

# **Enabling proximity services via LTE device broadcast**

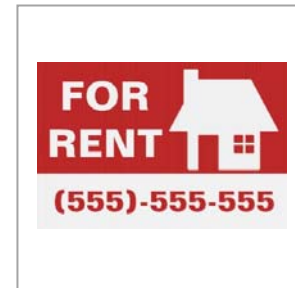
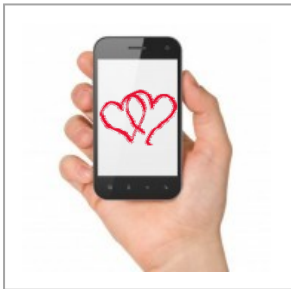
## **LTE World Summit 2014, Amsterdam RAI**

Thomas Henze, Deutsche Telekom AG – Digital Business Unit



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# THESE ARE BROADCASTERS.



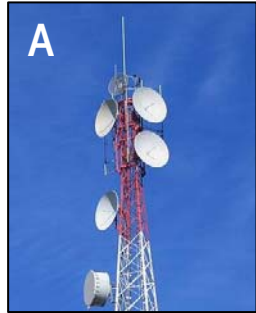
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# BROADCASTING VARIANTS

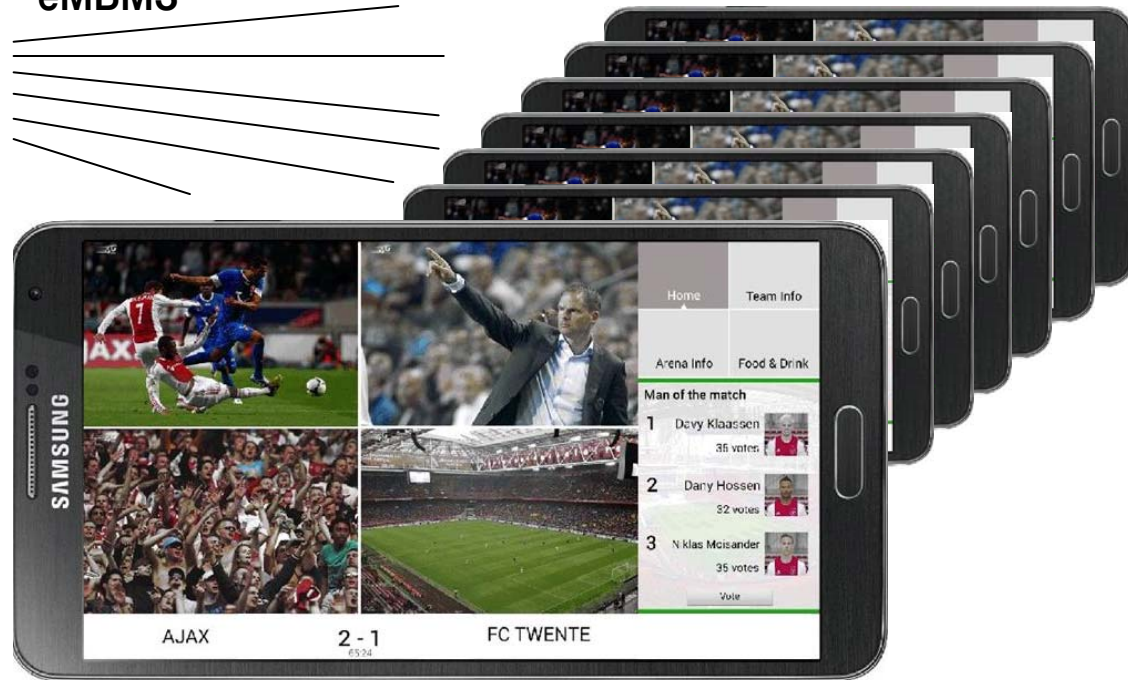


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# NEED FOR LTE BROADCAST DEPENDS ON USE CASES



eMBMS



**LTE Broadcast**

## Key drivers:

Demand for suitable use cases

- Simultaneous mass content push, local storage on devices
- Linear mobile IP-TV, Multi-channel
- ...

Availability of scalable standard technology: eMBMS



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# LTE PROXIMITY SERVICES BASED ON D2D BROADCAST



**WATCH ON YOUTUBE**

<http://www.youtube.com/watch?v=cDIP6j3yaB0>

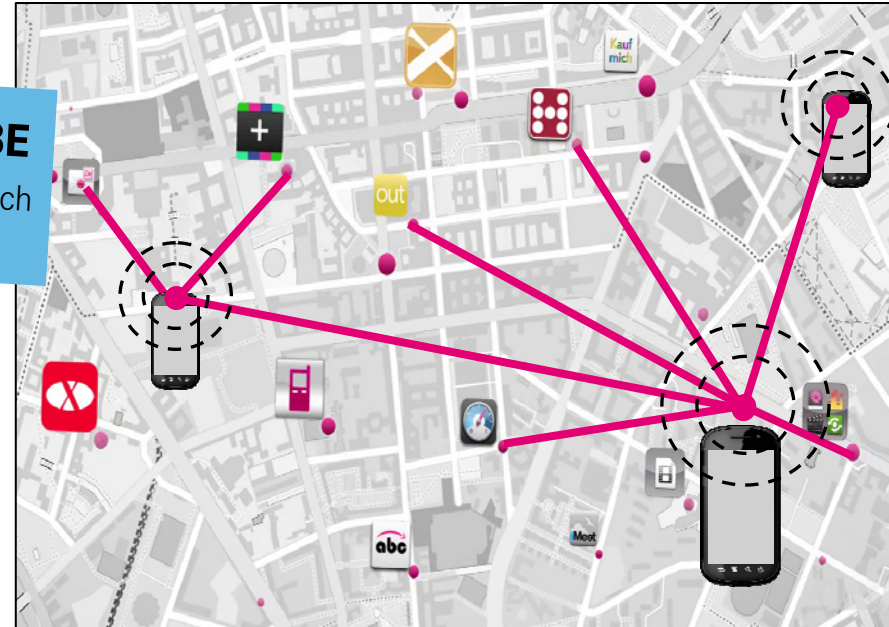
## LTE Device Broadcast

### Key drivers:

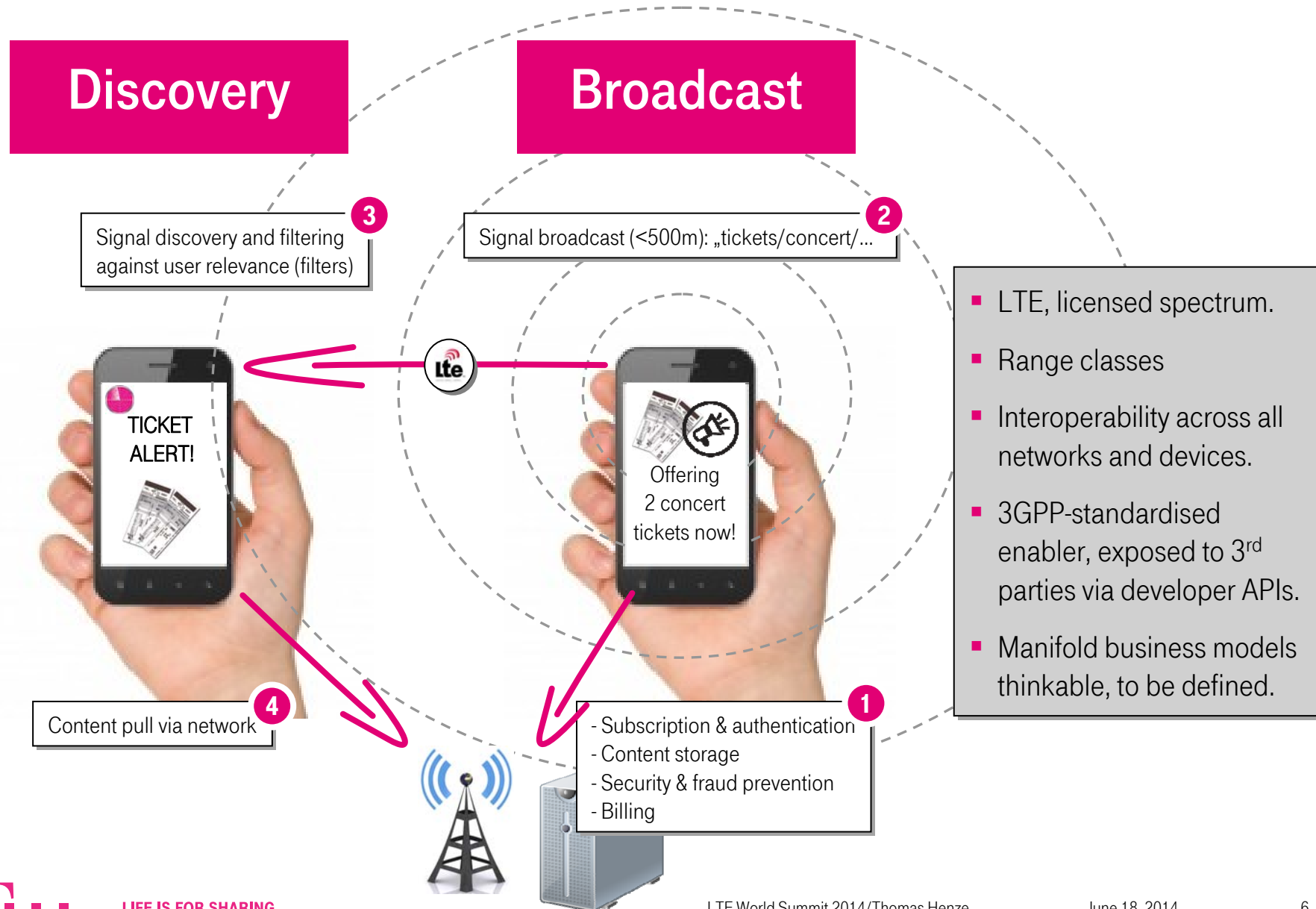
Evolving demand for proximity services in different areas

- Social apps, hyper-local marketing and classifieds
- Proximity as new vector for mobile advertising
- Public transport, infotainment
- Many more

Availability of technology: Device-to-device, standardised as 3GPP “Prose”



# LTE PROXIMITY: DISCOVERY AND BROADCAST



**USER EXPERIENCE:  
MEET FOR COFFEE**





Who of my LinkedIn contacts  
are at LTE World Summit?



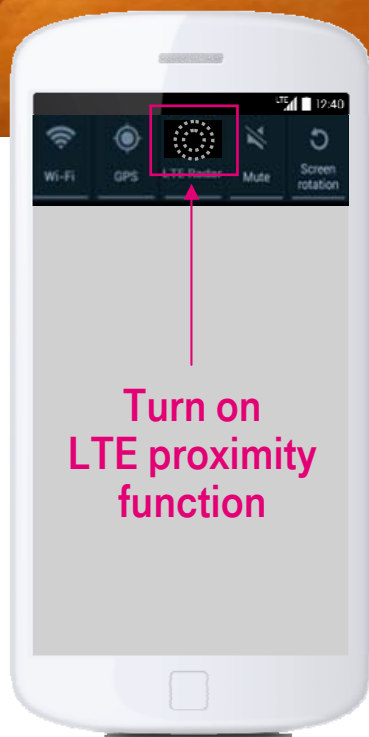
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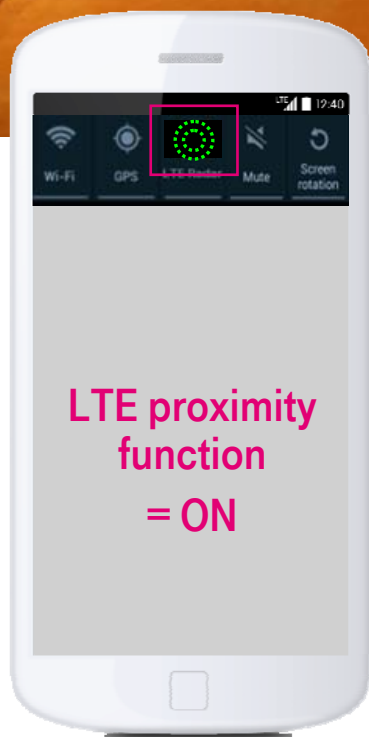
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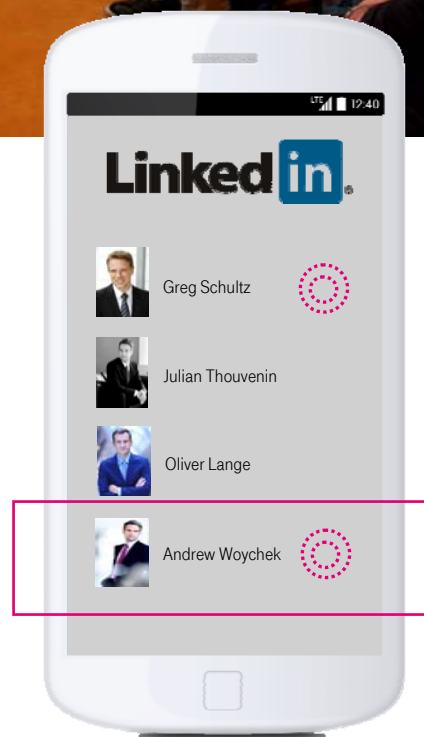
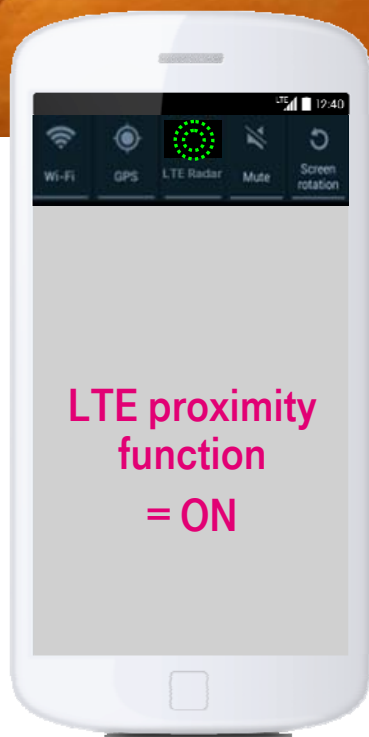
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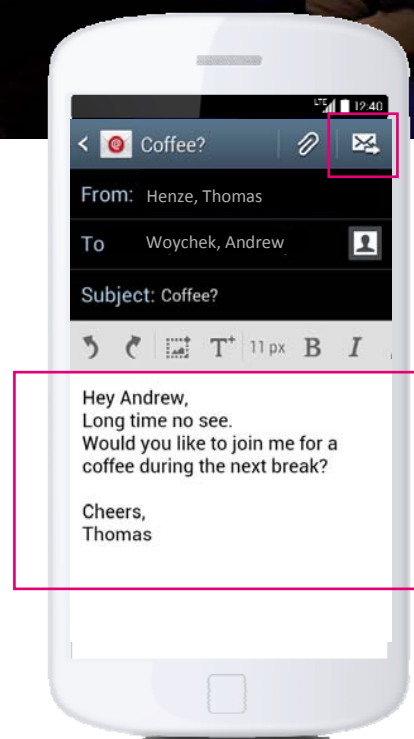
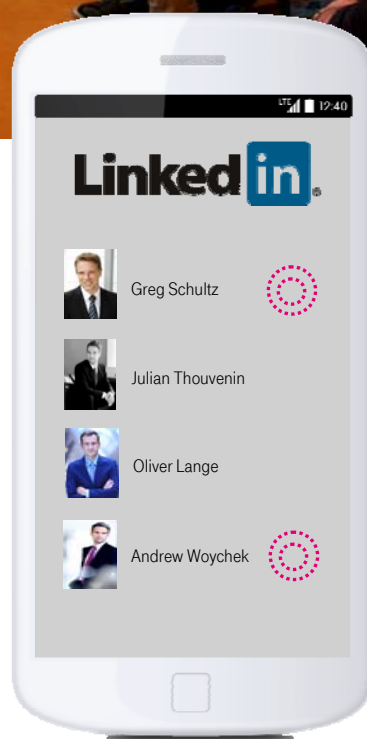
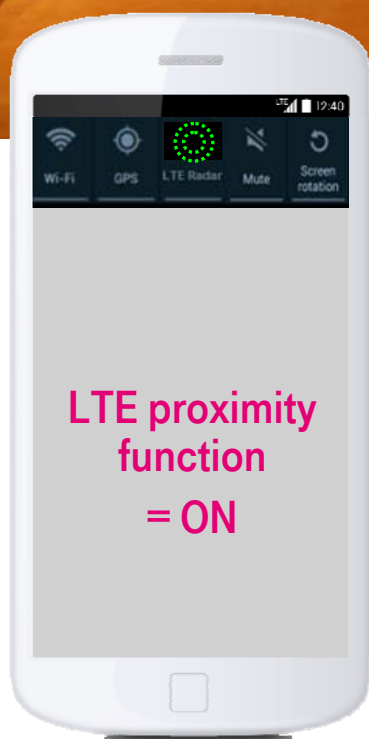
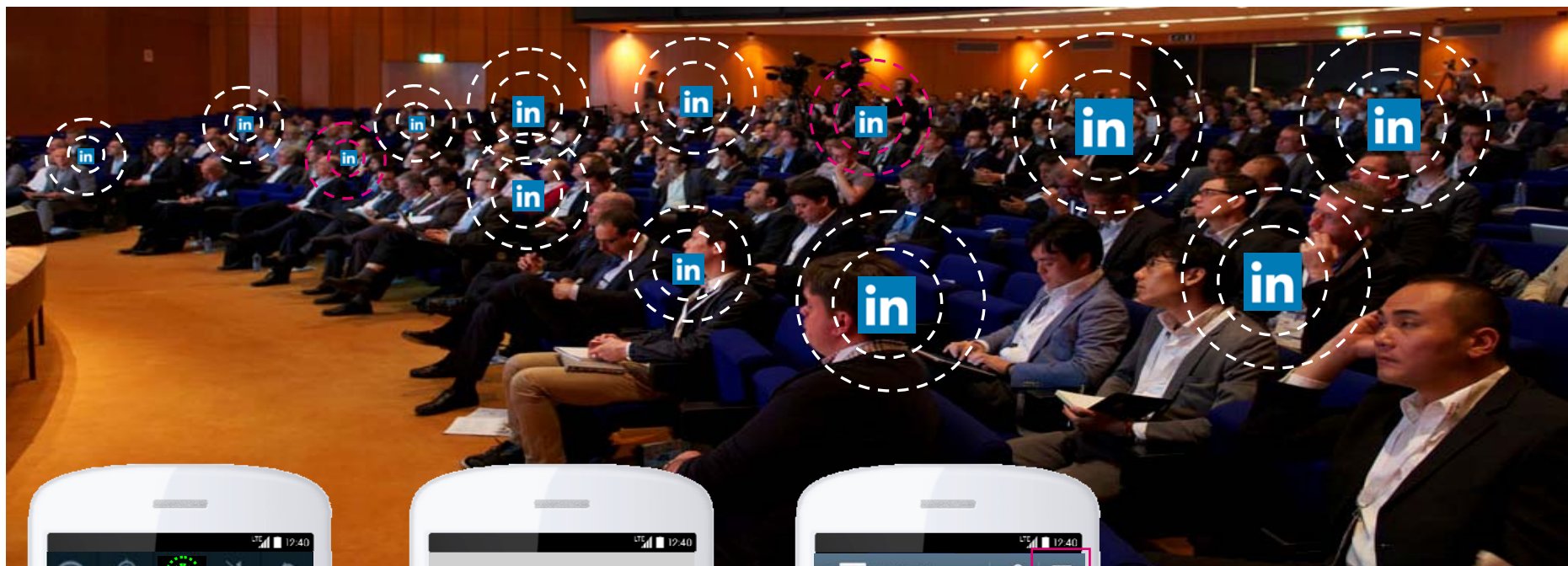


Turn on  
LTE proximity  
function







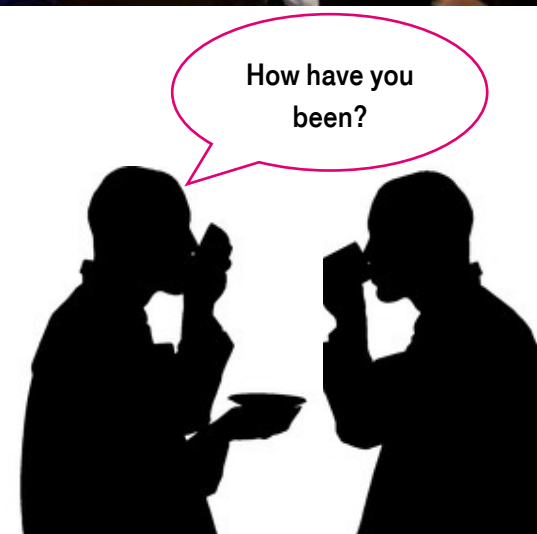
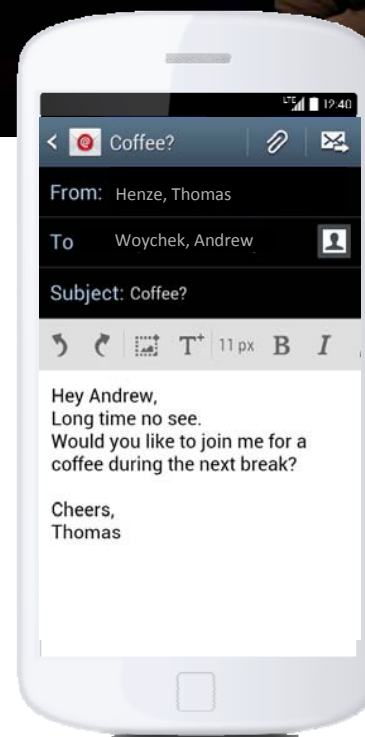
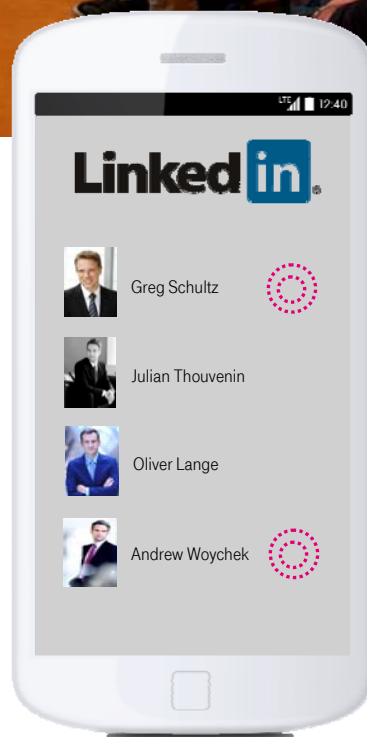
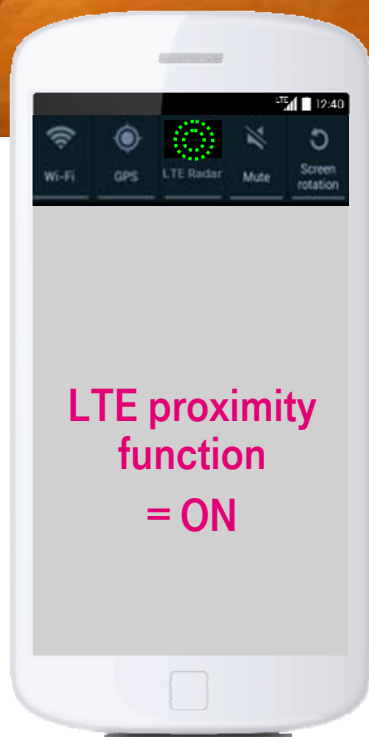
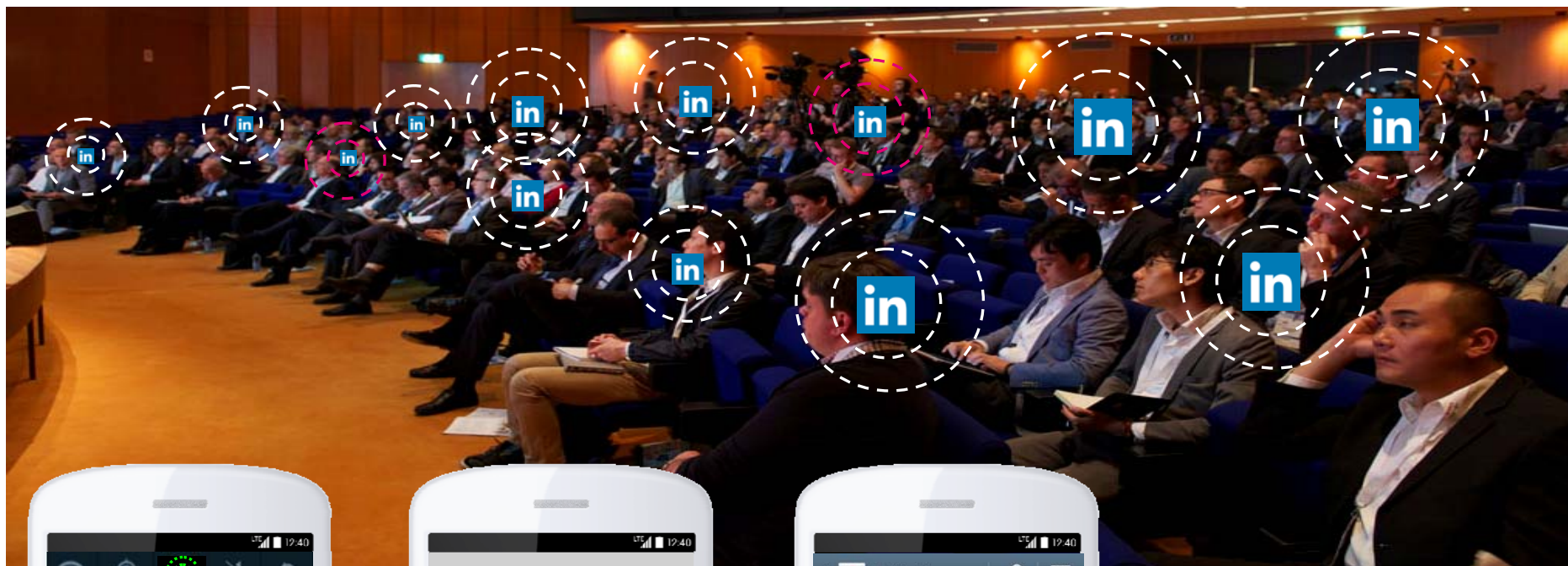


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# **USER EXPERIENCE: ITALIAN PLACE**





I am hungry

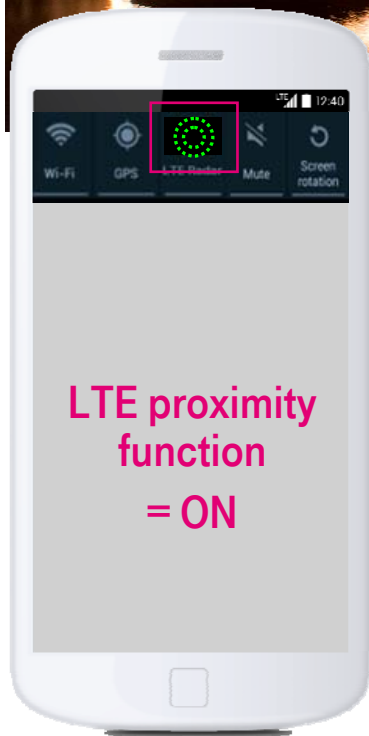


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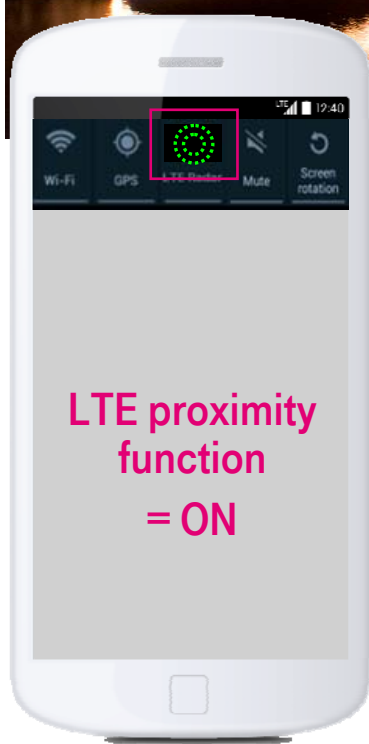
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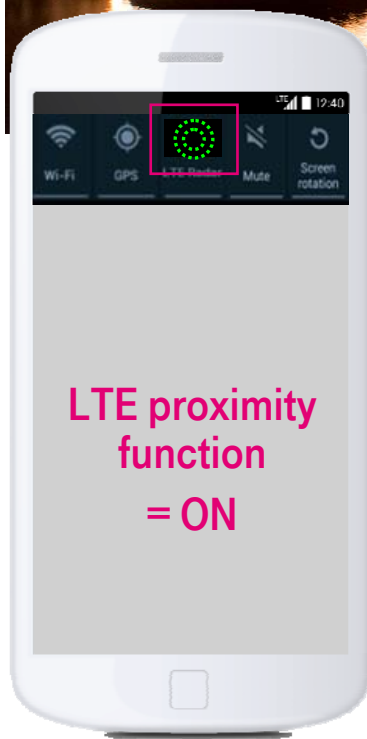


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# **USER EXPERIENCE: BUS APPROACHING**





**Need to catch the next bus.  
Do I have time for another coffee?**



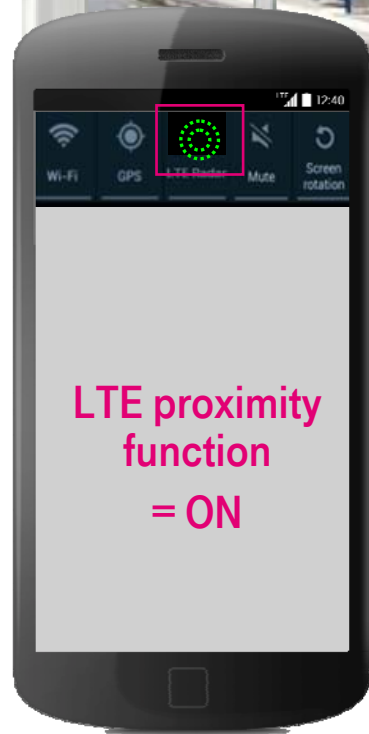
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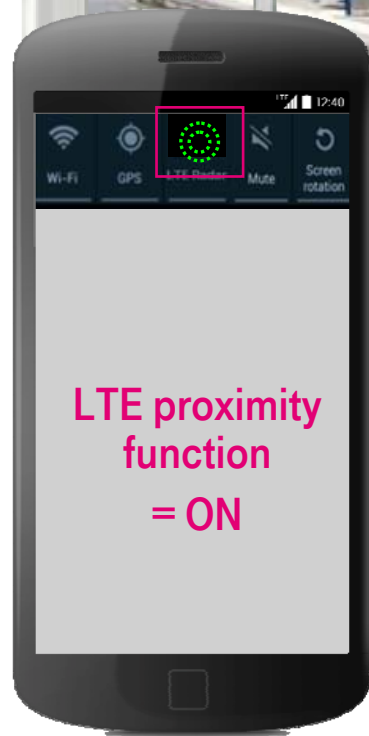
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**USER EXPERIENCE:  
... YOUR IDEAS?**



# TAKING PROXIMITY SERVICE ENABLING TO NEW LEVEL

## Location-based Geofencing



Foursquare, Google Maps, ...

- + Installed base
- + Mobility support

## Beacons (LE Bluetooth)

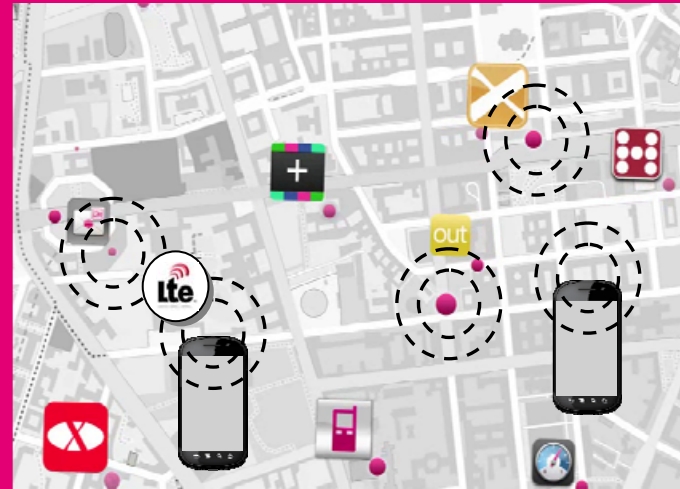


iBeacon, Fyx™, Bitplaces, ...

- + Low power consumption
- + Indoor support
- + Limited signalling traffic

## LTE proximity services

NEW



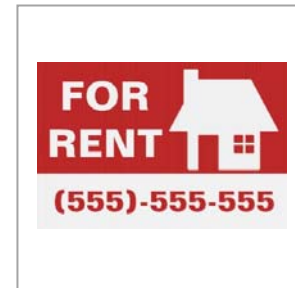
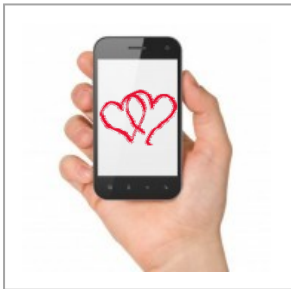
3GPP Prose (Rel.12/13), LTE Direct

- + Telco grade quality and reliability
- + Reach via native device implementation
- + Flexible proximity levels (20m ... 500m)
- + Highest security & privacy level due to independency from central platforms



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# LTE PROXIMITY SERVICES @ DEUTSCHE TELEKOM



- Product working title: “LTE Radar”
- Support 3GPP “Prose” standardisation.
- Proof of concept trial based on “LTE Direct” technology starting in Q3/2014.  
Partners: Qualcomm, Huawei, 1-2 OEMs.
- Friendly Customer Trials in 2015.
- Commercial launch 2016, depending on availability of infrastructure and devices.

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Kurt Bischinger (Standardisation lead) – [kurt.bischinger@t-mobile.at](mailto:kurt.bischinger@t-mobile.at)



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**YOUR QUESTIONS PLEASE.**



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