

Executive summary and Application of Artificial Intelligence in « OPTIMALOGISTIC Solution »



SMART DELIVERY THROUGH DIGITAL

An Industry4.0 Enabled-solution for logistics optimization

The project:

Optimalogistic is digital platform combined with artificial intelligence in order to optimize the land transport cost for transport companies and their B2B clients.

Professionals of transportation and handling suffers from several problems. First, they lost a big time between orders because they don't have a work scheduling tools. Second they can't share their real time information with their clients and prospects. Third, the historical problem of empty return trips and partial loading of trucks. Optimalogistic offer a web and mobile application to help them share their real time information (geo-position, availability, empty space, etc.). They can be notified about all the market opportunities.

On the other side, we provide to B2B users (industrials, manufacturers, international trading companies) with an online platform to send their deliveries requests and get the best deals. They can so reduce their transportation cost and win time.

Our project has also an environmental benefits by reducing empty space (on trucks) circulating on the roads and then reducing traffic congestion and CO2 emission.

Our team:

What we make us different from our competitors is our complementary team profile, composed by myself, Maher CHAKROUN, the founder, I have 10 years' experience on web/mobile development and Market places management.

Our COO, Mondher Ben Karmaoui, who have more than 15 years' experience in logistics and industrial sectors.

Our team is composed also by 7 skilled engineer specialized in international trading, sales, logistics and computer science who are working daily to satisfy our client needs. We have three international expert and advisors working with us, Mr. Enrico Bernardo for digital marketing (Berlin), Bilel BELLAJ for logistics and industrial sectors (Tunis) and Samah Ben Dhia in finance (Marseille).

The Market:

The land transport in the Mediterranean region is estimated to 180Billion \$.

Our basic financial model is based on monthly Subscription for transport companies.

We apply commission on reselling Empty return Trips and managing the logistics problems for industrial partners.

We validated the concept and we already worked with some of Tunisian famous company like POULINA Holding with many subsidiary like MBG, Technoflex, Carthago-Ceramic, DERBIGUM, MBG, Serinus Energy (petroleum company).




Competition:

In Tunisia, Our competition is mainly the traditional booking system when a business search for a truck by Facebook or google.

In Africa Market, the main competitor is kobo360 based in Nigeria. Amount raised: around 37 M\$.

In MENA Region, our competitor is Trukker. Amount raised: around 21.5 M\$.

Vision:

Our project has a high potential of growth on worldwide and Africa mainly with the trans-Saharan road project that match Tunis, Alger and Lagos. We like to create the first and unique network of land transport companies in Africa.

Such database can optimize the import/export transactions from all the world to Africa (mainly the sub-Saharan countries) using the nearest port. As an example, Europe can use the Maghreb region as a hub to Africa.

Overview:

Optimalogistic is digital platform combined with artificial intelligence in order to optimize the land transport cost for transport companies and their B2B clients.

Problems:

Businesses (Petroleum Company, manufacturers, shipping, automobile, electronics companies ...) waste a lot of time and money to optimally transport their goods especially with unscheduled deliveries. Even by comparing offer from a tenders, we cannot optimize the global cost mainly for import and export transactions.

Solution:

We offer an online platform that match offers and demands of transport needs based on Deep learning and real time information. We reduce the wasted capacity on cargo and digitalize the full delivery process. We also provide dedicated service to support our clients during their deliveries.

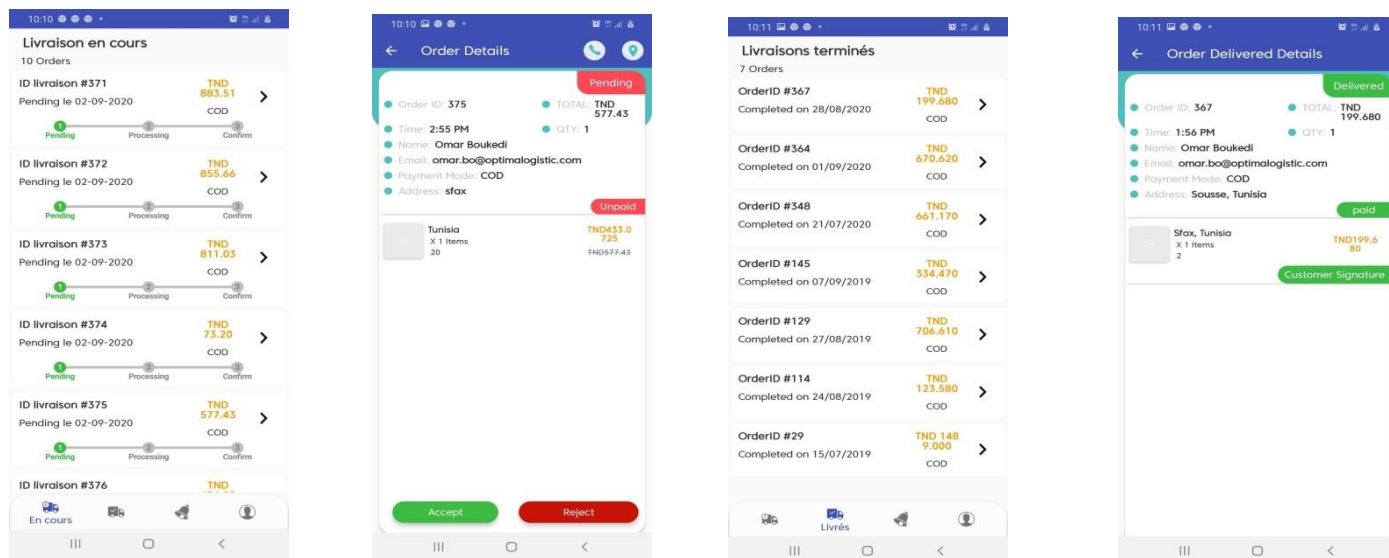
OPTIMALOGISTIC SA has also environmental and social impacts by reducing CO2 emission and the traffic jam caused by unused space on cargo.

How it work:

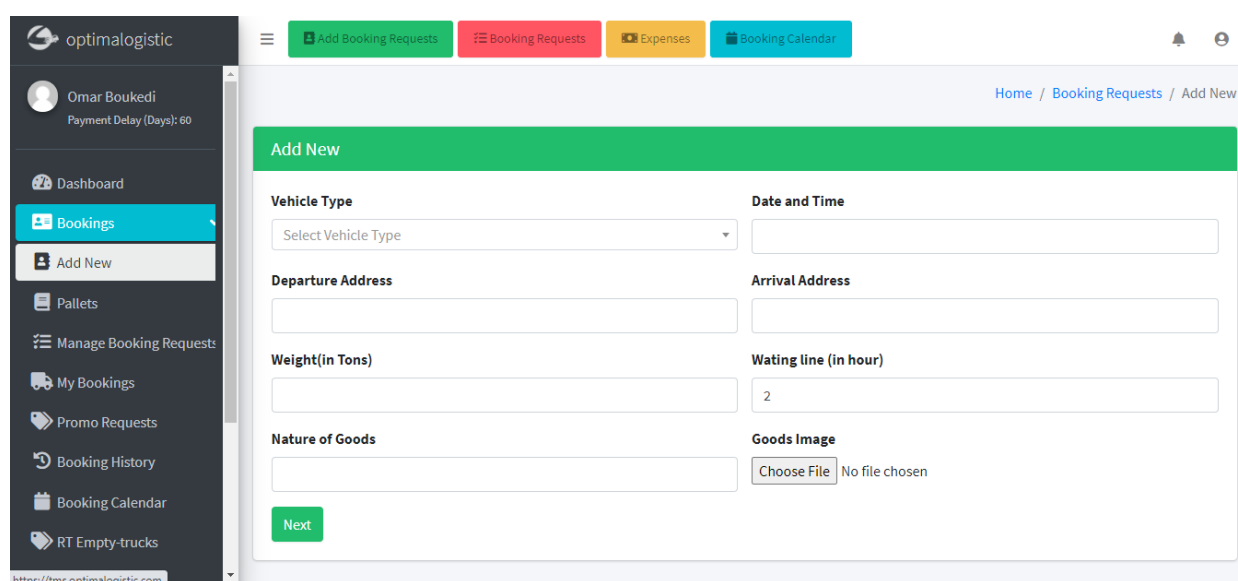
Businesses use our online marketplace to send their requests and manage their deliveries.

Drivers connect with B2B clients through our online platform or mobile application. They can schedule their deliveries, accept client's request and update them about the delivery progress.

Upon delivery confirmation, they give access to their truck drivers to update the delivery status through our mobile application.



Driver mobile application (TMS)



On-demand platform for businesses

In addition to the solution via the booking system —the B2B user typically receives the following:

FEATURE	EXPLANATION
GEOGRAPHIC POSITION OF THE TRUCK	The driver can share his real time position with others customers.
OPPORTUNITY OF EMPTY-RETURN TRIP	Status of the journey – Standard or return journey.
SERVICE QUALITY OF DRIVER	Related rating of the driver
STATISTICS	Daily, weekly, monthly and yearly reports about expenses and benefits.
REAL-TIME INFORMATION ABOUT THE TRUCK AND THE DELIVERY STATUS	Information about the vehicle before the booking (photos, km ...) and details about the delivery status after the booking (Pending, picked up, in progress, delivered).
PREDICTION TOOLS (IN PROGRESS)	Estimated available trucks types on future date and specific city.

Application of Artificial Intelligence in Optimalogistic Algorithm

1. Land transport optimization for Businesses:

Using AI in our algorithm will save the costs, lower emissions, and improve road safety as compared to traditional trucking.

Machine learning could be used to predict price rate (depend on the number of offers and demands of transport need), and prevent traffic jams and risks of accidents during the deliveries.

Scenario: When a B2B clients (like an industrial) need to book a truck from Tunis to Alger to deliver 3 tons of canned tomato. We consider six important parameters to match a client with the driver of truck and give him suggestion for optimization:

- **Parameter number 1 - Available empty return-trips:**
We give priority to the available "empty truck" that will return empty to his start town. This will help to use only one truck for 2 different deliveries (2 order with inversed journey). This will reduce traffic Jam and Co2 Emission accordingly.
- **Parameter number 2 - Deliveries Date/Time:**
Chose the right time for deliveries for both clients and truck drivers'. This will optimize the deliveries cost for driver (long waiting-time, traffic Jam, low price) and also for clients (Less price because of available Empty return-trip).
- **Parameter number 3 - Geographic position of the truck:**
We try to match the nearby trucks to the clients and take in consideration the previous parameters (Empty-return-trip, Deliveries time).
- **Parameter number 4 – Previous actions-history booking and search-query of the clients:**
According to the activity of the clients and his previous booking we try to predict for him the best opportunities in the market (notification).
- **Parameter number 5 – Truck type's according to the nature of the goods:**
We suggest to the client a trucks that can deliver their goods in a safe way. As an example, food should be delivered by refrigerated truck. Fragile goods should be delivered in a cab truck with adequate packaging.
- **Parameter number 6 – Customized self-setting of the user:**
Each user (client) can customize his own setting for the matching process in order to give him with the best search result according to his choice. As an example: A client can have a priority for the price than the time so he can change his delivery schedule if he find best price.

2. Machine learning with big data for fleet management:

We offer to transport companies an all-in-one software to insert their entire fleet and manage their daily tasks (trucks management, fuel and mechanical maintenance, clean service, tires services, licenses expiry reminder for driver, insurance, taxes,). Machine learning could be also used to optimize the internal management of the fleet and predict the average cost and benefit per truck, per region, per driver, etc. to guide and target the marketing and hiring strategy of the company.



3. Machine learning for import/export transactions:

Today, open-data API dedicated for boat shipping is available to estimate the arrival time for each boat on the port between continents and countries.

We can use Machine learning in order to predict the number of trucks needed to deliver the containers after clearance of goods in the port docks. **Optimalogistic** can prepare the right truck fleet for that on the right time and avoid additional waiting time.



We have won and participated in several international competitions including:

- Seedstars Tunisia 2018, Seedstars Beirut, Seedstars Switzerland 2019
- StartupGermany!2018: Région Ruhr.
- The Next Society & The Camp Marseille 2018, DiafrikInvest 2019 Paris,
- Startup Maroc 2020 (Rabat, Tanger)
- International Startup Mentoring by Enpact – Berlin/Ghana 2019,
- Accelerator Programm by Flat6labs Tunis 2018,
- Westerwelle Foundation - Startup haus Tunis 2020 – WSHTEP
- Jetro Investment Forum - Paris 2019.

**startup
mentoring**
by enpact

 **seedstars**



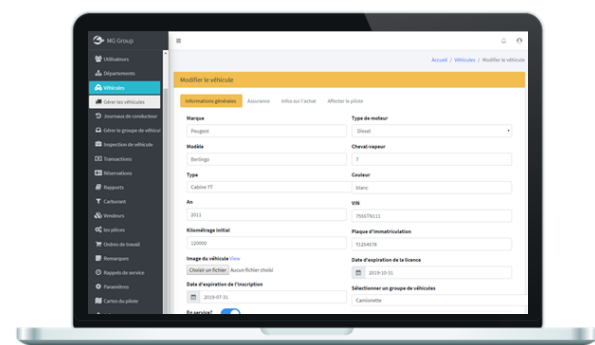
 **DiafrikInvest**
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