人工智能在员工招聘中的应用
Companies' Adoption of Artificial Intelligence (AI) in Employee Recruitment

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人工智能与人力资源管理
AI and human resource management (HRM)

人工智能的巨大潜力/Great potential of AI

- 2016年，投资者往人工智能领域注资390亿美元/In 2016, investors put 39 billion dollars into AI development
- 至2030年，在全球范围内，人工智能或将贡献14%的总GDP增长/By 2030, AI may contribute to 14% boost in total GDP worldwide

人工智能在业界的使用/AI usage in industry

- 约51%的公司已积极或部分地在公司运营中使用人工智能/Nearly 51% of companies proactively or partially adopt AI in the operation of their business

人工智能在人力资源管理中的优势/advantage of AI in HRM

- 节省人力资本：在2017年，IBM通过运用人工智能，节省了1.07万亿美元的人力资源管理成本/saving human capital: in 2017, IBM saved 107 million dollar of HRM costs by introducing AI in HRM

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调查样本特征
Characteristics of survey participants

- **公司**规模：中等偏大

  Company size: medium to large size
  - 53%的公司有超过500名员工

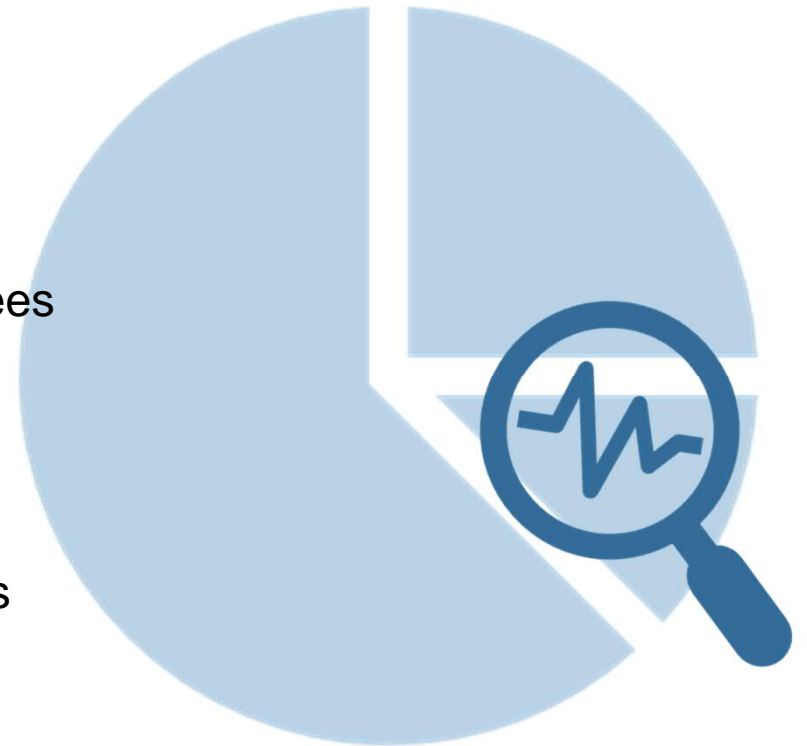   53% of companies have more than 500 employees

- 较成熟的组织

  Relatively mature organizations
  - 65%的公司运营超过10年
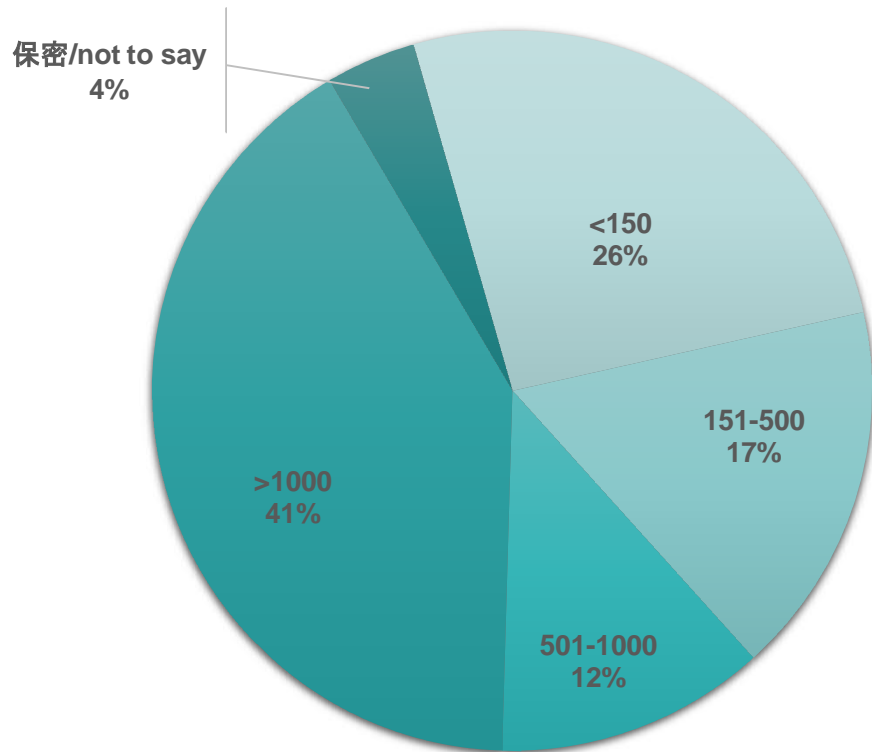
    65% companies have operated for over 10 years

- 较均匀的行业分布

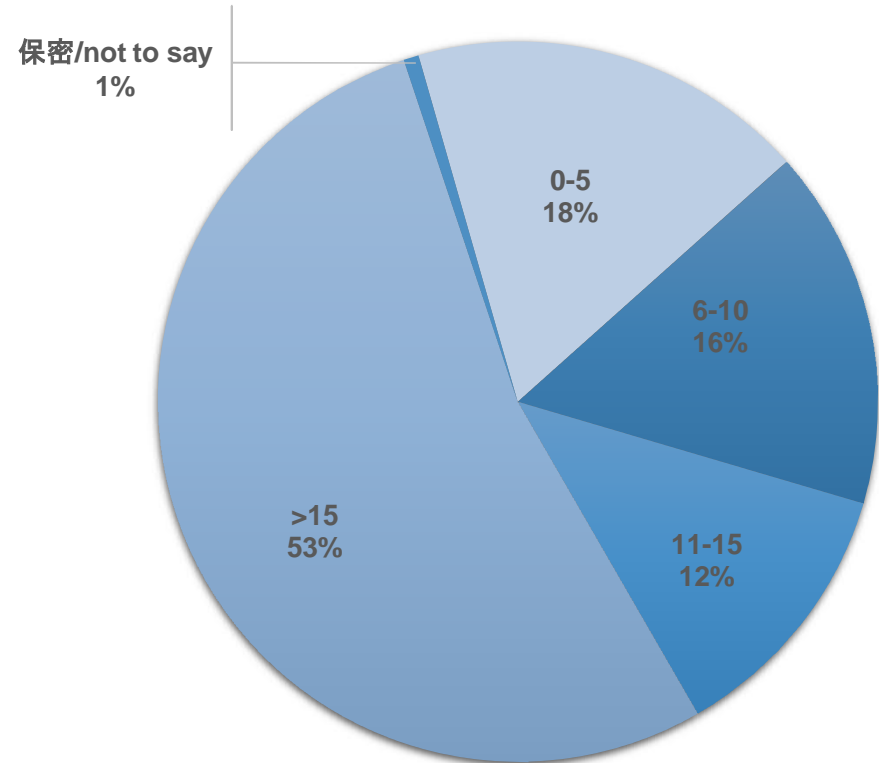 Relatively equal industry distributions

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调查样本一览：公司规模和年龄
A summary of samples: company size and age

保密/not to say
4%

<150
26%

151-500
17%

>1000
41%

501-1000
12%

员工数目/number of employees

保密/not to say
1%

0-5
18%

6-10
16%

11-15
12%

>15
53%

运营年份/years in operation

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调查样本一览：行业分布
A summary of samples: industries
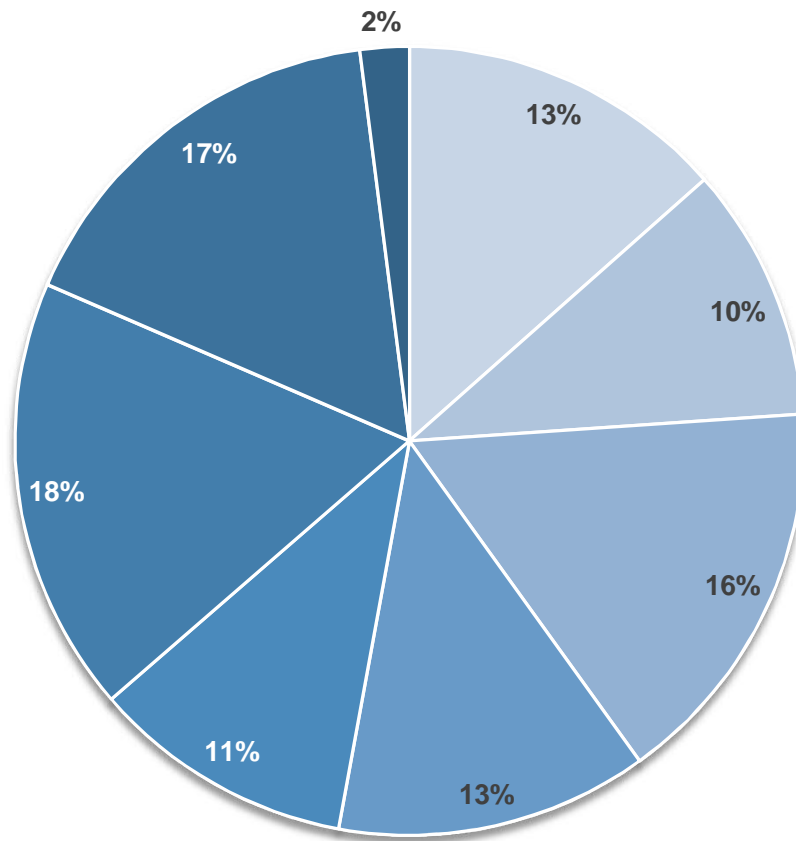
- IT及科研/IT and research
- 零售及服务业/commercial and service
- 房地产/real estate
- 金融/finance
- 制造及物流/manufacture and logistic
- 教育、医疗及文娱/education, healthcare and creativity
- 其他/others
- 保密/not to say

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人工智能应用现状
Status quo of AI implication

尚在初期：近九成公司尚未全面使用

At early stage: nearly 90 percent companies have not fully implemented

前景可期：近七成公司已使用或正在使用

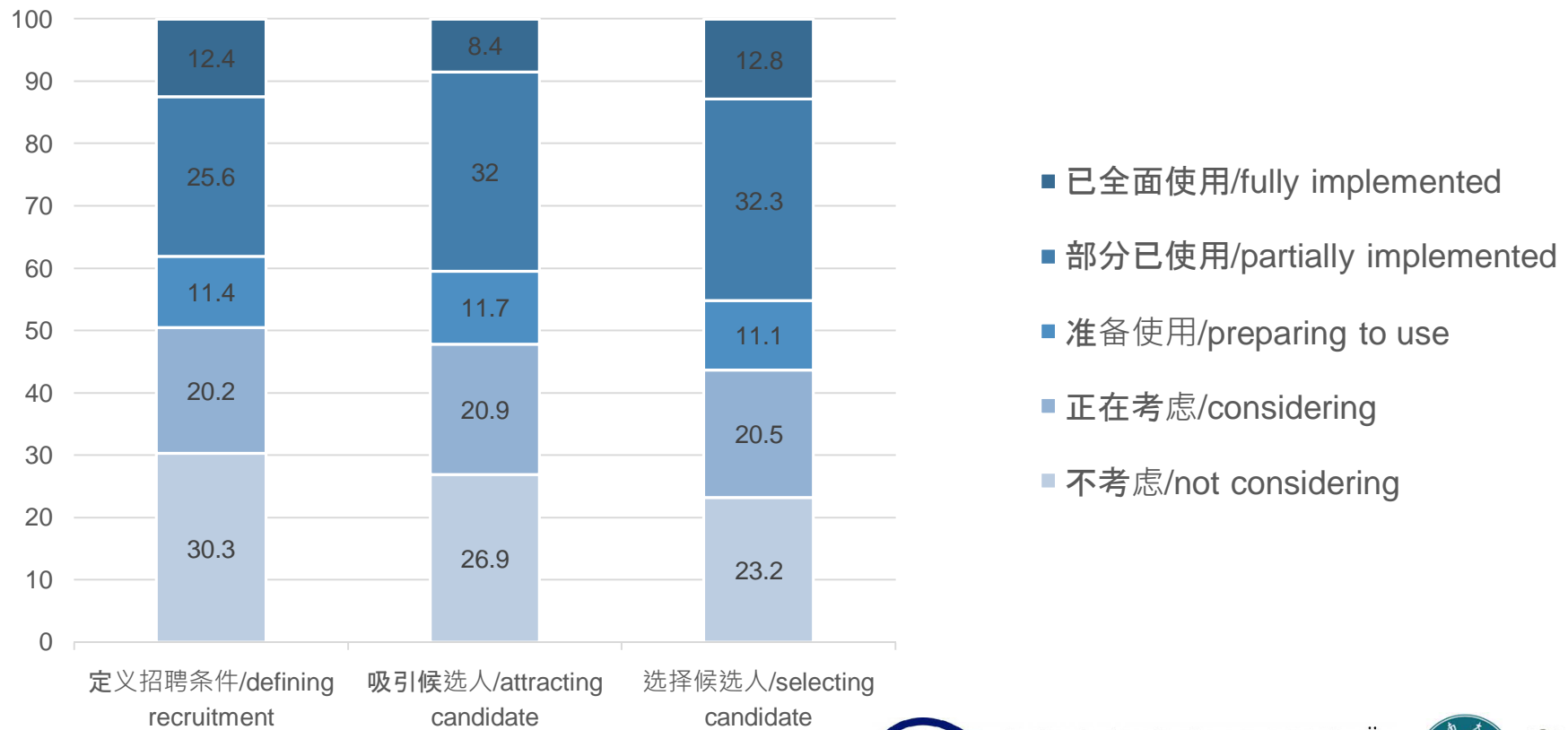Promising future: nearly 70 percent companies is using or considering to use
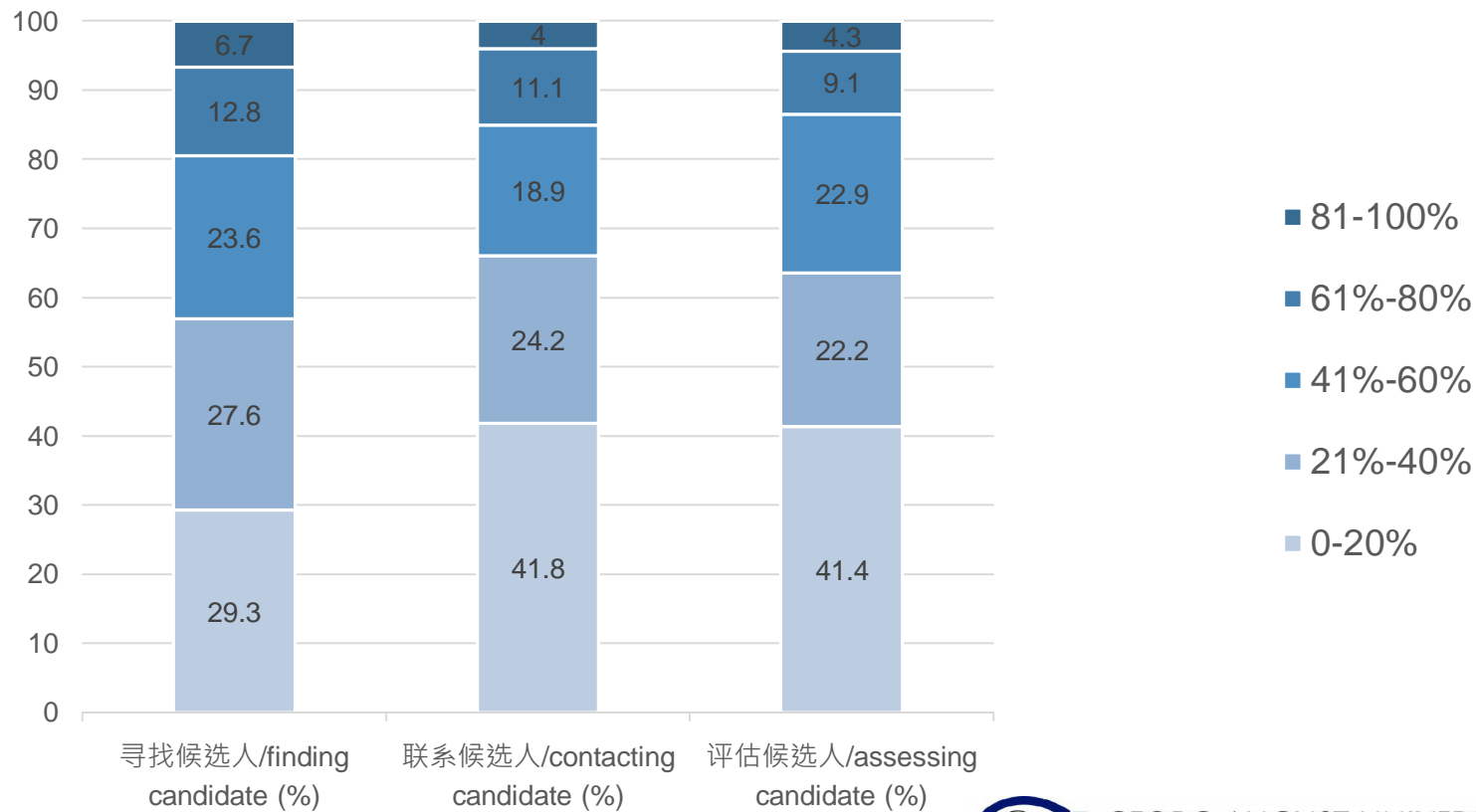
受益最大的招聘模块：搜寻候选人

Most benefited recruitment function: seeking candidates

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人工智能在招聘功能模块中的运用
The usage of AI in recruitment functions

Chart legend:
- 已全面使用/fully implemented
- 部分已使用/partially implemented
- 准备使用/preparing to use
- 正在考虑/considering
- 不考虑/not considering

定义招聘条件/defining recruitment:
- 12.4
- 25.6
- 11.4
- 20.2
- 30.3

吸引候选人/attracting candidate:
- 8.4
- 32
- 11.7
- 20.9
- 26.9

选择候选人/selecting candidate:
- 12.8
- 32.3
- 11.1
- 20.5
- 23.2

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人工智能帮助公司管理的候选人
Candidates AI help companies to manage

Legend:
- 81-100%
- 61%-80%
- 41%-60%
- 21%-40%
- 0-20%

Categories:
- 寻找候选人/finding candidate (%)
- 联系候选人/contacting candidate (%)
- 评估候选人/assessing candidate (%)

寻找候选人/finding candidate (%): 29.3, 27.6, 23.6, 12.8, 6.7
联系候选人/contacting candidate (%): 41.8, 24.2, 18.9, 11.1, 4
评估候选人/assessing candidate (%): 41.4, 22.2, 22.9, 9.1, 4.3

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公司如何看待人工智能？
How companies think about AI?
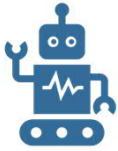
有用，但也较难使用
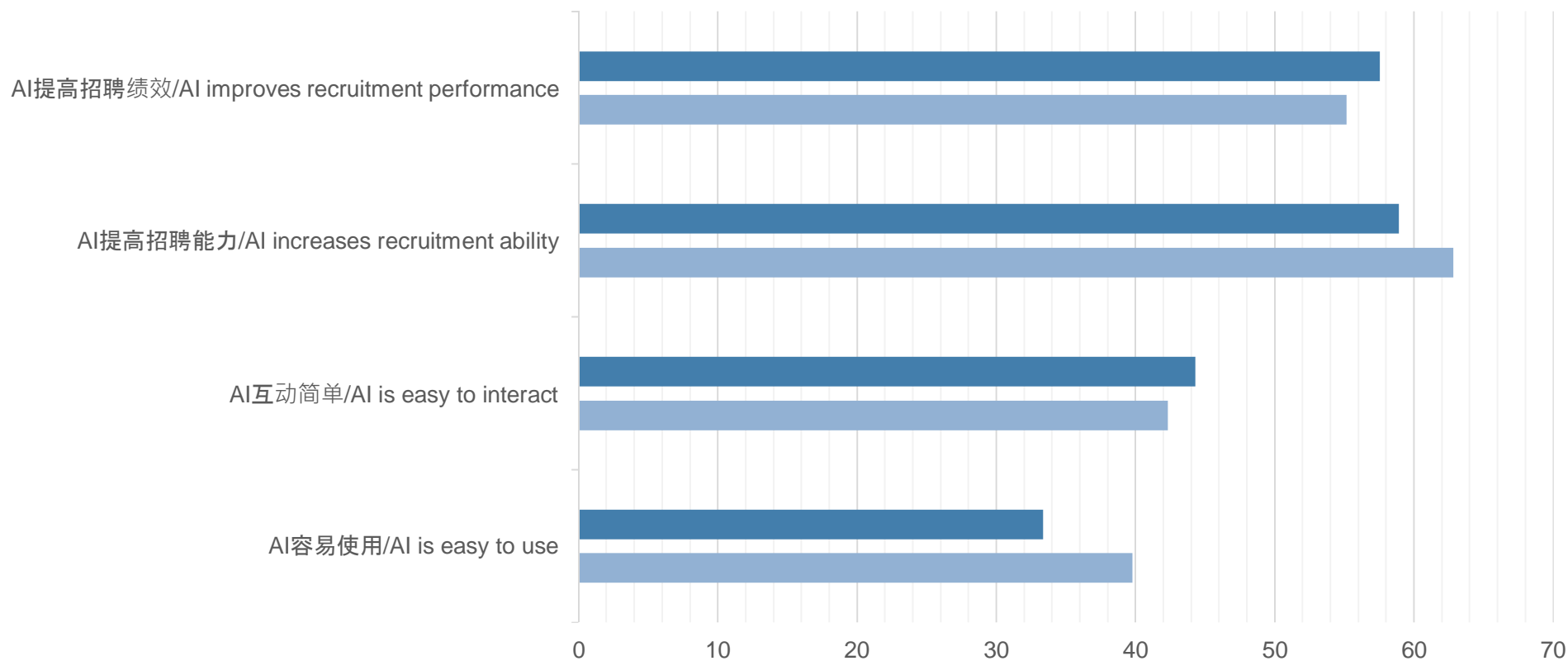
Useful, yet relatively difficult to use

> 五至六成公司认为人工智能在招聘中是有用的

50 to 60 percent companies think AI is useful in recruitment

> 不到四成公司认为人工智能容易使用

Less than 40 percent companies think AI is easy to use

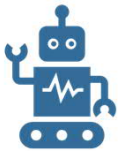GEORG-AUGUST-UNIVERSITÄT
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公司如何看待人工智能？
How companies think about AI?

其他行业/other industry ■ IT敏感行业/IT intensive industry*

*包括IT，通讯和金融行业/ including IT, telecom and finance industry

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使用人工智能：公司准备好了吗？
Using AI：are companies ready？

大部分公司未准备好，但IT敏感行业准备相对更充分

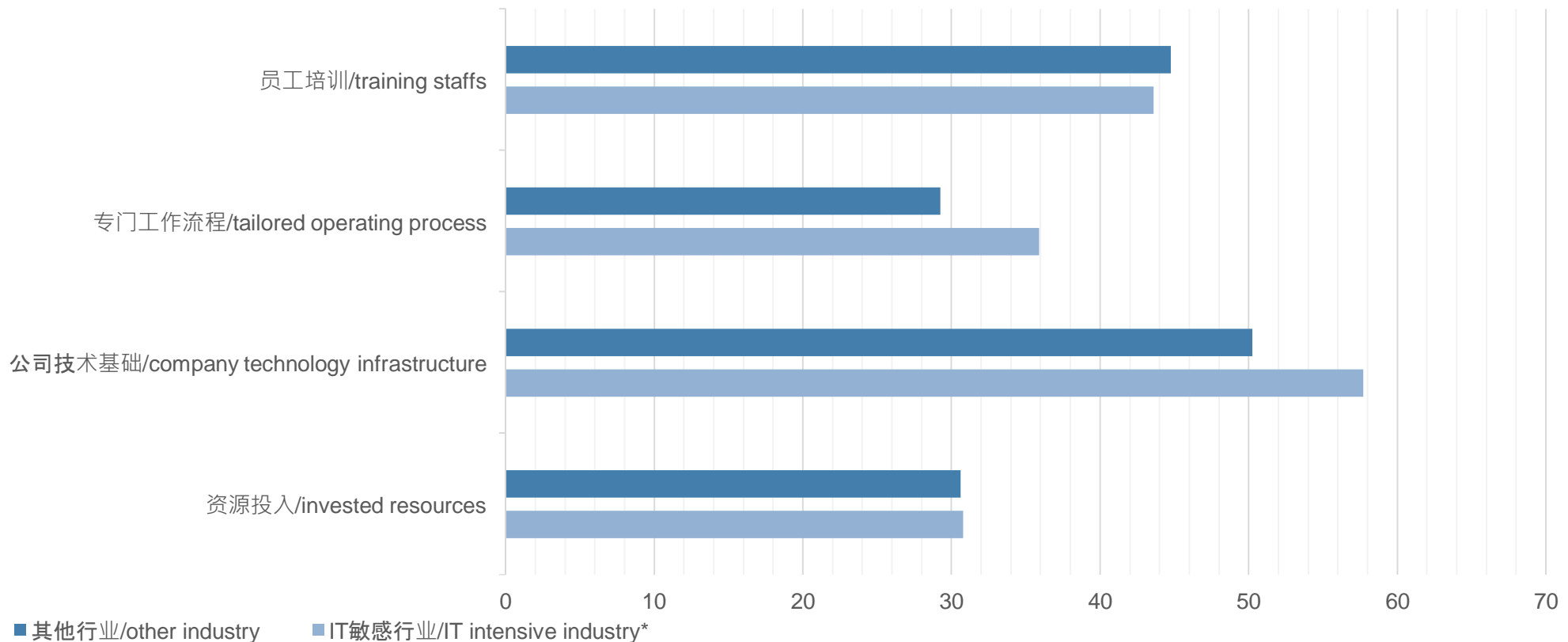Most companies are not ready, but IT intensive industries are more prepared

➢ **少于半数公司在培训、工作流程和资源投入上准备相对良好**

Less than half companies prepared relatively well in training, working process and resource investment

➢ **在技术基础、工作流程和资源投入上，IT敏感行业比其他行业更有准备**

IT intensive industries are more prepared in technology infrastructure, working process and resource investment

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使用人工智能：公司准备好了吗？
Using AI：are companies ready?

员工培训/training staffs
专门工作流程/tailored operating process
公司技术基础/company technology infrastructure
资源投入/invested resources

0　10　20　30　40　50　60　70

■ 其他行业/other industry　■ IT敏感行业/IT intensive industry*
*包括IT，通讯和金融行业/ including IT, telecom and finance industry

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使用人工智能的外部激励
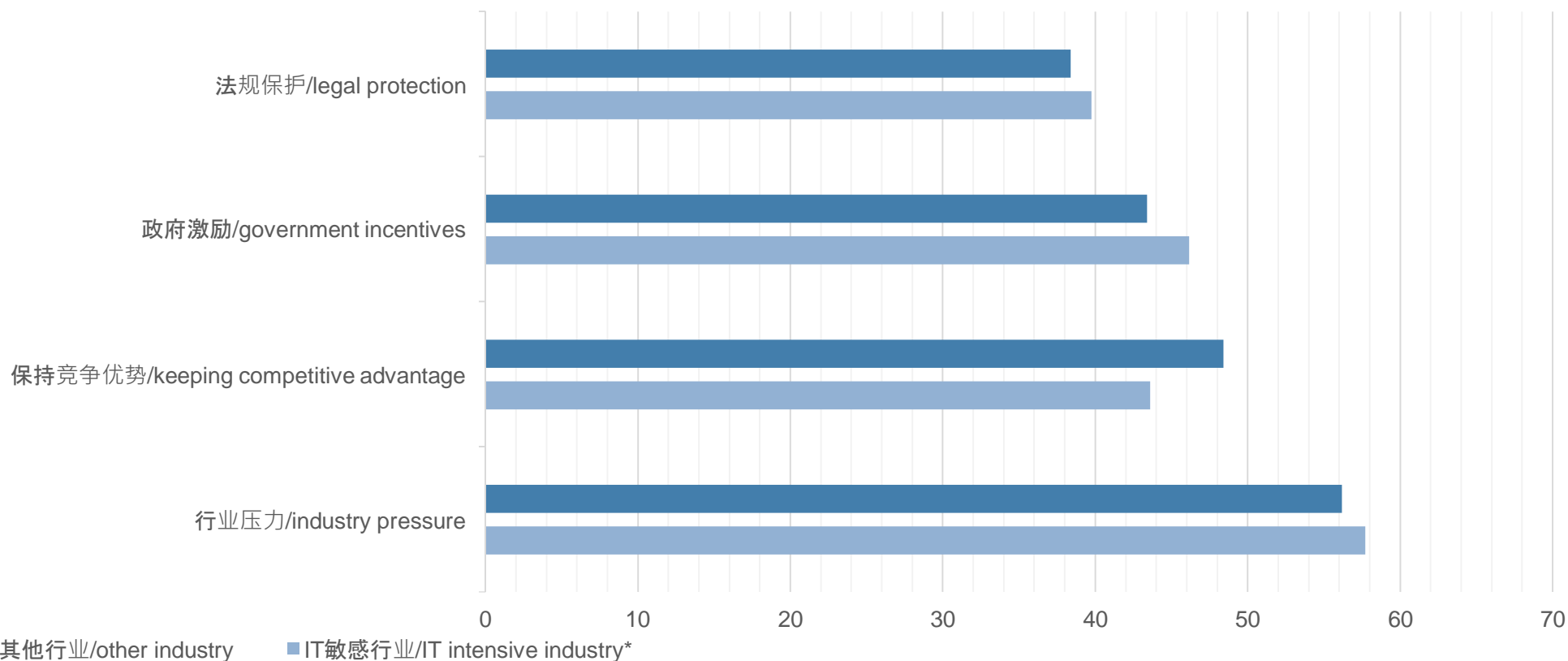# External incentives to use AI
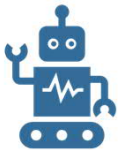
- **除行业压力外，外部激励**较不足

  External incentives are relatively insufficient except for industry pressure

  ➢ **少于半数公司**认为法规保护、**政府激励和行**业竞争优势促使公司使用人工智能

  Less than half companies think legal protection, government incentive and industry competitive advantage push companies to use AI

  ➢ **约55%的公司**认为行业压力是使用人工智能的因素

  About 55% of companies think industry pressure is a driven factor of AI usage

  ➢ **IT敏感行**业感受到的外部压力略高于其他行业，**除了在行**业竞争优势方面

  IT intensive industries confront slightly higher external pressure than others, expect for industry competitive advantage

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使用人工智能的外部激励
External incentives to use AI

法规保护/legal protection

政府激励/government incentives

保持竞争优势/keeping competitive advantage

行业压力/industry pressure

0   10   20   30   40   50   60   70

■ 其他行业/other industry   ■ IT敏感行业/IT intensive industry*

*包括IT，通讯和金融行业/ including IT, telecom and finance industry

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高级管理层对使用人工智能的态度
Top management attitude towards using AI
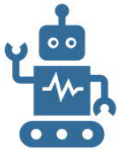
- **大体上**态度积极，**但投**资意向并不算高，**或因**风险规避倾向

  Generally positive attitude, but investment interests are not high, probably due to risk adverse tendency

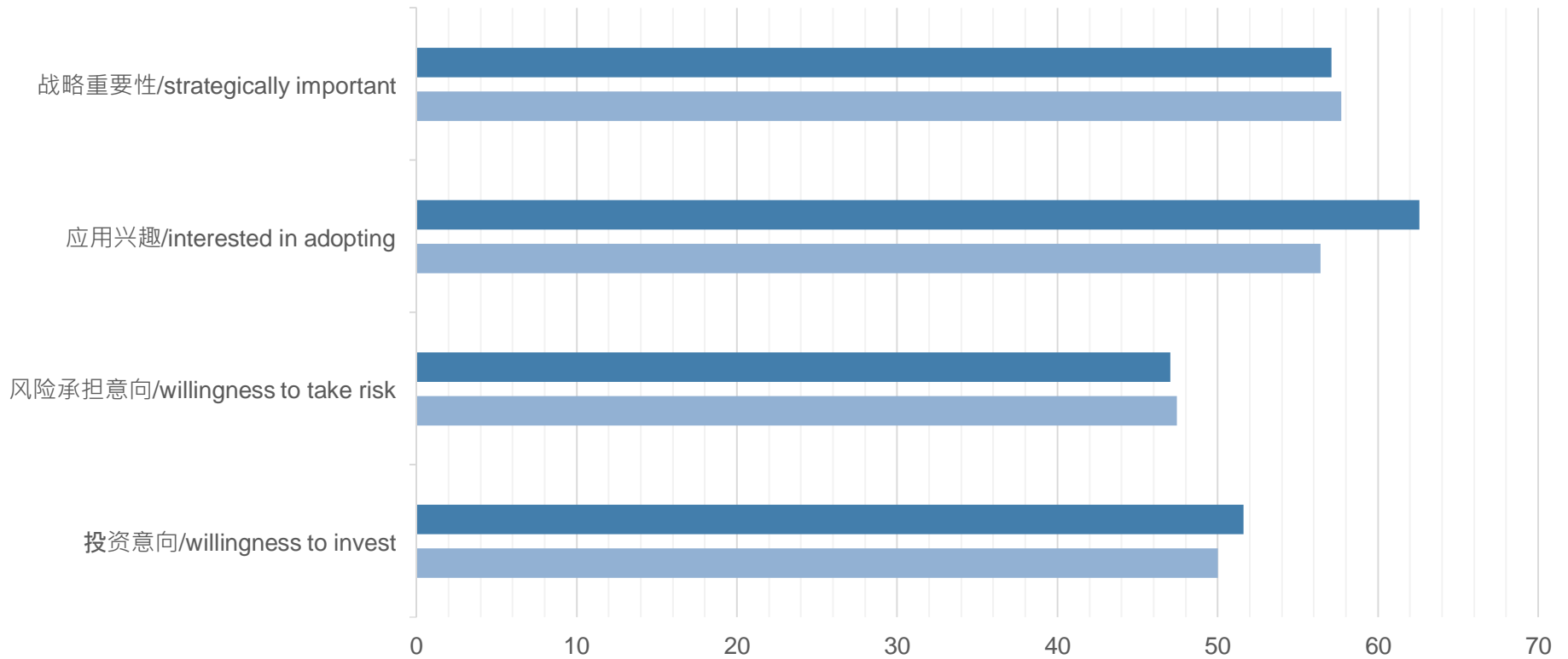 - ➤ **近六成公司的高**层对人工智能感兴趣，**并**认为其具有战略重要性，**但大部分并不倾向作出担**风险和投资的承诺

    Top managements in nearly 60 percentage of companies are interested in AI, and think AI is strategically important, but most top managements do not tend to make commitment in taking risk and making investment

  - ➤ **相**对来说，**非IT敏感行**业高层管理对人工智能更感兴趣，**更愿意投**资于AI应用

    Relatively, top managements in non-IT intensive industries are more interested in AI and willing to invest in AI usage

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高级管理层对使用人工智能的态度
Top management attitude towards using AI

战略重要性/strategically important

应用兴趣/interested in adopting

风险承担意向/willingness to take risk

投资意向/willingness to invest

0 10 20 30 40 50 60 70

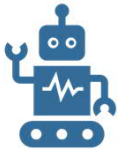■ 其他行业/other industry　■ IT敏感行业/IT intensive industry*

*包括IT，通讯和金融行业/ including IT, telecom and finance industry

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人工智能的不确定性
The uncertainty of AI

- 总体而言，绝大多数公司认为人工智能的未来不确定性不高

  Overall, the majority of companies think the future uncertainty of AI is not high

  ➤ 仅有少于**30%的公司**认为人工智能未来的使用量，**技术特征和花费预算是不确定的**

  Only less than 30% of companies think the future usage volume, technological feature and budget spending of AI are uncertain
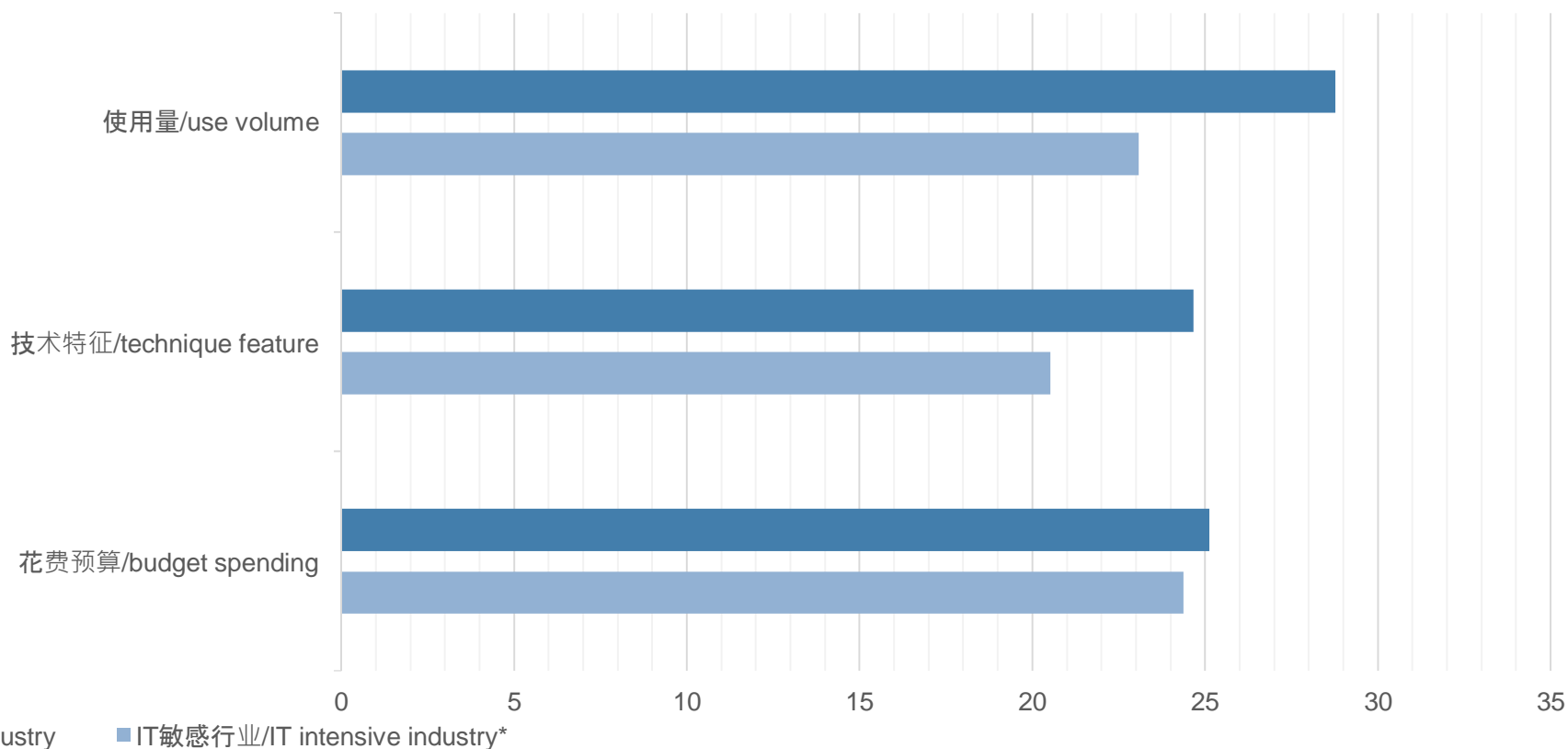
  ➤ 相较于**IT敏感行业，其他行业中的公司**认为人工智能的未来更不确定

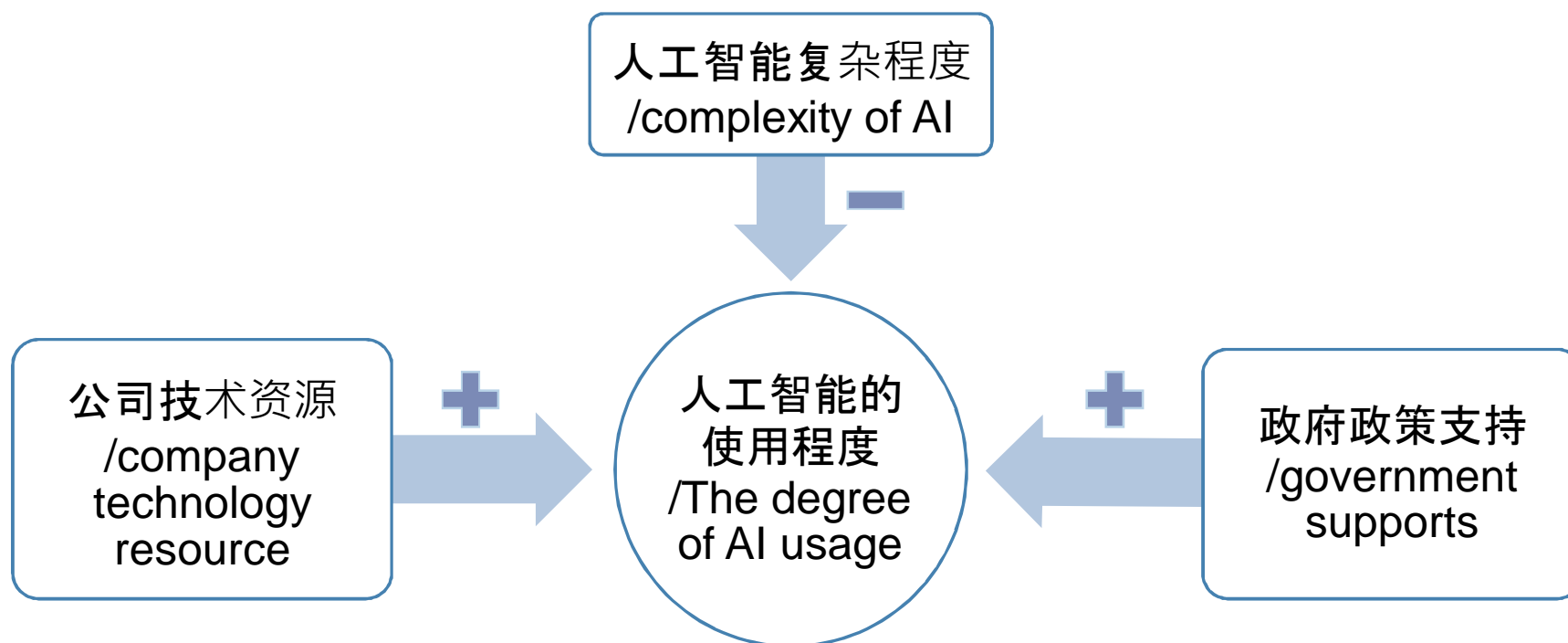 Compared to IT intensive industries, companies in other industries think the future of AI is more uncertain

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人工智能的不确定性
The uncertainty of AI

Legend:
■ 其他行业/other industry ■ IT敏感行业/IT intensive industry*

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决定人工智能运用程度差异的主要因素*
Main factors determine the different degree of AI usage*

人工智能复杂程度
/complexity of AI

−

公司技术资源
/company technology resource

＋

人工智能的使用程度
/The degree of AI usage

＋

政府政策支持
/government supports

*基于理论模型的统计学结果/drawing from statistic results of theoretical model

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要点总结
Conclusion of key information

人工智能在招聘中的应用处于早期，且大部分公司准备不够充分

The usage of AI in recruitment is at early stage, and most companies are not ready for full adoption

在人工智能招聘中，IT敏感行业比其他行业略有优势，但总体相差不大

For AI usage in recruitment, IT intensive industries have some advantages over others, but the difference is modest

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给公司的建议
Recommendations for companies

降低人工智能复杂程度，**例如**选择简单易用的工具或系统，**在开**发中强调人工智能工具对**非技**术人员的易用性等

Address the complexity of AI, e.g. choosing easy to use tools or systems, emphasizing the ease of use for non-technology staff during the R&D of AI development, etc

整合并充分利用公司资源，**例如以公司**现有信息技术基础支**撑人工智能的使用，制定相**应**的培**训和工作流程等

Integrate and take advantage of company resources, e.g. using the existing IT infrastructure to support the usage of AI, developing corresponding training and working process, etc

多加关注国家及地方政策，充分利用政府激励

Pay attention to national and local policies, taking advantage of government incentives

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Thank you for your cooperation!

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