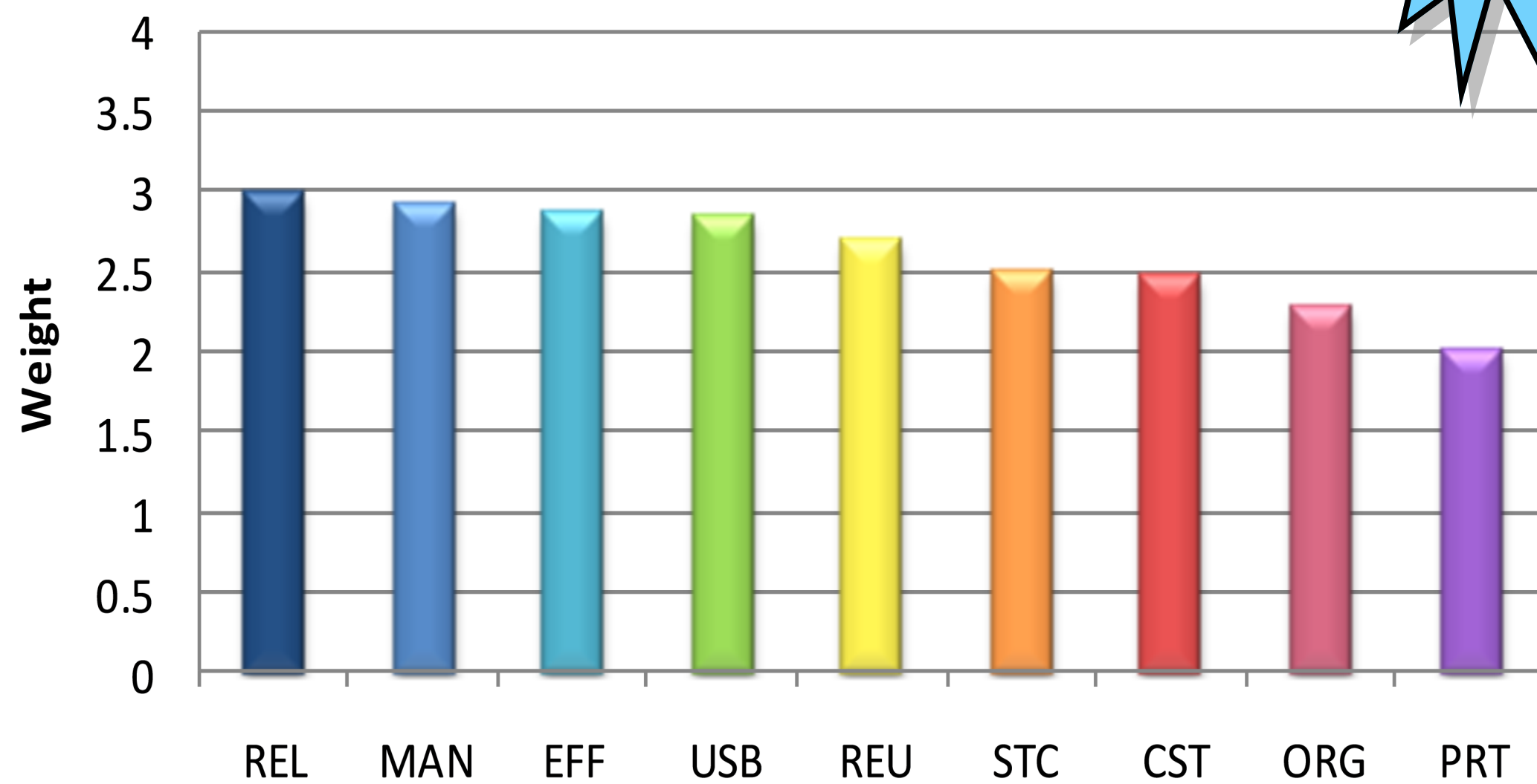


How do Software Architects consider Non-Functional Requirements

60

a survey...

NFRs importance



★ 60 software architects answered the survey

★ The most influential NFR is **Reliability**

★ The least influential NFR is **Portability**

Weighting formula

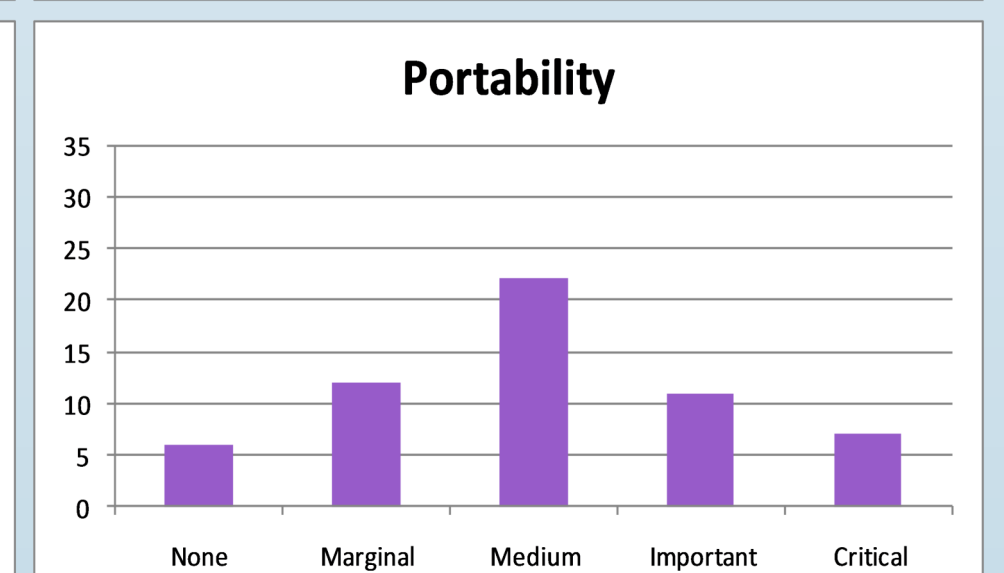
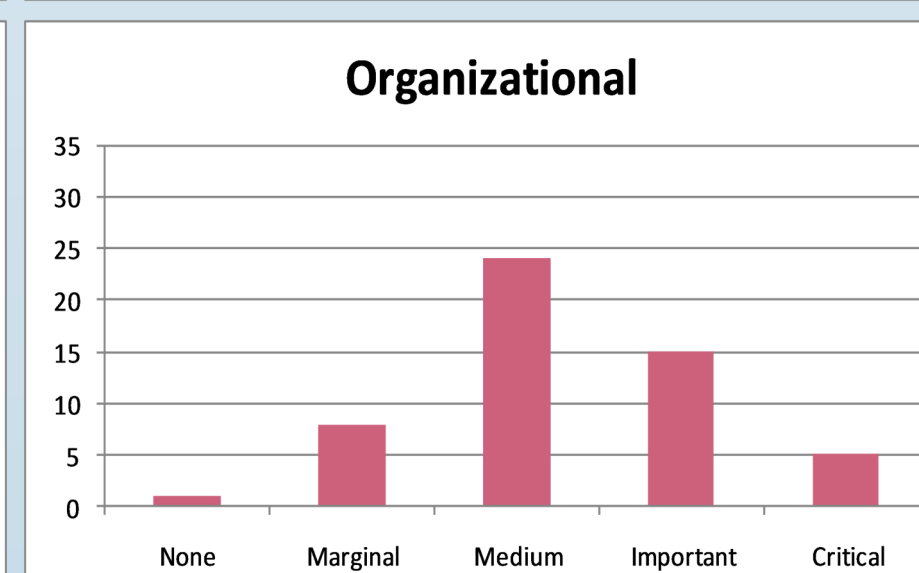
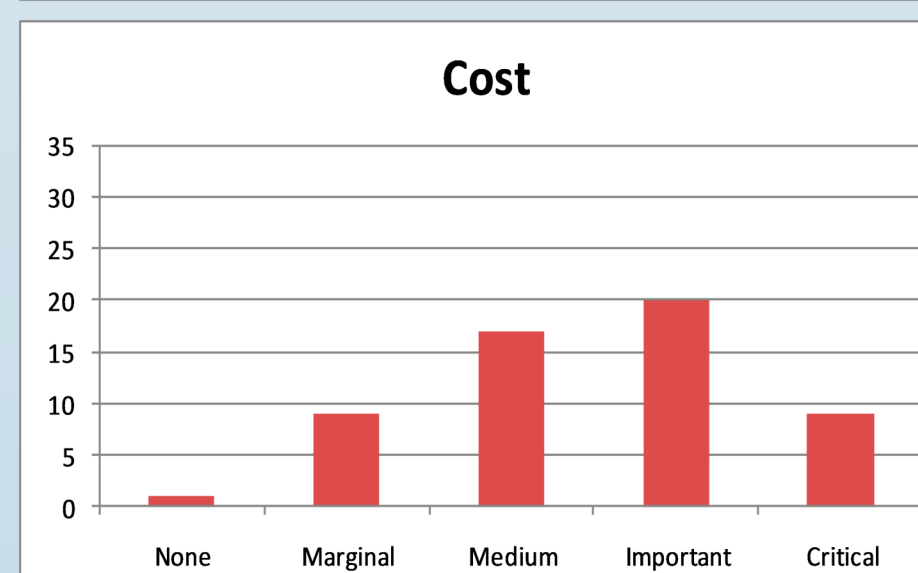
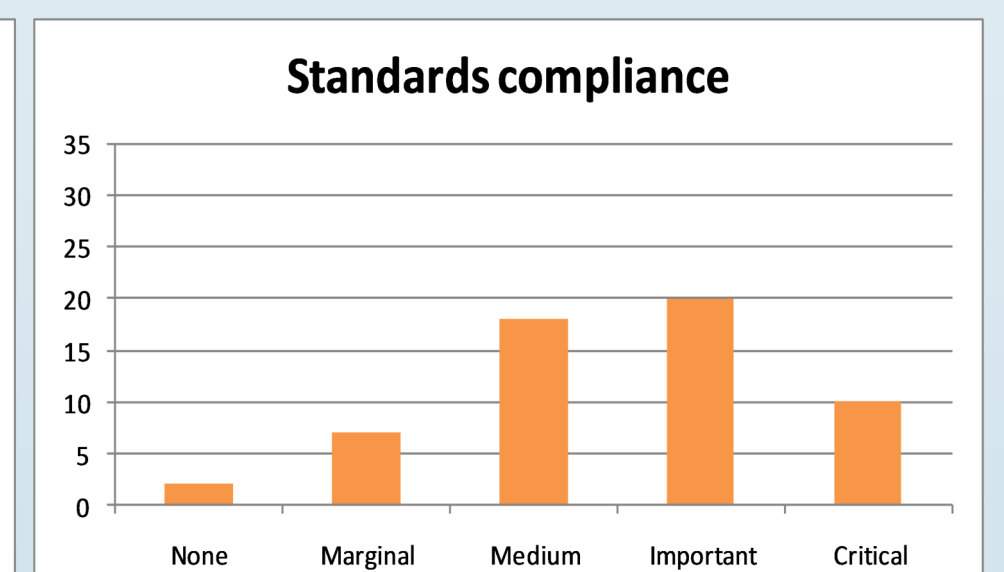
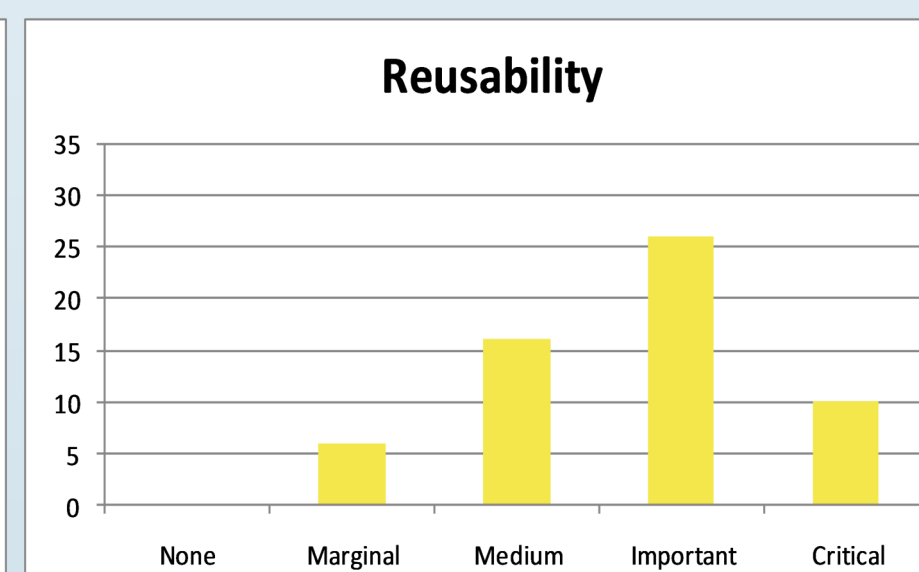
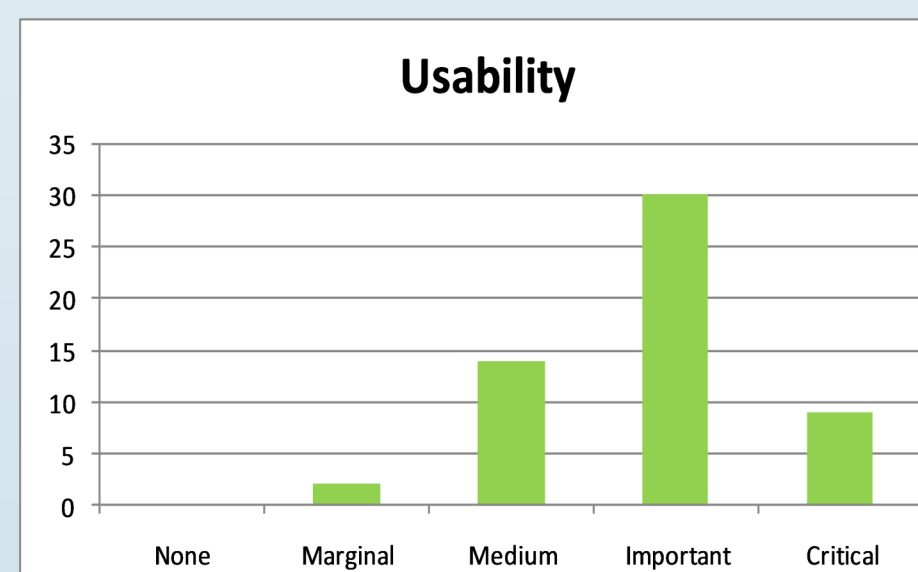
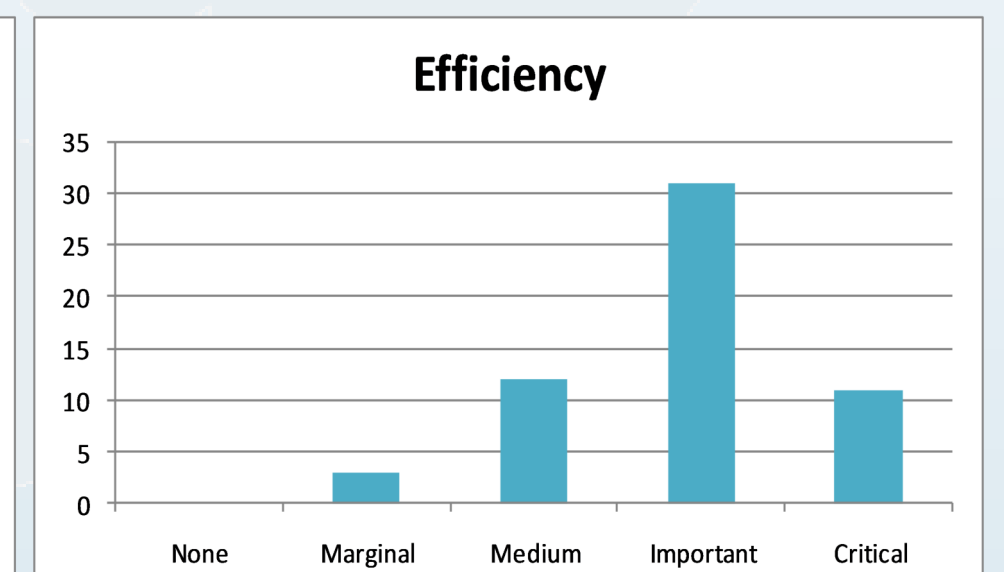
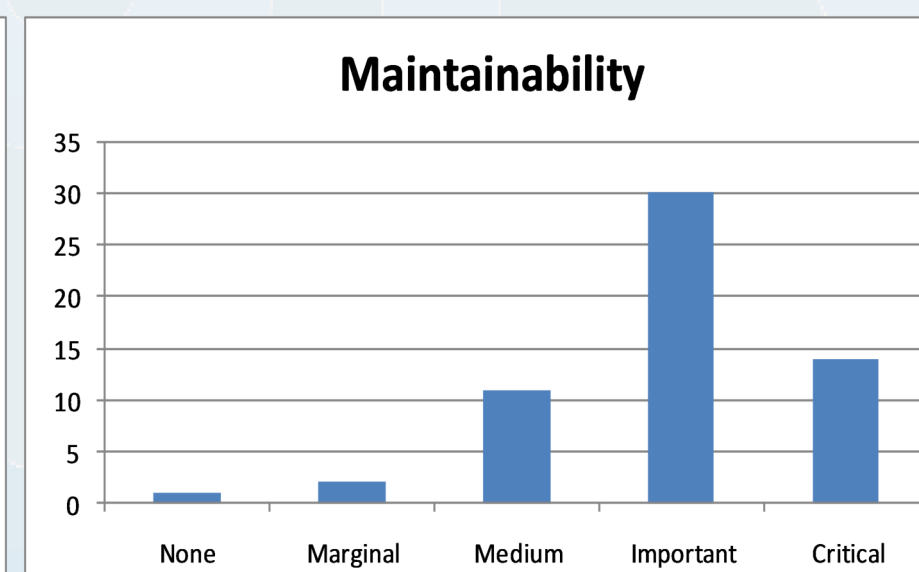
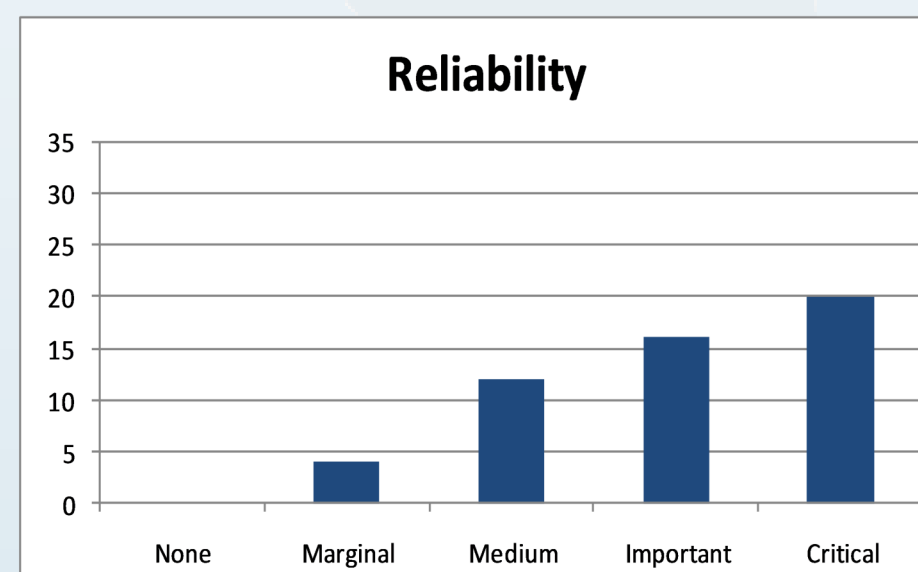
$$Weight = \frac{\sum Answer}{\# Answer}$$

0 — None 1 — Marginal
2 — Medium 3 — Important
4 — Critical

★ **Reliability** is the only NFR considered critical by a majority of respondents

★ **Organizational** and **Portability** NFRs were considered medium importance by a majority of respondents

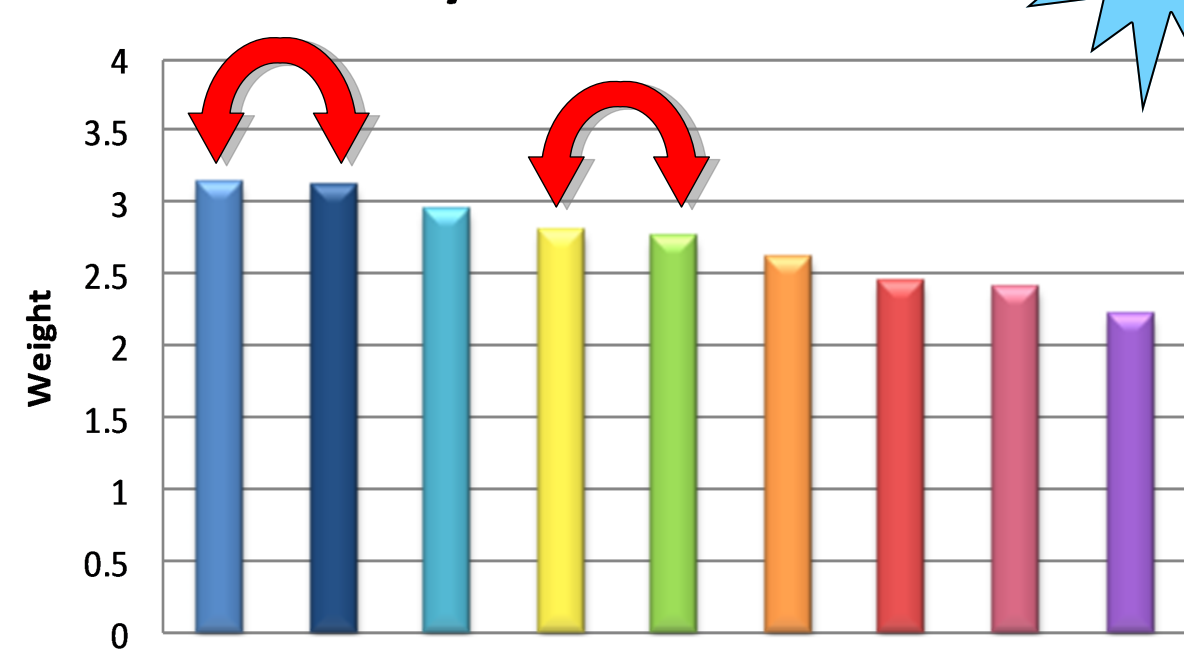
★ Surprisingly **Cost** is not on top position for architects



NFRs importance in software architectural styles:

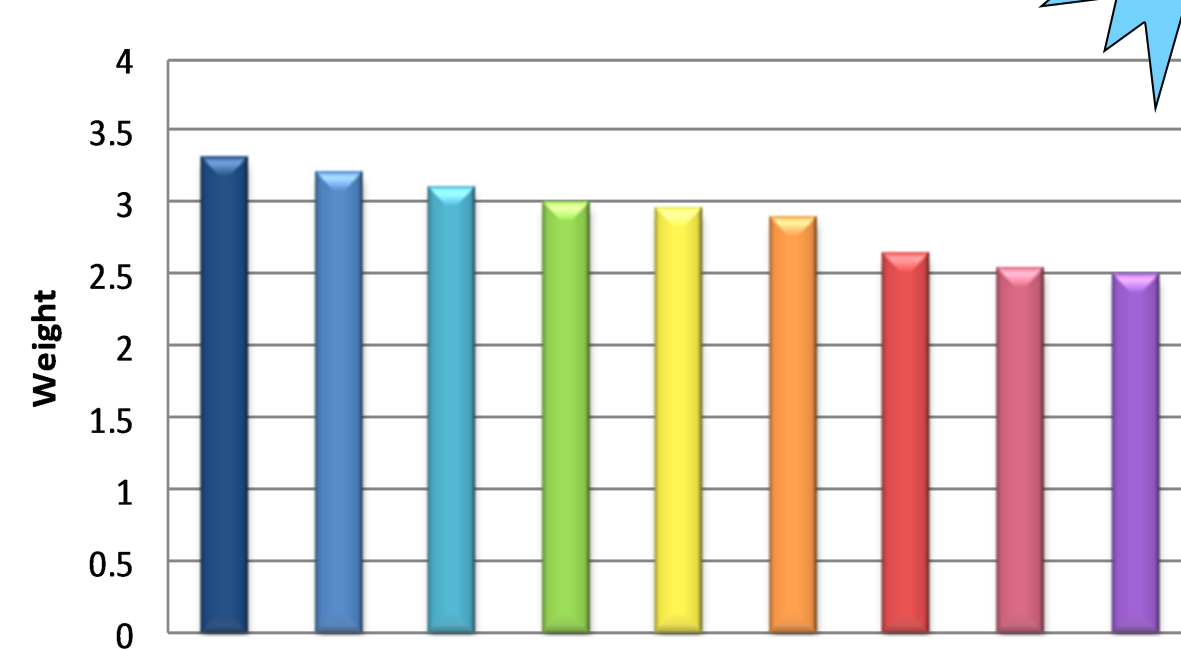
3-Layer Architecture

27



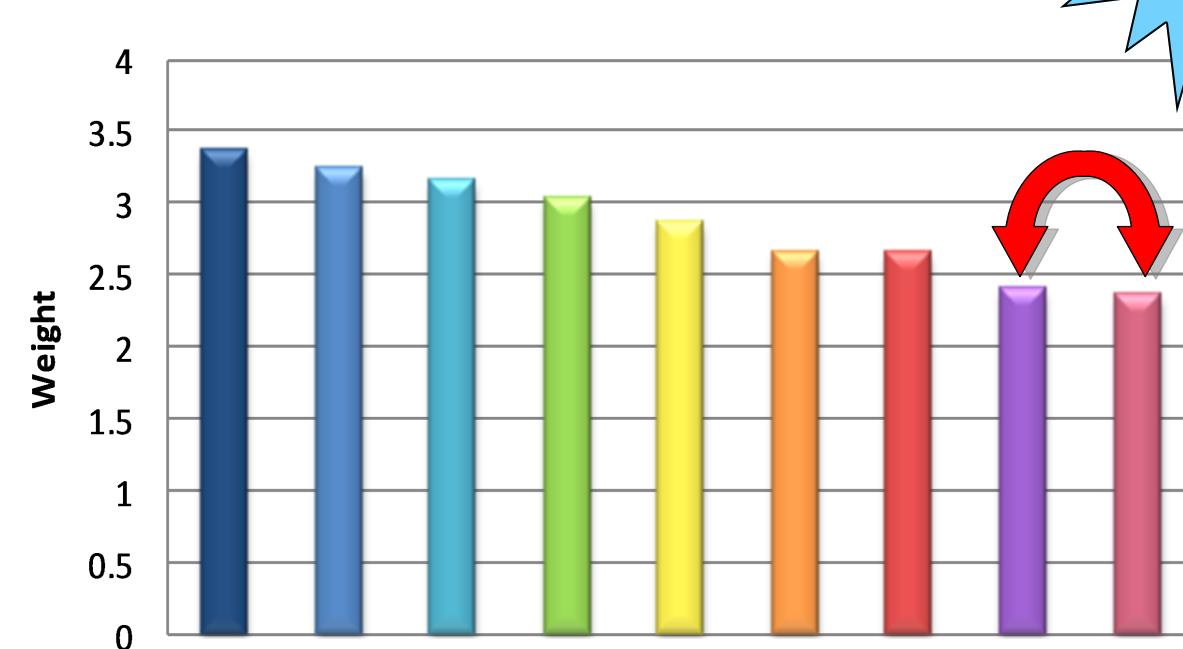
Service-Oriented Architecture

20



Model-View-Controller Architecture

24



★ In 3-Layer Architecture **Maintainability** is slightly more important than **Reliability**

★ SOA and MVC architects gave higher importance to all **requirements** (about 0.5 points extra)

Technical profile:

- Population: 60 respondents (>50% from Spain)
- Medium: Electronic Survey (Limesurvey)
- Begin/End: March 2009 - October 2009

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