

## *Marcel Boumans*

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# *Shaping the Phenomena*

Although (social) phenomena, e.g. the business cycle, are not directly observable, we assume they have a shape inferred from data about it. The topology of assumed shape is actually used to make sense of the data. It regularizes the inference of the data, the regression, by finding an optimal balance between fit to the data and regularity (as characteristic of the phenomenon). This talk will explore the ontological legitimation of both principles.

**Marcel Boumans** is historian and philosopher of science at Utrecht University. His main research focus is on understanding empirical research practices in economics from a philosophy of science-in-practice perspective. He is particularly interested in the practices of measurement and modelling and the role of mathematics in social science. The first step in these practices is to make sense of the available data. Visualizations play an important role in this. His current research project 'Vision and Visualization' focuses on how phenomena are shaped.