



Java. Cloud. Leadership.

#### **Building a Business Around Open Source Software**

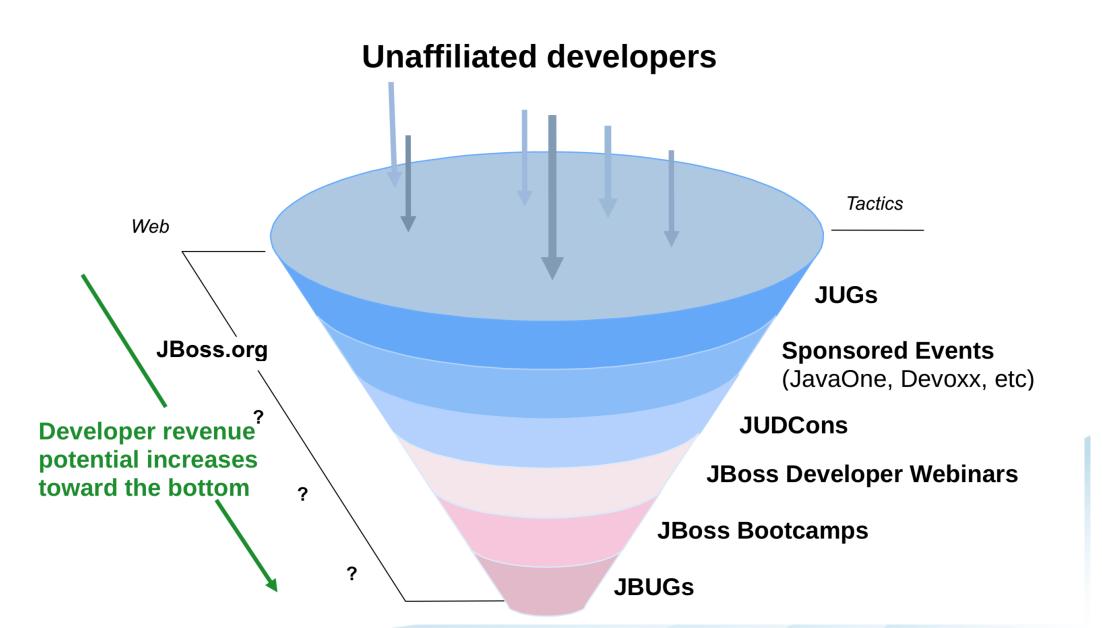
(The Alan Turing Institute)

Dr Mark Little Red Hat, Inc.

# Open Source software can be profitable

- Red Hat
  - Over \$2 billion in revenue
  - Acquired by IBM for \$34 billion
- MySQL
  - Acquired by Sun Microsystems in 2008 for \$1 billion
- •Firefox, Android, Cloudera/Hortonworks, MuleSoft, Automattic (Wordpress), Elastic, MongoDB, Confluent, Databricks, ...

# Project versus product funnel



# How do you turn interest into money?

- Support and Services
- Advertising partnerships
- Restrictive licencing
- Additional features for money (e.g., open core)
- SaaS
- Donations



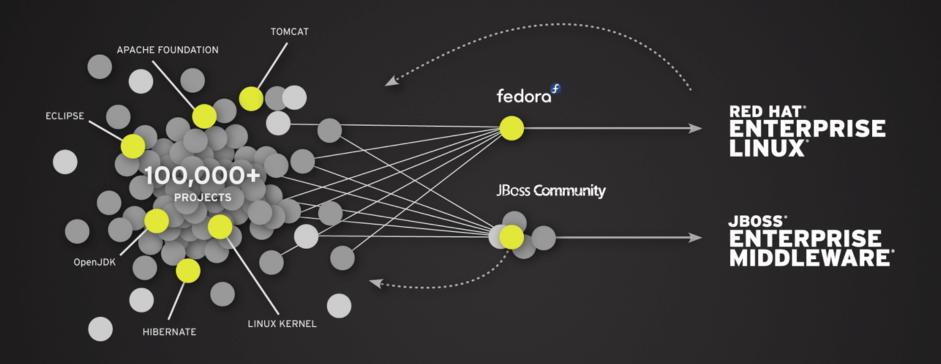
#### Support and Services

- Red Hat, Canonical etc.
- Offer software for free and charges enterprise users for technical support services
- Red Hat sells enterprise software certifications
  - Allow employers to find highly skilled IT professionals who have been certified by Red Hat and have demonstrated proficiency with Red Hat software tools
- But Red Hat is still the only open source company to generate > \$1 billion in revenue from this model



#### Productisation is crucial

- Few projects are product ready by default
- Not everything in an upstream project should go into a product
  - May be too immature
  - May be a feature that doesn't make sense
- Sanitisation of projects is important
- Not everything in a product may have gone mainstream yet
- Not everything in a project may have been built from source



PARTICIPATE INTEGRATE STABILIZE



### Long term support implications

- Critical systems have long operational lifespans
  - Nuclear power 30 years
  - Banking systems 20 years
- Maintenance has to account for losing the vendor
  - Code into escrow but not skills
- •Does open source help or hinder?
  - Communities can disappear over time too
  - But knowledge can be shared from the start



# **Testing**

- Upstream projects typically focus on unit tests
  - Unit tests != QA
- Hardware and software limitations
  - Also impacts time to release
- Performance testing similarly
  - •It's hard to do!
- Be prepared to commit people and hardware



### Advertisement partnerships

- Mozilla Corporation is a for-profit subsidiary of the non-profit Mozilla Foundation
  - Earns revenue from partnerships, such as Yahoo and Google
  - 2014 Yahoo paid \$375 million per annum to make Yahoo the default search engine
- AdBlock Plus
  - •Pay to NOT have your adverts blocked!



### Restrictive licencing

- Create a legal reason for users of open-source software to pay
- Use an open-source license requiring anyone using the software in production to strike a commercial deal with the vendor
  - •E.g., GPL and AGPL
- Has limitations
  - e.g., GPL-based license restrictions do not restrict unmodified usage
- Largest drawback is hurts adoption, often turning off potential users

#### Paid features

- Often called "open core"
- MySQL charges for premium features
  - Also sells support services
- Definition of how much stays open versus closed
- •Zimbra, ElasticSearch, Neo4j (CE versus EE), GraalVM (CE versus EE), Redis



#### SaaS

- Offer a fully-managed version of your project
  - •Users can spin up a remote server in just a few clicks, not worry about backups, downtime, upgrades, etc.
- Has become a popular model for open-source
  - Common way for public cloud providers to monetise open-source projects without giving back to the community



#### Conclusions

- Broad adoption
  - "A successful open source project might monetise 1% of users".
- Be credible
  - Be the company that users reach out to if they have a problem or a need
- Accept that competition is inevitable
- Your licence choice will affect your business model

