# High Technologies and Media Business Models:
Current discussion on implications of high technologies on business models.
Investments of media corporations in high technology start-ups.

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Is it possible to identify and classify structures in the adoption of primarily high technologies for media business models and to evaluate them with regard to theories of technology diffusion?

**(1) Which technologies are currently being discussed in scientific as well as in business practice?**

**(2) Which technologies are media companies currently investing in (understood as investments or acquisitions in start-ups.)?**

- Mixed Method Approach (mix of qualitative and quantitative research)

- **What is being discussed?** Content Analysis:
  (a) relevant scientific journals,
  (b) studies carried out and/or commissioned by companies,
  (c) conference speeches by relevant professionals

- A total of **199 documents** (journal articles, studies, lectures) were recorded and analysed.

- **How is action taken in practice?** Evaluation of the investments of the largest German media companies and their investment organizations/units with regard to target technologies and target industries

- A total of **226 Investments** were identified and analysed.

- Selection and systematization of technologies is based on the **Gartner Hype Cycle of Emerging Technologies** (Gartner Inc. 2017).
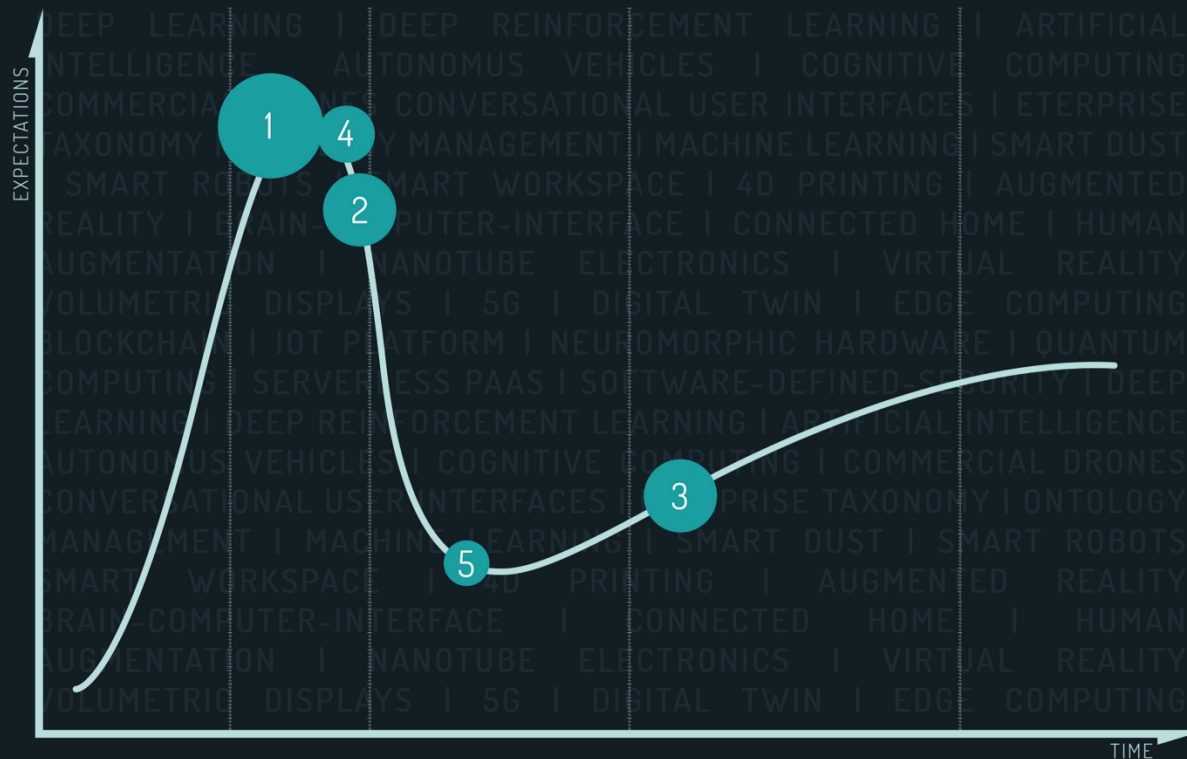
# GARTNER HYPE CYCLE OF EMERGING TECHNOLOGIES

Source: *Gartner Inc.* 2017, gartner.com/SmarterWithGartner

Source: vgl. *Gassmann/Frankenberger/Csik* 2013, 6
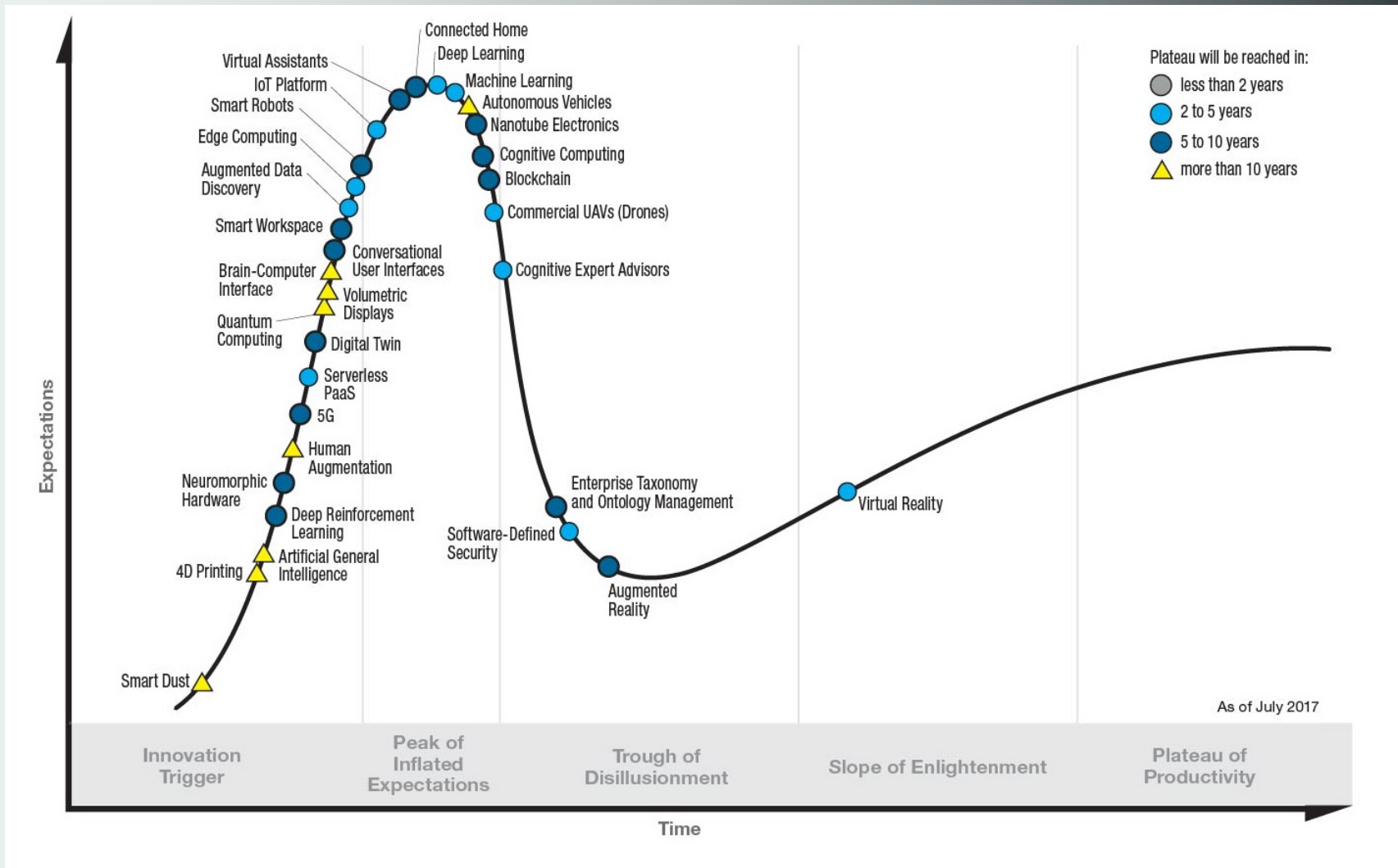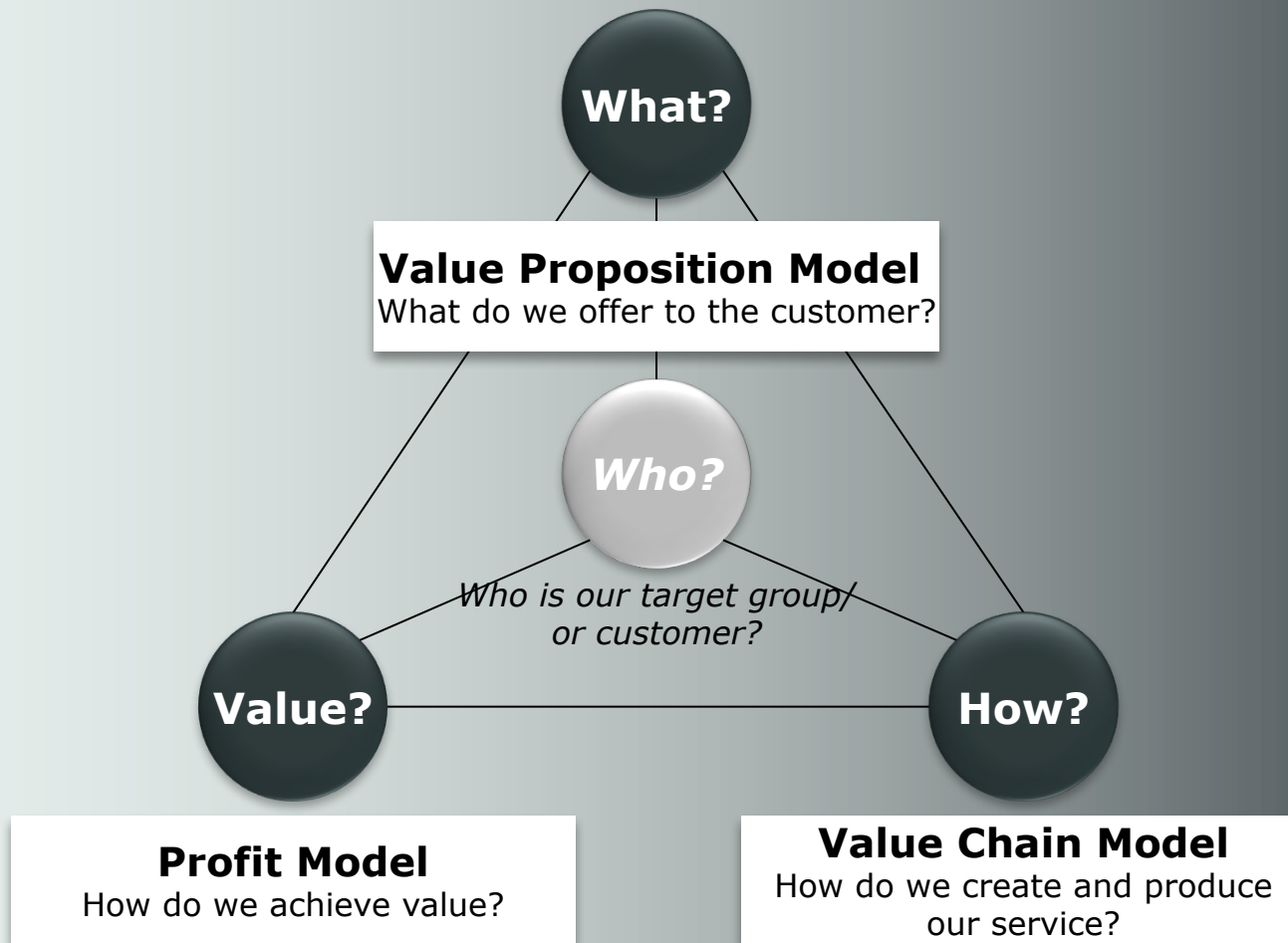
FIVE MAIN TECHNOLOGIES ARE BEING DISCUSSED_

1: Artificial Intelligence — 23.1%
2: Blockchain — 16.1%
3: Virtual Reality — 16.1%
4: Machine Learning — 13.6%
5: Augmented Reality — 10.1%

10cm = 100%; n=199
Source: Gartner.com

23.1% out of 199 sample units discuss Artificial Intelligence as a main topic. Blockchain and VR are of secondary importance.

# (1) WHAT IS BEING DISCUSSED?

## MEDIA INDUSTRY OF MINOR RELEVANCE_

28.1%

n=199
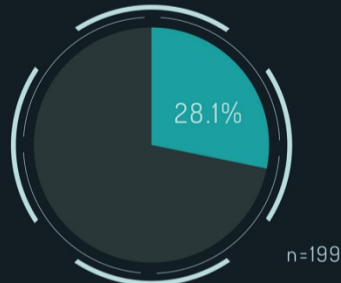
ONLY 28% OF OUR SAMPLE UNITS DEAL WITH THE BUSINESS MODEL IN REFERENCE TO THE MEDIA INDUSTRY.

### RELEVANCE OF HYPE CYCLE PHASES*
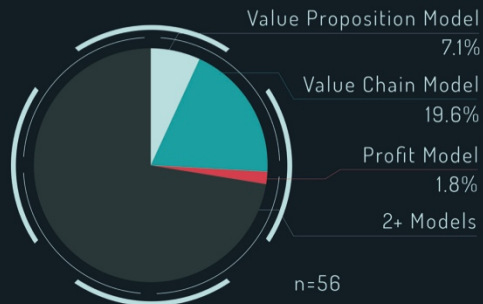
PHASE 1: INNOVATION TRIGGER..................................44.6%
PHASE 2: PEAK OF INFLATED EXPECTATIONS 69.6%
PHASE 3: TROUGH OF DISILLUSIONMENT.................14.3%
PHASE 4: SLOPE OF ENLIGHTENMENT.....................23.2%

*only sample units in reference to media; multiple entries    n=56

Value Proposition Model
7.1%
Value Chain Model
19.6%
Profit Model
1.8%
2+ Models

n=56

MOST SAMPLE UNITS THAT DEAL WITH A SINGLE COMPONENT DISCUSS THE VALUE CHAIN MODEL.

COVERING ALL BUSINESS MODEL COMPONENTS AT ONCE IS MOST POPULAR, FOLLOWED BY LINKING THE VALUE CHAIN AND VALUE PROPOSITION MODEL.

33.9%
25.5%
7.1%
5.4%

VPM + PM    VCM + PM    VCM + VPM    All

n=56
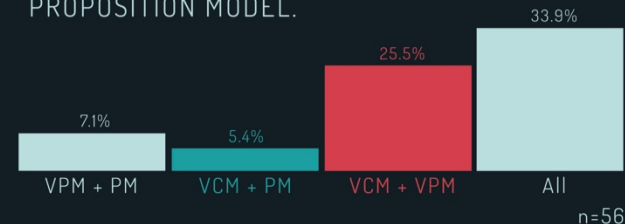
## TECHNOLOGIES WERE CLUSTERED IN THREE LEVELS_

### HIGH TECH

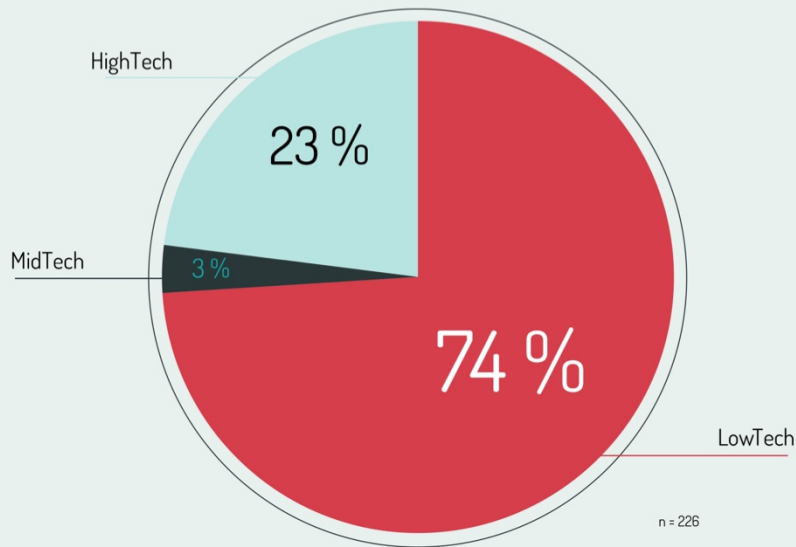technologies appearing on the Gartner Hype Cycle of Emerging Technologies

### MID TECH

high technologies which are no longer on the Gartner Hype Cycle

### LOW TECH

technologies such as platforms, websites and apps

## LOWTECH & NON MEDIA TARGET INDUSTRIES DOMINATE THE INVESTMENTS OF MEDIA COMPANIES_



HighTech — 23 %

MidTech — 3 %

74 %

LowTech

n = 226

**TECHNOLOGY CATEGORIES OF MEDIA INVESTMENTS**

ONLY 23% OF 226 TOTAL MEDIA COMPANIES' INVESTMENTS (I.E. n = 52) WERE IN TECHNOLOGIES THAT CAN BE FOUND ON THE GARTNER HYPE CYCLE.



Telecommunication

Entertainment

IT

25 %

49 %

16 %

Media

10 %

Non TIME

n = 226
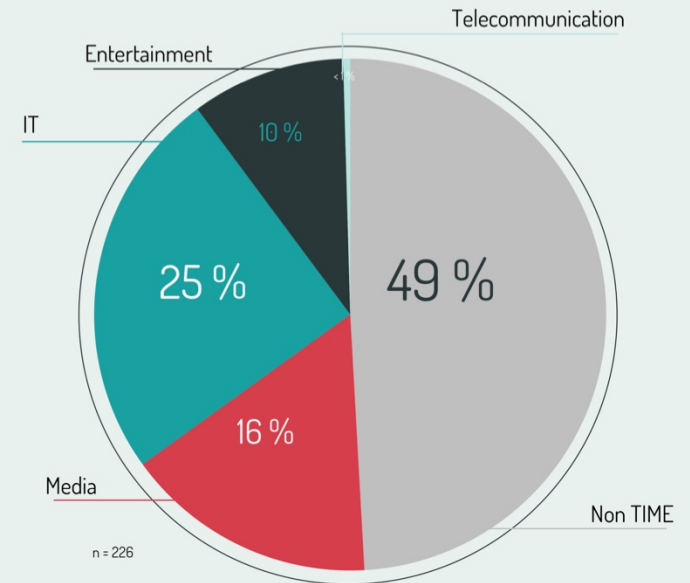
**TARGET INDUSTRIES OF MEDIA INVESTMENTS**

84% OF INVESTMENTS BY MEDIA COMPANIES WERE IN COMPANIES FROM OTHER INDUSTRIES SUCH AS IT.

WHEN MEDIA COMPANIES INVEST IN HIGH TECHNOLOGY, THEY DO SO IN THE PEAK OF INFLATED EXPECTATIONS PHASE_

25 %

46 %

10 %

19 %

SOURCE:
WWW.GARTNER.COM/SMARTERWITH
GARTNER/TOP-TRENDS-IN-THE-
GARTNER-HYPE-CYCLE-FOR-
EMERGING-TECHNOLOGIES-2017/

N = 52

INNOVATION TRIGGER

PEAK OF INFLATED EXPECTATIONS

THROUGH OF DISILLUSIONMENT

SLOPE OF ENLIGHTENMENT

PLATEAU OF PRODUCTIVITY

TECHNOLOGIES INVESTED IN

MEDIA COMPANIES PREFER TO INVEST IN TECHNOLOGIES IN THE PEAK OF INFLATED EXPECTATIONS PHASE – ALMOST HALF OF 52 INVESTMENTS BELONG TO THIS PHASE.
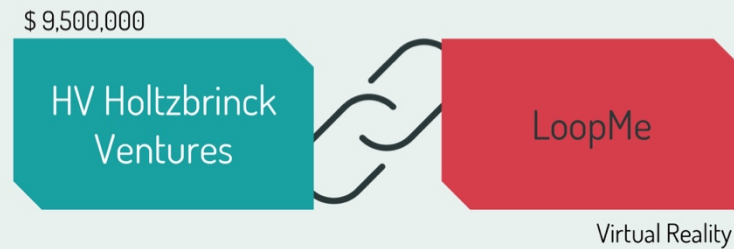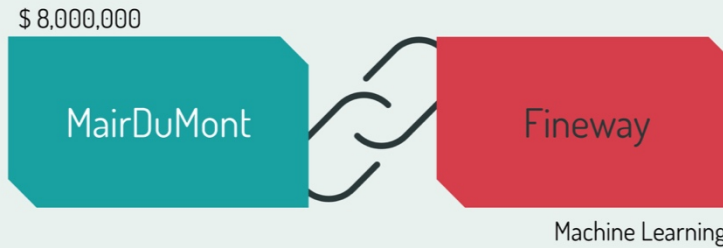
## 2 OUT OF THE TOP 3 HIGH TECH INVESTMENTS FROM MEDIA COMPANIES FOLLOW THE AI EVERYWHERE TREND_

TECHNOLOGIES INVESTED IN
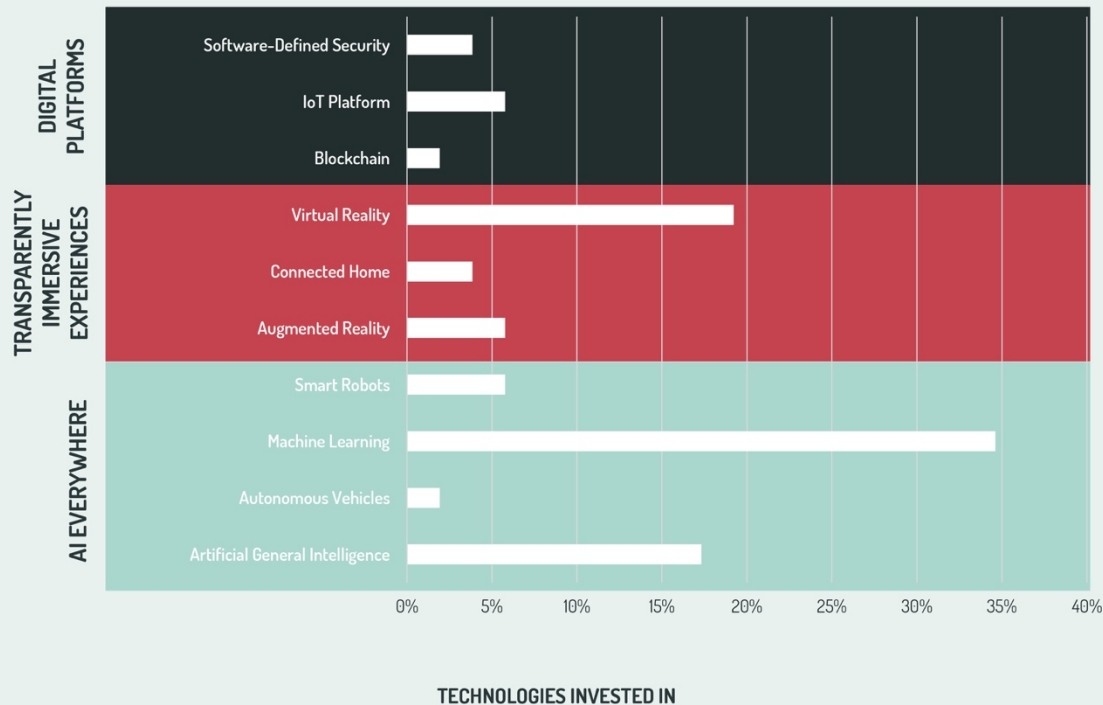
MORE THAN TWO THIRDS OF 52 INVESTMENTS ADDRESSED MACHINE LEARNING, VIRTUAL REALITY AND ARTIFICIAL GENERAL INTELLIGENCE.

**EXAMPLE CASES_**

$ 8,000,000

| MairDuMont | ⟷ | Fineway |

Machine Learning

$ 9,500,000

| HV Holtzbrinck Ventures | ⟷ | LoopMe |

Virtual Reality

$ 6,000,000

| Bertelsmann Digital Media Investments | ⟷ | Visionary |

Machine Learning

# SUMMARY (WHAT IS BEING DISCUSSED?)

- Artificial Intelligence, Blockchain, Virtual Reality, Machine Learning and Augmented Reality are the top technologies being discussed.

- These five technologies are discussed (when related to business model innovation) with implications for the value chain model.

- If implications for business models are discussed (for Value Proposition Model, Value Chain Model or Profit Model), artificial intelligence is the most important issue.

- The reference to the media industry is rare (only in 28% of cases).

- With reference to the media industry, implications for the value chain model are addressed.

# SUMMARY (HOW IS ACTION TAKEN IN PRACTICE?)

- The investments of media companies mainly take place in the low tech sector (74%).

- Only 50% of the Media companies' invests (in start-ups/companies) can be assigned to the TIME sector. Thus, media companies are diversifying into completely new sectors.

- Media companies invest (if in high technologies at all) in technologies located at the peak of inflation expectations (46%).

- Media companies invest (if in high technologies at all) mostly in artificial intelligence.

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**Thank you very much!**

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