Agenda

– The ‘Where’:
  - Data Collection Department, Background

– The ‘Why’:
  - Problems, challenges

– The ‘What’:
  - Scope of Phoenix-programme, Principles, Policies, Architecture

– The ‘How’:
  - Programme structure, the way to go

– The ‘Next’:
  - Where to go from now?
The ‘Where’

WHERE?
Data collection department

Data Collection is centralised in a separate department (since 2011)
Organizational structure has changed
...however, systems but also processes are still not harmonized
Some characteristics of the data collection:
- 330 FTE
- 150 surveys (30 person/households; 120 business) resulting in 800 occurrences
- 2,000,000 sample units (ranging from 10 - 160,000)
- > 70% mixed mode surveys
- 14,000,000 contact attempts
- 1,500,000 cawi questionnaires
- 200,000 visits for capi (±200 staff)
- 360,000 phone numbers used for cati (±50 staff)
- 80,000 calls and 40,000 mails handled by contact centre inbound
- 4,000,000 datasets collected
The ‘Why’

WHY?
Problems, challenges

- IT-systems and processes for data collection differed between departments. To optimize data collection harmonization is still required. Processes and systems!

- Existing IT-systems are however outdated and complex (spaghetti). Because of this it is not possible to harmonize as much as desired.

- New developments in IT: e.g. smartphones

- New developments in data collection: response rates decrease, target group differentiation, multi-mode surveys, ...

- And organizational targets: more efficient, less employees, higher educated employees, more commercial perspective, ...
Goals

– Data collection process: future-proof, modern, efficient, flexible;
– Be able to respond to external developments;
– Be able to cope with new survey communication developments;
– Shorter time to market;
– Optimal use of internet mode, selective use of others.
Previous attempts

– Phoenix-programme started in 2015
– Before we did some other attempts to change:
  - With a CRM-tool as a base-platform
    • Data Collection is something different than CRM!
  - With a market research survey tool as a basis
    • Statistical surveys <> market research surveys!

Statistical data collection is really something special!

We also learned not to use one big software tool for the whole business process -> vendor lock-in, not flexible.
Use specialised tools for each type of activity!
The ‘What’

WHAT?
Scope of Phoenix

Before

After

Scope Phoenix
- Development of new data collection processes and systems
- Implement in organization
- Transition of more than 120 surveys
- Connecting statistical processes and systems to new data collection processes and systems
Policies

- Max use of administrative sources
- Cawi first
- No paper questionnaires (only when there is a business case for a survey)
- Standardization of letters, collection strategy, use of units, ...
  but also...be flexible
- IT: use open standards
- Data collection department is the authority in data collection
- ...


Principles for new architecture

- Generic solution for all types of surveys, but specific when necessary
- Clear distinction between survey design, survey execution, planning & control
- Survey execution is design driven
  - Minimize manual activities during survey execution
- Loosely coupled processes and systems
  - Reduce complexity / dependency  -> domains
  - Channels are ‘plug and play’
- Clear borders between data collection and surrounding processes
  - E.g. for delivery of data to editing process, or for receiving prefill data from statistical department
- Channels are own entities
  - Works based on standardized channel assignments (per case)
  - Each channel has his own responsibilities / processes / planning
  - Channels only interact with CaseManagement
  - Only channel (and survey design) is aware of survey instrument
Principles for new architecture

- **Survey Design:**
  - Be flexible (e.g. collection strategy); but also standardize strategies, instruments, metadata etc.
  - Omni-mode design questionnaires – one data model

- **Software**
  - Application does not cross boundary of domain
  - Build our own
  - Only buy specific/specialised components within domain if available
    - *E.g.: Canon-tooling for paper and e-mail channel*
  - Use of Blaise 5 (only in Design domain and Channels)
  - Server based, service based, web based gui
Architecture driven - Domains

Survey design

Sample management

Survey Management

Planning and control

Data access

Inbound management

Management of units and agreements

Case Management

Sampling frames

External sample

Unit base

Portal

Respondent

Supplier of prefill data

Supplier of administrative data

Administrative data
Architecture – Domains

- **Survey design**
  - Planning and control
  - Data access
  - Sample management
  - Management of units and agreements
  - Inbound management
  - Case management

- **Survey Management**
  - Focus on survey
  - Management / monitoring per survey
  - Creating cases / case assignments

- **Case Management**
  - Fully automatically
  - Determining next contact activity (workflow)
  - Personalizing questionnaires / instruments
  - Create channel assignment
  - Report status back to Case Management

- **Survey data access**
  - Boundary / gate between data collection and statistical processes
  - Harmonizing data from different modes
  - Focus on getting response per case
  - Channels: internet, paper, telephone, e-mail, …
  - Data collection and correspondence
  - Planning / assignment of resources (CAPI/ CATI) per case
  - Management / monitoring per case
  - Report status back to Survey Management

- **Sample management**
  - Drawing samples (based on design)
  - Panel management

- **Planning and control**
  - Long term planning and monitoring
  - Long term resourcing
  - Response monitoring
  - Gives assignment to design and execute survey

- **Inbound management**
  - Handling inbound calls, letters, e-mails
  - Making appointments / agreements
  - Needs 360° view of customer history, present and future (if possible)

- **Management of units and agreements**
  - Link to business- and person base
  - Management of deviations
  - E.g. Contact data (address, tel. number, e-mail, …)
  - E.g. Accounting office

- **Data access**
  - Planning and control
  - Design / build / test questionnaires
  - Drawing samples (based on design)
  - Panel management

- **Survey design**
  - Define survey / collection cycle
  - E.g. measurement period
  - Design / build / test questionnaires & other instruments
  - Design data collection strategy
  - Design sample

- **Survey design**
  - Data collection and statistical processes
  - Planning and control
  - Design / build / test questionnaires
  - Drawing samples (based on design)
  - Panel management
List with all collection cycles (ready for execution). In this case: Health survey (Gezo) January 2016.
**Example: Contact Management**

- **Info of unit (i.e., a company)**
- **Name, address info**
- **Info of the survey and collection cycle (i.e., Investment Q1 2016)**
- **Tabs: Case info, activities to do (like resend letter), address info, is unit blocked?, specific agreements, contact info**

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### Contact Management

- **CorrespondentieNummer**: 1111
- **EenheidType**: OG
- **Eenheid naam**: BEKKERING BEHEER B.V.
- **Onderzoek**: INVW
- **Enquête**: INVW2016K01

### Actuele benadergegevens van de eenheid

**Bedrijfsnaam**: BEKKERING BEHEER B.V.

**Naam**: BEKKERING BEHEER B.V.

**Korte naam**: BEKKERING

**Nadere aanduiding**

**Contactpersoon**

- **Aanhef**: < Aanhef >
- **Achternaam**:
- **Voorletters**:
- **Afdeling**:
Types of units

Relation is within the questionnaire

Units are ‘roles’. Each company/person can have more roles. Examples: Within Health Survey the Person has all 4 roles. Within traffic survey: vehicle is sample unit. Owner is collection unit and also contact unit (however accountant could also be contact unit)

For each collection unit per collection cycle there is a Case within CaseManagement. The aim is to get response per Case.

SurveyMan. manages this relation

CaseMan. manages this relation
The ‘How’

HOW?
± 60 people are engaged in programme.
Total budget ± €42 million.
Each domain has a part of the budget allocated.
Scrum way of working

– Development en testing:
  - Scrum: every 3 weeks new sprint
  - Scrum: nowadays every 9 weeks new release
  - One central backlog (list with business and IT needs)
    -> prioritizing per release / sprint
How did we start?

- 2014 Q4, 2015 Q1: architecture, principles
- 2015 Q1: Management days: high level what, how, when, policies
- Mid 2015: start with first development
- We concentrated on the main logistical flow
- Minimum Viable Product of ‘Units and agreements’, ‘Survey- and CaseManagement’ and ‘Blaise 5 cawi channel’
- Need of temporary ‘Survey Design’ (because principle=design driven)
- Integration test by 1-7-2016
- Transition of 3 surveys by end 2016
Mid 2016 - now

– Each release:
  - Minimum viable product of new Domain and/or
  - Additional/changing functionality for ‘existing’ domains

– Transition of surveys:
  - What surveys can transit given the available functionality?
  - No complete redesign of survey; but critical look what should change given the Phoenix principles and new policies

– Implementation in organisation:
  - Work procedures, embedding in organisation
Next?
Current status

- 13 surveys made the transition
- Available functionality:
  - ContactManagement: always 100% ready
  - Survey- and CaseManagement: about 65% ready
  - DataAccess: first version
  - Units and agreements: larger part ready
  - Channels: Blaise cawi, E-mail, Paper (letters + Papi questionnaires)
Coming years

Next steps of development:
- Survey Design including questionnaire design (2017/2018)
- Planning & monitoring
- Secondary data collection

- End of development: end of 2019
  - After that new development = IT/functional maintenance
- End of transition of surveys: end of 2020
- New organizational structure: mid 2018