

# DevOps Performance Working Group

SPEC Research Group



September 1, 2015 @ QUDOS, Bergamo, Italy

## *Contact*

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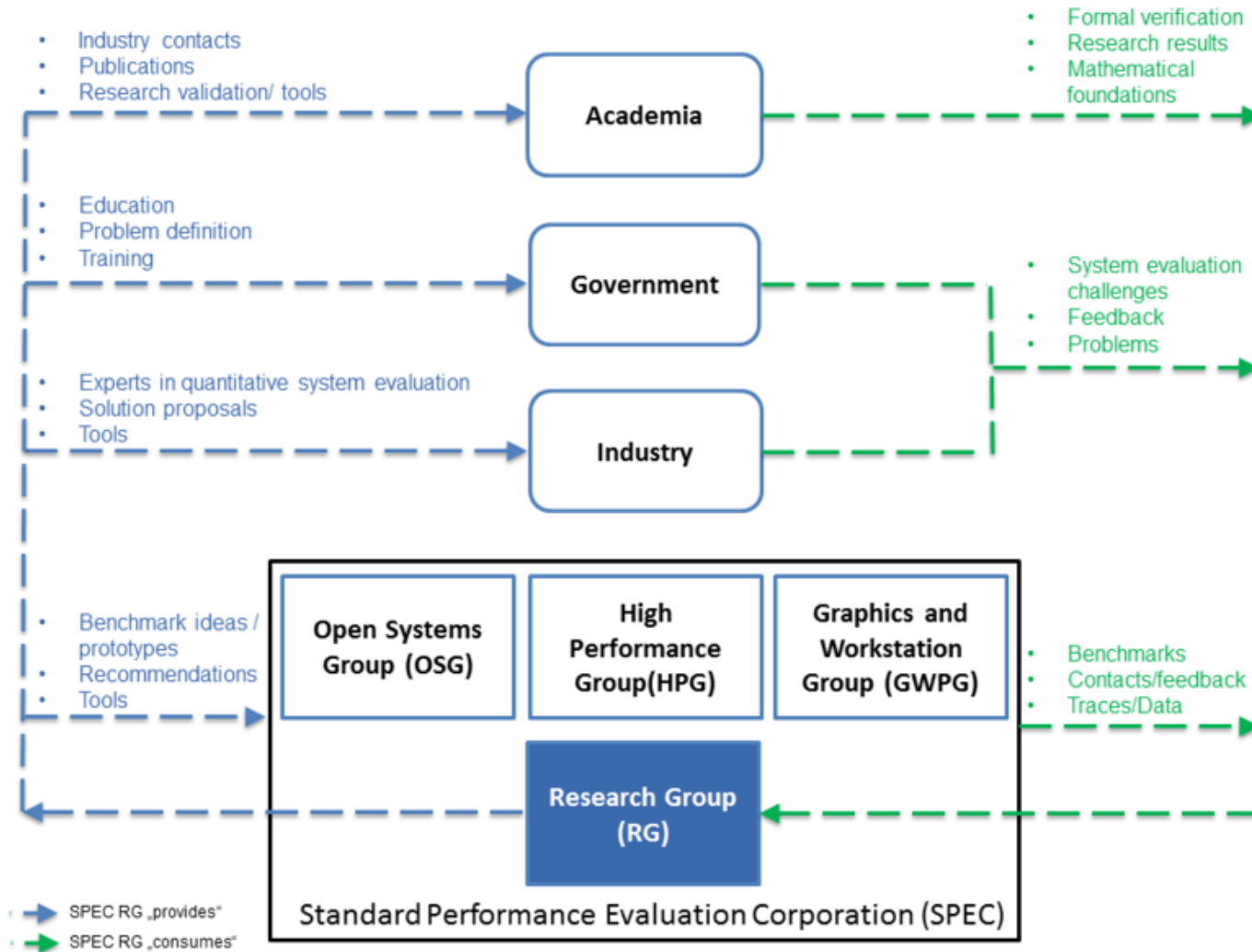
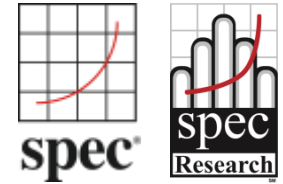
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<http://research.spec.org/devopswg>

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# SPEC Research Group (RG) Activities



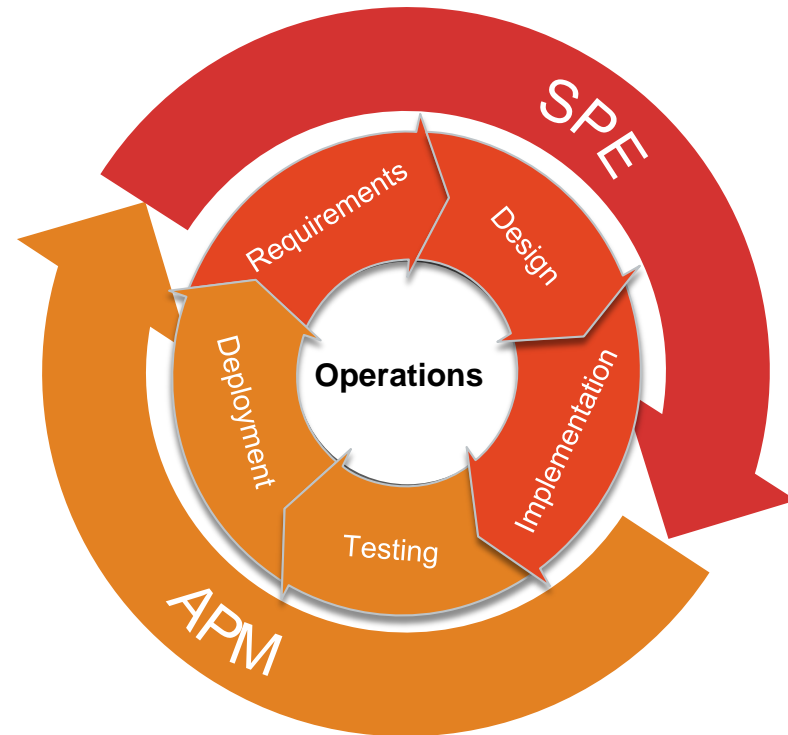
# SPEC RG Member Organizations

<http://research.spec.org>



# SPEC RG DevOps Performance Working Group

<http://research.spec.org/devopswg/>



**Mission:** The mission of the DevOps Performance WG is to foster and facilitate research in combining **measurement-based** application performance management (APM) and **model-based** software performance engineering (SPE) activities for **business-critical application systems**.

# SPEC RG DevOps Performance Working Group

## Recently Completed Activities



- **Technical report on DevOps performance (10+ authors)**
- Current State and Open Challenges
- Structure:



### 1. Performance Management Activities: State of the Art

- Model- and measurement-based performance evaluation techniques, model extraction, ...

### 2. Software Performance Engineering (SPE) During Development (Dev)

- Performance awareness, performance anti-pattern detection, performance change detection, ...

### 3. Application Performance Management (APM) During Operations (Ops)

- Monitoring and reasoning, extracting load intensity and navigational profiles, ...

### 4. Evolution: Going Back-And-Forth between Dev and Ops

- Capacity planning and management, architectural improvements using models, ...

- <https://research.spec.org/publications.html>

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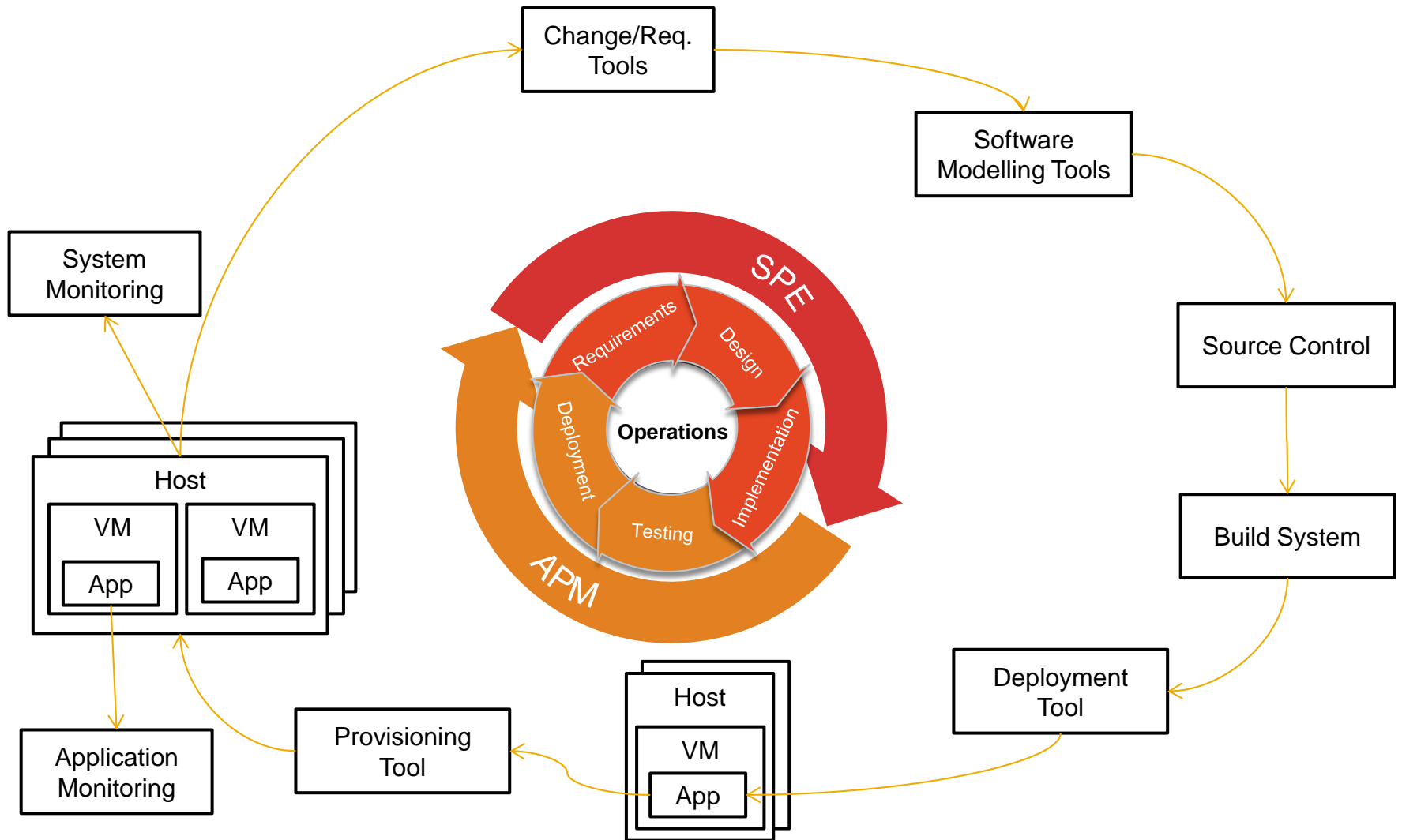
## Recently Completed Activities

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- **Comparison resource-demand estimation vs. measurements**
  - EPEW '15
- **Model extraction from industrial APM (Dynatrace)**
  - ICPE '15 (tool/poster)
- **Workload extraction and specification for session-based application systems**
  - ValueTools '14, LT@ICPE '15
- **Expert-guided automatic diagnosis of performance problems in enterprise applications**
  - Collaborative project (BMBF)

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Current Activity: DevOps Performance Evaluation/Showcase Environment

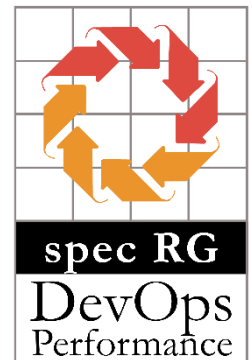


# SPEC RG DevOps Performance Working Group


<http://research.spec.org/devopswg/>



- Interested to join?
  - Learn more: <http://research.spec.org/devopswg/>
  - **Contact:**
    - André van Hoorn (Chair): [van.hoorn@informatik.uni-stuttgart.de](mailto:van.hoorn@informatik.uni-stuttgart.de)
    - Andreas Brunnert (Vice chair): [brunnert@fortiss.org](mailto:brunnert@fortiss.org)
- **We are always interested in:**
  - Joint publications (e.g., scientific or white papers)
  - Joint projects (e.g., tools or benchmarks)
  - Jointly supervised student theses / internships
  - Production workloads and measurement/architectural data
  - Current challenges that cannot be addressed by existing tools







7<sup>th</sup> ACM/SPEC International Conference  
on Performance Engineering

ICPE 2016

Delft, the Netherlands - March 12-18, 2016

- **Research Papers Track** – September 15/30, 2015
- **Industry Track** –September 15/30, 2015
- **Posters & Demonstrations Track** – October 15, 2015
- **Workshops** –September 23, 2015
- **Tutorials Track** – October 15, 2015
- **Work In Progress & Vision Track** – November 23, 2015
- **Doctoral Symposium** – November 23, 2015