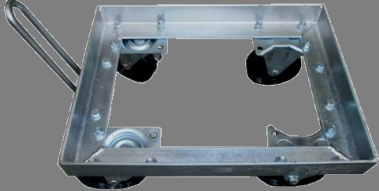
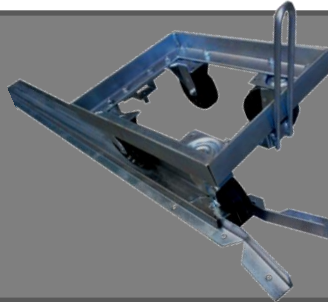


## Mini Wagon



Maneuverability  
Stackable



Low Cost

Warehouse optimization



Towable

Ergonomic

## Visual Management

One of the key points for Lean Implementation is the commitment of all the organization.

Visual Management is an important tool to improve communication. It helps to show the goals and status of each project and activity. Allows the quick detection of abnormal situations, and promotes process standardization.



### 4Lean Projects

This particular 4Lean Project had some interesting features, the full boxes could weight up to 40 Kg, making it non ergonomic for a worker to handle the box manually.

To reduce the transport waste and the Muri of handling, the solution consisted in:

- build a wagon that could be filled with boxes, using a crane, on the supermarket
- create a logistic train to transport several wagons from the warehouse to the production line
- Use the wagon as the border of the line

Due to the weight, the system used was the 4Lean System +, that can take weights over 2 ton

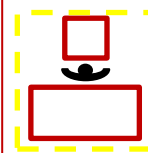
#### Warehouse

Load 40 Kg boxes into the wagon with a crane



#### Production

Wagon is the border of the line



### Editorial

In this edition we bring a new solution, developed for the transportation and stocking of small pieces for high runners, the MiniWagon.

We also present the plan for 2012. Our goal this year is to increase our presence in new markets such as Belgium and Spain.

4Lean is planning to be present in several conferences in different countries. This reveals our attitude and strength for embracing new projects. These conferences will be focused on the theme "Factory of the Future".

Luís Moura



### Kaizen Event

On the last months we have noticed a notorious increase on the number of Kaizen Events required by our customers. The example below shows the construction of a new dynamic assembly line for gearboxes and implementation of new logistic flow: line – logistic train – supermarket in Italy.



Fig.1 - Tool carts



Fig.2 - Heijunka

### 4Lean Conferences – "Factory of the Future"

4Lean will organize 3 conferences, where will present projects and solutions:

- Conference in Gent (BE): 19th March 2012 at the Gent Meeting Center;
- Conference in Almada (PT): 11th April 2012 at the Almada Business Hotel;
- Conference in Reggio Emilia (IT): 15th May 2012 at the Hotel Villa Nabila

We invite all of you to join us in these conferences. We will appreciate your participation. For more details go to [www.4lean.net](http://www.4lean.net)