

# Capstone Projects

Collaborating with the business engineers of tomorrow



**Business Engineering | Innovation**

Institute for Innovation und Technologiemanagement IIT

## What is a Business Engineer?

Business engineers combine technical and business expertise, **bridging** the gap between the worlds of **technology and economics** within their companies. As project managers or in leadership roles, they **drive innovation** and **operational excellence** by taking a **holistic** approach to challenges.

Their strong **communication** skills and broad, in-depth knowledge enable them to lead interdisciplinary teams and delve deeply into specific areas.



Our degree program teaches the necessary methods, skills, and tools to help unite the three areas of **technical feasibility, economic viability, and customer desirability**.

This leads to innovations that **transcend** the **traditional boundaries** between technology, economics, and design.

Our students are specifically prepared for their future career profiles through practice-oriented specializations.



### Product Management and New Business Development

- Customer-focused product strategies, concept development, and successful marketing.
- Identification of new business opportunities through market trend analysis, business model development, and new customer acquisition.
- Close collaboration with design and development teams.



### Operations Management

- Design of manufacturing processes, material planning, and employee management for high productivity and competitiveness.
- Monitoring of inventory levels and implementation of quality management systems for improved operational excellence.
- Direct impact on productivity and competitiveness.



### Sales and Marketing Management

- Planning, implementation, and monitoring of marketing activities for successful sales.
- Managing the sales process and leading sales staff.
- Developing strategies, product concepts, and advertising activities to foster customer loyalty and increase revenue.

## PAIND – Capstone Projects

PAIND (aka. “Industrial Project”) connects companies with final-year HSLU Business Engineering students who bring 3–4 years of prior industry experience from their apprenticeship. Its scope is around 180h workload, spread across the entire semester (4 months, 45h per month or ca 1.5 days per week). Based on your concrete challenge, a student conducts an applied research project: builds a solid evidence base, selects and applies suitable methods, analyses the results, and translates them into clear decision support and a practical recommendation. You benefit from fresh, structured problem-solving, independent capacity, and a high-quality written report (40–60 pages) plus presentation—guided weekly by an experienced professor.

### Product Management & New Business Development

Identify customer needs, create and validate (digital) business models, and develop sustainable products/services—from idea to market launch via structured innovation projects.

- Designing a Digital Business Model and Revenue Logic for a New Offering
- Developing a Product-Service System (Servitization) Concept and Business Case
- Customer Discovery and Concept Validation for a New Product Idea (MVP/Prototype Plan)
- Building a Sustainable Product Strategy and Circularity Roadmap
- Setting Up and Managing an Innovation Project Pipeline (from idea to implementation)

### Operations Management

Design and improve end-to-end processes and supply chains using digital process engineering and excellence methods to boost quality, delivery reliability, cost and productivity.

- Redesigning a Production Process Using Digital Process Engineering (target process + requirements)
- Implementing Operational Excellence: KPI System, Shopfloor Management and Improvement Routine
- Capacity Planning and Production Scheduling Optimisation for Better Delivery Performance
- Supply Chain Network and Inventory Optimisation (service level vs. cost trade-offs)
- Quality and Process Stability Improvement (root-cause analysis + standardisation/controls)

### Sales & Marketing Management

Build demand and revenue through data-driven online marketing, CRM and sales management—shaping go-to-market strategies and growing customers in international markets.

- Building a B2B Sales Strategy and Sales Playbook (segments, value proposition, pitch)
- CRM Setup and Customer Journey Design (lead-to-order process, KPIs, governance)
- Online Lead Generation Strategy (channels, content plan, campaign measurement)
- International Market Entry Plan (target markets, positioning, partners, pricing)
- Marketing Strategy and Brand Positioning for an Industrial Solution (messaging, proof points)

Get an idea of what’s possible by checking out past projects!

<https://sites.hslu.ch/ta-bachelorarbeiten/2025/03/25/wirtschaftsingenieurwesen-innovation-bachelor-diplomarbeiten-2025/>

## What comes after a great collaboration? More Collaboration!

After a successful PAIND-project our students start with the next collaboration project, their **bachelor thesis** (BAT). The scope is around **360h workload**, spread across the entire semester (4 months, 90h per month or ca 3 days per week). This time commitment allows students to dive deep into topics and become an expert in their field. The students are free to pick their topics and are welcome to work together with the previous company and even **build on their previous PAIND project**.

### PAIND

Product Management & New Business Development

Customer Discovery & Problem-Solution Fit for a New Digital Service

Operations Management

Supply Chain Diagnostics (Inventory, Lead Times, Service Level)

Sales & Marketing Management

Market & Customer Segmentation Analysis for a B2B Offering



### BAT

MVP Concept, Business Model & Launch Plan for the Digital Service

Inventory Policy & Planning Concept (S&OP/Forecasting) + KPI System

Go-to-Market & Sales Playbook (Channels, Pitch, KPIs)

## Thank you for your time

We are always happy to answer any inquires about our program or about the astonishing projects our students manage to master. Benefit from seasoned coaches with extensive experience in collaborative projects.

## Institut für Innovation und Technologiemanagement IIT



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