

# NEC's Global Safety Business

September 14, 2016

NEC Corporation

Senior Vice President

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# \Orchestrating a brighter world

NEC brings together and integrates technology and expertise to create the ICT-enabled society of tomorrow.

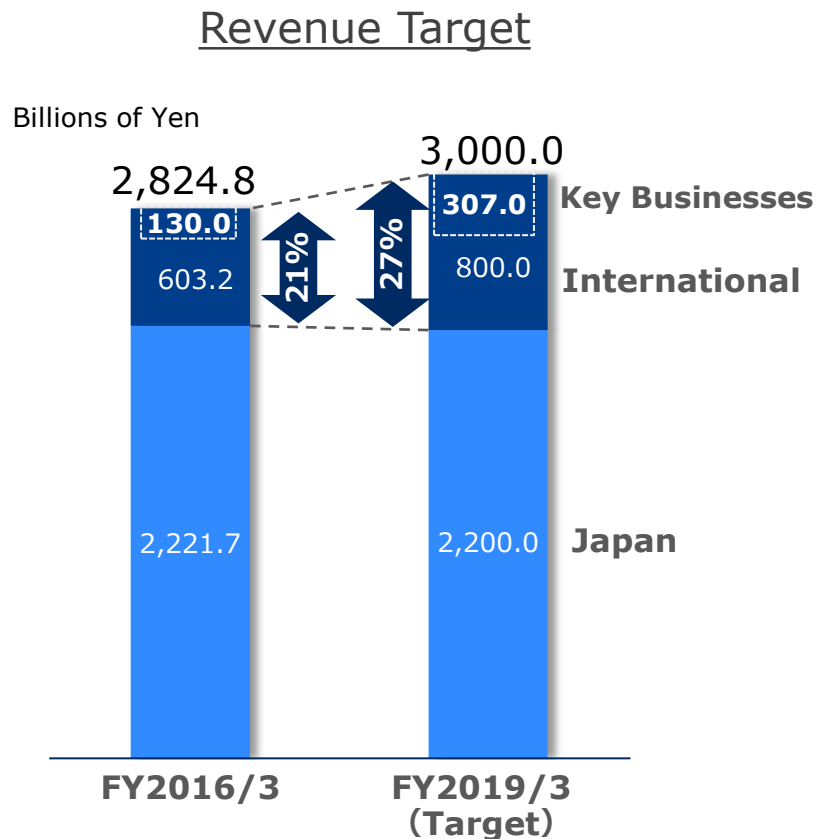
We collaborate closely with partners and customers around the world, orchestrating each project to ensure all its parts are fine-tuned to local needs.

Every day, our innovative solutions for society contribute to greater safety, security, efficiency and equality, and enable people to live brighter lives.

# Business Overview

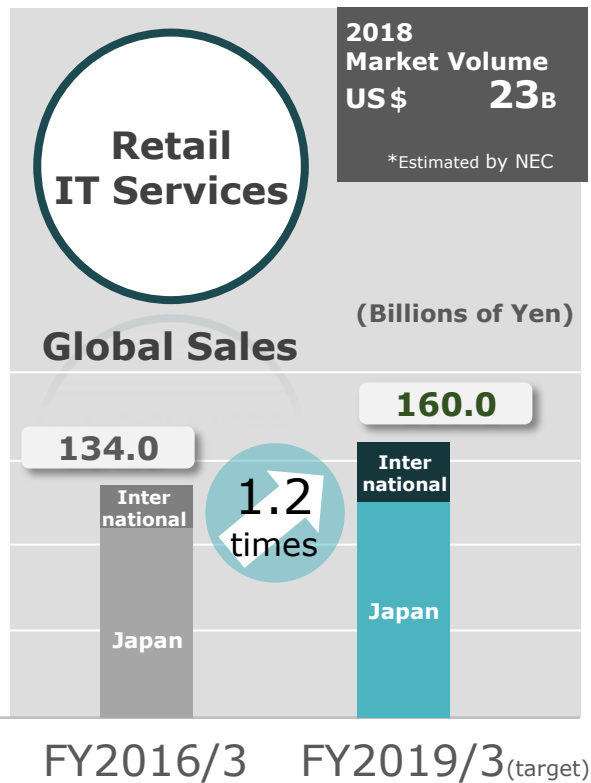
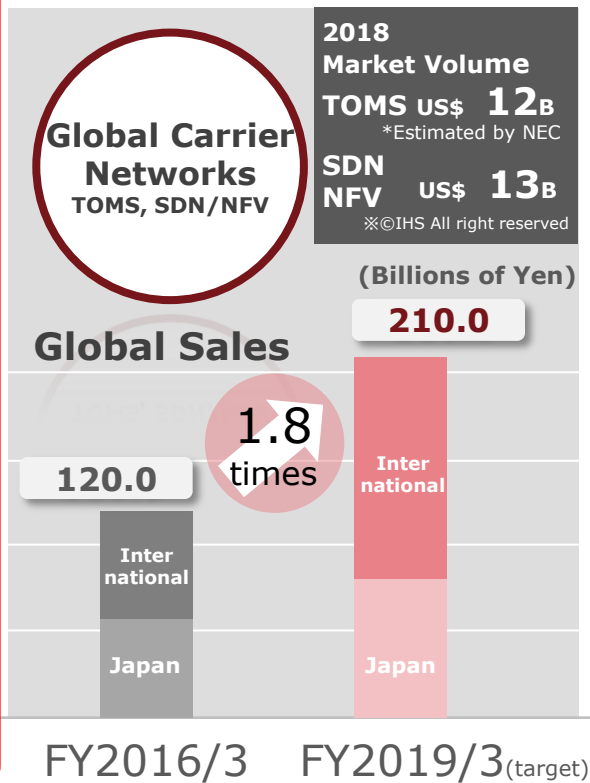
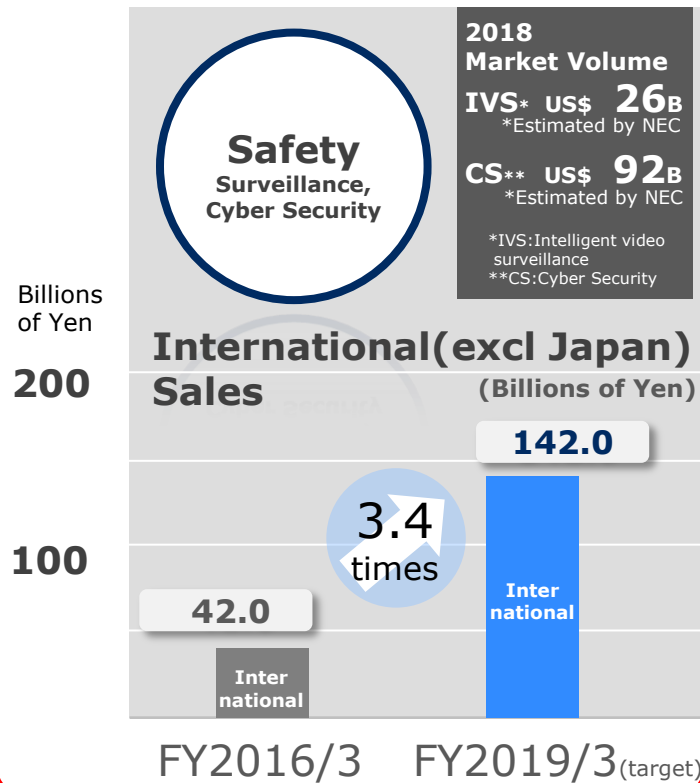
# NEC Mid-term Management Targets

| (Billions of Yen)        | FY2016/3<br>Actual | FY2019/3<br>Target |
|--------------------------|--------------------|--------------------|
| <b>Revenue</b>           | <b>2,824.8</b>     | <b>3,000.0</b>     |
| <b>Operating profit</b>  | <b>91.4</b>        | <b>150.0</b>       |
| (Operating profit ratio) | <b>3.2%</b>        | <b>5%</b>          |
| <b>Net profit</b>        | <b>75.9</b>        | <b>85.0</b>        |



\*Target figures are as of April 28, 2016

# Key Businesses in Mid-term Management Plan 2018



\*Target figures are as of April 28, 2016

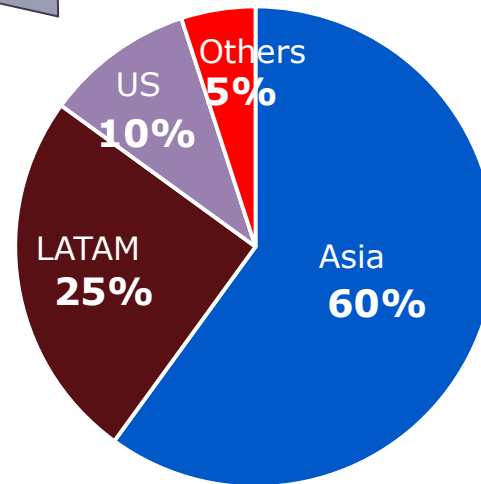
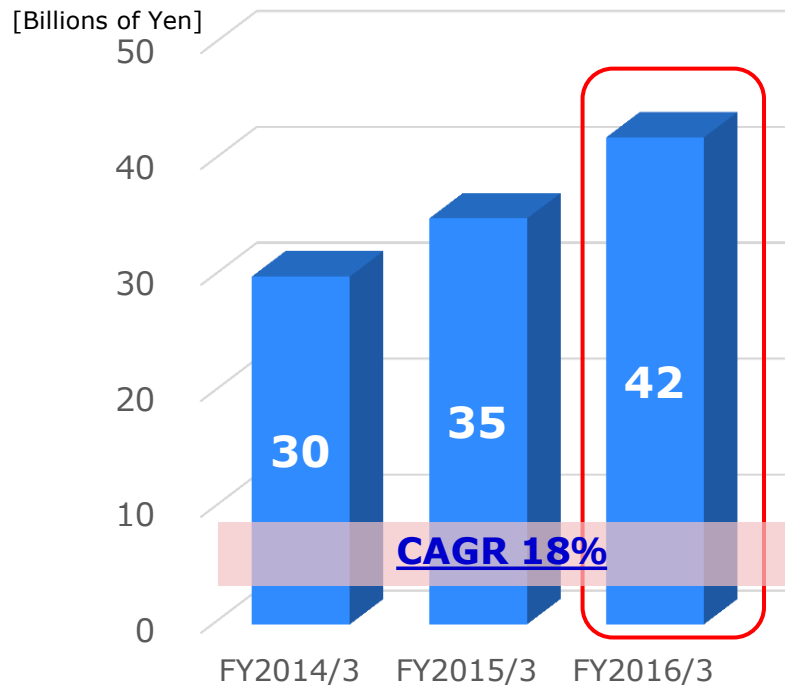
# NEC Global Safety Business Domain

- **Boarder control**
- **e-Gate solution**
- **Airport surveillance**
- **Access control**
- **Video surveillance**
- **Automated biometrics identification solution**
- **National ID**



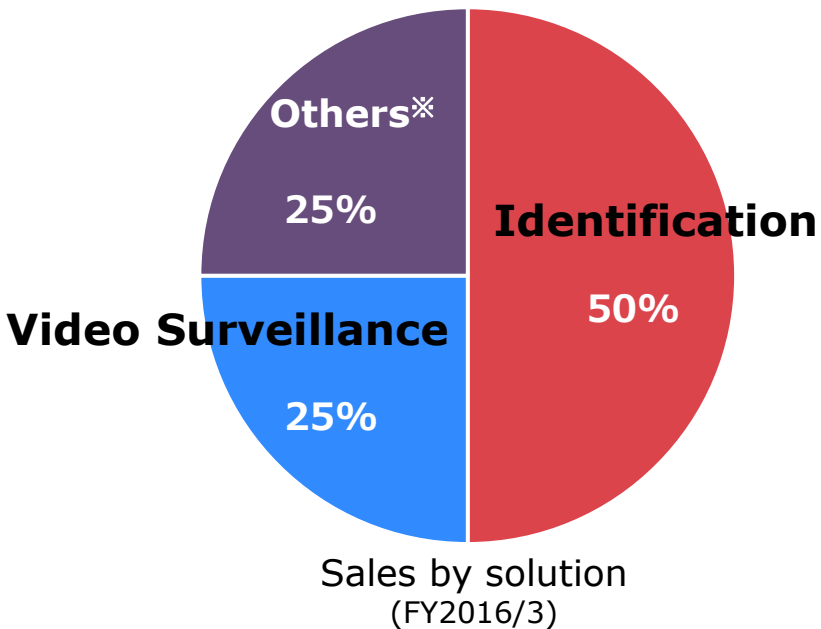
- **Harbor surveillance**
- **Railway network systems**
- **Video surveillance**
- **Traffic surveillance and control systems**
- **City surveillance**

# Global Safety Business –by region (excl. Japan)



Sales by region  
(FY2016/3)

# Global Safety Business –by solution



## Identification

- Main Customer : Government Agencies (Police /Internal Affairs)
- Solutions : Forensic, Immigration and National ID systems supported by face recognition, fingerprint recognition and other technologies.



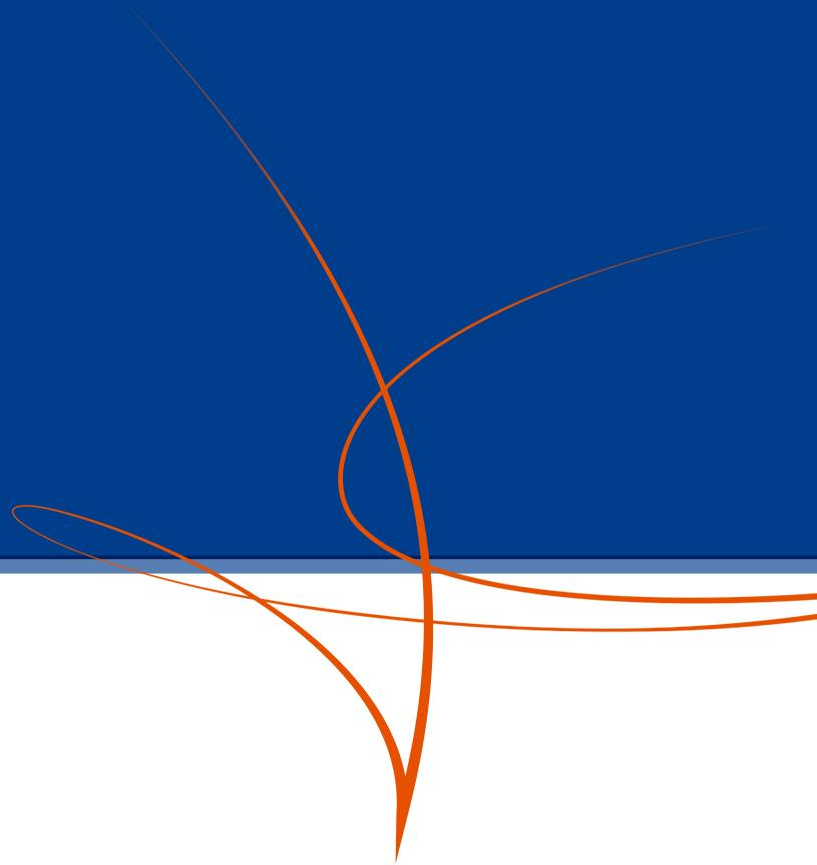
## Video Surveillance

- Main Customer : Municipalities
- Solutions : City surveillance / video analysis system and services for monitoring illegal, suspicious or dangerous behavior

\* : Cybersecurity etc.

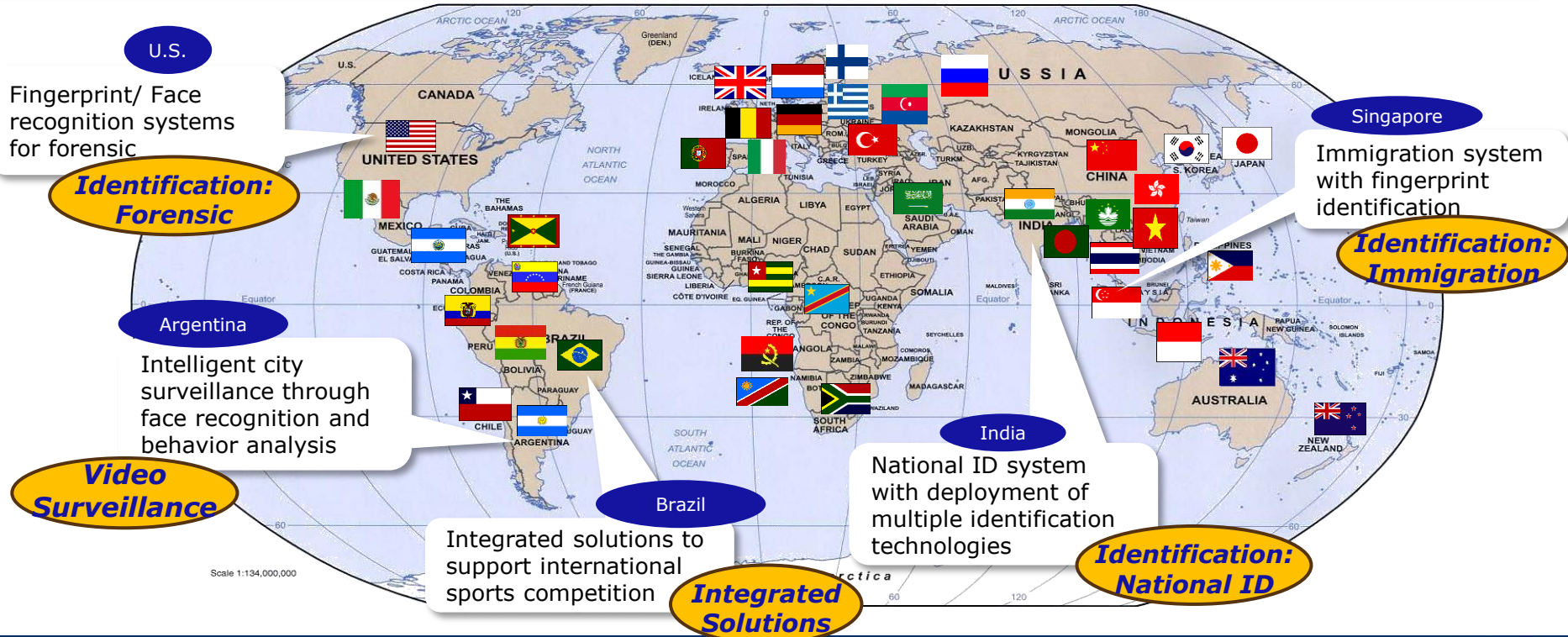


# Solutions



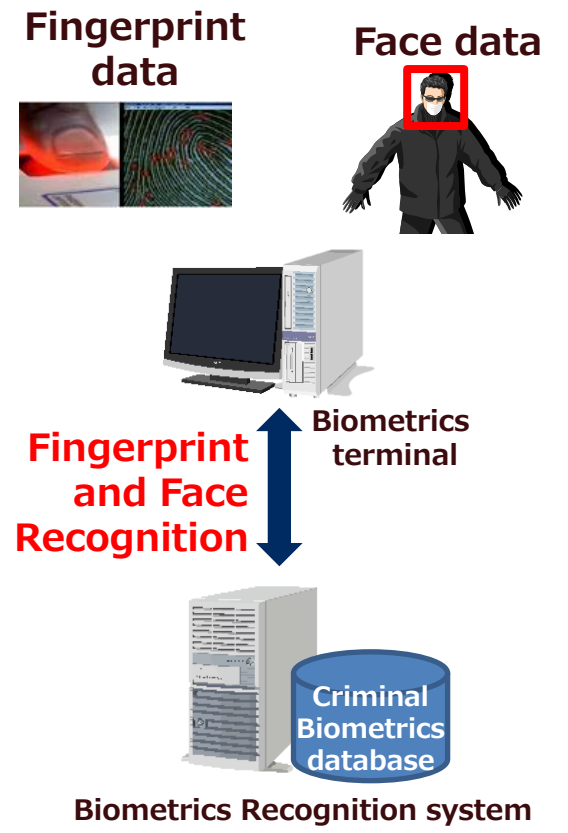
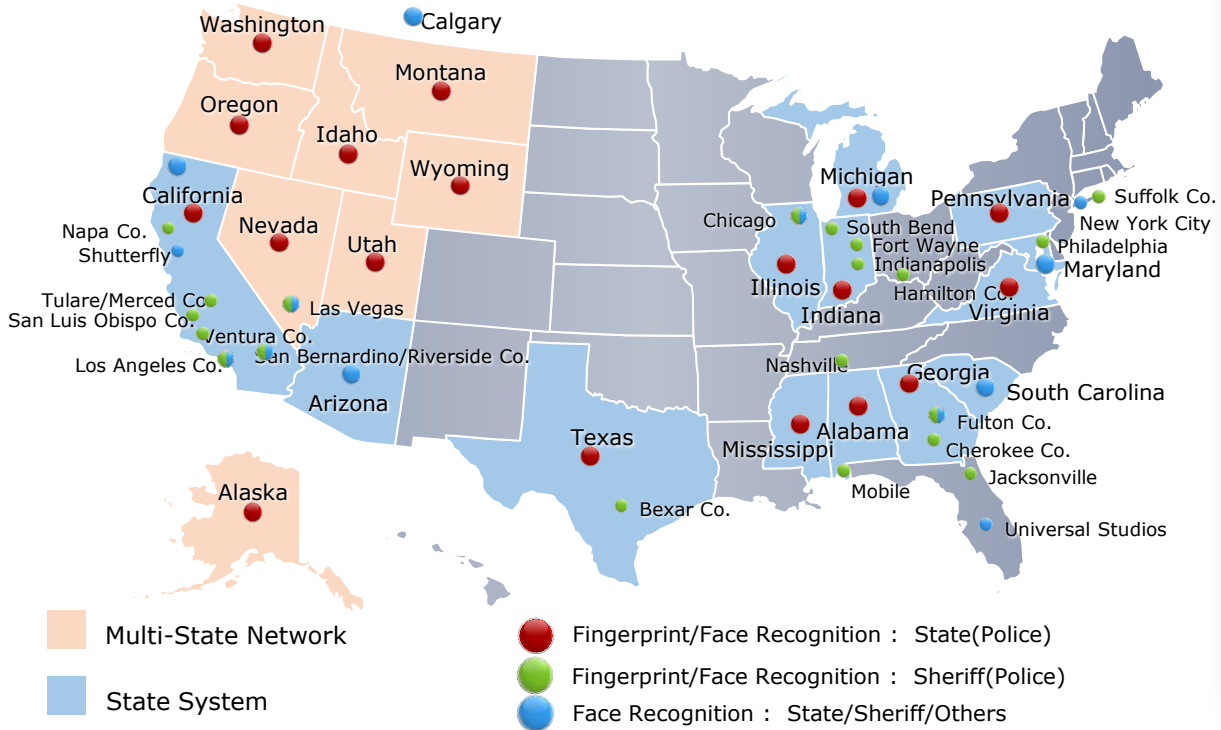
# Global footprint of biometrics solutions

700+ systems deployment in 70+ countries worldwide through 40 years of business development



# NEC Biometric Customers in North America

**Over 1/3 of US state police & law enforcement agencies deployed NEC biometrics solution**

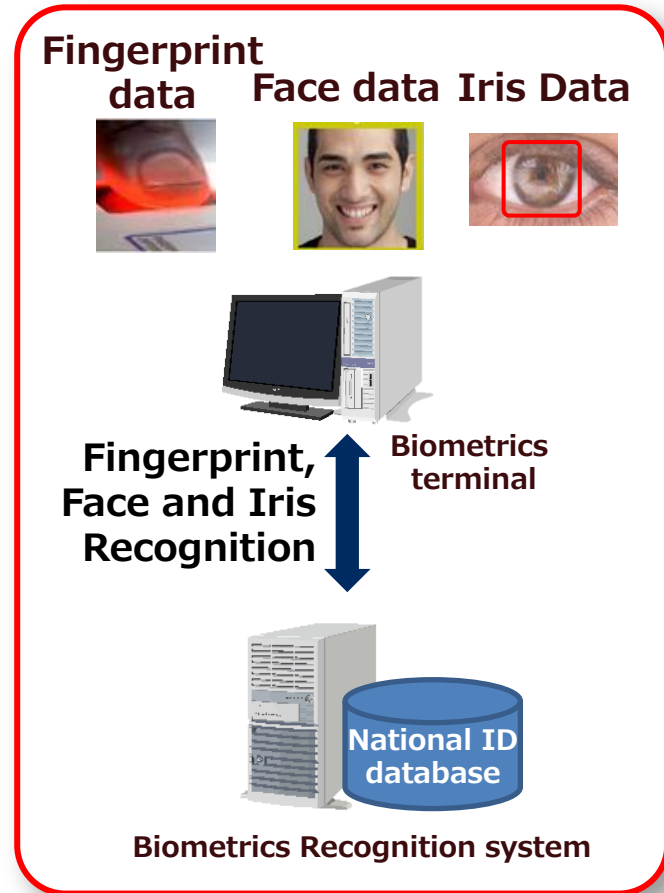


# National ID system for India

**Identification:  
National ID**

Unique Identification Authority of India (UIDAI)

- **World's largest National ID program with over 1 Billion unique IDs**
- **Multiple biometrics technologies (Face, Fingerprint and Iris recognition)**
  - Avoid duplication of applicants



- Immigration control for daily approx. 70,000 persons
- Fingerprint identification technology
- Only 8 seconds or less per person for processing

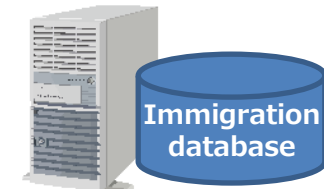


Fingerprint data



Fingerprint  
Recognition

Immigration  
Gate



Biometrics Recognition system

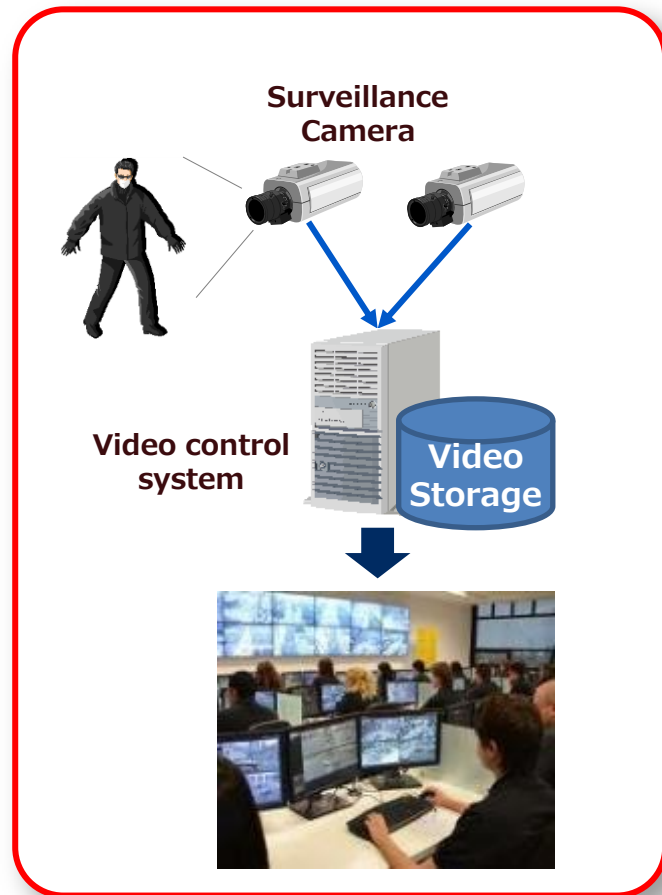
- **Video analysis solution to automate detection of illegal/suspicious/dangerous behaviors**
- **Customized function to meet customer requirement**  
(detect tandem riding, recognize vehicle registration number, etc.)
- **Recurring revenue**



Detect tandem ride of motor cycle.  
(possibly bag snatchers)



Monitor platform to alert when someone intrudes railway path







- **ICT infrastructure at Rio Galeão International Airport**  
IP Network, WiFi, PBX, CCTV, Access Control, Public Address, Fire Detection and Alarm, Flight Information Display



- **ICT infrastructure at aquatic center**  
(Fire detection, video monitor and sound systems for the facility)



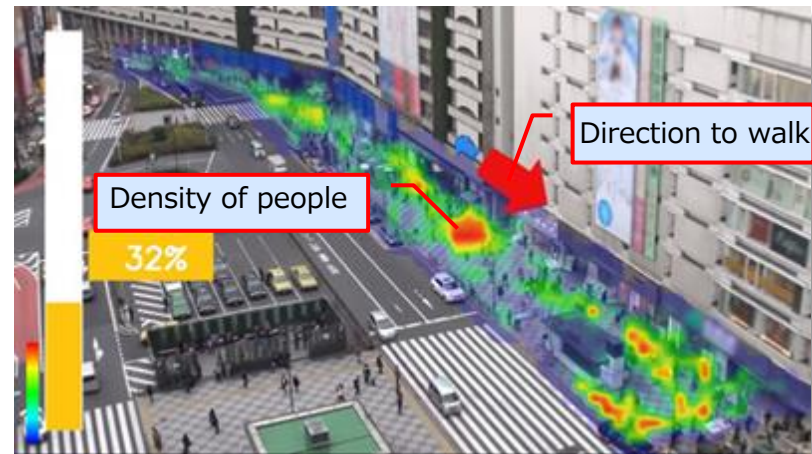
- **Walk-through face recognition system trial at "Japan House", a media center**

## ■ NEC demonstration for safety solutions at Japan Fair

- Face/Fingerprint Recognition
  - Crowd Behavior Analysis
  - Behavior Detection
- etc.



NEC Face Recognition system for video surveillance recognized President Uhuru Kenyatta and Prime Minister Shinzo Abe.



The crowd behavior analysis technology delivers alerts when predetermined threshold levels are exceeded.



# World's leading biometrics technology

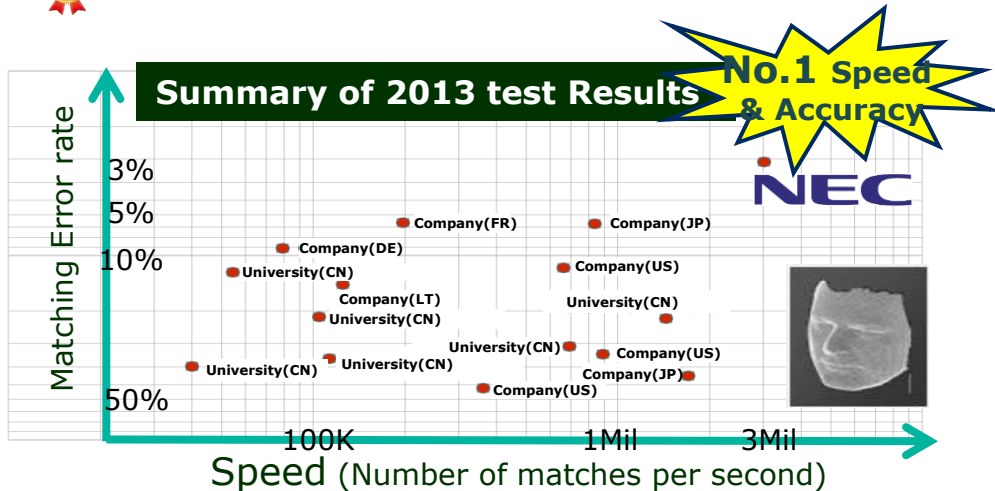
Technology leadership proven by NIST\* benchmark tests



## Face Recognition

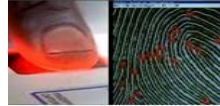
Awarded as winner at international vendor test in three consecutive competitions

- 🏆 **Multiple Biometric Grand Challenge 2009**
- 🏆 **Multiple Biometrics Evaluation 2010**
- 🏆 **Face Recognition Vendor Test 2013**



## Fingerprint Recognition

History of No.1 benchmark records



🏆 Slap Fingerprint Segmentation Evaluation 2004

🏆 MINEX04  
Minutiae Interoperability Exchange Test 2004

🏆 Evaluation of Latent Fingerprint Technologies 2007 (ELFT2007)

🏆 NIST Proprietary Fingerprint Template Testing (PFT2009)

🏆 FpVTE  
Fingerprint Vendor Technology Evaluation

🏆 NIST Proprietary Fingerprint Template Testing (PFT II 2013)

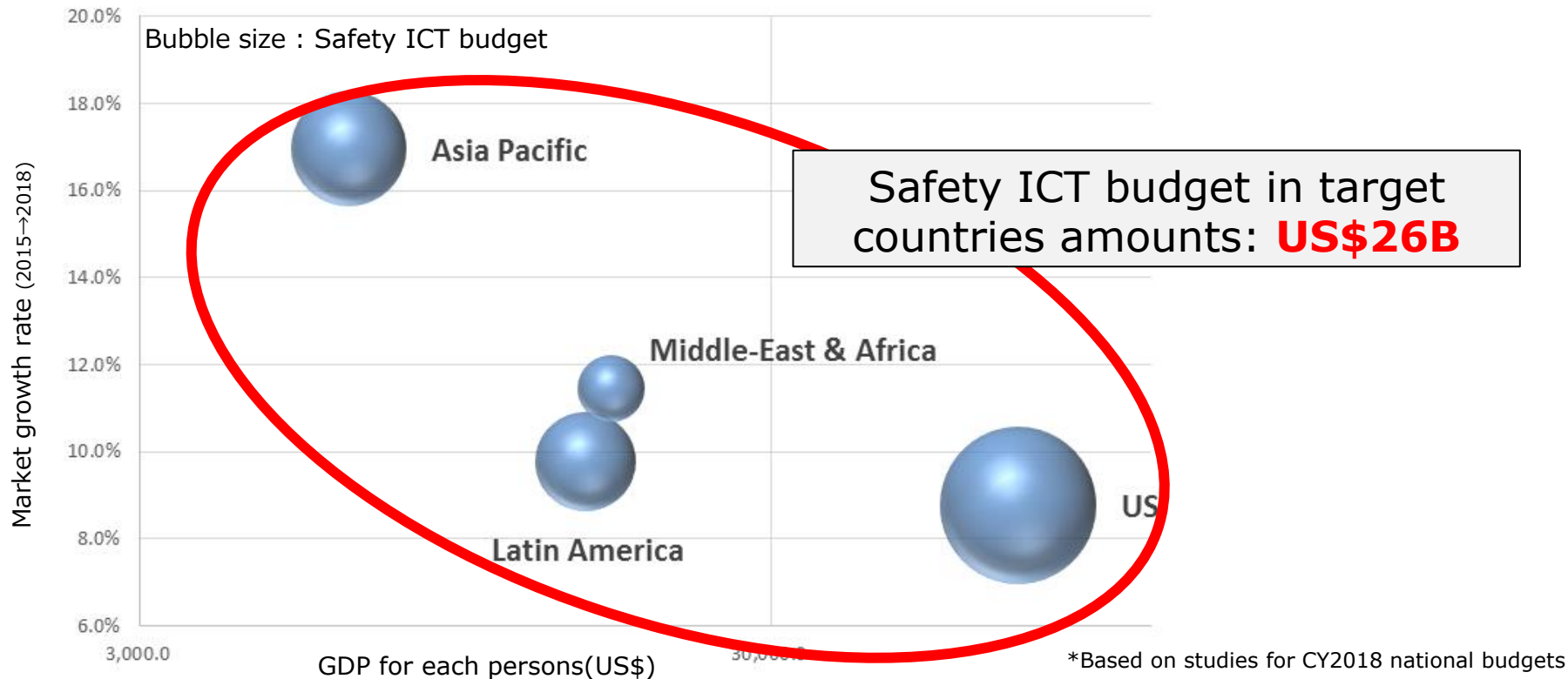
NIST: National Institute of Standards and Technology

# Safety Market and NEC's Strategy

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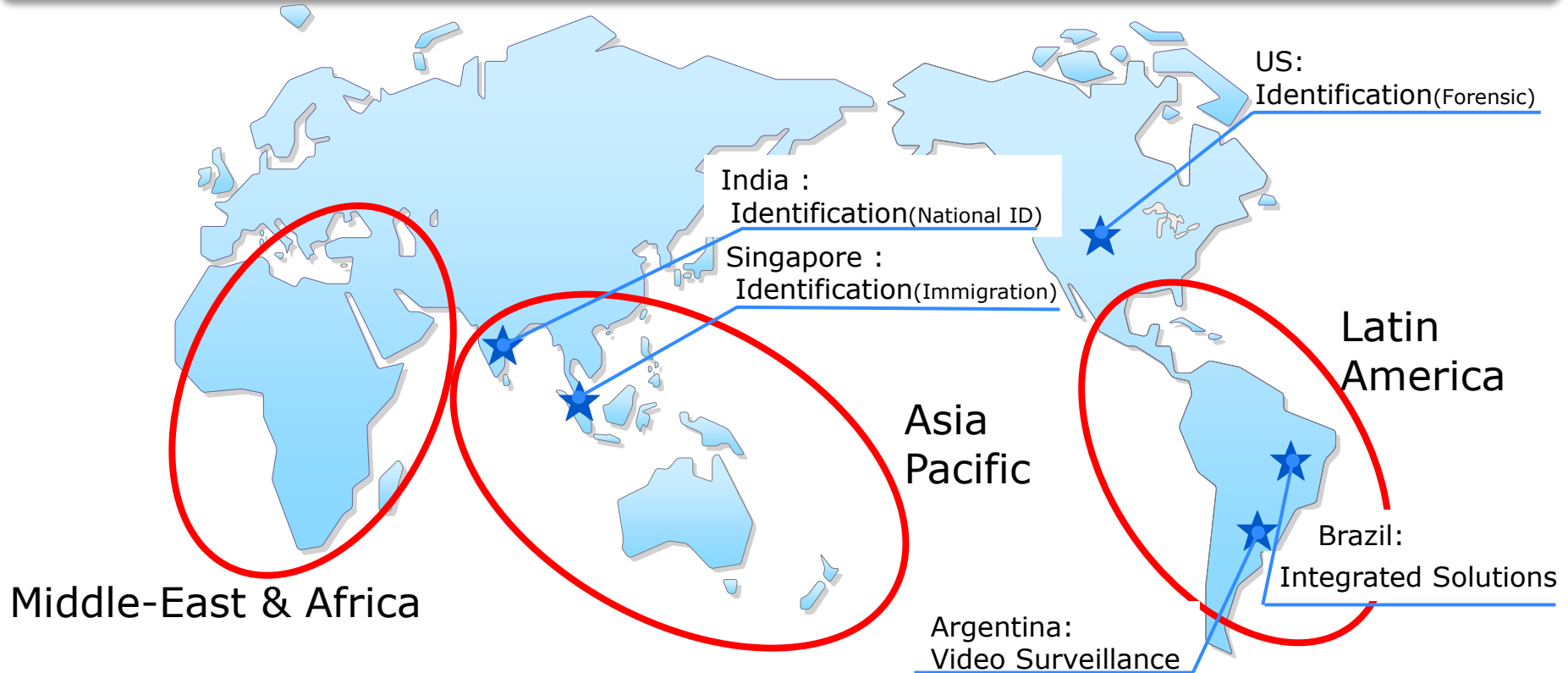
# NEC's addressable market

Safety ICT spending in target countries will be US\$26B in 2018

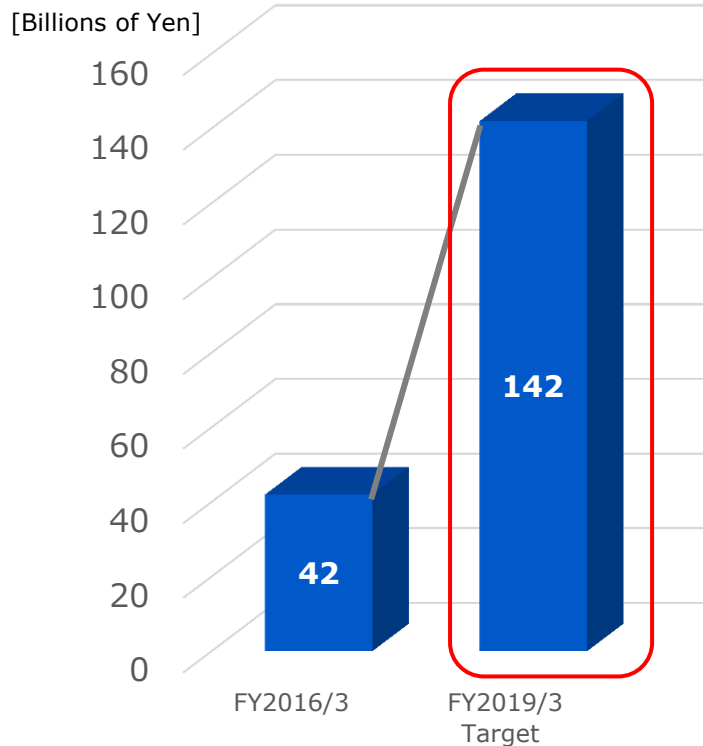


# Global business expansion – focus areas

Focus on Asia/Latin America/Middle-East & Africa markets



# Mid-term business target



## ■ Focus on target areas:

- **Asia/LATAM/MEA : high market growth**

## ■ Enhanced Solutions

- **Identification and video surveillance**
- **Integrated solution**  
Prediction, AI

## ■ Partnership

\*Target figures are as of April 28, 2016

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**NEC**

# Cautionary Statement with Respect to Forward-Looking Statements

This material contains forward-looking statements regarding estimations, forecasts, targets and plans in relation to the results of operations, financial conditions and other overall management of the NEC Group (the “forward-looking statements”). The forward-looking statements are made based on information currently available to NEC and certain assumptions considered reasonable as of the date of this material. These determinations and assumptions are inherently subjective and uncertain. These forward-looking statements are not guarantees of future performance, and actual operating results may differ substantially due to a number of factors.

The factors that may influence the operating results include, but are not limited to, the following:

- Effects of economic conditions, volatility in the markets generally, and fluctuations in foreign currency exchange and interest rate
- Trends and factors beyond the NEC Group’s control and fluctuations in financial conditions and profits of the NEC Group that are caused by external factors
- Risks arising from acquisitions, business combinations and reorganizations, including the possibility that the expected benefits cannot be realized or that the transactions may result in unanticipated adverse consequences
- Developments in the NEC Group’s alliances with strategic partners
- Effects of expanding the NEC Group’s global business
- Risk that the NEC Group may fail to keep pace with rapid technological developments and changes in customer preferences
- Risk that the NEC Group may lose sales due to problems with the production process or due to its failure to adapt to demand fluctuations
- Defects in products and services
- Shortcomings in material procurement and increases in delivery cost
- Acquisition and protection of intellectual property rights necessary for the operation of business
- Risk that intellectual property licenses owned by third parties cannot be obtained and/or are discontinued
- Risk that the NEC Group may be exposed to unfavorable pricing environment due to intensified competition
- Risk that a major customer changes investment targets, reduces capital investment and/or reduces the value of transactions with the NEC Group
- Risk that the NEC Group may be unable to provide or facilitate payment arrangements (such as vendor financing) to its customers on terms acceptable to them or at all, or risk that the NEC Group’s customers are unable to make payments on time, due to the customers’ financial difficulties or otherwise
- Risk that the NEC Group may experience a substantial loss of, or an inability to attract, talented personnel
- Risk that the NEC Group’s ability to access the commercial paper market or other debt markets are adversely affected due to a downgrade in its credit rating
- Risk that the NEC Group may incur large costs and/or liabilities in relation to internal control, legal proceedings, laws and governmental policies, environmental laws and regulations, tax practice, information management, and human rights and working environment
- Consequences of natural and fire disasters
- Changes in methods, estimates and judgments that the NEC Group uses in applying its accounting policies
- Risk that the NEC Group may incur liabilities and losses in relation to its retirement benefit obligations

The forward-looking statements contained in this material are based on information that NEC possesses as of the date hereof. New risks and uncertainties come up from time to time, and it is impossible for NEC to predict these events or how they may affect the NEC Group. NEC does not intend to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Note: In this presentation, the accounting periods of the fiscal years for March 31, 2015 and 16 were referred as FY2015/3 and FY2016/3 respectively. Any other fiscal years would be referred similarly.