

# ***IPIN competition 2016 - Track 1***

Sponsored by



The Korean Institute of  
Communications and  
Information Sciences

Track 1

Smartphone based

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International Conference  
on Indoor Positioning  
and Indoor Navigation

1



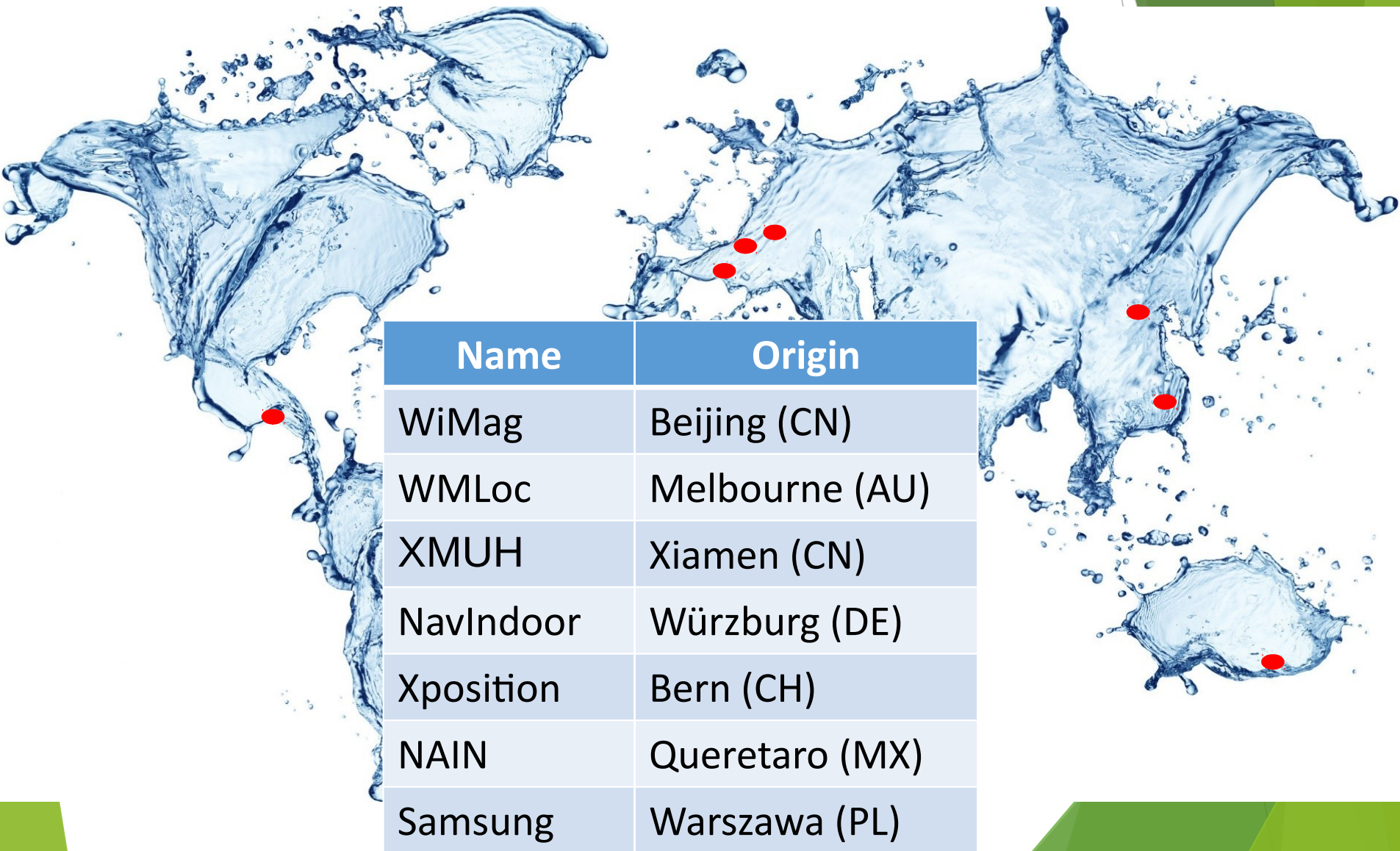
***organised by EvAAL***

# Format of Smartphone Track

- ▶ Goal: assess and measure the ability of competing systems to accurately identify their position inside a **large, public indoor area**
- ▶ The accuracy score is the **third quartile** of the localisation errors
- ▶ A penalty is added for each floor error
- ▶ The path is the same for each test competitor, takes approximately the same time and passes through all the keypoints in the same order
  - ▶ Pauses, loops, natural strides



# Smartphone Track competitors



# Path characteristics of Smartphone Track

- ▶ 56 Keypoints
- ▶ 6000 m<sup>2</sup> indoor, 1000 m<sup>2</sup> patio
- ▶ 4 floors
- ▶  $130+40+220+120+90 = 600$  m length
- ▶ 15' ± 2' duration
- ▶ 3 long (1'-2'), 6 short (5") pauses
- ▶ 3 upstairs, 1 down lift

# Smartphone Track results



Team	Origin	3° quartile of error
WMLoc	Melbourne (AU)	> 25 m
XMUH	Xiamen (CN)	> 25 m
Xposition	Bern (CH)	> 25 m

# Smartphone Track results



Team	Origin	3° quartile of error
WiMag	Beijing (CN)	18.7 m
WMLoc	Melbourne (AU)	> 25 m
XMUH	Xiamen (CN)	> 25 m
Xposition	Bern (CH)	> 25 m

# Smartphone Track results



Team	Origin	3° quartile of error
NavIndoor	Würzburg (DE)	5.4 m
Samsung	Warszawa (PL)	8.2 m
WiMag	Beijing (CN)	18.7 m
WMLoc	Melbourne (AU)	> 25 m
XMUH	Xiamen (CN)	> 25 m
Xposition	Bern (CH)	> 25 m