PhD Working Group 2
Test Data Generation
Intro

• Focused techniques
  – Dynamic Symbolic Execution Technique (DSE)
  – Search Based Technique (SB)

• Aims of the survey
  – General questions about the techniques
  – Limitations and weaknesses of techniques
  – Main open challenges of techniques
  – Adoption of techniques
Barriers for Adoption

- Oracle problem
- Code centric
- Usability
- Quality of the results
- Other
Comparison of techniques

- Overall
- Failure detection
- Cost effective
- Coverage
- Critical software
- Unit testing
- System testing

- Other
- SB
- DSE
Future directions

- Complex data structures
- Coverage improvement
- Test suite minimization
- Hybrid techniques
- Complex coverage criteria
- Other
Metrics

- 35 participants took part in our survey
- 14 questions in the survey
- 30 diagrams about the results
  - Feel free to check them at our desk!