Meeting Delft #2

About the oranisation of theproject:

1. Gathering the data or analysation with smartmeters: they didn’t reconsider the privacy issues beforehand
2. What can be improved within a certain dwelling based on the data from that household?
3. Stocklevel approaches for house associations: what can you do with the household information to improve/renovate the house in a more enegyfriendly way. The provacy issue also applies here
4. Interaction with other projects: what kind of services can you develop with this kind of information?

Daan: how can you predict energy things with the provacy issues?  
- When you have permission from the individual household, you can do things/predictions with the data you collected  
- Right now they are predicting bypostal code, defining how much energy is consumed within a year by taking the total amount of the postal code and dividing it by the number of households in the postal codes.

Presentation:

1st chapter questions:

* Correlation questions: answered
* Classification: People think it’s useful to classification for individual prediction. Make a general model for using while the other individual modelis training during the year. That way you have a “base model” while training.
* There is data available for the winter period --> The data is not anonymous yet. We will have to wait a bit before we can get it

2nd chapter questions:

3rd chapter questions:

* Daily performing better than hourly: probably has to do wit houses capturing heat
  + That’s why we took data of the previous day as well?
* Models: What would happen if you add an extra parameter: energy label

4th chapter questions:

* Data from 2018 can be made available within a few weeks. But there might only be 5 houses.
* Can you split in summer and winter season? --> can be done
* Model question: which one do you make? --> Make both of them. Individial and a general model.
* Question: can you get “B6” information from the enregy companies? --> Baldiri: they only have 1 reading per year
* Splitting in half a year: Woman: I think it’s a mismatch, maybe it performs well but that’s not what we need. --> Nice french lady: I see it as something interesting since the model apparently can still predict quite good even though the occupancy of the houses is very biased.
  + Baldiri: Try to forcast a week based on a week on data
  + Nice french lady: Try making classifications. Other thing: Looking at individual houses, take one week of data and see if you can predict the next week. This will be interesting to the research group.
  + Brian: Just classifying would be way more interesting?
    - Old man: 2 questions: Energy improvement individual levels and companies
    - Nice French lady who understands everything: What Brian is suggesting might be enough for both questions
    - Lady who I think is sassy: But you have a lot of uncertainties... You will probably need more statistics to give actual personalised advise
    - Guy near the brian (not old), now guy#2: He agrees that you need more information to create personal advise based on thei energy consumptions. These might be for future work. In the end the personal information should be devided in comfort/MVO/cost.
    - Sassy girl: We also want to be able to extract information about which house are best suitable (winstgevend) for renovation?
    - Guy #2: But we need personalised information!
    - Sassy girl pointing at guy #2: Energy patterns can also tell a lot about this
    - Baldiri gets passionate: We can, in the end, make personalised advise with only smartmeter and thermostate
    - Guy #2: but i wanna know if if i need to change a certain screw in a certain window in a certain house (figure of speech, but I think this is actually what he wants)
    - ---Too much to follow---

Nice French lady: LET’S MAKE A SEPPERATION! (she said it in a nice way)

* Brian: can we use the data from one house to publish?
  + Nice French lady: i will check
* The exra data is usable?
  + Yes
* Can the data cleaning code can be made into a usable product?
  + Yes
* Nice French lady: Look at overall information and at dwelling level is you can predict one week
  + Brian: Do you want to be able to train on 24 houses to predict for one house?
  + No, we want you to train on 25 houses to predict a totally other house, see if it’s possible
* Classification: square meter, people home all day, T
* Gathering pattern in summer: In that way you might be able to use that human pattern in winter
  + This could also be very helpful for all kind of energy predictions