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认知中国

描绘中国人工智能发展蓝图

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Anthony Marshall

IBM 商业价值研究院研究总监

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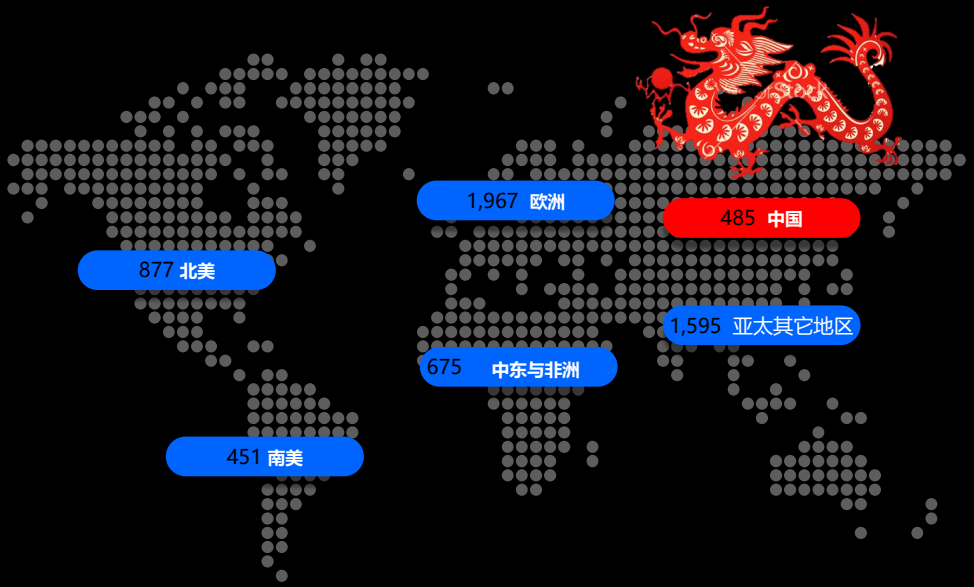
本次调研覆盖全球 40 多个国家或地区， 6,000 多位受访者，其中 8% 来自于中国



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这份关于《认知中国》的报告即出自此次调研结果

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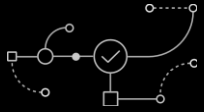
认知计算

理解

认知系统可以像人类一样理解非结构化信息



推理

认知系统能够进行推理，形成假设，推断并提取想法

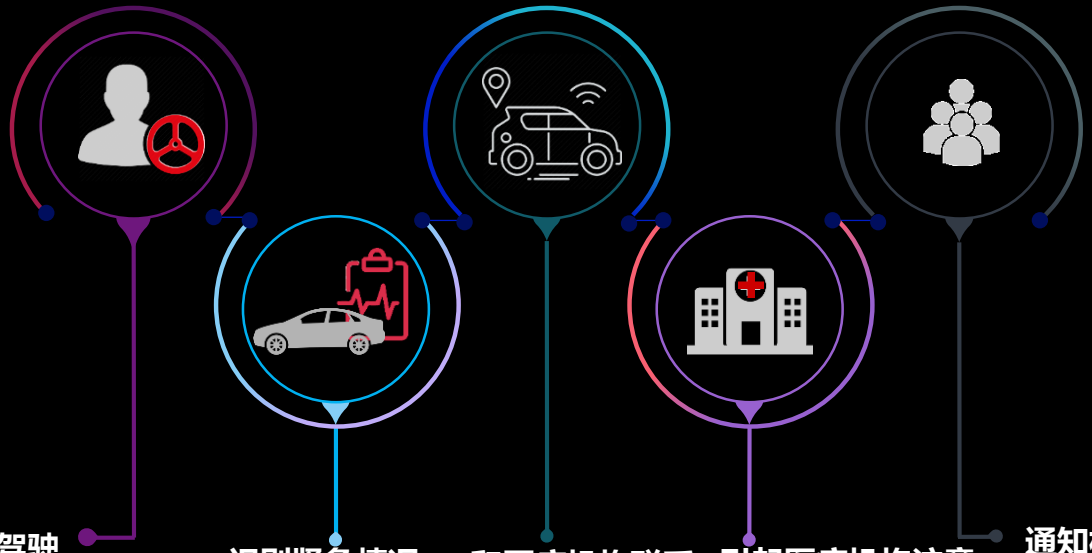
学习

认知系统可以从过去的结果中学习

互动

认知系统能够与人类自然地进行互动

汽车可以监测驾驶者的健康情况，识别紧急情况，与医疗机构进行沟通，并自动驾驶到医疗机构



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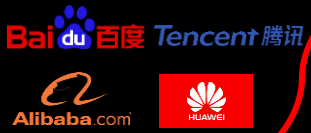
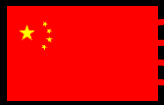
人工智能





人工智能战略计划创造100亿元的行业规模

国家人工智能研究及发展战略计划提升人工智能知识及技术

人工智能领域共35,000多项专利

人工智能领域共35,000多项专利

人工智能公司接受了几十亿资金

人工智能公司接受了几十亿资金

人工智能初创企业共筹措了大约100亿美元资金

人工智能初创企业共筹措了大约100亿美元资金

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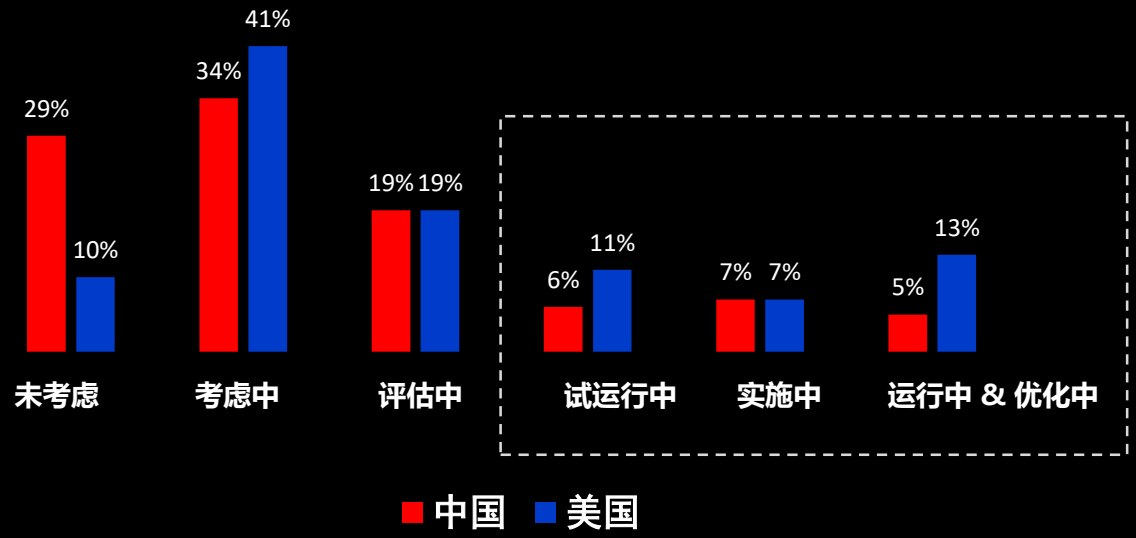
量子计算


Alibaba.com
Tencent 腾讯
Baidu 百度
在国家量子信息服务实验室投资了100亿美元
1年中在量子研发领域美国投入了数亿美元资金
2017年申请了500多项量子计算专利和应用
2017年申请了 300多项量子计算专利和应用
发布了世界上第一颗量子通讯卫星，并从太空中发回了不可破解的密码
推出了国家量子创新行动法案，提升量子技术
阿里巴巴今年初发布了11量子位量子云计算服务—还在快速地改进中
IBM去年发布了20量子位量子云计算服务-还在快速地改进中
IBM
Google
Microsoft

采用人工智能的阶段 – 2018



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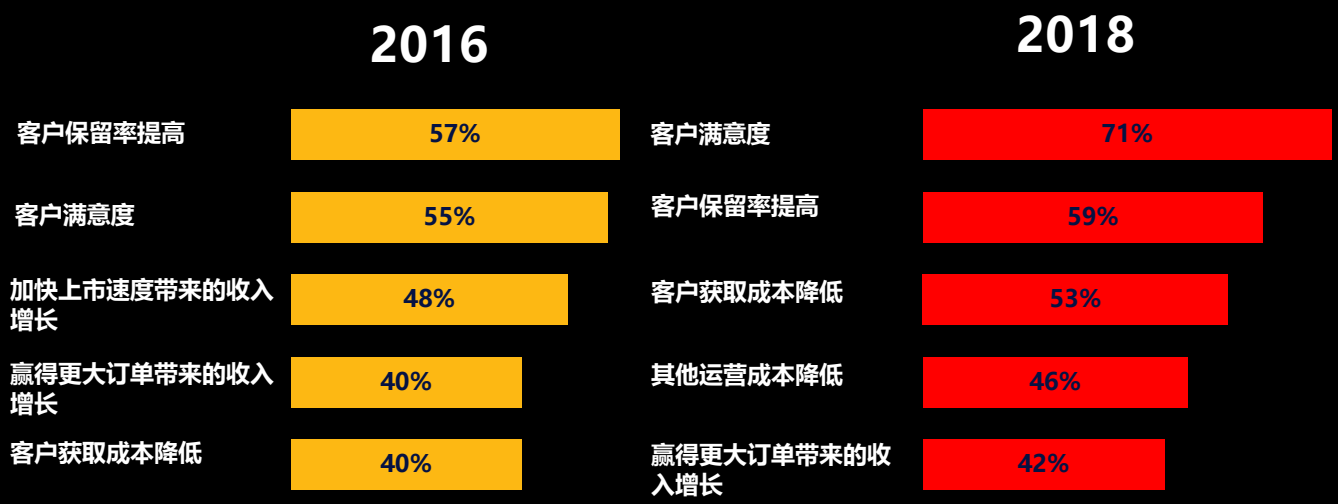
推动中国人工智能发展的关键价值因素– 2016 and 2018



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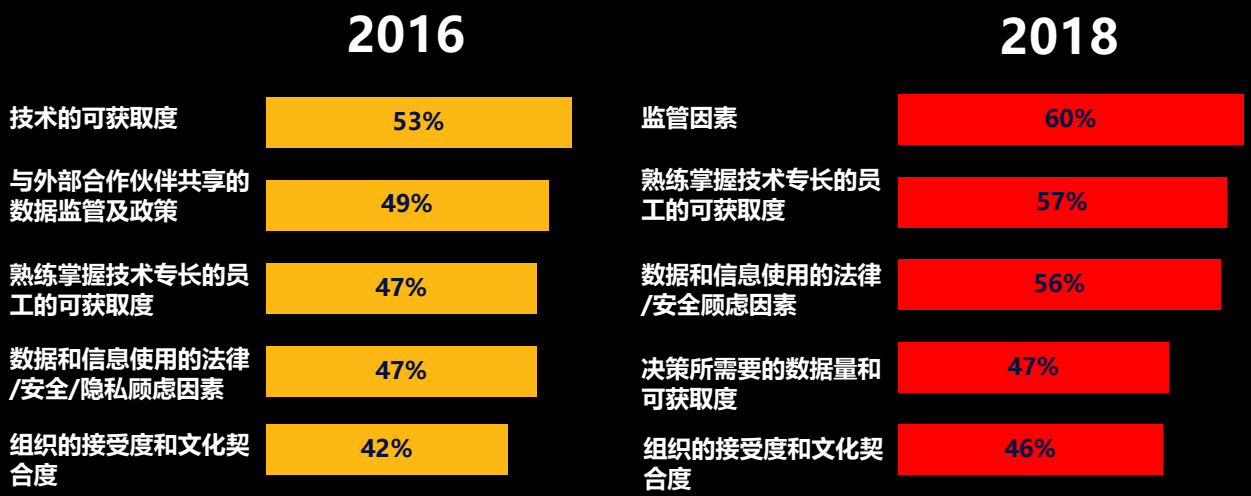
阻碍中国人工智能实施的因素– 2016 and 2018



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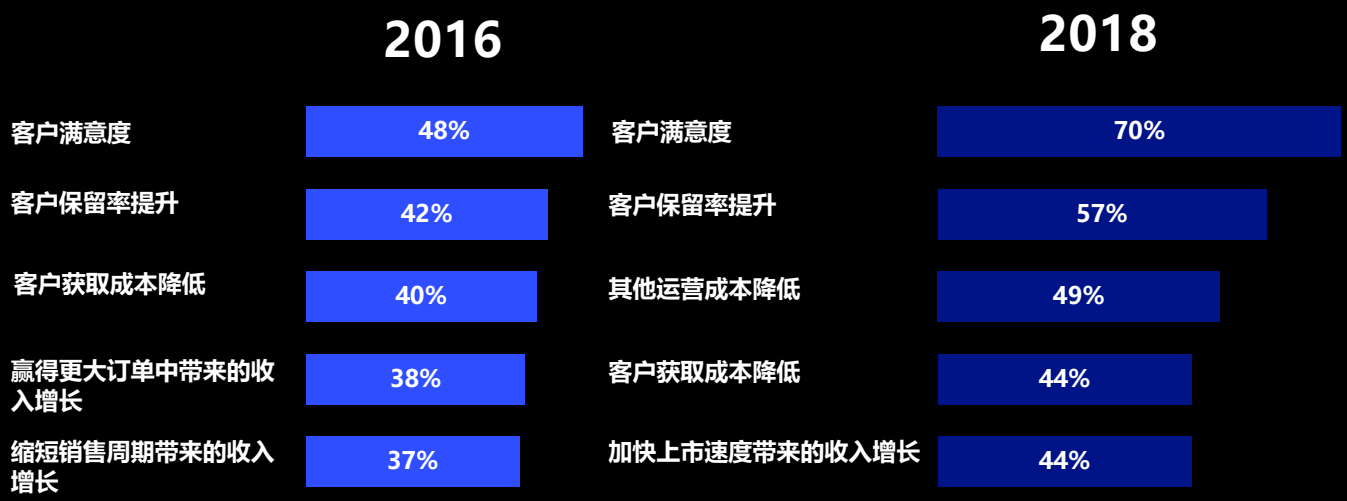
推动美国人工智能发展的关键价值因素– 2016 and 2018



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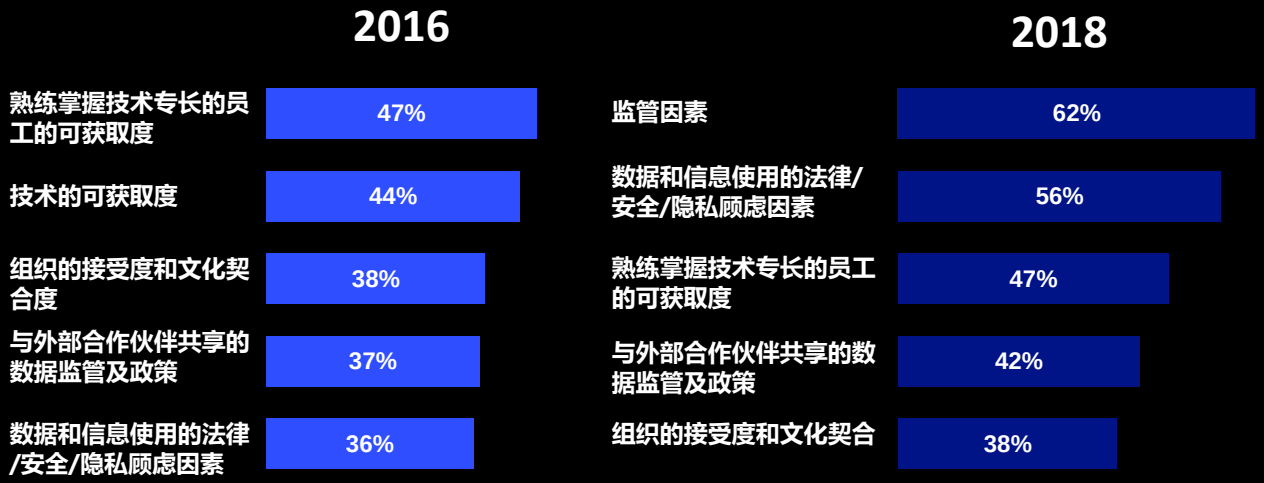
阻碍美国人工智能实施的因素– 2016 and 2018



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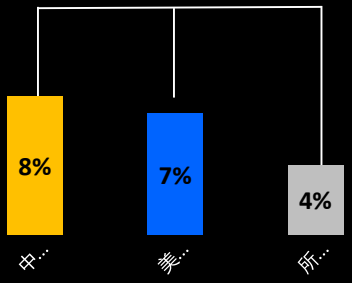
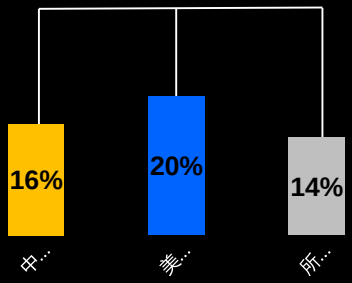
投入更多



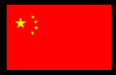
对认知技术的IT投入

期望认知项目产生的回报



期望认知项目产生的回报

优先采用人工智能的5大行业



1. 银行及金融市场
2. 旅游行业
3. 生命科学及医药行业
4. 教育行业
5. 汽车行业

1. IT及专业服务
2. 能源行业
3. 消费品行业
4. 工业产品行业
5. 银行及金融市场

优先采用人工智能的职能部门

1. 产品研发部门
2. 生产制造部门
3. 风险部门
4. 财务部门
5. 信息安全部门
6. 创新部门

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1. 创新部门
2. IT部门
3. 采购部门
4. 销售部门
5. 信息安全部门
6. 客户服务部门

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01 中国和美国正在引领全球的人工智能和量子计算

02 中国和美国都将人工智能视为业务发展的推动力量

03 全球对于人工智能的关注点从技术转移到人才上

04 中国和美国在采用人工智能的企业优先级上存在不同

Thank You

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Cognitive China

Creating a blueprint for an AI-enabled China

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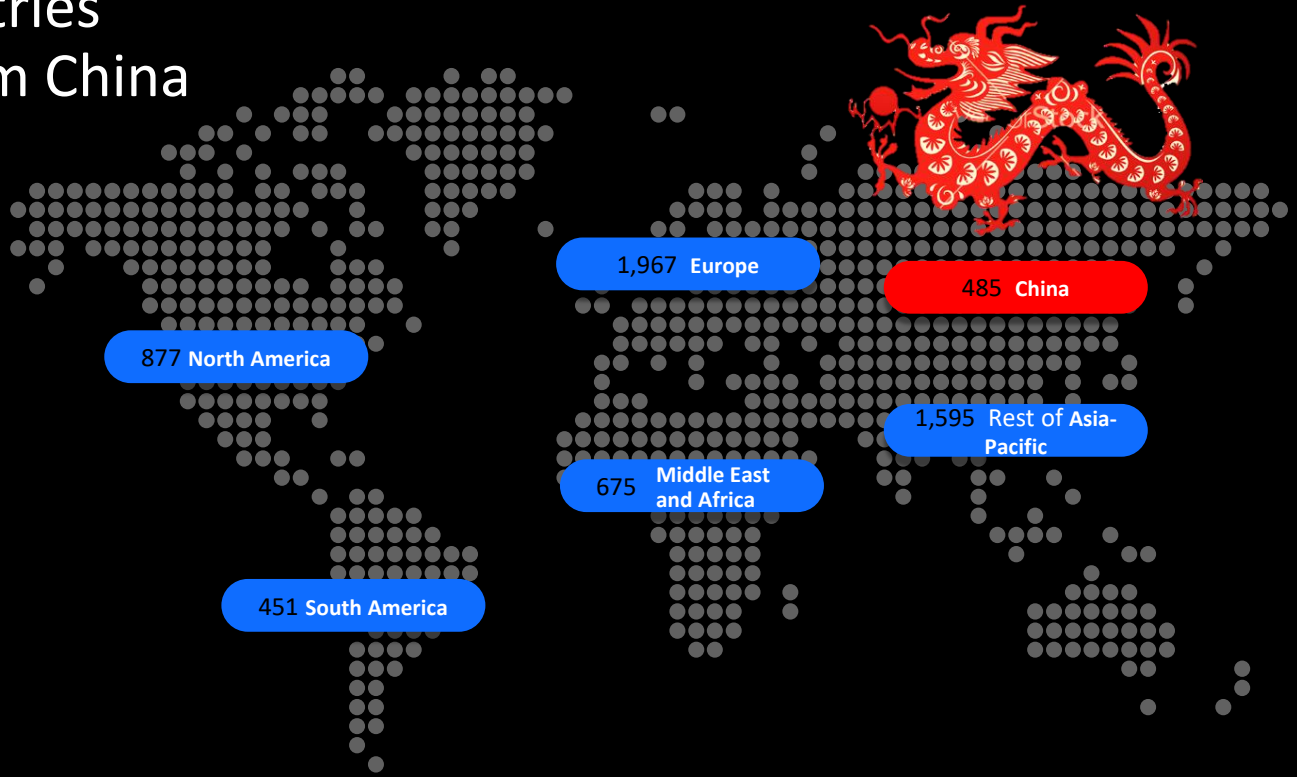
6,000+ executives surveyed
40 countries
~8% from China



Cognitive China resulted from this analysis

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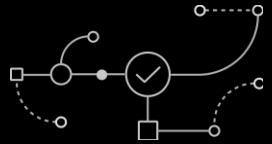
Cognitive Computing

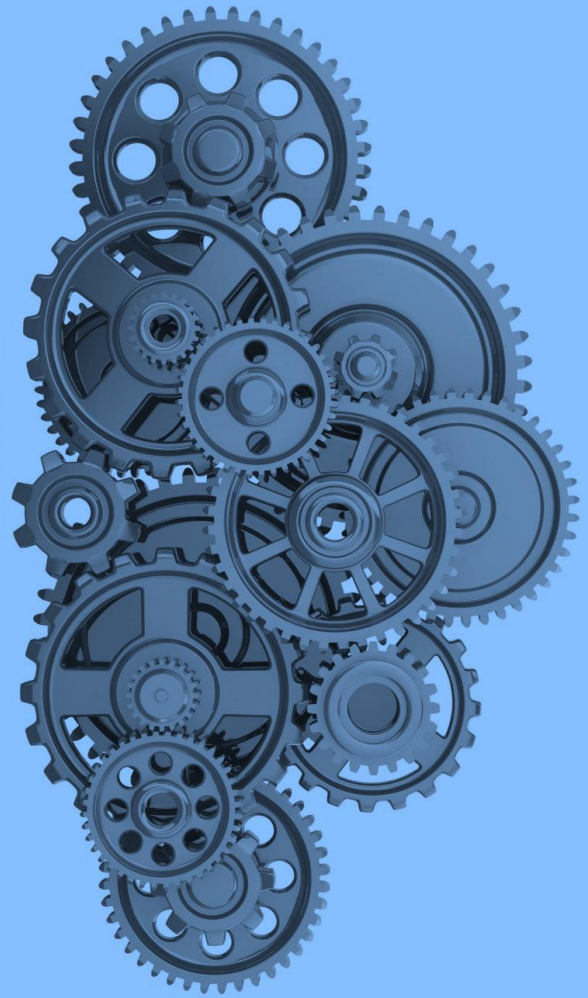
Understands
Like humans do



Reasons
To extract ideas

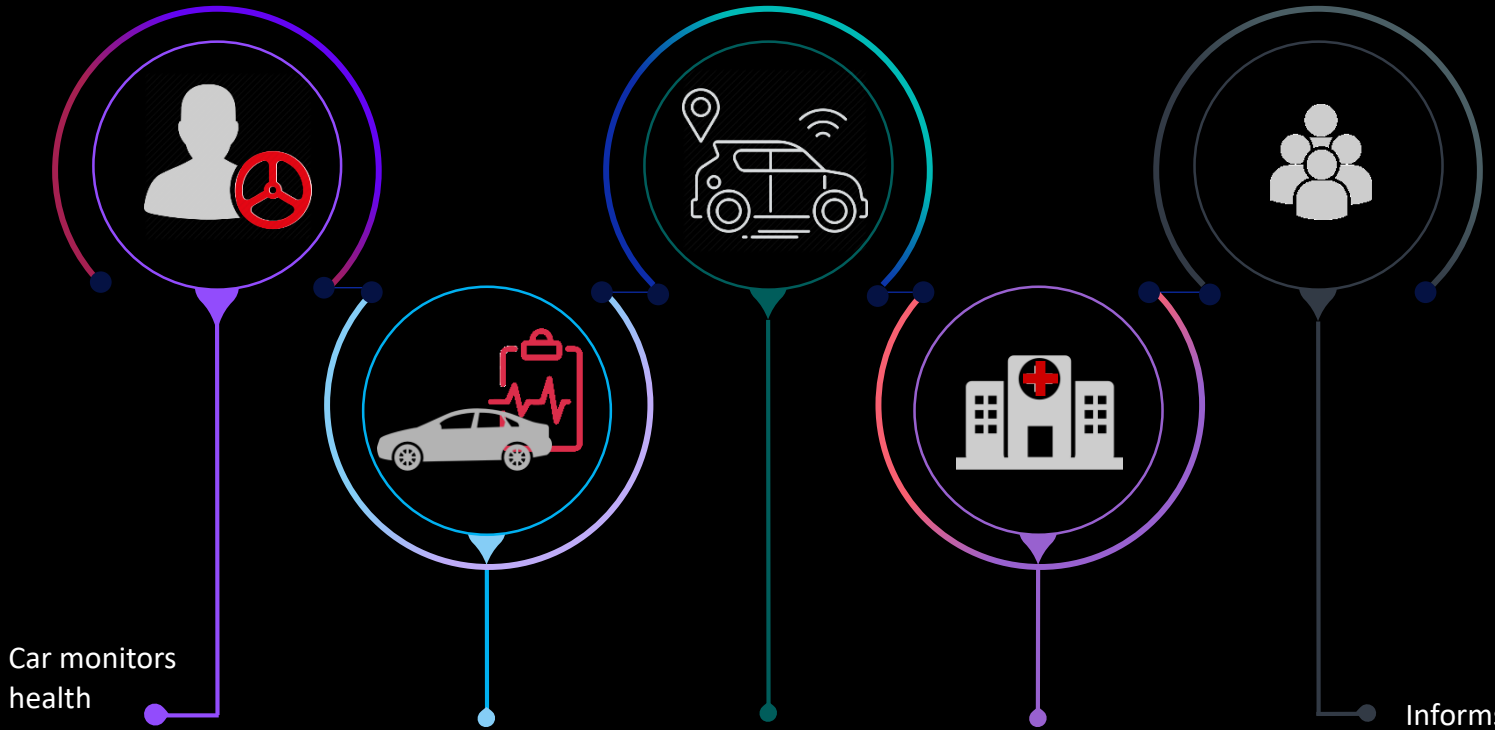
Learns
From past results

Interacts
In a natural way

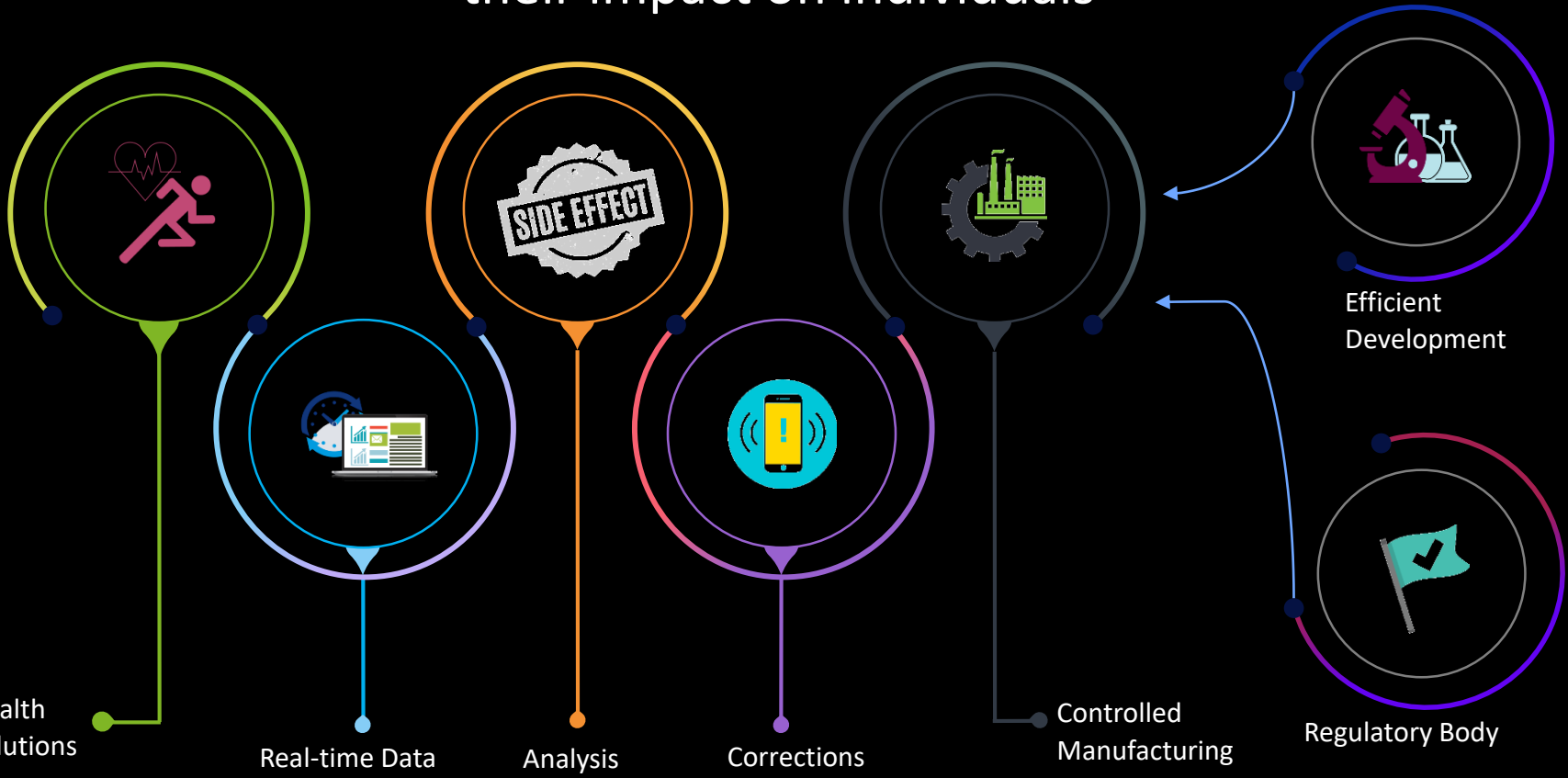


- Artificial intelligence
- Natural language processing
- Machine learning systems
- Deep learning
- Robotics
- Recommendation engines
- Predictive analytics

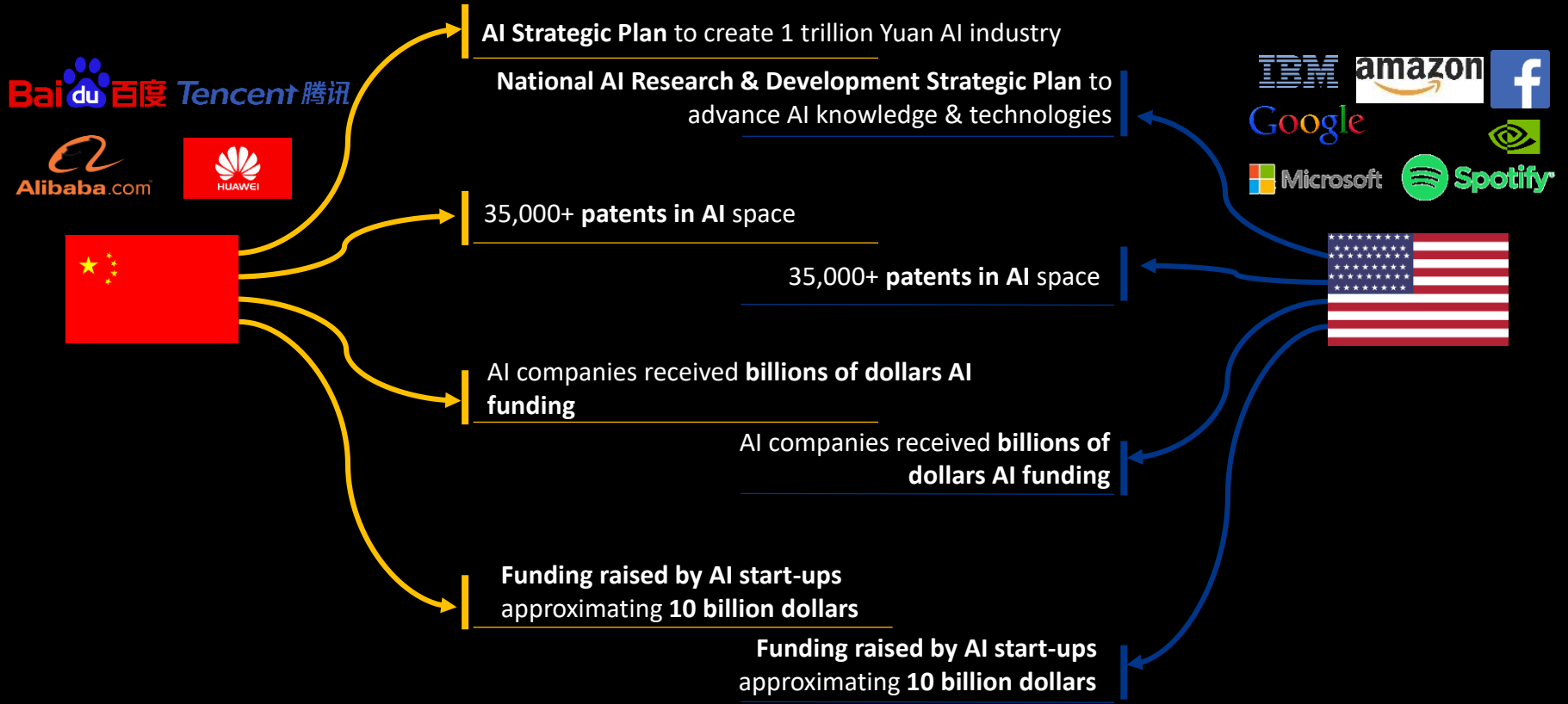
Cars could monitor a driver's health, identify emergencies, communicate and self-drive to a medical facility



AI could enable customization of drugs, providing continuous feedback of their impact on individuals



Artificial intelligence



Quantum computing

Invested $10 billion for National Laboratory for Quantum Information Sciences

U.S.-funded research in Quantum $ hundreds of millions a year

Filed 500+ patents and applications on Quantum Computing in 2017

Filed 300+ patents and applications on Quantum Computing in 2017

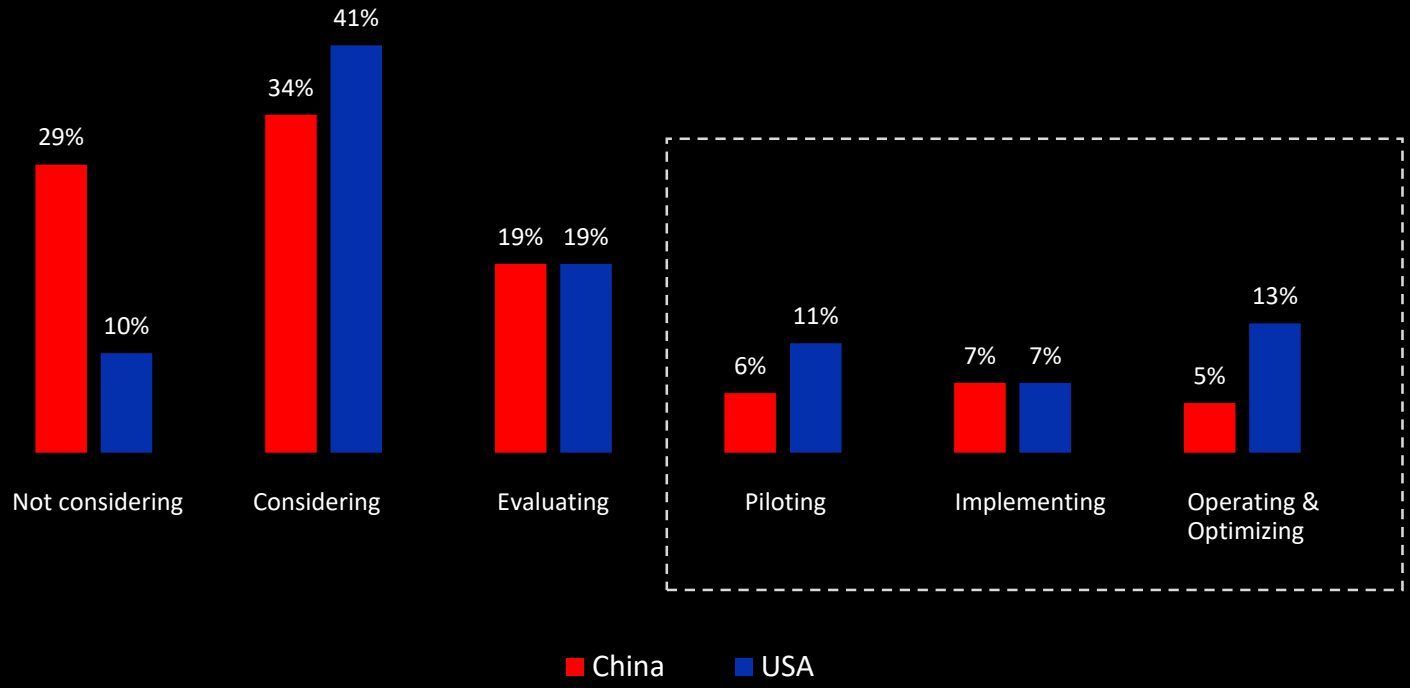
Launched world's first quantum communications satellite and sent un-hackable code from space

Introduced the National Quantum Initiative Act bill, for advancing quantum technologies

Alibaba launched a 11 qubit quantum cloud computing service earlier this year – rapidly improving

IBM launched a 20 qubit quantum cloud computing service last year – rapidly improving

Stages of AI adoption – 2018



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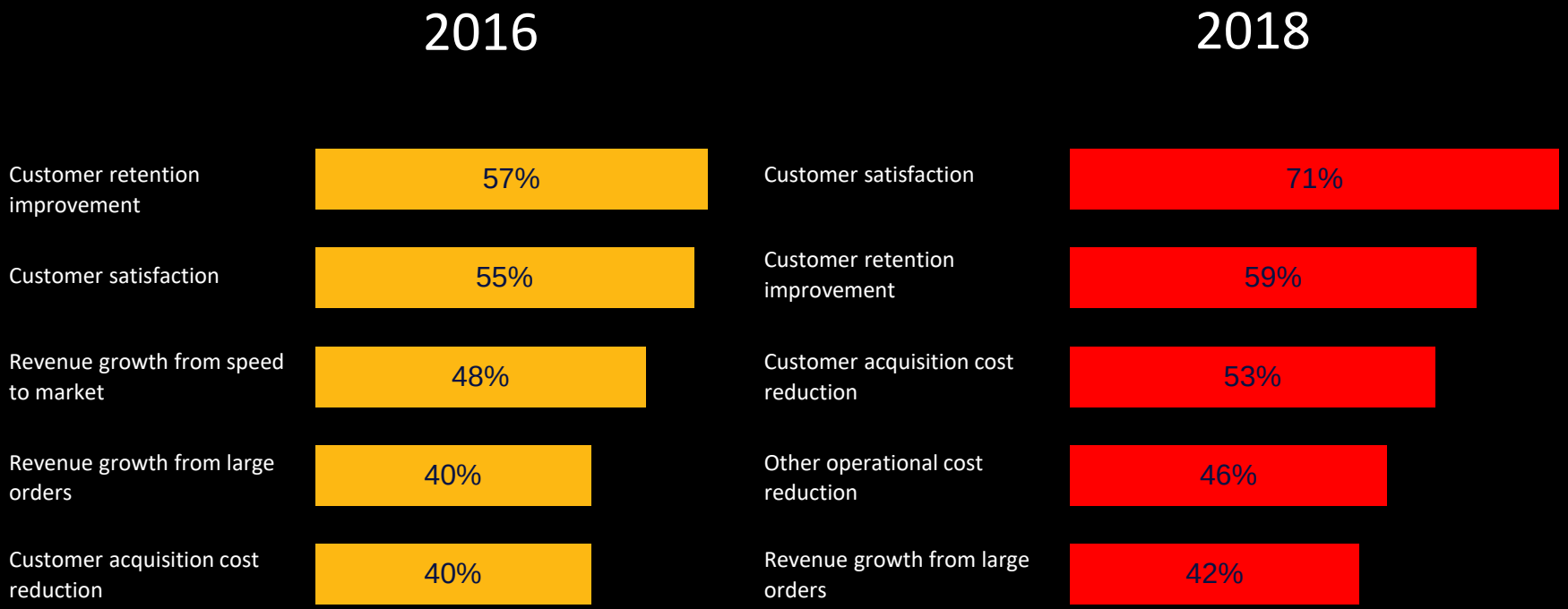
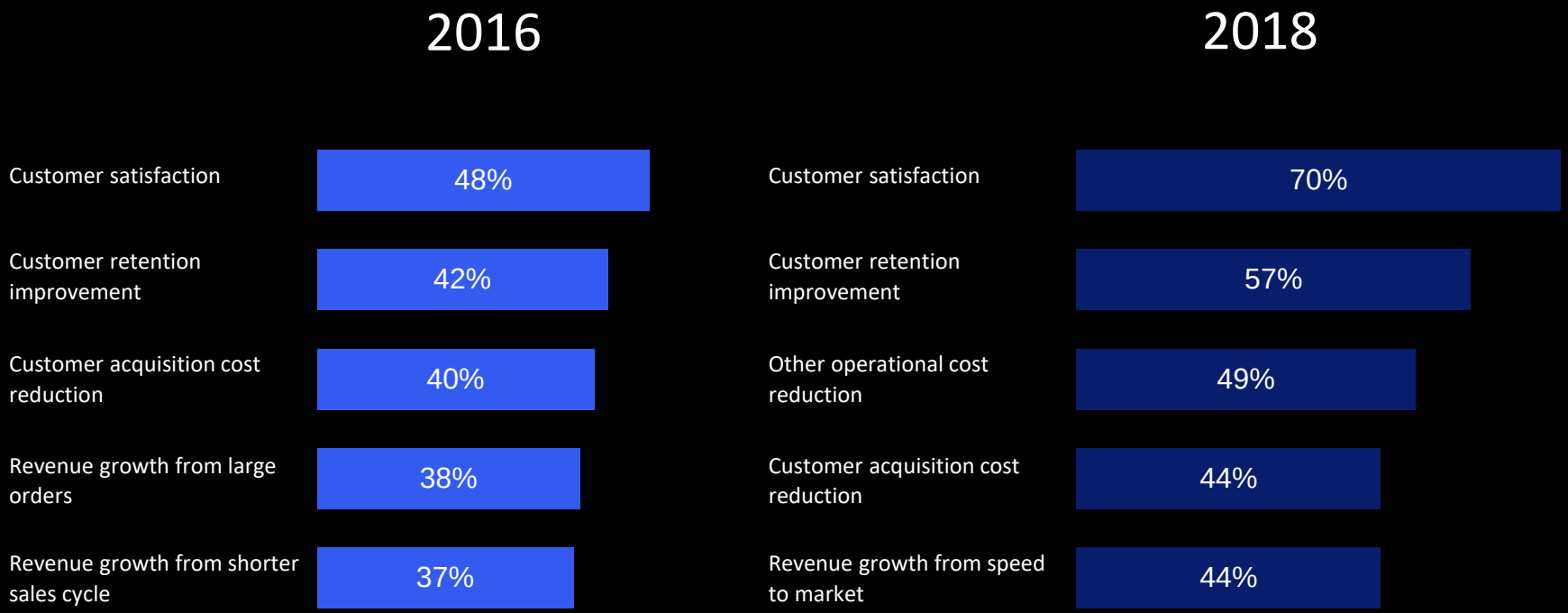
Value drivers of AI – **China** – 2016 and 2018

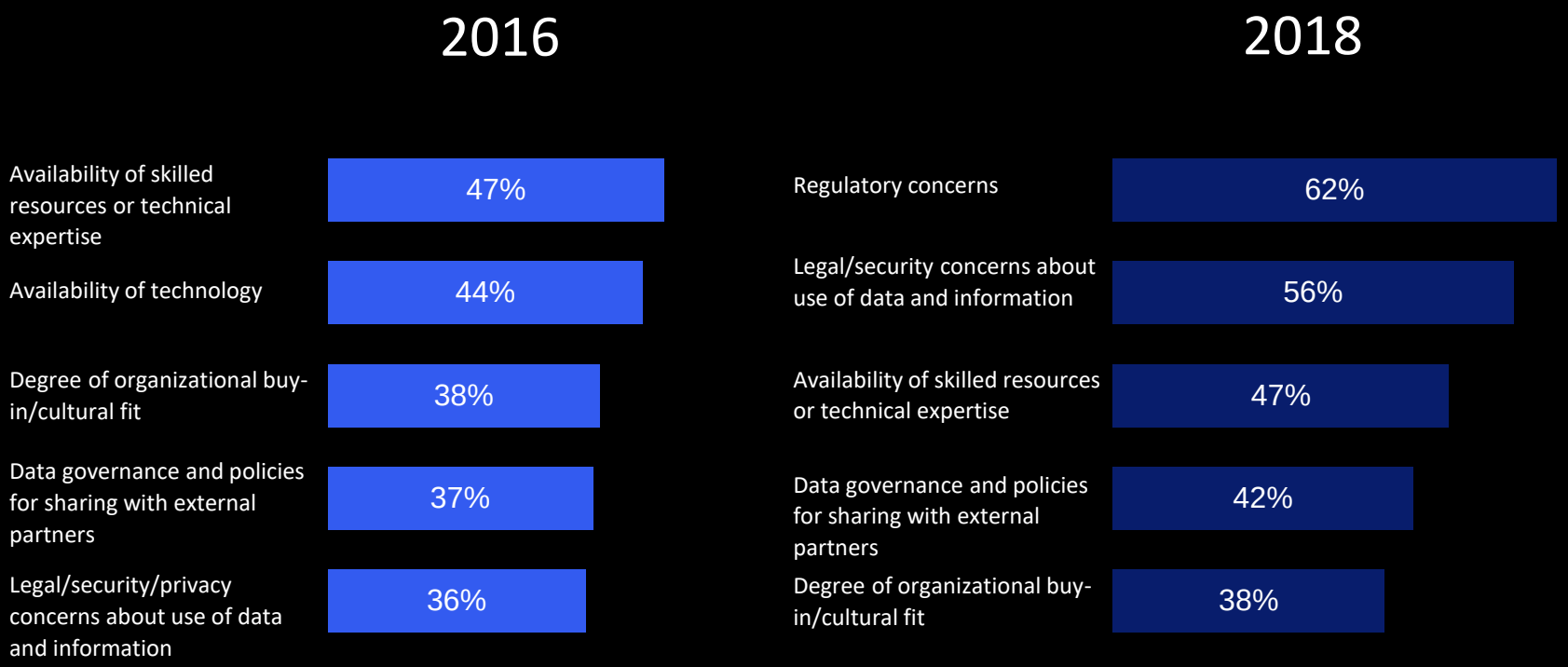


Barriers to implementing AI – **China** – 2016 and 2018

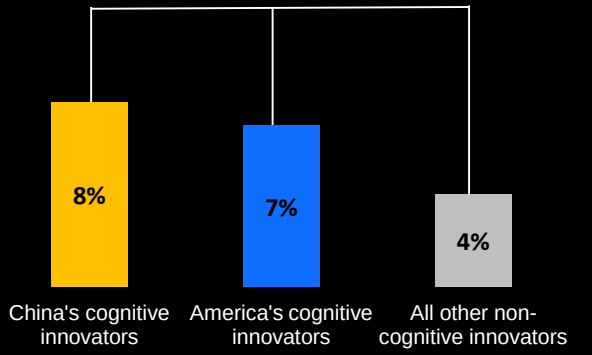
Value drivers of AI – **USA** – 2016 and 2018



Barriers to implementing AI – **USA** – 2016 and 2018

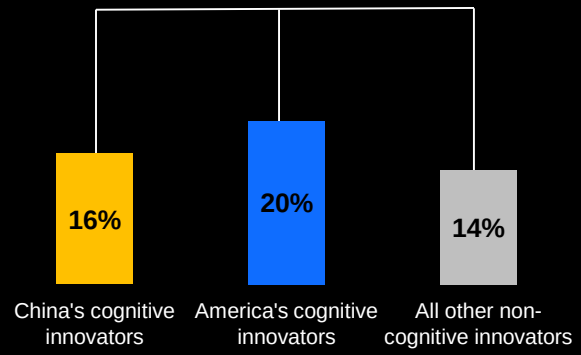


Investing more



Percentage of IT spend on cognitive

Expected returns to justify cognitive



ROI expected to justify cognitive initiatives

Top 5 industries for AI

1. Banking and Financial Markets
2. Travel
3. Life sciences and Pharma
4. Education
5. Automotive

1. IT and Professional Services
2. Energy and Utilities
3. Consumer Products
4. Industrial Products
5. Banking and Financial Markets

Top priorities for AI by function

1. Product development
2. Manufacturing
3. Risk
4. Finance
5. Information security
6. Innovation

1. Innovation
2. Information technology
3. Procurement
4. Sales
5. Information security
6. Customer service

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01 China and America are leading the world in AI and Quantum computing

02 China and America both view AI as a growth play

03 Global shift of concern about AI technology to AI talent

04 Cognitive innovators recognize need to change employee roles and skills

05 China and America have different enterprise priorities for AI

Thank You

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清华大学 Tsinghua University

学习环境设计与评测研发中心

网龙华渔教育

科大讯飞 iFLYTEK 学习者建模与学习分析研发中心

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THANKS

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