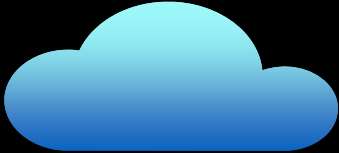
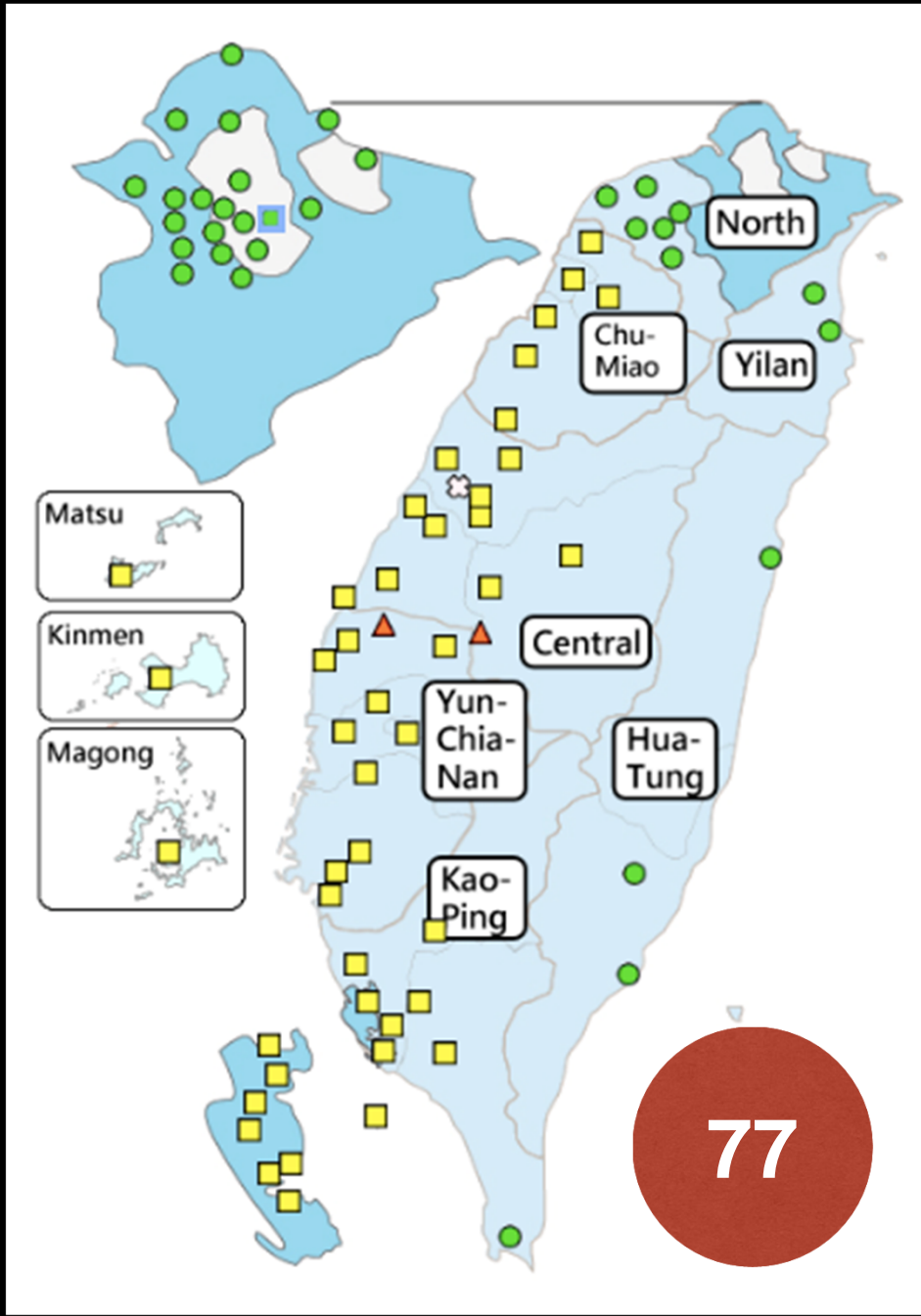


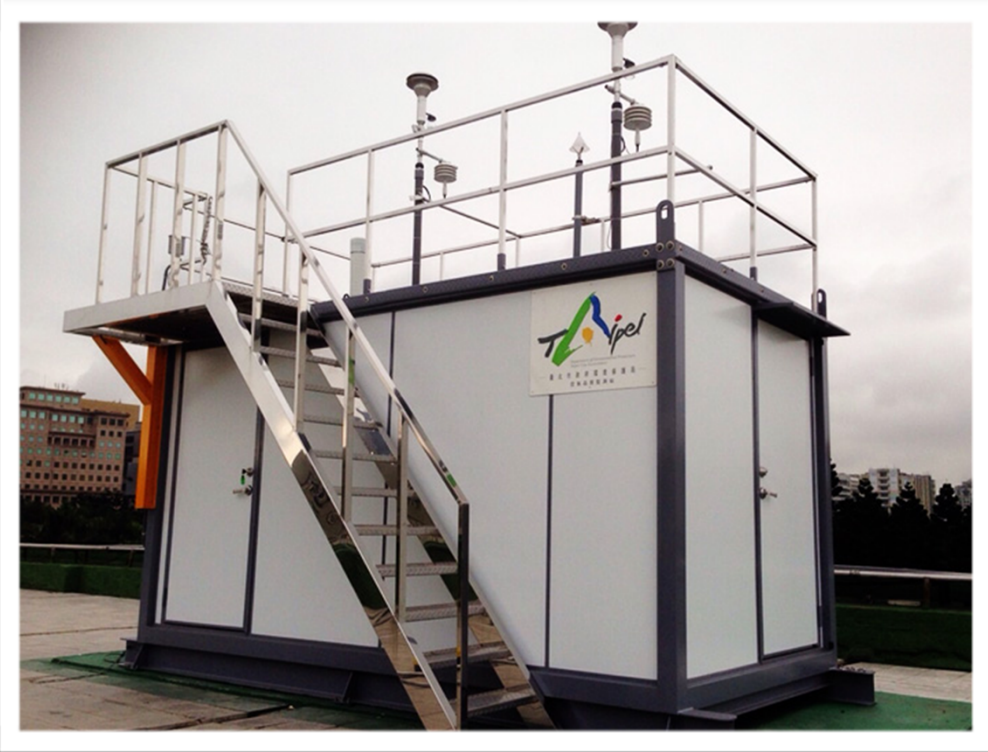
AirBox: a participatory ecosystem for PM2.5 monitoring

Ling-Jyh Chen, Taiwan





Well-mixed
atmosphere



>10 meters



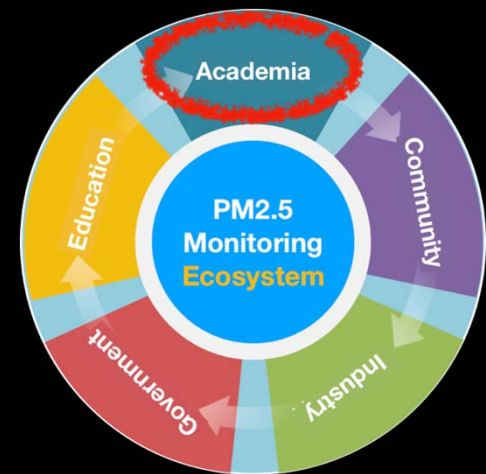
What is the air quality
HERE & NOW ?



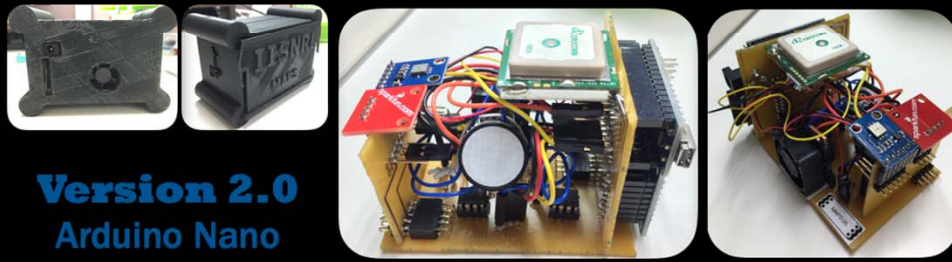
2013



Version 1.0
Arduino Uno

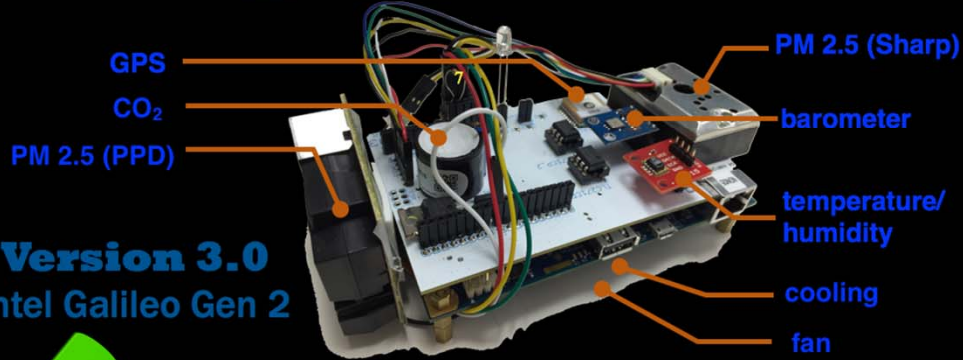


2014



Version 2.0
Arduino Nano

2015

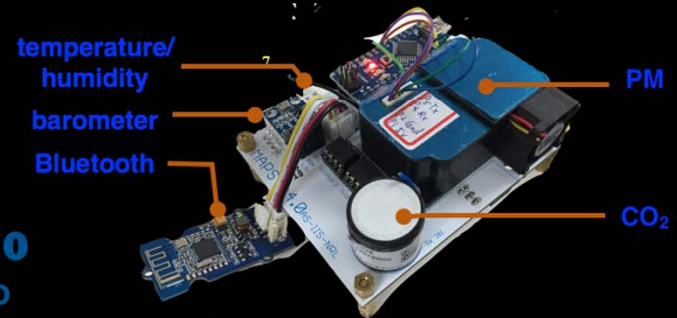


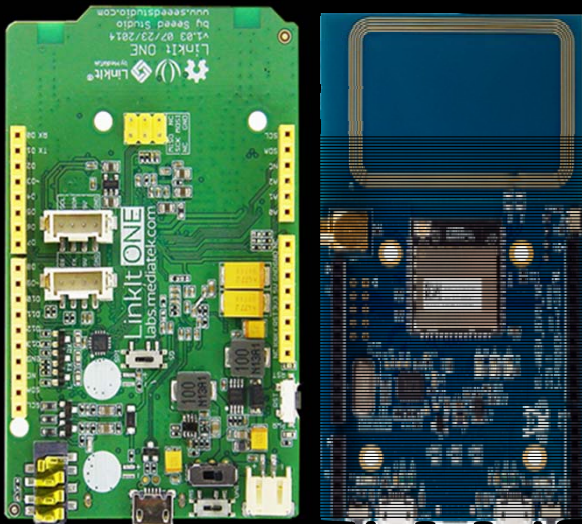
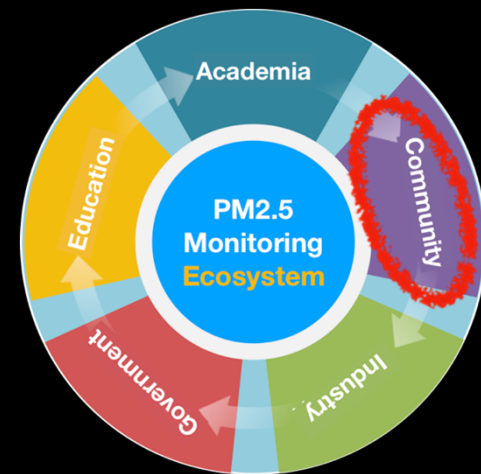
Version 3.0
Intel Galileo Gen 2



Realtime Display

Version 4.0
Arduino Nano



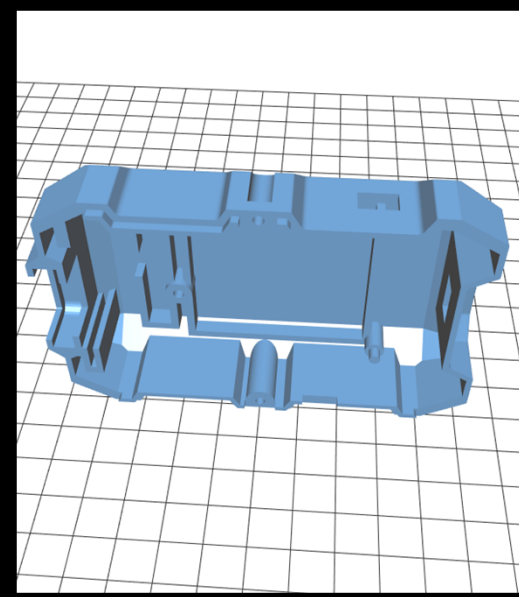


This repository Search Pull requests Issues Marketplace Explore

LinkItONEDevGroup / LASS

477 commits 2 branches 0 releases 12 contributors MIT

Commit	Author	Message	Time
cd1g committed on GitHub Update MAPS-AppName-WIFI.txt	cd1g	Latest commit 2219758 4 days ago	4 days ago
219Hoc4i	219Hoc4i	prepare path	7 months ago
sdp	sdp	LASSAU 3DP case Modify by ICSHOP	9 months ago
Companion-module	Companion-module	time shift for right display on MCU	2 years ago
DataPresentation	DataPresentation	Fixed that the malformed entries might crash the process. We only nes...	a year ago
Device_Armba	Device_Armba	add watch dog, OS duty cycle	a year ago
Device_ArduinoCrossFit	Device_ArduinoCrossFit	fix fake_gas demo config...	a year ago
Device_ArduinoLike	Device_ArduinoLike	tested and draft verify with NHSCC,NO2	2 years ago
Device_LinkItOne	Device_LinkItOne	with LCD support in request of 台中共學團	10 months ago
Device_LinkItSmart7688Duo	Device_LinkItSmart7688Duo	fix picture link	3 months ago
Device_Rpi	Device_Rpi	initial new candidate project for RPI	2 years ago
Device_mbed	Device_mbed	new URL	a year ago
Doc	Doc	Web setup	2 years ago
LASS	LASS	Update some words and layout.	a year ago
LASS-Simulator	LASS-Simulator	V0.2.3 imported Taiwan CWB weather station current data, GPS current ...	10 months ago
LASS_DB	LASS_DB	Update MAPS-AppName-WIFI.txt	4 days ago
SensingDRiceFields	SensingDRiceFields	Add new project: SensingDRiceFields	a year ago



```

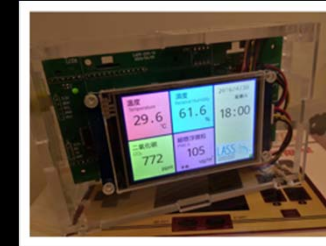
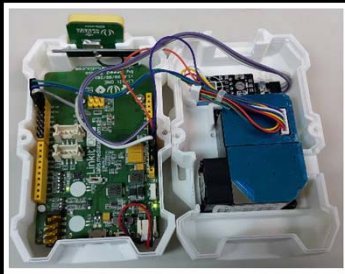
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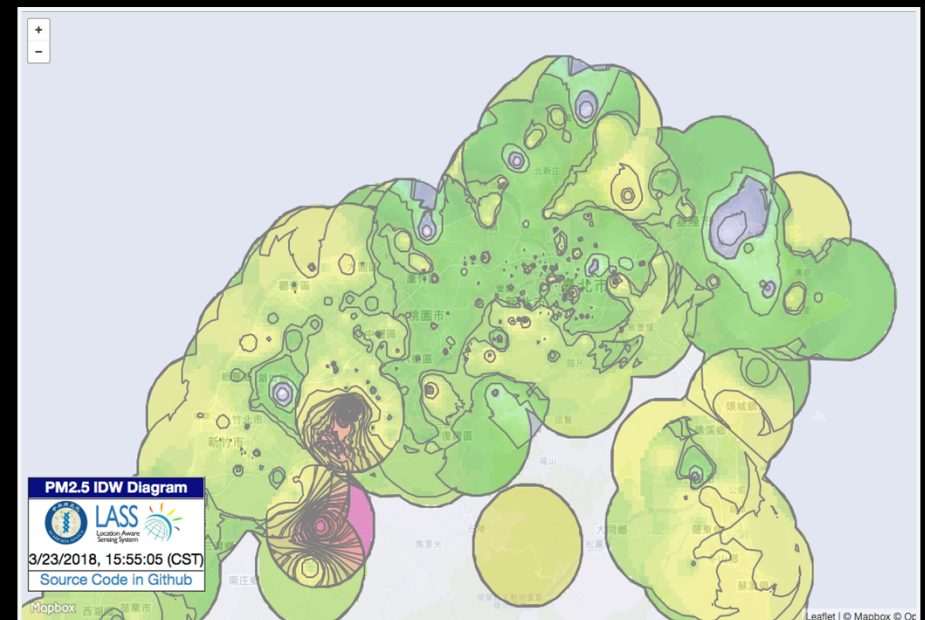
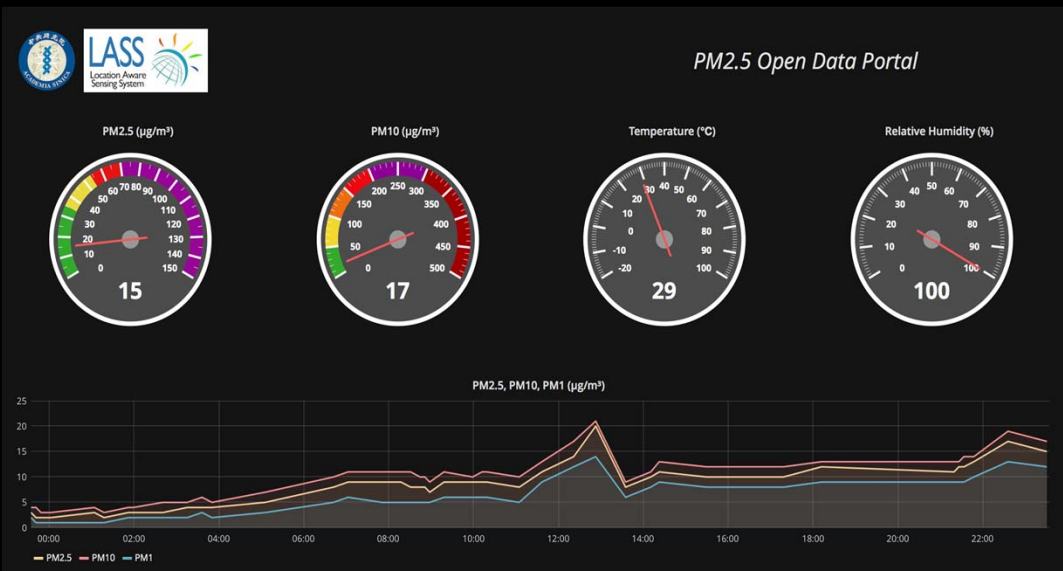
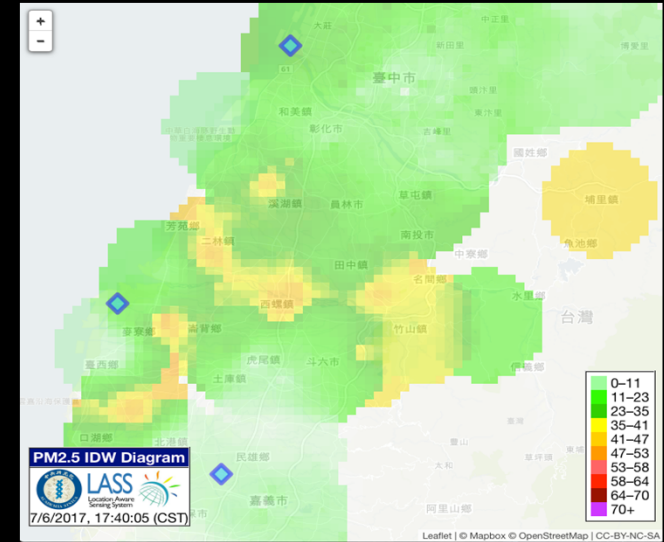
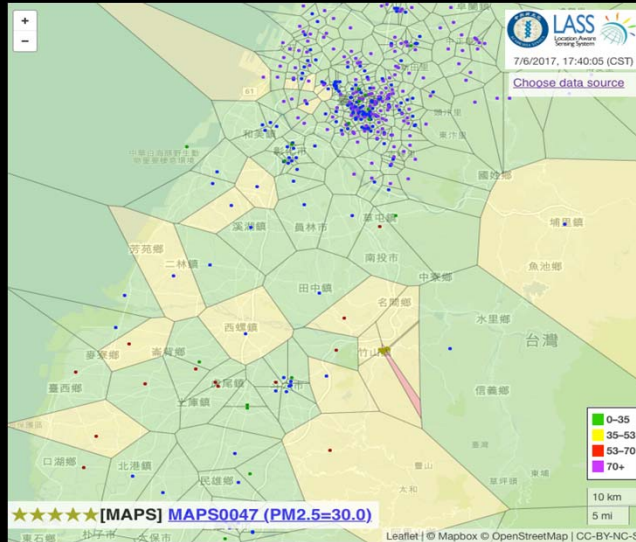
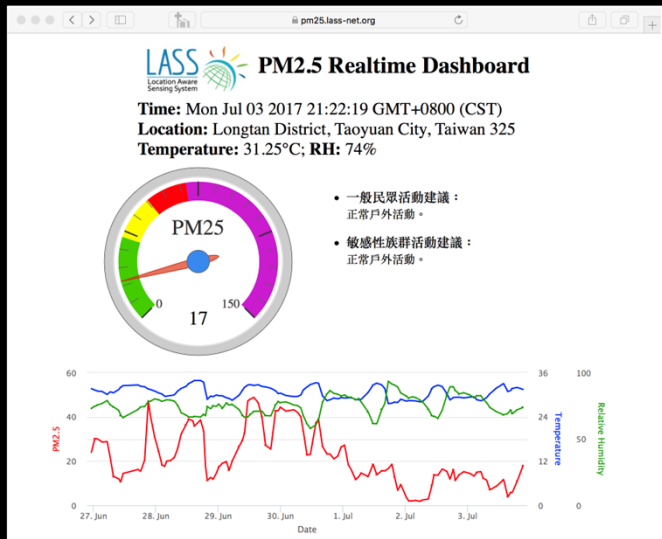
The key of this project: **Open**

AirBox Devices

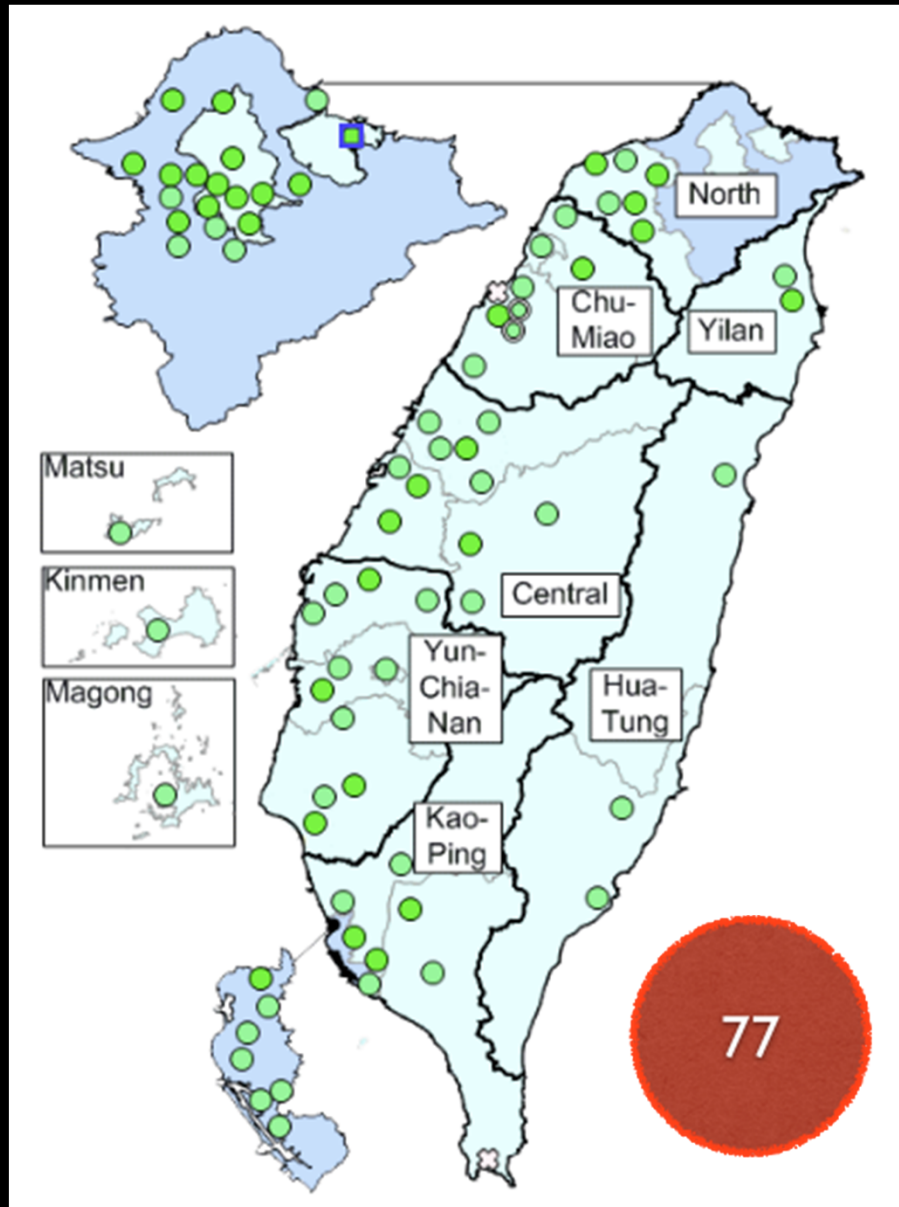


	LASS FT	AirBox	MAPS	LASS4U	87Live
Platform	MediaTek LinkIt One	Realtek Ameba	MediaTek LinkIt Smart 7688	Realtek Ameba	Realtek Ameba
T/H sensor	DHT22	HTS221	PMS5003T	SHT31	SHT31
PM sensor	PMS3003	PMS5003	PMS5003T	PMS3003	PMS3003
CO2 sensor	-	-	-	SenseAir S8	-
TVOC sensor	-	-	SGP30	-	-
Open source	YES	-	YES	-	YES
SD storage	-	-	YES	-	-
Connectivity	WiFi	WiFi	WiFi/Ethernet	WiFi	WiFi
Open data	YES	YES	YES	YES	YES
Phone app	-	YES	-	YES	YES
End user	makers	schools	academia	citizens	makers/citizens
Dimension (cm)	10.2 x 6.5 x 4.8	14.8 x 11.2 x 4.5	12.4 x 8.4 x 5.4	15 x 10 x 5	12 x 7 x 4.2
Price (USD)	90	110	180	140	60

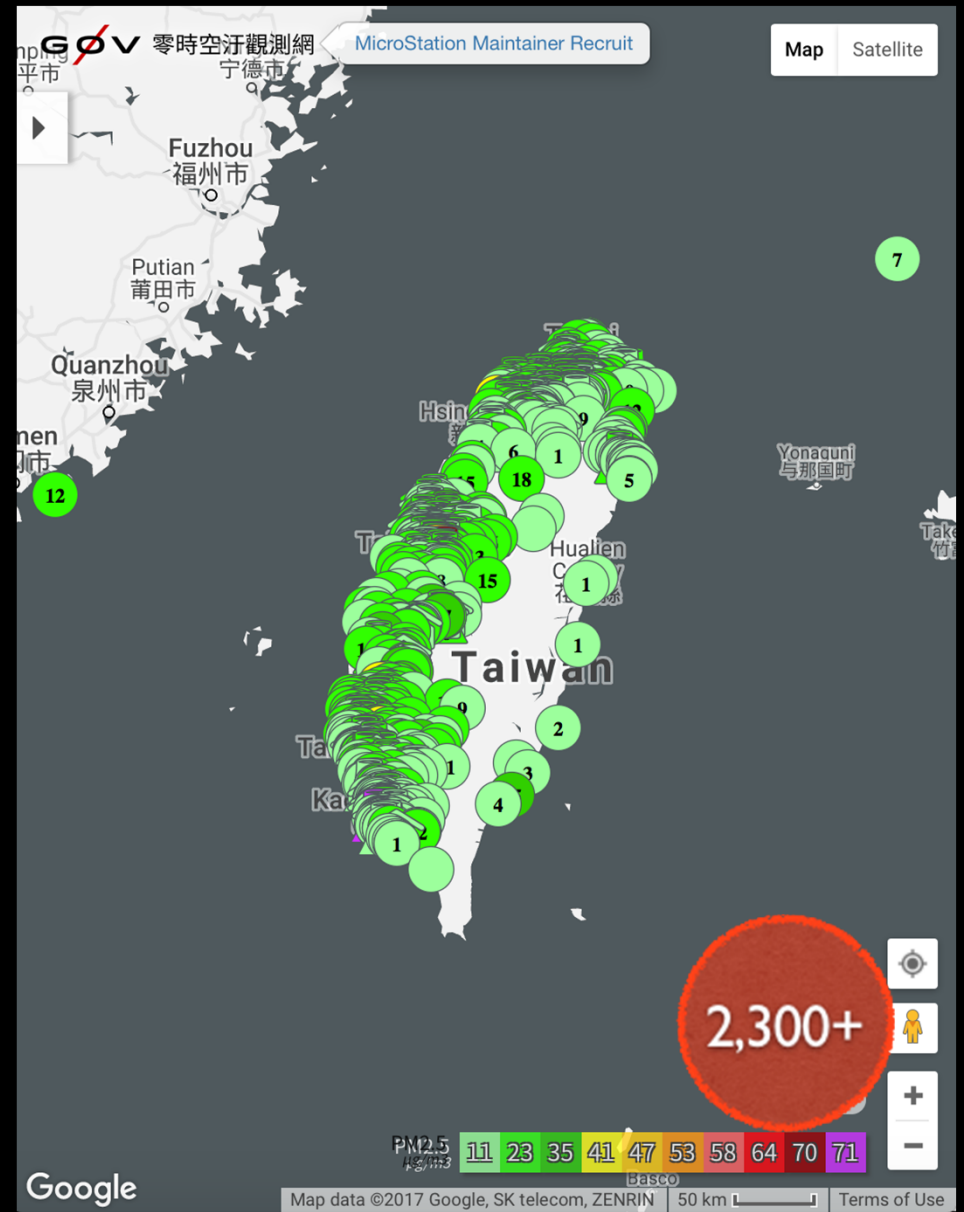
AirBox Visualization

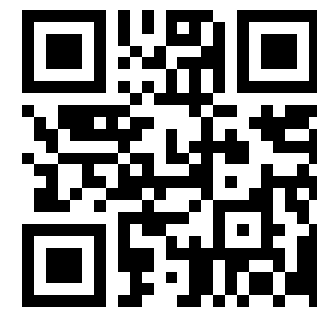


Before (2015)

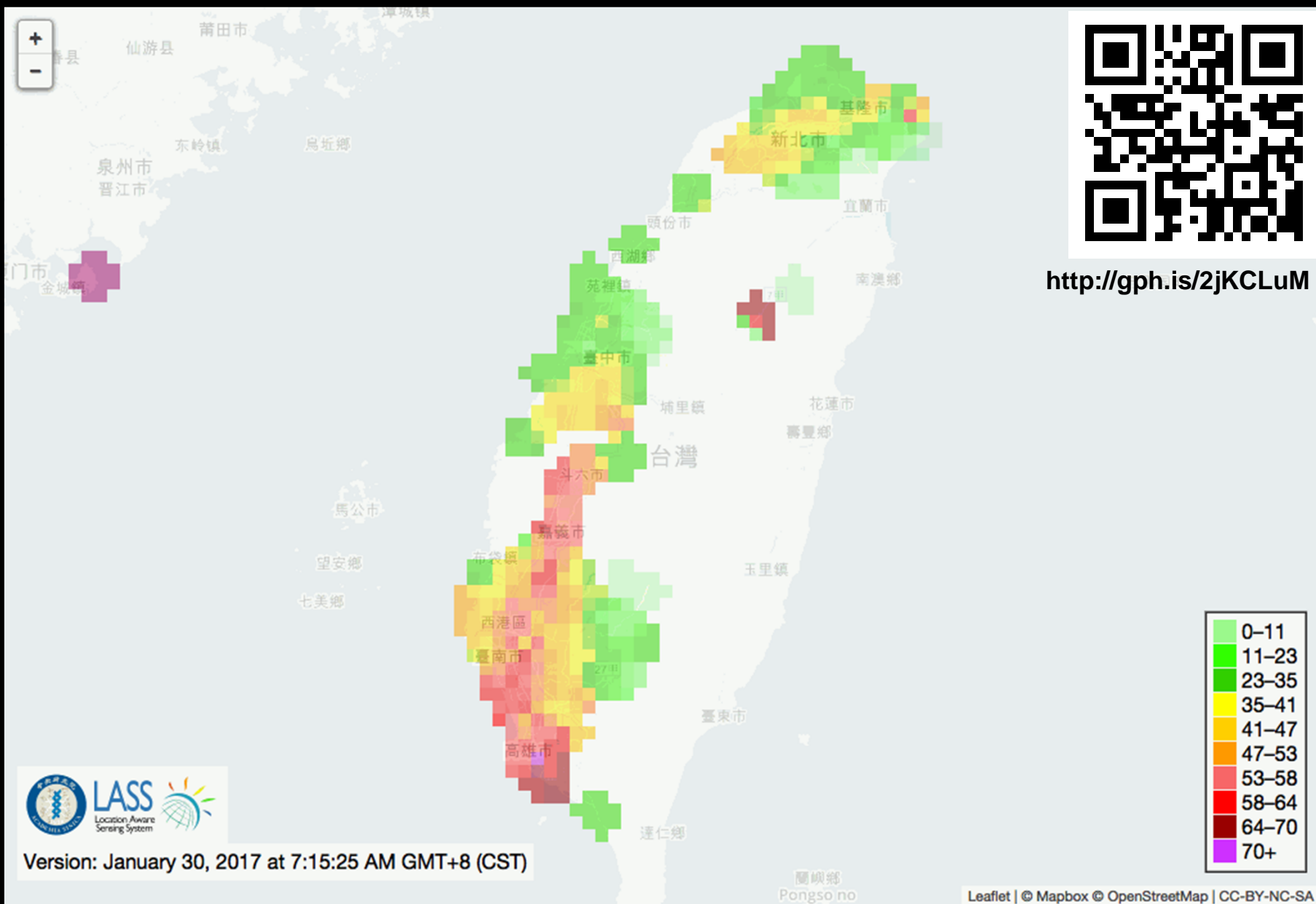


Now (2018)

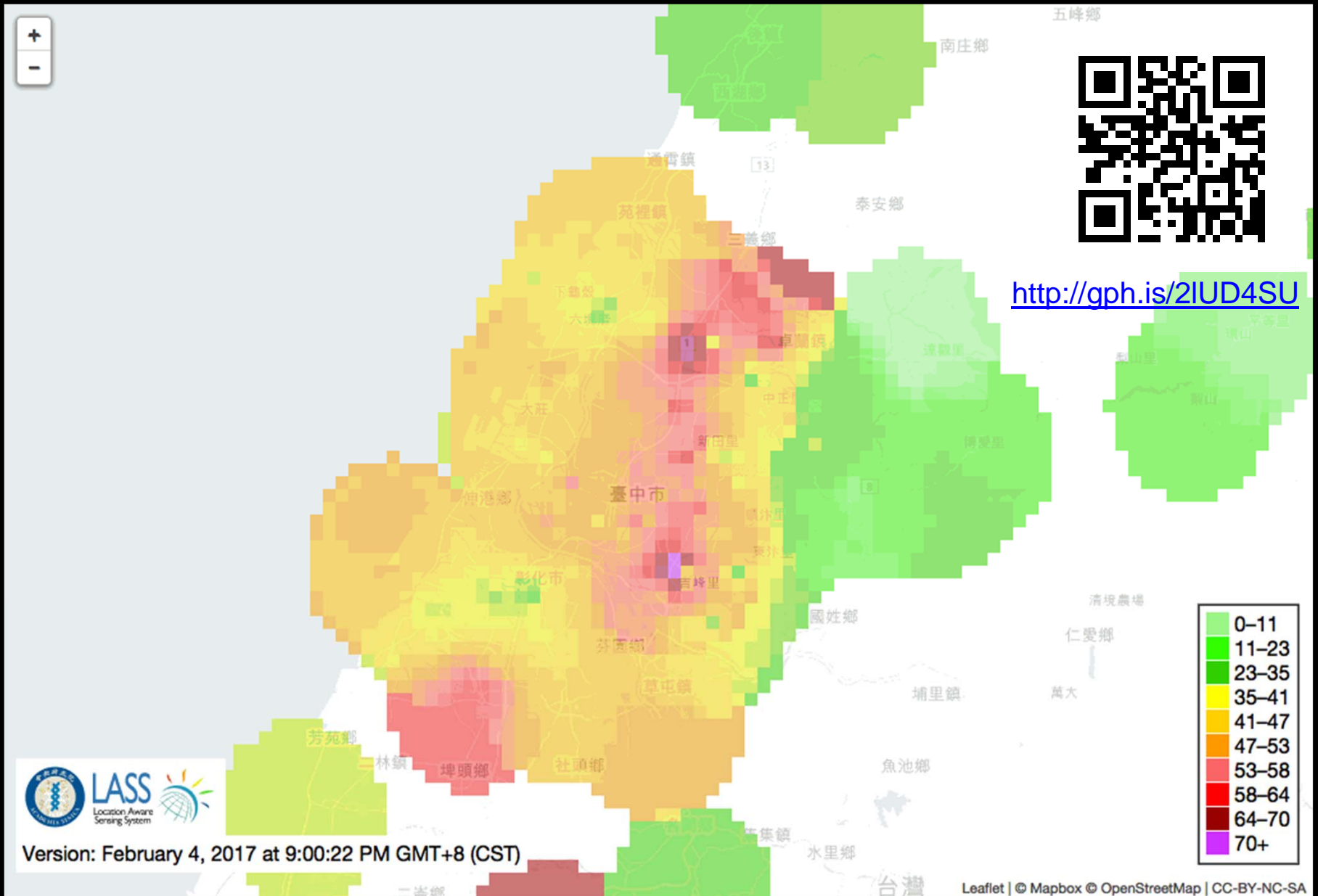




<http://gph.is/2jKCLuM>

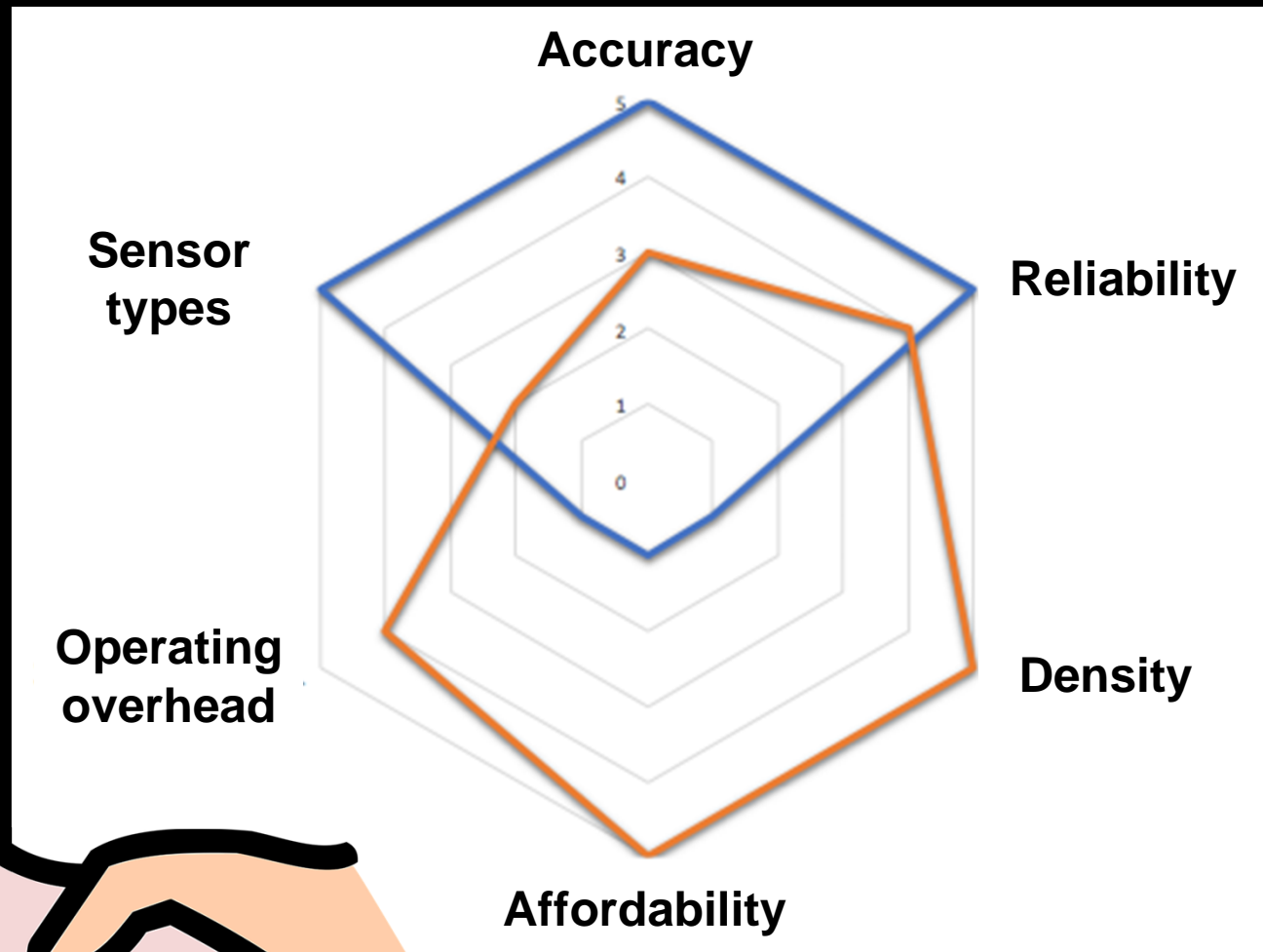


2017/01/30 China Smog Event



2017/02/04 21:00 - 2017/02/05 04:00 God birthday ritual

Conventional vs IoT-based



39 Countries **5,000+** Devices



Why am I here?

- Invite you to join the AirBox project
 - Install AirBox **devices**
 - Exchange **data** with your LCAS project
- Look for collaboration partners
 - Data **analysis**
 - Sensor **calibration**
 - Deployment/maintenance **SOP**