

CTT Course System Architecting SARCH for management teams

by *Gerrit Muller* Embedded Systems Institute

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Abstract

Information about the course System Architecting for management teams.

Distribution

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logo
TBD

Course System Architecting for Management Teams

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Abstract

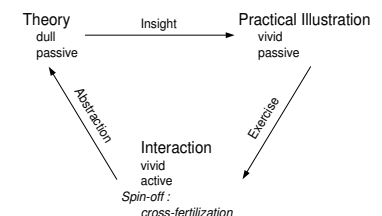
This article describes the condensed version the course System Architecture by the Center for Technical Training CTT. Trainer is the author of this article Gerrit Muller. At this moment this course is only accessible for Philips Employees.

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), generic Developments (re-use, platforms) requirements, roadmapping, skills, and psycho social factors.

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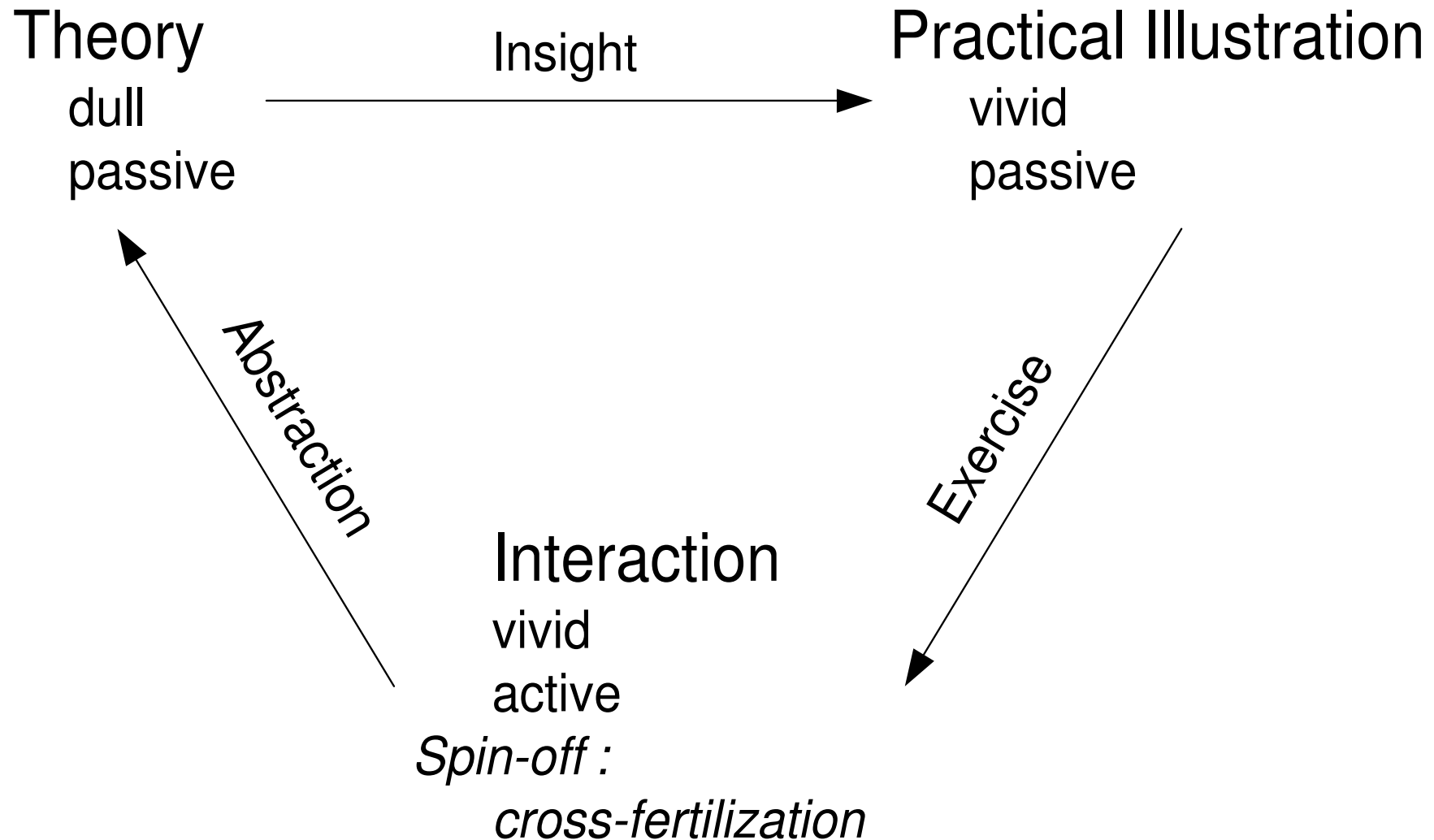


Program

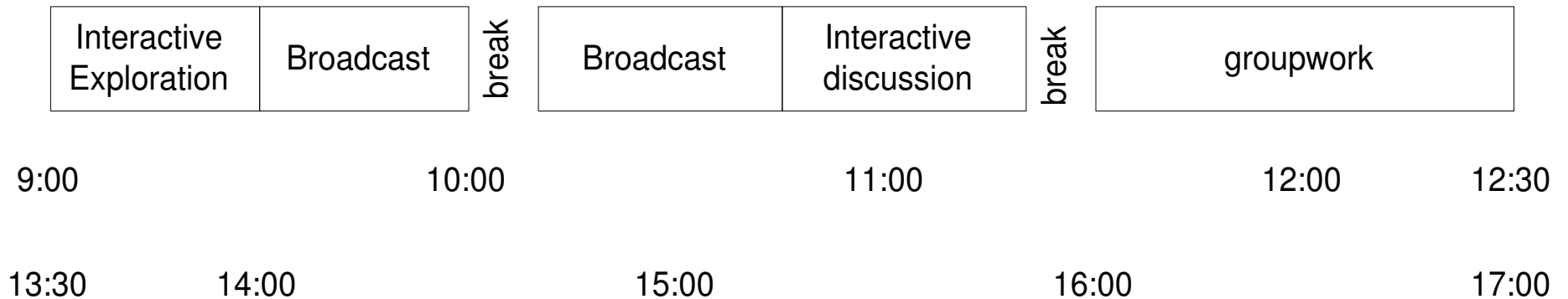
session	subject
day 1 morning	positioning the System Architecture Process Product Creation Process product families, generic developments
day 1 afternoon	role and task of the system architect profile of the system architect documentation, reviewing and other supportive processes
day 2 morning	requirements capturing, roadmapping
day 2 afternoon	HRM aspects; selection, appraisal, career path, etcetera wrap up, expectations, how to continue, evaluation

- 1 Make a map of the operational organization, from portfolio down to components, with specific products, names and roles; Discuss the relations in one of the core teams.
- 2 Role play, marketing manager + projectleader + system architect + observer; prepare initial product definition (=business relevance+specification+critical design issues+plan indication)
- 3 Determine Requirements and key drivers and show the relationship
- 4 Show the roadmap as far as known now

Structure



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 plurality.

- 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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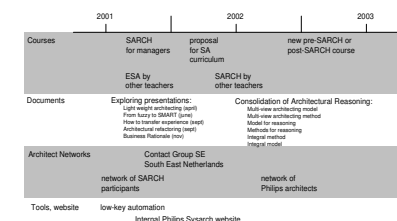
Abstract

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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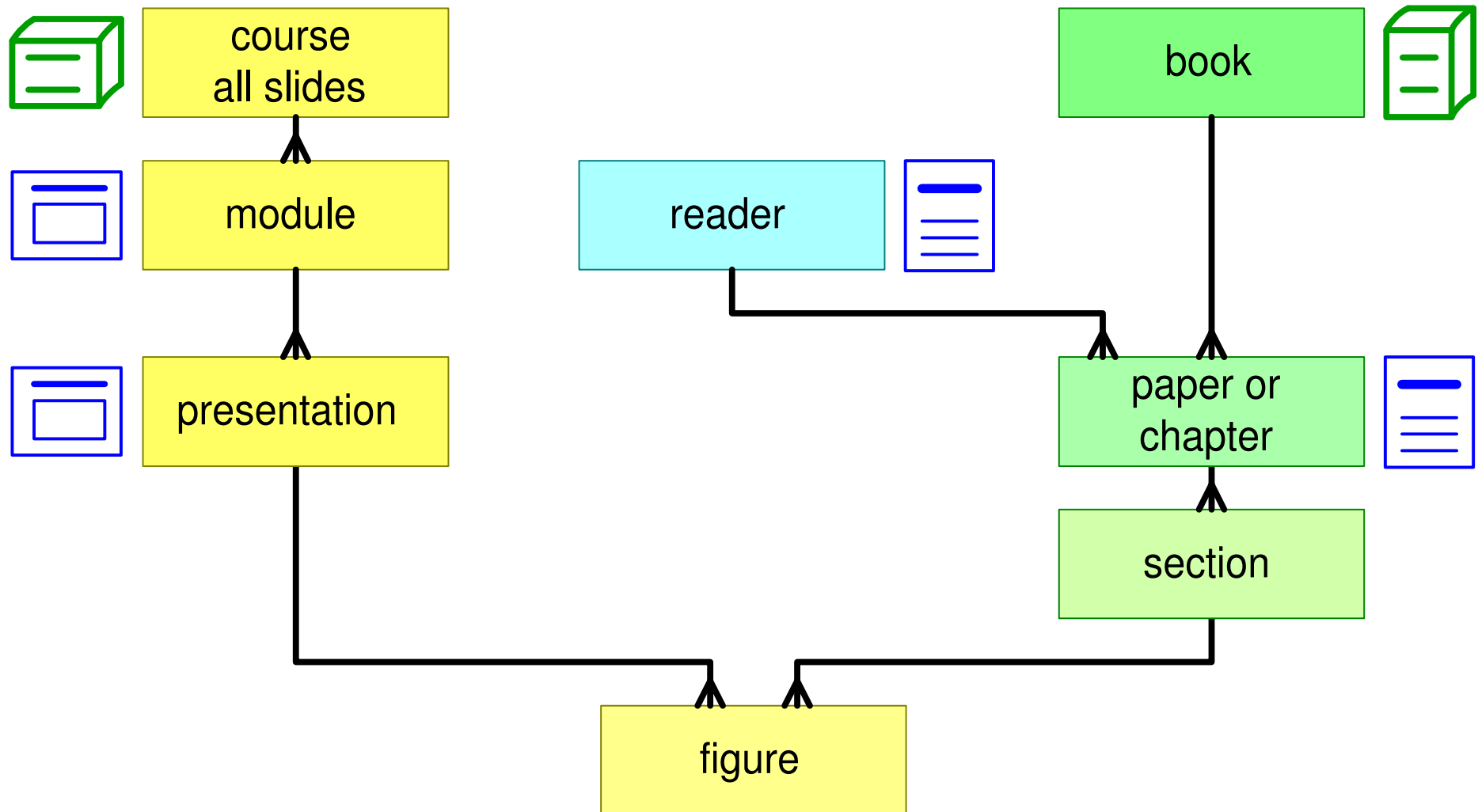
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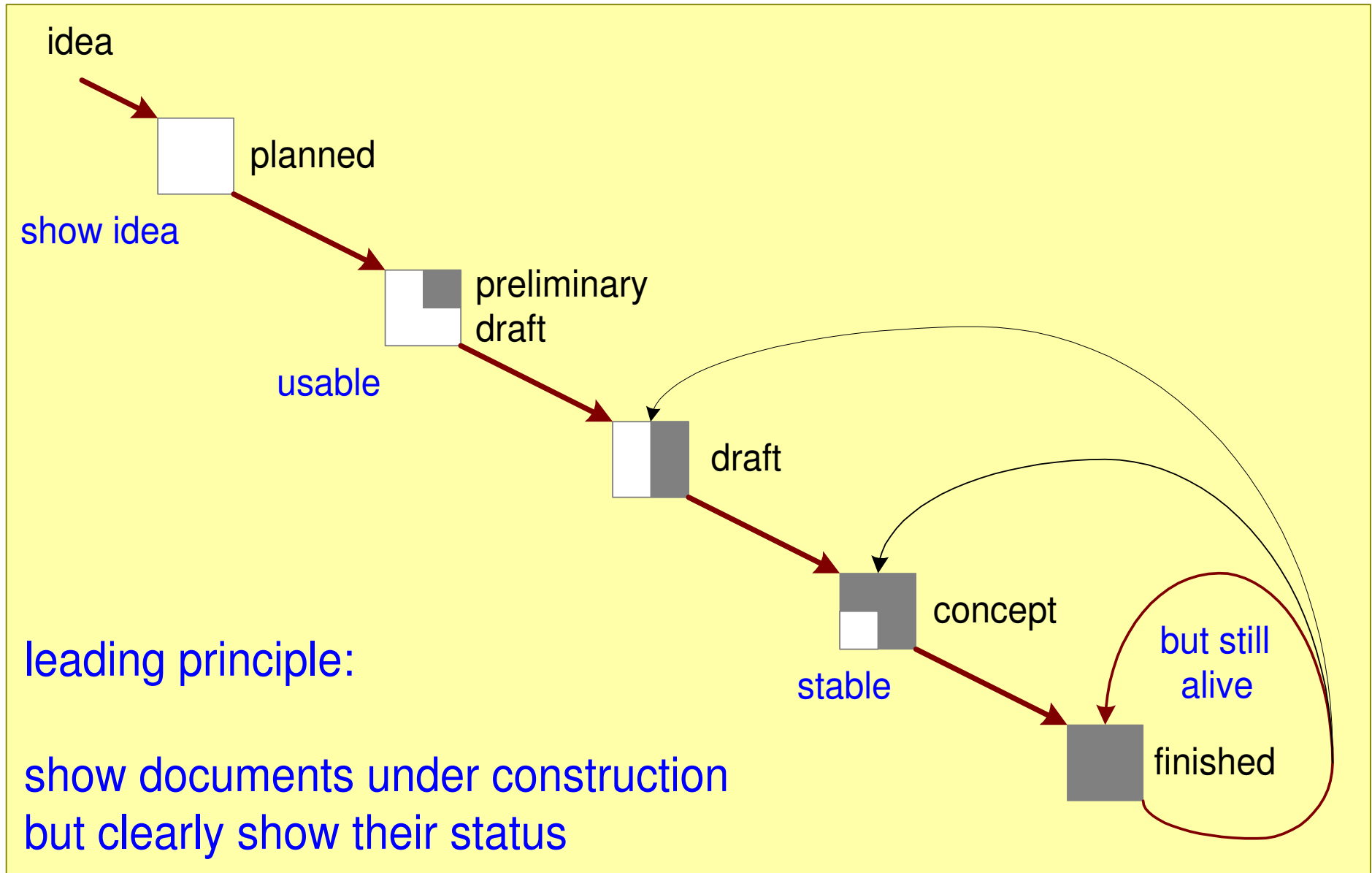
Goals of the Gaudí Project

- 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

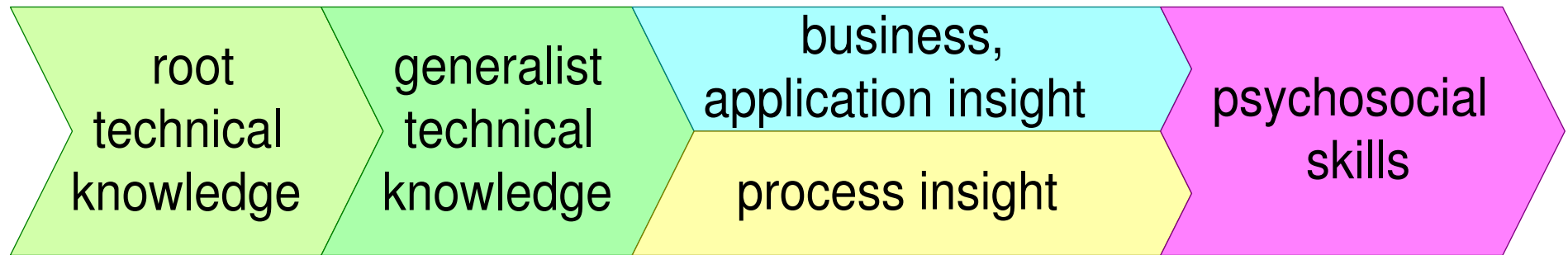
Modular approach



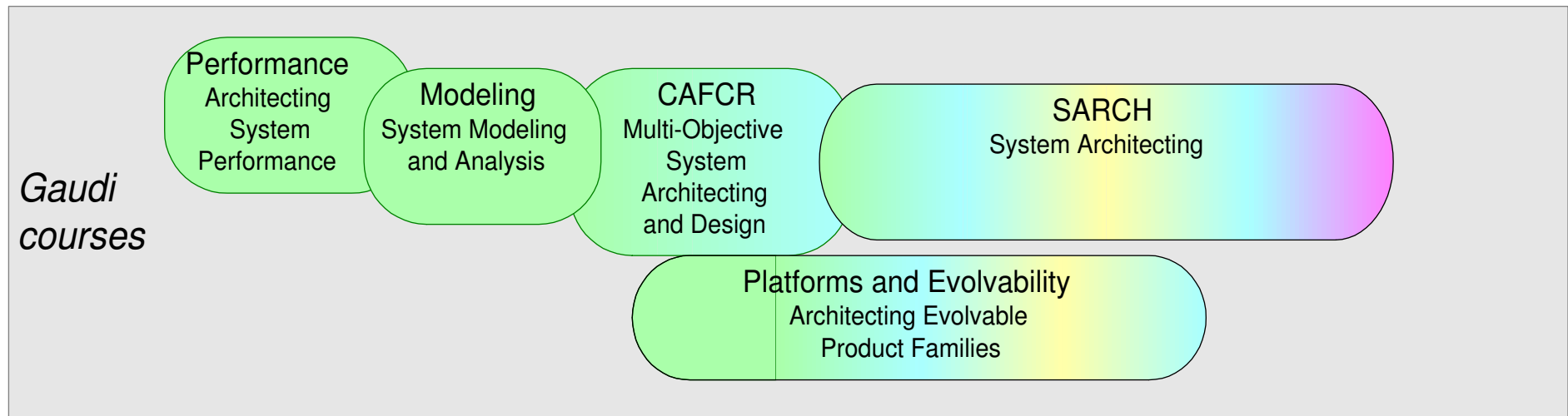
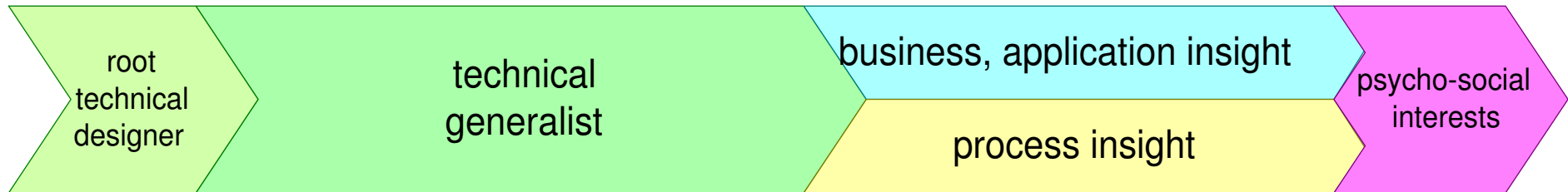
Show Early to Get Feedback



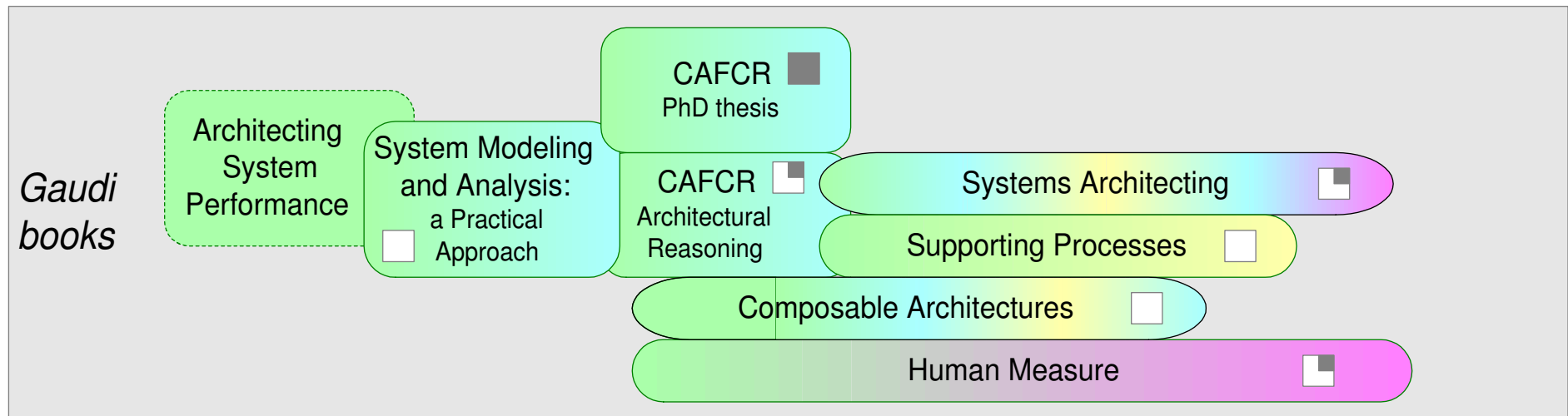
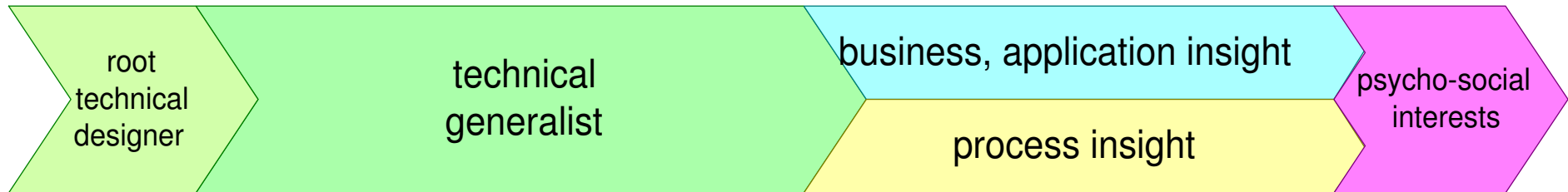
Growth of the System Architect



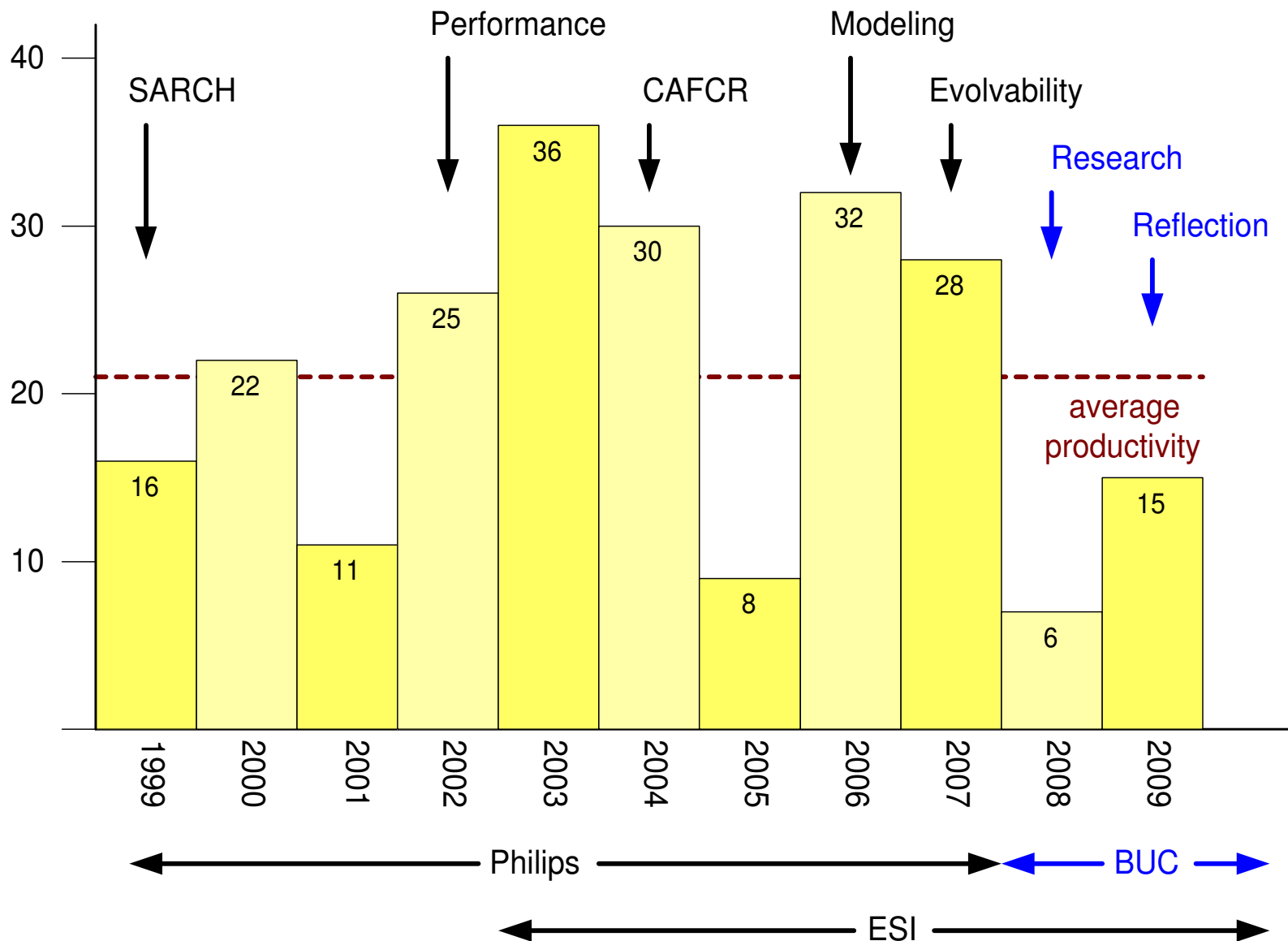
Positioning Courses



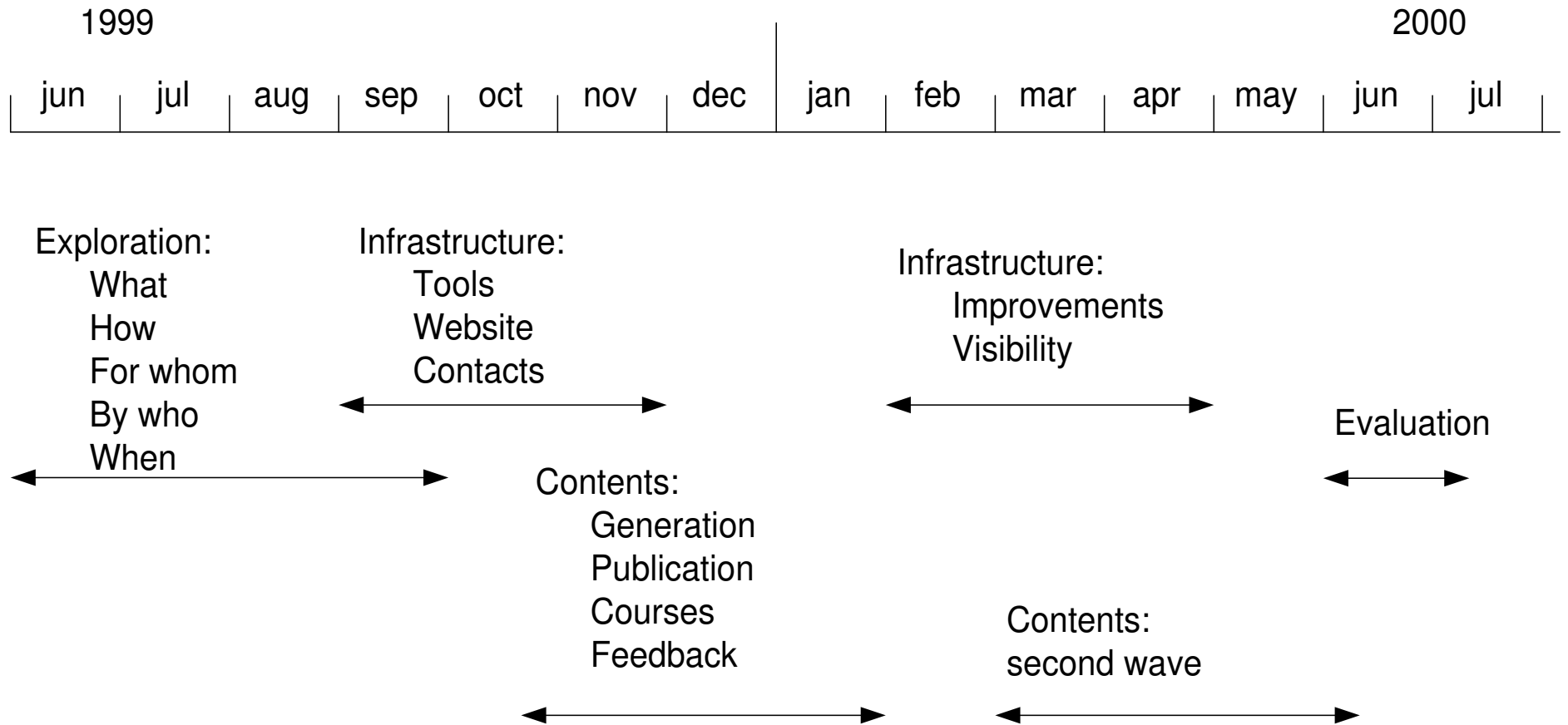
Positioning Books



Productivity: number of new entries



Concurrent Incremental Approach

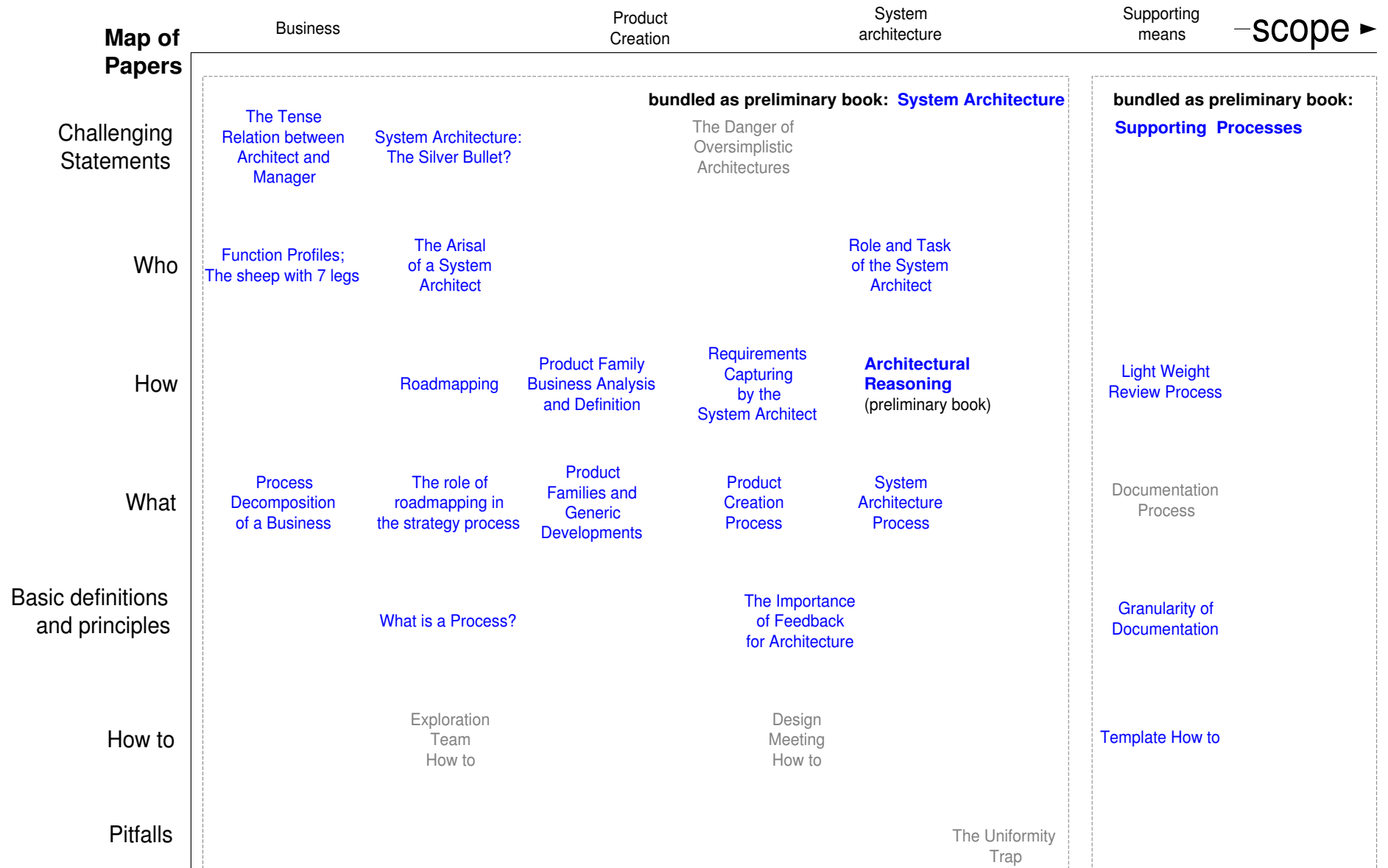


Outlook 2010-2012

	2010	2011	2012
Education	SE master program Reflective Practice yr 2 Master Project Modeling and Analysis Bachelor level	Reflective Practice yr 3 System Design Systems 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	<i>ideas are welcome!</i>	
Book publication	Systems Architecting in Context	Multi-view Architecting and Modeling	

- 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 Kosteljik)	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 Kostelijck)	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	+		