The Use of Predictive Modelling in Customer Relationship Management

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Agenda

1. Why predictive modelling in Customer Relationship Management?
2. How to predict customer behaviour?
3. What works and what does not work?
4. What is it good for?

What is Customer Relationship Management and Predictive Modelling?

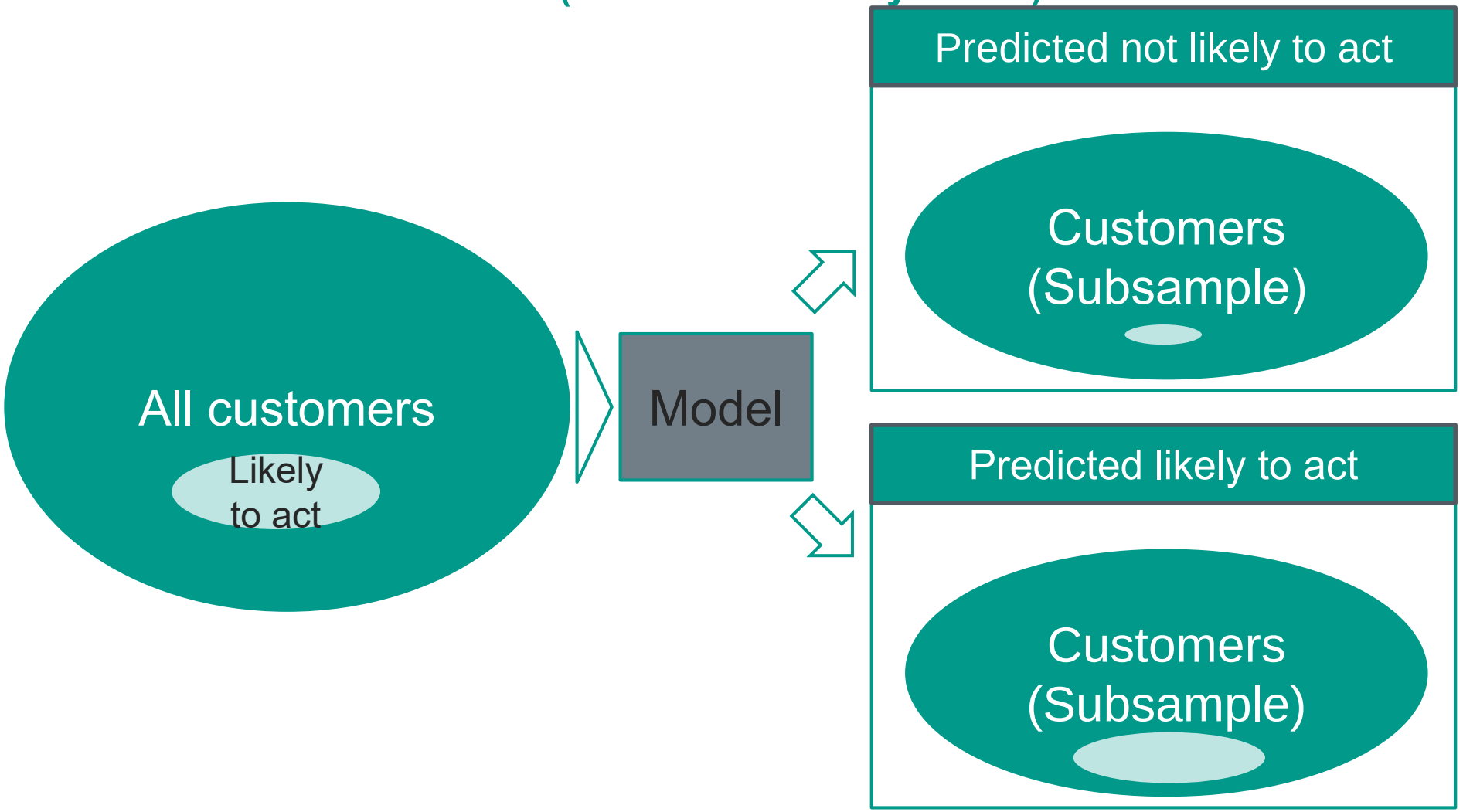
- Customer relationship management (CRM) is an approach to manage a company's interaction with current and potential customers. It uses data analysis about customers' history with a company to improve business relationships with customers, specifically focusing on customer retention and ultimately driving sales growth. (https://en.wikipedia.org/wiki/Customer_relationship_management)

- Predictive modelling uses statistics to predict outcomes. Most often the event one wants to predict is in the future, but predictive modelling can be applied to any type of unknown event, regardless of when it occurred. (https://en.wikipedia.org/wiki/Predictive_modelling)

→ Predictive modelling in CRM can be used to predict future customers' behaviour (e.g. contract termination / churn, purchases) based on historical customer data.

What shall be predicted?

Goal: Identification of customers who are likely to buy a product or to terminate the contract (i.e. who are likely to act).



What do we know about our customers?

Basic and contact data

- Basic data: Gender/form of address, postal address, title (if any), age, municipality, …
- Contact data: Frequency of contacts, complaints, questions, …

Contract data

- Number of products, frequency of purchases, date of last purchase, time since last purchase, number of contract prolongations, duration of customer relationship, …

Revenue and payment data

- Average value of a purchase, value range of purchases, monthly revenues, payment defaults, basic fee, usage dependent fee, …

Do we know more about our customers?

Neighbourhood effects

- Does a customer live in an area where there are many payment defaults?
- Does a customer live in an area where there are ordered many high value products?
- …

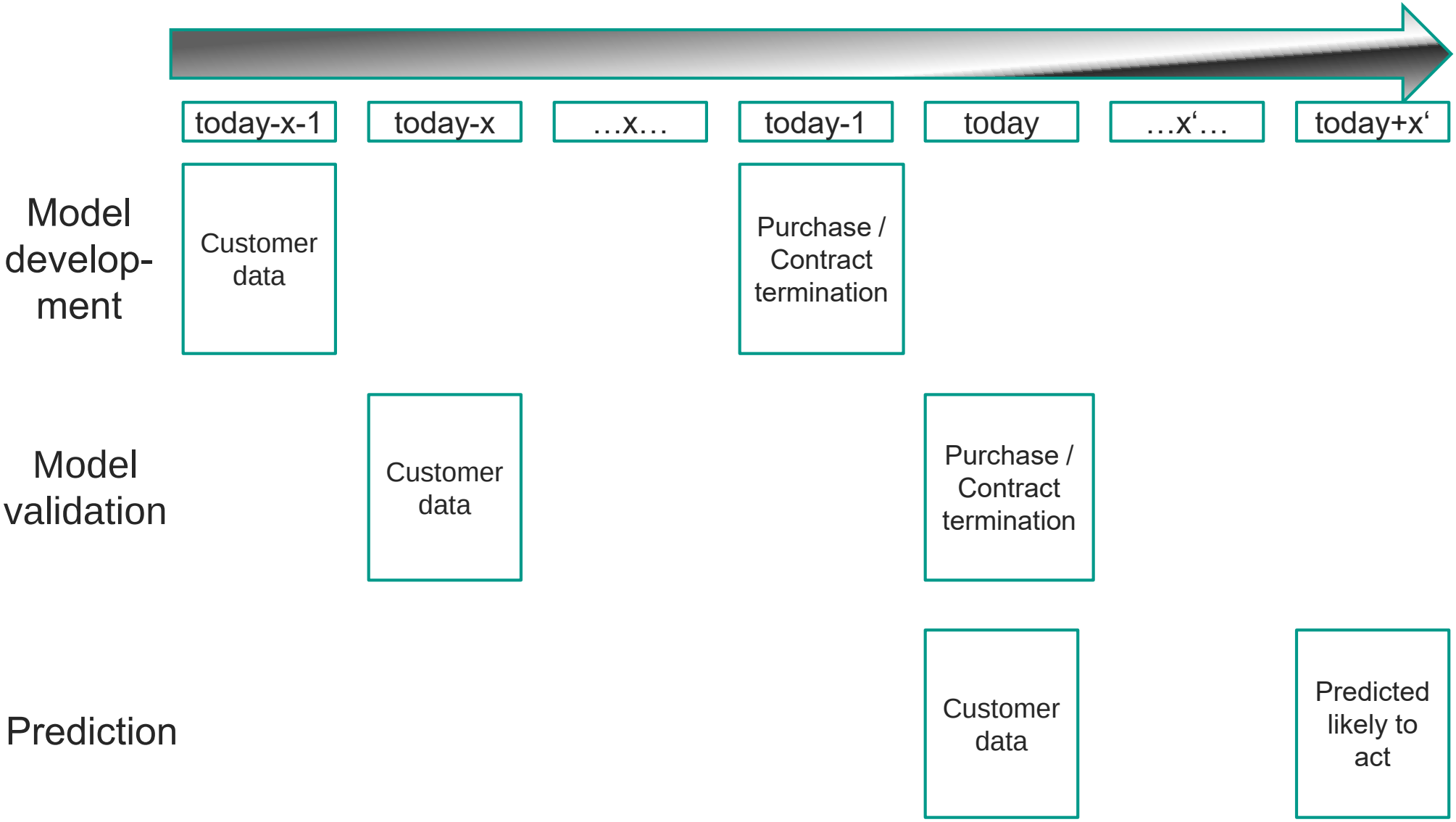
Contacts and products

- Are there many complaints of customers with high value products?
- Do longtime customers have lower service needs?
- …

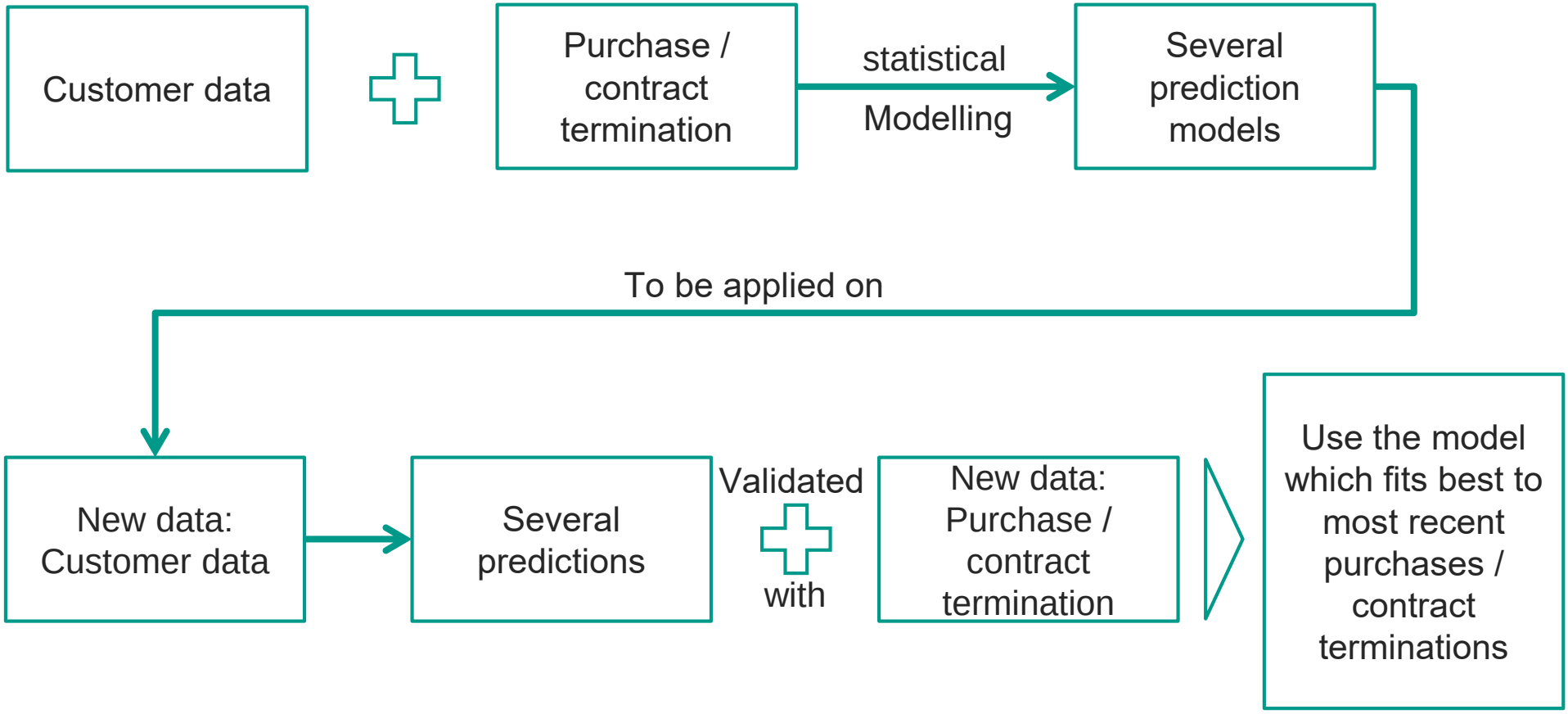
External data

- There are many data available on a regional basis such as purchasing power, income, inhabitant structure of an area, …

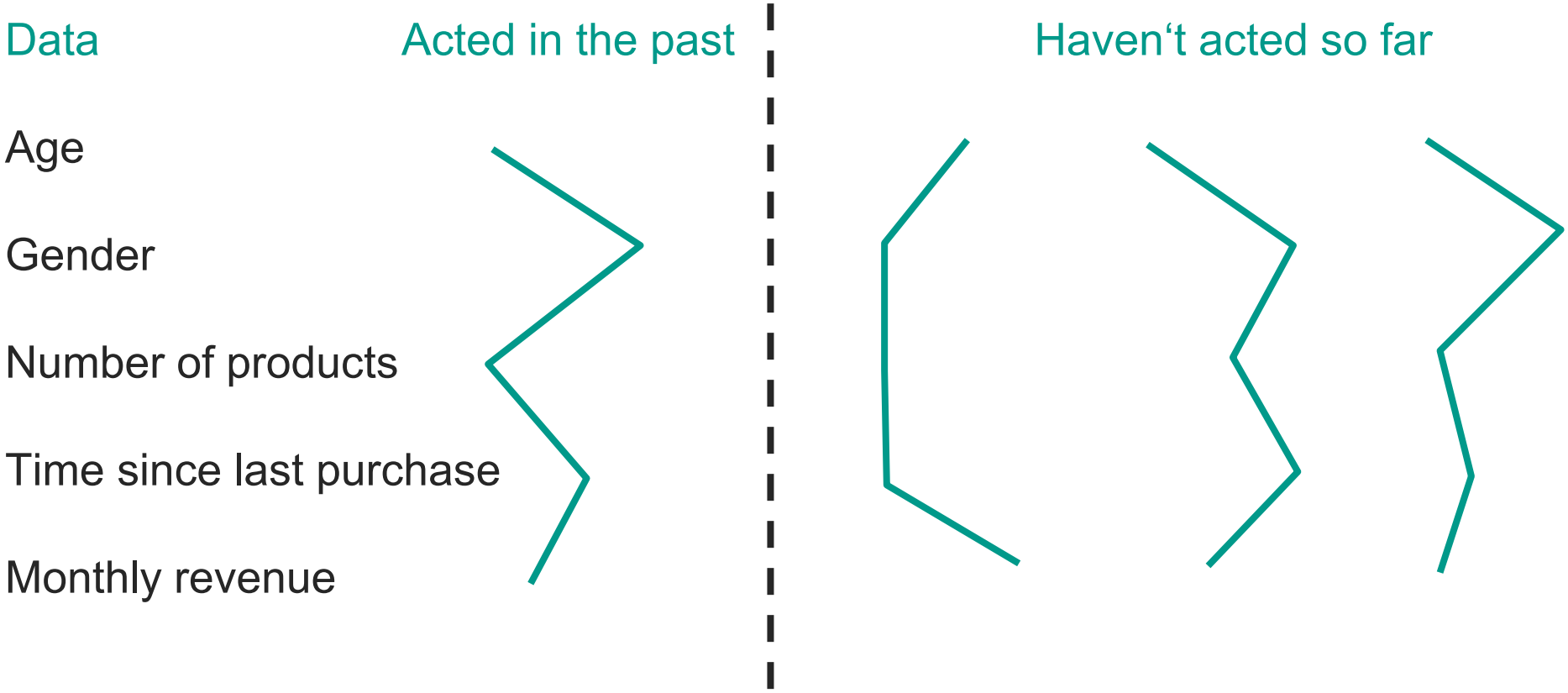
How to include different periods of time?



How does the modelling process work?



The basic idea is to find some customers who are similar to customers who already bought a product or terminated their contract, based on actual customer data.



Is it possible to exactly predict which customer will act and which will not?

No! But it is possible to find a customer group which contains much more customers who will act compared to a completely random customer group.

Do I at least get all customers who will act?

No! Customers willing to act who are not similar to buyers or contract terminators in the past cannot be predicted.

So what is it good for?