



# NIU gears up to rethink urban transport

NIU smart scooters enable riders to gain fresh insight into scooter usage, with Vodafone IoT

The future is exciting.

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# A positive disruption to city commuting, with Vodafone IoT

According to the U.N. some 3.9 billion people now live in cities, with the global urban population estimated to rise by 1.84% annually between 2015 and 2020<sup>1</sup>. Little wonder city transport infrastructure can't keep up. Where city planners see a problem, tech companies see an opportunity. NIU, a two-year-old Chinese start-up with \$70 million in venture backing, and more than \$150 million in 2017 sales, promises to bring together technologists, industrial designers, engineers, and creative designers to change the way urban citizens explore their city landscape.

## The challenge

### Rethinking urban transport

NIU (pronounced 'new') is a Chinese scooter manufacturer. Except that is not all it is. It is a technology company looking to disrupt urban transport systems. The company happily compares itself to Apple.

"We're a tech company first. We design the hardware, software and firmware, and, like Apple, we provide services at the software level," says Joseph Constanty, NIU's director of International. "Our priority is serving our customers who are buying our scooters today, but we believe in the not-so distant future our services will also be able to assist local governments and city planners."

Yet the most visible aspect of the NIU business are its electric scooters. Since founding in 2015, the company has sold 330,000 scooters in China alone. And it has global ambitions. NIU launched across Europe in 2017, and will have sold 5,000 scooters by the end of the year. The bikes can be charged at a standard plug point, and the batteries can be removed and taken indoors to charge.

“As a manufacturer and a brand, one that is growing quickly, we don't need to worry about finding stable partners in every new territory we enter. Vodafone is a universal service.”

**Joseph Constanty**  
Direct of International  
NIU

"All our scooters are smart scooters," says Constanty. "They're connected to the cloud, allowing riders to track usage or find a local service point through our app. They can also send security alerts in case the bike is stolen."

It is these scooters that will generate the data that will allow city planners to create a joined-up approach to urban transport. But for that data to be captured, and for NIU to roll-out globally, quickly and consistently, it needed a global connectivity partner.

## The solution

### Global connectivity and retail reach

NIU is working with Vodafone in regional markets outside of China. All NIU scooters are fitted with a Vodafone Global SIM, which allows data from the scooter's on-board computer to be transmitted to the NIU Cloud hosted on AWS via the Vodafone IoT Managed Connectivity Platform. Riders can then access this information via NIU's mobile app. The app provides data on battery level, recent trip information, GPS location and service status. The app can also send push notifications should any unauthorised movement of the bike occur, alerting owners to potential theft.

Vodafone's connectivity applies to any market, and comes with a standard price. "As a manufacturer and a brand, one that is growing quickly, we don't need to worry about finding stable partners in every new territory we enter," says Constanty.

NIU's scooters have a range of up to 80km before requiring charging, but remains connected to the NIU Cloud for up to seven days when the main battery is disconnected. The Vodafone service enables NIU to present a singular solution to distributors and service partners.



“ For the past twenty-five years Vodafone has been selling mobile phones, but the past is not a predictor of the future. It may be in the future Vodafone is selling transport solutions in its stores. The Vodafone retail reach is an obvious attraction for us. ”

Joseph Constanty, Direct of International, NIU

NIU will open a series of European flagship stores through 2018, in Amsterdam, Paris, Milan and Barcelona. “They won’t look like traditional scooter retailers,” says Constanty. “Think Tesla meets Apple.”

Constanty says the connectivity is only part of the attraction of working with Vodafone: “For the past twenty-five years Vodafone has been selling mobile phones, but the past is not a predictor of the future. It may be in the future Vodafone is selling transport solutions in its stores. The Vodafone retail reach is an obvious attraction for us.”

## The future

### New transport systems, new ownership models

Data privacy laws accepted, the smart scooters will allow NIU to host a whole range of behavioural insight. The company plans to extend the black boxes into non-NIU scooters, enabling other riders to track usage, all using the Vodafone managed connectivity service. This will provide a new revenue stream (typically, NIU provides one year’s worth of free data with every purchase of a scooter, and charges <€40/annum thereafter). It will create richer data.

“City planners and transport managers want a full picture. Electric scooters are not the solution to all traffic woes, but they are one component,” says Constanty. “We can provide useful traffic information.”

The connectivity may also allow NIU to create new models of ownership. At present, customers would buy a NIU scooter outright; Constanty says there may be an option to sell the scooter separately to the battery. The scooter sells at a cheaper price, lowering the entry cost for consumers, and the battery is paid for with a monthly fee. If payments are not kept up, NIU can switch off the battery remotely, using the Vodafone IoT Managed Connectivity Platform.

“It’s something we’re looking at. Millennials, our target demographic, are comfortable with this type of pay-per-use model. We can look at differentiating the on- and offline retail experience.”

## The bottom line

- Ensures a single platform and management to simplify international roll-out
- Delivers the scale to grow quickly, as required
- Reliable connectivity with consistent pricing
- Secures a relationship with an IoT technology leader – with global retail reach

### About NIU

- Chinese electric scooter brand, founded in 2015
- Largest manufacturer of lithium battery electric scooters
- Sold 330,000 scooters in China
- Expanded into Germany, Austria, Switzerland, Belgium, France, Italy, Spain, Denmark, Sweden, Norway, Croatia, Serbia. UK planned for 2018
- [www.niu.com](http://www.niu.com)

<sup>1</sup> Source: World Health Organization, Global Health Observatory (GHO) data  
[http://www.who.int/gho/urban\\_health/situation\\_trends/urban\\_population\\_growth\\_text/en/](http://www.who.int/gho/urban_health/situation_trends/urban_population_growth_text/en/)

**[vodafone.com/iot](http://vodafone.com/iot)**

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