

emerging perspectives for transforming sustainable built environment

presented by:

Bryant Lu, Vice Chairman

Ronald Lu & Partners



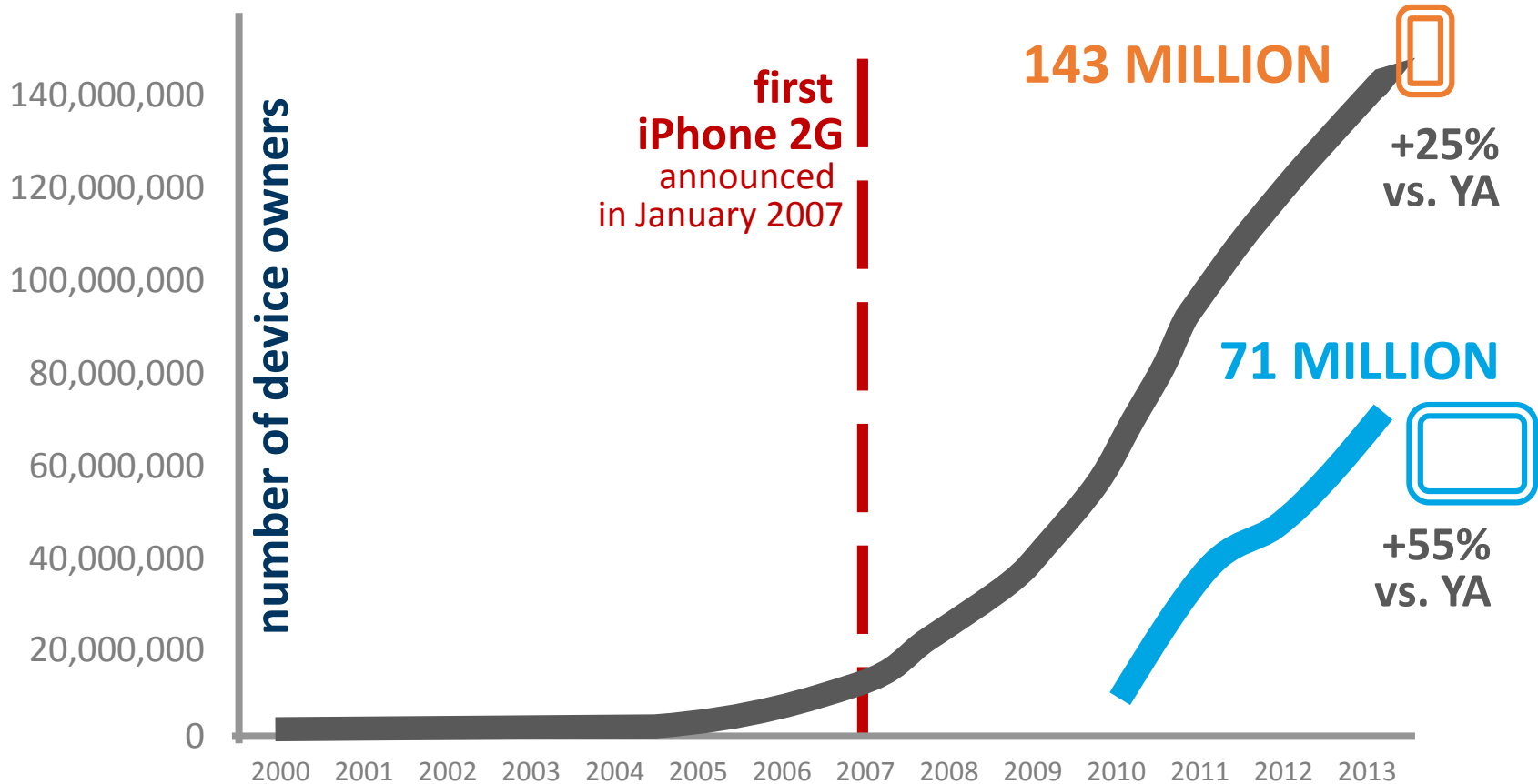
Organisers:



International Co-owners:



insight Smartphone Miracle



source: comScore



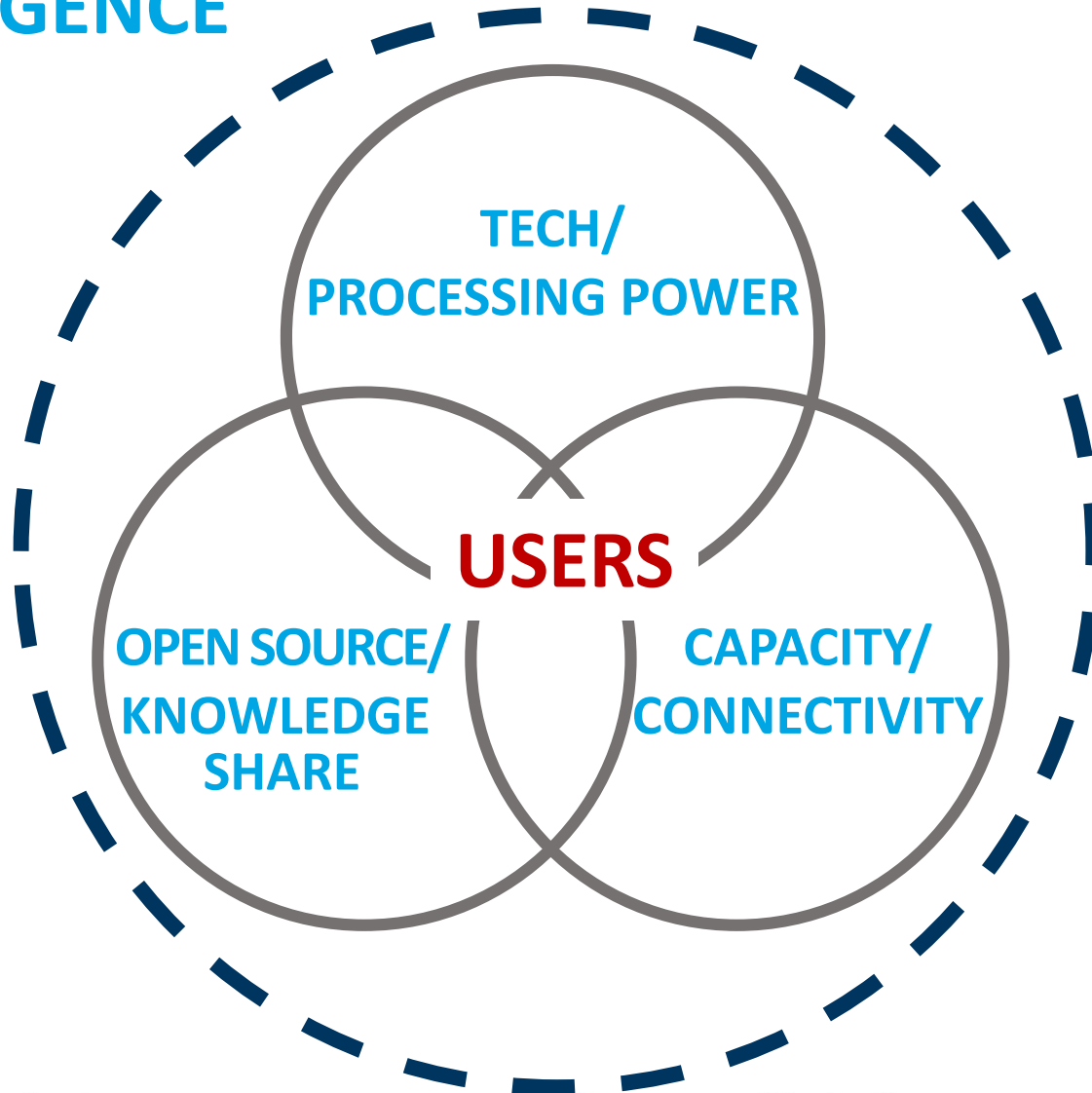
Organisers:



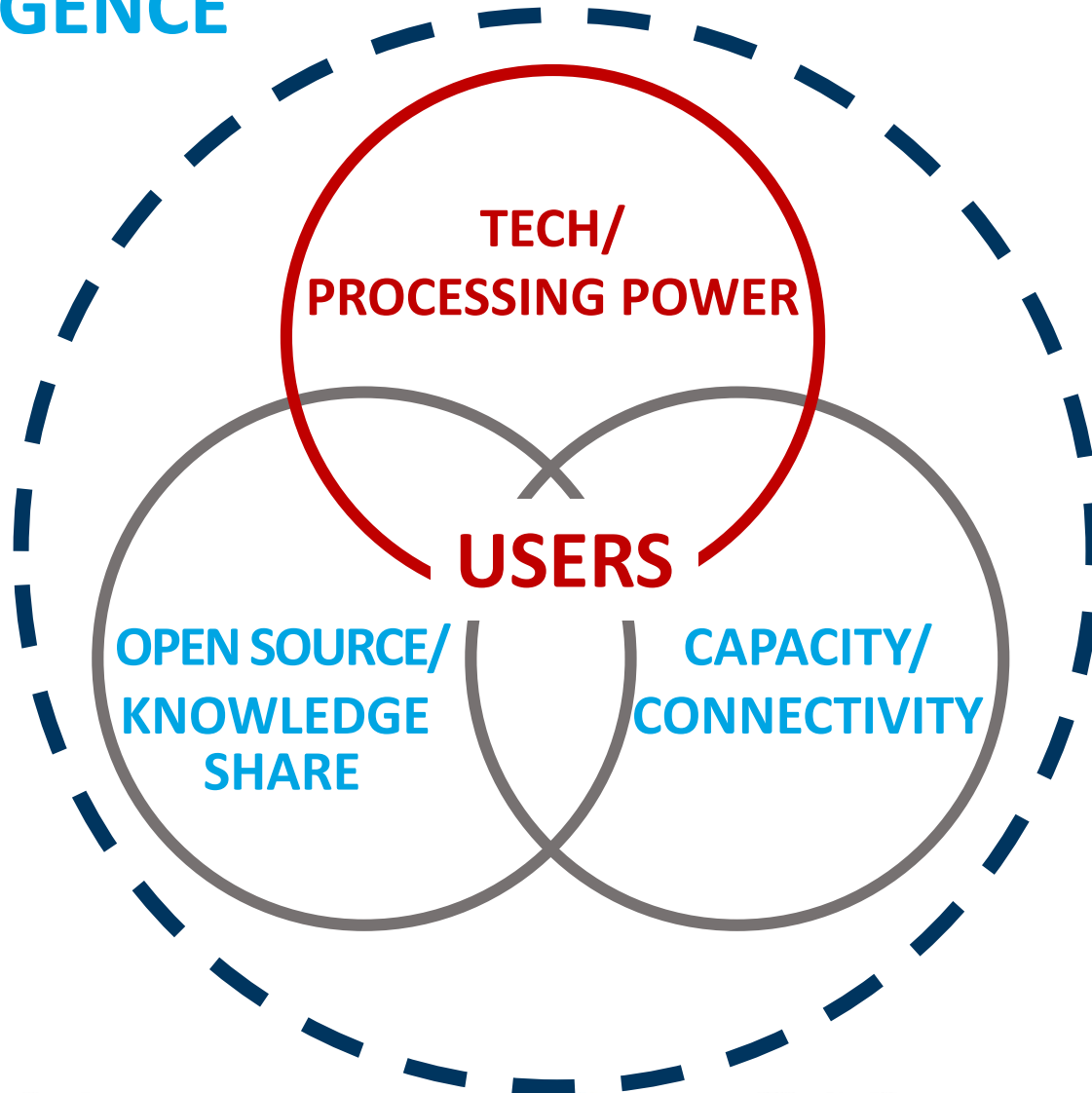
International Co-owners:



CONVERGENCE

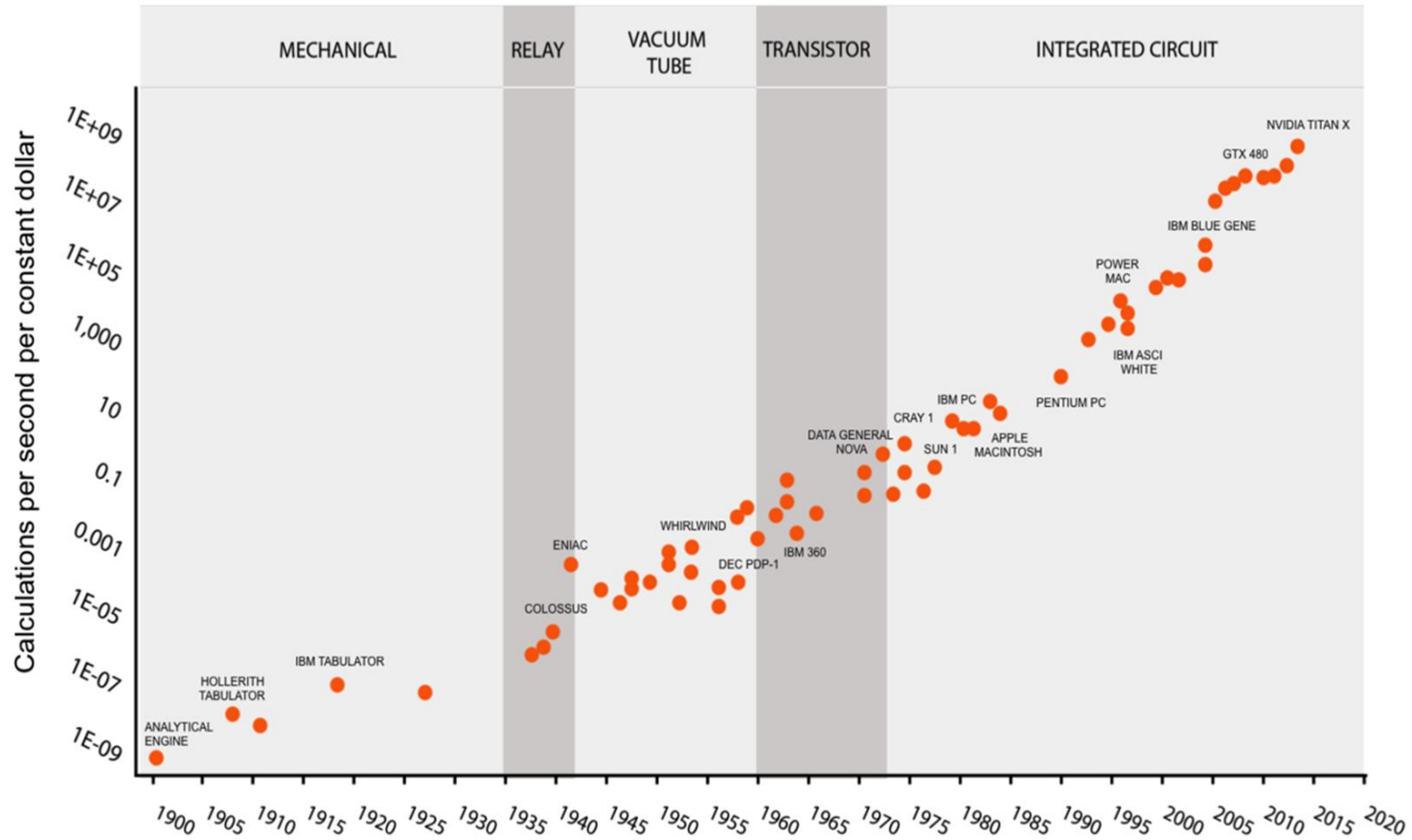


CONVERGENCE



Moore's Law

chip performance doubles every 18 months



source: R Kurzweil, DFI



Organisers:



International Co-owners:



processing speed

2016 iPhone 7



1

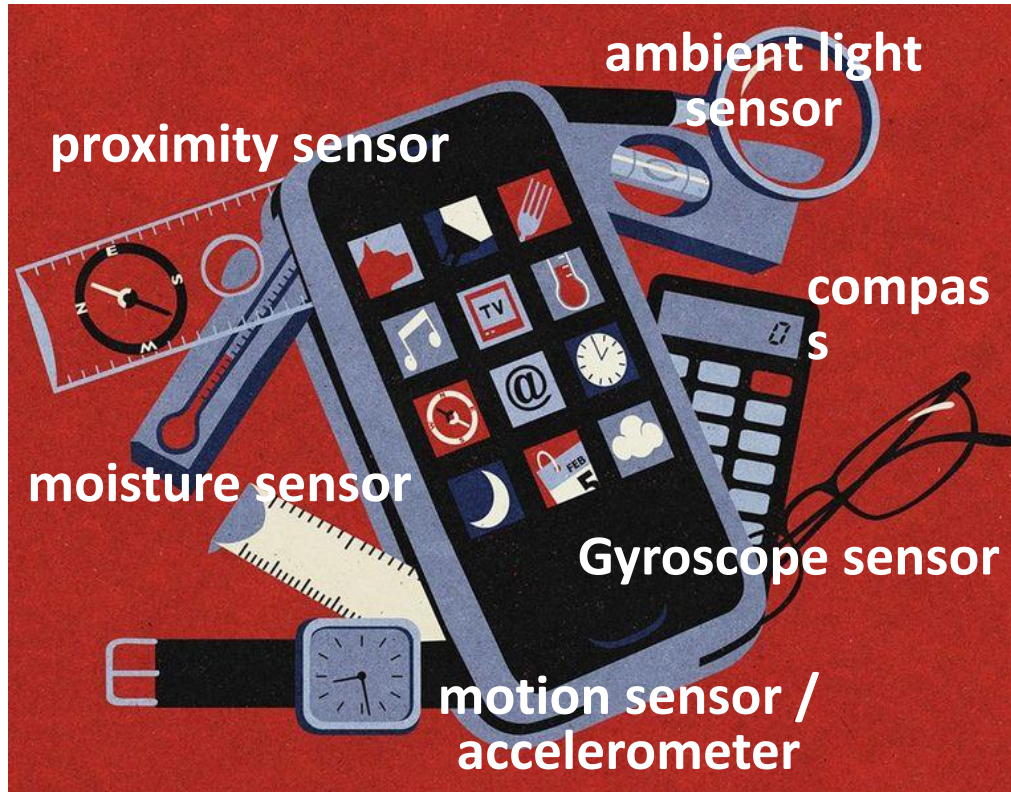
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1983 Apple IIe



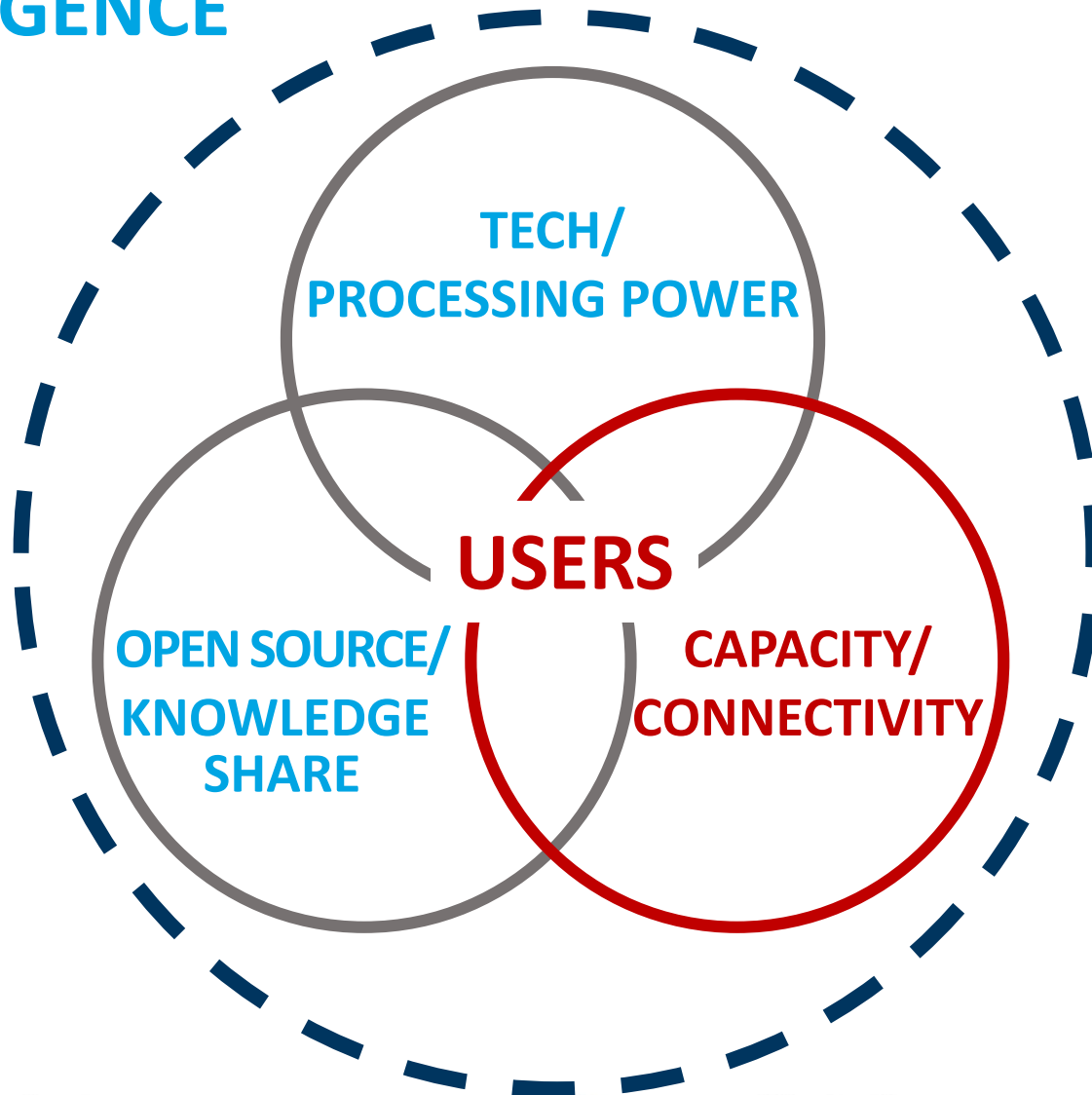
> 3,300

NOT just processors BUT also sensors, camera, musical player, etc



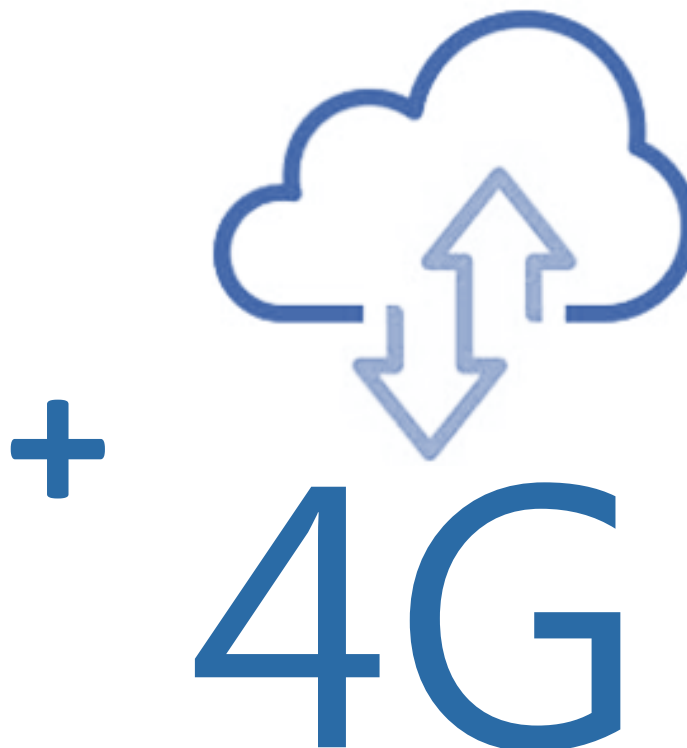
there are
6 sensors
built into iPhone7

CONVERGENCE

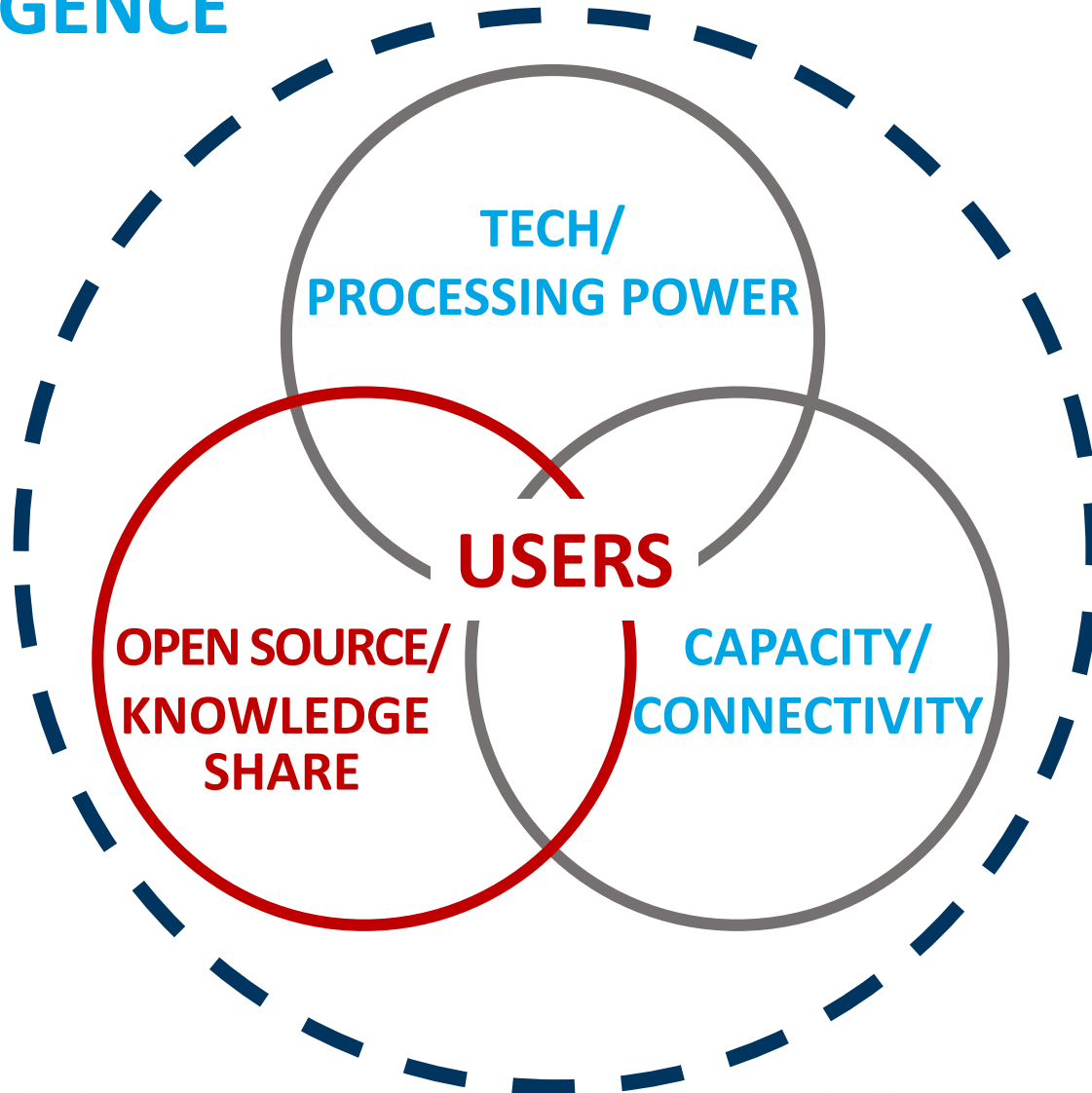


applications + cloud

customised functions based on users' needs + connection

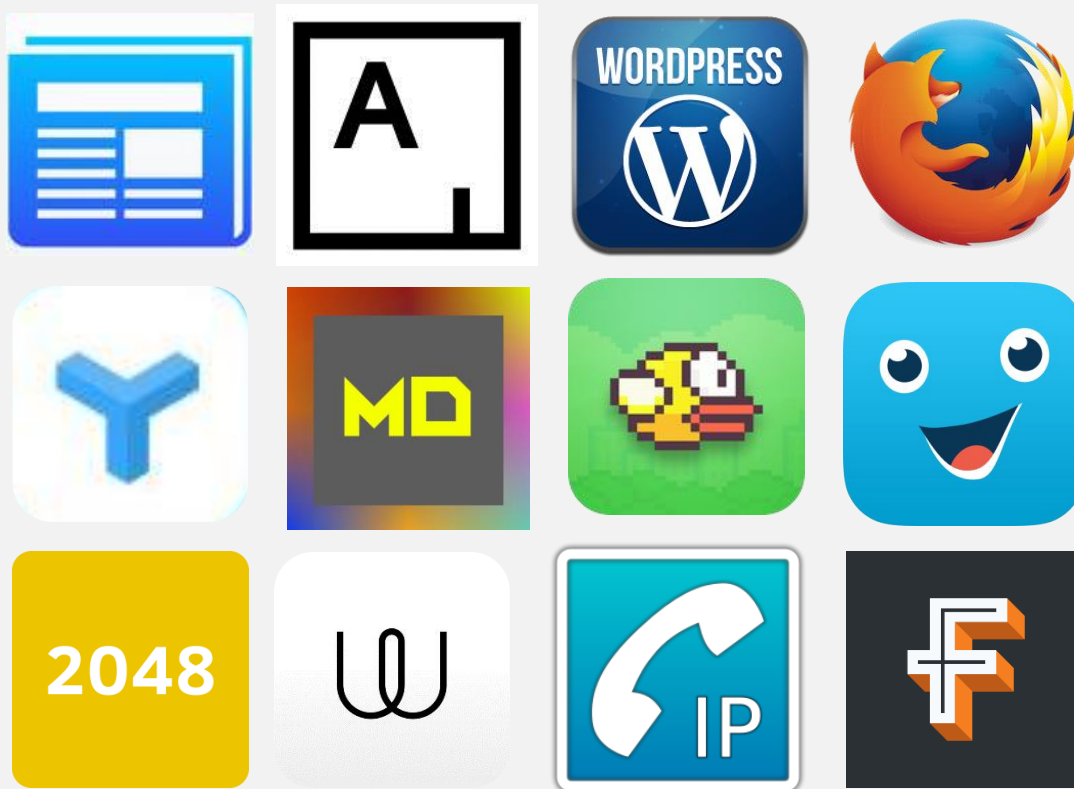


CONVERGENCE



FREE and OPEN-SOURCE SOFTWARE (FOSS)

empower user customisation and voluntary improvement



sharing of recipe NOT cake

FLUFFY SPONGE CAKE

-recipe-

5 EGGS



1+1/2 CUPS FLOUR

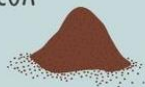
1 TSP BAKING POWDER



4 TBLS OIL

PINCH OF SALT

2 TBLS COCOA



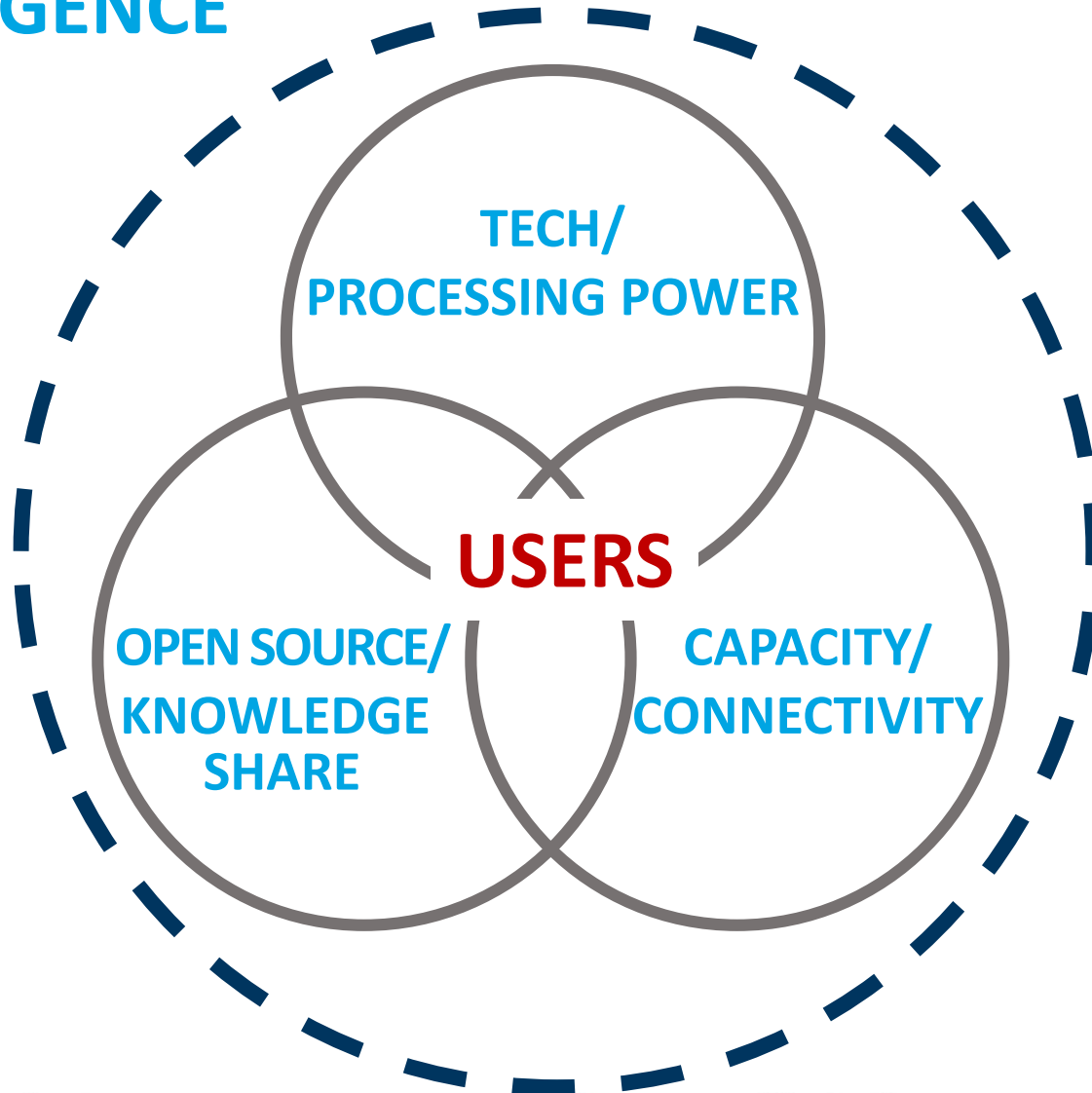
3/4 CUPS SUGAR



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CONVERGENCE



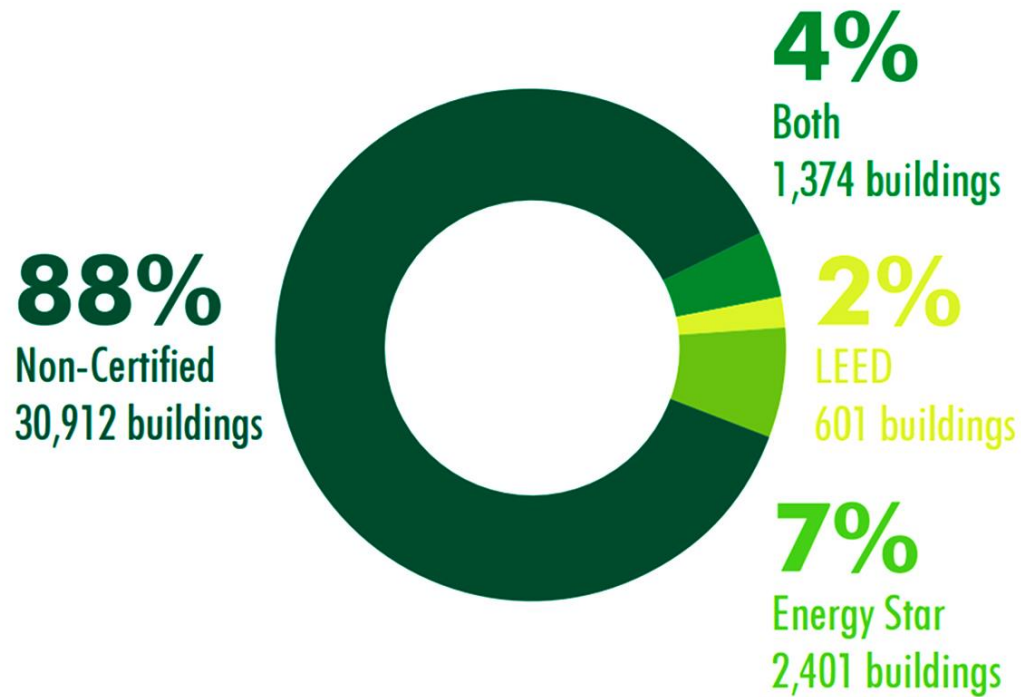
smartphone miracle



user centric

uptake

number of **Green Buildings** in USA 2016 (LEED + Energy Star)



Organisers:



International Co-owners:



Sustainable Buildings and Climate Initiative
Promoting Policies and Practices for Sustainability



source: CBRE

green building miracle



MATERIALS

Focuses on materials to get a better understanding of what's in them and the effect those components have on human health and the environment



SMART GRID

Brings the benefits of smart grid thinking to the forefront with a credit that rewards projects for participating in demand response programs



PERFORMANCE-BASED

Takes a more performance-based approach to indoor environmental quality and improved occupant comfort



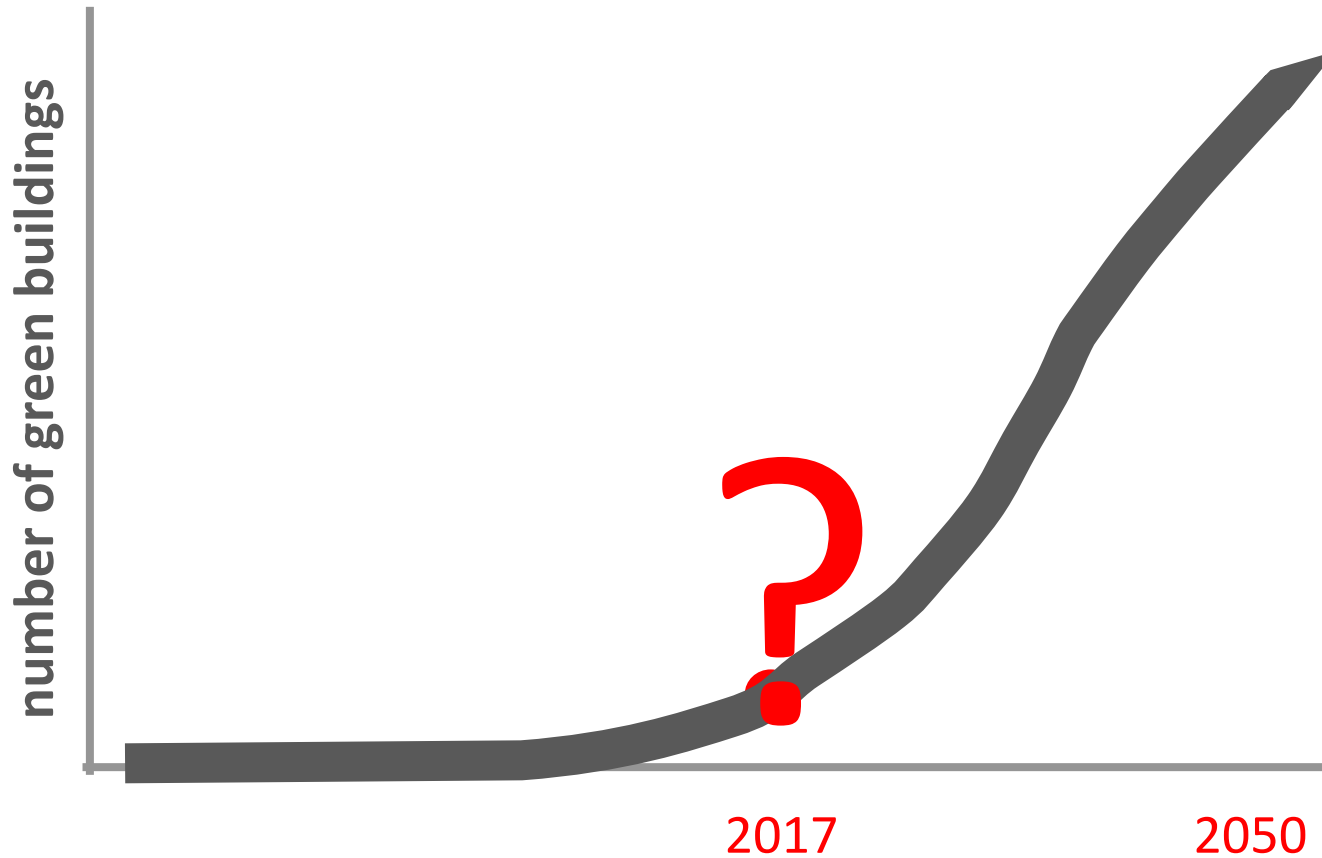
WATER EFFICIENCY

Provides a clearer picture of water efficiency by evaluating total building water use

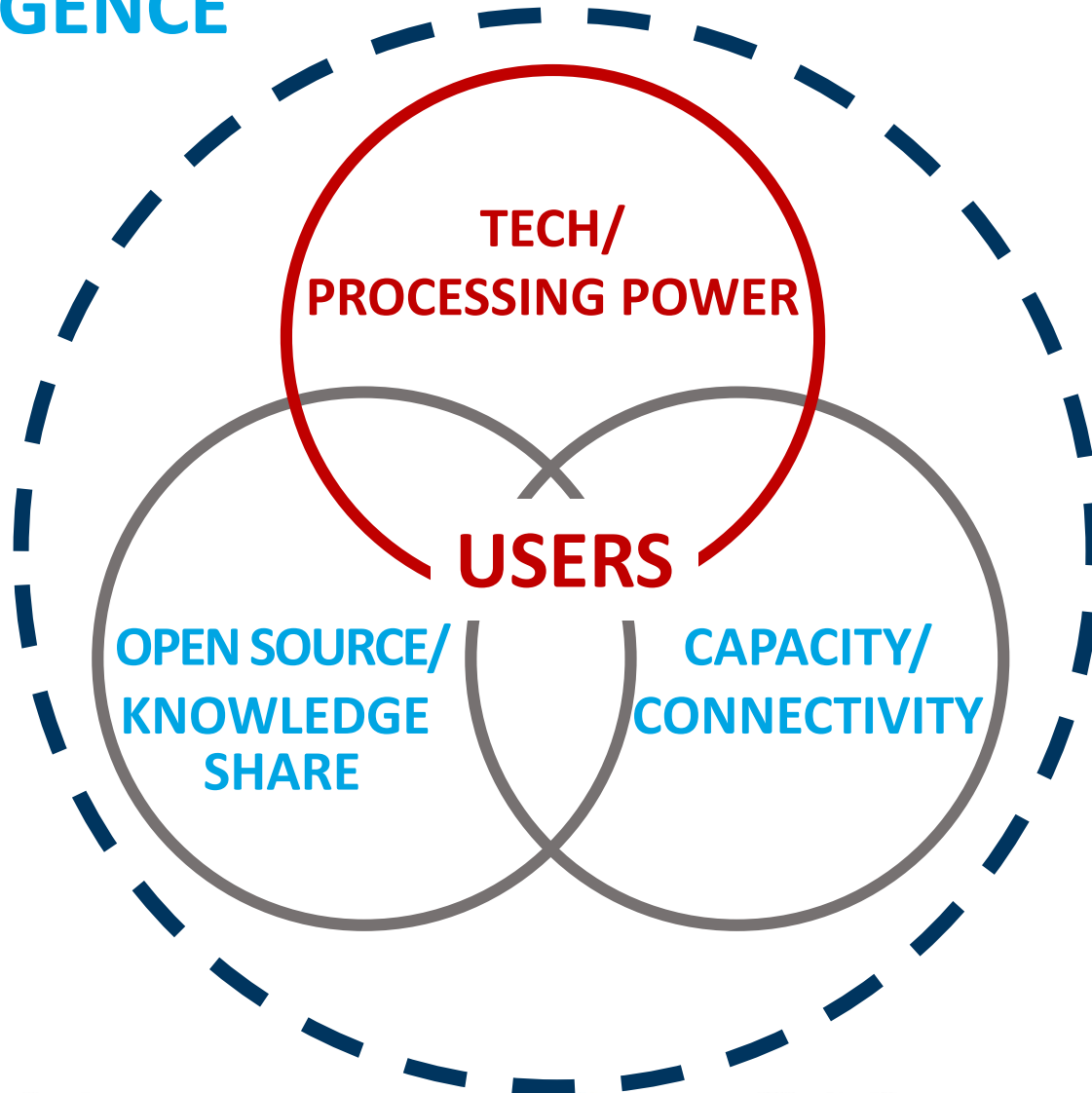


uptake

can **Green Building Miracle** be possible?



CONVERGENCE



wearable technologies



processor + sensor

logging real-time data

behaviour

preference

exposure to light, pollutants

others

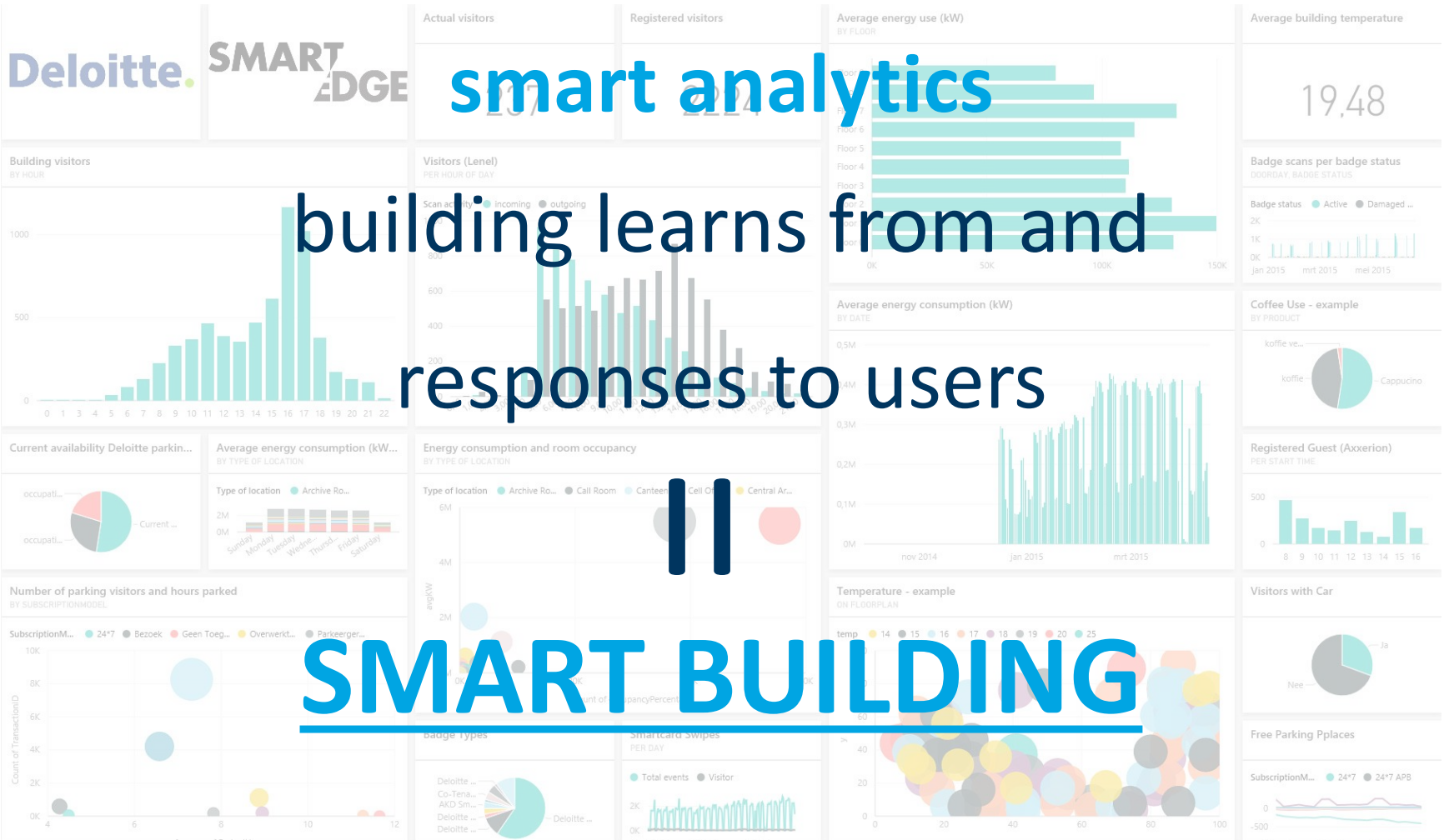


Deloitte SMART EDGE

smart analytics

building learns from and responds to users

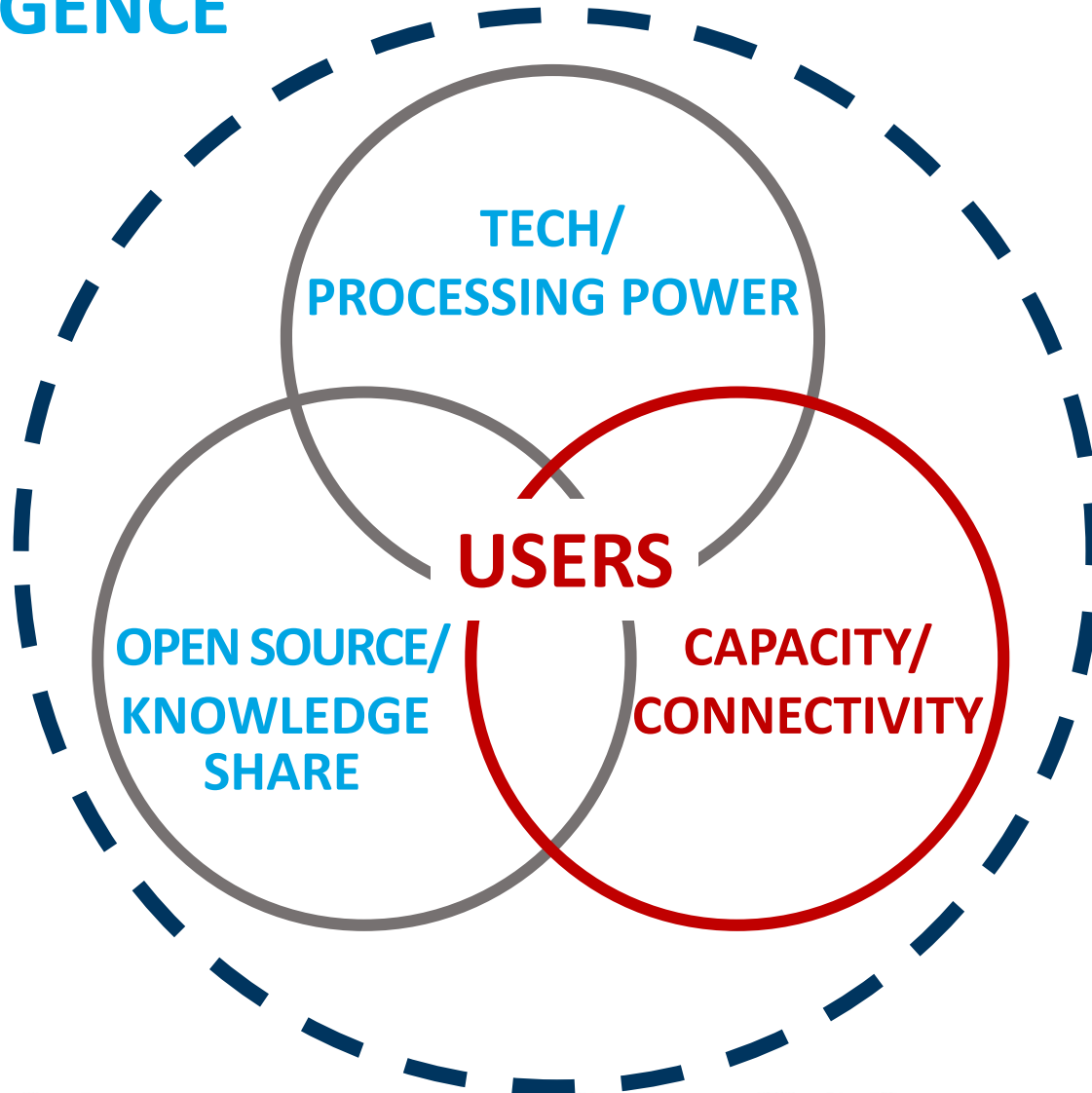
SMART BUILDING



source: Deloitte



CONVERGENCE

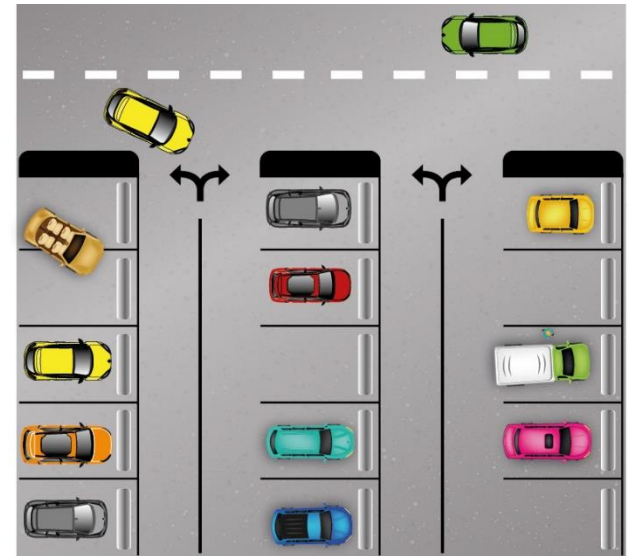


autonomous car

smart mobility re-shaping the city
...more efficient use of urban space



Piloted parking means cars use space more efficiently, which leaves room to make better use of the urban environment.



For example, the extra space created can be turned over to green spaces, seating areas and much more besides.³



source: nuTonomy (above)/Audi(right)

王菲 幻乐一场
Faye's Moments Live 2016

数字王国 DIGITALDOMAIN
微鲸VR K.C. Digital Limited

全球VR直播时间: 2016年12月30日 20:00
售票开始时间: 2016年12月26日 17:00

王菲幻乐一场 演唱会VR门票
12月26-27日购买, 即可获得王菲纪念版VR眼镜1个。
¥30 + [ticket icon]

@微鲸VR



ON SITE
10,000
audiences



LIVE
21.45million
audiences



VR
88,000
audiences

augmented reality
users to visualize
for decision-making
in design and operation



Organisers:



International Co-owners:



source: Point Advisory

real-time visualisation reduce carbon footprint and emissions from travelling

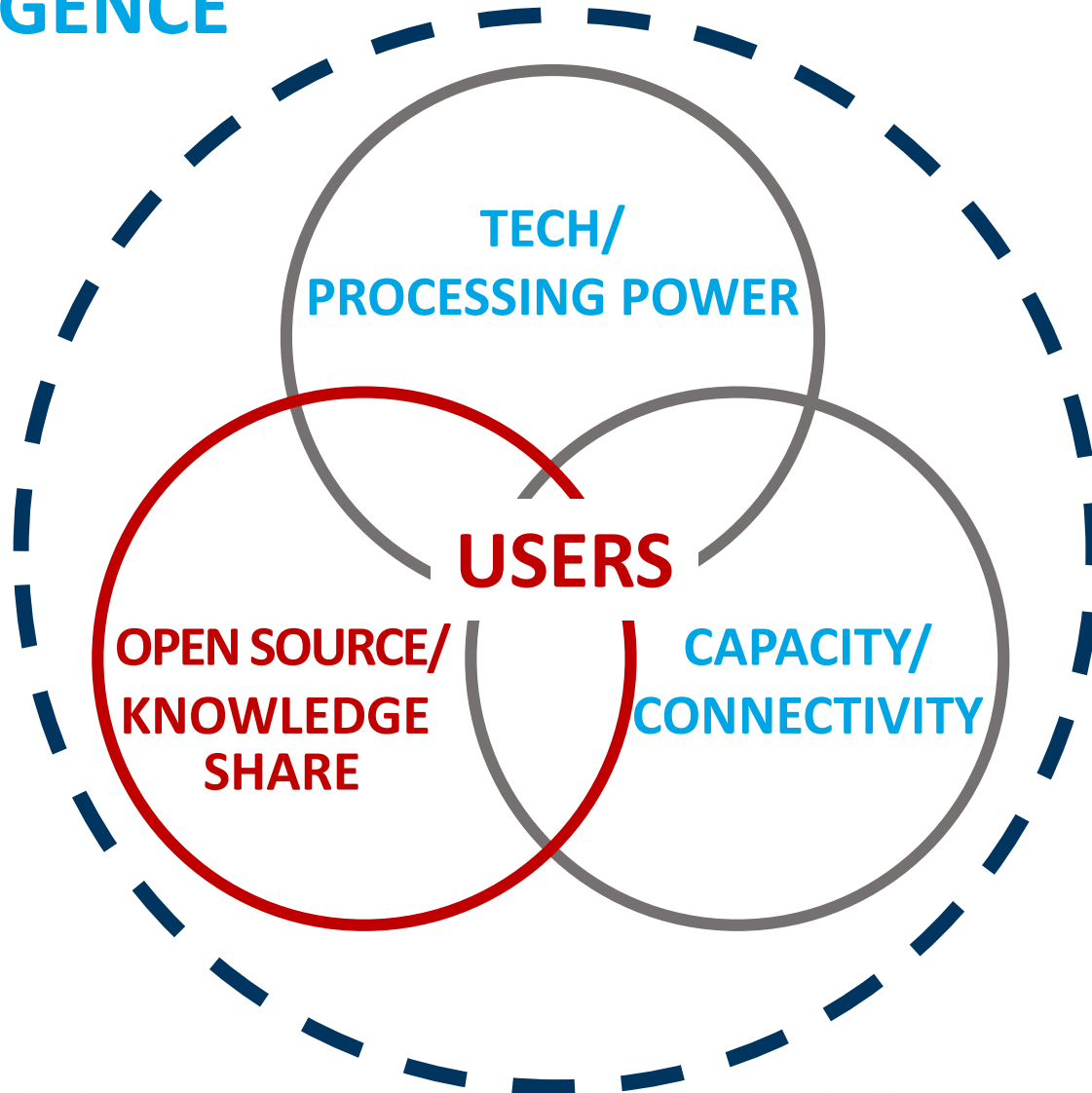


source: Fox News

Organisers:

International Co-owners:

CONVERGENCE



lower barriers of time, cost, skills, resources
desirable and affordable design for most people

Work
Cases that matter

Open Source House

Five months, over 3,000 architects, almost 250 building plans

In 2007 Enviu launched the Open Source House challenge. Architects from all over the world were given the assignment to design a single family house for the emerging middle class in Ghana on a plot within Cape Coast, Ghana. Within five months 3100 architects from 45 different countries submitted 247 designs for a sustainable house.

source: enviu



Organisers:



International Co-owners:





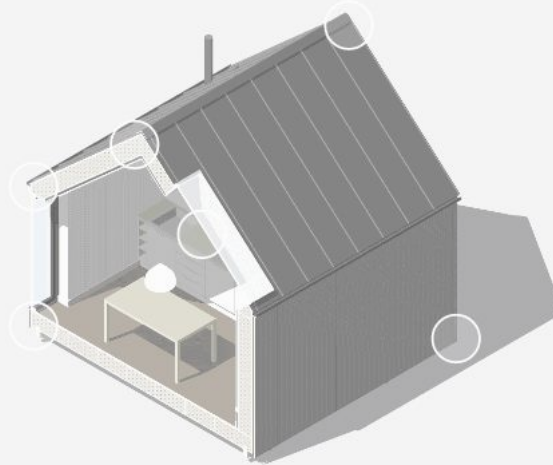
About

WikiHouse is an open source project to reinvent the way we make homes.

It is being developed by architects, designers, engineers, inventors, manufacturers and builders, collaborating to develop the best, simplest, most sustainable, high-performance building technologies, which anyone can use and improve.

Our aim is for these technologies to be open source, not just in bricks and mortar of the digital age.

**ship recipes rather than cakes
give power to fine tuners**



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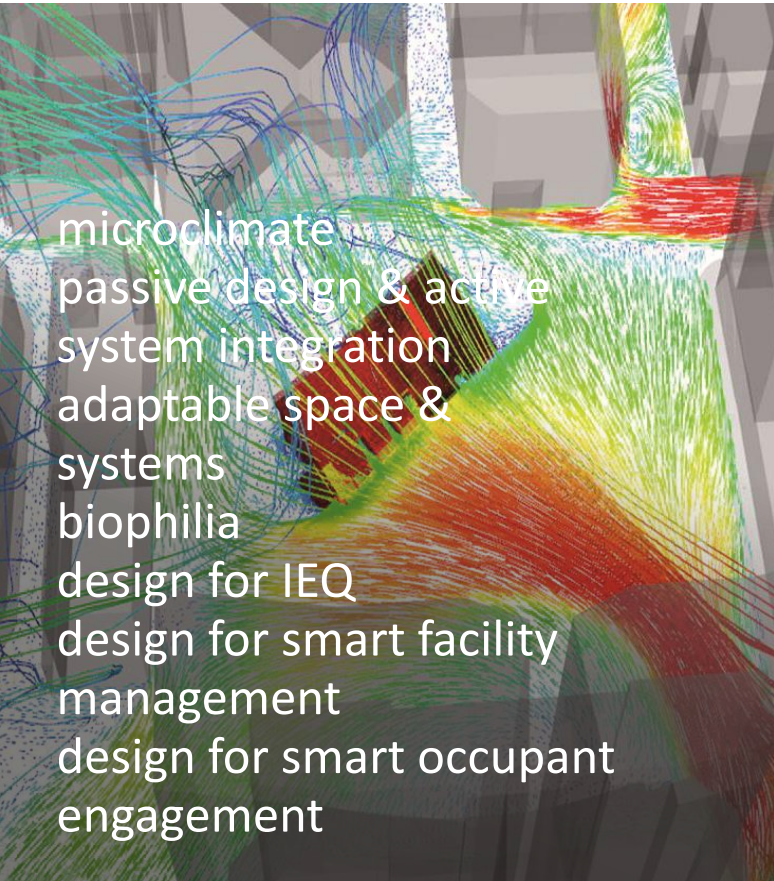


Global Alliance
For Buildings and
Construction

source: wikihouse

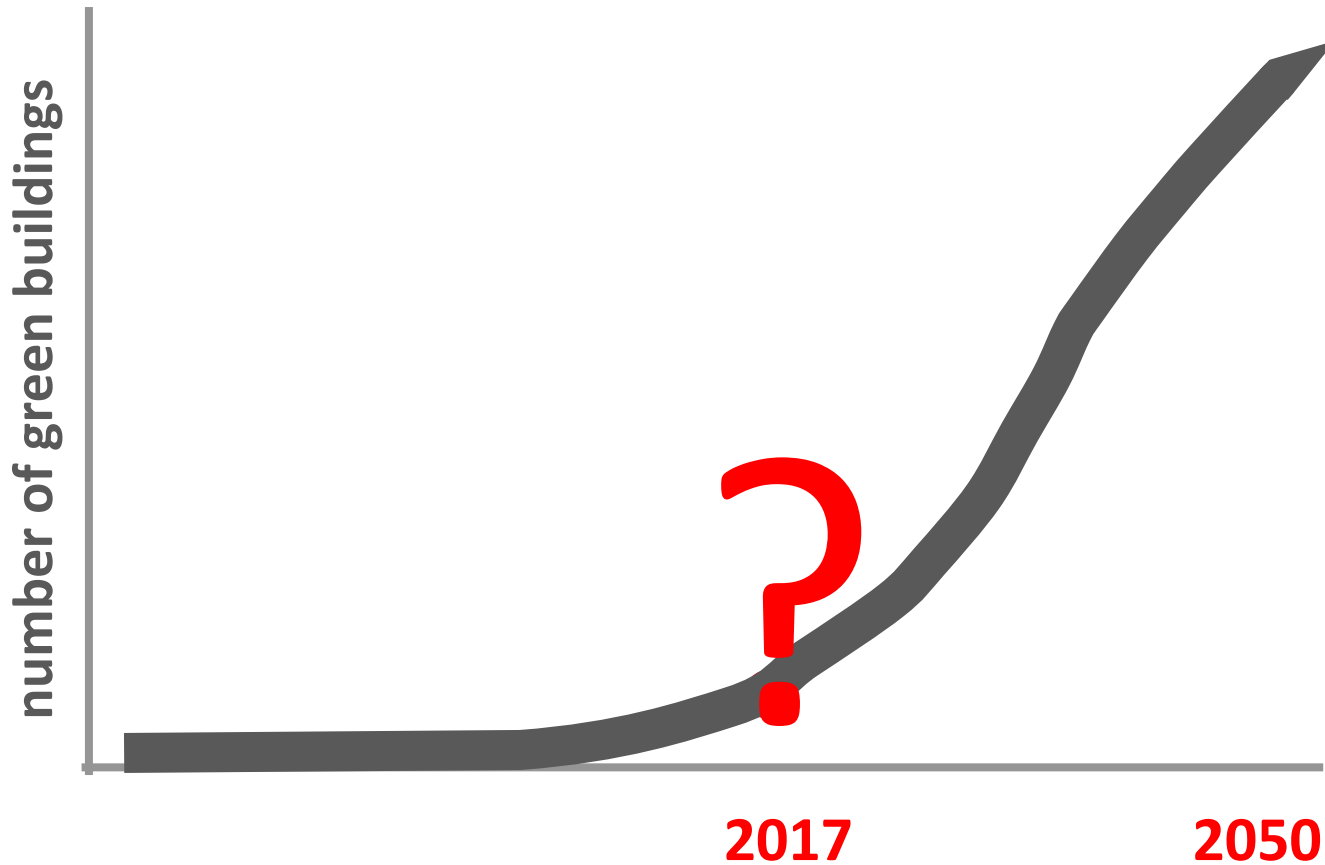
digital platform for knowledge share

trans-disciplinary process & innovations



uptake

can we have a Smart Building miracle



Organisers:



International Co-owners:





WWW.RLPHK.COM



Organisers:



International Co-owners:



Sustainable Buildings
and Climate Initiative
Promoting Policies and Practices for Sustainability



Thank you



Organisers:



International Co-owners:



Sustainable Buildings and Climate Initiative
Promoting Policies and Practices for Sustainability



Global Alliance
for Buildings and
Construction