I was invited to contribute as a mentor and product system expert within ITU SEEDS over a six-year period, based on sustained hands-on contribution rather than formal affiliation.

Applied Product and System Development within ITU SEEDS Ecosystem

ITU SEEDS (ITU Cekirdek) is one of Europe's leading technology incubation centres, supporting early-stage, innovation-driven startups across sectors including digital technologies, hardware systems, IoT, and advanced manufacturing.

Over a six-year period, Mert Sezer contributed to the ITU SEEDS ecosystem through applied product and system development work, collaborating directly with 29 early-stage technology startups during their critical formation phases

His involvement focused on guiding founders through early-stage product definition, system scoping, and design-led decision-making, helping teams translate technical potential into viable, scalable product strategies.

This role required operating at the intersection of digital platforms, connected systems, and physical products, with direct responsibility for early-stage system logic and product architecture decisions.

Among the startups supported were Orthero, now one of Europe's largest clean aligner technology companies with operations in Türkiye and Poland, and Borda Technology, a Türkiye- and US-based company developing IoT-enabled solutions for hospital infrastructure and medical environments.

Rather than operating in an advisory or academic capacity alone, this work involved hands-on engagement with product architecture, user-system interaction, and early validation of digital and physical product systems, contributing directly to startups' readiness for market entry, pilot deployments, and investor evaluation.

This evidence supports Optional Criterion by demonstrating:
- Proven contribution to the UK-relevant technology ecosystem through early-stage startup support and product system development
- Recognition as a sector expert trusted by a leading European technology incubation centre
- Hands-on involvement in shaping scalable digital and IoT-enabled products beyond theoretical or academic mentorship
- Direct impact on technology startups that progressed to international operations and commercial deployment
- Contribution to digital product and system definition practices applicable to UK-based startups and innovation ecosystems.
- Demonstrated ability to translate early-stage innovation into market-ready digital and connected products

Applied IoT Product and System Development in Healthcare Environments

Collaboration with Borda Technology
(ITU SEEDS alumni startup)

Borda Technology is an IoT-focused healthcare startup developing connected systems for asset tracking and safety applications within hospital environments, operating across Türkiye and the United States.

I collaborated with Borda Technology across multiple development phases on the applied design and system definition of four interconnected IoT hardware components forming part of their digital platform. This work focused on ensuring system-level consistency, scalability, and integration readiness rather than isolated product outputs.

My role covered end-to-end product definition, including hardware architecture, user-system interaction, deployment logic, and alignment with platform-level data requirements. The primary challenge was translating complex technical and regulatory constraints into deployable physical devices suitable for real-world healthcare operations.

The resulting components function as a coherent IoT system, supporting secure connectivity, real-time asset visibility, and lifecycle tracking. Design decisions were directly informed by platform architecture and operational workflows, enabling Borda Technology to progress from prototype development to scalable, deployable solutions.

This collaboration demonstrates applied expertise in IoT system development, digital product strategy, and early-stage technology execution within regulated environments.

This work illustrates hands-on contribution to an early-stage technology company through system-oriented IoT product development aligned with digital platform requirements.
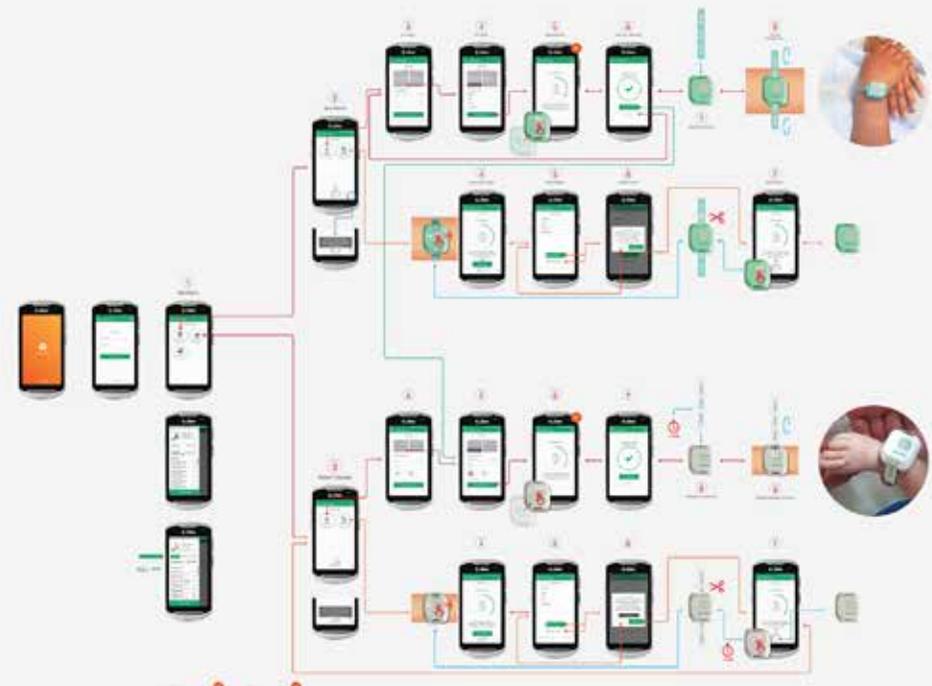
Applied Digital Platform and Product Development for Healthcare Technology

Collaboration with Orthero
(ITU SEEDS alumni startup)

Orthero is one of Europe's leading clear aligner technology companies, operating across Türkiye and Poland, delivering digital-first orthodontic solutions for dentists and patients. Originating from the ITU SEEDS ecosystem, Orthero combines advanced manufacturing with platform-based healthcare services.

I collaborated with Orthero across multiple phases on the applied development of both digital platforms and physical product components, contributing to the evolution of a fully integrated healthcare technology ecosystem. This collaboration included the design and system definition of Orthero's Doctor Web Portal, patient tracking infrastructure, and supporting digital touchpoints enabling treatment monitoring, workflow optimisation, and 3D dental plan evaluation.

My role focused on aligning user needs, platform logic, and system usability to support scalable clinical operations. Rather than isolated interface design, the work addressed end-to-end service architecture, ensuring consistency between practitioner tools, patient-facing applications, and underlying digital workflows.

In parallel, I contributed to the development of Orthero's retainer case as part of the overall treatment ecosystem, conceived as an extension of the digital treatment experience within a regulated healthcare context. This collaboration demonstrates applied expertise in digital healthcare platforms, product system integration, and early-stage technology scaling within regulated healthcare environments., supporting Orthero's growth from a startup to an internationally operating health technology company.

This work reflects hands-on contribution to a technology-led healthcare company through integrated digital platform and product system development.