

Programmes to promote spin-offs at Germany's Fraunhofer-Gesellschaft

The case study provides a spin-off incubation and company building perspective at Fraunhofer-Gesellschaft, Germany's leading institution for applied research.

Topics covered

High-tech start-ups, incubator, company building, spin-off support systems

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Fraunhofer-Gesellschaft

- Germany's **leading institution** of applied research in terms of budget
- 2019: More than **EUR 2.5 billion** euros annual research budget
- 2019: EUR 2.1 billion (84%) generated through **contract research**
- 2018: Fraunhofer owns or holds **equity in 85 companies** from a wide variety of industries

New AHEAD incubator replacing previous spin-off support system

- Just started incubator, based on **global best practice**:
- The Engine, MIT, USA; T3 accelerator, Technion, Israel; Yes!Delft, TU Delft, the Netherlands
- **Merger** of 4 programmes (FDays, FDays®, FFE, FFL (licensing support) into one incubator & company builder (AHEAD)
- Inception of Fraunhofer Tech Transfer Fund (FTTF) providing **investment funding** for spin-offs
- **Provides spin-off teams** with funding, workshops, training, coaches, contacts to potential co-founders, networking, & business intelligence
- **Novelty 1**: Fraunhofer-external entrepreneurs are part of AHEAD for company building purposes
- **Novelty 2**: Network of industry companies is connected for market validation partnership
- More **agile structure**: On-demand workshops, coaching, networking based on individual needs
 - Increased customer and market testing vis-à-vis technology development

Fraunhofer-Gesellschaft initiated its Fraunhofer Venture division in **1999**

Objective:
Make innovations usable through spin-offs and lead them to economic value creation

More than **200 spin-off** companies have been supported (as of 2014)

Team of 25 people (venture managers, lawyers and company building experts)

Technology fields:

- Life/medical science
- Energy & environment
- Information & communication
- Manufacturing & processing
- Microelectronics
- Transport & logistics
- Materials
- Photonics

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AHEAD

4 DAYS BOOTCAMP	MAX. 6 MONTHS PHASE 1	MAX. 1,5 YEARS PHASE 2	OUTPUT
<ul style="list-style-type: none">Stress test for the team & projectCreate an individual roadmapApply for funding & tailored support	<ul style="list-style-type: none">Strengthen the team, understand & validate the market, shape the IP & product strategyDefine the tech transfer concept & negotiate its fundamental terms Internally funded	<ul style="list-style-type: none">Get the team, business model & technology market-readyExecute the tech transfer concept with minimal time-to-market Internally funded	Spin-off or licensing deal

Challenges to the policy mix

- Need to **increase start-up activity**
- **Upscaling** of spin-off support systems

Interaction with national policy instruments for start-ups

- EXIST programme
- Hightech Pioneers initiative
- Tech Bridge project
- Venture connect
- Digital Hubs

Impacts

- Successful Fraunhofer start-ups:**
- **Novaled** (sold to Samsung in 2013)
 - **Exocad** (sold to Carlyle Group in 2016)
- Key figures:**
- **30 new spin-offs** in 2018 alone
 - **Objective 2022:** 2 spin-offs per 1 000 researchers

Policy recommendations

Fraunhofer 2022 agenda

- ★ **New incubator AHEAD** developed in 2018
- ★ **Objectives:** Ratio of 2 spin-offs per 1,000 researchers, increase of the returns in investment

Create awareness for entrepreneurship

- Give visibility to successful entrepreneurs as role models (e.g. Falling Walls initiative)

Reduce complexity of policy mix

- Streamline existing support structures for spin-offs (e.g. Fraunhofer Venture's AHEAD incubator)
- Combine incubators (e.g. AHEAD) with national funding programmes for research-based spin-offs (e.g. EXIST)
- Venture capital (FTTF)

Upscaling of spin-off support systems

- E.g. Partnership between Fraunhofer Venture, Helmholtz Enterprises, KIT, DLR and RWTH Aachen University tech transfer offices

Support international cooperation

- Create mobility schemes for entrepreneurs
- Global best practice: e.g. Cyclotron Road (Berkeley, US), Startup Runway Program (CornellTech, US)
- From "Erasmus for Young Entrepreneurs" towards "European Entrepreneur in Residence" (EEiR) model