

Voll auf die 11 – von J2EE zu Jakarta EE 11

Expertenkreis Java, 25.09.2025

GEDOPLAN GmbH



Dirk Weil

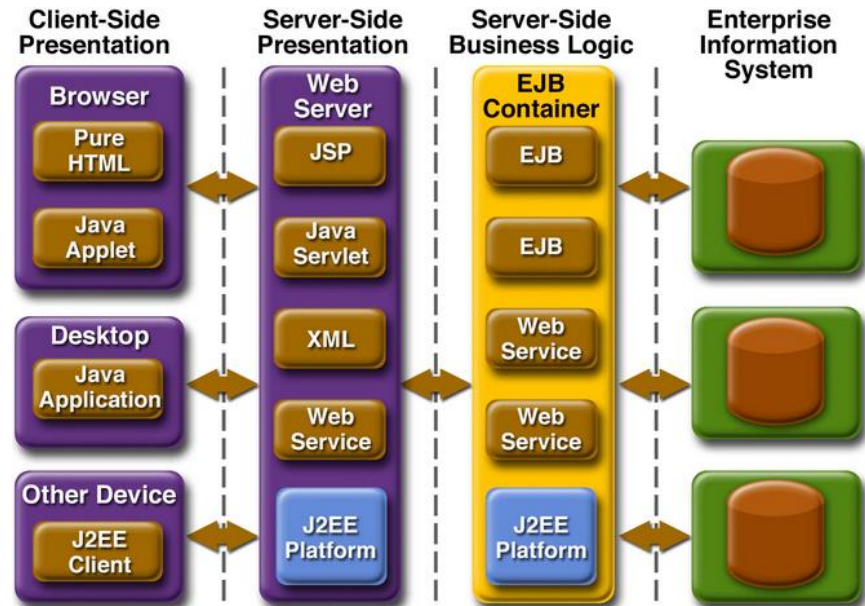
- Studied Informatik at RWTH Aachen
- Living in Bielefeld
- CEO of GEDOPLAN GmbH
- JEE since 1999
- Speaker and author



GEDOPLAN

- Software development, consulting, training since 1979
- Bielefeld and Berlin
- Jakarta EE, Spring Boot, Angular, Kubernetes, ...

1999: J2EE

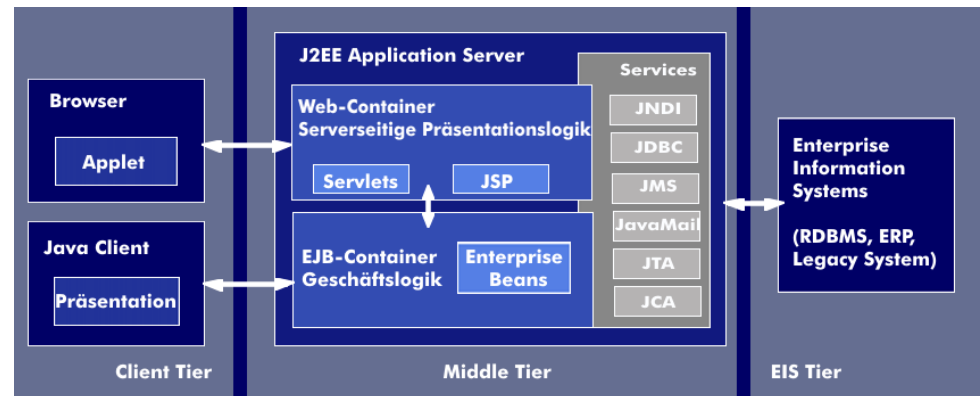


www.oracle.com/java/technologies/appmodel.html

- Umbrella specification
 - Individual specifications ~ ~~Open Source~~ Community Driven

1999: J2EE

- Enterprise JavaBeans



www.itwissen.info/J2EE-Java-2-enterprise-edition-J2EE-Komponentenmodell.html

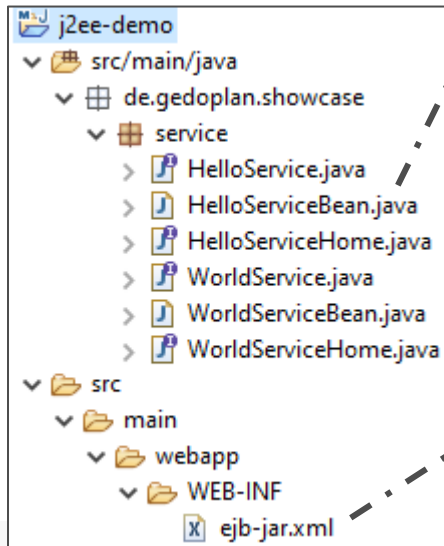
- 😊 Declarative component binding
- 😊 Scopes
- 😊 Declarative transactions control
- 😞 (too) complex (up to EJB 2.1)

1999: J2EE

- Demo

HelloService

WorldService



```

public class HelloServiceBean implements SessionBean {

    private WorldService worldService;

    public String getHello() {
        return "Hello, " + this.worldService.getWorld();
    }

    public void ejbCreate() throws CreateException {
        try {
            InitialContext ctx = new InitialContext();
            WorldService worldService = (WorldService) ctx.lookup("WorldService");
            this.worldService = worldService;
        } catch (NamingException e) {
            // ...
        }
    }
}

```

OLD AS DIRT



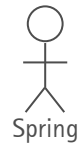
BUT STILL RUNNING

```

<ejb-jar ... version="1.2">
  <enterprise-beans>
    <session>
      <ejb-name>HelloServiceBean</ejb-name>
      <local-home>de.gedoplan.showcase.service.WorldServiceHome</local-home>
      <local>de.gedoplan.showcase.service.WorldServiceBean</local>
      <ejb-class>de.gedoplan.showcase.service.HelloServiceBean</ejb-class>
      <session-type>Stateless</session-type>
      <transaction-type>Container</transaction-type>
      <ejb-local-ref>
        <ejb-ref-name>WorldService</ejb-ref-name>
        <ejb-ref-type>Session</ejb-ref-type>
        <local-home>de.gedoplan.showcase.service.WorldServiceHome</local-home>
        <local>de.gedoplan.showcase.service.WorldService</local>
      </ejb-local-ref>
    </session>
  </enterprise-beans>
</ejb-jar>

```

2006: Java EE 5



Dependency
Injection!

Cool! Let's do that too.
And let's use annotations
instead of XML!

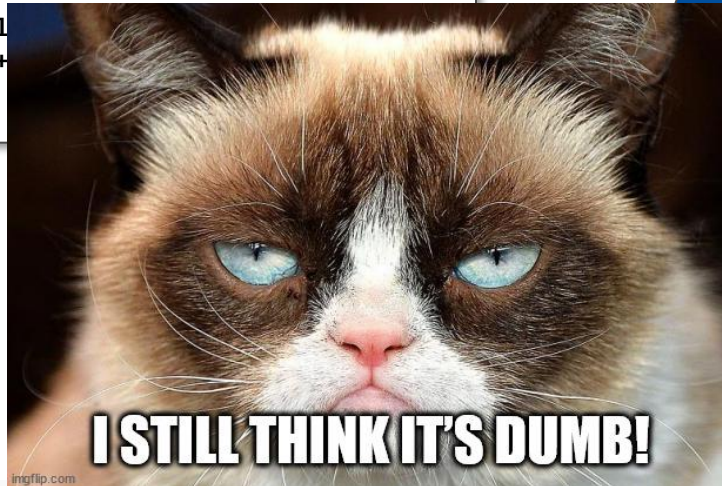


```
@Stateless
public class HelloService {

    @EJB
    WorldService worldService;

    public String getHello() {
        return "Hello, " + worldService.getHello() + "!";
    }
}
```

- no home interfaces
- no local interfaces (3.1+)
- @EJB
- make descriptors optional
- move persistence into JPA

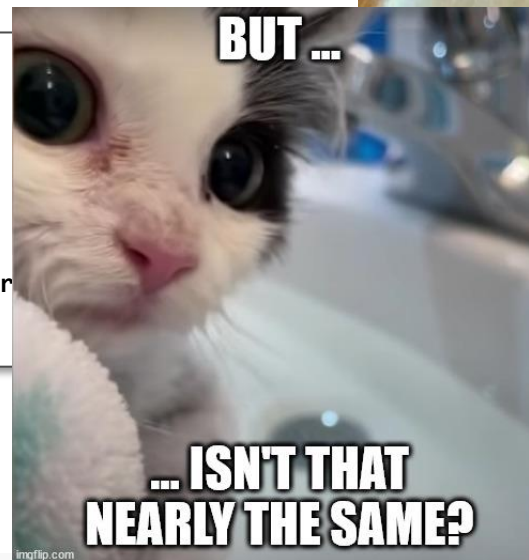


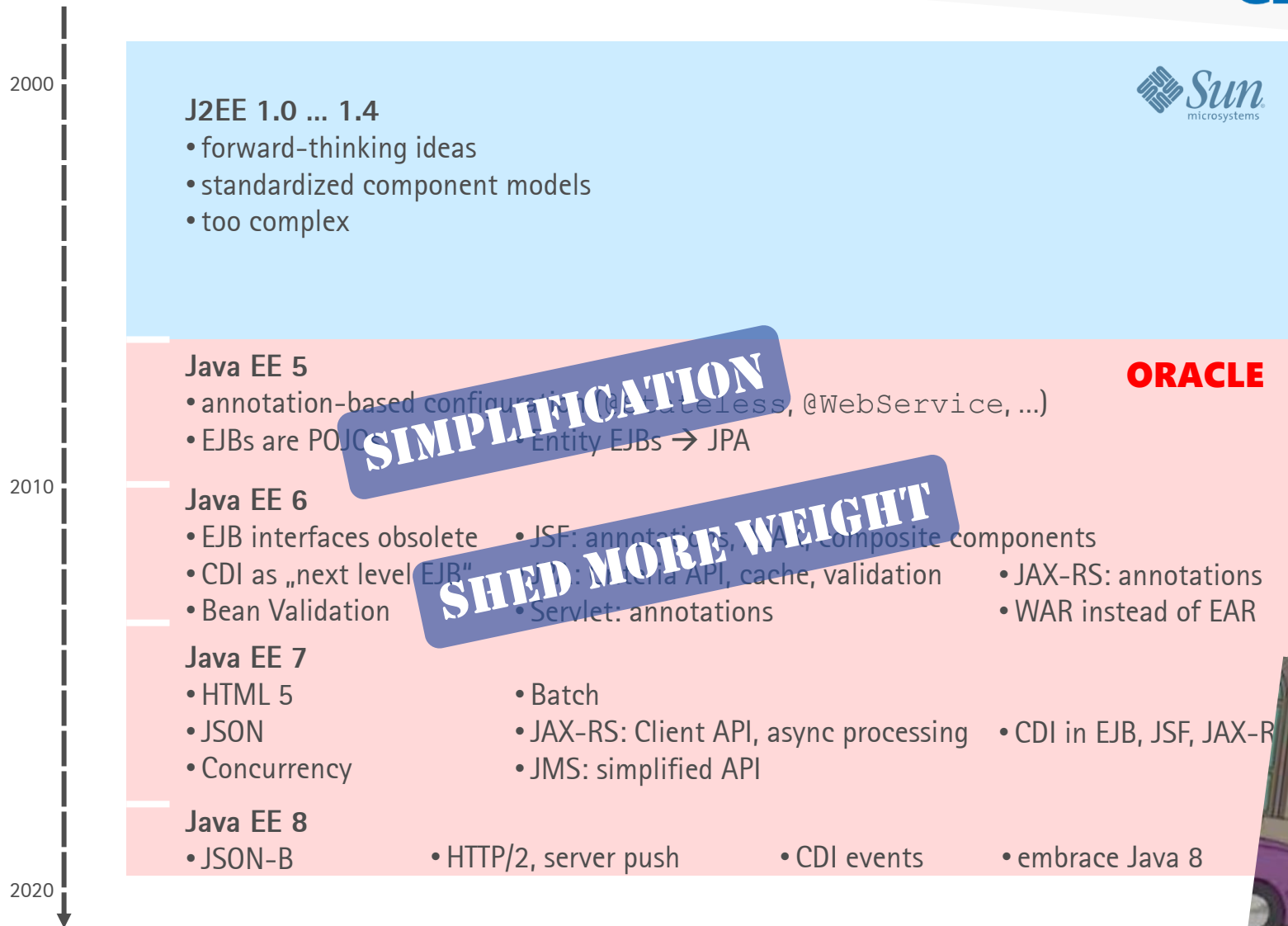
2010: Java EE 6



Ok, let's try a new name:
CDI!

```
@ApplicationScoped @Stateless  
public class HelloService {  
  
    @Inject @EJB  
    WorldService worldService;  
  
    public String getHello() {  
        return "Hello, " + this.worldService.getWor  
    }  
}
```





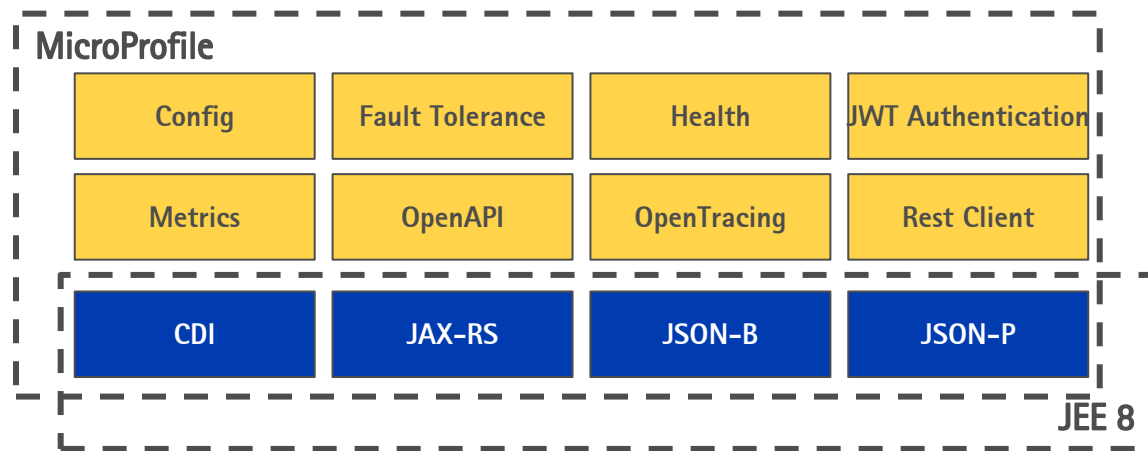
2016: MicroProfile

- New impacts: Microservices, Docker/Kubernetes, cloud

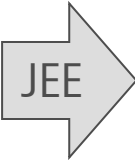
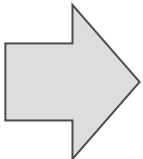
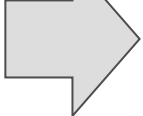
- JCP/Oracle: 

-  **JAVA EE GUARDIANS**

-  **MICROPROFILE™**
OPTIMIZING ENTERPRISE JAVA



2019: Jakarta EE 8

- 2017: **ORACLE**  
- Oracle keeps naming and copyrights
 - Java EE  Jakarta EE
 - JPA  Jakarta Persistence
 - JAX-RS  Jakarta RESTful Web Services
 - ...
- Jakarta EE 8 (September 2019)
 - no functional change
 - same code as Java EE 8 (despite of central dependency)
 - reference implementation → compatible implementations

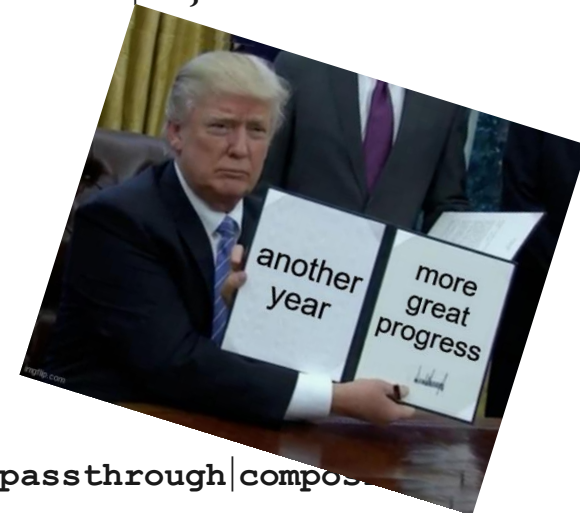


2020: Jakarta EE 9

- Oracle keeps author's right for packages **javax.***
 - may be used, but not modified
- Jakarta EE 9 (November 2020)
 - no functional change
 - big bang renamings

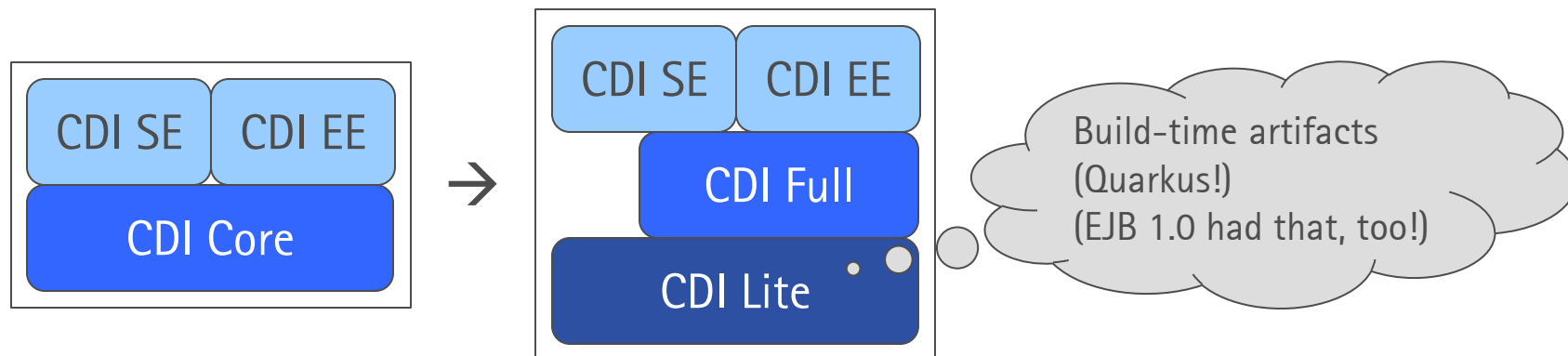
2020: Jakarta EE 9

- Maven Coordinates
`javax:javaee-api:8.0.0`
→ `jakarta.platform:jakarta.jakartaee-api:10.0.0`
- Package Names
`javax.{annotation|ejb|enterprise|faces|inject|persistence|ws}`
→ `jakarta....`
- Deployment Descriptor Schemas
`http://xmlns.jcp.org`
→ `https://jakarta.ee`
- Property Names (`persistence.xml`, `web.xml`, ...)
`javax....`
→ `jakarta....`
- Faces Taglib Names
`xmlns:...="http://xmlns.jcp.org/jsf/{facelets|core|html|passthrough|composition}"`
→ `xmlns:...="jakarta.faces...."`



2022: Jakarta EE 10

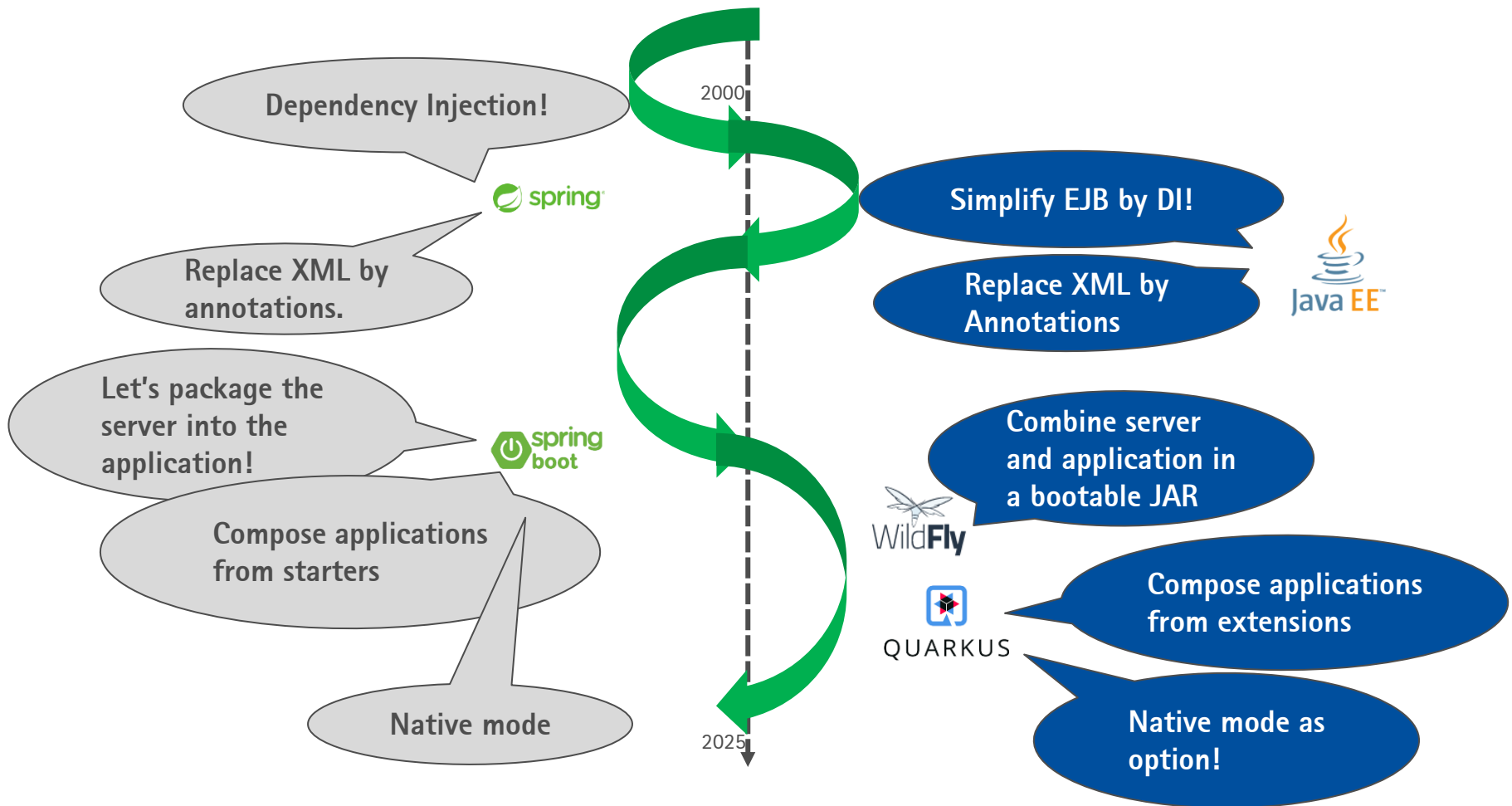
- CDI Alignment, including
 - ~~@Context~~ → ~~@Inject~~
 - @Asynchronous, @Lock, @Schedule → Jakarta Concurrency
 - @Inject for **FacesContext** etc.
- CDI Split-up



2025: Jakarta EE 11

- December 2024: Core Profile
 - March 2025: Web Profile
 - June 2025: Full Profile (aka Platform)
-
- Java 17 and 21
 - embrace records
 - virtual thread support
 - various enhancements in Persistence and CDI
 - Jakarta Data

Competition keeps things moving



Aller guten Dinge sind drei

- Standard: Jakarta EE
 - modern and mature platform
 - integrates current Java features
 - new standards for data, concurrency, security ...
 - backward compatible (after package rename)
- Servers: WildFly, Open Liberty, Payara, ...
 - lightweight
 - single-JAR mode („bootable JAR“, ...)
- Micro frameworks: Quarkus, Helidon, ...
 - small, quick, sexy ...
 - „Spring Boot“ based on Jakarta EE

More

- github.com/GEDOPLAN/java-ee-demo
github.com/GEDOPLAN/jee11-demo
Projects
- <https://gedoplan.de/expertenkreisjava/>
Slides (soon)
- www.gedoplan.de
Trainings in Berlin, Bielefeld, inhouse
- www.gedoplan.de
Reviews, Coaching, ...
Blog



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