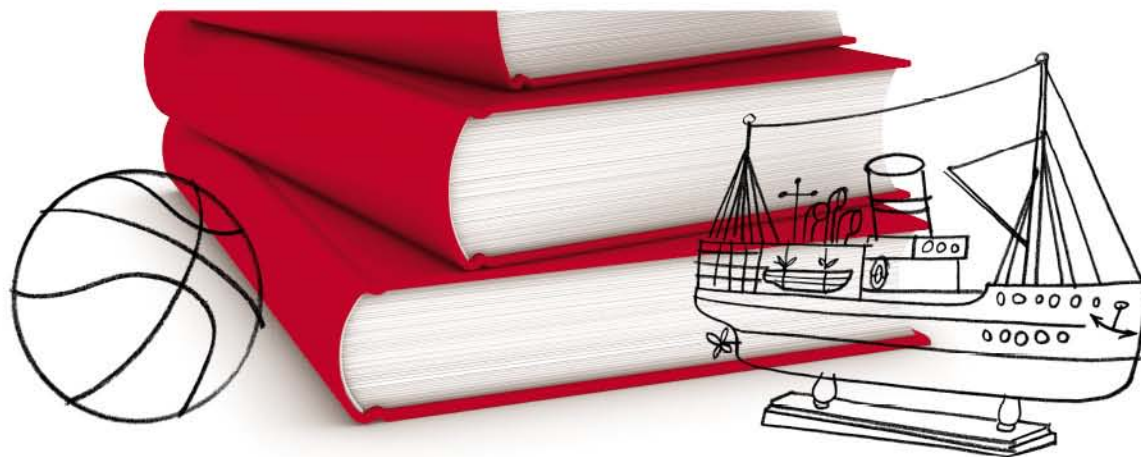




SUOMALAINEN KIRJAKAUPPA

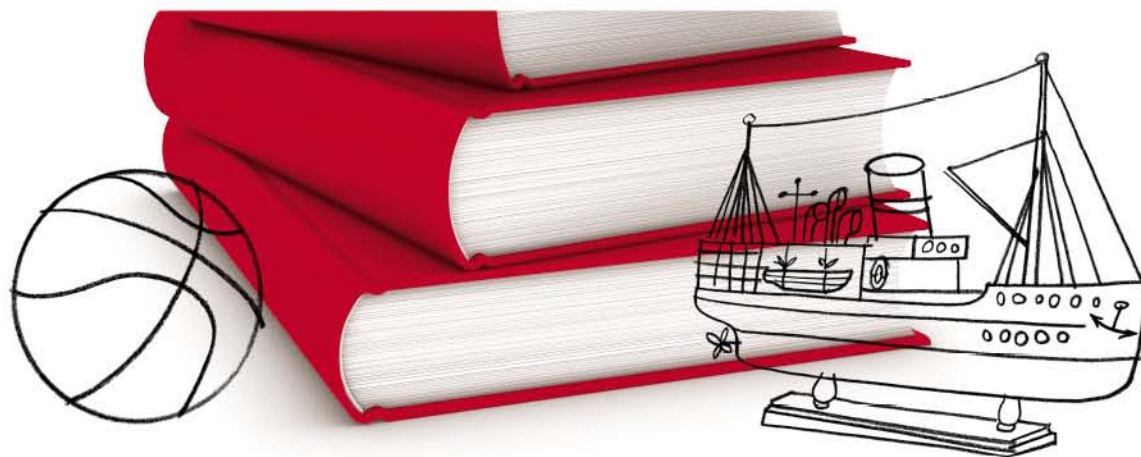
Timo Kauppila, RELEX
Seminar 2012





FORECASTING AND REPLENISHMENT OF SEASONAL PRODUCTS: CASE CHRISTMAS

Timo Kauppila, RELEX
Seminaari 2012



PRESENTATION TOPICS



- **Company presentation**
- **Forecasting and replenishment at Suomalainen Kirjakauppa**
- **Managing the Christmas season**
- **Results**



- **Established in 1912**
- **Revenue in 2010 approx. 110 mil. euro.**
 - **70 % book sales**
 - **30 % office supplies and consumer paper products**
- **Approx. 750 employees in 2011**





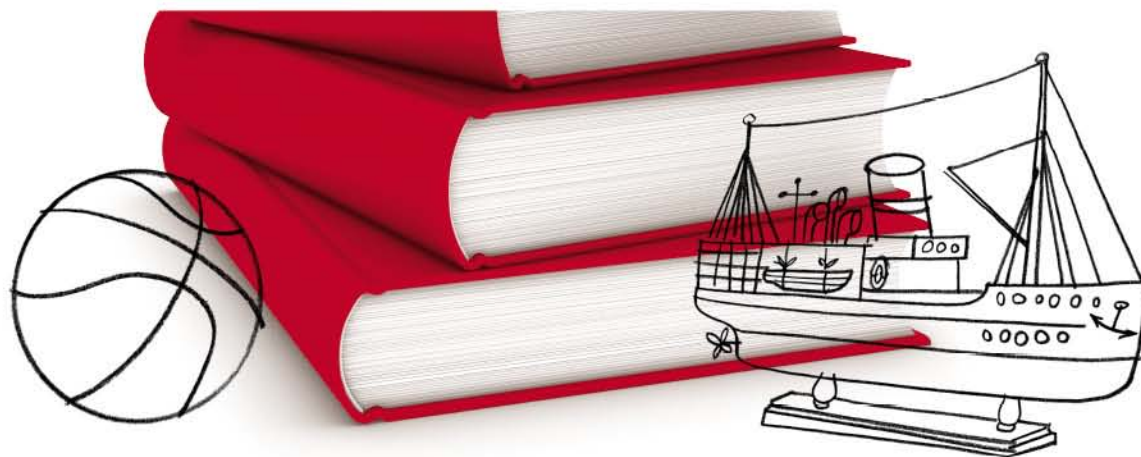
- **59 Suomalainen Kirjakauppa stores**
- **1 Yliopistokirjakauppa store**
- **3 Reader's paperback stores**
- **1 Lukiolaisten kirjakauppa store**
- **Suomalainen.com webshop**





FORECASTING AND REPLENISHMENT AT SUOMALAINEN KIRJAKAUPPA

Timo Kauppila, RELEX
Seminaari 2012



IMPLEMENTATION OF RELEX'S FORECASTING AND REPLENISHMENT SOLUTION: BACKGROUND



Goal: to reduce the need for administrative work in the stores

- In order to free up store personnel's time to enable increased focus on sales and customer service in the stores

Pilot implementation of RELEX's solution in 2007; roll-out in 2008

- After initial implementation and stabilization of the new centralized automatic replenishment process, both inventory and assortment management processes have been further developed

HOW RELEX'S SOLUTION IS USED AT SUOMALAINEN KIRJAKAUPPA



Assortment management

- Maintenance of assortment classes for stores and products
- Suggestions concerning items to be de-listed

Automatic forecasting and replenishment

- Both for basic demand and during the peak season

Replenishment of promotional items

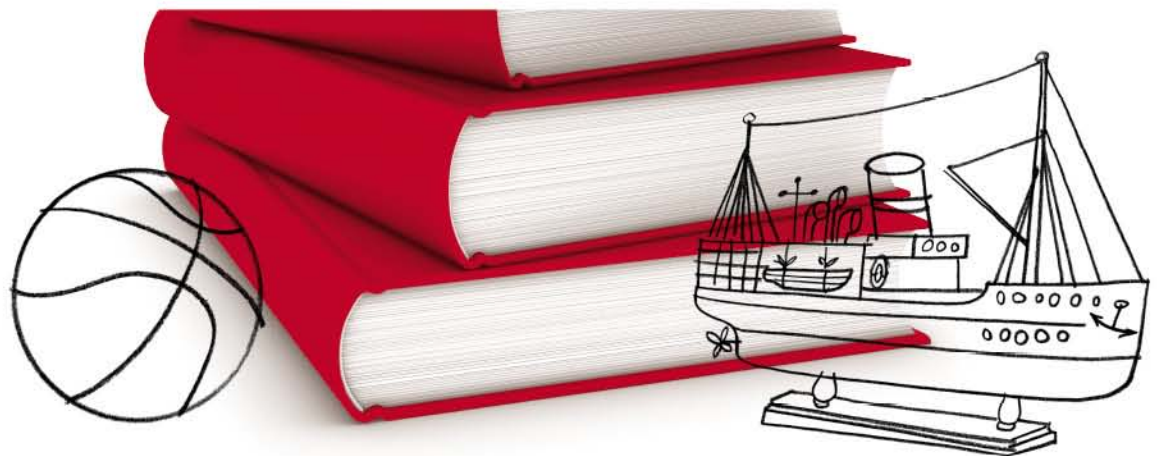
- Based on the historical sales and current inventory balances in stores

Supply chain monitoring and reporting



MANAGING THE CHRISTMAS SEASON

Timo Kauppila, RELEX
Seminar 2012



BOOK SALES IN FALL 2011



NOVELS



THE PEAK SEASON IS CRUCIAL



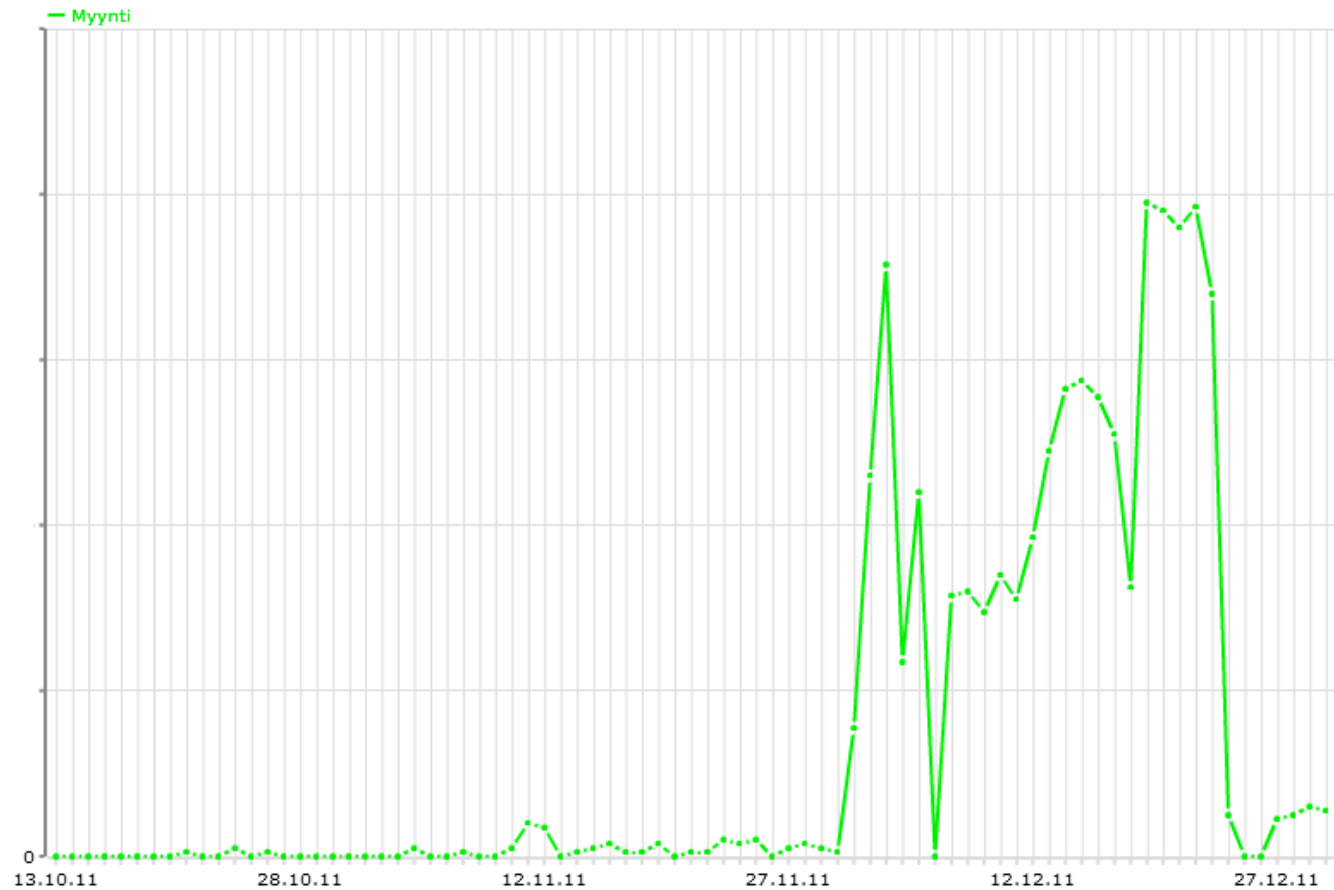
The Christmas season is a key sales driver

- Christmas sales (a three-week period) generate approx. 20 % of annual revenue
- In some product groups, Christmas generates up to 50% of annual sales

Demand during the Christmas peak season is extremely hard to predict

- The majority of the assortment has changed from the previous Christmas season
- There are significant differences in sales between the stores and end-of-season excess inventory is a big risk
 - The Christmas peak season is short and sales are the highest during the last few days before Christmas, which leaves little room for responding to actual sales and inventories
 - A radical drop in book sales after Christmas means that end-of-season excess stock has to be avoided

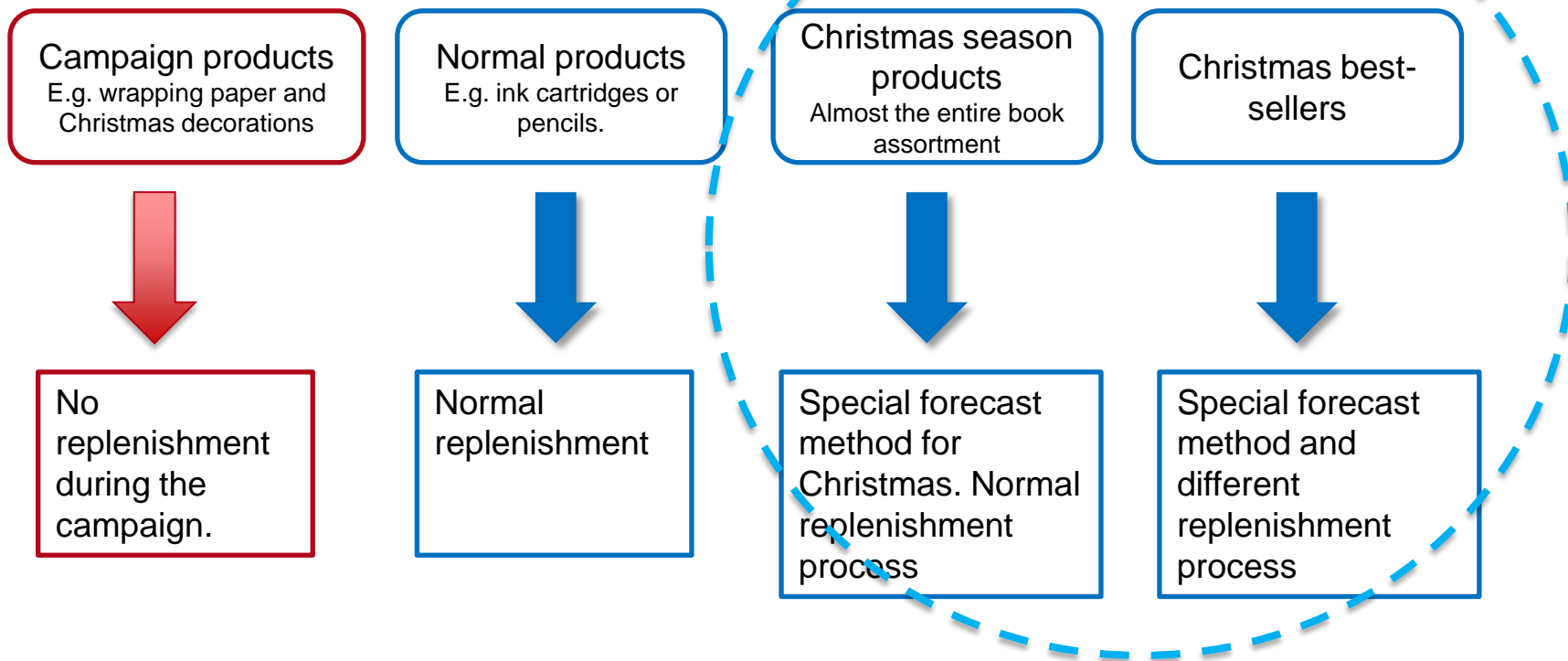
EXAMPLE: SALES CURVE FOR A BEST-SELLING BOOK TITLE



PREPARING FOR THE CHRISTMAS SEASON



- Classification of products



OPERATIONS DURING THE PEAK SEASON



- **Managing the peak season assortment**

- RELEX has developed a forecast model, which reliably forecasts peak season demand for new products
 - The method is based on indexes capturing the historical development of sales of different product groups in each store
 - The actual demand of a product is multiplied by an index, resulting in an automatic quantitative forecast
 - The forecasts become more accurate as the season progresses
 - Safety stock levels are determined based on target days of supply and manually decreased towards the end of the season
 - The replenishment process is the same as off-season
 - RELEX's system creates order proposals in nightly runs
 - One employee reviews the order proposals and sends the orders to suppliers. During the peak Christmas season, typically about 10 000 – 20 000 order lines.
 - Ordering during the Christmas season only requires about two hours a day
 - This model is used for the vast majority of products, and the results have been excellent
-

OPERATIONS DURING THE PEAK SEASON



- **Managing best-sellers**

- Best-sellers (e.g. award winners, well-known writers or book series) have a steeper sales curve than their respective product groups on average
- There is also campaign activities for some of the products
- The number of products is relatively small, but their impact on sales and inventory is significant
 - Need to exploit input from experts, which is why these products have a different forecasting and replenishment model
- Forecasting is based on a store and product group index and the product's actual sales for the past two weeks → The model reacts quicker to actual sales than the regular Christmas model
- RELEX's system provides a report, which is used for calculating new indexes on a daily basis
- Order proposals are calculated based on this report, and are then sent to the product manager for review
- The accepted order suggestions are turned into orders according to the normal order process
- The whole process requires approximately an hour on ordering days

MANAGING THE END OF THE PEAK SEASON



After the peak season, sales are typically very low

- After the peak season, excess inventories present an important risk
- At the end of the period, both availability and inventory levels need to be optimized simultaneously

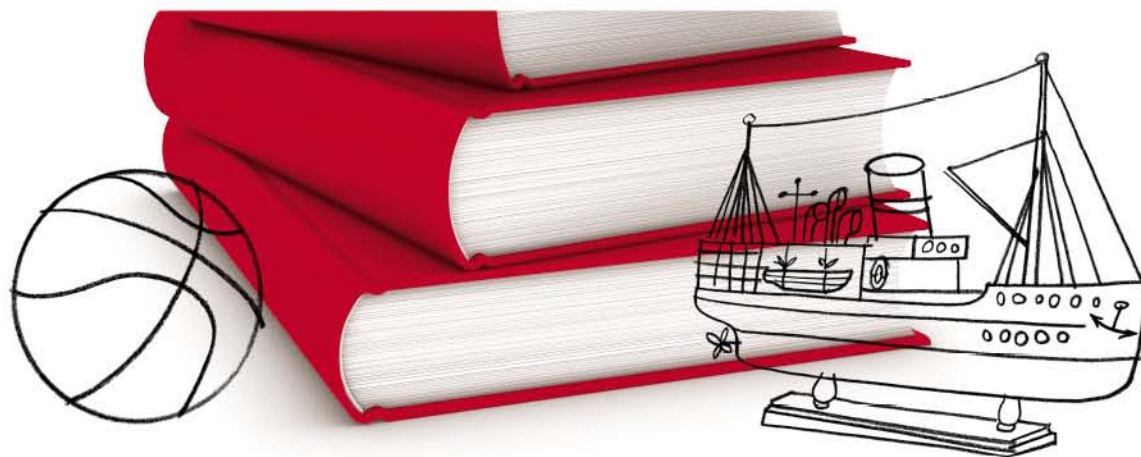
Last "normal" replenishment two weeks before Christmas

- The goal is to stock the shelves in good time, to be able to put total focus on sales during the last weeks
- The order suggestion is based on the forecasted sales for the rest of December
- Safety stocks are lowered
- Towards the end of the season, minimum shelf fill targets and safety stocks are removed
- Only products that risk stock-outs and critical items are replenishment
 - Process supported by exception reports



RESULTS

Timo Kauppila, RELEX
Seminaari 2012



HOW WELL DOES THE CHRISTMAS MODEL WORK?



Excellent results:

Forecasting works well, despite the challenging outset

- Clear improvement in availability (over 7 percentage points compared to manual ordering)

Improved peak season control

- In addition to improved availability, reduced need for clearance sales after the peak season

Automation has improved operations

- The goal of freeing up store personnel's time for increased focus on sales and customer service has been achieved
- No replenishment ordering is done at the stores

EXAMPLE: CONTROLLED RAMP-DOWN OF LESS CRITICAL ASSORTMENT



<< Takaisin

BOOKS

<- Edellinen

Seuraava ->

Aloita asteikko nolasta

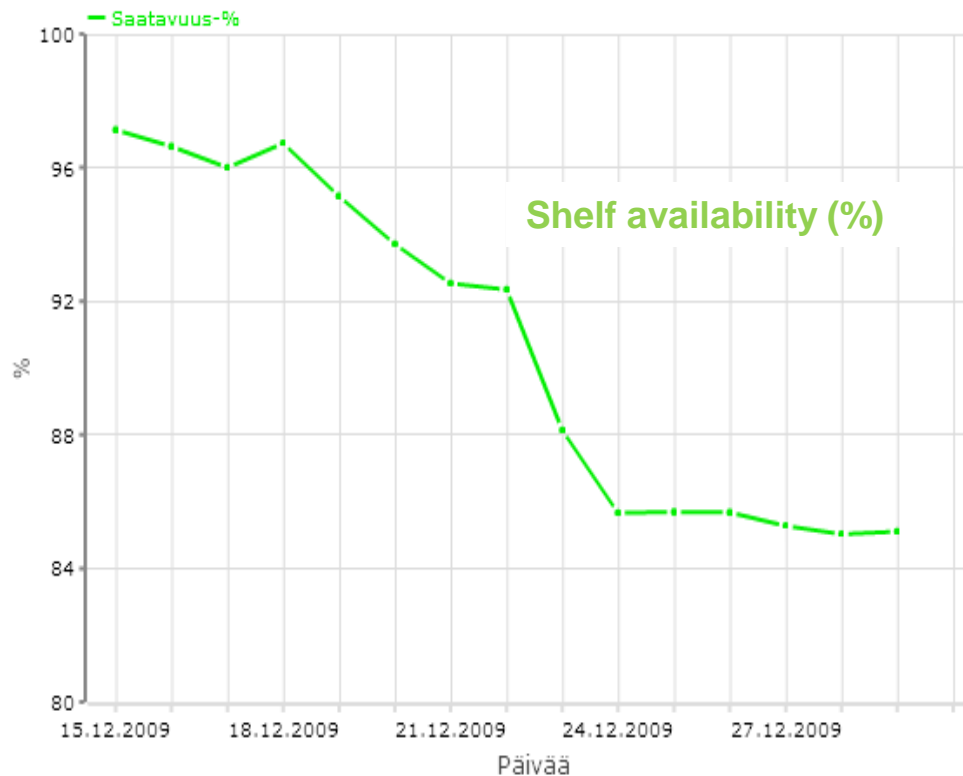
Näytettävät mittarit:

Myynti (avo)

Saatavuus-%

Myynti

P ä i v i t ä



MANAGING THE CHRISTMAS SEASON: SUMMARY



Automatic forecasting and replenishment works for almost the entire assortment

- Forecasting and replenishment is done automatically once a week
- Additional orders are placed for items risking stock-outs, based on exception reports
- Closer monitoring and manual management of best-sellers
- The forecasting model works less accurately for products arriving just for Christmas

Business targets are linked to replenishment through shelf presentations defined by product managers

- Shelf exposure is increased in the end of November to drive sales

Important to build cooperation between product managers, replenishment and store managers

- A shared view of replenishment and sales plans is a key success factor



Timo Kauppila
Product Manager
Koivuvaarankuja 2
01640 Vantaa

email: timo.kauppila@suomalainen.com



THANK YOU!