

Court of Audit



KOEN VAN DER BRACHT

DATALAB

- Why DataLab?
- What does DataLab do?
- What are the advantages of DataLab?

WHY DATALAB?

- Strategy of the Court
  - Increase use of data
  - Data specialists part of audit teams
- No knowledge sharing, no consultation
- Solution: DataLab

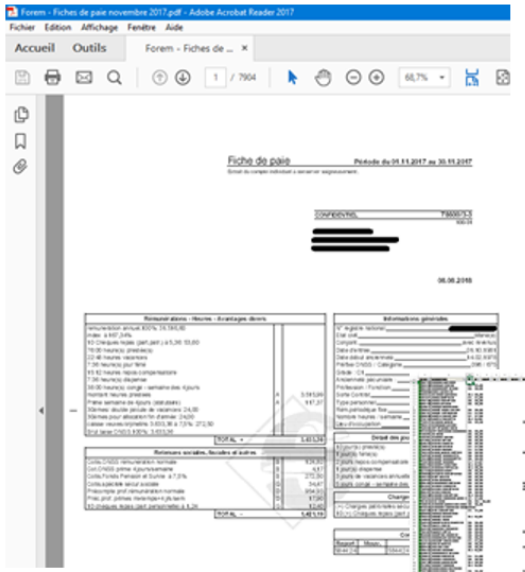
WHAT IS DATALAB?

- Bottom-up group
- ± 15 specialists across the Court (Financial and Performance)
- Monthly meetings
- Two goals
  1. Internal, for the specialists
  2. External, for colleagues less fluent in data

INTERNAL: FOR THE SPECIALISTS

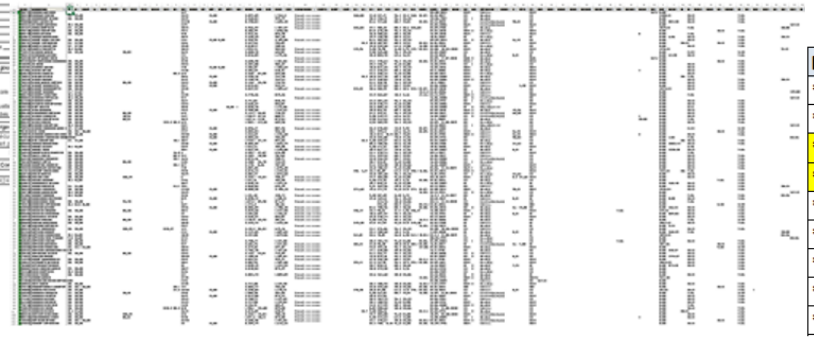
- Ask advice
- Specialised trainings
- Discuss: what do we need?
- Develop a data analysis strategy

SHOWCASE: SPECIALIST WORK



7.904 pages en PDF

208 colonnes x 4.697 ligne



Contexte	Audit de la situation administrative et pécuniaire des agents du Forem
Cas d'utilisation	Webscraping
Logiciels utilisés	Python + BeautifulSoup

EXCEL PDF WEB RATIO

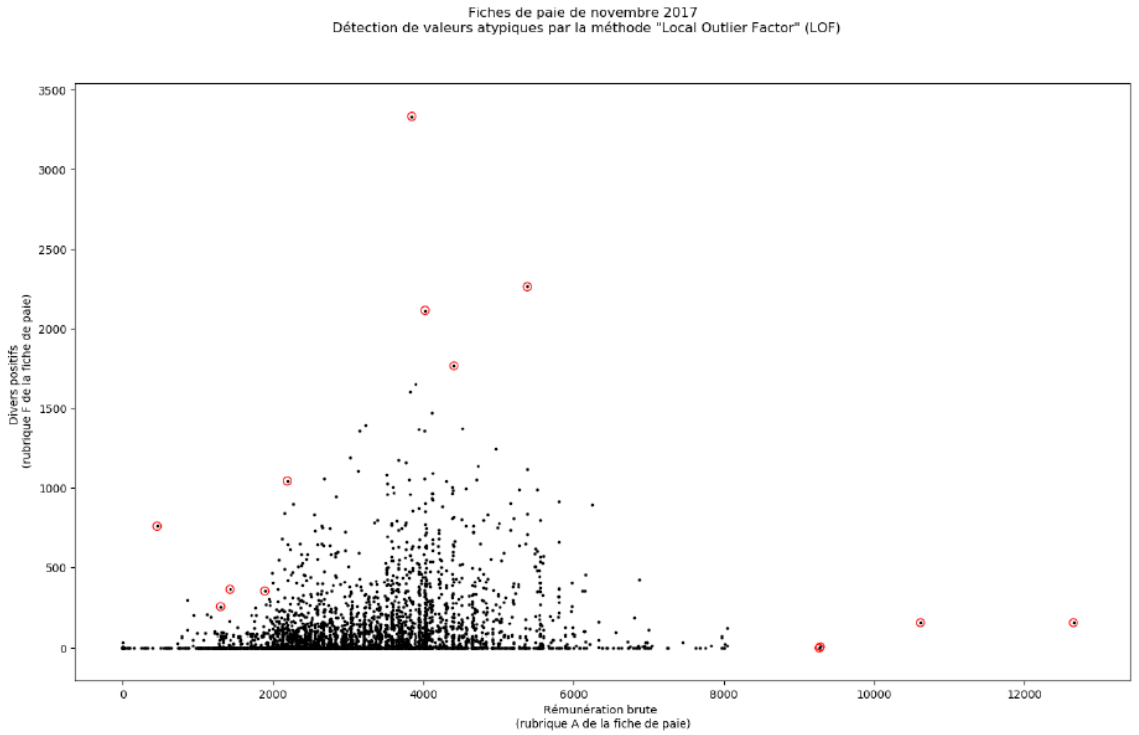
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**********	**********	**********	Baulers	Nivelles	2,39	18	95,40	39,92
**********	**********	**********	Glain	Liège	2,28	17	73,50	32,24
**********	**********	**********	Glain	Liège	2,28	17	37,50	16,45
**********	**********	**********	Luingne	Mouscron	2,17	19	27,20	12,53
**********	**********	**********	Ougrée	Grâce-Hollogne	6,09	18	73,40	12,05
**********	**********	**********	Maisières	Mons	3,91	18	46,45	11,88
**********	**********	**********	Houtaing	Tournai	20,96	16	235,46	11,23
**********	**********	**********	Musson	Virton	12,50	15	137,60	11,01

PDF -> DATA

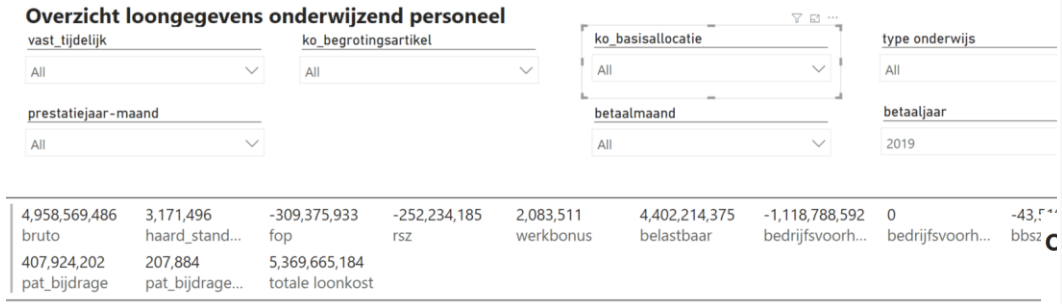
WEB SCRAPING -> DATA

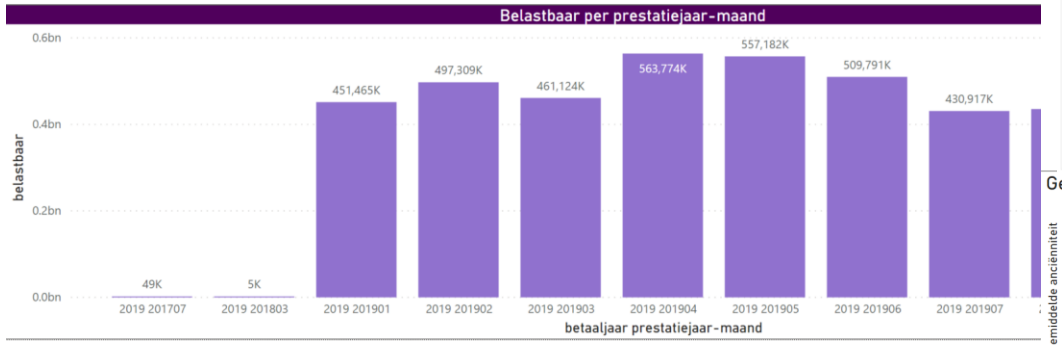
SHOWCASE: SPECIALIST WORK (2)

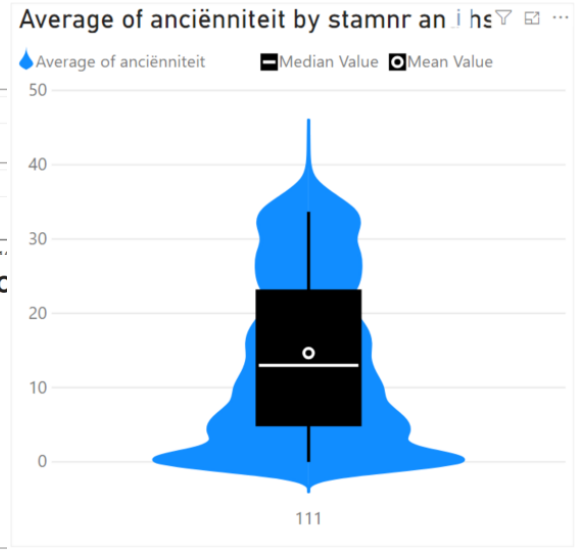
Contexte	**Audit de la situation administrative et pécuniaire des agents du Forem**
Cas d'utilisation	Détection automatique de combinaisons de valeurs atypiques dans les fiches de paie
Logiciels utilisés	Python + Scikit-learn

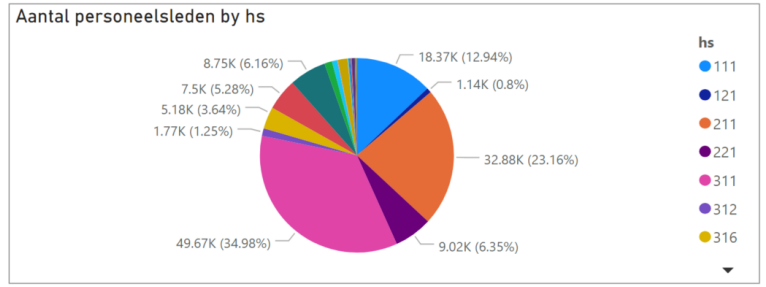


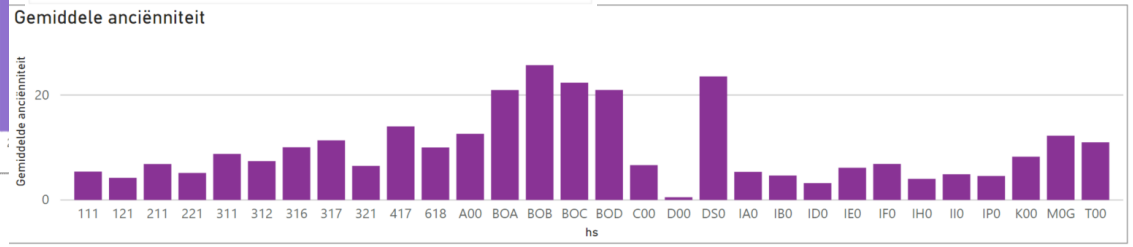
SHOWCASE: SPECIALIST WORK (3)

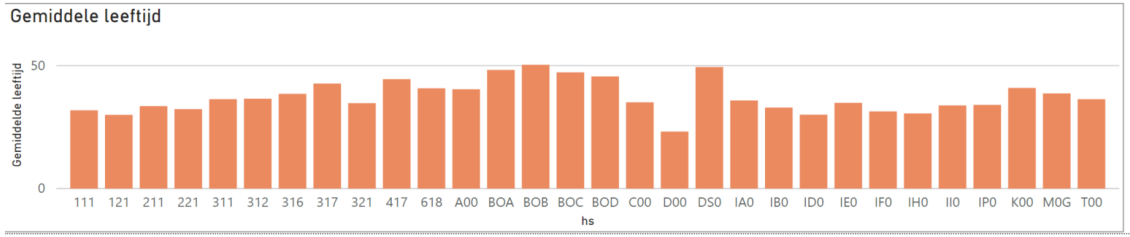












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SHOWCASE: SPECIALIST WORK (4)

- Effect studies
  - Multilevel analyses: equal opportunities in elementary schools
  - Longitudinal analyses: effect of job-training on employment
  - Linking data: effect of service and assistance to delinquents

- To do
  - Process mining
  - Maps and spatial analyses
  - …

EXTERNAL: FOR NON-SPECIALISTS

- Helpline
- Advice, guidance
- Assistance with basic tasks
- Performance of advanced analyses
- Provide trainings

ACCOMPLISHMENTS AND THE WAY FORWARD

- Initiated
  - Training (internal and external)
  - Provided advice, guidance and assistance to non-specialists
  - Hardware strategy: shared high-performance computers
  - Developed five-year strategic plan

- To do
  - Develop software strategy
  - Lobby for visualization
  - Increase visibility of DataLab as go-to group for all things data

CONCLUSIONS

- Major advantages
  - Developing strategy
  - Speak with one voice
  - Knowledge sharing
  - Guidance of colleagues

- Makes difference for
  - Specialists
  - Non-specialists
  - Quality of audits

Court of Audit

DATALAB

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