

# The One to Rule ~~Them~~ (Us) All

with

dr. sc. **Branko Mihaljević & Aleksander Radovan**  
by **HUJAK** (Hrvatska udruga Java korisnika)





# The ~~Hobbit~~ Java Adventure

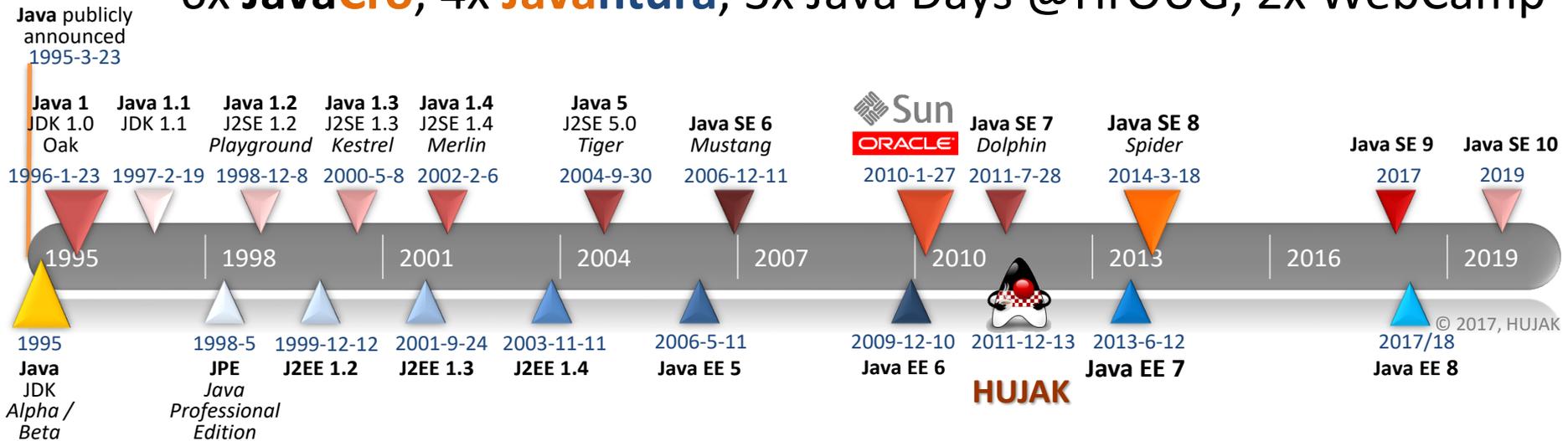
- *I think I'm quite ready for another adventure!* - Bilbo Baggins
- 1991 – **Project Stealth**
  - **Green Team** brainstorming in Aspen
  - **James Gosling** and **Oak** interpreter
- 1994 – first **Java compiler** in Java
  - **HotJava** graphical browser
- 1995 – Oak renamed to **Java**
  - **Publicly announced** at SunWorld'95





# Java History Timeline by HUJAK

- The Java history began... 😊
- **Our precious!** – **HUJAK** founded in December 2011
- In the meantime HUJAK (co-)organized **15+ conferences**
  - 6x **JavaCro**, 4x **Javantura**, 3x Java Days @HrOUG, 2x WebCamp





# One Ring to Rule Them All

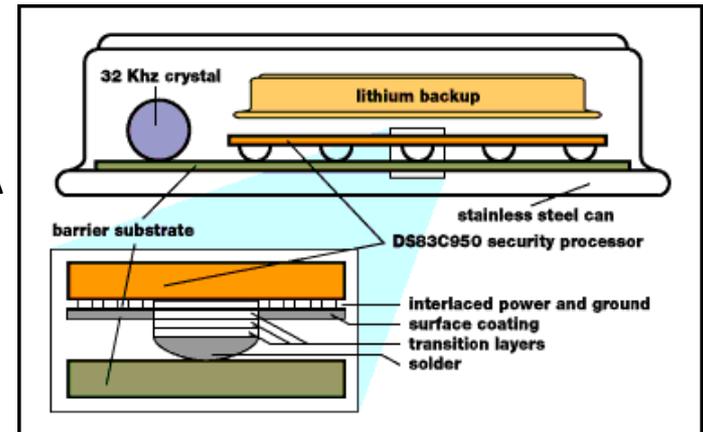
- Hmm, close...  
but...
- Have you  
ever heard  
about the  
**Java Ring?**  
☺





# Original iButton

- **iButton** by Dallas Semiconductors (Maxim)
  - Single-chip **trusted microcomputer**
  - 1-million transistors
  - Modular exponentiator for RSA
  - 128 kB RAM
  - Unalterable realtime clock
  - **Single electrical contact** and ground return (1-Wire)
  - Lithium-backed non-volatile static RAM
  - **Tamper resistance** (rapid zeroization)





# Java-powered iButton

- In 1998 produced **Java-powered iButton**
  - **JVM** housed in 16mm small and extremely rugged and **secure stainless-steel case**
  - Fully compatible with **Java Card 2.0** standard
  - Could be attached to any accessory (i.e. key fob, wallet, watch, necklace, bracelet, or **finger ring**)
- And we've got (our precious)

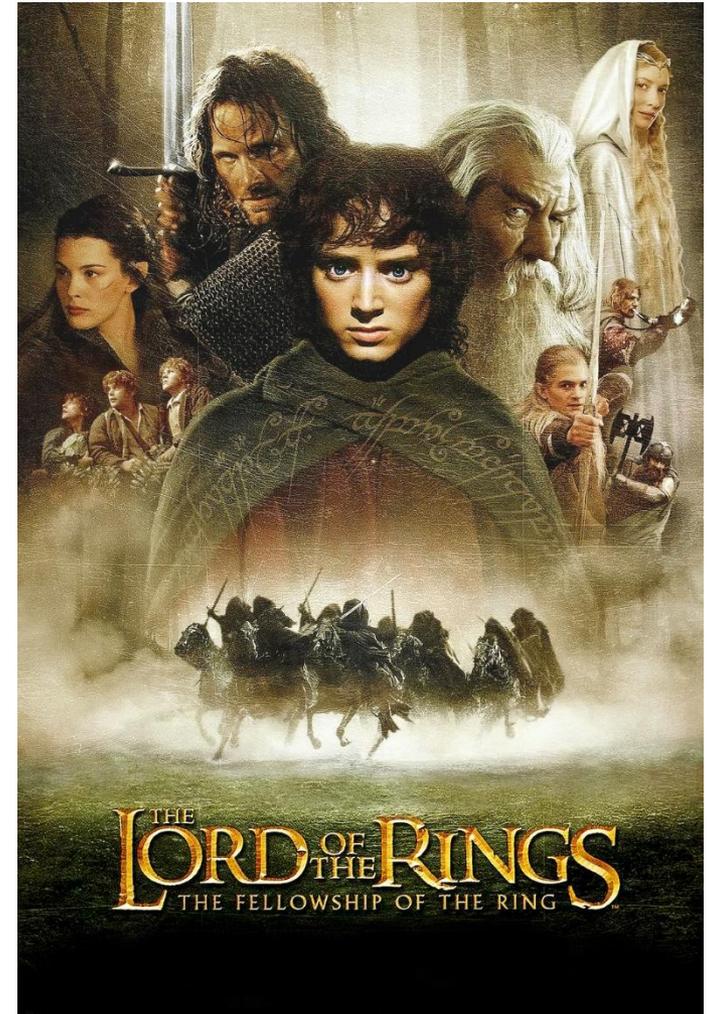
**Java Ring** 😊





# The Fellowship of the Java Ring

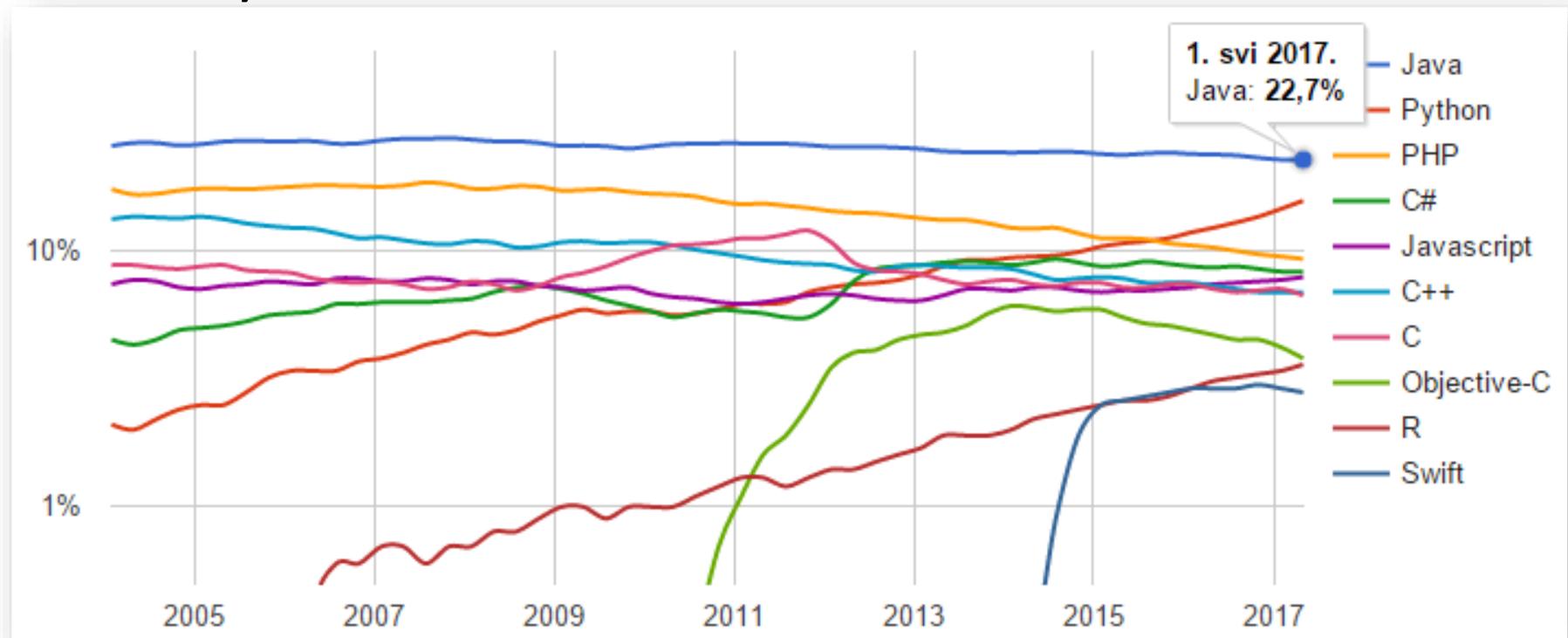
- Continued **growth of Java**
  - For **22** years
- **10 Million Java Developers**
  - Many **certified**
- **#1 Development Platform**
  - In the **Cloud** and with **Microservices**
- **15 Billion Devices** run Java
  - From **Enterprise** to **IoT**





# Popularity of Java language

- **PYPL index** (PopularitY of Programming Language)
  - May 2017



Source: PYPL PopularitY of Programming Language, [pypl.github.io](http://pypl.github.io), May 2017, © Pierre Carbonnelle





# Java Survey @ JavaCro17

- We presented many surveys in the past
- But one question was always there...

## What about **Croatia**?

- And now... for the first time we have our own

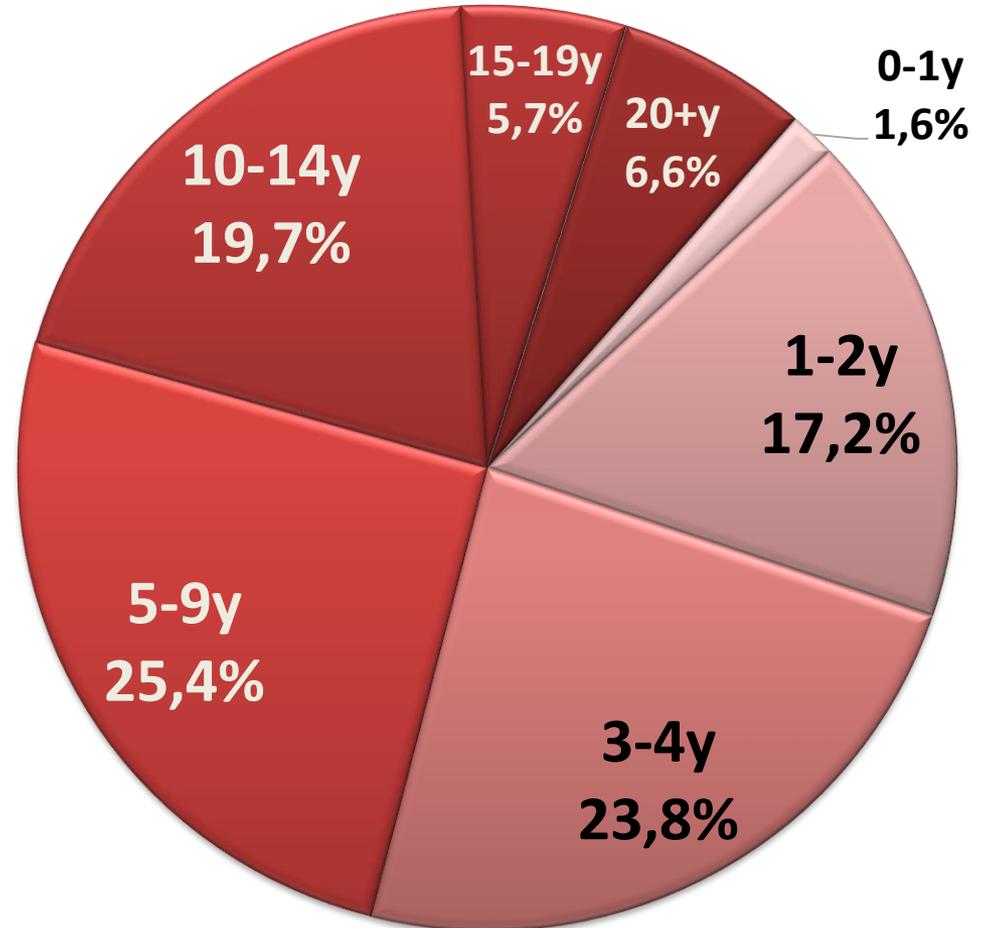
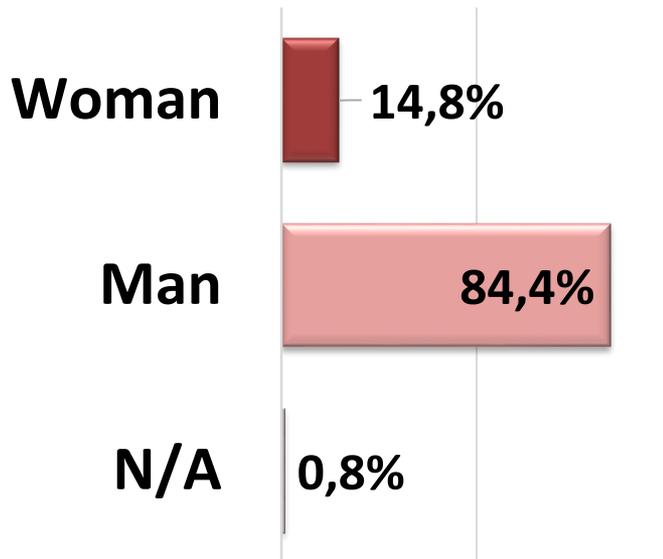
**Java survey** 😊

- 122 JavaCro attendees responded



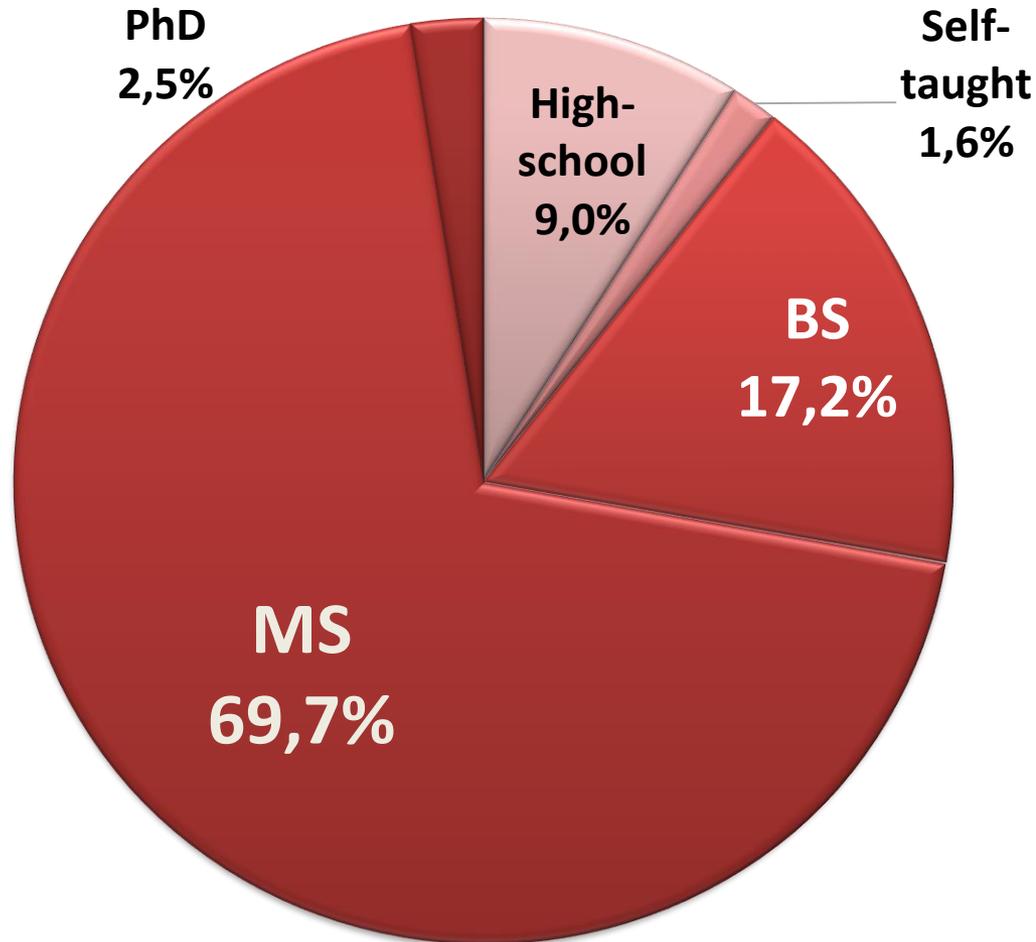
# Survey – Experience

- **Years of experience** in software development?
- **Gender?**





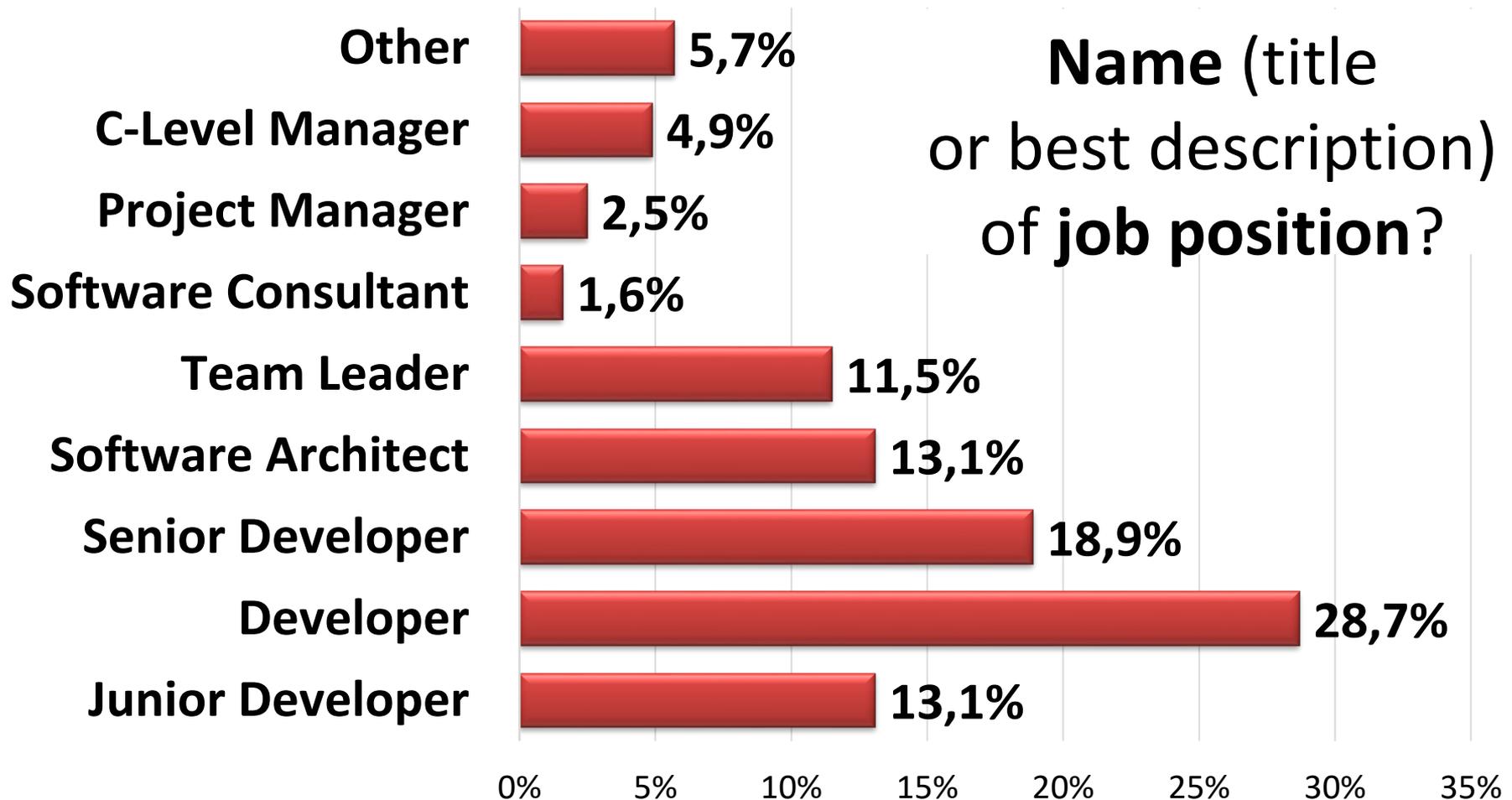
# Survey – Education Level



- What is your education level?



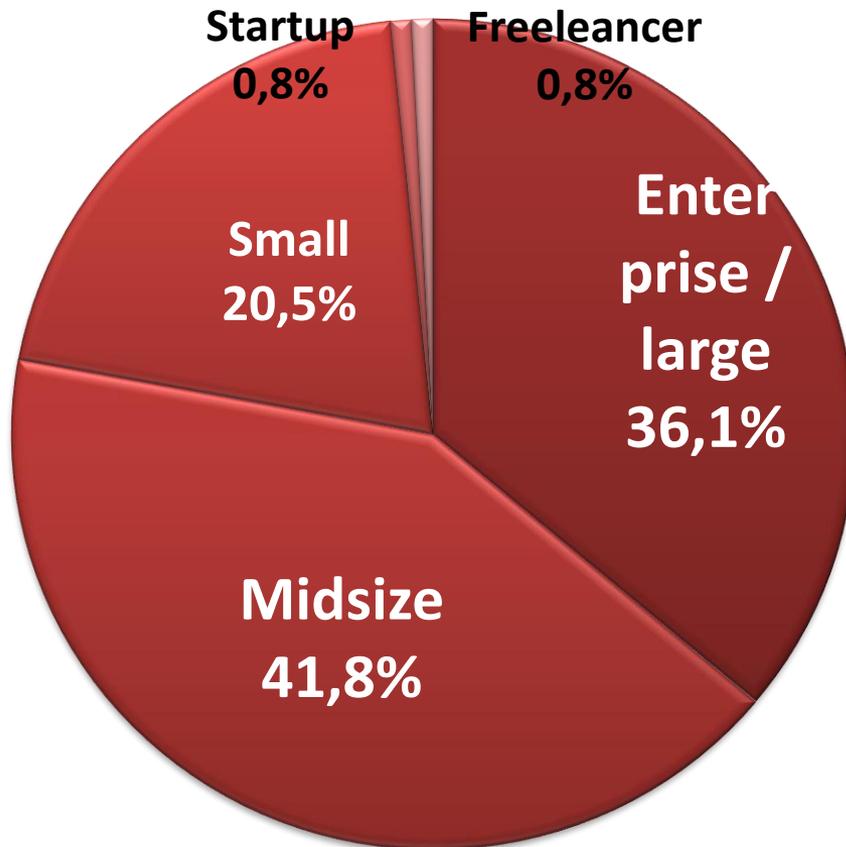
# Survey – Job Position



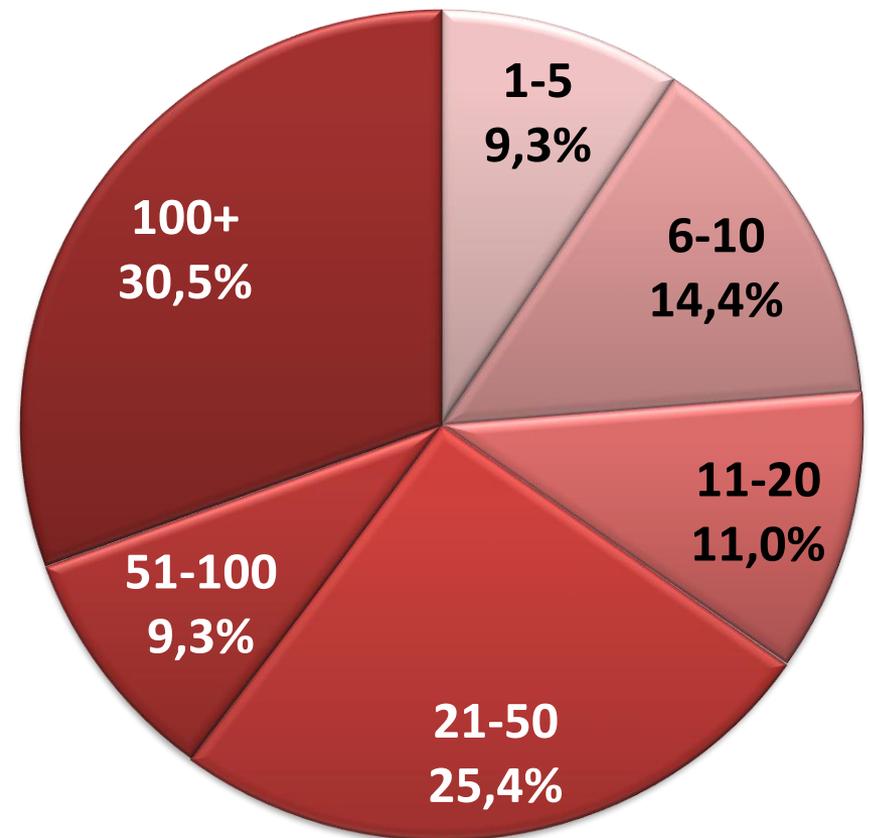


# Survey – About Company

- **Company Size**

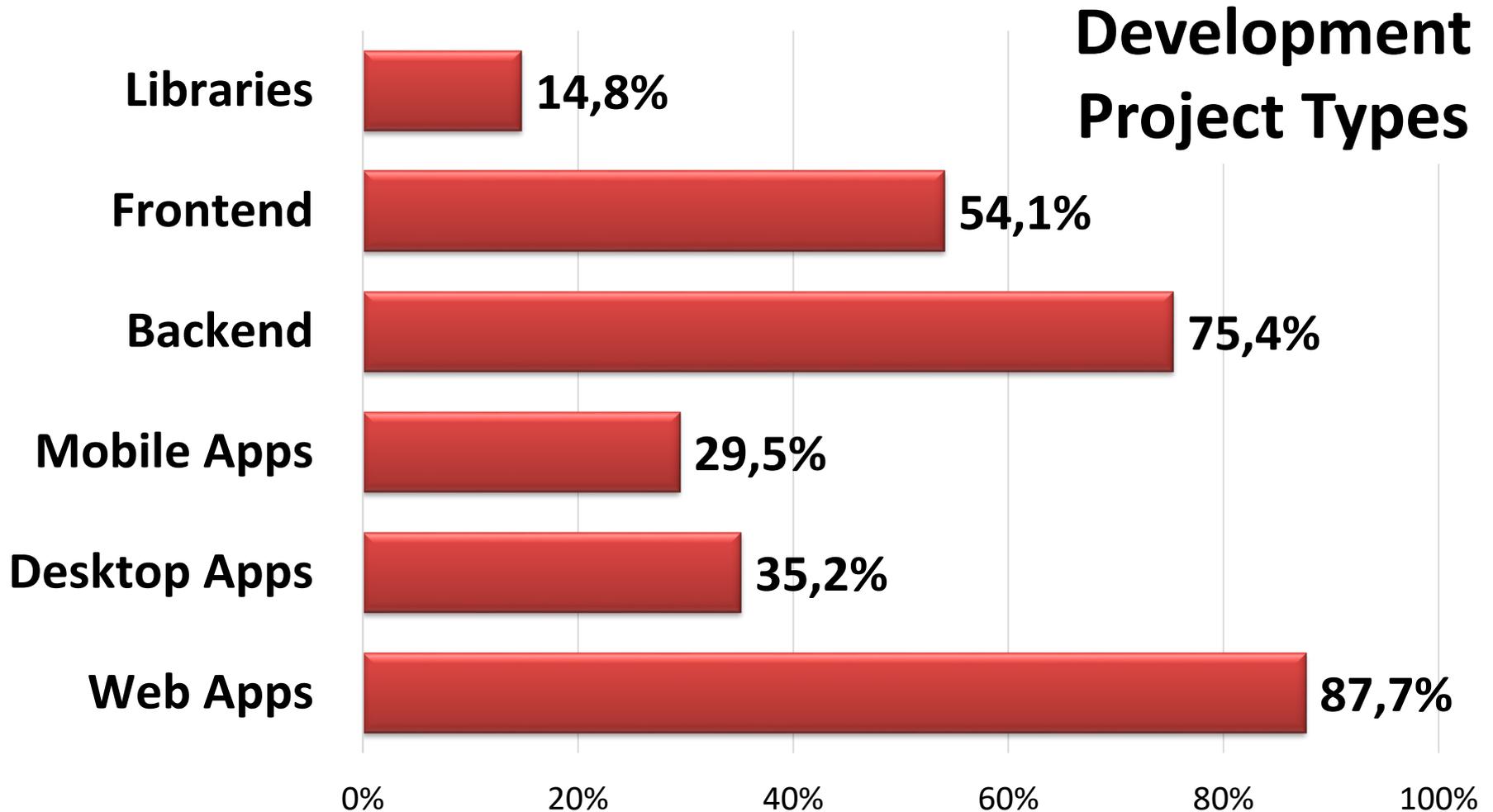


- **Number of Developers**





# Application (Project) Types





# The Two Towers (Platforms)

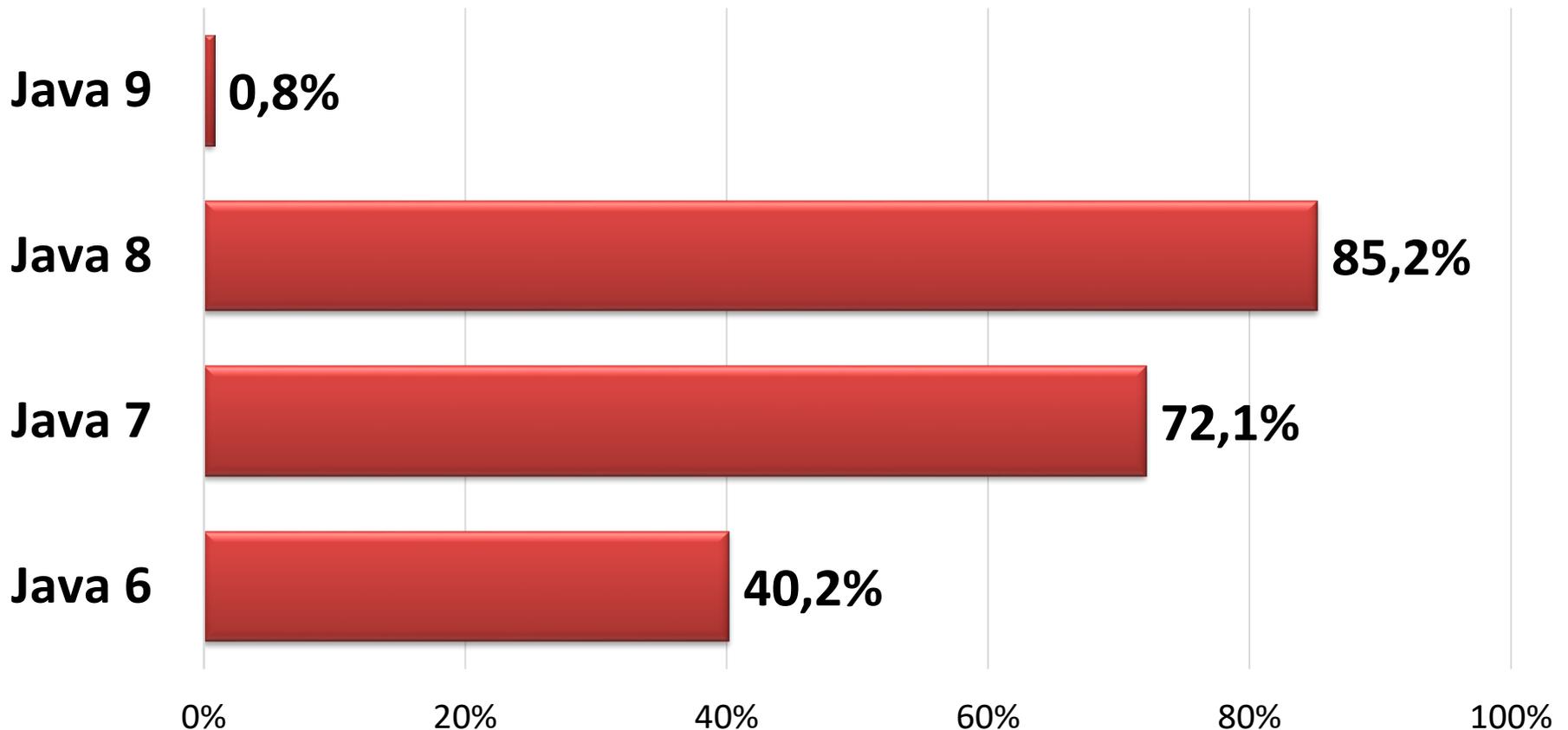
- **Java SE** – present and future
- **Java EE** – present and future
- **Other Languages**
- **Web Frameworks**
- **Libraries**
- **App Servers**
- **JavaScript Frameworks**





# Survey – Java SE versions

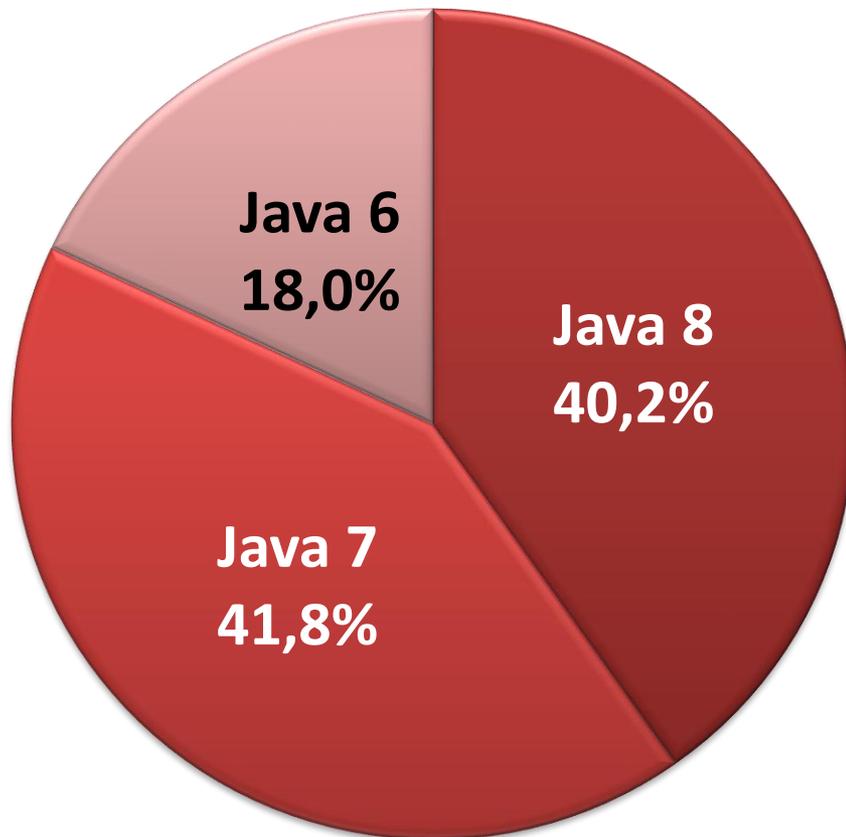
- Java SE platform **versions** you use in projects



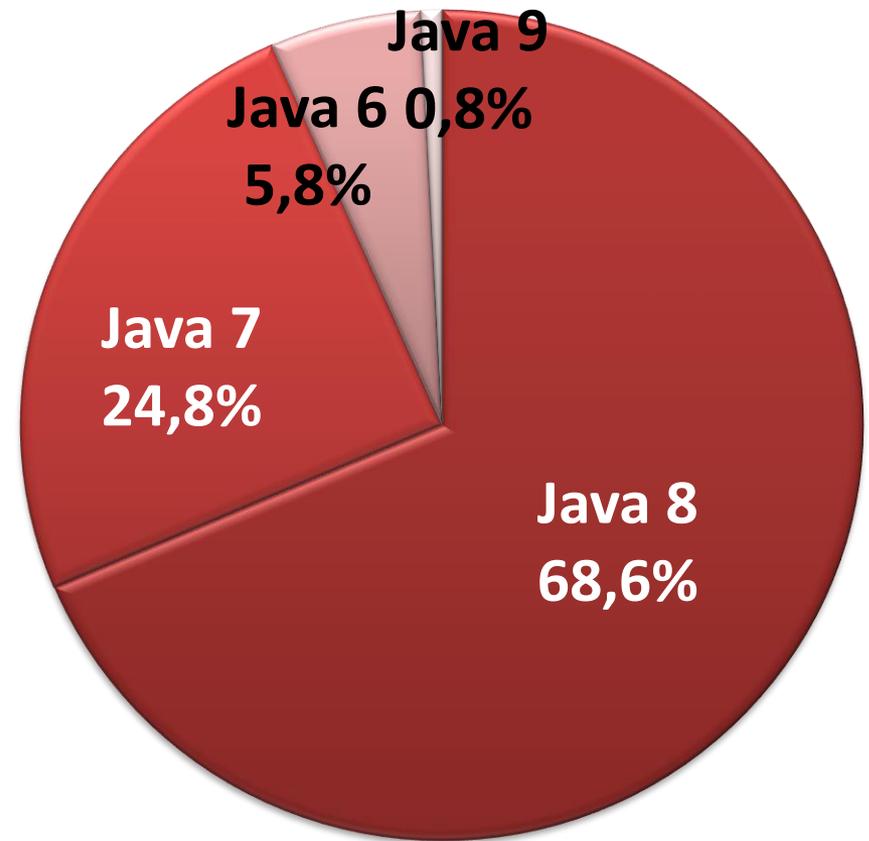


# Survey – Java SE versions

- **In Production**



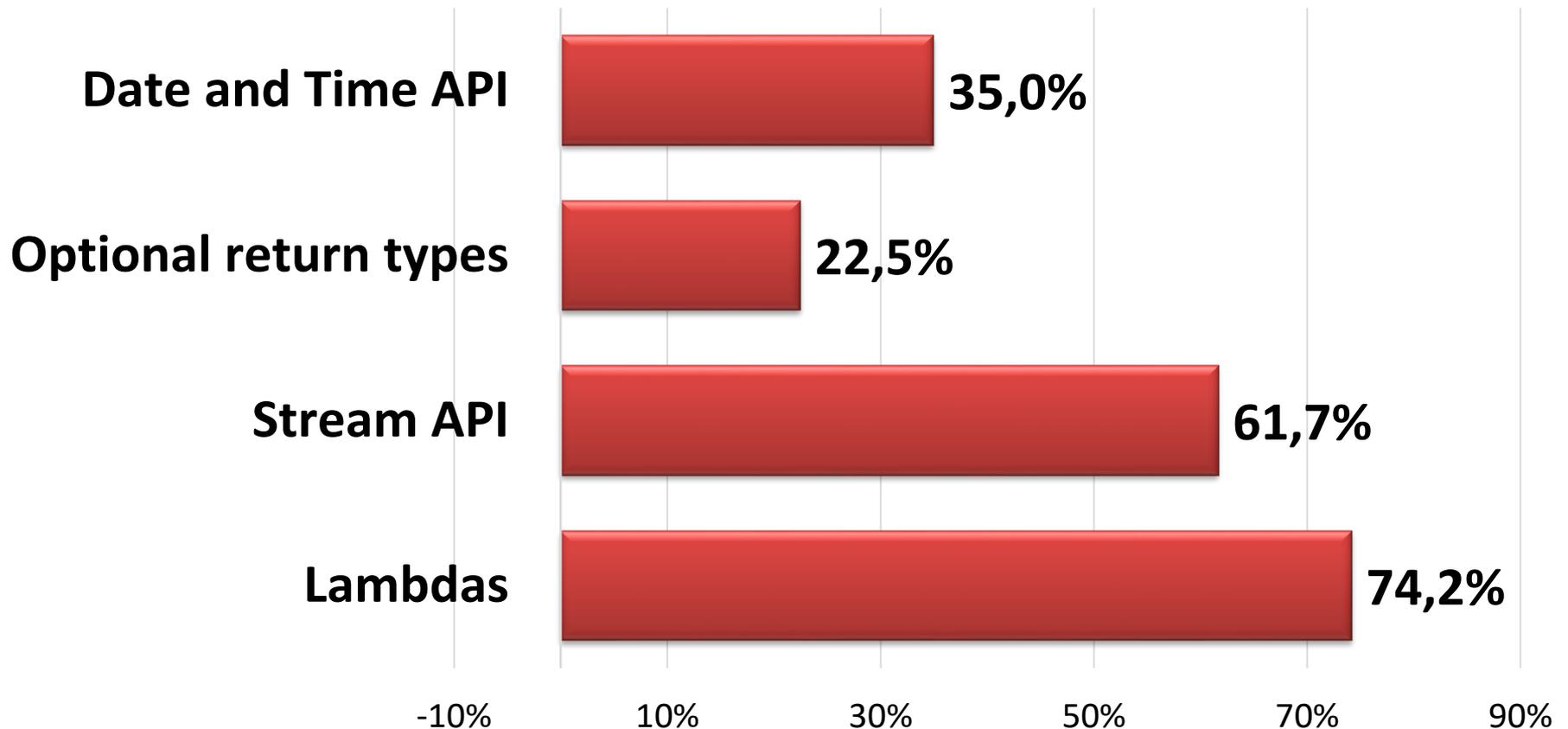
- **In Development**





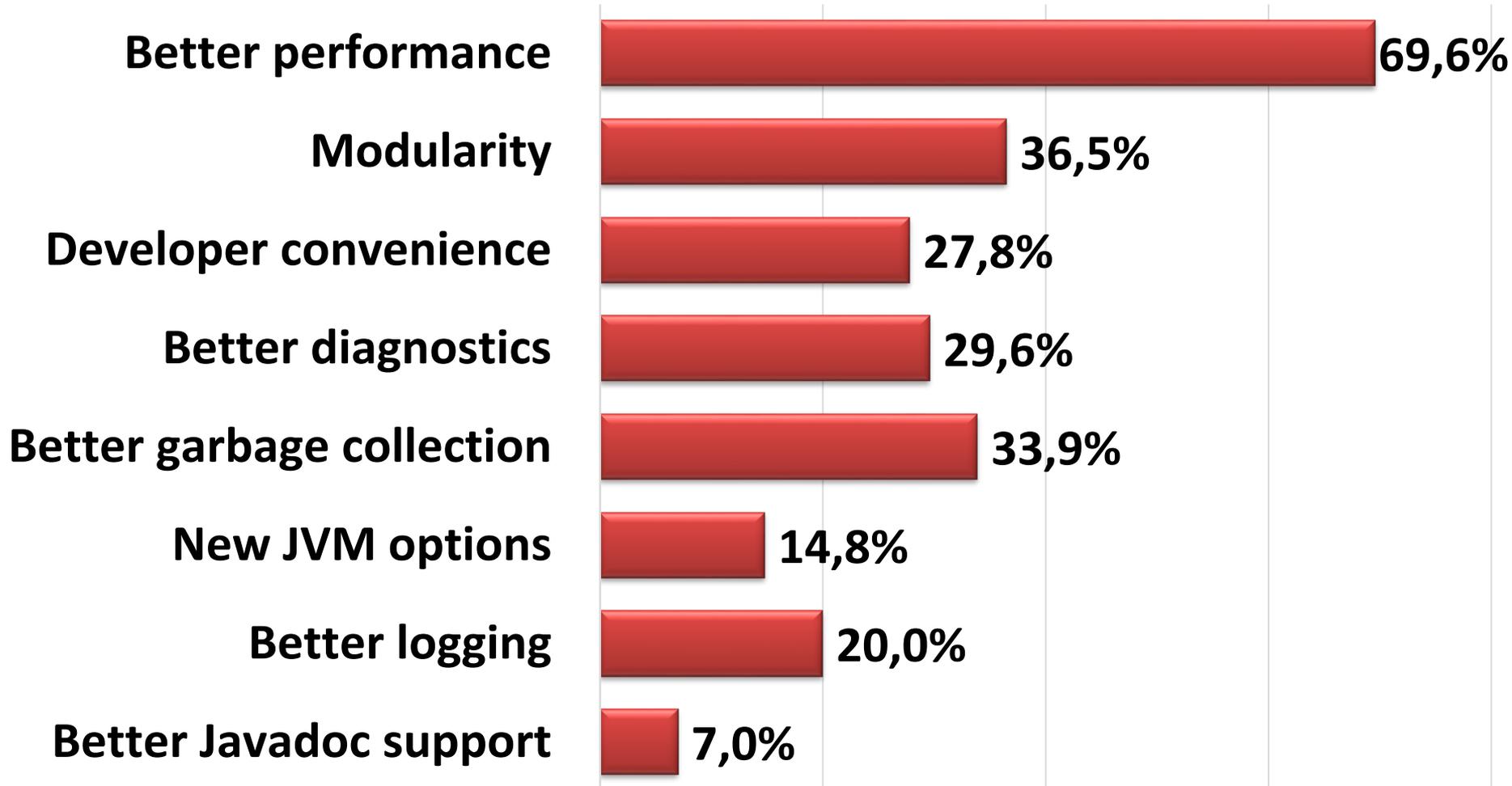
# Survey – Java 8 Interest

- Parts of **Java 8** considered **most interesting**





# Looking Forward to Java 9





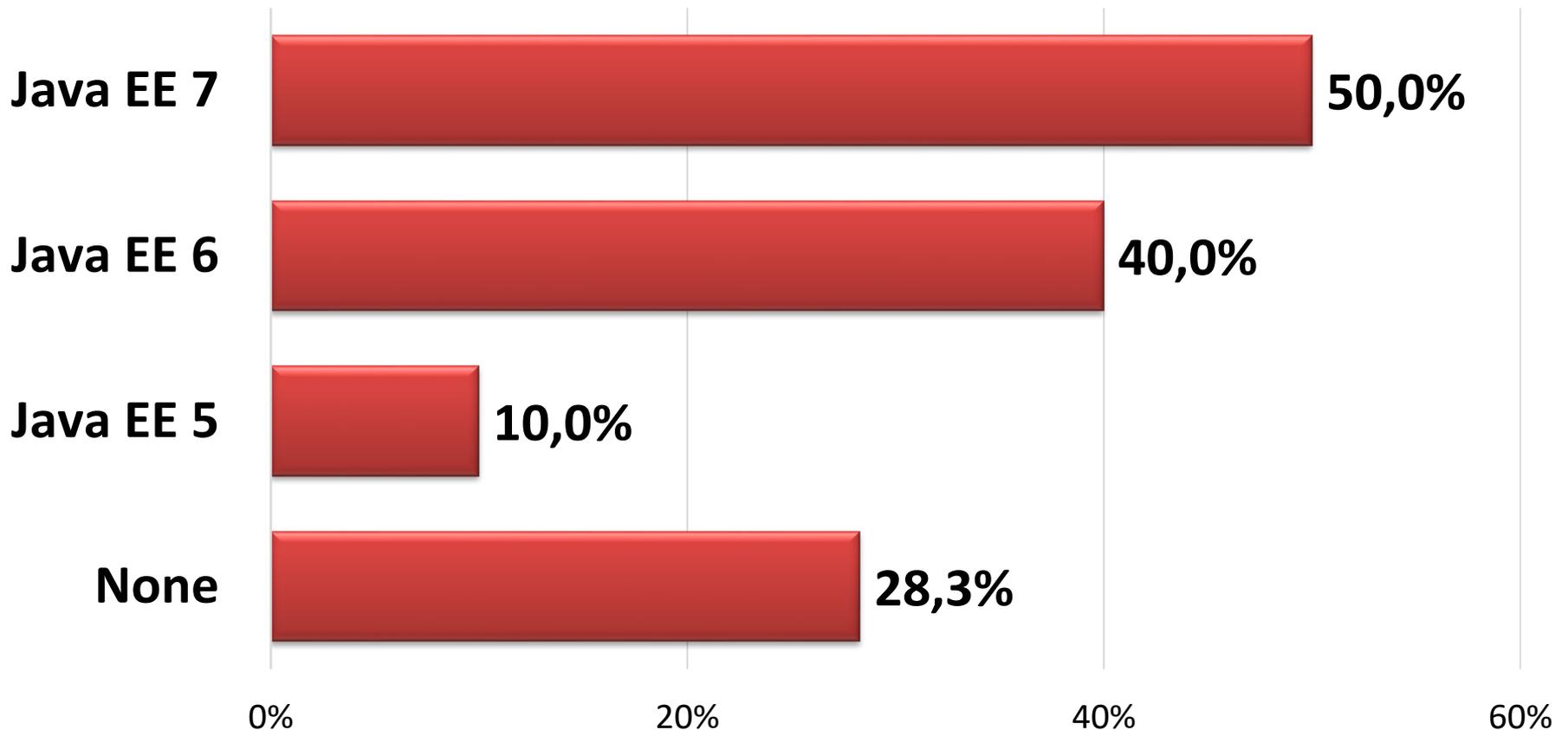
# Latest News

- **Java SE 8u131** released **April 18, 2017**
  - Next Critical Patch Update is in **July 18, 2017**
- **JDK 9 – General Availability July 27, 2017**
  - **Early Access Release Build 168**
  - IDE support
- **Modularity** in Java 9 (or not?)
  - Concerns regarding Jigsaw – Red Hat, Maven, et al.
    - Articles by Scott Stark, Mike Hearn, Gabriela Motroc...
  - IBM and Red Hat **voted "no"** to Jigsaw



# Survey – Java EE

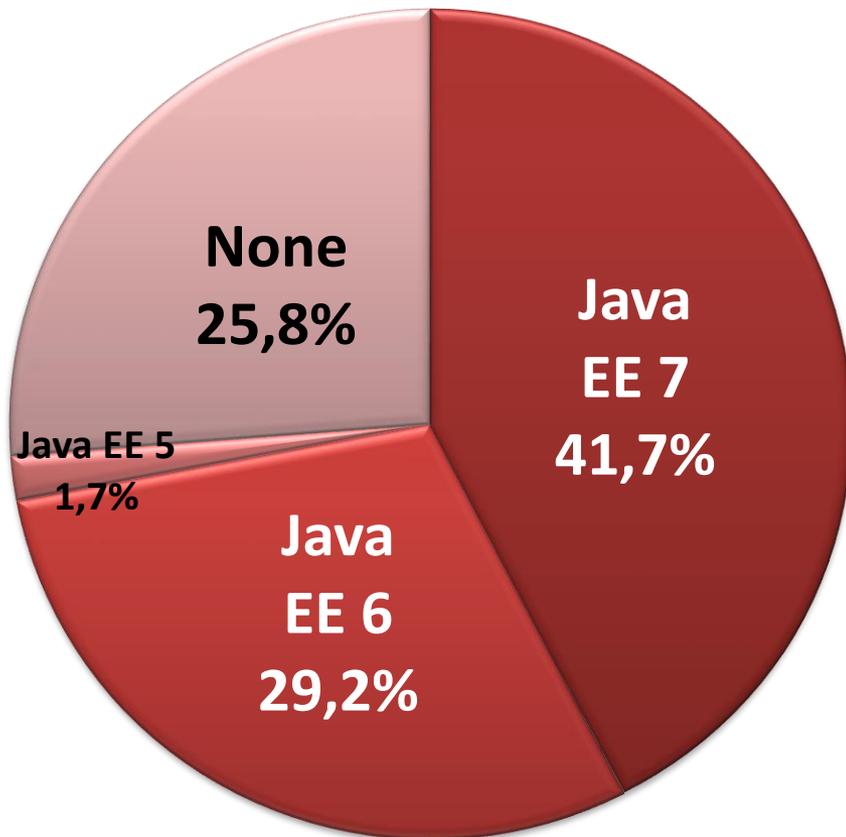
- Java EE platform **versions** you use in projects



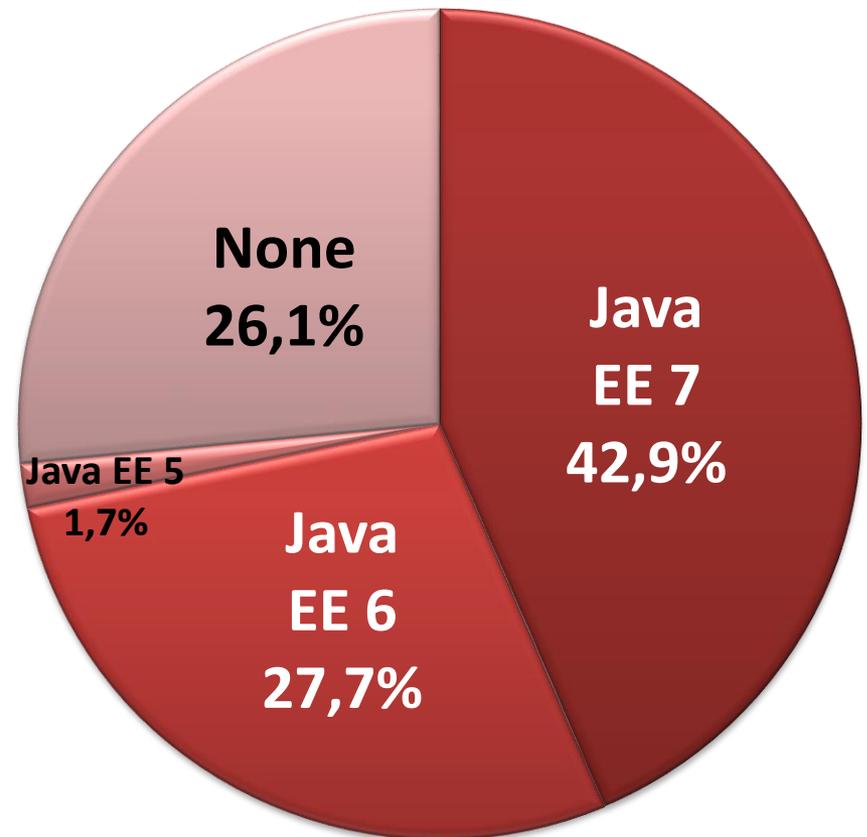


# Survey – Java EE versions

- **In Production**

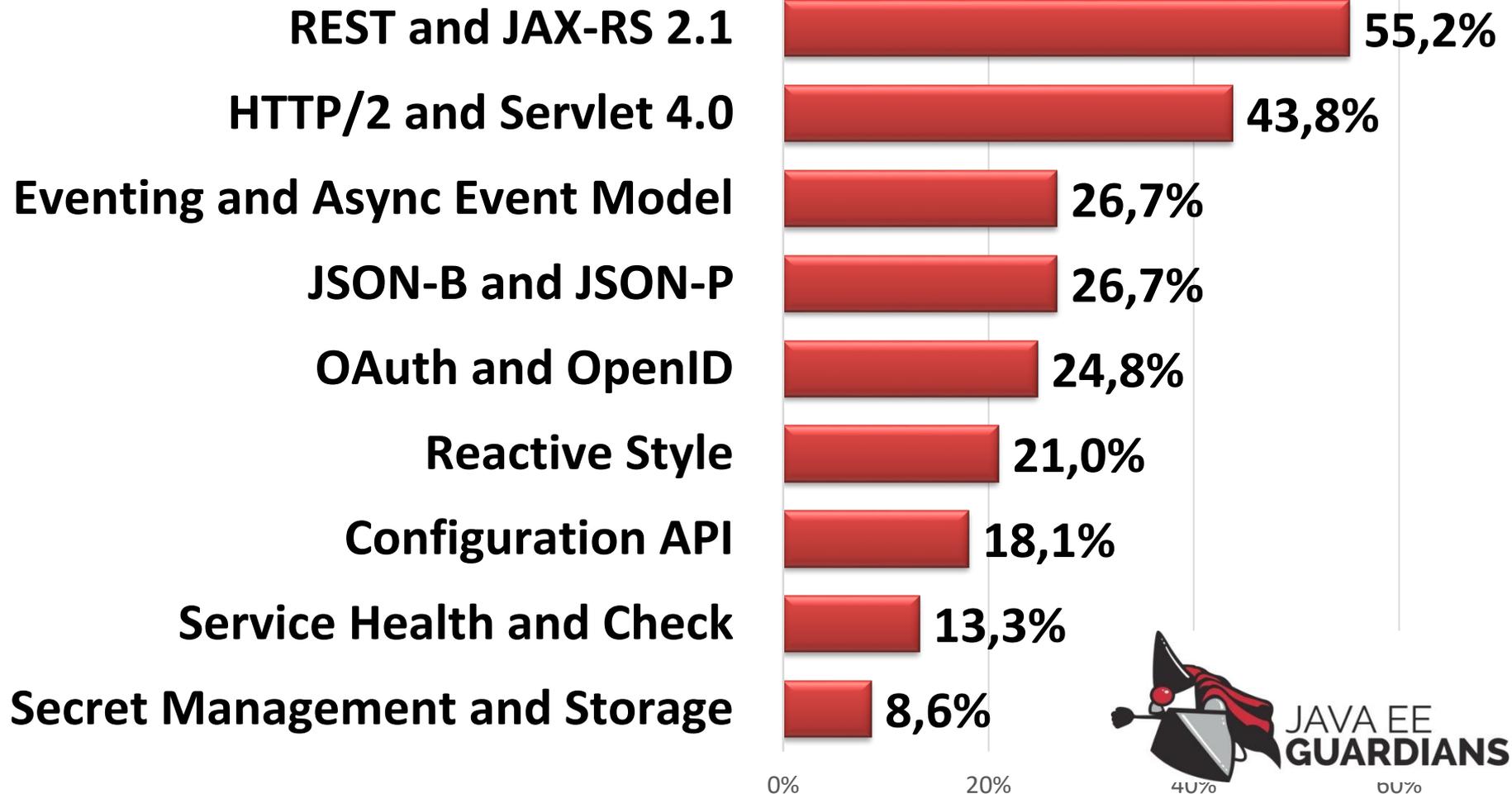


- **In Development**



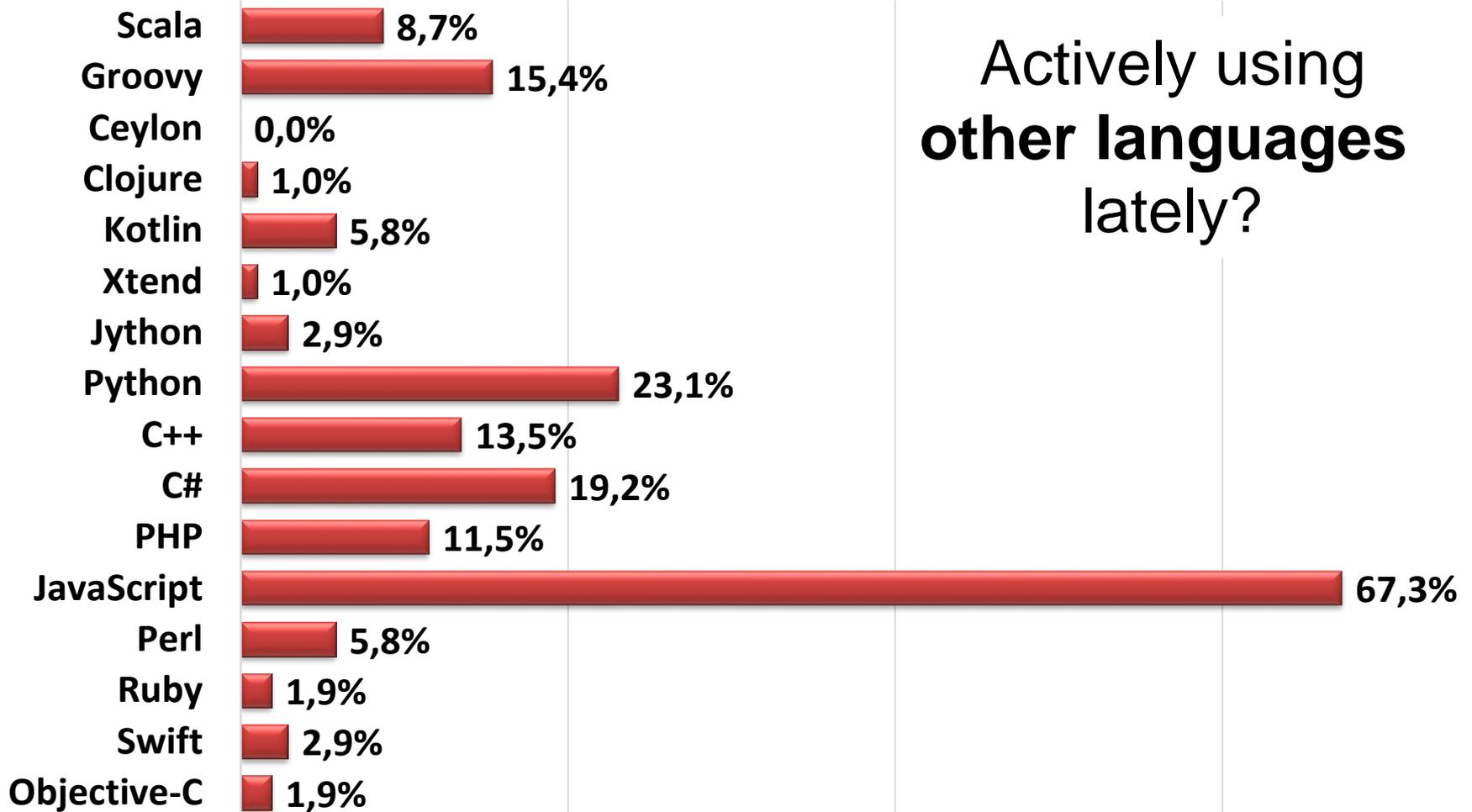


# Looking Forward to Java EE 8





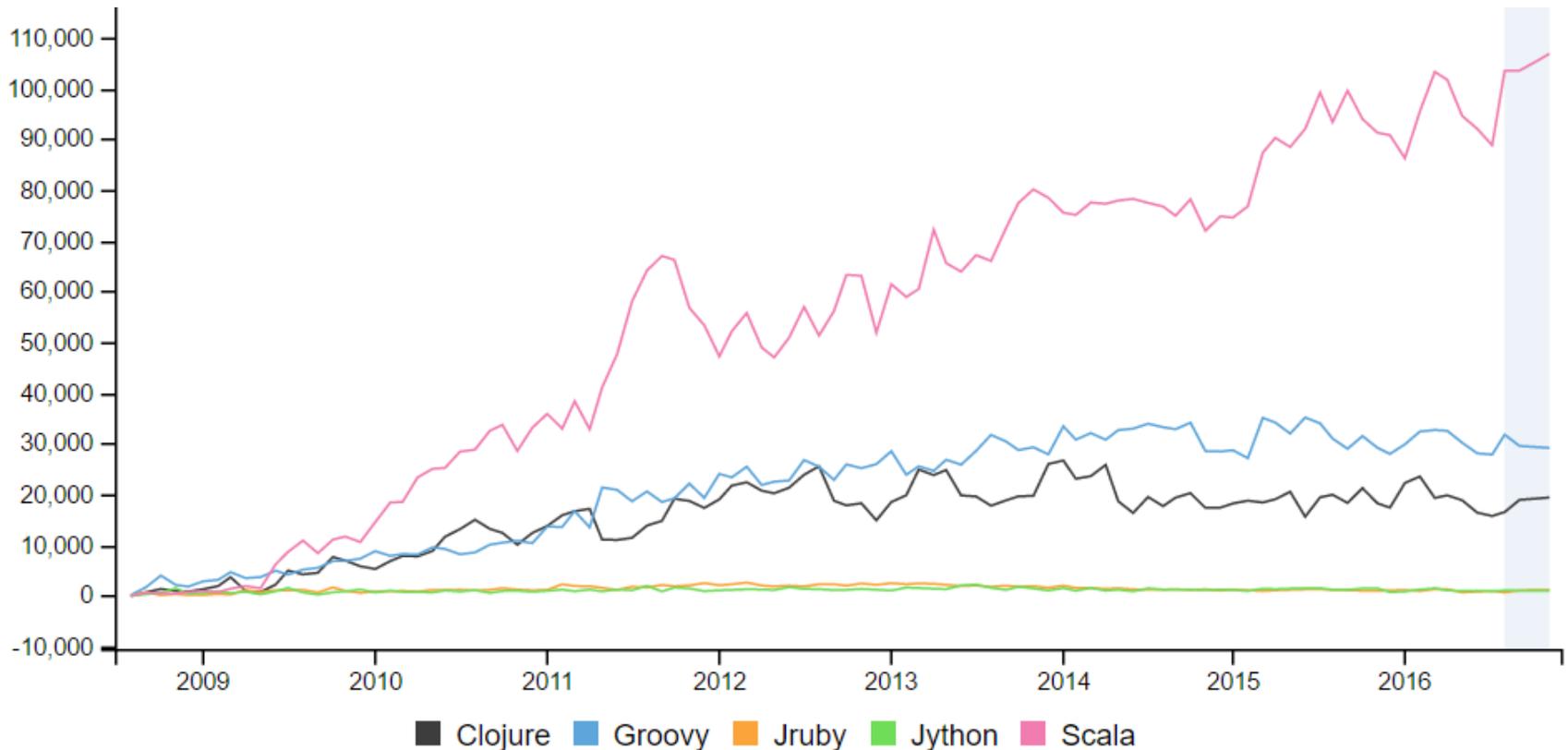
# Survey – Other Languages





# Popularity of JVM Languages

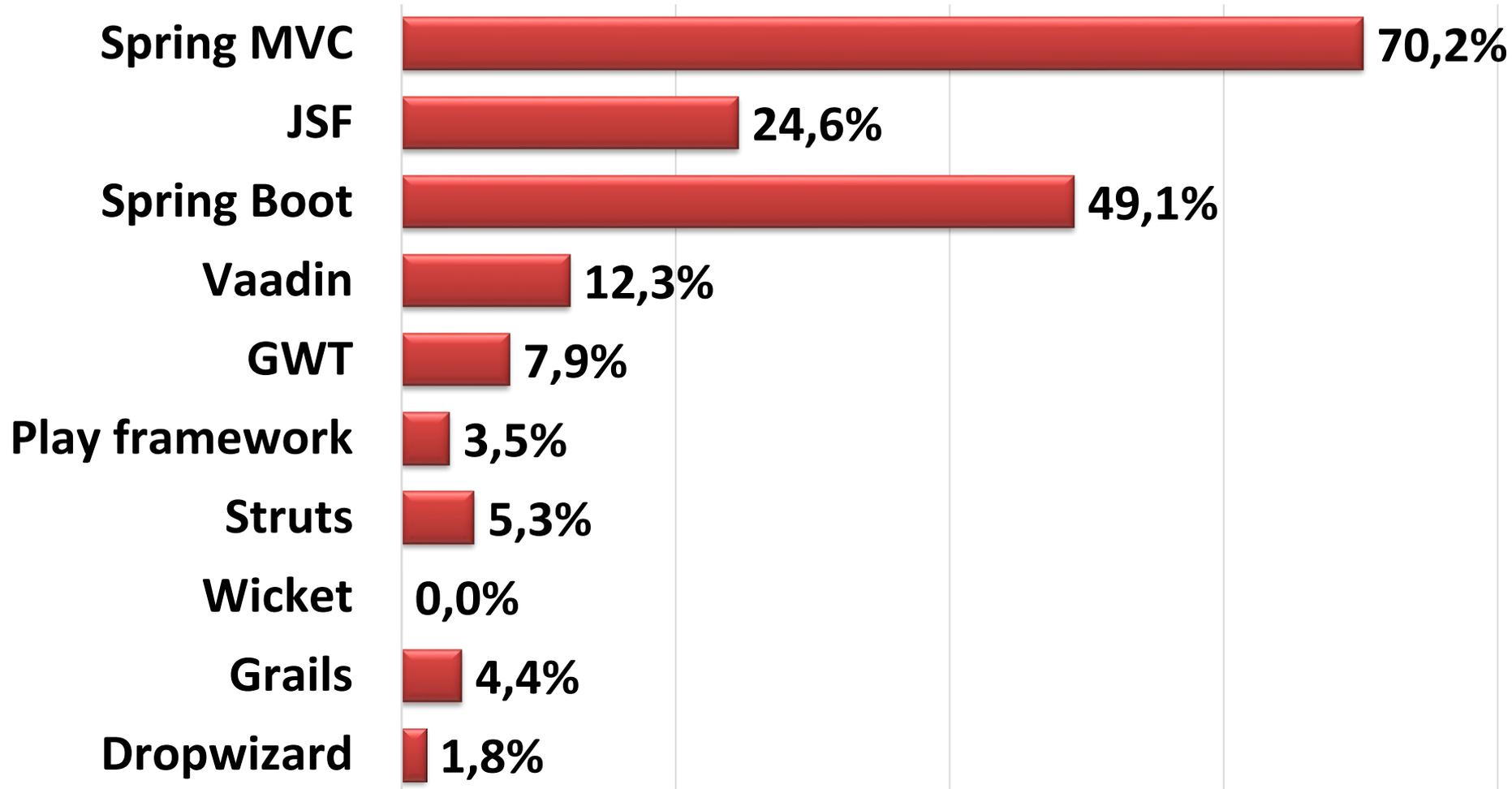
- **JVM Language Ranking** from **StackOverkill**



Source: JVM Language Ranking, [www.stackoverkill.com/ranking/jvm-langs](http://www.stackoverkill.com/ranking/jvm-langs), StackOverkill, May 2017



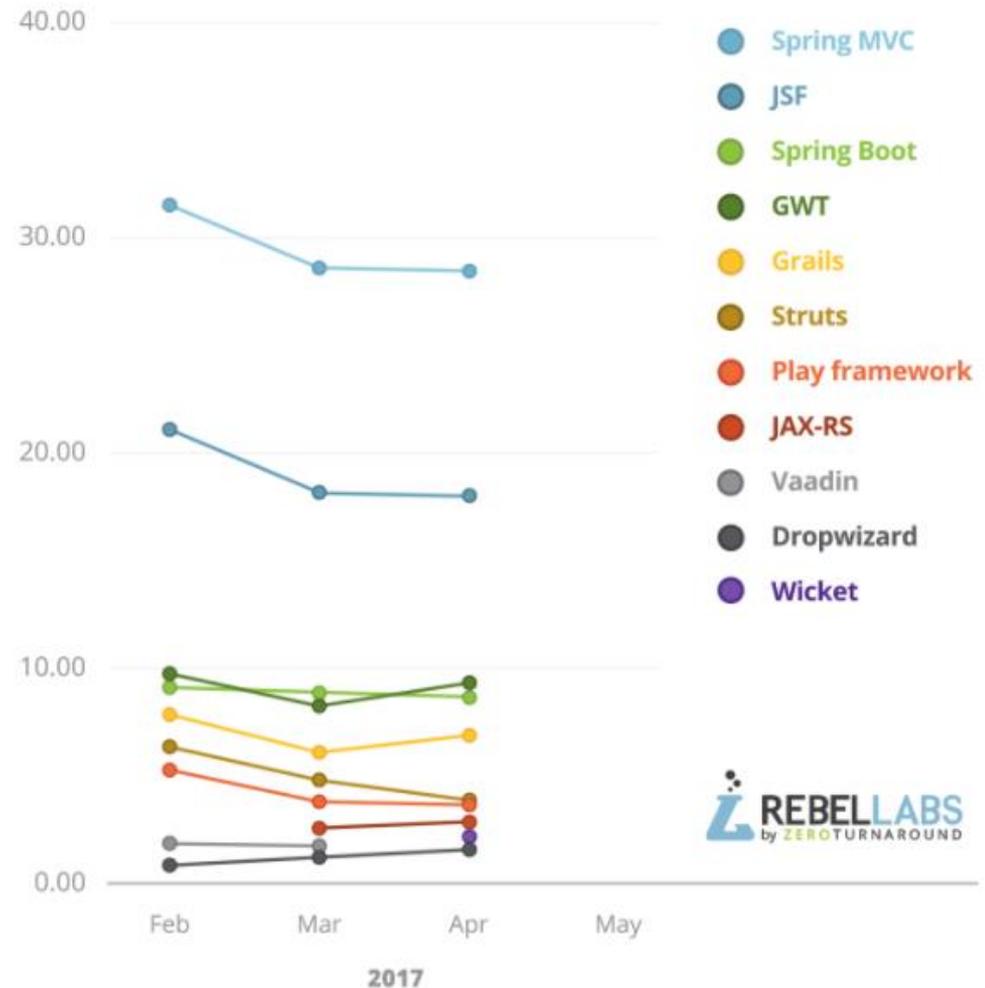
# Survey – Web Frameworks





# Web Frameworks

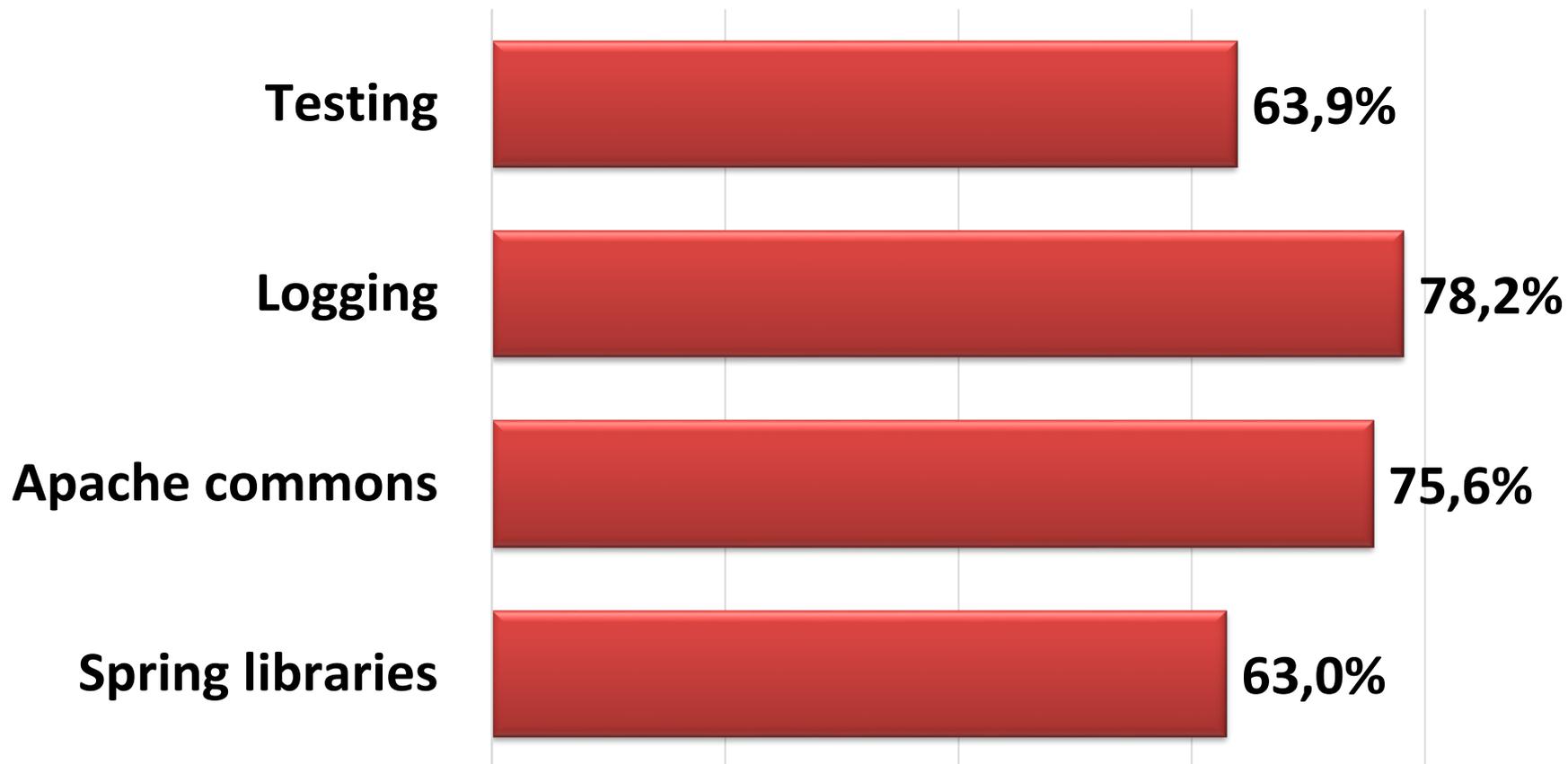
- **Web Frameworks Index Top 10** by RebelLabs (ZeroTurnaround)
- Public data from StackOverflow, LinkedIn, GitHub, and Google search





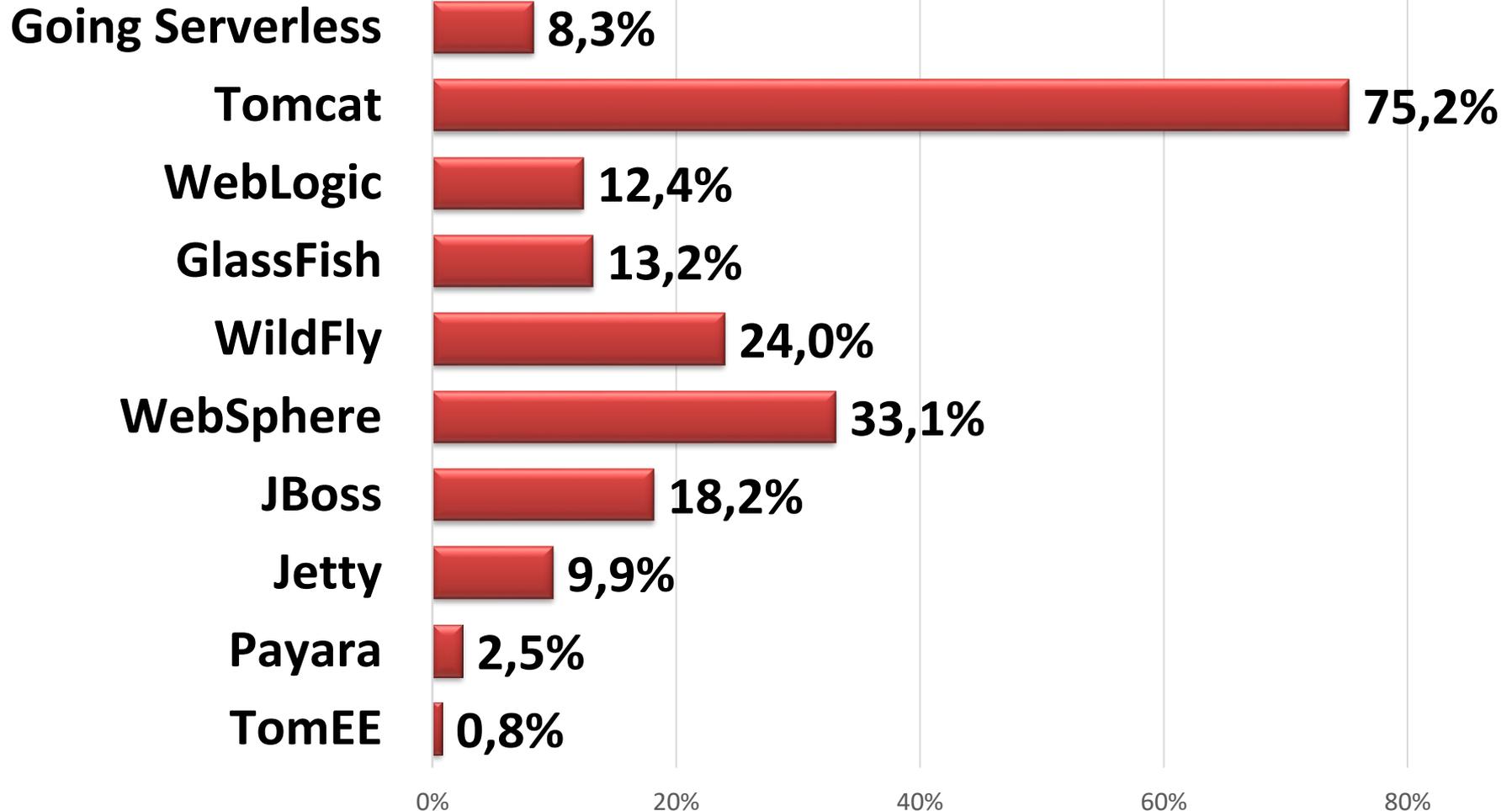
# Survey – Libraries

- **Libraries used commonly**



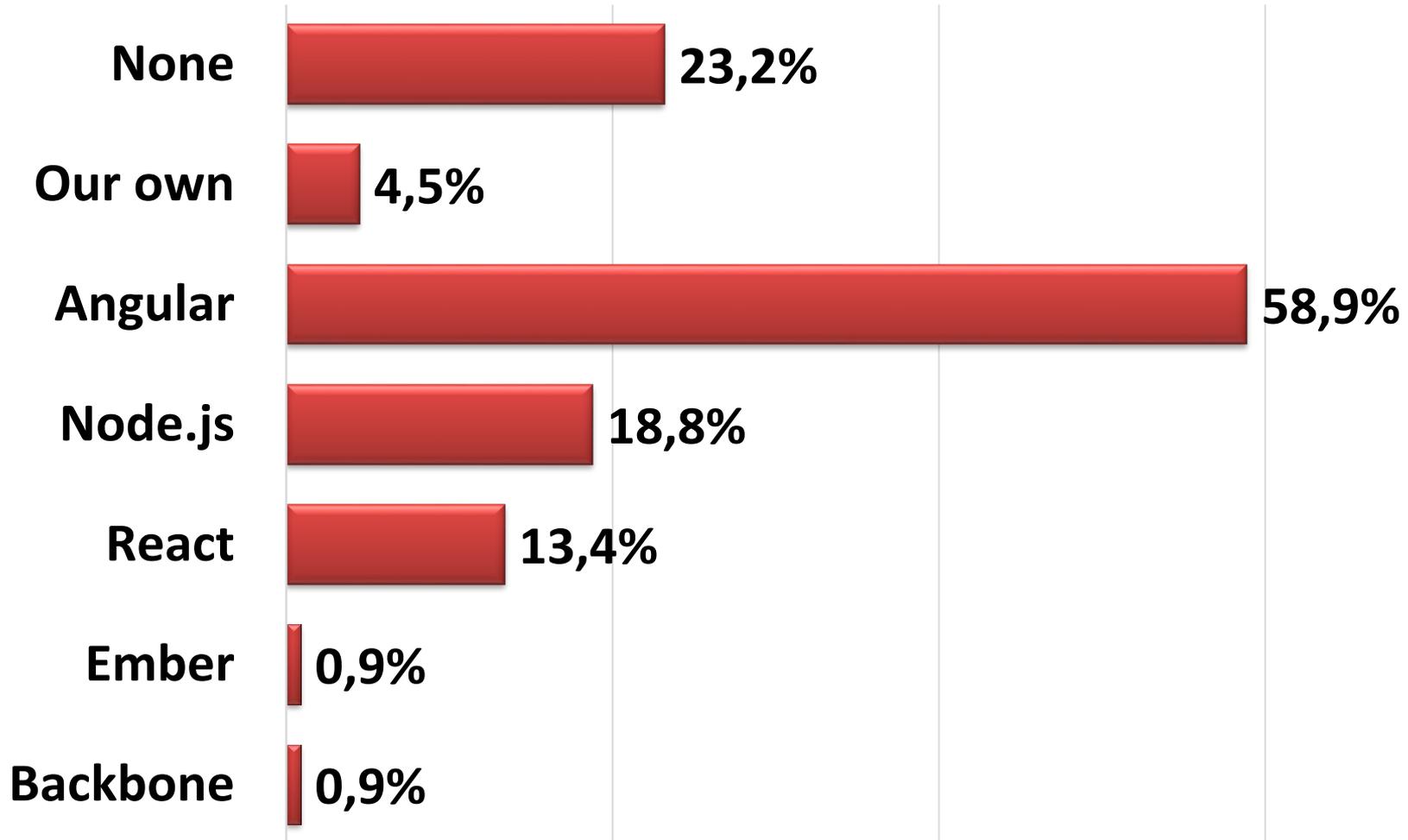


# Survey – App Servers





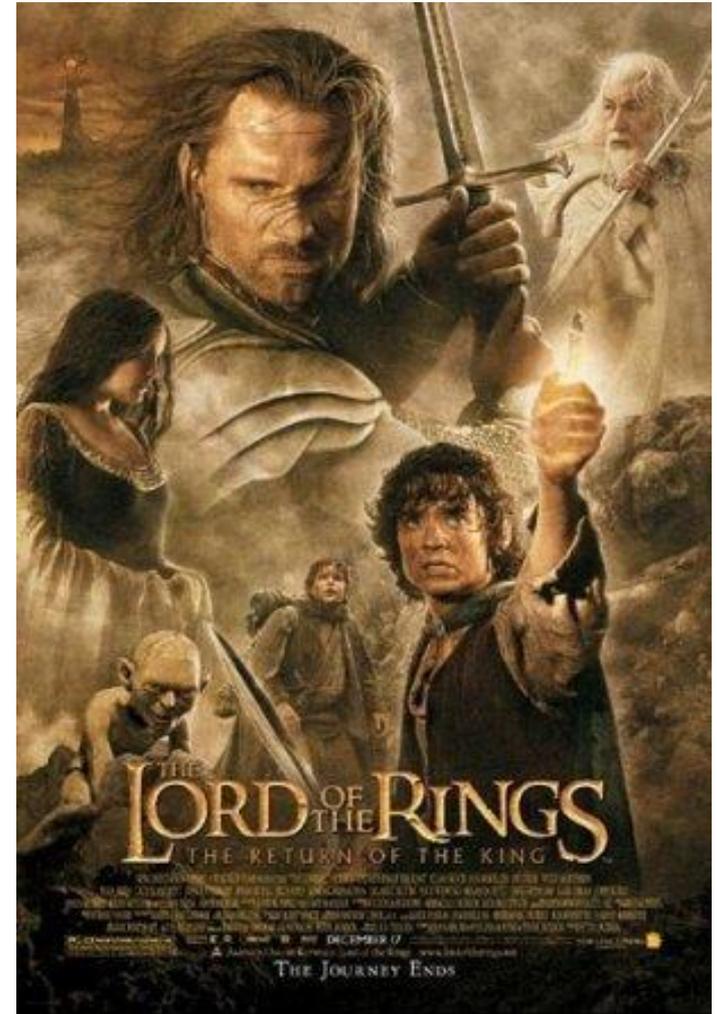
# Survey – JavaScript Frameworks





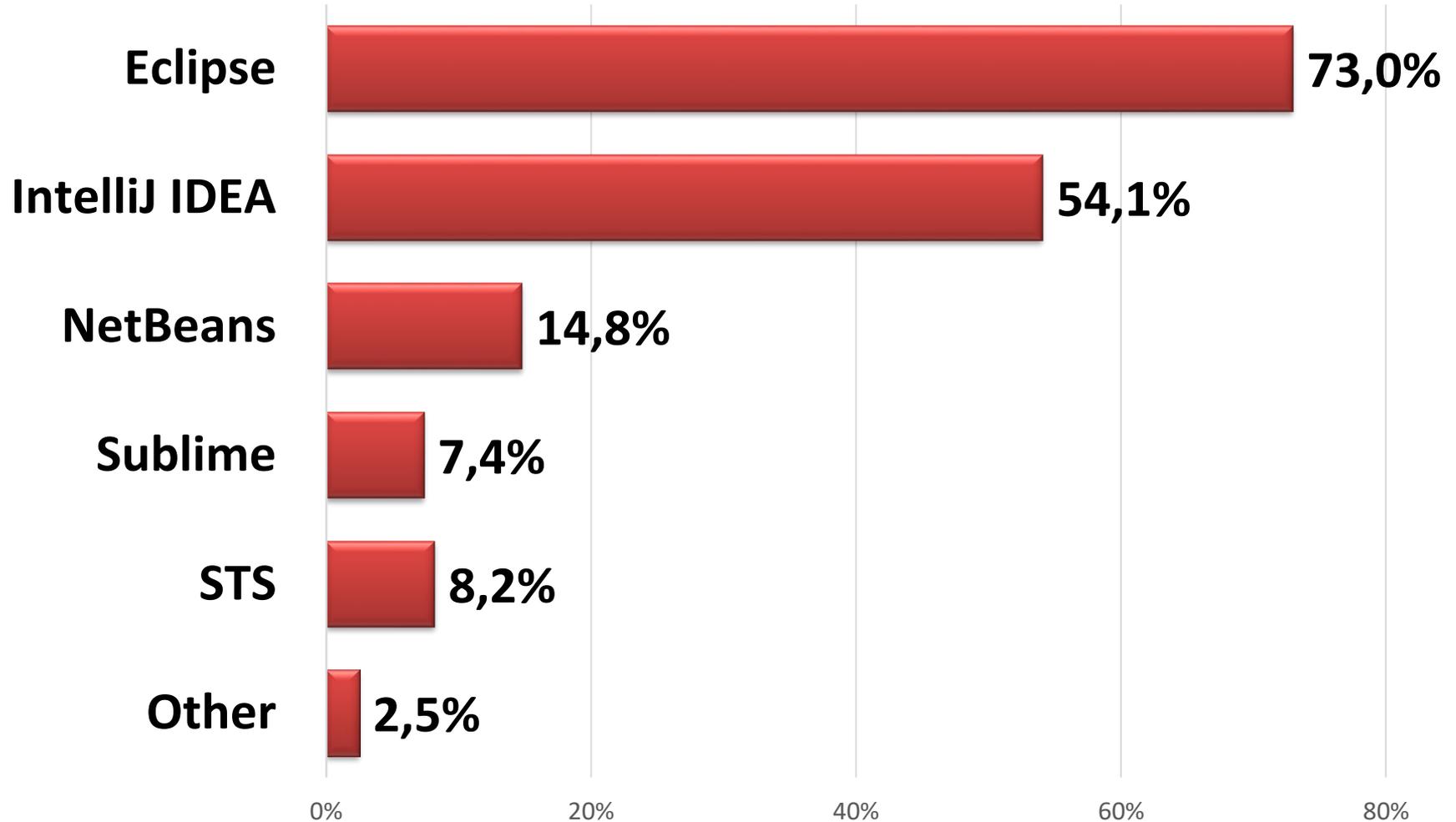
# The Return of the Java King

- What about **Tooling**?
  - IDEs
  - Build tools
  - CI
  - Version Control
  - Profilers
  - APMs
  - Virtualizations
  - Containers





# Survey – IDEs





# Survey – Build Tools

**Maven**

**87,9%**

**Gradle**

**25,2%**

**Ant**

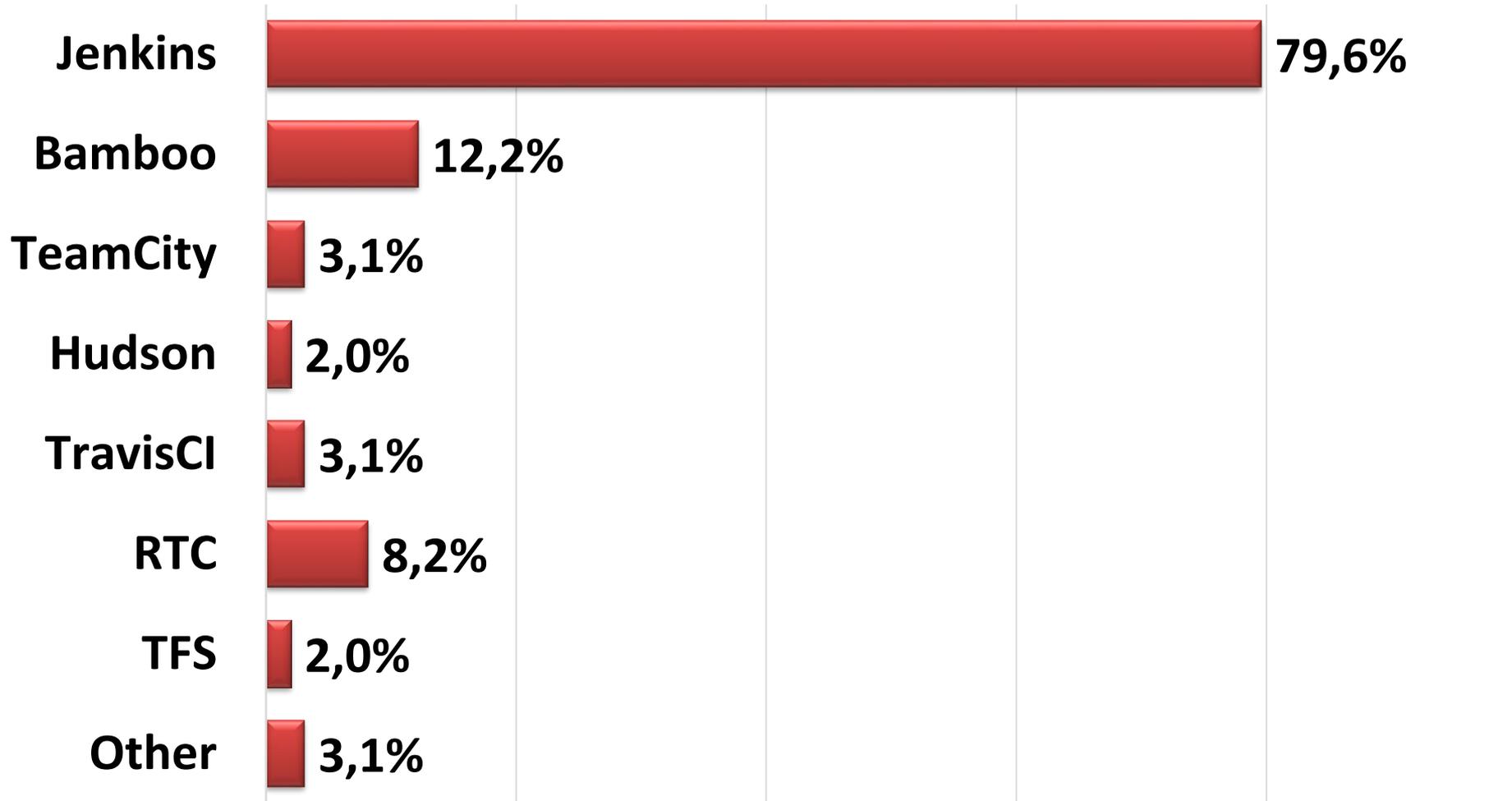
**23,3%**

**Other**

**4,3%**

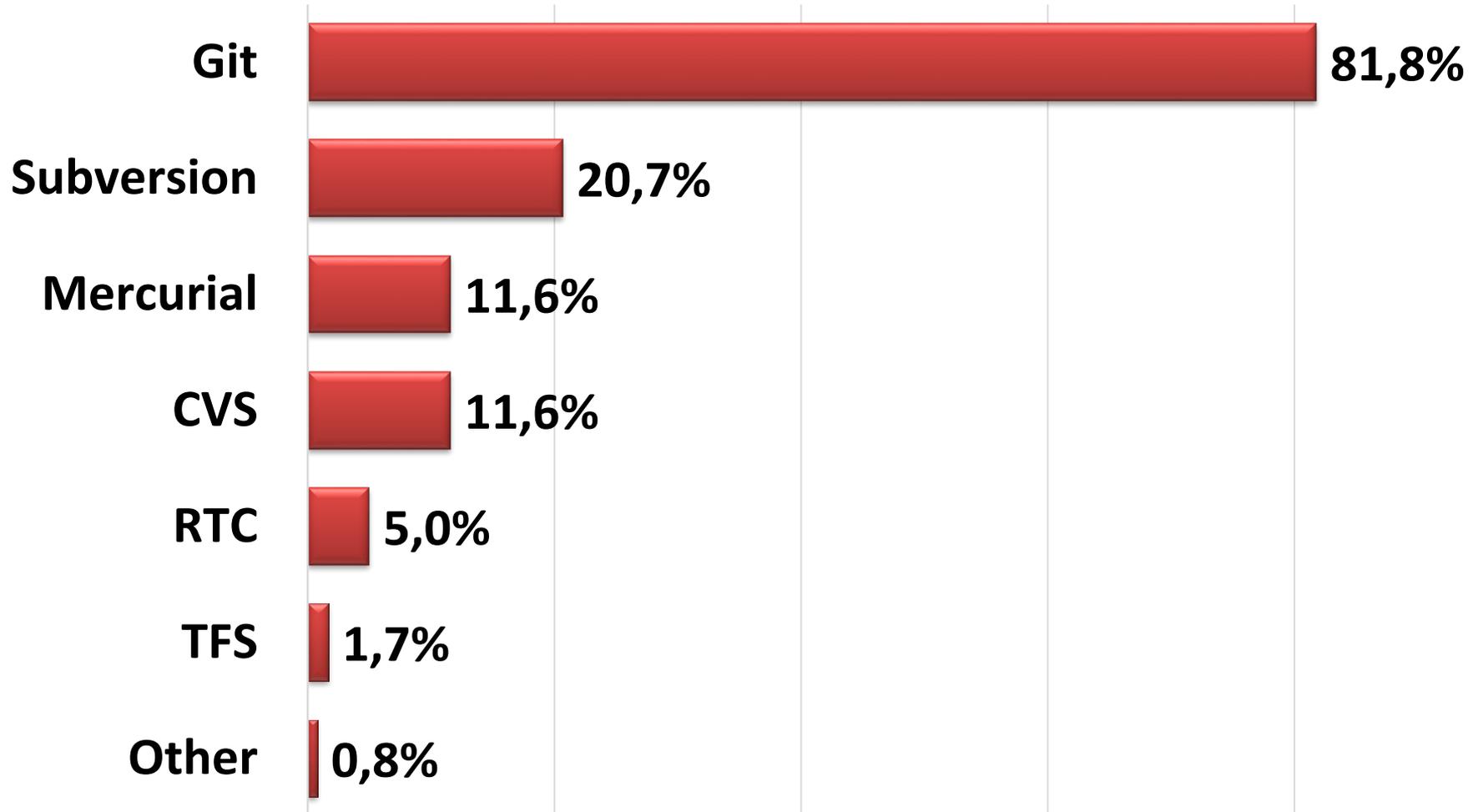


# Survey – Continuous Integration



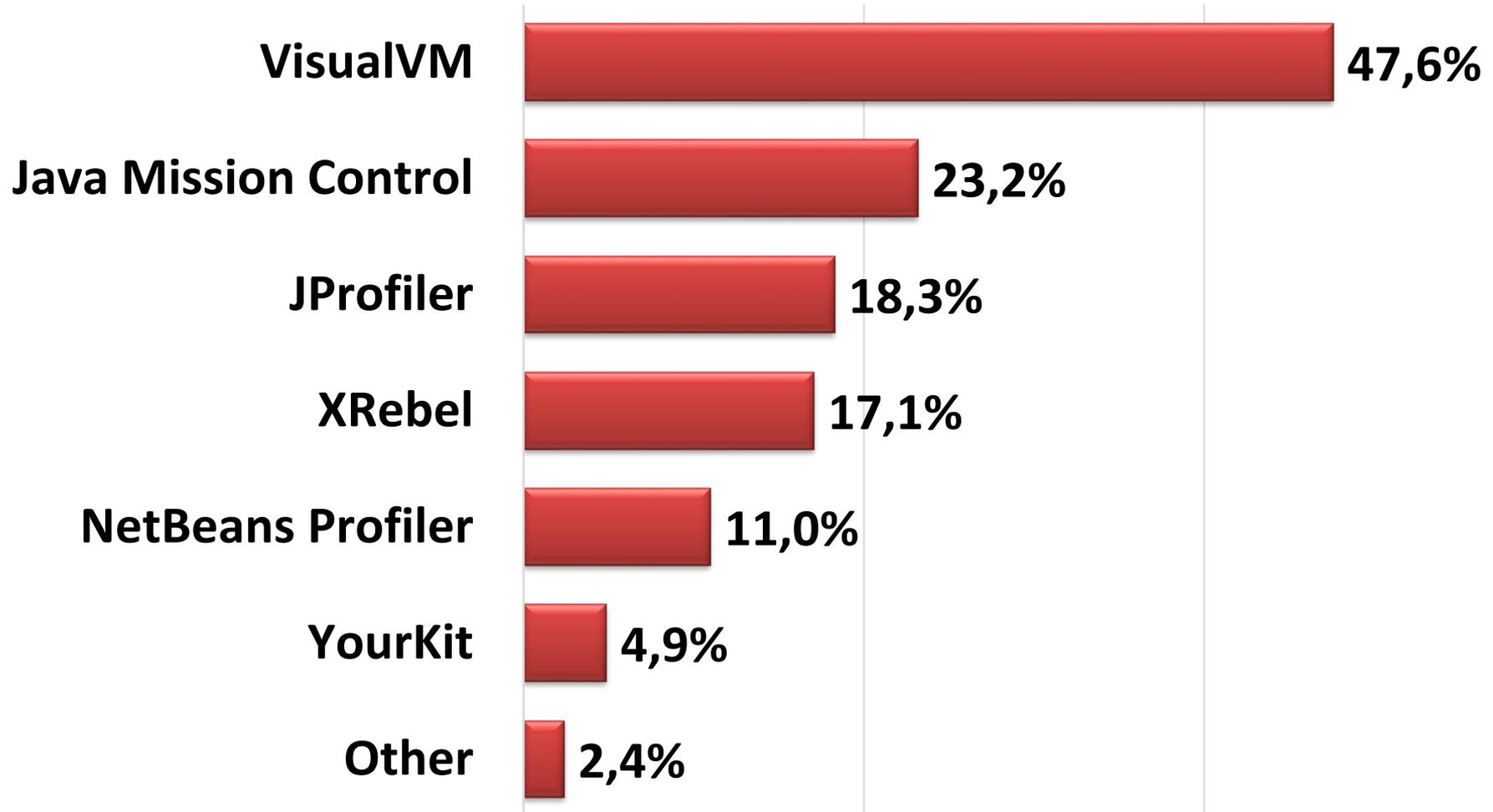


# Survey – Version Control



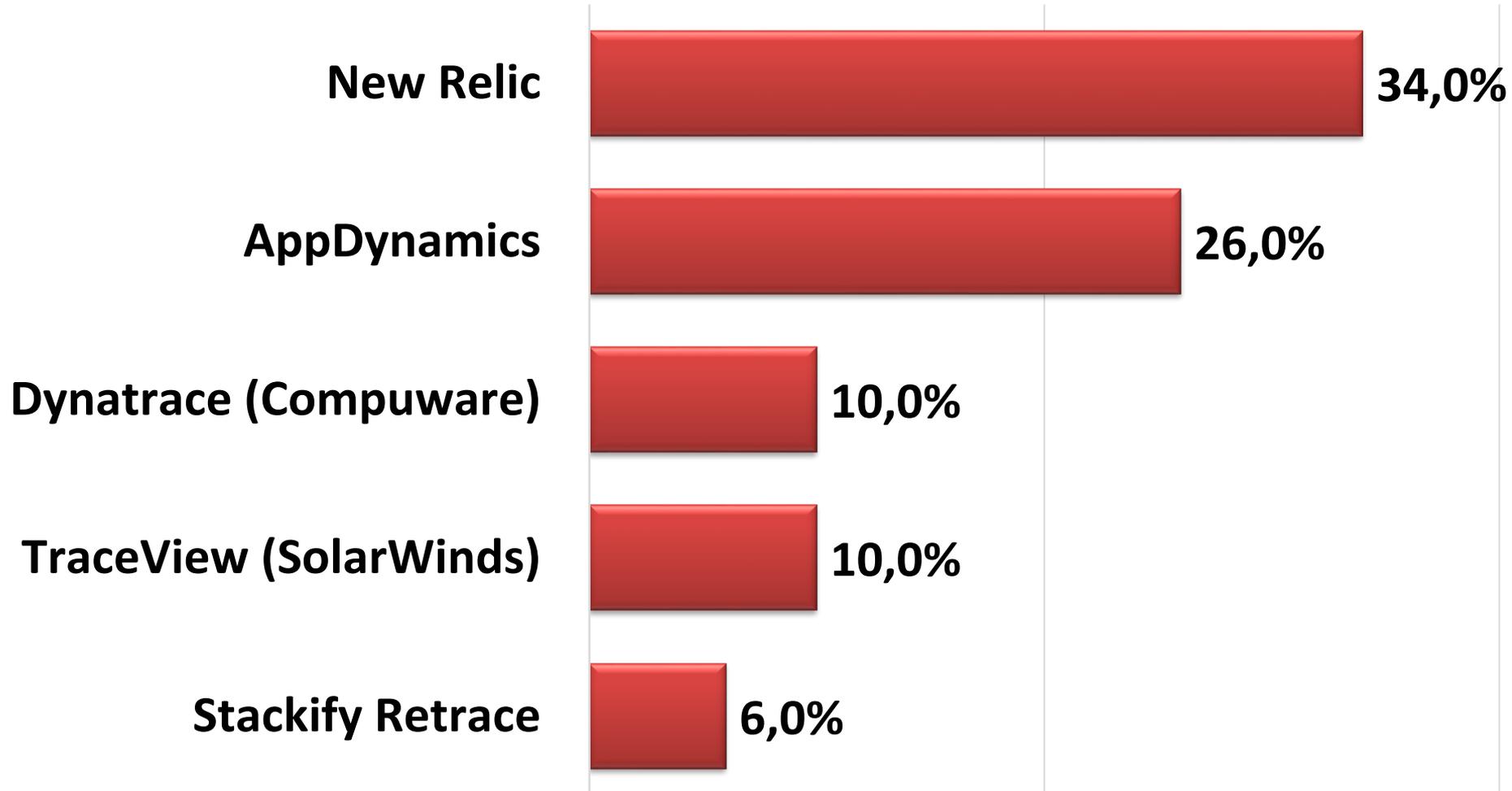


# Survey – Profilers



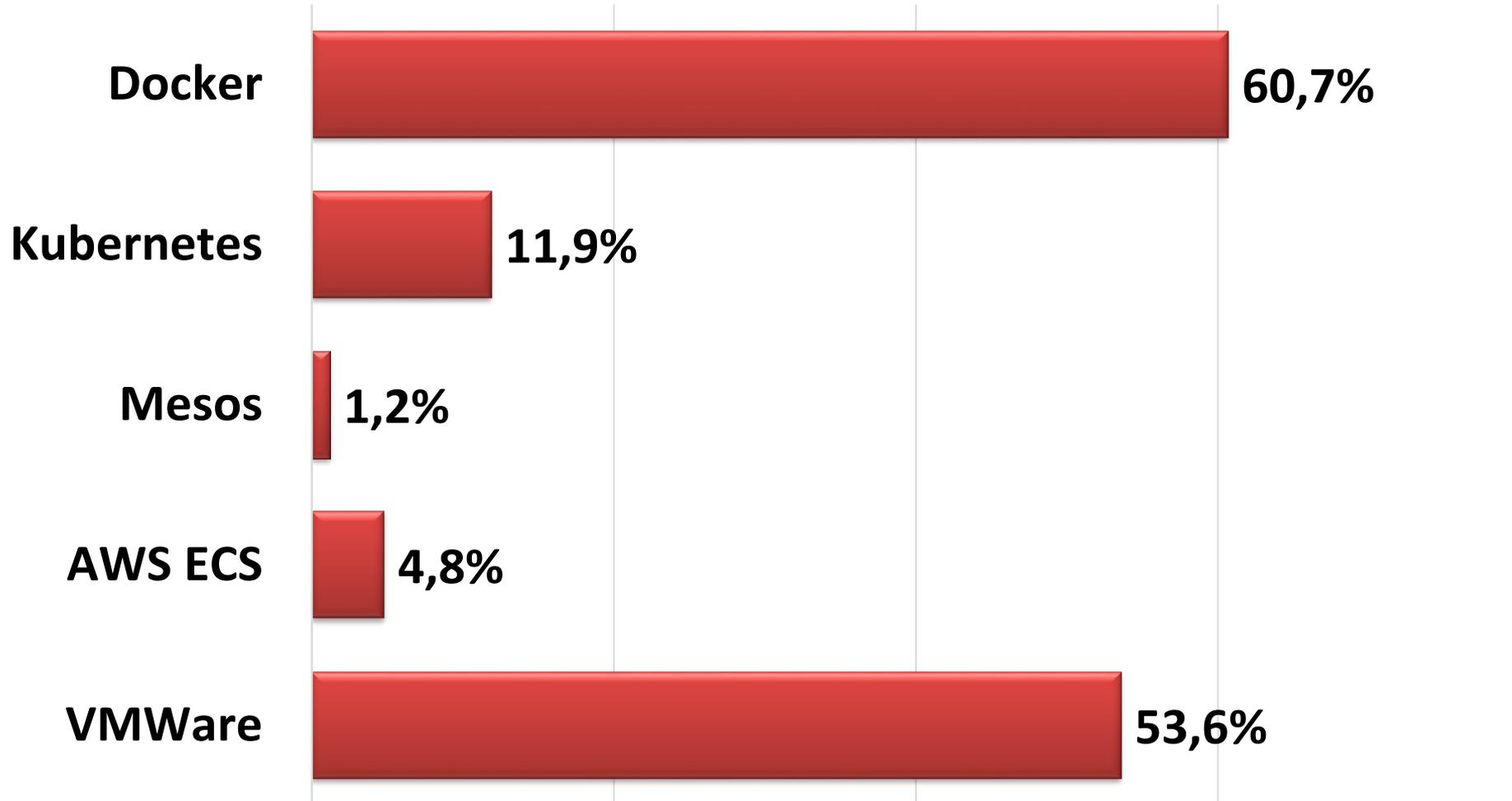


# Survey – APMs





# Virtualization and Containers





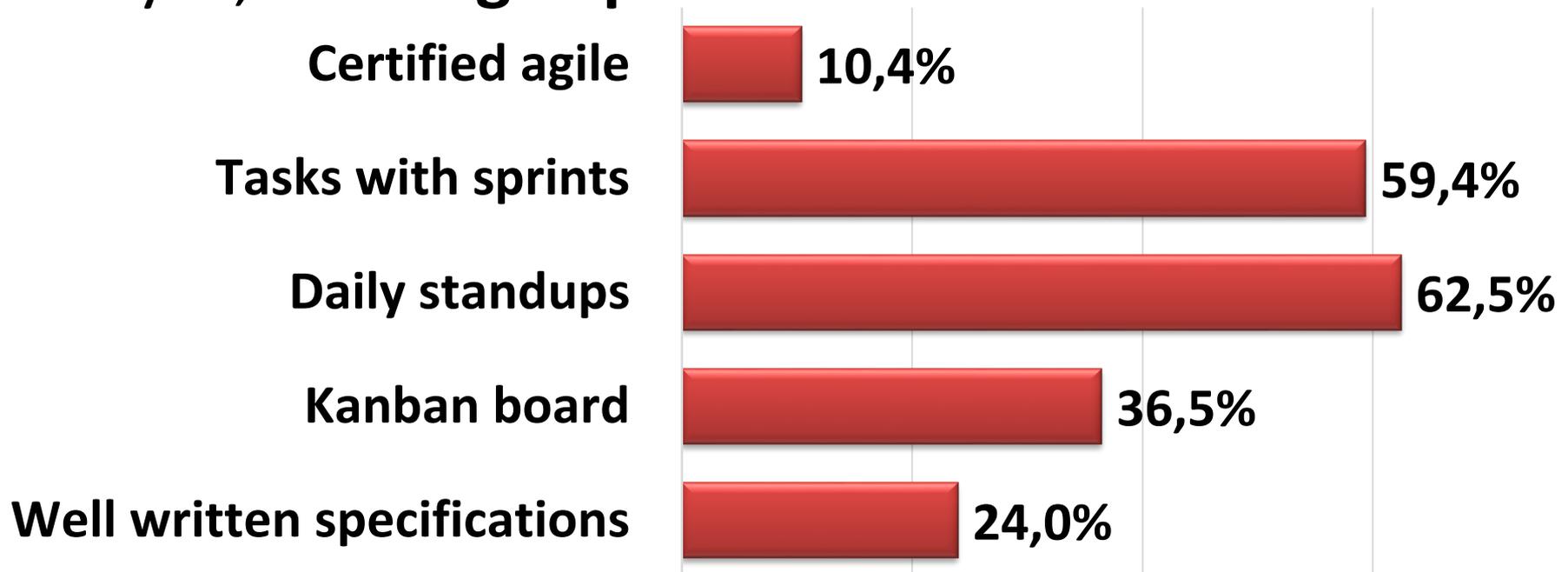
# Survey – Microservices

- Using microservices? – **32,5% Yes**
- If yes, is using microservices making **development easier?**
- **47,9% Yes, 38% Same as before**
- If no, do you intend to use microservices **in the future?**
- **58,3% Yes, 34% I don't know**



# Survey – Agile

- Using **agile** methodologies? – **74,8% Yes**
- If not, do you **intend to?** – **78,5% Yes**
- If yes, what **agile practices?**





# JavaCro'17 Survey – Conclusion

- Right now use **Java 8** and **Java EE 7**
- New features – wait for **Java 9** and **Java EE 8**
- Try new languages – **Scala** or **Groovy**
- **"Safe" choices:**
  - Frameworks – **Spring MVC & Spring Boot**
  - App servers – **Tomcat**
  - IDEs – **Eclipse** or **IDEA** or (**NetBeans**)
  - Build tools – **Maven** or (**Gradle**)
  - CI – **Jenkins**
  - Version control – **Git**
- Try **microservices**



# Open Source & Volunteering

- Involved in **open source**? – **14,5% Yes**, **22,2% intends to**
- If yes, how many projects? – **62,1% only 1**
  - Others from 2 to 6 projects, only one more than 10
  - Sling, Samza, Kubernetes, Enmasse, PanBI, GWT, Material Design, SportChef, Moodini...
- **Volunteering?** – **10,1% Yes**
  - If yes, where? – HUIJAK, Agile Croatia, Openblend, Programerko, JUG.ch, HackerGarten.net, OpenHeart, Biciklisti, ZAMAH...



# Where Else to Learn to Code

- **Popular online learning resources:**
- freeCodeCamp
- CodeAcademy
- Coursera
- Udemy
- KhanAcademy
- PluralSight
- EdX
- Udacity
- OdinProject
- CodeWars
- DevTips
- TreeHouse
- The New Boston
- Lynda.com



# IT/CS education in Croatia

- Where to **study IT/CS** in Croatia?
  - **15 cities:** Čakovec, Dubrovnik, Krapina, Križevci, Osijek, Pula, Rijeka, Sisak, Split, Šibenik, Varaždin, Velika Gorica, Zabok, Zagreb, Zaprrešić
- **33 different institutions** including
  - 6 public/state universities
  - 13 private colleges
- **80+ IT/CS/SE/CE programs**
  - Undergraduate (3-4 years)
  - Graduate level (1-2 years)
  - Doctoral (PhD) level
  - Specialist level





# Java Conferences in Croatia

Conference	Location	Date	Sessions	Tracks	Attendees	Countries
JavaCro'17	Rovinj	10.-12.5.2017.	50	5	280	15
Javantura v4	Zagreb	11.2.2017.	27	3	300	-
HrOUG 2016	Rovinj	18.-22.10.2016.	7 (od 96)	1 (od 9)	450	11
JavaCro'16	Rovinj	18.-20.5.2016.	56	5	260	15
Javantura v3	Zagreb	20.2.2016.	23	-	300	-
JavaCro'15	Rovinj	10.-12.5.2015.	46	5	200	11
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HrOUG 2012	Rovinj	18.-20.10.2012.	11 (od 114)	1 (od 7)	370	15
WebCamp 2012	Zagreb	24.11.2012.	24	-		-
Java 2012	Tuhelj	29.-30.5.2012.	34	7	170	-
HrOUG 2011	Rovinj	18.-22.10.2011.	12 (od 96)	1 (od 9)	460	11

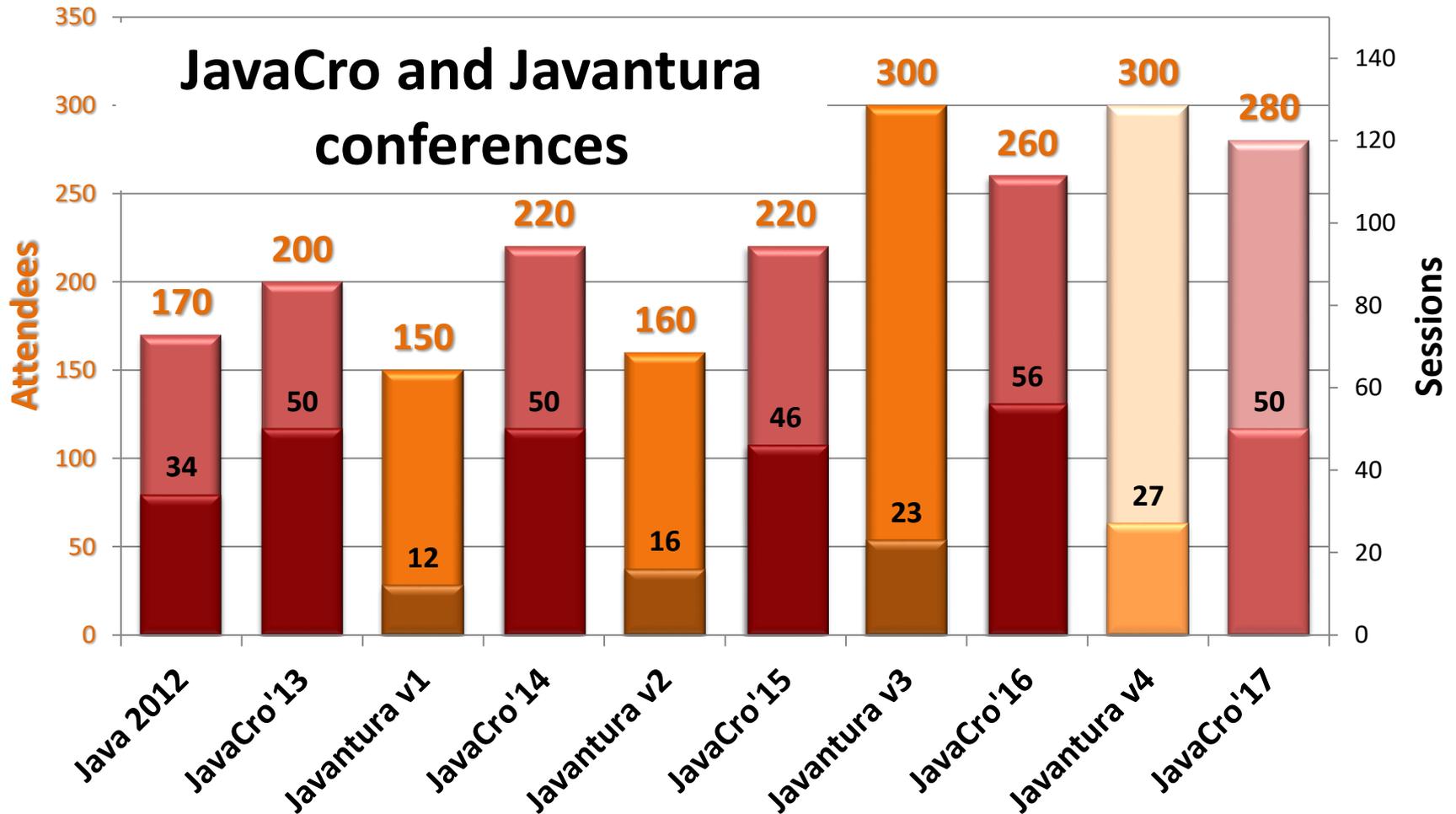
We (co-)organized **16 conferences !!!**



**#Javantura #JavaCro #HrOUG #proud**



# And we are growing 😊





# Conferences HUJAK supports



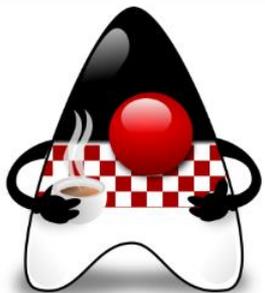


# 45+ company members



# Thank you!





# Partners & Friends



hrvatska udruga oracle korisnika



HRVATSKA AKADEMSKA I ISTRAŽIVAČKA MREŽA



HULK

hrvatska udruga linux korisnika





# Prizes and Giveaways

- Would you like to **receive a prize** for answering so many questions? :-) – **only one No** 😊



- Manning offered us **40% discount** on **all books**  
[www.manning.com](http://www.manning.com) use code: **ctwjavacro17**
- And now... **prizes and giveaways!!!**



# Thank you & greetings from HUJAK!

- Web page **hujak.hr**

- [www.hujak.hr](http://www.hujak.hr)

- LinkedIn group **HUJAK**

- [www.linkedin.com/groups?gid=4320174](https://www.linkedin.com/groups?gid=4320174)

- Facebook group page **HUJAK.hr**

- [www.facebook.com/HUJAK.hr](https://www.facebook.com/HUJAK.hr)

- Twitter profile **@HUJAK\_hr**

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