

The background of the slide is a deep space scene. On the left, a large, dark, cratered celestial body, possibly a moon or a planet, is partially visible. Below it, the bright blue and white horizon of the Earth curves across the frame. The rest of the background is a dark, star-filled space with some nebulae and distant galaxies.

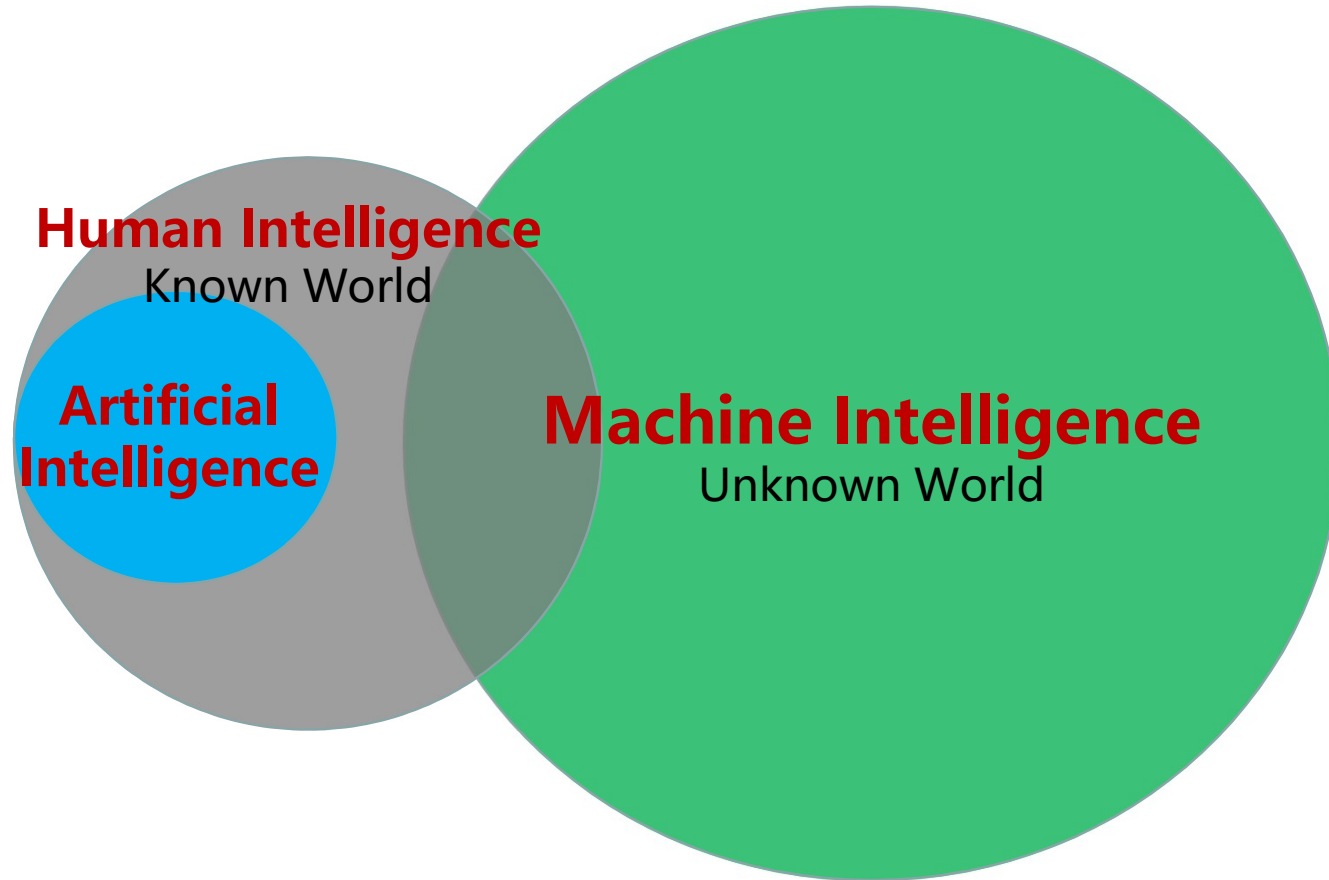
Inclusive technology change the world

**Director of Alibaba Cloud Research
Tian Feng**

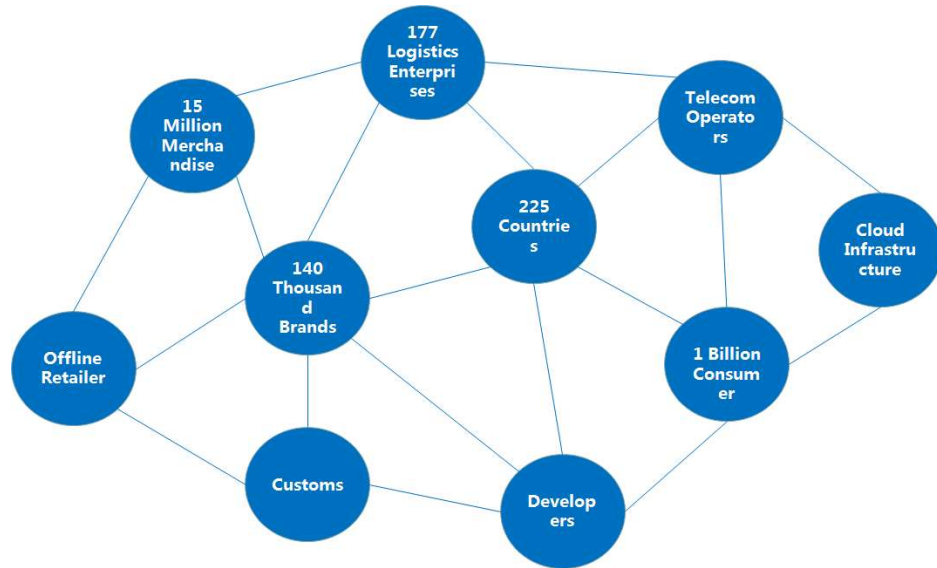
“The next 30 years are world-shaking 30 years, small and medium enterprises benefited greatly from inclusive technology.”

——Jack Ma

Trend: From Machine Learning to Machine Teaching



Tmall Double 11: Network Cooperation rebuild global market



“Double Eleven” is tomorrow of all industries!

Gross Merchandise Volume: **168.2 Billion**
Packages: **812 Million**

Data Technology Infrastructure:

Transaction Peak: **325 Thousand /Sec**

Payment Peak: **256 Thousand /Sec**

Real-Time Data Peak: **472 Million /Sec**

阿里云全球基础设施布局 (2017年10月)



Tmall Double 11: Artificial Intelligence create global platform

1. Poster Design Robot

8000 / Sec
Design 410 Million Posters



2. Warehouse Robot

Sorting, Facial Mask + Lipstick
Reduce 96% Steps of Order Picker

3. Customer Service Robot

Replace 95% workload



4. Inspection Robot in Data Center

365Day x 24 Hrs
Reduce 30% human labor



Tmall Double 11: Ant Blockchain make social trust easier



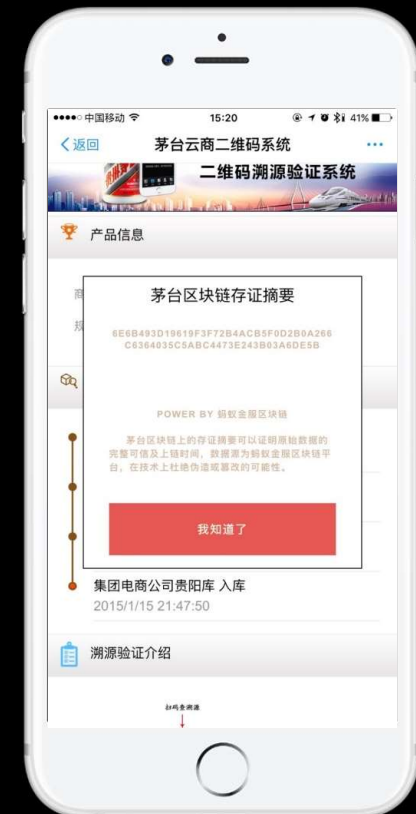
1. Ant Charity Platform: Trace and protect donation



2. International Supplier Chain Provenance: Global deployment, high-performance



3. Moutai Liquor Provenance: Blockchain monitor dealer



Tmall Double 11: voice shopping rebuild consumption interface



Roewe RX35+AliOS = Car running on Internet

Voice Assistant: "AliGenie"

- ✓ Destination navigation,
- ✓ Restaurant reservation,
- ✓ Music search and play,
- ✓ Parking guide,
- ✓ Personalized automobile insurance,
- ✓ Online-to-Offline life service etc.



Tmall Smart Speaker

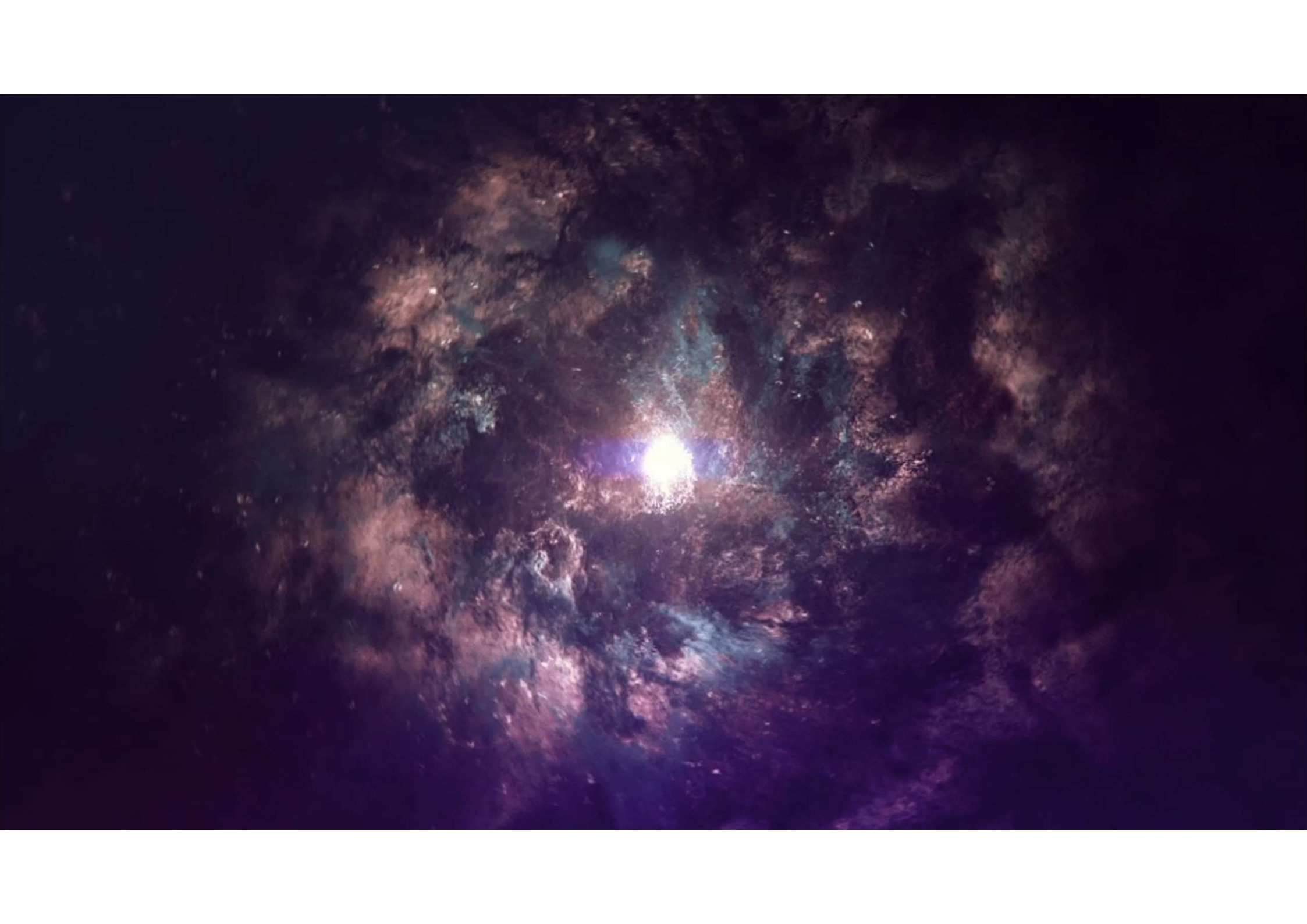
Sold 1 Million in 1st Quarter

- Control Smart home appliances
- Voice shopping & Voice Pay
- Order Takeaway
- Check weather
- Read News
- Check stock
- Memo Reminder etc.



New Era - Digital Transformation 2.0

ABC Tech: Artificial Intelligence, Blockchain, Cloud



ET City Brain

Kuala Lumpur

HangZhou

ChongQing

SuZhou

Macau

City Brain of China HangZhou

城市事件感知与智能处理

City Event Perception and Intelligent Processing

日事件报警总数
09,989

救护车绿灯优先通行



感知来源分布



事件类型分布

出警数 176 次 交警铁骑 87 辆 救护车 32 辆 消防车 19 辆

平均处理时长
58秒

优先通行次数
08次

公众出行与运营车辆调度

Public Travel and Operational Vehicle Scheduling

公交车 1,569 辆 出租车 7,739 辆 公共自行车 8.60 万辆

公共交通分担率



区域交通流分析



公共交通分担率 7.3% 出租车分担率 57.9% 自行车分担率 50.5%
停车位总数 24.0 万个 地铁流量 1.76 万人 医院门诊量 0.57 万人

全市延误指数

1.96

▲+0.08

市区拥堵指数

7.34

▲+0.74

日交通量

46.03 万辆

▲+0.67

景区日交通量

1.81 万辆

▲+0.03

快速路日交通量

22.46 万辆

▲+0.34

交通评价与信号灯优化

Traffic Situation Perception and Signal Light Optimization

主干道均速 ▲+6.13

43.4 KM/H

快速路均速 ▲+4.99

66.4 KM/H

拥堵路段排行

路口	评价指标
文晖路	12.4
秋石路	12.5
新业路	12.5
新业路	12.5
新业路	12.7

路口 / 匝道预警

路口	评价指标	预警
保银北路-文三路	0	正常
德清路-新业路	0	正常
马家巷-文三路	0	正常
保银北路-文二路	0	正常
德清路-德清路-莫干山路	0	正常

最近一次下发配时



萧山 接管104个红绿灯，区域内通行速度提升15%，救护车到达时间缩短50%
杭州 接管24个红绿灯，部分区域通行时间缩短15.3%；交通事故秒级自动报警；中河-上塘高架通行时间缩短4.6分钟
苏州 试点线路公交出行人数增长17%

两客一危车辆数

8,920 辆

人脸识别数

132 次

社会治理与公共安全

Social Governance and Public Security

Alibaba Cloud ET: City Brain

城市事件感知与智能处理

City Event Perception and Intelligent Processing

1. Traffic condition prediction

📍 ZheJiang Province

浙江高速“未来1小时”路况预测上线，春节将重度拥堵3天(组图)

2016-02-05 15:16:42 来源: 澎湃新闻(上海)

(原标题: 浙江高速“未来1小时”路况预测上线, 春节将重度拥堵3天(组图))

2月5日, 浙江省交通运输厅召开高速公路未来1小时路况预测新闻发布会, 宣布该省高速公路“未来1小时”路况预测正式上线。同时发布2016年春节浙江高速公路运行预测报告。通过微信公众号“浙江交通出行”, 公众可实时查询未来1小时内高速公路的拥堵状况。

据介绍, 目前浙江沪杭甬、绕城、杭千、杭宁、杭金衢、甬台温等6条高速约1300公里的里程可实现“预测未来”, 约占浙江省内高速公路总里程的1/3。



救护车绿灯优先通行

救护车绿灯优先通行

2. Smart Traffic Light prediction

📍 GuangZhou City



全市延误指数

全市延误指数

市区拥堵指数

市区拥堵指数

日交通量

日交通量

景区日交通量

景区日交通量

快速路日交通量

快速路日交通量

3. Emergency vehicle scheduling

📍 HangZhou City



交通评价与信号灯优化

交通评价与信号灯优化

4. Bus Optimization

📍 SuZhou City



5. Traffic optimization

📍 Malaysia



ET Industrial Brain

Machine Neural Network

Rules

Features

Experience

Industrial AI

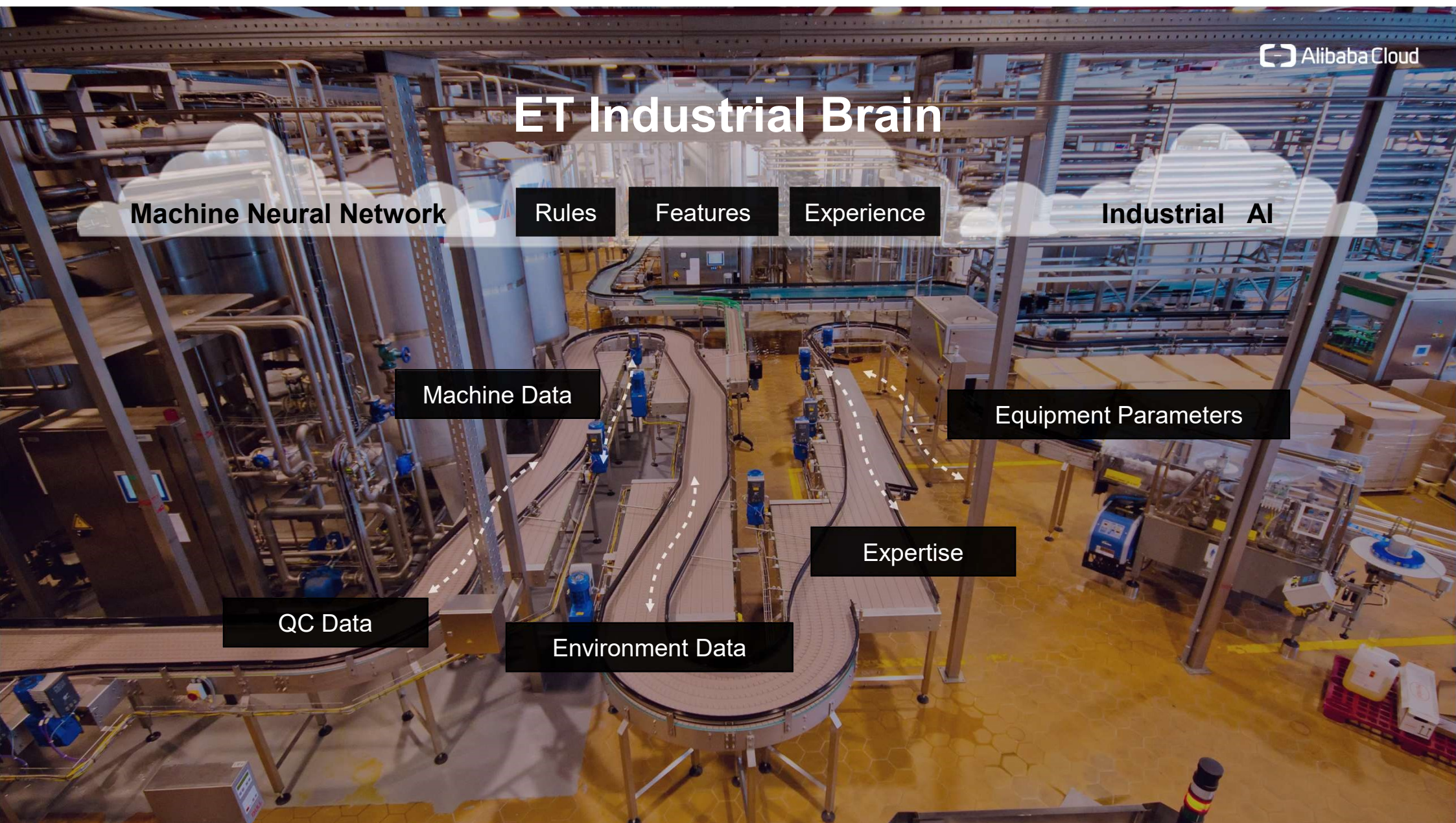
Machine Data

Equipment Parameters

Expertise

QC Data

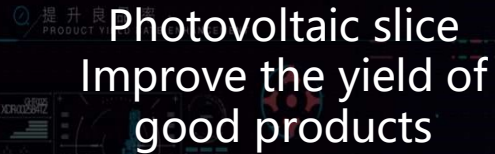
Environment Data



Industrial Brain of Smart Factory



Alibaba Cloud ET: Industrial Brain



提升良率
PRODUCT YIELD

Photovoltaic slice

Improve the yield of good products



Solar cell production

 Trina Solar



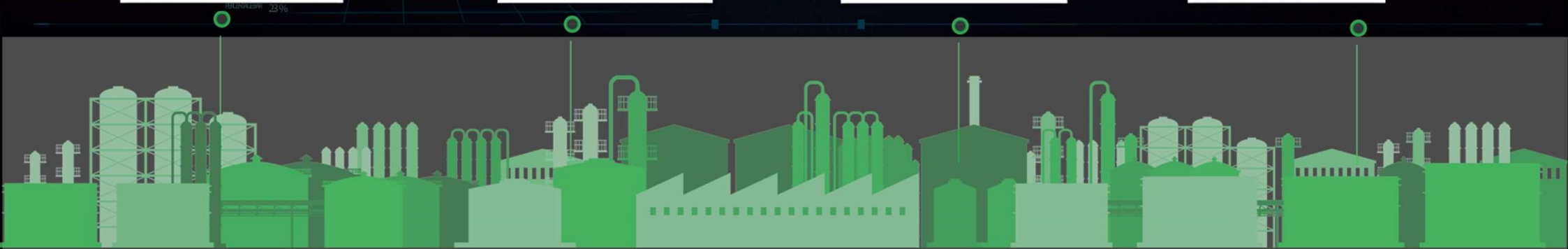
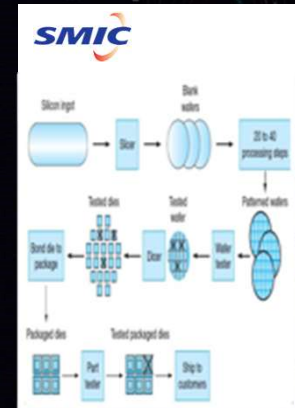

Refining process optimization

 ZhongCe Rubber



Chip

Improve the yield of good products



ET Aviation Brain



Beijing Capital International Airport

1700+

Flights / Day

50 seconds

Gate Planning

5000+

Hours Saved / Day

Alibaba Cloud ET: Aviation Brain

1. Distribution prediction of airport passenger flow



打破规则率 23.52%

14.74% ↓

2. Aircraft route network optimization



3. Intelligent recovery of flight delay



4. Face recognition ID card boarding



Thursday
July 4

15:26

Alibaba Cloud ET: Agriculture Brain

无锡新气象农业监测分析系统

2017-06-04 09:36:58

天气信息

2017-06-03 星期六
天气：阴 温度：24°~25°
天降雨量：0



日期	星期	温度	天气	天降雨量
2017-06-06	星期二	25°~27°	多云	0
2017-06-07	星期三	23°~26°	晴	0
2017-06-08	星期四	21°~24°	小雨	8mm
2017-06-09	星期五	20°~23°	小到中雨	12mm
2017-06-10	星期六	20°~25°	多云	0

产地分布



长势监测预警

田块9平均株高 **333** mm
建议进行生长调节



生长阶段监测

田块1处于三叶期



田块4处于三叶期



田块7处于三叶期



- ✓ Monitor corn growth cycle and plant diseases and insect pests, water conservancy disaster
- ✓ predict corn yields and market requirement



田块6疑似矮花叶病症状

ET Brain for Agriculture



10 million

Farmed Pigs (By 2020)

3 more

Piglets, per Sow per Year

-3%

Mortality Rate



ET 环境大脑


环境综合管理
INTEGRATED ENVIRONMENT MANAGEMENT

ET ENVIRONMENT BRAIN

智能环境监测
INTELLIGENT ENVIRONMENT MONITORING

Alibaba Cloud ET: Environmental Brain

1. Big Data Fishing

 China Oceanic Bureau




2. Intelligent assessment of solid waste

 SMCL




3. Earthquake prediction algorithm contest

 China Seismological Bureau



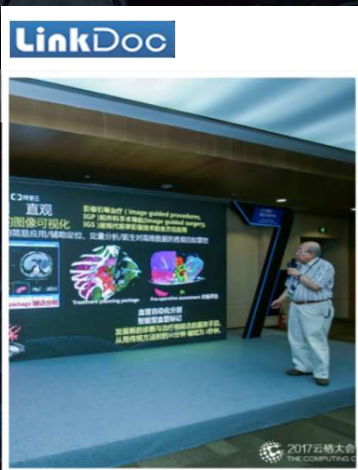
4. Environmental Brain Release

 ShangHai



Alibaba Cloud ET: Medical Brain

1. Tianchi medical algorithm contest



2. World champion of AI diagnosis rate of pulmonary nodules

Lung Nodule Analysis 2016

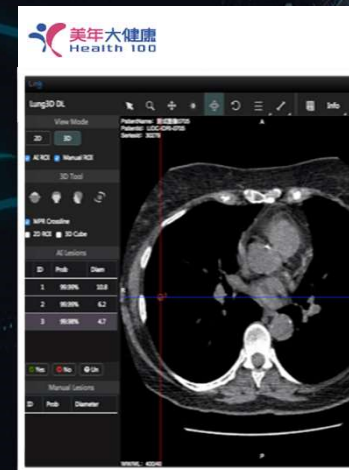
Home Description Procedure Data Evaluation Results Register Download Submit Forum Tutorial

This page lists the results of all submissions to date. Click on the score of a method to see detailed results. See below for explanation.

Rank	Team	Date	Score	Description
1	QST-VL (cheng1205)	13 July 2017	0.887	View
2	jeanheCAD (jeanyue)	1 July 2017	0.886	View
3	qfand (qfand)	27 May 2017	0.881	View
4	CASED (CASED)	15 June 2017	0.882	View
5	SDCNN_NNET (shihua3)	22 June 2017	0.886	View
6	Adience (imharte)	7 June 2017	0.871	View
7	juehuang20170516 (cheng1005)	30 May 2017	0.886	View
8	Shan20161221 (shanhong2012)	23 December 2016	0.866	View
9	reinet (QOnu)	21 February 2017	0.839	View
10	ZNET (gputhief)	30 June 2016	0.811	View
11	Net_VisU (lelecewif)	18 October 2016	0.762	View
12	MEDICAL (Bharadwaj)	8 July 2017	0.783	View
13	MedCAD Lung (jacobed)	1 April 2016	0.729	View
14	etrcad (gafedebis)	7 April 2016	0.635	View
15	MS-CADThreshold3.3 (atraverso)	5 April 2016	0.508	View

Rank	Team	Date	Score	Description
1	qfand (qfand)	26 May 2017	0.812	View
2	QSTCAD (ZAGUY)	17 May 2017	0.811	View
3	CUMedVis (QOnu)	15 May 2016	0.708	View
4	jeanheCAD (jeanyue)	24 December 2016	0.805	View
5	jeanheCAD (jeanyue)	25 December 2016	0.823	View
6	jeanheCAD (jeanyue)	13 September 2016	0.822	View
7	MS-CAD (Buckley)	26 May 2017	0.803	View
8	DIAG_CONVNET (arnaud.sejio)	23 May 2016	0.814	View
9	realize (mrmr)	24 November 2016	0.802	View

3. Intelligent diagnosis of pulmonary nodules



4. Medical professional voice tools



Alibaba Cloud ET: Olympic Sports Brain



Alibaba Cloud ET Brain benefits all industries

20+ Industries

3K+

Solutions

100K+ Enterprise Customers



City Brain



Industrial Brain



Environment
Brain



Medical Brain



Aviation Brain



Agriculture
Brain

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Thank you

Tian Feng

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Director of Alibaba Cloud Research

Alibaba Cloud ET: Industry Brain



City Brain: Malaysia, Macao, HangZhou, GuangZhou etc.



Industrial Brain: Trina Solar, GCL Solar, Hengyi Petrochemical, ZhongCe Rubber



Agriculture Brain: Yuan Longping High-tech Agriculture



Medical Brain: Beijing Genomics Institute



Environmental Brain: China Observatory, China Bureau of Oceanography, China Meteorological Administration, China Earthquake Administration



Aeronautical Brain: Guangzhou Baiyun Airport, Beijing Capital Airport

ET Brain for Logistics



Eleme O2O Platform

9+ million

Orders / Day

0.5 seconds

Order Response

29 minutes

Avg. Delivery Time