Nokia Technologies
Creating value for Nokia

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Nokia Technologies at a glance

- **Leading Patent portfolio**
  - 1,700 New patent applications in 2015

- **Leading Professional VR camera**
  - >100 Licensees in total

- **Leading Consumer Digital Health portfolio**
  - >30K Patent families
  - 95% Nokia global brand awareness
human
Data & Connectivity

Innovation

Brand
Innovation
Brand

Data & Connectivity

Engine for Growth and Innovation
Digital Media

Pioneering Virtual Reality to transport people to places, events and experiences like never before.
Digital Media | VR Market

€45bn

Global VR market by 2020

Nokia market entry

2016 2020

Sources: Citi Group Oct 2016, IDC; TrendForce Dec 2015; DigiCapital Jul 2015
• First integrated professional VR camera
• Immersive audio and video capture
• Real-time 3D stitching
• Live broadcast
• Early market feedback to inform product strategy
Digital Media | OZO Value Chain

- VIDEO
- AUDIO
- POST PRODUCTION
- DISTRIBUTE
- EXPERIENCE

OZO | OZO SOFTWARE | OZOLIVE | OZO PLAYER SDK
Digital Media | Growth Plan

1. Professional VR Content Creation
2. VR Technology Licensing
3. VR Product Portfolio Expansion

2016 - 2021
Digital Health

Inspiring individuals to take control of their own health.
Digital Health | Market

€220bn
Global Digital Health Market by 2020

63 % Connected health devices, e.g. scales, blood pressure monitors (’16-19 CAGR)

67 % Remote Patient Monitoring (’15-20 CAGR)

Sources: Finn Market Research Mar 2016 (US market), Machina research Oct 2016
Digital Health | Product Portfolio
Digital Health | Solutions

Solutions

Content and Services

Analytics and Insights

Applications

Remote Patient Monitoring

Elder Care

Corporate Wellness

Body Cardio
Thermo
Aura
Blood Pressure Monitor
Digital Health | Partnerships

Cleveland Clinic
Duke University
HUS
IBM Watson
KANTAR HEALTH
Ochsner Health System
Digital Health | Growth Plan

1. Device Expansion
2. Solutions + Nokia Synergies
3. New Markets

2016 → 2021
Brand Licensing

Leveraging the Nokia brand to create value for Nokia, our consumers and our licensees.
Brand Licensing | Market

~€300bn
Global smartphone market 2016

~40% Of the entire consumer electronics market

Sources: Strategy Analytics 2016, Gartner, IDC
Brand Licensing | Nokia Brand

>95% Brand Awareness

Trust

Reliability

Ease of Use

Source: Nokia Corporate Brand Health Tracker
Brand Licensing | Model

NOKIA

Brand, patents, Oversight

R&D and manufacturing

FOXCONN

HMD

Develop, market and sell Nokia-branded phones & accessories

• 10-year exclusive agreement for mobile phones
• €500m minimum marketing investment by HMD (3 years)
Patent Licensing

Maria Varsellona
Chief Legal Officer of Nokia
Cumulative R&D of over €115bn

Over 30 000 patent families in total
Over 2 100 standard essential patent families
Over 2/3 will still be in force in 2025
Patent Licensing | Broad and strong patent portfolios

- **Nokia Technologies**
  - Connectivity: 9,900
  - Services, applications and multimedia: 3,700
  - Total: 13,600

- **Nokia Networks**
  - Connectivity: 17,500
  - Services, applications and multimedia: 3,700
  - Total: 21,200

- **Alcatel Lucent (inc Nokia Bell Labs)**
  - Connectivity: 17,500
  - Services, applications and multimedia: 3,700
  - Total: 21,200

**Total**: 31,100

**# of patent families**

Patent applications filed on 1,700+ new inventions in 2015
Patent Licensing | Expand mobile devices program

〜 €800m

〜30%*

Annualized net sales run rate from patent and brand licensing at end 2016*

€300bn

Global smartphone market 2016

*Excluding licenses set to expire by end of 2016.
Patent Licensing | Industry leading team with strong track record

<table>
<thead>
<tr>
<th>Agreement reached</th>
<th>Company</th>
<th>Achieved objectives</th>
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<tbody>
<tr>
<td>2008</td>
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<tr>
<td>2015</td>
<td>LG</td>
<td>Arbitration due 2017</td>
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<tr>
<td>2016</td>
<td>Samsung</td>
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</tbody>
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More than 100 licensees in total
Patent Licensing | Expand into new industries beyond mobile devices

Automotive

- Licensing of cellular and Wi-Fi standard essential patents (SEPs)
- More than half of > 100 million new cars expected to have cellular connectivity by 2021

Consumer Electronics

- Licensing of Wi-Fi and video coding patents (including H.264)
- Key segments: set top boxes, game consoles, media streaming services, cameras
- High number of smaller licensees
Nokia Technologies | Operating Model

Innovation
- IP
- R&D

Nokia Brand

Products

Licensing

Drive highly profitable revenue
Create valuable intellectual property
Elevate the brand
Nokia Technologies | Looking Forward

2016
- OZO VR camera launch
- Withings acquisition
- HMD brand & patent licenses
- Samsung license agreement expansion

2017
- Expanded VR leadership
- Digital Health brand transition
- Nokia brand’s return to smartphones
- Patent licensing expansion in mobile, automotive and consumer electronics

2018
- VR technology licensing
- Growth in remote patient care in Digital Health
- Continued incubation in new and adjacent areas
- Continued patent licensing growth and diversification
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