

# **Creation of Express Bus Services to Improve Competitive Edge for Public Transport in Møre og Romsdal County.**

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## **Introduction.**

Public transport as an alternative to private car use for long distance transport will be hard or very difficult to establish. One option is to improve public transport by offering *express bus services* between major centres in a region. Based upon experiences for a clear success of public transport express bus services named the *Time-ekspressen* in the Oslo-region, the local county administration in Møre og Romsdal asked Molde College to join in on a project to check if there was a local express bus market in this region. We formed a questionnaire to be handed out to local car and bus travellers to see if there existed local passenger markets willing to pay for an express bus service. In this paper we sum up our report to the county road authorities based upon the findings in that project we worked through during the summer of 1999. In this paper we present the background of the project in part 1 and focus on need for information to establish express bus services to strengthen the competitive edge of public transport in general and a special type of direct centre to centre services in regions with a potential passenger market segment commuting over longer distances like in Møre og Romsdal. In part 2 we present the survey and discuss the composition of it. We stress the added question of willingness to pay extra for services by some questions on toll funding of public transport services. In addition we present the main results and findings from the survey before we conclude in part 3.

## **Part 1: Background for the project.**

Møre og Romsdal as one of nineteen counties in Norway has a regional administration that is responsible for regional services of among others communications in a broad sense as one. Part of the communication administration main object has been to develop together with operating companies to improve public transport services. Part of this work

will focus on user needs for service. To improve quality and adjust public bus service to users' needs seems to be necessary and as a part of that one decided to interview *potential users* to find out if there was a *potential* need for express bus services in our region. As is seen across Norway most people along the coast On the west coast of Norway need for long distance transport service include ferries or subsea tunnels. Travel one of the four centres of the region travellers needs a ferry og crossing a fjord by subsea tunnels or both. Crossing fjords using a ferry or passing through a tunnel users have to pay toll or extra fares for road services otherwise free in eastern parts of the country. Long distance travel between major centres will thus include payment for road services. We could use the toll stations or the ferry to hand out questionnaires to interview long distance travellers in our project.

Distance	Travel time by bus	Travel time by private car
Volda-Ålesund	2 h	1 h 30 min
Ålesund- Molde	2 h 15 min	1 h 45 min
Molde-Kristiansund	1 h 35 min	1h 10 min

In Møre og Romsdal there are four main centres. Volda/Ørsta, a larger community in the south has another status than the three towns, Ålesund, Molde and Kristiansund, all towns have a history running up to 250 years back in time. In fact the first public bus or transport service in Norway was established in Molde around the turn of the last century. To travel long distances between the centres is more than 60 km (40 miles), ferry use increase travel time between Volda/Ørsta and Ålesund and between Ålesund and Molde to over 2 hours. Private car use will save at least 30 min (up to 25%) of total travel time. Time saved by travelling between Molde and Kristiansund is less with no ferry only a subsea tunnel. By an express bus service the gain by private car will be reduced.

The project's main purpose was register if there was and who would use public transport for long distance commuting between the centres here. If people use public services as a transport mode we could test if they preferred public transport. In our survey we included only travellers between the four centres and only people over 18 excluding those without driving licence. The purpose was to ask those travelling today how often they travelled the actual distance. According to existing services between the 4 centres there existed already up to 20 return trips on weekdays (Monday to Friday) as ordinary public transport service by buses. None of them were express services so the project should register if there was any market potential for express bus services if the operators substituted this by express buses. Our main aim was to test out if there was a significant number potential users companies could win by improving service to strengthen competitive edge. If people were willing to pay for extra service in this specific market segment, companies could increase number of users commuting over longer distances by express buses.

The county communication administration fund companies by subsidies. Supporting the idea of an express bus project as one transport policy measures the plan was to support express bus service to improve public service or help support developing new or better quality of public transport services. A similar express bus service Time-ekspressen in the Oslo area once started as an hourly service between Oslo and nearby local centres. This became a success and service doubled by adding extra departures every half hour for the existing route and distance. In Møre og Romsdal county we had no express bus service directly between the major centres. There was a long distance express service between Trondheim and Bergen passing through Molde and Ålesund. We also assumed that the potential market size to be smaller and travel time as indicated above substantively longer than an hour so companies only had limited plans to introduce express bus service (maybe every hour, but most probably only in mornings and afternoons).

Another aim was to look for *existing* travel patterns that could make express bus services profitable. Thus we looked for four aspects of the travel pattern:

- to what extent do people travel between the major centres in the region
- by what modes and for what purposes do people travel
- who are those commuting between the major centres
- and if they travel are they willing to and how much extra will they pay for an improved services or better transport quality.

In our survey we would try to show different travel patterns between the centres including at least a segment maybe large enough for at least some express services if not between all at least for some of the centres.

The county's communication administration policy planning documents for the period from 1997 to 2000 had as a central aim to support transport solutions that would stimulate better access, safety and reasonable transport costs for public services. Among others one major idea was to develop housing and working area to broaden what was defined to be a regional labour market to stabilise living/housing pattern within the region. To support the policy one possible policy tool could be to adjust public service between the major centres where we will find the major labour markets in Møre og Romsdal.

Our background information had showed that the county has a growth potential with a well developed export base in the region. Number of jobs has lead to increase in numbers of inhabitants now growing. In the inner part of the county number of population has been declining in the actual period up to 1998. Young people establishing themselves in families, seem to search for a working place for both and obviously establish households in this county with more and better job offers close to the centres. In a family where two adults are working, they need a broader labour market to improve job offers. Having higher education than the rest of the region's labour population they look for jobs requiring higher or better qualification. In the growing part of the region close to or in centres they get more job offers, here they will be offered better paid jobs. They will gain

by better work satisfaction not to say they will earn higher salaries in high tech companies, at higher education private or public institutions or in petroleum sector companies to mention major industries that attracts young, newly educated people just finishing a longer study program at universities or similar education institutions before entering job markets.

The county has experienced improved transport links within the region for a longer period. Better public transport services are a part of the improvement. Better roads or subsea tunnels has been built around, the main transport corridor from south to north along the coast runs through all four major centres. Once the Norwegian Road Authorities planned this route to be ferry free, high investment costs made this infrastructure project too expensive up till now.

To improve public transport competitive edge to substitute private car use will require attractive, simple, safe and easy accessible public transport services. Up till now it seems as part of public service is too complicated to use, the information might be inappropriate, the cost of using it too high and the fare system has not stimulated use of public services. People willing to use public transport system is not aware of the supply of it, amount of cost using it and volume of services is unknown to a lot of potential user in this region. If they would get correct knowledge of extra service established to stimulate use of public transport now unknown to the vast majority of users, the result might be that express bus in this region might be profitable by attracting private car users in addition to extra number of users not travelling today.

As a part of the project we collected general information about people living in Møre og Romsdal. The level of car ownership equals average Norwegian standard, 92% of the population live in households with access to at least one car. 88% of people living in the region has a driving licence. The highest percentage of people having a driving licence is in the age group of male between 25 and 54. This male age group also tends to have a higher education level than the average, none in this male age group was recorded unemployed, a vital background information we needed to design our survey. We needed information of the market for public transport already established. In addition we needed to find if there was a market segment of users who could be willing to pay for using an improved (either having higher frequencies or better quality) transport service.

We picked people over the age of 18, only those travelling to the centres and picked two consecutive days, Monday and Tuesday or Thursday and Friday for the actual distances. We received 1009 replies or respondents in the project, the highest number of respondents to any transport survey in this region ever.

## Part 2: The survey, some findings and results.

Our questionnaire included 13 questions, the last 3 of them concerning tolling. Commuter's sex, location, age, purpose, departure, direction, frequency as well as mode of transport were checked out. We also asked questions to control whether users would need or could lack information of public transport services. Thus we also tested whether knowledge of service could be or maybe cause some or even major problems. And last but not least we wanted to check if potential users knew how and where to get required information about public service like this.

67% of our respondents were male, 33% female which was not a surprising split. We also found that 94% of private car users were male, for female users the number was 86%. In total 8.7 were using public transport, which according to surveys from other regions and other countries is relatively high for long distance travelling. This indicates a high portion of actual as well as *potential* users with non-existing express bus service. Time saving and improved quality aspect indicates a potential market segment for express bus services in a region where people obviously seem to be commuting to work for up till 2 hours indicated in our study to reveal a transport market of people able and willing to use public transport. The highest portion of travellers were in the age group between 44 and 66, we counted in this group over 50% of male and exactly 50% of female travellers.

*Tab. 1: Those travelling between centres divided by sex and transport mode Number in %*

	Bus	Car	Total
Male	4,0	63,0	<b>67,0</b>
Female	4,7	28,3	<b>33,0</b>
<b>Total</b>	<b>8,7</b>	<b>91,3</b>	<b>100,0</b>

It was a striking high percentage (17.9%) of all users (answering our questionnaire) was commuting at least 5 times per week between the four centres. We like to remind of the long distance (over 60 km), the time it takes from one centre to another (over 2 hours) which is a fairly long commuting distance. So there is no doubt a market potential for long distance express bus service of people willing to pay for public transport at the expense of private car use. And close to 40% were commuting at least once a week to one of the major centres in Møre og Romsdal.

The market potential is illustrated by the results for the shortest route between Molde and Kristiansund. For this market there are relatively more commuting by bus already, they are travelling more frequent and this route has now the lowest frequency of service! We will stress the fact that we interviewed more people here, close to 400. About 13.5% were reporting daily commuting, in addition 10% reported that they would commute nearly on a daily basis. Portion of private car use were lower, less than 87%, while for the rest of

the travellers on the three remaining distances the portion of private car use was close to 94%, a standard result for long distance commuting.

Commuting to work and transport while at work dominates. Close to 2/3 will be in this category. Of those 37.7% commutes while at work, half time extra the amount of 25% that commutes to work. This indicates close links between the four centres, people will be requiring transport to one of the other centres frequently during working hours. Numbers indicates that the major number of trips will be between Ålesund, the largest centres and Molde, the county administration centre. In both centres people will get access to public as well as private services. In both towns we find export orientated companies linked to each other in a larger industry group or working within equal or close related industries. Need for public services including transport might explain some of this, but not all since unlike other centres in other counties, all four centres has its own airport. Thus any need to travel to major domestic or international centres has no influence on the travel pattern this survey reveals.

Within the standard analysis we find that more than 2/3 are going to Ålesund (41.7%) or Molde (27.7%). Leaving Ålesund (24.8%) and Molde (27.5%) counts for more than 50% of total number of travel. So the need to reach the major centre (Ålesund) or the county administration (Molde) explains the major need for travel.

We think this underscores the major finding in the project, there exist a market for bus travel in the region. This segment is quite important when it comes to number of people willing to pay for use of public transport. If time to travel will be reduced, numbers for a link between Kristiansund and Molde indicate a higher portion of travellers using bus or public transport. Even today where there is no express service, there are substantial higher portion of public transport users. Looking into other reports we see that we have found a much higher portion using public transport than other studies do for what apparently is long distance commuting. We thus think that there is a market segment for express bus services in the region. Both when it comes to travel time, distance and frequency there might be enough people willing to pay for a fast bus service between the centres here in this region. This is underlined by the time saving aspect that normally make people use private car. A direct bus is improving quality of service. This improvement might be significant to make people change mode or travel more.

The survey reveals the need for higher frequency. More than 1/3 reports that this will be most appreciated. Saving time is another important reason as expected would be reported in a survey like ours. The ease of travel without needing to change bus is counting for 2/3 of the reasons that would make people choose to go by public transport.

Lack of price information was reported. The answer on the question asking those replying indicates they overestimate prices for public transport travel. This might be normal for people using private car also. But more than 1/3 assumes price to be higher than it really is for the actual distance for all, and is much lower for people travelling between Molde and Kristiansund where more people actually are using public transport!

In this region people are used to pay extra for road services with a lot of roads being toll funded. We see in our study that people are more willing to pay for extra quality or for an improved service. We posed those questions to check whether this was true or not. Since we got the answers we would expect, we think the same goes for express or improved bus or public transport service also. This underline the potential for such service of public transport, we believe that people might choose to travel more often and by express buses if service was made available. There is a market potential, in a region with four centres, this might be a good place to start a test service to check whether it is profitable or not.

## **Part 3: Conclusions.**

Being the largest survey done in this field ever done in this region we think it might be more conclusive than we expected it to be. Our conclusions will be based upon a wider scope of potential public transport users. Long distance commuting is substantial here, if we compare to standard assumptions the portion of bus transport users is higher than have been reported elsewhere. We think that better more efficient and faster bus service might increase use of public transport. People also seem to be willing to pay for extra service or improved quality.

Travelling time is more important than price, and private car users seem to overestimate price of public transport. Female is more frequent users of public transport, it seems to be hard to make men not to choose private car. Flexibility, combination of trips and so forth and so on seems to be preferred. But findings indicate that private car users overrate the money saved by using car or underestimate spending on public transport. Therefore the information campaigns to influence transport mode choice need to focus on money spent so an express bus service might be chosen for more people commuting long distance. And findings in this study indicate a significant market segment for transport of this kind in this region at least.

One final word on public transport management before concluding. This report was presented in 1999. By the end of last year county communication administration made preparation so they could introduce express bus services in this region. We think this is a correct policy in the sense that there exists a market potential. We think people then will choose public transport. And we also think this might increase travel by buses because users has signalled in this survey needs for public transport in form of express buses!

Coleges

We had a marvellous time with you here in Molde.

For us the Thredbo 7 conference was perfect.

We had been looking forward to see you in Molde.

We had planned to present the college, the neighbouring area

We wanted to show you this part of Norway.

We couldn't guarantee the fog,

But even that didn't disappoint us.

Jokes aside, we hope we succeeded to present the country

And the town in a way you wanted to?

We did our best to make you feel at ease here.

We tried to serve you as best as we could.

And if we did succeed, we hope that some of you

In the future will come back.



We hope to make links to do common research project with some of you.  
We think we might be able to establish closer links with some of you.  
We promise to make available electronically all the papers in a few weeks time.  
This is the summer holiday at the college.  
Computer science responsible is off on holiday.  
But in 3 weeks time we will be able to link the programme to the papers.  
We hope that will be all right for all of you?  
And if some of you need CD-roms, please contact us.  
We had the most pleasant visitors coming in.  
You made this the event of the decade.  
There have probably been things we could have done differently.  
But for us you made the conference a success.  
So if this was sufficient to give you a memorable time here,  
We feel we succeeded in our efforts.  
For those of you organising Thredbo 8, look forward to it.  
You will have a very enjoyable time doing it.  
We loved to have the pleasure doing it.  
See you in Brazil.  
Look forward to the friendly football game during the conference.  
May the best team win.  
Have a pleasant holiday  
Summer up here, winter down under.  
I will later send you a new updated email.  
And I will contact some of you like I promised to do.

Best regards

Olav H.

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