

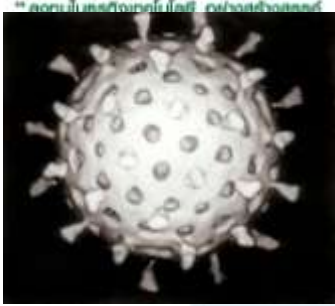
# iGuard Nano



## Multi-Functional Air Filters

**Narupol Intasanta**

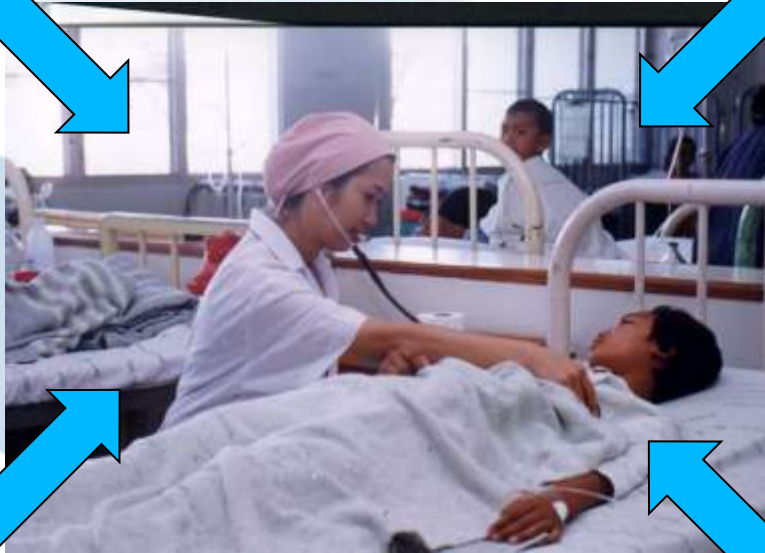
**National Nanotechnology Center, NSTDA**



**Bacteria**



**NO<sub>x</sub>**



**VOC**



**Virus**



**Fungi**



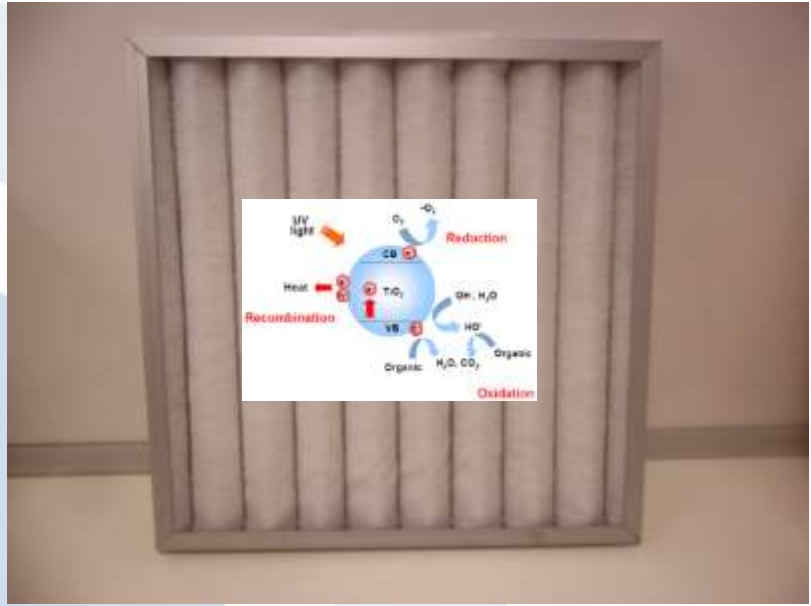
สารอินทรีย์ระเหยง่าย...

เกินมาตรฐาน

44 ชนิด

# The Product

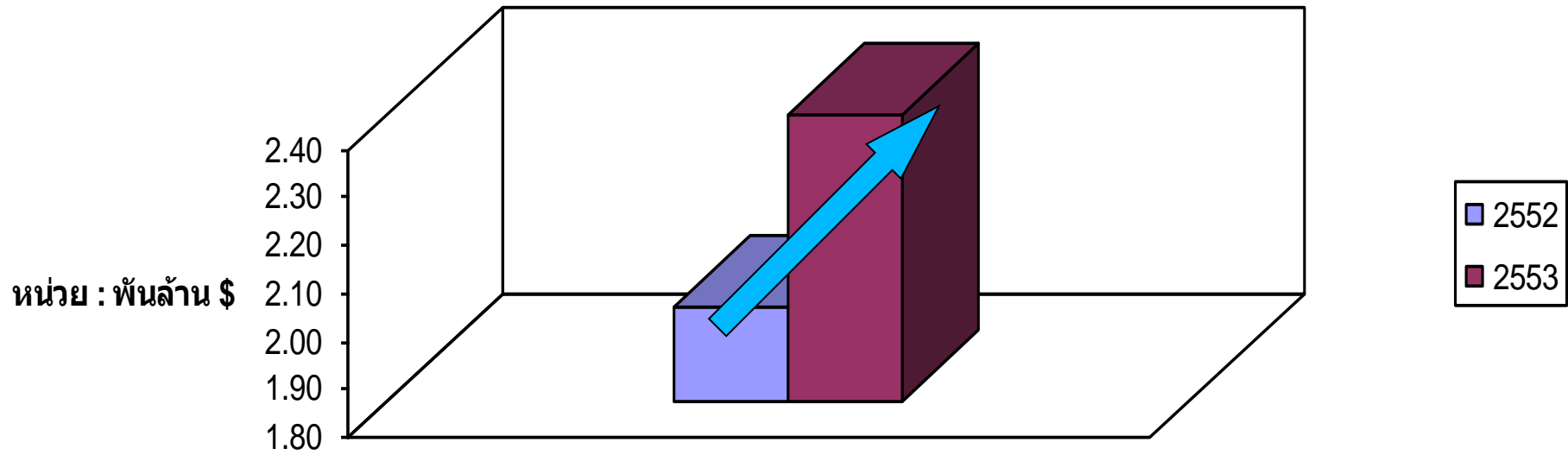
## Multi-Functional Air Filters



- ✓ เทคโนโลยีการเร่งปฏิกิริยาด้วยแสง (Nano-Photocatalyst Formulations)
- ✓ เทคโนโลยีการเคลือบนาโน (Nanocoating)
- ✓ การผลิตแผ่นกรองอากาศ (Air Filter)

# The Potential Market

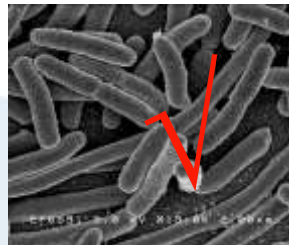
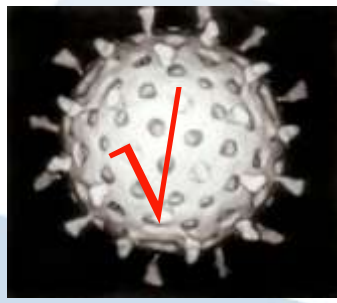
**Air Con : Thailand Export Volume**



**Filter Market Volume 8,000-10,000 MB**  
**20 % Market Share 1,600~2,000 MB**

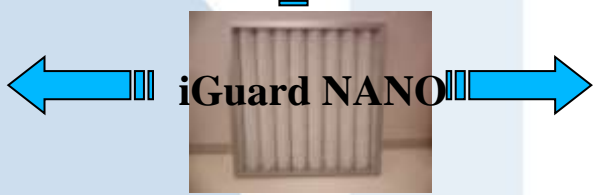
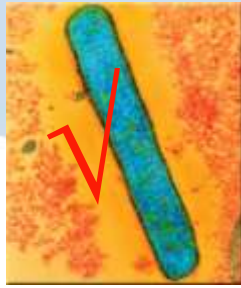
# iGuard NANO: Multifunctional Air Filter

**Killed Bacteria**



**Reduce VOC**

**Reduce NOx**

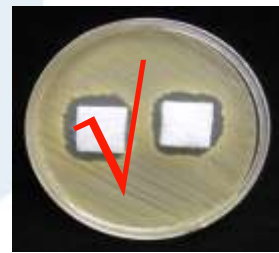


**Washable**

**Reduce Fungi**

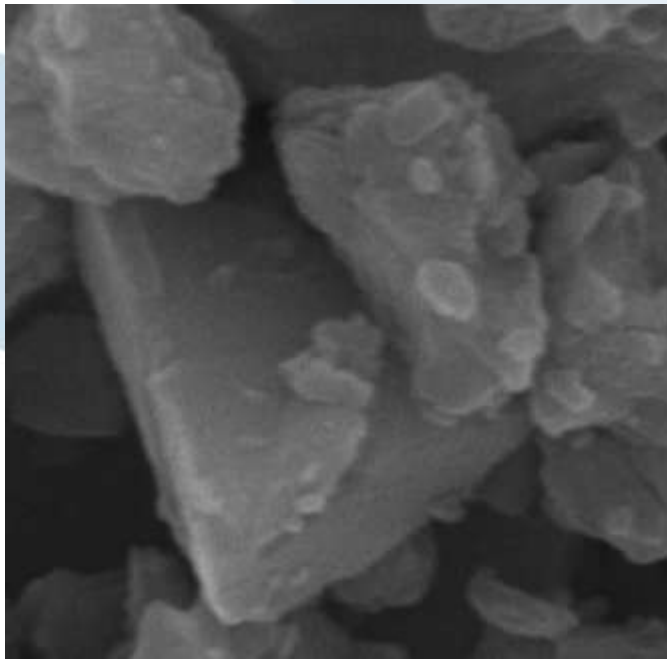


**Water Repellent**



# Larger scale/Lower Cost Production

**Before**

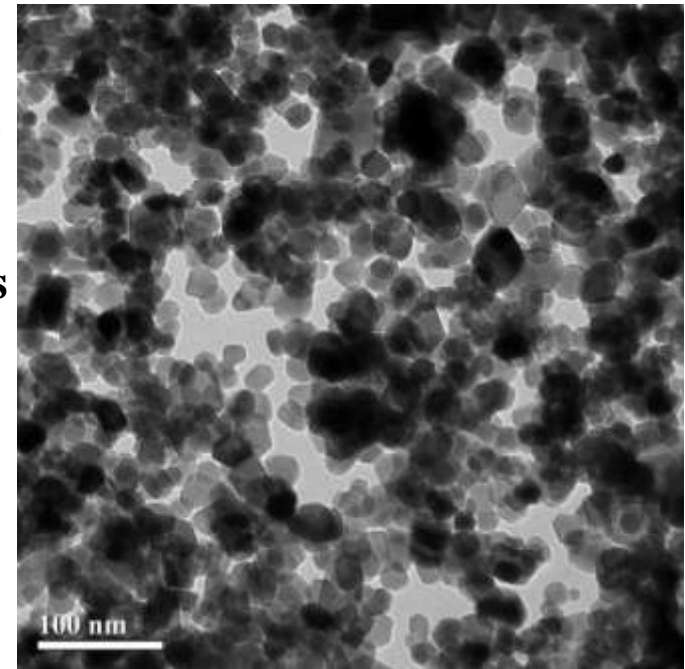


**Large Size, Low Surface Area,  
Low Catalytic Activity**

**Nanoformulations**



**After**



**Small Size, High Surface Area,  
High Catalytic Activity**

# Various Value Added Product



✓Antibacteria
✓Antifungal
✓AnitVirus
✓VOCs Reduction
✓Ethylene Decomposition
✓Washability
✓Water repellent





# Product's Efficiency

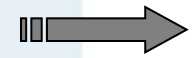
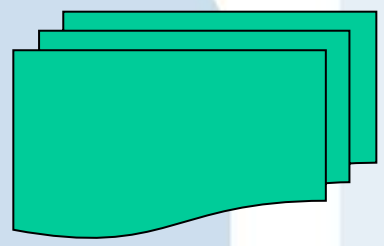
Property	Commercial A	Commercial B	iGuard NANO
Antibacteria	√	√	√
Antifungal	-	√	√
AnitVirus	-	-	√
VOCs Reduction	-	-	√
Ethylene Decomposition	-	-	√
Washability	-	-	√
Water repellent	-	-	√

# Production of iGuard Nano

**Nano-  
formulations**

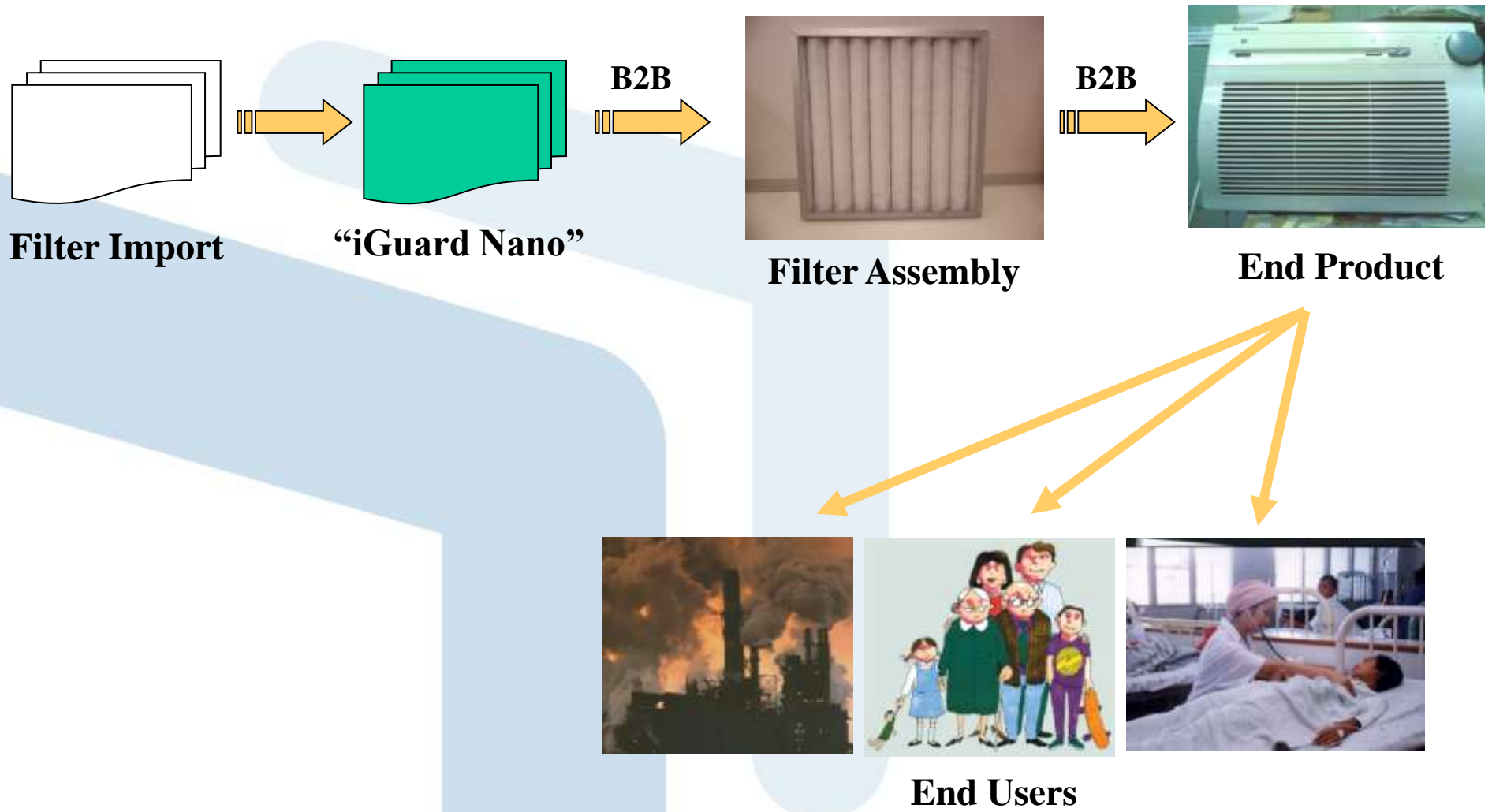
**Nanocoating**

**iGuard Nano**



# The Business Model

## iGuard Nano and Filter Value Chain



# Profit and Returns



# iGuard Nano



PresenterMedia