

# Nokia and Open Source

The background of the slide is a photograph of two divers swimming through a dark cave. They are silhouetted against a bright, circular opening at the end of the cave, which is filled with light and some bubbles. The overall color palette is dark blue and black, with the bright light from the cave entrance.

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# Nokia's strategic organizations



## Nokia is investing into open source more than ever

- Open source as a topic is strategic to Nokia
- ~20 organizations where Nokia is active on various degrees
- Nokia has ~170 GitHub repositories
- Nokia uses thousands open source components in products

## Some of the activities are strategic and some tactical

- Strategic activities have Nokia wide targets and activities
- Tactical activities include contribution but not Nokia wide targets

## Top activities include

- LFN Networking, LF Edge, LF DL, ORAN-OSC, OpenStack, OB-BAA, CNCF, OCP

# Degrees of open

Nokia very carefully selects projects we join

- Nokia can add value and contribute
- The project brings value for Nokia

Nokia needs to protect its differentiation and share holder value

Differentiation and competition in the right places also drive innovation



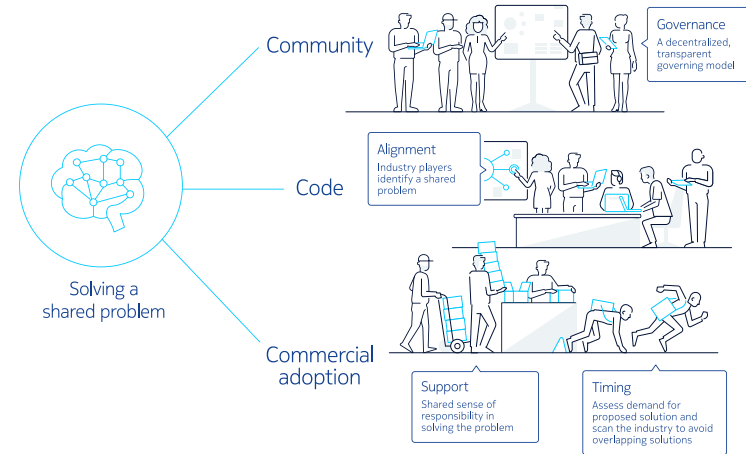
# Nokia way of selecting projects

## Key indicators

Industry alignment  
 Timing  
 Industry support  
 Project governance

### Open source

What it takes to be successful



### Benefits of open source

- Openness**  
Lower vendor lock-in, more transparent solutions
- Joint innovation**  
Create what our customers need; contribute directly
- Learn from others**  
Benefit from and re-use innovations by other players and industries
- Faster development**  
Opportunity to focus on the features with the biggest impact
- Security**  
Secure yet transparent code which can be fixed by any expert if needed
- Quality**  
Reliable, widely used and scalable software with many users and contributors for the highest quality

# Open Source and Standardization

Open Source and standardization complement each other

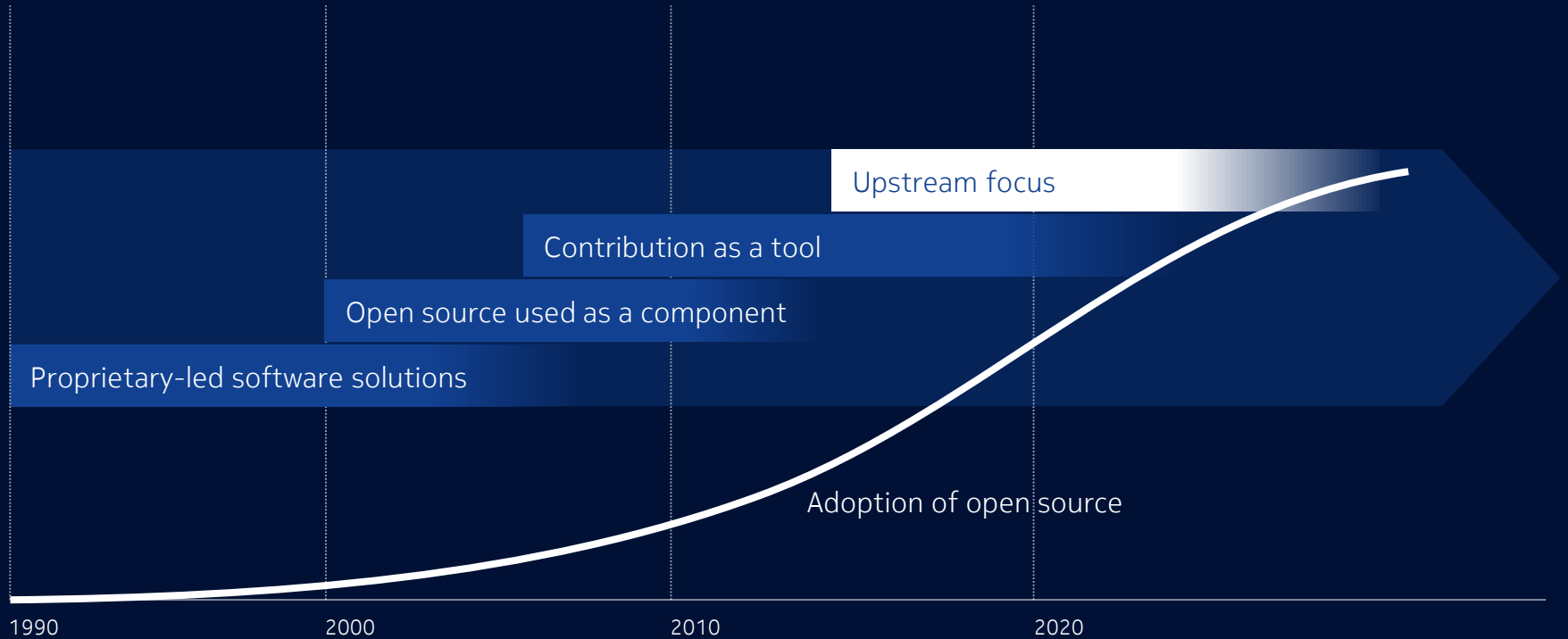
Both have their place and need to work together

Strong collaboration in Nokia between both teams



# Upstream focus

## Nokia's open source is R&D driven



Open source is the new R&D model  
Augmenting company software development

Shared R&D  
will increase

Contribution to and  
usage of open source  
will increase

Part of  
development

Software collaboration  
will be part of the  
normal R&D process

Differentiation  
continues

Commercial innovation  
complements open  
source

**NOKIA**



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