



**intouch**  
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## Workshop Argoleaf

Customer Insights

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**intouch**  
**365**

info@intouch365.nl  
www.intouch365.nl



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## 1. Introduction

Different to traditional approaches for realising a 360-degree view of the customer with a large amount of coding involved, Dynamics 365 Customer Insights (CI) is a finished SaaS solution which allows you to adopt an agile project management approach and deliver value in a matter of weeks. By attending this Hands-on Lab, you will learn step-by-step how to set up, configure and use Dynamics 365 Customer Insights. To bring this to life, we are looking at a typical customer analytics project for our example company, Argoleaf. We will introduce the business pain points, goals and high-priority use cases that Argoleaf has identified around their customer data initiative, and then realise a working prototype solution today.

### Introducing Argoleaf

Argoleaf makes sure customers have energy in their home to power their appliances and anything else needing energy. They try to do this in a sustainable way by encouraging the use of solar panels and generating energy with wind turbines.

Argoleaf wishes to deliver better and more personalized service to their customers. However the data landscape isn't quite ready for this as it's quite splintered. We'll be helping them by creating customer profiles containing all the information they need.

### Business Objective

Argoleaf wishes to own and build a meaningful, direct relationship with all consumers to deliver an exceptional, personalised customer experience through relevant communications, personalised recommendations and services.

### Tasks

- Create a customer data hub combining all customer related data from siloed sources.
- Realise a unified Argoleaf Customer profile.
- Create relevant measures and segments.

### Fractured Customer Data

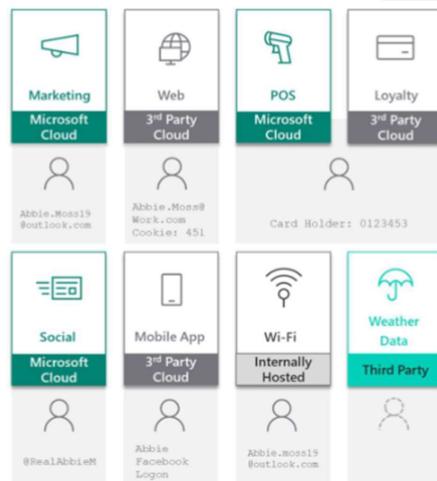
With multiple systems, Argoleaf has multiple records for the same person. This causes a disjointed experience to the customer who expects to be treated as one person regardless of the channel they are transacting upon.

### Multiple Platforms

The architecture at Argoleaf has evolved through acquisition and legacy systems meaning that data can reside in not only different systems, but different platforms across multiple clouds and on-premise.

### Non-Customer Data

Argoleaf are drawing correlations between non-customer data and the impact it has on customer experiences, including data from third parties such as CBS.



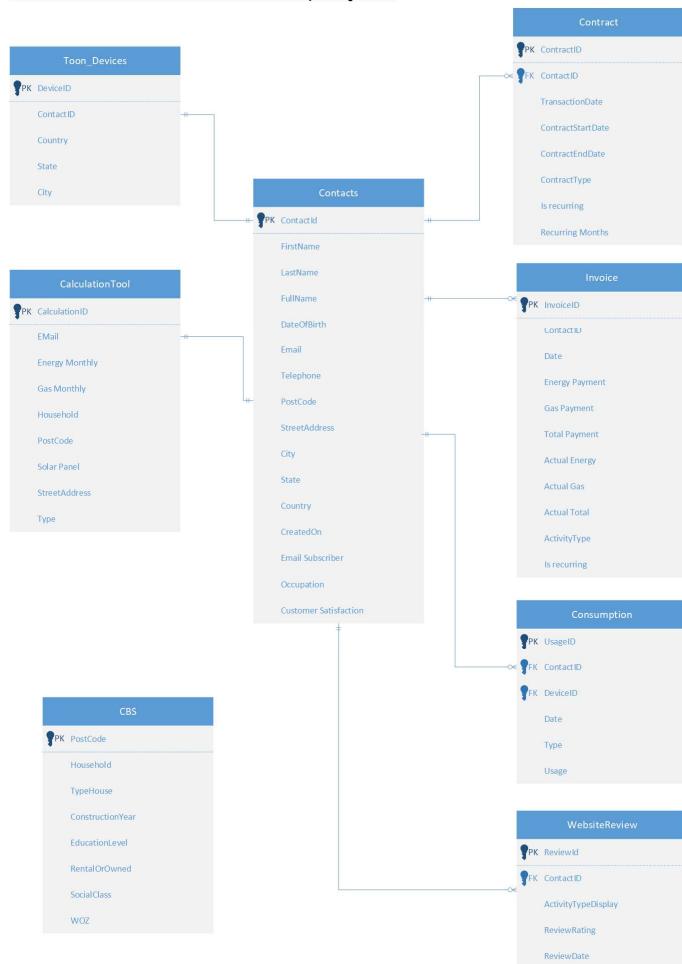


Argoleaf Customer Insights Project

You have been selected as the project manager for the implementation of Dynamics 365 Customer Insights at Argoleaf Coffee. As an experienced project manager, you devise the following plan:

1. Create a Customer Insights environment
  2. Ingest data from highest priority data sources from within the business
  3. Configure and realise a unified customer profile from ingested data
  4. Configure business and customers measures in Customer Insights to identify customers with certain characteristics
  5. Build sample customer segments for Marketers to deliver personalised and targeted marketing communications

## Data sources within the project





## 2. Sign up for trials

This appendix contains step-by-step instructions to provision and configure a Customer Insights environment, including prerequisites. This should only be followed if the environment has not been set up for your training session. If it has, please complete the next chapter instead of this appendix.

**Note:** completing this lab requires enrolling in certain Microsoft cloud services using trial subscriptions. You may need to supply your own telephone number and a credit card to subscribe. To avoid charges, remember to cancel your trial subscriptions at the end of the course, or before the trial periods end (durations vary by product).

### Step 1 - Office 365 Trial

The first step in the process is to create an Office 365 tenant for your user accounts. Open an “in private” browser window and navigate to <https://aka.ms/appinadayo365signup>. Fill in your email address and click **Next**

Microsoft  
Thank you for choosing **Office 365 E3**

① Let's set up your account

Enter your work or school email address, we'll check if you need to create a new account for Office 365 E3.

Enter your email address

Next

On the next screen, you will want to click on the **Create a new account instead**

Microsoft  
Thank you for choosing **Office 365 E3**

① Let's set up your account

Looks like you're already using [REDACTED] with another Microsoft service. Sign in to use this account with this trial, or create a new account.

Sign in

Create a new account instead

You are now able to fill in information about yourself, then click **Next**

② Tell us about yourself

First name Last name

Business phone number

Company name Your company size

Country or region United States

Next



Now you will be asked for a phone number to text or call with a verification code.

(2) Tell us about yourself

Prove. You're. Not. A. Robot.

Enter a number that isn't VoIP or toll free.

Text me  Call me

Code (+1)  
4149785926

We don't save this phone number or use it for any other purpose.

Enter your verification code

Didn't get it or need a new code? [Try again](#)

[Verify](#) [Change my phone number](#)

After entering the verification code and continuing you will next be able to choose your business identity. You will need to provide a company (tenant name). We suggest using something unique and personal to you, your name may work.

(3) Create your business identity

To set up your account, you'll need a domain name. [What is a domain?](#)

You'll probably want a custom domain name for your business at some point. For now, choose a name for your domain using [onmicrosoft.com](#)

yourbusiness  
CILTLab.onmicrosoft.com

CILTLab.onmicrosoft.com is available.

[Check availability](#) [Next](#)

Finally, you will need to create your admin account and a password for it. We recommend using 'admin' for your email address as that is the account you are creating.

You'll have something like admin@Argoleafenergy.onmicrosoft.com for your account. When you have finished click **Sign up**.

(3) Create your business identity

Now create your user ID and password to sign in to your account. [\(i\)](#)

Name  
admin @CILLab.onmicrosoft.com

Password  
\*\*\*\*\*

Confirm password  
\*\*\*\*\*

By clicking **Sign up**, you agree to our [trial agreement](#).

I will receive information, tips, and offers about Microsoft Online Services and other Microsoft products and services. [Privacy Statement](#).

I would like Microsoft to share my information with select partners so I can receive relevant information about their products and services. To learn more, or to unsubscribe at any time, view the privacy statement.

[Sign up](#) [Go back](#)



Once everything completes you will get a page like this where you can click **Go to Setup** if you'd like to setup mail or install office apps. For the purposes of this training you are done at this point and do not need to do either of those things.

- ④ You're all set

Save this info. You'll need it later.

Your user ID  
admin@CILITLab.onmicrosoft.com

[Go to Setup](#) [Manage your subscription](#)

## Step 2 – Sign up for Dynamics Marketing

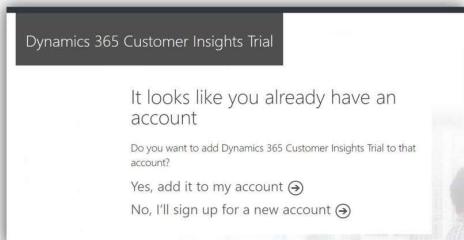
Go to <https://trials.dynamics.com> in an incognito browser and scroll down until you see Dynamics 365 Marketing.

Click on Try for free, enter the email address you just created and make sure to agree to any T&Cs. Once you've done this you can 'Start your free trial'. Select the same region as the one you selected in the previous step and your phone number. After this you can officially start your trial and move on to create the Customer Insights trial.

## Step 3 – Sign up for Customer Insights Trial

Let's request our Trial of Customer Insights. Open a new "in private" browser instance and navigate to <https://aka.ms/tryci>.

On the page you see, click on '**Yes, add it to my account**'



This will kick off the process to add 25 user licenses for a trial to your tenant. First, you will need to click the **Try now** button on the Confirm your Order page.



Click **Continue**. It will open the Microsoft 365 admin page. Here you need to assign CI license to the admin user you created.

Expand the **Billing** menu option and click on **Licenses** and then click on **Dynamics 365 Customer Insights**.

The screenshot shows the Microsoft 365 admin center interface. On the left, there's a navigation sidebar with options like Home, Users, Groups, Billing, and Licenses. Under Billing, there are sub-options for Purchase services, Your products, and Licenses. The 'Licenses' option is highlighted. The main content area is titled 'Licenses' and shows a table of available and assigned licenses. The table includes columns for Name, Available licenses, Assigned licenses, and Account type. One row is selected, showing 'Dynamics 365 Customer Insights' with 25 available and 0 assigned licenses, categorized under 'Organization'.

Click on **+Assign licenses**. Choose your admin account in the right pop up menu and click **Assign**.

Open <https://home.ci.ai.dynamics.com/Start>.

The first screen is labeled **Customize your trial**. Choose an industry to load the demo environment where you can explore all the pre-setup features and insights with the chosen industry demo data. Let's choose **Retail** and review the terms and conditions and click **Continue**.

This screenshot shows the 'Customize your trial' page. At the top, it says 'Customize your trial' and 'Choose an industry to explore data features, predictive AI, and more-free-using sample data that's relevant to you.' Below this is a dropdown menu labeled 'Select an industry demo' with 'Select an industry' as the current selection. To the right of the dropdown is a circular preview image showing a dashboard with various charts, graphs, and data points. At the bottom of the page, there are two buttons: 'Cancel' and 'Continue'.

Next you will create the environment. We suggest you name it Argoleaf Lab. Enter an environment name and select the region. Make sure to add the first part of your Dynamics Marketing link in the Dataverse field and click **Create**.

This screenshot shows the 'Create an environment' form. At the top, it says 'Create an environment' and 'To bring in data from your organization, you'll need to create an environment.' Below this are several input fields: 'Display name' with 'CI ILT Lab' entered, 'Region' with 'North America' selected, 'Type' with 'Trial' selected, and an 'Advanced' section which is currently collapsed. At the bottom right of the form is a blue 'Create' button.



Once it completes you will be at the landing retail demo page for Customer Insights. Switch to your environment by clicking on top right at **Environment** and you are good to start on the labs.

The left screenshot displays the Customer Insights dashboard with sections for 'Retail Insights', 'Retail Sales', and 'Retail Profit'. Key figures shown include 8.4K for Average Order Value, 21M for Total Sales, 0.8K for Average Order Profit, and 10.0K for Total Profit. The right screenshot shows a modal window titled 'Select environment' with a search bar and two options: 'CI ILT Lab' and 'Demo', with 'CI ILT Lab' being the selected option.

### 3. Customer insights

Before you actually start working in Customer Insights you might want to take a look at the Quick Reference sheet. This will help you when working on certain parts of the workshop or fix some issues you might have.



## 4. Ingesting data sources

To create the customer profiles let's start by ingesting our data sources. You can find these data sources in GitHub.

Data source	Link
Contacts	<a href="https://github.com/szonjaintouch/ArgoEnergy">https://github.com/szonjaintouch/ArgoEnergy</a>
Toon_Devices	
CalculationTool	
Contract	
Invoice	
Consumption	
WebsiteReview	
CBS	

### Task 1: Prepare files

- Go to the link in the table above and click on Workshop Argoleaf.zip.
- Click on download and unzip the files on your computer.

The screenshot shows a GitHub repository page for 'ContosoEnergy'. The repository has one contributor and a single file named 'Workshop Contoso Energy.zip'. A red box highlights the 'Download' button next to the file name.

- Go to <https://home.ci.ai.dynamics.com/> and log in with the account you created.

- Click on the button on the top left and open OneDrive.

The screenshot shows the Microsoft OneDrive interface. On the left, there's a sidebar with 'Apps' (Outlook, Word, PowerPoint, SharePoint, Yammer, Admin) and 'Documents' (New, Consumption). The main area is titled 'Customer Insights' and shows a summary for 'zonja Hollos' (5,01 Customer). It includes sections for 'Unify data' (Completed), 'Analyze data' (Measures, Segments, Predictions), and 'Export data' (Add connections). A red box highlights the 'Unify data' section.



- Upload all the files you just downloaded from GitHub.

The screenshot shows the OneDrive web interface. On the left, there's a sidebar with links like 'Mijn bestanden', 'Recent', 'Gedeeld', 'Prullenbak', 'Snelle toegang' (with a note about shared libraries), 'Meer plaatsen...', 'Gedeelde bibliotheek maken', 'OneDrive-apps downloaden', 'Terug naar de klassieke OneDrive-weergave', and 'Szonja Hollos'. The main area is titled 'Mijn bestanden' and lists the following files:

Naam	Gewijzigd
Documents	14 juli
CalculationTool.xlsx	14 juli
CBS_data.xlsx	4 dagen geleden
Consumption.xlsx	4 dagen geleden
Contract.xlsx	4 dagen geleden
Customer.xlsx	14 juli
Invoice.xlsx	6 dagen geleden
Toon_Device.xlsx	14 juli
WebReviews.xlsx	14 juli

- Go back to your Customer Insights environment.

## Task 2: Ingest data from Customer

- Click on the Data tab in the menu on the left and then click on Data sources.

The screenshot shows the Microsoft Customer Insights interface. On the left, there's a sidebar with 'Primary target audience' set to 'Individual consumers'. The navigation menu includes 'Home', 'Customers', 'Segments', 'Measures', 'Intelligence', 'Data' (selected), 'Data sources' (selected), 'Entities', 'Unify', 'Enrichment', and 'Activities'. The main content area is titled 'Good morning, Szonja Hollos' and 'Getting started with Customer Insights'. It features three main sections: 'Add data' (status: Completed, 'Add more data sources' button), 'Unify data' (status: Completed, 'Unify data' button), and 'Analyze data' (status: Not started, 'Manage customer timeline via act' button).

- Click on Add data source and make sure to select the Microsoft Power Query option. Name the data source 'Contacts'. Click next to move on to the next step.

**Data sources**

Manage all imported or connected customer data. For on-premises data, you'll need to set up a gateway separately. To manage connections.

Name	Entities	Status	Refreshed
Contact	1	Active	Refreshed

[Back to data sources](#)

**Add data source**

**Name \***  
Contact

Use both letters and numbers—no spaces or special characters (3-64 characters).

**Description**

Data you import using Power Query will be transferred to and processed by Dynamics 365 Customer Insights and stored in the geographic location you have selected. Learn more at the [Microsoft Trust Center](#).

**Power Query**

**Connect to data source**

**Connection settings**

Link to file  Upload file (Preview)

**File path or URL \***  
Example: <https://contoso-my.sharepoint.com/p...> [Browse OneDrive...](#)

**Connection credentials**

**Connection**: Create new connection

**Connection name**: Connection

**Data gateway**: (none)

**Authentication kind**: Anonymous

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- Select the Excel workbook option and click on Browse OneDrive to select the Customer.xlsx file. Click on next again.
- You might see 2 tables. These contain the exact same data so you can choose either of them. It is recommended that you pick 'Customer'. After this click transform.



- Now we have to transform our data. We have to start by making sure the first row is used as header by going to 'Transform'.

Power Query

Home Transform Add column View Help

Search (Alt + Q)

123 ContactId 123 FirstName 123 LastName 123 FullName 123 DateOfBirth 123 Gender 123 Email

Group Use first row as headers ▾ Reverse rows Count rows

1 Data type: Any ▾ Rename Detect data type Pivot column Move ▾ Text column ▾ Number column ▾ Date and time column ▾

Any column

Use first row as headers. Promote the first row of data in the table to column headers.

[Item = "Contacts", Kind = "Table"] [Data]

1 CNTID\_1000 Abbie Moss Abbie Moss Beraun Kenneth 8/1/1974 Female abbie\_moss@collir 2 CNTID\_1001 Kenneth Beraun Beraun Kenneth 8/8/1986 Male kenneth\_beraun@ 3 CNTID\_1002 Anthony Kotoles Anthony Kotoles Michael Lauer 8/28/1975 Male anthony\_kotoles@ 4 CNTID\_1003 Michael Lauer Michael Lauer Nakada Richard 9/3/2006 Male michael\_lauer@ 5 CNTID\_1004 Richard Nakada Nakada Richard Steven Blondi 7/30/1997 Male richard\_nakada@ 6 CNTID\_1005 Steven Blondi Steven Blondi 9/20/2016 Male steven\_blonди@sal 7 CNTID\_1007 Michael Manni Manni Michael 1/8/1979 Male michael\_manni@b 8 CNTID\_1008 Michael Glenna Michael Glenna James Eder 1/3/1998 Male michael\_glenna@c 9 CNTID\_1009 James Eder James Eder 6/9/1984 Male james\_eder@vitor 10 CNTID\_1010 Thomas Hawkey Thomas Hawkey 9/7/1972 Male thomas\_hawkey@ 11 CNTID\_1011 Paul Hostettler Paul Hostettler 6/26/2001 Male paul\_hostettler@vt

Completed (1.23 s) Columns: 18 Rows: 99+

Step Cancel Save

**Met opmerkingen [DK1]:** I am missing the step "Choose the correct Table" and then click transform

For example, Customer.xlsx contains two tables (they seem to contain the same data)

- After this let's set the data types by clicking on the icon next to the column name. DateOfBirth will be a date type while CreatedOn becomes date/time.

20 days left in trial | For licensing options, contact sales.

Power Query

Home Transform Add column View Help

Search (Alt + Q)

123 ContactId 123 FirstName 123 LastName 123 FullName 123 DateOfBirth 123 Gender 123 Email

Group Use first row as headers ▾ Reverse rows Count rows

1 Data type: Any ▾ Rename Detect data type Pivot column Move ▾ Text column ▾ Number column ▾ Date and time column ▾

Any column

Queries [1] < [X] fx Source[[Item = "Contacts", Kind = "Table"] [Data]

1 CNTID\_1000 Abbie Moss 1.2 Decimal number /1986 Female abbie\_moss@collir 2 CNTID\_1001 Kenneth Beraun \$ Currency 1974 Male kenneth\_beraun@ 3 CNTID\_1002 Anthony Kotoles 1-3 Whole number 8/1975 Male anthony\_kotoles@ 4 CNTID\_1003 Michael Lauer % Percentage 2/2006 Male michael\_lauer@sn 5 CNTID\_1004 Richard Nakada 0 Date/Time 0/1997 Male richard\_nakada@jc 6 CNTID\_1006 Steven Blondi 0 Date 2016 Male steven\_blonди@sal 7 CNTID\_1007 Michael Manni 0 Date 1979 Male michael\_manni@b 8 CNTID\_1008 Michael Glenna 0 Time 1/1998 Male michael\_glenna@c 9 CNTID\_1009 James Eder 0 Date/Time/Zone 1/1984 Male james\_eder@vitor 10 CNTID\_1010 Thomas Hawkey 0 Duration 1/1972 Male thomas\_hawkey@ 11 CNTID\_1011 Paul Hostettler 0 Text 6/2001 Male paul\_hostettler@vt

Completed (1.23 s) Columns: 18 Rows: 99+

011 Binary 011 Using locale... 123

Step Cancel Save

- Save the data source and run it.

### Task 3: Ingest data from Toon\_Devices

- Follow the same steps as in the task above. Now name the data source ToonDevices.
- To transform the data we only have to make sure the first row is used as header and the table is named 'Devices' before saving and running the data source.

**Met opmerkingen [DK2]:** I am missing the step of "renaming the table" within "transform data"

### Task 4: Ingest data from CalculationTool

- Follow the same steps and name the source CalculationTool. Transform the data by making sure the first row is used as header. Set the Gas Monthly and Energy Monthly column to 'Currency' and household to whole number.
- Save and run the data source.



## Task 5: Ingest data from Contract

- When configuring the Contract data source make sure to assign the currency data type to ContractAmount,
- Next set ContractEndDate, ContractStartDate and TransactionDate to datetime. You can make changes to multiple columns next to each other by holding shift and selecting the first and last column you want to change.

Queries [1]

Contract

	ContractAmount	ContractEndDate	ContractStartDate	TransactionDate	Is recurring
1	15.00	1/1/2020, 12:00:00 AM	12/31/2016, 12:00:00 AM	12/31/2016, 12:00:00 AM	No
2	43.00	1/2/2020, 12:00:00 AM	12/31/2016, 12:00:00 AM	12/31/2016, 12:00:00 AM	No
3	21.00	1/3/2020, 12:00:00 AM	1/31/2017, 12:00:00 AM	1/31/2017, 12:00:00 AM	No
4	38.00	1/4/2020, 12:00:00 AM	3/31/2017, 12:00:00 AM	3/31/2017, 12:00:00 AM	No
5	50.00	1/5/2020, 12:00:00 AM	9/30/2016, 12:00:00 AM	9/30/2016, 12:00:00 AM	No
6	37.00	1/6/2020, 12:00:00 AM	2/28/2017, 12:00:00 AM	2/28/2017, 12:00:00 AM	No
7	47.00	1/7/2020, 12:00:00 AM	10/31/2016, 12:00:00 AM	10/31/2016, 12:00:00 AM	No
8	22.00	1/8/2020, 12:00:00 AM	11/30/2016, 12:00:00 AM	11/30/2016, 12:00:00 AM	No
9	40.00	1/9/2020, 12:00:00 AM	4/14/2015, 12:00:00 AM	4/14/2015, 12:00:00 AM	No
10	55.00	1/10/2020, 12:00:00 AM	6/25/2015, 12:00:00 AM	6/25/2015, 12:00:00 AM	No
11	21.00	1/11/2020, 12:00:00 AM	10/4/2015, 12:00:00 AM	10/4/2015, 12:00:00 AM	No
12					

- Set the Recurring Months column to whole number before saving and running the data source.

## Task 6: Ingest data from Invoice

- Let's add our Invoice data source. Use the first row as header once again.
- Select all columns from 'Gas Payment' to 'Actual Total' and assign the currency data type. After that set the date column to datetime.
- Change the name of the data source to 'Invoice'.
- Save and run the data source.

Met opmerkingen [DK3]: table needs renaming

## Task 7: Ingest data from Consumption

- Call the data source Usage and make sure the first row is used as header,
- Assign the currency datatype to the Usage column.
- Save and run the data source.

## Task 8: Ingest data from WebsiteReviews

- Follow the same steps as the other data sources. Set ReviewDate to datetime and ReviewRating to whole number.
- Save and run the data source before moving on to the last data source we have to ingest.

Met opmerkingen [DK4]: table needs renaming

## Task 9: Ingest data from CBS

- For the CBS data source we can follow the same steps again. This includes naming the file 'CBS'.
- Set Household to whole number before saving and running the data source.



You might need to wait for a bit before moving on to the next chapter as you will only be able to move on once every data source has loaded.

## 5. Unifying data

Having ingested the raw data from your data sources into entities you will now begin the Map, Match, Merge process to create a single Unified Customer Profile by merging data from each customer profile source.

To do this you will first map your ingested entities against a standard model and select the Primary Key for each of your profiled entities. Following the completion of this you will then create your Match Rule that will be used to match contacts from all customer entities.

Finally, running the Merge process will create a single set of unique Customers having matched profiles from all customer entities using your match rules.

Your objective is to find out how many unique customer profiles Argoleaf has across various data sources.

**Warning: after completing the unification process it's not possible to delete any source without resetting the environment.**

### Task 1: Source fields

The first step in the unification process consists of mapping the data. This means we will select the entities containing customer profile data.

- Click on 'Select entities and fields' and make sure to select all fields from 'Contacts', 'CalculationTool' and 'Devices' before clicking apply.

The screenshot shows the Argoleaf Unify interface. On the left, there's a sidebar with navigation options like Home, Customers, Segments, Measures, Intelligence, Data, Data sources, Entities, and Admin. Under the Entities section, 'Unify' is selected. The main area is titled 'Unify' and shows the 'Source fields' step. It includes sections for 'Entities' (listing 'Contract', 'Devices (TsOnDevices)', 'CalculationTool (CalculationTool)', and 'Contacts (Contact)') and 'Fields' (listing 'City', 'ContactId', and 'Country'). A 'Select the primary key' dropdown is set to 'ContactId'. Below these are 'Review mapped fields' sections for 'City', 'ContactId', and 'Country'. At the bottom are 'Next' and 'Apply' buttons. A small note at the top says '20 days left in trial | For learning options, contact sales.'

- Enable 'Intelligent mapping' if it wasn't enabled automatically.



- Start by mapping Contacts as shown below and set ContactId as the primary key. Some field types have to be filled in manually.

Column	Type
City	Location.City
ContactId	ID
Country	Location.Country
CreatedOn	Person.RegistrationDate
CustomerSatisfaction	CustomerSatisfaction
DateOfBirth	Calendar.Date
EMail	Identity.Service.Email
Email Subscriber	Identity.Service.Email
FirstName	Person.FirstName
FullName	Person.FullName
Gender	Person.Gender
Headshot	Person.ProfileImage
LastName	Person.LastName
Occupation	Person.Job
PostCode	Location.PostalCode
State	Location.State
StreetAddress	Location.Address
Telephone	Identity.Service.Phone

**Met opmerkingen [DK5]:** There are some fields that require the user to manually write down the label. I miss the instruction on that



- Map CalculationTool as follows, keeping in mind you might have to add some types manually:

Entities	Fields																				
CalculationTool	Select the primary key CalculationID																				
Contacts	Review mapped fields																				
ToonDevices																					
Devices	<table border="1"> <thead> <tr> <th>Column ↑</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>CalculationID</td> <td>ID.Calculation</td> </tr> <tr> <td>EMail</td> <td>Identity.Service.Email</td> </tr> <tr> <td>Energy Monthly</td> <td>Cost.Energy</td> </tr> <tr> <td>Gas Monthly</td> <td>Cost.Gas</td> </tr> <tr> <td>Household</td> <td>Person.HouseholdAmount</td> </tr> <tr> <td>PostCode</td> <td>Location.PostalCode</td> </tr> <tr> <td>Solar panel</td> <td>SolarPanel</td> </tr> <tr> <td>StreetAddress</td> <td>Location.Address</td> </tr> <tr> <td>Type</td> <td>Location.Type</td> </tr> </tbody> </table>	Column ↑	Type	CalculationID	ID.Calculation	EMail	Identity.Service.Email	Energy Monthly	Cost.Energy	Gas Monthly	Cost.Gas	Household	Person.HouseholdAmount	PostCode	Location.PostalCode	Solar panel	SolarPanel	StreetAddress	Location.Address	Type	Location.Type
Column ↑	Type																				
CalculationID	ID.Calculation																				
EMail	Identity.Service.Email																				
Energy Monthly	Cost.Energy																				
Gas Monthly	Cost.Gas																				
Household	Person.HouseholdAmount																				
PostCode	Location.PostalCode																				
Solar panel	SolarPanel																				
StreetAddress	Location.Address																				
Type	Location.Type																				

**Met opmerkingen [DK6]:** same manual input, no instructions

- Lastly map the Devices data source as follow, keeping in mind you might have to add some types manually:

Entities	Fields														
CalculationTool	Select the primary key DeviceID														
Contacts	Review mapped fields														
ToonDevices															
Devices	<table border="1"> <thead> <tr> <th>Column ↑</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>City</td> <td>Location.City</td> </tr> <tr> <td>Contactid</td> <td>ID</td> </tr> <tr> <td>DeviceID</td> <td>ID.Device</td> </tr> <tr> <td>PostCode</td> <td>Location.PostalCode</td> </tr> <tr> <td>State</td> <td>Location.State</td> </tr> <tr> <td>StreetAddress</td> <td>Location.Address</td> </tr> </tbody> </table>	Column ↑	Type	City	Location.City	Contactid	ID	DeviceID	ID.Device	PostCode	Location.PostalCode	State	Location.State	StreetAddress	Location.Address
Column ↑	Type														
City	Location.City														
Contactid	ID														
DeviceID	ID.Device														
PostCode	Location.PostalCode														
State	Location.State														
StreetAddress	Location.Address														

**Met opmerkingen [DK7]:** I have 33 map fields, would be useful to include the number? so everyone can check if they are in the same page

- Save the source fields and click **next**. Once you can see the number of fields you mapped it should be 33.



## Task 2: Duplicate records and Matching conditions

Continuing the process we have to match our data. We won't be setting any rules for duplicate records so we can move on to 'Matching conditions' right away.

- You'll want to make sure the order of the data sources is as follows:

### Set up match rules and conditions

v	Order	Name	Source records
	1 ⓘ	Contacts : Contacts	5.001
>	2 ⬆ ⬇	Devices : ToonDevices	4.999
>	3 ⬆	CalculationTool : CalculationTool	5.001

We have to do this because the primary entity should be the one with most complete and trusted customer profile data.

- Add a rule for the Devices data source. We want to compare the ContactId from both sources. We want them to match with an exact precision which means they have to match 100% to count as the same customer. Your rule should end up looking as shown on the next page.

Edit "ContactConnection"

Make a rule for how to handle duplicate data by setting conditions that compare fields from differing entities. [Learn more](#)

All fields are required.

Conditions

Condition 1

Select entity

Entity

Precision

Basic

Exact

Preview

Name

ContactConnection

+ Add

Done

Cancel

You can get an idea of the matches made by clicking on Preview after saving the match rules. Look at the picture on the next page to get an idea of what it looks like. For now we'll move on to the next rule.

Met opmerkingen [DK8]: Preview is not available until you click "Save & Close"



**Criteria preview**

Match 2 - Contacts.Contacts.ContactId + ToonDevices.Devices.ContactId

Precision breakdown



Category	Count
Unmatched	131
Matched	4,868

[Download](#)

Contacts.Contacts.ContactId      ToonDevices.Devices.ContactId

Contacts.Contacts.ContactId	ToonDevices.Devices.ContactId
CNTID_2276	CNTID_2276
CNTID_2226	CNTID_2226
CNTID_1430	CNTID_1430
CNTID_3124	CNTID_3124
CNTID_4221	CNTID_4221
CNTID_1908	CNTID_1908
CNTID_3302	CNTID_3302
CNTID_4958	CNTID_4958

① Data in the preview has been truncated due to size limits.

You might see that not every record has been matched. This could mean there's a mistake somewhere or that a certain device is not (yet) connected to a customer.

- Click done before moving on to add another rule.
- Add a rule for CalculationTool. This time we want to compare postal codes.
- Select the Contacts entity first and select the PostCode field for both data sources. For our precision level let's select exact once again.

**Edit "PostCodeConnection"**

Make a rule for how to handle duplicate data by setting conditions that compare fields from differing entities. [Learn more](#)

All fields are required.

**Conditions**

**Condition 1**

Select entity      Select field

Contacts : Contacts	PostCode
---------------------	----------

Entity      Select field

CalculationTool : CalculationTool	PostCode
-----------------------------------	----------

Normalize

Select options
----------------

Precision

Basic
-------

Basic       Exact

[Preview](#)

**Name**

[+ Add](#) [Done](#) [Cancel](#)

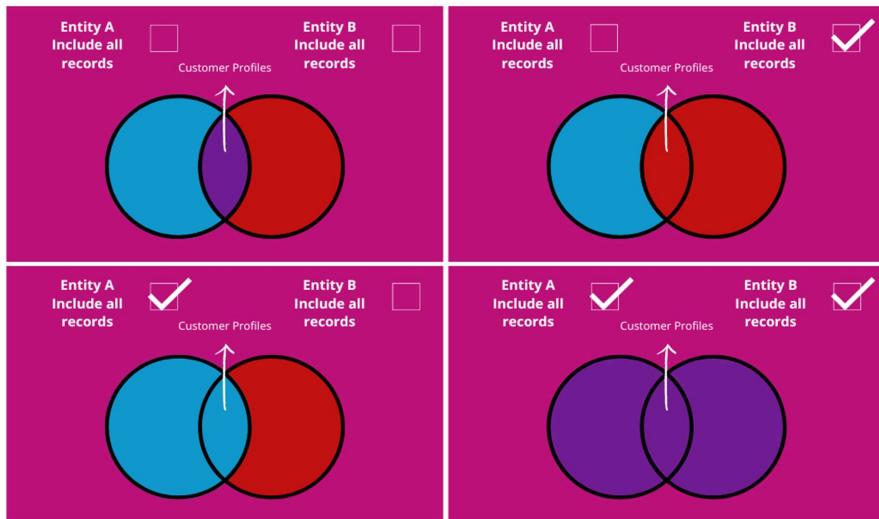
20

**intouch**  
365

info@intouch365.nl  
www.intouch365.nl



- At last make sure to select 'Include all records' for all three data sources. The reason for this is illustrated below. Click next after doing this.





### Task 3: Unified customer fields/Merge

In this step, you will create a simple rule used to match records together. Rules can consist of single (e.g. based on ID) or multiple conditions (e.g. Full Name, Postcode, Date of Birth). You can change the order of these records by dragging them. There's an icon on the left of every record when you hover over it. Drag it by clicking on this icon and holding on to it until the record is at the right place. Copy the order from the image below.

	Order	Rank	Name	Entity	Source
	1		ContactId	Devices	ToonDevices
	2		FirstName	Contacts	Contacts
	3		LastName	Contacts	Contacts
	4		FullName	Contacts	Contacts
	5		DateOfBirth	Contacts	Contacts
	6		Gender	Contacts	Contacts
○	7		EMail (2)		
○	8	1	EMail	Contacts	Contacts
	9	2	EMail	CalculationTool	CalculationTool
	10		Email Subscriber	Contacts	Contacts
	11		Telephone	Contacts	Contacts
○	12		PostCode (3)		
	13	1	PostCode	Contacts	Contacts
	14	2	PostCode	Devices	ToonDevices
	15	3	PostCode	CalculationTool	CalculationTool
○	16		StreetAddress (3)		
	17	1	StreetAddress	Contacts	Contacts
	18	2	StreetAddress	Devices	ToonDevices
	19	3	StreetAddress	CalculationTool	CalculationTool
○	20		City (2)		
	21	1	City	Contacts	Contacts
	22	2	City	Devices	ToonDevices
○	23		State (2)		
	24	1	State	Contacts	Contacts
	25	2	State	Devices	ToonDevices
	26		Country	Contacts	Contacts
	27		CreatedOn	Contacts	Contacts
	28		Headshot	Contacts	Contacts
	29		Occupation	Contacts	Contacts
	30		CustomerSatisfaction	Contacts	Contacts
	31		Gas Monthly	CalculationTool	CalculationTool
	32		Energy Monthly	CalculationTool	CalculationTool
	33		Solar panel	CalculationTool	CalculationTool
	34		Type	CalculationTool	CalculationTool
	35		Household	CalculationTool	CalculationTool

[Back](#) [Next](#)

- Click next and create customer profiles. Now wait until you can see customer profiles.



## 6. Defining relationships

Congratulations! You have created a unified customer profile. Let's search for 'Abbie Moss' in the Customers search field. You should see the following customer profile:

	<b>Abbie Moss</b> Fairfield, California, USA Last activity: 05/02/2019
CustomerId	e33d7b5463ae386711fa6e141d141825
FirstName	Abbie
LastName	Moss
Gender	Female
DateOfBirth	5/8/1986
Telephone	983.566.0706x9509
EMail	abbie_moss@collinsreedandhoward.com
Address	129 Miller Plaza, Fairfield, California 10753 USA
Additional fields ^	
Email Subscriber	Yes
CreatedOn	3/14/2017
Headshot	<a href="https://filetransfer.blob.core.windows.net/demop...">https://filetransfer.blob.core.windows.net/demop...</a>

However as you can see the profile itself is still quite empty. To create a more interesting customer profile let's define some relationships between our customer data and non-customer data (the data sources we didn't use in the unification process). These relationship enable us to create activities to enhance the customer profile and add external data sources that aren't part of the unified customer profile.

### Task 1: Relationship between customers and contracts

Let's create our first relationship which will be between customers and contracts.

- Give the relationship a name that makes it easy to figure out what entities are involved.
- Select the Contract entity under Source details and the Contacts entity under Target details.
- Next let's set the cardinality, cardinality defines how many instances of one entity are related to instances of another entity. We want 'many' contracts to be connected to 'one' contact.
- Now select CustomerID as your Source field and ContactId as your Target Field. Your relationship will look as shown on the next page.



Edit relationship X

Name \*  
CustomerContracts  
Start with a letter. Use letters and numbers only.

Description

Source details      Target details

Entity *	Entity *
Contract : Contracts	Contacts : Contacts
Cardinality *	Cardinality *
Many	One

Equivalent fields

Source field *	Target field *
CustomerID	ContactId

Save Cancel

- Click save and move on to the relationship between customers and invoices.

#### Task 2: Relationship between customers and invoices

- The relationship between these two is set up almost exactly the same as the previous one. Copy the relationship as shown in the image below.

Edit relationship X

Name \*  
CustomerInvoices  
Start with a letter. Use letters and numbers only.

Description

Source details      Target details

Entity *	Entity *
Invoice : Invoices	Contacts : Contacts
Cardinality *	Cardinality *
Many	One

Equivalent fields

Source field *	Target field *
ContactId	ContactId

Save Cancel

- Save the relationship.



### Task 3: Relationship between customers and reviews

- Copy the image below when creating a new relationship between the customers and reviews.

Edit relationship x

Name \* ReviewContacts  
Start with a letter. Use letters and numbers only.

Description [Empty Text Area]

Source details Target details

Entity *	Entity *
WebsiteReviews : WebReviews	Contacts : Contacts
Cardinality *	Cardinality *
Many	One

Equivalent fields

Source field *	Target field *
ContactID	ContactId

Save Cancel

### Task 4: Relationship between customers and consumption

- Create another relationship between customers and their consumption.

Edit relationship x

Name \* ConsumptionCustomers  
Start with a letter. Use letters and numbers only.

Description [Empty Text Area]

Source details Target details

Entity *	Entity *
Consumption : Usage	Contacts : Contacts
Cardinality *	Cardinality *
Many	One

Equivalent fields

Source field *	Target field *
ContactID	ContactId

Save Cancel



## Task 5: Relationship between CBS and customers

- This relationship is slightly different to the rest as it is an external data source that will not be shown in the activity timeline in any way.
  - Make sure the Source details have the 'customer' entity with cardinality 'many' and PostCode as Source field.
  - The target details should be the 'CBS' entity with cardinality 'one' and PostCode as Target field.
  - Save the relationship.

## Edit relationship

Name \*

Start with a letter. Use letters and numbers only.

Description

---

Source details

Entity \*

Cardinality \*

Equivalent fields

Source field \*

Target details

Entity \*

Cardinality \*

Target field \*

Save
Cancel

Let's take a look at the Visualizer. Here you can see your relationships in a different way. It might look like the image below, but you could also change it into a horizontal layout.

Let's move on to actually setting up our customer's activities.



## 7. Setting up activities

The Activities capability helps consolidate customer activities from various data sources. This creates a customer timeline view of all customer interactions against your unified customer profile. Business analysts can configure activities to be displayed on a customer dashboard with a timeline view, which can be embedded in business applications.

Interactions are any customer touch points – these could include purchases, customer service cases, emails, phone calls, branch visits, web, social activity. In other scenarios interactions could also be data gathered from connected devices, withdrawals or deposits in banking, entry/exist of a premises or area etc. We'll be setting up contract, invoice and review activities.

### Task 1: Set up Contract activity

- Click on add activity.
- Name the activity Contract and select ContractID as Primary Key. Click next.

#### Set up your activity data

Choose which entity contains relevant activity data, then choose a field to be the primary key that will identify that entity. All fields are required.

Activity name  
  
Start with a letter. Use letters and numbers only.

Activity entity

Primary key

- Add the relationship. You'll be notified the relationship already exists. It will look as follows:

#### Add relationship path X

Select the entity that you want to connect to the activity entity "Contract : Contracts".

Relationship  
Foreign key from Contract : Contracts  
  
To entity name  
  
Primary key ContactID

Relationship name  
  
A relationship already exists for these entities and can't be changed.



- After applying it click next.
- Unify your customer activity data as shown in the image below.

#### Unify your customer activity data

Map your activity data to these fields to include it in unified customer data:

Event activity *	Contracttype
Timestamp *	ContractEndDate
Additional detail	ContractAmount
Icon	
Web address	Select field

Show this information in the timeline view on your customer profiles?

If you choose not to, you'll still be able to export the activity data via the unified activity entity to other platforms or services.

Yes  No

- Click next and set the activity type to Subscription.
- Review and save the activity. Don't run it yet.

#### Task 2: Set up Invoice activity

- Click on add activity.
- Name the activity Invoice and select InvoiceID as Primary Key. Click next.
- Add the relationship between contacts and invoices.

Add relationship path X

Select the entity that you want to connect to the activity entity "Invoice : Invoices".

<b>Relationship</b>
Foreign key from Invoice : Invoices
Contactid
To entity name
Contacts : Contacts
Primary key Contactid
Relationship name
CustomerInvoices
A relationship already exists for these entities and can't be changed.

Apply Cancel

- After applying it click next.
- Unify your customer activity data as shown in the image on the next page.



## Unify your customer activity data

Map your activity data to these fields to include it in unified customer data:

Event activity \*

Timestamp \*

Additional detail

Icon

Web address

Show this information in the timeline view on your customer profiles?

If you choose not to, you'll still be able to export the activity data via the unified activity entity to other platforms or services.

Yes  No

- Select Activity type 'Create new' and name it Invoice.

### Set activity type

Choose the type of activity you want to monitor:

Activity type

Activity type name \*

Start with a letter. Use letters and numbers only.

- Review and save the activity. Don't run it yet.

## Task 3: Set up Review activity

- Click on add activity.
- Name the activity Review and select ReviewID as Primary Key. Click next.
- Add the relationship path.

### Relationship

Foreign key from WebsiteReviews : WebR...



To entity name

└ Primary key Contactid

Relationship name

A relationship already exists for these entities and can't be changed.



- Unify your customer activity data as shown in the image below.

Event activity \*

ActivityTypeDisplay

Timestamp \*

ReviewDate

Additional detail

ReviewRating

Icon

Web address

Select field

Show this information in the timeline view on your customer profiles?  
If you choose not to, you'll still be able to export the activity data via the unified activity entity to other platforms or services.

Yes  No

- Click next and set the activity type to Feedback.
- Review and save the activity. Run the activities now.

#### Task 4: Take a look

Wait until the activities have loaded completely. Let's now take a look at Abbie Moss's profile again. It should look as follows:

**Abbie Moss**  
Fairfield, California, USA  
Last activity: 05/02/2019

Customerid: e33d7b5463ae386711fa6e141d141825

FirstName: Abbie

LastName: Moss

Gender: Female

DateOfBirth: 5/8/1986

Telephone: 983.566.0706x9509

EMail: abbie\_moss@collinsreedandhoward.com

Address: 129 Miller Plaza,  
Fairfield, California 10753  
USA

**Additional fields**

Email Subscriber: Yes

CreatedOn: 3/14/2017

Headshot: <https://filetransfer.blob.core.windows.net/d...>

Occupation: Software Engineer

CustomerSatisfaction: high

Activity timeline

1 Contract, 3 Invoice, 4 WebsiteReviews

FEB 2019 (1) ^

WebsiteReview - 05/02/2019

OCT 2018 (1) ^

WebsiteReview - 12/10/2018

JUL 2018 (2) ^

WebsiteReview - 18/07/2018

WebsiteReview - 11/07/2018

JUN 2018 (1) ^

Invoice - 01/06/2018  
185.0

AUG 2017 (1) ^

Invoice - 01/08/2017  
220.0



## 8. Building measures

Measures help you to better understand customer behaviors and business performance. They look at relevant values from unified profiles. For example, a business wants to see the total spend per customer to understand an individual customer's history.

Create measures on the level of individual customers (customer attribute, customer measure) or on the level of the business/organization (business measure). Customer attribute and customer measure enable you to track performance per customer. For example, the total spend by each customer. Business measures track performance per business. For example, the total revenue by the company.

Customer attribute: Generates output as a new attribute, which gets saved as a new column in the system-generated entity named *Customer\_Measure*. When refreshing a customer attribute, all the other customer attributes in the *Customer\_Measure* entity refresh simultaneously. In addition, customer attributes are shown in the customer profile card. Once run or saved, you can't change a customer attribute to a customer measure.

Customer measure: Generates output as its own entity and you can't change it to a customer attribute once run or saved. Customer measures don't show in the customer profile card.

Business measure: Generates output as its own entity and shows on the home page of your Customer Insights environment.

We'll only create customer attributes and one business measure. We want to know the lifetime value of a customer, the end date of their last contract, how much a customer has to pay extra per month when comparing their contract and the actual amount on their invoice and the NPS score giving by a certain customer as well as the average NPS for the entire business.

### Task 1: Customer Lifetime Value

- Go to Measures and click on 'New'. You'll want to select the 'Build your own' option.
- Name the measure 'Customer Lifetime Value'.
- Make sure the measure type is 'Customer level', this type should have been selected automatically.
- Select the 'Sum' function.
- Click on Add attribute and select 'Actual Total' from the Invoice entity.
- Make sure the measure you created matches the image on the next page.

Met opmerkingen [DK9]: Maybe include that this would be a customer attribute?



**Customer Lifetime Value** [Edit details](#)

Measure saved in Customer\_Measure entity.

**Set up your measure calculations**

Choose a function and add at least one attribute for your calculation

Measure type  Customer level    Relationship path | Filter Dimensions (1)

Customer Lifetime Value

Sum ▾ Invoices\_Invoice.ActualTotal1479652958

+ Add attribute    Rules    + - × / %  $x^y$  | ( )

+ New calculation

- Run the measure.

#### Task 2: Last Contract End Date

- Go to Measures and click on 'New'. You'll want to select the 'Build your own' option.
- Name the measure 'Last Contract End Date'.
- Make sure the measure type is 'Customer level', this type should have been selected automatically.
- Select the 'Last' function.
- Click on Add attribute and select 'ContractEndDate' from the Contract entity.
- Make sure the measure you created matches the image below.

**Last Contract End Date** [Edit details](#)

Measure saved in Customer\_Measure entity.

**Set up your measure calculations**

Choose a function and add at least one attribute for your calculation

Measure type  Customer level    Relationship path | Filter Dimensions (1)

Last Contract End Date

Last ▾ Contracts\_Contract.ContractEndDate

+ Add attribute    Rules    + - × / %  $x^y$  | ( )

+ New calculation

- Run the measure.



### Task 3: Extra Payment Per Month

- Go to Measures and click on 'New'. You'll want to select the 'Build your own' option.
- Name the measure 'Extra Payment Per Month'.
- Make sure the measure type is 'Customer level', this type should have been selected automatically.
- Select the 'Average function'.
- Click on Add attribute and select 'Actual Total' from the Invoice entity.
- Click on the Subtract (-) icon or type it manually next to the attribute.
- Click on Add attribute and select 'Total Payment' from the Invoice entity.
- Make sure the measure you created matches the image below.

**Extra Payment Per Month** [Edit details](#)

Measure saved in Customer\_Measure entity.

**Set up your measure calculations**

Choose a function and add at least one attribute for your calculation

Measure type  Customer level      Relationship path      Filter      Dimensions (1)

Average      Invoices\_Invoice.ActualTotal1479652958 - Invoices\_Invoice.TotalPayment1471957758

+ Add attribute    Rules    +    -    ×    /    %     $x^y$     ( )

+ New calculation

- Run the measure.

### Task 4: Customer NPS Score (1 to 10)

The reviews have a score from 1 to 5, however we want to have a NPS measure with scores from 1 to 10. As seen in the previous task it is possible to add calculations to a measure.

- Go to Measures and click on 'New'. You'll want to select the 'Build your own' option.
- Name the measure 'Customer NPS Score (1 to 10)'.
- Make sure the measure type is 'Customer level', this type should have been selected automatically.
- Select the 'Average function'.
- Click on Add attribute and select ReviewRating from the WebsiteReviews entity.
- Click on the Multiply (x) icon or type \* manually next to the attribute.
- Add a 2 next to the \*.
- Make sure the measure you created matches the image on the next page.



## Customer NPS Score (1 to 10) [Edit details](#)

Measure saved in Customer\_Measure entity.

### Set up your measure calculations

Choose a function and add at least one attribute for your calculation

Measure type  Customer level       Relationship path |  Filter |  Dimensions (1)

**Customer NPS Score (1 to 10)**

Average    WebReviews\_WebsiteReviews.ReviewRating \* 2

+ Add attribute    Rules    +    -    ×    /    %     $x^y$     ( )

+ New calculation

- Run the measure.

## Task 5: NPS Score (1 to 10)

This measure matches the previous one for the most part. The only difference being the measure type. Set the measure type to 'Business level' by clicking on the toggle switch. You might see there is no Dimension selected anymore. The dimension in the previous measures was 'customer' so the measure can show up in the customer profile. This measure will only show up on the homepage. Match the measure to the image below before running it.

## NPS Score (1 to 10) [Edit details](#)

Measure saved as NPSScore1to10 entity.

### Set up your measure calculations

Choose a function and add at least one attribute for your calculation

(i) Switching the toggle to Business Level will remove CustomerID as a dimension, and the result will represent the value of the whole business rather than per individual customer level. X

Measure type  Business level       Relationship path |  Filter |  Dimensions

**Calculation 1** [Edit name](#)

Average    WebReviews\_WebsiteReviews.ReviewRating \* 2

+ Add attribute    Rules    +    -    ×    /    %     $x^y$     ( )

+ New calculation

It might take some time for the measures to load completely. Wait until you don't see '0' values in Abbie Moss's profile anymore.



### Task 6: Check out customer profile

As you can see the customer profile is starting to get filled with more information. This will help you when trying to create segments and providing insights on your customers.

 <p><b>Abbie Moss</b> Fairfield, California, USA Last activity: 05/02/2019</p> <p>CustomerID e33d7b5463ae386711fa6e141d141825</p> <p>FirstName Abbie</p> <p>LastName Moss</p> <p>Gender Female</p> <p>DateOfBirth 5/8/1986</p> <p>Telephone 983.566.0706x9509</p> <p>EMail abbie_moss@collinsreedandhoward.com</p>	<p>Activity timeline</p> <p>1 Contract    3 Invoice    4 WebsiteReviews    Filter</p> <p>FEB 2019 (1) ^    OCT 2018 (1) ^    JUL 2018 (2) ^</p> <p>WebsiteReview - 05/02/2019    WebsiteReview - 12/10/2018    WebsiteReview - 18/07/2018</p> <p>By date</p>	<p>Predicted Churn Score Last updated 6 days ago</p> <p>0,03</p> <p>Extra Payment Per Month Last updated 6 days ago</p> <p>-5,33</p> <p>Last Contract End Date Last updated 6 days ago</p> <p>01/01/2020</p>	<p>Customer Lifetime Value Last updated 6 days ago</p> <p>499</p> <p>Customer NPS Score (1 to 10) Last updated 6 days ago</p> <p>7</p>
---	--	--	--

You can also check out the business measure on the home page. You might see the home page is still quite empty. We'll be adding more to it in the next part 'Segmenting customers'.



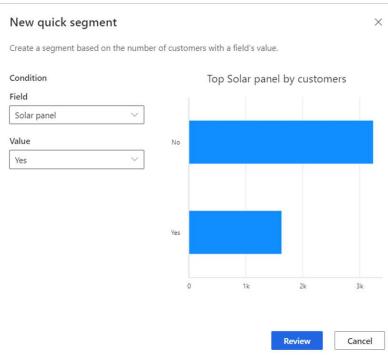
## 9. Segmenting customers

Segments let you group your customers based on demographic, transactional, or behavioral attributes. You can use segments to target promotional campaigns, sales activities, and customer support actions to achieve your business goals.

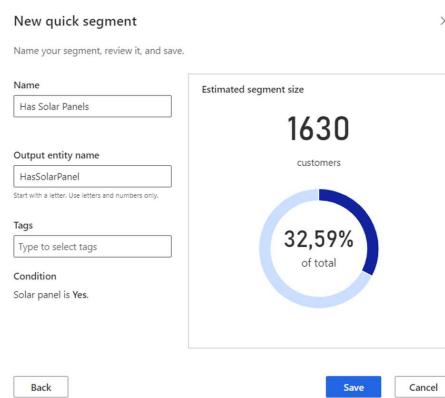
Customer profiles that match the filters of a segment definition are referred to as members of a segment. You'll see there are multiple ways to create segments such as from profile information, measures and completely from scratch. You can also request suggestions made with AI or get insights on overlap or differentiators between segments.

### Task 1: Segment 'Has Solar Panels' from profiles

- Go to segments and click 'New'.
- Select 'Create from Profiles'.
- Select the 'Solar Panel' field.
- Select value 'Yes'.



- Click on Review and name the Segment 'Has Solar Panels' before saving the segment.





## Task 2: Segments high and low customer NPS from measure

- Go to segments and click 'New'.
- Select 'Create from Measures'.
- Select the Customer NPS Score (1 to 10) attribute.
- Select the 'greater than' operator.
- Type in value '9'.



- Click on review and name the segment 'High Customer NPS' before saving the segment.

New quick segment X

Name your segment, review it, and save.

Name High Customer NPS

Output entity name HighCustomerNPS

Start with a letter. Use letters and numbers only.

Tags Type to select tags

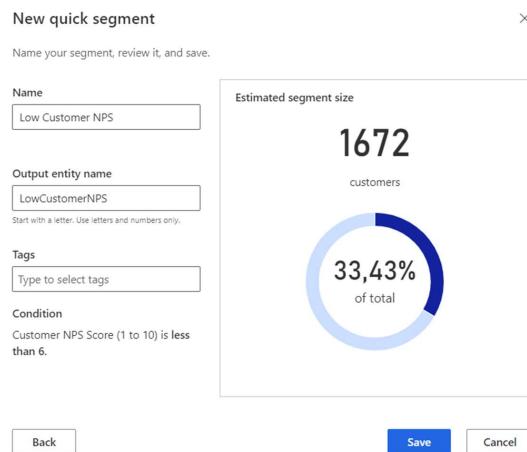
Condition Customer NPS Score (1 to 10) is greater than 9.

Back Save Cancel

Move on to the next page to create a segment for low NPS scores as well.



- Go to segments and click 'New'.
- Select 'Create from Measures'.
- Select the Customer NPS Score (1 to 10) attribute.
- Select the 'less than' operator.
- Type in value '6'.
- Click on review and name the segment 'Low Customer NPS' before saving the segment.



### Task 3: Build segment 'Owned Without Solar Panels'

This segment is more complicated than the previous one. We're making the assumption that only people who own their house would install solar panels. People owning a condo wouldn't be able to install Solar Panels either. We want to know who doesn't have solar panels but exclude the people that wouldn't be able to install them anyway. This way we target the right people when advertising the option of installing solar panels.

- Go to segments and click 'New'.
- Select 'Build your own'.
- Name the segment 'Owned Without Solar Panels'.
- Select the 'RentalOrOwned' attribute from the CBS entity and set the condition to 'RentalOrOwned is equal to Owned'.
- Click on Add condition and make sure 'Rule 1' uses 'and'.
- Select the 'Type\_House' attribute from the CBS entity and set the condition to 'Type\_House is not equal to Condo'.
- Click on Add condition and make sure 'Rule 1' uses 'and'.
- Select the 'Solar panel' attribute from the Customer entity and set the condition to 'Solar panel is equal to No'.

Met opmerkingen [DK10]: Sometimes it bugs and you have to add from the right side, from the list of fields

Met opmerkingen [SH11R10]: Haven't seen that yet but if it does I'll explain on the spot



- Check the image below to make sure the segment is configured correctly.

Owned Without Solar Panel [Edit details](#)

Create rules to group customers into segments by their attributes. Related attributes and segments shown in the side panel can be added into your rule as you build.

Rule 1 uses **and**

CBS : CBS.RentalOrOwned is equal to Owned  Ignore case  
and  
CBS : CBS.Type\_House is not equal to Condo  Ignore case  
and  
Customer : CustomerInsights.Solar panel is equal to No  Ignore case

+ Add condition [Add subrule](#)

+ Add rule

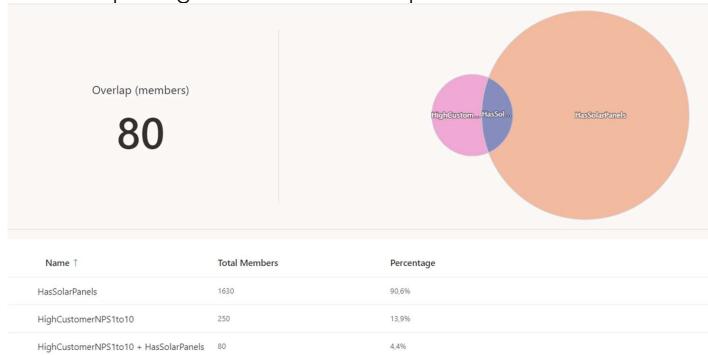
- Run the segment.

#### Task 4: Overlap Solar Panel and High Satisfaction

Let's see if there's any overlap between the 'Has Solar Panel' and 'High Customer NPS' segment. We'll have to go to the 'Insights' tab within Segments for this.

- Click on 'New'.
- Choose Insight Type 'Overlap'.
- Select the 'High Customer NPS' and 'Has Solar Panels' segment.
- Click Next and disable all attributes as they're optional before clicking Next again.
- Name the segment 'High NPS and Solar Panels' and save the segment.

Check out the segments on the homepage. Here you can see how many members are in a segment. Go back to segments and check out the Overlap Insight you created by clicking on it. Here you can see a Venn diagram and the amount of members per segment and the overlap between them.



In the next part we'll be looking at the customer profile again. We'll be enriching it with external sources to figure out any interests a customer might have.



## 10. Enriching customer profiles

Use Microsoft's proprietary data to enrich your customer data with interests/share of voice (SoV). This SoV is based on data from people with demographics similar to your customers. This information helps you to better understand and segment your customers based on SoV to specific brands and interests.

We use Microsoft's online search data to find affinities and SoV for brands and interests across various demographic segments (defined by age, gender, or location). The online search volume for a brand or interest forms the basis for determining the affinity or SoV. However, each provides a different perspective to understanding your customers.

### Task 1: Add Interests to Customer Profile

- Go to Enrichment under the data tab.
- Click on Add enrichment and select the Interests option.
- Read the overview or click next right away.
- Enter the following interests manually
  - o Power & Electricity Services
  - o Environmentalism
  - o Home Improvement & Maintenance
  - o Wellness Therapy & Massage
  - o Theme Parks
- Click next and make sure to include profiles with medium to very high affinity levels.
- Set the match precision to exact and aggregate before going to the next step.
- Make sure 'Customer' is selected as the customer dataset and click next.
- Set the Demographic by Gender and delete any other demographic attributes in the list.
- Select the Country, PostCode, City and State attribute to map the location and click next. These might be preselected in some cases.
- Give the enrichment a name before running the enrichment.

#### Review

Review and save your choices below. Use edit links to revise specific sections.

##### Interests definition [Edit](#)

Country/Region: United States (English)

Interests: Power & Electricity Services, Environmentalism, Home Improvement & Maintenance, Wellness Therapy & Massage, Theme Parks

##### Preferences [Edit](#)

Interest affinity levels: Include profiles with Medium to Very high affinity levels.

Match precision: Exact and aggregate

##### Required data [Edit](#)

Type: Profiles

Name: Customer

##### Attribute mapping [Edit](#)

Gender: Gender

Country/Region: Country

ZIP/Postal Code: PostCode

City: City

State/Province: State

Met opmerkingen [DK12]: I am missing a step.  
Either go Data->Enrichment  
OR Customer->Profile addons-> Enrichment

Met opmerkingen [DK13]: They were preselected



## Task 2: Check the customer profile

You might have to wait a while before the enrichment shows up. You can take this time to experiment with segments or measures. Once it has loaded you'll see the interests in the corner of the customer profile. You'll see how many points a certain interest has for the selected customer which in this case would be Abbie Moss.

[Back to Customers](#) [Profile add-ons](#)

 <p><b>Abbie Moss</b> Fairfield, California, USA Last activity: 05/02/2019 <a href="#">Call</a> <a href="#">Email</a></p> <p>CustomerId: e33d7b5463ae386711fa6e141d141825 FirstName: Abbie LastName: Moss Gender: Female DateOfBirth: 5/8/1986 Telephone: 983.566.0706x9509 Email: abbie_moss@collinsreedandhoward.com Address: 129 Miller Plaza, Fairfield, California 10753 USA Additional fields Email Subscriber: Yes CreatedOn: 3/14/2017</p>	<p><b>Activity timeline</b> 1 Contract   3 Invoice   4 WebsiteReviews</p> <p>FEB 2019 (1) <a href="#">^</a> <a href="#">↓ By date</a> WebsiteReview - 05/02/2019 OCT 2018 (1) <a href="#">^</a> WebsiteReview - 12/10/2018 JUL 2018 (2) <a href="#">^</a> WebsiteReview - 18/07/2018 WebsiteReview - 11/07/2018 JUN 2018 (1) <a href="#">^</a> Invoice - 01/06/2018</p>	<p><b>Predicted Churn Score</b> Last updated 6 days ago  0,03</p> <p><b>Customer Lifetime Value</b> Last updated 6 days ago  499</p> <p><b>Extra Payment Per Month</b> Last updated 6 days ago  -5,33</p> <p><b>Customer NPS Score (1 to 10)</b> Last updated 6 days ago  7</p> <p><b>Last Contract End Date</b> Last updated 6 days ago  01/01/2020</p> <p><b>Interest SoV for customers like Abbie Moss</b></p> <table border="1"><tr><td>Theme Parks</td><td>10%</td></tr><tr><td>Power &amp; Ele...</td><td>10%</td></tr><tr><td>Wellness Th...</td><td>5%</td></tr><tr><td>Environment...</td><td>30%</td></tr><tr><td>Home Impr...</td><td>25%</td></tr></table>	Theme Parks	10%	Power & Ele...	10%	Wellness Th...	5%	Environment...	30%	Home Impr...	25%
Theme Parks	10%											
Power & Ele...	10%											
Wellness Th...	5%											
Environment...	30%											
Home Impr...	25%											

You have now completed the Customer Insights part of the workshop. Take the time to fully understand everything you did. You can also experiment with new measures and segments or anything we haven't covered in the course for as long as the trial environment lasts. In the next chapter we will be looking at a customer journey and create an email based on what we have created in Customer Insights



## 11. Dynamics 365 Marketing

Before moving on to the Marketing environment we'll want to create a segment that works for our Customer Journey. We'll configure this journey to make sure customers who have already paid their entire bill don't get an email asking them to pay. On the other hand, customers who haven't paid yet are sent a reminder.

Task 1: Create a segment from measure (In Customer Insights)

- Go to segments and click 'New'.
- Select 'Create from Measures'.
- Select the 'Extra Payment Per Month' measure.
- Select the 'greater than' operator.
- Type in value '0'.

Make sure to note that any value above 0 means a customer has to pay money to the company while any value below 0 means they'll have to get money back. This has to do with the way the calculation had been set up when creating the measure.

- Name the segment 'High Energy Usage'
- Run the segment and go to the Dynamics Marketing environment. Take a look at the environment before moving on to the next step.

Task 2: Create a journey (In Real Time Marketing)

- Take a look at 'Segments' under Audience to see the segment you exported.
- Go to 'Journeys' under Engagement and select 'New journey'.

Met opmerkingen [SH14]: Aanpassen als connectie haar behoren werkt

The screenshot shows the Dynamics 365 Marketing interface. At the top, there's a navigation bar with 'Dynamics 365' and 'Marketing'. Below it is a toolbar with icons for 'Recent', 'Pinned', 'Engagement', 'Get started', 'Analytics', 'Triggers', 'Audience', 'Segments', and 'Consent center'. The main area is titled 'All Journeys' and contains a table with columns for 'Name' and 'Status'. A message 'No data' is displayed. On the left side, there's a sidebar with sections for 'Recent', 'Pinned', 'Engagement', 'Get started', 'Journeys' (which is selected and highlighted in blue), 'Analytics', 'Triggers', 'Audience', 'Segments', and 'Consent center'.

- Give the journey a name.
- Click 'Segment-based' so we can use the segment we exported in Customer Insights. Select the segment in the next field.
- As we want to make sure the monthly extra payments are processed per year set the frequency to repeat every 12 months. At last set a start and end date. Look at the next page to see what these settings look like.



**Create a new journey**

Name the journey  
Extra Payment

Choose the type of journey

Trigger-based  
 Respond in real time to customer actions, like form submitted, cart abandoned, and purchase made.

Segment-based  
 Reach out to targeted audiences, like loyalty members, with high-impact, personalized journeys.

Select a segment \*  
Extra Payment

Audience: Contact

Select the frequency

A one-time journey with a static audience

A one-time journey where newly added audience members can start any time

A repeating journey where all audience members repeat the journey every:

12 months

Time zone  Set the time zone for the journey.  
(GMT) Coordinated Universal Time [Edit](#)

Start \*  
Tue, Oct 18, 2022 1:00 PM

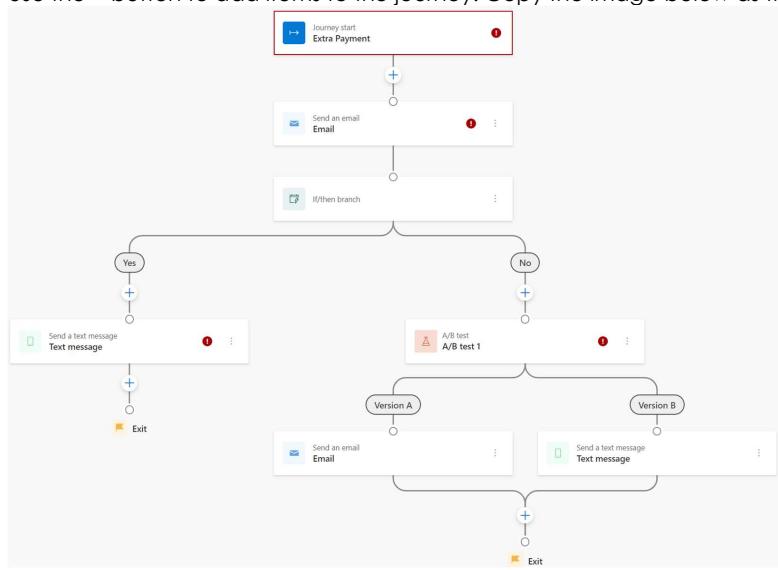
End  
Tue, Oct 22, 2024 12:00 AM

[Create](#) [Cancel](#)

- Click on 'Create'.

### Task 3: Configure Journey

- Use the + button to add items to the journey. Copy the image below as the base.



```

graph TD
    Start["Journey start  
Extra Payment"] -- "+" --> Email1["Send an email  
Email"]
    Email1 -- "+" --> IfBranch["If/then branch"]
    IfBranch -- "+" --> YesPath
    IfBranch -- "+" --> NoPath
    YesPath -- "+" --> TextA["Send a text message  
Text message"]
    TextA -- "+" --> ExitA["Exit"]
    NoPath -- "+" --> ABTest1["A/B test  
A/B test 1"]
    ABTest1 -- "+" --> VersionA["Version A"]
    ABTest1 -- "+" --> VersionB["Version B"]
    VersionA -- "+" --> TextB["Send a text message  
Text message"]
    TextB -- "+" --> ExitB["Exit"]

```

43



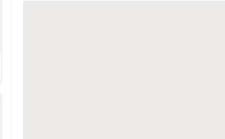
info@intouch365.nl  
www.intouch365.nl



- Create an Email by clicking on the first block and clicking on the field under 'Select email' this will give you the option to create a new email.
  - Pick a template to create your email or use the Email Template.txt.

Email templates

Search  Filter

 <p>1 column</p>	 <p>1 column centered</p>	<p>Details</p> 
 <p>1-2 column</p>	 <p>1-2-2 column</p>	
 <p>1-2-3 column</p>		<p>Name 1 column</p> <p>Language English</p> <p>Message designation Commercial</p> <p>Marketing provided Yes</p> <p>Select <input type="button"/> Skip <input type="button"/></p>

- You can now create an email with help of the template or make it from scratch. When using a fully configured environment you could also use 'Content blocks' which help you create good looking emails faster. You can find this in the menu on the right. The same goes for personalised content such as customer names and general styling of the email.

The image displays three side-by-side screenshots of the Microsoft Word ribbon. Each screenshot shows the 'Content blocks' tab highlighted with a white box and an arrow pointing to it. The tabs shown are 'Content blocks', 'Personalize', and 'General styles'. Each tab has a set of icons below it: 'Content blocks' has a plus sign, a minus sign, a copy icon, and a link icon; 'Personalize' has a plus sign, a minus sign, a copy icon, and a link icon; 'General styles' has a plus sign, a minus sign, and a link icon.

- To personalize content within the email you can also use the top bar. Clicking on add a subject will give you the option to give the email a subject as well as a short description of the content within the email.

Subject: Add a subject Personalization

Paragraph Font Size B I U A ... 

Argo Energy <admin@CRM963010.OnMicrosoft.com>  
Subject: Annual Bill

**Annual bill**

Hello [Salutation] [LastName].

According to our system the advance payment on your energy and/or gas bill was too low this year. We'll let you to pay [Amount] within 30 days. You can do this by clicking the button below. If you have any questions don't hesitate to contact one of our customer service agents.

[Click to pay](#)



- After clicking 'Ready to send' move on to the if/then branch and set it up as follows to make sure we can set a reminder if a customer hasn't paid within 30 days.

✓ Wait for

Choose a branch condition type \*

The previous message gets an interacti... ▾

Choose an interaction \*

Email Link Clicked ▾

- When the email button has been clicked the customer will move on to the 'yes' branch. They will get a text message thanking them. Create this text message by clicking on new text message. As you can see you can also personalise these.

Text message sender

Select later ▾

ⓘ You can now adjust the sender when sending a text message in the Journey editor.

Message\*

{{Salutation}} {{LastName}},  
We have received your payment, thank you!  
Kind regards,  
Argoleaf

Message designation

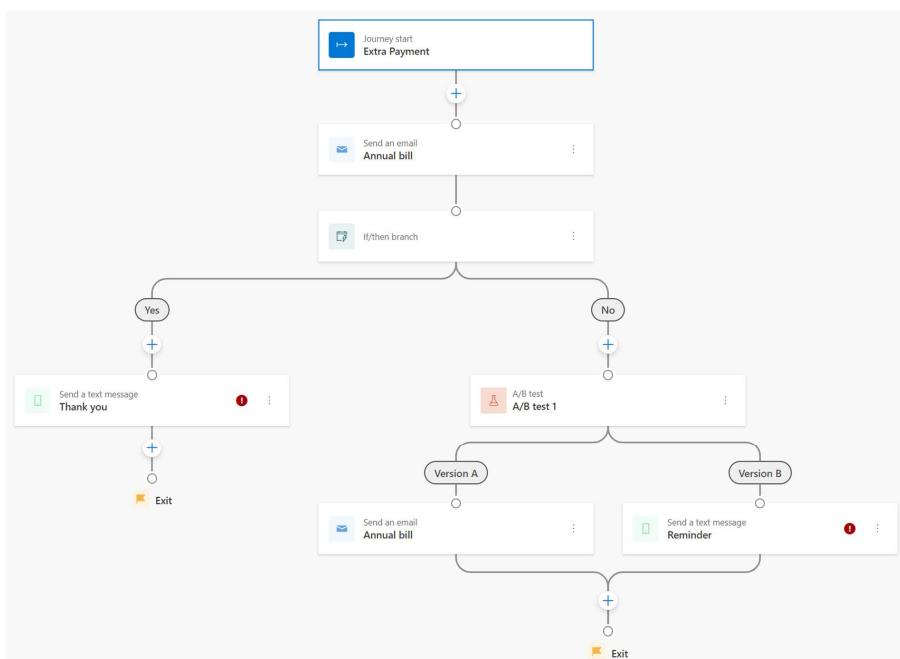
Transactional ▾

- Move on to the 'no' branch and configure you're A/B test to figure out if sending a reminder is more effective through text or email. You can select the email you already created or create a new one.
- Create a new text message containing a reminder to pay. Try using the personalization options.
- You might notice a red icon next to your text message blocks. This has to do with the fact that we don't have a configured phone number from which to send the texts. This means we can't officially publish the journey.

On the next page you can see an image of the journey as it's supposed to look if you followed the steps in this task.

**This is the end of the Angoleaf lab**

For questions please reach out to us on: [info@intouch365.nl](mailto:info@intouch365.nl)



This is the end of the workshop. You can experiment some more with creating journeys, emails and text messages as well as any other functionalities within the Dynamics 365 Marketing environment. An example would be to experiment with creating a simple trigger and make a journey based on that. Have fun experimenting!