



Send files, not parts How Digital Supply Chains can Reduce Emissions

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The great shift

From:

Centralized
Production



Slow moving, carbon
intensive supply chains



Warehouses full of
physical inventory



Manufacturer centric
supply chain



To ODM:

Network of localized
microfactories

Faster, sustainable
and less expensive
digital supply chains

Digital inventory

Customer centric

Send files, not parts

A global supply chain where the right parts are manufactured locally, saving time, cash, and carbon, while providing safe and durable parts

Ivaldi helps you adopt and operate distributed manufacturing solutions.



Examples

		Cost savings	Time saved	Co2 saved
Incident response		99%	3 weeks	99%
Reduced carry cost		46%	4 weeks	70%
Continuity assurance		83%	1 week	97%
Lead time reduction		82%	6 months	99%

Digital Supply Chains - Emissions Reductions

AM benefits



Less weight & less material waste



Unobtainable spare parts



Refurbishment

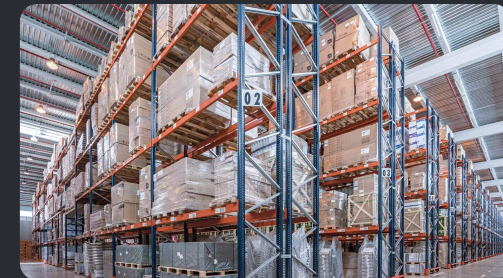
On-Demand Manufacturing



Manufacturing closer to user

Up to **20%**

Equipment replaced unnecessarily per year



Shorter design cycles

DAVAMS - Disrupting and Adding Value to maritime supply chains by using Additively Manufactured Spare parts

The Norwegian Research Council has awarded 15MNOK for Wilhelmsen ship Services, Sintef and Ivaldi. Multiple OEMs and end-users are contributing to the project.

WHY?

The Vision:

Have CO2-emissions be available and a part of the decision making and planning process



Desired Outcome:

Companies will select AM parts based on cutting CO2

HOW?

Project Objective:

Develop a framework to deliver sustainably manufactured spare parts to the maritime sector

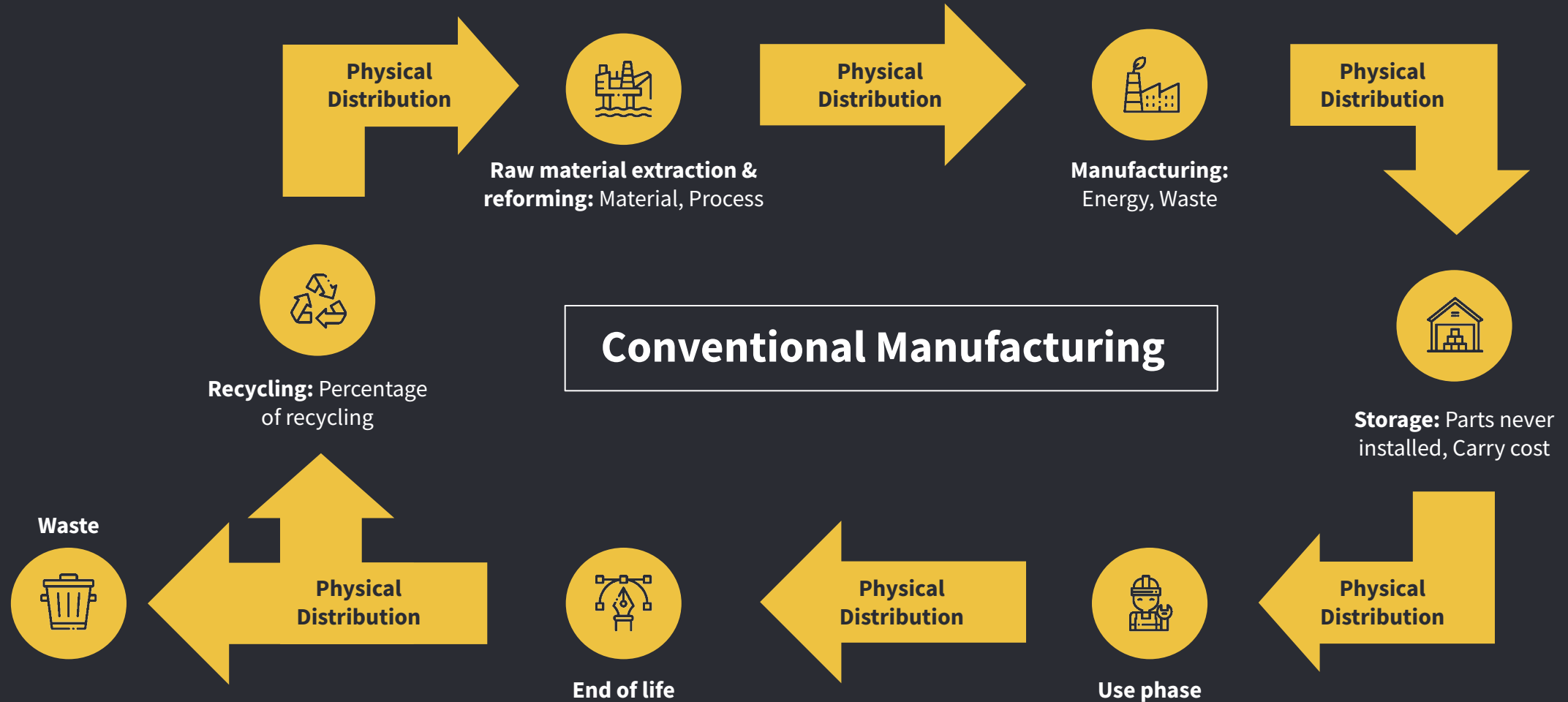


Project Deliverable:

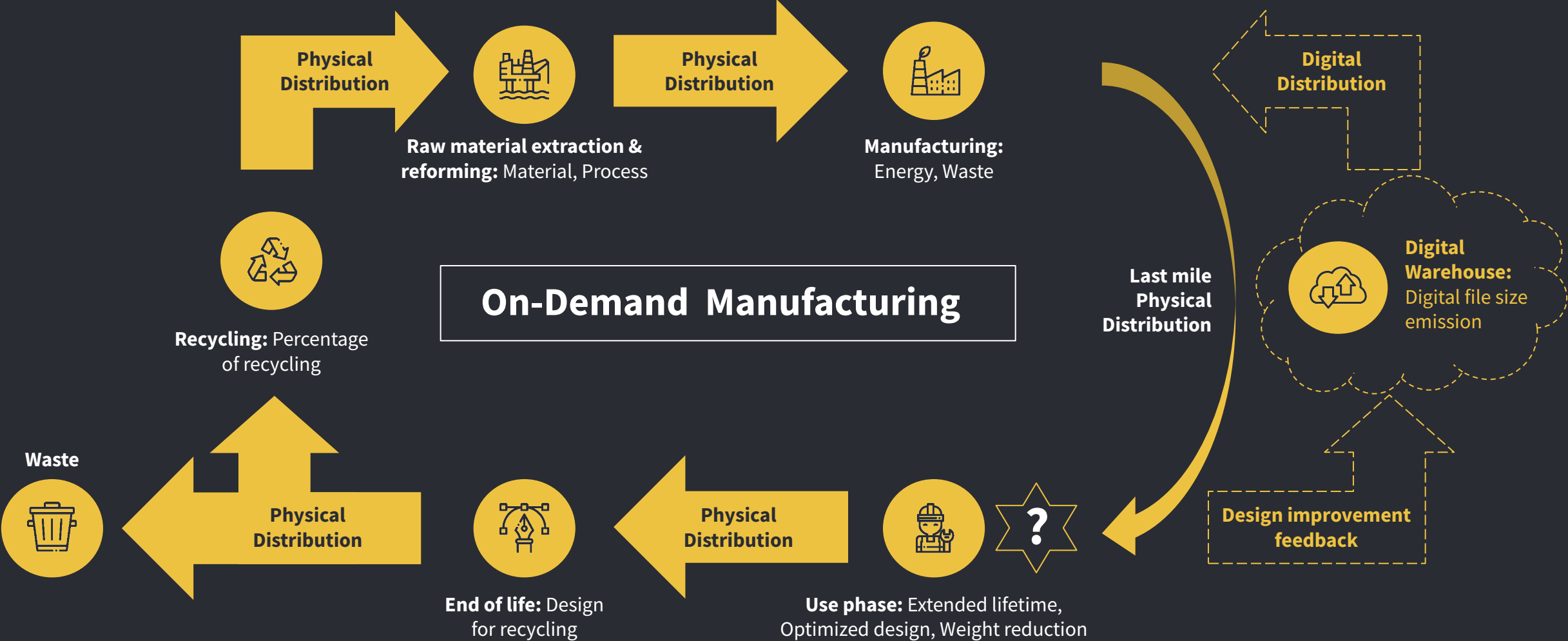
Method for calculating CO2 emissions for AM parts - cradle to grave



LCA Framework - DAVAMS-project



LCA Framework - DAVAMS-project



Reflections

Ivaldi has always been thought leaders

Norske Espen Sivertsen (33) lager 3D-printere for å ta opp konkurransen med Kina

Nordmannen Espen Sivertsen mener fremtidens produksjon vil være lokal. I en gammel Chrysler-fabrikk utenfor San Francisco bygger han verdens største felleslokale for 3D-selskaper.



Keys to Success

Building your competence with Ivaldi



Real value



Resources



Access



Safety & Risk



Data quality



Blockers

Ivaldi's view on the future



Digital readiness



Building trust and grow adoption



Establishing standards for digital supply chains

