



HONGJI

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2022



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- 3 E-Mobility Products
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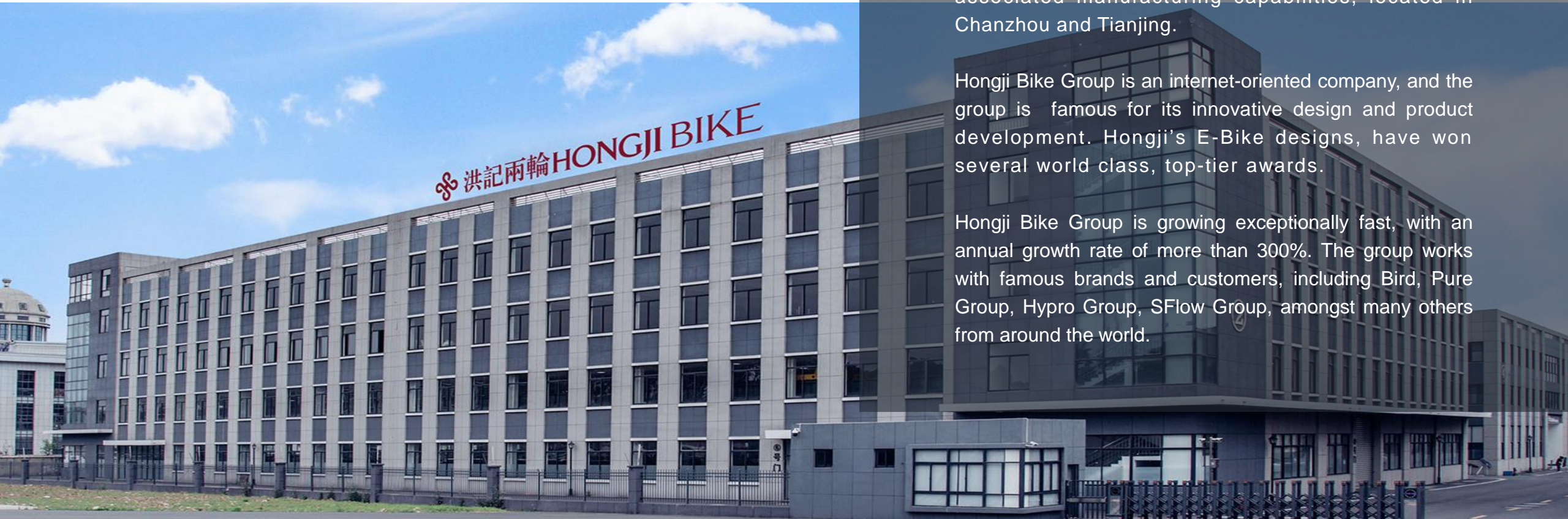
HONGJI



HongJi Bike Group was established in 2017. The business being a part of the famous China Moby Group. Hongji Bike group integrated the R&D, production, and supply chain, to operate as a cohesive company, to efficiently serve the fast growing, short distance, intelligent mobility industry (Micro Mobility). The major focus being E-Bike, E-Scooter and electrified mobility products. The manufacturing facility includes its own factory in Chanzhou, and associated manufacturing capabilities, located in Chanzhou and Tianjing.

Hongji Bike Group is an internet-oriented company, and the group is famous for its innovative design and product development. Hongji's E-Bike designs, have won several world class, top-tier awards.

Hongji Bike Group is growing exceptionally fast, with an annual growth rate of more than 300%. The group works with famous brands and customers, including Bird, Pure Group, Hypro Group, SFlow Group, amongst many others from around the world.



HONGJI



Hongji is dedicated to generate innovative Micro-Mobility products, playing a leading role in the industry.

Mission



Competitiveness

R&D, Manufacturing capability, Integrated supply chain system of micro-mobility industry.
We are currently the most professional
service provider of two-wheel intelligent transportation overall solution in China.



R&D
innovation



Trial
development



Mass
production



Global
supply chain



Global
sales



Brand
operation

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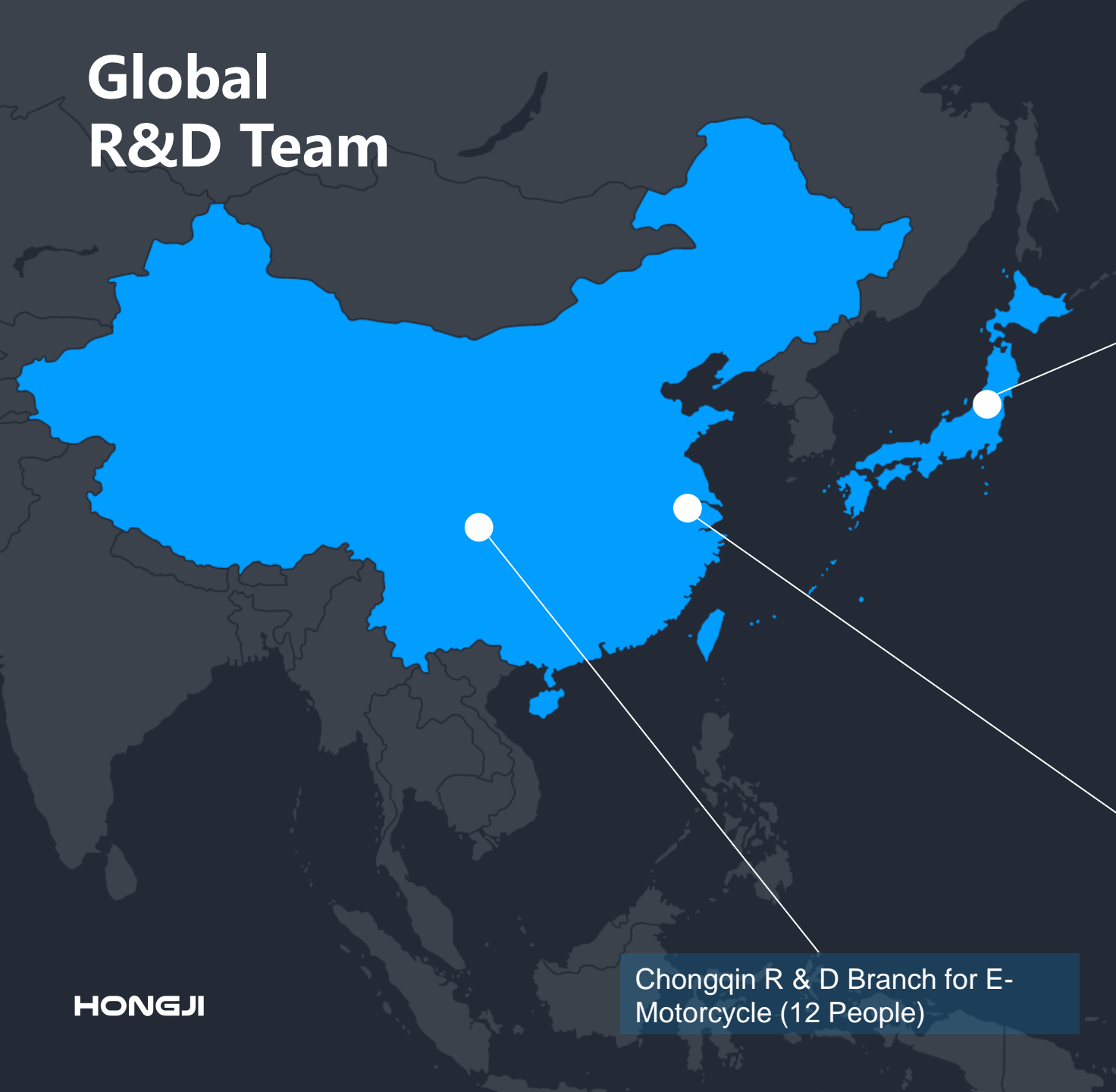


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Global R&D Team



Japan R&D Centre for High end E-MTB (12 People)

- FS** **Former Honda Motor Co., Ltd. HGA Dep. R&D Manager**
- 35+ years experience in two wheeled vehicle's development, quality management and electric drive development.
- Murata** **Honda Asuka Research Institute. Body design**
- 30+ years experience in. Motorcycle frame design, body CAE analysis, appearance design.
- Kanno** **Honda Asuka Research Institute. E-drive structure design**
- 15+ years experience in E-drive drive system design, E-bike

Wuxi R&D Centre For Two-Wheel E-Mobility (140 People)

- Bruce** **Former VP & co-founder of Mobike**
- Designer of Mobike 1st classic bicycle with single arm shaft drive;
 - 20+ years experience in 2-wheeler vehicle R&D;
 - Rich experience in non-ferrous metals and pressure sensors, obtained multiple patents in Europe, the United States and Japan.
- Wujun** **Former GM of Mobike Wuxi factory**
- Build a 1,000-person team in 3 months;
 - 10+ years experience in vehicle structure/drive system R&D;
 - Led a team to integrate supply chain, producing 3M sharing shaft-drive bicycles within one year.

Chongqin R & D Branch for E-Motorcycle (12 People)

R&D Concept

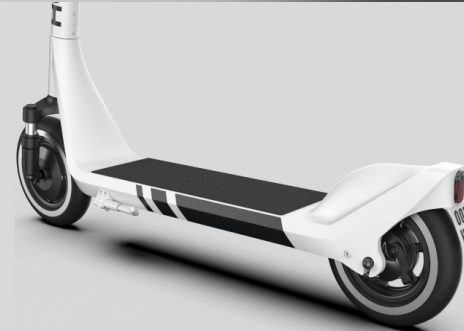
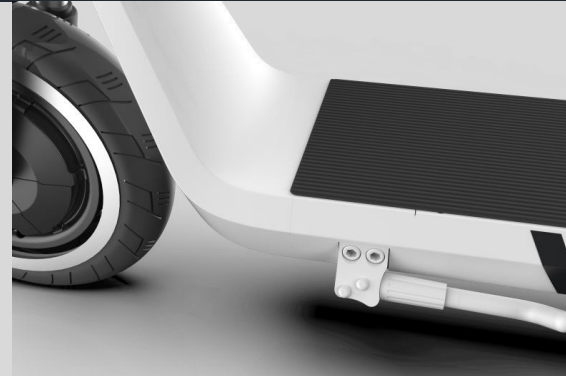
- The best way to reduce cost is through innovative design.
- The essence of efficient production is through good design.
- The best way to attract attention is through superior design.



R&D – Automobile Design Experts to Two Wheels Electrified Business



The best way
to reduce cost
is through innovative
design



01

Introduce
Glue
assemble
technology



Concrete hard connection (no chain off, no loose belt, no need to clean); Aluminum alloy, durable and reliable



02

Patented single side shaft drive technology



The introduction of carbon fiber extrusion technology makes the quality of carbon fiber frame consistent with aluminum alloy.

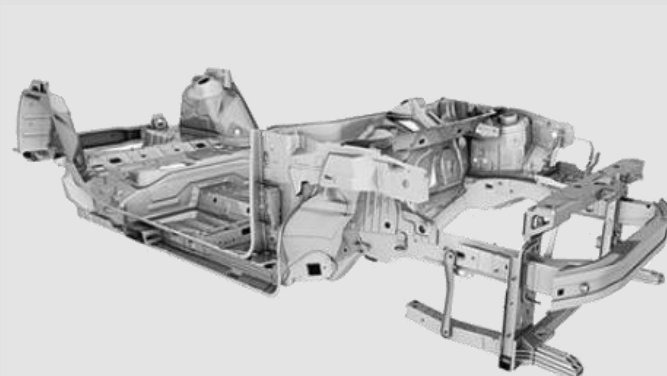


03

The best way to reduce cost is through innovative design



The introduction of special aluminum alloy from the automobile industry has doubled the capacity for aluminum frame production.



04

Efficient production is achieved through innovative design



Distributed Production:

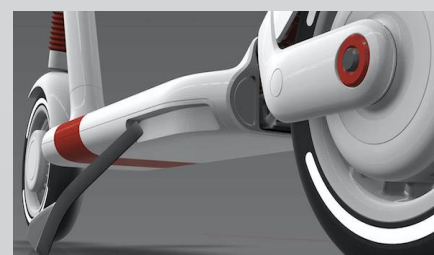
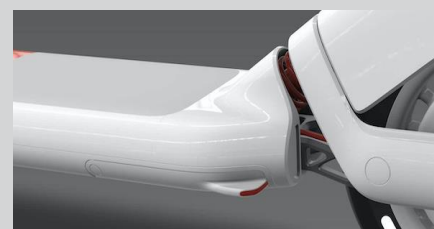
- To design the whole vehicle into separate modules;
- Each module is a complete set to be delivered to the production line.



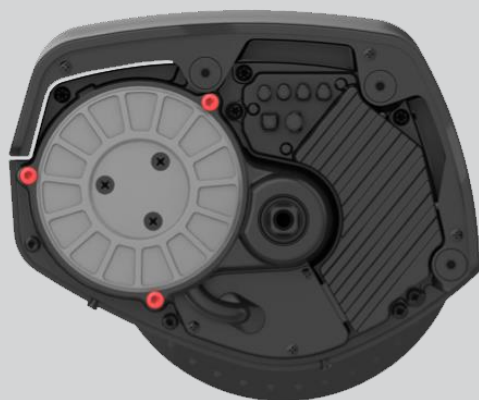
05

Efficient production is achieved through innovative design





07



TORQUE ≥ 85 N.m

EFFICIENCY $\geq 80\%$

WEIGHT ≤ 3.4 KG

SENSOR TORQUE | SPEED

WATERPROOF IPX6

08

Years of experience in R & D and design of mid drive system.

The latest design makes core components such as cell and controller into modules. By removing a few screws the user can replace parts, and solve issues.

The image displays four smartphone screens showing the Saxy app interface. The first screen shows the Saxy logo and a login button. The second screen shows bike status: Battery power 56%, Total distance 489.7 km, and a lock icon. The third screen shows a trip history map with a route and a bicycle icon, with details: 12.8KM, 250H, 45KM/H, and 50.2KG. The fourth screen shows the 'REGISTER MY BIKE' screen with a bicycle image and buttons for 'BLUETOOTH' and 'SCAN QR CODE'.

09

100000

E-bikes / E-scooters

have adopted HONGJI IOT system.

Worldwide Recognition

110 **18**

patents.

international
awards

as Red Dot, IF, G-mark, IDEA,
Goldreed Industrial Design
Award and
Gold prize of Red Star Design
Award etc.



GOOD DESIGN AWARD 2020

BEST 100



SILVER
AWARD
2021



reddot winner 2021



DESIGN
AWARD
2021

2022

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E-bike Products



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Scooters



Sharing Model



Consumer model



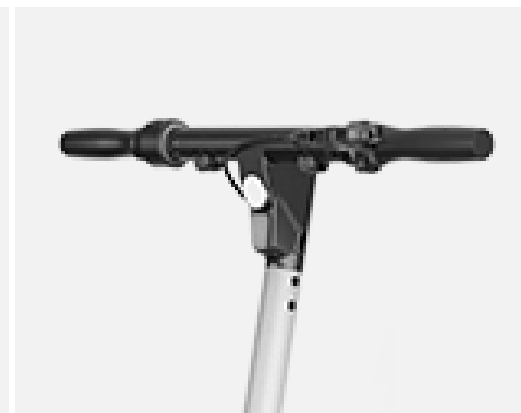
Cost performance model

New Scooters



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New Scooters



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Hongji Factory Capability

Affiliate
Manufacturing Bases-
Tianjing CN

Affiliate
Manufacturing Bases-
Changzhou CN

Affiliate
Manufacturing Bases-
TAIWAN

Affiliate
Manufacturing Bases-
Europe

Hongji has been developing and producing sharing/consumer-end Bicycle & E-Bike & E-Scooters for top tier players in the world. Our Production capability is second to none in China.

We are fast to respond to both large and small batch orders with customization requirement. Hongji team has ever produced

3.5M Mobike Classic.

The capacity reached

60K pcs/month.



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Hongji Factory
Capability

Affiliate
Manufacturing Bases-
Tianjing CN

Affiliate
Manufacturing Bases-
Changzhou CN

Affiliate
Manufacturing Bases-
TAIWAN

Affiliate
Manufacturing Bases-
Europe

200K pcs/year
Capacity



HONGJI

Hongji Factory
Capability

Affiliate
Manufacturing Bases-
Tianjing CN

Affiliate
Manufacturing Bases-
Changzhou CN

Affiliate
Manufacturing Bases-
TAIWAN

Affiliate
Manufacturing Bases-
Europe

500K pcs/year
Capacity



HONGJI

Hongji Factory
Capability

Affiliate
Manufacturing Bases-
Tianjing CN

Affiliate
Manufacturing Bases-
Changzhou CN

Affiliate
Manufacturing Bases-
TAIWAN

Affiliate
Manufacturing Bases-
Europe

200K pcs/year
Capacity



HONGJI

Hongji Factory

Capability

Affiliate
Manufacturing Bases-
Tianjing CN

Affiliate
Manufacturing Bases-
Changzhou CN

Affiliate
Manufacturing Bases-
TAIWAN

Affiliate
Manufacturing Bases-
Europe

Capacity of more than
300.000
pcs/year

Warehouse for
40.000 bikes
In the middle of Europe



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In-house Testing Capability- Test Equipments & Test Reports

| 测试设备统计表 Test equipment statistics | |
|-----------------------------------|--|
| 序号 NO | 设备名称 Equipment Item |
| 1 | 电子万能试验机 Electronic universal testing machine |
| 2 | 高低温交变湿热试验箱 High and low temperature alternating damp heat test chamber |
| 3 | 智能型盐雾腐蚀试验箱 Intelligent salt spray corrosion test chamber |
| 4 | 车架振动试验机 Frame vibration testing machine |
| 5 | 中轴、曲柄疲劳试验机 BB, crank fatigue testing machine |
| 6 | 车把疲劳试验机 handle bar fatigue testing machine |
| 7 | 车骑检测台 Ebike inspection platform |
| 8 | 洛氏硬度计 Rockwell hardness |
| 9 | 整车三轴性能检测台 Ebike three-axis performance test platform |
| 10 | PLC控制多功能冲击试验机 PLC control multi-function impact testing machine |
| 11 | 小型脱力材料试验机500N Tensile testing machine 500N |
| 12 | 万能材料试验机 Universal material testing machine |
| 13 | 程序控制耐压绝缘测试仪 Program control withstand voltage insulation tester |
| 14 | 电工仪器电子负载 Electrical equipment electronic load |
| 15 | 前叉静压试验机 Front fork static pressure testing machine |
| 16 | 电动自行车快速检测设备 Electric bicycle quick inspection equipment |
| 17 | 千分尺 micrometer |
| 18 | 直流电机测试系统 DC motor test system |
| 19 | 锂电池容量检测仪 Lithium battery capacity tester |
| 20 | 直流稳压电源 DC power supply |
| 21 | 电子负载仪 Electronic load meter |
| 22 | 泰克示波器 Tektronix Oscilloscope |
| 23 | 跑步试验机 Running test machine |
| 24 | 绘图仪器*胜利仪器 Drawing measuring instrument * Victory instrument |
| 25 | 电机离合器老化测试台 motor clutch aging testing machine |
| 26 | 脚踏力动态疲劳试验机 Pedal force dynamic fatigue testing machine |
| 27 | 线束拉力、疲劳试验机 Harness drawing force and fatigue testing machine |
| 28 | 电桥测试仪 Capacitance Bridge Tester |
| 29 | 按键疲劳试验机 Button Fatigue Testing Machine |
| 30 | 电磁式振动试验台设备 Electromagnetic vibration testing platform |

| | | |
|--------------------------|------------------------|------------------------|
| CD04鞍座疲劳测试报告.pdf | CD04刹把疲劳测试报告.pdf | CD04刹车断电开关疲劳测试报告 ... |
| CD04刹车断电开关疲劳测试报告... | CD04车把横管疲劳测试报告 (202... | CD04车把横管疲劳测试报告2020... |
| CD04车把横管组件 (改进版) 疲... | CD04车架振动测试报告.pdf | CD04齿轮疲劳测试报告.pdf |
| CD04充电器 (内销版) 性能测试... | CD04充电器 (外销版) 测试.pdf | CD04充电器性能测试报告.pdf |
| CD04传动套螺纹强度 中轴强度测... | CD04电池充放电测试报告.pdf | CD04电池锁疲劳测试报告.pdf |
| CD04电机线束.pdf | CD04电机一体轮静压测试报告.pdf | CD04后轮轮毂静压测试报告.pdf |
| CD04铃铛盐雾测试报告.pdf | CD04轮胎老化测试报告.pdf | CD04螺丝螺钉盐雾测试报告 (2) ... |
| CD04螺丝螺钉盐雾测试报告.pdf | CD04螺丝盐雾测试报告.pdf | CD04内销 (改进版) 充电器测试... |
| CD04前叉冲击测试报告.pdf | CD04前叉疲劳测试报告.pdf | CD04曲柄疲劳测试报告.pdf |
| CD04尾灯线束 (海国) 性能测... | CD04尾灯线束性能测试报告.pdf | CD04系统套件性能测试报告.pdf |
| CD04线束性能测试报告.pdf | CD04样品电池充放电测试报告 (2... | CD04仪表按键疲劳测试报告.pdf |
| CD04仪表性能测试报告.pdf | CD04油封尺寸与实配测试报告.pdf | CD04折叠器部位线束防夹测试报... |
| CD04折叠器部位线束防夹测试报... | CD04折叠器立管组件疲劳测试报... | CD04整车老化测试报告.pdf |
| CD04整车老化测试报告2020.4.28... | CD04中轴疲劳.pdf | 充电器线束性能测试报告.pdf |



In-house Testing Capability



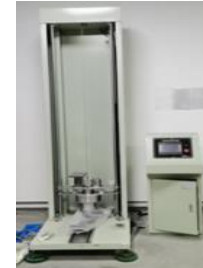
Motor test



Handlebar fatigue test



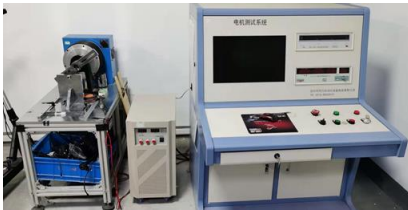
Bike fatigue test



Drop test



Frame fatigue test



Motor power test



Vibration test



Key lifespan test



Salt spray test



Pulling force test



Wire bending test



Motor power test



Front fork fatigue test



Battery test



In-house Testing Capability



Material hardness test



Structure hardness test



Temperature & humidity test



Transmission fatigue test



Scooter road test



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Hongji IoT Ecosystem

01 #ONE

IoT Platform

Platform structure
and Innovation

02 #TWO

IoT product line planning

Describe product line
planning, service-
oriented, build four
core capabilities
to promote service-
oriented
manufacturing
transformation

03 #THREE

IoT business line full stack

Describe the
business line plan
and create a
comprehensive and
full value chain
system

04 #FOUR

IoT server structure

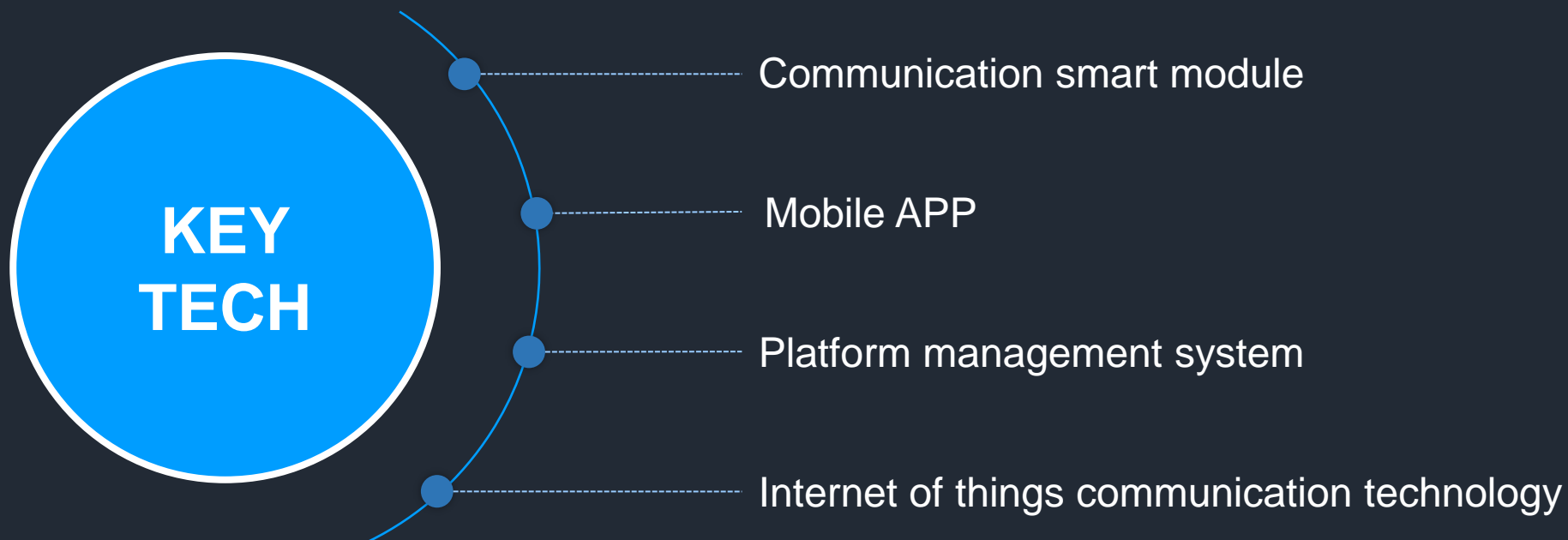
Describe the server
architecture,
construct a global
network platform,
and serve the world

05 #FIVE

Appendix

IoT empowerment
outlook

APP:
"IoT+VEHICLE"
Key technology and innovation



PLATFORM UI EXAMPLE

Vehicle management

The screenshot displays a '设备管理' (Device Management) page with a '设备详情' (Device Details) sub-page. It features a table with columns for '设备号' (Device ID), '设备名称' (Device Name), '用户名称' (User Name), '设备品牌' (Device Brand), '控制方式' (Control Method), '执行结果' (Execution Result), '位置' (Location), '执行开始时间' (Execution Start Time), and '执行结束时间' (Execution End Time). The table lists 10 devices, all of which are '成功' (Successful) in their execution results.

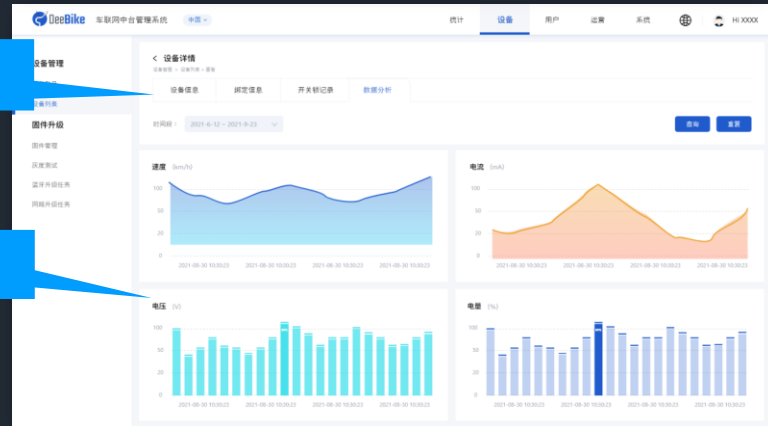
IOT Card Management

This screenshot shows a '设备详情' (Device Details) page for a specific device, ID 45570812. It includes a QR code for tracking and a map showing the device's current location. The map interface includes a search bar and a list of nearby locations, such as '江苏省无锡市新吴区太湖国际'.

Vehicle and hardware traceability

Preventive maintenance

OTA upgrade



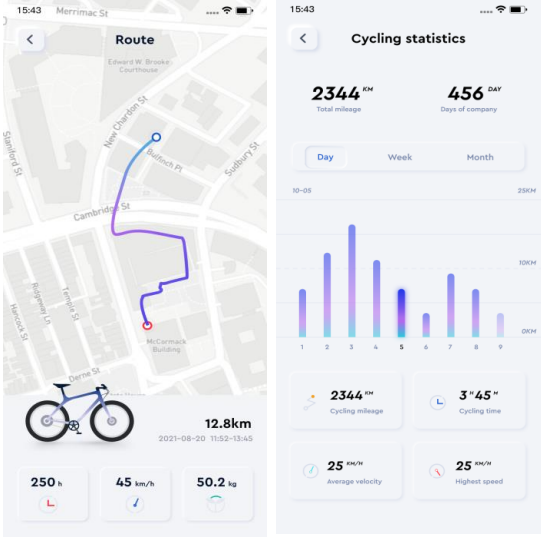
Data analysis

Ecological expansion


Shared travel, leasing, etc. Business model

APP UI & UX

Convenient





Lock/unlock


Sharing with friends

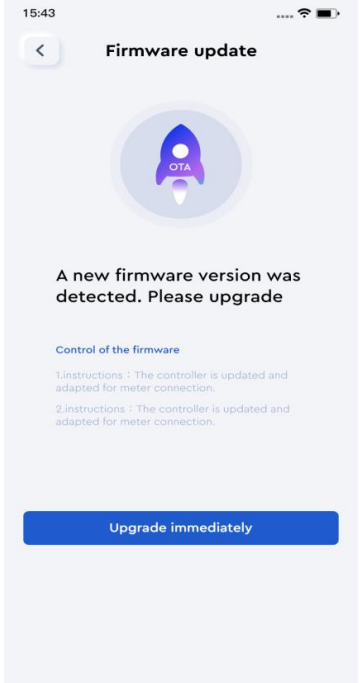

GPS


Speedometer in APP


Trace with riding history




Safety



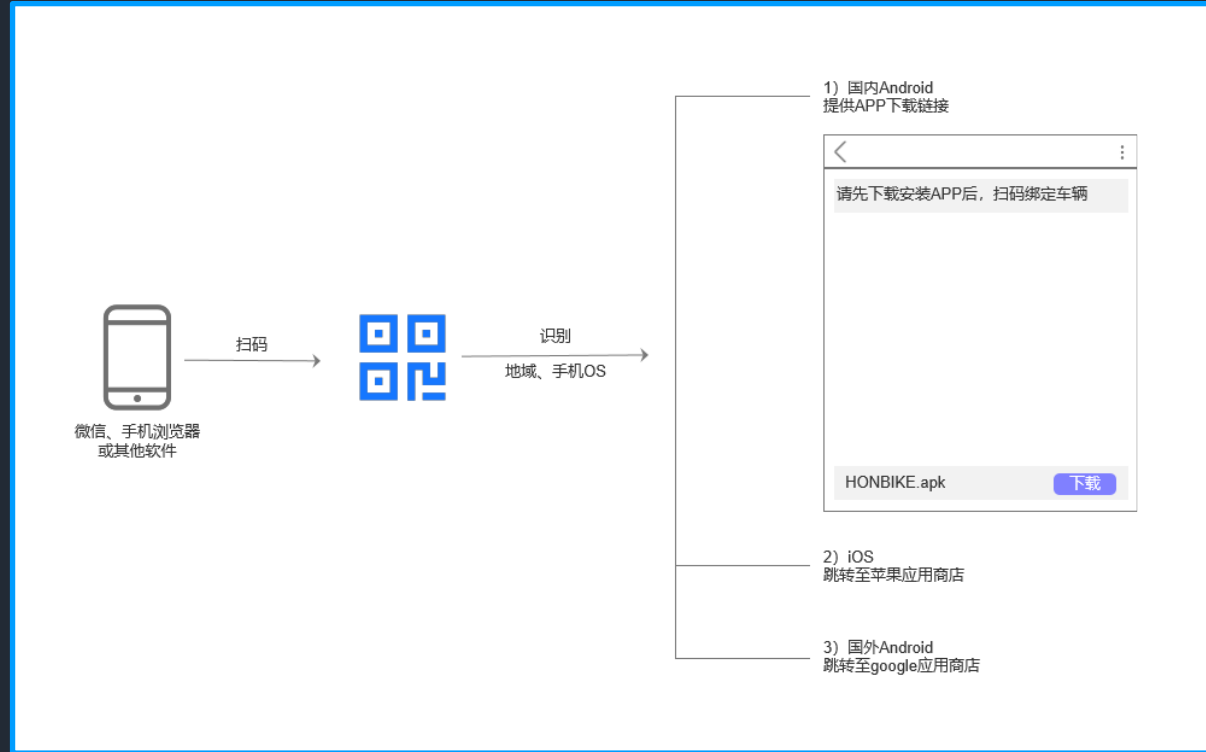
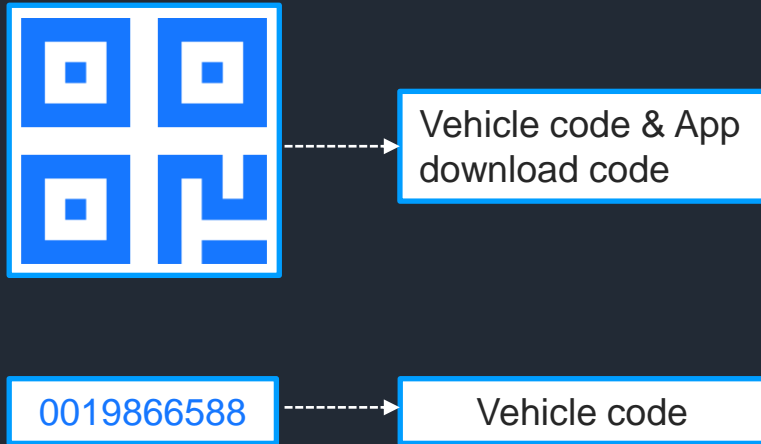

Self check


E-fence


OTA upgrade

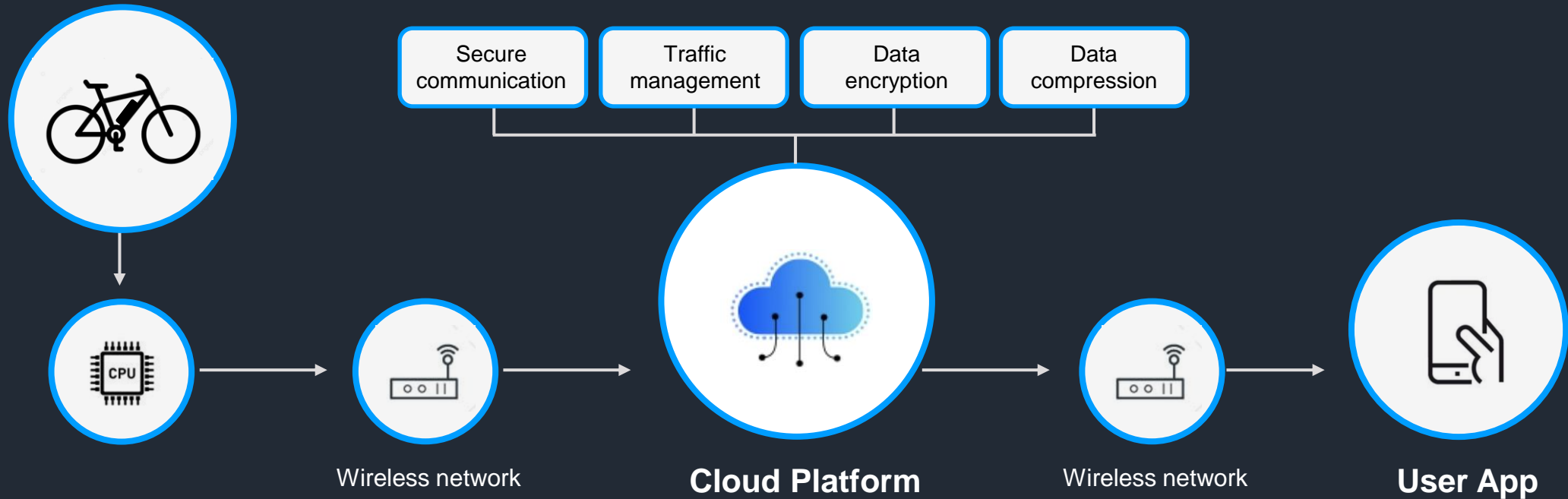

Warning

Scancode & binding



"IoT+Electric Vehicle" project solution

(Smart terminal + electric vehicle) +IoT+APP=smart electric vehicle Provide cloud-pipe-end (car) management



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The SAXY brand was previously owned by the famous German brand, SACHS. The German Saxy business was founded in 1950 by SACHS, as its gasoline driven motorcycle business brand. SACHS was owned by the world renown automotive business, ZF Friderichshafen AG group.

Hongji bike Group acquired the SAXY brand in 2021 to grow its E-Bike business internationally. For global exposure, the Hongji Bike group will use the SAXY brand name to tap into the global E-Bike business. Henceforth, liberating and transforming the old gasoline driven motor-cycle brand, into the modern electrified era of micro-mobility.

SAXY

