# Mex-Chainge

SMP 18003

January 10<sup>th</sup> 2019, Eelke Westra







## Project

#### **Requesting party:**

Jean Rummenie, Dutch Agricultural Counsellor in Mexico

#### **Partners:**

United Produces of Mexico (Lia Bijnsdorp) AgroFair (Luud Clercx)

#### **Objective:**

To improve export quality of Mexican avocados by:

- Identifying supply chain processes
- Recommendation for possible interventions
- Matching technological needs with Dutch suppliers





### **Activities**

- First visit to Mexico's avocado production region in Michoacan to make a supply chain inventory.
  - 3 orchards
  - 4 packing houses
- Second follow up visit to identify possible pilots and partners (in coordination with RVO-SDG visit)







### Results

- Inventory of Mexican avocado supply chain
- 17 recommendations for improvement of harvest, transport, temperature management, disinfection, bruising and quality testing
- Written report delivery (WUR 1870)
- Identification of two possible pilot projects and partners to implement some of the recommendations

"The WUR report allows us to identify the specific points that need to be improved"

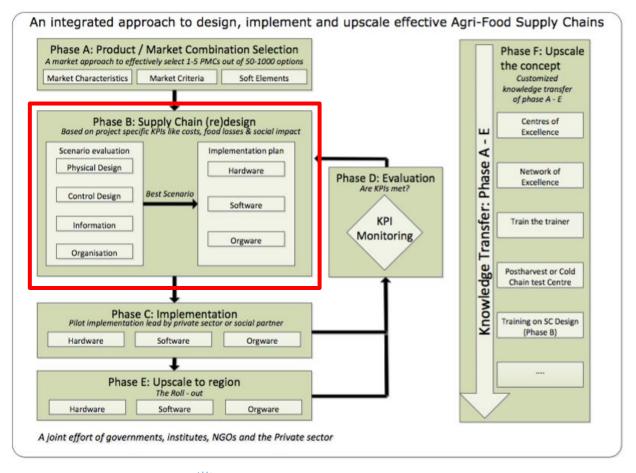
Lia Bijnsdorp, UPM





# Plans (1)

#### This Seed money project is part of a larger scheme







# Plans (2)

- UPM investment in sorting and grading machinery
- AgroFair approval of DEG-subsidy for organic FairTrade-project
- Strategic cooperation between Dutch and Mexican organisations for future agro projects in the SDG program
- MoU in place with Consejo Nacional Agropecuario (CNA)
- Design and implementation of two projects to follow up on SMP-project recommendations
  - 1. Sea freight to EU (NL)
  - 2. Quality Measurements





## Project 1

**Objective:** To develop protocols to successfully switch from air freight shipments to sea freight shipments.

- To reduce environmental impact (e.g. air freight, FLW)
- To increase exports (volume)
- While improving and maintaining quality (sea freights deal with bigger quality problems due to the transportation time)

#### **Partners:**

Mexico: PAZ (Producers Association), UPM (Marketer), Supremo (Packing

House), CIDAM (R&D Institute)

Netherlands: Agrofair (Dutch Importer), WUR (R&D Institute)

**Challenge to tackle:** Mexico exports all year round, however, quality within sea freight shipments is not always consistent. By designing post-harvest protocols to better control the fruit management the supply chain will become more efficient and sustainable.

**Methodology:** Experimental treatments (shipments), results measuring and protocol designing.





## Project 2

**Objective:** To build a predictive model to measure dry matter content in avocados, using Near Infrared Spectroscopy (NIR)

#### **Partners:**

Mexico: PAZ (Producers Association), UPM (Marketer), Supremo (Packing

House), CIDAM (R&D Institute)

Netherlands: Agrofair (Dutch Importer), Aweta (Dutch packing lines company)

WUR (R&D Institute)

**Challenge to tackle:** Dry matter (and oil) content of avocados is the main indicator for avocado producers' decision making. An accurate non-invasive measurement of highly impacts the fruit's quality. However, no accurate non-invasive test exists, and the one broadly used does not involves technology and is destructive.

**Methodology:** Data collection with the use of NIR technology, data analysis, model construction and model validation.





### Administrative

- Active partner participation and collaboration
- SMP is fulfilled completely





# Questions

Eelke Westra
Eelke.Westra@wur.nl





