Systems Thinking & Engineering – Transformation of Industrial Organizations with a System Perspective

SWISSED24: Swiss Systems Engineering Day 2024 9. September, 2024, Lakeside Zurich, Switzerland



Restricted | © Siemens 2024 | Siemens Digital Industries Software

Systems Thinking & Engineering – Transformation of Industrial Organizations with a System Perspective Authors



Dr.-Ing. Chantal Sinnwell Domain Lead Systems Engineering Siemens Digital Industry Software

Chantal.Sinnwell@siemens.com +49 172 69 27 550

Page 3 Restricted | © Siemens 2024 | Siemens Digital Industries Software



Dr.-Ing. Michael Bitzer Head of Science, Academics & Transfer Siemens Digital Industry Software

<u>Michael.Bitzer@siemens.com</u> +49 152 59 200 772





Agenda



Systems Thinking & Engineering

Systems Engineering is a

transdisciplinary and integrative approach to enable the successful realization, use, and retirement of engineered systems, using systems principles and concepts, and scientific, technological, and management methods.



Digital Transformation – The key success factor for advanced Products & Services are advanced Enterprise Capabilities



Digital Transformation in Engineering requires *Front-loading* in Education Situation & Motivation



Agenda	
В	Operating Model Systems Engineering Domain Concept

Organizational Transformation – Domain Organization Model for holistic Capability access through Collaboration within Network & Ecosystem







Domain Organization Model – Activities

C SE@Siemens Systems Engineering Enablement & Knowledge Transfer	Agenda	
C SE@Siemens Systems Engineering Enablement & Knowledge Transfer		
C SE@Siemens Systems Engineering Enablement & Knowledge Transfer		
	С	SE@Siemens Systems Engineering Enablement & Knowledge Transfer

SE@Siemens | Enablement & Knowledge Transfer Overview of Initiatives



SE@Siemens | Enablement & Knowledge Transfer Initiatives: Partner Enablement





Objective

Systems Engineering Capabilities in Partner Network common understanding of Systems Engineering & Thinking re smooth collaboration in joint projects



Target Group

Business partners with expertise in at least one capability dimension Consulting, Implementation & Reselling Ged on target Level Basic / Advanced / Leading



Lessons Learned

Page 16 Restricted | © Siemens 2024 | Siemens Digital Industries Software



SE@Siemens | Enablement & Knowledge Transfer Initiatives: Company-internal Work-shadowing "Systems <u>Engineering</u> Development Program"





Objective

experienced System Engineers and respective peers nowledge of system perspective and values with technical experts perogram (24 months) with dedicated career path to attractive Key Roles



Target Group

ng professionals who want to develop into System Engineers or System Portfolio Managers



Lessons Learned

Page 18 Restricted | © Siemens 2024 | Siemens Digital Industries Software



SE@Siemens | Enablement & Knowledge Transfer Initiatives: "System <u>Architect</u> Core Learning Program (SyA)"





Objective

Internal Certification Program for System Architects (R&D core learning program) Foster lifecycle business understanding and leadership of interdisciplinary teams Establish networking and peer sparring across organizational boundaries Introduce a quality standard for System Architects



Target Group

vees with 2+ years of experience in working as a System Architect or a comparable role



Lessons Learned

ty and standards rojects, due to Architects Community Network

Page 19 Restricted | © Siemens 2024 | Siemens Digital Industries Software

Lessons Learned Summary	Agenda	
Lessons Learned Summary		
Lessons Learned Summary		
Lessons Learned Summary		
	D	Lessons Learned Summary

Page 21 Restricted | © Siemens 2024 | Siemens Digital Industries Software

Transformation of Industrial Organizations with a System Perspective Approach to Enablement & Knowledge Transfer for System Engineering & Thinking



Thank you for your attention.



Page 23 Restricted | © Siemens 2024 | Siemens Digital Industries Software