Code Review Guidelines

Four eyed principle

- Every change in source code has to be seen by four eyes
  - Peer Review <u>OR</u>
  - Pair Programming

- Raising a PR a must for code changes before taking it ahead

- **Peer Review Guidelines**
  - Not to exceed 30 files per PR (Reviewer can reject PR if it is different)
  - Reviewer must be independent from the developer
  - Reviewer must check all changed code portions and also the unchanged code that might get affected due to new changes

- **Pair Programming**
  - In case both developers have worked on identical code portions, 1st developer can raise the PR and 2nd developer can close the PR
  - In case both developers wrote separate sections, the PR has to be reviewed by other developer and findings shall be resolved

Github Issues

- **Definition**
  - In case the PR is getting closed, however still issues are present, GitHub Issues shall be raised along with merging of PR
  - The GitHub issues shall be fixed before Code Beamer is set to Accept
  - The amount of GitHub Issues shall be monitored by Scrum master at sprint end (same as sprint spills)

- **Example of GitHub Issues**
  - Reviewer detects defect in architecture however the changes are minor in nature and does not take too much time.
  - Naming convention changes with less effort
  - More efficient \ elegant implementation which requires significant work but not crucial to functionality

Backward compatibility

- **Overview**
  - Initial Review of code is a must. One cannot do the review of changes alone when the original source code is not reviewed.
  - Original design shall be planned for review. A ramp-up curve need to be defined with APO.

References

- **Overview**
  - GitHub shall be configured to review a pull request.
  - Check of PR size shall be implemented
  - A pull request template shall be configured
  - A count of GitHub Issues shall be available in TeamScale
  - For code with QM and ASIL-A ➔ Code walkthrough is enough where developer explains the code to reviewers
  - For code with ASIL-B,C,D ➔ All PR checklist points shall be addressed. Code walkthrough is not enough.
  - If option of "require pull request review before merging" is set, review is a must.