Who is Pipple?

Pipple as a company

Pipple is a data science consultancy firm located in Eindhoven, The Netherlands. Our specialty lays in **optimization** with as main market target the <u>supply chain</u> and <u>financial parties</u>.

Our team

- Between 35 and 40 employees
- Seasoned professionals with experience in applying mathematics in business
- backgrounds in:
  - Mathematics
  - Econometrics
  - Data science
  - Artificial intelligence

Who is Pipple?

Our dream

Next to implementing solutions for profit, Pipples' slogan is Data Science with a purpose. Together with corporations like -510-, the data initiative of the Red Cross or the Ocean Cleanup, solutions are made to make this world a better place.

ABS autoherstel
achmea
AMBER
antea group
ARAG
Argenta
A.S. Watson Benelux
atlant wonen zorg welzijn

bol.com de winkel van ons allemaal
coolblue
ACOPA OPACO
Crowe
DASH TAG
DB SCHENKER
delta lloyd
DHL

EHV365
eit Digital
e·on
Gemeente Roosendaal
GGD Hart voor Brabant
GGD GHOR NEDERLAND
goodhabitz online training
HOUTHOFF

iChoosr
ICT+
IKEA
innogy
Interpolis. Glashelder
Jeroen Bosch ziekenhuis
JUMBO
Belastingdienst

Ministerie van Volksgezondheid, Welzijn en Sport
MOTION & CONTROL NSK
PharmAccess FOUNDATION
PHILIPS
PON
QUION
Rabobank
RHENUS LOGISTICS

renewi
SHIMANO
SINT TRUDO
SPOSEA
THE OCEAN CLEANUP
Topzorg GROEP
Tzorg
VANDERLANDE

Pipples' work in the world of soccer

In 2022, Pipple participated in a challenge like the LaLiga Challenge, hosted by the Dutch soccer association (KNVB).

The goal of the challenge was to come up with solutions to reduce the amount of CO_2 produced by the KNVB.

Our solution focused on the <u>minimizing</u> the number of travelled <u>kilometers</u> driven by car in the <u>amateur soccer</u> scene.

Our developed <u>routing</u> algorithms were able to reduce the total amount of kilometers by 38% to 48%. Leading to a <u>net reduction</u> of 70.7M to 101.5M kilometers per year.
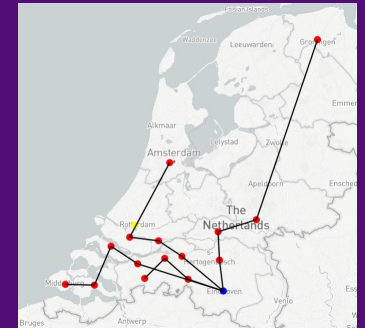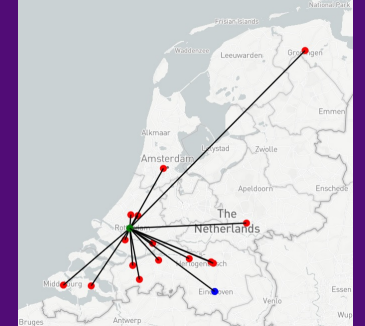
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Pipples' work in the world of soccer

One of our research topics in soccer is done in collaboration with RKC Waalwijk.

At this club, tracking data is used to assess the amount of danger produced by both teams over the course of every match.

This research is based on the pitch control model proposed at the data science department at Liverpool F.C..

This model is used to refine the practice and training sessions of the RKC Waalwijk team.

Pipples' work in the world of soccer

FC Eindhoven is interested in a similar kind of model RKC Waalwijk is using and intends to work with Pipple on developing their own solution.

Next to the pitch control model, FC Eindhoven also wants to forecast the number of visitors that is expected to visit their home games.

For this purpose, a forecast model is developed.

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LaLiga

Create a culture of environmental sustainability

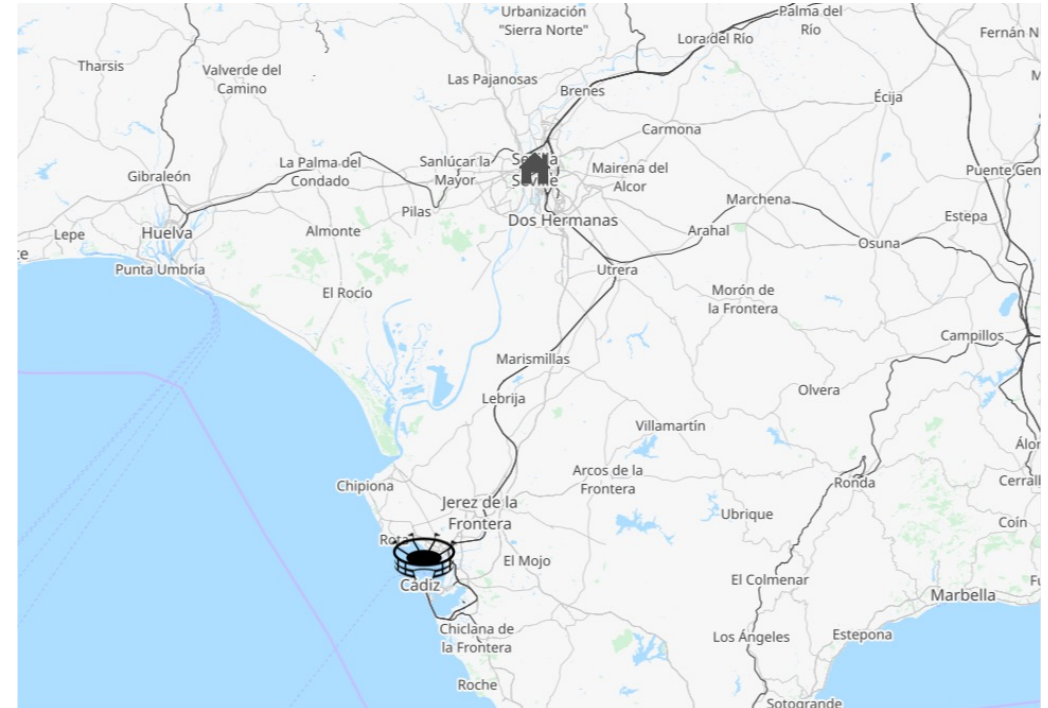# Proposal

Driving together made easy

An example is given in order to illustrate the problem. In the example we have the match Cádiz CF – Sevilla FC.

For the Spanish competition, these clubs are relatively close to one another. Thus, many Sevilla FC fans are expected use their car to attend the match live.

Before the match, the fans are asked if they are planning to visit the match live. If so, they are asked if they would like to use a fan bus (given that the bus will be cheaper).

By doing this, they provide the following information:

- From where they plan to depart
- If they are willing to take the fan bus

Proposal

Driving together made easy

Using the gathered information, our algorithm can determine the density of the fan-base willing to take the bus.

Using this information, the algorithm determines the following things:

1. If it is useful to <u>deploy</u> busses

2. The <u>optimal</u> location the busses should depart from given constraints like:

    *   Fans should not have to travel too far to the bus

    *   The bus should be full enough to be significantly cheaper than driving by car
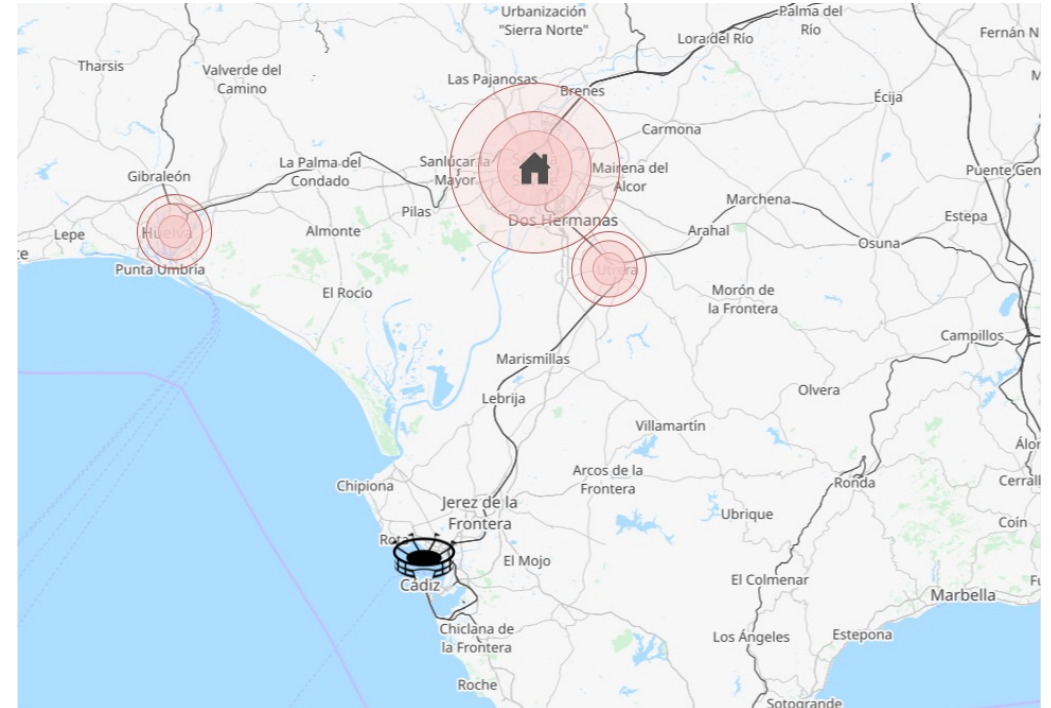
Proposal

Driving together made easy

The algorithm determines where to deploy busses and informs the people who signed up for the bus.

Result:

- A significant reduction in driven kilometers

- Fans travel cheaper to the match

- Visitors do not have to drive themselves and are able to grab a drink, boosting revenue at the club

- A nicer travelling experience for the visitors as they can share a ride with their fellow fans
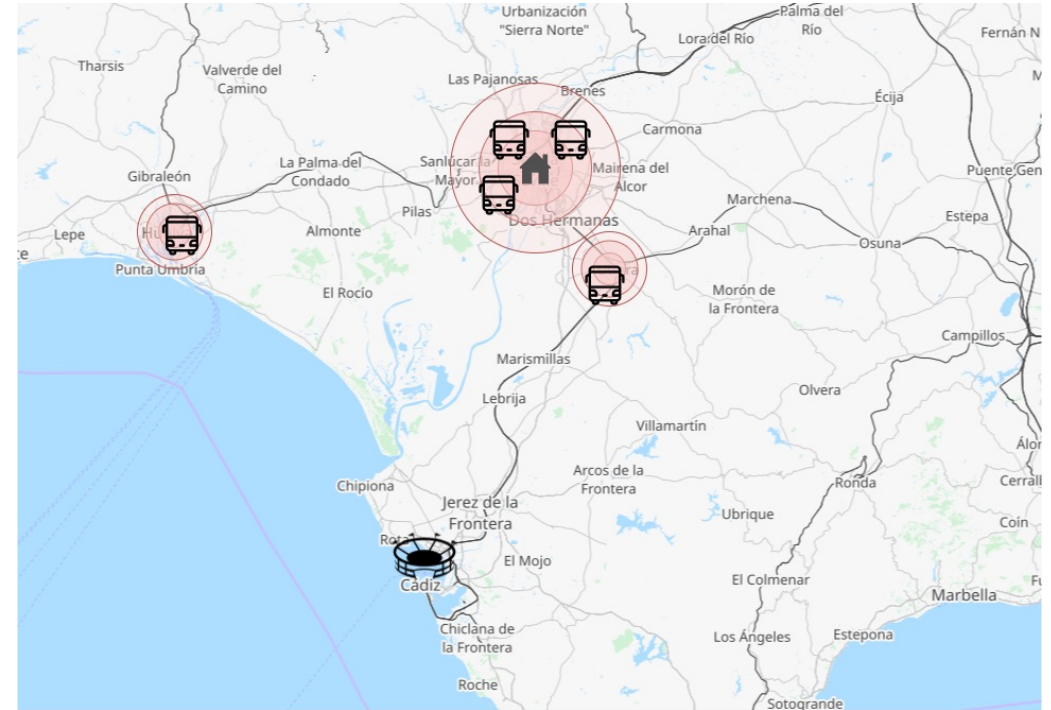
Market potential

Driving together made easy

At first this project would be deployed in LaLiga. However, this project is highly scalable as it generalizable relatively easy in the multiple ways like:

- The second league in Spanish soccer

- Different sports

- Different countries

- Inter-country matches

A project similar to this one will be deployed in the Netherlands next year, in collaboration with the KNVB.