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ADVANCED IT CONSULTING

MANAGING REQUIREMENT QUALITY WITH PTC INTEGRITY LIFECYCLE MANAGER AND INTEGRITY MODELER

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AGENDA

- Nanga overview

- Motivation

- Integrity family

- Requirements Quality Suite

- Demonstration

  - Measuring requirement quality

  - Authoring

  - Interface with modelling

- Q/A

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NANGA SYSTEMS, AN INTRODUCTION

_areas of expertise

Application Lifecycle Management (ALM)

Systems Engineering (SE)

Consulting & Implementation

Tools, Processes & Methods

_locations

Stuttgart, München

Glasgow, London

Kiev

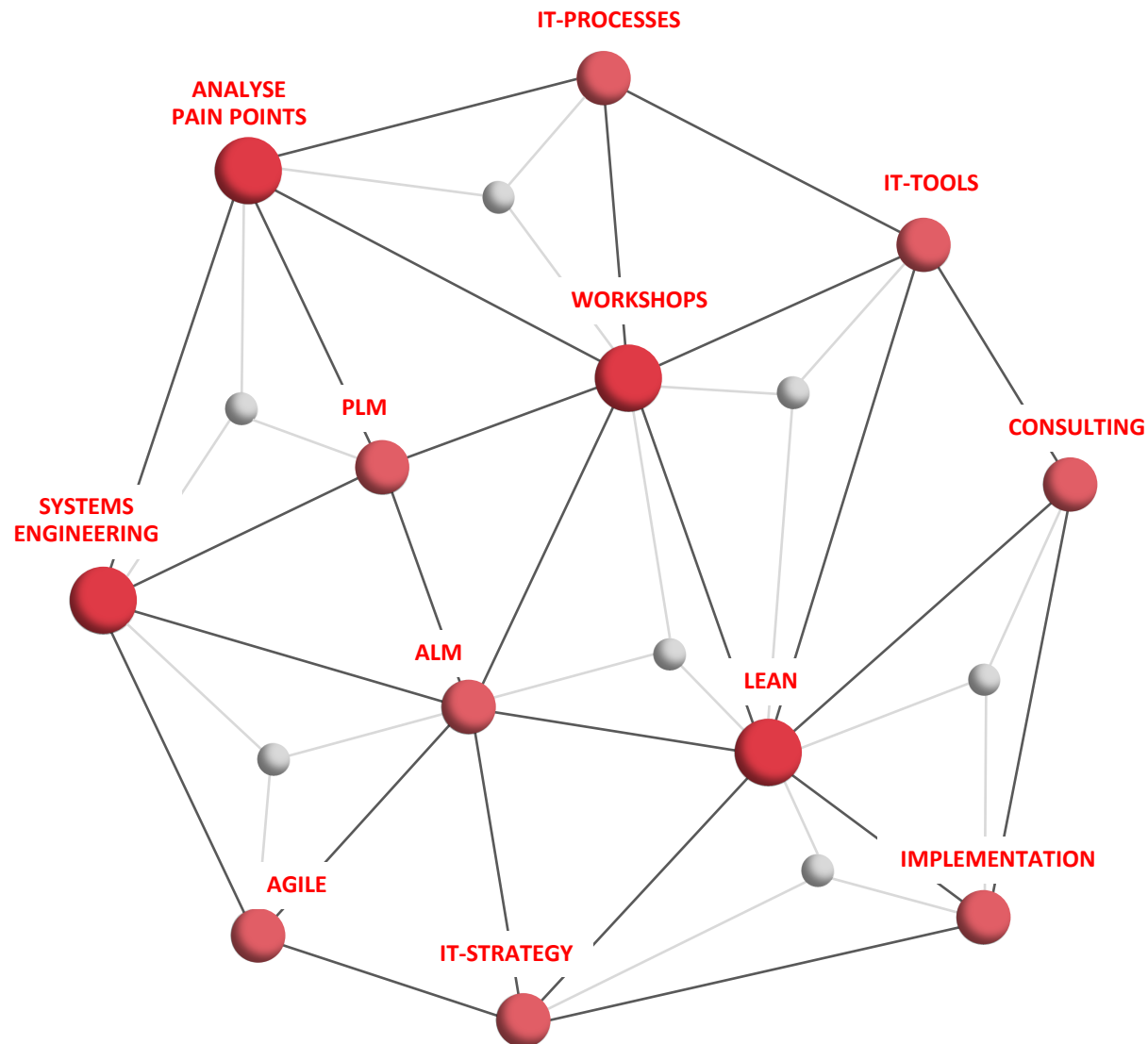**_number of employees**

23

_formation of the company

2014

_CEO

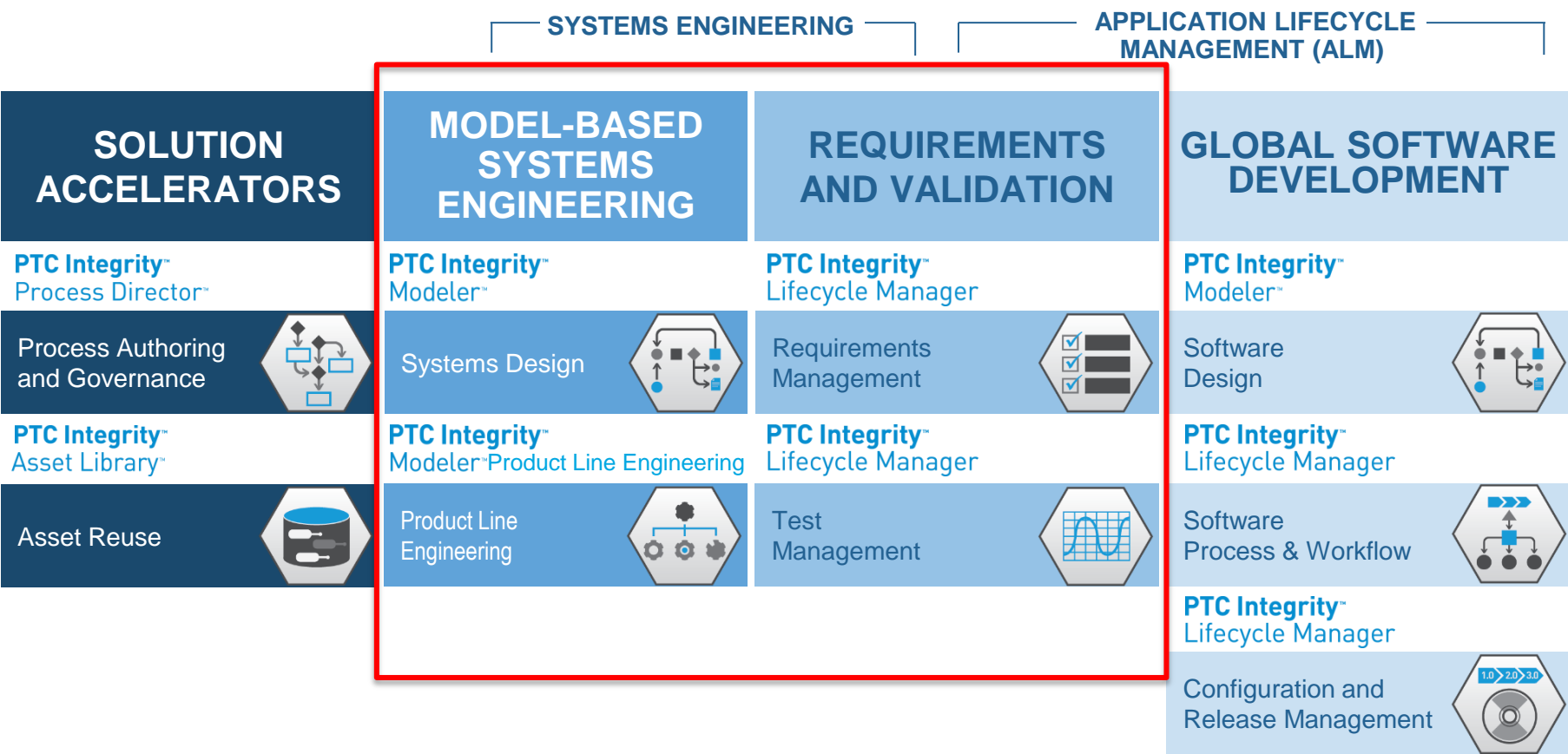Dominik Kassel

OUR SERVICES AT A GLANCE

- Cost implications of requirement errors are well known – e.g. 1 unit at requirement stage, up to 16x at manufacturing, up to 1500x in operation
- Requirements quality impacts a host of other artifacts and disciplines.
- Disconnected process and tool-chains can make it difficult to realise the benefit
- ALM systems can effectively leverage high quality requirements
- We want to measure the quality of our requirements in a quantitative way (e.g. INCOSE rules)

https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20100036670.pdf

PTC INTEGRITY FAMILY

PTC Integrity Lifecycle Manager provides a unified, global ALM platform that supports all activities and assets associated with the engineering and delivery of applications and products.

PTC Integrity Modeler is a pragmatic solution for SysML, UML and Variability modeling, all integrated within a single tool.

SYSTEMS ENGINEERING

APPLICATION LIFECYCLE MANAGEMENT (ALM)

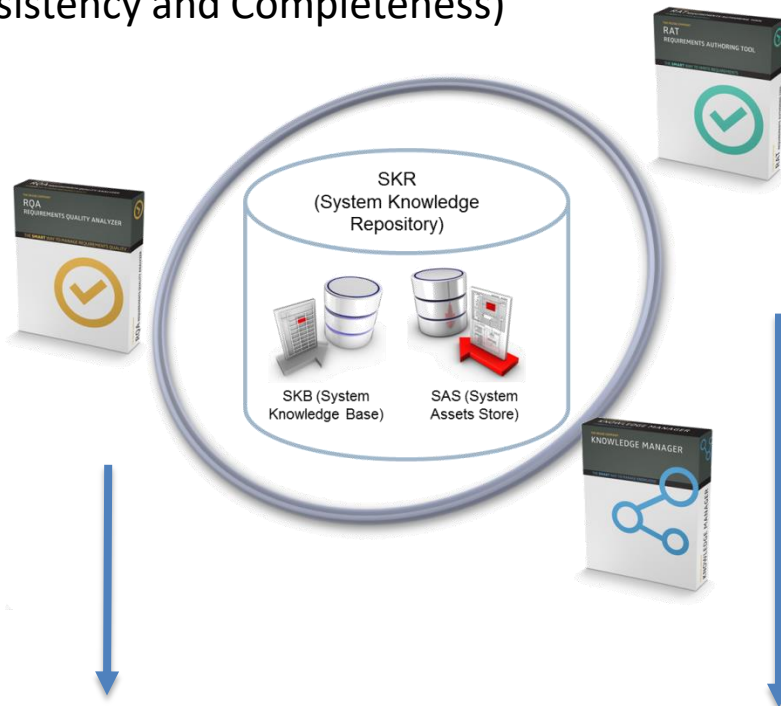| SOLUTION ACCELERATORS	MODEL-BASED SYSTEMS ENGINEERING	REQUIREMENTS AND VALIDATION	GLOBAL SOFTWARE DEVELOPMENT
PTC Integrity™ Process Director™	**PTC Integrity™** Modeler™	**PTC Integrity™** Lifecycle Manager	**PTC Integrity™** Modeler™
Process Authoring and Governance	Systems Design	Requirements Management	Software Design
PTC Integrity™ Asset Library™	**PTC Integrity™** Modeler™ Product Line Engineering	**PTC Integrity™** Lifecycle Manager	**PTC Integrity™** Lifecycle Manager
Asset Reuse	Product Line Engineering	Test Management	Software Process & Workflow
			PTC Integrity™ Lifecycle Manager
			Configuration and Release Management

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RQS - REQUIREMENTS QUALITY SUITE

The Requirements Quality Suite (RQS) intends to tackle requirements quality management by offering a set of tools and processes

Automatic measurement of requirements quality metric
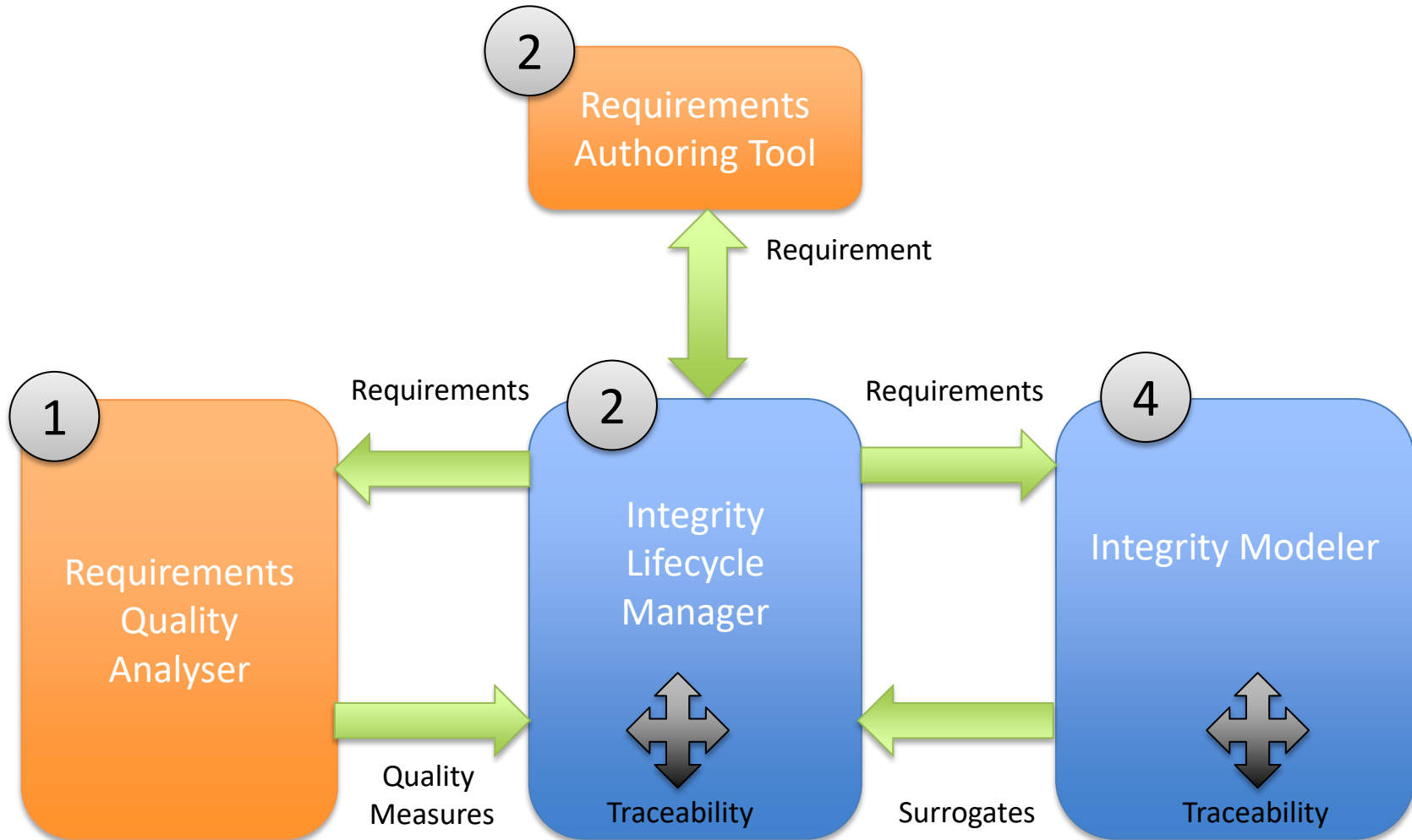
Support to Requirements Authoring

RQS models requirements quality metrics using the CCC approach (Correctness, Consistency and Completeness)

> **Requirements Quality Analyzer (RQA):** to setup, check and manage the quality of a requirements specification

> **Requirement Authoring Tool (RAT):** to assist authors while they are creating or editing requirements.

> **Knowledge Manager (KM):** to manage knowledge around a requirements specification: dictionaries, glossaries, concept maps, knowledge models, ontologies, patterns...

The quality of our requirements has an impact on many other disciplines

ALM traceability gives us the opportunity to measure improvements

RQS combined with ILM and IM gives us a flexible path to greater maturity

Questions?

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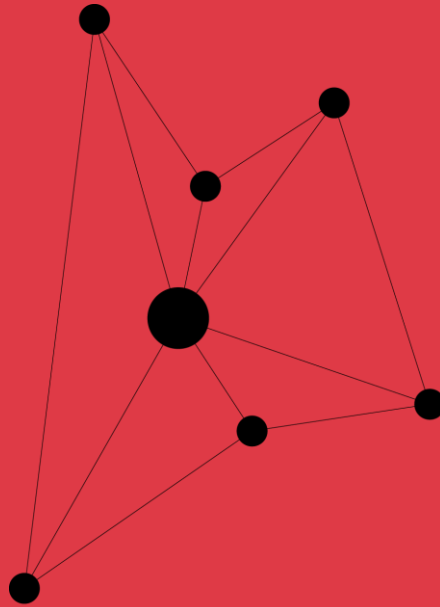
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