Sept 18, 2023

Sustainability as a product

Applying System Engineering principles to kickstart corporate sustainability

Sustainability Engineering

Sustainability Engineering

Status Quo – Regulation & Expectation Pressure

BRIDGING The BUBBLES

Sustainability
Communities
Consultants
Regulatory

SUSTAINABILITY ENGINEERING
EFFICIENTLY BRIDGING ECONOMY AND SUSTAINABILITY
ENABLING FUTURE RESILIENCE IN A SUSTAINABLE WORLD
HTTPS://SUSTAINABILITYIMPULSE.COM

Corporate
Systemic

Emotional

Factual

BRIDGING The BUBBLES

Stakeholder
Requirements
Needs
Pains

Products
System

Our core discipline – building products

Sustainability As a Product

What we do know

- How to bridge fuzzy pains into quantifiable systemic views
- How to structure requirements – stakeholder & system
- How to validate and communicate systems
- How to verify systems
- How to document systems
- How to realize systems
- How to deliver systems – bring to market

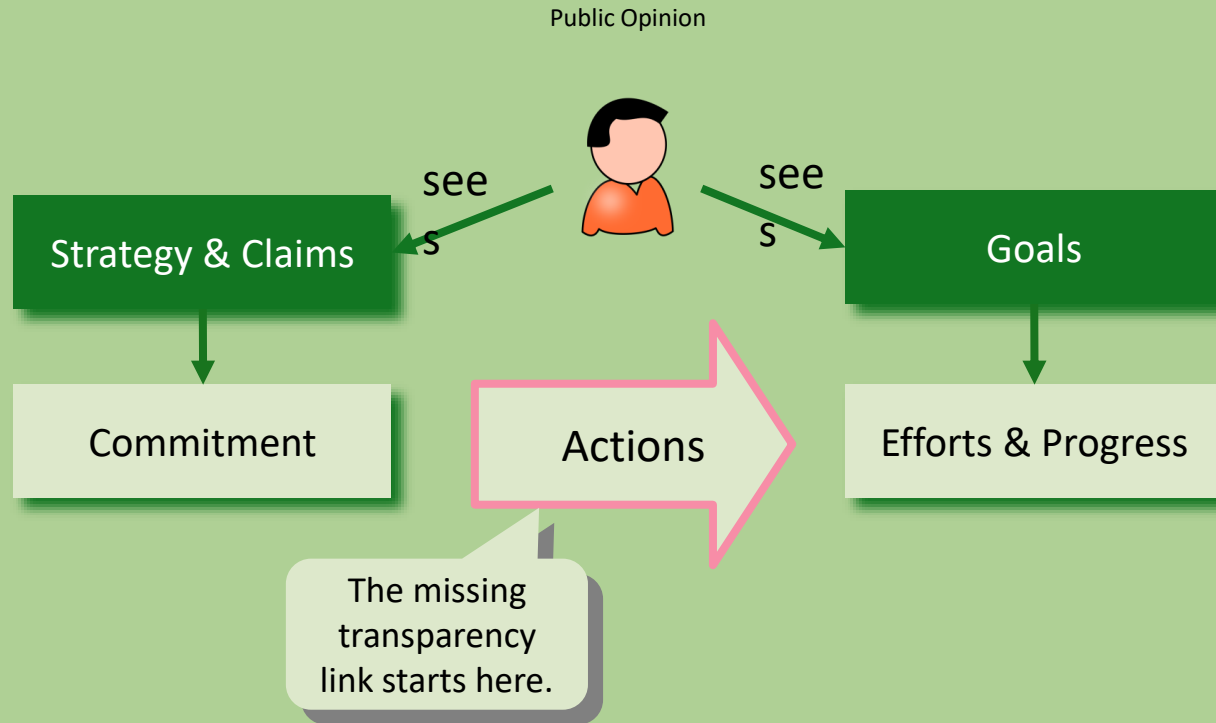- **Systems & product engineering – our core competence**

Sustainability As a Product

So we know also...
- How to bridge emotional pains into quantifiable systems
- How to structure them
- How to validate and communicate commitment
- How to verify commitment
- How to document sustainability
- How to realize sustainability
- How to deliver & market sustainability

Looking at sustainabilty as a product or system eases a lot of things when integrated into systems engineering

The Process Gap

Public Opinion

see s

see s

Strategy & Claims

Goals

Commitment

Actions

Efforts & Progress

The missing transparency link starts here.

Structured sustainability

Story
Stakeholder Requirement

Commitment
System Requierment

Execution
Implementation

Tracking
Verification

Reporting
Documentation & Marketing

Impact

PR & Marketing

Public Opinion

PR & Marketing

Certification

Regulatory

Certification

Financial & Investors

Sustainability Engineering - Intro

- Define an individual story line to set your goals

- Rely on established methodologies and infrastructure

- Build commitment across the enterprise

- Track and measure sustainability achievements

- Visualize your story

- Show responsibility and commitment

- Move the world

The steps to sustainability

Initial step: Create your individual sustainability story

¶ Declare your impact

·Identify stakeholders

Ì Reflect your intended commitment

Í Define targets and relate to SDGs

Î Define requirements and commitment. Establish verification and KPI

Ï Set up tooling/integrate into existing (Polarion, DOORS, etc.)

Ð Derive Actions and execute. Verify and track results

Ñ Visualize progress and harvest the KPIs

Ò Certify

Everything starts with a story

- ## What is the difference you are trying to make?

Start with the SDG. Think globally.

Consider all stakeholders to be addressed.

Reflect, what you are going to do.

Your story map is a collection of things you are committing yourself to achieve. Your impact. Your statement.

Example:

As company, I want to ensure fair payment for all employees world wide to fight pove~~rty (SD~~G1)

As company, I want to reach net zero carbon and waste footprint until 2035 (SDG13)

Create commitment

You have a story. You have targets.
What now?

Establish commitment by creating clear and precise requirements.

Validate requirements with stakeholders. Adjust if necessary.

Establish an agreed plan how to verify the requirements.

Define metrics and KPIs to be achieved.

Link requirements to stories.

Examples

The corporate fresh water consumption shall be at maximum 5000l per month.

Employee income worldwide shall be based on an equivalent of 10 €/h minimum relative to local purchasing power.

All employees worldwide shall have a free medical inspection per half year.
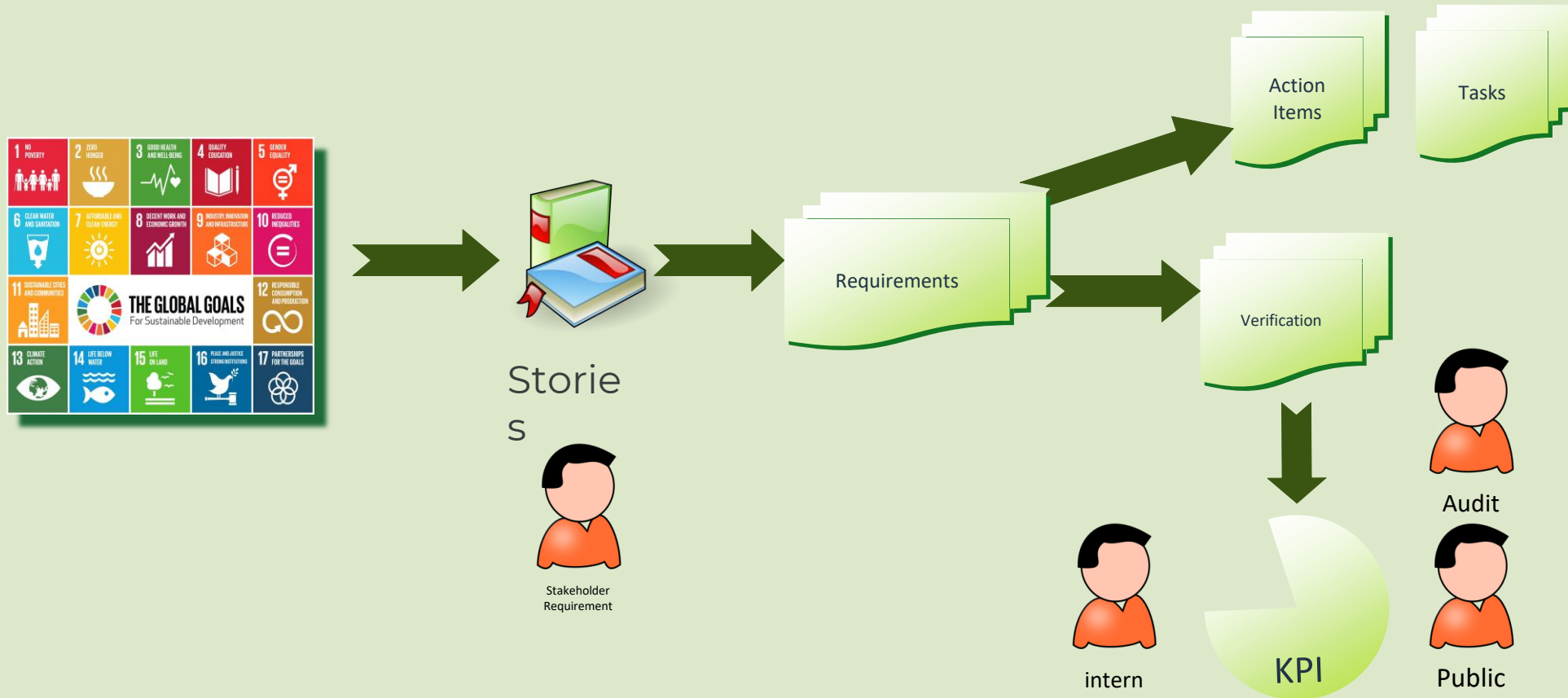
Realize and verify

You have requirements and verification.
What now?

- Transfer commitment to the realizing instances.

- Create action Items and link to requirements

- Define execution plans

- Setup programs and execute

- Verify regularly to ensures to be on track

- Extract KPIs and visualize externally and internally
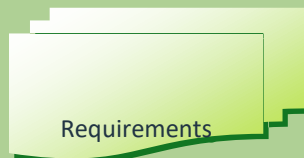
Dependencies

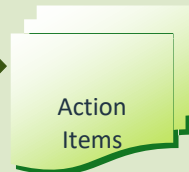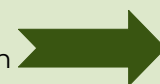# Examples

SDG   Stories   Requirements   Executor

1 NO POVERTY

As company, I want to ensure fair payment for all employees world wide to ensure overall living standards and fight poverty

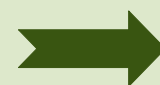Employee income worldwide shall be based on an equivalent of 10 €/h minimum relative to local purchasing power.

Action Items

Global HR

3 GOOD HEALTH AND WELL-BEING

As company, I want to ensure health and well being for all employees world wide to ensure well-being and productiveness

All employees worldwide shall have a free medical checkup per half year,

Action Items

Global HR

13 CLIMATE ACTION

As company, I want to reach net zero carbon and waste footprint until 2035

Production shall be powered by renewable energy

Packaging shall contain 100% recycling materials

Corporate cars shall be exchanged by electric vehicles.

Action Items

Production

Facility Management