



## Note no5

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### Preliminary feasibility study of scheduled passenger services at Tartu Ülenurme Airport, Estonia

Flexible and fast access is one of the key elements to the economic growth of cities and regions in a globalising world. The rapid growth of air transport during the recent decades is therefore not surprising. The number of air passengers to and from Estonia has doubled in just two years but international air transport services are almost exclusively provided to and from the capital city of Tallinn.

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#### Market overview in the Baltic Sea region

After the European Union (EU) accession of the Baltic States in May 2004, air traffic has increased significantly at the capital airports of Tallinn, Riga and Vilnius especially in terms of passenger volumes. Cargo volumes carried by aircraft remained modest and is mostly transported by trucks. Table 1 indicates passenger volume development at the Baltic States airports and major BSR airports between 2003 and 2005.

Passenger volumes at Tallinn, Riga and Vilnius airports have increased by an average of 113 per cent between 2003 and 2005, compared to average growth rate of 21 per cent among major airports in the Baltic Sea region. Passenger volumes at Warsaw's Frederic Chopin Airport increased by 37 per cent during the same period. Poland also joined the EU in May 2004.



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#### Assignment and overview

The report "Preliminary feasibility study of scheduled passenger services at Tartu Ülenurme Airport, Estonia" presents the results of an extensive pre-feasibility study to re-starting regular air transport services from the Tartu Ülenurme airport. The study was commissioned by Tartu City Government and carried out by Turku School of Economics during the Spring-Summer 2006.

Since Estonia regained its independence, several short-lived attempts have been made to re-open regular air transport services from the Tartu Ülenurme airport, located some 11 km south of the city. Poor timetables, short term perspective, lack of interline agreements and mistakes in marketing have been cited as the reasons for the services not to generate sufficient demand. Since the last attempt in 2000 to launch air transport services at Tartu airport, the Estonian economy has experienced impressive growth rates, and the country joined the European Union and NATO in 2004.



Figure 1 Airports in the BSR within 300km, 500km and 1,000km range of Tartu airport.



Passengers ('000s)	growth rate		
	2003	2005	2003-2005 in %
Tallinn	716	1,401	96
Riga	712	1,878	164
Vilnius	719	1,282	78
Copenhagen	17,714	19,982	13
Stockholm (**)	16,395	18,444	12
Berlin*)	13,306	17,153	29
Helsinki	13,193	15,138	15
Hamburg	9,530	10,677	12
Warsaw	5,167	7,072	37
Hannover	5,045	5,637	12

\*) Berlin includes three airports: Tempelhof, Schönefeld and Tegel

\*\*) Stockholm includes two airports: Arlanda and Bromma

Sources: Airports; Berlin, Hamburg, Hannover: Arbeitsgemeinschaft Deutscher Verkehrsflughäfen

Table 1 Number of passengers at selected airports in the BSR in 2003 and 2005

Instrument Landing System (ILS). Although not seen as necessary by all stakeholders the lengthening of the runway by approximately 420 meters is necessary in the medium term if air traffic is to catch up. It would increase the safety of operation and make the airport suitable to larger aircraft. It is not economically meaningful to first install an ILS before the lengthening of the runway because the reinstallation of such a system is almost as expensive as a new one. Thus, the runway needs to be lengthened first, and an instrument landing system is to be installed before opening a scheduled route.

While the number of passenger forecast above may be sufficient to operate a profitable service for an airline, Tartu airport would still not be profitable. It is generally estimated that 300,000 to 500,000 passengers are needed for an airport to make ends meet. In addition to that the airport needs considerable investment in order to modernise it airside (such as runways) and landside (such as terminals) facilities.

## Financing of investments

It is estimated that a minimum of 142 million EEK (9 million EUR) needs to be invested at the airport before scheduled passenger services can commence from Tartu airport. Further investments in the magnitude of 30 million EEK (2 million EUR) can be postponed to a later date.

The key issue is how these investment costs affect passenger charges and thereby air ticket prices, as too high prices may reduce the passenger demand considerably, especially in the price-sensitive market segments such as tourists and private persons. If the needed investments into Tartu airport are fully financed through loans taken by the airport operator, the airport charges need to be significantly increased in order to be able to pay back the loan and interests.

## Estimated demand

Based on interviews with business leaders of the Tartu region and travel statistics from companies, universities, as well as tourism organisations, it is concluded that the current demand for air transport services at Tartu airport could be approximately 30,000 passengers per year (departing and arriving passengers). The growth potential is estimated at 10 per cent per annum in the next 4-5 years. It is unlikely that at the moment more than one destination would be operated from Tartu. Given the estimated passenger volume and the capacity of suitable aircraft 1-2 daily departures and arrivals would initially meet the demand.

The actual demand may diverge from this forecast because air travel decisions are based on several factors, as interviews with the business community revealed. Most notably the frequency of connections, possibilities for timely and cost-efficient further connections, available destinations and membership in or agreements with airline alliances drive the choice of a flight.

## Potential destinations

It is concluded that air transport connections to Helsinki or Stockholm have the most potential in the short-term. An air link to Tallinn is unlikely to prove economically viable due to competition from other modes of transport. Connections to Riga and Copenhagen would also be desirable but the latter is restricted by aircraft types suited for such a long flight.

Most regional aircraft types used in the Baltic Sea region for regional traffic can land on the runway of Tartu airport. However, because of the short runway some aircraft may have payload restrictions. Limitations may also apply during bad weather and the winter season. During the survey a number of potential airlines were contacted. It was clear that there is willingness to start operations and suitable aircraft are available in Estonia, Sweden, Finland and other neighbouring countries.

## Investment needs

The foremost prerequisite of starting scheduled flights from Tartu airport is the investment in an



Figure 2 Tartu airport terminal in 2006



## Conclusions and recommendations

Based on the above, a scheduled passenger route from Tartu airport is potentially viable for an airline operator; however, scheduled passenger air transport services from Tartu are not commercially viable for the airport operator if it has to cover the necessary investment costs through passenger fees alone. Thus, a substantial part of funding should come from the public sector. One possibility would be to combine EU support through ERDF or Cohesion Funds in the effort. The use of such funds would require a political decision on a national level. An airport with scheduled passenger flights would definitely be important for business, governmental, research and educational activities in the region and it would also balance regional development in Estonia. Upgrading the airport would also provide the country with an alternative landing site which is not available at the moment. In bad weather or exceptional circumstances all passenger air traffic would have to be redirected to e.g. Helsinki or Riga. This becomes the more important for Estonian civil aviation the higher the passenger volume in Tallinn becomes. The Tartu City Government has actively discussed with the Ministry of Economic Affairs and Communications to achieve funding for the needed investments. For an airline operation to succeed from Tartu airport, it is proposed that a roundtable be

organised where the potential customers of the airport, providers of air transport services and other local and national stakeholders be present in order to agree on a long-term commitment.

The full report is available at <http://www.tse.fi/markkinointi/log/tartu/>

## About the author

M.Sc. Torsten M. Hoffmann works as a researcher at the Turku School of Economics. Mr. Hoffmann's specific expertise is in air transport and he has worked as a consultant on several logistics and transport related projects, including for the World Bank. In the LogOn Baltic project he is responsible for the Work Package 4 - Dissemination and Transfer.



Developing Regions through Spatial Planning and Logistics & ICT  
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Baltic Sea Region INTERREG III B, Neighbourhood Programme  
Measure: 2.2. Creating sustainable communication links for improved  
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Community Initiative Programme 2000-2006

LogOn Baltic aims at improving spatial integration by transferring knowledge in ICT and logistics competence.

The main objective is to produce and disseminate information for regional development agencies on how to support enterprises in the participating regions in their effort to improve ICT and logistics competence, thus improving regional development.

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