



Data Quality as a Business Success Factor

Prof. Dr. Boris Otto, Assistant Professor
Enschede, April 5, 2012

Chair of Prof. Dr. Hubert Österle

Case A looks at one of the business drivers of data quality at leading automotive supplier ZF Friedrichshafen AG

«Starting in January 2010, the Services business unit will additionally pool the global customer service activities of the Group. In doing so, the Services departments at German division and business unit locations will be organizationally merged with the worldwide Services companies. With this new structure, ZF has established a systematic approach in the after-sales market.»

ZF Friedrichshafen AG: Annual Report 2009, p. 64.



At ZF OEM¹ Relationship Management requires consistent and accurate master data about vehicles, customers, products across the organization

Real world view



Business process view

Engineering

Projects

Sales,
Logistics,
Controlling

Application System View



Axalant



SAP cProjects



SAP ERP

Data View

VW Group

B8

Audi

AU416

AUDI AG

PL48

1) OEM - Original Equipment Manufacturer.

Data quality is necessary to respond to strategic business requirements

1

Customer-Centric Business Models

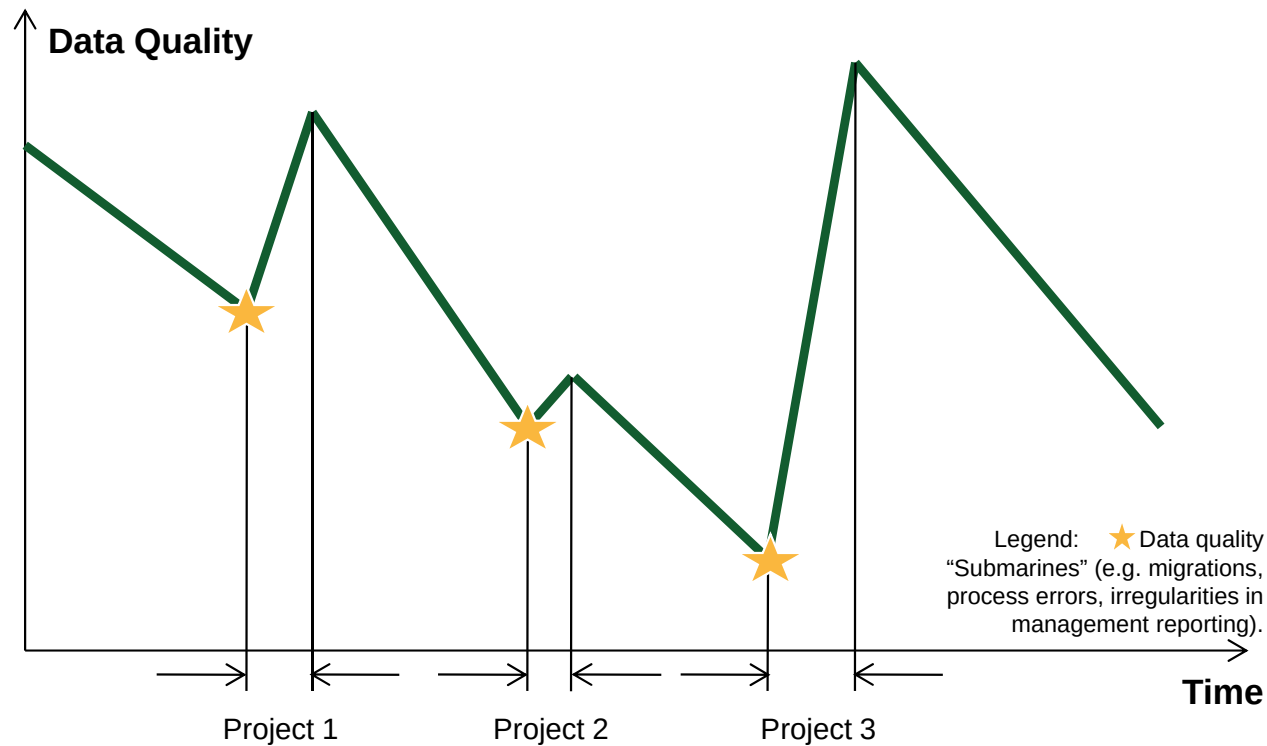
\$

Value Chain Excellence

§

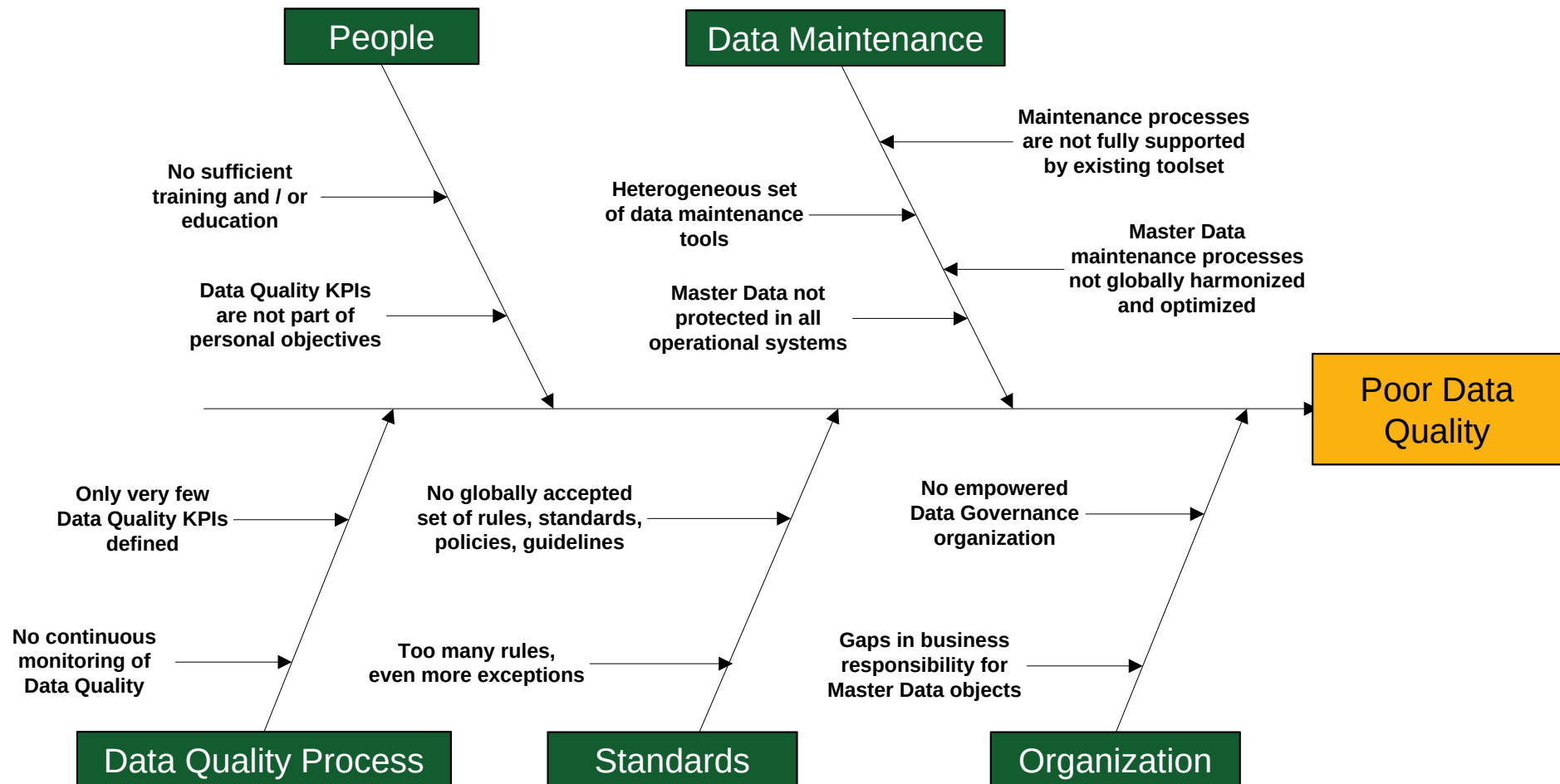
Contractual and Regulatory Compliance

The typical evolution of data quality over time does not live up to its business relevance



- No risk management possible
- No chance to plan and to control budgets and resources
- No target values for corporate data quality
- No sustainability
- High recurring project costs (change requests, external consultants etc.)

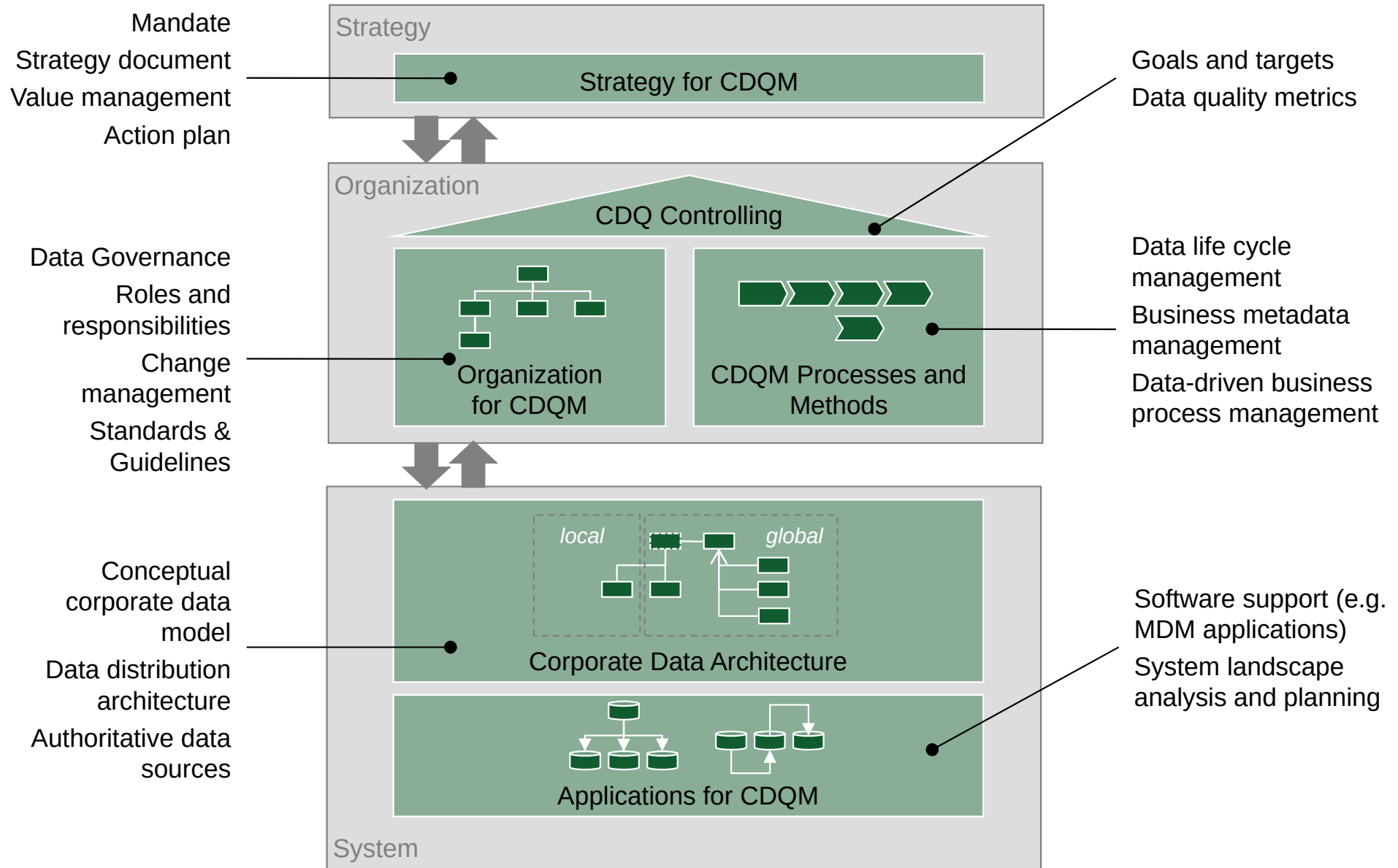
Case B analyzes root causes of poor data quality at Bayer CropScience



Legend: KPI - Key Performance Indicator.

Source: Brauer, B. (2009). Master Data Quality Cockpit at Bayer CropScience. Paper presented at the 4th Workshop of the Competence Center Corporate Data Quality 2, Lucerne.

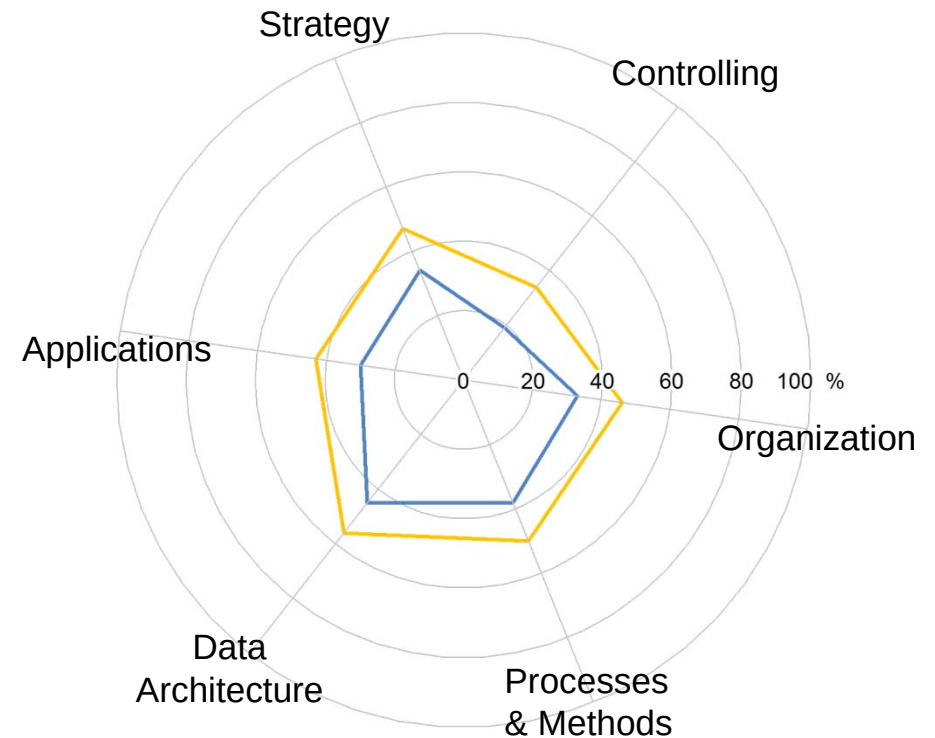
Corporate Data Quality Management (CDQM) is a Business Engineering task and relates to a company's business strategy, organization, and information systems



The EFQM Excellence Model for CDQM¹ was collaboratively developed by EFQM, the University of St. Gallen, and partners from industry



CDQM Maturity Assessment



Legend:
 — Current value 2010
 — Target value 2011 (= one maturity level for all enablers)

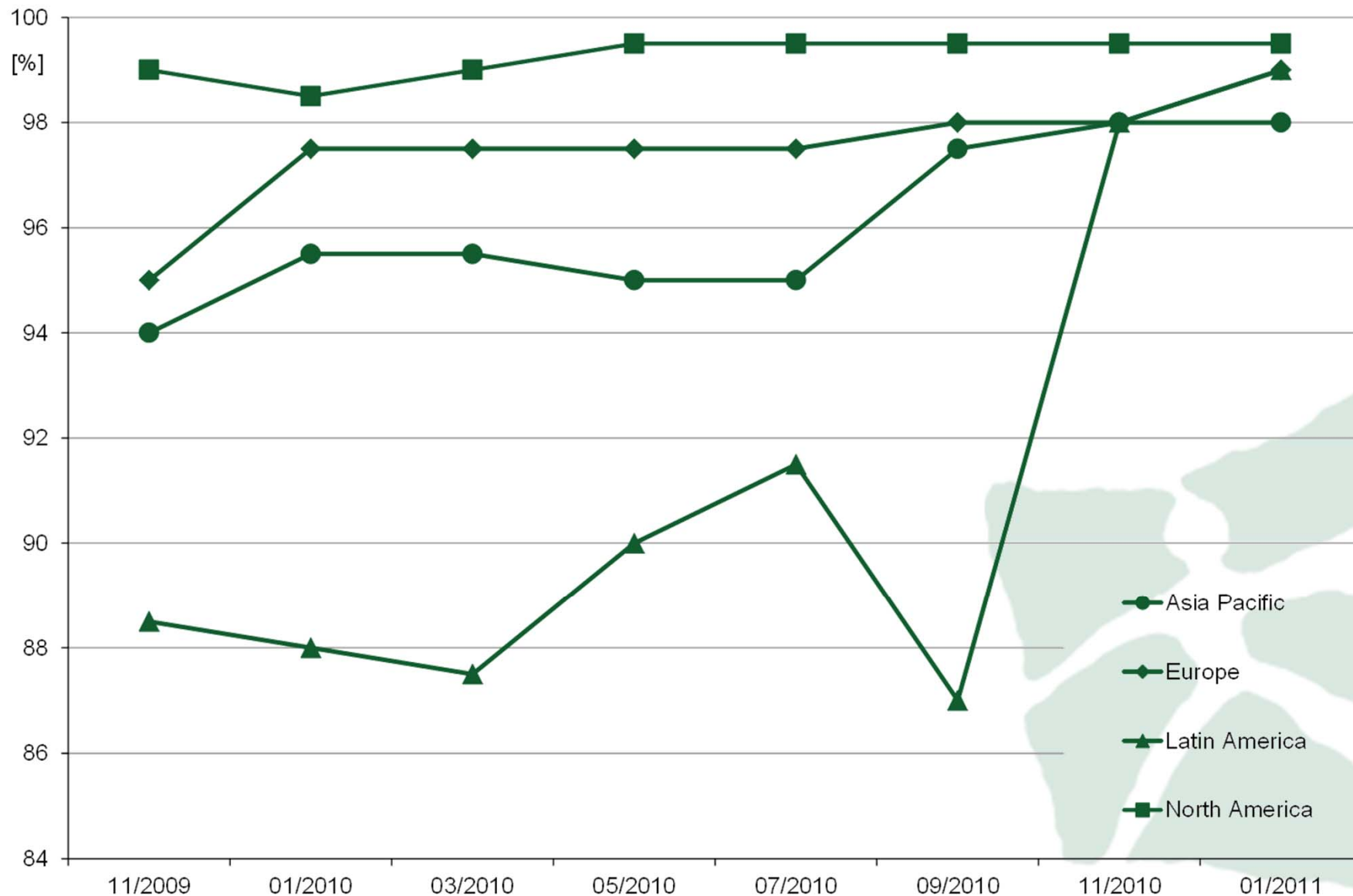
1) EFQM: EFQM Framework for Corporate Data Quality Management: Assessing the Organization's Data Quality Management Capabilities, EFQM Press, Brussels, 2011

The Competence Center Corporate Data Quality (CC CDQ) is a consortium research project involving 22 partner companies

 AO Foundation	 AstraZeneca	 Bayer	 Beiersdorf
AO FOUNDATION	ASTRAZENECA PLC	BAYER AG	BEIERSDORF AG
 CORNING	 DAIMLER	 DB	 e.on
CORNING CABLE SYSTEMS GMBH	DAIMLER AG	DB NETZ AG	E.ON AG
 ETA SA MANUFACTURE HORLOGÈRE SUISSE DEPUIS 1793	 FESTO	 hp invent	 IBM
ETA SA	FESTO AG & CO. KG	HEWLETT-PACKARD GMBH	IBM DEUTSCHLAND GMBH
 KION GROUP	 MIGROS	 Nestlé	 NOVARTIS
KION INFORMATION MANAGEMENT SERVICE GMBH	MIGROS-GENOSSENSCHAFTS-BUND	NESTLÉ SA	NOVARTIS PHARMA AG
 BOSCH	 SAP	 SIEMENS	 syngenta
ROBERT BOSCH GMBH	SAP AG	SIEMENS ENTERPRISE COMMUNICATIONS GMBH & CO. KG	SYNGENTA CROP PROTECTION AG
 Deutsche Telekom	 ZF		
TELEKOM DEUTSCHLAND GMBH	ZF FRIEDRICHSHAFEN AG		

NB: Overview comprises both current and past research partner companies.

Material master data quality has continuously been improved at Bayer CropScience (Case B)



Data quality leads to tangible business benefits



Savings of 2 percent of average inventory value p.a.¹



More than GBP 500 million saved through retrieval of «lost assets»²



CHF 3,000 saved per obsolete master data record³

- 1) Benefit assessment as a result from a series of expert interviews at one of the CC CDQ partner companies.
- 2) Otto, B.; Weber, K.: From Health Checks to the Seven Sisters: The Data Quality Journey at BT, University of St. Gallen, Institute of Information Management, St. Gallen, 2009.
- 3) Lay, J. (2008). Produktdaten im ERP. Paper presented at the Stammdatenmanagement-Forum 2008, Rapperswil.

Institute of Information Management at the University of St. Gallen

<http://www.iwi.unisg.ch>

Business Engineering Institute St. Gallen

<http://www.bei-sg.ch>

Competence Center Corporate Data Quality

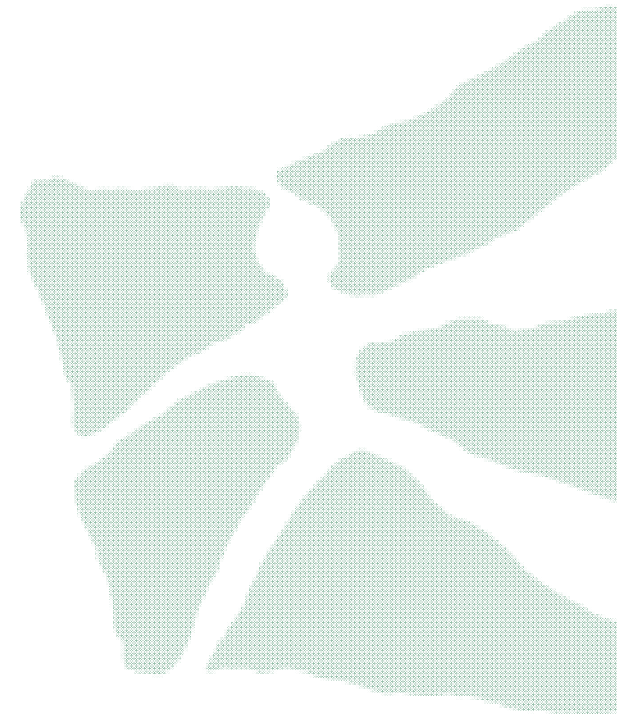
<http://cdq.iwi.unisg.ch>

CC CDQ Benchmarking Platform

<https://benchmarking.iwi.unisg.ch/>

CC CDQ Community at XING

<http://www.xing.com/net/cdqm>



Please reach out to me in case of questions and comments

Prof. Dr. Boris Otto

Assistant Professor & Head of CC CDQ

University of St. Gallen

Institute of Information Management

Switzerland

+41 71 224 32 20

boris.otto@unisg.ch

