



## Reengineering Blyk's Business Model

### How to build a profitable ad-funded M(V)NO and maximise Ad ARPU

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Many people in our beloved mobile economy are excited about the new startup company called Blyk ([www.blyk.co.uk](http://www.blyk.co.uk)) because it is the first ad-funded MVNO (Mobile Virtual Network Operator) in the world. Blyk launched in the UK on 24 September, 2007, and is targeted at 16 to 24 year-old customers only. Co-founder and CEO of Blyk is Pekka Ala-Pietilä, former President of Nokia Corporation (1999-2005) and Nokia Mobile Phones (1992-1998). Pekka's supposedly strong contacts with the top management of many MNOs (Mobile Network Operator) will help Blyk close more beneficial Host MNO deals in 2008 and 2009 as Blyk plans to go pan-European.

#### Ad-funded MVNO with high Ad ARPU paid by advertisers

For the MVNO and MNO, the logic behind mobile advertising is simple: If you cannot raise ARPU (Average Revenue Per User) charging your customers for new value-added services, you better tap into the media budgets of advertisers that want to communicate with your customers. Thus an ad-funded MVNO is a company that finances a considerable share of its ARPU with money from advertisers. As pointed out below, I assume Blyk's Ad ARPU to be higher than the Premium ARPU which is paid by users.

When it comes to optimising Ad ARPU, Blyk has set out to leapfrog the competition with a smart strategy: Create the first ad-funded MVNO that offers a big, though limited, amount of free voice minutes and text messages that is attractive enough for the target group to churn in. Secondly, let all Blyk customers opt-in by default into receiving advertising messages that are targeted to personal interests. As targeted ads have a higher value, it automatically increases Blyk's profit margin.



This whitepaper is ad-funded by Mobile Economy GmbH ([www.mobileeconomy.de](http://www.mobileeconomy.de)), the Berlin-based management consultancy for mobile innovation. Since I am an expert in mobile advertising and MVNOs, I have decided to reengineer Blyk's business model, share my findings and develop a number of strategy recommendations that might be valuable to Blyk as well as future ad-funded MVNOs and MNOs.

I believe that it is possible to build a profitable ad-funded MVNO. It is also possible for MNOs themselves to introduce ad-funded voice and data tariffs. You don't necessarily need to build a new MVNO brand like Blyk to maximise Ad ARPU.

#### Reengineering Blyk's Business Model

I have reengineered Blyk's business model in the Excel sheet depicted below. The parameters driving revenues, costs and profit I used in the calculation are my own assumptions. The actual values in Blyk's business plan and the wholesale prices negotiated with the Host MNO Orange in the UK are secret. But transparent business models are very useful as you can change the values to your own heart's content.

Let's analyse the numbers. In the UK, Blyk offers its customers each month free communication with a gross retail value of €39,41 (incl. 17,5% VAT): 43 voice minutes times 15 Pence (€0,21), Blyk's top-up price per minute, and 217 text messages times 10 Pence (€0,14), Blyk's top-up price per SMS, add up to €39,41 in savings for Blyk's customers.

 <b>Blyk's Business Model</b> Reengineered by: 	2008		2009		
	Low CPM	High CPM	Low CPM	High CPM	Break-even CPM
<b>Revenues</b>					
Average Customers (incl. Churn)	500.000	500.000	1.500.000	1.500.000	1.500.000
Percentage of Ad-funded Customers	100,00%	100,00%	100,00%	100,00%	100,00%
<b>Average Ad-funded Customers</b>	<b>500.000</b>	<b>500.000</b>	<b>1.500.000</b>	<b>1.500.000</b>	<b>1.500.000</b>
<i>Ad MMS per User per Day (Blyk Information)</i>	6	6	6	6	6
Ad MMS per User per Month	180	180	180	180	180
Ad Inventory Sales Ratio	75,00%	75,00%	75,00%	75,00%	75,00%
Sold Ad Impressions per User per Month	135	135	135	135	135
Sold Ad Impressions per User per Year	1.620	1.620	1.620	1.620	1.620
<b>Sold Ad Impressions per Year</b>	<b>810.000.000</b>	<b>810.000.000</b>	<b>2.430.000.000</b>	<b>2.430.000.000</b>	<b>2.430.000.000</b>
<b>CPM of Targeted Ad MMS (excl. Agency Commission)</b>	<b>80,00 €</b>	<b>280,00 €</b>	<b>80,00 €</b>	<b>280,00 €</b>	<b>149,07 €</b>
Price per Targeted Ad MMS (excl. Agency Commission)	0,08 €	0,28 €	0,08 €	0,28 €	0,15 €
<b>Ad ARPU per Month</b>	<b>10,80 €</b>	<b>37,80 €</b>	<b>10,80 €</b>	<b>37,80 €</b>	<b>20,12 €</b>
Ad ARPU per Year	129,60 €	453,60 €	129,60 €	453,60 €	241,49 €
<b>Blyk Ad Revenues</b>	<b>64.800.000,00 €</b>	<b>226.800.000,00 €</b>	<b>194.400.000,00 €</b>	<b>680.400.000,00 €</b>	<b>362.240.100,00 €</b>
<i>Free Voice Minutes per Month (Blyk Info)</i>	43	43	43	43	43
<i>Free Text Messages per Month (Blyk Info)</i>	217	217	217	217	217
<i>Voice Minute Retail Price incl. 17,5% VAT (Blyk Info)</i>	0,21 €	0,21 €	0,21 €	0,21 €	0,21 €
<i>Text Message Retail Price incl. 17,5% VAT (Blyk Info)</i>	0,14 €	0,14 €	0,14 €	0,14 €	0,14 €
<i>MB Retail Price incl. 17,5% VAT (Blyk Info)</i>	1,40 €	1,40 €	1,40 €	1,40 €	1,40 €
<b>Free Communication Retail Value incl. 17,5% VAT</b>	<b>39,41 €</b>	<b>39,41 €</b>	<b>39,41 €</b>	<b>39,41 €</b>	<b>39,41 €</b>
<i>Voice Minute Retail Price excl. 17,5% VAT</i>	0,18 €	0,18 €	0,18 €	0,18 €	0,18 €
<i>Text Message Retail Price excl. 17,5% VAT</i>	0,12 €	0,12 €	0,12 €	0,12 €	0,12 €
<i>MB Retail Price excl. 17,5% VAT</i>	1,19 €	1,19 €	1,19 €	1,19 €	1,19 €
<b>Free Communication Retail Value excl. 17,5% VAT</b>	<b>33,54 €</b>	<b>33,54 €</b>	<b>33,54 €</b>	<b>33,54 €</b>	<b>33,54 €</b>
Premium Voice Minutes per Month	17	17	17	17	17
Premium Text Messages per Month	33	33	33	33	33
Premium MB per Month	1	1	1	1	1
<b>Premium ARPU per Month</b>	<b>8,16 €</b>	<b>8,16 €</b>	<b>8,16 €</b>	<b>8,16 €</b>	<b>8,16 €</b>
Premium ARPU per Year	97,94 €	97,94 €	97,94 €	97,94 €	97,94 €
<b>Blyk Premium Revenues</b>	<b>48.970.212,77 €</b>	<b>48.970.212,77 €</b>	<b>146.910.638,30 €</b>	<b>146.910.638,30 €</b>	<b>146.910.638,30 €</b>
<b>Total ARPU (Ad + Premium ARPU) per Month</b>	<b>18,96 €</b>	<b>45,96 €</b>	<b>18,96 €</b>	<b>45,96 €</b>	<b>28,29 €</b>
Total ARPU (Ad + Premium ARPU) per Year	227,54 €	551,54 €	227,54 €	551,54 €	339,43 €
<b>Total Blyk Revenues</b>	<b>113.770.212,77 €</b>	<b>275.770.212,77 €</b>	<b>341.310.638,30 €</b>	<b>827.310.638,30 €</b>	<b>509.150.738,30 €</b>
<b>Costs</b>					
<b>Wholesale Margin (Retail Minus)</b>	<b>40%</b>	<b>40%</b>	<b>40%</b>	<b>40%</b>	<b>40%</b>
Voice Minute Wholesale Cost	0,11 €	0,11 €	0,11 €	0,11 €	0,11 €
Text Message Wholesale Cost	0,07 €	0,07 €	0,07 €	0,07 €	0,07 €
<b>Ad ACPU per Month</b>	<b>20,12 €</b>	<b>20,12 €</b>	<b>20,12 €</b>	<b>20,12 €</b>	<b>20,12 €</b>
Ad ACPU per Year	241,49 €	241,49 €	241,49 €	241,49 €	241,49 €
Cost per on-net MT Ad MMS (incl. MO MMS Response)	0,01 €	0,01 €	0,01 €	0,01 €	0,01 €
<b>Costs of MT Ad MMS Traffic</b>	<b>8.100.000,00 €</b>	<b>8.100.000,00 €</b>	<b>24.300.000,00 €</b>	<b>24.300.000,00 €</b>	<b>24.300.000,00 €</b>
<b>Costs of Ad-funded Traffic (Host MNO Revenues)</b>	<b>120.745.531,91 €</b>	<b>120.745.531,91 €</b>	<b>362.236.595,74 €</b>	<b>362.236.595,74 €</b>	<b>362.236.595,74 €</b>
<b>Costs of Premium Traffic (Host MNO Revenues)</b>	<b>29.382.127,66 €</b>	<b>29.382.127,66 €</b>	<b>88.146.382,98 €</b>	<b>88.146.382,98 €</b>	<b>88.146.382,98 €</b>
<b>Platform Technology Costs (10% of Revenues)</b>	<b>11.377.021,28 €</b>	<b>27.577.021,28 €</b>	<b>34.131.063,83 €</b>	<b>82.731.063,83 €</b>	<b>50.915.073,83 €</b>
Employees	50	50	100	100	100
Average Cost per Employee per Year	125.000,00 €	125.000,00 €	125.000,00 €	125.000,00 €	125.000,00 €
<b>Personnel Costs</b>	<b>6.250.000,00 €</b>	<b>6.250.000,00 €</b>	<b>12.500.000,00 €</b>	<b>12.500.000,00 €</b>	<b>12.500.000,00 €</b>
Direct Customer Acquisition Costs (Invitation Only = 0)	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Direct Customer Acquisition Costs	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Other Marketing Costs incl. SIM (8% of Revenues)	9.101.617,02 €	22.061.617,02 €	27.304.851,06 €	66.184.851,06 €	40.732.059,06 €
<b>Marketing Costs</b>	<b>9.101.617,02 €</b>	<b>22.061.617,02 €</b>	<b>27.304.851,06 €</b>	<b>66.184.851,06 €</b>	<b>40.732.059,06 €</b>
<b>Operations Costs (2% of Revenues)</b>	<b>2.275.404,26 €</b>	<b>5.515.404,26 €</b>	<b>6.826.212,77 €</b>	<b>16.546.212,77 €</b>	<b>10.183.014,77 €</b>
<b>Total Blyk Costs</b>	<b>187.231.702,13 €</b>	<b>219.631.702,13 €</b>	<b>555.445.106,38 €</b>	<b>652.645.106,38 €</b>	<b>589.013.126,38 €</b>
<b>Blyk Profit</b>	<b>-73.461.489,36 €</b>	<b>56.138.510,64 €</b>	<b>-214.134.468,09 €</b>	<b>174.665.531,91 €</b>	<b>-79.862.388,09 €</b>

**Figure: Blyk's Business Model Reengineered by Mobile Economy**

Subtracting VAT from €39,41 results in €33,54 which is the net retail value of Blyk's free communication. €33,54 would be a nice ARPU but, unfortunately, it is a rather high opportunity cost as users don't pay for it. This money is given away for the opportunity to win and retain new customers so it feels more like marketing costs. In Germany, for comparison, the Premium ARPU

(paid by users) of the 4 MNOs recently slid under the €20,00 threshold due to increased price competition from discount MVNOs.

The current net retail value of Blyk's free communication makes Blyk both generous and ambitious. But to make an impact in a crowded M(V)NO market, you have to be pretty generous and ambitious these days.

Blyk's financial success depends on the ability to create and sell a lot of ad inventory. To create ad inventory, Blyk relies on sending ad messages as MMS, and sometimes as SMS, to its customer base. The technical advantage of MMS is that most handsets can deal with it in the home network, the disadvantage is that it does not work in most roaming cases when Blyk's users are travelling to other countries.

The marketing benefit of MMS is that the incoming message immediately draws the attention of the user. The user can also decide when they want to respond to the Ad MMS which is a first step towards my vision of user-controlled on-demand advertising.

### **Monthly ad inventory potential of 180 Ad Impressions per user**

For the time being, Blyk's total ad inventory potential is the number of Ad MMS per user per period multiplied by the number of customers. Blyk's extensive market research has shown that 6 Ad MMS per user per day seem to be the best balance between maximising ad inventory and user acceptance of targeted push advertising.

6 Ad MMS per day amount to 180 Ad MMS per month (2.160 Ad MMS per year). Blyk's Ad MMS currently is priced at 20 Pence (€0,28) which equals a CPM of €280,00. To justify this incredibly high CPM, Blyk claims to have very high click-through rates (CTR) of 29% on average. I believe the CTRs to go down by the time more customers join Blyk. In the end, users cannot be forced to respond to Ad MMS.

Nowadays, the average mobile CPM varies between €20,00 and €40,00 so I believe that Blyk's high CPM will decrease over time due to competitive forces. That's why I have included 2 business cases in my Excel sheet: A low CPM of €80,00, assuming a premium for targeted ads, and a high CPM of €280,00, based on Blyk's current pricing for 1.000 Ad MMS. In both cases, CPMs are supposed to be net CPMs for Blyk which means that the media agency's buying commission of up to 15% has already been deducted.

Assuming a rather high sales ratio of 75%, i.e. 135 sold Ad MMS per month, the low CPM of €80,00 results in an Ad ARPU of €10,80 and the high CPM of €280,00 in an Ad ARPU of €37,80. As you can see, achievable CPM and sales ratio make or break the business model of Blyk.

### **What is the break-even CPM for Ad ARPU = Ad ACPU?**

Blyk's Ad ACPU (Average Cost Per User) is the wholesale cost of the free communication bundle. Blyk's goal must be to completely finance the Ad ACPU with money from advertisers in order to prevent Blyk from having to subsidise Ad ACPU with its own money. Optimally, Ad ARPU should be higher than Ad ACPU. So what is the break-even CPM of Blyk in my calculation?

The wholesale cost of the free voice minutes and text messages is the result of the wholesale prices negotiated between Blyk and its Host MNO Orange. As these are secret, I use the "retail minus" approach to arrive at possible wholesale prices. The retail minus wholesale margin of 40% I assume in my Blyk model would be pretty good in reality.

The wholesale margin of 40% leads to an Ad ACPU of €20,12. That means that the break-even CPM, where Ad ARPU equals Ad ACPU, is €149,07. Targeting a sales ratio of 75%, Blyk can decrease its current CPM to €149,07 until they would have to start funding Ad ACPU with their own marketing budget. If the sales ratio is lower than 75%, then the break-even CPM will be higher.

In order to maximise Ad ARPU I suppose that Blyk will continue to carry out 100% of the ad sales inhouse. Only if Blyk's sales team is not able to reach the ad inventory sales ratio targets, will the company invite external ad sales partners which might well ask for sales commissions of 30-40%. Outsourcing ad sales would considerably endanger profitability and, therefore, is not a wise strategic option in the beginning.

### **Good chances to reach profitability only with high CPM**

Summarizing the cost side, I assume a convenient, risk-free pay-as-you-grow ASP model for the technology costs which include the complete budget for the development and operations of the outsourced MVNO, messaging, advertising and web platforms. In fact, the technology costs are assumed to be 10% of Blyk's revenues. Marketing costs including SIM but excluding direct customer acquisition are 8% of revenues and operations costs 2% of revenues.

To simplify things, I have not included the cost of sending and receiving MMS into the Ad ACPU. I imagine the Ad MMS traffic cost to be very small (€0,01/Ad MMS) as all MT (Mobile Terminated) Ad MMS sent by Blyk to the users and all MO (Mobile Originated) MMS responses sent back are on-net, i.e. within the network of Blyk's Host MNO.

Assuming that all Blyk customers use 100% of their free communication allowance, the costs of the ad-funded traffic are fixed. This means that Blyk only enjoys chances to reach profitability with a high CPM and a healthy sales ratio of the ad inventory. Moreover, I imagine that Blyk's Premium ARPU in reality is higher compared to what I assumed in my model. As you can see, there are huge challenges for everybody working at Blyk.

Every company has to make smart choices when it comes to defining the winning business strategy. While I have shown how the business model of Blyk should work, it is still unsure whether it actually works and how fast Blyk can reach its financial targets. The first milestone of 100.000 Blyk customers has not been announced yet.

### **Strategy recommendations for ad-funded M(V)NOs**

I want to finish this Mobile Economy whitepaper by presenting three strategy recommendations that can be useful for Blyk and every would-be ad-funded MVNO or MNO. As it is open whether my ideas will work I am looking forward to trying them out.

1. **Target Group:** Blyk currently limits its target group by age. While this is clearly a way to go, it keeps out many customers interested in exchanging their time for voluntary advertising consumption with monetary benefits. 16-24 year-olds might not be the ones with significant spending power that are attractive for advertisers.

**Recommendation: Open your business for all ad-interested customers.**

2. **Ad ARPU:** Blyk currently sets the number of Ad MMS sent to users. Thus they define the potential ad inventory and Ad ARPU. This approach is static and suboptimal. It makes more sense to let users decide how much advertising they want to consume and how much communication value they want to get in return.

**Recommendation: Make Ad ARPU flexible and controllable by the user.**

3. **Mobile Data Innovation:** Blyk currently believes that their target group does not use the Internet with their mobile devices. Therefore, Blyk does not offer ad-funded non-SMS mobile data tariffs. I think that MMS is a poor mobile technology. The mobile web, email, instant messaging and downloadable applications are more useful for most people. Mobile advertising innovation happens in the Internet. The core problem are high mobile data tariffs that prevent innovation.

**Recommendation: Ad-fund mobile data tariffs and innovate mobile advertising in the Internet.**