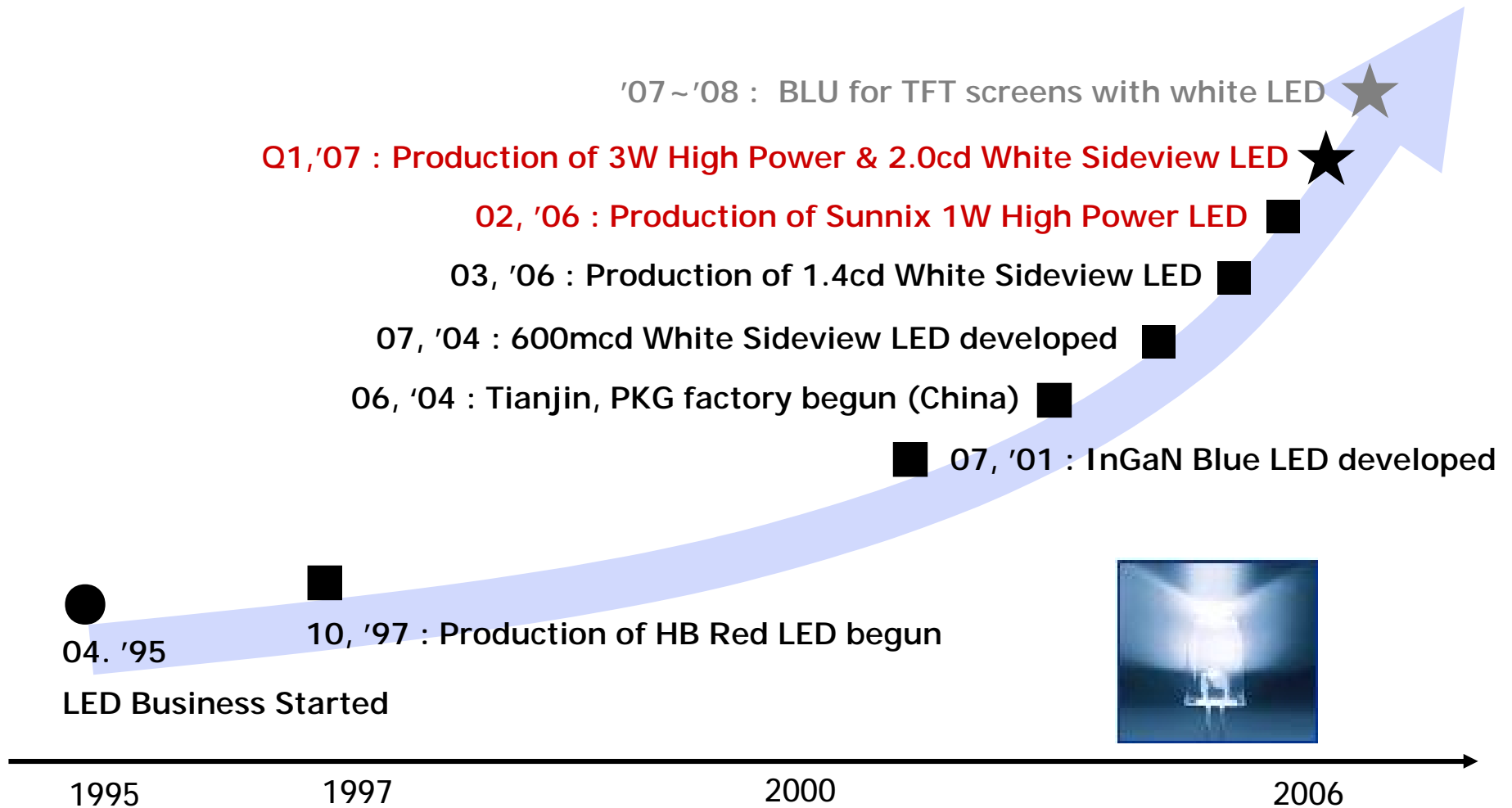


Introduction of LED products Samsung Electro-Mechanics GmbH (SEMCO)

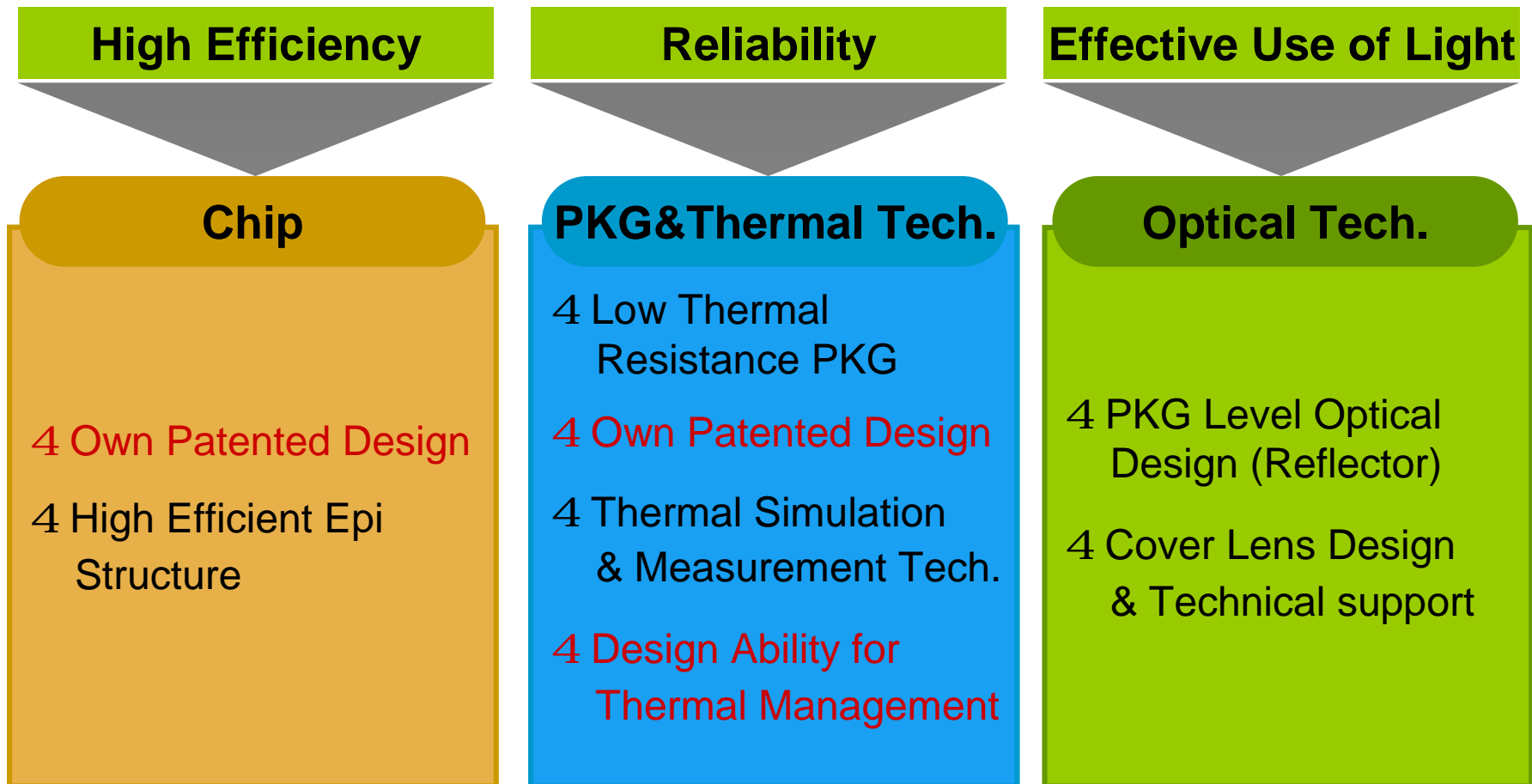
Samsung Electro-Mechanics GmbH
Am Kronberger Hang 6
65824 Schwalbach am Taunus

SEMCO LED history



SEMCO covers from chip design to the packaging the complete LED value chain

LED Core Technologies



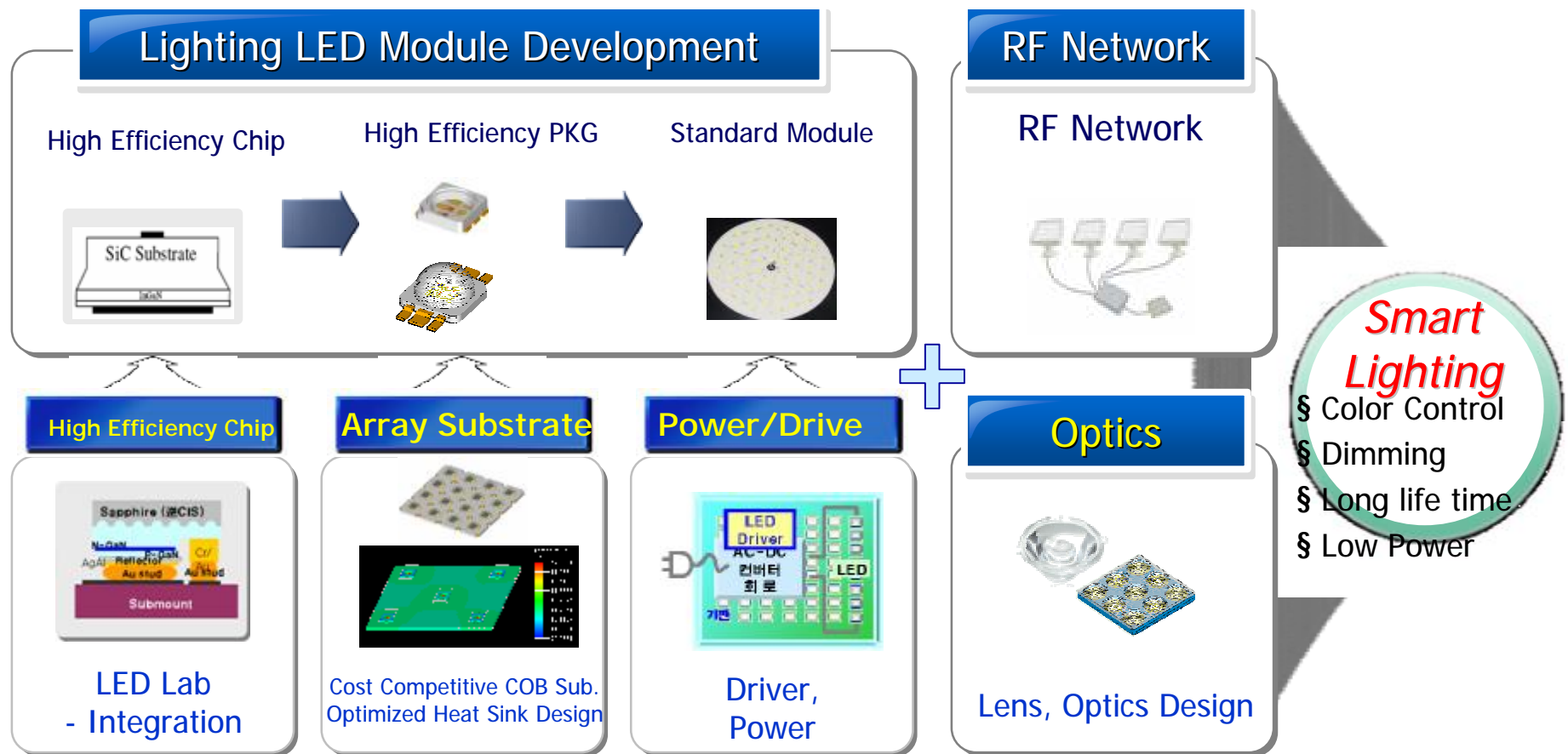
SEMCO has entire production line-up from wafer production to complete LED modules

LED Production Capabilities

EPI	FAB	PKG	MODULE
<p>P-GaN InGaN N-GaN Al₂O₃ Insulating</p>	<p>Current (+) P-GaN InGaN N-GaN Al₂O₃ (insulating)</p>	<p>LED CHIP</p> <p>LED-Chip Bond Wire Reflector-Cone filled with clear epoxy White Plastic Cone Leadframe Chip Identification</p>	

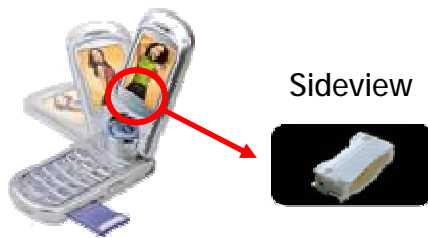
SEMCO has all capabilities in house to serve LED lighting projects

SEMCO – Full solution provider

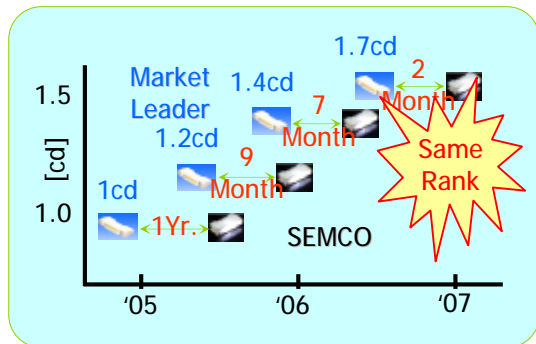


LED Business Areas

Mobile



- Equivalent performance of the market leader in 2007!



LED BLU

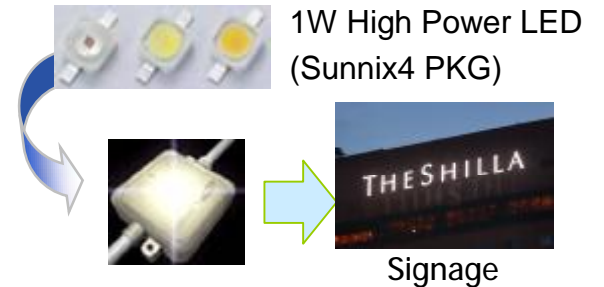


- Started LED BLU development in 2004
- First MP on Sept, 2006
40" LCD TV BLU for EU market

Item	MP Spec.
Panel	480 nit
Luminance Uniformity	96%
Color Uniformity	0.0034
Color Reproducibility	102%

- EISA Innovation Award (European Imaging and Sound Association)

General Lighting



- Move from signage into general lighting



Street Light(Everland)



Display Panel

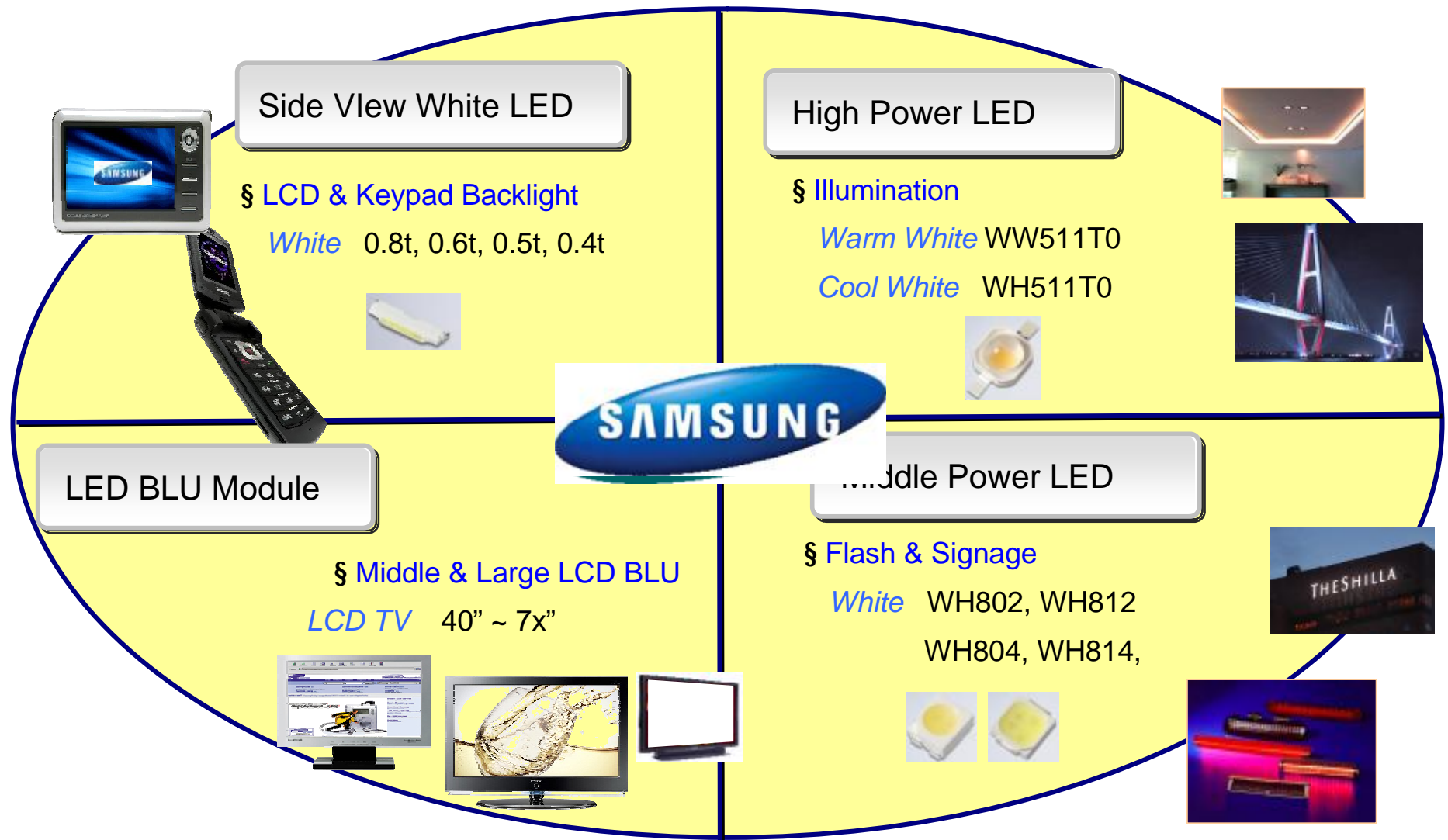


Post Office Sign(Japan)



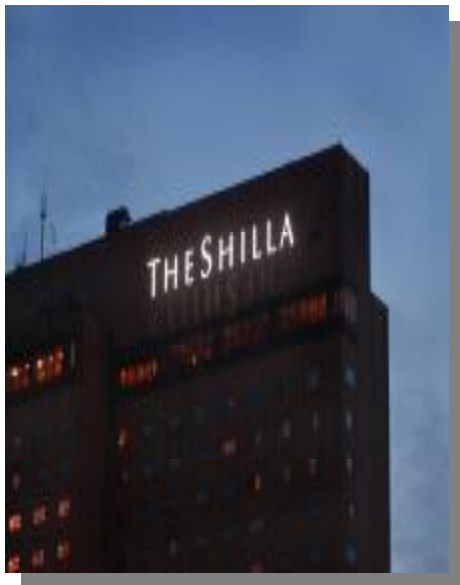
Bordeaux TV(SEC)

LED Applications

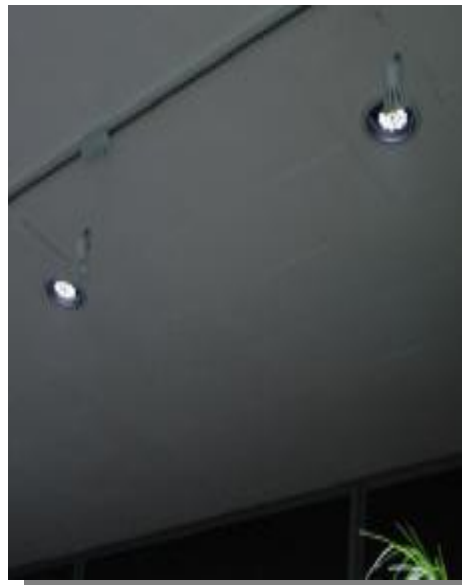


SEMCO - Reference LED use cases

Channel Sign



Down Light



Street Lighting



Light Panel



Emergency Light



Slot machine

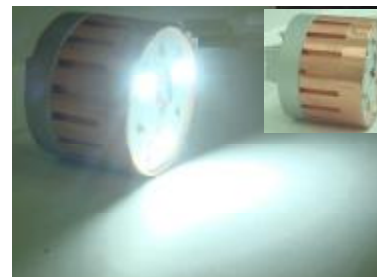


SEMCO - Reference LED use cases

Refrigerator for Shops



Display



SEMCO - Reference LED use cases

Panel Display



Flat Panel Lighting

