990 the County Public Transport Authorities in Sweden (CPTAs) are responsible for local and regional passenger transport services. This means that local and regional traffic is being tendered on the open market.

SJ has participated in these tenders, often winning but sometimes also losing the business.

In September 1994 the Swedish Government launched the tendering process for the new high speed railway link to Arlanda Airport. The tendered concession covered everything from construction of the track to train operation, BOT, build-operate-transfer. Private parties were invited and consortia were created. SJ participated in the ATAB-consortium, but regrettably was not awarded the contract.

In December 1995, the Swedish Parliament decided, in accordance with the Government Bill to that effect, to approve new preconditions for rail traffic. The decision, as it relates to passenger traffic, gave County Transport Authorities the right, from 1 July 1996, to provide local and regional passenger transport services also on the main network, within their own county. They were also allowed, subject to special investigations and governmental approval, to provide passenger traffic on the main network in neighbouring counties, if the aim in so doing is to develop the local or regional passenger traffic in their own county.

1998 was marked by further deregulation and increasing competition. International operators made inroads into the Swedish railway market as well as newly formed Swedish railway companies. Since 1 January 2000 the metro in Stockholm is run by Connex (CGEA) and the Stockholm commuter trains are run by a consortia formed by ViaGti, Go-Ahead and the Swedish train operator BK Tåg. The same consortium also won the one year tender for the traffic between Gothenburg and Malmö. Unfortunately, the latter service went into bankruptcy in May 2000 and the traffic has been confided to SJ Passenger Traffic again by the bankruptcy court. As of today Go-Ahead is no longer part of the consortium.



Concessions for public transport are presently tendered by the Counties as well as by the Swedish State. In this context the State is represented by Rikstrafiken, (National Public Transport Agency), which started operating in July 1999. The task of Rikstrafiken is to foster, acting from the traveller's perspective, a co-ordinated system of long-distance, collective bus, sea, air and rail transport. The aim is to create an accessible, high-quality, comfortable and safe transport system and at the same time achieve positive regional development. Other important tasks for Rikstrafiken are to make travelling easier for people with special needs and to ensure that equality of opportunity is observed within the collective transport sector. Rikstrafiken is presently formulating a strategy for giving travellers an increased say in collective transport.

ORIGINAL

At present the government procures long-distance passenger rail services on lines which SJ have declared to be commercially unprofitable, air services between Umeå and Östersund and ferry services between Gotland and the mainland.

After ten years of a gradually deregulated market SJ has solid experience of publicly tendered concessions in local, regional and long distance traffic. SwedeRail, a subsidiary of SJ, has in fact included this experience in management courses held for senior railway staff in developing countries, Eastern Europe and elsewhere.

SJ's experience is augmented by that of its advisers. Arthur Andersen has considerable experience in advising public sector authorities and private sector bidders on concession agreements for public transport and in other sectors. Projects in which it is currently, or has recently, been involved include:

- **Hague Trams:** advising Haagrail on development of a concession for two new light rail lines.
- **Dublin Light Rail:** advising the Department of Public Enterprise on the feasibility of a PPP approach.
- **Mersey Tunnel:** developing a concession to operate two major road tunnels.
- **Central Hertfordshire:** a feasibility study into a new light rail network.
- **ROSCOs:** advice on the privatisation of the UK rolling stock companies.

In addition, two members of the Arthur Andersen team, Andrew Kaye and Glenn Fox, have considerable individual experience of rail projects, including:

- **Channel Tunnel Rail Link:** Andrew advised the successful bidder for the concession to build and operate the rail link.
- **Croydon Tramlink:** Glenn was the Treasury official responsible for the award of this concession and Andrew advised one of the bidders.
- **DLR Lewisham Extension:** Glenn and Andrew also played similar roles on this project.
- **DLR franchise:** Glenn was the Treasury official responsible for the development of the franchise arrangements.

London Underground: Glenn developed the UK Government's approach to franchising the operation of the network.

Appendix D: Request for Qualification, Part D: Selection Criteria.

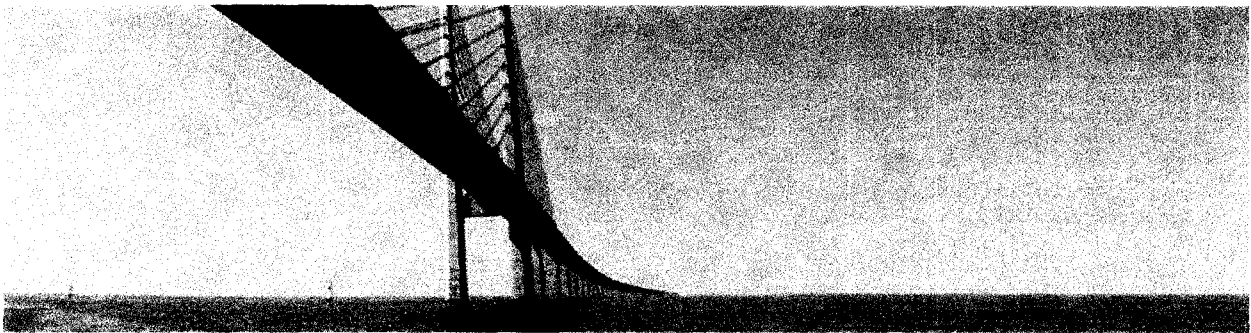
d) Experience with the Dutch transport sector over and above the pre-qualification criterion

CVs of key personnel and their experience from the Dutch transport sector.

Appendix D: Request for Qualification, Part D: Selection Criteria.

e) Experience with operating joint international railway services. **(international contract)**

Since the start of international railway services, Sweden, being a peninsula, has always been dependent on well functioning co-operation with the railways on the European Continent. This goes for passenger as well as freight traffic. To justify large investment in new high-speed trains and to realise the vision of a European high-speed network, well functioning co-operation with our European colleagues is a must. This is true also for HSL-Zuid. Joint efforts are required.



The vision to connect Sweden and Denmark via a tunnel was born 125 years ago and the link was realised the 1st of July this year by the inauguration of the Öresund bridge. The inauguration marked the end of an intense international project work.

A total of 27 new train sets has been acquired, 17 by the Danish State Railways (DSB) and 10 by SJ. 6 of SJ's 10 train sets are financed by the County Public Traffic Authority of Skåne and the trains will be a part of "Pågatåg" – the local County traffic. The X2000 trains are being converted in terms of the power supply and the ATC system so that they can run on the new bridge to Kastrup and Copenhagen.

The bridge is an important link between two densely populated areas. The rail traffic across the bridge includes long-distance trains, regional trains, local/commuter trains, an airport shuttle connecting to Kastrup and several freight train operations .

Track access to the bridge is controlled and supervised by an independent entity, Öresundsbro Konsortiet.

Integration is the key word in the new price and ticket system for the Öresund Region. Rail, bus and ferry traffic is integrated in a collective transport network with a common price and ticket system (the Öresund Tariff System). The idea is that travellers only need to buy one ticket for the whole region. For rail services, SJ is responsible for the Swedish side and DSB for the Danish; for bus services, Skånetrafiken on the Swedish side and HT, Hovestadsområdets Trafikselskab on the Danish.

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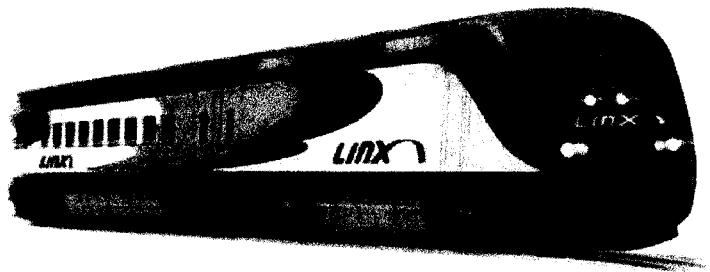
In a fast growing IT environment we recommend a visit to the following sites:

www.oresundskonsortiet.se and to www.tagoveroresund.com to get a picture of what is offered to the customers.

The EU vision of a European network for high-speed trains is being gradually realised.

In May this year, a new railway company was established, Linx AB.

Linx AB is a wholly-owned subsidiary of NSB and SJ (Norwegian and Swedish State Railways)



Linx is the name of a brand new high-speed rail route between Copenhagen- Göteborg- Oslo and Oslo-Karlstad-Stockholm. Linx will shrink the distance between Scandinavia's capital cities.

A journey with Linx will be more than just transport. The Linx will deliver an unlimited travel experience, whether you want to work or just relax. The personnel will bring a whole new meaning to the concept of individual service. Modern IT solutions will make films, games and shopping available to everyone on board. People will be able to choose freely whether they want to sit on their own, together with somebody else or in a group, with or without access to computers or mobile phones.

The Linx trains have been developed jointly by SJ and NSB. Due consideration has been given to all experience gained from the high-speed operations, SJ's - X2000 and NSB's - Signatur, not only technically but above all from a customer point of view. You cannot compromise on the needs of the traveller.

Linx plays on the word 'links', a rail connection that conveys a more conventional train feeling. However, the name also symbolises a bridge between cities and people. Linx also refers to the lynx, the big cat that symbolises smoothness, excitement and experience, as well as something Nordic. Linx quite simply means quick and smart.

The Linx railway will pave the way for greater border-less travel in Scandinavia and aims to conquer another piece of the air travel market.

Appendix D: Request for Qualification, Part D: Selection Criteria.

- f) Experience with operating rail services in a multi-operator setting, with an independent allocation of railway capacity over several passenger train operating companies



In 1988 the Swedish Parliament passed a Bill that has had a major impact on the railway sector, not only in Sweden but in the whole of EU. What was later to be called “the Swedish model” was born. Railway operations and responsibility, development and maintenance of infrastructure were to be split up into entirely different entities. The National Rail Administration, Banverket, was created. The railway network was split up into main lines and regional lines.

Banverket summarises its role as being responsible for the Swedish rail system. They fulfil society and customer demands for railways that are efficient, accessible, navigable, safe and environmentally sound. It is their task to develop railways into a competitive part of the Swedish transportation system.

Since this major change in the organisation of the Swedish railway sector, the deregulation of the Swedish Railway market has proceeded step by step. Presently only profitable long-distance rail traffic is reserved for SJ. Railway traffic in Sweden is therefore provided by several railway operators and on the same tracks.

In 1998 The Swedish Rail traffic Administration, a separate independent unit under the heading of The National Rail Administration, was created. Their responsibility includes track allocation, traffic control and traffic information to passengers. These tasks were previously undertaken by SJ. Consequently SJ is well experienced in dealing with The Swedish Rail Traffic Administration.



In practise, the question of sharing and co-ordinating railway capacity with other operators, started formally in 1991.

The Tågplus scheme, which links train travel (run by SJ and/or other operators) to bus or ferry travel on the same ticket, has been in operation since 1991. The system covers all of Sweden and links together all County Public Transport Authorities (CPTA) train / bus / ferry to the inter-regional transport network

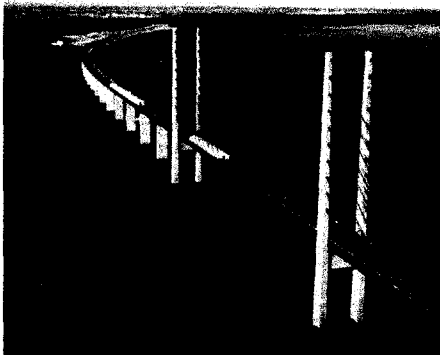
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- The customer shall be informed about the total journey, including necessary stops and changes from one source of information.
- Time schedules shall be co-ordinated to permit adequate time for change of transport.
- Changes shall be possible within a short walking distance.
- The total journey, irrespective of the number of operators, and irrespective of mode of transport shall be included in one single ticket.
- All transport operators shall co-operate closely to avoid unnecessary problems when delays occur. Thus they should as far as possible await each other's arrival or offer another suitable mode of transport to the customer.

ORIGINAL

Samtrafiken AB issues a nationwide time table (Rikstidtabellen) including all rail operators, approximately 1000 bus lines and 75 ferry connections. It is available in print and on the internet. There is also a possibility on the internet to search for suitable travel connections. The systems covers about 2000 destinations.

Samtrafiken AB has reached its purpose and all parties are co-operating and co-ordinating their activities for the common good.



The newly opened Öresund bridge is an important link between two densely populated areas around Malmö in Sweden and Copenhagen in Denmark. The rail traffic across the bridge includes long-distance trains, regional trains, local/commuter trains, an airport shuttle connecting to Kastrup and several freight train operations .

Track access to the bridge is controlled and supervised by an independent entity, Öresundsbro Konsortiet.

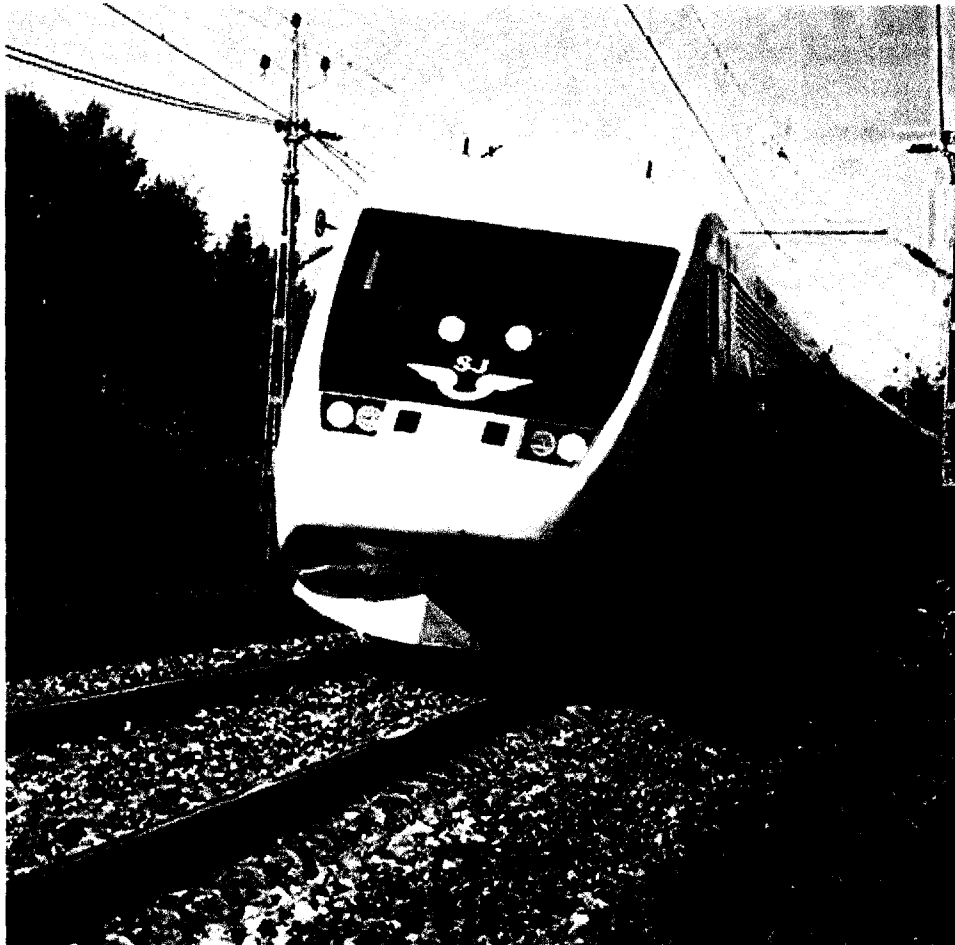


A-Train, which operates the new railway shuttle between Arlanda and Stockholm City, is also the owner of the infrastructure and thus also responsible for track allocation to other operators, SJ included.

In the international freight traffic SJ has to apply for suitable timetables concerning direct customer trains and has also entered into several co-operation agreements with European colleagues.

Appendix D: Request for Qualification, Part D: Selection Criteria.

g) Experience with operating high-speed rail services, including the procurement of high-speed (over 200 kph) rolling stock



On the 4th of September 2000 the X2000 high-speed train celebrated 10 years of operation.

The end of the eighties showed a very negative trend for Swedish Railway Passenger Transport. The loss of market shares accelerated. In order to survive it was clear that a revolution had to take place in the railway market. As a consequence the decision was made to launch a high-speed train service in Sweden, starting with Stockholm – Göteborg and gradually developing into a network connecting to Copenhagen and, far in the future, to a European high-speed train network. We have reached Copenhagen!

In order to create something that could threaten the air transport market and make people leave their cars behind, thorough analysis were made of customer preferences etc. Speed in itself would not be sufficient to attract customers. A completely new concept was developed – the X2000.

“Easier than flying, faster than the train”:

The discussions about a high-speed train service actually started already in 1967 when the Swedish Government made a study of the question. In 1973 SJ started to co-operate with ASEA to develop a high-speed train. In 1981 SJ ordered three different prototypes. In 1986 SJ made an order for 20 train sets. Today SJ has 46 sets in operation.

The X2000 project consisted of three main parts: market, infrastructure and vehicle. In all three areas the customer was put in the centre.

The total travel concept became a new notion in order to stress the importance of considering all possible demands of the customer. Some examples:

- Possibilities to reach the station
- Parking facilities
- Ticket sales
- Travelling time
- Onboard service
- Onboard environment
- Availability of work aids such as telephone, telefax, copying on board the train, pre-booking of taxi cars at arrival
- And other relevant factors.

In order to respond to the customers' expectations, quality guided the whole project.

The rolling stock provider had to guarantee certain performance parameters and availability performance of the train sets. The latter included an undertaking of reliability in operation and an undertaking on Life Cycle Cost. The LCC model was quite unique at the time and generated international interest.

Detailed guarantees concerned maintenance, spare parts, documentation, training of service and maintenance staff, delivery of workshop equipment. For each identified component, the contractor had to specify failure rate, repair time, indicated price etc.

The vehicle is an X2 tilting train with a maximum speed of 220 kph. The speed record, however, is 275 kph.

X2000 has been and still is a great success for SJ. The services before and after the train journey have improved and the service on board has been adapted to customer preferences. The X2000 market share out of the total of train plus air travel Stockholm – Göteborg increased from 37% in 1988 to 52% in 1996 and is even higher today.



Already in 1988 a “Zero Vision” was adopted by SJ concerning environment and safety. The goal was crystal clear. All work should be concentrated on eliminating negative environmental impact from SJ activities and the number of accidents involving trains should be zero.

In 1995 SJ’s high-speed train X2000 was officially awarded the “Good Environmental Choice Mark”. SJ was the first Swedish transport company to be awarded such a mark. Later on, also the Freight Transport Division of SJ was awarded the same mark.

The environment is always in focus in SJ. On SJ webpage, www.sj.se, “OM SJ”, the visitor gets a lot of information about the environment. There is also a possibility to make your own calculation of the environmental impact from different modes of transport. The result is presented in terms of hazardous elements emitted and the cost to the environment. Please see enclosed example for a trip Stockholm - Göteborg. (Dg1)

The safety record for X2000 is fortunately very good. During ten years of operation there have been no injuries to people nor have there been any casualties.

SJ never compromises with safety and the environment.

To get an idea of the environmental work performed within the SJ Group we refer to the enclosed report “Environmental Performance Report. The SJ Group 1999” (Dg2)

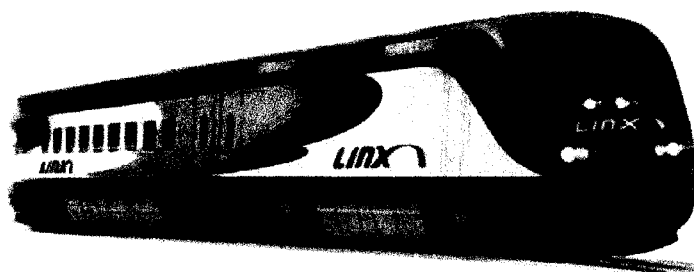
The goal of SJ Passenger Traffic is to get certified according to ISO 14001 in April 2001.

In September 1994 the Swedish Government launched the tendering process for the new high-speed railway link to Arlanda Airport. The tendered concession covered everything from construction of the track to train operation, BOT, build-operate-transfer. Private parties were invited and consortia were created. SJ participated in the ATAB-consortium, but regrettably was not awarded the contract.

The EU vision of a European network for high-speed trains is being gradually realised.

In May this year, a new railway company was established, Linx AB.

Linx AB is a wholly owned subsidiary of NSB and SJ (Norwegian and Swedish State Railways)



ORIGINAL

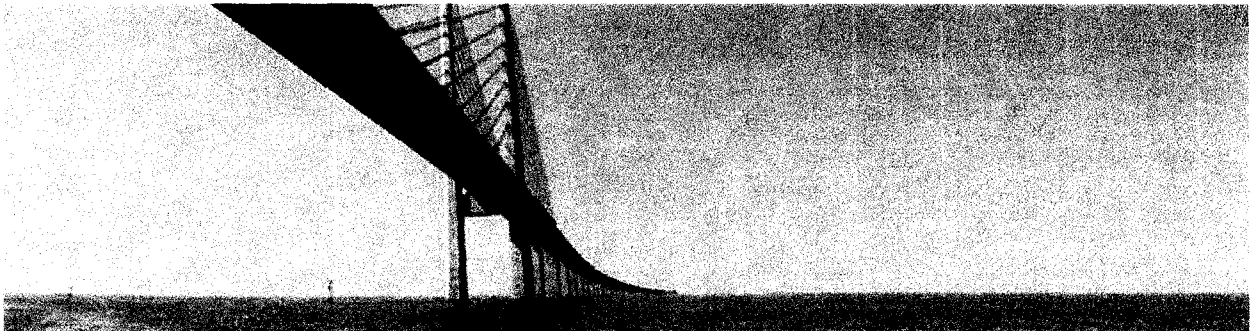
Linx is the name of a brand new high-speed rail route between Copenhagen- Göteborg- Oslo and Oslo-Karlstad-Stockholm. Linx will shrink the distance between Scandinavia's capital cities.

A journey with Linx will be more than just transport. The Linx will deliver an unlimited travel experience, whether you want to work or just relax. The personnel will bring a whole new meaning to the concept of individual service. Modern IT solutions will make films, games and shopping available to everyone on board. People will be able to choose freely whether they want to sit on their own, together with somebody else or in a group, with or without access to computers or mobile phones.

The Linx trains have been developed jointly by SJ and NSB. Due consideration has been taken to all experience gained from the high-speed operations of SJ's - X2000 and NSB's - Signatur, not only technically, but above all from a customer point of view. You can not compromise on the needs of the traveller.

Linx plays on the word 'links', a rail connection that conveys a more conventional train feeling. However, the name also symbolises a bridge between cities and people. Linx also refers to the lynx, the big cat that symbolises smoothness, excitement and experience, as well as something Nordic. Linx quite simply means quick and smart.

The Linx railway will pave the way for increased border-less travel in Scandinavia and aims to conquer another piece of the air travel market.



ORIGINAL

Dg - 1



OM SJ

Hem Pressservice Jobb & utbildning Företagspresentation Miljö & kvalitet Kontakta SJ in English

6 september



RESULTAT
RESEKALKYL

Resan Göteborg - Stockholm (1 resa)



Hur stor inverkan hade
dina resor på miljön?

Avstånd per färdmedel

"Avstånd per färdmedel"
visar dina tidigare valda
alternativ i en
samlingsstabell.

		Km		Km
Färdmedel	Bil, kat 2 pers	478	Buss, diesel 50%	478
Totalt antal km		478		478





"Utsläpp och
miljökostnad" visar
utsläppen för respektive
färdmedel. De lägsta
värdena visas i grönt
och de högsta i rött.

		Km		Km
Färdmedel	MD-82 65%	461	X2000 50%	456
Totalt antal km		461		456

"Utsläpp och
miljökostnad - diagram"
visar samma resultat
som ovan i
diagramform. Du kan
titta närmare på
diagrammen genom att
klicka på dem.

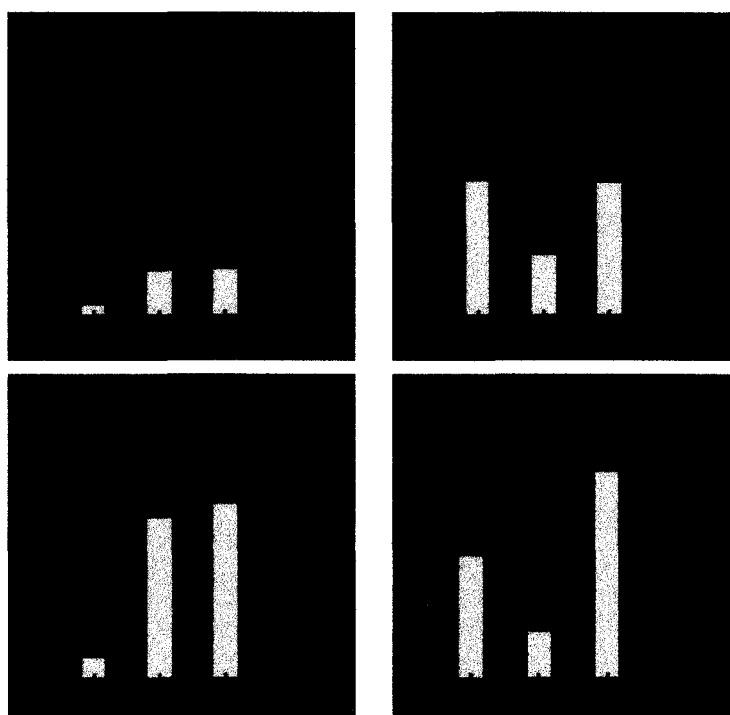
Utsläpp och miljökostnad

Du kan skriva ut resultat
och diagram genom att
välja Arkiv/Skriv ut eller
File/print.

Utsläpp				
HC, hälsorisker	0,00 kg	0,04 kg	0,04 kg	0,00 kg
CO, hälsorisker	0,11 kg	0,05 kg	0,11 kg	0,00 kg
NOx, försurande	0,04 kg	0,27 kg	0,30 kg	0,00 kg
CO2, växthuseffekt	41,59 kg	16,25 kg	70,07 kg	0,00 kg
Miljökostnad	64,96 kr	41,87 kr	124,00 kr	0,00 kr

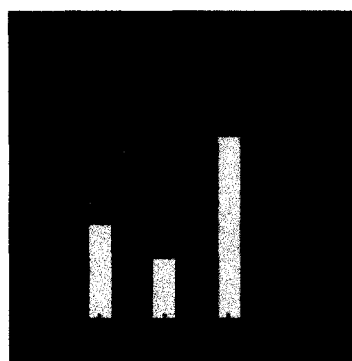
Klicka på "Ny kalkyl" för
att göra en ny
reserekalkyl.

Utsläpp och miljökostnad - diagram



Visste du a

Sverige skulle spara
miljarderna SEK om en
tredjedel av vägtrafikens
portarna över tio mi-
liard procent av person-
bilresandet under 1
timma flyttade över
järnväg. Varje år.1988 delades det "g-
upp i två enheter. En
myndigheten Banve-
tar det samhälls-
ekonomiska ansvar
järnvägsnätet. Dels
"nya" SJ som har til-
att köra tåg efter
företagsekonomiska
lönsamhetsprinciper



ORIGINAL



SJ | SJ Cargo Group | SJ Express | SJ Fastigheter | SJ Resor