



# 大数据时代医药营销赋能

Oct 2018 Shanghai

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# 大数据深度客户洞察 赋能销售一线团队

## 超级战队

### 持续改进闭环管理



### 大数据整合

- CDW存贮多数据源, 实时更新
- Tableau BI工具实现数据可视化方案
- 多个数据收集终端对医生观念、处方推荐、信息接受



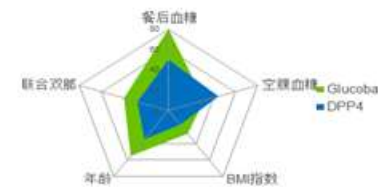
### AI推荐方案

- 通过线上医生推荐的行为洞察客户对品类、品牌偏好观念进行细分
- 人工智能算法与推广信息进行匹配, 最终形成对医生个性化的推荐方案



### 医生个性化信息传递

- 精准洞察客户对不同病人类型的品牌推荐行为
- 知己知彼, 精准传递信息, 实现处方行为改变



### HCP 360° 画像个性化拜访策略



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持续改进闭环管理

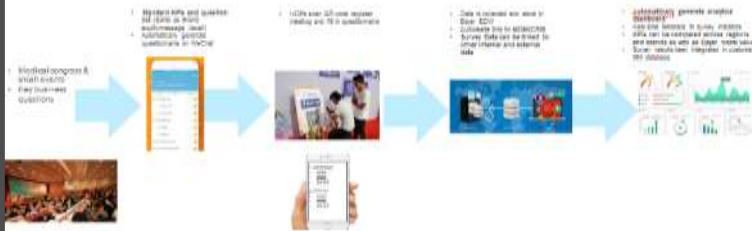
大数据整合

AI推荐方案

医生个性化信息传递

### Survey Portal:

- 大样本量
- 医生观念实时洞察，并与主数据库连接实时回传数据
- KPI跟踪
- 低成本



### 线上平台医生推荐治疗方案



大数据诊断客户观念

聚类区隔

持续改进  
闭环营销  
模式

策略调整

动态监测

处方行为改变



# 大数据深度客户洞察 赋能销售一线团队

## 超级战队

持续改进闭环管理

大数据整合

AI推荐方案

医生个性化信息传递



# 大数据深度客户洞察 赋能销售一线团队

## 超级战队

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医生个性化信息传递

### 医生聚类分析的观念指标

#### 医生信息

- 医院
- 科室
- 职称
- ...

#### 地域分布

- 省
- 城市
- ...

#### 治疗倾向

- 针对6类病人的推荐
- 关键词
- 结合市场调研数据
- ...

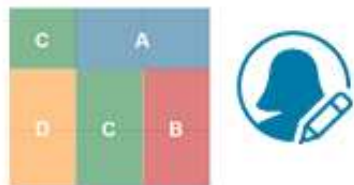
#### 处方行为

- 品牌提及率
- 关键词
- ...

### 根据指标对医生进行聚类分析



### 对类似组的医生进行聚类, 得到各个区隔的医生画像



- 大数据对医生进行聚类分析
- 人工智能算法与推广信息进行匹配, 最终形成对医生个性化的推荐方案



# 大数据深度客户洞察 赋能销售一线团队

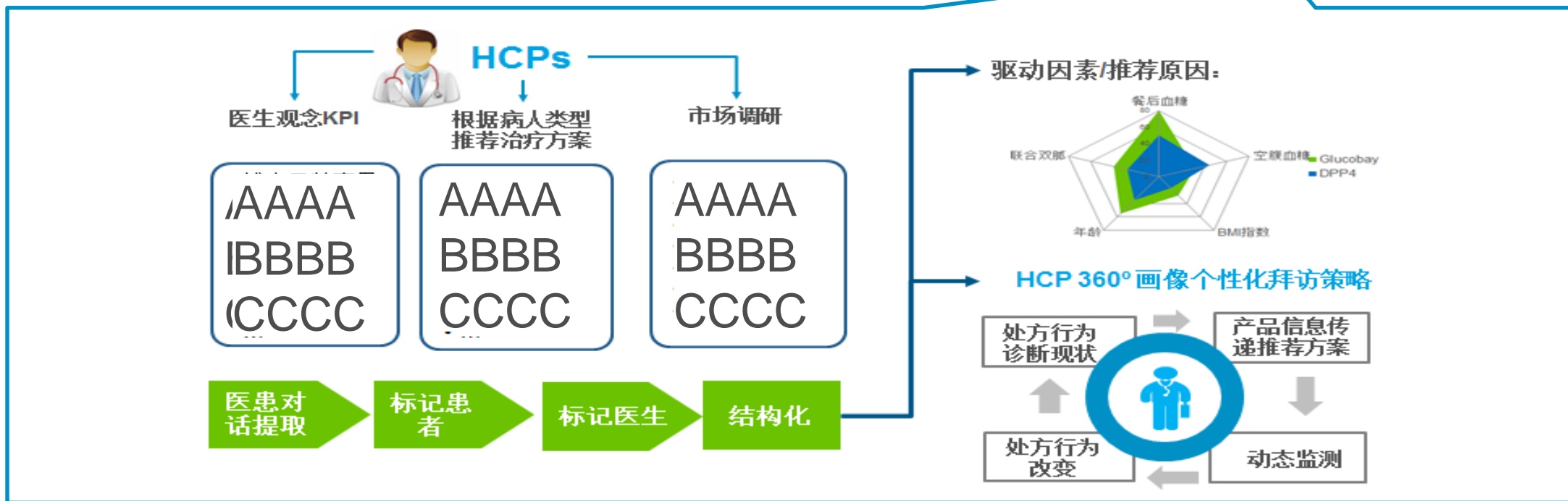
## 超级战队

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# Buildup big data analysis capability within company

Visit Startup company  
April 2017

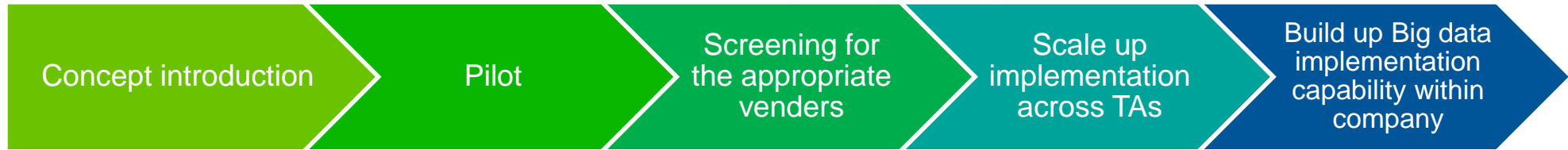
Sharing Big data case in  
China Marketing Summit  
Jan 2018

Release the China health  
care white book v1  
June 2018



XX ongoing big data  
projects for AA/BB/CC/DD  
May to Dec 2018

Name of project	Objective	Methodology	Key output
Project AA	...	...	...
Project BB	...	...	...
Project CC	...	...	...
Project DD	...	...	...



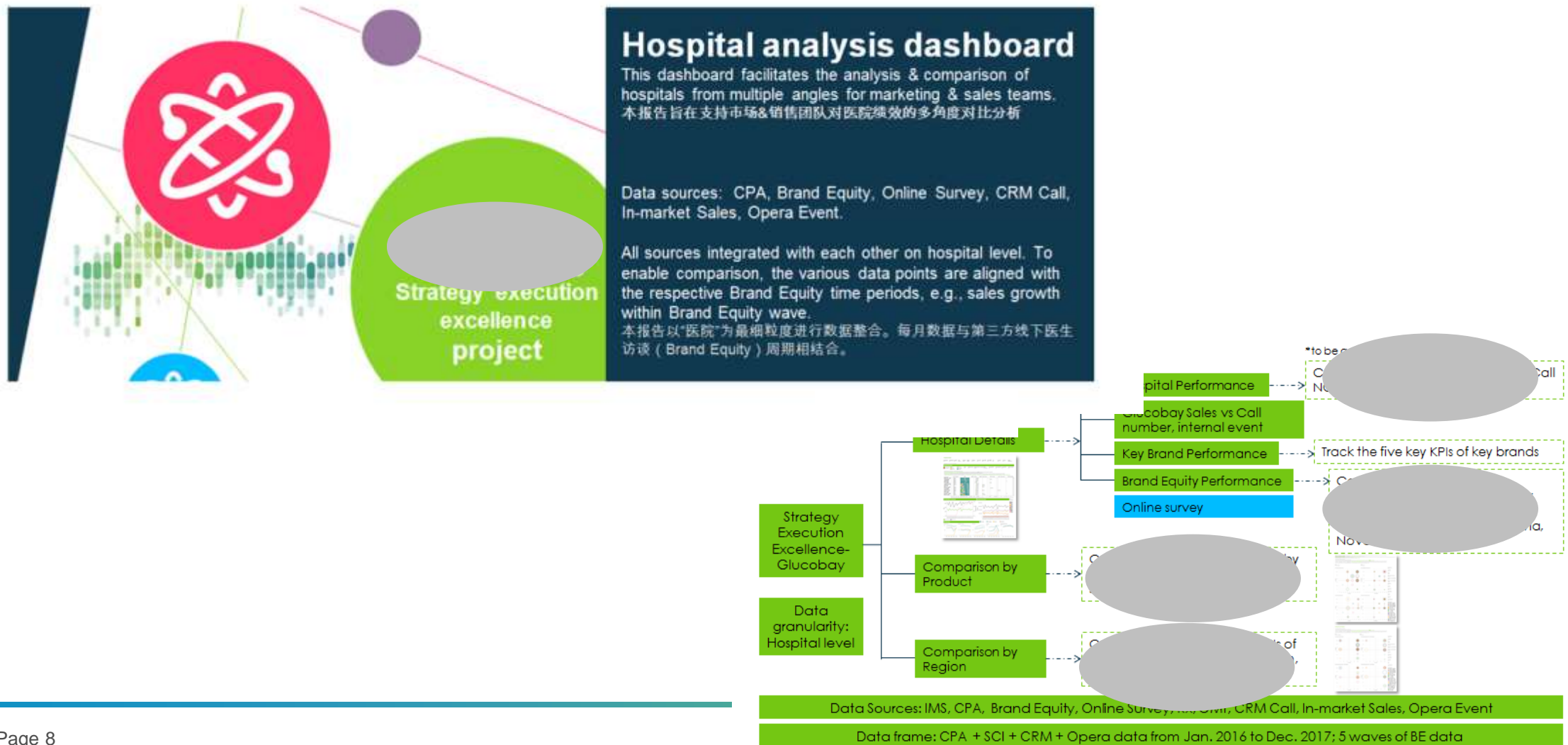
- May to July 2017
- Pilot in the XXX buying process analysis using XXX RWD
  - Sharing the result in GMO summit

- Feb to June 2018
- Invited health care big data vendors to XX for capability introduction
  - Arrange big data best practice sharing workshop with brand team
  - Participate health care big data congress and China big data Expro to learn the industry progress

- Q3&4 2018
- Working with Agency for big data analysis framework and methodology training
  - Held big data application workshop within company for best practice sharing
  - Align with compliance and legal /data privacy department for the big data usage guidance
  - Working with procurement department for the big data prefer vender list



# Customer insight 360® – Prototype from XXX strategy execution excellence project





# Hospital Dashboard Prototype

One-stop-shop easy use powerful tools to integrate all internal and external KPIs

Multiple filter to select the target hospital group

**Hospital Detail**

HospitalLevel: (全部) | Top200: (全部) | PowerPlus: (全部) | ChinaDNA: (全部) | Date: 2017-12 | Date Type: YTD | Measure: Value | IMS Region: 北/西/南大区 | Province: 北京市 | Region: (全部) | District: (全部) | City: (全部) | City Level: (全部) | Territory: (全部) | IMS Region: 北/西/南大区 | Province: (全部)

These filters control all the charts below. 以上筛选器控制以下所有图表。

**Hospital Performance**

Wave: (全部) | BE Attend times: (全部) | Comparison Product: Ka Bo Ping | BE KPI: NPS 是否达标 | (全部) | (全部) | (全部) | (全部)

- All internal and external KPIs are integrated in hospital level
- Easy ranking and comparison can help to identify the outlier hospital
- One-stop-shop indicators cover input/output/process management/HCP perception can provide 360 degree customer insight in hospital

Out put Sales Achievement

Output Market Performance

Input Call

Input Events/Speaker fee

Process HCP perception

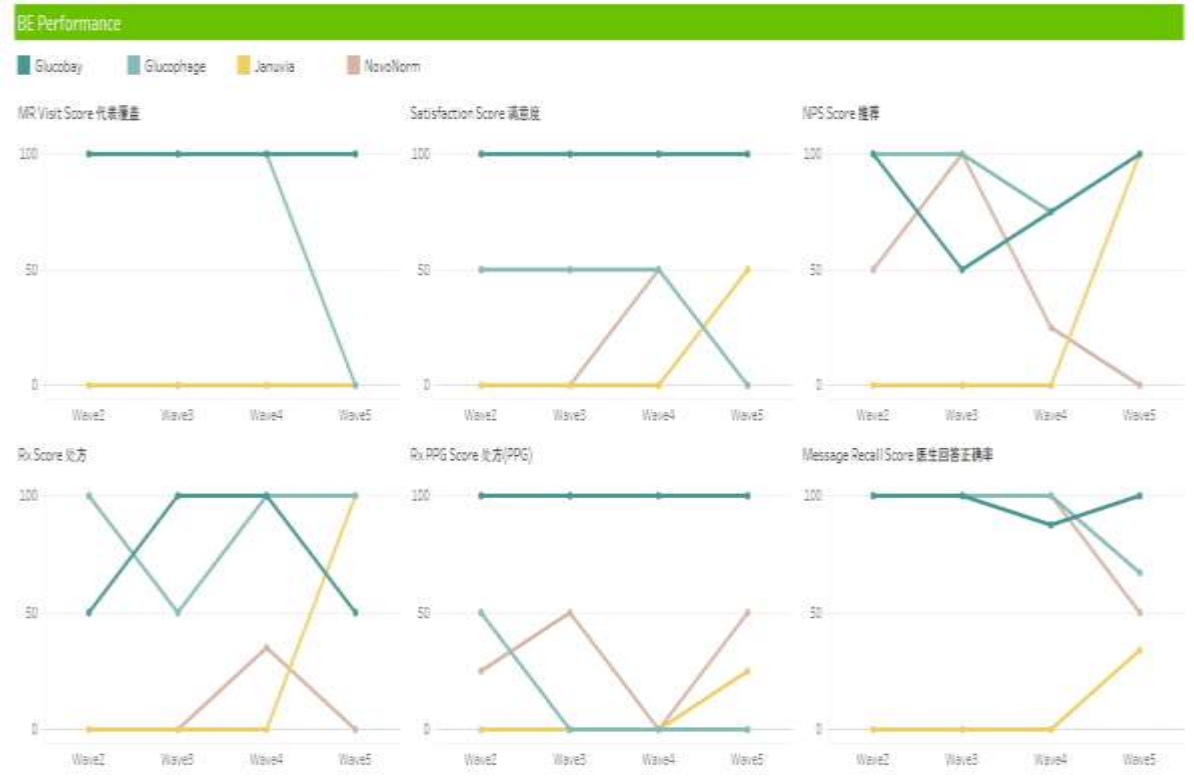
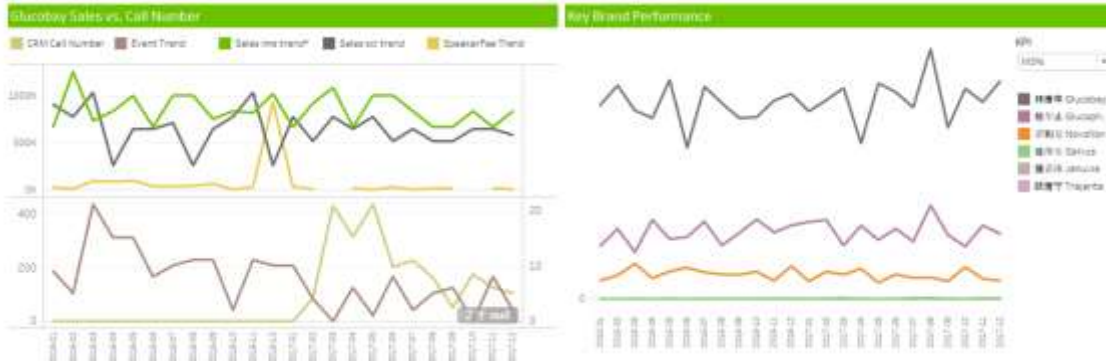
Process MR coverage/Satisfaction

Process HCP Brand equity/Rx driver

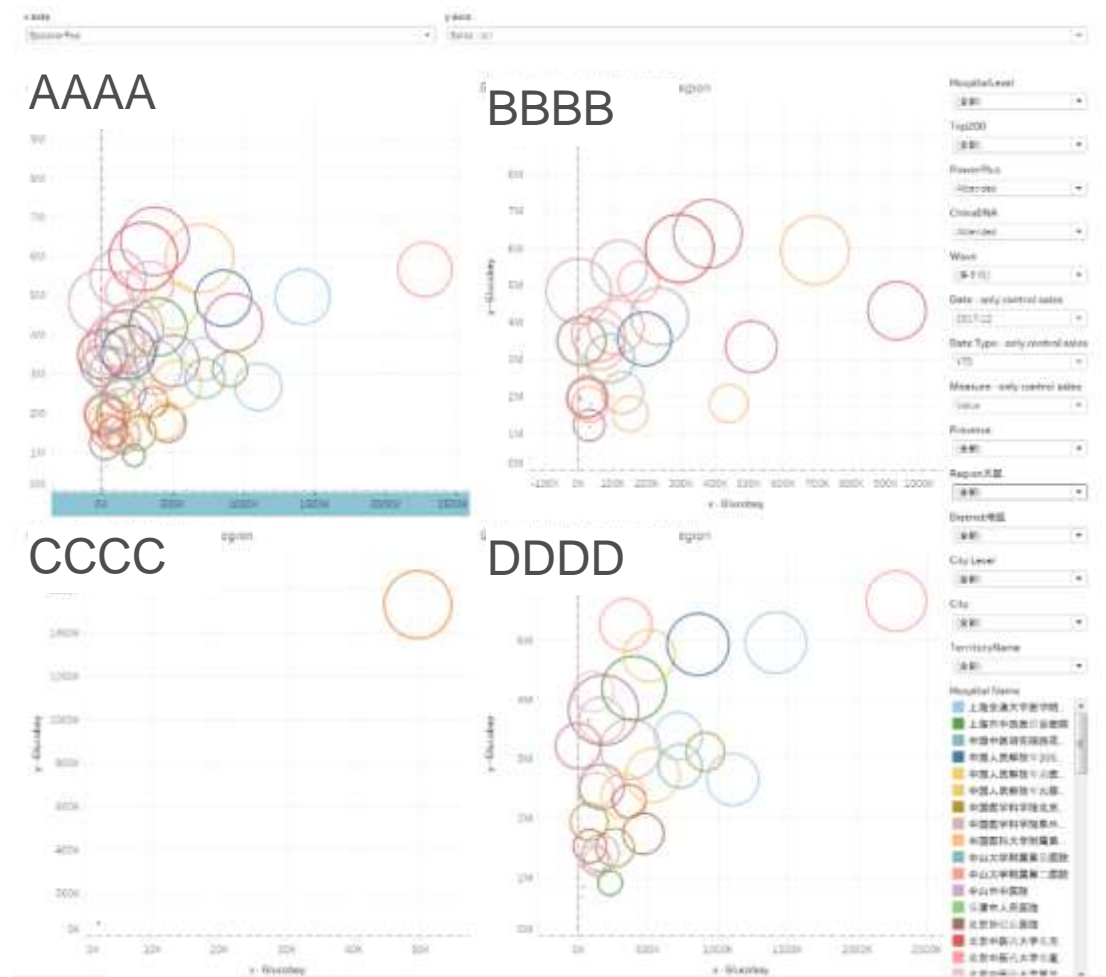
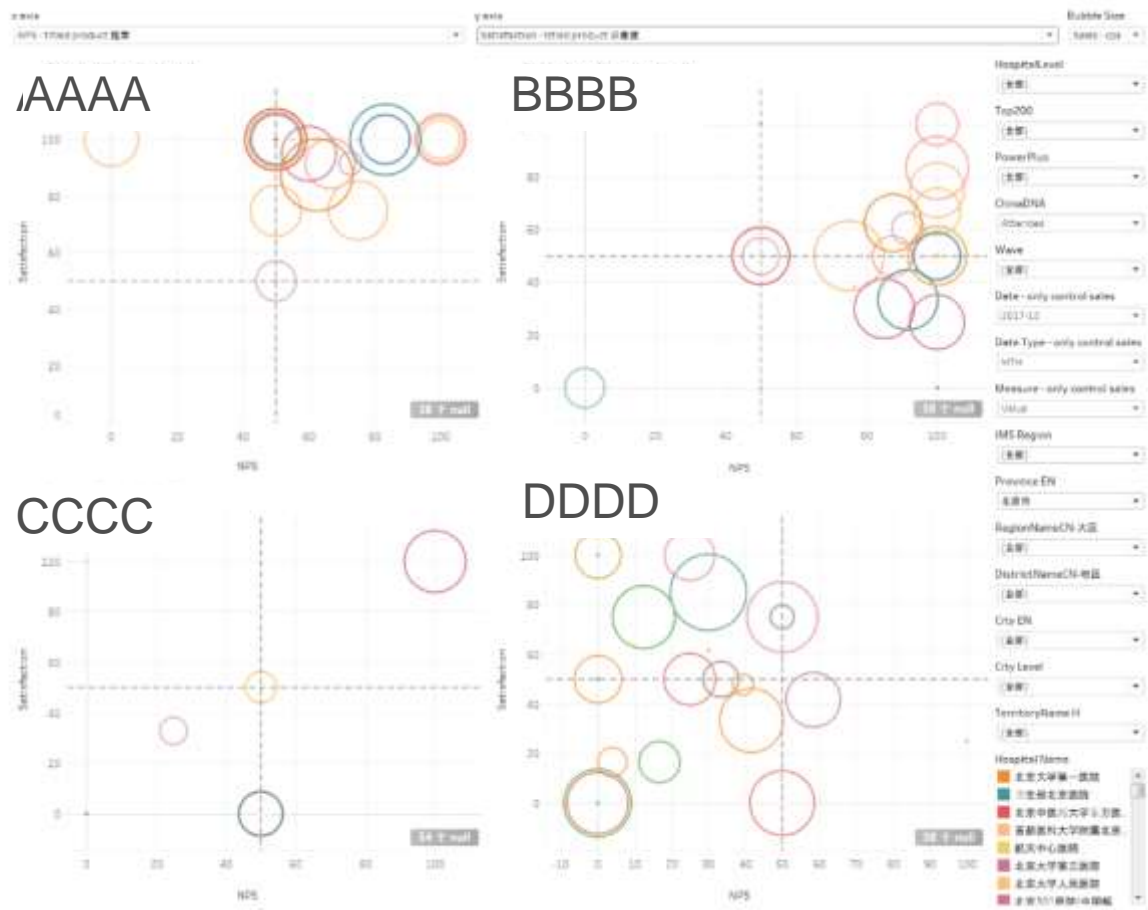
Process HCP message recall

Hospital Name	Target vs Sales (%)	MS%	ΔMS% - Glucobay	ΔMS% - chosen product	GR% - Glucobay	GR% - chosen product	CRM Call Number	Event Number	Speaker Fee	OS 品牌感知 Overall Perfoms	OS 品牌感知 品牌 PPG	Glucobay MR Visit	Glucobay Satisfaction	Glucobay Rx Score	Glucobay Rx PPG Score	Glucobay NPS Score	Glucobay Mig Recall
首都医科大学宣武医院	98.8%	27.4%	89.6%	0.9%	-23.6%		1,999	114	490.0k								
首都医科大学附属北京	99.4%	50.8%	26.9%	1.5%	-5.9%		2,302	82	146.0k								
北京大学第一医院	103.8%	37.6%	34.2%	0.2%	0.4%		894	111	313.0k								
卫生部北京医院	100.9%	38.0%	15.2%	2.6%	-3.4%			77	461.0k								
首都医科大学附属北京	81.9%	20.2%	46.0%	-0.3%	-8.8%			264	983.4k								
北京市丰台区妇幼保健院	147.8%						382	18	95.0k								
北京宣武医院广外社区卫	118.1%	61.4%	21.0%	0.2%	18.3%		987	18	9.0k								
北京大学第三医院	107.4%	38.0%	27.0%	2.3%	0.9%		443	188	379.0k								
北京中医药大学东方医	102.2%	40.3%	19.2%	0.9%	-6.7%		2	305	294.8k								
中日友好医院	103.3%	78.4%	15.5%	-0.1%	-10.1%				5.0k								
北京市通州医院	89.3%						1,455	88	12.4k								
西城月坛社区卫生服	108.0%						227	114	6.0k								
北京大学人民医院	100.8%	22.4%	32.4%	0.8%	-4.0%				112.8k								
北京市海淀医院	98.9%	36.2%	15.2%	0.4%	-8.2%		1,135	105	217.0k								
首都医科大学附属北京	102.9%	70.3%	19.2%	0.9%	-7.6%			2,062	11	12.0k							
北京世纪坛医院	89.7%	10.3%	17.0%	1.0%	-17.9%		493	11	18.0k								
煤炭工业部总医院	104.1%	41.4%	21.9%	2.6%	-3.9%			1,566	11	109.8k							
首都医科大学附属北京	101.7%	55.1%	23.6%	-0.6%	-24.2%				105.2k								
北京市普仁医院	82.8%	38.6%	24.0%	0.9%	-10.2%		220个null	47	75.2k								

# Hospital level KPIs trend can help to dig out more customer insight



# 4 dimension analysis can help to visualize the correlation among different KPIs



# Company Survey Portal

- Medical congress & small events
- Key business questions

- **Standard KPIs and question list** (Same as Brand equity/message recall)
- Automatically generate questionnaire on WeChat



- HCPs scan QR code register meeting and fill in questionnaire



- Data is collected and store in Bayer EDW
- **Automate link to MDM/CRM**
- **Survey Data can be linked to other internal and external data**



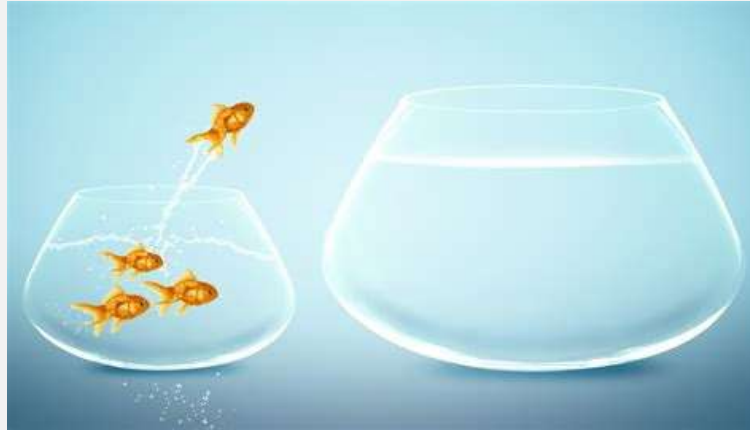
- **Automatiically generate analytics dashboard**
- Real time feedback to survey initiators
- **KPIs can be compared across regions and brands as well as Bayer norm value**
- Survey results been integrated in customer 360 database











# Survey Portal (unmet needs and key value)

- Small sample size and low frequency
- Delay of result
- Only national / big cities level , cannot provide insight in hospital level
- Ad hoc study , survey data not easy to store/integrated for further comparison and analysis
- High cost



- Large sample size,
- Real time analysis and HCPs level insight
- Result can be auto link to other internal and external data for further analysis
- Result can be compared across region/brand/hospital
- Cultivate trend data within consistent KPIs for future advanced/predictive analysis
- Low cost (IT development)

# Traditional Market Research VS Real Word Evidence Research

Traditional Market Research	Big Data & Real World Evidence Research
Sampling	Universes 
limited dimension	Multiple/unlimited dimension 
Fixed results	Exploratory discovery 
Fixed view	Flexible view 
New idea—New discovery—New tech	New tech—New discovery—New idea 
Explore deep concept 	Analyze real life data

# 医药大数据应用主要考虑因素

## 数据的质量：

- 数据的代表性
- 数据量
- 数据覆盖的范围：全领域/专病
- 数据的可扩展性

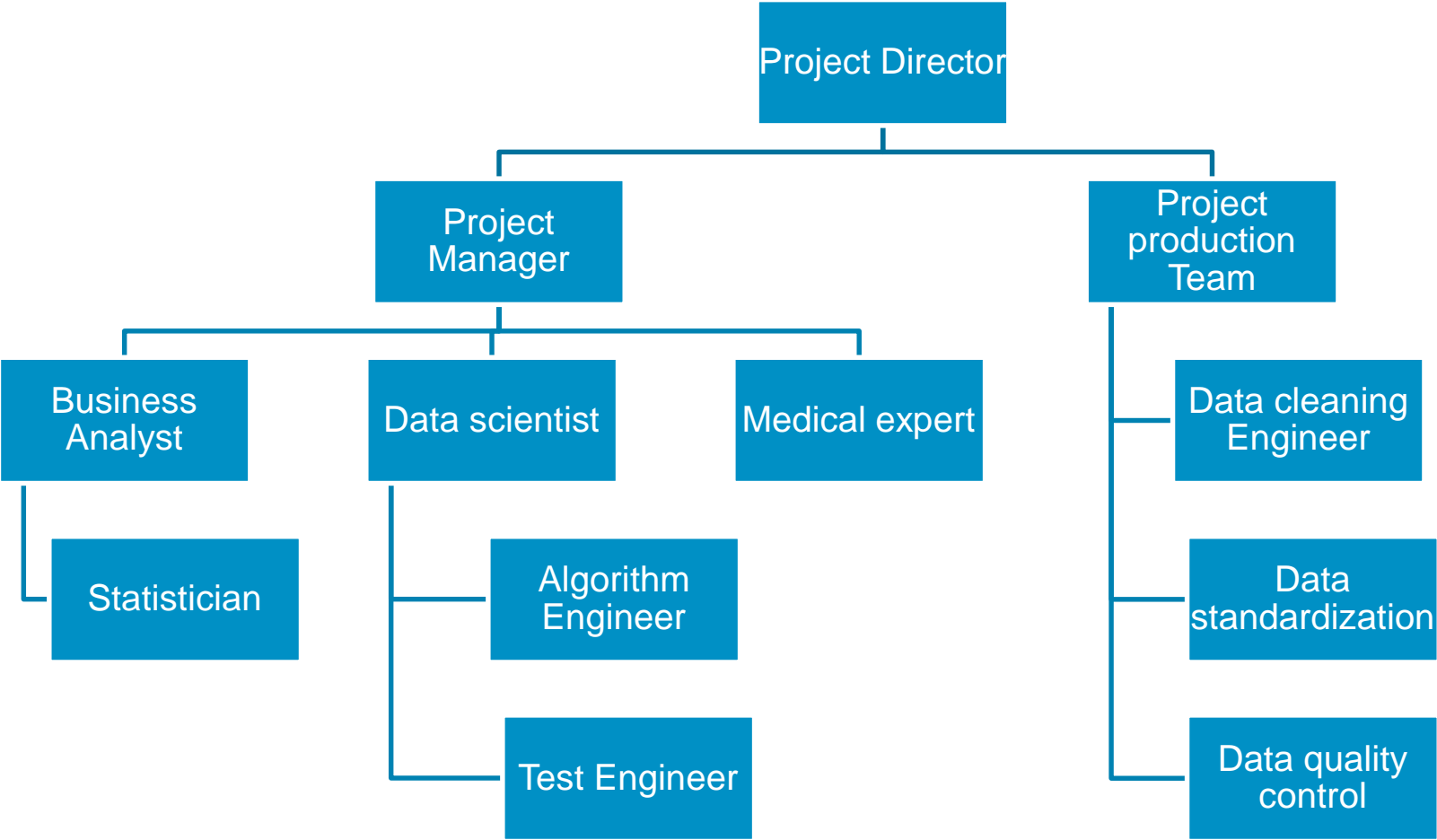
## 数据提供方的数据处理能力：

- 是否有方便快捷的数据查询平台
- 信息是否标准化
- 数据处理适合商业分析和临床研究需求
- 管理/整合其他大数据资源的能力

## 数据提供方的跨领域合作团队的能力

- 数据提供方理解业务需求，洞察结果，咨询建议的能力
- 是否有健全高效的数据库，算法，医学，市场咨询，客户团队

# Typical big data analysis project team need multiple cross function expert





# 大数据项目的成功因素

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- 接受并努力尝试 新数据 新方法
- 正确解读数据/结果
- 沟通 沟通 沟通
- 与传统方法，其它数据相结合
- 总结 分享

# 医药企业迎接大数据时代的挑战

## 数据获取/整合

- 主数据管理
- 客户 360 数据库
- 企业云
- 企业数字化转型
- 流程数据化再造

## 数据展示/报告

- KPIs framework
- BI 分析平台
- Reporting/Dashboard 平台

## 数据分析/加工

- 数据加工/再生
- 数据科学/高级分析
- 数据挖掘
- 人工智能/机器学习

## 对外合作/并购

- 战略合作
- 并购
- 创新企业孵化



未来已来 拥抱变革