With his research, Han van der Aa makes it easier for organizations to ensure that their employees have access to the right information on their business processes. This information is crucial to the proper and efficient execution of all sorts of activities, such as the assessment of mortgage applications, manufacturing of goods, as well as the treatment of patients. A major challenge here is that information related to a single process is often spread out over various models, documents, and systems. This fragmentation can have disastrous consequences for an organization’s operations. It can, for example, lead to delays, wastes of money, and even violations of rules and laws.

Van der Aa tackles these problems with algorithms that can automatically compare process information stemming from various sources. These techniques, among others, enable the detection of contradictions between the sources and improve the ability of organizations to monitor their compliance to rules and regulations. The algorithms developed by Van der Aa build on techniques for artificial intelligence, such as machine learning and natural language processing. Furthermore, they use dedicated methods for process analysis, such as process mining techniques.