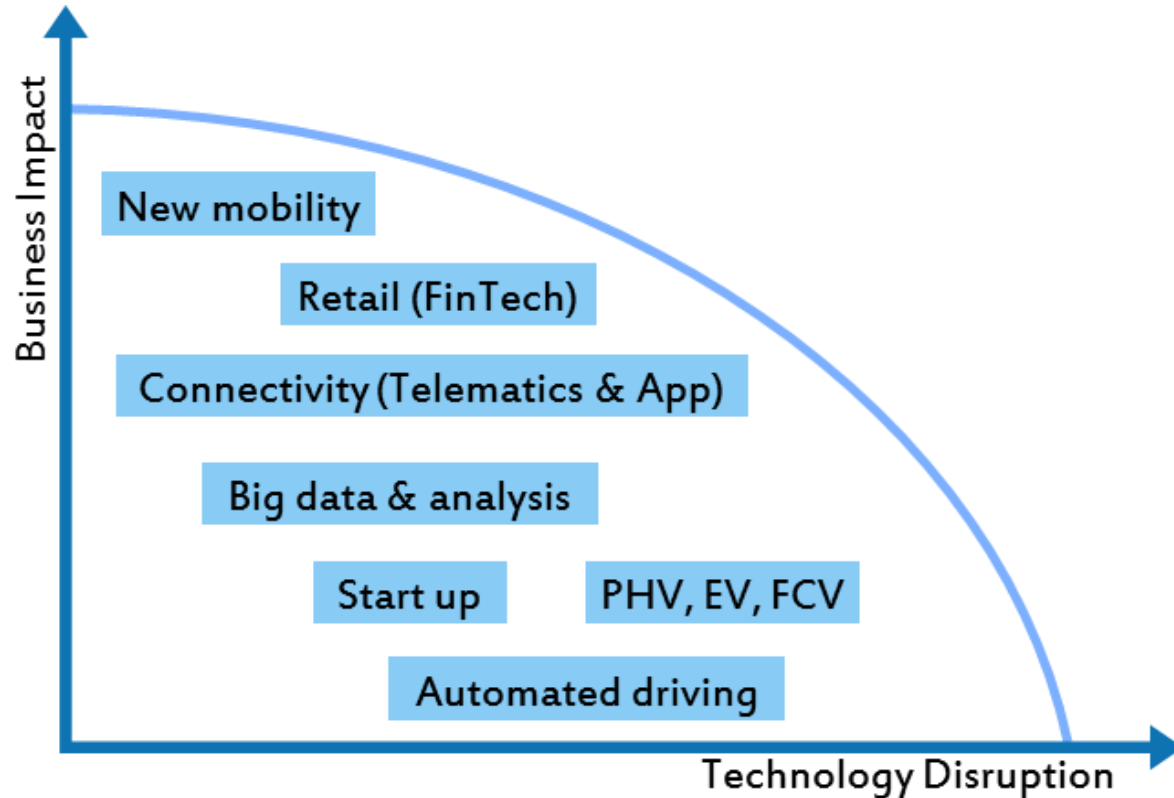


# **Leading into Thailand Competitiveness with Innovation**

**Ninnart Chaithirapinyo**  
**Vice Chairman**  
**Toyota Motor Thailand Co., Ltd.**



**Disruptive Technology** is an advanced innovation that will transform life, business, and economy.



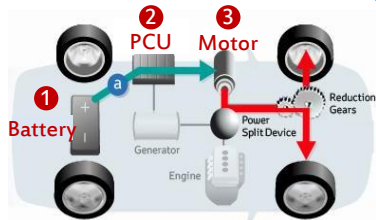
# The world is driving towards sustainability so that alternative energy vehicles are required.

*Hybrid technology underpins Toyota's PHVs, EVs and FCVs*

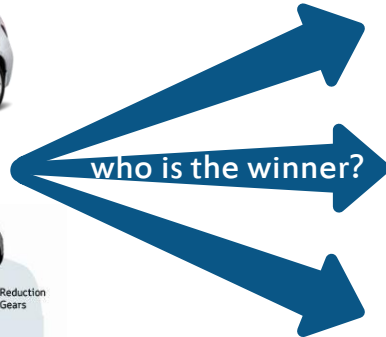
(Global Automotive Sales 2015 = 89 M Units)

## Hybrid Vehicle - HV

(1,440 K units)



Common Core Components



## EV



- Short distance ~150 Km
- Over 20K parts will disappear

275 K units

## PHV



- EV mode for 20-30 Km
- No excise tax of electricity

125 K units

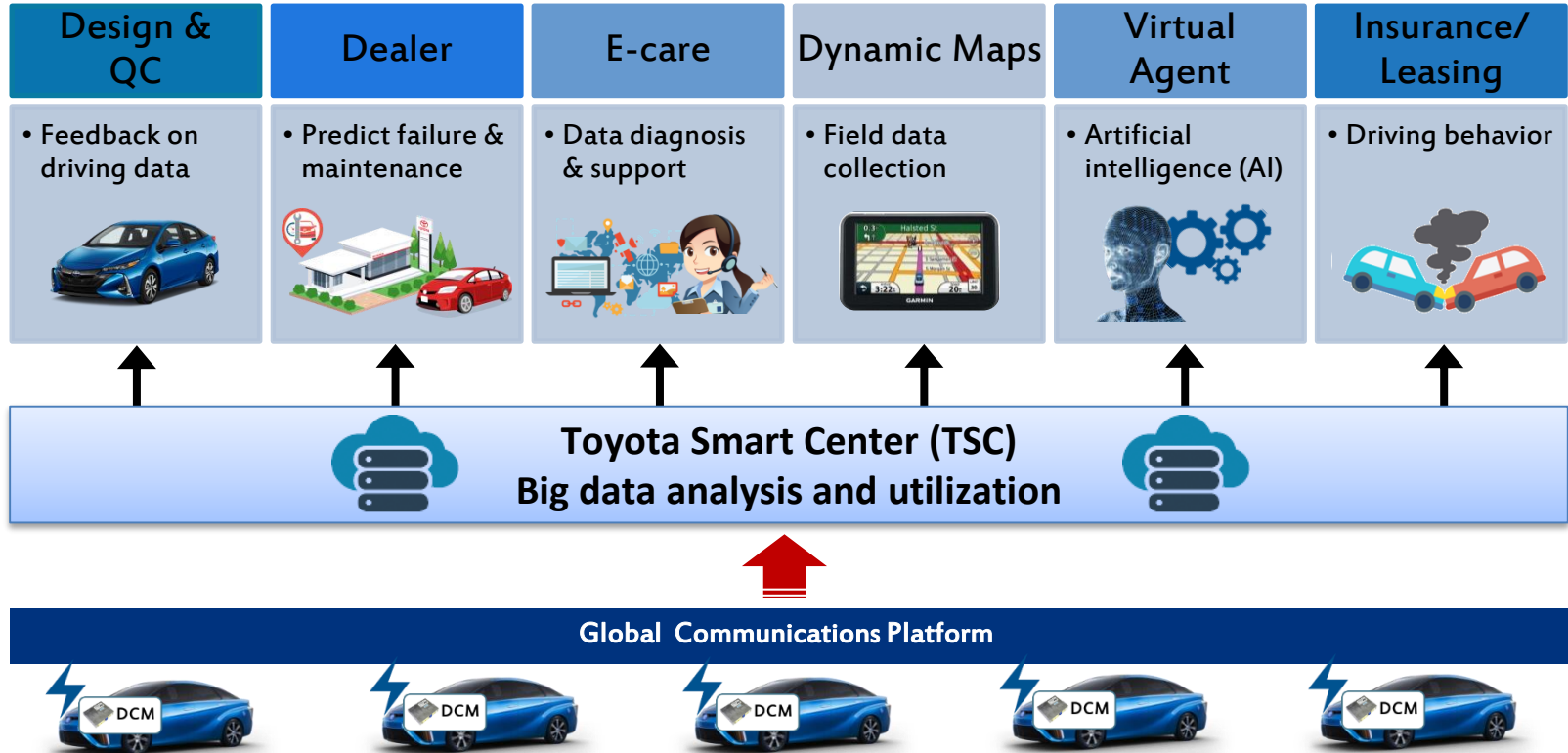
## FCV



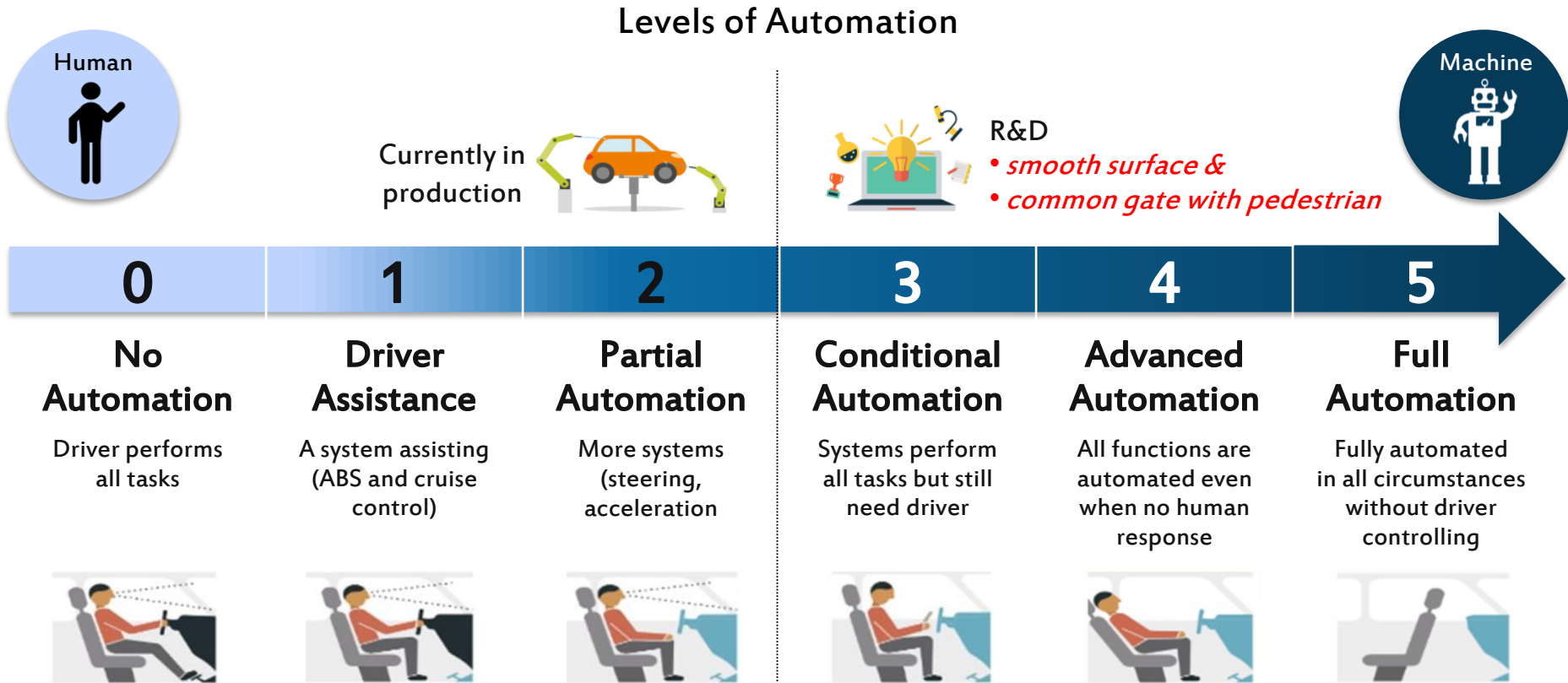
- FCV has high potential to expand in the future

700 units

# TOYOTA to standardize Data Communication Module (DCM) globally to build global communications platform and expand big data usage



# Automated Driving – The evolution for Safety, Efficiency, and Freedom



# Driving Innovation through government funding and contest

## “Smart Cities – Clean Energy”



DEC'16: **36** Applicants

JAN'17: **16** Candidates (0.5 MB)

APR'17: **7** Winners (10 MB)

OCT'17: **ITS-WC in Canada**



**1. Energy**  
(smart grid, solar, wind, biomass)



**2. Mobility**  
(digital infra, HV, PHV, EV)



**3. Community**  
(welfare, health, education,)



**4. Environment**  
(agricultural, natural area)



**5. Economy**  
(sustainable economy and business)



**6. Building**  
(district heat/cooling, TREES; Eco Showroom)



**7. Governance**  
(performance measurement)



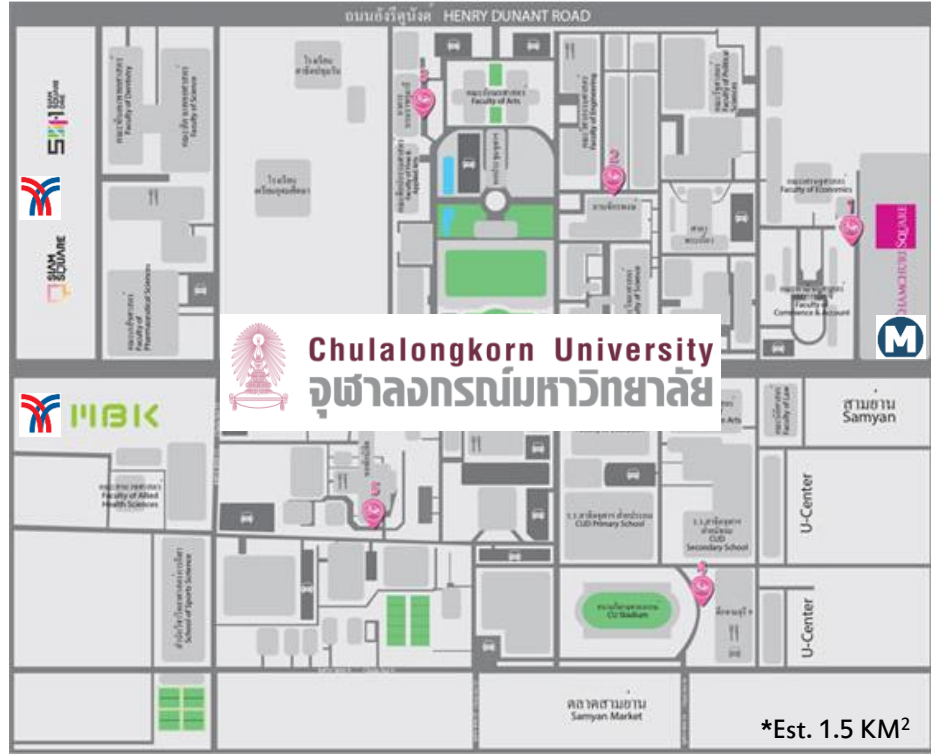
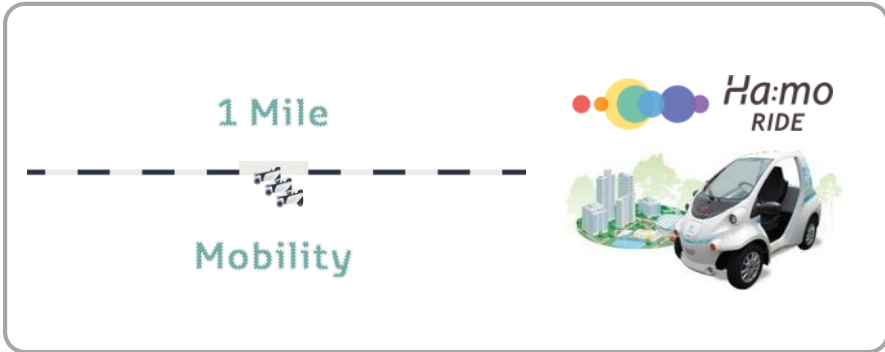
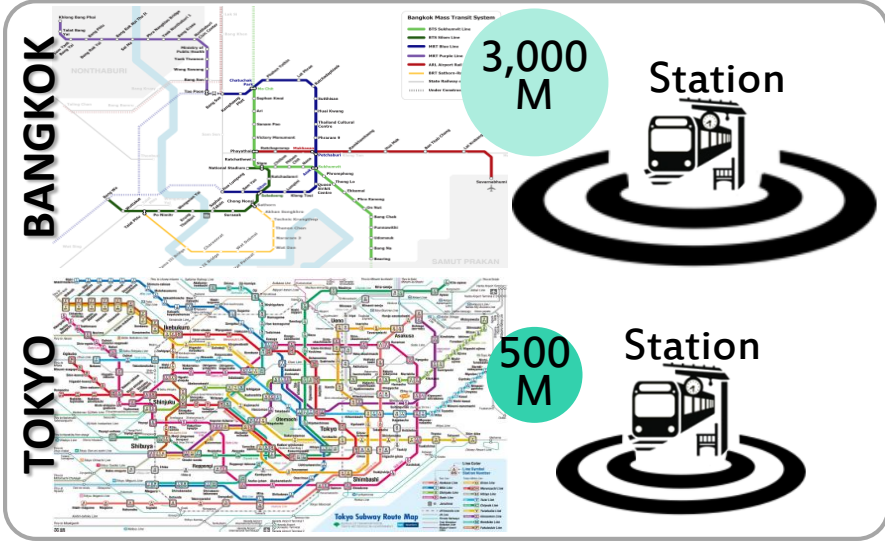
**8. Innovation**  
(driving R&D)

# Smart Cities – Best practice in Singapore

The first Zero Energy Building (ZEB) in South-east Asia located within the BCA Academy



# R&D of EV Sharing for the last-one-mile mobility



<<R&D project to promote EV car-sharing>>



# Sponsor research, development and innovation project for society

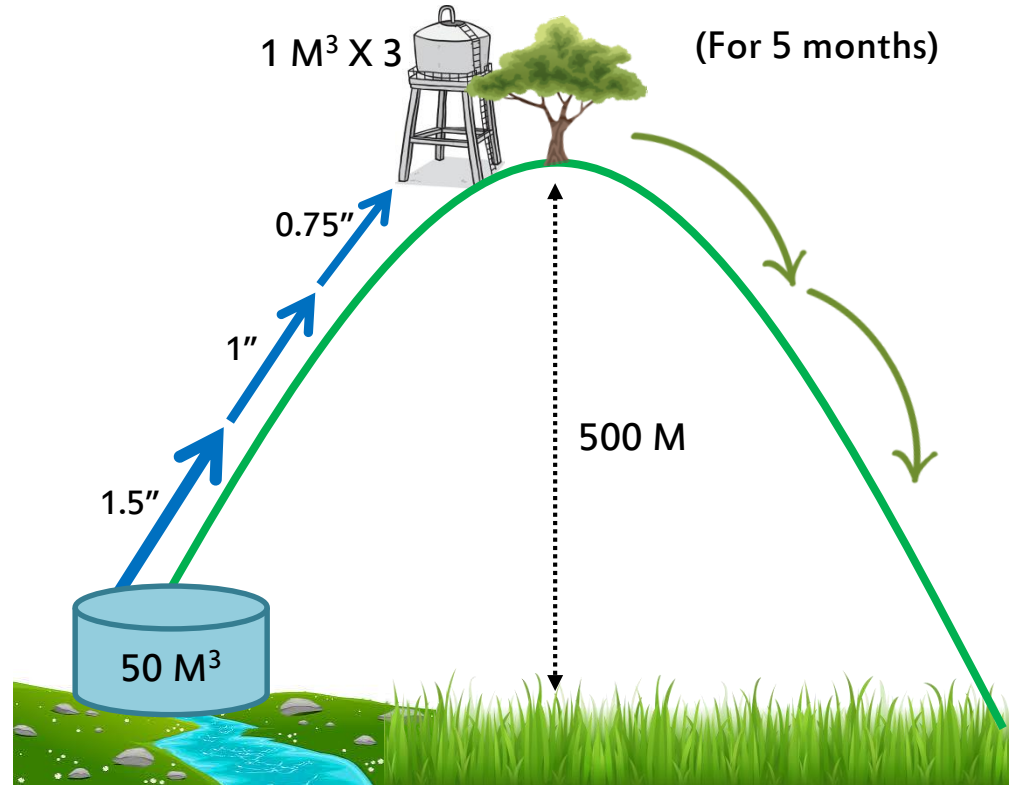


# Toyota Art Camp for cartoon animation and packaging design In order to promote OTOP



Before	After	Before	After
			
<p>Increase sales 30%</p>		<p>Renew the brand image</p>	

# Toyota Art Camp for cartoon animation and packaging design In order to promote OTOP



# Conclusion

## Man is the key to success



IT and  
Software

Digital  
Marketing

## It's economy of speed



Economy of  
scale is  
**no longer**  
ENOUGH!



## Always think outside the box



Innovation always  
begins with  
a dream!

*Thank You*

