Course System Architecting (SARCH) Information, module 0

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Abstract

Course System Architecting Introduction

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SARCH Course System Architecture

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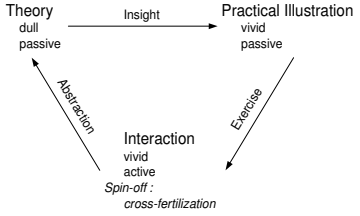
Abstract

This article describes the course Systems Architecting. The course is set up to make the art of system architecting more accessible. The course will address a wide spectrum of issues in relation with system architecture, such as: Processes, Business, Role and task of the system architect (team), Roadmapping, System Architect toolkit, Technical, Skills, and Psycho Social



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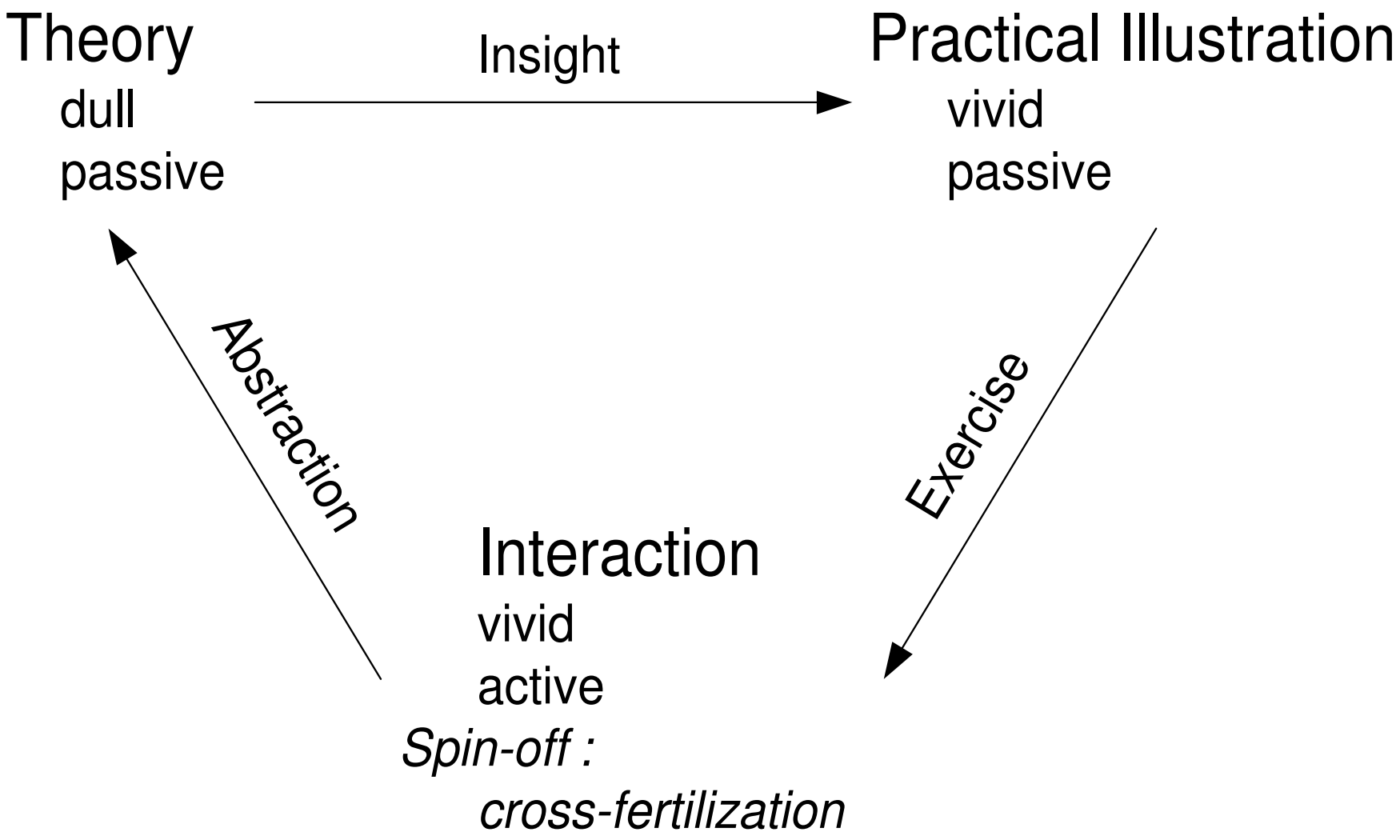
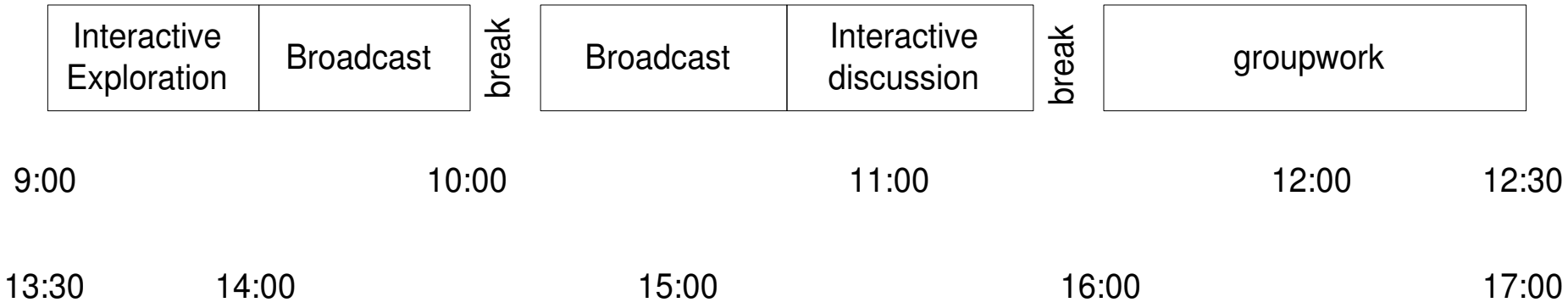
Program

Session 1 Positioning the System Architecture Process, Product Creation Process
Session 2 Role and Task of the System Architect
Session 3 Requirements Capturing
Session 4 System Architect Toolkit
Session 5 Roadmapping
Session 6 Product Families, generic developments
Session 7 Documentation, reviewing and other supportive processes; The role of Software in complex products
Session 8 BoM presentation
Session 9 Psycho Social side
Session 10 Wrap up, Expectations, How to continue, Evaluation

Structure


Theory
dull
passive
Insight
Practical Illustration
vivid
passive
Abstraction
Exercise
Interaction
vivid
active
Spin-off :
cross-fertilization

Timing Template of one subject



Rules of the Interactive Parts

- Your contribution is essential.

- Don't monopolize the time, everyone also the quiet people should have the opportunity to contribute;

  The facilitator will intervene if the contribution is limited to a small group of participants.

- Respect the contribution of others;

  Opinions can't be wrong, difference of opinion is normal and called pluriformity.

- The course format is highly experimental and based on improvisation, constructive proposals are welcome;

  it is your course! Regular evaluations will give the opportunity to influence the rest of the course.

Rules of the Broadcast Parts

- Please write your questions/remarks/statements on yellow stickers and attach them at the end on the P-flip.

  These will be used in the interactive section for discussion and to increase insight.

- Short clarification questions are welcome,

  discussion will take place in the interactive part.

- Stupid questions don't exist. Learning is based on **safe** and **open** interaction.

  Very individual oriented questions can be referred to a break or after the session.

The Gaudí Project

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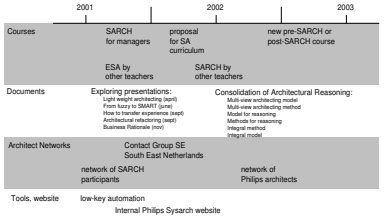
Abstract

The Gaudí project is described. The goals of the project, the way of working, and an outline for the period 2001 to 2003. The deliverables in terms of documents are positioned by means of a two-dimensional map. Courses based on the Gaudí material are described. The current status of the courses is given.



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Goals of the Gaudí Project

- Consolidate existing Systems Architecting Methods

  evaluate, reflect, generalize

- Make the Systems Architecting art more accessible

  case descriptions

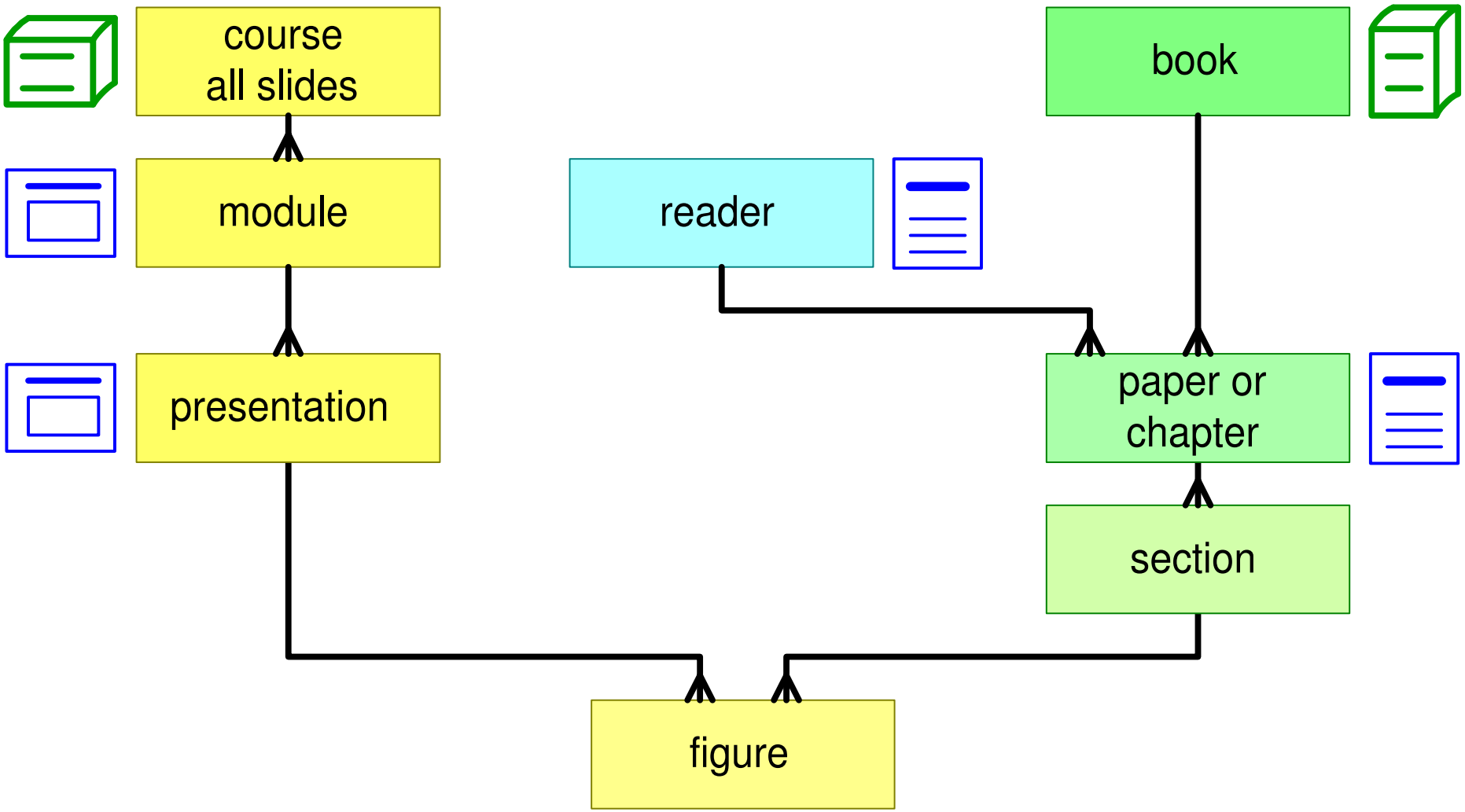
- Enable the education of (future) System Architects

  curriculum, course material

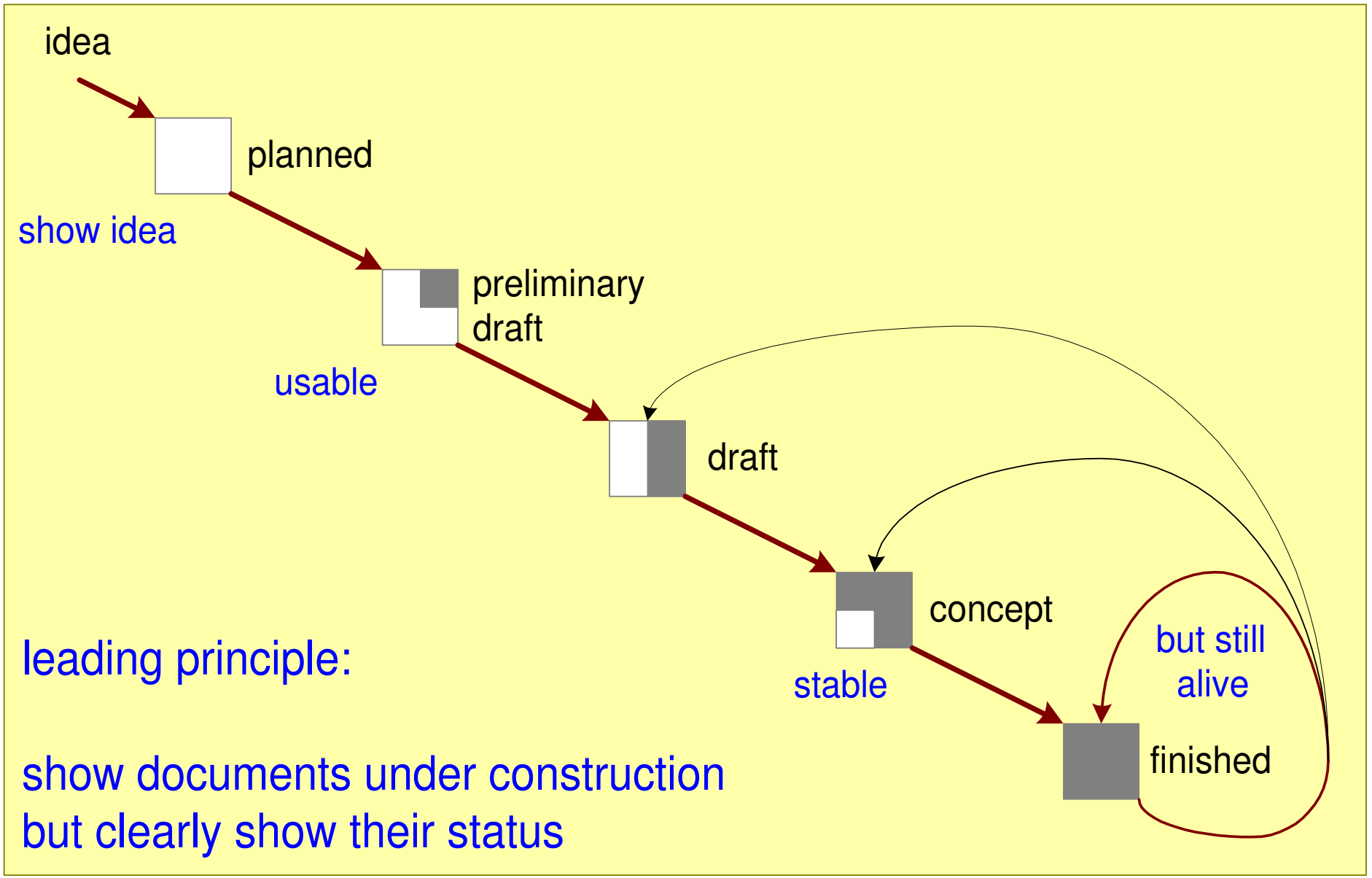
- Research new or improved Systems Architecting Methods

  industry as laboratory

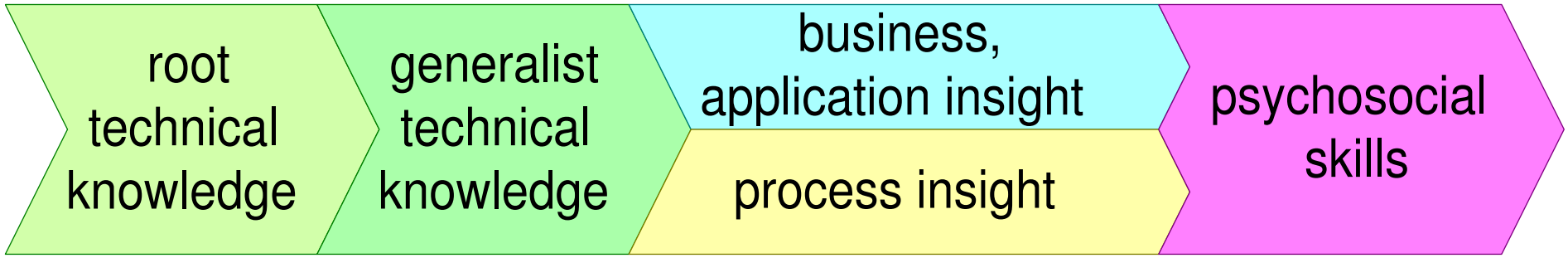
Modular approach



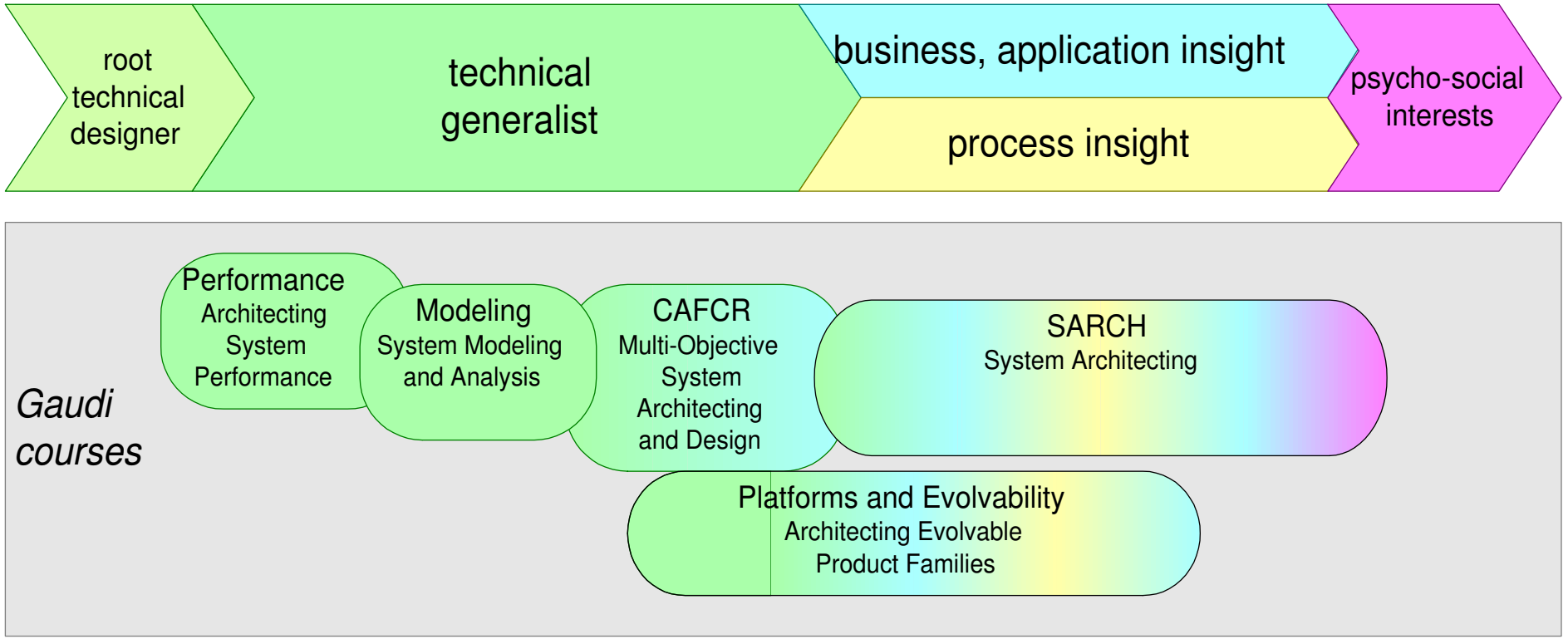
Show Early to Get Feedback



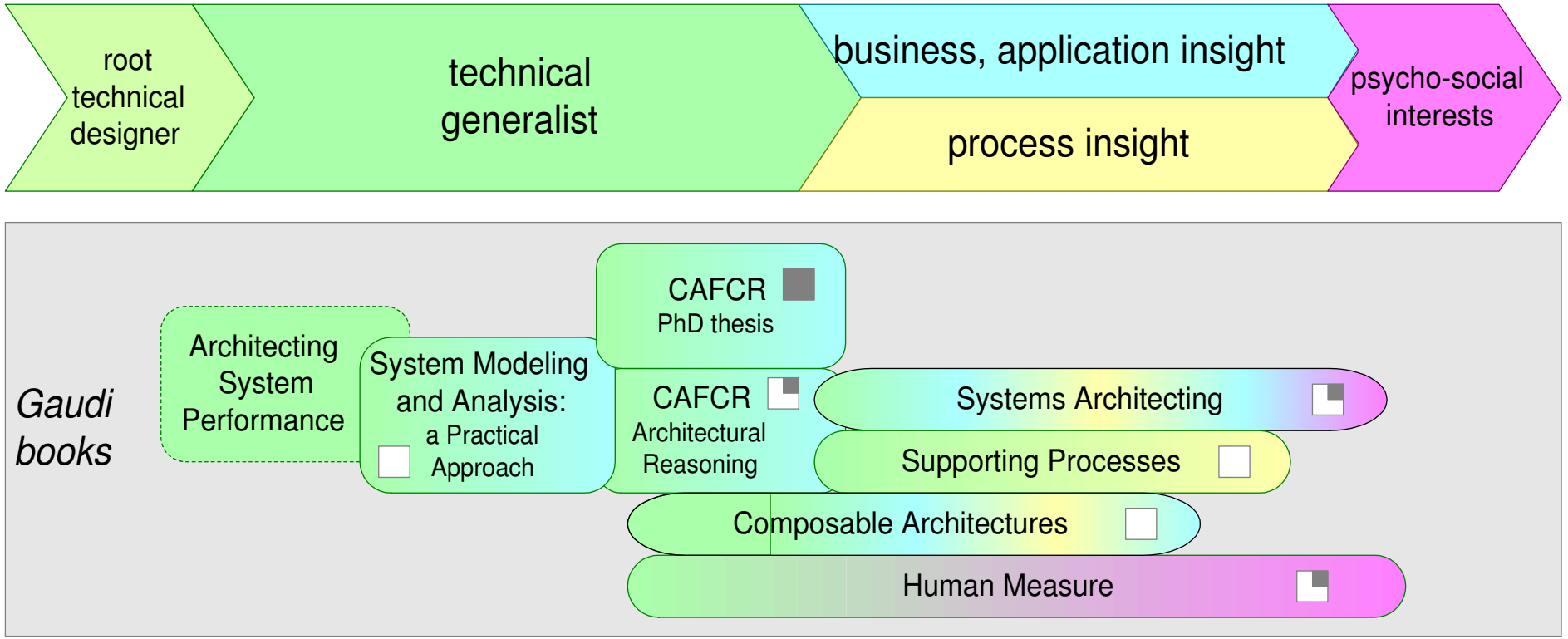
Growth of the System Architect



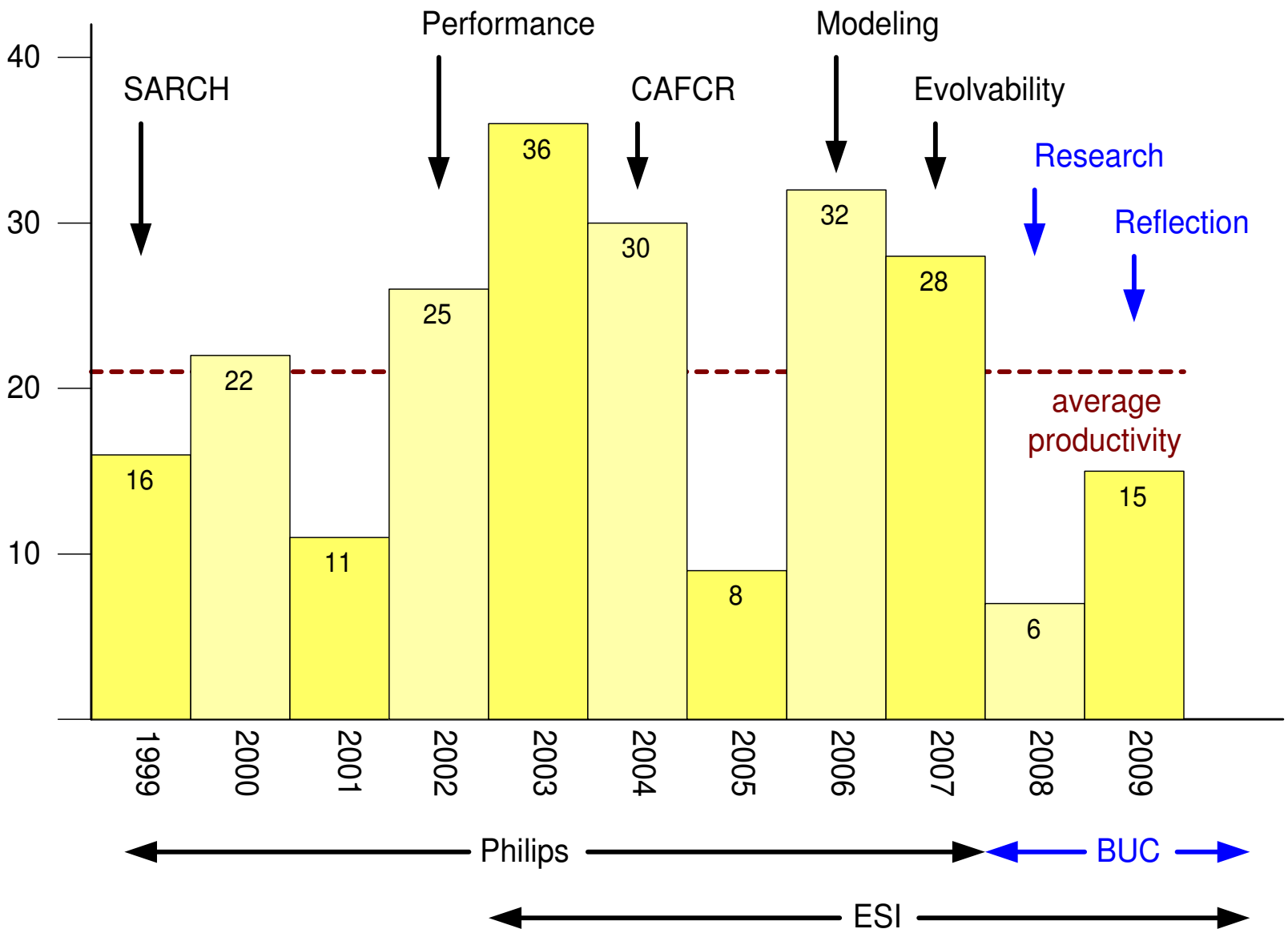
Positioning Courses



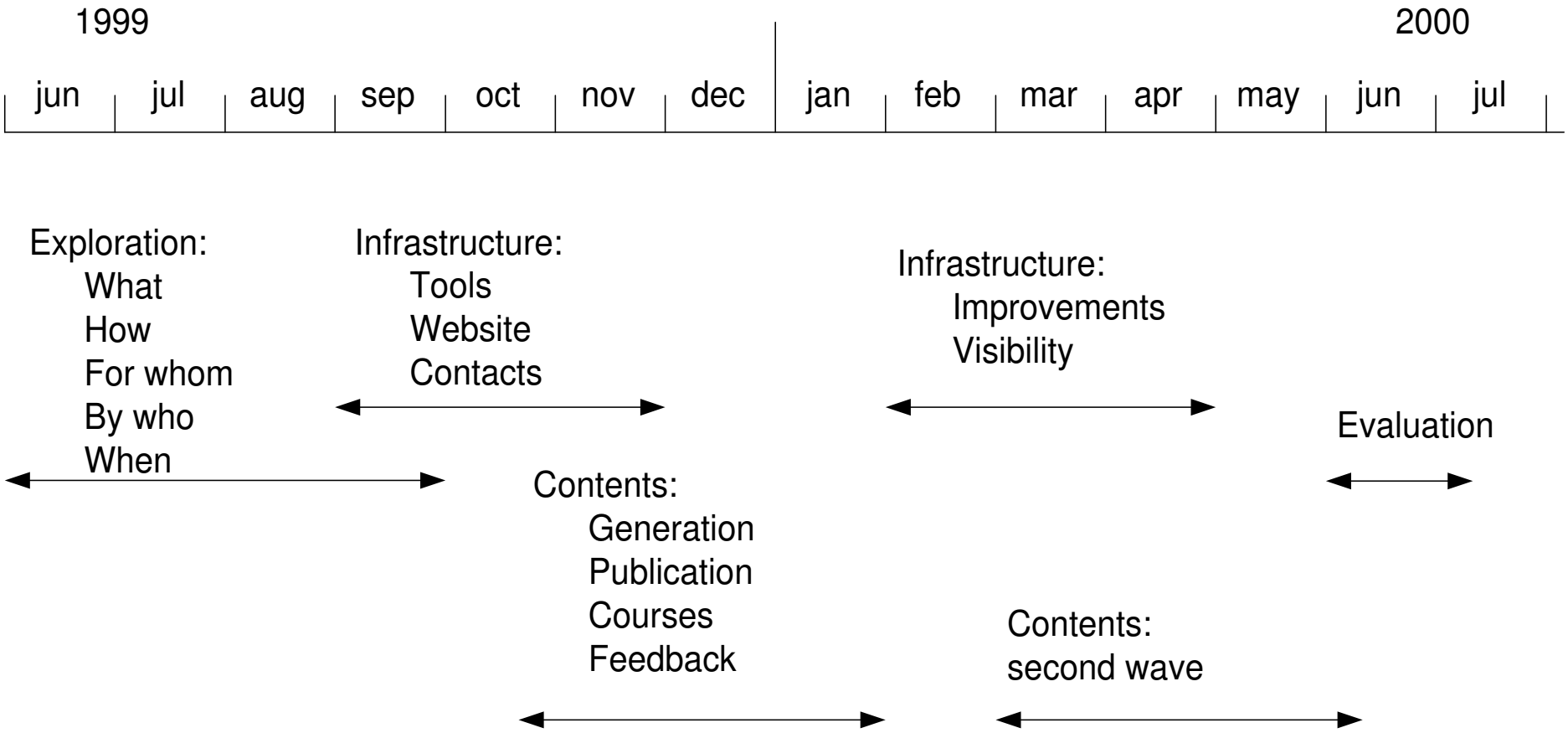
Positioning Books



Productivity: number of new entries



Concurrent Incremental Approach



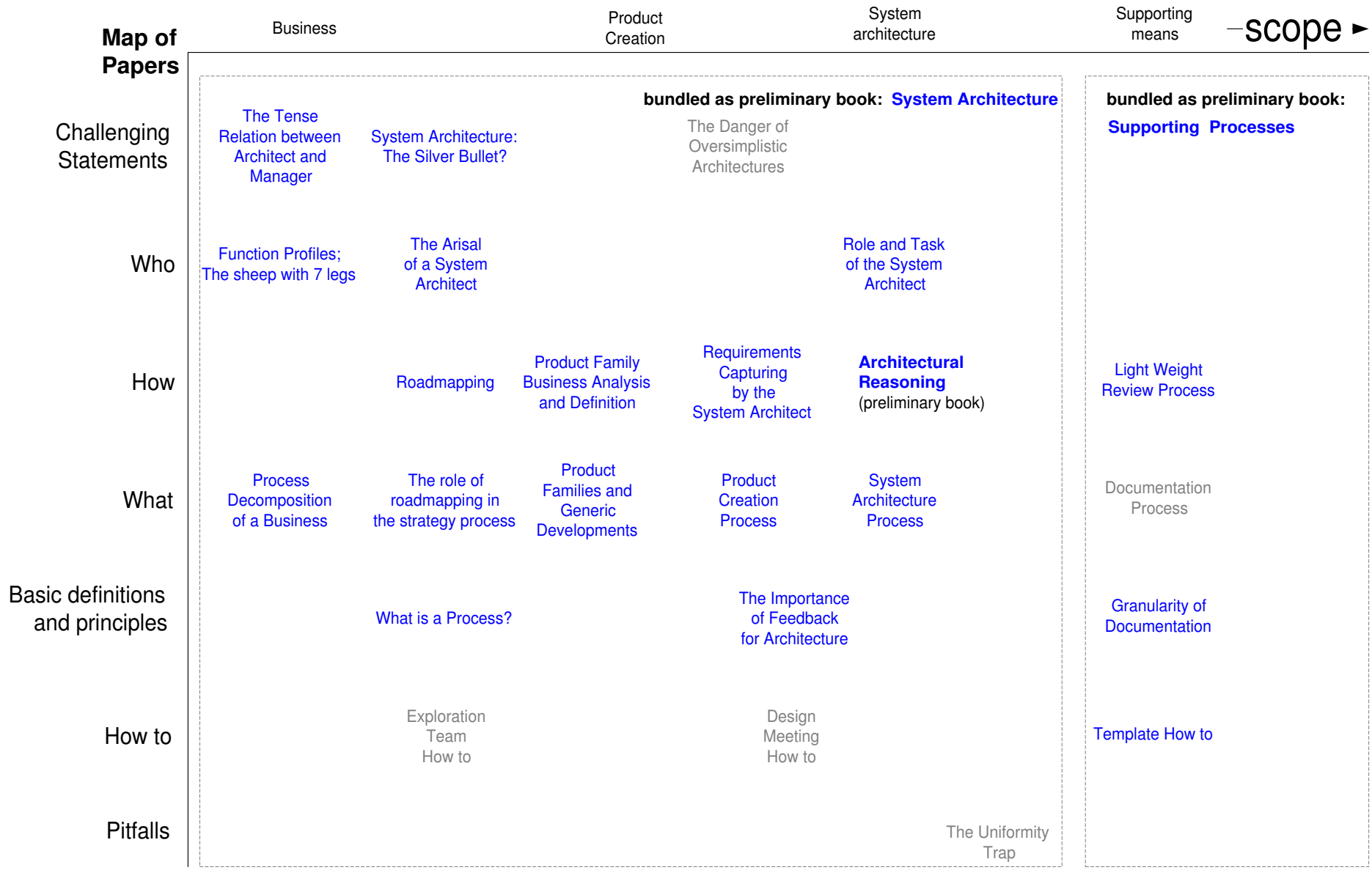
Outlook 2010-2012

	2010	2011	2012
Education	SE master program Reflective Practice yr 2 Master Project Modeling and Analysis Bachelor level	Reflective Practice yr 3 System Design Systens Engineering for other masters	SE PhD program
Research	Master Projects Methodology Research Agenda	staffing research model	PhD Projects Methodology broadening
SE Networks	local: SESG, BUC alumni, strategy&roadmapping, KSEE, ESI Sr architecten global: architectingforum.org, SoSE network, INCOSE academic forum, symposium, CSER, SEANET		
Tools, website	navigation and search	*ideas are welcome!*	
Book publication		Systems Architecting in Context	Multi-view Architecting and Modeling

Gaudí Process

- frequent releases
- early accessibility (in infancy stage)
- encouragement of further distribution
- aimed at maximum feedback

Positioning Gaudí Documents



Courses based on Gaudí Material

Course	Abbreviation	Duration (in days)	Participants per course	Target audience
System Architecture	SARCH	5	16	architects stakeholders of architects
Management SARCH	MSARCH	2	16	management teams
Embedded Systems Architecting; Stakeholders	ESA	3	16	potential architects
Requirements Engineering as part of OOTI curriculum	OOTI	5	12-18	post-doctoral students
Embedded Systems context	EScontext	4	30	masters students
Execution Architecture (with Ton Kostelijk)	EXARCH ASP	4..5	16	SW designers architects
Multi-Objective System Architecting and Design	MOSAD	3..5	16	designers architects
System Modeling and Analysis	MA611	3..5	16	designers architects

Status of Courses

Course	Abbreviation	number of courses upto March2008	appr. total participants
System Architecture	SARCH	44	660
Management SARCH	MSARCH	7	72
Embedded Systems Architecting; Stakeholders	ESA	20	300
Requirements Engineering as part of OOTI curriculum	OOTI	7	125
Embedded Systems context	EScontext	3	90
Execution Architecture (with Ton Kostelijk)	EXARCH ASP	11	160
Multi-Objective System Architecting and Design	MOSAD	3	36
System Modeling and Analysis	MA611	2	16

Course Modules

No.	Content	MSARCH	SARCH	ESA
0	Course information (course-specific), Gaudí project	+	+	+
1	Positioning the system architecture process, product creation process	+	+	+
2	Role and task of the system architect	+	+	+
3	Requirements capturing	+	+	+
4	System architect toolkit		+	
5	Roadmapping	+	+	+
6	Product families, generic developments	+	+	+
7	Documentation, reviewing and other supporting processes		+	+
8	The role of software in complex products		+	
9	Psycho-social side		+	some
10	Wrap up, expectations, how to continue, evaluation	+	+	
11	Human Resource Management wrt architects	+		