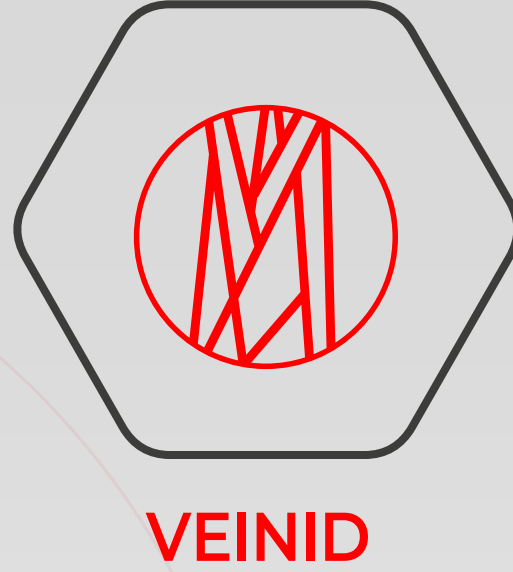


## HOW CAN THE AUTHENTICATION PROCESS FOR MICRO BANKING BE SIMPLIFIED AND IMPROVED?

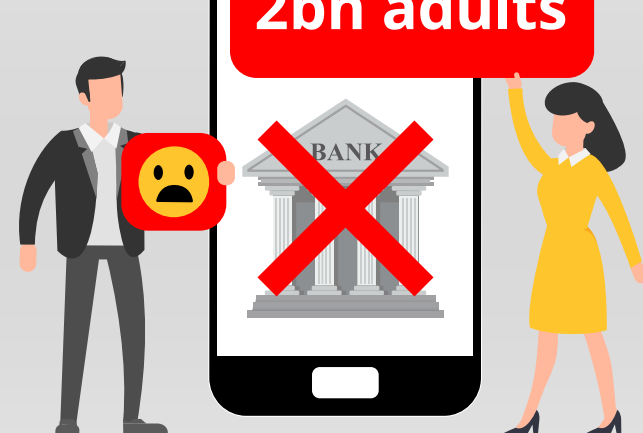
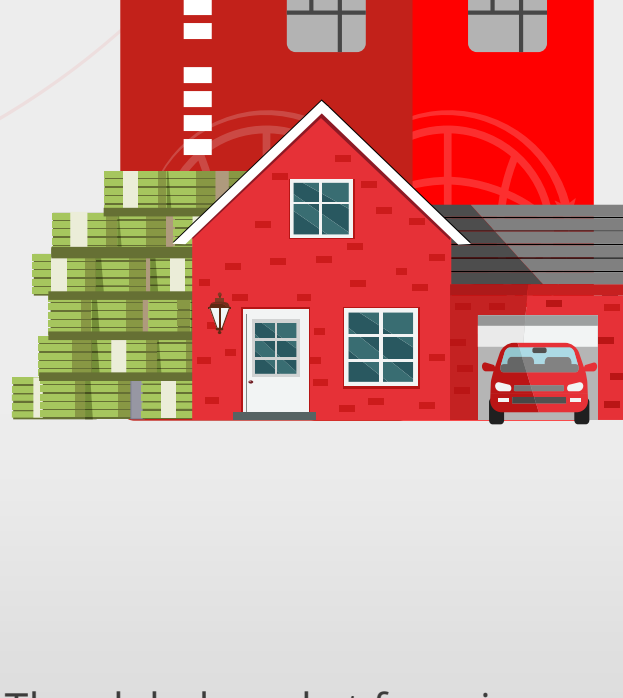


VEINID



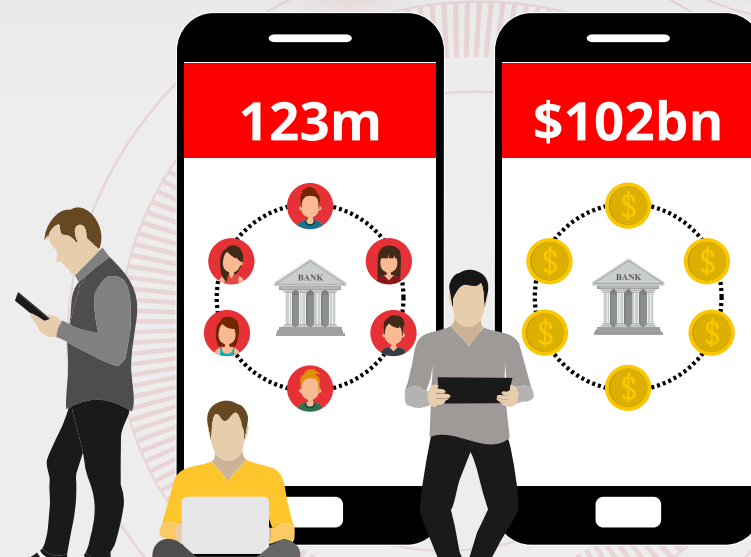
Figures published by the **Financial Inclusion Commission** in 2018 show that there are still **more than 1.5m adults in the UK** who remain unbanked.

More than **3m households** use high-cost credit and the payday lending market that was **worth £330m in 2006** had increased dramatically to be **worth £3.7bn by 2012**.



The global market for micro finance is **dynamic, fast changing and buoyant** even though **more than 2bn adults** lacked access to a financial institution.

In 2016, there were more than **123m customers** worldwide for a **loan portfolio of \$102bn**.



Europe  
\$9.3bn

India  
\$15bn

**India** leads with **47m borrowers** and roughly **\$15bn in outstanding loans**.

**Europe** accounts for around **9% of the total** with **\$9.3bn of outstanding loans**.

The role of **Financial Institutions** is to support those with financial assets to make better returns, but how can **micro finance providers** ride on the wave of digital transformation and **offer new and better services** to their target customers?



There are estimated to be **48.5m smart phone users in the UK** and **2.3bn globally**. It makes huge sense to include the **mobile channel** when thinking about services for micro banking.

Hitachi provides technologies that **contribute to more secure society**. These address the usability question by providing a simple, easy to use interface that enables the **straightforward authentication of users**.



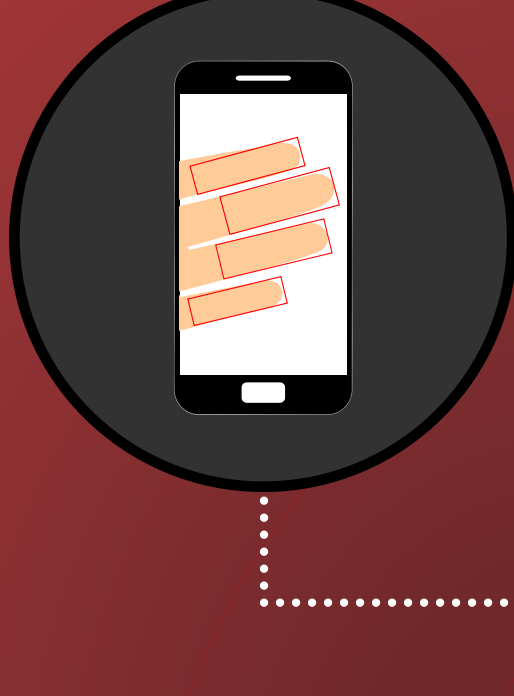
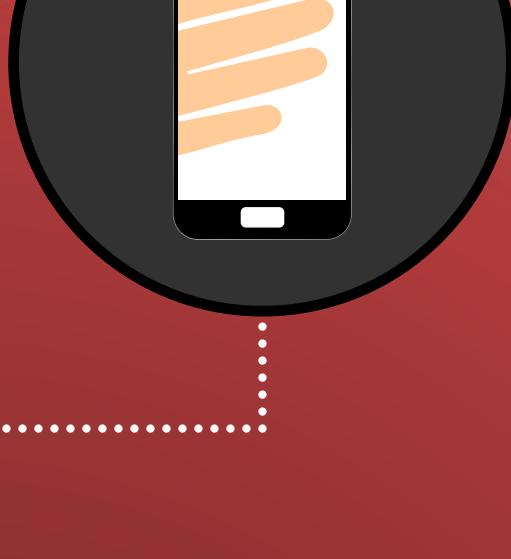
**Hitachi's latest VeinID** offering can be used by a device equipped with a digital camera to **capture finger vein data**. Easy to use and straightforward to integrate with mobile banking applications, it provides an **ideal and secure way for customers** to authenticate themselves.

See how it works below.



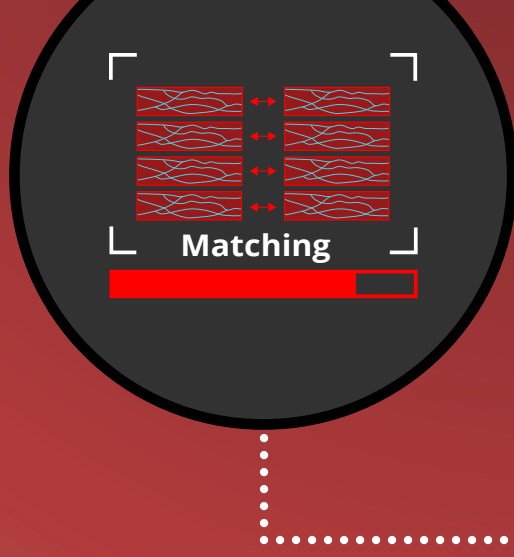
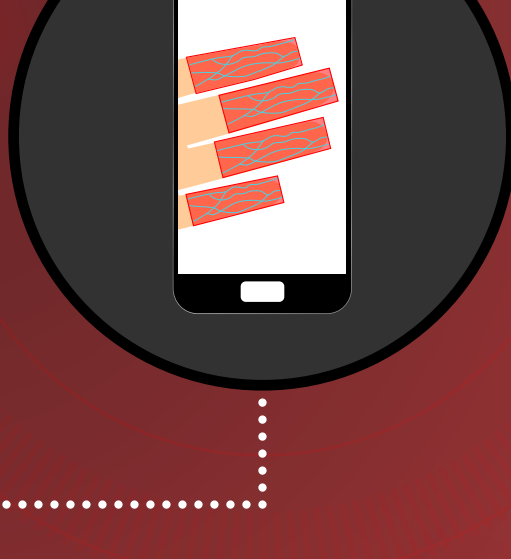
**Step 1**  
User presents their fingers.

**Step 2**  
Device captures the image.



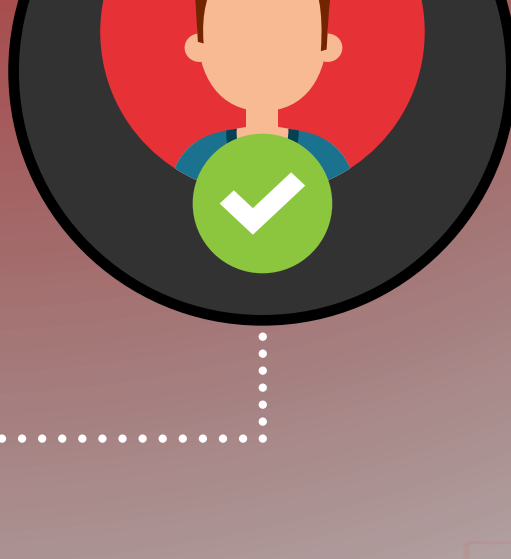
**Step 3**  
Finger regions segmented.

**Step 4**  
Finger Vein patterns extracted.



**Step 5**  
Encrypted multi finger authentication.

**Step 6**  
Customer authenticated.



The **adoption of these technologies** as part of a digital strategy by **fintech and micro-banking providers** can help providers overcome the burden of **getting to "know the customer"**.

For further information on how these tools can be deployed to enhance security of micro banking operations, contact us at **Banking.Solutions@hitachi-eu.com**