

TPVISION

MATERIAL TEST CENTER

Kurt Danneel

WHO IS TP VISION - OUR STRONG STAKEHOLDER STRUCTURE



Leading IT conglomerate investing in Semiconductors, electronic components, telecommunication and consumer electronics



Strong investment company and component sourcing partner to TPV

TPV

TPV supplies a combined display volume of 70 MIO making them the biggest display manufacturer in the world (monitor and tv combined)

TPVISION

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TP Vision is the selected license holder for the Philips TV brand in selected markets

(Europe / Russia / South America / some others)

TPVISION



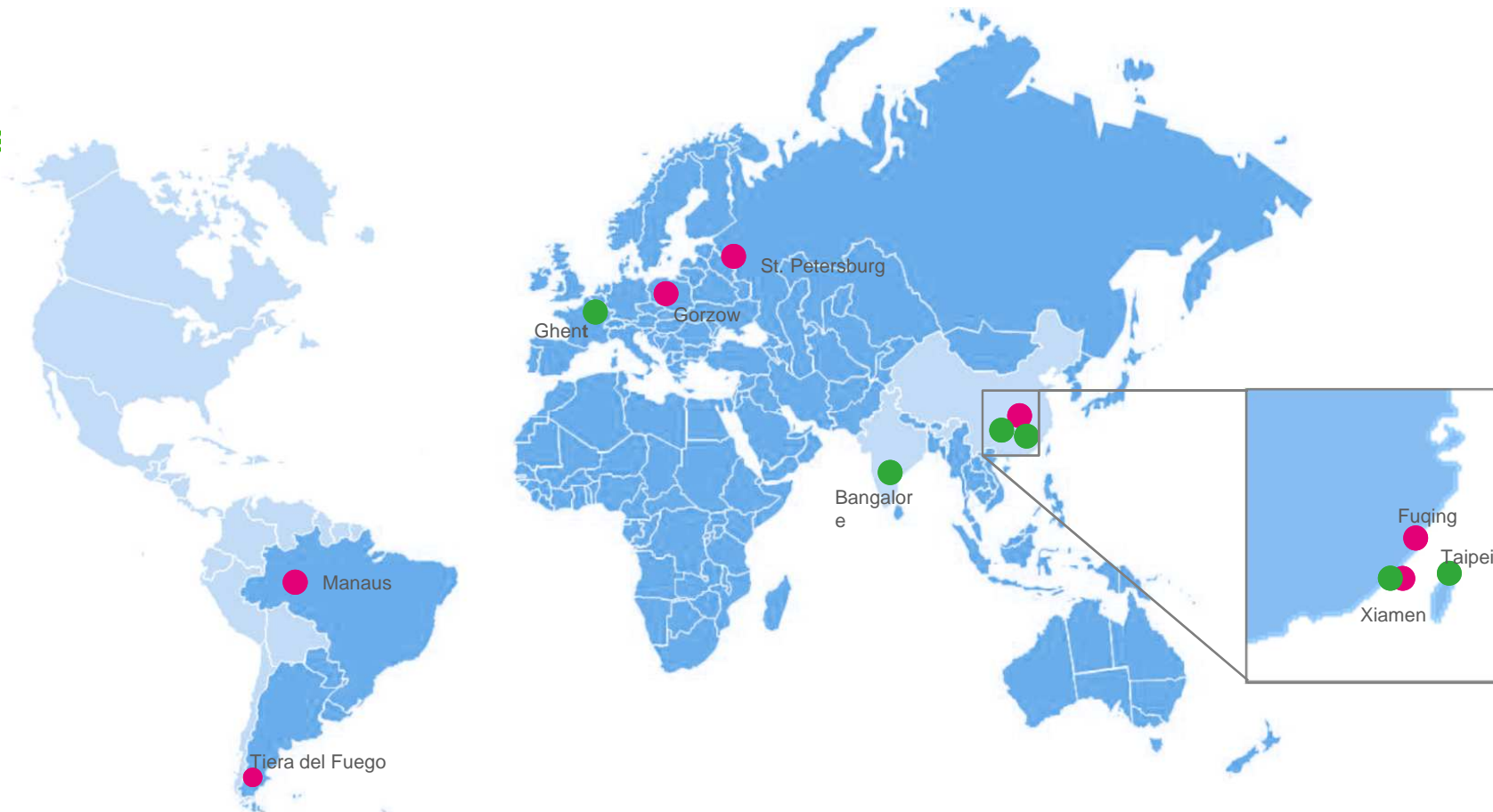
COMBINED INNOVATION SITES OF TPV AND TP VISION

■ Innovation / R&D sites

- Ghent, Belgium
- Bangalore, India
- Taipei, Taiwan
- Xiamen, China

■ Manufacturing sites

- Fuqing, China
- Xiamen, China
- Gorzow, Poland
- St. Petersburg, Russia
- Manaus, Brazil
- Tierra del Fuego, Argentina



COOPERATION ACROSS SITES DRIVEN BY CAPABILITIES & STRENGTHS



Xiamen



Bangalore

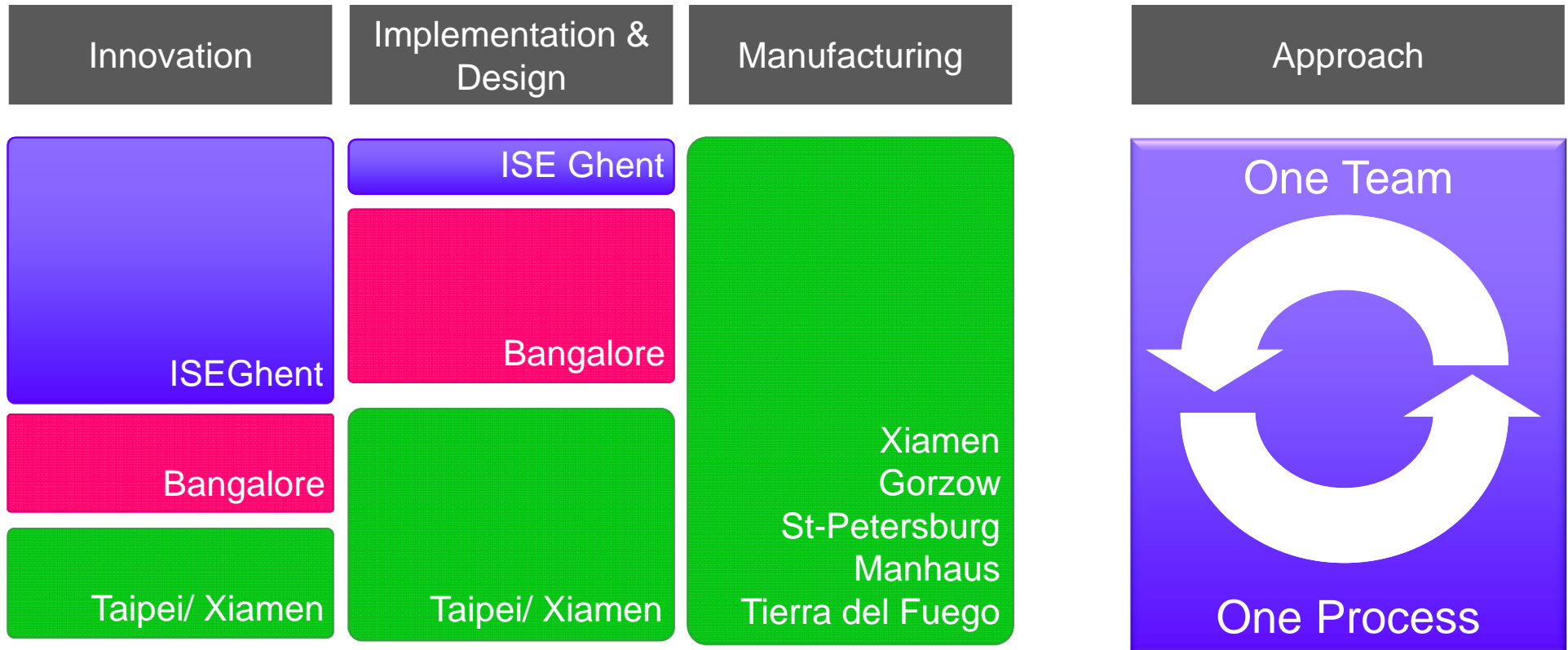


ISE, Ghent

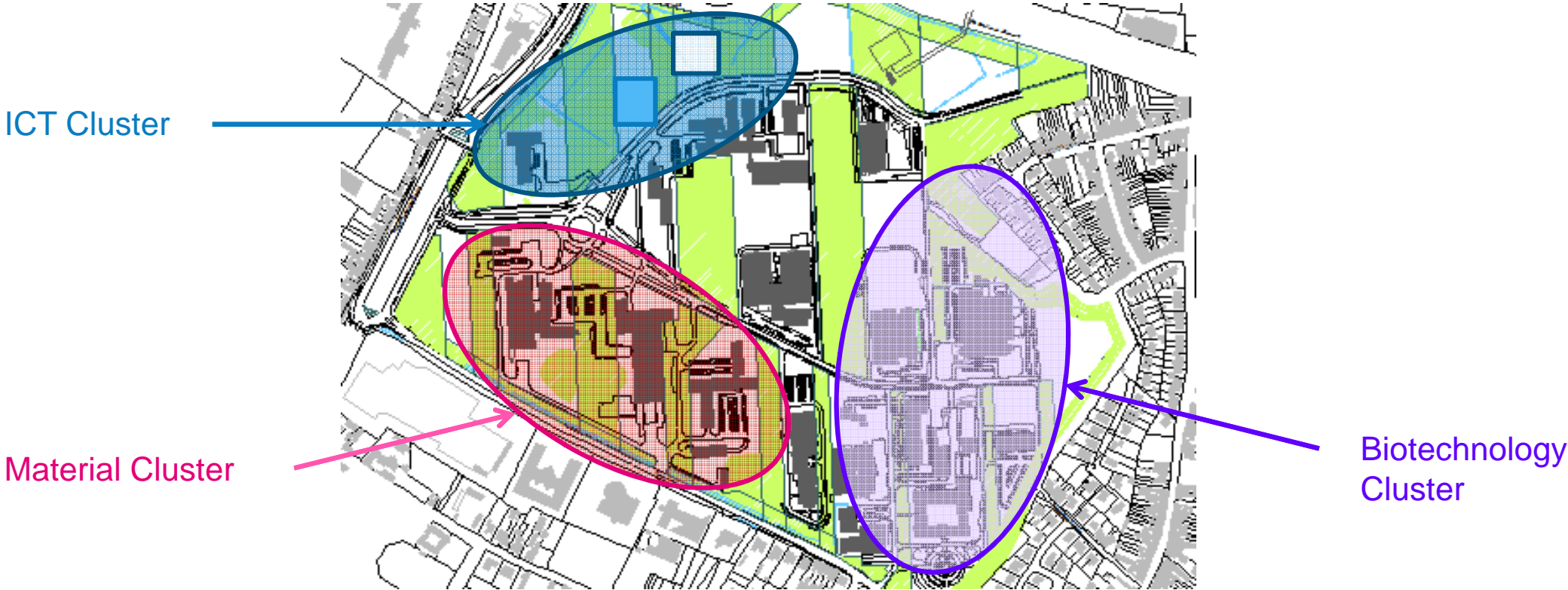


Taipei

OUR COMBINED INNOVATION STRENGTHS



THE GHENT TECHNOLOGY CAMPUS – A VIBRANT TECHNOLOGY ECOSYSTEM



THE GHENT TECHNOLOGY CAMPUS – TP VISION PRESENCE

Material Test Center
Hosts special test equipment
Collaboration between



MTC
WLC

ISE
I2E

Innovation Site Europe
Main office building
(host all personal)



'WE ARE TP VISION' – THE INNOVATION SITE EUROPE (ISE) - GHENT



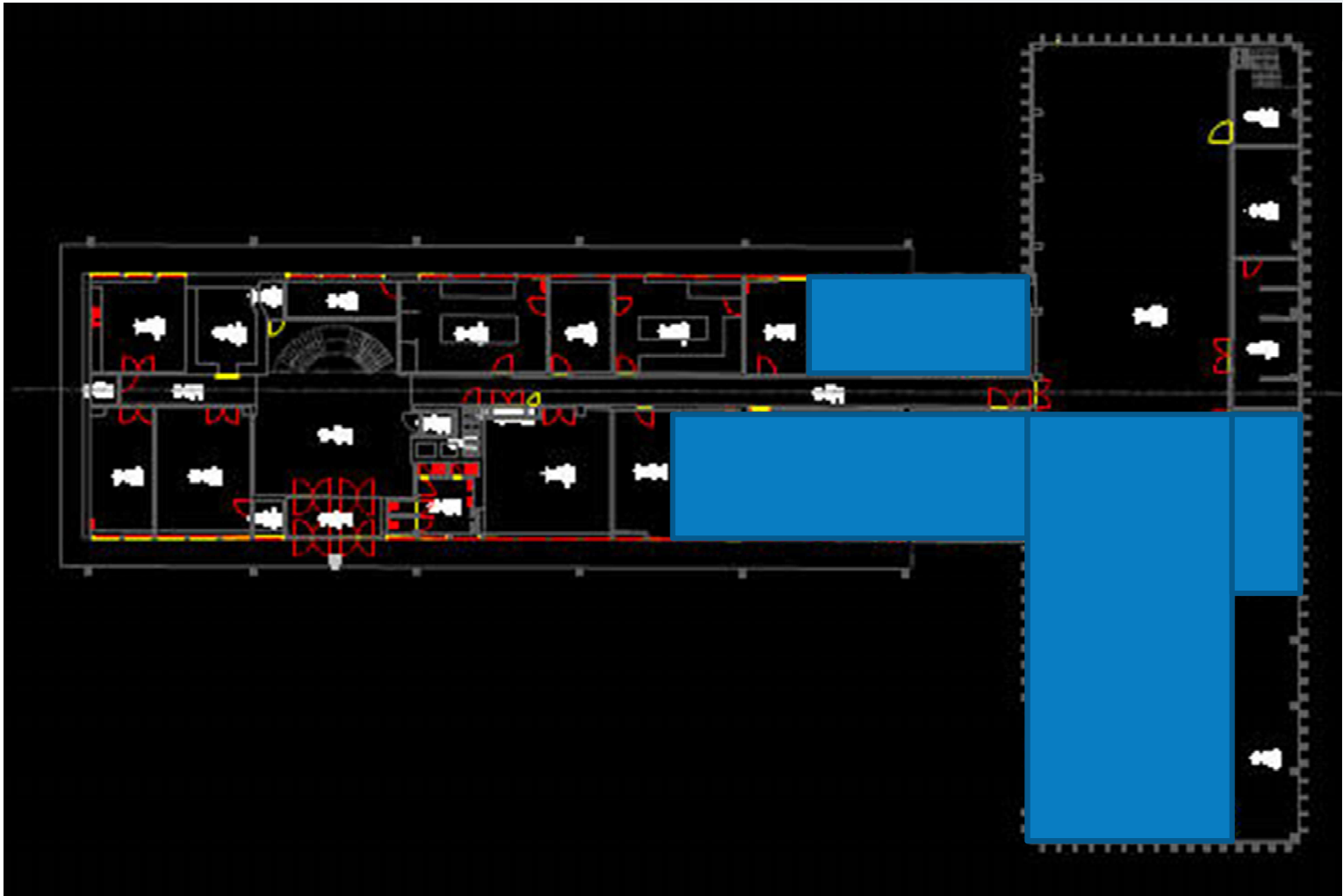
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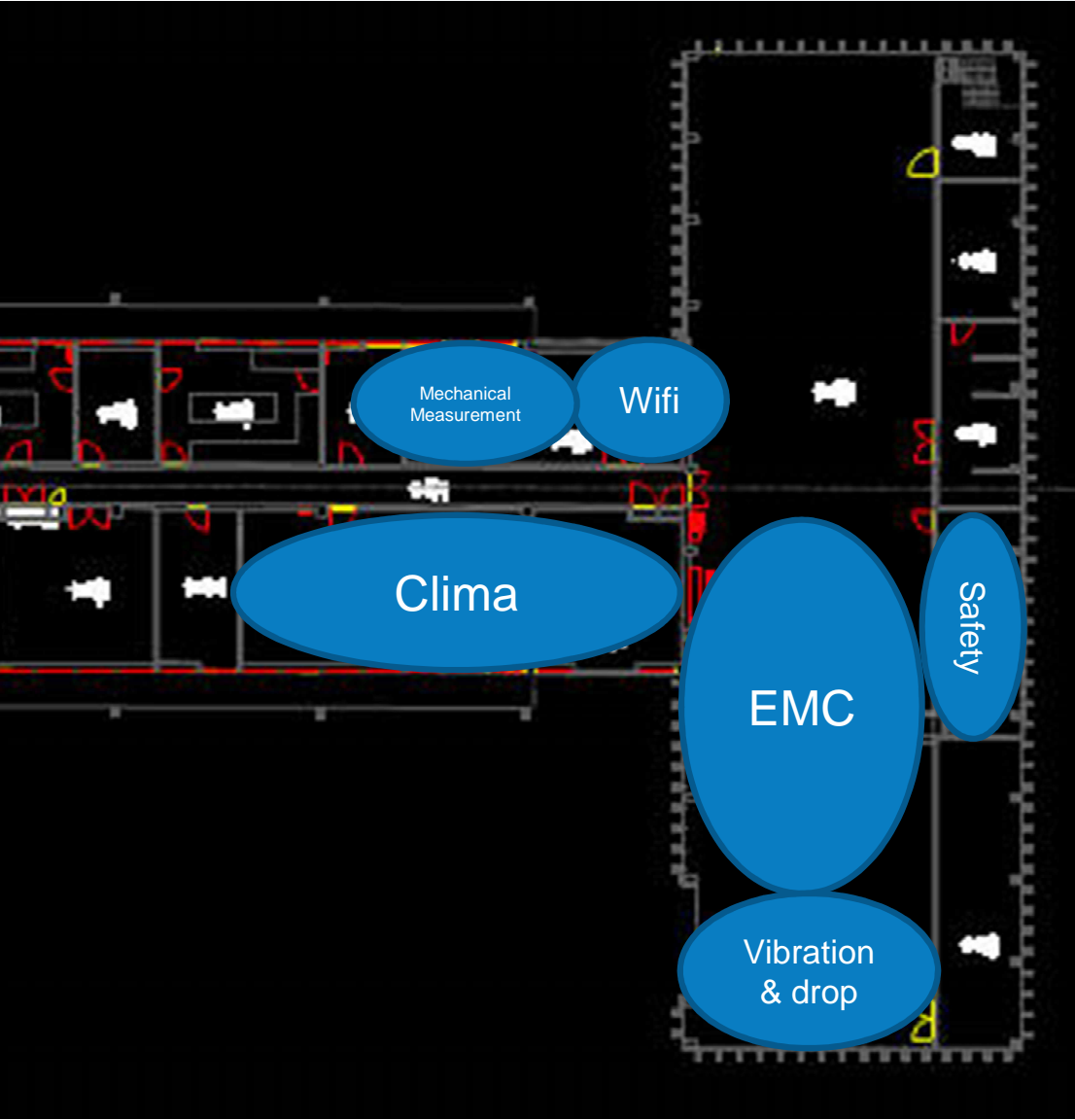
SUBSITE - MTC – THE LOCATION



TP VISION PART



LAB STRUCTURE



INFRASTRUCTURE - RELIABILITY TESTING @MTC

- Temperature chambers
 - +25°C → +70°C, 7m³
 - +25°C → +70°C, 3.6m³
 - -40°C → +50°C, 6m³
- Temperature change chambers
 - -40°C → +140°C change rate 5°C/minute, 1m³
 - -70°C → +180°C change rate 10°C/minute, 1m³
- Climate chambers
 - +25°C → +55°C with max. 95% R.H., 6m³
 - -40°C → +150°C with max. 95% R.H., 3m³
- Shaker: electrodynamic shaker with slip table
 - Table: 1200mm * 1200mm
 - Displacement 2", max. acceleration: 50gn
- Drop test: max. 1200mm height with 200 kg

SHAKER



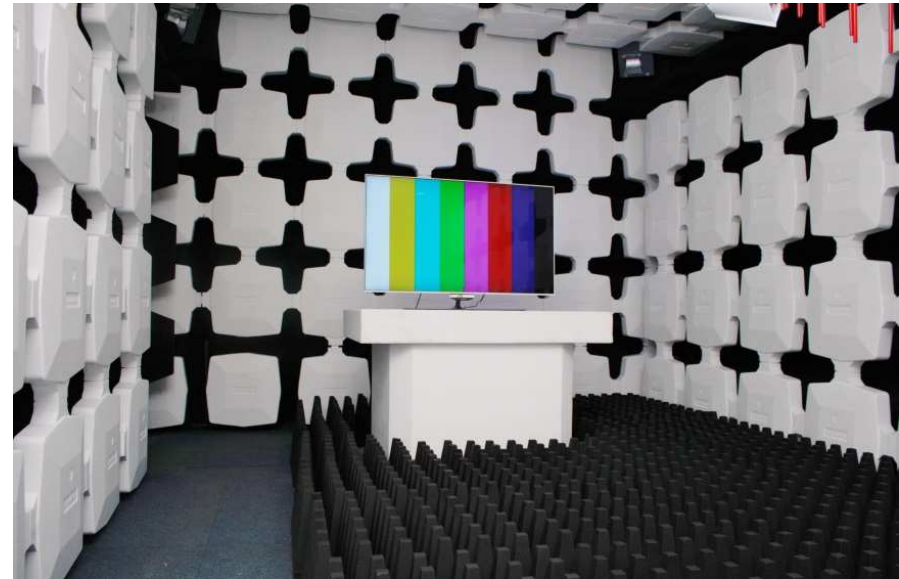
EMC/RF LAB - CONCEPT

9 DECEMBER 2014

Set-up: 2 FAR's (EMC/RF) & 1 shielded room (RF)+ peripheral equipment (ESD/...)



FAR 1 (reconstructed)



FAR 2 (new)

Scope

- Pré-compliance testing according TV/IT-Telecom EMC standards
- Wireless validation (internal test procedures)
- 3th party measurements & customer defined setup possible
- Debug location available

Range

- FAR 2 Field Uniformity (80MHz-6GHz), Shielding Effectiveness (10kHz-18GHz) calibrated
3m antenna - EuT distance (external shield to shield 8,3x4,5x3,6m), control room 5,5x2,2x2,5m
Antenna: 30MHz-6GHz, horn antenna 750MHz-18GHz (2015)
- FAR 1 Field Uniformity (80MHz-6GHz) calibrated, SE indicative
3m antenna - EuT distance (external shield to shield 7,4x3,6x3,6m), control room 3,7x2,8x2,5m
Antenna: 30MHZ-3GHz

