



University of Ruse A.Kanchev

Department of Informatics and Information Technologies

Service Science in Master of Software Engineering Education

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S E M I N A R

Training in software services

West University of Timisoara

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Who organizes this Master program of Software engineering and why

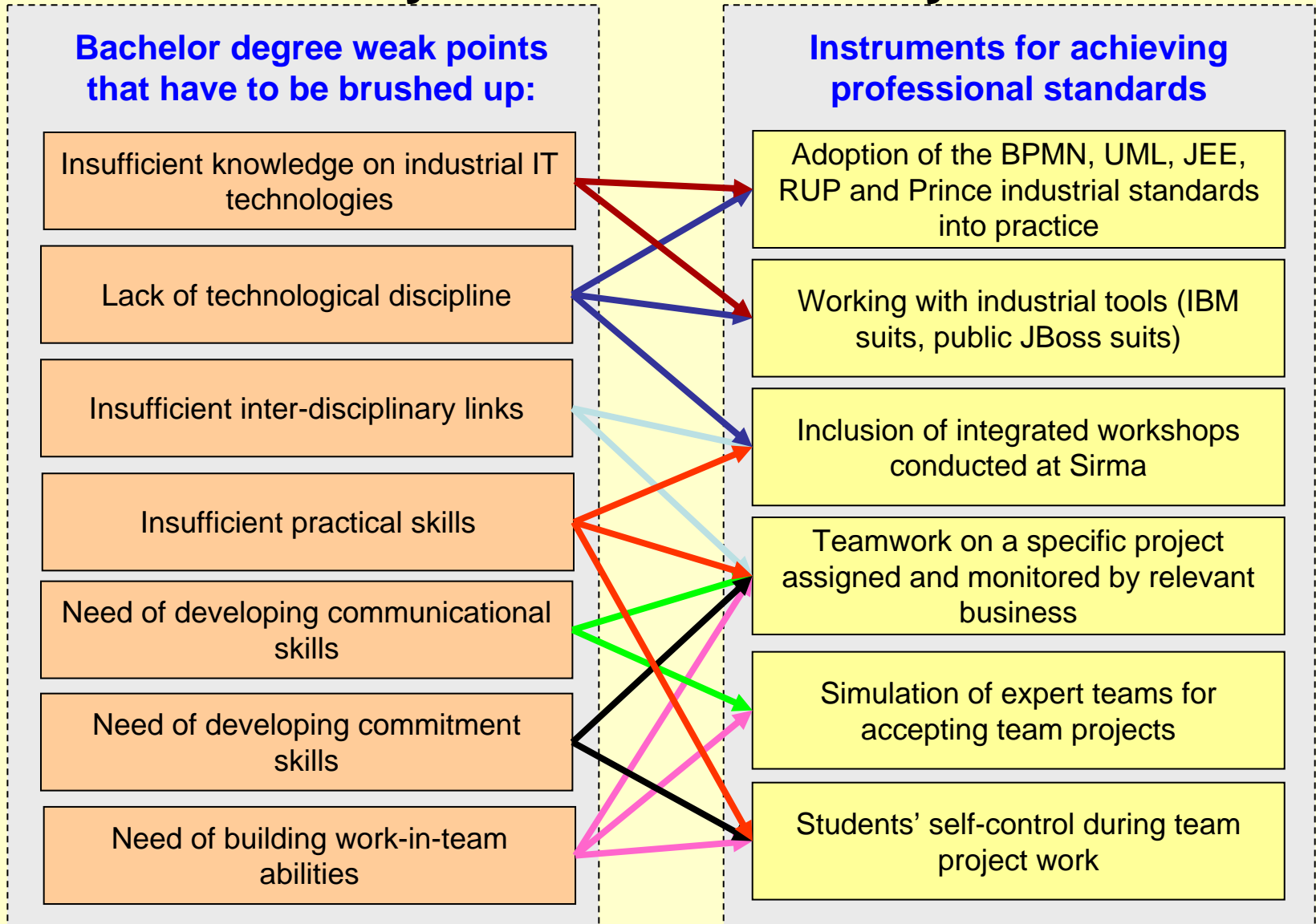
This master program is the first one, developed in collaboration of:

- an academic institution (University of Ruse) and
- an industrial software producer (Sirma Group).

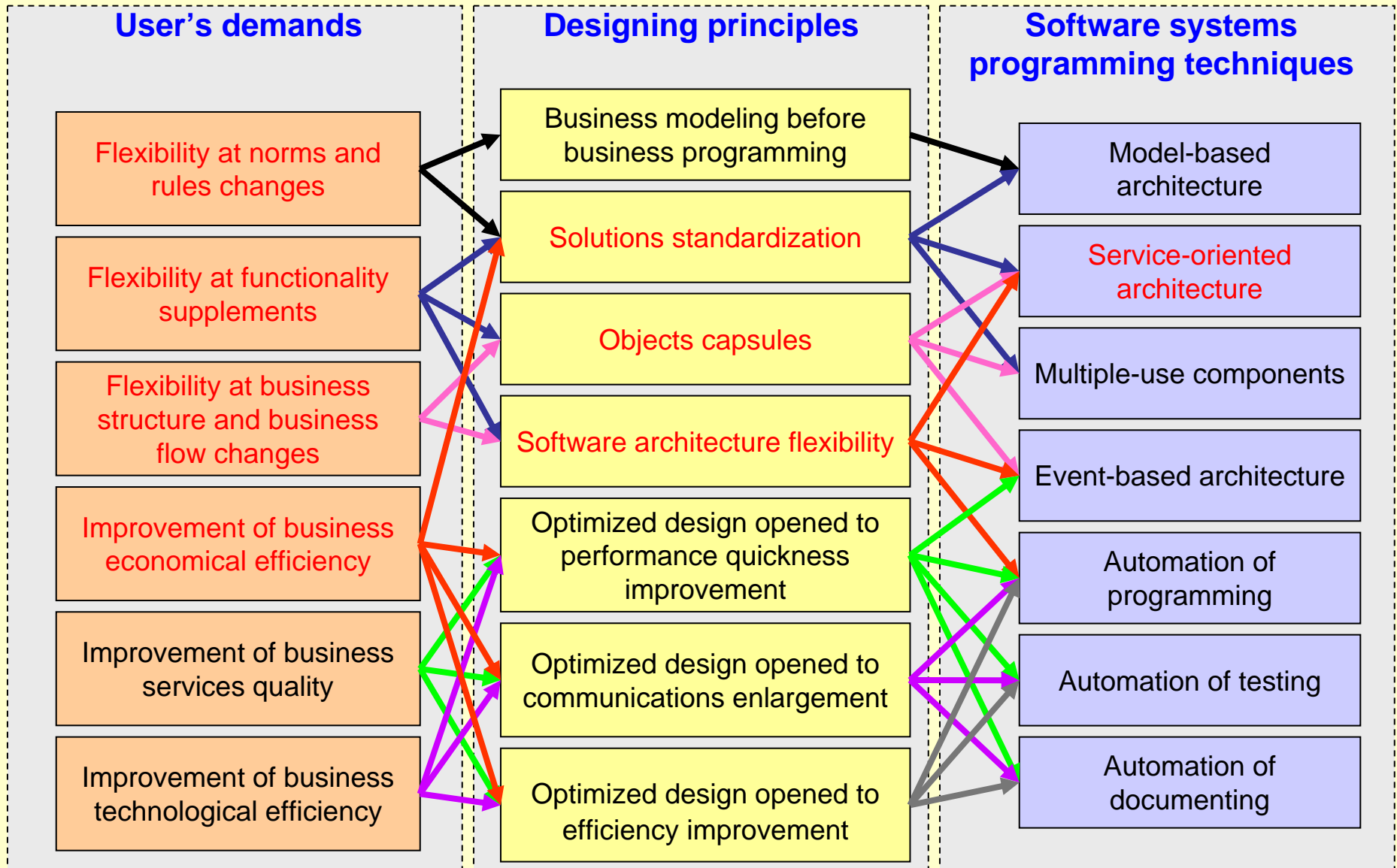
The main goal is:

To graduate professional in the field of software engineering covering the requirements for Master of Software Engineering of professional organizations ACM and IEEE Computing Society.

How to develop professional qualities demanded by the business today



Why are IT services included in the MPSE?



Curriculum of MPSE

S	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	h/w	h/ Self train
S1	6 ECTS E <u>Object Oriented Programming</u> OOP, Basic Java 2 0 3 5	6 ECTS E <u>Data Bases</u> Object DM, Relational DM, SQL 2 0 3 5	6 ECTS E <u>Software Systems Design</u> BPMN, UML, SOA, RUP 2 0 3 5	5 ECTS E <u>Computer Systems and Networks</u> Linux, Networks, ESB 2 0 2 4	7 ECTS EM <u>Workshop 1</u> Team Project 1 Analysis & Design 0 0 6 6	25	25
	6 ECTS E <u>Web Components Design</u> JEE Presentation Layer 2 0 3 5	6 ECTS E <u>Software Systems Implementation</u> JEE Business and Persistence Layer 2 0 3 5	5 ECTS E <u>Instrumental Environments</u> SOA, WebSphere tools, Rational tools 2 0 2 4	6 ECTS E <u>Software Projects Management</u> Prince, RUP 3 0 2 5	7 ECTS EM <u>Workshop 2</u> Team Project 1 Implementation 0 0 6 6	25	25
S3					7 ECTS EM <u>Workshop 3</u> Team Project 2 Full Life Cycle 0 0 20 30	20	30

Legend

OOP Object Oriented Programming

BPMN Business Process Modeling Notation

UML Unified Modeling Language

SOA Service Oriented Architecture

RUP Rational Unified Process

ESB Enterprise Service Buss

JEE Java Enterprise Edition

DM Data Model

Code	ECTS	E/EM
<u>Subject Name</u>		
L	Sem	Lab CW

Instrumental Environments

CONTENT: SOA (Service Oriented Architecture)

1. Getting started with SOA
2. Designing SOA solutions using IBM SOA foundation

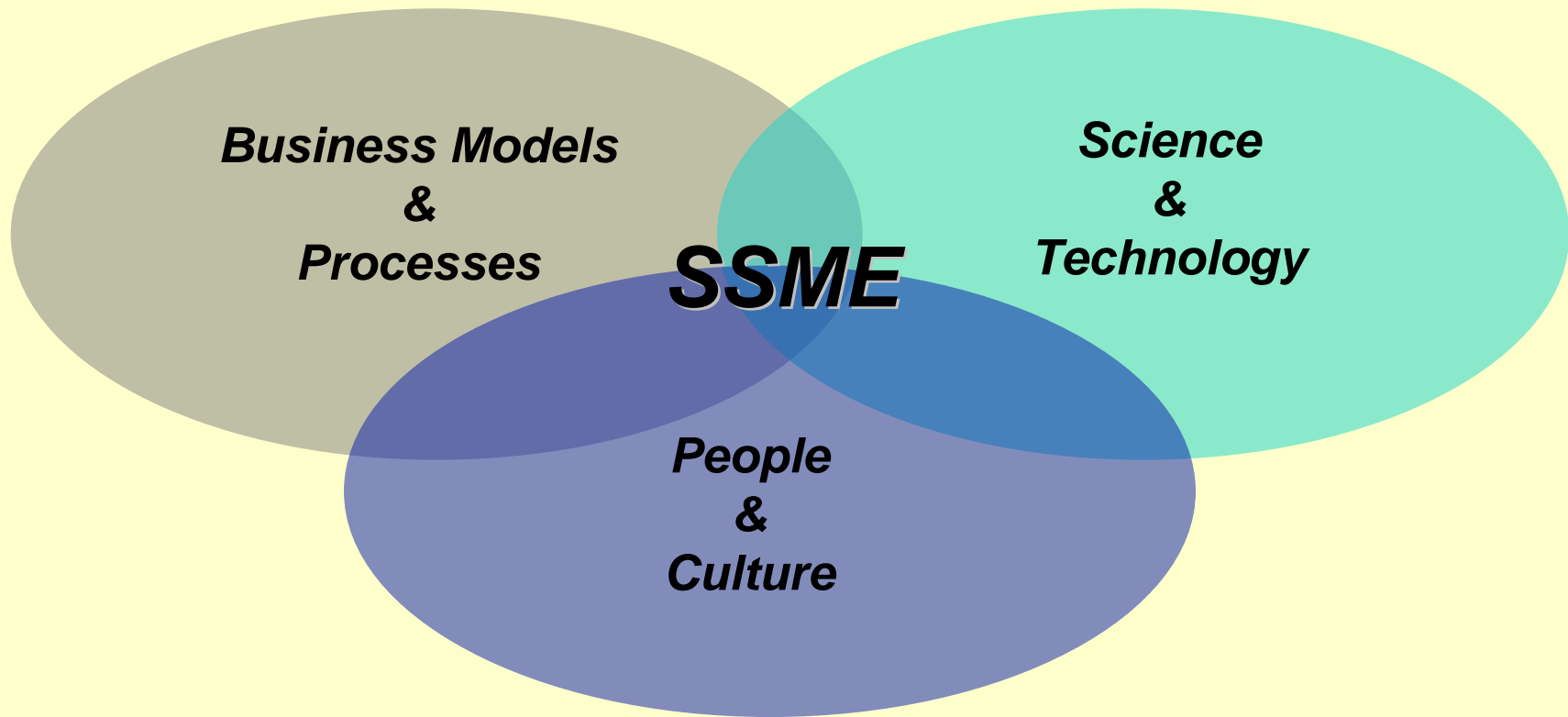
TEACHERS:

1. University lecturers
2. Sirma professionals
3. IBMers (IBM academic ambassador)

The results



An Answer to the Need for Curricula Change: Service Science Management & Engineering



The marketplace requires innovation that combines
people, technology, value and clients

What SSME is for universities and employees of IBM

To Universities

Updating curricula - teach in context around services

Training students to be more multi-disciplinary with skills in technology, business and people/culture

Help in developing new scientific models and algorithms to improve profitability of service businesses

To IBMers

Getting involved with University Outreach for SSME and develop training materials

Using SSME approaches in IBM Services Business and publish where appropriate

The Need for Skilled Professionals

Between 2010 and 2020 the Europe will face a shortfall of technically specialized professionals.
A part of IT professionals will retire in next few years.

Thank you for your attention