## Title of the tool in English (Title in original language)

Social Inspection Services Anti-Fraud Organization (OASIS)

## Country / geographical coverage

Belgium

## Type of tool

Online tool: Electronic system, Register, Database, Service

## Scope of the tool

Nationwide tool

## Short description

### Key objectives and intended use (content, membership, topic coverage)

OASIS is a data warehouse, which aims to enable social inspection services to conduct objective-oriented inspections and perform analyses on data from different social security sectors with the overall objective of detecting and analysing cases of fraud. It was set up in 2001 in the framework of a common anti-fraud project implemented by federal government ministries and national offices in Belgium. It has since then been further expanded to include new datasets and to link to other databases, covering employers and workers in Belgium, posted workers, tax records, land and audit records, etc. It has become the focus of big-data modelling projects, which have aimed to automate the tackling of social security fraud in order to serve as a mechanism against undeclared work. The stored data is supplied through the information channels of the Crossroads Bank for Social Security (Kruispuntbank van de Sociale Zekerheid, KSZ), a public body which elaborates the e-government strategy within the Belgian social sector and co-ordinates the implementation of the e-government projects in that sector.

### How the tool operates in practice - key practical takeaways for other Platform members

The OASIS system examines incoming anonymous data against different fraud scenarios in order to detect cases of fraudulent behaviour at the earliest possible stage and thus tackle undeclared work. The system receives information from nine different data sources and produces 23 reports alerting about potential fraudulent conduct. The public sources from which it draws its information include DMFA (Multifunctional Declaration) with data on the workers’ wages and working hours; DIMONA (Immediate Declaration), provides the start and ending dates of any employment; Register of Building Sites and Sub-Contractors; Register of Employers; Register of Accounts and Recoveries; Unemployment Register; Quarterly VAT declarations; VAT clients and contractors listings, and the database of temporary unemployment. OASIS does not combine all available data from public sources, but only draws on a number of indicative, partial data.

OASIS works with warning indicators, which indicate situations such as:
- an increase in turnover, but a decline in the number of employees of a company;
- a reduction of registered personnel below a certain threshold;
- labour turnover (labour market entries and departures) above the industry average level;
- large differences in the total wage sum and the number of employees in a company compared with the employer’s previous employment declaration.

Based on pre-defined fraud scenarios, and the warning indicators, companies are ranked according to their fraud risk, allowing inspection services to better target their work. The detection and analysis of fraud scenarios does not require the use of individualised personal data. The privacy law(s) consequently require all personal data provided to OASIS to be in coded form. In the event of OASIS having a strong suspicion of fraudulent behaviour in a company, social inspectors can obtain access to the full data concerning the employer’s staff. In such cases, the national identification number (NISS) is used to identify individuals. The OASIS-driven fraud detection has proven very effective with all tested known cases of fraud raising red flags within the system of indicators.

The OASIS data warehouse has become a key e-government and big-data modelling focus. For example, in 2011 the Federal Public Service Social Security started the implementation of the Data Mentalist project to create a data mining assistant for social fraud detection. The core idea of the Data Mentalist is to become a dynamic, self-sustaining instrument for detecting social fraud by feeding in data from inspections into the database fraud scenarios, which then produces more sophisticated risk rankings. The internal audit service of the National Employment Office (ONEM/RVA) has also started a strategic project to spread the use of OASIS indicators to all unemployment offices in the country. This initiative is intended to support a more focused approach by the unemployment office control teams to curtail social benefit fraud.

### Background

- **Authorities/bodies/organisations involved in its elaboration**
  - Federal Ministry of Employment
  - Labour and Social Dialogue
  - Federal Ministry of Social Security
  - National Office for Social Security
  - National Employment Office
  - Social security sector institutions

- **Targeted groups or institutions**
  - Social security sector institutions

- **Start date and duration**
  - 2001, ongoing

- **Short assessment of transferability potential in the EU**
  - OASIS is a big data solution, which could be transferred to other national contexts, provided the respective e-government capabilities are in place. The key issues to consider are how to ensure the anonymous handling of data and the compatibility of the different incorporated databases. It requires long-term planning and sophisticated database, coding, and modelling expertise. The costs of the initial setting up of the database have been assessed at above €5 million.
| Sources (provide links if available online) | https://www.ksz-bcss.fgov.be/en  
| Metadata and key words for online search | database, data storage, big data modelling, social security, anti-fraud, Belgium, deterrence, data matching, data mining, data sharing |