Institute of Information Management

University of St.Gallen

Entwicklungsstufen des Unternehmensarchitekturmanagements

SITIC SEA Round Table

Competence Center Corporate Intelligence

Stephan Aier
Dr.-Ing, Assistenzprofessor

Institut für Wirtschaftsinformatik
Universität St.Gallen
Müller-Friedberg-Strasse 8, CH-9000 St.Gallen
Tel: +41 71 224 3360 Fax: +41 71 224 2189

stephan.aier@unisg.ch
www.iwi.unisg.ch

AACSB ACCREDITED

EFMD EQUIS ACCREDITED

Background

University of St.Gallen (HSG)

- St.Gallen: “Switzerland's prestigious business school” (Business Week)
- 7100+ Students
- Focus: Management, Technology and Law
- Consistent top-ten rankings among Europe’s top universities
- First continental European university to be accredited from top European as well as top US accreditation bodies (since 2003)



Picture: HSG main building

The Network

Institute of Information Management (IWI-HSG)

IWI-HSG provides an extensive network based on their research program, executive education, and their community events.

Research Program

- Competence Center Corporate Intelligence
- HNE Health Network Engineering
- Independent Living
- sourcing competence center 3
- CDQ Corporate Data Quality
- IIM

Executive Education

- Executive Master of Business Engineering
- IT Business Management
- Individual Programs (e.g. DQM, EAM, BE-Methods)

Events & Community

- AWF St. Galler Anwenderforum
- DW2013
- Business Engineering Forum

Picture: HSG executive campus

Background

EAM, Transformation and Intelligence Group

What

Enterprise Architecture Management	▪ Modeling ▪ Analyses ▪ Planning	▪ Stakeholder Management ▪ Communication ▪ Governance and Structure	▪ Tools ▪ Implementation ▪ Measurement
Enterprise Transformation Management	▪ Principles ▪ Value of Infrastructure	▪ Coordination of Transformation from an Architecture Perspective	▪ Models ▪ Methods ▪ Tools

Who

Barmenia Versicherungen, SAP, Institute of Information Management University of St.Gallen, UBS, Swiss Re, IBM, EnBW, Deutsche Telekom Laboratories, Credit Suisse, RWE, Helsana, rtc.ch IT-Outsourcing & Banking Software, hp, Deutsche Leasing, RUAG, Novartis, Commerzbank, AXA winterthur Financial Protection, finanz informatik, Munich RE, Zürcher Kantonalbank, Bundesagentur für Arbeit

How

Bilateral	Exclusive Community	Public Community
▪ Projects ▪ Studies and Reviews ▪ Internal Workshops ▪ Trainings ▪ Publications	▪ Competence Center Workshops ▪ Benchmarking ▪ Exchange of Best Practices	▪ Conferences (St.Galler Anwenderforum, DW2012, BE Forum) ▪ Research Events

Picture: HSG central institute's building

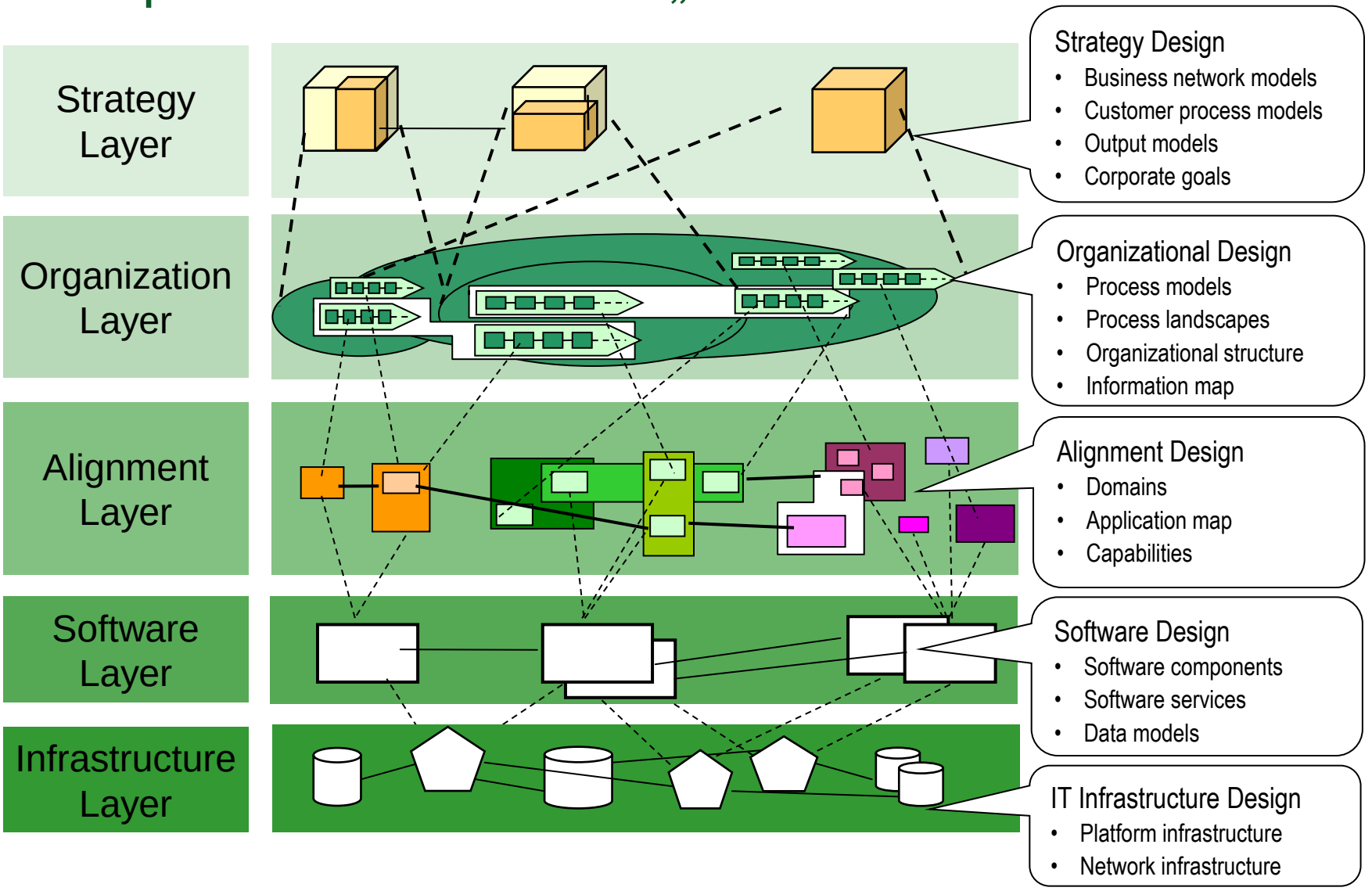
Agenda

1. We have come a long way
2. Where we (and maybe you) are now
3. What we should do
4. Going from here

© Jun-13, IWI-HSG

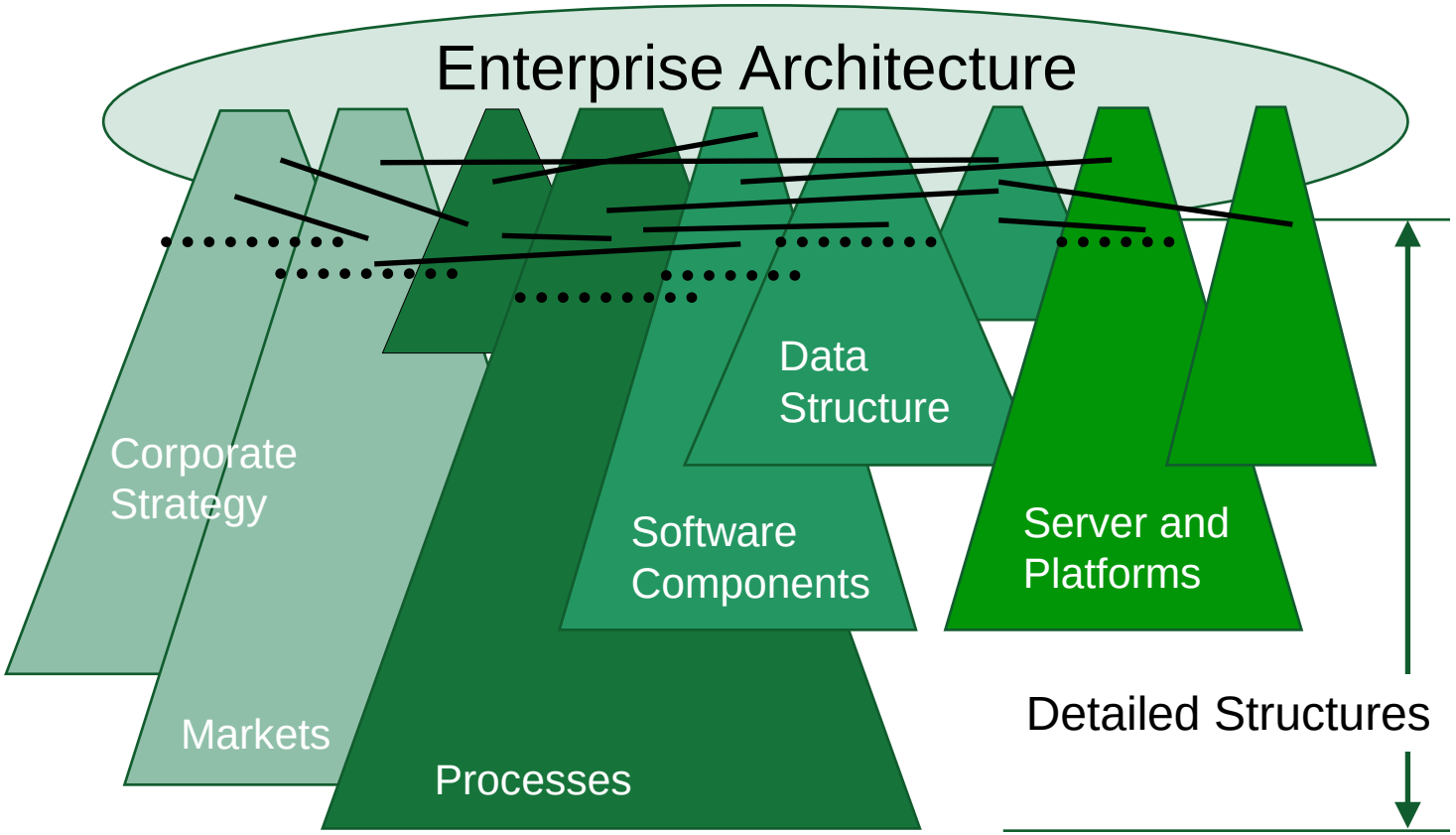
St. Gallen's Enterprise Architecture Approach (1)

Enterprise Architecture is „Business-to-IT“



© Jun-13, IWI-HSG

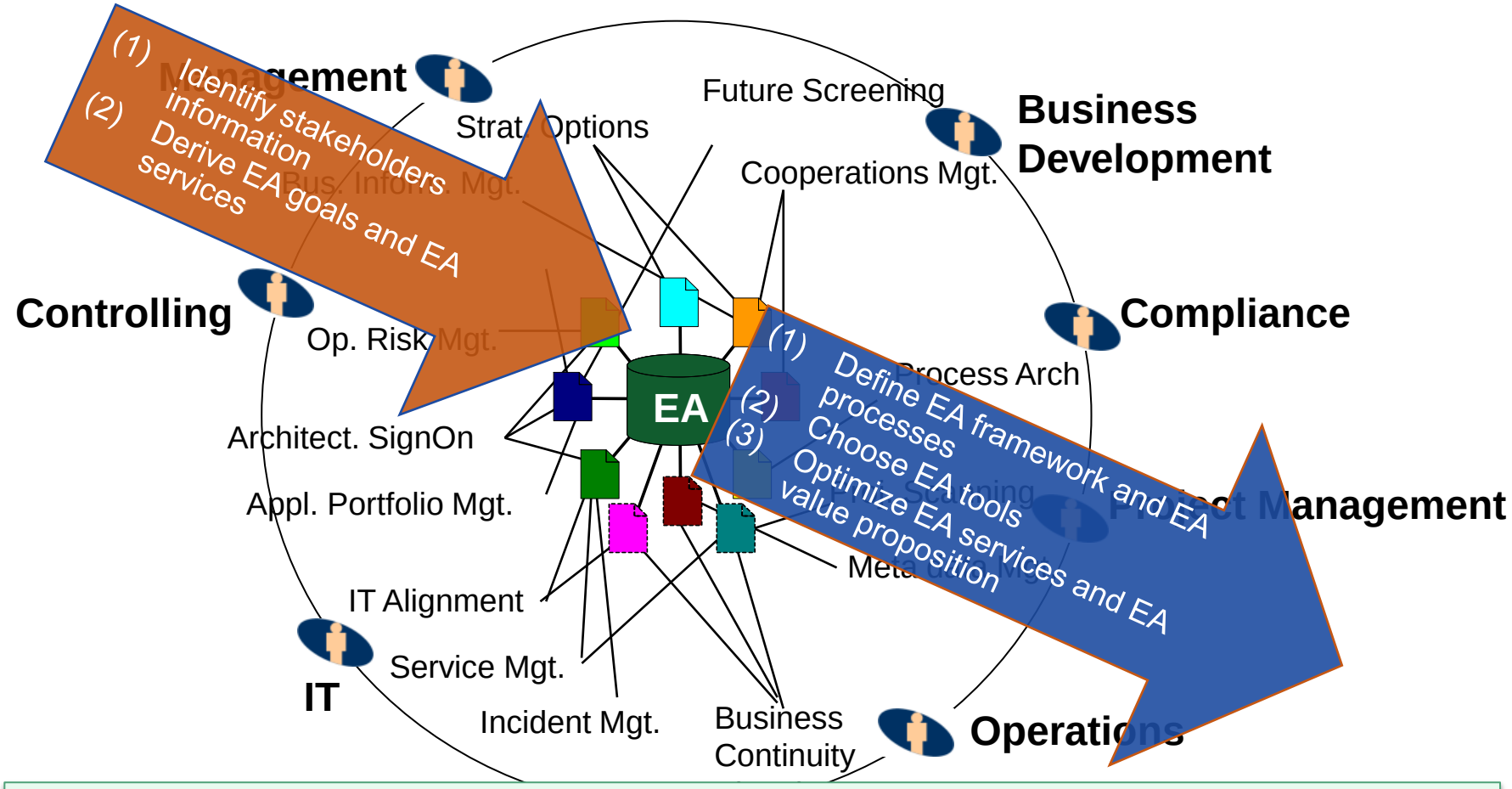
Enterprise Architecture is broad – not deep



- Enterprise Architecture needs to explicate the dependencies within the "Business-to-IT" stack.
- To be sustainable you must not get lost in details.

© Jun-13, IWI-HSG

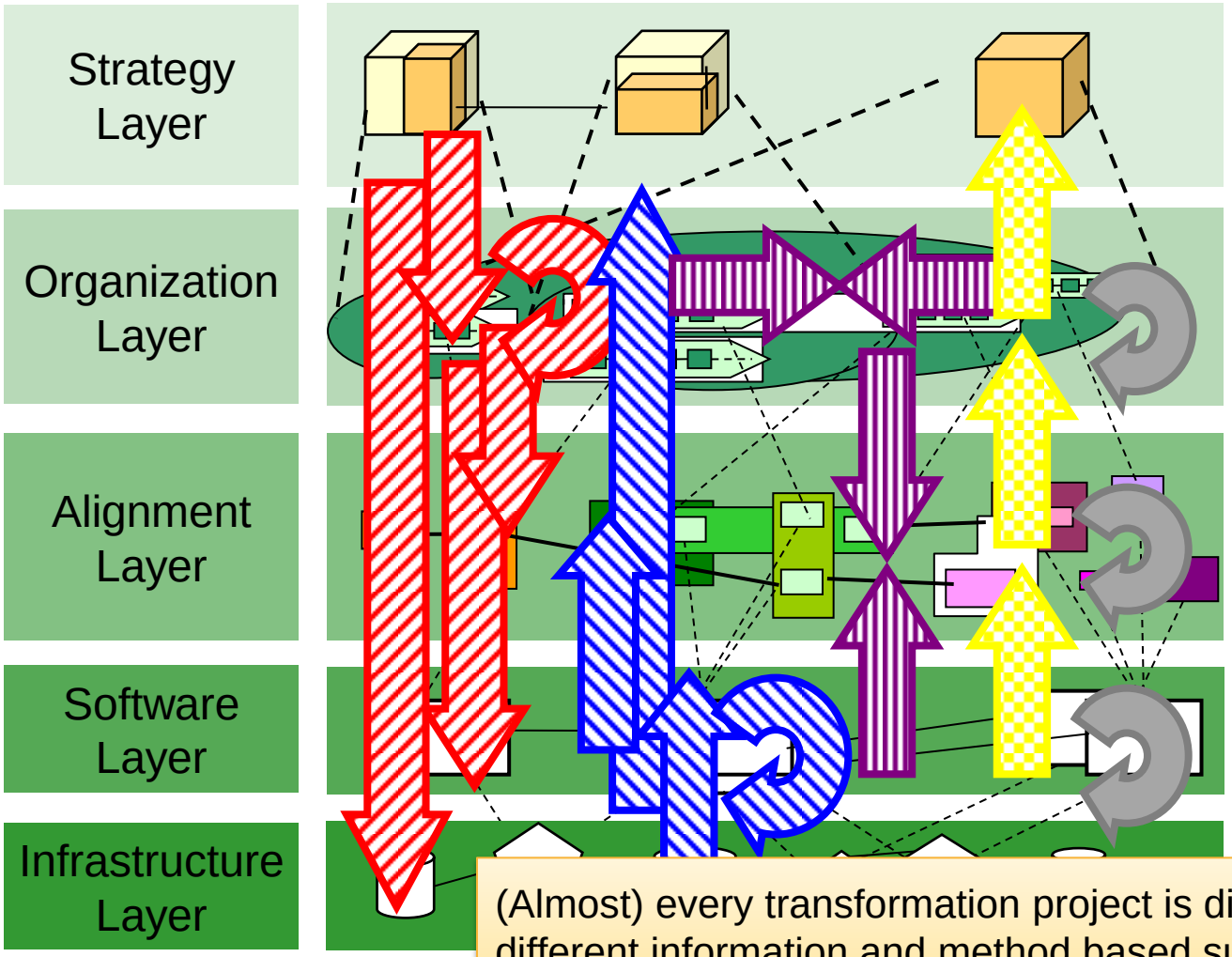
Enterprise Architecture is Stakeholder Oriented



- „Outside-in" is the exhaustive but sustainable way (because it is participative).
- It supports spot-on (as opposed to arbitrary) transparency.

St. Gallen's Enterprise Architecture Approach (4)

Enterprise Architecture is a Tool for Transformation



(Almost) every transformation project is different and requires different information and method based support. EA delivers well-grounded coordination and decision support.

© Jun-13, IWI-HSG

From our experience: transparency is the ultimate foundation of agility

EAM needs an explicit goal system by all means

Agility and flexibility are the ultimate goals – however, the is some homework to be prepared.

Agility and Innovation

Preparation for future, not yet specifiable transformation needs

Flexibility

Improve adaptability to known and specifiable adaptation needs

The core of EAM

Consistency creation and maintenance

Coordination of transformations that are aligned to common goals and do not just happen by “accident”.

Simplification, Consolidation

Build fine-grained, reusable functionalities

Goal: reuse of functionalities

Transparency

Update and complement old, fragmentary, inconsistent documentation

Goal: Assess misalignment, missing coverage of functional demands, unnecessary IT functionalities.

© Jun-13, IWI-HSG

What are EAM Results?

EAM Services and its Method Support

Transparency	Planning	Rules	Communication	Implementation
Meta Model	Target Model	Principles (Standards, Guidelines, etc.)	Marketing/Sales	Project Reviews
Models (Application Landscapes, Domain Models, Lists etc.)	Roadmap	Methods	Training (internal, external, of Architects, of Non-Architects)	Project Support (Inhouse Consulting, "Special Forces" etc.)
Specific Analyses (Dependency Analyses etc.)	Transformation plans (Projects, Project portfolio etc.)	Governance Structures	Know-how-Mgmt. (Best Practices, Methods)	Projekt Controlling
KPIs	Stakeholder and Requirements Coordination			
Feasible and tested **methods** are **available**. It is important not to get lost in details.	This is **a tricky one** and not for beginners.	Many believe that principles can be dealt with just along the way – however, this is hardly sustainable.	Seems to be laborious but the **impact** especially with non-architects is **terrific**.	If you do not want to stay passive – **this is the only way to go** – otherwise just leave EAM be.

© Jun-13, IWI-HSG

Agenda

1. We have come a long way
2. Where we (and maybe you) are now
3. What we should do
4. Going from here

© Jun-13, IWI-HSG

EAM-Entwicklungsstufen

1 Einfache IT-Architektur → **2a Passives IT-EAM** → **2b Proaktives IT-EAM** → **3 Strategisches EAM**

+ fachliche Aspekte

+ proaktives Handeln

+ Verankerung Fach-bereich

> Strategisches Instrument im Fachbereich
> Verankerung im Fachbereich

> Aktive EAM-Planung
> Definition und Durchsetzung von EAM-Prinzipien
> Integration von EAM in die IT-Governance

> Erweiterung um fachliche Aspekte
> Besonderer Fokus Geschäftsprozesse
> Konsequente Orientierung an Stakeholdern

> Fokus auf IT
> Transparenz als Ziel
> Verankerung in der IT

Der Kern-Anwendungsfall des modernen EAM sind fundamentale, nicht-lokale, oft unternehmensweite Veränderungen → Transformationen.

Aier, S.; Winter, R.; Wortmann, F.: Entwicklungsstufen des Unternehmensarchitekturmanagements, in: HMD - Praxis der Wirtschaftsinformatik, 49, 284, 2012, S. 15-23.

© Jun-13, IWI-HSG

We found three groups of drivers of Transformation

Drivers of Corporate Intelligence

External Pressures (external, reactive)

- Pressure by regulations (e.g. separation of power networks and power trading, financial supervision)
- Political and social pressure, pressure by customers (e.g. acceptance of nuclear energy)
- Technological pressure (e.g. operations of legacy systems, „omnipresence“ of the iPad)

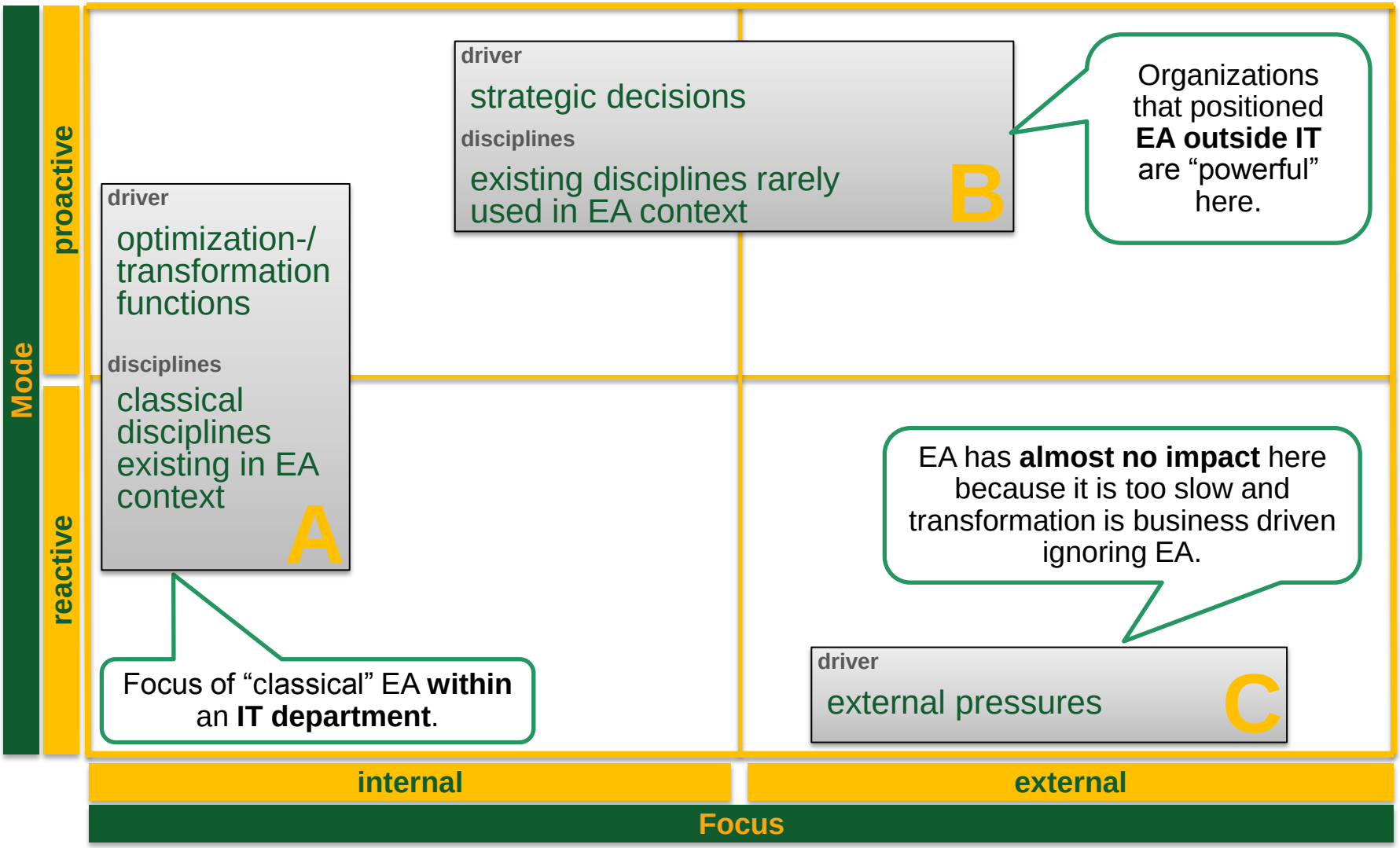
Strategic Decisions (external/internal, proactive)

- Globalization
- Mergers & Acquisitions
- Cooperation/networking in value creation
- Adaptations of product portfolios
- Reorganizations
- Decommissioning of core systems

Optimization/Transformation Functions (internal, proactive/reactive)

- Limits von development of maturity resulting in fundamental transformations
- Limits of growth in existing structures and modes of operation
- Constant pressure for efficiency and necessity of global optimization/consolidation

Positioning of Transformation Topics



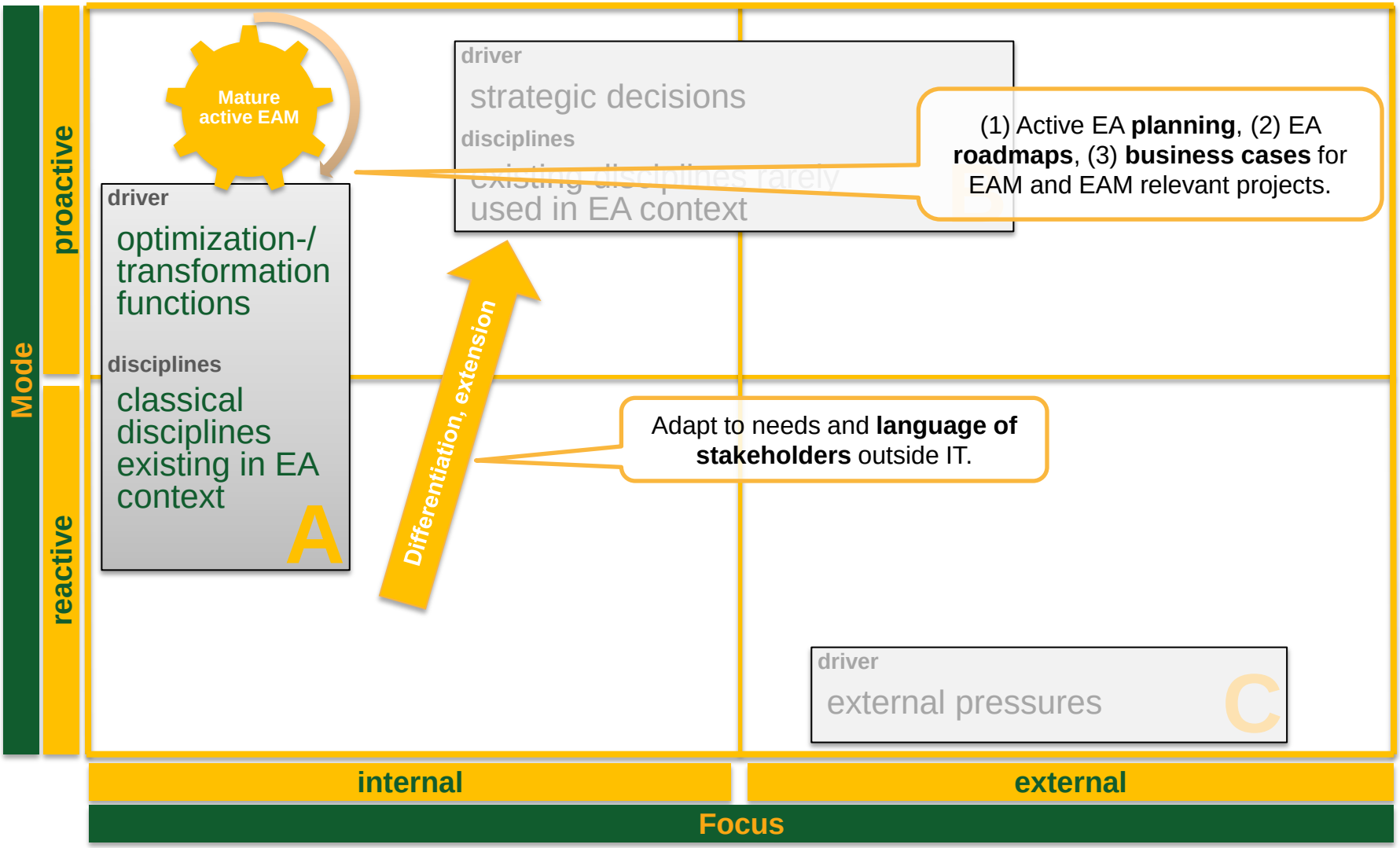
© Jun-13, IWI-HSG

Agenda

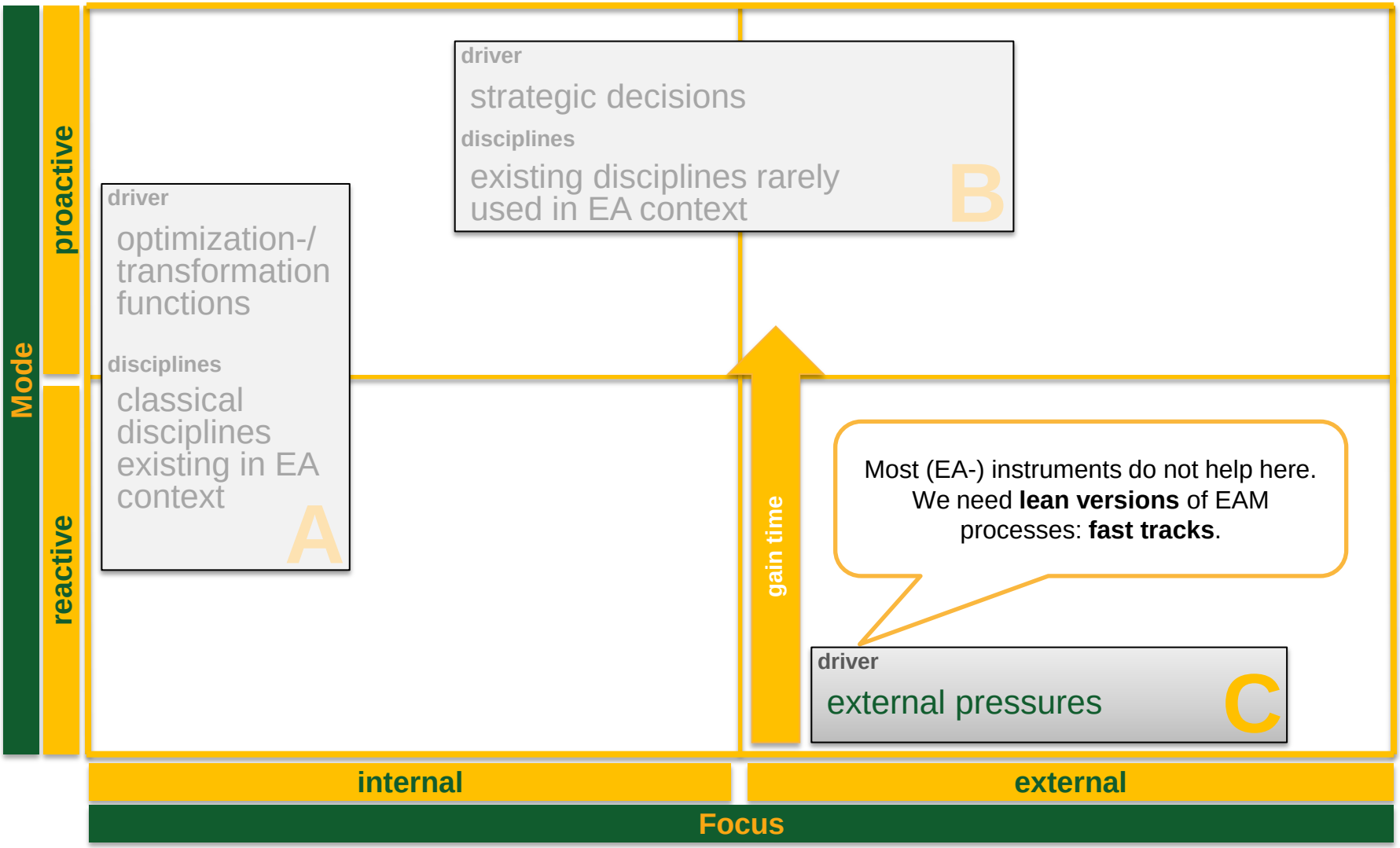
1. We have come a long way
2. Where we (and maybe you) are now
3. What we should do
4. Going from here

Evolution paths for EAM

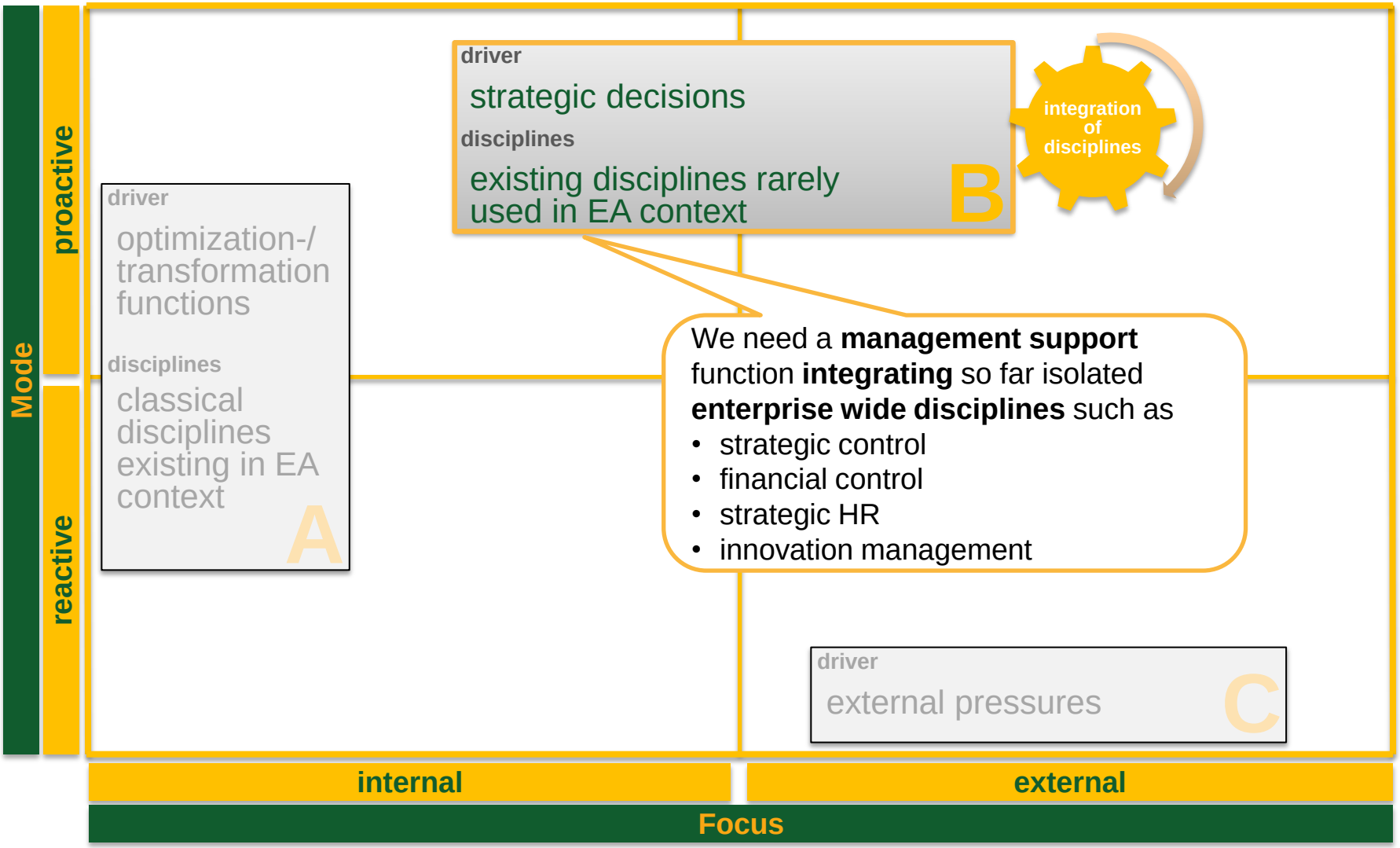
Maturity and Differentiation



Missing instruments or existing instruments too slow



EAM as decision support, integrating disciplines



Agenda

1. We have come a long way
2. Where we (and maybe you) are now
3. What we should do
4. Going from here

Wie können wir Transformationen unterstützen?

Transformationen sind selten lokal beschränkt.

Sie wirken oft auf Produkte, Prozesse, Informations-systeme etc. und die Menschen die damit arbeiten.

Nachhaltige Lösungen zu bauen, heisst Synergien zu kennen und zu nutzen.

Neben lokalen Projekt-perspektiven darf das grosse Ganze nicht verloren gehen.

Enterprise Architecture Management (EAM) ist ein guter Startpunkt dafür.

EAM ist aber oft zu technisch – in Inhalt und Sprache und ignoriert die weichen Faktoren.

Welche **Fähigkeiten** kann EAM zur **Transformationsunterstützung** beitragen und welche Fähigkeiten müssen geschaffen und etabliert werden?

Wir nennen das Ergebnis Corporate Intelligence (CI).

Aufgabe

Wir bauen ein **Corporate Intelligence Framework**, das

- bestehende **EAM-Fähigkeiten integriert**,
- diese um das **Vokabular der Fachseite** erweitert und übersetzbar macht,
- **weiche Faktoren berücksichtigt**, um das Framework auch etablieren zu können
- **Transformationen in verschiedenen Szenarien** unterstützt

Work in Progress: How can EAM Support Enterprise Transformation?

Capabilities of the Corporate Intelligence Framework

Enablement of Transformation

- Define overall goals
- Orchestrate skills & disciplines
- Establish transformation lifecycle
- Assign roles
- Facilitate commitment
- Analyze & set cultural environment
- Setup communication

Strategic Alignment

- Analyze initial situation
- Develop integrated transformation plan
- Develop high-level business case
- Analyze needs & maturity level
- Align with risk management

Value Perspective

- Define KPIs and benchmark
- Plan benefit realization
- Establish potentials for further benefits
- Develop detailed business case
- Review and evaluate results

Risk

- Perform 360° strategic risk assessment
- Evaluate risk for transformation business case
- Define risk strategy
- Conduct risk monitoring

Program Management

- Conduct program planning
- Manage program scope
- Manage program quality
- Manage program procurement
- Manage program integration
- Manage program time & cost
- Manage program HR
- Conduct program reporting

Architecture

- Assess as-is capabilities
- Design to-be architecture
- Manage requirements
- Perform gap analysis
- Develop roadmap plan
- Manage and measure principles
- Conduct lifecycle management

Change Management

- Establish common language
- Conduct stakeholder management
- Manage communication
- Establish change agent network
- Assess change readiness
- Establish communities of practice
- Manage training
- Monitor change

Attention: This is work in progress as discussed in CC CI year one.

Thank You!

Institute of Information Management

University of St.Gallen

Prof. Dr. Stephan Aier
Assistant Professor

stephan.aier@unisg.ch
www.iwi.unisg.ch
+41 71 224 3360

