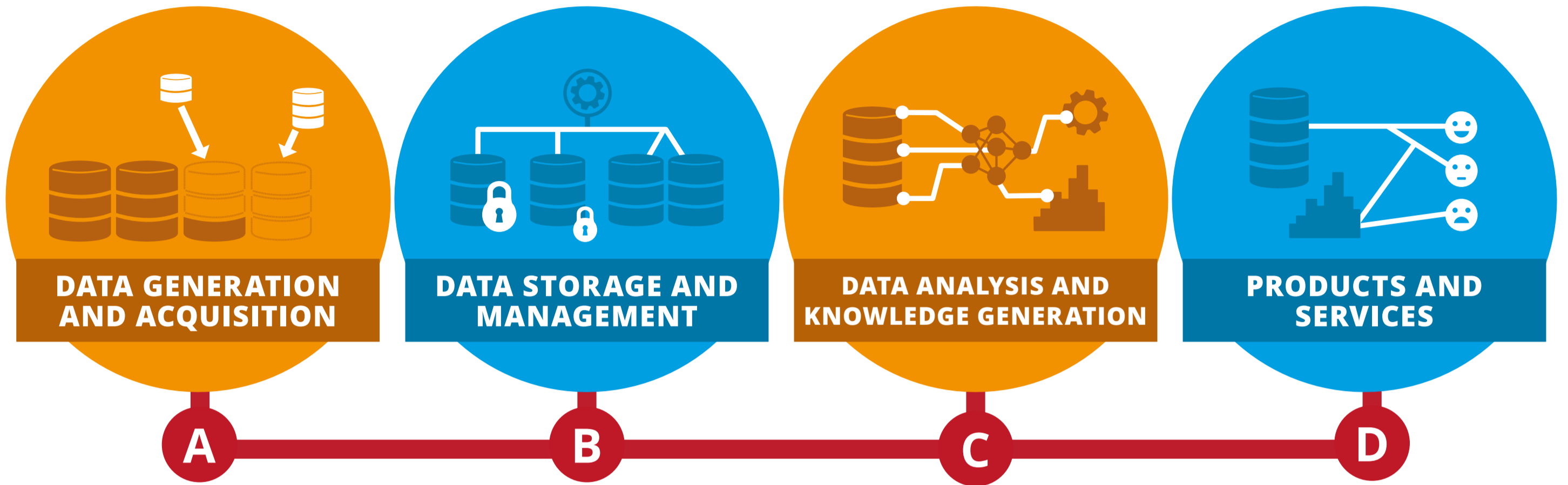




CODE OF ETHICS

for Data-Based Value Creation



The "Code of Ethics for Data-Based Value Creation" is aimed at companies and organizations that offer services or products based on data. Its purpose is to systematically address the ethical issues that arise in the creation or use of such products and services. To this end, concrete recommendations are made, based on three ethical and three procedural values and structured by the four main steps of the data life cycle. This overview shows the basic structure of the Code of Ethics.

- A** The result of step 1 is digitised data (factual data or personal data).
- B** The result of step 2 is a database including access rules and appropriate security mechanisms.
- C** The result of step 3 is a data product that enables data-based value creation.
- D** The result of step 4 is the impact of a data product on the real world outside the company.

BASIC ETHICAL ORIENTATIONS

The Code is based on three basic ethical orientations. These stand for values that regularly occur in the debate on data-based value creation. The goal of these basic orientations is to build and maintain trust in data-based products and services. Conflicts of objectives can arise, i.e. the realization of one value can limit the pursuit of other values.

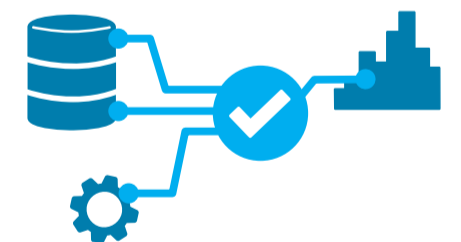
PROCEDURAL VALUES

Three procedural values form links between the basic ethical orientations and the concrete recommendations of the Code. The procedural values do not deal with the question of what should be done ethically, but how to achieve these goals. They are an expression of common principles for ensuring the quality of products as well as services and controlling corporate risks.



HARM AVOIDANCE
Do not harm individuals and communities. This basic orientation includes the values protection (e.g. against data loss), security (e.g. of data against hackers) and sustainability (i.e. minimising negative effects on the environment).

CONTROL
Ensure that the internal processes surrounding the handling of data are well defined and controllable. This includes the need to create appropriate knowledge of the processes so that control can be effective.



JUSTICE
Distribute benefits and burdens fairly. This basic orientation includes the values of equality (e.g. protection against discrimination), fairness (e.g. consideration for the collection of customer data) and solidarity (e.g. by making data available for public use).

TRANSPARENCY
Document and communicate what happens to data and how it is done. The focus of transparency is both the customer and, for example, an auditor; the concrete requirements for transparency differ according to these target groups.



AUTONOMY
Enable individuals and communities to act in a self-determined manner. This basic orientation includes the values of freedom (e.g. freedom of choice), privacy (e.g. by not collecting certain data) and dignity (e.g. by an information practice that takes customers seriously).

ACCOUNTABILITY
Define clear responsibilities for the handling of data and take responsibility in case of rule violations. In particular, this is intended to counteract the tendency for responsibilities to become blurred and unclear in the course of the digitisation of processes.

