

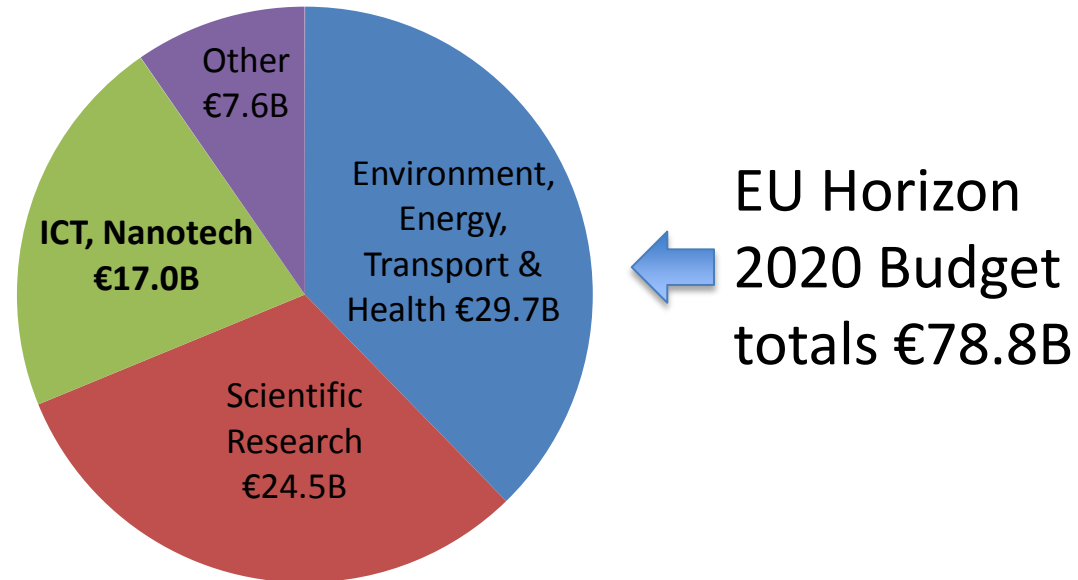
Spirit Ventures

Turning Research into Successful Northern European Companies

Helsinki Roundtable Discussion

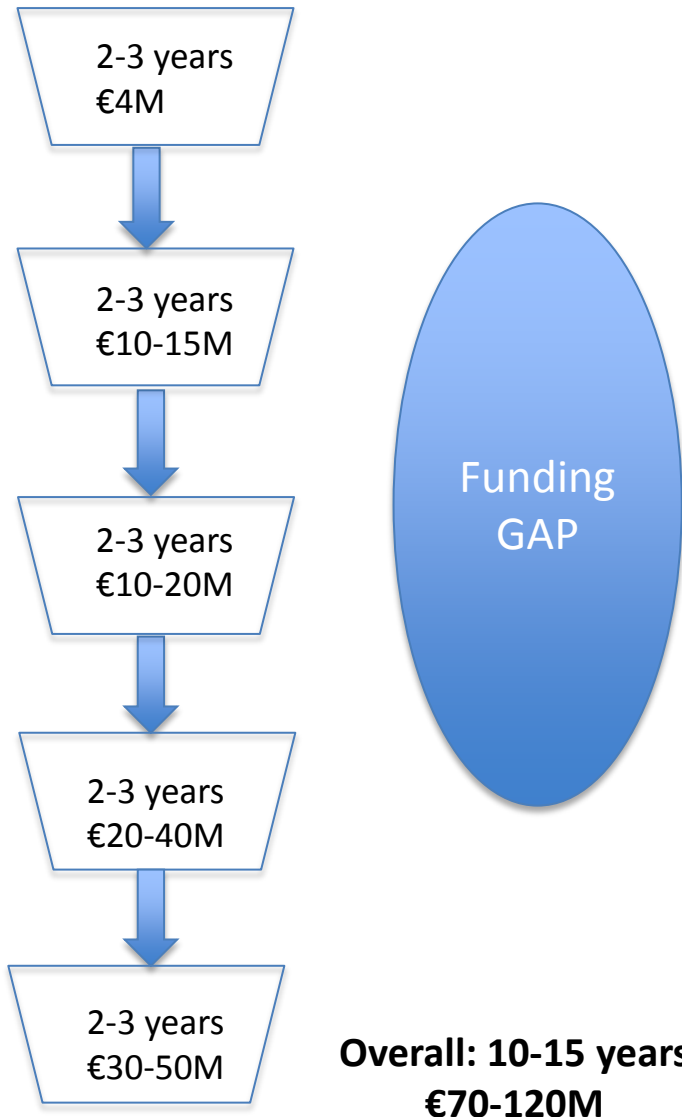
September 29, 2016

Europe spends substantial resources on research



- 22%, or € 17B of the budget is devoted to industrial leadership, key enabling technologies (KETs) such as nanotechnologies and information and communication technology (ICT).

Developing KET companies takes time and money



- Proof of concept
- Local soft funding available for co-investment

- Proof of performance
- VC funding near absent

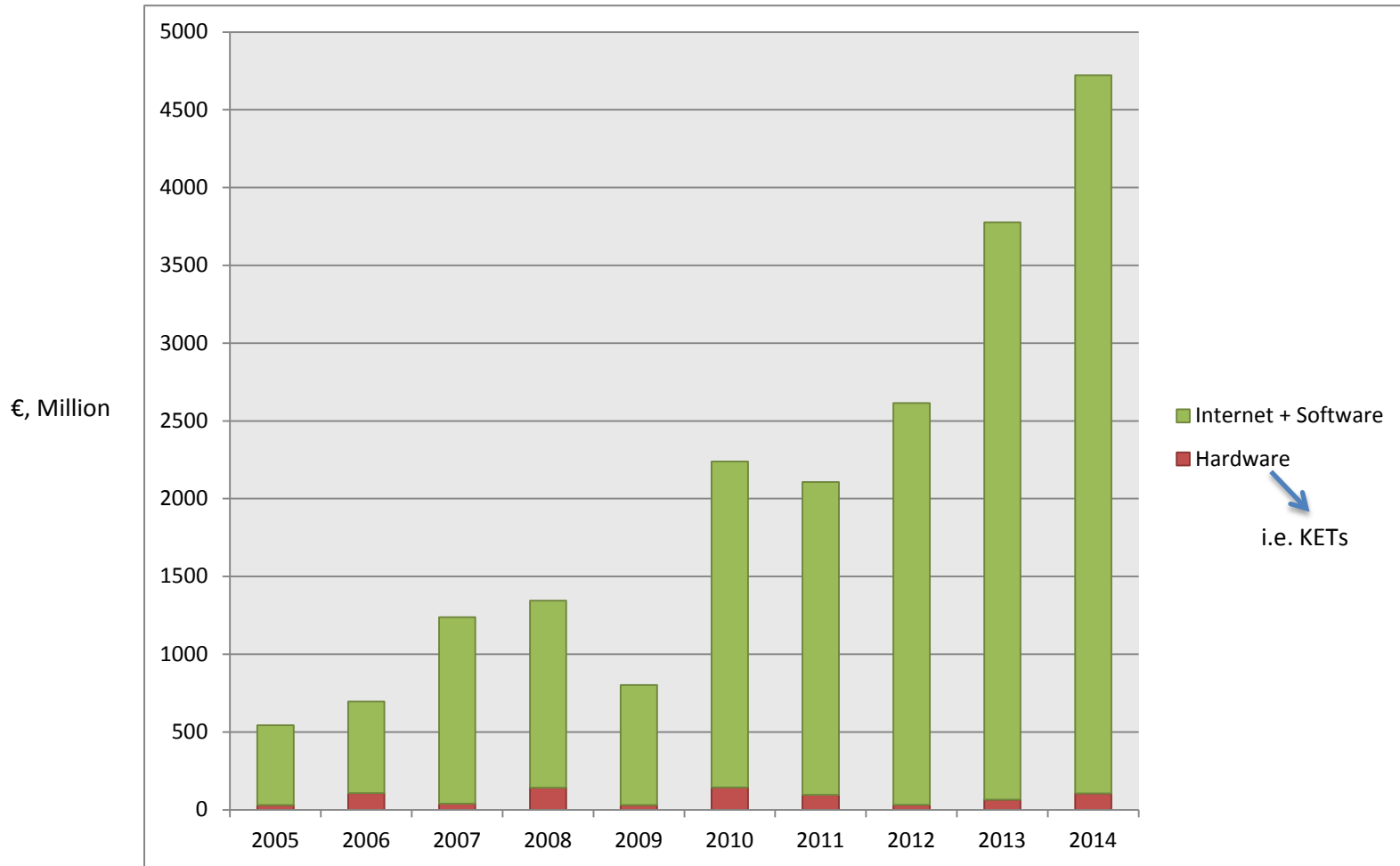
- Proof of product
- VC funding near absent

- Proof of production
- Limited strategic co-investment available

- Proof of profitability
- Institutional late stage investment available

VC Investment has recovered but not for KETs

European VC funding in Technology



Source: Preqin

Leaving most KET IP by the wayside or exported to more fertile geographies

- Even successful early-stage companies ultimately struggle to raise capital. These startups fold, sell their IP prematurely, or become “walking dead”.
 - Enecsys
 - Azzurro
 - Agnion
 - McPhy
 - Replisaurus
 - Media Lario
 - Innolite
 - Dynarc
- Some of the IP finds a home (at low value), but not in Europe.
 - Q-Cells (Hanergy)
 - Innovative Silicon (Micron)
 - Mapper (TSMC)
 - Sarantel (Maruwa)
 - Opsys (Sumitono)
 - Imbera (GE)
- So we need a new funding model if we want KET companies to survive & thrive!

Spirit Ventures: A Dedicated KET funding initiative

Traditional VC model:

- Maximize IRR in constrained time period
- Limited life 10-year fund... driving shorter holding period
- New fundraising every 2-3 years

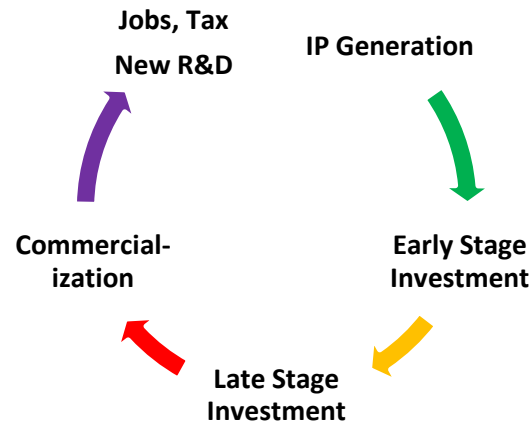


The New Spirit model:

- Maximize successful KET company creation with less time constraint
- Longer-life fund... matching portfolio company time horizon
- Well-capitalized, self-sustaining, requires less fundraising

The Spirit Approach To Build Companies

- Early stage:
 - Work with regional research groups to fund local startups
 - Fab light by utilizing existing incubation initiatives
 - e.g. VTT, ProNano
 - The existence of “IP2B” will generate the Virtuous Cycle of more start-ups created over time
- Later stage:
 - Support the best portfolios out of the early stage investments
 - Invest in developed companies with unmet capital requirements



Symbiotic Relationship between Spirit Startups & Pilot Fabs

Pilot fabs prefer viable local companies to fill-out fab capacity



Spirit provides funding and expertise to KET startups to make use of pilot fabs

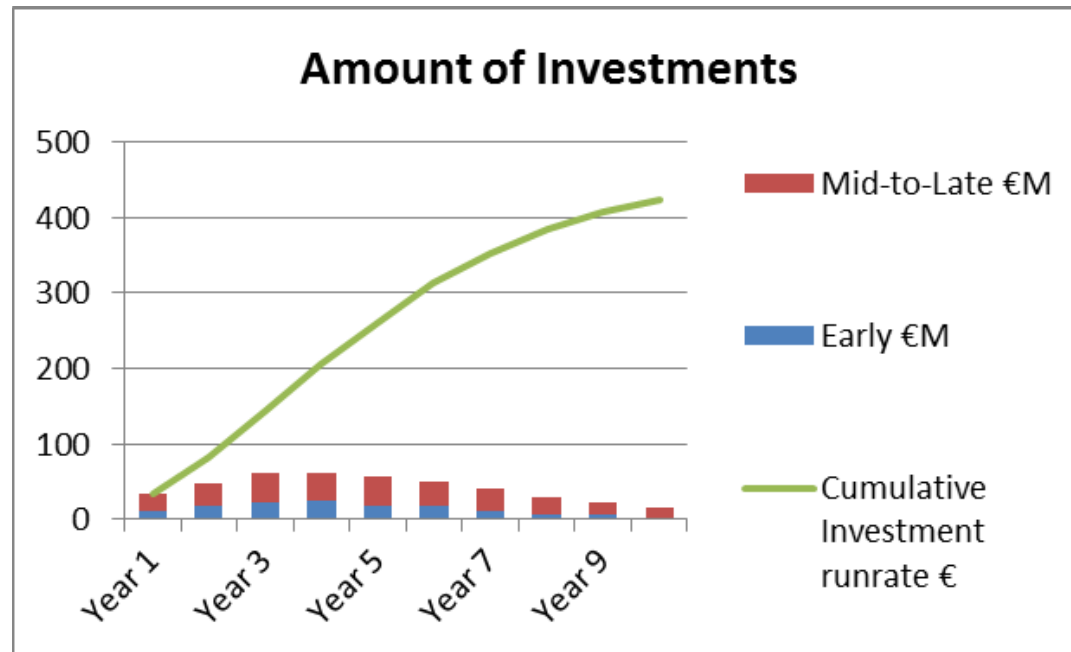
KET startups alone face high manufacturing costs beyond proof of concept



Pilot fabs allow KET startups to collectively share production costs

Creating a long-term KET fund will take about €500M

Money deployed during Fund's 10-year investment period*



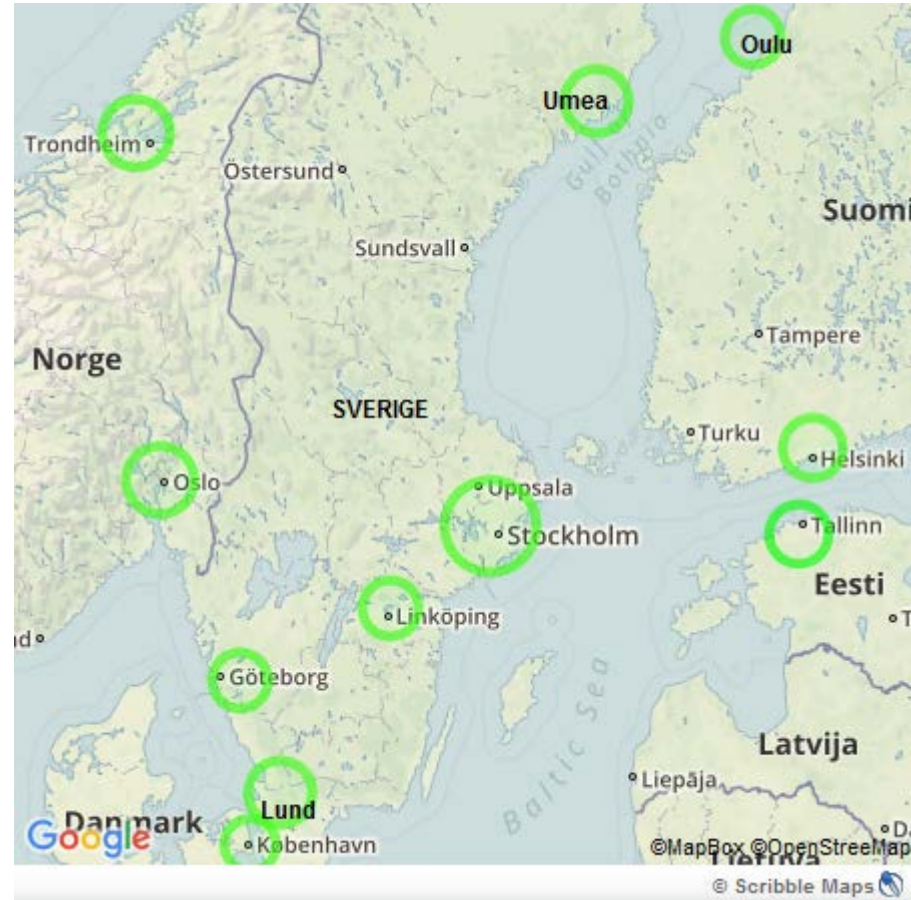
*excludes follow-on investments in Years 11 – 15

A Sample of Specific Investment Areas and Pipeline

- Next-generation solar technologies
- New battery and energy storage technologies
- New semi materials and processes with unique characteristics and scalable solutions
- Photonics startups, including cross-breeding with biotech applications
- Printed electronics such as printed LEDs
- Neuromorphic chips that can be used for drones, virtual reality, and even helping paralyzed people to walk again
- Several other fields, **all enabling large end-markets from mobile communications to various industries to health care**
- Robust pipeline of ~100 companies

Nordic presence with centralized Investment Management

**Local presence with
Community Technology Partners
In participating regions**



Proven Investment Team

- Deep Investment, Technical and Operational expertise
- Proven ability to commercialize technology
- All share deep commitment to / investments in KET companies



Magnus Ryde

General Partner

Invest. Exp. 3 years
Operat. Exp. 35 years
Investments 5
Cash Return 1.1X

Firms Quan, KLA-Tencor
Education MSc

Inv. Sample Micronic, Glo



Pär Lange

Advisor

15 years
10 years
15
2.0X

Swisscom Ventures
MSc, MBA

Quantenna, Kumu,
Actlight



Ed Schneider

General Partner

28 years
-
37
1.3X

Quan, Lloyds Bank
MBA

Virata, Keopsys, Micronic



Maria Strømme

Advisor

Prof. of Nanotechnology
PhD

LP Terms

- Fund size: €500M
- Partnership life: 15 years
- Management fee: €5M annually
- Carried interest: 20% of performance, earned only after LPs recoup their original investment
- Fund Domicile: Luxembourg
- Legal Counsel: Ramberg Advokater AB
- Depository Bank/Fund Admin: Mitsubishi UFJ Investor Services & Banking

In sum, a long-life fund to transform Key Enabling Technologies into substantial Northern European companies, providing attractive investor returns.

Spirit Value Propositions

- **Differentiators**
 - Provide more patient capital to match KET companies longer development cycle
 - Experienced in investing, operating and growing KET enterprises
 - Global high-tech network, as well as local Scandinavian roots
 - Excellent investment track record
- **For Entrepreneurs**
 - Patient capital with sufficient funds to invest over the company's life cycle
 - Industry and business development expertise
 - Ability to support recruiting of key executives
 - Corporate partnering and networking contacts
 - Solid international investment network
- **For Investors**
 - Proven ability to source and select unique KET investment opportunities
 - Long-term view with high-return expectations
 - Focus on building sustainable companies with significant societal value
- **For the Northern European Region**
 - Transforming citizens' excellent research and engineering into viable new enterprises
 - Creating high-value jobs
 - Creating sustainable industries that enhance the quality of life in the region
 - Completing the Virtuous Cycle of IP2B, leading to more growth and innovation

Contacts

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