



Monthly European Technology Venture Capital Bulletin

November 2009

The Go4Venture Monthly Venture Capital Bulletin is a publication commenting on the latest results from our European Technology VC Headline Transactions Index®.

Go4Venture's European Tech VC Headline Transactions Index is based on the number and value of transactions reported in professional publications. The Index is compiled on a monthly basis as an early indicator of the evolution of the market for venture capital funding for European information technology companies.

For more details please refer to the Methodology Note available at www.go4venture.com/research/hti.htm.

About Go4Venture

Go4Venture Advisers LLP is a London-based corporate finance advisory firm focused on providing European technology entrepreneurs and their investors with impartial advice to help them develop and execute growth strategies.

Our services encompass:

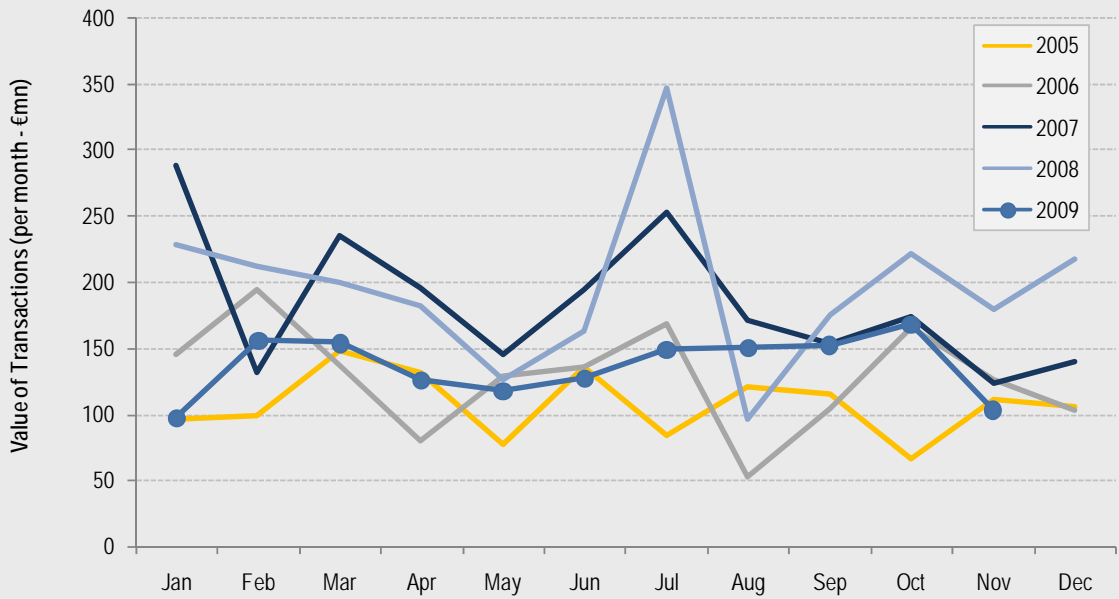
- Financing strategies
- Buy and build strategies
- Exit strategies (trade sale and IPO advisory)
- Strategic advisory and valuation

We are particularly well-known for our international equity private placement services, where we have developed a reputation second to none in Europe among international VCs.

Further information is available at www.go4venture.com

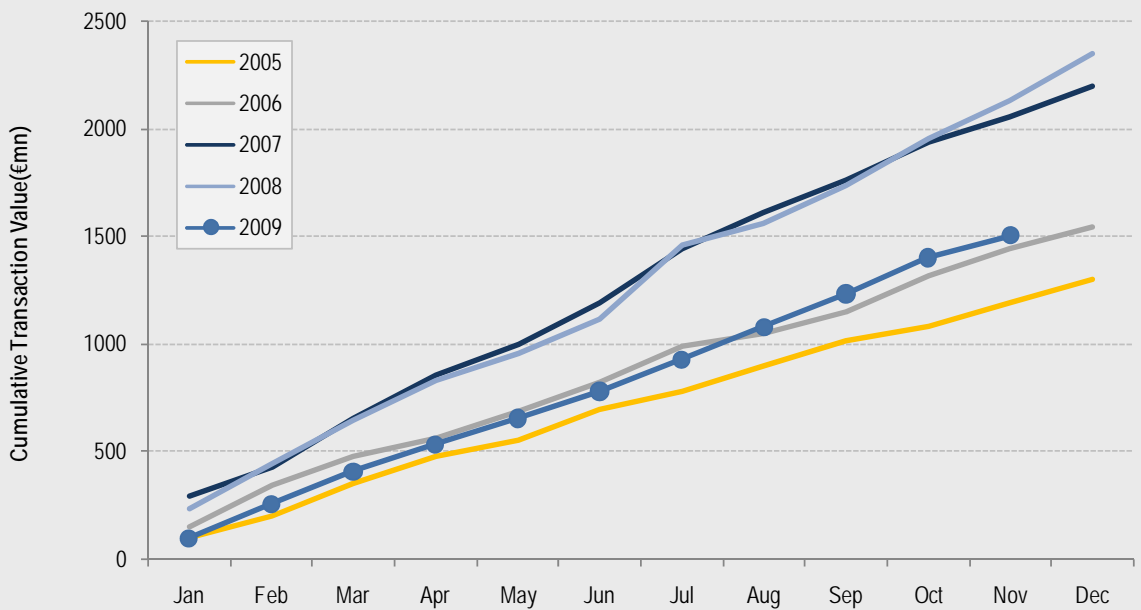
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Go4Venture HTI Index by Deal Value



Source: Go4Venture

Go4Venture HTI Index Cumulative Deal Value



Source: Go4Venture

- We tracked 27 investments (four undisclosed) for a total of €103.6mn in our November Headline Transactions Index (HTI). This compares to 19 deals (none undisclosed) with a total value of €178.8mn for the same period last year.
- Six of these investments were headline deals, none of which have landmark status. This compares to 9 headline deals in November last year, of which three had landmark status.

- The total amount of venture funding to end November 2009 was €1,502mn, down 30% from €2,131mn at this point last year.
- The 27 investments tracked this month include an additional investment of €9mn in online travel services company TravelHorizon. This is the second instalment of a B round investment of €11.0m by Wellington Partners, AGF Private Equity and CM-CIC Capital Privé and brings the total for the round to €20mn.

Top Headline Transactions

Company Name	Sector	Round	EUR (mn)	Description	Investors
Heliatek (Germany) www.heliatek.com	Cleantech	B**	18.0	Developer of organic solar cells	Wellington Partners , Bosch Ventures, BASF Venture Capital, High-Tech-Gründerfonds, and new investors eCAPITAL Entrepreneurial Partners, the Technologiegründerfonds Sachsen Start-up, RWE Innogy Ventures and GP Bullhound Sidecar
Picochip (UK) www.picochip.com	Hardware	Later**	13.4	Design and deployment of femtocells	Atlas Venture, Highland Capital Partners, Pond Venture Partners, Scottish Equity Partners, Rothschild, AT&T, Intel, Samsung
Kebony (Norway) www.kebony.com	Cleantech	A	12.0	Treatment for softwoods to give them the characteristics of hardwoods.	Environmental Technologies Fund
Biocartis (Switzerland) www.biocartis.com	Medical Technology	A	10.0	Developer of molecular and immunodiagnosics platform	Aescap Venture , Benaruca, Advent Venture Partners, Biovest and KBC Private Equity
Muzicall (UK) www.muzicall.com	Telecom Services	B**	9.0	Provider of ringtone services	BlueRun Ventures , Thule Investments, Orkos Capital, Veddis Ventures, GP Bullhound
TravelHorizon (Netherlands) www.travelhorizon.com	Internet Services	Later**	9.0	Online travel services	Wellington Partners , CIC Capital Privé, AGF Private Equity

Source: Go4Venture

Key

Bold indicates lead investor(s)

* Internal round

** Led by existing investors

Top Headline Transactions (cont.)

Company Name	Sector	Round	EUR (m)	Description	Investors
Heliatek (Germany) www.heliatek.com	Cleantech	B	18.0	Developer of organic solar cells	Wellington Partners, Bosch Ventures, BASF Venture Capital, High-Tech-Gründerfonds, and new investors eCAPITAL Entrepreneurial Partners, the Technologiegründerfonds Sachsen Start-up, RWE Innogy Ventures and GP Bullhound Sidecar

- **Heliatek (Germany)**, a developer of organic solar cells, raised €18mn (\$27mn) in a Series B round of funding led by existing investor Wellington Partners. Other current shareholders - Bosch, BASF Venture Capital and High-Tech-Gründerfonds - also invested, together with new investors eCAPITAL Entrepreneurial Partners, RWE Innogy Ventures, the Technologiegründerfonds Sachsen Start-up and GP Bullhound Sidecar. Funding will be used to build a production facility.

Founded in 2006 as a spin-off from the Universities of Dresden and Ulm, Heliatek is a pioneering developer of third-generation organic solar cells which are lighter, more efficient and more flexible than traditional solar photovoltaics (PVs). Heliatek employs a total workforce of 30 people. The company developed its PVs based on organic LED technology licensed from German company Novald in 2006. We covered Novald in January 2009 when it raised €8.5mn in an internal Series C round. Heliatek's PVs are unique in the cleantech market in that production units will weigh 500 grams per square meter, instead of today's customary 20 kilograms per square meter. It also has the advantage of relatively low cost of production compared to other solar PV technologies. The light weight of Heliatek's product makes it particularly suitable for mobile and architectural applications.

This deal is an exception to the recent trend of cleantech investors shying away from early-stage, pre-revenue and capital-intensive solar energy companies. One of the reasons for this is that Heliatek's technology promises to achieve the lowest cost per watt of any current solar cell. It also benefits from unlimited availability of the necessary raw materials. For this reason, its backers have hinted that they would be willing to provide the company with equity financing for a mass rollout, though some form of debt or project finance would obviously be preferable. The company sees Germany, Italy and the US as likely markets.

In effect, it is an internal round led by existing investor Wellington Partners (€800mn under management), with a top up by three additional German VCs - eCapital Entrepreneurial Partners (€85mn under management and also an investor in Novald), regional fund eCAPITAL Entrepreneurial Partners, the Technologiegründerfonds Sachsen Start-up (€60mn under management) and corporate investor RWE.

This deal continues the trend we have observed of corporate companies investing in technologies with RWE joining two existing strategic investors, BASF and Bosch, who participated in the initial round of financing in June 2007.

Top Headline Transactions (cont.)

Company Name	Sector	Round	EUR (m)	Description	Investors
Picochip (UK) www.picochip.com	Hardware	Later	13.4	Design and deployment of femtocells	Atlas Venture, Highland Capital Partners, Pond Venture Partners, Scottish Equity Partners, Rothschild, AT&T, Intel, Samsung

- **Picochip (UK)**, the femtocell semiconductor company, **raised €13.4mn (\$20.0mn) in a Series E round of funding from Atlas Venture, AT&T, Highland Capital Partners, Intel Capital, Pond Venture Partners, Rothschild and Scottish Equity Partners.** The funding is aimed at steering the business to IPO.

PicoChip has led the vanguard of femtocell chip technology development in the UK since its founding in 2000. Based in Bath, UK and Beijing, China, it is chiefly focused on the design and deployment of chips for femtocells – low-cost cellular base stations for use in residential, enterprise, rural and urban environments. The company has also announced its strategy for an end-to-end femtocell reference solution that will lower barriers to entry, minimize cost and accelerate time-to-market for femtocells.

The femtocell concept is of great interest to telco carriers as it helps them move some of their data traffic – which is proving very difficult to manage with the widespread uptake of internet-enabled phones – away from their own cellular network and on to a home’s local area network.

Picochip’s technology is in use by over a hundred network operators, including eight of the global top ten. The company sells to seven of the top ten telecoms equipment makers. Some of its named partners include Alpha Networks, AT4 Wireless, Airspan, Intel, ip.Access, Ubiquisys (supplying NEC and Motorola), Willtek, Xinwei Telecom, Zyxel and a number of other major OEMs and ODMs.

The femtocell industry is currently going through a steep growth curve, with a number of telco operators starting to roll out their femtocell offerings. ABI Research forecasts the total available femtocell market in 2010 will reach 2.3 million units, rising to 40 million units in 2014. In 2009 six major network operators have launched femtocell services that cover the US, Europe and Asia.

Once again, the round is largely internal, which is typical of market conditions in 2009. In this deal we have clear signs of a last big push to raise funds ahead of the next IPO window, anticipated around late 2010 or early 2011. It is a Series E round (excluding bridges and corporate investment) and brings the total investment in Picochip to very nearly €100mn. It is encouraging to see European venture capital funds now able to muster this sort of money for large tech plays. The other side of the coin of course, is that the company will need to target a substantial exit in order for its investors to show a decent return.

Top Headline Transactions (cont.)

Company Name	Sector	Round	EUR (m)	Description	Investors
Kebony (Norway) www.kebony.com	Cleantech	A	12.0	Treatment for softwoods to give them the characteristics of hardwoods	Environmental Technologies Fund

- **Kebony ASA (Norway)**, a provider of sustainable wood products, **raised €12.0mn in Series A funding from Environmental Technologies Fund (ETF)**. The funding will support the company's international expansion.

Kebony uses proprietary technology to modify wood using a liquid extracted from bio-waste. This transforms conventional, fast-growing, sustainable wood species into wood which, according to the company, looks, feels and performs like tropical hardwoods such as teak. Kebony is already revenue generating with products sold into the multi-billion dollar global cladding, decking, and flooring markets and additional revenues from technology licensing deals with third parties.

With a third of the world's rainforests having disappeared in the last 50 years, deforestation is one of the most significant environmental problems and accounts for 20% of greenhouse gas emissions. Unfortunately, tropical hardwoods can take 100 years to mature which means that market demand cannot be met through sustainable forest management alone.

This large Series A is typical of cleantech today: investors are moving away from capital intensive solar and wind plays (with exceptions such as Heliatek!) towards cost-efficient technology focused on energy conservation/storage and recycling/water purification.

This investment appeals to every instinct of the savvy investor - a proprietary technology which addresses the real problem of rapidly dwindling rainforests and meets a global demand for an environmentally-friendly, aesthetically pleasing sustainable alternative to the status quo. This deal also demonstrates that cleantech investors are venturing further afield in the search for returns and less competitive plays. They sometimes end up with derived plays on cleantech: e.g. Nujira's power amplifier technology which limits energy consumption, or here wood ersatz which reduces deforestation and therefore helps minimise the reduction in the earth CO2 absorption capability.

It is interesting to note the background of Kebony's CEO Christian Jebesen as an experienced startup manager - another IT entrepreneur moving into cleantech territory. Among other roles, he was COO of Opera Software between 2000 and 2006.

The Environmental Technologies Fund (ETF) is a £110mn venture and growth capital investment fund backing high growth companies delivering a significant environmental and economic benefit. Past issues of the HTI Bulletin have covered other investments within this fund's portfolio, including Nujira in September 2009 and Metalysis in May 2009. The fund also featured in the HTI with an investment in Perpetuum in October 2007 and an earlier investment in Metalysis in July 2007. ETF is clearly one of the most active cleantech investors in larger transactions.

Top Headline Transactions (cont.)

Company Name	Sector	Round	EUR (m)	Description	Investors
Biocartis (Switzerland) www.biocartis.com	Medical Technology	A	10.0	Developer of molecular and immunodiagnostics platform	Aescap Venture, Benaruca, Advent Venture Partners, Biovest and KBC Private Equity

- **Biocartis (Switzerland)**, the micro-technology based diagnostics company, **raised €10mn in a Series A round of funding led by Aescap Venture, with Advent Venture Partners, Benaruca, Biovest and KBC Private Equity participating.** The funding will be used to develop a commercial version of its proprietary platform and first prototype assays.

Lausanne based Biocartis is developing a range of proprietary molecular- and immuno-diagnostic technologies. These allow the detection of a variety of biological molecules - DNA, RNA, proteins and other smaller molecules – which are used as markers for possible diseases thus helping clinicians tailor treatments to individual patients.

One of the best-known examples of such personalised medicine is the use of Herceptin, which was approved by the FDA in 1998 for the treatment of breast cancer in patients who over-express a particular protein (HER-2). This was the first drug approved for use with a matching diagnostic test. Molecular and immuno-diagnostic technologies help with early detection of disease and treatment selection. Biocartis claims its technology can deliver lower costs per biomarker and faster turnaround times.

Biocartis is based in the Science Park of the Swiss Federal Institute of Technology (Ecole Polytechnique Fédérale de Lausanne - EPFL) where its founder spent a three year sabbatical. Dr Pauwels founded biotechs Tibotec and Virco, which were acquired by Johnson & Johnson in 2002, and Galapagos Genomics which is now listed on Euronext.

This pan-European funding syndicate is notable for its lead partner alone. Aescap Venture (over €100mn under management) is a big hitter in medical and life science investing, backing companies whose technologies are mature enough to yield realistic product opportunities as well as licensing deal cash-flow. Aescap was founded by Michiel de Haan, founder and CEO of Atlas Venture until 2000, and Dinko Valerio PhD, founder and former CEO of Crucell, a Euronext /NASDAQ-listed biotech company. It targets private European medical companies and currently has 11 investments in its portfolio.

Advent Venture Partners (€1.5bn under management) joins Benaruca (undisclosed assets under management), a Luxembourg-incorporated investment vehicle represented by Dutch lawyer Peter Verhaeghe of law firm Vermulst Verhaeghe Graafsma & Bronckerswa. Benaruca was an existing shareholder in Biocartis and also participated in this round. Other investors in this round are KBC Private Equity, part of the KBC banking and insurance group, and Biovest (undisclosed assets under management), which is the personal investment vehicle of Rudi Mariën, founder and chairman of Belgian biopharma company Innogenetics. In 1996, Innogenetics became one of the first biotech companies to be listed in Europe. It is worth noting that Verhaeghe has in the past served on the boards of both Innogenetics and KBC Private Equity.

Top Headline Transactions (cont.)

Company Name	Sector	Round	EUR (m)	Description	Investors
Muzicall (UK) www.muzicall.com	Telecom Services	B	9.0	Provider of ringtone services	BlueRun Ventures, Thule Investments, Orkos Capital, Veddiss Ventures, GP Bullhound

- **Muzicall (UK)**, a provider of ringback tone services, raised €9.0mn in a Series B funding led by existing shareholders BlueRun Ventures and Thule Investments, with new investors GP Bullhound, Orkos Capital and Veddiss Ventures participating. The funds will support expansion into European markets.

Founded in 2004 and based in London, Muzicall develops and operates ringback tone services (RBTs) for major European telecoms providers, including Orange, T-Mobile and Vodafone. When someone places a call, the company replaces the ring tone heard by the calling party with music, adverts or other chosen sounds until the call is answered. Sounds can also be personalised for individual callers. Given the volume of calls placed across European telecoms networks, operators are playing back the equivalent of 710 years of RBTs to 500 million mobile users every day. Muzicall's proposition, delivered via its proprietary RBT.4.ALL platform, is to turn these moments of undivided consumer attention into revenue from direct-to-consumer marketing. The company's offering falls into the middle of a booming market for mobile content which allows users to continue feeding their appetite for customisation.

When it comes to profitable mobile communications innovations, all markets follow Asia. This case is no different. Whereas parts of Asia currently show 40-50 per cent take-up of customised RBTs, only 2 per cent of European mobile users will hear something other than a standard ring tone. Market research consultancy MultiMedia Intelligence expects that RBTs will drive the mobile premium content market, which it expects to triple in value to \$4.7bn by 2012. Likewise, analysts IDC predict that "ringback tones will overtake ringtones in 2010 and become the single largest revenue source for mobile entertainment".

Existing early-stage investor BlueRun Ventures (over \$1bn under management), which is headquartered in Menlo Park, California, with offices in Beijing, Seoul and Shanghai, has no doubt seen this trend emerging from the East. The new investors in this round highlight Muzicall's European expansion ambitions. Orkos Capital (€300mn under management), formerly BNP Private Equity, is now an independent private equity firm headquartered in Paris. Independent investment management company Veddiss Ventures (\$70mn under management) is based in Gibraltar and was founded in 2006 by Vikrant Bhargava, the Indian mastermind behind online gambling success story PartyPoker.com. The final new backer in this round is London-based investment banking firm GP Bullhound.

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This report has been compiled by Jean-Michel Deligny, Managing Director – for and on behalf of Go4Venture.

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