### Alle attributen noteren, behalve berekende attributen

| <u>ONV</u>                    |  |  |
|-------------------------------|--|--|
| Laboratory_ID                 |  |  |
| Lab_name                      |  |  |
| Lab_description               |  |  |
| Company                       |  |  |
| Lab_street_Number             |  |  |
| Lab_Street                    |  |  |
| Lab_Postalcode                |  |  |
| Lab_Location                  |  |  |
| Measurement_ID                |  |  |
| Report_ID                     |  |  |
| Technician_ID                 |  |  |
| Instrument_ID                 |  |  |
| Sample_ID                     |  |  |
| Measurement_Start_date        |  |  |
| Measurement_End_Date          |  |  |
| Result                        |  |  |
| unit                          |  |  |
| measurement_Cost              |  |  |
| Campaign_ID                   |  |  |
| Report_Creation_Date          |  |  |
| Report_Sender_Email           |  |  |
| Report_receiver_email         |  |  |
| Printed_Report                |  |  |
| Campaign_Creation_Date        |  |  |
| Campaign_Start_Date           |  |  |
| Campaign_End_Date             |  |  |
| Campaign_Description          |  |  |
| Campaign_purpose              |  |  |
| Campaign_Requester_ID         |  |  |
| Campaign_Requester_first_Name |  |  |
| Campaign_Requester_Last_Name  |  |  |
| Campaign_Status               |  |  |
|                               |  |  |
|                               |  |  |

Herhalende groepen per Measurement\_ID afzonderen. Een groep gegevens staat in 1NV wanneer die groep geen herhalende (repetitieve) gegevens meer bevat (tov de identifier)

| <u>1NV</u>             |  |  |
|------------------------|--|--|
| Measurement ID         |  |  |
| Measurement_Start_date |  |  |
| Measurement_End_Date   |  |  |
| Result                 |  |  |
| unit                   |  |  |
| measurement_Cost       |  |  |
| Technician_ID          |  |  |
| Instrument_ID          |  |  |
| Sample_ID              |  |  |
|                        |  |  |

Attributen afhankelijk van deel van de sleutel. Zet alle niet sleutelattributen die functioneel afhankelijk van een stuk van de sleutel in een andere groep

| <u>2NV</u>             |  |  |
|------------------------|--|--|
| Measurement ID         |  |  |
| Measurement_Start_date |  |  |
| Measurement_End_Date   |  |  |
| Result                 |  |  |
| unit                   |  |  |
| measurement_Cost       |  |  |
| Technician_ID          |  |  |
| Instrument_ID          |  |  |
| Sample_ID              |  |  |
|                        |  |  |

# Measurement ID Laboratory\_ID

| <u>Laboratory ID</u> |
|----------------------|
| Lab_name             |
| Lab_description      |
| Company              |
| Lab_Street_Number    |
| Lab_Street           |
| Lab_Postalcode       |
| Lab_Location         |

### Measurement ID Laboratory ID Report\_ID

| Report ID                     |
|-------------------------------|
| Report_Creation_Date          |
| Report_Sender_ID              |
| Report_receiver_ID            |
| Sender_Email                  |
| Receiver_Email                |
| Printed_Report                |
| Campaign_Creation_Date        |
| Campaign_ID                   |
| Campaign_Start_Date           |
| Campaign_End_Date             |
| Campaign_Description          |
| Campaign_purpose              |
| Campaign_Requester_ID         |
| Campaign_Status               |
| Campaign_Requester_first_Name |
| Campaign_Requester_Last_Name  |

#### Verplaats de attributen die afhankelijk zijn van een NON sleutel attribuut

### Verwijder objecten die voor hetzelfde staan.

#### Tabellen/Foreign Keys

| <u>3NVa</u>            |  |  |
|------------------------|--|--|
| Measurement ID         |  |  |
| Measurement_Start_date |  |  |
| Measurement_End_Date   |  |  |
| Result                 |  |  |
| unit                   |  |  |
| measurement_Cost       |  |  |
| Technician_ID          |  |  |
| Instrument_ID          |  |  |
| Sample_ID              |  |  |
| Laboratory_ID          |  |  |
| Report_ID              |  |  |
|                        |  |  |

| <u>Laboratory ID</u> |  |
|----------------------|--|
| Lab_name             |  |
| Lab_description      |  |
| Company              |  |
| Lab_Street_Number    |  |
| Lab_Street           |  |
| Lab_Postalcode       |  |
| Lab_Location         |  |

| Report ID            |
|----------------------|
| Report_Creation_Date |
| Report_Sender_ID     |
| Report_receiver_ID   |
| Printed_Report       |
| Campaign_ID          |

| Campaign_ID            | Ī |
|------------------------|---|
| Campaign_Creation_Date |   |
| Campaign_Start_Date    |   |
| Campaign_End_Date      | _ |
| Campaign_Description   | _ |
| Campaign_purpose       |   |
| Campaign_Requester_ID  |   |
| Campaign_Status        |   |
|                        | _ |

| Report_Se | nder_ID |
|-----------|---------|
| Sender    | Email   |

Receiver\_Email

## Campaign\_Requester\_first\_Name Campaign\_Requester\_Last\_Name

| <u>3NVb</u>            |    |
|------------------------|----|
| Measurement ID         | Pk |
| Measurement_Start_date |    |
| Measurement_End_Date   |    |
| Result                 |    |
| unit                   |    |
| measurement_Cost       |    |
| Technician_ID          |    |
| Instrument_ID          |    |
| Sample_ID              |    |
| Laboratory_ID          | FK |
| Report_ID              | FK |

| ŀ | <u>Laboratory ID</u> |
|---|----------------------|
|   | Lab_name             |
|   | Lab_description      |
|   | Company              |
| l | Lab_Street_Number    |
|   | Lab_Street           |
|   | Lab_Postalcode       |
| l | Lab Location         |

| Report ID            | PK |
|----------------------|----|
| Report_Creation_Date |    |
| Report_Sender_ID     | FK |
| Report_receiver_ID   | FK |
| Printed_Report       | ]  |
| Campaign_ID          | FK |

| Campaign_ID            |
|------------------------|
| Campaign_Creation_Date |
| Campaign_Start_Date    |
| Campaign_End_Date      |
| Campaign_Description   |
| Campaign_purpose       |
| Campaign_Requester_ID  |
| Campaign_Status        |
| cumpaign_status        |

| Person_ID    | P |
|--------------|---|
| First_Name   |   |
| Last_Name    |   |
| Email_Adress |   |
|              |   |

| <u>3NVb</u>            |                |
|------------------------|----------------|
| Measurement ID         | PK measurement |
| Measurement_Start_date |                |
| Measurement_End_Date   |                |
| Result                 |                |
| unit                   |                |
| measurement_Cost       |                |
| Technician_ID          |                |
| Instrument_ID          |                |
| Sample_ID              |                |
| Laboratory_ID          | FK             |
| Report_ID              | FK             |
|                        |                |

| <u>Laboratory ID</u> | Pk |
|----------------------|----|
| Lab_name             |    |
| Lab_description      |    |
| Company              |    |
| Lab_Street_Number    | FK |
| Lab_Street           |    |
| Lab_Postalcode       |    |
| Lab_Location         |    |
|                      |    |

|                | _  |        |              |
|----------------|----|--------|--------------|
| Report ID      | PK | Report |              |
| _Creation_Date |    |        |              |
| ort_Sender_ID  | FK |        | is Person_ID |
| rt_receiver_ID | FK |        | is Person_ID |
| nted_Report    |    |        |              |
|                | 1  |        |              |

Laboratory

Contacts

| Campaign_ID            | PK | Campaign     |
|------------------------|----|--------------|
| Campaign_Creation_Date |    |              |
| Campaign_Start_Date    |    |              |
| Campaign_End_Date      |    |              |
| Campaign_Description   |    |              |
| Campaign_purpose       |    |              |
| Campaign_Requester_ID  | FK | is Person_ID |
| Campaign_Status        |    |              |
|                        | -  |              |

| erson_ID   | PK |
|------------|----|
| rst_Name   |    |
| st_Name    |    |
| ail Adrocc |    |