Data Collection with Tablets:

The Experience of the Caribbean Netherlands

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Statistics Netherlands

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The Caribbean Netherlands and St Maarten

- 10/10/10: dissolution of the Netherlands Antilles
  - Curacao and St. Maarten ➔ autonomous countries within the Kingdom of the Netherlands

- Bonaire, Saba and St. Eustatius
  - "Municipality" of the Netherlands
  - Population 23 thousand
  - Bonaire "front-office", 4 fte
  - Europe "back-office", 2.7 fte

The St Maarten challenge

- Population and Housing Census in 2010
- New office, little experience and no tools…
- Field work done in nine days (PAPI)
- Data entry/coding/editing outsourced (not succesful)

- Plan B: use tablets for data entry
- Reservations about
  - Initial cost
  - Integration with existing environment
  - Acquisition of survey software
  - Ability of interviewers

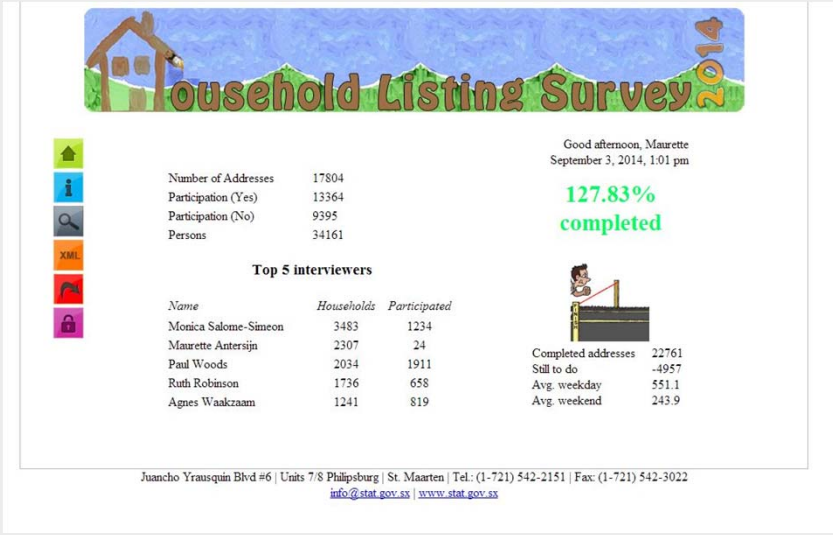
St Maarten implementation

Transition

- Open Data Kit software on Android tablets
- How tight to make the CAPI survey?

Technical implementation

- Focus on correct data flow
- Only free software

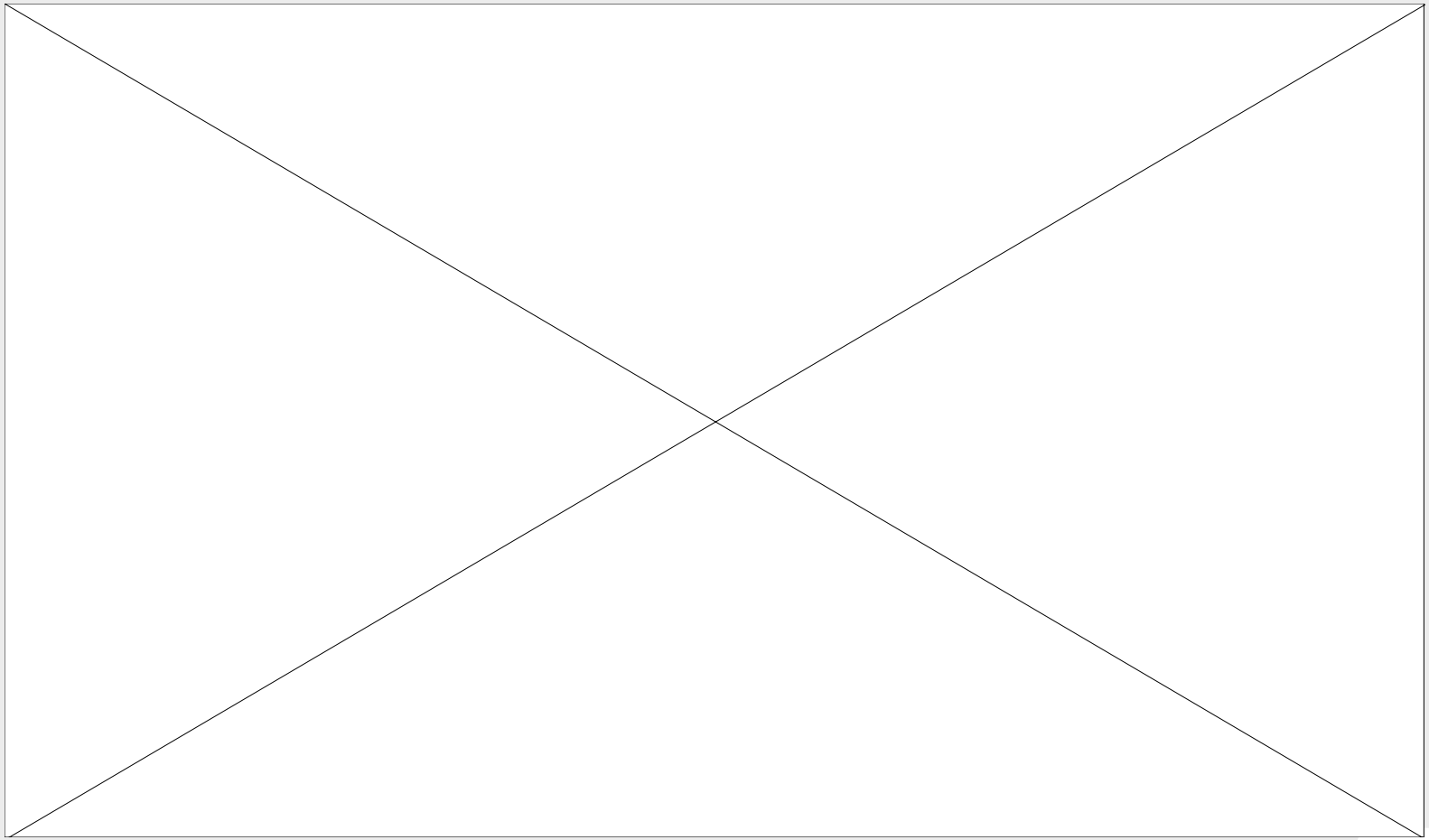


St Maarten experiences

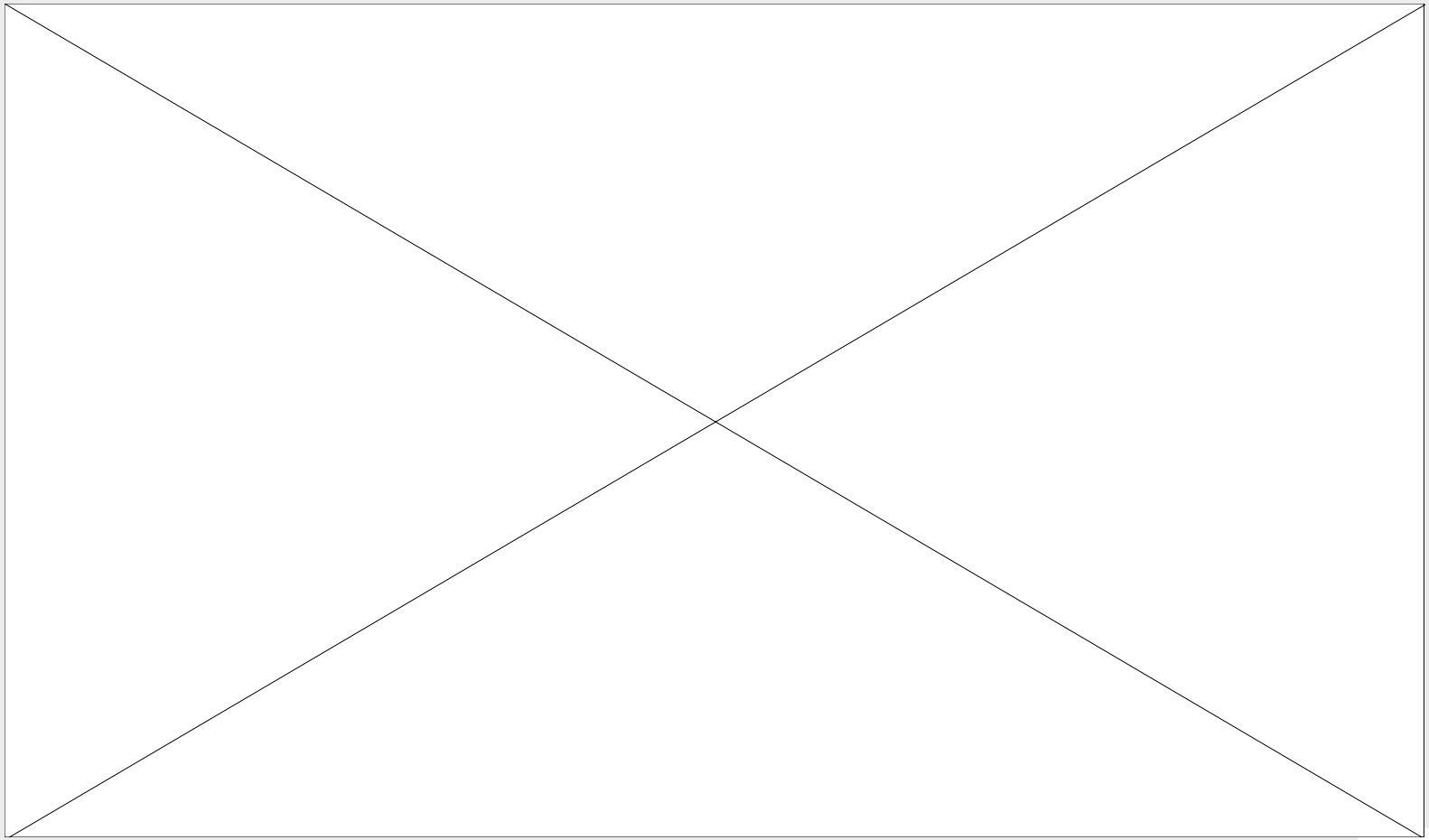
Main benefits

- Better management of progress and performance
- Near instant update of data
- Higher quality of data

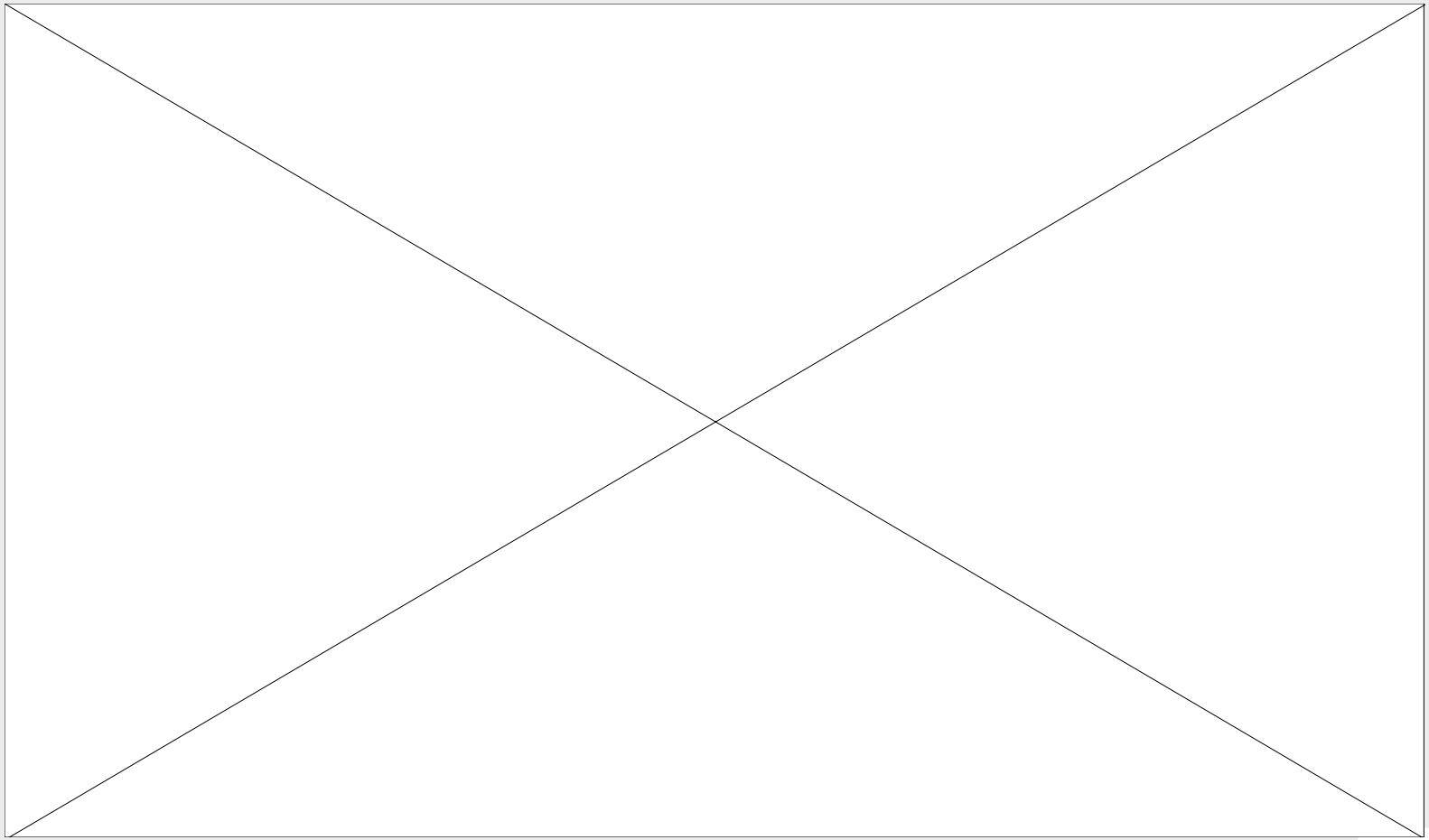
The Caribbean Netherlands-Bonaire



The Caribbean Netherlands-Saba



The Caribbean Netherlands-St. Eustatius



Data collection on CN before tablets

- All questionnaires on paper
- Questionnaires by mail to Saba and St.Eustatius
- Questionnaires available in four languages: Dutch, English, Spanish and Papiamento
- Interviewers with paper questionnaire to housholds
- Filled out questionnaires back to office (by mail for Saba and St. Eustatius)
- Data entry for paper questionnaires

Data collection before tablets

- Unsatisfactory method:
  - Time consuming
  - Data protection issues
  - Many errors (routing, data-entry)

- Initial idea, October 2012, after visit STAT (St. Maarten Statistical Office)

From idea to innovation in Caribbean NL

- Why not try tablets in Caribbean Netherlands?
- Everybody had their say:

  - "We don't know anything about tablets"
  - "ODK is not the right software"
  - "We don't want to use Android"
  - "What about data protection?"
  - "This is too risky, I don't want to be part of this"

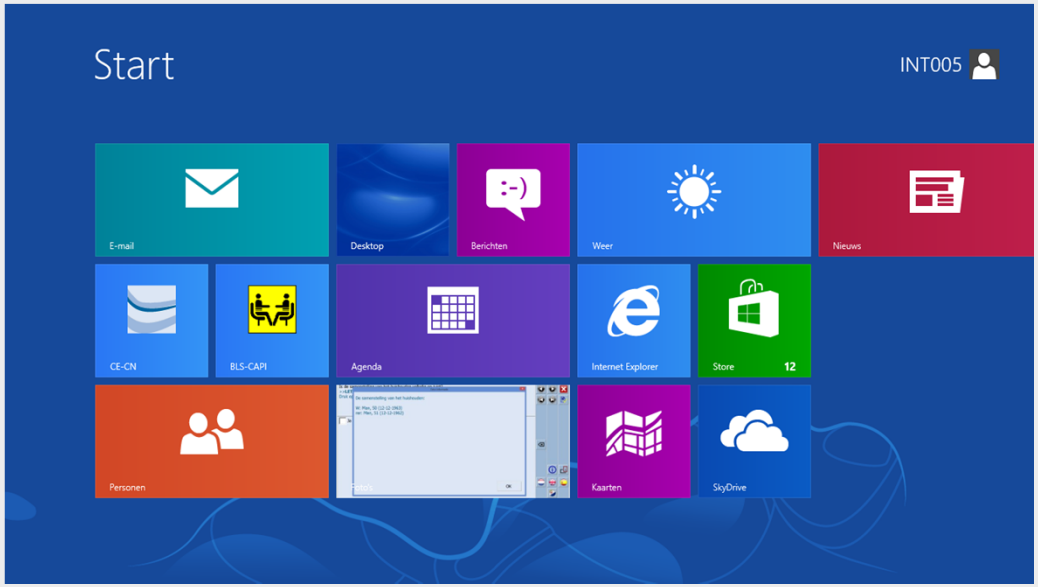
- However this did not stop us…

Four key challenges for Caribbean NL

- Choice of OS
- Selection of hardware
- Selection of software
- Appropriate security measures

Four key challenges for Caribbean NL

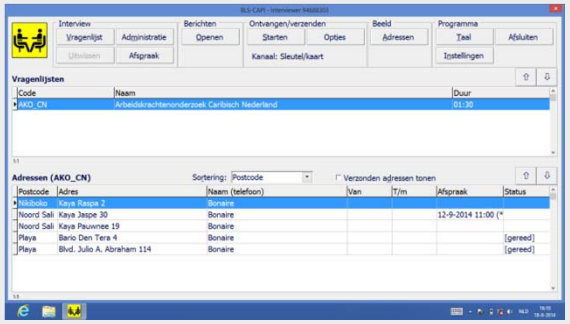
- BLAISE software
- Windows 8 OS
- Bitlocker and other standard Windows data protection
- Dell Latitude 11



Two pilot surveys in Caribbean NL

Household Budget Survey (HBS)

- Data collection w/ 10 tablets, March-August 2013
  - Bonaire only on tablets
- Relatively straightforward survey
- Questionnaires developed in MS Access



Omnibus survey

- Data collection w/ 15 tablets, May-June 2013
  - Still only half of Bonaire on tablets
  - Other half of the interviews on paper for reference
  - Saba and St. Eustatius on paper
- Multi-purpose survey with routing
- First Blaise application on tablets

Experiences in Caribbean NL

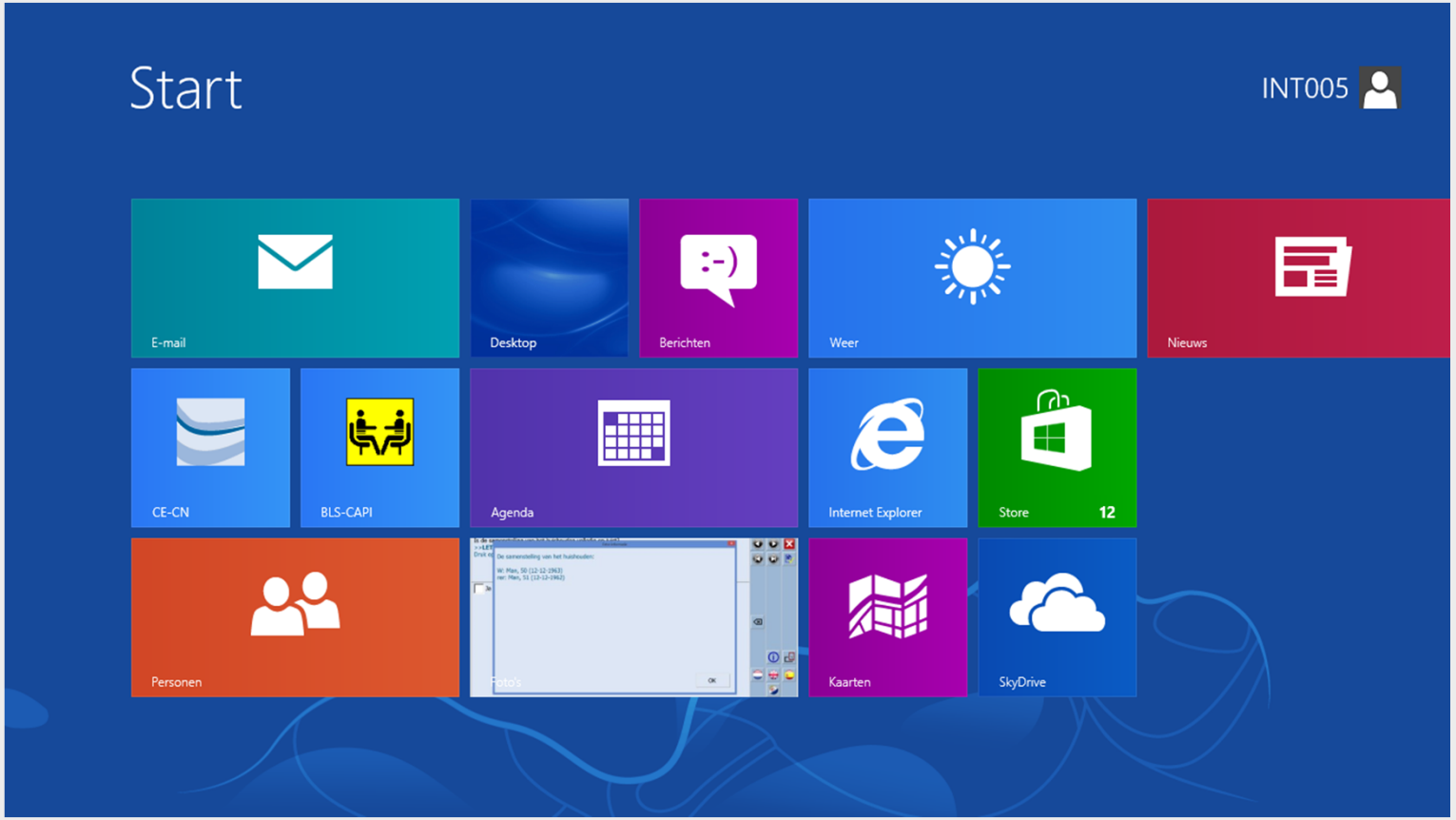
- Many advantages
  - Field staff: easy to use, no paper hassle (four languages!), fast
  - Office staff: no manual data-entry
  - Backend staff (NL): quick results, better data quality

- Some issues
  - Field staff: small font size (in the MS Access implementation)
  - Office staff: lack of status reports, data transfer to be improved
  - Bonaire office responsible for whole proces and not remote possibillities

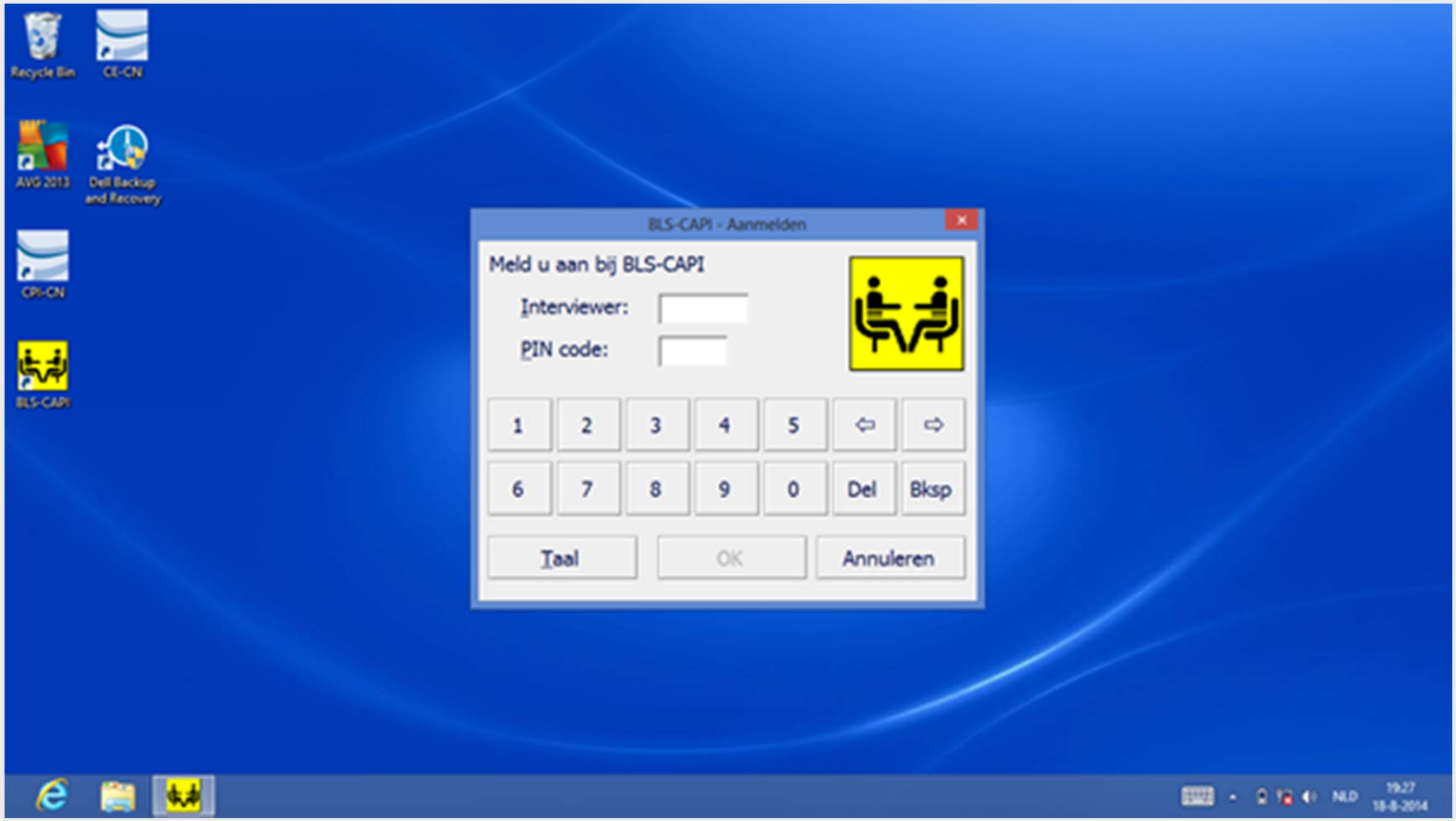
Data collection after pilot

- Monthly CPI on tablets
- Labour Force Survey on tablets on all three islands
- Data and survey remote exchange system consisting of three programs:
  - Data Collector
  - Data Agent
  - Interviewer (tablet)
- In the near future:
  - Price Level comparison between CN
  - Tourist Exit Survey

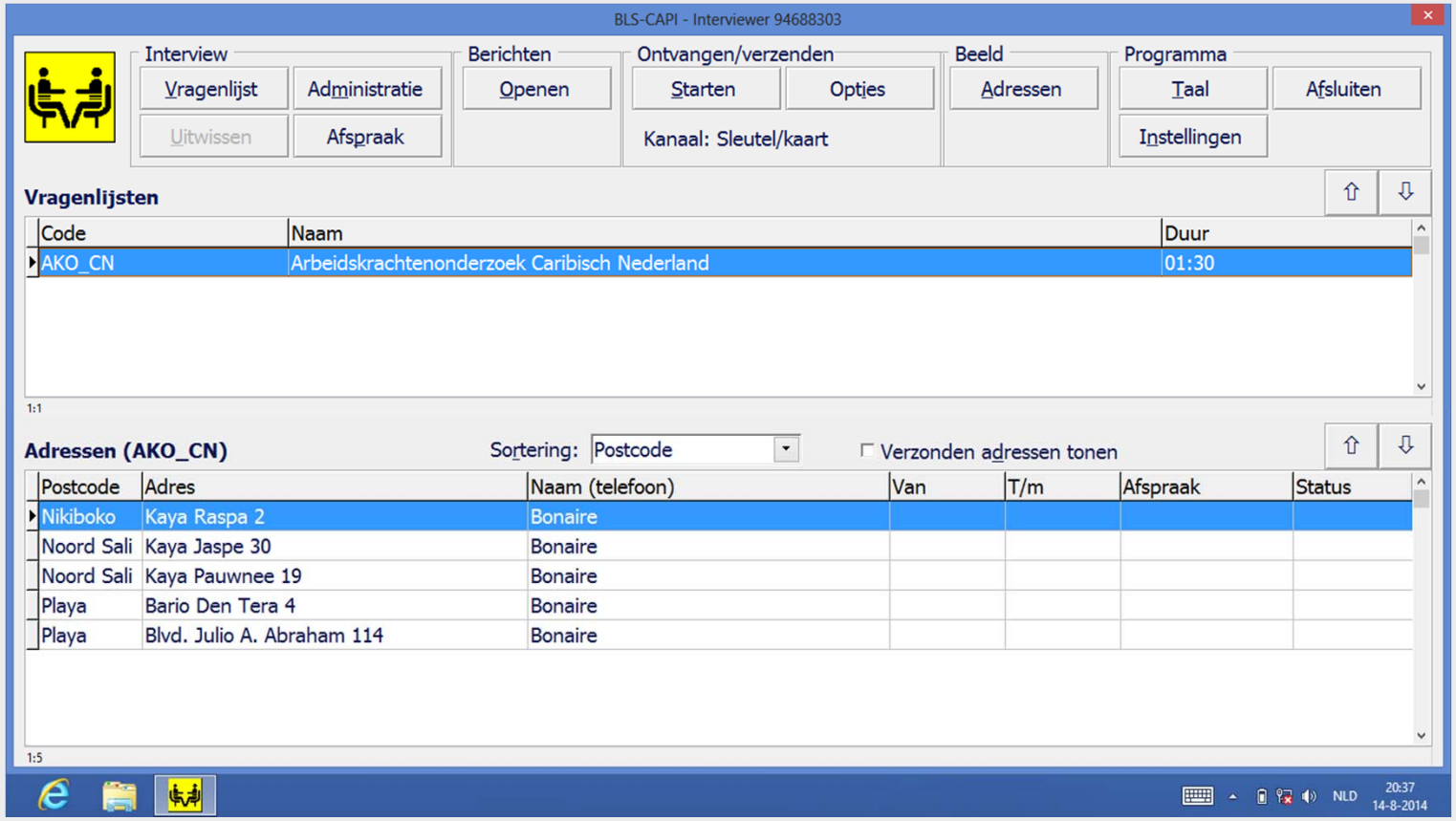
Screen 1: Windows 8 desktop



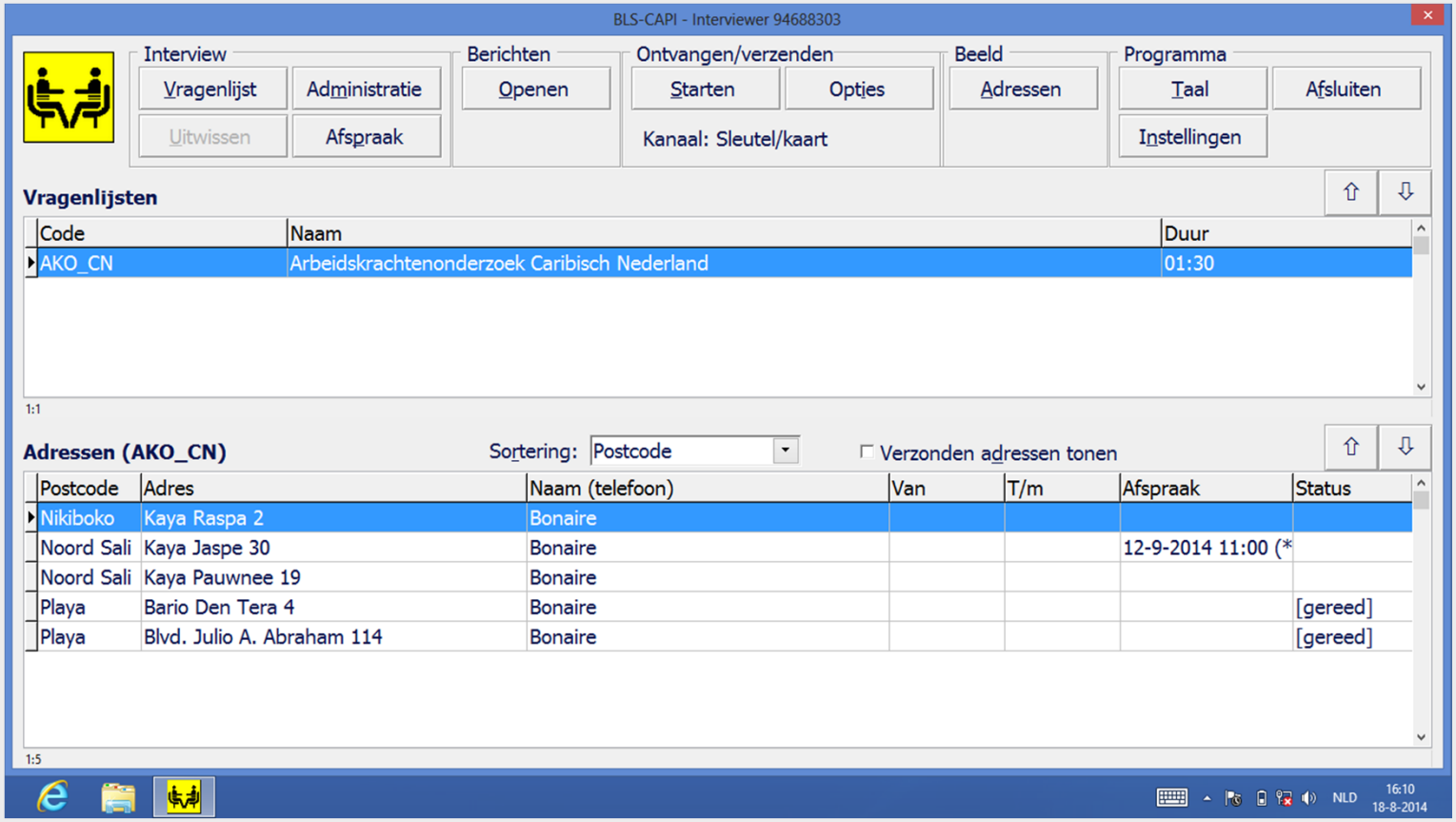
Screen 2: Interviewer login screen



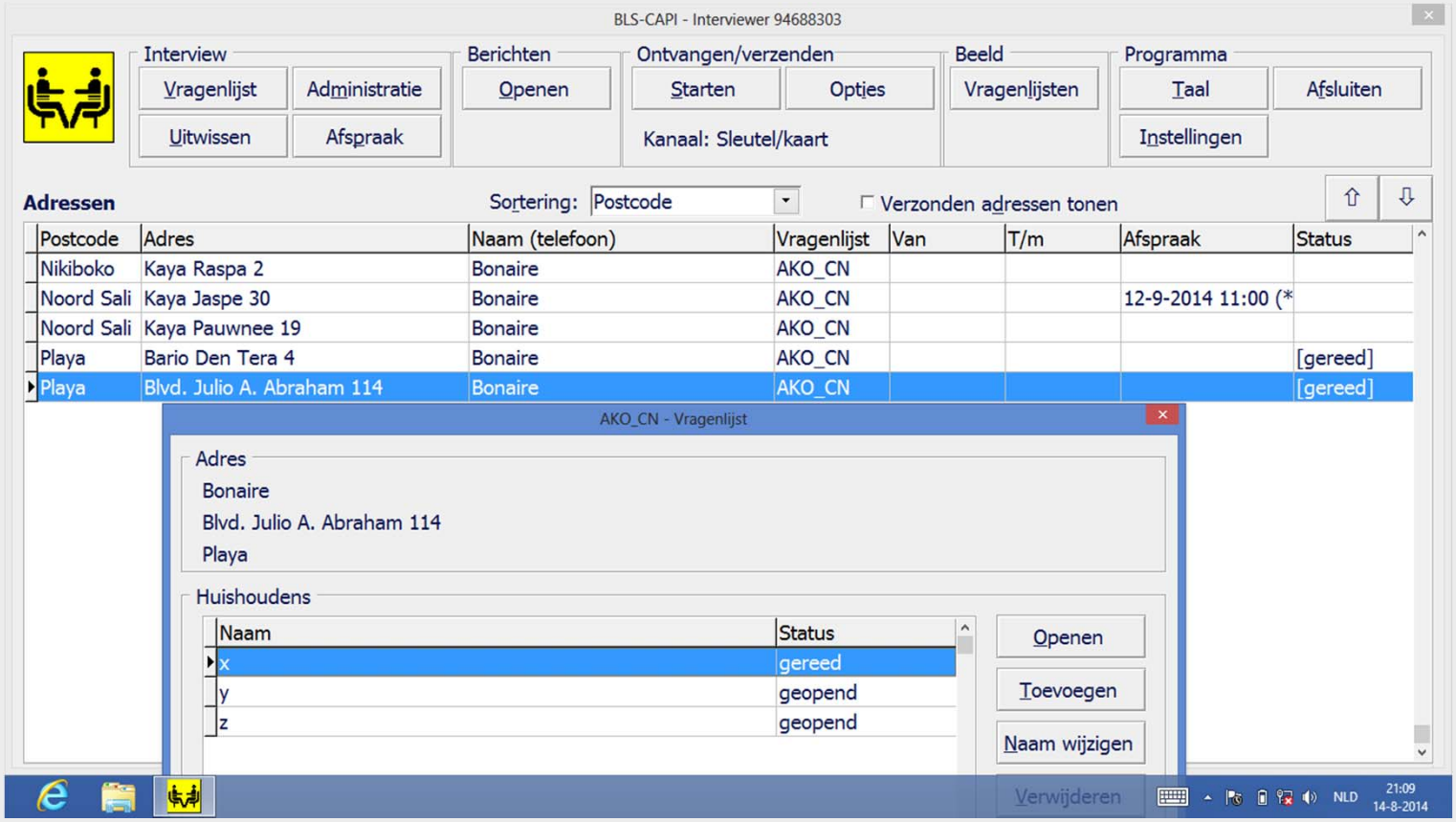
Screen 3: List of addresses to be visited



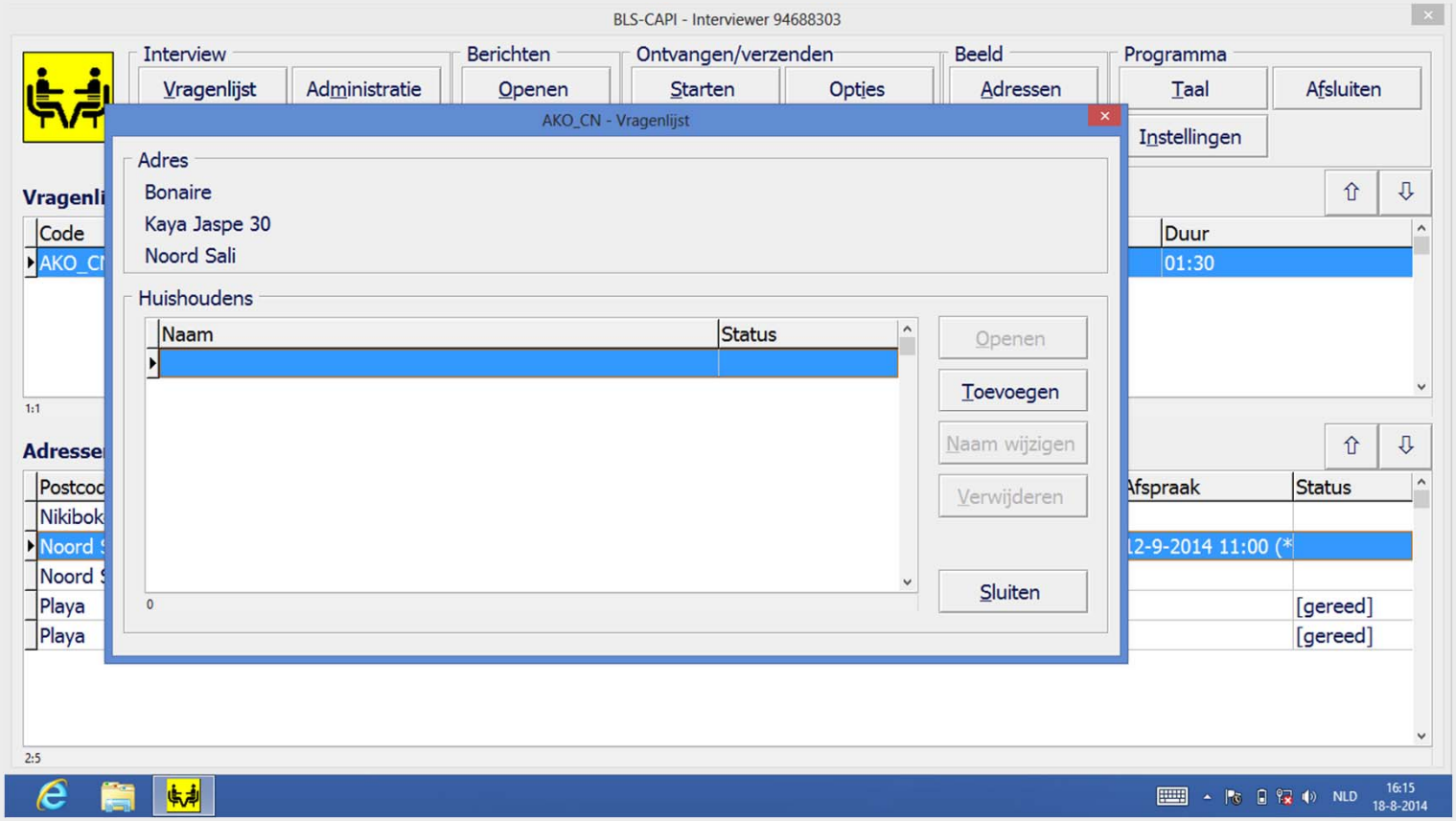
Screen 4: Status of survey by address



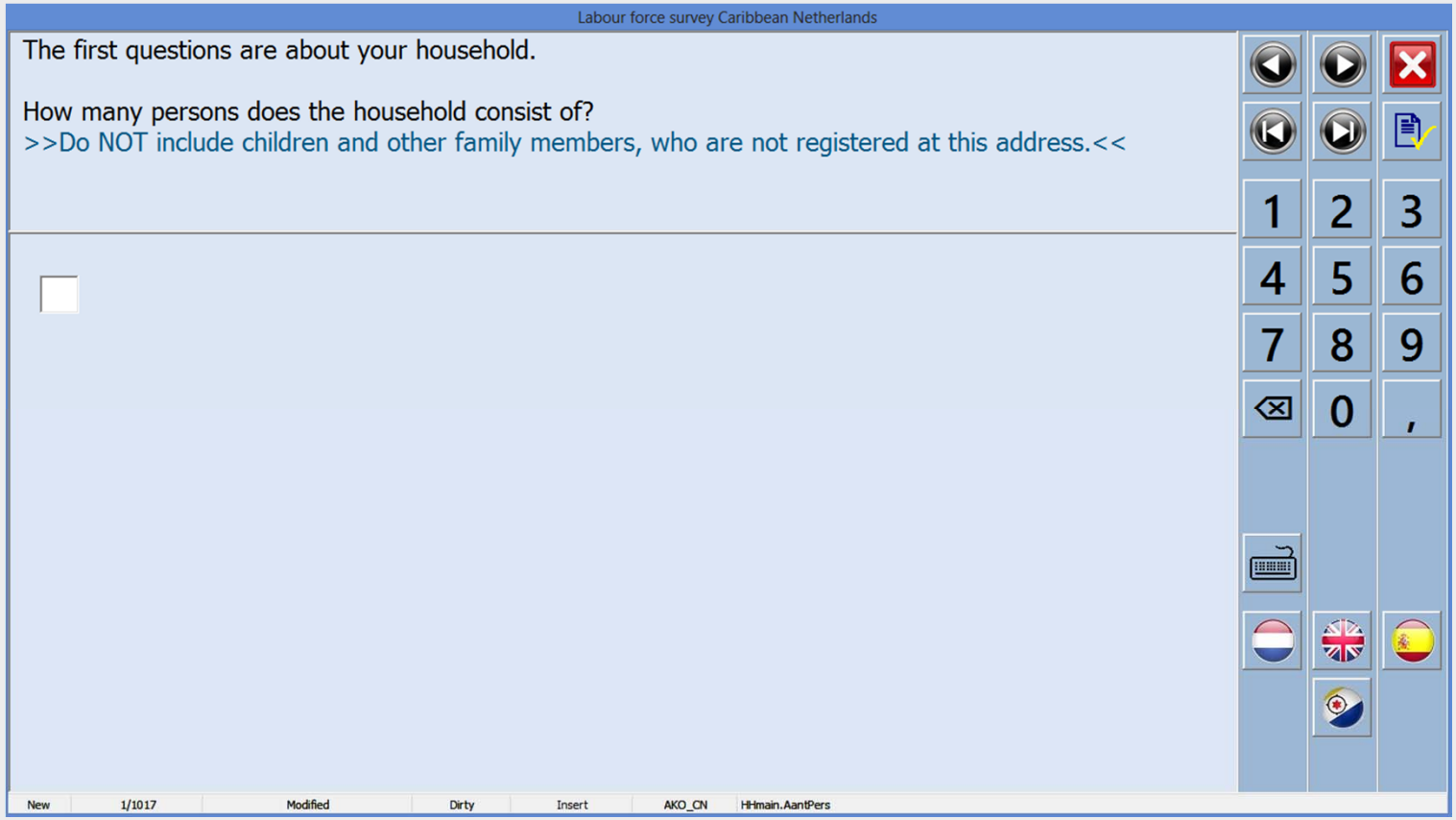
Screen 5: Status of individual address



Screen 6: Adding a survey to an address

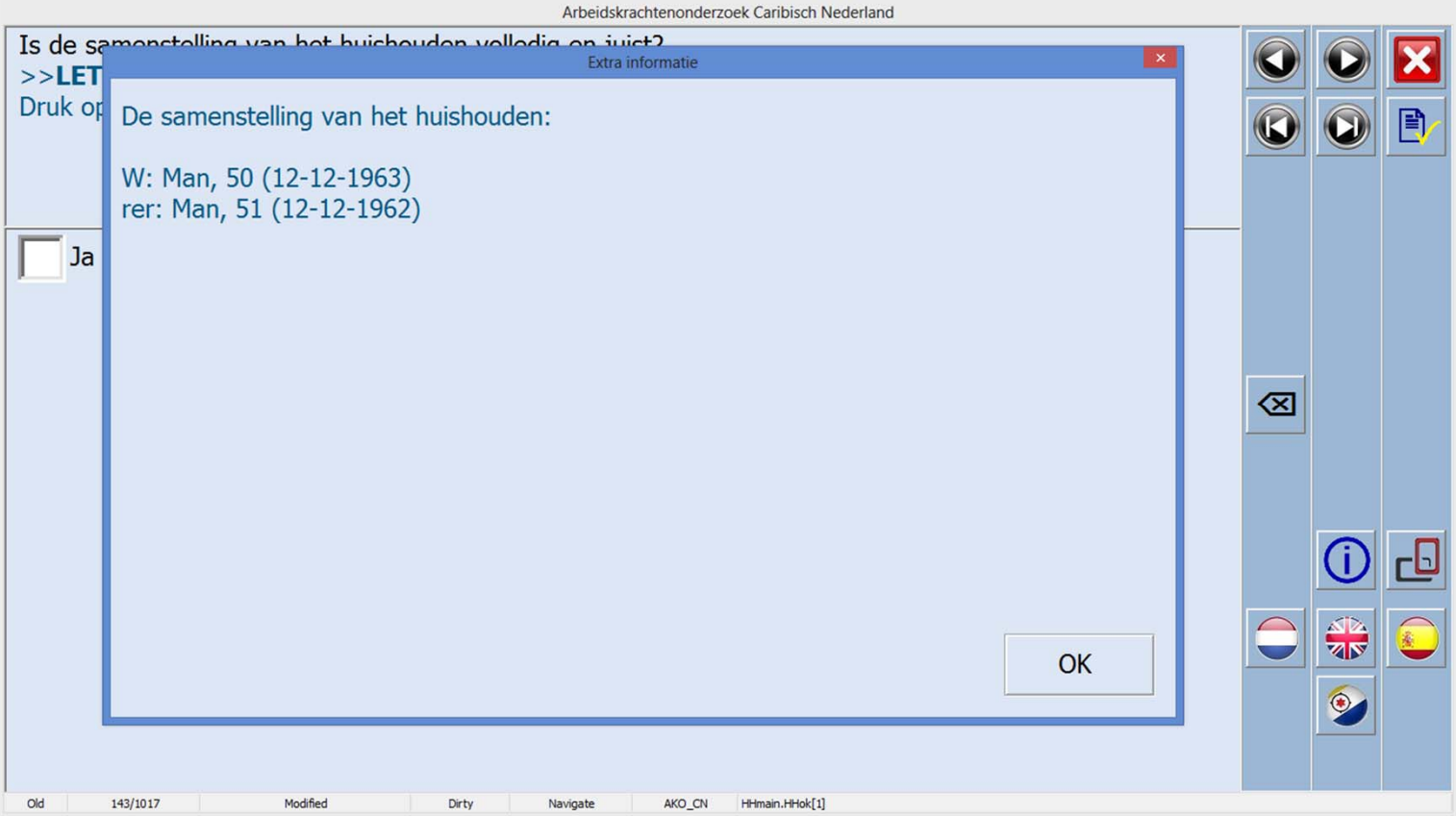


Screen 7: Question on household size



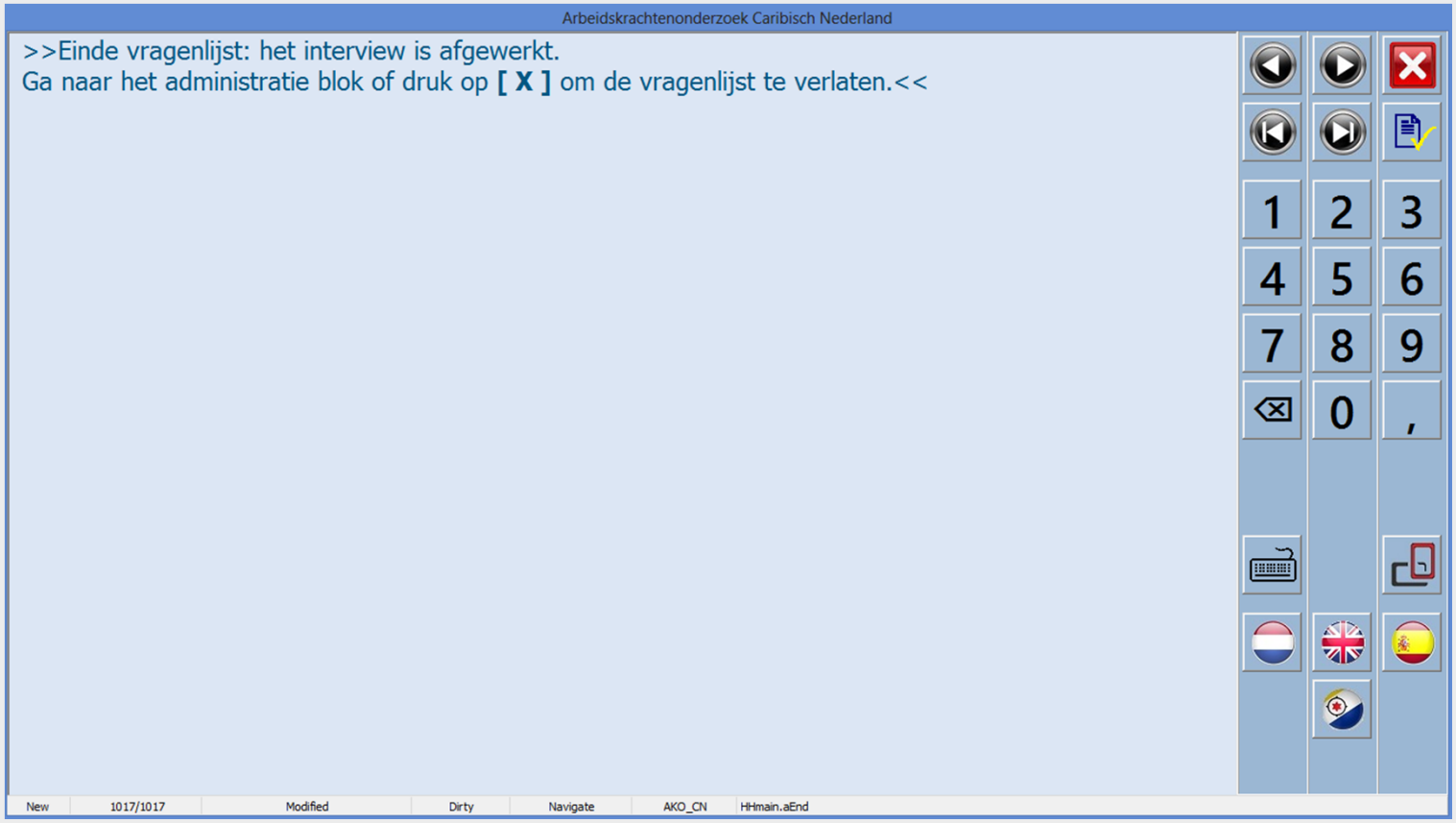
Screen 8: Question on place of birth

Screen 9: Overview of household composition

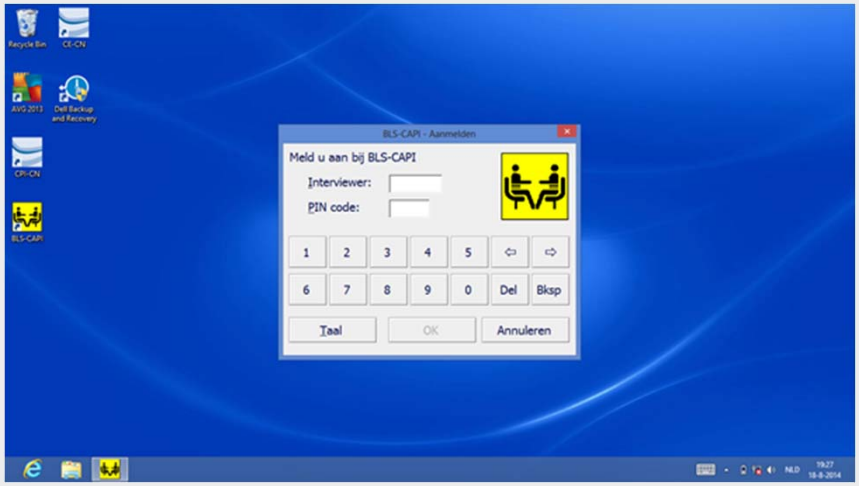


Screen 10: Check if interview is finished

11: Closing screen



The way forward

- End 2014: all data collection in Caribbean NL tablet-based
- Introduction of tablets in Netherlands also considered

…doing more with less…