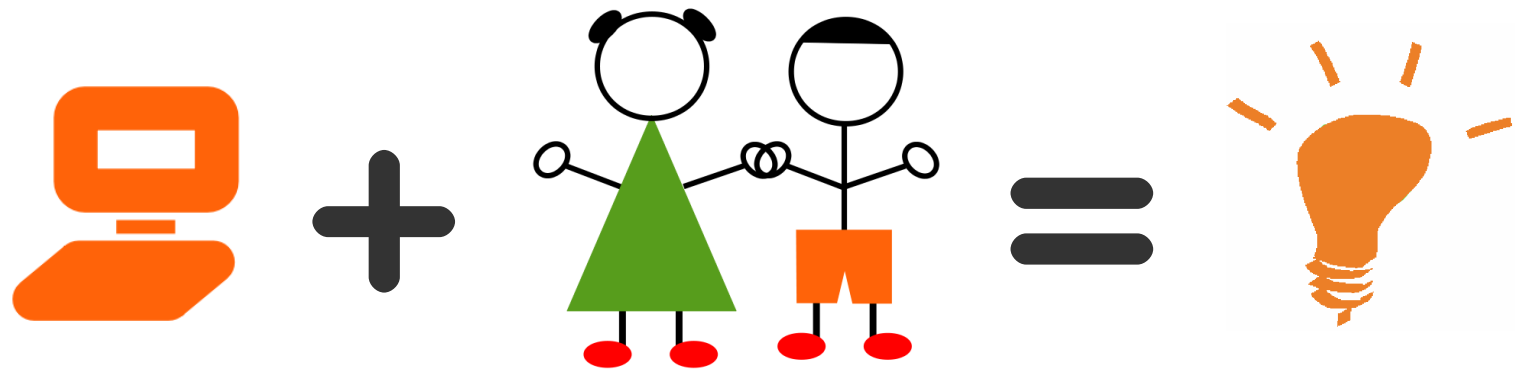


# Labdoo Project



$$(L_{\text{laptop}} + C_{\text{child}} = E_{\text{education}})$$

Connecting all the children to  
the Net to bring education  
everywhere in the planet

# Labdoo Charter

- Labdoo is a non-profit social network project with a mission to bring technology to the schools of the developing world as efficiently as possible (minimization of opportunity costs)
- Current focus on laptops and portable devices
- At its core, Labdoo uses a world wide tracking facility (the Labdoo Tracking Engine, LTE) that allows for the tracking and mobilization of laptop resources
- Labdoo provides a web 2.0-type social network enabling the contribution of anyone owning a laptop. The interface includes a dashboard from where people can manage their laptop donation and further contribute with more volunteering elements as the laptop makes progress to a child.
- LTE enables a grassroots platform where a huge task can be chopped into millions of small tasks, which are then distributed away to the community and ultimately put back together in a coherent manner.

Every year more than 140 million laptops worldwide are obsoleted and replaced by new ones...

In Africa there are 106 million children at the age of high school...

Imagine for a second if we could all work together to bring our excess laptops to all the children in Africa.

Are we up for the challenge?

Join the Labdoo Social Network Project and bring the hope of education to

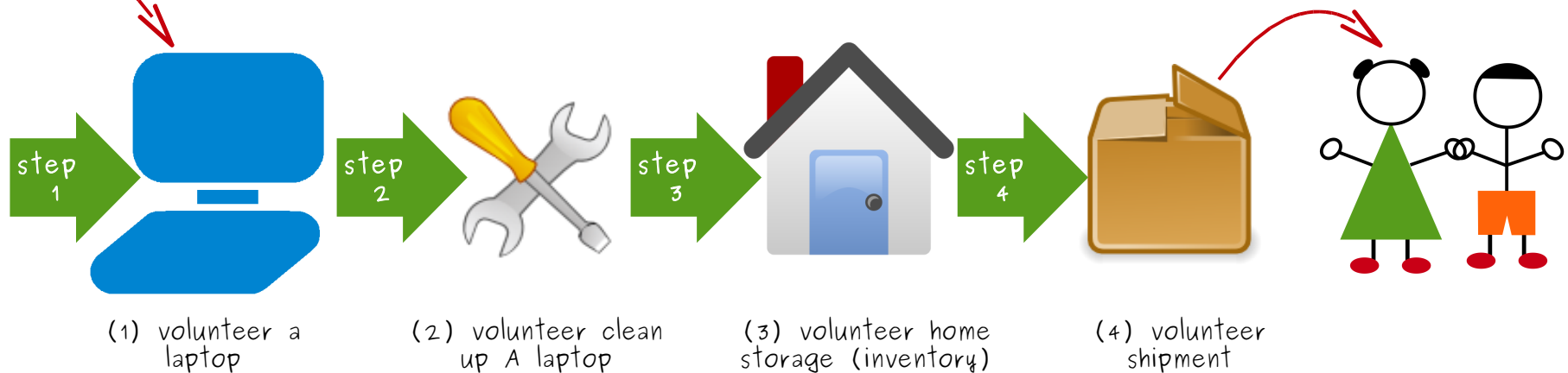
every child in the planet!

## The Challenge:

How to bring a large number of laptops to children in a sustainable way:

4 elements need to be contributed to bring a laptop to a child; these 4 elements define "the distance between a laptop and a child":

What is the distance between a laptop and a child?





donate  
laptop



donate  
reinstall OS

These four  
elements can be  
executed in a  
distributed manner  
from any place in  
the planet by  
anyone who  
volunteers one or  
more elements; the  
work is ultimately  
put together using  
web 2.0 tools



donate home  
inventory  
storage

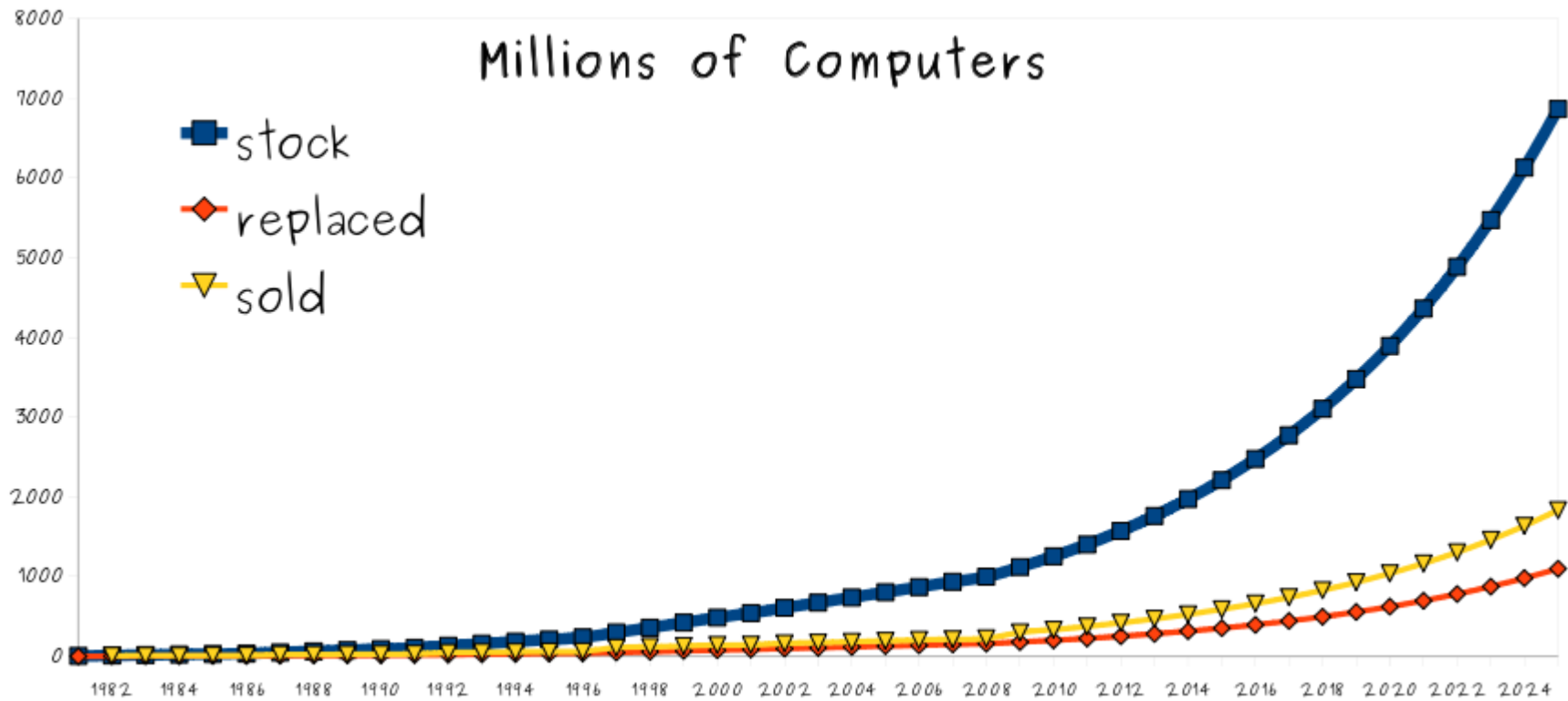


donate  
shipment

# Labdoo's Distributed Inventory



# Managing the Supply Side\*



\* Model: Gartner, Inc estimated in 2008 a stock growth rate of 12%. The model above is only theoretical and assumes such rate holds through year 2024.

# BIG TASK

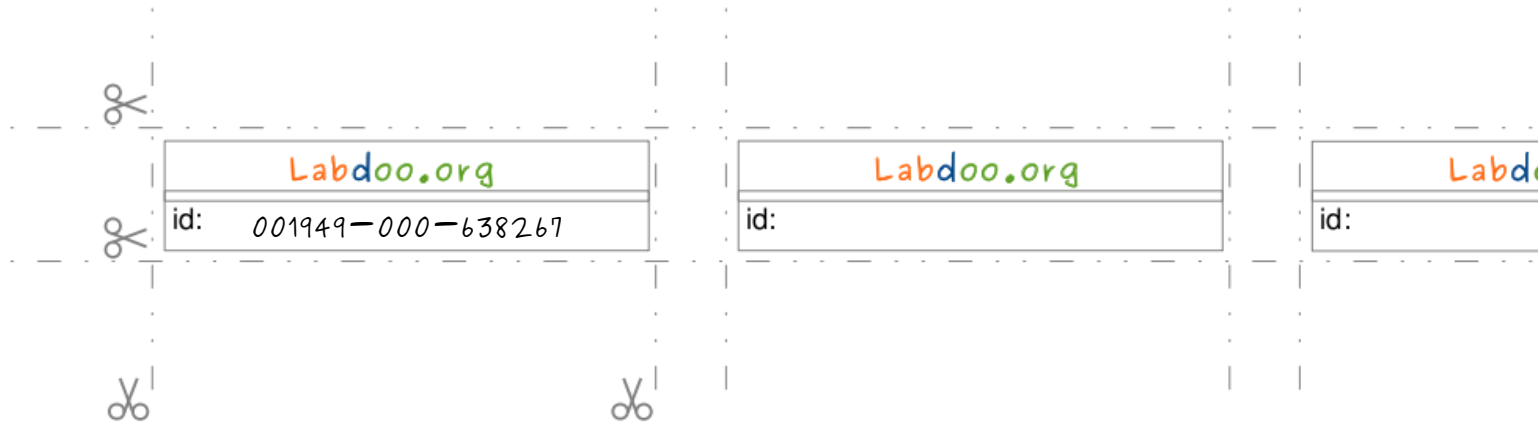
Based on the notions of:

- Empowering untapped goodwill
- A commons based peer production
- Accountability
- No single point of failure
- Gluing millions of small untapped excess capacity
- Productive social network

\*Yochai Benkler, "Coase's Penguin", 2002



# Tracking a Laptop Status



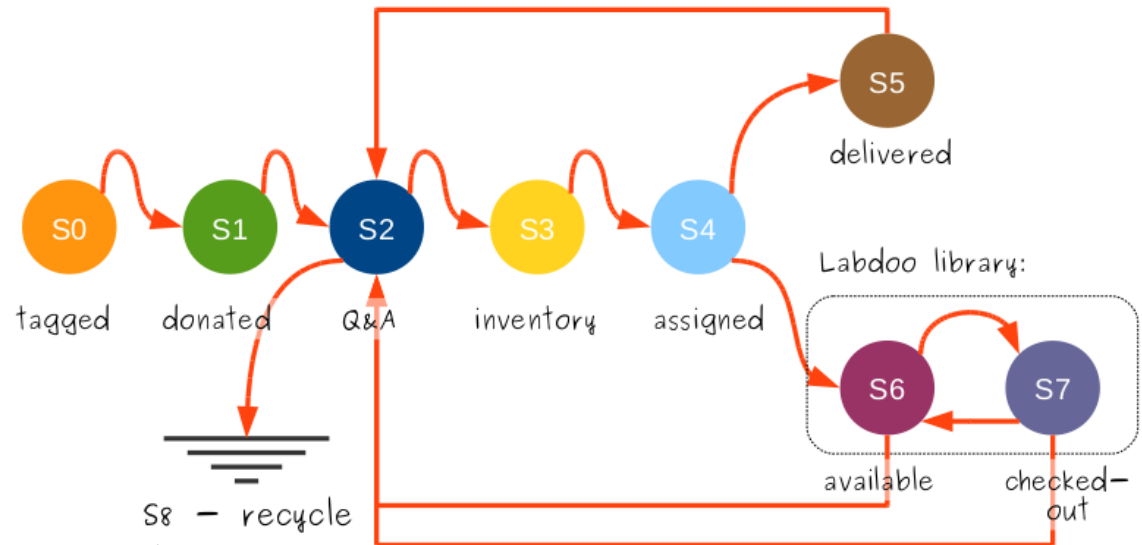
Each laptop is assigned a **world wide unique ID** so donors, volunteers and recipients can track the location and status from [www.labdoo.org](http://www.labdoo.org)

# Labdoo's State Machine (LSM)

→ A laptop enters the labdoo web 2.0 system when it is first tagged. Then, as volunteering elements are contributed, it makes progress through the labdoo state machine until it finally reaches a child

→ Donors can monitor the progress of their laptop and push the laptop through the LSM by contributing more elements

→ Laptops are always tracked to ensure that their ultimate final destination is a recycling factory (to avoid ewaste)



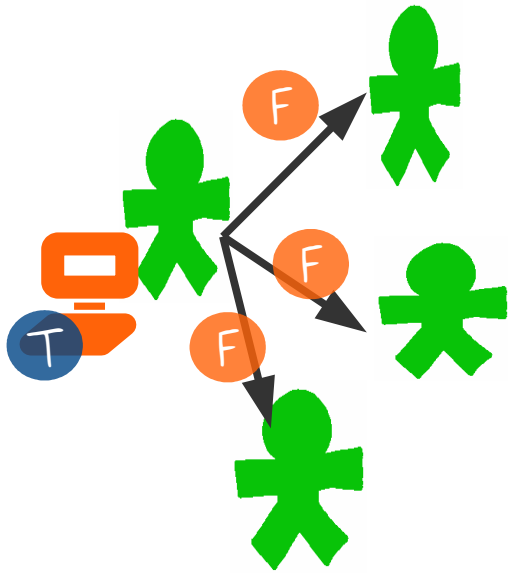
# A Labdoo objective: to have all laptops on earth tagged

- This makes worldwide calls for s3-status laptops possible on a per-demand basis
- Efficient ways to mobilize laptops and match supply/demand

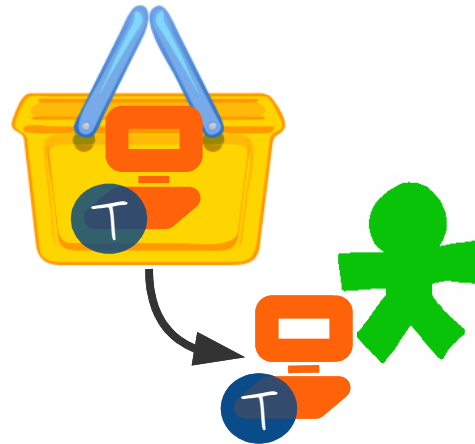


# Three grassroots strategies to mobilize laptop resources

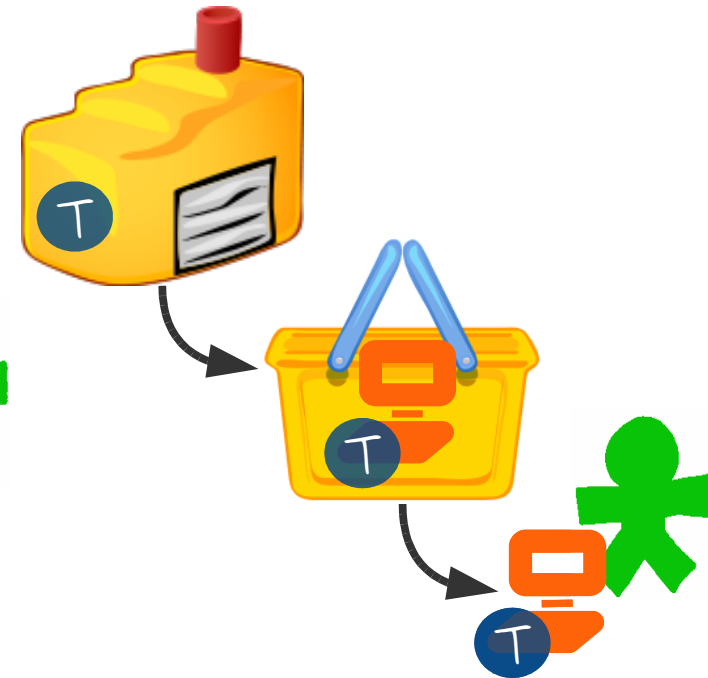
Tag and forward (TAF)



Buy and tag (BAT)



Make and tag (MAT)

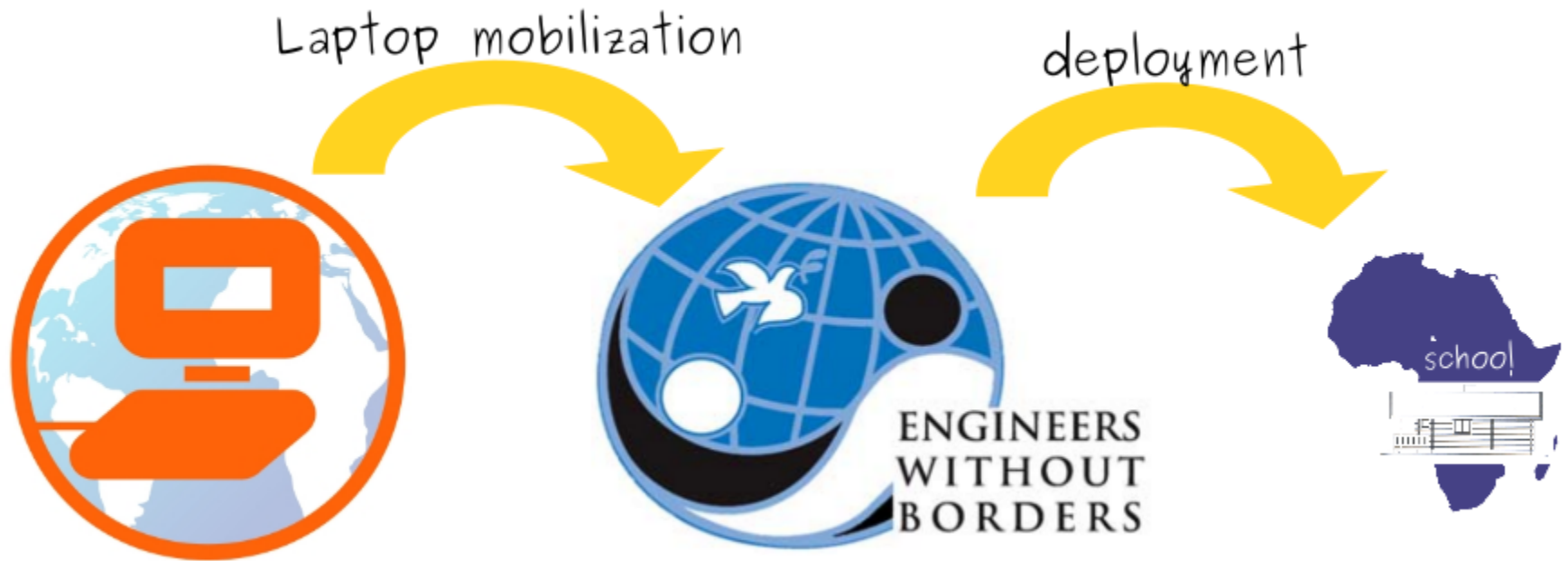


# Labdoo Dashboard

The screenshot shows the Labdoo Dashboard interface. At the top, there is a header with the Labdoo.org logo and navigation links: About Labdoo, Earth Inventory, Tracker, News, Contact, and Log out. Below the header, there is a search bar for the Labdoo Global Identifier and a language dropdown menu. The main content area is titled "My Dashboard" and features several interactive icons: "Add Laptop" (a laptop icon), "My Profile" (a green stick figure icon), "Next Steps" (blue footprint icons), "Tag and Forward" (a network diagram with green figures and red arrows), "My Toolbelt" (a wrench and screwdriver icon), and "Print Labels" (a barcode icon). A sidebar on the left contains a navigation menu with links for Inventory, Members, Tracker, Stories, Deployments, Dashboard, My Account, Blogs, Community, Labdoo Labs, and Log out. Below the menu, there is a registration prompt: "Register and Tag your laptop today using your Labdoo dashboard..." and a link to "Or learn how it works first!". A small article preview titled "Moving Windmills: The William Kamkwamba story" is visible on the right side of the dashboard.

→ Donors and organizations can manage the progress of laptops via the Labdoo dashboard

# End-to-End Operations



Examples of Pilot projects: Guatemala, Honduras,  
more coming

# study case at the UCI Labdoo hub



Erlang Law:

$\text{laptops retired} = \text{total laptops in the system} / \text{laptop life duration}$

At the University of California Irvine there are ~29,000 students and faculty, assume 90% have a laptop (at least) and a laptop life duration of 5 years:

Potential number of laptops retired =

$(90\% * 29000 \text{ laptops}) / 5 \text{ years} \sim 5,000 \text{ laptops/year}$

# Labdoo Labs

- Labdoo is building a team of Drupal developers to continue to improve the web 2.0 labdoo tools
- We've got lots of ideas in the pipeline! Plenty of things to do, and many more to invent
- Labdoo developers work from anywhere, connected using social network tools and meeting frequently to sync up the work
- Labdoo aims at developing an open platform to provide tools that other technology humanitarian organizations can use



# Labdoo Tracking Engine: helping technology projects around

- Labdoo aims at partnering with technology humanitarian organizations to help them track their technology donations using the Labdoo tracking Engine (LTE)
- The LTE allows every organization to leverage a single tracking infrastructure
- By having a unique global tracking system, efficiencies are increased (demand/supply matching, avoid fragmented market) and redundancies reduced (avoid reinventing the wheel)



Tag and forward!

[contact@labdoo.org](mailto:contact@labdoo.org)