



# DIGITAL SHIP CONFERENCE DUBAI

*Practical aspects of  
implementing a computerised  
purchasing systems on ships*

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# Purchasing: a fine art

- A purchase action means ensuring that:
  - we are buying what the ship needs, at the right price, and at the right moment
  - the item ordered it still not available on board (history tracking of previous orders)
  - we operate within the budget limits, and if not, initiate corresponding authorisation procedure
  - the item will be delivered according to our requests, in accordance to QA practices, in the time frame agreed, in good conditions and as it was ordered
  - all transport and customs regulations are properly followed
  - the relevant invoice will be paid

# It is not enough!!!

- Buying at the cheapest possible price is not enough, if we don't:
  - make sure that the cost of our purchase department is also the lowest possible
- If we buy a spare quickly and at a low price, but it costs a lot to issue the order, then we look efficient, but we lack efficacy

# The typical purchasing process

- Ship creates Purchase Requisition
- PR is transferred ashore, where it is either converted into Query, or PO, pending approval of one or more people
- Query is received back, and converted into PO
- PO is received on board, and relevant communication is sent ashore. Stock on board is updated
- Office receives invoices, matches against order and authorizes payment

# The differences

## ➤ **Manual Process**

- PR is written most probably in Word and sent via fax or e-mail. Sometimes still all done by telex
- PR re-written into Query
- Of queries rcvd, one is converted into PO; data on others is lost
- Confirmation of PO sent back to vessel by fax or e-mail (if sent at all)
- PO received by vessel who confirms by e-mail. Qty received not stored ashore
- Prices quoted not easily retrievable
- Invoice check done manually, PO stored in binder and forgotten...

# The differences

## ➤ **Computerized Process**

- PR is written using Data in Database: less mistakes. If not present, DB is updated as the line item is inserted
- PR converted into Query of PO via a push-down option
- Query can be sent in HTML or Excel format, or using an e-commerce solution such as ShipServ. When data is received, it is stored in Database for future reference
- Quotation Analyzer can automatically split the order according to lowest prices offered by different suppliers
- Confirmation of PO sent back to vessel electronically
- PO received by vessel sent back to office electronically. Confirmation of stock update on board also received electronically
- Prices quoted always available
- All data about items ordered, delivery conditions, supplier, etc. always available

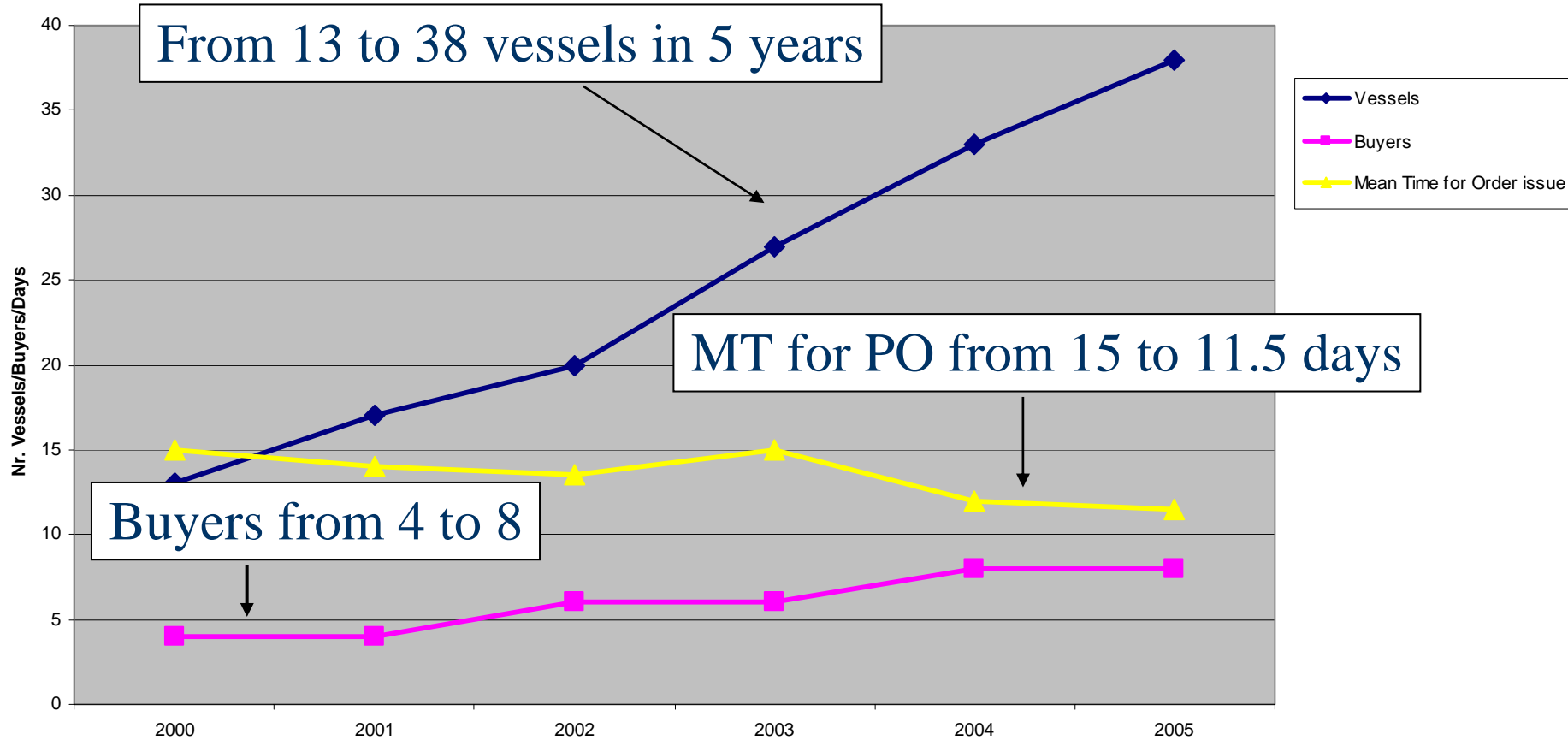


Leading the way

# Benefits?

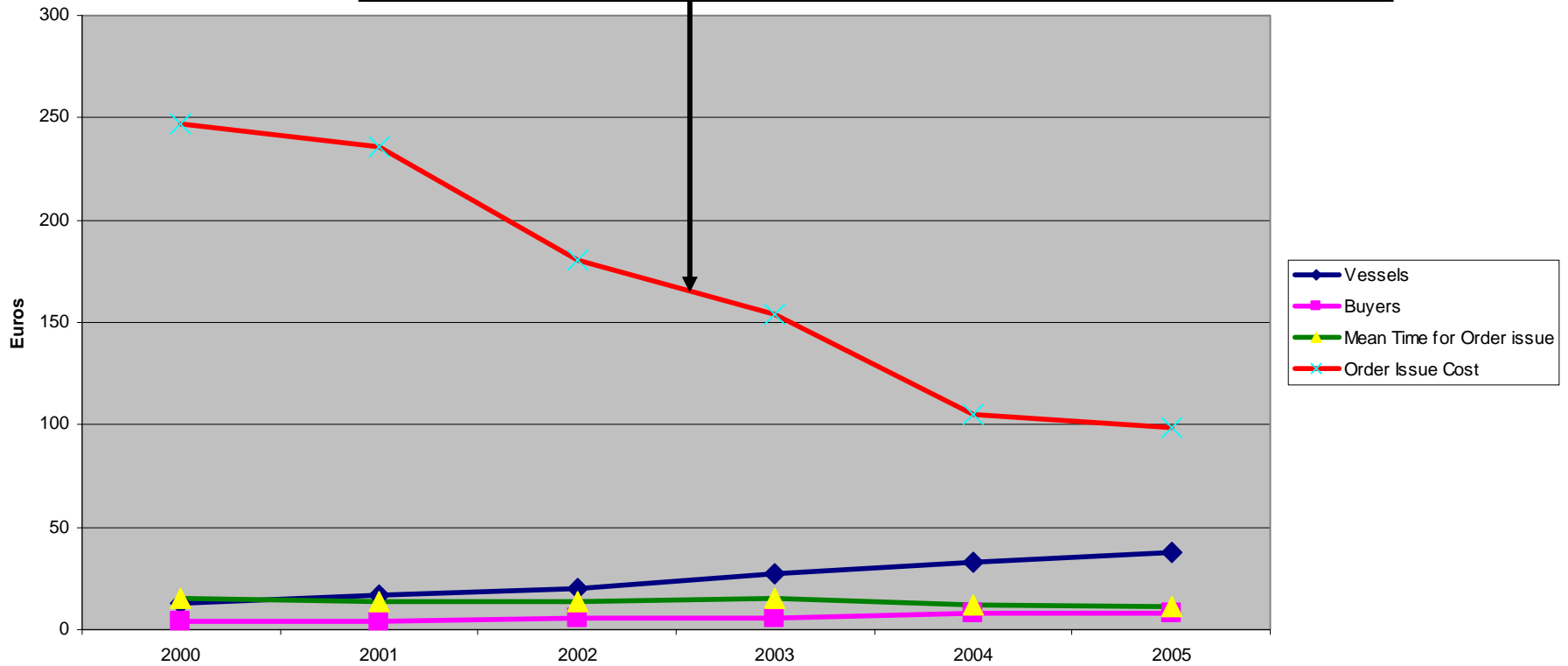
**Data which follow is  
from a leading South European  
shipping company,  
with 38 vessels  
including CT, ro-ros and car  
carriers**

# Main shipping company – South Europe



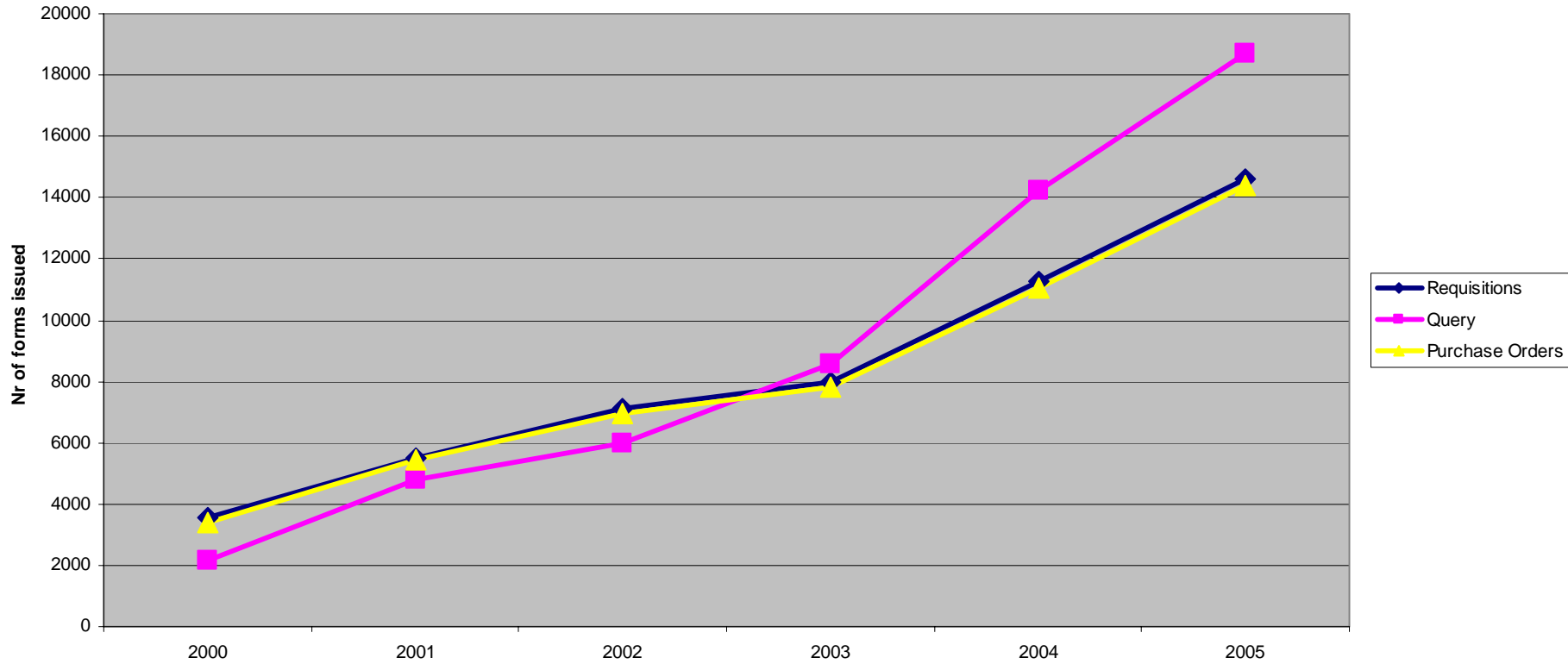
# Cost of order issued

From 246,7 Euro to 98,5 Euro in 5 years!!



# Nr. of Purchasing Forms

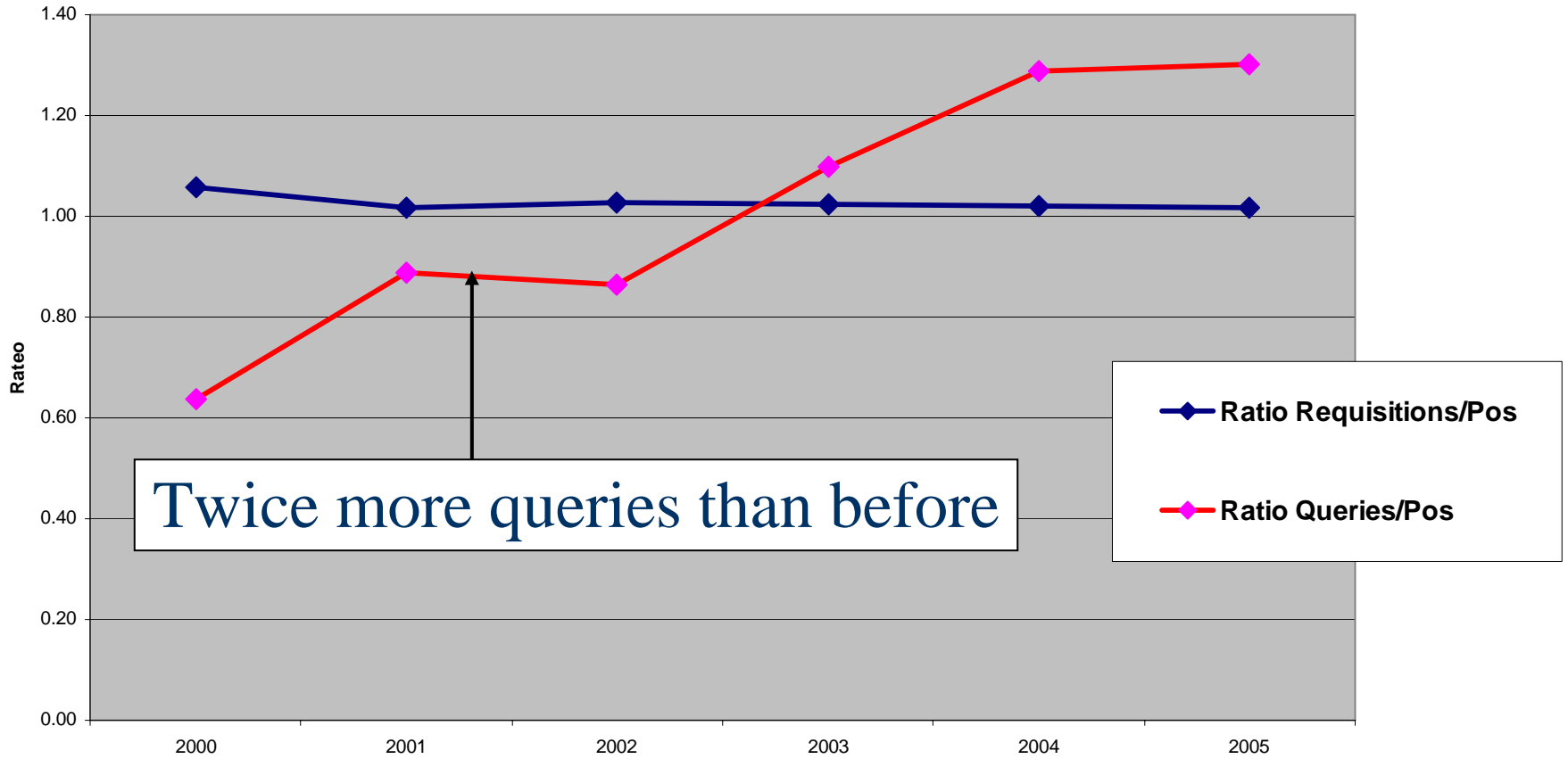
Purchasing Data





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# Rateos



# Results

- The company purchasing is more efficient than before
- Economic savings achieved (>2.5 mEuros)
- Better ways of working: faster and with less mistakes
- Next step: e-commerce

# Is it all thanks to IT?

- Using a Computerised Purchasing System on ships, linked with the shore system, helps enormously, but **it is not the only explanation for a successful installation**
- The other components are:
  - a good Database
  - clear ideas on objectives to achieve
  - persistence
  - management commitment (shore based)
  - user dedication

# The Art of Data Entry

- Even the best, most expensive, sky-rocket state-of-the-art software is worth nothing without proper data into it
- Ship staff, on board, cannot enter data in a consistent, uniform, correct way due to lack of time, practice, understanding of the final scope of statistical analysis
- A software with incorrect data is worth nothing
- Paying money for a good Database is not spending, is investing

# Examples

- O.ring, O ring, O-ring
- M.E., Main Engine, M. Engine, MEngine
- Bbearing, Ball Bear., Ball bearings
  - they are all different entries and data values for any software
- Remember: software is NOT intelligent!

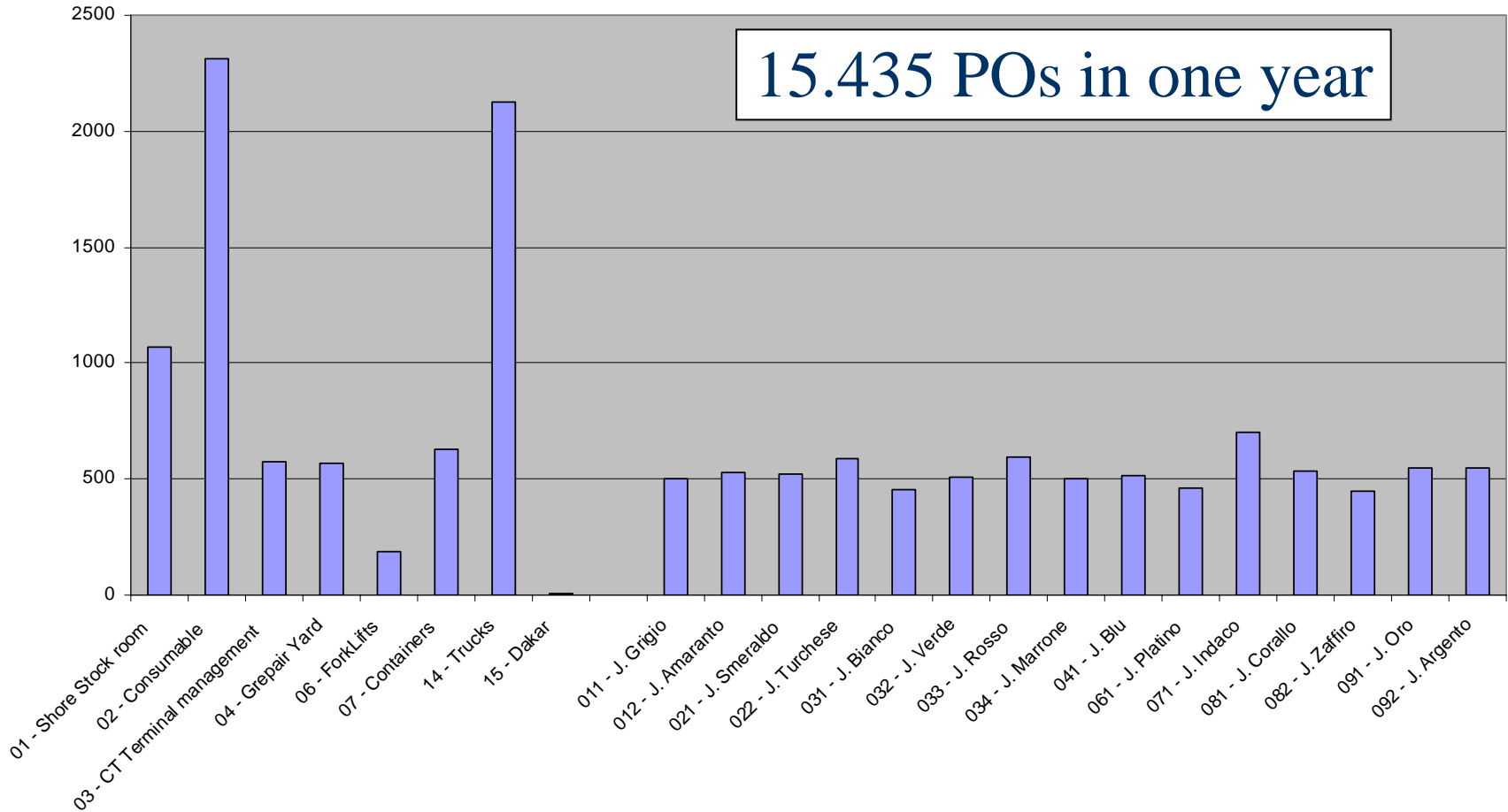
# Building data

- Building a correct ship database is a must for a successful implementation of your Computerized Maintenance System
- It is a very time consuming task
- It must be done professionally
- A bad DB is the main cause of failure or reject of IT systems on board ships



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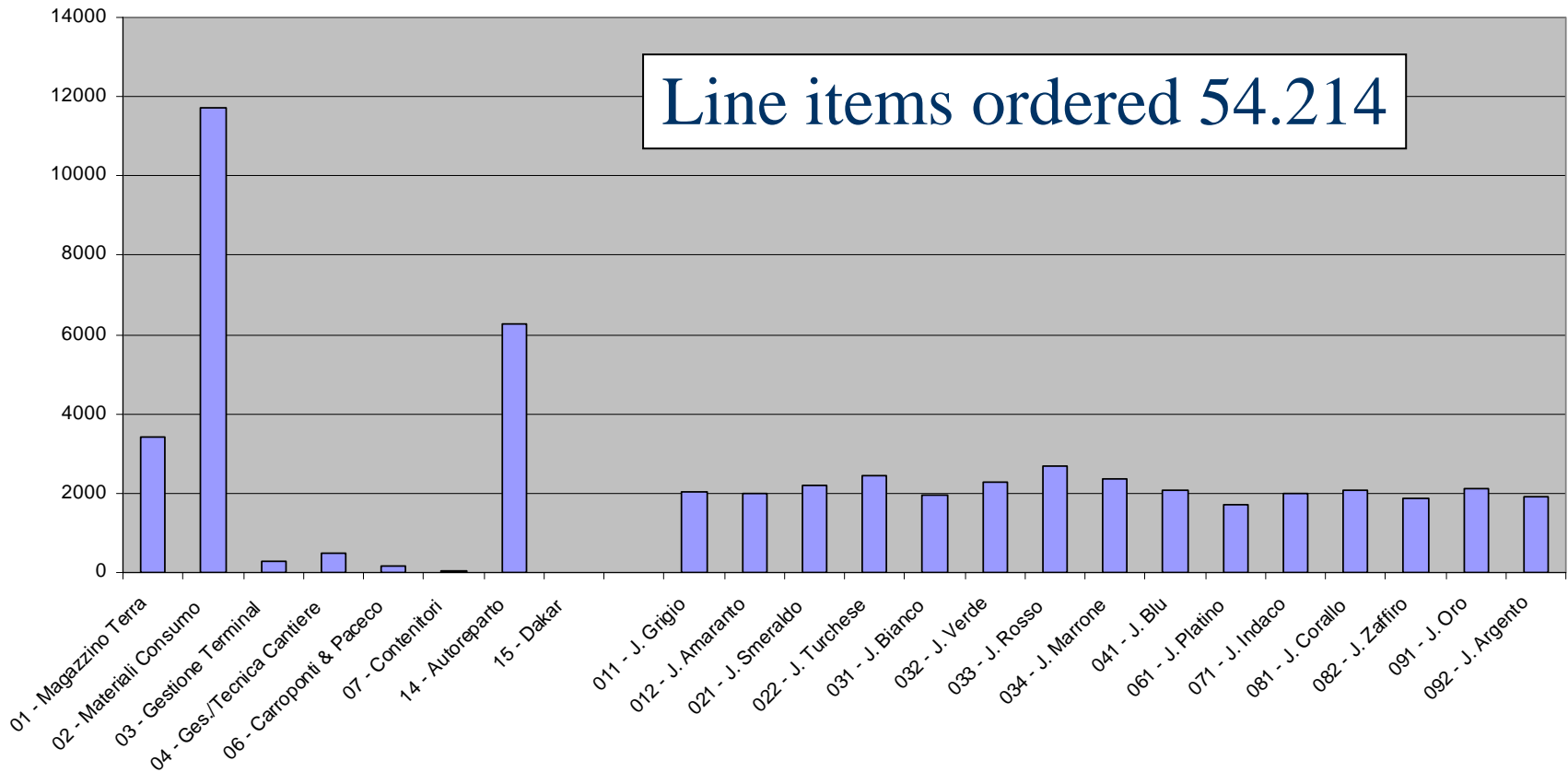
# Another company: 15 CT



# Nr. of times ordered

Nr. of line items

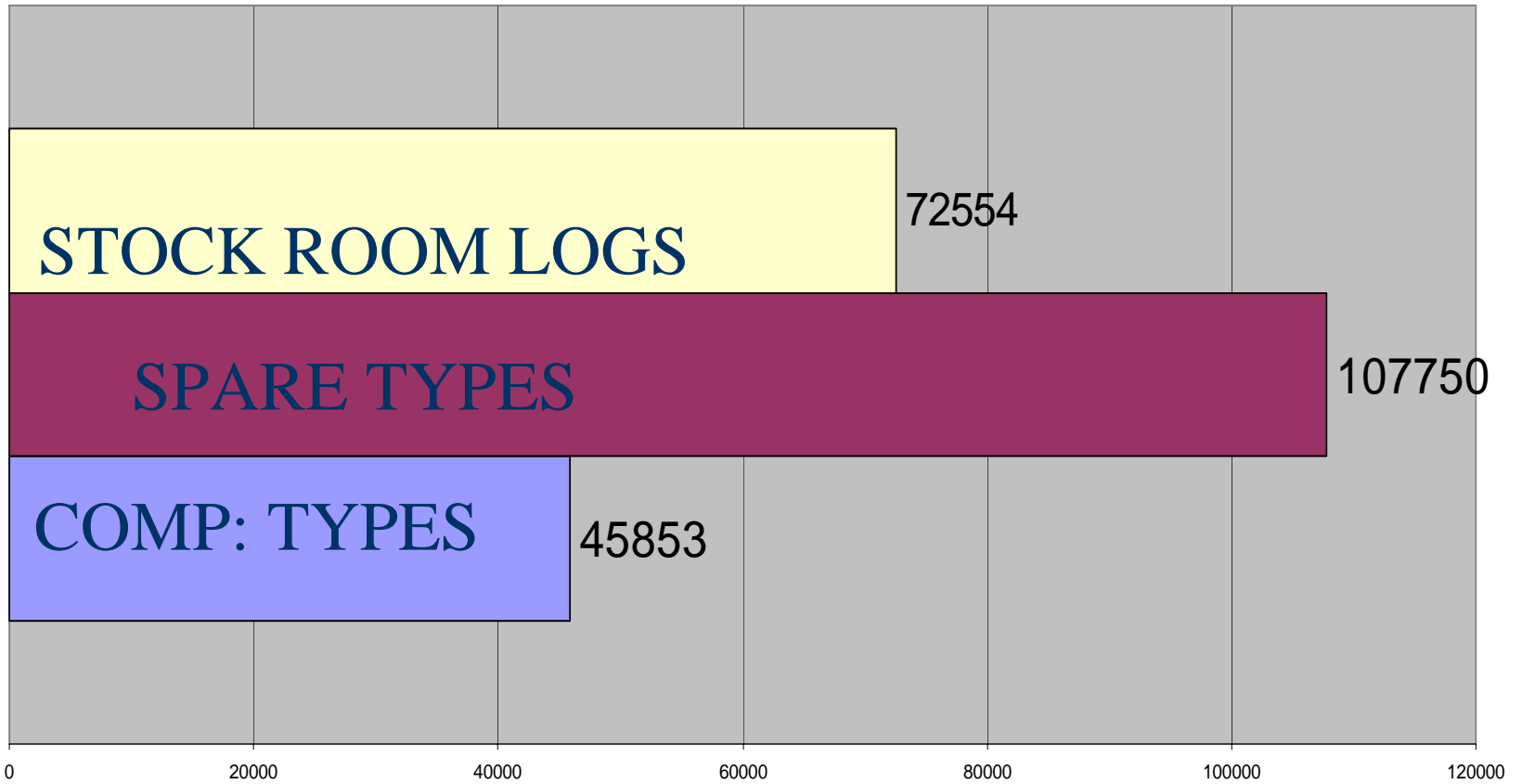
Line items ordered 54.214





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# Data in DB for 14 ships



**So which steps are  
needed  
to be sure that you  
will achieve  
a successful  
installation?**

# Clear ideas of objectives

- Establish what objectives you want and by when:
  - **Software installed by....**determine the dates with supplier
  - **Database:** determine which data you want and need
  - **First ship to be on line by.....** determine your first ship to be used as test-set and best case user
  - **Close down paper based PO system by.....** this will force users to move into new system

# Normal comments

- Software does not work.....
- It was faster doing it manually.....
- I don't see any advantage in doing it.....
- I am too old for this
- It is too difficult/complicated
- I hate computers

# My comments

- We are in the year 2006
- If airplane engineers would have the same attitude as some ship's staff, I would be swimming instead of flying all over the world
- If a Master can use an innovative INS, then he can user any software
- People will always resist changes and innovation: we have to make them understand that it is for the benefit of the company, and their work

# Some practical difficulties -1

- Crew changes, and thus needs to train and retrain (high costs)
  - Action: we are installing Amos in many Nautical Institutes worldwide
  - We have introduced easy to use, customisable menus
  - We are writing a User Interface which pushes infos to the user, rather than forcing the user to look for them

## Some practical difficulties -2

- Crews are reluctant to use the system
  - it is a management task to push to get results
- Communication costs are too high
  - not true anymore. Costs of communication have gone so low that it is not a reason anymore
- Staff is afraid all their work will be closely checked
  - so?

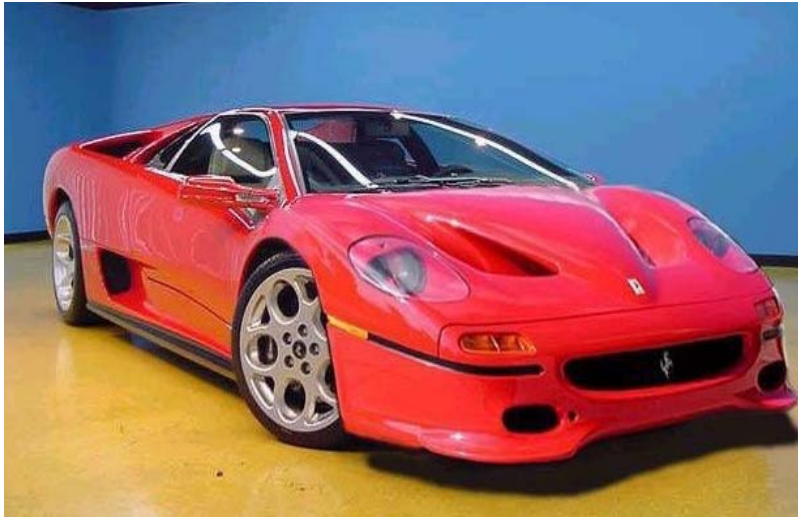
# Time is now

- It is not the stronger who will survive, but the one who will be the faster to adapt to the new changes (Darwin)
- Traditional ways of purchasing mean less efficiency, higher costs, lower competitiveness
- Installing Computerised systems is obviously not easy, but is necessary to reach optimum operational levels

# What about selecting the Software?

- It is similar to selecting a car: you go to a car dealer and you ask for a car which has the following characteristics:
- two doors
  - 4 tyres
  - a steering wheel
  - window wipers
  - seats (even in leather)
  - lights in the front and in the back
  - of course, an engine!

# This is what you can get:



Now try to buy this car for the price of this one!!

**Because this is what happens very often to us!**

# Getting things right

- Software is not always identical from one company to another:
  - speed
  - power
  - service
  - location of support
  - availability of personnel
  - availability of already trained seafarers
  - protection of investment
  - upgradability
  - level of completeness of all features
  - financial solidity
  - etc. etc. etc.

The logo for SpecTec, featuring a stylized grey fan or cone shape composed of several parallel lines of varying lengths, pointing upwards and to the right.

**SpecTec**

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**THANK YOU!**  
**QUESTIONS?**