

# HOW BIG DATA ANALYTICS IS CHANGING THE REAL ESTATE INDUSTRY

## DATA MINING AND ALGORITHMS

TODAY

2025

100 exabytes

**BIG DATA**  
What data?  
· Economic data  
· Company data  
· Market data

1 zettabyte

Data mining using automated algorithms

Sentiment analyses

**SMART DATA**  
What data?  
eg : Market reports  
Support during decision-making  
Risk analyses  
Forecasts

Predictive analytics  
Cognitive computing  
AI

Information searches and data gathering

Smart / Small data

Unstructured sea of data

Big data queries

Smart / Small data

Big data application

80% Data gathering

20% Data gathering

20% Data analysis

80% Data analysis

- Research
- Ad-hoc queries
- Forecasts
- Evaluation of decision-relevant market information
- Market reports
- Analyses

- More accurate forecasts / predictions
- Identification of complex relationships
- Market reports
- Analyses
- Working with probabilities
- Automatic statistician

## POTENTIAL OF BIG DATA IN THE REAL ESTATE SECTOR

### BUILDINGS

Huge volumes of technical data are analyzed in real time. Owners can modify buildings to enhance efficiency that will reduce operational costs.

### SERVICES

Transparent customer profiles ensure providing better fit, high quality and personalized offers for clients which they can't resist.

### MARKET

Big data strategies can produce financial, investment and market insights that help with assessing risks and making decisions.

However, big data does not have the same impact on every field and business division in the real estate sector.

## HOW STRONGLY WILL IT IMPACT DIFFERENT REAL-ESTATE FIELDS & BUSINESS DIVISIONS



Major Impact



Medium Impact



No Impact

- Transaction Consulting
- Property Investment
- Building Management

- Fund Management
- Property Finance
- Project Development / Implementation

## IMPACT OF BIG DATA ON RESEARCH/MARKET ANALYSES

36.4% Research will become more important as a result of big data

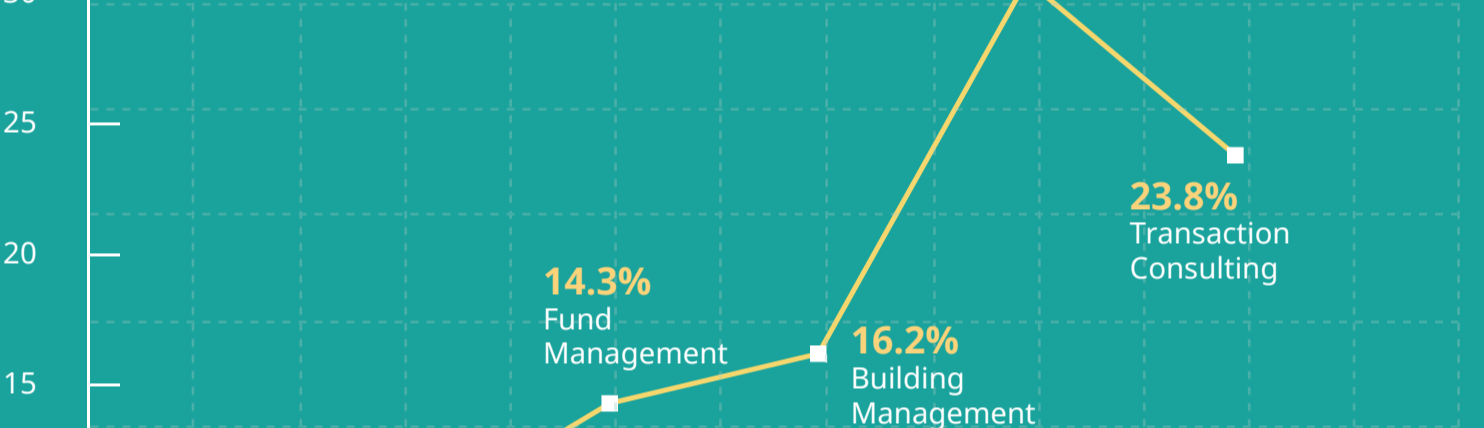
21.5% Researchers can use big data to supplement their work



41.2% Quality will improve in the research sector and the work of researchers (output at work : 80% analysis, 20% data gathering; more accurate statements about future developments in the real estate market)

0.9% Big Data will make research redundant as a market segment

## REAL ESTATE INDUSTRY SECTOR THAT WILL UNDERGO THE GREATEST CHANGES DUE TO BIG DATA

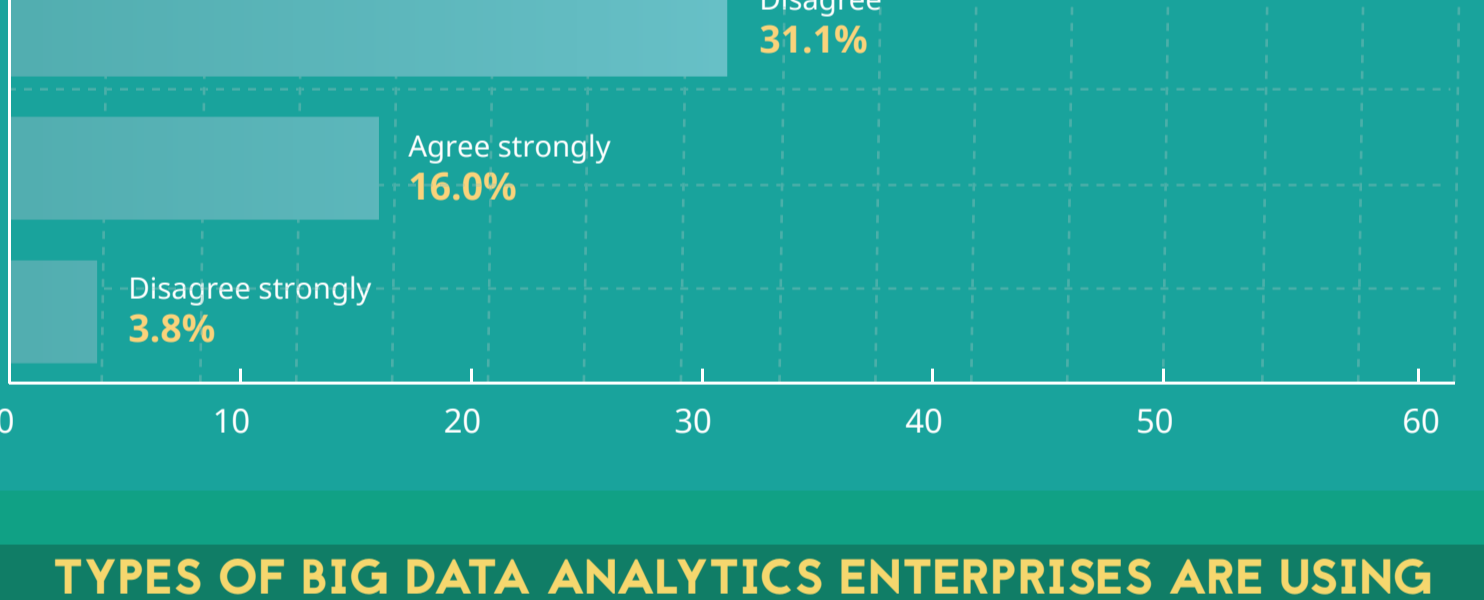


## THE OVERALL IMPACT BIG DATA CAN HAVE ON THE REAL ESTATE SECTOR

- 67% - Big data brings transparency to the markets
- 59% - Big data helps minimize risks
- 51% - Enhanced standardization across the real estate
- 49% - Positive contribution to investment decisions

- 48% - Enhance risk adjusted investment decision making
- 19% - Gathers automated KPIs such as take-up and investment volumes
- 6% - Management has less autonomy when making decisions
- 5% - Cannot see big data having any impact on the real estate sector

## WILL MORE DATA LEAD TO MORE STABILITY ON MARKETS ?



## TYPES OF BIG DATA ANALYTICS ENTERPRISES ARE USING



## WHY SHOULD INVESTORS CARE ABOUT REAL ESTATE ANALYTICS?

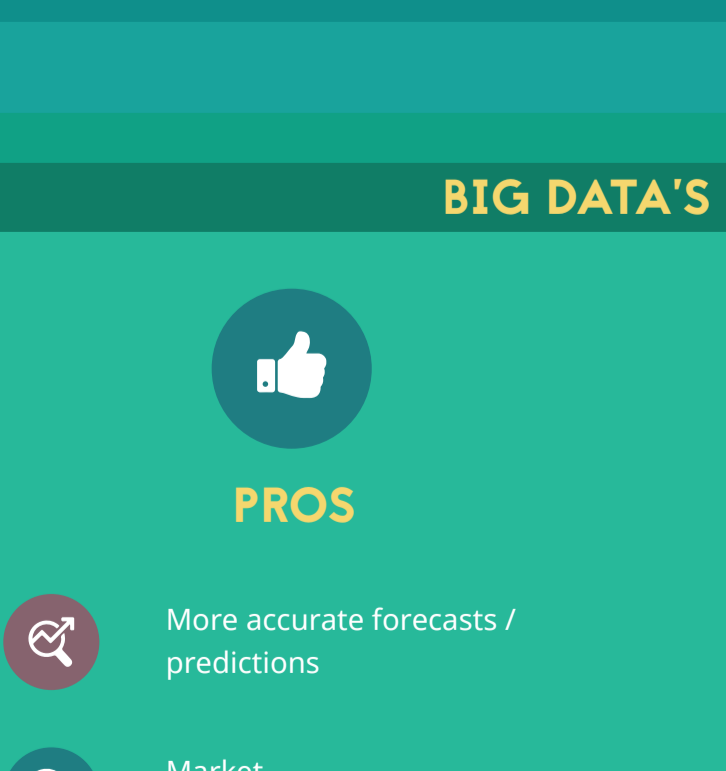
Top Opinions of the survey participants on why should investors adopt Big Data Analytics :

- 71% - It improves / supports decision-making processes
- 62% - Improves transparency of real estate markets
- 39.8% - Helps predictive analytics (using historical data to forecast/ identify trends)
- 52.8% - Minimizes risk
- 32% - Optimizes property investment models
- 25% - Provides accurate property evaluation
- 22% - Improves communication for market participants
- 5.5% - Other

## WHAT DOES PREDICTIVE DATA TELL A REAL ESTATE INVESTOR?



## KEY BIG DATA APPLICATIONS FOR BANKS, REAL ESTATE INVESTMENT TRUSTS (REITS) & BUYERS



## BIG DATA'S PROS & CONS

### PROS

- More accurate forecasts / predictions
- Market Transparency
- Identifying previously unknown potential
- Faster and more comprehensive analyses
- Faster reactions by management
- Improved customer service

### CONS

- Big data doesnot have the same importance at all companies
- More expensive to harness
- Privacy and data protection : who is allowed to use the data?
- Swarm stupidity ? -> "Perceived connections" ?