



# Coordinating requirements engineering and quality assurance in a complex release planning context: Experience from Sony Mobile

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# Outline

1. Sony Mobile and surrounding ecosystem
2. Release planning at Sony Mobile
3. Reflections from 10 years at Sony Mobile
4. Conclusion



## Sony Mobile and surrounding ecosystem



**SONY**  
make.believe



**Sony Ericsson**



**XPERIA**  
Sony Smartphone



- Ericsson and Sony developed mobile phones independently from each other starting in the 1980-ies
- Sony Ericsson was a Joint Venture between Sony and Ericsson, started in 2001
- First Android phone launched in 2010
- In 2012, Sony acquired the entire company and changed the name to Sony Mobile

# SONY



NTT docomo



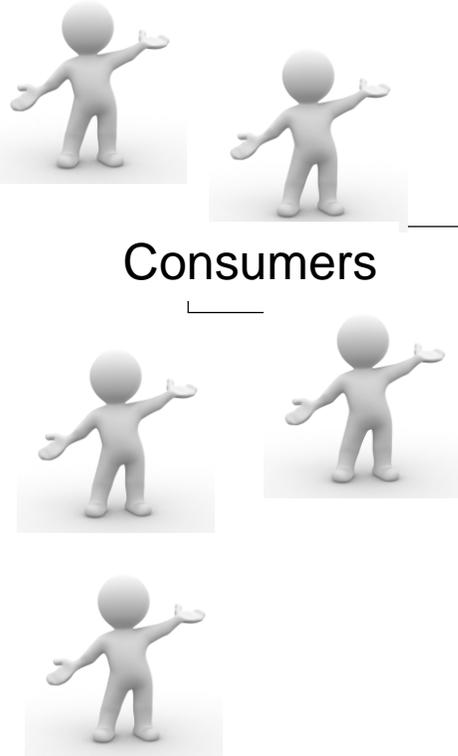
AT&T



vodafone



Telia



Consumers



## Sony Mobile

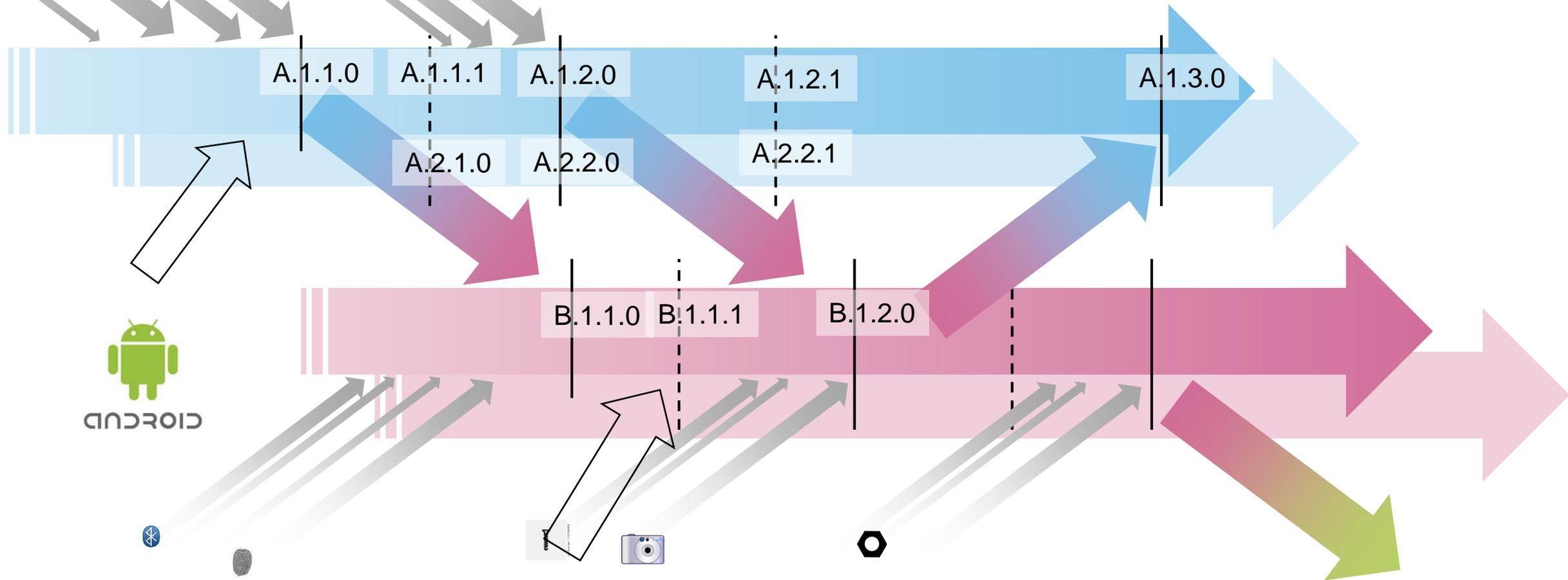




## Release planning at Sony Mobile

# Software projects and releases

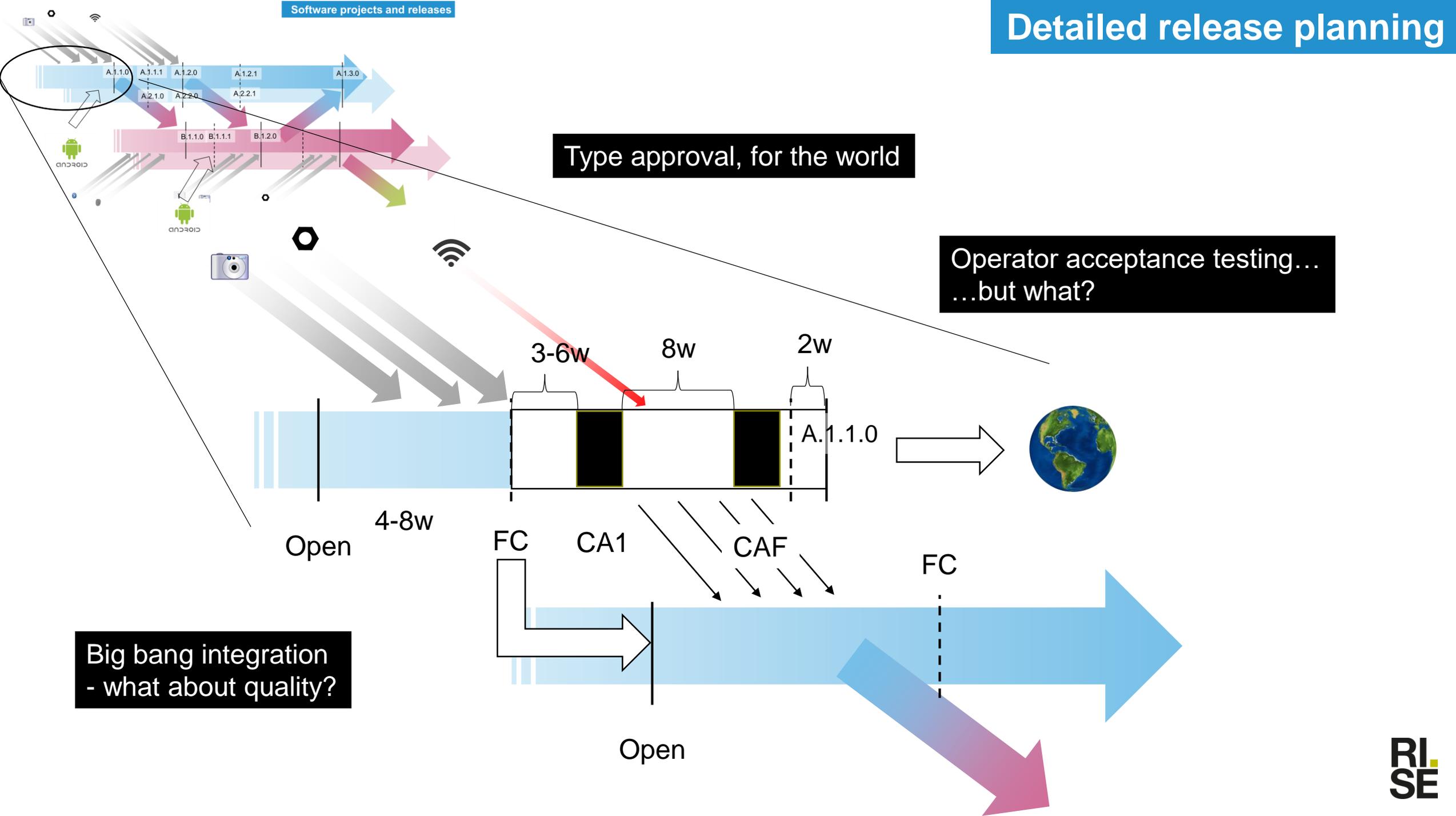
All variants globally on the same branch (almost..)  
- what do I test?



A lot of code has unknown delivery date...  
...and unknown content

# Detailed release planning

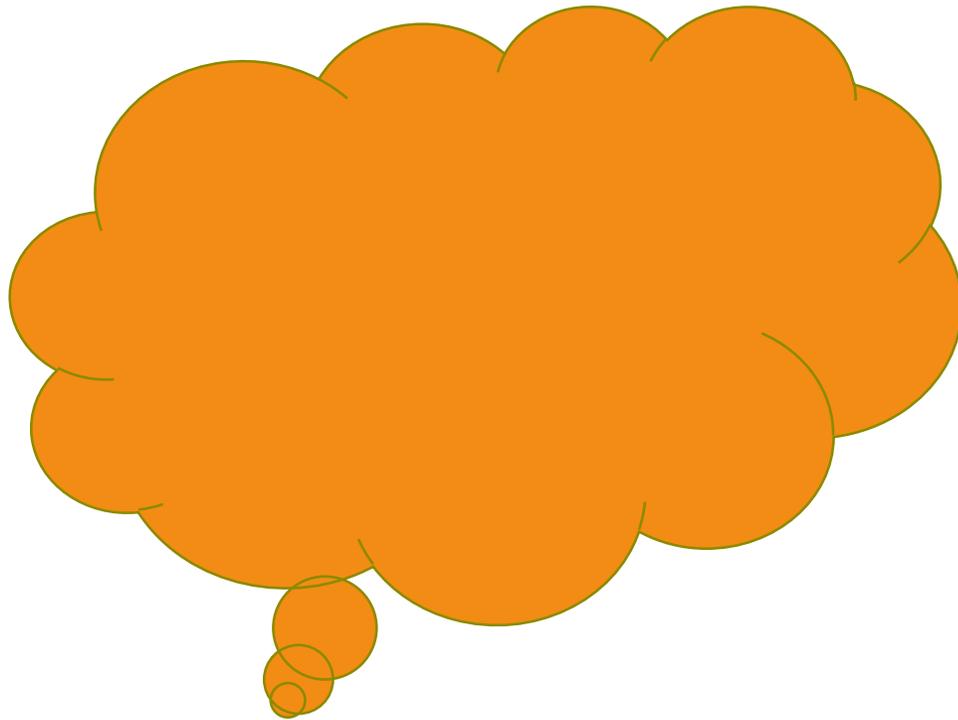
Software projects and releases



Type approval, for the world

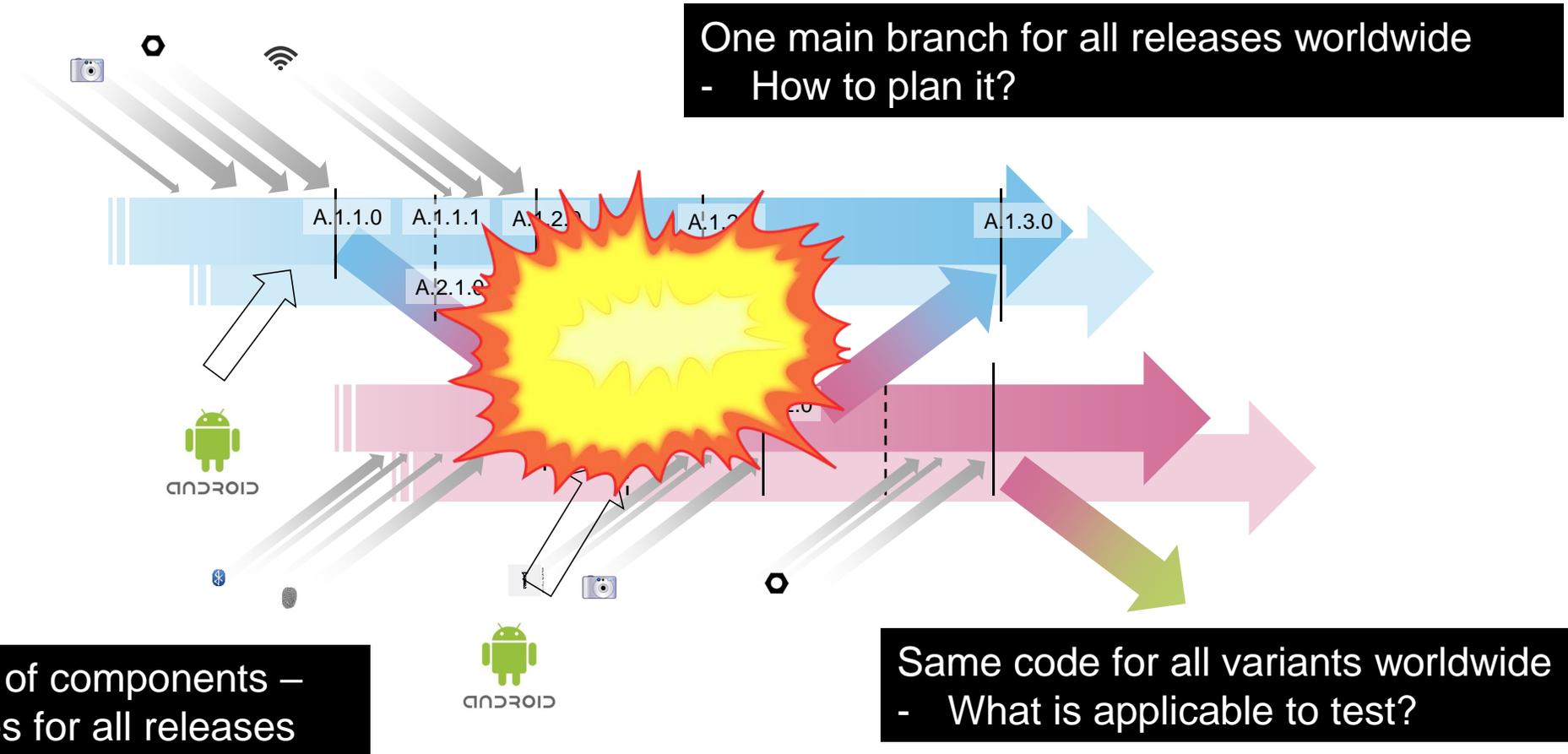
Operator acceptance testing...  
...but what?

Big bang integration  
- what about quality?

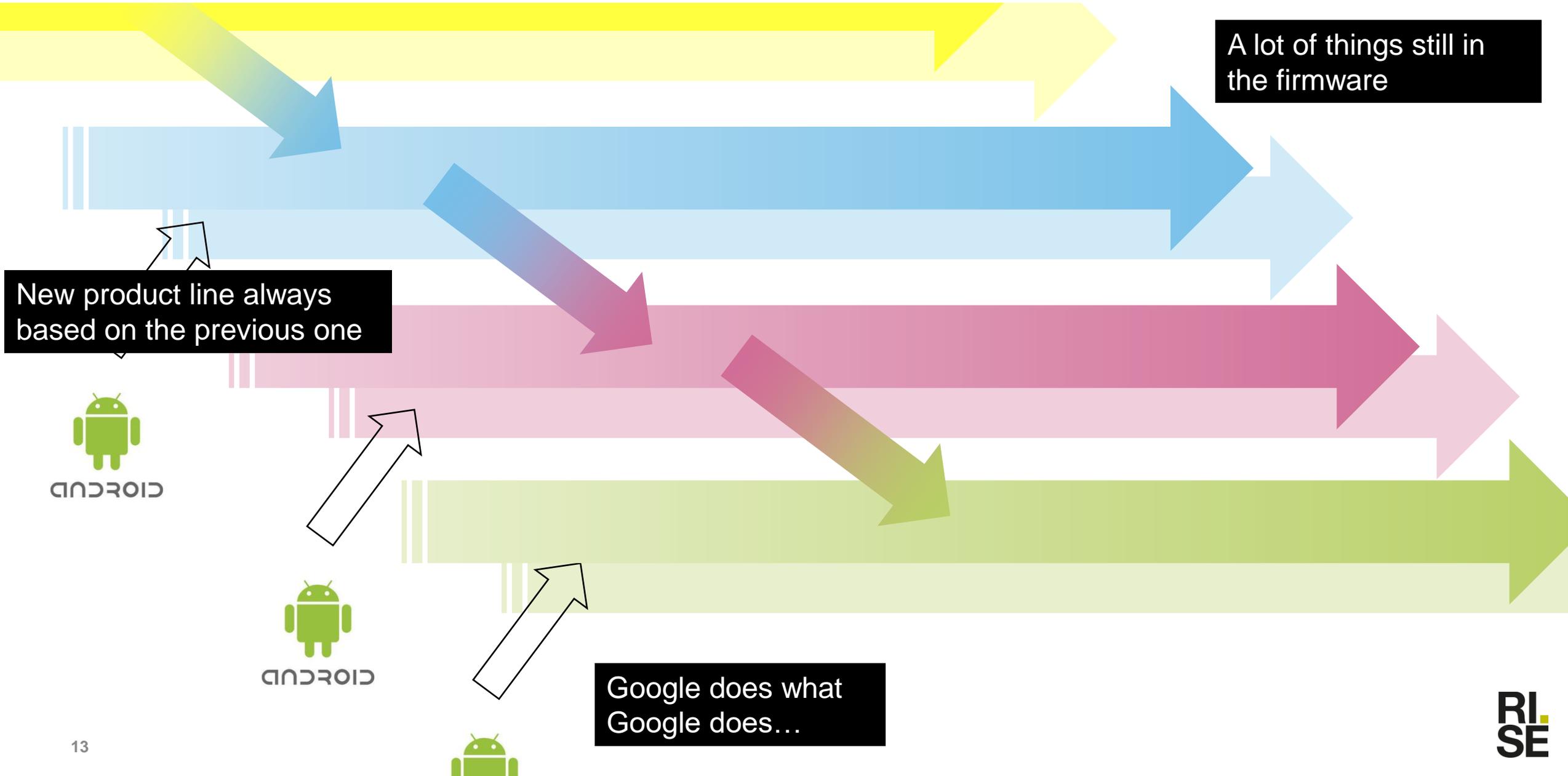


## Reflections from 10 years at Sony Mobile

# There is such a thing as too much reuse



# Breaking up the legacy





## Conclusion

# Conclusion

- Software is developed in a complex interplay with suppliers, partners, customers and consumers
- Simplifications are needed everywhere to keep competitive
- There is no silver bullet, a multitude of measures are needed

# Thank you!

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If you don't care about quality, you can  
meet any other requirement

- Gerald M. Weinberg



RISE SICS

# RISE Mission from the Swedish Government

- "Collaborate closely with academia and industry to advance excellence in strategically important areas, and in doing so help accelerate transformation within the business world."
- "Develop and increase the use of our leading, dynamic environment for testing, demonstration and pilot production."
- "Support and encourage organizations - particularly small and medium-sized enterprises - to participate in EU research programmes and benefit from international collaborative research."

*Excerpts from the Research Proposition 2016/17: 50  
(Kunskap i samverkan).*



# Mission

SICS creates industrial and societal value by joint initiatives with industry and the Swedish public sector.

SICS contributes with excellent research and innovation in selected areas of information and communication technology, and by actively promoting the uptake of new technology in Sweden.



# THIS IS RISE SICS

Turnover  
21 Million  
Euro

+ 30 Years of  
state of the art  
computer  
science

Funded by  
governmental  
research programs,  
industry and  
the EU

Staff 202  
76 Ph.D.  
32 Professors

Non-profit  
research  
organization

# ACADEMIC COLLABORATION



UPPSALA  
UNIVERSITE



LUND  
UNIVERSITY



Karolinska  
Institutet



Stockholm  
University

- Other universities and technical institutes in Sweden, Europe, China, and in the USA.
- SICS is a core partner in EIT Digital.

# CUSTOMERS & PARTNERS



AND SWEDISH  
HITECH SME

# SICS EXPERTISE

**Big data and machine learning**



**Computer systems**



**Data intensive computing and cloud platforms**



**Security, trust, privacy**



**Industrial optimization**



**Data centers**

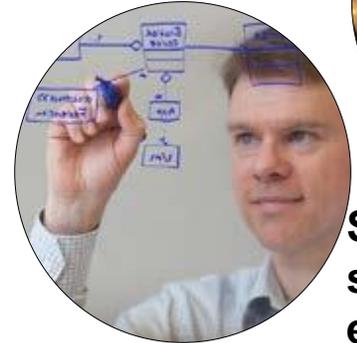
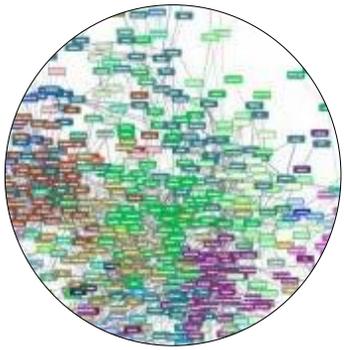


**Interaction design**



**E-health solutions**

**Networks**



**Software and systems engineering**