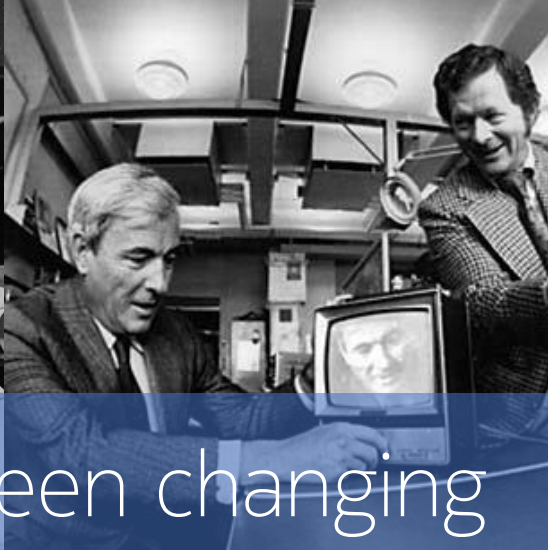
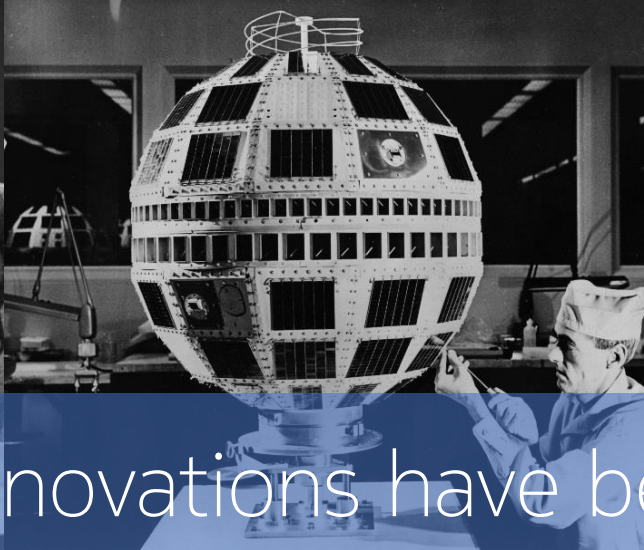
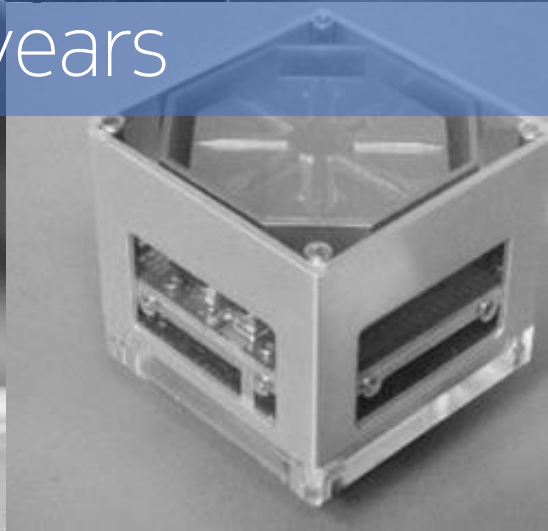
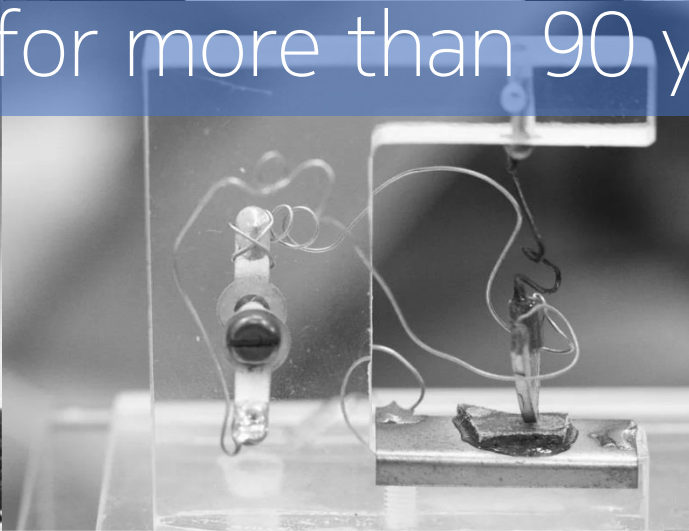


# Nokia Bell Labs Budapest



Nokia Bell Labs innovations have been changing the way we live for more than 90 years



Nokia Bell Labs today

Creating  
disruptive innovations  
for the next phase  
of human existence



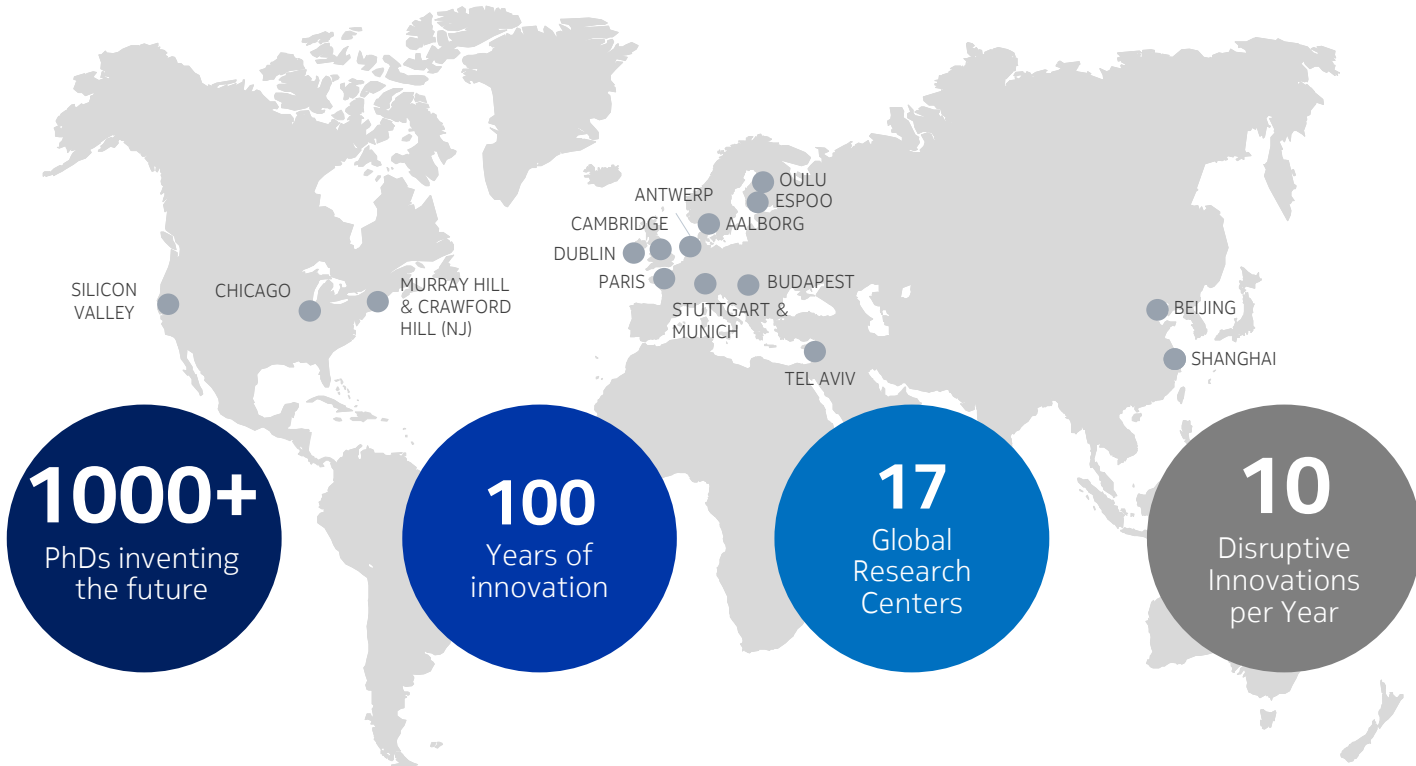




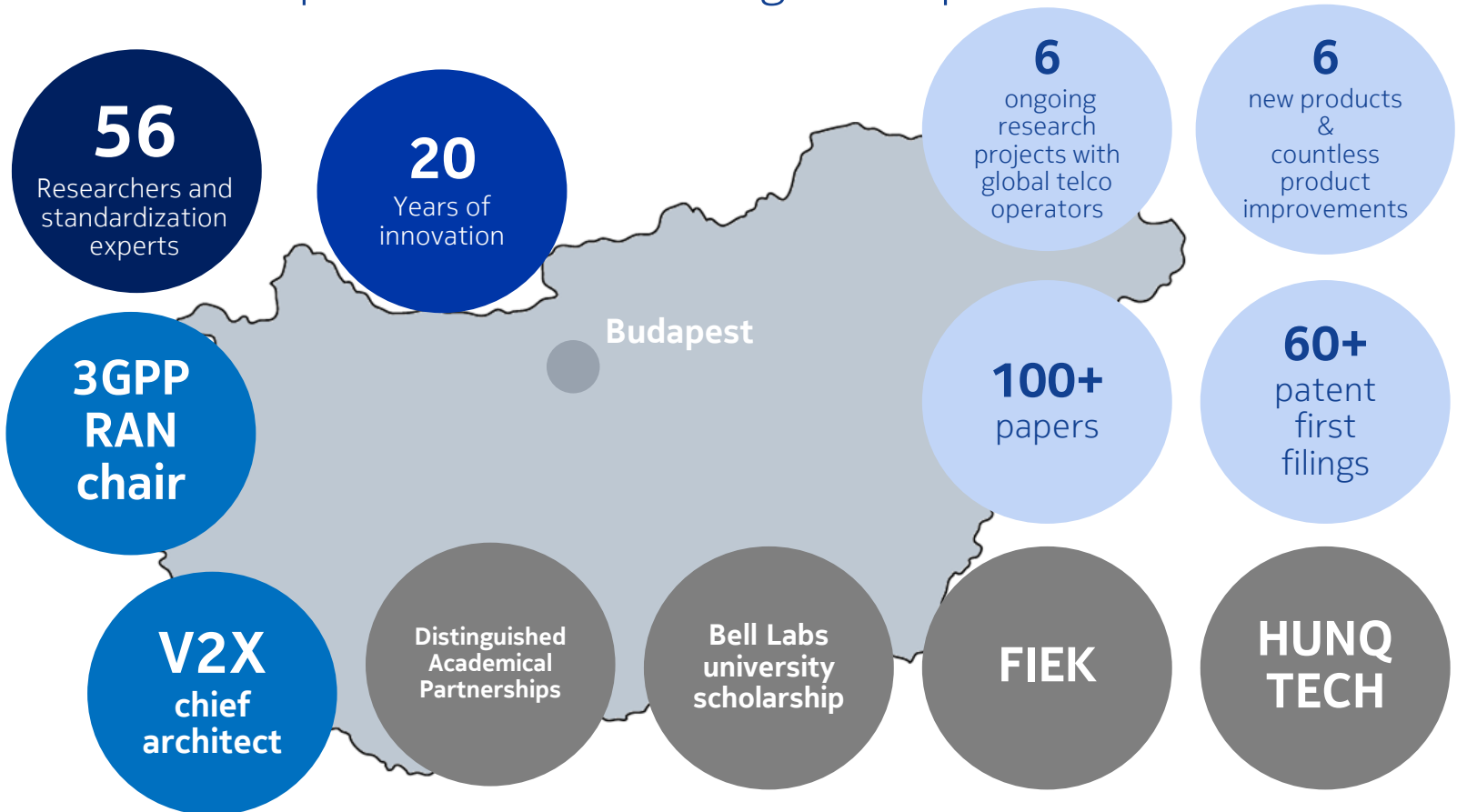
Nokia Bell Labs mission

Interface digital &  
physical realms to  
automate life and  
create time

# Scope & scale: a global innovation engine



# Bell Labs Budapest: a local team with global impact



# Bell Labs Budapest Research Scope

## TRADITIONAL TELCO/MBB



Extreme Mobile  
Broadband

## AR/VR



Virtual 3D  
presence



HD Cams NW



VR gaming



Augmented  
shopping

## IoT



Tracking / inventory  
systems



Waste mgmt.



Smart grids  
and sensors



Smart  
home

## TACTILE, REMOTE CONTROL



Real-time  
remote control



Touch & steer

## VEHICULAR



Assisted driving  
Self-driving



Work & game  
while traveling

## INDUSTRY4.0



Factory  
automation

INSIGHT FUSION: CROSS DOMAIN/VERTICAL ANALYTICS

## SMART SOLUTIONS

- Smart City
- Smart context aware services
- Enhanced V2X solutions
- Remote robotics operation
- Personalization
- Mobility analytics
- Context based operation

## COGNITIVE NETWORKS

- Self-learning mechanisms
- Autonomous measurements, analytics, actions, self-monitoring
- Full context awareness

# Bell Labs Budapest: local academic projects

## Virtual Mobile Network optimization

An EUREKA\_12 and National Research, Development and Innovation Office project

- Network operation on the basis of
  - virtualization
  - cloud computing and
  - software defined networking
- New approaches in
  - traffic steering and
  - mobility management
- The future target is a self-optimizing network



## Higher educational and industrial cooperation center

A National Research, Development and Innovation Office project

- Research consortium between industrial and academic partners
- A common research platform to find synergies and to share
  - technological information and
  - knowledge
- Connect industry, universities and students
- Improve efficiency and competitiveness by
  - integration and
  - interdisciplinary thinking





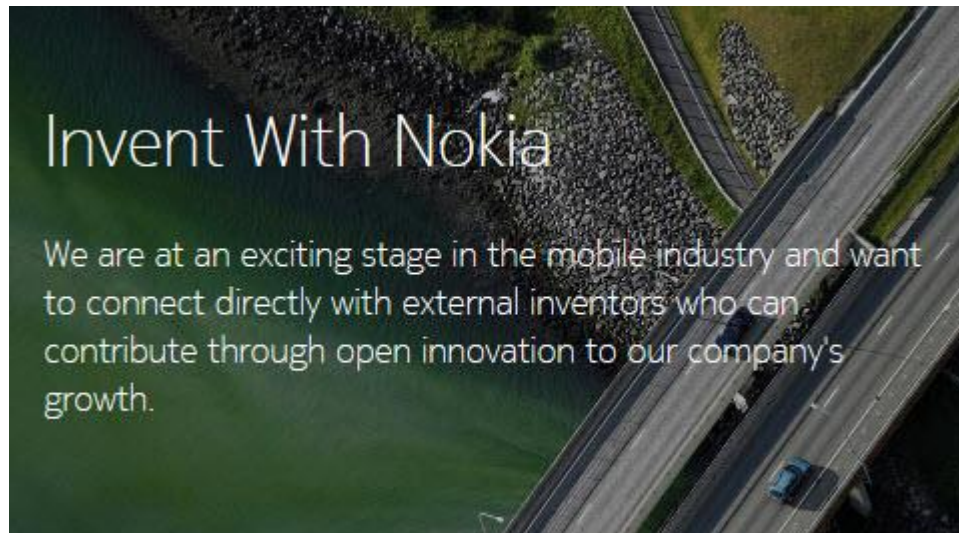
# Invent With Nokia

An innovation leader in the technologies that connect people and things

NOKIA



## Invent With Nokia



### Current targeted inventors

- Universities
- Students
- Start-ups
- Individuals

### Invention submission tool for external inventors

- General public: non-confidential submissions
- Targeted inventors: confidential submissions

**NOKIA**