

# Agile Development

*StratusLab uses Scrum, an agile software development methodology, to coordinate the evolution of its open-source IaaS cloud distribution.*

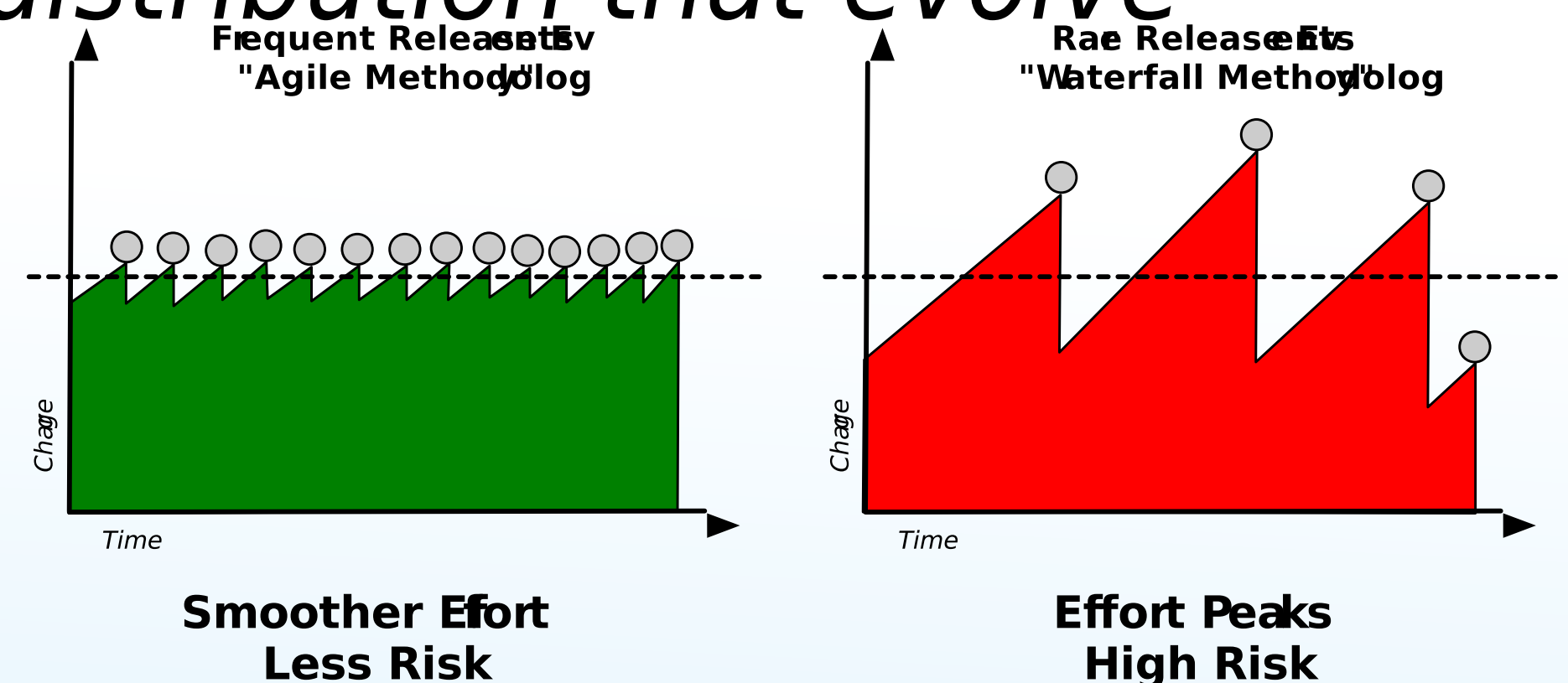
*Scrum allows StratusLab to release frequent, high-quality increments of the distribution that evolve*

## Advantages

- New features and improvements in **frequent releases**
- **Continuous feedback** informs design evolution
- Users state needs and **adjust priorities** based on real use of earlier releases
- **Visible progress** through frequent

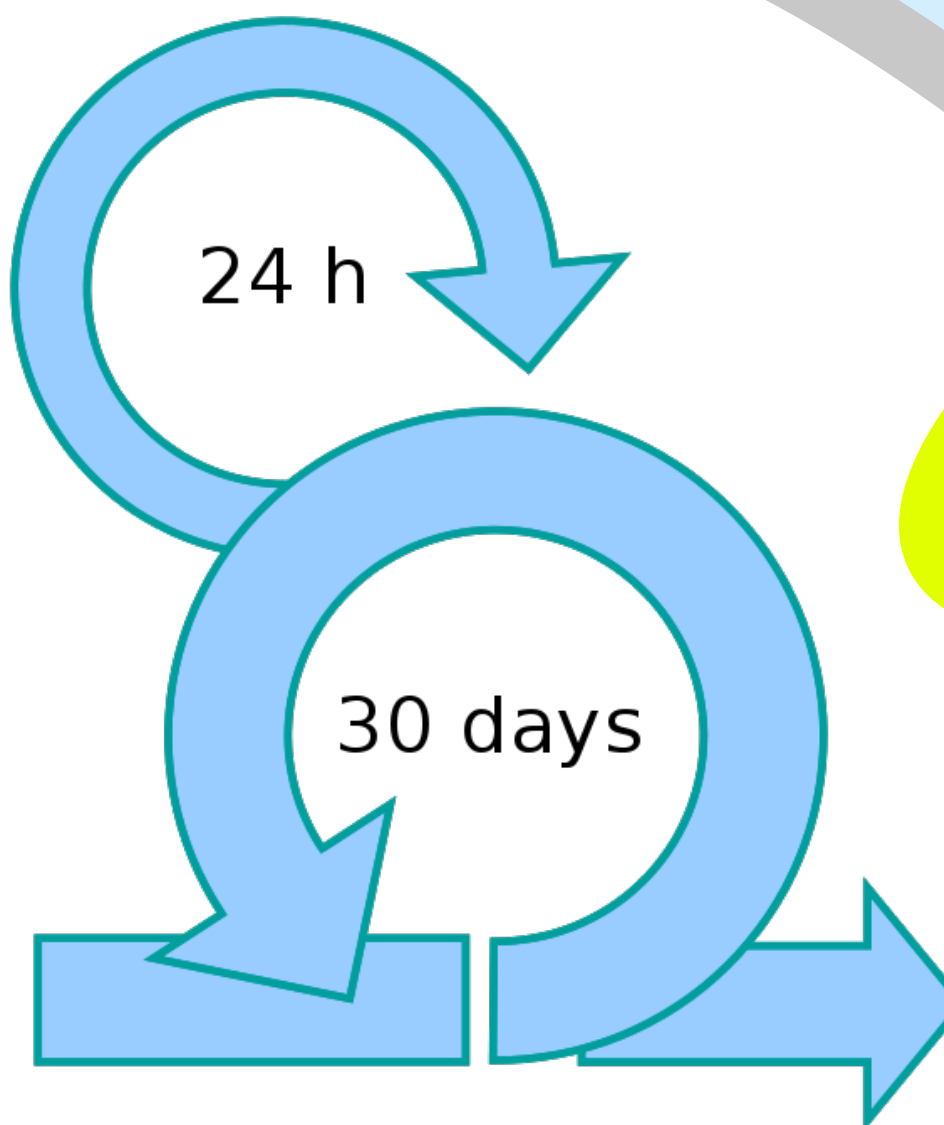
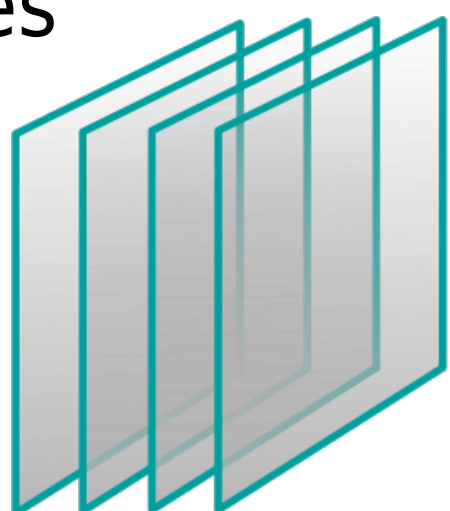
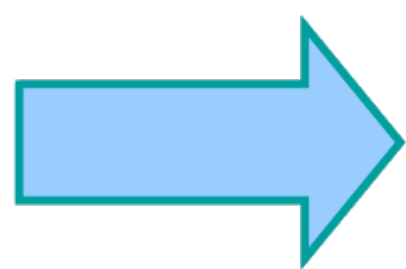
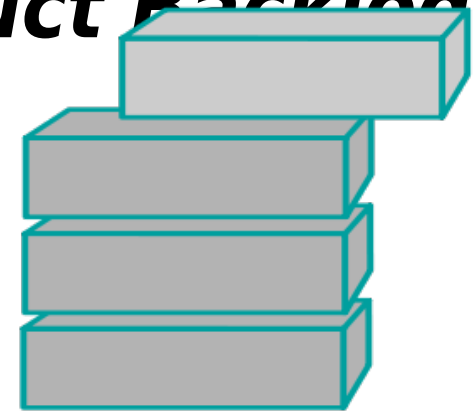
## Challenges

- High level of **automation required**: build procedures, test procedures, and production upgrades.
- Functional developments must be divided into **single-sprint tasks** that can be implemented and demonstrated in a single sprint
- Developers must **adapt to incremental**



**Distributed Scrum** is even more challenging, relying on **tele- and video-conferencing** for team meetings to bring the developers from the 6 partners together and on tools like **JIRA to replace the post-its** of a traditional Scrum board.

Functional requirements are expressed as **user stories**, with each each being implementable in a single sprint. The collection of all unimplemented stories is the **Product Backlog**.



**No. Releases: 9**  
**Latest Release: v1.4**



**1**

Product Backlog

During **Planning Meetings**, user stories are reviewed and selected for the sprint. Selected items become

**2**

Sprint Backlog

**Daily Stand-Up Meetings**, lasting at most **15 minutes**, ensure fluid communication during the sprint. Developers report on **work completed** in the previous day, **planned work** for the day, and any

**3**

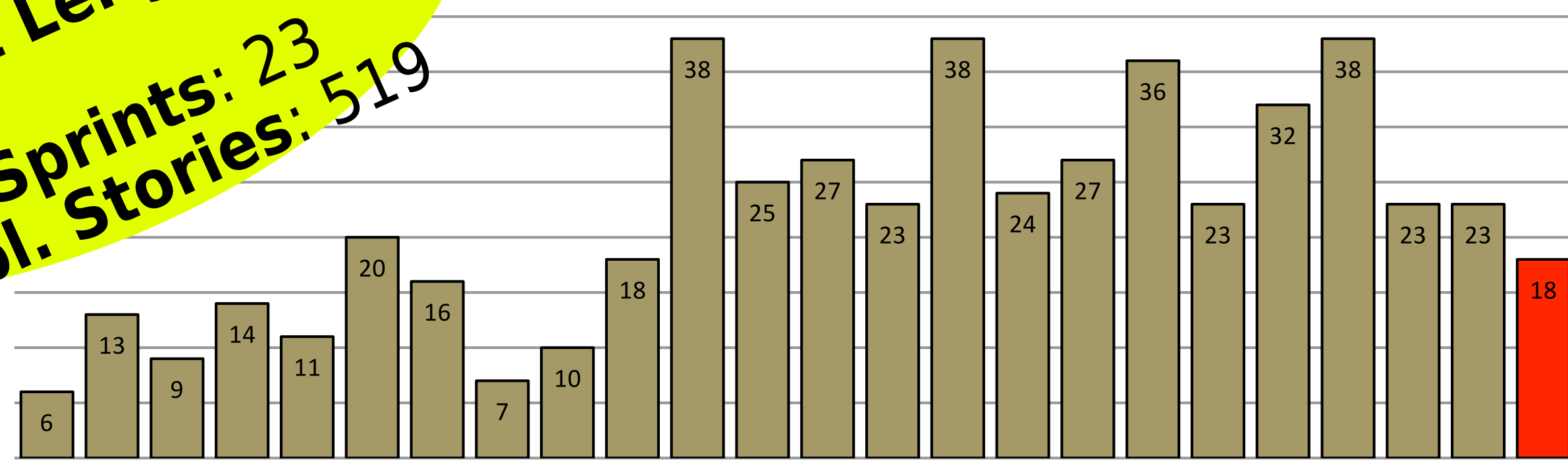
Sprint

Working increment of the software

Each sprint concludes with a **Demo Meeting**, where each implemented user story is shown.

**Sprint Length: ~3 wks.**  
**No. sprints: 23**  
**Impl. Stories: 519**

Implemented Stories per Sprint



## Build, Test & Deployment Tools

- **Git**: Source code management
- **Maven**: Uniform build framework
- **Nexus**: Build artifact repository
- **Hudson**: Continuous build &