HPI Hasso Plattner Institut

Software Engineering 2 (SWT2)
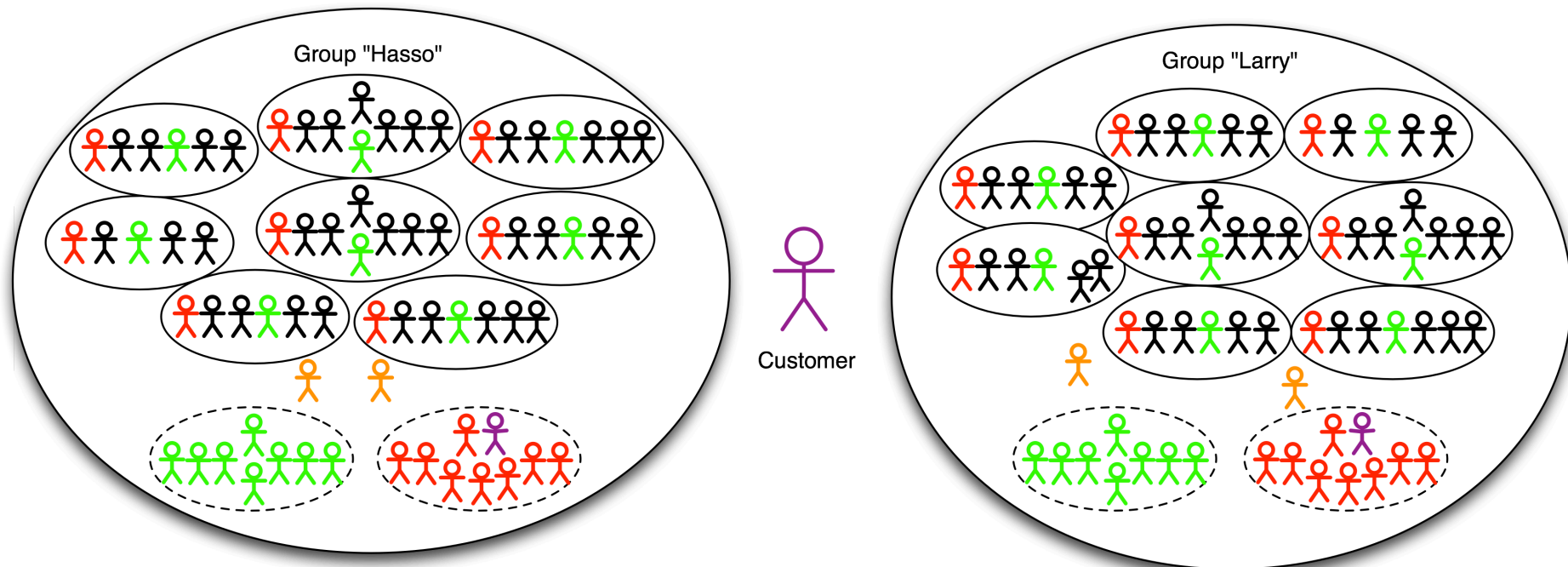
Chapter 1:
Introduction and Organization

2

- **High-level Overview of SWT2**

- Organization

- SWT2 Project

- SWT2 Lecture

- Basic IT Infrastructure

- Literature

High-level Overview of SWT2

Software development in the large

High-level Overview of SWT2

Your semester in a nutshell

- Introduction into technology, methodology, requirements etc.
- Sprints #1 + #2 + lectures
    - Sprint planning
    - Doing incl. "Daily Scrum"
    - Estimation meeting
    - Scrum of Scrums
    - Planning of planning
    - Sprint review
    - Sprint retrospective
    - Result presentation
- Christmas holidays
- Sprints #3 + #4 + lectures
- Written exam

- High-level Overview of SWT2

- **Organization**

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Organization

Prerequisite to SWT2

- Undergraduate program
- Softwaretechnik 1

Class

- 4 SWS
- 6 ECTS credit points (graded)
- Last mandatory course in the bachelor program
- Preparation for Bachelor Project

Organization

Important dates

- Enrollment until October 29, 2010
- Preparation exercise starts today
- Project starts November 8, 2010

Lectures

- Friday, 11:00 – 12:30, HS3
- Friday, 13:30 – 15:00, HS3

Exercises: Block

Web

- http://epic.hpi.uni-potsdam.de/Home/SoftwareEngineering2WS2010
- Facebook: http://www.facebook.com/group.php?gid=122053957847304 (HPI Software Engineering 2 (Winter Term 2010 / 2011))

Organization

Responsible

- Dr. Alexander Zeier (alexander.zeier@hpi.uni-potsdam.de)

Teaching Team

- Jürgen Müller (juergen.mueller@hpi.uni-potsdam.de)
- Thomas Kowark (thomas.kowark@hpi.uni-potsdam.de)
- Stephan Müller (stephan.mueller@hpi.uni-potsdam.de)
- Martin Lorenz (martin.lorenz@hpi.uni-potsdam.de)

Tutors

- Marvin Killing (marvin.killing@student.hpi.uni-potsdam.de)
- Paul Möller (paul.moeller@student.hpi.uni-potsdam.de)
- Martin Krüger (martin.krueger@student.hpi.uni-potsdam.de)
- Markus Steiner (markus.steiner@student.hpi.uni-potsdam.de)

Organization

Grading

- Preparation exercise (10%, individual mark)
- Written exam (30%, individual mark)
- Usage of presented methods and concepts (35%, team mark)
    - Scrum
    - Behaviour-driven development
    - Test-driven development
    - Software Configuration Management
    - Continuous Integration
- Software development results (25%, team mark)
- If work is not distributed equally amongst team members, individual adjustments of the marks are possible
- Winning group (with the best product) gets a 0.3 boost in their team mark (max 1.0)
- To pass, you have to reach a 4.0 in **each** category

Agenda: Introduction and Organization

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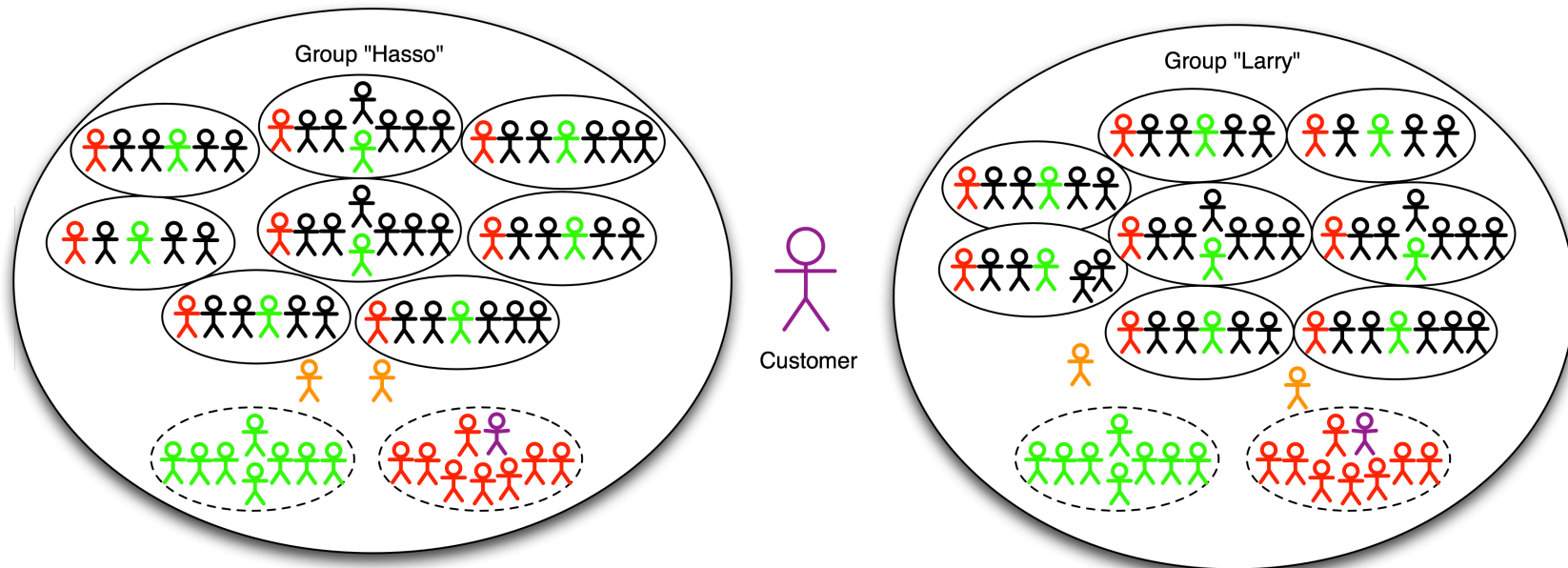- Basic IT Infrastructure
- Literature

Content of the Project

Learning Targets

Content of the Project

Break down of people into groups and teams

G1**, G2**, H1, H2*,
HP1, HP2, W1*, W2**

B1, D1*, D2, M1**,
M2***, N1, N2, P1*

Content of the Project

Break down of people into groups and teams

- Your semester: ~105 people in 16 bachelor projects

- 8 bachelor projects (~53 people) = 1 group

- Each bachelor project = one team

  - 1 Product Owner (PO)

  - ~½ Scrum Master (SM)

  - Several team members

- Questions

  - Who is not in the 5th semester?

  - Not in a bachelor project? → contact (*-teams) or me **today**

- ToDo: **each team** sends the name of it's PO to swt2_2010_orga@hpi.uni-potsdam.de **until Tuesday 3pm**

Content of the Project

Break down of people into groups and teams

- Special teams
    - Scrum of Scrums (SoS)
    - Planning of Planning (PoP)
- Addition from the teaching team for each group
    - 1 customer (Stephan)
    - 1 chief product owner for tough decisions (Martin)
- Tutors accompany each team

Content of the Project

Software engineering assignment

- Develop a Customer Relationship Management software
- Main requirements
  - □ Manage contacts and customers
  - □ Leads
  - □ Opportunities
  - □ Orders
  - □ Analytical capabilities
  - □ …
- Programming framework is fix: Ruby on Rails
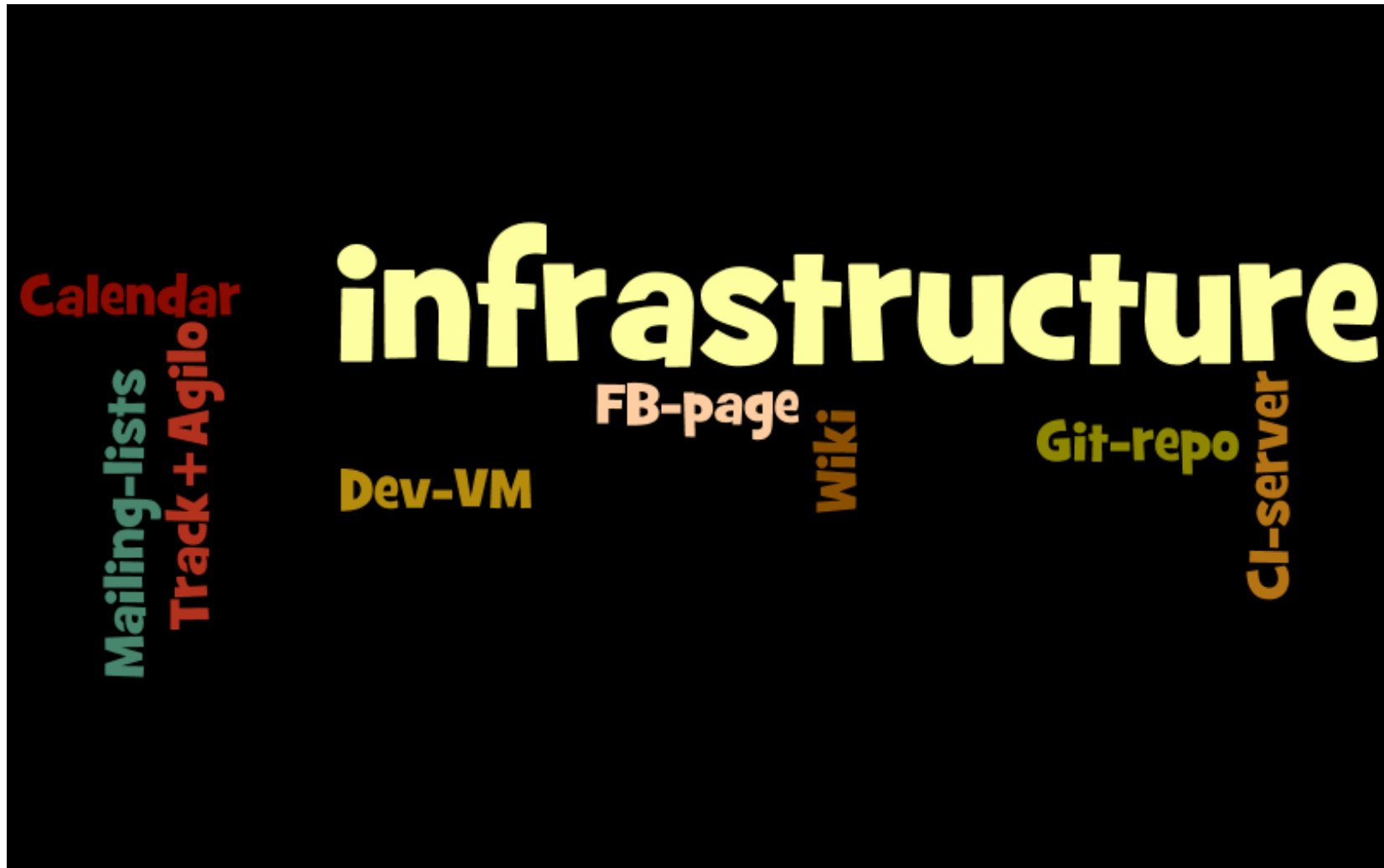- Requirements will be presented in detail by Stephan next week

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- SWT2 Lecture
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Content of the Project

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SWT2 Lecture

Lecture "supports" project

- Rails intro

- Rails exercise & CRM interview + process modeling (POs)

- CRM intro

- From requirements to SW architecture

- Scrum intro

- Scaling Scrum

- Project infrastructure in detail

- Scrum Lego exercise

- BDD & TDD (in Rails)

- Agile product management

- …

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- **Literature**

Literature

- **General literature**
  - Pichler, R.: Scrum, 2008
  - Ruby, S.; Thomas, D.; Hansson D. H.: Agile Web Development with Rails, 2010 (→ Git)
  - Swicegood, T.: Pragmatic Guide to Git, 2010 (→ Git)
  - Rappin, N.: Rails Test Prescriptions, 2010
  - Rasmusson, J.: The Agile Samurai, 2010
  - Pichler, R.: Agile Product Management with Scrum, 2010
  - Wirdemann, R.: Scrum mit User Stories, 2009
  - Larman, C.; Vodde, B.: Scaling Lean & Agile Development, 2009
  - Ludewig, J.; Lichter, H.: Software Engineering, 2006
  - Sommerville, I.: Software Engineering, 2004

- **Specific literature is provided in each chapter of the lecture**

Thank you for your attention!