

VNU CAMPUS | HOA LAC

# i - LOCKER

*integrated and intelligent locker*



Presented by **AMNI, LAM, KRAIWICH**

# IEEE SEACAS Hackathon 2022

A smart campus with an area equivalent to  
Cau Giay District



VNU's Hoa Lac Campus

# What is i-LOCKER?



i-Locker is an automatic unlocking locker to place the parcels from courier services.





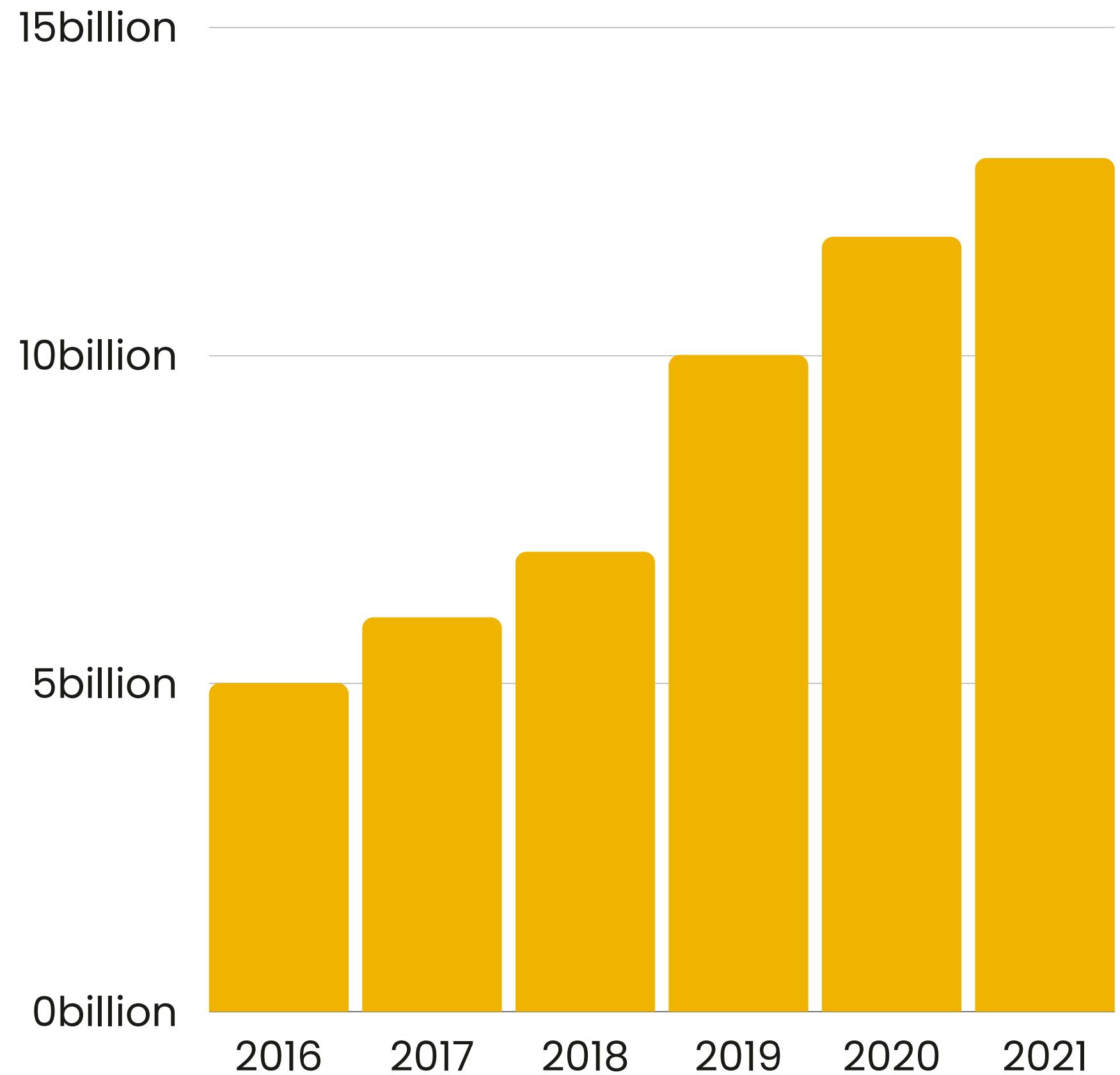
**WHY i-LOCKER NEED TO BE  
INVENTED?**

# E-COMMERCE

SOURCE:

Vietnam E-commerce White Paper  
2021 of the Vietnamese Ministry of  
Industry and Trade

The Vietnamese market is also  
expected to quadruple to 39  
billion USD by 2025 from 13  
billion USD last year. Suitable for  
future development.



# Cau Giay District



**REAL ISSUE**

3/12/2022 at 1.40pm

# Cau Giay District



**REAL ISSUE**

4/12/2022 at 1.40pm

# PROJECT PURPOSES

01

To enhance security and privacy  
for the student's parcels

02

To save time

03

To keep the environment of  
university a well-arranged and tidy

04

To prevent the parcel from broken

# PROCESS

A smart locker that consists of 100 sections with a single 3x4 matrix keypad which has a lock system.

The shipper from courier services will put the parcels in a lockers section which limits one section per receiver.

The shippers will generate a new passcode through an application for every tracking number. Then, provide the receivers with a passcode via email.

The operation will repeat.

The passcode will expire if the students do not collect the parcels after 24 hours and the shipper will collect the parcels and bring them back to the hub.

The passcode will expire when the student collects and the new passcode will be generated for the next parcel.

# FEATURES

## AUTOMATIC LOCK AND UNLOCK

- Keypad use to pin the passcode
- LCD will display the passcode
- LED will be used to show the lock and unlock



**UNLOCK**



**LOCK!**

## NEW PASSCODE GENERATOR

- New passcode will be generate automatically by assigning a random code after the right code entered by the receiver.

# BILL OF PRODUCTION



**ESP32-C3**  
0.62USD



**LCD**  
2USD



**SERVO MOTOR**  
0.5USD

THANK YOU  
SO MUCH

LET'S INVEST FOR i-LOCKER TO ENHANCE THE SECURITY SYSTEM

Presented by TEAM 2