

Satellite Broadband Services Provider



Alternative (2 way) Internet Access via Satellite

Geneva, 11 December 2002

Aramiska is uniquely positioned as *the* alternative European SME broadband services player



- Aramiska provides broadband data communications services to European SMEs
- Large and growing opportunity with very significant “residual” market not reached by terrestrial operators
- Unique, proven two-way high speed satellite access technology that provides up to 8 Mbps downstream and 1.5 Mbps upstream anywhere in Europe
- Company has 100% control of its network with no reliance on local PTT for provisioning
- Funded business with committed equity and lease financing already in place
- Service launched today in the UK, France and Spain and activities on Ireland and Netherlands with further sales roll-out planned in Italy and Germany
- Company has a very strong management team in place since mid-2000 with operations today in the Netherlands, Belgium, Spain and the UK



Aramiska mission, vision and values



- **Mission** - “To deliver broadband reality focused on businesses as an alternative to current providers”
- **Vision** - To empower businesses by providing broadband and out-tasked on demand IT utilities thereby enabling them to:
 - Increase the efficiency of their operations
 - Provide first class customer support
 - Improve the effectiveness and knowledge of their staff
 - Focus on their core competences
- **Values** - Aramiska’s four core values are:
 - Operational excellence
 - Professionalism
 - Reliability
 - Commitment



Ideally positioned to take advantage of today's evolving environment



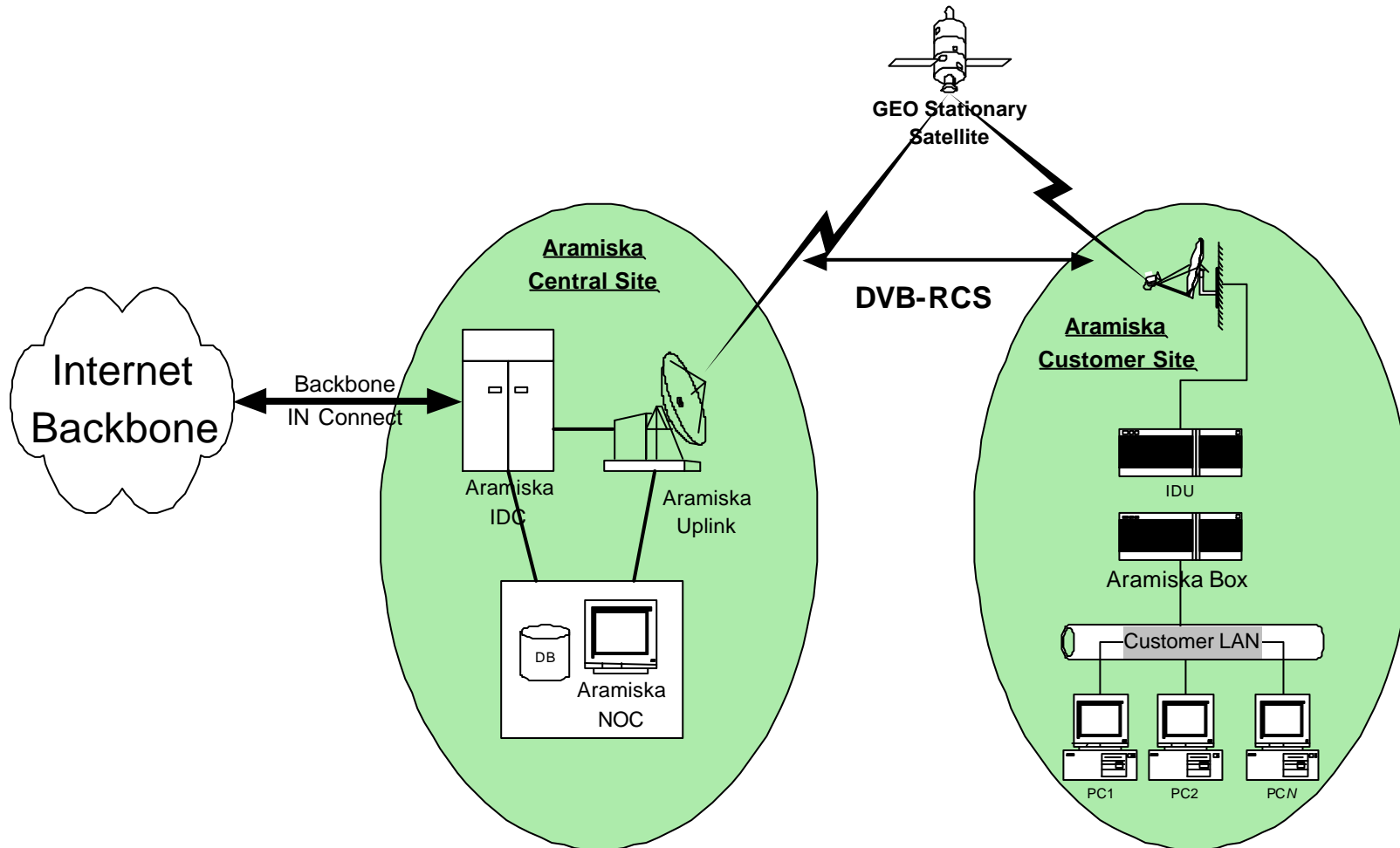
- Continued growth in SME demand for broadband access and ISP services
- Constrained terrestrial broadband roll-out (DSL, WLL, Cable, Fiber) due to financing and technical limitations
- Hence large, untapped (“residual”) market with pent-up broadband demand
- Unique low-cost two-way high bandwidth satellite connectivity solution now available:
 - ETSI standard (DVB-RCS) agreed in 2000
 - TCP-IP stack functioning
 - Powerful data satellites now available with full European footprint
 - Transponder pricing rapidly declining
 - CPE costs significantly decreasing
 - 100% coverage of whole of Europe possible from a single hub
 - Multicast ability to all subscribers
- Satellite solution provides very low breakeven number of subscribers with a highly variable cost base
- Hence very limited equity funding requirement (less than \$50MM to fully fund business vs. \$100MM's to \$ billions for terrestrial equivalent)
- First mover advantage - Aramiska is the only operator of a European DVB-RCS network

Aramiska's business model



- Managed IP network with full end-to-end control with focus on security and IT managed services
- Based on leased space capacity – initially on Eutelsat Atlantic Bird 2
- Completely geared to business users, guaranteeing
 - Service availability
 - Installation time
 - Minimum guaranteed bandwidth
 - Minimum time to repair
- Direct sales model supplemented by indirect channels in the UK and through agents in the rest of Europe

The Aramiska Platform



Market Opportunity



The Market Opportunity

Products

- Internet Access - Internet Connectivity
- ISP - email, Web hosting, firewall services
- ASP - application and solution hosting

Customers

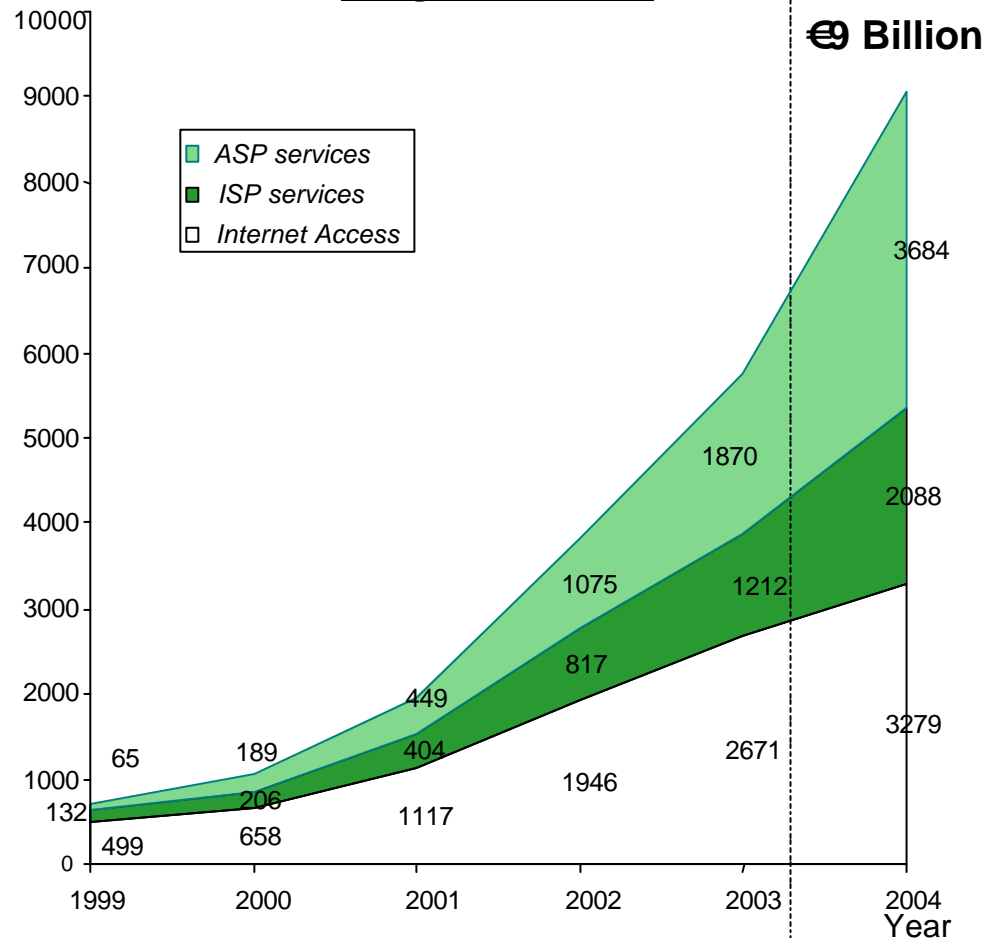
- SME 5-200 employees
- RSLC :Remote Sites of Large Corporations

Growth Drivers

- PC Penetration
- Internet Penetration
- Internet Use
- Use of Business Services

€M

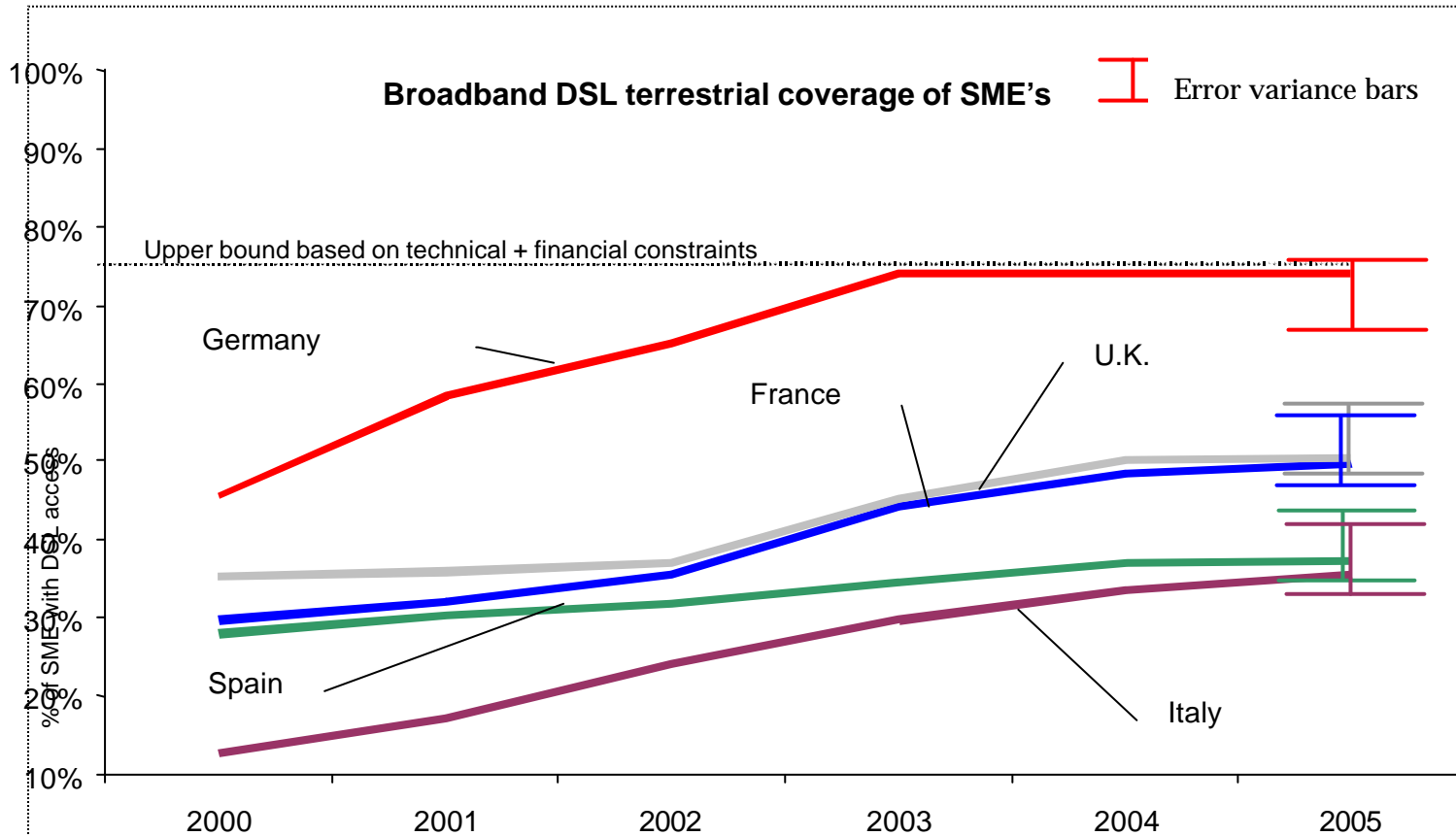
**Broadband Market Opportunity
Target Countries**



DSL limitations



DSL Coverage limitations in target markets



Results

- SME's covered by DSL footprint in 2005:
 - Germany 74% (66%-75%)
 - UK 50% (48%-58%)
 - France 50% (45%-55%)
 - Spain 37% (33%-43%)
 - Italy 36% (32%-41%)
- An average of 54% (49%–58%) of the target market sites are forecast to be covered by broadband DSL roll-out in the 5 target countries by 2005
- DSL covers 53% (48%-57%) of the target market size

Driving Factors: (i) Central office (co) location against SME distribution – few COs cover most businesses, (ii) Number of CO's that are upgraded – depends on business and strategic considerations, (iii) Technical and practical limitations (e.g. local loop quality for xDSL upgrade, operational capabilities), (iv) Financial Limitations

Note: Percentages in brackets correspond to lower and upper bound of error variance bars.

Source: Company Interviews, BA&H expert interviews

Competition

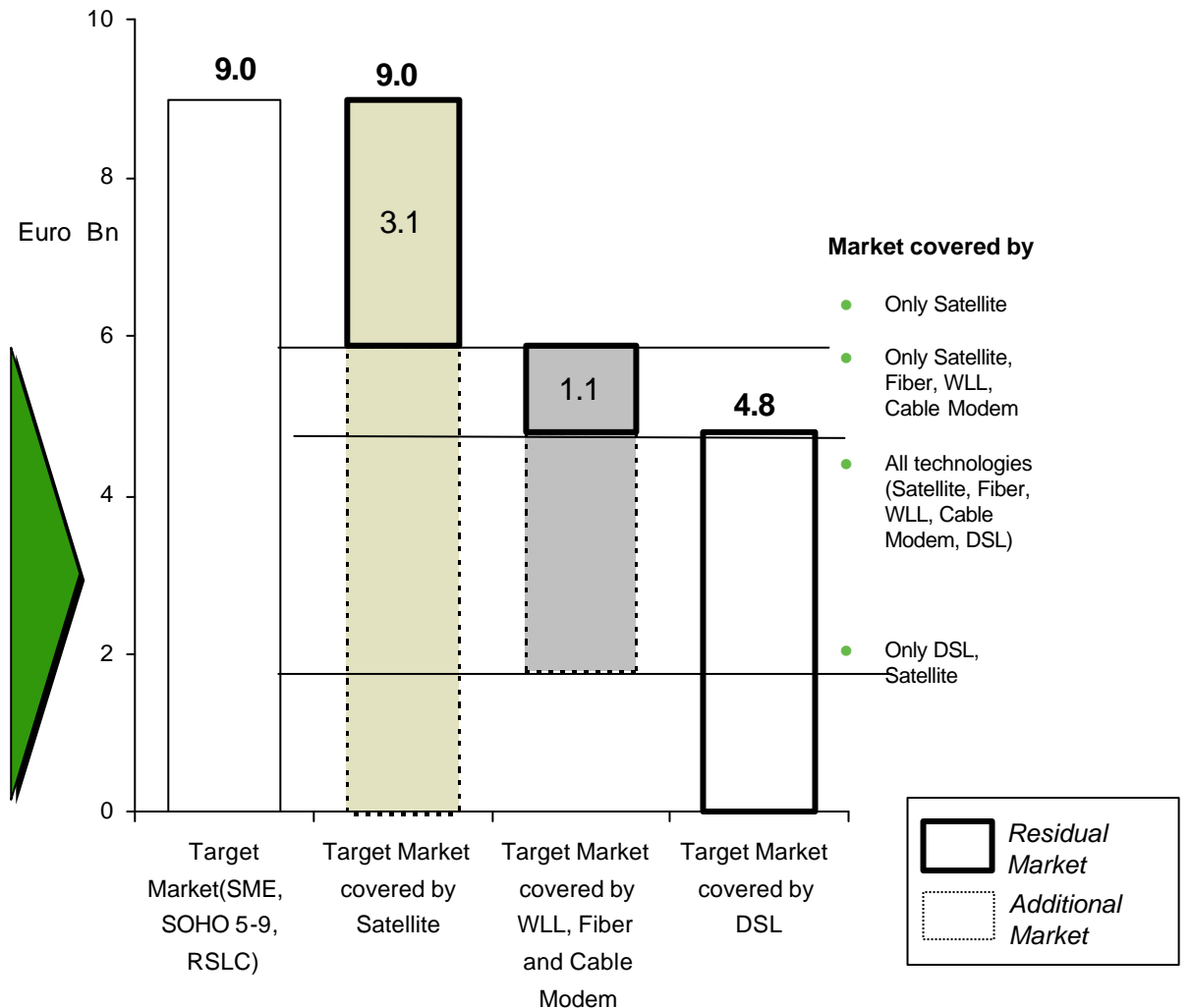
Only satellite can cover the entire target market



Summary of Technology Buildout

- Other terrestrial technologies are likely to take additional market share based on their incremental coverage over DSL
 - Fiber, albeit only a small market share in the SME market due to high price
 - Wireless local loop is slowed down by roll-out problems and a high cost base - additionally given backhaul costs, it is mainly an urban solution
 - Cable modem is now becoming available to SMEs, however, actual roll-out differs by country and significant investments are still required
- Broadband technologies therefore cover different segments of the broadband target market
 - DSL is expected to take Euro 4.8 Bn of the Euro 9.0 Bn market in 2004
 - WLL, Fiber, and cable modem provide incremental coverage and revenues of Euro 1.1 Bn
 - Satellite covers the total target market, and can cover about Euro 3.1 Bn without competing with other technologies

Broadband Data Market by Technologies
 – Internet Access, ISP, and ASP markets, 2004, Euro Bn –



Note: Error margins apply to technology market share estimates. The terrestrially "uncovered" Internet Access market amounts to €1.1 Bn.

Source: Company Interviews, BA&H expert interviews

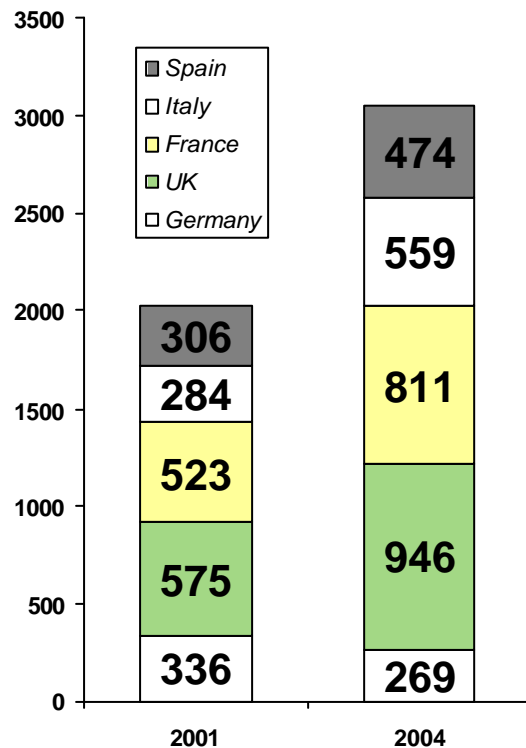
Roll-out Strategy



The sales roll-out strategy is based on targeting the UK, the largest residual market opportunity, first



Residual Market Segment ⁽¹⁾
-- 2001 and 2004 --



Note (1): "Residual Market" is the market addressable only by Satellite.

Residual Market-Driven Roll-Out Strategy

- Roll-out sequence
 - Q1/2002: UK is the launch market due to highest attractiveness
 - Q3/2002: Spain and France are launched
 - TBD/2003: Italy and Germany are launched
- Sales predominantly made through direct sales channel in Phase I
- Channel mix more towards indirect in Phase II

Pricing area **Aramiska's Internet access offer and pricing is competitive to comparable terrestrial and satellite offerings**



Pricing compared to established operators

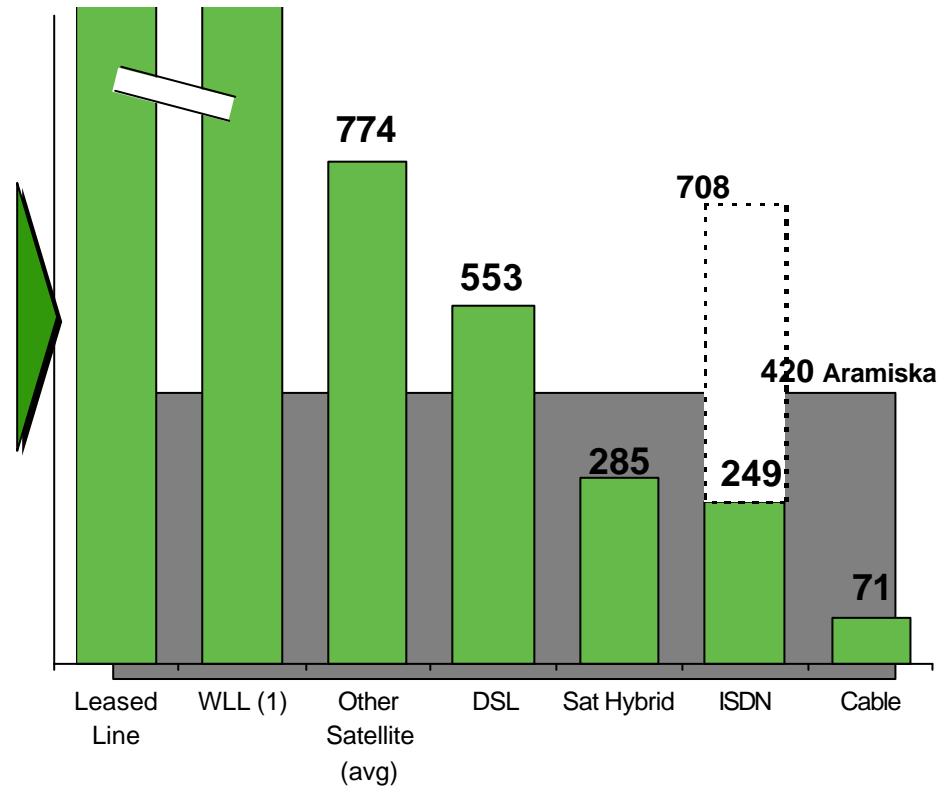
Example: Internet Access

Euro per month

1,969 1200

Assumptions

- Installation and CPE cost depreciated over 36 months
- 170 hours dial up per month
- 1 GB transfer volume for always on connections per month

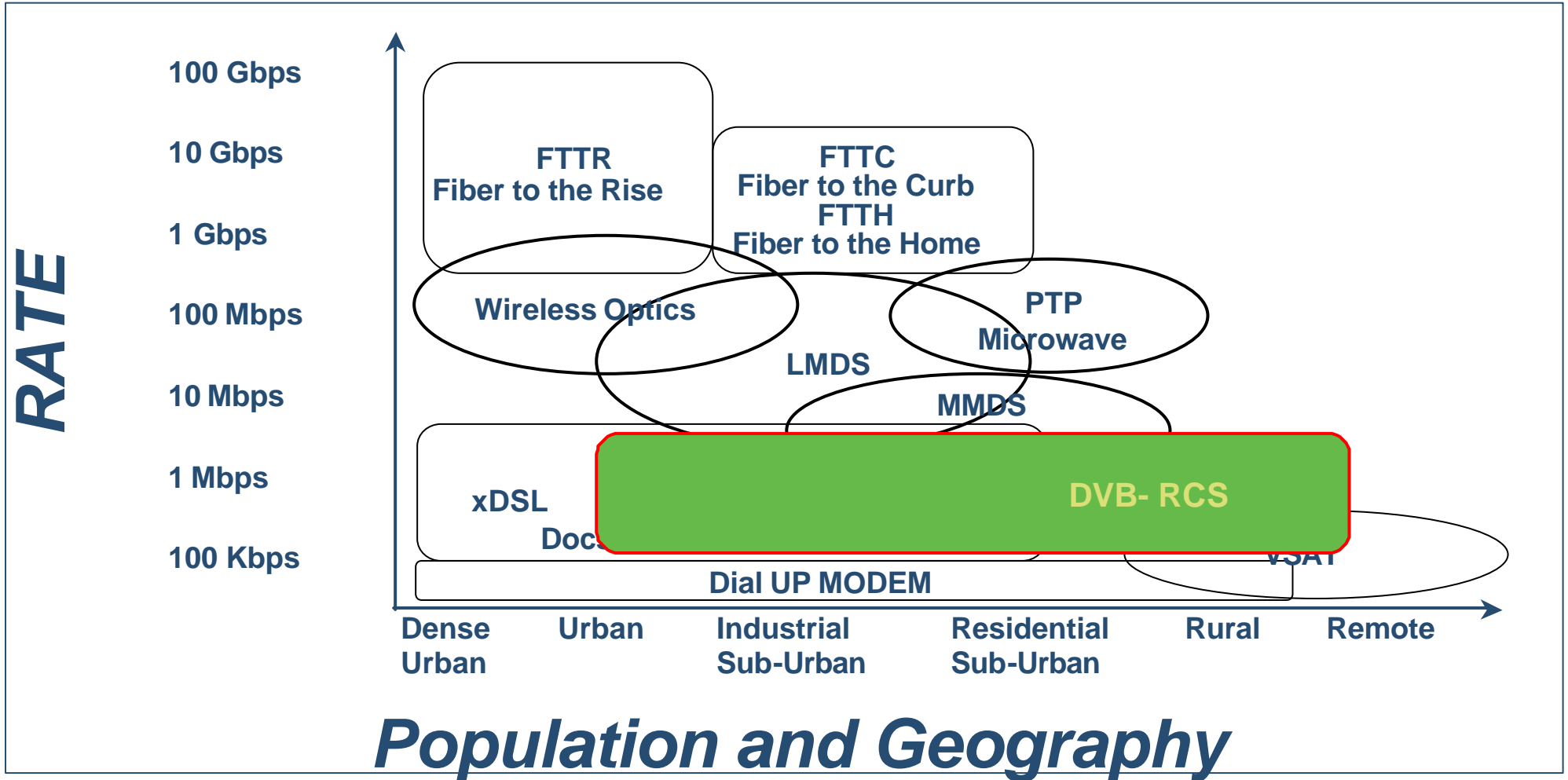


Results

- Aramiska priced below DSL, leased line and satellite operators
- Cheaper offers have limited availability (cable) or lower (sat. hybrid / ISDN) bandwidth
- Aramiska pricing of other bundled services is highly competitive

(1) Flat-Rate offer. WLL has limited geographic availability. Price for WLL given with the same assumptions as other technologies.

Positioned for the SME 'sweetspot'



Achievements



Aramiska's achievements



- End 2000 business plan finished and funded.
- 1 January 2001 creation of the company in the Netherlands.
- During the exercise of 2001 the network was created and the organization was put in place.
- In Q1 2002 fine tuning and tests of the end to end network
- The first April 2002 Aramiska goes commercial.
- Offices in the NL, BE, UK and ES

Aramiska's achievements end Q3 2002



- The network has been proven to be stable and surpasses the terrestrial network quality.
- Achieved a 1000 customers and 600+ installs.
- Is able to install up to 20 new clients a day.
- C.S. experiences and managed a boom of calls and is concentrated on operational excellence.
- Aramiska invested in people and systems for billing and collection.
- Aramiska hired 34 employees in Q3 2002 and has a headcount of 109 employees and 8 contractors

Objectives



Aramiska's objectives for the next 18 months



- Obtain 7000 customers by end 2003.
- Become cash flow positive by end 2003
- Be the number one alternative.
- Capitalize on investment.
- Operational excellence.



- 20% of orders is with one SIC code (72200: Software consultancy and supply)
- 7% of orders is multiple site (excluding BI)
- 17% have activated some form of VPN, (11% PPTP, 2% IP-sec, 4% both)
- Arc Spread:
 - Arc1 16%
 - Arc2 32%
 - Arc3 33%
 - Arc4 8%
 - Arc5 11%
- 60% of customers do not transfer their domain to us
- 55% is of using the ARC mail or local mail server, of which:
 - 36% is using an Aramiska sub domain
 - 15% has an own customer domain name
 - 4% has no domain name
- 70% do not use DHCP
- 65% of orders is with companies with more than 20 employees



Strategy next 18 months



- Acquire the customers in UK, ES, FR and secondary in IRE and NL only.
- All employees aligned and re-aligned.
- Simplified and frozen the service portfolio.
- Capitalize on investment and operational excellence.

Service definition



New packages

Packages	Arc500	Arc1000	Arc2000
Maximum speed in kbps			
Forward	512	1024	2048
Return	128	256	512
Typical speed on return and forward link (80% of the time)	60%	60%	60%
Guaranteed minimum speed in kbps			
Forward	64	128	256
Return	32	64	128
Monthly transfer	Unlimited	Unlimited	Unlimited
Maximum number of PC's	Unlimited	Unlimited	Unlimited
Web space	100 Mb	100 Mb	100 Mb



Lease option



Lease option with direct debit form	Arc500	Arc1000	Arc2000
MRC EU, Euro's	€ 299	€ 399	€ 699
Installation	€ 750	€ 750	€ 750
375 Euro's in case of direct payment, or in 12 months 70 Euro's on top of the MRC			
Minimum contract length	36 months	36 months	36 months
Termination contract	18 (+1)	18 (+1)	18 (+1)
Notice period for termination	1 month	1 month	1 month
Relocation	€ 1250	€ 1250	€ 1250
Change at same location	€ 1250	€ 1250	€ 1250
Activation fee	0	0	0
Deposit	0	0	0

Purchase option



Purchase option, with direct debit form	Arc+500	Arc+1000	Arc+2000
ODU and IDU sold to the customer, ARC remains property of Aramiska			
Initial fee EU	€ 4900	€ 4900	€ 4900
MRC EU	€ 149	€ 249	€ 549
Installation	0	0	0
Minimum contract length	11 (+1) months	11 (+1) months	11 (+1) months
Notice period for termination	1 month	1 month	1 month
Relocation	€ 1250	€ 1250	€ 1250
Change at same location	€ 1250	€ 1250	€ 1250
Activation fee	0	0	0
Deposit	0	0	0

Service features



Aramiska's added values

-Access:

DVB/RCS
Availability
Long FAT network support
SLA

-Security

End to end
Firewalls
VPN
NAT

-IT managed services

DCHP
Caching and DNS
CS 24/24 7/7 365
Mail server
Storage
Domain name and un-limited Email addresses
100Mbyte Web space





New developments



Internal developments 2003

- Data transmission improvements
- Extra support for customer VPN
 - Compliance testing with CISCO equipment
- Multiple domain names per ARC
- One domain name to support multiple ARC
- Virus checking on email
- 90 cm dish
- Multicast solution for maintenance purposes
- Pre-fetching of WEB-pages

External developments 2003

- Mobile solution by Dawson