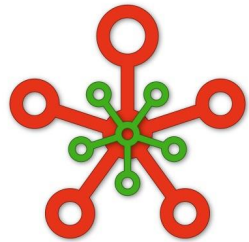


UNIVERSITY LABS AS CARRIERS OF INDUSTRIAL REVIVAL IN DEVELOPING COUNTRIES: A SOFTWARE ENGINEERING CASE

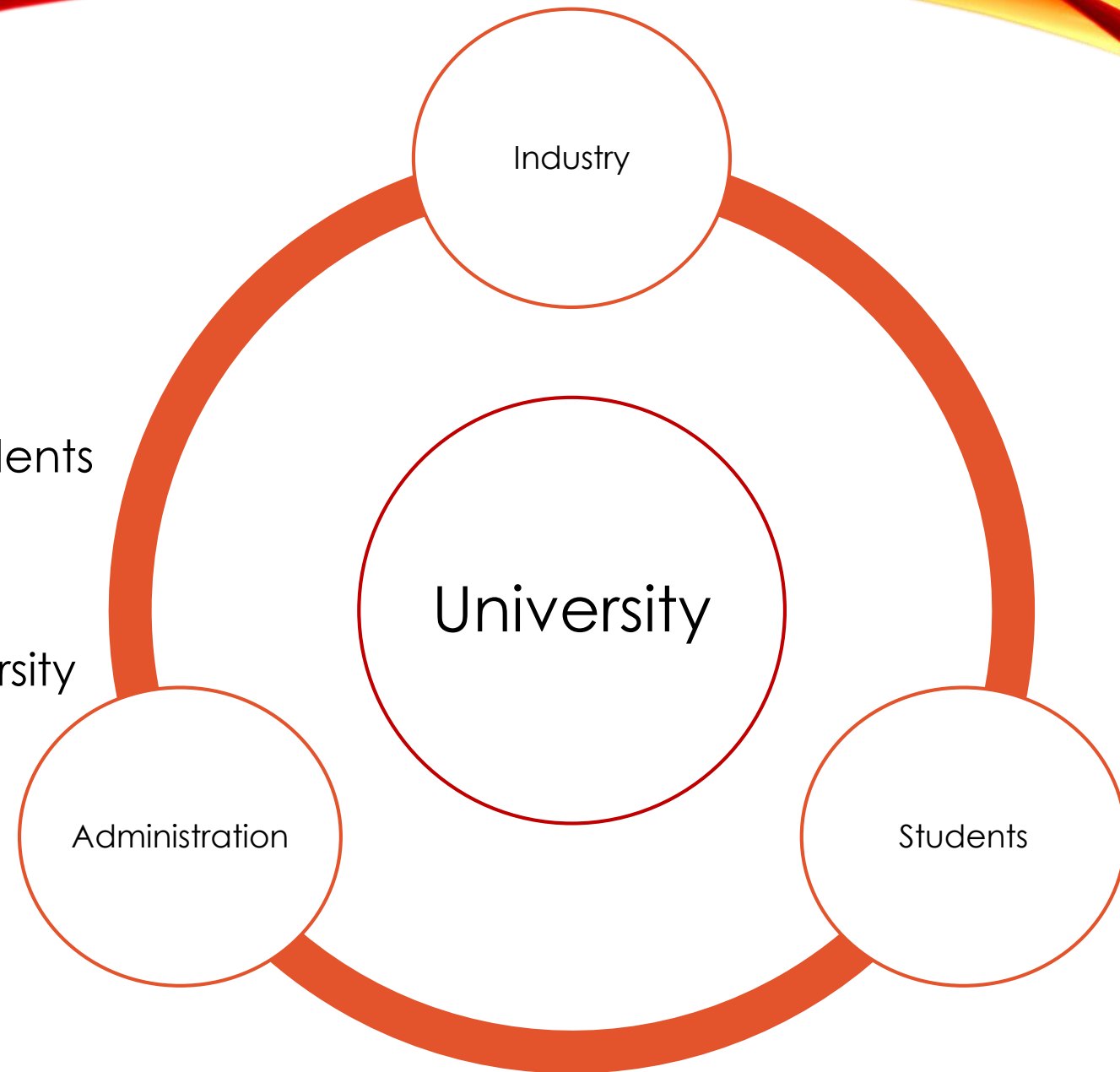


Gordana Rakić, goca@dmi.uns.ac.rs

Zoran Budimac, zjb@dmi.uns.ac.rs

LISTED PROBLEMS

- Structure of enrolled students
- Number of enrolled vs. graduated students
- Structure of employees in companies
- Demands of industry
- Influence of industry on students/university
- Expectations of students
- Constraints by administrations
- ...



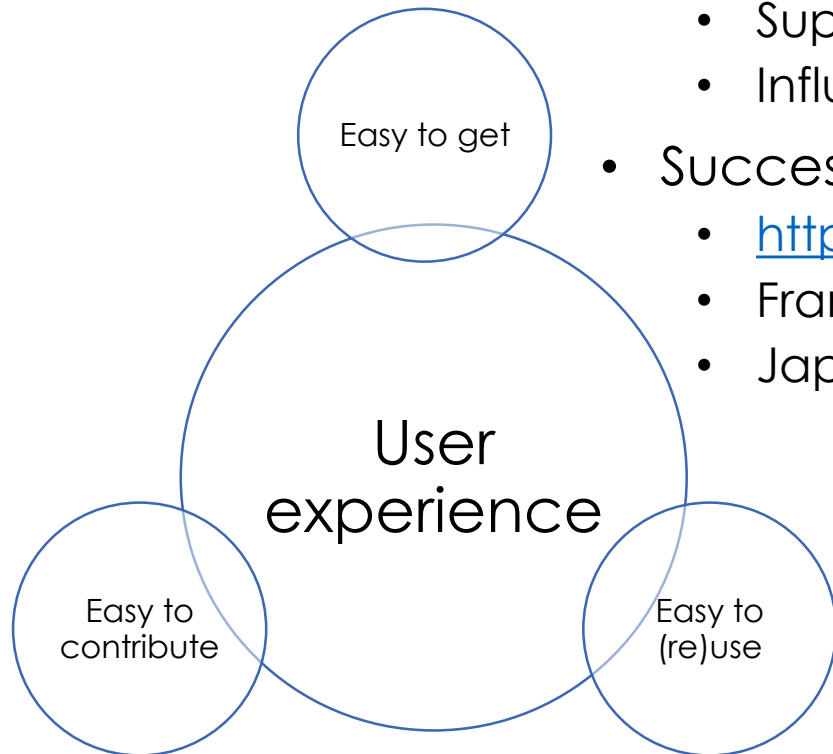
ELTE

- Open source project
- Build the community
- Be influential



PHARO CONSORTIUM

- Open source project
- Open access to all materials
- Problem \leftrightarrow Solution based collaboration
 - Promotes usage of Pharo
 - Supports development of Pharo
 - Influences directions of Pharo development
- Success stories
 - <http://pharo.org/success>
 - France, Switzerland, Czech, Germany,...
 - Japan, Argentina, Chile,...



Pharo consortium portal
A clean, innovative, open-source, Smalltalk-inspired environment.
See archive

Pharo is a clean, innovative, open-source Smalltalk-inspired environment. Pharo's goal is to deliver a clean, innovative, free open-source Smalltalk-inspired environment. By providing a stable and small core system, excellent dev tools, and maintained releases, Pharo is an attractive platform to build and deploy mission critical Smalltalk applications.
The license of Pharo is MIT with some original parts remaining under the Apache License. All contributors are required to sign our license agreement. The consortium is for legal entities, if you are an individual that wants to support Pharo participate to the Pharo association.

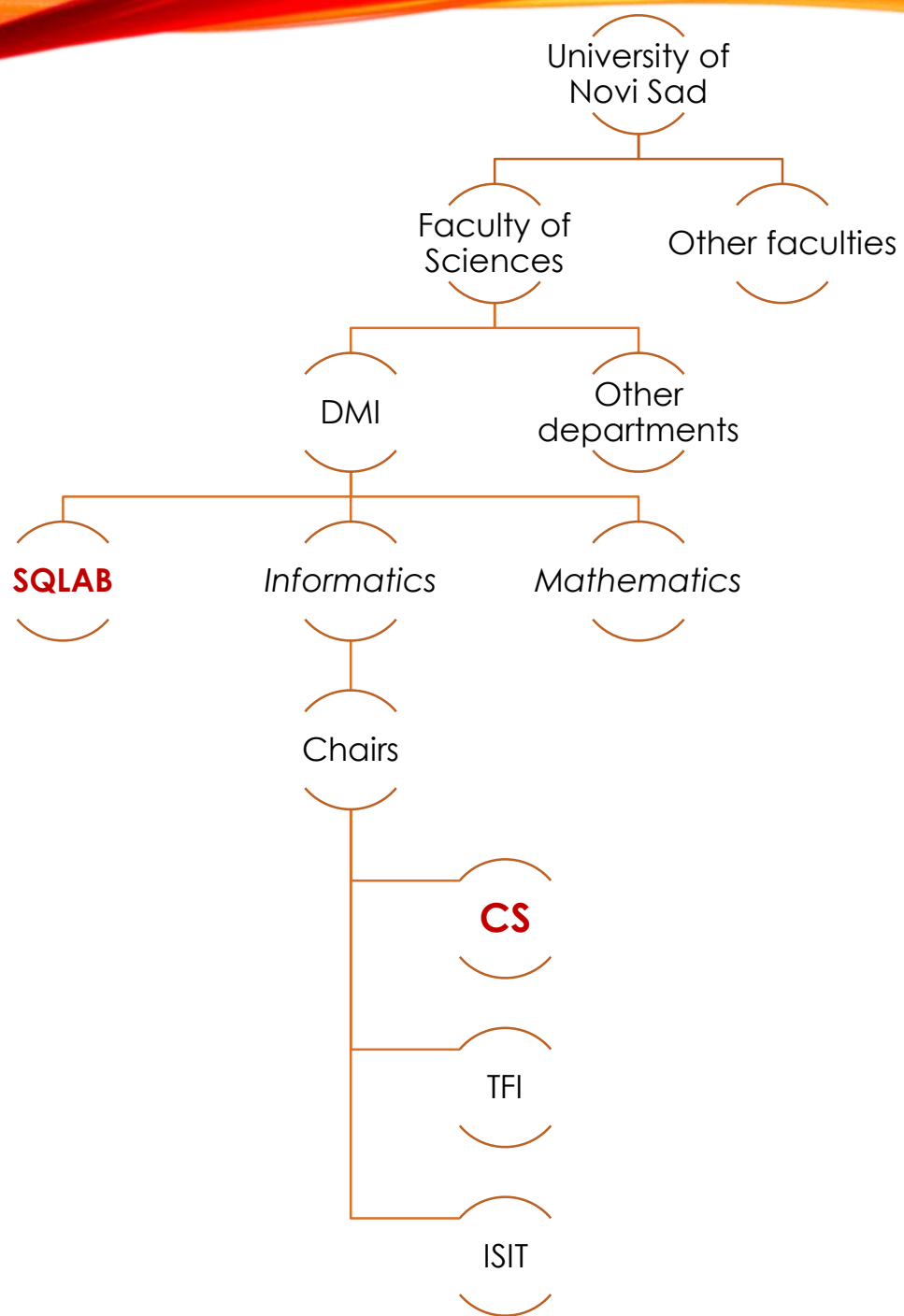
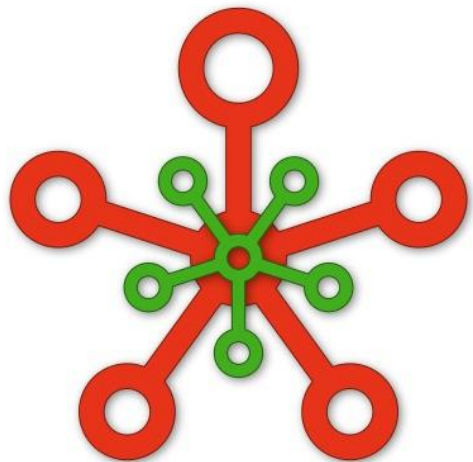
Industrial members

ENSTA Bretagne	Ingenieurbüro Schmidt	JPhlogon Chase	Lifeware
Lam Research Corporation	INRIA	Synectique	Thales
Soops	feenk	GenTalk Systems	ESUG
Projector Software	ZWEIDENKER	LabWare, Inc.	Yesplan
Knowboaring	Inceptive.be	HR	Yesplan
BetaNine	SORABITO	Palantir Solutions	Inspired.org
Ovoco	La Mère	Object Profile	metstyle.ch GmbH
High Octane	Sensus	University of Toronto	ENIT

Academic partners

University of Toronto	ENIT	Software Quality Laboratory	Software Institute
Département Informatique	Rych Lab	UMISCO IRD	REVAL
Fundación Argentina de	Universidad Nacional de Córdoba	Mines Douai - IA	Faculty of Information
Uqpar Foundation	CRYSTAL Univ Lille	Software Consortium Group	RMod
Pleiad	Pleiad		

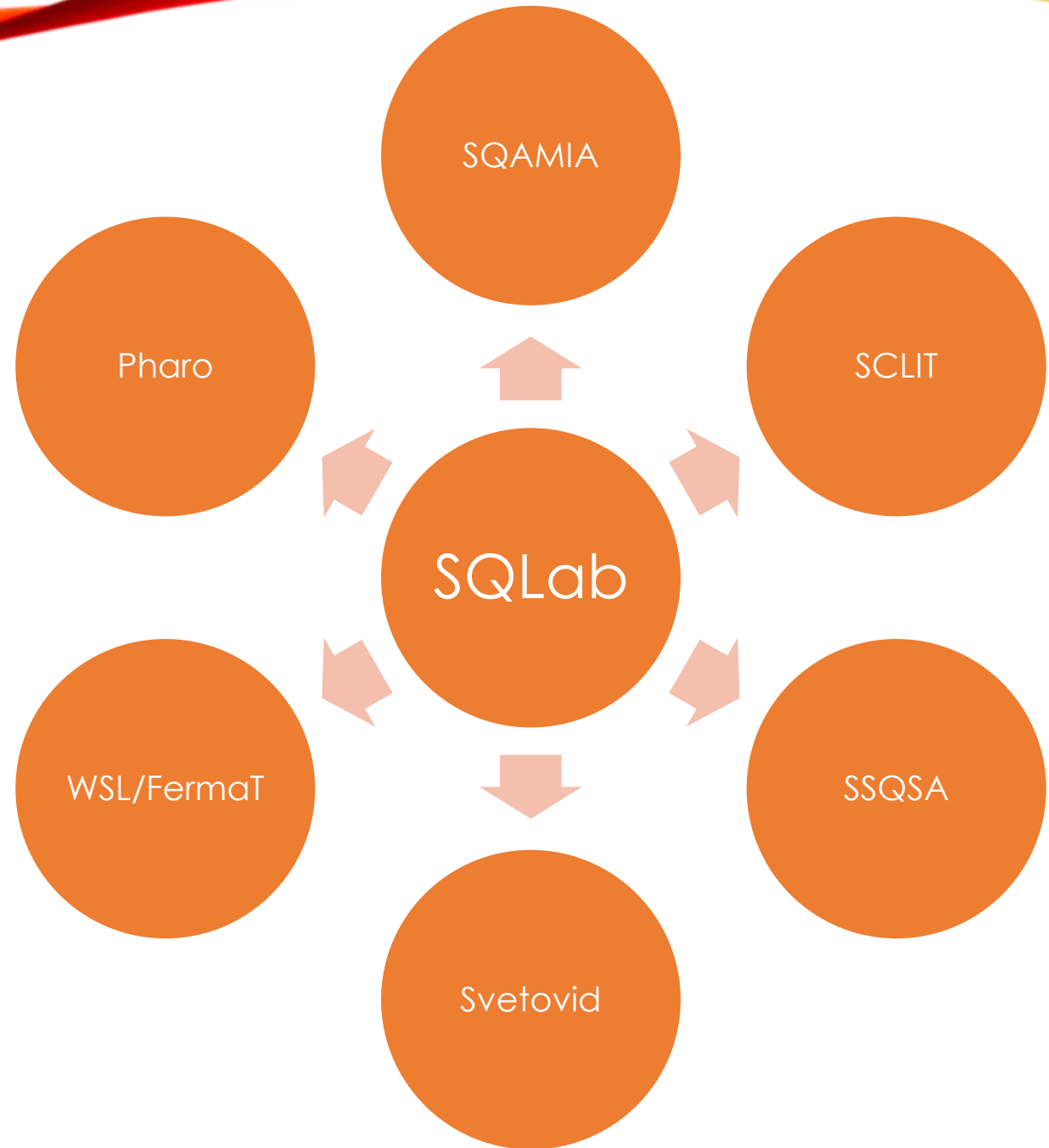
SQLAB @DMI



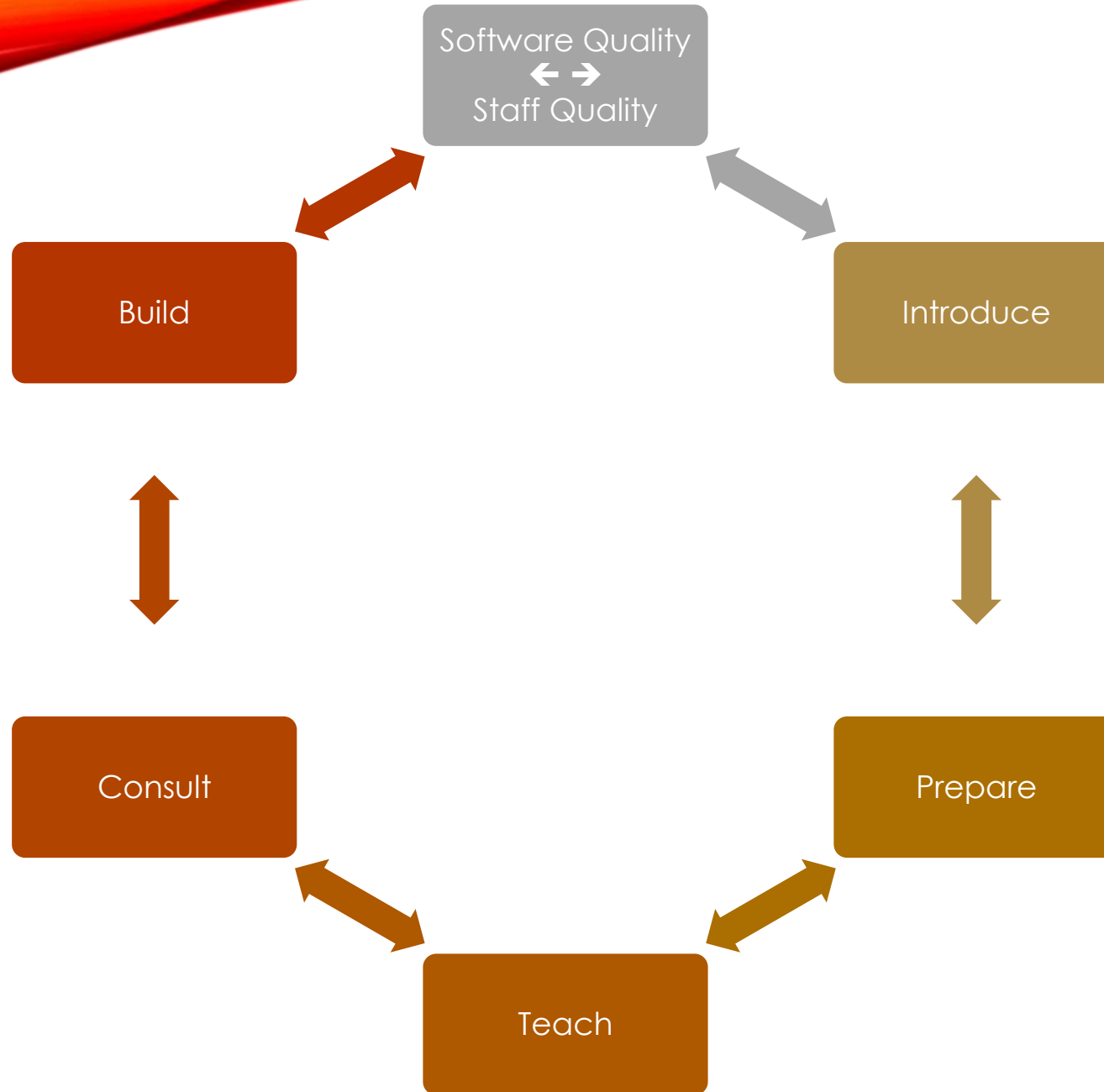
MEMBERS



ACADEMIC ACTIVITIES



MISSION



INTRODUCE & PREPARE

- Attract children to play with programming
- Find talents, make them recognize it
- Prepare future students
- ...
- Become a club for “undiscovered” talents



The screenshot shows the CoderDojo website homepage. At the top, there is a navigation bar with the CoderDojo logo and links for "Find a Dojo", "Volunteer", "Start a Dojo", "Resources", and "Login". The main heading reads "The community of 1940 free, open and local programming clubs for young people". Below this, a sub-heading states "58,000 young people are being creative with technology with the help of 12,000 volunteers in 103 countries. Join us!". There are two prominent buttons: "Find a Dojo" (orange) and "Start a Dojo" (teal). Below these are three video thumbnails: "CoderDojo Anvill, Indiana, USA", "What is CoderDojo?", and "CoderDojo Nürnberg, Germany". A section titled "Dojos are relaxed and fun programming clubs!" features two testimonials from young people, each with a small profile picture. At the bottom, there is a "Find a Dojo to attend" button.

CoderDojo Find a Dojo Volunteer Start a Dojo Resources Login

The community of 1940 free, open and local programming clubs for young people

58,000 young people are being creative with technology with the help of 12,000 volunteers in 103 countries. Join us!

Find a Dojo Start a Dojo

What is CoderDojo?

CoderDojo Anvill, Indiana, USA CoderDojo Nürnberg, Germany

Dojos are relaxed and fun programming clubs!

"When I started to attend the CoderDojo courses, I only knew how to copy/paste. Now, I can build websites and I even experiment with game development."

Daniel, 14, Moldova

"It's a place to go to learn really cool coding activities and make friends. I've got a chance to try things from scratch to drones and even how to live code music with sonic pi!"

Aoibheann, 11, Ireland

Find a Dojo to attend



TEACH \leftrightarrow CONSULT

Teach according to good practice

Teach according to needs of industry



- Teach principles
- Apply principles on real problems
- Teach in companies
- Discover their problems
- Offer a solution

→ BUILD IT

LISTED PROBLEMS

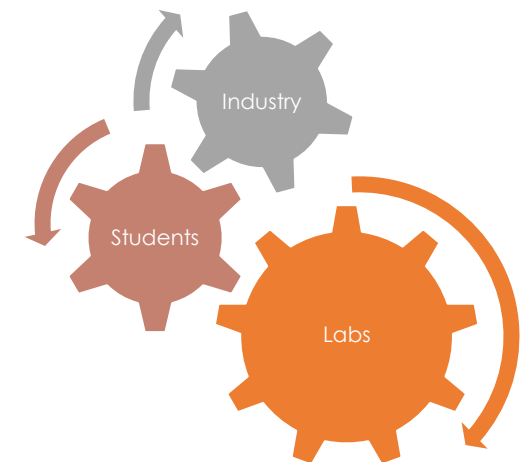
- Structure of enrolled students
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- ...



COOPERATION AT ACADEMIC INFORMATICS EDUCATION ACROSS BALKAN COUNTRIES AND BEYOND

- Reuse the model
 - ELTE, Pharo, ...
- Adapt the model to the local needs
- Create the network of labs
- Apply!!! (H2020, COST,...)
- Reuse existing materials/products
- Refresh, adapt,...
- Open it???
 - For access, for contributions,...

**INCLUDE THE INDUSTRY
&
INVOLVE YOUNG POPULATION**



THANK YOU

