

Toyota Material Handling Greece

MEGATRENDS



10 ΧΡΟΝΙΑ ΜΠΡΟΣΤΑ



How to discover what's coming?



Learning from the past



Discovering existing realities



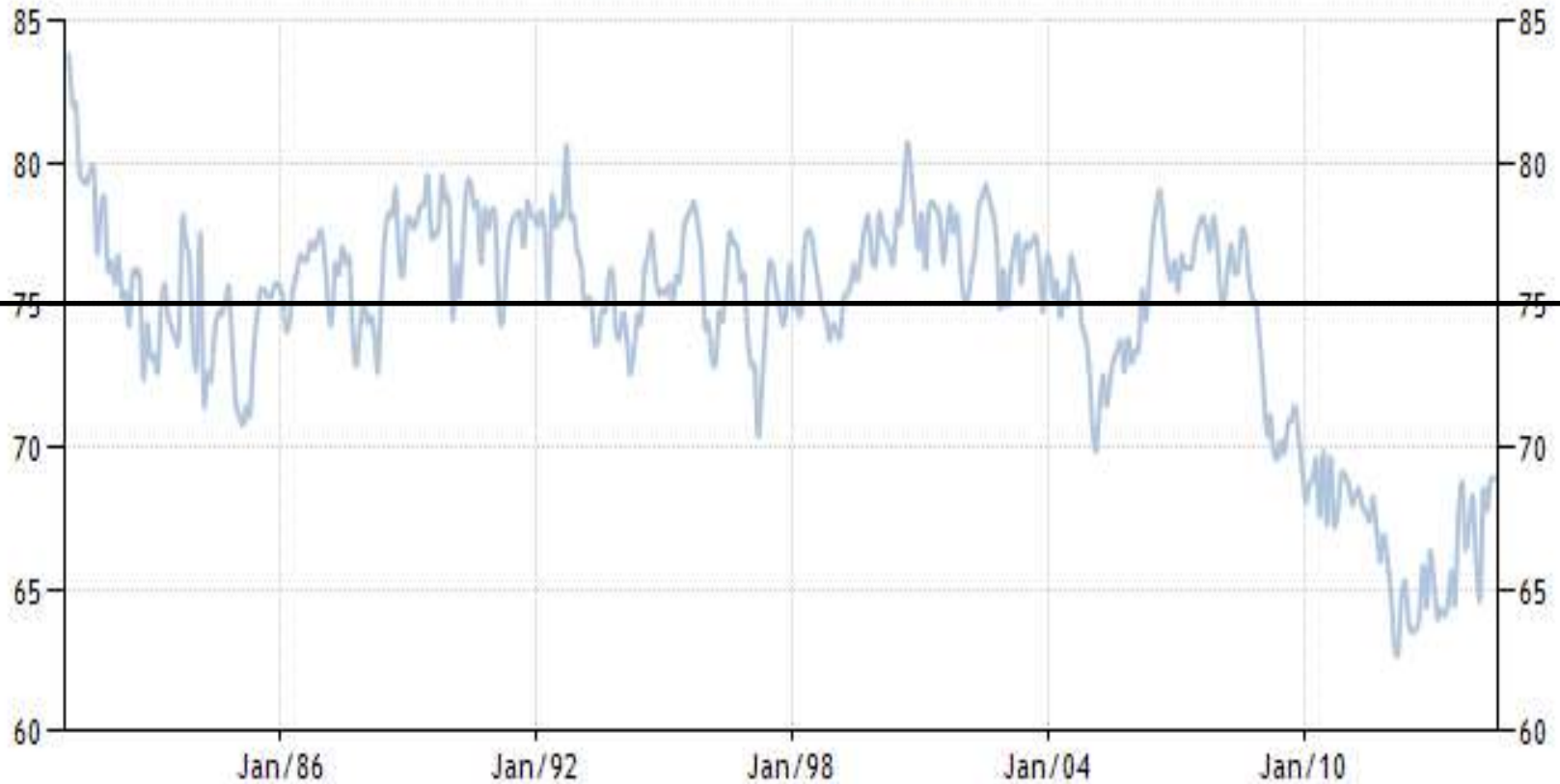
Imaging new ones.

Capacity Utilization, Total Industry and Manufacturing

Recession Total Index Manufacturing



GREECE CAPACITY UTILIZATION

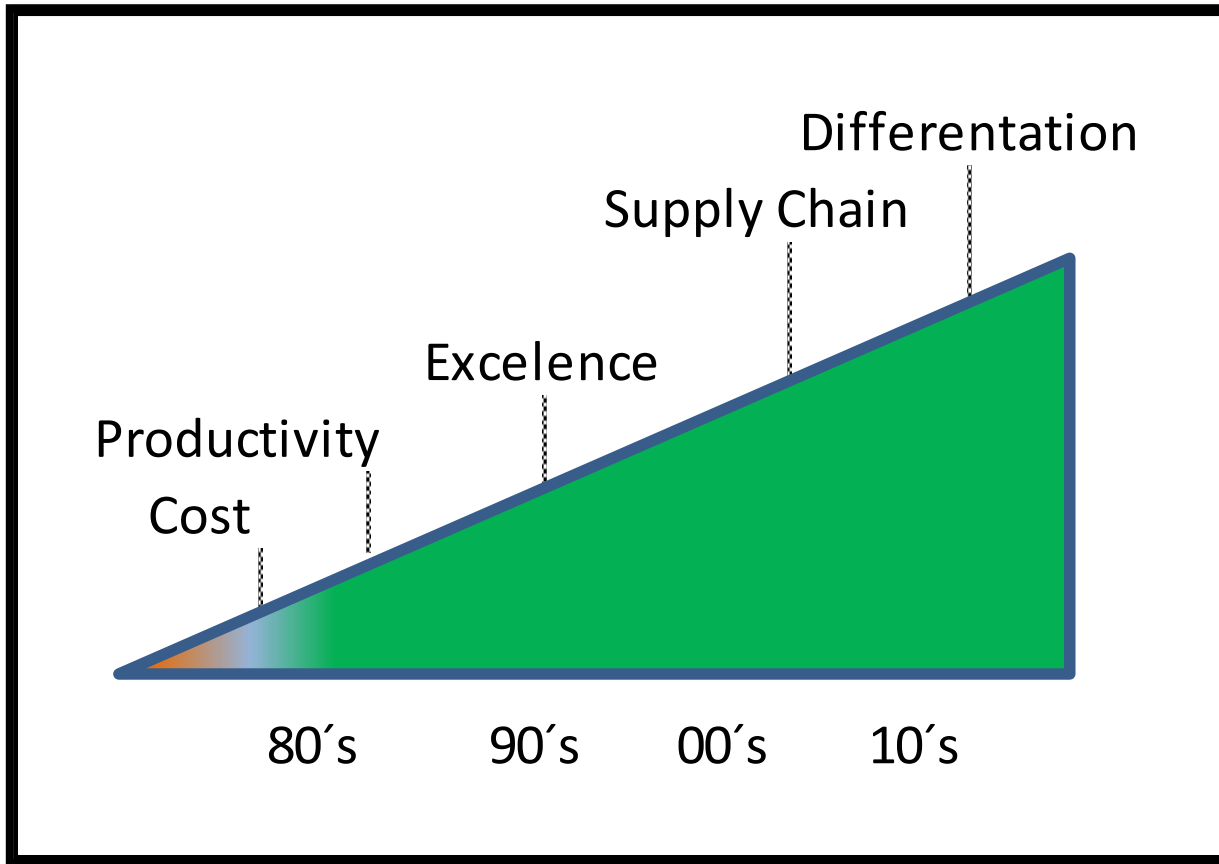


Source: Federal Reserve <http://www.federalreserve.gov/>



1) Looking at the past

Supply Chain Steps



Any decision on the **supply chain** can affect the service that is given to the end customer, and therefore **sales and loyalty** itself, so it becomes more and more important for the strategy of the companies. Apply best methodologies in the logistics involves **competitive advantage** over competitors.

2) Existing Realities are around us



2) Existing Realities (from the smallest ...)



2) Existing Realities (to the big ones...)





Over 1000 of GOLDAIR CRANO S.p.A.

A "Gold Solution" For Goldair Cargo

Introduction:
Goldair Cargo S.A. is one of Greece's largest Logistics companies, member of the Goldair Group, which has been awarded last year as the Best Developing SME Business in Greece. Goldair Cargo S.A. offers a full range of logistics and supply chain management services such as, cargo delivery, storage, order management, distribution, custom services and has built a reputation for delivering superior quality, value added services that meet the needs of their customers. The facility at Rika area, Aspropyrgos covers 16.000m² and provides 1.400m² of covered delivery dock.

The Challenge:
Toyota Material Handling Greece was assigned with the task of designing a solution that will maximize storage capacity, increase productivity and efficiency in operations while at the same will be cost effective and flexible. The timeframe for this project including design and implementation had to be completed in less than a 3 months period.

"Think whole systems"

Zaki Kileoglou, Deputy Managing Director of Goldair Cargo, said, "We have been discussing with others suppliers too and we knew that our request was highly demanding. We wanted someone that could combine high quality product at the right price, had the expertise and knowhow to undertake such a project and complete with safety. TMHGr was able to come up with a very appealing package, by proposing us a solution that was including a nearly new VNA racking system and VNA forklift truck, originated from a customer whose needs have been changed. Having reviewed the details of TMHGr proposal, it became apparent that they had the perfect solution that fit our needs. Evidently the company reputation played a significant role to our decision"

PROJECT DATA

Start Date:

- 22 April 2014

Completion Date:

- 29 May 2014

Warehouse Orientation:

- 16.000m²

Storage Capacity:

- VNA racks

3996 Pallet Locations:

- SELECTIVE racks

90 Pallet Locations

TMHGr Products Supplied:

- VNA Pallet Racking
- SELECTIVE Pallet racking
- BT Vector VCE 150A

The Solution:
"Don't start from zero. Re-use what's already out there"



Working alongside with the management of Goldair Cargo, the TMHGr team considered several options, before finally proposing the Very Narrow Aisle (VNA) pallet racking solution, which increased the warehouse capacity by 40% versus the Selective Pallet Racking. TMHGr proposed to install 324 bays, with a wire guidance which has storage capacity of 3996 pallet locations completed with Anti-Seismic protection valid to Zone II (EAK - 2003).

The VNA Racking system combined with the BT Vector VCE150 A - Series, the most advanced VNA forklift truck, offers the greatest productivity, highest energy efficiency and maximum space utilization, setting completely new standards in driving down costs.

The Implementation:
The project planning phase due to the time limitations has been very short, especially when one considers the highly increased complexity level. Complexity ranks as #1 factor that can lead into a project failure as it creates uncertainty to the project team and therefore increases the risks. Initiating the project has been a puzzle. The activities had been many and involved coordination within the main project environment and outside of it. Lots of people had been involved internally and externally, while we had combine sourcing of materials from different location, (i.e. local and international suppliers) but above all we had to meet strict **Deadlines**.

"Teamwork: maximizes individual and team performance"

Effective planning, resources and job allocation in combination with clearly defined timelines and deliverables expected out of each project phase, had been the key to success. We had to rely on the collective strength of the Team in order to accomplish the task. Looking back, we do not think that it would have been possible to meet the strict deadlines of this project.

The Results:
We were able to finish the project on time, celebrate our success and give everyone a positive mindset for the future.

JOB DONE!

Customer final words: **"JOB DONE**. Thank you TMHGr".

More over following the success of the first phase of this project, TMHGr has been tasked to carry out the second phase of it as well.

In a nutshell:

TOYOTA RACKS

AREA 1
4 double rows of 14 bays/ beam length: 2700mm
1 single row of 24 bays/ beam length: 2700mm
Frame Height: 1800mm
4 levels of loading
1st level = +2100mm
2nd level = +4000mm
3rd level = +5900mm
4th level = +7800mm

AREA 2
4 double rows of 8 bays/ beam length: 2700mm
1 single row of 8 bays/ beam length: 2700mm
Frame Height: 1800mm
4 loading levels
1st level = +2100mm
2nd level = +4000mm
3rd level = +5900mm
4th level = +7800mm

AREA 3
2 double rows of 8 bays/ beam length: 2700mm
1 single row of 8 bays/ beam length: 2700mm
Frame Height: 1800mm
4 loading levels
1st level = +2100mm
2nd level = +4000mm
3rd level = +5900mm

VNA TRUCK

BT VECTOR
VCE 150A
COMBI TRUCK
Max. Platform Height: 1800mm
Gals Width: 1175mm
Beam Length: 5500mm
Battery: 48V 1200Ah
Wire Guidance
Distance between load lines (A/B): 580mm
Lift Capacity: 1600kg up to lift height 10700mm

2) Existing Realities : Toyota approach



	Europe : Alignment of Functional and Operational governance - Strengthened connection between market needs and functional development. - One Team – one Agenda
	South Region: Realise Regional Synergies - Develop measures to increase customer satisfaction. - Identify, define and deploy best practice solutions throughout the markets.
	TMHGreece: Governance Closer to Customers - Direct governance with a total business perspective. - Effective and speedy decisions to enable flexibility in the market.

3) New Realities :

- Revolutionary innovations capture the imagination and motivate people. But **how many** supply chain innovations (SCI) **are truly revolutionary**?
- What it is really important is to have **a clear understanding of the core processes** of the company in to avoid the **“cost of confusion”**
- *From the book “dominant design” MIT professor Jim Utterback*



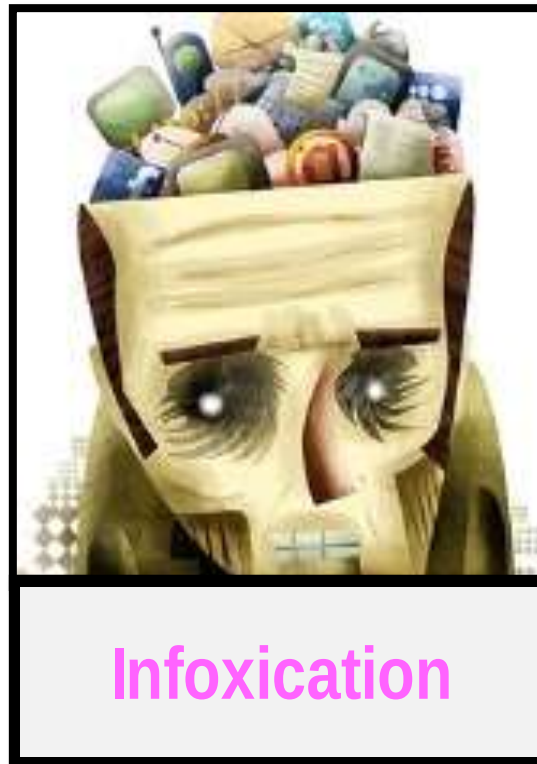
Table 1

Examples of Supply Chain Innovations (SCI)



Company	SCI
Cisco	Proactive and upstream SC risk management, monitoring, and measurement
Dell	Make-to-order, sell direct, product & SC tailored to market segment.
FedEx	Hub-and-spoke system and network
Ford	Vertically integrated assembly line at River Rouge Plant
Intel	Copy Exactly ! Standard fab designs
Li & Fung	Complete upstream contract manufacturing management
Lucent	Platform/component standardization, supplier contract margin management
P&G	Diamond relationship customer teams, Streamlined Logistics, Efficient Consumer Response, Continuous Replenishment
Reebok	Responsive supply chain via product redesign, postponement, and nearshoring
Toyota	Toyota Production System, SMED (single-minute exchange of dies)
UPS	IT integration across system, standardized/engineered processes
Walmart	Everyday Low Prices, upstream SC management, store location impact on SCs.
Zara	Hi-automation and near-market production aligned for SC for fast fashion

3) New Realities. TRENDS





Sustainability : Dimitris Kokkaliaris - After Sales Service & Logistics Director

1) Megatrend: ΒΙΩΣΙΜΟΤΗΤΑ (sustainability)



ΚΑΘΗΜΕΡΙΝΑ ΓΙΝΕΤΑΙ ΟΛΟ ΚΑΙ ΠΙΟ ΣΗΜΑΝΤΙΚΗ

ΌΧΙ ΜΟΝΟΝ ΓΙΑ ΕΜΑΣ ΑΛΛΑ ΓΙΑ **ΟΛΟΥΣ** ΜΑΣ
ΜΙΑΣ ΚΑΙ ΠΡΕΠΕΙ ΝΑ ΠΡΟΣΤΑΤΕΨΟΥΜΕ ΤΟ **ΠΕΡΙΒΑΛΛΟΝ** ΜΑΣ



FUELS



CO₂



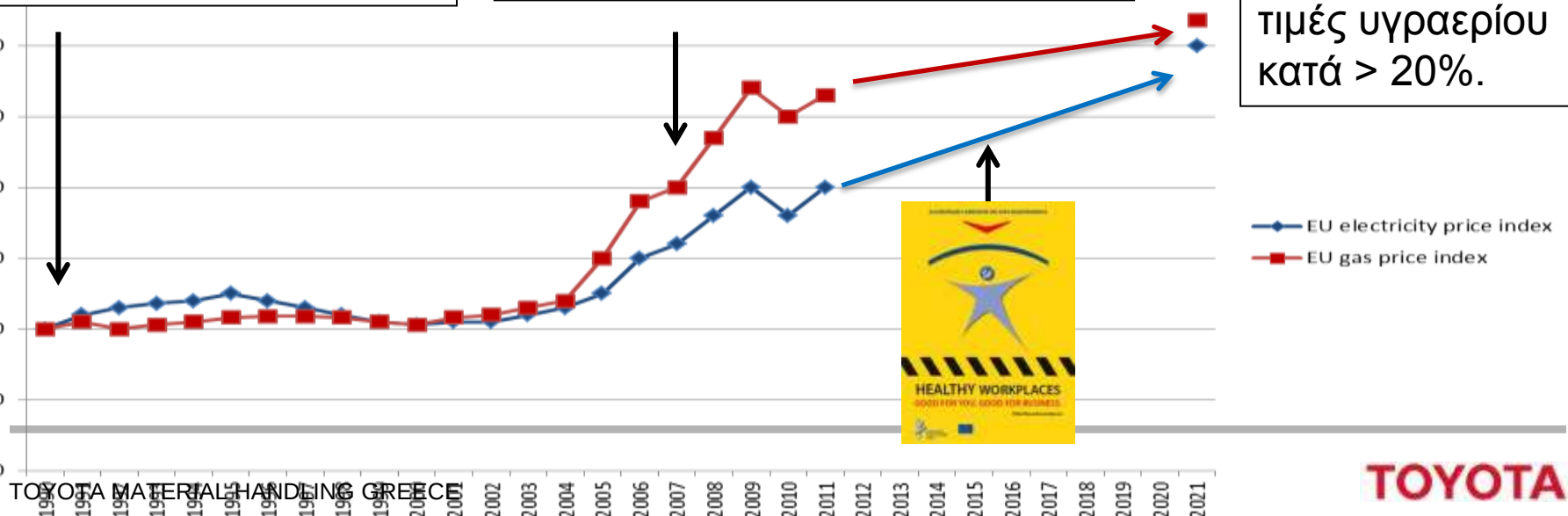
Είναι γεγονός..

- Η Ηλεκτρική Ενέργεια και το Καύσιμο θα συνεχίσουν να αυξάνονται στα επόμενα έτη.
- Αύξηση η οποία θα επηρεάσει το λειτουργικό κόστος των επιχειρήσεων κατά 30%.

1990 έως 2000:
EU: Υγραέριο &
Ηλεκτρική Ενέργεια
Παράμεναν +/- σταθερά

2000 έως 2010: EU: Οι τιμές
Ηλεκτρ. Ενέργειας διπλ/στηκαν
(x 2) και οι τιμές υγραερίου
αυξήθηκαν σχεδόν 2,5 φορές

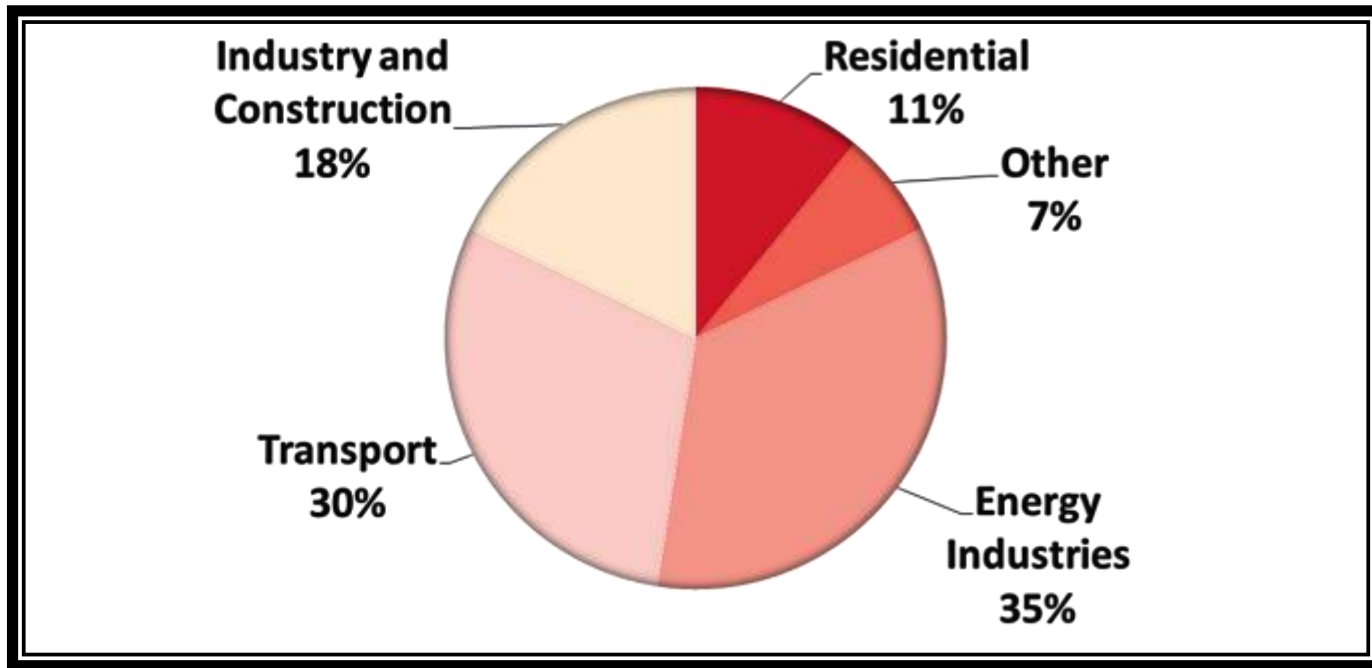
2010 έως 2020::
EU: Οι τιμές
Ηλεκτρ. Ενέργειας
> κατά 50% και οι
τιμές υγραερίου
κατά > 20%.



Σύμφωνα με τον στόχο της ΕΥ / ΕΝΕΡΓΕΙΑ:

"20-20-20"

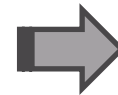
- Έως το έτος **2020**
- Θα πρέπει όλοι μαζί να μειώσουμε τις «αναθυμιάσεις» μας κατά **20%**



Βρισκόμαστε σήμερα εδώ για να σας βοηθήσουμε

ΠΕΡΙΟΡΙΣΕΤΕ την περιβαλλοντολογική σας επίδραση

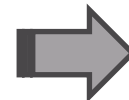
- Μέσα από τα προϊόντα & τις υπηρεσίες μας



Για την
Επιχείρησή σας

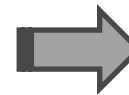
ΒΕΛΤΙΣΤΟΠΟΙΗΣΕΤΕ τις εσωτερικές σας διεργασίες

- Μέσω του TPS & TSC



Για τους
Υπαλλήλους σας

ΜΕΓΙΣΤΟΠΟΙΗΣΕΤΕ την ασφάλεια,



Για τις προσδοκίες
των Πελατών σας

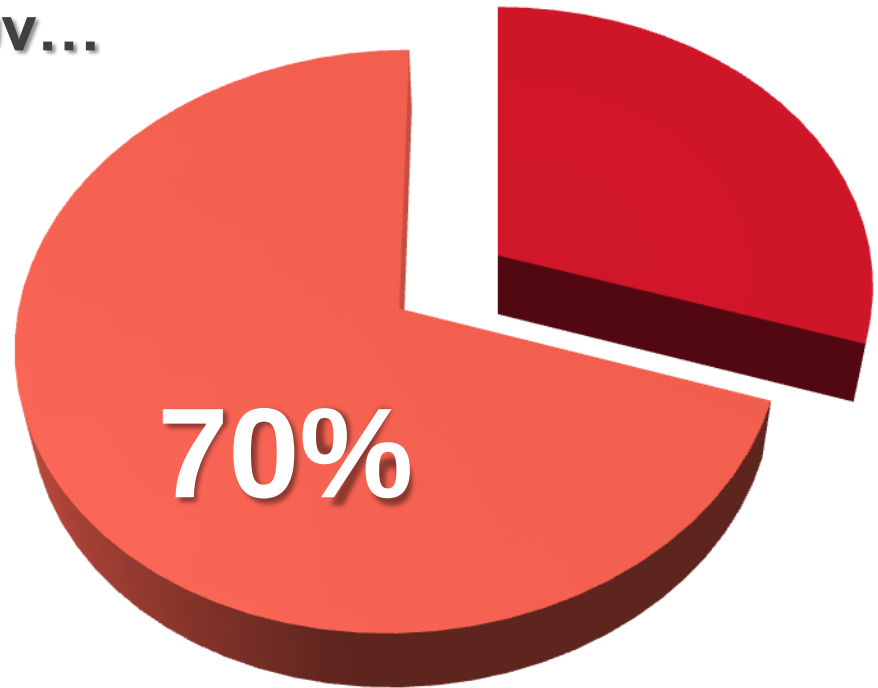
την ποιότητα & την απόδοσή σας

ΠΕΡΙΟΡΙΣΕΤΕ την περιβαλλοντολογική σας επίδραση

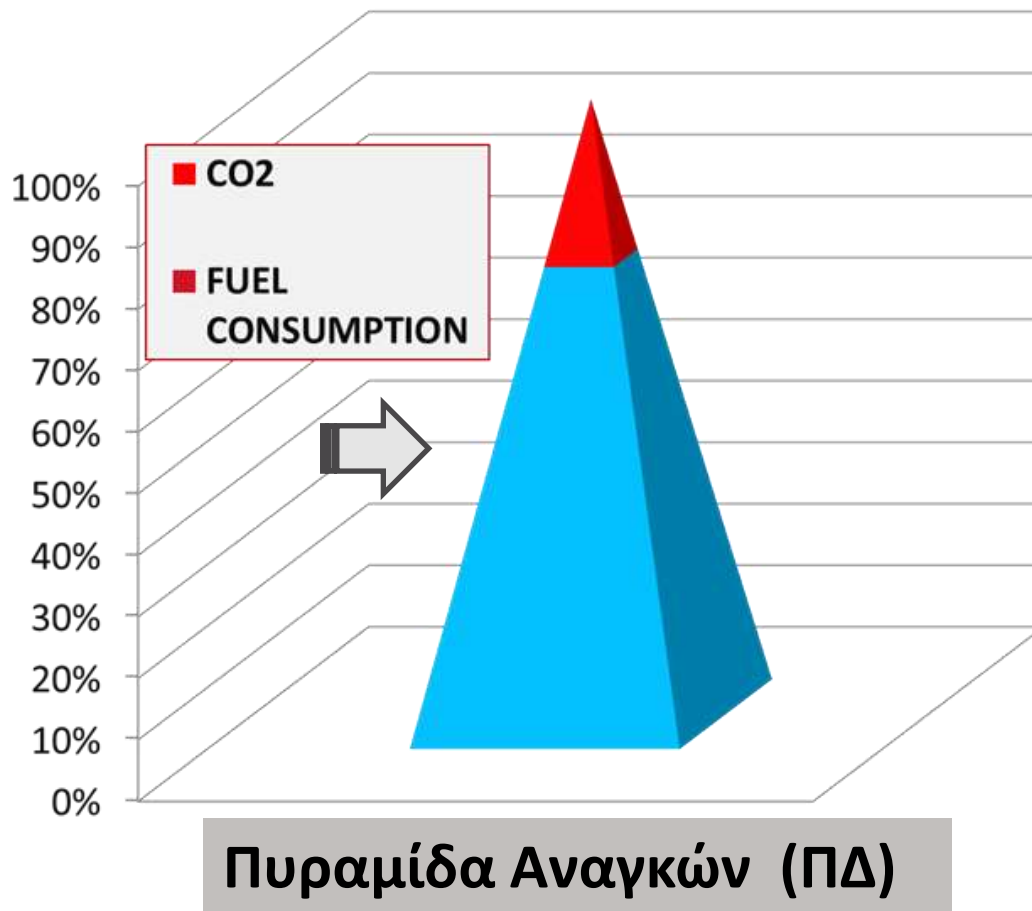
Diesel trucks εκπροσωπούν...
της CB IC EU αγοράς,

Δηλαδή

48.000 μονάδες / έτος



ΠΕΡΙΟΡΙΣΕΤΕ την περιβαλλοντολογική σας επίδραση



- ✓ Εξασφαλίζετε χαμηλές καταναλώσεις
- ✓ Ειδικά όταν ο στόλος σας είναι > των 3 ανυψωτικών ή το προσωπικό σας > των 30 ατόμων

ΠΕΡΙΟΡΙΣΕΤΕ την περιβαλλοντολογική σας επίδραση

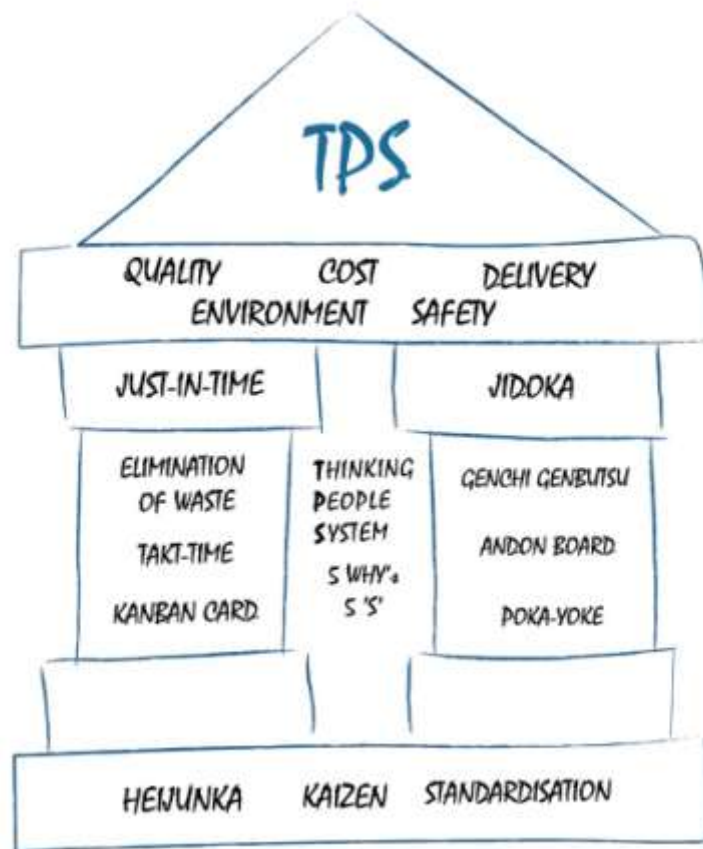
Μέσα από...



ΝΑ ΠΕΡΙΟΡΙΣΕΤΕ:
ΚΑΤΑΝΑΛΩΣΗ ΣΑΣ &
CO2

✓ **Μοντέρνους**

ΒΕΛΤΙΣΤΟΠΟΙΗΣΕΤΕ τις εσωτερικές σας διεργασίες



ΜΕΓΙΣΤΟΠΟΙΗΣΕΤΕ την ασφάλεια, την ποιότητα & την απόδοσή σας



Healthy Workplaces



Διότι η ΒΙΩΣΙΜΟΤΗΤΑ...

ΚΑΘΗΜΕΡΙΝΑ ΓΙΝΕΤΑΙ ΟΛΟ ΚΑΙ ΠΙΟ ΣΗΜΑΝΤΙΚΗ

ΌΧΙ ΜΟΝΟΝ ΓΙΑ ΕΜΑΣ ΑΛΛΑ ΓΙΑ **ΟΛΟΥΣ** ΜΑΣ



Big Data : Panagiotis Mariolis – Sales & MKT Director

3) Big Data



- 'Big data' η κύρια τεχνολογική τάση του supply chain management, **60%** των ερωτηθέντων σε διεθνή μελέτη της BVL International study θα επενδύσουν σε αναλυτικά εργαλεία big data – η business intelligence.
- Το πρόβλημα είναι πως θα 'δαμάσουμε' όλα αυτά τα δεδομένα, πως θα τα αναλύσουμε και θα βγάλουμε τα συμπεράσματα μας, χωρίς να πέσουμε στην παγίδα του φοβερού **"Infoxication"**.

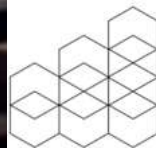


TOYOTA | Site



ComputerWeekly
European User Awards

2013 UK IT INDUSTRY
AWARDS
computing
FINALIST



IFOFY AWARD
international forklift truck
of the year

Οι σημερινές προκλήσεις στο material handling



Πως θα έχω
ασφάλεια?



Πως θα έχω το **control**
στα operation?



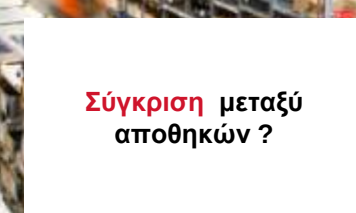
Πως θα βελτιώσω την
παραγωγικότητα?



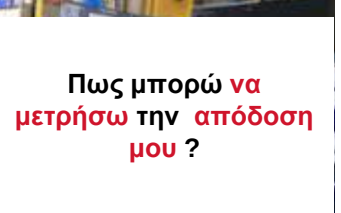
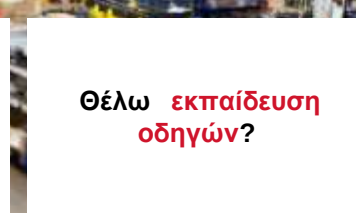
Πως θα μειώσω τα
κόστη **ζημιών?**



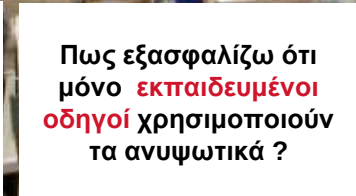
Σύγκριση μεταξύ
αποθηκών ?



Θέλω **εκπαίδευση**
οδηγών?



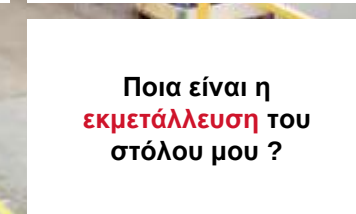
Πιο είναι το λειτουργικό
κόστος των
ανυψωτικών μου ?



Πως εξασφαλίζω ότι
μόνο **εκπαιδευμένοι**
οδηγοί χρησιμοποιούν
τα ανυψωτικά ?



Ποια είναι η
εκμετάλλευση του
στόλου μου ?



Supply Chain Initiatives



Η ΕΦΑΡΜΟΓΗ



- GPRS/3G αναμεταδότης
- Σενσορες



- Πρόσβαση στο ERP της ΤΜΗΕ



- PDA Τεχνικών



- Δεδομένα
- Benchmark
- Συνεχή υποστήριξη

Πλεονεκτήματα

Αποδοτικότητα
ανυψωτικών



Αποδοτικότητα
οδηγών



Dashboard



Εκθέσεις



Αναλυτικά
γραφήματα



Έλεγχος
μπαταριών



Προσκρούσεις και
κλειδωμα



Ειδοποίηση
προσκρούσεων



Remote
πρόσβαση



Έλεγχος
χειριστών



Έλεγχος πριν την
λειτουργία



Πρόσβαση



Mobile εφαρμογή



Έλεγχος
συμβολαίων



Multi-Site

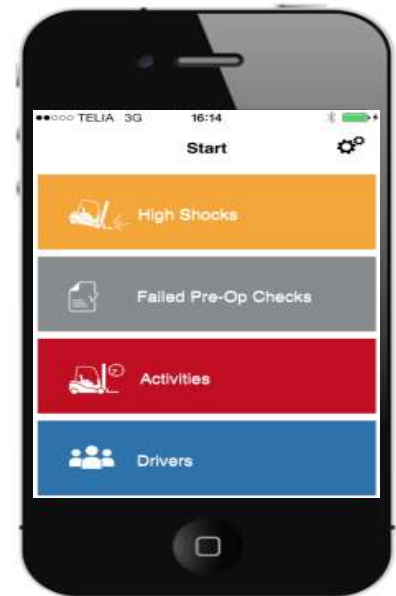


Παραμετροποίηση με real time dashboard



Εφαρμογή Smartphone

- Toyota I_Site online εφαρμογή
- Άμεση μετάδοση δεδομένων στο τηλέφωνο σας
- Υψηλές προσκρούσεις/ Έλεγχοι Pre-Op /Ειδοποιήσεις



Βελτίωση σε 4 βασικούς τομείς:

ΚΟΣΤΟΣ

- Καταγραφή Προσκρούσεων
- Αλλαγή Συμπεριφοράς

ΠΑΡΑΓΩΓ/ΤΑ

- Αποδοτικότητα Ανυψωτικών
- Αποδοτικότητα Χειριστών

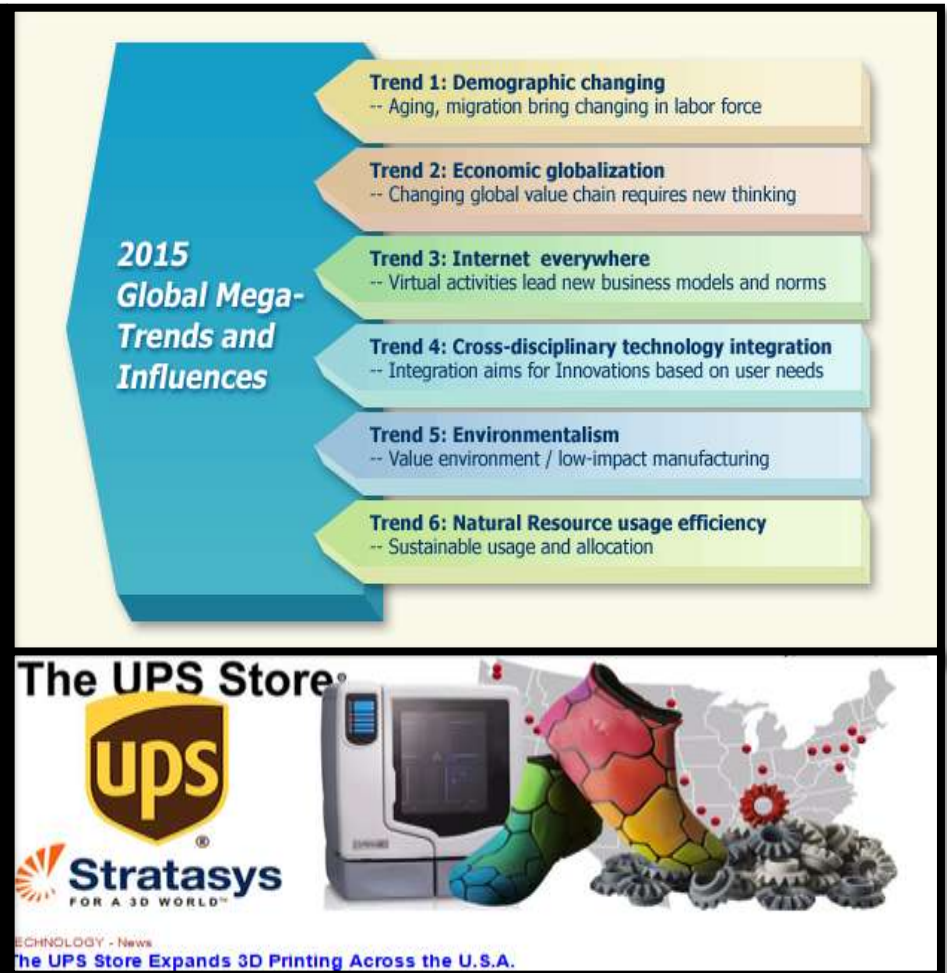
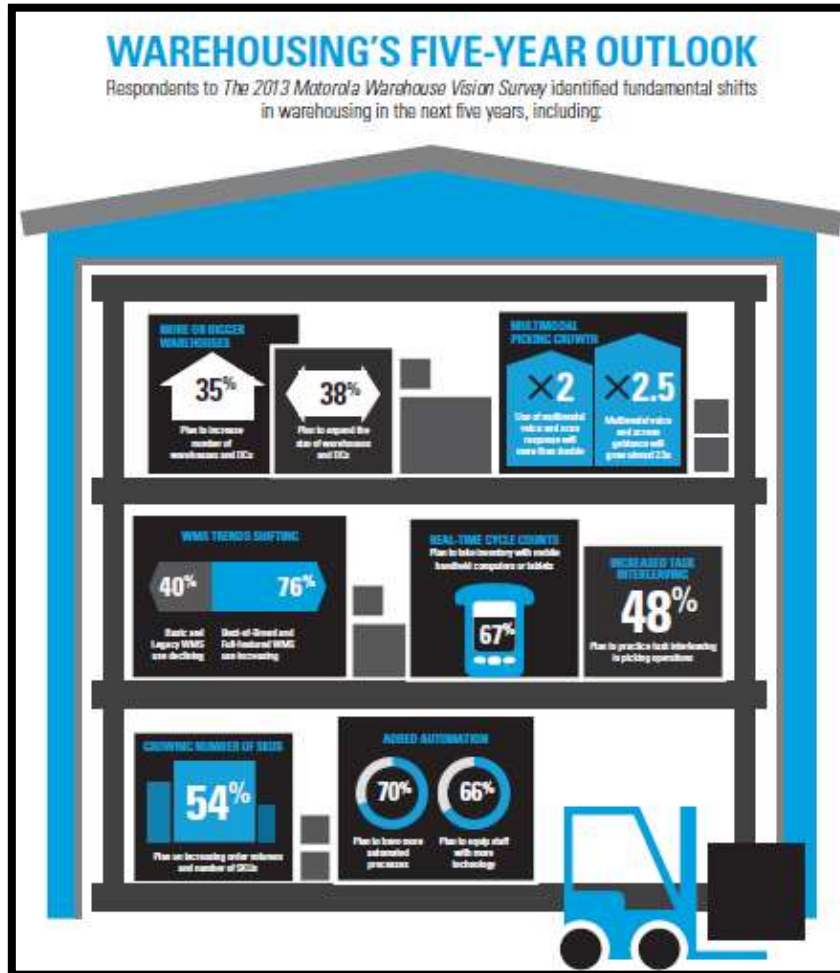
ΑΣΦΑΛΕΙΑ

- Έλεγχος πρόσβασης χειριστών
- Κλείδωμα Πρόσκρουσης
- Pre-operational check

ΠΕΡΙΒΑΛΛΟΝ

- Βελτιστοποίηση χρήσης ανυψωτικών
- Βελτιστοποίηση χρήσης μπαταριών

So... yes, A LOT of issues are coming



A LOT of new trucks and solutions will appear



But which is the real Factor “X”?



10 ΧΡΟΝΙΑ ΜΠΡΟΣΤΑ