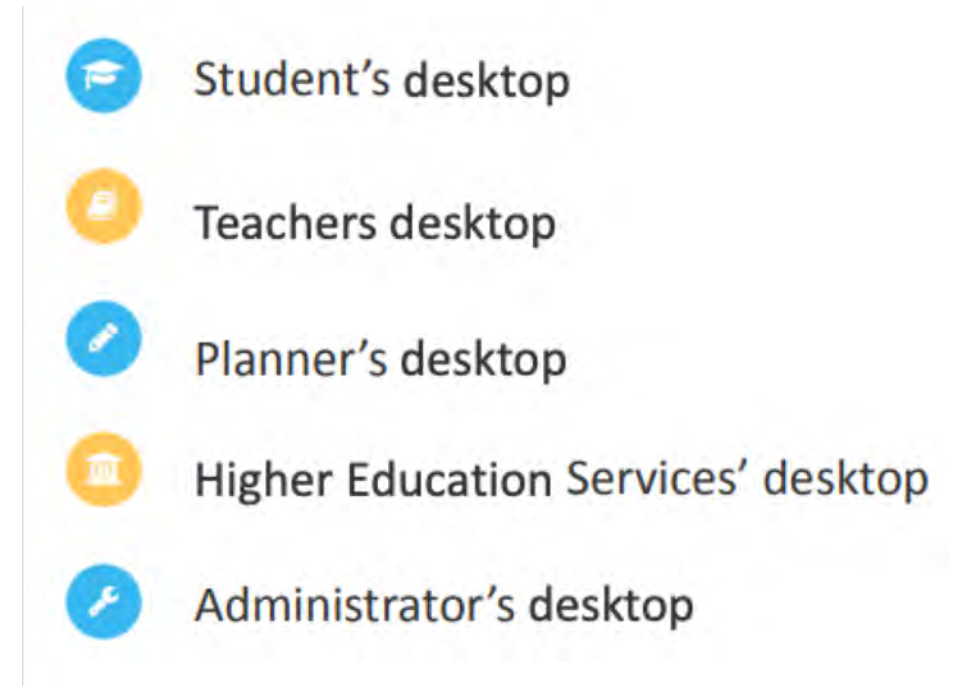# Peppi

Strength and torque

Topics

- What is Peppi?
- Peppi consortium
  - Administration
  - Developning
  - Maintenance
- Current

Peppi - ecosystem for (Higher) Education Institutions education management

- Peppi is a comprehensive service-oriented system for planning and related e-services for Higher Education Institution (HEI) management
- Peppi based on role-specific desktops
- Multi-lingually support
- Peppi supports only one process but different ways to implement it
- Peppi's technical solutions are totally license-free

Student's desktop

Teachers desktop

Planner's desktop

Higher Education Services' desktop

Administrator's desktop

+ intranet and so on services

Peppi
Voimaa ja vääntöä

Student's Desktop

- Personal study plan
  - Selecting studies, scheduling, classifications, messages, enrollments, group description, exams
- Credits, transcript of records
- Room reservation, meeting times, timetable
- Curriculums
- Implementations
- Registration for attendance
- Course feedback
- Agreement bank
- Accreditation (credit transfer application for studies)
- Study right extension
- Search for courses

Peppi
Voimaa ja vääntöä

Teacher's Desktop

- Workplan
- Study plan counselling
- Programmes
- Course units
- Realizations requiring review
- Assessments
  - implementation, course, thesis, accreditation (substitution and inclusion)/ credit transfer handling
- Communication tools
- Own schedule handling
- Own workload handling
- Course planning and management
- Reporting services
- Enroll management
- Student feedback handling

Planner's Desktop

- Education management
- Curriculum/syllabus planning
- Rule engine
- Course unit planning
- Implementation planning
- Organization planning
- Expense planning and budgeting
- Teacher work hour and schedule planning

Higher Education Services' Desktop

- Reporting services
- Student Group management
- Student's personal data management
- Student's study rights
- Student database administration
- Transcript of records
- Diploma, diploma supplement,
- Credit administration

System Administrator's Desktop

- Logs

- Reporting services

- Version details

- Maintenance of Code sets

- Localization

- System Access management (user rights)

- Templates for diplomas

Plugins

- Easy to integrate, thanks to interfaces
  - Peppi is actually a bunch of interfaces, mostly REST
  - There are open and no open interfaces
- There are several plugins that are increasing the service lever provided by Peppi
  - Plugins dare not include in the Peppi
  - They can be made by university itself or universities can acquire them from the owner (a commercial operator / another HEI)
- Examples of the existing plugins:
  - Curricula publication system
  - Course feedback system
  - Applying system for non-degree students
  - Integrations to 3. parts legacy systems

Peppi
Voimaa ja vääntöä

Design rules

- 1) Services are designed as reusable services,
- 2) Services can be composed to create new services,
- 3) Dependences between services are made as loose (loosely coupled) as possible,
- 4) Information is read and saved through service interfaces,
- 5) Services must be autonomous. Tight binding between services is not allowed.
- 6) Services are published using standard interfaces (mostly REST, older partly SOAP).
- 7) Services statelessness.
- 8) User interfaces has no business logic

Used architecture

Interface layer

jQuery • Liferay • B • <#FREEMARKER> • STRUTS

Service layer

Apache CXF • Apache Camel • elastic • OSGi • ServiceMix • spring

Database layer

Any database… we use: MariaDB

Peppi-consortium

- Peppi Consortium is a developer community of educational organizations with procurement status for developing Peppi-ecosystem

- Peppi-ecosystem is owned by Metropolia University of Applied Sciences Ltd (63%) and Tampere University of Applied Sciences Ltd (37%)

- Owners grant access rights to use **source code** to educational organizations under public administration and/or procurement

- Owners don't operate in competitive market

- Co-development in Peppi Consortium is a horizontal co-operation between the public users

Statistics

Users

Universities of Applied Sciences:

- 21/23
- 93,65% FTE-students
- 105 740 FTE-students
- 133 374 students

Universities:

- 10/13
- 65,33% FTE-students
- 73 558 FTE-students
- 103 543 students

Total

- 31/36
- 79,51% FTE-students
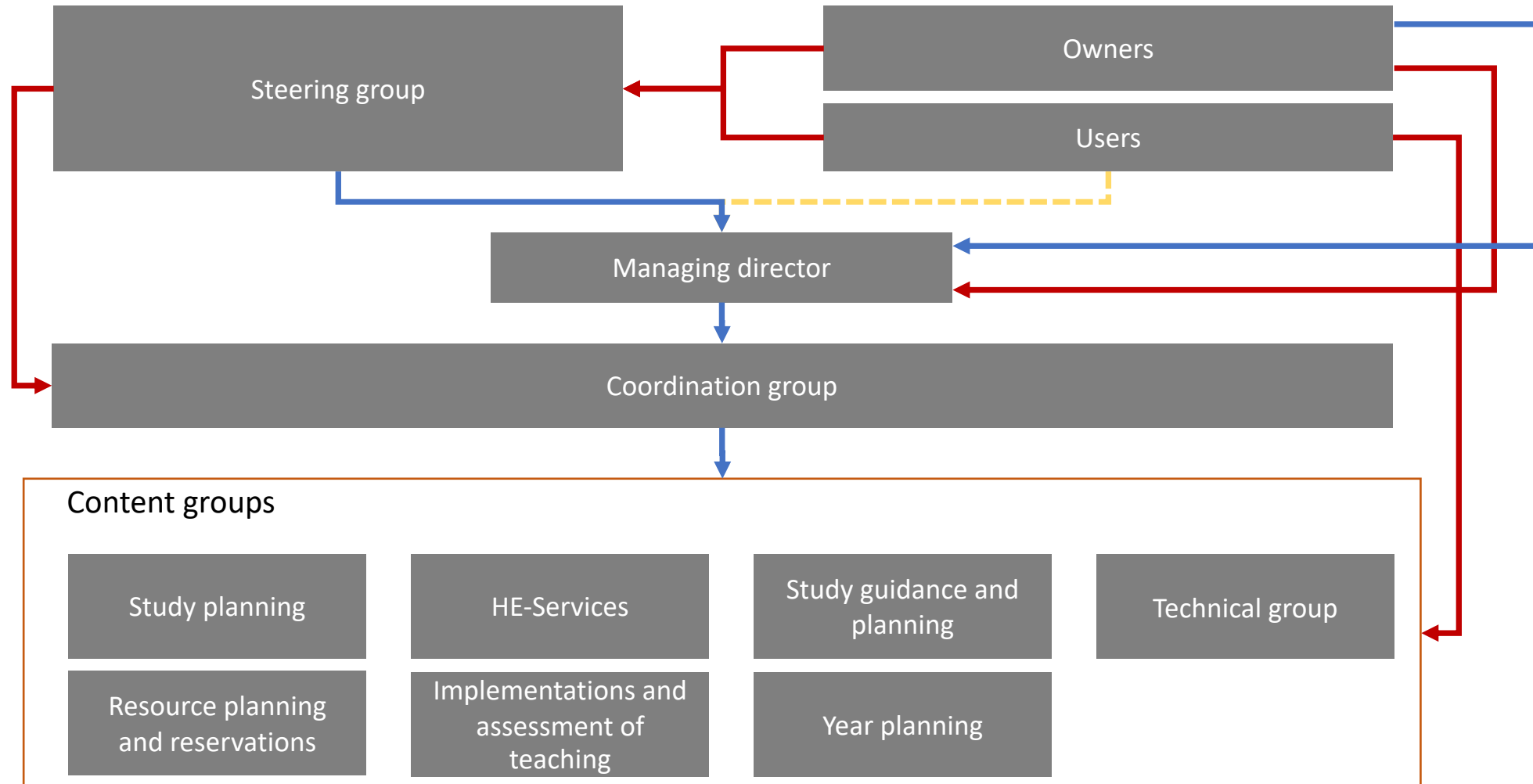- 179 298 FTE-students
- 236 917 students

Module coverage

Universities of Applied Sciences

- Planning modules:100%
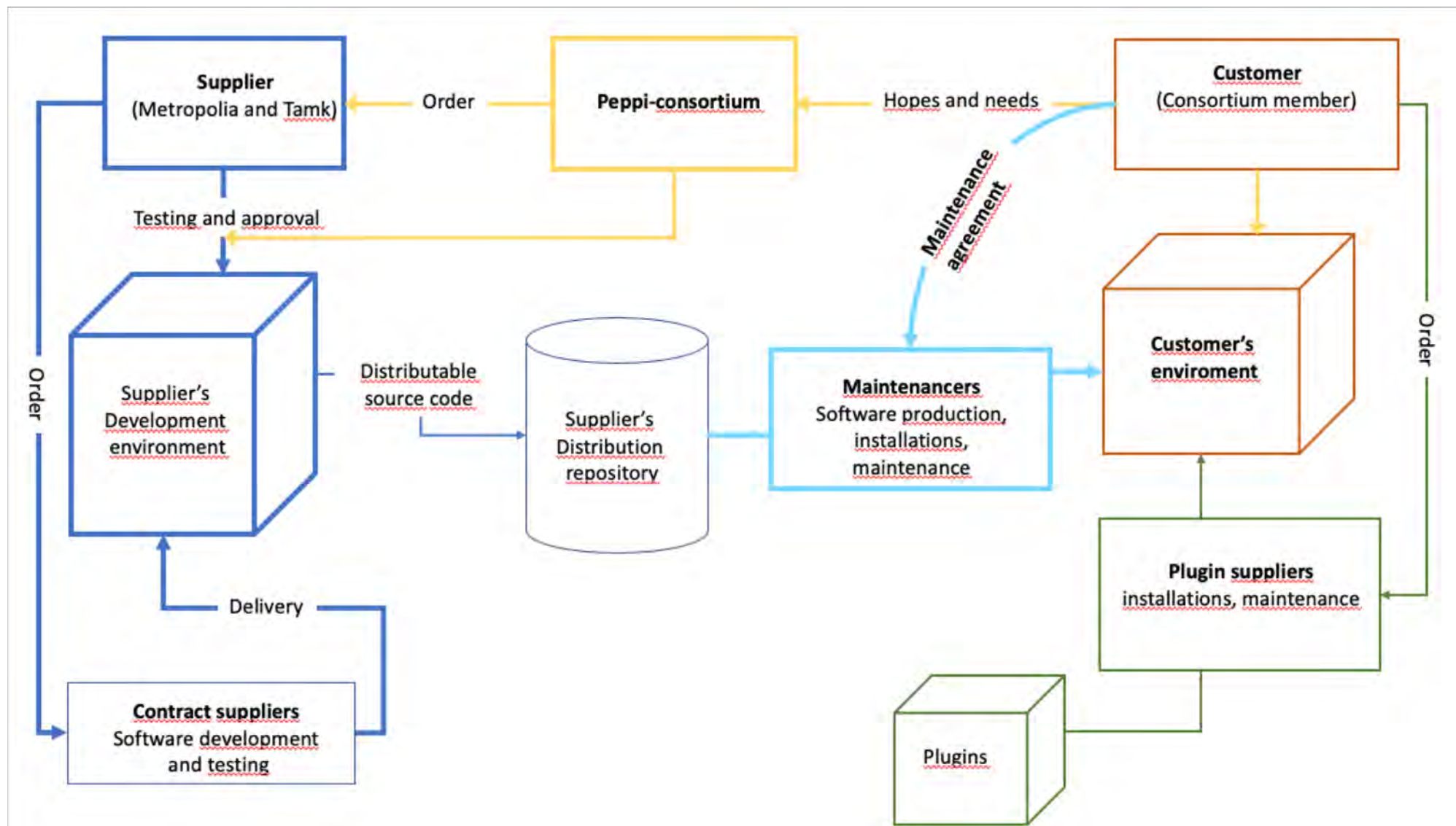- Student and study registery: 100%
- Student service modules: 100%

Universities

- Planning modules :100%
- Student and study registery : 73%
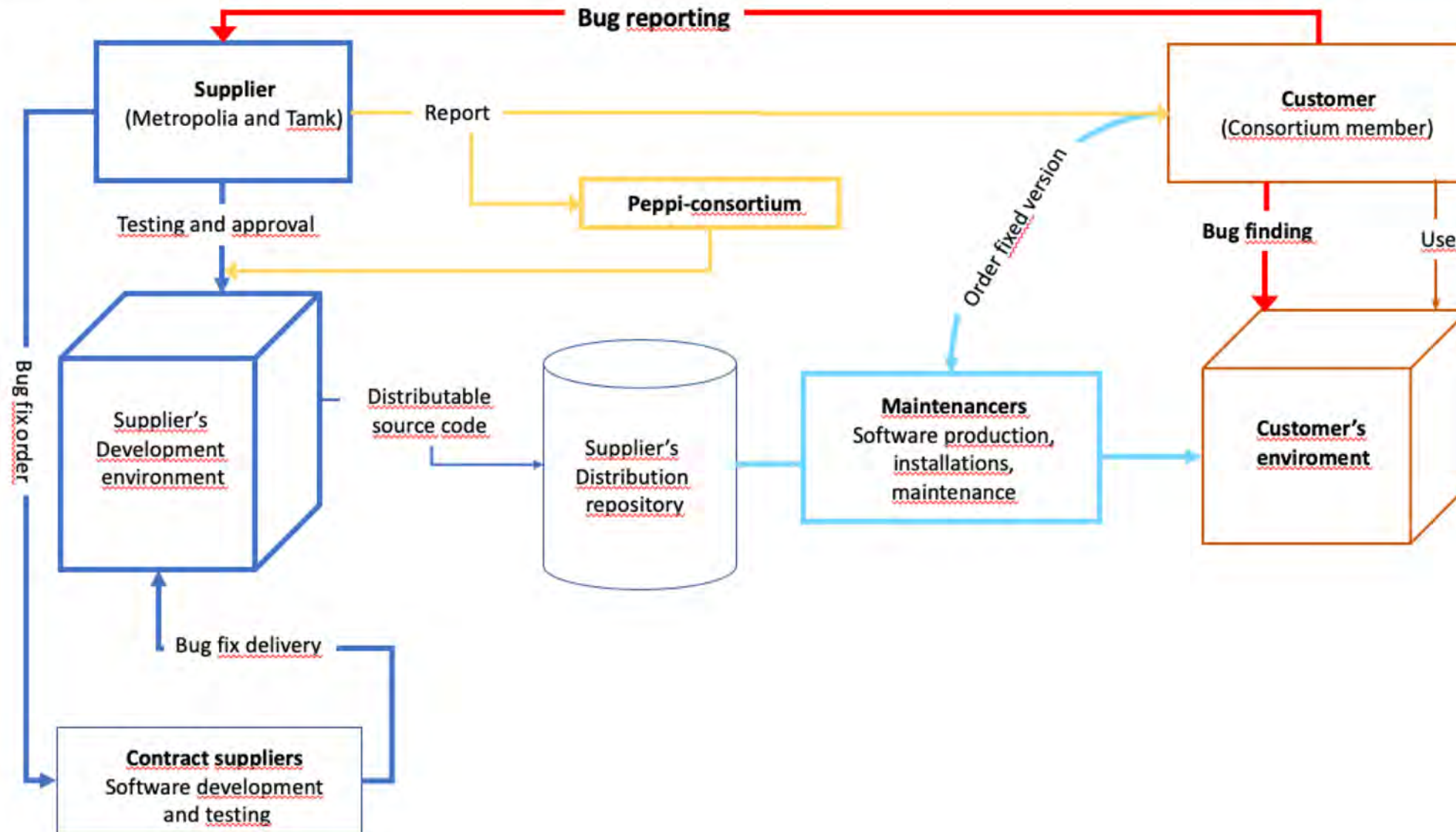- Student service modules : 73%

Consortium organisation

Development process

Bug fix process

Current

- Next development round
  - estimate 2539 work days
  - 14 development packages
    - Better support for universities (student- and studyregistery)
    - Cross studying support
    - Recognition of Prior Learning (RPL)
  - Costs estimate 1.5M€
  - Starts NOW ends Q3/2020
- Lots of development debt because of two-year judicial proceedings in the Market Court and the Supreme Administrative Court
- Also pending better support for individual learning and third active language
- Increasing open data interfaces

Other

- Eduix Ltd (who owns the IPR in abroad)
  - Ongoing co-operation
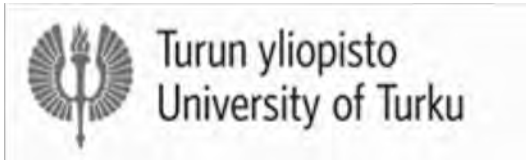 - Reykjavik University
  - Namibia
  - Egypt

Thank You!

tuomas.orama@metropolia.fi
+ 358 50 401 3499