

Sustainable Supply Chain Framework

*** Overview ***

October 2025



Microsoft Co-Pilot's Perspective on this topic

Agenda



Sustainability - what's in a name?



Vision & Mission



Digital Supply Chains



Framework Overview



Use Case Library



Sustainability Reference Architecture



Solution Building Block Repository



Solution Development Copilot



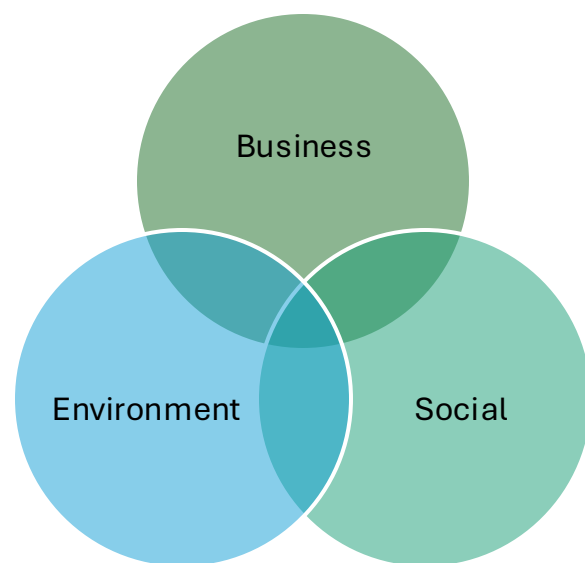
Digital Sustainability Playbook



A Brief History of Time

Sustainability - What's in a name?

- The term is not standardized. People and organizations have their own definition.
- Our definition is based on a couple of existing frameworks.



Sustainability in the
Sustainable Supply Chain Framework (SSCF)



Vision & Mission

Vision

It is 2030. The people involved in the development of sustainable supply chain solutions are supported by Copilots throughout the SDLC.

Mission

Accelerating the development of sustainable supply chain solutions and improving their quality through AI, standards and reference models.

Digital Supply Chains

Sustainable Supply Chains

Business Value

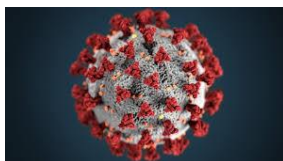


Optimization & Resilience



Environment & Social Impact

Drivers



Pandemics



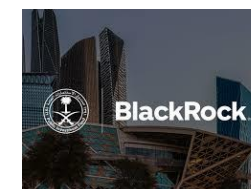
Interruptions



Wars



Regulations



Finance



Consumers



Employees

Digital Technology



IDTA



Digital Twin



Digital Product Passport

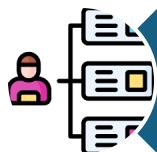


Data Space

PLATFORM
INDUSTRIE4.0

Catena-X
Automotive Network

Framework Overview



Use Case Library

Generic sustainability use cases descriptions



Sustainability Reference Architecture

Solution blueprints for sustainability use cases



Solution Building Block Repository

Links to solution components for sustainability use cases



Solution Development Copilot

Improve speed and quality for solution development



Digital Sustainability Playbook

Guideline on implementing the framework

Use Case Library

  S2CRA

  Industries

  Automotive

  1 - Use Case Blueprint

  2 - Enterprise Blueprint

  3 - Value Chain Blueprint

  9 - Model Company

  Cross-Industry

  Energy Utilities

  Process Manufacturing

  Reference Models

  AAS

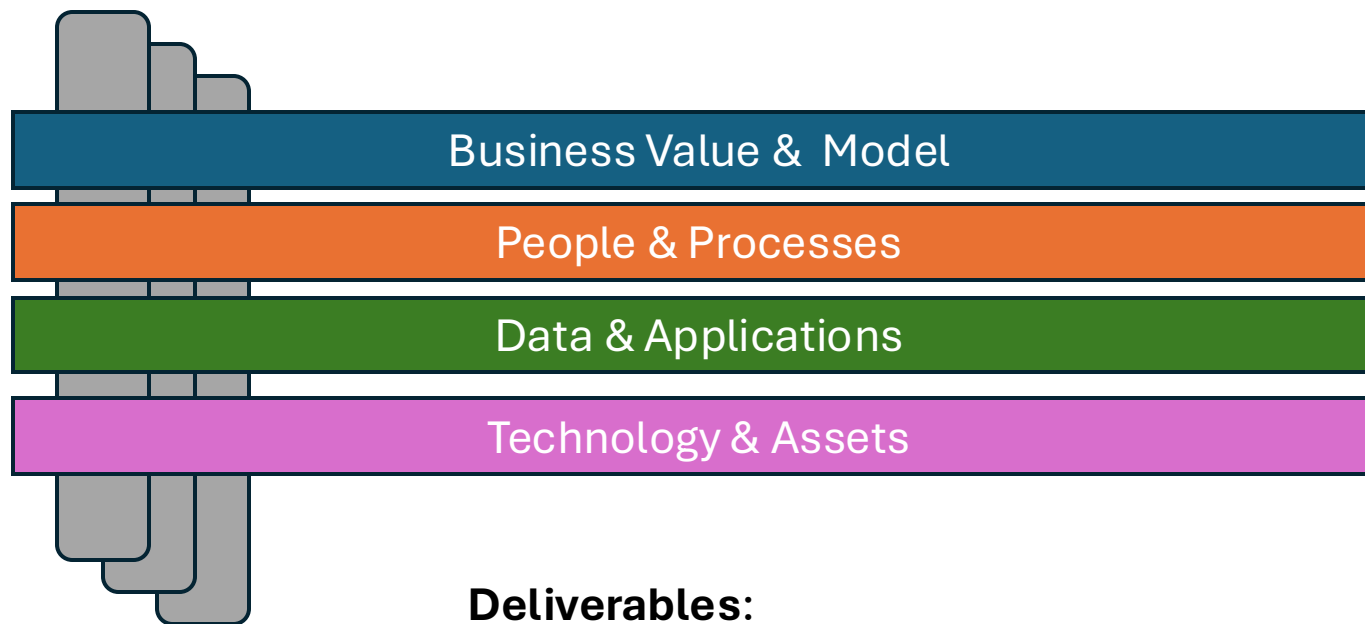
  APQC

  CSRD

  OPC UA

  S2CRA Meta Model

Sustainability Reference Architecture



Use Cases

Deliverables:

- Use Case Blueprints
- Industry Reference Architectures
- Supply Chain Reference Architectures

Existing Reference Models

- RAMI 4.0
- GRI
- SCOR
- Business Motivation Model
- APQC
- Asset Administration Shell
- Gaia-X
- SAP Reference Architecture
-

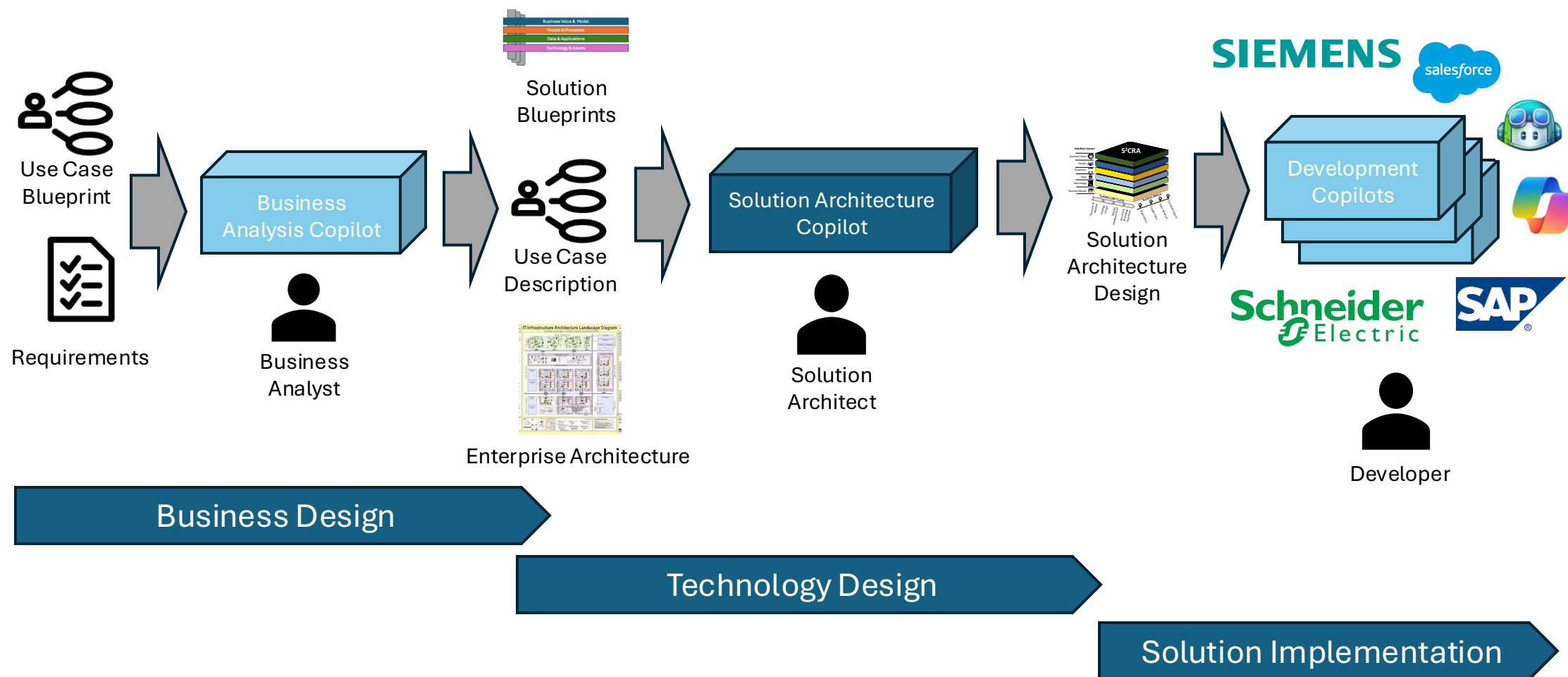
Solution Building Block Repository

A Catalog of software products that implement Reference Architecture components



.... and many more, as provided by the vendors

Solution Development Copilot



Digital Sustainability Playbook

Table of Contents

Introduction

Sustainable Supply Chain Framework.....

Use Case Library

Sustainable Supply Chain Reference Architecture.....

Solution Architecture Co-Pilot

Solution Building Block Repository

Digital Sustainability Maturity Model.....

Transparency

Acceleration

Process Optimization

Product Optimization

Digital Technology Optimization

Business Value.....

Business Value Portfolio

UN Sustainable Development Goals

GRI Standards

Corporate Sustainability Reporting Directive (CSRD)

Scientific Base Target Initiative (SBTi)

Business Value Scorecard

Sustainability Data Model.....

Sustainability Use Cases

Business Capabilities

Digital Capabilities.....

Data Spaces

Digital Product Passports

Digital Twins

Solution Development Co-Pilot Platform.....

Green IT

Digital Sustainability Roadmap

Strategy Execution


Center of Excellence

Strategic Alignment.....

Portfolio and Investment Processes

Enterprise Program Management and Enterprise Architecture

Enterprise Performance, Risk and Compliance Management



© 2025 MIT Alumni Energy, Environment and Sustainability Network

#11

A Brief History of Time

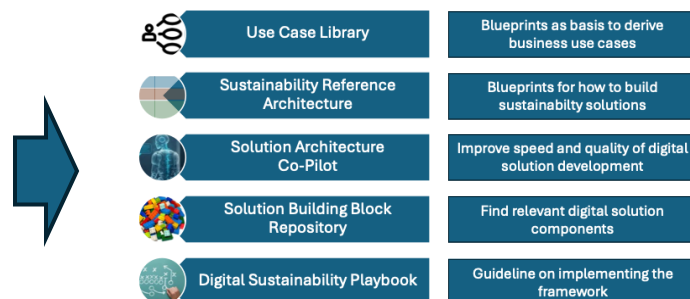
PLATTFORM
INDUSTRIE 4.0



Sustainable Supply Chains
and Data Spaces
Whitepaper



Sustainable Supply Chain
Working Group



Sustainable Supply Chain Framework



Hannover Fair 2025



Digital Sustainability Group

