Towards an enterprise centred approach to data collection and processing

New integrated production system for business statistics
At Statistics Netherlands

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Expert Group on Business Registers, 28-09-2022
Introduction

EBN 2.x

Innovation, co-creation and implementation

Our “Agile program”

Principles

Process

Towards an early warning system

Files per company
Goal: Towards more efficient, more flexible and future proof Business Statistics

**EBN 2.x**

Efficient goal oriented cocreation

Balance on innovation, re use and implementation

New process, way of working and matching tooling

2.x: considered small steps
EBN 2.x

Small team, disciplines:
- Program management
- Business Knowledge
- Methods
- Consistency
- Methodology
- Business Analysis & Architecture
- IT & Architecture
- IT & POCs

Along with:
- POC Working group
- Agile teams
Our “Agile Program”

EBN management & staff

- 4 members of Executive Board
- Division Team
- Other programs
- Sounding Board

- EBN 2.x Team
- Team GO
- Team BD
- Team Generic
- Team MOD
- Team ATC
- Team OV
- Team IH
- Team SD
- Team NR
Innovation, co-creation and implementations

- Innovation:
  - 8 principles
  - Applied methodology
  - The proof of the pudding... is in a Proof of Concept!

- Co-creation with Business and with Agile teams
  - Re-use of best practices
  - As much standardized coherent models & common tools as possible!

- Implementations
  - Small steps instead of a big bang
  - Visible results
  - Immediate feedback contributes to continuous improvements
**Principles**

**Towards realtime processing**
- Realtime automatic input processing, directly to concept output
- Automatic quality measurement, controlling manual interactions
- Data sharing, right from the start

**Towards more coherence**
- Consistency checks as early as possible

**Towards more standardization**
- **Coordinated population backbone as basis for all business statistics**
- Standardized processes, methods, data and IT

**Towards more re use of best practices**
- Modular processes, methods, data and IT

**Continuous improvements**
- Analysis of manual interactions as input for further improvements
**Data sources:** all types

**Business Register**

**Standardizing & linking**

**Collecting**

**Manual micro cleansing and imputation**

**Automatic cleansing and imputation**

**Quality and response analysis**

**Draft output**

**LCU: micro-integration**

**Control of meta and of rules**

**Release**

**Central role of Business Register Unit:** provides statistical units and meta, and standardizes and links secondary data to the statistical units

**Standard modules for capturing** and handling a wide variety of collection modes (primary and secondary including big data, webscraping, etc)

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**Validation**

**Data requirements**

**Reference metadata**

**SDC**

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## Business Proces Model of the integrated cross-domain production system

**To-be dreamstate**

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**Dissemination**

**EU aggregation**

**Transmission**

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**Data abstraction layer**

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Towards an Early Warning System (EWS)

- Objective: gather timely information on (possible) large events of smaller companies
- Information from e.g. online newssites and commercial databrokers already gathered by SN Library
- Automated processing using Natural Language Processing and Data science techniques to detect company names and link them to the BR
Chipmachinemaker n kop in afwachtende AEK

Ji...dag de sterkste stijger in de AEX-index met een winst van 2,7 procent. De chipmachinemaker profiteerde van de...

Omzet grote chipeverancier Apple met 50 procent omhoog in juli

Het Taiwanes... grootste chipfabrikant ter wereld, heeft in juli de omzet met bijna 50 procent zien stijgen, geholpen...

Fotonica: geboorte van een nieuwe Nederlandse techreus

Innovatiebeleid De Nederlandse overheid reserveert een half miljard euro voor de ontwikkeling van een nieuwe chipindustrie: fotonica, halfgeleiders die zelf...

eToro: Nederlandse chipsector recessiebestendig

27 juli 2022 Technologie Geschreven door eToro's marktanalist Jean-Paul van Oudheusden De eerste helft van het jaar was geen feest...
Files per company

EWS
SBR

Events

Stat #1
Stat #2

(Para)data

Rules

User Interface

Coordination database

User #1
User #2
User #..

Decisions and comments

Signals