# Provenance and Compliance

##### Session 2.1 (SEMANTiCS)

#### Time: Thursday, September 21, 2023 - 16:45 to 18:00

#### Chair: Daniel Garijo, Distinguished Researcher, Universidad Politécnica de Madrid

## **Talks**

### How the Dutch Police deals with context - enforcing compliance while processing ontological data

The compliant handling and processing of data by the Dutch National Police is a fundamental requirement for their successful operation. Not only is this required by law, but incorrect processing of data will severely hinder investigation of criminal behaviour, such as the misinterpretation and/or misuse of the available data. The Dutch Police maintains a set of ontologies that can be utilized across the entire police organization. Although this mitigates some of the risks, it is not enough. The true meaning of data is not only dictated by its reference to the ontology, but also its context: at what time, by whom, for what purpose, during what activity. We present "het verwerkingsmodel" ("Data Processing Pattern" in English) that enables us to keep track of data provenance and context in a standardized way. We will demonstrate its practical application at the Dutch Police and discuss how it could be used as a general pattern for any linked data application in which data provenance is important.

| Paul BrandtPolitie Nederland[Affiliation page](https://www.politie.nl/en) | Hans Stolk |
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### How to manage regulatory policies with knowledge graphs to mitigate compliance risks

In this talk we will describe our experience working with a major financial institution to improve their compliance risk management. As part of this effort, we have:

1. modeled policies and regulations
2. captured risk indicators for regulatory compliance
3. cataloged data and technology assets
4. automated mapping of risk indicators to data elements and
5. were able to infer role of data elements in compliance risk assessment.

Managing regulations and policies in knowledge graphs enabled the firm more effectively and accurately identify data elements containing data needed to be assessed for compliance. This repeatable and scalable approach resulted in mitigating regulatory compliance risks.

| David PriceSenior Semantic Solution Architect, TopQuadrant | David Price has 30 years experience in software and engineering data management as an IBM Senior Software Engineer, Eurostep Principle Consultant and now as a Senior Semantic Solution Architect at TopQuadrant. David has experience in creating and applying standards to government and industry problems in the computing, oil and gas, aerospace, defense and pharma industries. |
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