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## Intra-organizational collaboration

### Keyfactors of inner source software development platforms in hierarchically led companies

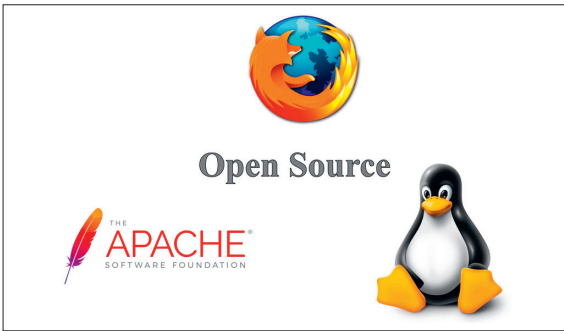


Figure 1: the open source movement

**Introduction:** In the past, the open-source software movement, where developers from all over the world can contribute freely to a project, has brought up some of the best quality software, such as the Firefox Webserver or the Linux operating system (figure 1). Subsequently, companies have started to use the open-source practices and open-source software in their own enterprise (figure 3). Mettler Toledo, one of the global leaders for high-precision scales, has grown organically over the last decades and now has 36 development teams worldwide with different cultures and different languages. Due to that, a more balanced approach is needed to connect all the developers and an open-source platform approach was suggested. Internally that approach is called inner source.

**Approach/Technologies:** Throughout the paper, four major research questions were being followed. Based on them the research was conducted in three steps. First, a literature research revealed different success factors and practices of open- and inner-source platforms. Secondly, on that base, expert interviews were conducted and hypotheses were made regarding the software development at Mettler Toledo. Thirdly, hypotheses and findings were checked by conducting a survey of the employees. In the last step, the research questions were discussed and answered.

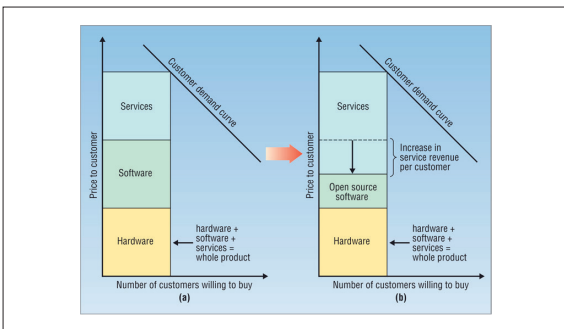


Figure 2: van der Linden et al. (2009) The landscape of effective and efficient software development

**Result:** The literature and finally the observations have shown that a reward system with the right merits (acknowledgment and continuous learning) is crucial for the success of an inner-source platform. Further, to make the platform more balanced, a generalization of the development tools is necessary. According to the survey, the generalization will be the biggest challenge to overcome at Mettler Toledo. One practically proven solution to avoid complications and guarantee simple instructions is by adopting a commercial platform (e.g. GitHub). Out of the survey we can see, that the employees are already familiar and confident with commercial platforms. This will lower the adoption efforts tremendously. Also, the survey has shown that a missing empowerment of the management is expected and must be considered. Overall it can be said that several benefits, besides cost reduction and development time reduction, will come by adopting inner source. Finally, this paper gives a solid guideline for hierarchically led companies on how to approach an inner-source software adoption.

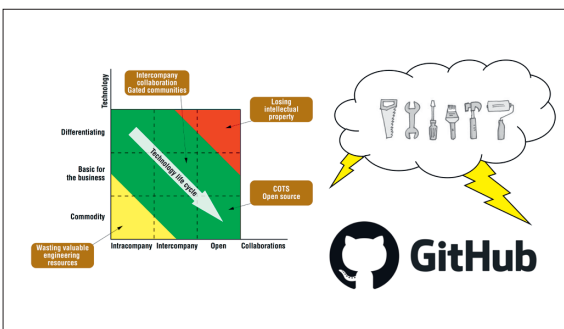


Figure 3: Riehle, D. (2007) The economic motivation of open source software IT solutions demand curve